

Financial Analysis

By fully and successfully implementing the changes outlined in our Model Test, we project that we will create nearly \$8.9 billion in value¹ over 10 years from CY 2015 through CY 2024 after accounting for reinvestments to improve quality, access, and equity and consumer experience, as well as program investments to support model implementation, provider practice transformation, and health information technology. This level of near-term savings, realized through reductions in waste and inefficiency would reduce the rate of increase in healthcare spending by 1-2 percentage points within 5 years for participating payers, bringing the rate of growth in healthcare spending more closely in line with the growth of our economy after adjusting for general inflation.

Baseline healthcare spending: While the rate of increase in healthcare spending may be influenced by macro-economic and other factors outside the scope of our Model Test, we have assumed a baseline of approximately 5% average increase in healthcare spending without the changes proposed in our model. After adjusting for 1-3% inflation, this translates to 2-4% real growth in healthcare spending. If we were to achieve 1-2% increase in gross state product per capita, this would translate to healthcare spending growth of 1-3 percentage points in excess of real productivity gains for our economy.

Costs for Connecticut's 2 million commercially insured and self-insured beneficiaries are estimated at more than \$10 billion in 2014 and are expected to exceed \$18 billion by 2024. This includes 5.8% annual increase in spending for commercially insured and self-insured populations, based on 1.1% annual growth in the number of beneficiaries and 4.7% annual growth in the cost per beneficiary per year. We estimate growth in PMPM costs from \$457 in 2014 to \$726 in 2024. Applying these same assumptions to Connecticut's 134,000 state employees (excluding Medicare Supplemental), costs are expected to trend from nearly \$0.9 billion in 2014 to more than \$1.5 billion in 2024 (from \$547 to \$869 PMPM).

Medicare costs in Connecticut are estimated at approximately \$5.8 billion in 2014, based on \$850 PMPM for nearly 570,000 Medicare beneficiaries, excluding an estimated 58,000 beneficiaries projected to participate in Connecticut's Integrated Care Demonstration. Costs are projected to increase to nearly \$12 billion by CY 2024, based on about 2.9% annual growth in beneficiaries (to 758,000) and 4.3% annual increase in spending to about \$1,299 PMPM.

Our analysis of impact for Medicaid and CHIP is restricted to \$3 billion projected spending (in 2014) for 652,000 enrollees directly addressed by the Medicaid Quality Improvement Shared Savings Program (QISSP) at an average of \$390 PMPM. These costs are shared between state general revenues and federal matching payments at 50% for the general Medicaid population, 100% for the expansion population (approximately 135,000 in 2014), and 65% for CHIP (approximately 11,000 in 2014). Medicare/Medicaid eligibles are excluded from the Medicaid analysis. Cost are projected to increase to nearly \$7.2 billion by CY 2024 based on 2.3% annual growth in enrollment (to 821,000 in CY 2024) and 4.5% growth in per beneficiary cost (to \$607 PMPM by CY 2024).

Anticipated cost savings before investments: Research by the Institute of Medicine has suggested that approximately 30% of healthcare spending is unnecessary.² Analysis of Medicaid, Medicare, and Commercial costs in Connecticut uncovers many of the same circumstances that

¹ Net Present Value at 2015 dollars using 2.56% discount rate.

² Institute of Medicine Report, September 2012.

contribute to preventable healthcare costs found in the Institute of Medicine report, and as addressed by examples of successful population-based models used in our benchmarking. For example:

- About 40% of our Medicaid enrollees have chronic conditions, and account for nearly 70% of our Medicaid spending, excluding dual eligible;³ this includes spending on acute events that could be prevented through more effective management of chronic conditions.
- Risk-adjusted cost of care is 20% higher for relatively healthy Medicaid patients who access the system directly through specialists without care by a primary care physician.⁴
- Medicare announced recently that 24 of Connecticut's 31 hospitals in Connecticut will face Medicare readmission penalties in the next fiscal year.
- Our medical readmission rate for Medicaid was 11.8% in 2011, the highest rate among peer states—tied only with New York—and much higher than the peer-state benchmark of 9.4%.⁵
- Connecticut has a 26% higher per-capita use of the Emergency Department than neighboring Massachusetts, despite similar demographics and health risk; and nearly 50% of our ED visits are for non-urgent needs, reflecting potential primary care access challenges.⁶

During our planning we examined 20 examples of population-based models for improving care delivery in conjunction with value-based payment. The impact of these models has been wide ranging, most averaging 1-2 percentage points reduction in trend, or 6-12% total reduction in costs over a 5-year period.⁷ Many other examples of population-based models have been

³ McKinsey analysis of Connecticut 2012 Medicaid claims data

⁴ McKinsey analysis of Connecticut 2012 Medicaid claims data

⁵ Connecticut DPH, Chart Book: Availability and Utilization of Health Care Services at Acute Care Hospitals and Federally Qualified Health Centers (2011)

⁶ CT Office of Health Care Access (includes Medicaid, Medicare, commercial and uninsured), 2009; MA: Massachusetts Health Care Cost Trend Efficiency of Emergency Department Utilization in Massachusetts, 2010

⁷ Patient-Centered Primary Care Collaborative report on PCMH outcomes and savings Health Affairs 28(5), 2009. Transforming the role of a Medicaid health Model Test from payer to partner, Commonwealth Fund, 1423(5), 2010. Commonwealth Fund, "HealthPartners: Consumer-focused Mission and Collaborative Approach Support Ambitious Performance Improvement Agenda," Group Practice Journal, "HealthPartners Medical Group: Commonwealth Foundation Case Study. Colorado Children's Healthcare Access Program: Helping Pediatric Practices Become Medical Homes for Low-Income Children, 2010 Paulus RA, et al. Health Affairs 2008; Steele G. Lecture ACC Health System Reform Summit 2009; Health Affairs, "American Medical Home Runs," September/October 2009 Eastern Maine Healthcare Systems' Annual Report, 2012, Office of the National Coordinator for Health Information Technology: Bangor Beacon Community. Massachusetts Payment Reform Model: Results and Lessons, BCBSMA. NYCCP website (<http://www.carecoordination.org>) Care Model Process," November/December 2006. CMS: Evaluation of Medicare Care Management for High Cost Beneficiaries (CMHCB) Demonstration: Massachusetts General Hospital and Massachusetts General Physicians Organization (MGH), September 2010. Massachusetts General Hospital's Program to Coordinate Care for High Risk Medicare Patients: A Success Story; MedPAC: Care coordination in fee-for-service Medicare, June 2012.

implemented without strong evidence of impact due to lack of focus on high-risk populations; reliance on structural measures of capabilities without direct incentives for new processes and better outcomes; insufficient support for primary care practice transformation; and a weak business case for change based on insufficient reward levels and/or participation by only one payer representing a small fraction of a provider’s patient panel. We believe that our model design, if fully supported on a multi-payer basis, will address the pitfalls associated with less successful pilots. We believe that the principal challenge in achieving this level of impact will be to bring the same level of practice transformation support and rigorous performance management to a state-wide implementation that has been brought to past efforts implemented at a smaller scale, frequently by self-selecting groups of providers with highly motivated leadership teams.

Targeted pace of implementation: Our projections for the potential impact of our model assume that by CY 2021 at least 90% of Connecticut’s residents will be in the care of a primary care provider who is accountable for quality, care experience, and total cost of care, and assume a baseline participation rate of 30% in 2015 (excluding Medicaid which does not yet participate in SSP arrangements).

Program investments: Investments will be required to offset the cost of new capabilities and processes (e.g. care coordination for high-risk populations), reductions in provider productivity, and meaningful incentives to undertake the changes. We assume that payers will offer advance payments or fee-based reimbursement for care coordination to approximately 60% of SSP participating providers at a cost of ½% total cost of care for commercial, state employee and Medicare, and about 1% for Medicaid. We also assume that an average of 30-60% of savings achieved through implementation of the model will be paid to providers in the form of shared savings, net of increased spending on care coordination. Based on these assumptions, total reinvestments in the delivery system could reach \$275 million per year by CY 2024.

Fully implementing the Model Test as outlined will require about \$16 million per year on average through CY 2018 for primary care practice transformation, health information technology development, and program management (i.e., detailed design, implementation, stakeholder engagement, and self-evaluation, as well as support for workforce development. We anticipate that we will be able to fully realize this investment with the support of SIM test grant funding.

Projected Net savings: If fully and successfully implemented, our Model Test could achieve \$3.6 billion in federal savings in CY 2024, net of program investments and value-based payments to providers as summarized below.

ROI NPV at 2015 dollars	4-Year Project Period		10-Year Period	
	Net Savings	ROI	Net Savings	ROI
Medicare	\$ 226.5	242.2	\$ 2,916	1,337.8
Medicaid/CHIP	\$ 38.0	8.6	\$ 1,214	62.2
Subtotal	\$ 264.5	250.7	\$ 4,129.9	1,400.0
Federal Share	\$ 190.3	4.0	\$ 3,604.1	49.7

Sustainability: Assuming successful implementation of our Model Test at the pace outlined above, the projected level of savings would continue to grow over time in proportion to baseline healthcare spending growth and as providers continue to eliminate unnecessary spending from the system. As the model continues to mature, our goal for 1-2 percentage point reduction in healthcare spending growth may be sustained through 2024.

Connecticut State Innovation Model
Actuarial Certification of Financial Analysis
July 17, 2014

I, Bradley J. Davis, Senior Consulting Actuary, am associated with the firm of Wakely Consulting Group. I am a member of the American Academy of Actuaries and have been retained by the State of Connecticut to render an actuarial certification of the state's State Innovation Model (SIM) Financial Analysis. I meet the Academy qualification standards for rendering this certification.

I have examined the financial projection model and calculations used in determining Connecticut's projected savings generated through their SIM. In my opinion, the financial projection model satisfies the following requirements:

- (a) The projection methodology is actuarially sound, and
- (b) The assumptions and results are reasonable for their intended purpose.

In accordance with ASOP 23, I relied upon data prepared by Mark Schaefer, PhD, Director of Healthcare Innovation, Connecticut Office of Healthcare Advocate. I have reviewed the data for reasonableness, but I did not conduct a formal audit of the data. This data provided by Mr. Schaefer, included, but was not limited to the following:

- Baseline population and growth rate statistics
- Baseline medical costs and projection trends
- Payer and provider SIM participation rates
- Annual SIM impact on medical costs (savings) assumptions
- Shared savings payment amounts
- Care coordination fees
- Program investment and expense values and allocation between Federal and State Gov't

Actuarial methods, considerations, and analyses used in forming my opinion conform to the relevant Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis of this certification.

Sincerely,



Bradley J. Davis
Fellow, Society of Actuaries
Member, American Academy of Actuaries

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