



Perspective

Economic Effects of Medicaid Expansion in Michigan

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Under the Affordable Care Act, 31 U.S. states have opted to expand Medicaid coverage to nonelderly adults with annual incomes up to 138% of the federal poverty level (approximately

\$16,400 for a single adult in 2016). The federal government currently pays the full cost of Medicaid expansion in these states. The federal share decreases to 95% in 2017 and to 90% in 2020, with participating states required to cover the remaining 5% and then 10% of the expansion costs. In some states, the anticipated costs for this newly insured population have been an obstacle to expansion.¹

Michigan's Medicaid expansion, the Healthy Michigan Plan, has enrolled approximately 600,000 low-income adults. The total cost in fiscal year 2016 was about \$3.6 billion, financed almost entirely by the federal government. When the state legislature approved the expansion in 2013, it required that the state achieve other savings and revenue to offset its share of ex-

pansion costs beginning in 2017² — or Michigan would end the expansion.

An important factor that may be overlooked in decisions regarding continuing or initiating Medicaid expansion is the broader economic benefit associated with expanded coverage.¹ Since states bear a very limited cost, the marginal impact of a state's expansion decision on its own economy is very different from the national impact of the program. We examined the impact of Michigan's decision on its own economy and budget.

The substantial federal funding for Medicaid expansion delivers three types of economic benefit to state budgets. First, states may experience a fiscal benefit through reduced state spending on ser-

vices covered by the expanded Medicaid program, such as state mental health and correctional health programs for adults who were previously ineligible for Medicaid. Annual state spending for such programs in Michigan has been reduced by \$235 million because of the Healthy Michigan Plan.³

Second, states may experience a macroeconomic benefit through increased economic activity from new federal funding. Medicaid expansion does not simply shift spending by state governments or residents to the federal government, but actually increases total spending in the state without a commensurate tax increase for state residents. This increase in economic activity benefits state residents directly through increased employment in health care and a multiplier effect of related spending and employment in other sectors of the state economy, such as construction and retail services, with corresponding increases in tax revenue.¹

Federal and State Expenditures, State Tax Revenues, and Changes in Employment and Personal Income Associated with Medicaid Expansion in Michigan in State Fiscal Years 2014 through 2021.

Variable	2014	2015	2016	2017	2018	2019	2020	2021
Expenditures (\$ millions)*								
Federal (A)	897.6	3,384.6	3,596.4	3,387.3	3,366.7	3,397.6	3,372.7	3,411.7
State (B)	20.0	20.0	20.0	152.0	225.4	265.9	363.8	399.1
Increase in state tax revenue from economic benefits (\$ millions) (C)†	25.2	103.7	144.9	150.9	151.4	152.8	150.4	148.4
State taxes and contributions from health plans and hospitals (\$ millions) (D)*	47.0	182.0	194.0	198.0	173.0	181.0	193.0	178.0
State-budget savings on mental health and other programs (\$ millions) (E)*	100.0	235.0	235.0	235.0	235.0	235.0	235.0	235.0
Net effect on state budget (\$ millions) (F)‡	152.2	500.7	553.9	431.9	334.0	302.9	214.6	162.3
Increase in employment (jobs) (G)†	7659	30,266	39,329	37,775	35,420	33,898	31,794	30,092
State and local government (H)†	1520	4,888	6,308	5,605	4,618	4,157	3,440	2,853
Hospitals and ambulatory health care (I)†	2038	8,922	11,256	10,750	10,418	10,215	9,985	9,871
Other private sector (J)†	4101	16,456	21,765	21,420	20,384	19,526	18,369	17,368
Increase in personal income (\$ millions) (K)†	379.2	1,554.4	2,181.3	2,291.4	2,327.1	2,383.1	2,381.7	2,387.8

* Data are from the Michigan House Fiscal Agency³ (additional data on A are provided directly by this agency).

† Data are model outputs from our analysis. All amounts for state expenditures, state taxes, contributions from health plans and hospitals, and state budget savings are shown in nominal dollars unadjusted for inflation, as reported by the House Fiscal Agency. State expenditures include \$20 million in annual administrative costs and the federally specified state share of total estimated spending for the expanded Medicaid population (zero in fiscal years 2014 through 2016, 3.75% in 2017, 5.75% in 2018, 6.75% in 2019, 9.25% in 2020, and 10% in 2021).

‡ The net effect is calculated as C + D + E – B.

Third, low-income adults who paid directly for health care services or private insurance premiums before the expansion can redirect this personal spending to other household needs — such as housing, transportation, and food — after they gain Medicaid coverage. This redirected economic activity can also increase state income and sales tax revenues, further offsetting the state share of Medicaid expansion costs beginning in 2017.

To assess the effects of Medicaid expansion on economic outcomes in Michigan, we used the PI+ software developed by Regional Economic Models. This general-equilibrium model allows users to change government and private-sector spending over time. The model endogenously estimates how these changes influence employment, wages, labor-force par-

ticipation, and population migration. Users, however, must specify how governments will balance their budgets (spending cuts, tax increases, or both) and how changes in profits are handled in the economy (lump-sum dividend or wage payments or changes in production costs). As detailed in the Supplementary Appendix (available at NEJM.org), we estimated how increased federal funding for health care services covered by the Medicaid expansion affects employment, personal income, and state tax revenues in Michigan.

The main findings of this analysis for each fiscal year from 2014 through 2021 are shown in the table. Between 2015, when Michigan's enrollment under its Medicaid expansion stabilized at 600,000, and 2021, projected annual federal expenditures for the

program range from \$3.4 billion to \$3.6 billion (unadjusted for inflation). Whereas state expenditures from 2014 through 2016 were limited to new administrative costs of \$20 million annually, they are projected to increase to \$152 million in 2017, when the state covers 5% of the expansion costs, and \$399 million in 2021, when it covers 10%.³

During this period, estimated additional employment associated with increased Medicaid spending peaked at over 39,000 jobs in 2016 and is projected to decline to approximately 30,000 jobs in 2021. About two thirds of these jobs are outside the health care sector, because of two factors. First, about one third of Healthy Michigan Plan spending represents preexisting spending by the state, employers, and individuals for which the federal government

is assuming responsibility, thus freeing state and private resources to be spent in other ways. Second, about half the jobs created by the macroeconomic stimulus arise from the multiplier effect as new spending spreads through the economy. During these years, the increased personal income associated with new employment is expected to be relatively stable, at \$2.2 billion to \$2.4 billion per year. The added economic activity is projected to yield approximately \$145 million to \$153 million annually in new state tax revenue.

This additional state tax revenue offsets nearly all of the state's projected new spending for Medicaid expansion in 2017 and about 37% of these costs in 2021. After further accounting for the projected \$235 million in annual state budget savings for mental health and other programs arising from Medicaid expansion and up to \$200 million annually in state taxes and contributions from health plans and hospitals,³ we found that the state costs of Medicaid expansion will be fully covered through 2021 (see table) and are very likely to be so in subsequent years as well.

Our analysis has several potential limitations. First, the extent to which Medicaid expansion generates new medical spending or shifts existing spending from low-income households and the state government to the federal government is uncertain. To account for this uncertainty, we conducted sensitivity analyses with lower and higher estimates of additional spending and found that the increases in annual state tax revenues were very similar to those in our main analysis (see the Supplementary Appendix). Second, our analysis assumes a federal

Medicaid match rate of 90% or higher. If the match rate declines, the economic benefits for the state will be proportionately lower.

Third, Medicaid expansion could affect enrollees' willingness or ability to work. Medicaid coverage may lead some people who currently receive employer-sponsored health insurance coverage to work less. On the basis of preliminary survey data in Michigan, we estimate that 9.6% of new Medicaid enrollees previously had employer-sponsored insurance. Alternatively, some Healthy Michigan Plan enrollees may seek employment or work longer hours if their health improves because of better access to care, thereby increasing the labor supply. Evidence regarding Medicaid expansions in 2014 suggests that they had no net effect on labor supply.⁴

Fourth, our results are specific to Michigan's economy, labor force, and tax system. Comparable analyses in the 19 states that have not expanded Medicaid might have different findings. Texas and Florida, for example, have much larger proportions of uninsured adults than Michigan, so they would receive proportionately larger increases in federal Medicaid funding, but their lower state tax rates would generate less revenue. Nonetheless, a 2013 review of the projected economic impact of Medicaid expansion in 10 states predicted all positive effects.⁵

Our results indicate that continuing Michigan's Medicaid expansion in 2017 and beyond will have clear economic benefits for the state. The state-budget gains outweigh the added costs for at least the next 5 years — and probably longer, when additional Michigan-specific taxes and contributions for Medicaid expansion

from health plans and hospitals are included. Similar economic benefits are almost certainly accruing to the other 30 states that have expanded Medicaid, but not to the 19 states that haven't done so. State policymakers can consider these benefits along with health and financial effects for enrollees as they decide whether to continue or initiate Medicaid expansion.

The views expressed in this article are those of the authors and do not represent official positions of the Michigan Department of Health and Human Services or the Centers for Medicare and Medicaid Services.

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