

Department of Legislative Services  
 Maryland General Assembly  
 2018 Session

FISCAL AND POLICY NOTE  
 First Reader

House Bill 626 (Delegate Cullison, *et al.*)  
 Health and Government Operations

Maryland Medical Assistance Program - Medication Adherence Technology Pilot Program

This bill establishes a pilot program in the Maryland Department of Health (MDH) to expand the use of medication adherence technology to increase prescription drug adherence of Medicaid recipients with severe and persistent mental illness. By September 1, 2021, MDH must report to the Governor and specified committees of the General Assembly. **The bill takes effect June 1, 2018, and terminates September 30, 2022.**

Fiscal Summary

**State Effect:** Medicaid general fund expenditures increase by \$10,200 in FY 2018 and \$820,100 in FY 2019. Future years reflect the pilot program ending June 30, 2021, and the contractual position ending September 30, 2022. Any savings from increased medication adherence are not reflected below. Revenues are not affected, as discussed below. **This bill increases the cost of an entitlement program beginning in FY 2019.**

(in dollars)	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	10,200	820,100	816,200	818,300	64,400
Net Effect	(\$10,200)	(\$820,100)	(\$816,200)	(\$818,300)	(\$64,400)

*Note: ( ) = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease*

**Local Effect:** None.

**Small Business Effect:** None.

## Analysis

**Bill Summary:** “Medication adherence technology system” means a digital remote tamperproof medication management system that (1) alerts a patient when it is time to take medication; (2) dispenses medication that is located inside presorted, dose-specific, and multidose adherence packaging; (3) monitors when a patient takes the medication; (4) alerts caregivers in real time when the patient does not take the medication on schedule; (5) includes a mobile platform through which health care providers can review data on the patient’s medication regimen and adherence; and (6) provides for the delivery and loading of medication refills for the patient by a trained technician.

MDH must select and provide a medication adherence technology system to 300 Medicaid recipients who (1) are dually eligible for Medicaid and Medicare; (2) are diagnosed as having a severe and persistent mental illness and multiple comorbidities; (3) are taking six or more oral medications; and (4) have annual health care costs that exceed \$55,000. In selecting participants, MDH must target individuals with specified medical conditions.

MDH must collect data on participants to evaluate the impact of the use of medication adherence technology on (1) medication adherence; (2) the overall cost of providing health care to participants; and (3) health outcomes for participants. The pilot program must aim to achieve a 10% reduction in total health care expenditures for participants from reduced costs attributable to medication monitoring by health care providers and reduced medical treatment, including emergency room visits, hospitalizations, long-term care placements, and home health care visits.

**Background:** Poor medication adherence is linked with poor clinical outcomes. Beyond increased mortality, medication nonadherence costs between \$100.0 billion and \$300.0 billion per year nationally. Hospital admission rates increase for nonadherent patients with chronic illnesses by up to 69%.

**State Fiscal Effect:** Medicaid general fund expenditures increase by \$10,234 in fiscal 2018, which accounts for the bill’s June 1, 2018 effective date, and by \$820,130 in fiscal 2019. This estimate reflects the cost of hiring one contractual health policy analyst to establish, coordinate, and evaluate the pilot program. It includes a salary, fringe benefits, equipment, one-time start-up costs, and ongoing operating expenses. The information and assumptions used in calculating the estimate are stated below:

- The pilot program is limited to 300 individuals who are dually eligible for Medicaid and Medicare and who meet other specified criteria under the bill.

- The cost to provide a medication adherence technology system is \$210 per month per participant (\$2,520 per year per participant, \$756,000 per year for 300 participants).
- MDH must hire one contractual health policy analyst, effective June 1, 2018, to establish and coordinate the pilot program, including selecting participants, procuring and distributing medication adherence technology systems, collecting data on participants, evaluating the impact of the pilot program, and preparing and submitting the required report.
- The pilot program is assumed to last for three years, beginning July 1, 2018, and running through June 30, 2021.
- The contractual health policy analyst completes the evaluation of the pilot program in July and August of 2021 and prepares and submits the report as required by September 1, 2021.
- Even though the report must be completed a year earlier, the contractual position is funded through September 30, 2022, the date on which the bill terminates as additional analysis may be beneficial; to the extent that there is no further need for this position, costs end sooner.
- Expenditures are 100% general funds, as MDH advises that federal matching funds are not available for a pilot program with capped enrollment.

	<u><b>FY 2018</b></u>	<u><b>FY 2019</b></u>
Contractual Position	1	-
Salary and Fringe Benefits	\$5,292	\$59,603
Equipment	-	756,000
Operating Expenses	<u>4,942</u>	<u>625</u>
<b>Total General Fund Expenditures</b>	<b>\$10,234</b>	<b>\$820,130</b>

This estimate does not include any health insurance costs that could be incurred for specified contractual employees under the State's implementation of the federal Patient Protection and Affordable Care Act.

Future year expenditures reflect a full salary with annual increases and employee turnover and ongoing operating expenses and reflect termination of the contractual position effective September 30, 2022.

To the extent that medication adherence improves for pilot program participants, resulting in reduced emergency room visits, hospitalizations, long-term care placements, and home health care visits, Medicaid expenditures decline by a potentially significant amount. *For illustrative purposes only*, to the extent the pilot program reduces each participant's health care expenditures (assumed to be a minimum of \$55,000 annually based on the criteria specified by the bill) by 10%, Medicaid expenditures decline by \$1.65 million annually. Any such savings are not reflected in this analysis.

**Additional Comments:** MDH advises that Medicaid is currently collaborating with Terrapin Pharmacy (the manufacturer of the medication adherence technology Medherent), the University of Maryland School of Social Work, and The Hilltop Institute on a study to analyze the effect of using Medherent on the cost of care and use of acute health care services for certain health conditions. Terrapin Pharmacy has engaged the School of Social Work to conduct the analysis, which will cover approximately 60 Medicaid enrollees (34 of whom are dually eligible) for two years prior to and two years subsequent to utilization of Medherent. The study will include a matched control group.

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### **Additional Information**

**Prior Introductions:** SB 756 of 2017 received a hearing in the Senate Finance Committee, but no further action was taken. Its cross file, HB 1216, received a hearing in the House Health and Government Operations Committee, but no further action was taken.

**Cross File:** SB 259 (Senator Middleton) - Finance.

**Information Source(s):** Maryland Department of Health; Department of Legislative Services

**Fiscal Note History:** First Reader - February 1, 2018  
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