

**Department of Legislative Services**  
Maryland General Assembly  
2017 Session

**FISCAL AND POLICY NOTE**  
**First Reader**

Senate Bill 756  
Finance

(Senators Astle and Feldman)

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**Maryland Medical Assistance Program - Medication Adherence Technology Pilot Program**

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This bill establishes a pilot program in the Department of Health and Mental Hygiene (DHMH) to expand the use of medication adherence technology to increase prescription drug adherence of Medicaid recipients who are diagnosed as having a severe and persistent mental illness. By September 1, 2020, DHMH must report on the pilot program to the Governor and specified committees of the General Assembly.

The bill takes effect June 1, 2017, and terminates September 30, 2021.

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**Fiscal Summary**

**State Effect:** Medicaid general fund expenditures increase by \$9,800 in FY 2017 and \$816,200 in FY 2018 to hire one contractual position to administer and evaluate the pilot program and provide medication adherence technology systems to 300 participants. DHMH advises that pilot programs with capped enrollment are not eligible for federal matching funds; thus, revenues are not affected. Future years reflect the pilot program ending June 30, 2020, and the contractual position ending September 30, 2021. Any savings from increased medication adherence are not reflected below. **This bill increases the cost of an entitlement program beginning in FY 2018.**

(in dollars)	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Revenues	\$0	\$0	\$0	\$0	\$0
GF Expenditure	9,800	816,200	818,300	820,400	66,500
Net Effect	(\$9,800)	(\$816,200)	(\$818,300)	(\$820,400)	(\$66,500)

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

**Local Effect:** None.

**Small Business Effect:** None.

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## **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.

DHMH 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 for the pilot program, DHMH must target individuals who have chronic obstructive pulmonary disease, diabetes, heart failure, or hypertension.

DHMH must collect data on participants in the pilot program to evaluate the impact of the use of the 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 \$9,771 in fiscal 2017, which accounts for the bill’s June 1, 2017 effective date, and by \$816,234 in fiscal 2018. 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).
- DHMH must hire one contractual health policy analyst, effective June 1, 2017, 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 a report to the Governor and specified committees of the General Assembly.
- The pilot program is assumed to last for three years, beginning July 1, 2017, and running through June 30, 2020.
- The contractual health policy analyst completes the evaluation of the pilot program in July and August of 2020 and prepares and submits the report as required by September 1, 2020.
- Even though the report must be completed a year earlier, the contractual position is funded through September 30, 2021, 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 federal matching funds are not available for a pilot program with capped enrollment.

	<b><u>FY 2017</u></b>	<b><u>FY 2018</u></b>
Contractual Position	1	-
Salary and Fringe Benefits	\$5,081	\$59,609
Equipment	-	756,000
Operating Expenses	<u>4,690</u>	<u>625</u>
<b>Total State Expenditures</b>	<b>\$9,771</b>	<b>\$816,234</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, 2021.

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.

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### **Additional Information**

**Prior Introductions:** None.

**Cross File:** HB 1216 (Delegate Cullison, *et al.*) - Health and Government Operations.

**Information Source(s):** "Public Health Grand Rounds: Overcoming Barriers to Medication Adherence for Chronic Diseases," U.S. Centers for Disease Control and Prevention, February 21, 2017; Terrapin Pharmacy; Department of Health and Mental Hygiene; Department of Legislative Services

**Fiscal Note History:** First Reader - February 27, 2017  
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