

## How Much Does Medication Nonadherence Cost the Medicare Fee-for-Service Program?

The following is a synopsis of “How Much Does Medication Nonadherence Cost the Medicare Fee-for-Service Program?” published in the March 2019 issue of the journal *Medical Care*.



### What is already known on this topic?

Medication use is one of the pillars of disease management. Sixty percent of Americans live with a chronic illness and require medications to improve symptoms, delay disease progression, reduce risk of complications, and improve quality of life. Adherence to those medications is important to ensuring appropriate disease management. Adherence is also used as a metric for program effectiveness in the Centers for Medicare & Medicaid Services' (CMS) Star Ratings for prescription drug plans and as a component of medication therapy management (MTM). Strategies for increasing medication adherence include enlisting accountable care organizations to address compliance for people with chronic illnesses, implementing team-based care at medical homes, and promoting the use of technology, such as mobile applications, text message reminders, and other forms of telehealth interventions. However, despite the cost savings and health improvement it represents for people living with chronic illnesses, medication adherence remains below the desired levels.

Research shows that medication adherence improves health outcomes and reduces health care costs. The challenge for policymakers and payers is to define the size and scope of the problem of medication

nonadherence. In order to evaluate alternative solutions, it is important to start with an understanding of how much the country spends because of nonadherence. Specific data on the cost of nonadherence are scarce, however, and approaches to estimating the total cost do not account for confounding variables and may exaggerate the effects of adherence on health outcomes.

### What is added by this article?

The objective of this article was to apply a data-driven approach to acquire population-level estimates of medication nonadherence's effect among a Medicare fee-for-service (FFS) population with chronic illnesses. Focusing on diabetes, heart failure, hypertension, and hyperlipidemia, the authors calculated the prevalence of medication nonadherence and the per-person estimates of avoidable health care use and spending associated with medication adherence.

The study included community-dwelling beneficiaries enrolled in Medicare Parts A, B, and D for all 12 months of 2013 and excluded anyone enrolled in Medicare Advantage during any month of 2013. Medication adherence was measured by proportion of days covered (PDC)—the percentage of days when beneficiaries were provided medication during the 365-day observation period—and required individuals to refill at least two prescriptions within the year.



The percentage of medication nonadherence among the Medicare FFS beneficiaries were 23% for patients with heart failure, 25% for those with hypertension, 35% for those with diabetes, and 38% for those with hyperlipidemia. The authors found that medication nonadherence accounted for 4%, 7%, and 9% of total health care expenditures for hyperlipidemia, diabetes, and heart failure, respectively. Medication nonadherence accounted for 11% of total expenditures related to hypertension. Population-level annual estimates demonstrated that avoidable health care costs resulted in \$4.5 billion for nonadherent older adults with diabetes, \$5.6 billion for those with heart failure, and \$5.1 billion for those with hyperlipidemia. In addition, there would be 117,594 fewer emergency department (ED) visits and at least 7 million fewer inpatient hospital days if nonadherent beneficiaries with hypertension became adherent; if just 25% of nonadherent Medicare FFS beneficiaries with hypertension became adherent, Medicare could save \$13.7 billion per year.

## Resources:

1. American Pharmacists Association Foundation: Pharmacy's Appointment Based Model: [Implementation Guide for Pharmacy Practice](#)
2. Centers for Disease Control and Prevention: [Community Pharmacists and Medication Therapy Management](#)
3. Million Hearts®: [Medication Adherence](#)

## Citation

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## What are the implications for public health practice?

Medication nonadherence accounts for billions of dollars in avoidable health care costs, millions in avoidable inpatient hospital days, and thousands of avoidable ED visits. The study's estimates provide information for policymakers to consider when developing interventions. Policies encouraging medication adherence need to determine which interventions will be most effective for specific populations, the costs of implementing those interventions, and patients' reasons for noncompliance.

*The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.*



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