

CMS Perspective:

Million Hearts[®] Cardiovascular Disease Risk Reduction Model (Million Hearts Model)

Third Annual Evaluation Report and Next Steps in Million Hearts Model

November 2020

For information on the Million Hearts Model and to download
the independent evaluation report discussed in this document, please visit

<https://innovation.cms.gov/innovation-models/million-hearts-cvdrmm>



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Heart attack and stroke are two of the leading causes of death in the United States and among Medicare beneficiaries, and are the most expensive chronic conditions in the Medicare program. The Million Hearts® Cardiovascular Disease Risk Reduction Model (Million Hearts Model) supports the goal of the broader Million Hearts® Initiative. This initiative, co-led by the Centers for Medicare & Medicaid Services (CMS) and the Centers for Disease Control and Prevention (CDC), seeks to prevent 1 million heart attacks and strokes within 5 years. The Million Hearts Model, whose evaluation is described in this document, tests the impact of providing financial incentives to health care providers to reduce CVD risk lowers among Medicare fee-for-service beneficiaries aged 40-79 who have not had a previous heart attack or stroke. The evaluation examines whether these incentives result in lower incidence of first time heart attacks and strokes and subsequently reduces expenditures and preserves or enhances quality of care.

The Million Hearts® Model runs from January 2017 to December 2021. It is a five-year randomized trial in which half of the participating organizations (primary care practices, specialty practices, federally qualified health centers, and hospitals) were assigned to the intervention group, and the other half to a control group where beneficiaries receive usual care. Providers in intervention organizations calculate the likelihood that eligible Medicare beneficiaries will have a heart attack or stroke in the next 10 years. In years 2-5 of the model, intervention practices receive scaled incentive payments based on their performance in reducing the average 10-year predicted risk among high-risk beneficiaries (defined as those with a 30 percent or higher risk of a CVD event at baseline). In contrast, control group participants are paid to report data but are not asked to report a risk score, and do not receive these incentives.

The third evaluation report describes how the Million Hearts Model was implemented during the almost first three years of the model (January 2017 to October 2019), and includes estimates of the model's impact on heart attacks, strokes, survival, health care utilization and spending.

The evaluation found that in its first three years, the Million Hearts Model improved cardiovascular disease preventive care, but did not yet reduce observed heart attacks and strokes or lower Medicare spending. Providers in the Model were much more likely than control group providers to report measuring and being aware of their patients' cardiovascular risk. In interviews and surveys, providers credited the Million Hearts Model with increasing the extent to which they used CVD risk scores to guide both (1) discussions with beneficiaries about CVD risk and (2) treatment recommendations. Moreover, the evaluation found that beneficiaries in the intervention group were more likely, than those in the control group, to start or intensify statin or anti-hypertensive therapy to address elevated cholesterol or blood pressure. While CVD risk scores decreased in both the intervention and control group, the average reduction in CVD risk score was slightly greater in the intervention group. However, through October 2019, the model did not reduce the incidence of first-time heart attacks or strokes. Throughout the study period, beneficiaries in the intervention and control groups had very similar probabilities of having a heart attack or stroke. Likewise, the evaluation did not find meaningful impacts on Medicare's expenditures in the time-period examined. Average Medicare expenditures were very similar between intervention and control group enrollees, with differences not statistically different from zero, both before and after model payments were included.

On the other hand, the evaluation did find notable impacts for some secondary outcomes. In particular, among high- and medium-risk beneficiaries (defined as beneficiaries with a 10-year predicted probability of heart attack or stroke of 15 percent or more) the death rate was 6 percent lower in the intervention group than in the control group. Specifically, 3.9 percent of beneficiaries in the intervention group died within two years of enrollment, compared to 4.2 percent in the control group. There were also slightly

(3-4 percent) higher rates of hospitalizations and emergency department visits in the intervention group than the control group. These findings were unexpected, but it's possible the model may have made participants more aware of worrisome symptoms and more engaged with the health care system, prompting more visits to the emergency room and hospital.

While the Million Hearts Model will conclude as planned in December 2021, the Million Hearts® Initiative will continue through 2022 and focus on implementing a small set of evidence-based priorities and targets that can improve cardiovascular health for all. Additional information on the Initiative is available here: <https://millionhearts.hhs.gov/>