Scaling the CMS Cardiovascular Risk Reduction Model

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The Million Hearts Cardiovascular Risk Reduction Model of the US Centers for Medicare & Medicaid Services (CMS) prevented 1 death for every 191 medium-risk and high-risk beneficiaries with no effect on Medicare spending. The model met the US Center for Medicare and Medicaid Innovation's (CMMI's) criteria for success, but CMS has not announced its expansion, a critical public health issue given recent increases in cardiovascular mortality. Scaling Million Hearts nationally may result in more than 70 000 fewer deaths per year among Medicare beneficiaries and be associated with decreased health disparities.

It is unclear why CMS has not expanded the model. Potential challenges include (1) unresolved questions about what should be expanded, given the counterintuitive finding that a model with high participant attrition simultaneously resulted in a substantial effect on mortality; (2) concerns that atherosclerotic cardiovascular disease (ASCVD) risk assessment and management should be standard care within existing payment policies; and (3) competing priorities and lack of stakeholder advocacy for expansion. In this Viewpoint, we review why this payment model worked when other quality improvement efforts have failed and outline options for scaling.

Million Hearts Model

The Million Hearts model was a randomized clinical trial (RCT) testing whether practicewide payments to reduce 10-year ASCVD risk reduced incidence of first-time myocardial infarction and strokes among Medicare fee-for-service beneficiaries aged 40 to 79 years. A total of 516 organizations participated, including primary care and cardiology practices, health centers, and hospitals. Intervention group organizations received an initial $10 payment per beneficiary to calculate and report ASCVD risk, followed by ongoing cardiovascular care management payments for high-risk (≥30% risk) beneficiaries (18% of all beneficiaries). In year 1, intervention practices received a $10 per beneficiary per month (PBPM) cardiovascular care management payment; in years 2 to 5, the PBPM was tied to absolute risk reduction across a practice's panel of high-risk patients, varying from $0 to $10 PBPM.

The final evaluation showed that the model reduced the absolute probability of a first-time CVD event within 5 years by 0.3 percentage points (3.3% relative risk reduction) and reduced the 5-year probability of CVD events and CVD deaths by 0.4 percentage points (4.2% relative effect). It had marked effects on clinician behavior: 69% of clinicians in the intervention group assessed 10-year ASCVD risk for more than 50% of Medicare patients vs 41% of clinicians in the control group. Improvements in ASCVD risk were achieved primarily through increased or intensified antihypertensive and statin use, along with routine aspirin use. Effects were larger for beneficiaries from high-vulnerability census tracts. Although payments were exclusively for high-risk beneficiaries, effects spilled over to medium-risk beneficiaries. These outcomes were achieved without changes in spending, which was similar in the intervention and control groups ($959 vs $958 PBPM, respectively).
What Worked and What Did Not

The model was associated with positive changes in patient and clinician behavior. Numerous quality programs (eg, the Merit-Based Incentive Payment System, Bundled Payments for Care Improvement) include cardiovascular health measures, and to our knowledge none have shown the improvements observed in Million Hearts. What made this model so effective?

Model participation appeared to overcome clinical inertia in ways that were not specifically associated with the payment level. By the model's end, 26% of intervention organizations had withdrawn, and an additional 82 had stopped reporting the data required to receive model payments. The primary reason for withdrawing was that payments were not perceived as sufficient to compensate for administrative burdens. Although these payments were intended to motivate physician behavior (because practices would receive a modestly higher payment for achieving a substantial risk reduction), they were not enough to keep physicians engaged.

Because the model was an RCT that was conducted with an intent-to-treat analysis and claims were available even for practices that withdrew from the model, we can be confident that model participation resulted in the outcome changes observed. But if outcome payments were not associated with the results, what was? We believe that 2 factors were likely associated with the Million Hearts results:

• Use of a composite outcome measure of cardiovascular risk, which focused practices on a single clinical tool and outcome rather than discrete measures of hypertension, cholesterol, and diabetes control or broader approaches to care coordination and disease management. This shift may have facilitated shared decision-making. In interviews, more than half of beneficiaries said they felt involved in decisions about their cardiovascular disease (CVD) risk. A composite risk score may also have helped patients understand and contextualize risk. Informing a patient that they have a 45% risk of myocardial infarction or a stroke may be a more compelling catalyst for change than counseling patients about individual risk factors. This could partially explain the 4% increase in all-cause hospitalization among high-risk and medium-risk beneficiaries; patient awareness of elevated risk may be associated with care-seeking behavior.

• Upfront payments at the practice level. Most federal quality programs use retrospective adjustments, in which payments are altered based on past performance. The Million Hearts model provided upfront cardiovascular care management payments for all clinicians in a participating practice. While small (up to $10 PBPM for 18% of Medicare fee-for-service patients who were high risk), this payment created an organizationwide focus on cardiovascular disease prevention, leading practices to change workflows (eg, featuring patient risk scores prominently in the electronic health record and more frequent follow-up with high-risk patients).

Scaling Million Hearts

There are at least 3 approaches to scaling Million Hearts. First, CMS could incorporate elements into Medicare's existing infrastructure by adding a cardiovascular care management code to the Physician Fee Schedule and including composite cardiovascular quality measures in value-based payment programs. Although straightforward to scale, this incremental approach would not fully leverage the lessons learned in the Million Hearts model, which showed that when clinicians focus on a single important outcome, they can and do partner with patients and change the way they practice. These changes may get lost in the sea of measurement programs within which clinicians currently operate.

Second, CMMI could leverage its statutory authority to create a new approach to scaling quality-oriented payment models: CMMI could expand the Million Hearts model as mandatory for all clinicians in select states that volunteer to participate. This approach could facilitate alignment across the Medicare Shared Savings Program, Medicare Advantage, and Medicaid, potentially strengthening clinician incentives and maximizing population health impact. The Million Hearts model was already
tested in a large RCT; opposition to mandatory scaling would be more challenging to articulate than with a new, untested model.

Lastly, CMMI could incorporate required CVD risk assessment and CVD-specific care management fees into any model that includes care management fees or primary care investments. For example, CMMI could immediately partner with states to incorporate multipayer cardiovascular risk reduction in states applying for the States Advancing All-Payer Health Equity Approach and Development model.\(^5\) This model includes new primary care investments through a Medicare care management fee designed to parallel state Medicaid transformation efforts; this fee could incorporate requirements around cardiovascular risk assessment and management. Additionally, it requires states to develop and implement health equity plans, including all-payer strategies for improving population health and reducing disparities.

In parallel, the US Preventive Services Task Force should consider developing a recommendation associated with assessment of 10-year CVD risk. If CVD risk assessment was a US Preventive Services Task Force–endorsed preventive service, it would allow Medicare recipients to access it with no copay and create incentives for states to cover it in their Medicaid programs.

**Conclusions**

Not only was the Million Hearts model effective in improving ASCVD outcomes, but it also centered patient engagement and advanced health equity. Scaling the Million Hearts Model is a commonsense approach to address a critical public health need.