VIEWPOINT

National Initiatives to Prevent Myocardial Infarction and Stroke

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Multimedia

Supplemental content

In 2011, the US Department of Health and Human Services launched the Million Hearts initiative, led by the Centers for Disease Control and Prevention (CDC) and Centers for Medicare & Medicaid Services (CMS) with participation from a wide range of federal agencies, state governments, clinical consortia, community and professional organizations, and other partners. The goal of the initiative was to prevent 1 million myocardial infarctions and strokes over 5 years.[1]

To achieve this goal, community-wide preventive interventions were to reduce tobacco use and sodium consumption and eliminate artificial *trans* fats from the food supply. In clinical care, the initiative focused on improving the "ABCS": aspirin use, blood pressure control, cholesterol management, and smoking cessation treatment. A second phase, Million Hearts 2022, aims to reduce tobacco use, sodium intake, and physical inactivity by 20%; achieve 80% performance on the ABCS and 70% participation in cardiac rehabilitation; and focus on priority populations.

Specific funding for the Million Hearts Initiative was approximately $4 million annually starting in the second year of the first phase from 2012 to 2016, plus $490 million from 2012-2018 for an antitobacco educational campaign known as "Tips From Former Smokers," and $6.7 million plus administrative and evaluation costs for a CMS assessment of a prevention model. Although direct funding other than for anti-tobacco ads was modest, the major initiatives required political rather than financial capital, and there was strong commitment at the launch and in follow-up, with support from multiple agencies, including CDC, CMS, the Food and Drug Administration (FDA), the Health Resources and Services Administration, and others.

Over the 5 years from 2012-2016, projections were that there would be more than 10 million myocardial infarctions and strokes in the US, and that a 10% reduction (ie, preventing 1 million cardiovascular events) was possible. Although the Million Hearts initiative has been estimated to have helped prevent 135 000 cardiovascular events and saved an estimated $5.6 billion in averted direct medical costs related to cardiovascular disease from 2012 to 2016, the initiative missed its target.[2] In 2011, the age-standardized rate of cardiovascular events per 100 000 population was 1304 among men and 1048 among women; in 2016 there were 1339 cardiovascular events per 100 000 men and 1014 per 100 000 women.[2]

Because improved blood pressure control can save more lives on a population basis than any other clinical intervention, this was the primary clinical focus of Million Hearts. After increasing from 31.8% in 1999-2000 to 53.8% in 2013-2014, blood pressure control decreased to 43.7% in 2017-2018.[3] Several years after Million Hearts launched, the decades-long decline in the rate of cardiovascular deaths, which had resulted in most of the US life expectancy increase over the previous 40 years, stalled and the rate began to increase.

The Biden-Harris administration has an opportunity to learn lessons from past efforts and ensure success. There is an urgent need to address cardiovascular disease because it is the leading cause of premature death, a leading contributor to changes in life expectancy, the leading cause of Black-White disparities in health, and represents one of the most expensive health conditions in the US.[4] Nearly 1 of 4 Black adults aged 18 years or older has uncontrolled hypertension, compared with the still-concerning but much lower proportion of 1 in 7 White adults aged 18 years or older with uncontrolled hypertension. Improvement in cardiovascular health can strengthen population resilience to infectious diseases, including COVID-19 and future health threats. Much of what is needed could be led by the Biden-Harris administration and implemented by departments and agencies of the executive branch of government (eTable in the Supplement).

Failure to implement interventions with the greatest potential to reduce cardiovascular disease at the population level—tobacco control and sodium reduction—has been related to political issues: the past 2 administrations have encountered competing priorities, industry opposition, and court challenges. Moving forward, the FDA has the authority to implement 2 prevention interventions that could each save millions of lives: regulating nicotine in combustible tobacco products to nonaddictive levels[5] and taking actions to reduce sodium intake, including setting mandatory targets for sodium reduction in packaged and prepared foods.[6] Together, these measures could reduce cardiovascular morbidity and mortality substantially. Administrative action to reduce exposure to fine particulate matter, reduce alcohol consumption, improve nutrition, and promote physical activity could further improve cardiovascular health.

In addition to interventions at the population level, improving clinical management of hypertension is critical. Reasons for lack of progress in hypertension control are not fully understood; changes to clinical systems will need to be implemented quickly and assessed rigorously. Blood pressure control decreased while health insurance coverage increased. Nearly 90% of those with uncontrolled hypertension have insurance, which suggests that health care system performance rather than insurance is a more important underlying reason for the failure to improve hypertension control rates. Factors such as competing demands on the health care system, weak incentives for prevention, and confusion about optimal blood pressure treatment goals may have contributed. Although obesity has been suggested as a contributing factor, the decrease in blood pressure control occurred in just a few years, after years of improvement, suggesting that obesity, which increased steadily for many years, is not the primary reason for the worsening trend in blood pressure control.

Despite the decrease in blood pressure control nationally, many clinical systems have shown that it is

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possible to achieve high rates of blood pressure control, sometimes rapidly.[7,8] These health systems made blood pressure control a priority and designated someone to champion quality improvement.[8] Successful strategies include using standardized treatment approaches and health care teams to manage hypertension, empowering patients including through use of home blood pressure monitoring, and providing regular feedback on performance to clinicians and managers.[7,8]

Improving performance of clinical systems can be done within existing authority of the Center for Medicare and Medicaid Innovation. Although this center has undertaken pilot projects in support of Million Hearts, it has not yet exercised its authority to implement nationwide pilot programs that fundamentally change how care is organized to test and evaluate ways that may make primary care the center of the US health care system. In fee-for-service Medicare, every patient could be assigned to a primary care clinician who would be paid per patient, not per visit or procedure, with substantially increased payment for improved health outcomes. Implementing this policy would incentivize primary care practices to provide patient-centered care through multidisciplinary teams, including with in-person or virtual visits, phone, email, or text message, while supporting primary care practices by increasing income stability.[9]

This approach would both necessitate and create the financial incentives to establish a larger primary health care workforce as well as team-based care, which makes it possible for primary care clinicians to manage larger panels of patients. Such a program would not include patients enrolled in Medicare Advantage; some Medicare Advantage plans might choose to implement an analogous service package, including per member, per month rather than fee-for-service payments to clinicians.

With this approach, clinicians would receive a risk-adjusted monthly payment per patient without the need to submit claims for services provided. CMS could adjust payments based, initially, on 3 key indicators: risk-adjusted total cost of care; survey-based patient satisfaction; and blood pressure control. Clinicians would receive prompt information on all care given to their patients throughout the Medicare network. Consistently poorly performing practices would not be able to enroll new patients. Medicare could also reduce or eliminate out-of-pocket costs for core antihypertensive medications and provide coverage for validated automatic home blood pressure monitors. Actions taken in Medicare could be adopted by other payers.

Although Million Hearts has not achieved its goals, there was encouraging progress. Elimination of artificial *trans* fat from the food supply was initiated and, despite delays, advanced by the FDA in the prior 2 administrations. Favorable trends in LDL cholesterol levels occurred even as statin use among eligible adults has stagnated.[10] Although e-cigarettes threaten to create a new generation addicted to tobacco, smoking has declined to the lowest level ever measured, with a reduction of at least 10 million smokers, preventing millions of cancers, myocardial infarctions, strokes, and premature deaths. More than 100 health care systems, covering more than 15 million patients and recognized as Million Hearts Hypertension Control Champions, implemented innovations that improved blood pressure control.[7]

For much of the next year, health care systems, communities, and governments at local, state, and national levels will necessarily focus on controlling the COVID-19 pandemic. At the same time, there is a unique opportunity for the Biden administration to lead action that will both improve patients' resilience to infections and restart the decades-long decrease in deaths from cardiovascular disease and increase in life expectancy. In 2021, an estimated 900 000 people in the US will die from cardiovascular disease; at least half of these deaths are readily preventable.

Diagnosis of the failure of Million Hearts to prevent 1 million myocardial infarctions and strokes is clear: failed or delayed political decisions on tobacco control, sodium reduction, *trans* fat elimination, prioritization of hypertension control, and centering the US health care system on primary care. Actions to protect population health, resist pressure from specific interests, and deliver benefits that are years away and may not be readily apparent to most beneficiaries are critically important. Regulatory and other action is within the purview of the new administration. A focus on saving the most lives, while recognizing and resisting opposition from the tobacco industry, parts of the food and beverage industries, and some specialty medical groups and hospitals, would enable focused action so President Biden can build on success stopping COVID-19 to substantially improve health in the US.

ARTICLE INFORMATION

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