We Can Save a Million Hearts

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INTRODUCTION

Cardiovascular disease (CVD) is the leading cause of death in the US, and after decades of decline in heart disease and stroke death rates as well as improvement in CVD risk factor levels, the trends have stalled or even reversed.1-4 In response, the Centers for Disease Control and Prevention (CDC) and the Centers for Medicare and Medicaid Services (CMS) co-led the launching of Million Hearts in 2012, a cardiovascular risk factor control initiative with a 5-year goal of preventing 1 million cardiac events.5,6

In September 2018, Janet Wright, the Million Hearts Executive Director, published with her colleagues an editorial updating the progress the campaign had made, the missed opportunities, and the prospects for the future.7 Although they cited evidence that the campaign had contributed to the prevention of around 500,000 cardiovascular events by the end of 2016, they candidly described the progress as “frustratingly slow” and falling short. Achieving goals like those of Million Hearts is critical if the country is to control the rise of chronic disease and disability, and the Million Hearts goal requires risk factor control—by a healthy diet, adequate physical activity, weight control, and abstinence from tobacco and nicotine, and through pharmacologic treatment of hypertension, nicotine addiction, and dyslipidemia. We have calculated that eliminating current gaps in the delivery of evidence-based care to patients hospitalized for acute cardiac events would prevent or postpone less than 10% of the deaths in the middle-aged US population.8 By contrast, achieving all behavioral and risk factor targets could prevent or postpone more than 50% of all deaths in the middle-aged US population. Given the evidence that accountability for performance improves performance,9 it seems obvious to us that adding asking about and referring to counseling for tobacco use and blood pressure control to the list of accountability measures for all adults, not just those with CVD or diabetes or patients who have high blood pressure, would substantially promote the Million Hearts goal. However, there are 3 other barriers to performance in US ambulatory care that may not be as obvious to many policy makers.

In 1970, Eliot Freidson10 observed that the practice environment is a powerful determinant of physician behavior. Reports in the literature and years of participating on various teams organized with the intent of improving health and well-being have led us to believe that 3 hard-stop barriers lie between Million Hearts and its goals:

• Many physicians do not have the capability to access and visualize their patient panel electronic medical record (EMR) data for the purposes of patient management and quality improvement
• Primary care physician groups are not compensated for team-based care
• A focus on single-condition disease prevention and control creates programmatic fratricide.

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or training to manipulate the EMR for quality improvement initiatives or patient management tools such as previsit planning. They are essentially locked out of their own medical records for the purpose of data-driven health enhancement.

**NOT COMPENSATED**

The management of chronic conditions requires that at least 3 events occur: The condition is identified, an appropriate treatment plan is developed, and the treatment plan is implemented. When organized correctly and the factors that influence performance are addressed, a team-based care increases the likelihood that management of chronic conditions will happen and risk factor control will be achieved. Although the knowledge and skills of a licensed clinician are necessary to develop the treatment plan, highly effective Medical Groups assign the identification of risk factors and disease indicators to clinic staff working from protocols at the time of, or between, visits. Likewise, highly effective Medical Groups assign the implementation of the treatment plan to individuals who can take the time necessary to work with patients to identify and to overcome any barriers to success. Working in teams improves chronic-condition management while leaving the licensed clinicians free to do what they do best: Make diagnoses and develop treatment plans.

However, team-based care generates a cost, most of which is incurred by primary care. An expectation that primary care, whether solo physicians or physicians in groups, will use team-based care to achieve risk factor control without compensation that offsets their expenses is unrealistic. Without compensation, team-based care is not fiscally prudent.

We have calculated that team-based care for patients with CVD could generate net savings if overall (eg, primary, specialty, hospital, and drugs) costs of care were reduced by as little as 2%. Given the number of potentially preventable events that lead to hospitalization and the amount of low-value and no-value care delivered in the US, savings of this magnitude or greater are not beyond imagination. However, at least some of those savings must be used to finance the teams that produced them; they can not stop at the payers.

**VICTIMS OF “FRATRICIDE”**

The list of risk factors and diseases that various agencies and organizations ask primary care to manage is long: Heart disease, cancer, diabetes, chronic lung disease, depression, physical inactivity, tobacco use, substance-use disorder, and now the social determinants, to name a few. Unfortunately, we do not know of any Medical Group that has been able to maintain a registry for each of these conditions; most groups have difficulty supporting even 1 registry. Therefore, when a funding agency supports an initiative to implement a single-condition registry, the result is “fratricide”; the new registry kills the use of any other registry that the group is using. Million Hearts and the Agency for Healthcare Research and Quality counterpart, Evidence NOW, are not exempt from this phenomenon. An alternative is a single, searchable registry that tracks multiple conditions: 1 row for each patient and 1 column for each condition. When one is assessing performance vis-à-vis a risk factor or condition, for example, hypertension, data in the relevant column can be manipulated and analyzed. When one assesses the management of a particular patient, the data in that patient’s row can be accessed and examined.

A sophisticated multicondition registry and decision-support system has been developed and tested. After the medical assistant moves the patient to a room, the acquired patient data on tobacco use, blood pressure, serum cholesterol, blood glucose, weight, and aspirin use are encrypted and sent to a remote server in the Cloud. A risk calculator on the server calculates the patient’s 10-year risk of fatal or nonfatal heart attack or stroke and prioritizes a set of interventions by potential impact. A detailed report is generated for the clinician, and a simpler report is generated for the patient, and both are encrypted and sent back to the patient’s medical record. This tool is not linked to a particular EMR product. Although this decision-support system has been shown to improve risk factor control in patients with diabetes, the attributes that a decision-support system must have if it is to change decisions and improve care have not been established.

However, registry and decision-support systems require support. Although large groups that are committed to risk factor control have the required clinical and informatics skills in-house, this is not the case with many of the solo practices, independent practices, and small groups that make up most of the US health care system. Likewise, solo practices and these groups cannot afford the fees charged by the EMR vendors to customize their software. One option would be to make registry functionality for multiple-condition patient and quality management a criterion for health information technology certification. Alternatively, we believe that accountable care organization support or the formation of nonprofit collaboratives could make these support services affordable in all sites if the accrued savings were shared appropriately.

**SCENARIO FOR SUCCESS**

High-performing Medical Groups are prima facie evidence that these 3 disease prevention hard stops can be overcome. For example, Kaiser Permanente was able to increase hypertension control from around 45% to 80% by attending to systems and data, and in Minnesota 80% control by a clinic is considered just “average.” With proper support, primary care service units can continuously access their data for decision support and quality improvement cycles. The concept of shared savings is not new; it just needs to be applied to team-based care for risk factor control and disease management. Finally, funding agencies and advocacy organizations need to stop the fratricide of its health registries and promote development of multicondition, rather than condition-specific, registries. The technology is there for the taking. The next step is to implement it and, in the process, achieve the goals of Million Hearts and the many other stakeholders who are committed to promoting health and well-being.

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