Losing ground: Heart disease and stroke deaths hit hardest right in the middle

A Report from the National Forum for Heart Disease & Stroke Prevention

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The Problem

Analysis of deaths from heart disease and stroke in different U.S. age groups reveals a disturbing trend. While the overall death rate from cardiovascular disease (CVD) has declined considerably since 2000, the decline has been slower in the 45-64 age group. In fact, the death rate from CVD actually increased 2% from 2011-2016 in people ages 45-64. In 2016 alone, more than 120,000 people in this age group died from heart disease and stroke.

Why is this middle age group losing ground?

Obesity is a major underlying factor. The prevalence of obesity has increased by about 50% since the mid-1980s; currently, more than a third of the adult U.S. population is obese. Fueled by physical inactivity and unhealthy eating, obesity has increased in all age groups. As a result, more people are developing diabetes – and at earlier ages. Diabetes has nearly tripled in prevalence from 1988 to 2013, from 2.5% of the population to 7.2%. And diabetes increases a person’s risk of cardiovascular disease by 2-4 times, including raising CVD risk factors such as high blood pressure and high cholesterol.

These factors become even more devastating when put in the context of our healthcare system, in which CVD risk factors that develop early in life are typically overlooked and undermanaged. So by the time people with these risk factors reach their 40s or 50s, their cardiovascular systems have been undergoing progressive damage for two to three decades.

In addition, cardiovascular health in the United States (defined by seven metrics: no smoking, healthy diet, physical activity and healthy body weight, blood pressure, cholesterol and blood sugar) tends to decline sharply with age, now beginning in childhood and adolescence. Today, only one in six adults age 20 and older has five or more of the seven ideal health factors – and fewer than one in 10 meet these criteria in the 40-59 age group. (2012 NHANES – Figure 1). The American Heart Association’s Life’s Simple 7 offers ways to achieve and maintain optimal cardiovascular health, but progress on improving population heart health has yet to impact CVD rates for 45- to 64-year-olds.

What can we do?

Progress in this middle age group is possible. An analysis of adults served by Kaiser Permanente Northern California (KPNC) showed that heart disease and stroke deaths declined twice as fast among KPNC patients as they did in the U.S. as a whole between 2000 and 2015 (Figures 2, 3). In the 45-64 age group, this means that 40,000 CVD deaths could have been prevented in 2015 alone in the United States if the national CVD mortality rate had declined as much as KPNC’s did.
Well-integrated, systematic, protocol-driven care can make a significant difference. For example, a hypertension-management program KPNC uses that targets all adults and uses an algorithmic approach to medications is currently achieving close to 90% control in the overall adult population, and higher than 70% control in young adults (ages 18-39). This compares to 48% and 33%, respectively, in the U.S. population (Figure 4).

Beyond management of high blood pressure, KPNC’s Prevent Heart Attacks and Stroke Everyday management program (PHASE) takes a similar approach to multifactor cardiovascular risk. For example, people with atherosclerotic heart disease are prescribed appropriate medications to prevent recurrent events and death. This approach could be implemented by other systems and practices.

Overcoming Key Myths

Many might argue that the Kaiser Permanente experience is unique due to its “closed system” provider network approach, and thus would be difficult to replicate. But this overlooks simple programmatic opportunities — such as well-defined and agreed-upon management algorithms, especially when used in conjunction with electronic medical record systems. In fact, many examples of success are represented by the Million Hearts® Hypertension Control Champions, including a spectrum of practice types throughout the country, all of which have achieved superior blood-pressure control in their patient populations. (https://millionhearts.hhs.gov/partners-progress/champions/index.html)

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Another misconception we must overcome is the idea that we shouldn’t aggressively manage CVD risk before people reach middle age. The reverse is actually true – because when intervention is delayed, it cannot reverse decades of exposure to damaging risk factors. If a person is identified with high blood pressure at age 20, but treatment is delayed until age 40, she will have experienced 20 years of uncontrolled hypertension, with damaging effects to her arterial system. This is not acceptable. The benefits of early, effective intervention must be more widely promoted and translated into practice.

Reversing the Dangerous Trend: Three Basic Steps

We have examples of what works. Now we need to just do it. Major improvement in death rates for 45- to 64-year-olds is achievable if we focus on the following:
Early identification and control of CVD risk factors. Guidelines are readily available for detection, evaluation and treatment of CVD risk factors and for use of the Life’s Simple 7 approach to heart-health promotion.

Use algorithmic approaches to CV risk-factor management – including appropriate therapies for patients with cardiovascular disease. The KPNC hypertension management strategies are available to the public. The algorithmic approach takes the guesswork out of decisions about appropriate medications and intensification of therapy. While not every healthcare provider has access to all of the resources available at KPNC, the approaches are generalizable. Moreover, there are other protocols that can be used. For example, the Veterans Affairs/Department of Defense and the Institute for Clinical Systems Improvement (ICSI) hypertension management protocols can be found on the Million Hearts® website along with the Kaiser Permanente protocol.

More focus on cardiovascular health. While promoting, sustaining and improving health behaviors is challenging, providers should not give up on having discussions with their patients about the importance of healthy diet and physical activity, and of striving for optimal levels of body weight, blood pressure, cholesterol and blood glucose. But we can’t stop there; we must go a step further, helping to connect at-risk patients with services such as nutritional counseling and fitness resources.

Hitting “middle age” should not be something to fear when it comes to cardiovascular disease. As a nation, we simply can’t afford this age group becoming a more at-risk population than their elders. We must recognize and treat risk factors earlier if we want this important sector of the population to enjoy the decline in CVD death rates that their older counterparts are experiencing.

REFERENCES


