State of the heart in the USA

The US Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS) has just released a document entitled *Health, United States, 2009*. Prepared for the US President and Congress from data gathered by state and federal agencies and continuing national surveys, the report provides an annual picture of the health status of the American nation.

The report states once again that heart diseases remain the leading cause of death in the USA. In 2006, 631 636 Americans died from heart disease, equivalent to 1078 potential life-years lost (per 100 000 population) for those aged under 75 years. At the same time, diseases of the heart and circulatory system remain the second leading cause of activity limitation in US adults aged 65 years and older.

This year's report also includes a special section on advances in medical technology. In fact, the USA's use of advanced medical imaging has tripled in the past decade. And, not surprisingly, after respiratory intubation and mechanical ventilation, the next three most costly hospital procedures are related to heart disease: percutaneous transluminal coronary angioplasty (a 65% increase in use with an inflation-adjusted cost that has grown by 108% between 1999 and 2006), medical devices such as cardiac pacemakers, cardioverters, and defibrillators (increases of 64% and 147%, respectively), and coronary artery bypass graft procedures (a 24% decrease and a 3% decline, respectively). Although heart procedures do improve the length and quality of life, their use in population subgroups optimises their cost-effectiveness. For drug-eluting stents, the associated risk of thrombosis can be lowered if the procedure is restricted mainly to older patients with coronary artery disease and those with diabetes.

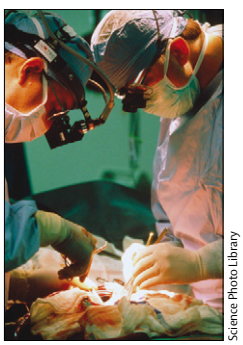
The report also found that the USA's use of drugs related to heart disease has skyrocketed. Prescription of cholesterol-lowering statins, for example, has increased tenfold from 2% to 22% between 1988–94 and 2003–06 in people aged 45 and older. Although blood cholesterol concentrations have been dropping because of this high use of statins, it also shows that a pharmacological approach alone is not enough to control and manage the escalating burden of heart disease in the USA.

And although lifestyle risk factors for heart disease are preventable, they remain regrettably high in the US population. Tobacco use has declined in the past decade, but still every fifth American aged over 18 years is a cigarette smoker. The prevalence of obesity remains steady, but currently a third of US adults over 20 years of age are classified as obese. Engagement in regular leisure-time physical activity within the past decade has not changed and remains just 31% for those over 18 years of age.

Hypertension is an example of an easily preventable, simple to diagnose, and inexpensive to treat disorder related to heart disease. But 73 million Americans are currently hypertensive (nearly one in three adults). And low-income individuals are disproportionately affected at a younger age—poor adults aged 45–64 years have similar rates of hypertension (46–48%) to high-income people aged 65–74 years. Most alarmingly, one in every six adults dies from hypertension-related complications. And US$73·4 million is the yearly additional cost imposed on US health-care expenditure by the burden of hypertension.

Perhaps not entirely unsurprisingly, then, the US Institute of Medicine (IOM) released a report on Feb 22 entitled *A Population-Based Policy and Systems Change Approach to Prevent and Control Hypertension*. This document lists the gaps to be filled by the badly underfunded and community-unrepresentative CDC Division for Heart Disease and Stroke Prevention—the nation's main body responsible for preventing, controlling, and reducing the burden from hypertension. The IOM's recommendations include a need for better collaborations and leadership at the federal, state, local, and private sector levels; simple community interventions that will incorporate a dietary decrease in sodium intake and an increase in potassium intake; and provision of a better quality of care by primary care physicians who, at unexpectedly high rates, fail to follow the guidelines for proper screening and treatment of hypertension in elderly people, the group with the highest prevalence of disease.

Chronic heart disease places an unnecessary burden on the American people and the US health-care system. Strategic resource reallocation directed at local communities (hospitals and primary care physicians) can reach a large number of individuals to provide substantial improvements in population wellbeing. Small changes can make big differences. ■ *The Lancet*



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For the **IOM report** see http://www.iom.edu/Reports/2010/A-Population-Based-Policy-and-Systems-Change-Approach-to-Prevent-and-Control-Hypertension.aspx

For the **CDC report** see http://www.cdc.gov/nchs/hus.htm