
Cardiovascular Diseases (CVD)



Language English
The Global Burden of NCDs

The Burden

Cardiovascular disease (CVD) – which includes heart disease and stroke – is the number one cause of death globally. An estimated 17.3 million people died from CVD in 2008, affecting men and women almost equally, and representing 30% of all global deaths. Low- and middle-income countries are disproportionately affected with over 80% of global CVD deaths.

Of the total CVD deaths, an estimated 7.3 million were due to coronary heart disease and 6.2 million were due to stroke. Annual CVD deaths are projected to rise to 23.3 million by 2030 (mainly from heart attacks and strokes) if current trends are allowed to continue. The leading risk factor for CVD is high blood pressure, also known as raised blood pressure or hypertension, with one in three adults being affected. It is often referred to as the “silent killer” as many people are not aware they have it, yet it causes 9.4 million deaths each year including 51% of deaths due to strokes and 45% of deaths due to coronary heart disease.

The Diseases

CVD is a group of disorders of the heart and blood vessels which include:

- Coronary heart disease: disease of the blood vessels supplying the heart muscle
- Cerebrovascular disease: disease of the blood vessels supplying the brain
- Peripheral arterial disease: disease of the blood vessels supplying the arms and legs
- Rheumatic heart disease: damage to the heart muscle and heart valves from rheumatic fever, caused by streptococcal bacteria
- Congenital heart disease: malformations of heart structure existing at birth, deep vein thrombosis and pulmonary embolism: blood clots in the leg veins, which can dislodge and move to the heart and lungs

Socioeconomic Impact

CVD expenditures vary from country to country, but most countries spend 8-22% of their health budget on CVD.

The Response

Prevention and risk factors

Most CVD can be prevented by addressing risk factors such as tobacco use, unhealthy diet and obesity, physical inactivity, high blood pressure, diabetes and raised lipids.

At least 80% of premature deaths from heart disease and stroke could be avoided through:

- **Healthy diets:** choosing a diet rich in fruit and vegetables and avoiding foods that are high in fat, sugar and salt as well as maintaining a healthy body weight and avoiding the harmful use of alcohol.
- **Regular physical activity:** children aged 5-17 years should do at least 60 minutes of moderate (e.g. brisk walking, dancing, housework and gardening) to vigorous (e.g. running, cycling, swimming and playing competitive sports) physical activity every day. Adults should do at least 150 minutes of moderate or 75 minutes of vigorous physical activity throughout the week.
- **Avoiding tobacco use and second-hand tobacco smoke**

There are also a number of underlying determinants of CVD, also called "the causes of the causes". These are a reflection of the major forces driving social, economic and cultural change – globalization, urbanization, and population ageing. Other determinants of CVD include poverty, stress and hereditary factors. Policies that create conducive environments for making healthy choices affordable and available are essential for motivating people to adopt and sustain healthy behaviour.

Examples of population-wide, cost-effective interventions include:

- Implementing comprehensive tobacco control policies
- Taxing foods that are high in fat, sugar and salt
- Building walking and cycle ways to increase physical activity
- Providing healthy school meals to children

Treatment

People at high CVD risk can be identified early in primary care settings and inexpensive treatment is available to prevent many heart attacks and strokes. Survivors of a heart attack or stroke are at high risk of recurrences and at high risk of dying from them. The risk of a recurrence or death can be substantially lowered with a combination of drugs – statins to lower cholesterol, drugs to lower blood pressure, and aspirin.

In addition, surgical operations are sometimes required to treat CVD. They include coronary artery bypass, balloon angioplasty (where a small balloon-like device is threaded through an artery to open the blockage), valve repair and replacement, heart transplantation, and artificial heart operations. Medical devices are required to treat some CVD. Such devices include pacemakers, prosthetic valves, and patches for closing holes in the heart.

Sources: worldheartfederation.org [1] and the [WHO NCD discussion paper 3](http://www.who.int/healthsystems/NCDdiscussionpaper3.pdf) [2]

Photo courtesy: World Heart Federation, WH Day 2014

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Links

[1] <http://www.worldheartfederation.org>

[2] <http://www.who.int/healthsystems/NCDdiscussionpaper3.pdf>