

CARDIOVASCULAR DISEASE (CVD)

FACTS:

- CVD made up 16.6 million, or one-third, of global deaths in 2001.
- Around 80% of CVD deaths took place in low and middle-income countries.
- By 2010, CVD will be the leading cause of death in developing countries.
- At least 20 million people survive heart attacks and strokes every year; many require continuing costly clinical care.
- Heart disease has no geographic, gender or socio-economic boundaries.

CARDIOVASCULAR DISEASE: PREVENTION AND CONTROL

An estimated 16.6 million - or one-third of total global deaths - result from the various forms of cardiovascular disease (CVD), many of which are preventable by action on the major primary risk factors: unhealthy diet, physical inactivity, and smoking. More than 50% of the deaths and disability from heart disease and strokes, which together kill more than 12 million people each year, can be cut by a combination of simple, cost-effective national efforts and individual actions to reduce major risk factors such as high blood pressure, high cholesterol, obesity and smoking.

And these are no longer only diseases of the developed world: some 80% of all CVD deaths worldwide took place in developing, low and middle-income countries, while these countries also accounted for 86% of the global CVD disease burden. It is estimated that by 2010, CVD will be the leading cause of death in developing countries.

EXTENT OF THE PROBLEM

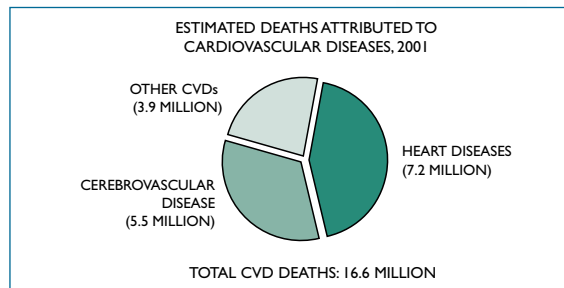
The Major CVDs include:

- Coronary (or ischaemic) heart disease (heart attack)
- Cerebrovascular disease (stroke)
- Hypertension (high blood pressure)
- Heart failure
- Rheumatic heart disease

Of the 16.6 million deaths from CVDs every year, 7.2 million are due to ischaemic heart disease, 5.5 million to cerebrovascular disease, and an additional 3.9 million to hypertensive and other heart conditions. As well, at least 20 million people survive heart attacks and strokes every year, a significant proportion of them requiring costly clinical care, which puts a huge burden on long-term care resources.

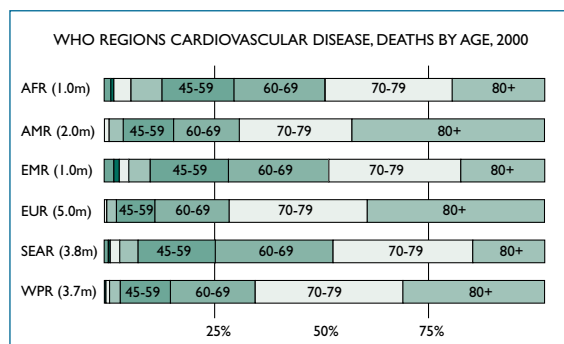
CVD affects people in their mid-life years, undermining the socioeconomic development, not only of affected individuals, but families and nations. Lower socioeconomic groups generally have a greater prevalence of risk factors,

diseases and mortality in developed countries, and a similar pattern is emerging as the CVD epidemic matures in developing countries. The time lag effect of risk factors for CVD means that the full effect of past exposure to behavioural risk factors, especially among children, will only be seen in the future. Unless preventive and management efforts are embraced worldwide, the global burden of CVD death and disease will continue to rise.



WHY IS THIS HAPPENING?

The rise in CVDs reflects a significant change in diet habits, physical activity levels, and tobacco consumption worldwide as a result of industrialization, urbanization, economic development and food market globalization. People are consuming a more energy-dense, nutrient-poor diet and are less physically active. Imbalanced nutrition, reduced physical activity and increased tobacco consumption are the key lifestyle factors. High blood pressure, high blood cholesterol, overweight and obesity - and the chronic disease of type 2 diabetes - are among the major



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biological risk factors. Unhealthy dietary practices include the high consumption of saturated fats, salt and refined carbohydrates, as well as low consumption of fruit and vegetables. These risk factors tend to cluster.

WHAT CAN BE DONE?

Those who have already had heart attacks and strokes are at high risk of recurrences and death. This risk can be substantially lowered with a combination of drugs - statins for cholesterol lowering and low-doses of common blood pressure lowering drugs and aspirin - given daily to people at elevated risk of heart attack and stroke.

However, the most cost-effective methods of reducing risk among an entire population are population-wide interventions, combining effective policies and broad health promotion policies. These should be the first to be considered in all settings. In many countries, too much focus is being placed on one-on-one interventions among people at medium risk for CVD. A better use of resources would be to focus on those at elevated risk and to use other resources to introduce population-wide efforts to reduce risk factors through multiple economic and educational policies and programs. These risk factors include diet and physical activity. The dietary intake of fats, especially their quality, strongly influences the risk of CVD like coronary heart disease and stroke, through effects on blood lipids, thrombosis, blood pressure, arterial function, arrhythmogenesis and inflammation. Excess salt has a significant impact on blood pressure levels.

Compelling evidence indicates that at least three dietary strategies are effective in preventing CVD, and in helping manage the disease:

- Substitute nonhydrogenated unsaturated fats (especially polyunsaturated fat) for saturated and trans-fats;
- Increase consumption of omega-3 fatty acids from fish oil or plant sources;
- Consume a diet high in fruits vegetables, nuts and whole grains, and low in refined grains.
- Avoid excessively salty or sugary foods.
- At least 30 minutes of regular physical activity daily
- Avoid smoking
- Maintain a healthy weight.

EFFECTIVE INTERVENTIONS

- In the United Kingdom, a government-promoted program in consort with the food and drink manufacturing industry successfully reduced salt content in almost a quarter of manufactured foods over several years.
- In Mauritius, cholesterol reduction was achieved largely by a government-led effort switching the main source of cooking oil from palm to soya bean oil.
- Korea has worked to retain elements of the traditional diet. Civil society and government initiatives led mass media campaigns to promote local foods, traditional cooking methods and the need to support local farmers.
- In Japan, government-led health campaigns have greatly reduced general salt intake and together with increased blood pressure treatment have reduced blood pressure population-wide. Meanwhile stroke rates have fallen by more than 70%.
- In Finland, community-based and national interventions, including health promotion and nutrition interventions, led to population-wide reductions in cholesterol and other risks, closely followed by a precipitous decline in heart disease and stroke mortality.
- In the USA, a decrease in saturated fat intake in the late 1960s began the large decline in coronary heart disease deaths seen in the last few decades there.
- In New Zealand, introduction of labelling logos for healthier foods led many companies to reformulate their products. The benefits included large decreases in the salt content of processed foods.



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