

International Cardiovascular Disease Statistics

Cardiovascular Disease (CVD)

- According to World Health Organization (WHO) estimates, in 2003, 16.7 million people around the globe die of CVD each year. This is over 29 percent of all deaths globally. (*WHO, Cardiovascular Disease Prevention and Control. www..who.int*)
- Today, men, women and children are at risk, and 80 percent of the burden is in low- and middle-income countries. By 2020 heart disease and stroke will become the leading cause of both death and disability worldwide, with the number of fatalities projected to increase to more than 20 million a year and to more than 24 million a year by 2030. (*Atlas of Heart Disease and Stroke, WHO, September 2004*)
- 80 percent of chronic disease deaths occur in low and middle income countries and half are women. Cardiovascular disease alone will kill five times as many people as HIV/AIDS in these countries. (*Chronic Diseases and Their Common Risk Factors, WHO, Oct. 2005*)
- Between 1990 and 2020, deaths from non-communicable diseases and injury are expected to rise from 33 million to 58 million annually, with a similar proportional increase in years of life lost. By 2020, CVD, injury and mental illnesses will be responsible for about one-half of all deaths and one-half of all healthy life years lost, worldwide. (*Institute for International Health Web site, www.iih.org*)
- It's been projected that by 2020, chronic diseases will account for almost three-fourths of all deaths. (Diet, Nutrition and the Prevention of Chronic Diseases. WHO, Geneva, 2003) :
 - 71 percent of deaths due to ischemic heart disease, 75 percent due to stroke and 70 percent due to diabetes will occur in developing countries.
 - 60 percent of the burden of chronic diseases will occur in developing countries.
 - CVD is now more prevalent in India and China than in all economically developed countries in the world combined.
- CVD accounted for more than 233,000 deaths in the United Kingdom (UK) in 2003. Thirty-eight percent of deaths are from CVD, and 34 percent of premature deaths in men and 25 percent in women are from CVD. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- Every seven minutes, a Canadian dies of heart disease and stroke. CVD accounts for more deaths than any other disease. 2000 CVD mortality: 76,426; 34 percent of male deaths and 36 percent of female deaths. CVD costs the Canadian economy about \$18.4 billion annually. (*2004 QuickFacts, Heart and Stroke Foundation of Canada Web Site, www.heartandstroke.ca.*)
- Mortality rates for CHD and AMI continue to decrease, but mortality rates for stroke have not changed significantly during the past 10 years. The number of elderly Canadians has been increasing. As a result, the number of deaths due to stroke and CHD has increased. This trend is expected to continue for the next 15 years. (*2004 QuickFacts, Heart and Stroke Foundation of Canada Web Site, www.heartandstroke.ca.*)
- Women will continue to experience disproportionately high mortality from CVD. By 2040, women in the study countries (Russia, Brazil, India, China, South Africa) will represent a higher proportion of CVD deaths than men. In 2040, women in China are projected to be 49.5 percent of the population, but even if death rates no higher than now apply then, they will represent 54.6 percent of CVD deaths. In Brazil and China, the growth of CVD deaths among working-aged women between 2000 and 2040 will be higher than for men. (*Yusuf S, et al. Global burden of cardiovascular diseases: part 1: general considerations, the epidemiologic transition, risk factors, and impact of urbanization. Circulation 2001;104:2746-53.*)
- Compared to 2000, the number of years of productive life lost to CVD will have increased in 2030 by only 20 percent in the United States and by 30 percent in Portugal. For Brazil the figure is 64 percent, for China,

57 percent, and for India, 95 percent. The increase in South Africa is 28 percent, greater than that for the United States and comparable to Portugal. Only in Russia does the number of years lost lag, largely because death rates are already at such high levels and the size of the population at risk is falling. (*A Race Against Time. The Challenge of Cardiovascular Disease in Developing Economies,* 2004 Columbia University, New York.)

- In the Hoorn Study, the metabolic syndrome, however defined, is associated with an approximate two-fold increased risk of incident CV morbidity and mortality in a European population. (*Dekker JM, et al. Circulation 2005;112:666-73*)
- A study of over 90,000 people presenting with an acute vascular event of any type, in Oxfordshire, UK, in 2002-05, showed there were 2,024 acute vascular events occurring in 1,657 individuals. Forty-five percent were cerebrovascular; 42 percent were coronary vascular; 9 percent were peripheral vascular; and 62 deaths were unclassifiable. The high rates of acute vascular events outside the coronary arterial territory and the steep rise in event rates with age in all territories have implications for prevention strategies, clinical trial design, and the targeting of funds for service provision and research. (*The Lancet. Vol. 366, Nov. 19, 2005*)

Coronary Heart Disease (CHD), Angina Pectoris and Heart Failure

- The latest available data from the World Health Organization (WHO) MONICA Project indicate that the coronary event rate (per 100,000) in men was highest in Finland (North Karelia, 835) and lowest in China (Beijing, 81). For women the highest event rate was in the UK (Glasgow, Scotland, 265) and the lowest in Spain (Catalonia, 35) and China (Beijing, 35). These data represent results from 35 MONICA Project populations collected during the mid-1980s until the mid-1990s. (*WHO World Health Report, 2002*)
- Projected global CHD deaths by sex, all ages, 2005, show that 53 percent are in men and 47 percent are in women. (*Preventing Chronic Disease, A Vital Investment, WHO, 2005*)
- About 259,500 heart attacks (myocardial infarctions) occur annually in the UK (142,000 in men and 117,500 in women in 2003). The Health Survey for England shows that more than 1.3 million people living in the UK have had a heart attack (857,000 men and 416,000 women). About 751,000 men and 424,000 women under 75 living in the UK have had angina. Overall, it is estimated that just under 1.5 million men and 1.1 million women who have had CHD (either heart attack or angina) are living in the UK. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- Total prevalence of heart failure (definite and probable) in the UK is estimated at 901,500 in people age 45 and older (497,500 men and 404,000 women). (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- In 2002–03 there were just under 30,000 bypass procedures performed in the UK. In addition, 53,261 PCI procedures were performed in 2003. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- According to the WHO, in 2002 there were 7.22 million deaths from CHD globally. (*Atlas of Heart Disease and stroke, WHO, Sept. 2004*)
- In both developed and developing countries, 40–75 percent of all heart attack victims die before reaching the hospital. (*Integrated Management of Cardiovascular Risk. Report of a WHO Meeting, Geneva, July 2002*)
- CHD alone is the most common cause of death in the UK, causing just under 114,000 deaths in 2003. One in five deaths of men and one in six deaths of women are from CHD. Other forms of heart disease cause more than 33,500 deaths. Total deaths from heart disease in the UK in 2003 were just under 147,500. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- The CHD death rate for men ages 35–74 fell by 42 percent between 1990 and 2000 in the UK, but by 54 percent in Norway and 48 percent in Australia. For women, the death rate fell by 44 percent in the UK, but

in Australia and New Zealand the rate fell by 51 and 48 percent, respectively. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)

- The premature death rate from CHD for male manual workers is 58 percent higher than for non-manual workers. For female manual workers the death rate is more than twice as high as that for female non-manual workers. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- Projections suggest that for CHD, mortality for all developing countries will increase by 120 percent for women and 137 percent for men. Predictions for the next two decades include tripling of CHD and stroke mortality in Latin America, the Middle East, and even sub-Saharan Africa, a rate of increase that exceeds that for any other region, except for Asian and Pacific Island countries. By contrast, the increase in more-developed nations, largely attributable to an expansion of the population of older people at risk, will range between 30 percent and 60 percent. (*Yusuf S, et al. Global burden of cardiovascular diseases: part 1: general considerations, the epidemiologic transition, risk factors, and impact of urbanization. Circulation 2001;104:2746-53.*)
- The WHO predicts 11.1 million deaths from CHD in 2020. (*World Health Organization Web site, www.who.int/ncd/cvd*)
- About 21 percent of CHD globally is attributable to body mass index (BMI) above 21 kg/m². (*WHO World Health Report, 2002*)
- About 22 percent of CHD globally is caused by physical inactivity. (*WHO World Health Report, 2002*)
- Data from the INTERHEART study showed that rates of CVD have risen greatly in low-income and middle-income countries with about 80 percent of the burden occurring in these countries. Nine potentially modifiable risk factors associated with myocardial infarction (MI) were identified. These varied by populations. Approaches to prevention have the potential to prevent premature cases of MI. The effect of the risk factors is particularly striking in young men (population attributable risks [PAR] 93 percent) and women (PAR 96 percent), indicating that most premature MI is preventable. Worldwide, the most important risk factors are smoking and abnormal lipids. Together they account for about two-thirds of the PAR of an acute MI. (*Lancet 2004;364:937-52*)

Stroke

- According to WHO estimates, 15 million people each year suffer strokes and 5 million are left permanently disabled. (*Atlas of Heart Disease and Stroke, WHO, September 2004*)
- The WHO estimates 5.5 million deaths from stroke worldwide in 2002. (*Atlas of Heart Disease and Stroke, WHO, September 2004*)
- Stroke accounts for a higher proportion of deaths among women than men (11 percent vs. 8.4 percent). Among women, 3 million deaths from stroke occur annually. (*Atlas of Heart Disease and Stroke, WHO, September 2004*)
- Stroke kills about 16,000 Canadians a year. Almost 60 percent of the 50,000 strokes each year in Canada affect women; 9,038 women died from stroke in 1999. About 300,000 Canadians are living with the effects of stroke. It costs about \$2.7 billion a year. (*Heart and Stroke Foundation of Canada Web site, www.heartandstroke.ca*)
- In Canada (1997), Colombia (1996) and Costa Rica (1995), there were more female deaths than male deaths from stroke in the 35-49 age group. (*Pan American Health Organization. Health in the Americas, 2002 Edition, 2003*)
- In England, the death rates for stroke for people under 65 fell by 23 percent in the last 10 years. Recently,

rates have declined at a slower rate, particularly in the younger age groups. Stroke killed 65,764 people in 2003 in the UK. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)

High Blood Pressure (HBP) or Hypertension

- The WHO estimates that 600 million people with high blood pressure (HBP) are at risk of heart attack, stroke and cardiac failure. (*Cardiovascular Diseases – Prevention and Control. WHO CVD Strategy, 2001-2002*)
- A study of hypertension in six European countries, Canada and the United States showed the average blood pressure (BP) was 136/83 mm Hg in the European countries and 127/77 mm Hg in Canada and the United States, among men and women ages 35–74. For all age groups, BP measurements were lowest in the United States and highest in Germany. The European countries were Germany, Finland, Sweden, England, Spain and Italy. (*JAMA. 2003;289:2363-9*)
- About 15–37 percent of the global adult population has hypertension. In those older than age 60, as many as one-half in some populations are hypertensive. (*Integrated Management of Cardiovascular Risk. Report of a WHO Meeting, Geneva, July 2002*)
- About 140 million people in the Americas suffer from hypertension. In Mexico (1997) female deaths from hypertension surpassed those for males, starting at age 35. The prevalence of hypertension in Latin America and the Caribbean has been estimated at between 8 and 30 percent. (*Pan American Health Organization. Health in the Americas, 2002 Edition, 2003*)
- The Heart Health Surveys of 1985–90 found that 22 percent of Canadian adults had HBP, but only 13 percent had been diagnosed. The overall rate for 1994-95 was 9 percent. (*Heart and Stroke Foundation of Canada. The Changing Face of Heart Disease and Stroke in Canada 2000*)
- In England, 34 percent of men and 30 percent of women have HBP (140/90 mmHg or higher) or are being treated for hypertension. About 78 percent of men and 67 percent of women with HBP are not being treated. Of those being treated, just under 60 percent remain hypertensive. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- In Africa the prevalence of hypertension is estimated at 20 million. Some 250,000 deaths could be prevented each year through effective case management. The hypertension-related stroke rate is high in Africa, and victims are relatively young. (*WHO/AFRO. www.afro.who.int/cdp/epidemiology.html*)
- In South Africa, a 1998 survey found that 36.6 percent of women known to be hypertensive had their illness controlled with medication. In general, awareness of hypertension and use of medication increased with income. Hypertension was only half as common among rural as among urban women. In Asia, a steep increase in stroke mortality has accompanied a rapid rise in the prevalence of hypertension. Projections suggest that in China, hypertension will increase from 18.6 percent to 25 percent between 1995 and 2025. In India, the equivalent figures are 16.3 percent to 19.4 percent. (*A Race Against Time. The Challenge of Cardiovascular Disease in Developing Economies, 2004 Columbia University, New York.*)
- Worldwide, HBP is estimated to cause 7.1 million deaths, about 13 percent of the global fatality total. Across WHO regions, research indicates that about 62 percent of strokes and 49 percent of heart attacks are caused by HBP. (*WHO World Health Report, 2002*)
- Hypertension causes 5 million premature deaths a year worldwide. (*WHO World Health Report, 2002*)
- A study conducted by the Tulane University School of Public Health stated that the prevalence of HBP will soar to 1.56 billion by the year 2025. (*Kearney PM, et al. Global burden of hypertension: analysis of worldwide data. Lancet 2005,365:217-23*)

Rheumatic Fever/Rheumatic Heart Disease

- An estimated 12 million people are currently affected by rheumatic fever and rheumatic heart disease. Two-thirds are children between 5 and 15 years of age. (*Atlas of Heart Disease and stroke, WHO, September 2004*)
- There are about 300,000 deaths a year, with 2 million people requiring repeated hospitalization and 1 million likely to require surgery in the next 5–20 years. (*Atlas of Heart Disease and stroke, WHO, September 2004*)
- Of the estimated 12 million people with rheumatic fever or rheumatic heart disease, at least 3 million had congestive heart failure (CHF) that required hospitalization. A large proportion with CHF required cardiac valve surgery within 5–10 years. (*Rheumatic Fever and Rheumatic Heart Disease. Geneva, 29 Oct. – Nov. 2001, WHO 2004*)
- Data from developing countries suggest that mortality due to rheumatic fever/rheumatic heart disease remains a problem and that children and young adults still die from acute rheumatic fever. (*Rheumatic Fever and Rheumatic Heart Disease. Geneva, 29 Oct.. – Nov. 2001, WHO 2004*)
- The annual incidence of rheumatic fever in developed countries began to decrease in the 20th century, with a marked decrease after the 1950s; it is now below 1.0 per 100,000. A few studies conducted in developing countries report incidence rates ranging from 1.0 per 100,000 school-age children in Costa Rica, 72.2 per 100,000 in French Polynesia, 100 per 100,000 in Sudan, to 150 per 100,000 in China. (*Rheumatic Fever and Rheumatic Heart Disease. Geneva, 29 Oct.. – Nov. 2001, WHO 2004*)
- Rheumatic heart disease prevalence may reach 15 per 1,000 in school children, and it remains active during the second and third decades of life. (*WHO/AFRO. www.afro.who.int/cdp/epidemiology.html*)

Peripheral Arterial Disease (PAD)

- Based on current epidemiologic projections, 27 million people in Europe and North America have PAD. An estimated 10.5 million are symptomatic and 16.5 million are asymptomatic. The prevalence of asymptomatic PAD is estimated in one study to be as high as 20 percent of the adult population. (*Belch JF, et al. Arch Int Med 2003;163:884-92*)

Socioeconomic Consequences of CVD

- Clinical care of CVD is costly and prolonged. These direct costs divert the scarce family and societal resources to medical care. (*World Health Organization Web site, www.who.int/ncd/cvd*) (*WHO, 2001*)
- CVD affects people in their peak mid-life years, disrupting the future of the families dependent on them and undermining the development of nations by depriving them of workers in their most productive years. (*World Health Organization Web site, www.who.int/ncd/cvd*)
- In developed countries, lower socioeconomic groups have a greater prevalence of risk factors, higher incidence of disease and higher mortality. In developing countries, as the CVD epidemic matures, the burden will shift to the lower socioeconomic groups. (*World Health Organization Web site, www.who.int/ncd/cvd*)
- CHD is estimated to cost the UK economy a total of 7.06 billion pounds a year in direct and indirect costs. (*British Heart Foundation. Coronary Heart Disease Statistics, 2004 Edition.*)
- Low socioeconomic status is associated with increased risk of CVD. (*Atlas of Heart Disease and stroke, WHO, September 2004*)

Tobacco Use

- The number of smokers in the world, estimated at 1.3 billion, is estimated to rise to 1.7 billion by 2025 if the global prevalence of tobacco use remains unchanged. (*WHO World Health Report, 2003*)
- In 1996–97, 29 percent of Canadian adults aged 15 and older smoked cigarettes. An estimated 329,000 began smoking in 1996–97. There has been little change in overall rates since 1991. (*Heart and Stroke Foundation of Canada. The Changing Face of Heart Disease and Stroke in Canada 2000*)
- In Great Britain in 2003, 28 percent of men and 24 percent of women age 16 and older smoked cigarettes. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- A 50-year cohort study of British doctors showed that mortality from CHD was 60 percent higher in smokers (and 80 percent higher in heavy smokers) than in nonsmokers. In 2000, smoking caused about 14 percent of CVD deaths in men and 12 percent in women. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- Alarming high rates of tobacco use and exposure to secondhand smoke among schoolchildren ages 13–15 in the Western Pacific Region are revealed by data from the first group of countries within the Region to complete the Global Youth Tobacco Survey. Many of these children started smoking before age 10. An overwhelming majority want to quit but are unable to do so because of nicotine addiction. (*WHO World Health Report, 2003*)
- According to the WHO, one year after quitting, the risk of CHD decreases by 50 percent. Within 15 years, the relative risk of dying from CHD for an ex-smoker approaches that of a long-time (lifetime) nonsmoker. (*World Health Organization Web site, www.who.int/ncd/cvd*)
- The consumption of cigarettes and other tobacco products and exposure to tobacco smoke are the world's leading preventable cause of death. Tobacco use is responsible for about 5 million deaths a year, mostly in poor countries and poor populations. (*WHO World Health Report, 2003*)
- Smokers of all ages have death rates two-to-three times higher than nonsmokers. (*WHO World Health Report, 2002*)
- The WHO estimates that by 2020, tobacco is expected to be the single greatest cause of death and disability worldwide, accounting for about 10 million deaths per year. (*World No-Tobacco Day, WHO Web site, January 2004*)
- The impact of tobacco-related disease and death until recently has been a problem mainly for developed countries, but the WHO now estimates that by 2020, 7 of every 10 tobacco-related deaths will be in the developing world. (*Reducing Tobacco Use. MMWR, Vol. 49, No. RR-16, Dec. 22, 2000*)
- Analyses by the WHO concluded that by 2030, current smoking patterns will produce about 500 million premature deaths from tobacco-related disease among people alive today. (*Reducing Tobacco Use. MMWR, Vol. 49, No. RR-16, Dec. 22, 2000*) (*WHO, 1999*)
- The global tobacco epidemic is predicted to prematurely claim the lives of some 250 million children and adolescents, a third of whom are in developing countries. (*World No-Tobacco Day, WHO Web site, January 2004*)
- China predicts that of the 300 million males now aged 1–29, about 200 million will become smokers and 100 million will eventually die from related diseases. Half of these deaths will occur in middle-age and before age 70. (*World No-Tobacco Day, WHO Web site, May 1999, www.who.int/toh/worldnotobacco99/english/facts.htm*)

- A World Bank Study estimates that healthcare costs associated with tobacco-related illnesses result in a net loss of 200 billion U.S. dollars per year, half occurring in developing countries. (*World No-Tobacco Day, WHO Web site, January 2004*)
- In India, projections estimate that tobacco-attributable mortality will grow from 1 percent in 1990 to 13 percent in 2020. In Brazil, studies of acute myocardial infarction indicate that heavy smoking is the most important risk factor for early heart attack. (*A Race Against Time. The Challenge of Cardiovascular Disease in Developing Economies. 2004 Columbia University, New York.*)
- A joint study by the CDC and the WHO stated that smoking results in a 100 percent increase in the risk of stroke and CHD; a 300 percent increase in the risk of death from undiagnosed CHD; more than a 300 percent increase in the risk of PAD; and a 400 percent increase in the risk of aortic aneurysm. (*The Atlas of Heart Disease and Stroke, 2004*)

High Blood Cholesterol

- A blood cholesterol level of less than 5.0 millimoles per liter (mmol/L) is suggested for both primary and secondary prevention of CHD. About 66 percent of men and women in the UK have blood cholesterol levels of 5.0 mmol/L and above. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- High blood cholesterol is estimated to cause about 4.4 million deaths (7.9 percent of total). This amounts to 18 percent of strokes and 56 percent of global CHD. (*WHO World Health Report, 2002*)
- High blood cholesterol causes more than 4 million premature deaths a year. (*WHO World Health Report, 2002*)

Physical Inactivity

- In 1996–97, 57 percent of adults were physically inactive in their leisure time. More women than men were physically inactive in the 15–24 age group. Physical inactivity increased for both men and women after age 25. (*Heart and Stroke Foundation of Canada. The Changing Face of Heart Disease and Stroke in Canada, 2000*)
- Only 37 percent of men and 24 percent of women in the UK meet the government's current physical activity guidelines. In addition, over one-third of adults are currently inactive. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)

Overweight and Obesity

- There are more than 1 billion overweight adults worldwide and at least 300 million who are clinically obese. (*WHO World Health Report, 2002*)
- Since 1980, obesity rates have tripled or more in some parts of North America, Eastern Europe, the Middle East, the Pacific Islands, Australia and China. (*WHO World Health Report, 2002*)
- Using a body mass index (BMI) of 25–30 kg/m² as overweight, 43 percent of men and 33 percent of women in the UK are overweight. An additional 22 percent of men and 23 percent of women are obese (BMI of more than 30 kg/m²). (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- Obesity rates in men in the UK have tripled since the mid-1980s, with men now as likely to be obese as women. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)

- In the 1990s CVD was the leading cause of death in China, accounting for one-third of total deaths. Despite lower BMI levels and rates of overweight, the prevalence of hypertension, high fasting serum glucose, high total blood cholesterol and low HDL cholesterol and their clustering were all raised with increases in BMI or waist circumference. (*Zhou B, et al. Obesity Review 2002;3[3]:147-56*)
- In the 1996–97 National Population Health Study conducted in Canada, 48 percent of adults were overweight (BMI of 26 or 27) and 29 percent were obese (BMI greater than 27). (*Heart and Stroke Foundation of Canada. The Changing Face of Heart Disease and Stroke in Canada, 2000*)
- About 500,000 people in North America and Western Europe die from obesity-related diseases every year. Obesity kills about 220,000 men and women annually in the United States and Canada and about 320,000 men and women in 20 countries of Western Europe. (*WHO World Health Report, 2002*)
- The WHO predicts that unless action is taken, by 2020 there will be 5 million deaths attributable to overweight and obesity, compared to 3 million now. (*WHO Report 2002 – Preventing Risks, Promoting Healthy Life*)
- Recent rates of increase indicate that in India, the proportion of overweight people (including those who are obese) will increase from 9 percent to 24 percent between 1995 and 2025. Overweight is also set to rise in China, where projections indicate that by 2025, 37 percent of men and 40 percent of women will be overweight, compared to 8 percent and 12 percent in 1995. (*A Race Against Time. The Challenge of Cardiovascular Disease in Developing Economies. 2004, Columbia University, New York.*)
- Obesity in the developing world can no longer be considered solely a disease of groups of higher socioeconomic status. The burden of obesity in a particular developing country tends to shift towards the groups of lower socioeconomic status as that country's GNP increases. The shift of obesity towards the poor apparently occurs at earlier stages of development among women than among men. (*Bulletin of the WHO 2004;82:940-6*)
- The International Obesity Task Force estimates that about 200 million of the 350 million adults living in the EU may be overweight or obese. From Greece to Germany, the proportion of overweight or obese men is higher than in the United States. Obesity is especially acute in Mediterranean countries. Among the EU's 103 million children, the number of those overweight rises by 400,000 each year. (*EU Platform on Diet, Physical Activity and Health. IOTF EU Platform Briefing Paper in collaboration with the EU Association for the Study of Obesity, March 15, 2005, Brussels*)
- The WHO estimates that if current trends continue, the number of overweight people globally will increase to 1.5 billion by 2015. Raised BMI is a major risk factor for heart disease, stroke, type 2 diabetes and other chronic diseases. The WHO estimates that over the next ten years, CVD – primarily heart disease and stroke – will increase most notably in the regions of the Eastern Mediterranean and Africa, where CVD-related deaths are predicted to rise by over 25 percent. (*www.who.int*).

Diabetes

- The number of adults with diabetes in the world is estimated to be 170 million in 2000. (*Roglic G, et al. The Burden of Mortality Attributable to diabetes. Diabetes Care 2005;28:2130-5*)
- An estimated 150 million people have type 2 diabetes globally. This figure is expected to double by 2025. (*Integrated Management of Cardiovascular Risk. Report of a WHO Meeting, Geneva, July 2002*)
- It's projected that the number of people with diabetes in developed countries will rise 42 percent, from 51 million in 1995 to 72 million in 2025. (*King H, et al. Diabetes Care. 1998;21:1414-31*)
- About 58 percent of diabetes mellitus globally is attributed to a BMI above 21 kg/m². (*WHO World Health Report, 2002*)

- A survey conducted in 1996–97 found that 3 percent of Canadian adults age 15 and older had physician-diagnosed diabetes. (*Heart and Stroke Foundation of Canada. The Changing Face of Heart Disease and Stroke in Canada, 2000*)
- Data from the National Population Health Survey showed the two-year incidence rate between 1994/95 and 1996/97 was 4.0 cases per 1,000 person-years at risk, but it rose to 6.7 cases between 1998/99 and 2000/01. (*Hu J, et al. Trends in mortality from diabetes mellitus in Canada, 1986-2000. Chronic Diseases in Canada. Vol. 26. No. 1. Winter 2005*)
- A study of Canadians age 35 and over showed an increase in diabetes mellitus mortality rates during 1986–2000. The increase was 2.4 percent for men and 0.7 percent for women. (*Hu J, et al. Trends in mortality from diabetes mellitus in Canada, 1986-2000. Chronic Diseases in Canada. Vol. 26. No. 1. Winter 2005*)
- It's estimated that just under 1.9 million people in the UK have been diagnosed with diabetes. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- About 75 percent of deaths among men with diabetes and 57 percent among women with diabetes is attributable to CVD. (*Integrated Management of Cardiovascular Risk. Report of a WHO Meeting, Geneva, July 2002*)
- The rate of life expectancy lost from diabetes mellitus is sharp in all 47 countries in the Americas with the exception of Chile and in both sexes with the exception of women in Costa Rica. The rate of increase ranges from 2 to 6 percent in most of the countries and up to 8 percent in men in Barbados. The age distribution shows that its greatest effect is on women starting at age 40. (*Pan American Health Organization. Health in the Americas, 2002 Edition, 2003*)
- Projections suggest that in China, diabetes will increase from 1.4 percent to 2.4 percent between 1995 and 2025. In India, the equivalent figures are from 2.1 percent to 3 percent. (*A Race Against Time. The Challenge of Cardiovascular Disease in Developing Economies. 2004, Columbia University, New York.*)
- The rising prevalence of type 2 diabetes mellitus (T2DM) in children and adolescents was initially recognized in the United States in the 1990s. T2DM, which 15 years ago accounted for less than 3 percent of all cases of new-onset diabetes in children and adolescents, today accounts for up to 45 percent of new-onset cases among adolescents. Subsequent studies conducted in Asia and Europe revealed a similar pattern, and more recently, reports on T2DM in children and adolescents have begun to mount worldwide. (*Pinhas-Hamiel, et al. The global spread of type 2 diabetes mellitus in children and adolescents. J Pediatr 2005;146:693-700*)

Metabolic Syndrome (MetS)

- The MetS is a cluster of the most dangerous heart attack risk factors: diabetes or prediabetes, abdominal obesity, changes in Cholesterol and high blood pressure. While up to 80 percent of the almost 200 million adults worldwide with diabetes will die of CVD, people with MetS are also at increased risk, being twice as likely to die from and three times as likely to have a heart attack or stroke compared to people without the syndrome. (*International Diabetes Federation, 2005. www.idf.org*)
- Preliminary estimates suggest that 550,000 youngsters may be affected by MetS in the EU. (*International Obesity TaskForce, June 2005*)

Nutrition

- Availability of calories per capita from the mid-1960s to 1997–99 increased globally by about 450 kcal/capita/day and in developing countries by 600 kcal/capita/day. This change was not equal across regions. Per

capita supply of calories remained almost stagnant in sub-Saharan Africa and showed a decreasing trend in transition countries. In contrast, the per capita supply of energy rose dramatically in East Asia (mainly in China) and in the Near East/North Africa. (*Diet, Nutrition and the Prevention of Chronic Diseases. WHO, Geneva, 2003*)

- Eating fruits and vegetables can prevent CVD, and low intake is responsible for 31 percent of CHD and 11 percent of stroke worldwide. (*WHO World Health Report, 2002*)
- The current production and consumption of vegetables vary widely among regions. The highest available vegetable supply is in Asia and the lowest in South America and Africa. Only a small and negligible minority of the world's population consumes at present the generally recommended high average intakes of fruits and vegetables. The availability of fruit generally decreased between 1990 and 1998 in most regions of the world. (*Diet, Nutrition and the Prevention of Chronic Diseases. WHO, Geneva, 2003*)
- In 2002/03 British adults derived between 36 and 37 percent of their food energy (calories) from total fat and between 14 and 15 percent from saturated fat. About 13 percent of men and 15 percent of women consume the recommended five or more portions of fruits and vegetables daily. Among British children ages 2–15 the average food energy derived from fat is 35.4 percent for boys and 35.9 percent for girls. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- 40 percent of men and 23 percent of women in the UK consume more alcohol than the recommended daily benchmarks. Twenty-seven percent of men and 17 percent of women consume more than the weekly recommended levels. (*British Heart Foundation. Coronary Heart Disease Statistics, 2005 Edition.*)
- The total worldwide mortality currently attributable to inadequate consumption of fruits and vegetables is estimated to be up to 2.635 million deaths per year. Increasing individual fruit and vegetable consumption to up to 600 g per day could reduce the total worldwide burden of disease by 1.8 percent, and reduce the burden of CHD and ischemic stroke by 31 and 19 percent respectively. (*Bulletin of the WHO 2005;83:100-8*)

Links to Web Sources

Note: These links are provided as a helpful reference tool for finding information. The American Heart Association has NOT evaluated, made any determination about quality or efficacy, and does not endorse any information, service, product or company represented by these hyperlinks. The list is not complete and will not be updated.

British Heart Foundation – Coronary Heart Disease Statistics

<http://www.bhf.org.uk/professionals/index.asp?secondlevel=519>

This site includes European cardiovascular disease statistics.

(Canadian) Cardiovascular Disease Surveillance Online

http://dsol-smed.hc-sc.gc.ca/dsol-smed/cvd/index_e.html

Health Canada provides this site on cardiovascular disease statistics for Canada. See also:

Centers for Disease Control (CDC) – Cardiovascular Health – International Information

http://www.cdc.gov/cvh/library/international_resources.htm. This page includes links to CDC affiliated publications and international cardiovascular disease projects.

European Society of Cardiology

<http://www.escardio.org/>

Eurostat

<http://europa.eu.int/en/comm/eurostat/eurostat.html>

From the Statistical Office of the European Communities, provides statistics on: economy and finance; population and social conditions; energy and industry; agriculture, forestry and fisheries; external trade; distributive trade, services and transport ; environment; research and development; and general areas. Includes full-text online publications

G8 Promoting Heart Health

<http://www.med.mun.ca/g8hearthealth/pages/enter.htm>

The G8 Promoting Heart Health initiative aims at disseminating best practices for implementing cardiovascular disease preventive interventions. The site is searchable and provides summary descriptions of projects.

Global Cardiology Network

<http://www.globalcardiology.org/>

Global Cardiovascular Infobase

<http://www.cvdinfobase.ca/>

This site includes epidemiological data and statistics for cardiovascular diseases for countries throughout the world. However, the focus is on developing nations. The data are not complete and may not be consistent as to the type of data and years available. Please note that more complete data from more developed nations (like the United States) can be found on government health sites for those countries.

Global Health.gov – World Health Statistics

<http://www.globalhealth.gov/worldhealthstatistics.shtml>

Heart and Stroke Foundation of Canada

<http://www.heartandstroke.ca>

This site includes Canadian cardiovascular disease statistics.

International Task Force for Prevention of Coronary Disease

<http://www.chd-taskforce.de/>

LAC Health Accounts

<http://www.lachealthaccounts.org/en/webguide.php>

Covers Latin America and the Caribbean. It includes systematic tabulations of health spending by source, use and function.

Morbidity and Mortality Weekly Report (MMWR) International Bulletins

<http://www.cdc.gov/mmwr/international/world.html>

These reports are not available for all countries. Most data are for Europe, North America and Australia.

PAHO Pan American Health Organization

<http://www.paho.org/Project.asp?SEL=HD&LNG=ENG&CD=HTREN>

ProCOR Conference on Cardiovascular Health

<http://procor.org/>

This site includes a list of over 50 epidemiological studies. Included are summaries and bibliographies for each.

UNICEF – Statistical Data

<http://www.unicef.org/statis/>

United Nations Population Fund (UNFPA)

<http://www.unfpa.org/>

United Nations, Department of Economic and Social Affairs – Statistics Division

<http://www.un.org/Depts/unsd/>

Provides “statistics and statistical methods in the fields of international merchandise trade, national accounts, demography and population, social indicators, gender, industry, energy, environment, human settlements and disability.”

World Bank Home Page

<http://www.worldbank.org/>

Provides data on the history, functions, governance, financing and development progress of members of the World Bank Group (International Bank for Reconstruction and Development; International Development Agency; International Finance Corporation; Multilateral Guarantee Agency; and International Centre for Settlement of Investment Disputes). The “Countries and Regions” pages are of particular interest.

World Health Organization Statistical Information System (WHOSIS)

<http://www3.who.int/whosis/menu.cfm>

This site is the guide to health and health-related epidemiological and statistical information available from the World Health Organization.

World Federation of Public Health Associations

http://www.apha.org/wfpha/about_wfpha.htm