

Global Burden of Disease Study 2010 outlines present and future health priorities, both nationally and internationally

The Global Burden of Disease Study 2010 involved the collaboration of 486 scientists from 302 institutions in 50 countries.

Launched in 2007, the study is a consortium of seven partners: Harvard University, the Institute for Health Metrics and Evaluation at the University of Washington, Seattle, Johns Hopkins University, the University of Queensland, Imperial College London, the University of

Tokyo and the World Health Organization. It is the first systematic and comprehensive assessment of data on disease, injuries and risk since 1990. It has produced an important contribution to the understanding of present and future health priorities for countries and the global community.

The Global Burden of Diseases, Injuries, and Risk Factors Study 2010 aimed to estimate annual deaths for the world and 21 regions between

1980 and 2010 for 235 causes, with uncertainty intervals, separately by age and sex (Lozano et al, 2012).

In 2010, there were 52.8 million deaths globally. At the most aggregate level, communicable, maternal, neonatal, and nutritional causes lead to 24.9% of deaths worldwide in 2010, down from 15.9 million (34.1%) of 46.5 million in 1990. This decrease was largely the result of decreases in mortality from diarrhoeal disease

(from 2.5 to 1.4 million), lower respiratory infections (from 3.4 to 2.8 million), neonatal disorders (from 3.1 to 2.2 million), measles (from 0.63 to 0.13 million), and tetanus (from 0.27 to 0.06 million).

Deaths from HIV/AIDS increased from 0.30 million in 1990 to 1.5 million in 2010, reaching a peak of 1.7 million in 2006. Mortality from malaria also rose by an estimated 19.9% since 1990 to 1.17 million deaths in 2010. Tuberculosis killed 1.2 million people in 2010.

Deaths from non-communicable diseases rose by just under 8 million between 1990 and 2010, accounting for two of every three deaths (34.5 million) worldwide by 2010. 8 million people died from cancer in 2010, 38% more than two decades ago; of these, 1.5 million (19%) were from trachea, bronchus and lung cancer. Ischaemic heart disease and stroke collectively killed 12.9 million people in 2010, or one in four deaths worldwide, compared with one in five in 1990; 1.3 million deaths were caused by diabetes, twice as many as in 1990.

The fraction of global deaths caused by injuries (5.1 million deaths) was marginally higher in 2010 (9.6%) compared with two decades earlier (8.8%). This was driven by a 46% rise in deaths worldwide resulting from road traffic accidents (1.3 million in 2010) and a rise in deaths from falls.

Lozano R, Naghavi M, Foreman K et al (2012) Global and regional mortality from 235 causes of death for 20 age groups in 1990 and 2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet* **380**(9859): 2095–128

Radial access first choice for percutaneous coronary intervention, says European consensus

The radial approach for percutaneous coronary interventions was developed 20 years ago and is used for more than 50% of procedures in France, Scandinavian countries, the UK, Spain and Italy. Despite the advantages of radial access some countries in Europe such as Germany use radial access for fewer than 10% of percutaneous coronary interventions.

Evidence has accumulated in the literature showing the benefits of radial over femoral access for percutaneous coronary intervention including reduced bleeding and improved survival. In addition, the development of smaller and thinner devices has made the radial approach increasingly practical.

The European Association of Percutaneous Cardiovascular Interventions, the Acute Cardiovascular Care Association and the Working Group on Thrombosis of the European Society of Cardiology have produced a consensus document outlining the advantages, disadvantages and expertise requirements of the radial approach (Hamon et al, 2013).

Patients receiving an acute intervention, for example in myocardial infarction, need anticoagulants and antiplatelet drugs but these increase the risk of bleeding. Meta-analyses of randomized studies and large observational registries show that radial access reduces procedure access site-related major bleeding compared to femoral access.

In addition, patients receiving

the femoral approach must lie down for several hours after percutaneous coronary intervention to reduce the risk of severe bleeding while radial access allows patients to stand up in 1 hour.

Co-author Dr Marco Tubaro from San Filippo Neri Hospital, Rome, Italy, said: ‘The radial approach strongly reduces the bleeding complication at the site of the procedure. The reduction in bleeding translates into a reduction in events and even into a reduction in mortality, particularly in patients with ST elevation myocardial infarction’.

Hamon M, Pristipino C, Di Mario C et al (2013) Consensus document on the radial approach in percutaneous cardiovascular interventions: position paper by the European Association of Percutaneous Cardiovascular Interventions and Working Groups on Acute Coronary Care and Thrombosis of the European Society of Cardiology. *EuroIntervention* 28 January (Epub ahead of print)

