

Cancer : A hidden burden

Cancer is now the third leading cause of death worldwide, with over 12 million new cases and 7.6 million cancer deaths estimated to have occurred in 2007 (1). By 2030, it is projected that there will be approximately 26 million new cancer cases and 17 million cancer deaths per year (2). Moreover, the global distribution of cancer and types of cancer that predominate continues to change, especially in economically developing countries. Low- and middle-income countries accounted for about half (51%) of all cancers worldwide in 1975; this proportion increased to 55% in 2007 and is projected to reach 61% by 2050 (3). Cancers of the lung, breast, colon/rectum and prostate are no longer largely confined to Western industrialized countries but are among the most common cancers worldwide.

Overall, an estimated 12.7 million new cancer cases and 7.6 million cancer deaths were reported in 2008, with 56% of new cancer cases and 63% of the cancer deaths occurring in the less developed regions of the world. The most commonly diagnosed cancers worldwide are lung (1.61 million, 12.7% of the total), breast (1.38 million, 10.9% of the total) and colorectal cancers (1.23 million, 9.7% of the total). The most common causes of cancer deaths are lung cancer (1.38 million, 18.2% of the total), stomach cancer (738,000 deaths, 9.7%) and liver cancer (696,000 deaths, 9.2%) (4).

The burden of cancer is increasing in the developing countries as childhood mortality and deaths from infectious diseases decline and more people live to older ages. Furthermore, as people in developing countries adopt Western lifestyles and behaviours such as cigarette smoking, increase consumption of saturated fats and calories, and reduced physical activity, the rates of cancer will rise if preventive measures are not widely applied. Given the magnitude of the projected demographic changes and their disproportionate impact on countries that can least afford increased health care expenditures, preventive measures offer the most feasible approach (5).

The International Agency for Research on Cancer reported at least 15 different types or subtypes of cancer as causally related to smoking. Tobacco use is the single largest preventable cause of cancer and premature death worldwide. An estimated 1.3 billion people in the world currently smoke tobacco; the vast majority of these are in the form of manufactured cigarettes. If current trends in smoking and population growth continue, the number of current smokers is expected to reach 2 billion worldwide by 2030 (5).

Smoke-free laws that prohibit smoking in public places substantially reduce non-smokers' exposures to second-hand smoke, change social norms about smoking and motivate smokers to quit. Successful smoke-free interventions by Ireland and other countries have greatly broadened the protection of non-smokers. Public awareness about the harmful effects of tobacco on health can

be increased by requiring prominent, graphical warnings on cigarette packaging and by educational campaigns aimed at health professionals(6).

The trend toward overweight and obesity is even greater in children than in adults and has occurred not only in high-resource countries but also in urban and even rural areas of many low- and middle-income countries (7). WHO estimated that the number of overweight adults (age >15 years) in 2005 was around 1.6 billion, of whom 300 million were obese. The number of overweight was projected to increase to 2.3 billion by 2015 (8).

The global increase in overweight and obesity is attributed to increased availability of calorie-dense foods and decreased physical activity. Food supplies have become more plentiful and foods, especially processed foods, have become more energy dense in fats and sugars (7).

Persistent infection with various microbial organisms accounts for about 18% of cancers worldwide (6). The most common malignancies caused by chronic infections are cancer of the uterine cervix, stomach, and liver, caused by Human Papilloma Virus (HPV), *Helicobacter pylori* and Hepatitis B virus and Hepatitis C virus, respectively. Cancer research evidence suggests that there are over 100 types of HPVs, most of which are considered fairly harmless and classified as "low risk". However, there are 15 subtypes which have cancer-causing potential, the most important of these being HPV 16 and 18, which are responsible for 70% of cancer of cervix. Some types of HPV, principally HPV 6 and 11, are associated with genital warts. Currently there are two vaccines that have been approved by the Food and Drugs Administration of United States, namely, Gardasil and Cervarix. Both these vaccines can prevent most cases of cervical cancer if given before the female is exposed to the virus (9).

Cervical cancer is the second commonest cancer among women worldwide, with an estimated 555 000 new cases and 310 000 deaths in 2007. About 80% of cervical cancer cases occur in developing countries where, in many regions, it is the most common cancer among women (2). Although the age-standardized incidence rate is considerably lower in Asia than in Central America, Asia accounts for more than half of the world's cervical cancer cases and deaths because of its immense population. Incidence of cervical cancer varies dramatically around the globe because of the disparities in availability of screening services.

Incidence and mortality rates for cervical cancer in developed countries have decreased dramatically in the past 25 years, due largely to cervical cancer

screening using Pap tests, which allows for detection and treatment of precancerous lesions. However, the incidence and death rates remain high in countries that cannot afford cytologic screening, where oncogenic strains of HPV are still common. As a result, the highest incidence rates are seen in South America and the Caribbean, Sub-Saharan Africa, and South and South-eastern Asia. This disproportionate burden of cervical cancer on developing countries is due mainly to lack of resources for cervical cancer screening (5).

According to the Cancer Registry in Sri Lanka, the incidence for cervical cancer for the year 2005 is reported as 16/100,000 population and is the second commonest cancer among females which accounts for 12.1% of all cancers among women. According to hospital based statistics of 2009, there had been 625 deaths from cervical cancers, of which majority had presented in advanced states which results in poor prognosis.

The concept of Well Woman Clinics was introduced in 1996 to screen women for reproductive organ malignancies and at present there are over 700 such clinics functioning throughout the country. In 2007, the Family Health Bureau decided to fix the screening for cervical cancer at a given age of women and screen single-age cohorts reaching this fixed age every year, so that over the years it will yield a better coverage of the target population. Based on the epidemiological evidence, a decision was made to actively campaign to screen cohorts of females reaching the age of 35 years. However, the other women who voluntarily request screening (including pap smear screening) will also be provided with these services at Well Woman Clinics (10).

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