

# Cancer is no Longer an Automatic Death Sentence

Masud Z M<sup>a</sup>, Yasmeen S<sup>b</sup>

It is estimated that half of all men and one third of all women will develop some type of cancer in their lifetime.<sup>1</sup> Each year 10.9 million people are diagnosed with cancer worldwide. Because of the size of its population most of these people (45%) are in Asia.<sup>2</sup> Worldwide 24.6 million people are alive who have received a diagnosis of cancer in the last five years. About 6.7 million people die from cancer each year and it accounts for 13% of all deaths.<sup>2-3</sup> More than 70% of all cancer deaths occur in low and middle-income countries. Deaths from cancer worldwide are projected to continue rising, with an estimated 12 million deaths in 2030.<sup>4</sup>

Epidemiological studies revealed that certain lifestyle choices are known to cause cancer. Smoking, drinking alcohol, exposure to sunrays, being overweight, unsafe sexual behaviors, diet, and lack of exercise can lead to its causation.<sup>5</sup> Small changes to one's everyday lifestyle and behaviour reduce the risk.

It is anticipated that 30% of cancer deaths are attributable to smoking. Epidemiological evidence supports the enormous benefits of cessation of smoking. The greatest reduction in the number of cancer deaths within the next several decades will be due to those who stop the habit. The greatest effect results from stopping smoking in the early thirties, but a very impressive risk reduction of more than 60% is obtained even when the habit is quit after the age of 50 years.<sup>6</sup>

About 14% to 20% cancers are attributable to unhealthy diet leading to overweight and obesity.<sup>7</sup> A major cause is a diet rich in fat, refined carbohydrates and animal protein, combined with low physical activity.

**a. Dr. Zafor Md. Masud**

MBBS, M Phil, FCPS

Assistant Professor, Department of Oncology  
Bangladesh Medical College.

**b. Prof. Sharmeen Yasmeen**

MBBS, MPH, M Phil

Editor in-charge, Bangladesh Medical College Journal and  
Professor, Department of Community Medicine  
Bangladesh Medical College.

**Correspondence to:**

Dr. Zafor Md. Masud

Assistant Professor, Department of Oncology  
Bangladesh Medical College.

E-mail: zaformasud@yahoo.com

Consumption of five or more servings of fruits and vegetables each day reduce the risk of most types of cancer by 30% to 50%.<sup>8</sup> In addition, eating other foods from plant sources, such as whole grains and beans, several times a day reduce risk of cancer by one third.<sup>9</sup> Lower weight, influenced by diet and exercise, is also associated with lowering the recurrence. Physical activity on its own also lower the risk of cancer in breast, colon, prostate and uterus. Physically active for thirty minutes or more on most days of the week and gradual addition of more exercises later reduce further risk.<sup>5</sup>

Today, up to 23% of malignancies are caused by infectious agents like Hepatitis B (HBV) and C virus, Human papilloma viruses (HPV), and Helicobacter pylori. More than 80% of all cervical cancer deaths occur in developing countries. HBV vaccination has already been shown to prevent liver cancer in high-incidence countries and it is likely that human papilloma virus (HPV) vaccination will become a reality in 3 to 5 years.<sup>6</sup> Already the Centers for Disease Control and Prevention recommended that the HPV vaccine can be given to girls and women ages 13 to 26. Vaccines are highly effective in preventing persistent infections with HPV types 16 and 18, two high-risk HPVs that cause most (70%) cervical cancers.<sup>10-12</sup> The duration of immunity is not yet known but smaller studies have suggested that protection is likely to last for longer than 4 years, but it is not known if protection conferred through vaccination will be lifelong.<sup>13,14</sup>

About one-third of the cancer burden could be decreased if cases were detected and treated early. Screening programmes play a significant role to identify early cancer or pre-cancer before signs are recognizable.<sup>4</sup> Most successful so far has been the early detection of cervical cancer by Pap smear cytology (but now very cost effective is Colposcopy) and of breast cancer by mammography. Screening by mammography may reduce breast cancer mortality by 25-30%. There is also emerging evidence that prostate cancer screening by assessment of serum PSA levels may result in lower mortality rates. For colon cancer, colonoscopy is considered the gold standard.<sup>6</sup>

Low cancer awareness contributes to delay in presentation for cancer symptoms and may lead to delay in cancer diagnosis. Generation of knowledge, dissemination of information, education and

communication through mass and electronic media need to be strengthened for creating awareness. Effective and carefully evaluated school education programs for tobacco abstinence, healthy dietary habits and lifestyle etc will also play a vital role. But to start fighting against cancer first step for every individual is "Self-motivation".

## References:

1. American Cancer Society. Cancer facts and figures 2005. Atlanta: American Cancer Society; 2004.
2. Ferlay J, et al. GLOBOCAN 2002. Cancer incidence, mortality and prevalence worldwide. IARC Cancer Base No.5, Version 2.0. IARC Press, Lyon, 2004.
3. WHO Mortality Database. Accessed 2004.
4. WHO. Cancer [homepage on the internet]. Feb 2009 [cited 2010 Jun 22]. Available from: <http://www.who.int/mediacentre/factsheets/fs297/en/>.
5. Mayo clinic. Cancer prevention: 7 steps to reduce your risk [homepage on the internet]. 2010 Jun 21. Available from: <http://www.mayoclinic.com/health/cancer-prevention/ca00024>.
6. WHO. Global cancer rates could increase by 50% to 15 million by 2020. 2003 Apr 03. [cited 2010 Jun 21] Available from: <http://www.who.int/mediacentre/news/releases/2003/pr27/en/>.
7. Calle EE, Rodriguez C, Walker-Thurmond K, Thun MJ. Overweight, obesity, and mortality from cancer in a prospectively studied cohort of US adults. *N Engl J Med.* 2003; 348(17):1625-38.
8. Steinmetz KA, Potter JD. Vegetables, fruit, and cancer prevention: a review. *J Am Diet Assoc.* 1996; 96: 1027-1039. [Medline]
9. Chatenoud L, Tavani A, La Vecchia C, Jacobs DR, Negri E. Whole grain food intake and cancer risk. *Int J Cancer.* 1998; 77: 24-28. [Medline]
10. Division of STD Prevention. Prevention of genital HPV infection and sequelae: report of an external consultants' meeting. Centers for Disease Control and Prevention, 1999.
11. D'Souza G, Kreimer AR, Viscidi R, et al. Case-control study of human papilloma virus and oropharyngeal cancer. *N Engl J Med.* 2007; 356(19):1944-56.
12. Koutsky LA, Ault KA, Wheeler CM, et al. A controlled trial of a human papillomavirus type 16 vaccine. *N Engl J Med.* 2002; 347(21):1645-51.
13. Steinbrook R. The potential of human papillomavirus vaccines. *N Engl J Med.* 2006; 354(11):1109-12.
14. Garland SM, Hernandez-Avila M, Wheeler CM, et al. Quadrivalent vaccine against human papilloma virus to prevent anogenital diseases. *N Engl J Med.* 2007; 356(19):1928-43.