



SMOKING AND ILL HEALTH IN WALES

Smoking harms nearly every organ of the body, causing many diseases, and reduces quality of life and life expectancy. Smoking causes lung cancer, bronchitis, emphysema, heart disease, and cancers in other organs including lip, mouth, throat, bladder, kidney, stomach, liver and cervix¹.

One in two long-term smokers will die prematurely as a result of smoking – half of these in middle age².

Around 6,000 people in Wales are killed by smoking every year³. Most die from one of three main diseases associated with cigarette smoking: lung cancer, chronic obstructive Pulmonary Disease (COPD, bronchitis and emphysema) and Coronary Heart Disease.

Cancer in Wales

Smoking is the biggest single risk factor for cancer: in the UK approximately one third of all cancer deaths are attributable to smoking⁴.

Smoking is a cause of 13 types of cancer: namely, cancer of the bladder, cervix, kidney, lung, larynx (voice box), liver, mouth (including lip and tongue), nose, pharynx (throat), oesophagus (gullet), pancreas, stomach, and bone marrow (myeloid leukaemia)⁵. One in two smokers dies prematurely: of these, nearly one in four will die of lung cancer⁶.

29% of all cancer deaths in developed countries are caused by smoking⁷ and so therefore calculated from 6000 deaths a year, approximately 1700 lives are lost each year in Wales unnecessarily.

Lung cancer

Lung cancer is the cancer most commonly associated with smoking: around 90% of all lung cancers are caused by smoking, either directly or through indirect exposure⁸. Around 6,000 people die because of smoking every year in Wales⁹, with more than 1,500 deaths due to lung cancer¹⁰ —

¹ *Cancer in Wales, 1992-2006: A Comprehensive Report*. Welsh Cancer Intelligence and Surveillance Unit, September 2008. accessed at http://www.wales.nhs.uk/sites3/Documents/242/WCISUTriennialReport2008_English.pdf

² Peto R. Mortality in relation to smoking: 40 years' observations on male British doctors. *BMJ* 1994; 309: 901-911

³ Smoking in Wales: current facts 2007

<http://www.wales.nhs.uk/sites3/Documents/568/WCH%20smoking%20ban%20report%20E%20final.pdf>

⁴ Mackay, J et al. *The Cancer Atlas*. American Cancer Society, 2006

⁵ Tobacco smoke and involuntary smoking. IARC Monographs on the evaluation of carcinogenic risks to humans. Volume 83. IARC 2004

⁶ Doll R, Peto R, Boreham J et al. Mortality from cancer in relation to smoking: 50 years observations on British doctors. *Br J Cancer* 2005; 92(3): 426-9

⁷ *Lifestyle and Cancer: Tobacco and cancer risk*. October 2008. accessed at <http://info.cancerresearchuk.org/cancerstats/causes/lifestyle/tobacco/>

⁸ CancerStats. Lung cancer and smoking – UK. Cancer Research UK, July 2007

⁹ *Smoking in Wales: Current Facts* Published by Wales Centre for Health Nov 2007 accessed at

<http://www.wales.nhs.uk/sites3/Documents/568/WCH%20smoking%20ban%20report%20E%20final.pdf>

¹⁰ *Cancer in Wales, 1992-2006: A Comprehensive Report*. Welsh Cancer Intelligence and Surveillance Unit, September 2008. accessed at http://www.wales.nhs.uk/sites3/Documents/242/WCISUTriennialReport2008_English.pdf



Wales' biggest cancer killer. Lung cancer remains is the second commonest cause of cancer affecting both men and women in Wales although there has been a steady increase in the incidence of this cancer in women¹¹. The highest incidences and mortality from lung cancer in Wales are found in those Local health Boards with greater areas of social deprivation such as Merthyr Tydfil and Blaenau Gwent, which is known to be associated with a higher prevalence of cigarette smoking¹².

Current smokers are fifteen times more likely to die from lung cancer than life-long non-smokers¹³. The risk of dying from lung cancer increases with the number of cigarettes smoked per day, although duration of smoking is the strongest determinant of lung cancer in smokers. Smokers who start when they are young are at an increased risk of developing lung cancer.

Coronary Heart Disease (CHD) in Wales

Heart and circulatory disease (cardiovascular disease or CVD) is Wales' biggest killer. In 2007, nearly 6,000 women died from heart and circulatory disease in Wales¹⁴. Estimates suggest smoking causes over 25,000 deaths from CVD in the UK a year¹⁵. Regular exposure to second-hand smoke increases the risk of CHD by around 25%¹⁶.

Stroke in Wales

Stroke is the largest cause of adult disability and the third biggest killer in Wales. Smoking is the number two risk factor in most strokes and nearly doubles the risk of having an ischemic stroke¹⁷. Smoking makes a significant independent contribution to the risk of stroke generally and to brain infarction specifically¹⁸. The relative risk of stroke in heavy smokers (>40 cigarettes/day) has been found to be twice that of light smokers (<10 cigarettes/day), and the risk of stroke increases with the number of cigarettes smoked¹⁹.

The number of adult deaths from Cerebrovascular Disease caused by smoking was 52,523 in 2000 in both Wales and England²⁰. The total estimated NHS costs of Cerebrovascular Disease attributable to

¹¹ *Cancer in Wales, 1992-2006: A Comprehensive Report*. Welsh Cancer Intelligence and Surveillance Unit, September 2008. accessed at http://www.wales.nhs.uk/sites3/Documents/242/WCISUTriennialReport2008_English.pdf

¹² *Cancer in Wales, 1992-2006: A Comprehensive Report*. Welsh Cancer Intelligence and Surveillance Unit, September 2008. accessed at http://www.wales.nhs.uk/sites3/Documents/242/WCISUTriennialReport2008_English.pdf

¹³ Doll R, Peto R, Boreham J et al. Mortality from cancer in relation to smoking: 50 years observations on British doctors. *Br J Cancer* 2005; 92(3): 426-9

¹⁴ BHF. Wales Coronary Heart Disease statistics 2009-2010. BHF. Accessed at: http://www.bhf.org.uk/publications/view_publication.aspx?ps=1001142

¹⁵ BHF. Wales Coronary Heart Disease statistics 2009-2010. BHF. Accessed at: http://www.bhf.org.uk/publications/view_publication.aspx?ps=1001142

¹⁶ BHF. Wales Coronary Heart Disease statistics 2009-2010. BHF. Accessed at: http://www.bhf.org.uk/publications/view_publication.aspx?ps=1001142

¹⁷ Shinton R and Beevers G. 1989. meta-analysis of relation between cigarette smoking and stroke. *Br Med J*. 298: 789-94

¹⁸ Wolf. P. D'Agostino, R. Kannel, W. (1988) Cigarette smoking as a risk factor for stroke: the Framingham study: *JAMA*; 259; 1025-9.

¹⁹ Wolf. P. D'Agostino, R. Kannel, W. (1988) Cigarette smoking as a risk factor for stroke: the Framingham study: *JAMA*; 259; 1025-9.

²⁰ Peto, R. Lopez, A. Boreham, J. and Thun, M. 2006. Mortality from smoking in developed countries 1950-2000. Accessed at www.ctsu.ox.ac.uk/~tobacco.



smoking has been estimated by Allender *et al.*, (2009) using the WHO Global Burden of Disease Project Figures to be £113.6m in Wales in 2005-2006²¹. The total cost of stroke being £516.5m in Wales. This means that smoking accounts for over 5th of the total cost of CVD to the NHS in Wales

Coronary Obstructive Pulmonary Disease (COPD) in Wales

Chronic obstructive pulmonary (lung) disease is a progressively disabling disease characterised by airflow obstruction that interferes with normal breathing. Smoking is the most common cause of COPD, accounting for approximately 80% of COPD cases. Around one fifth (24,000) of premature deaths every year caused by smoking are from chronic obstructive Pulmonary disease (COPD)²². More than 1,600 people in Wales die from COPD every year – approximately one every 5 hours²³. Around half of cigarette smokers develop some airflow obstruction and 10-20% develop clinically significant COPD²⁴. COPD is more common in men than women and is associated with socioeconomic deprivation²⁵. The risk of death due to the disease increases with the number of cigarettes smoked. The prevalence of diagnosed COPD in women is increasing whereas in men it appears to have reached a plateau since the mid 1990s.

²¹ Allender, S. Balakrishnan R, and Scarborough P. 2009. The burden of smoking related ill-health in the UK. *Tobacco Control*, 0:1–7.

²² Peto R et al. *Mortality from smoking in developed countries, 1950-2000* (2nd edition). Oxford University Press, Oxford

²³ BLF Wales. COPD Policy briefing. Accessed at:

<http://www.lunguk.org/ONESTOPCMS/Core/CrawlerResourceServer.aspx?resource=2DDB8CF4-7473-4F78-96BC-123A2BC2D19F&mode=link&guid=0e58b8b290574d0db128e6e10d67e8aa>

²⁴ Devereux, G. ABC of chronic obstructive pulmonary disease. Definition, epidemiology and risk factors. *BMJ* 2006; 332: 1142-1144

²⁵ Devereux, G. ABC of chronic obstructive pulmonary disease. Definition, epidemiology and risk factors. *BMJ* 2006; 332: 1142-1144