

# WOMEN AND TOBACCO

## Health Harms

Smoking is the leading preventable cause of death in the world. Tobacco use causes 1 in 10 deaths among adults worldwide, killing 5.4 million people each year—more than the total number killed by tuberculosis, HIV/AIDS and malaria combined.<sup>1</sup> Deaths among women aged 20 years and over may rise from 1.5 million in 2004 to 2.5 million by 2030; almost 75% of these projected deaths will occur in low-income and middle-income countries.<sup>2</sup> Women comprise 20% of the world's more than 1 billion smokers.<sup>2</sup> Tobacco use causes a wide variety of cancers, including cancer of the lung, mouth, and the esophagus, and puts users at risk for heart attacks, strokes, emphysema, and other lifethreatening illnesses. Women smokers are at greater risk of developing cervical cancer, osteoporosis, and other conditions of the reproductive system.

### Cardiovascular Disease

- Cardiovascular disease is the number one killer of both men and women.<sup>3</sup> Cardiovascular diseases caused by smoking include coronary heart disease, atherosclerosis and stroke, among others.<sup>4</sup>
- Women who smoke are twice as likely to suffer a heart attack as non-smoking women. The risk of developing coronary heart disease increases with the number of cigarettes smoked per day, the total number of smoking years, and earlier age of initiation.<sup>4</sup>
- Women smokers have a higher relative risk of developing cardiovascular disease than men. Compared with non-smokers, women who smoke have a 25% greater risk of developing coronary heart disease than male smokers.<sup>5</sup>
- Women smokers have an elevated risk of stroke, hemorrhage in membranes that surround the brain, hardening of arteries, and death from aortic aneurysm compared to non-smokers.<sup>6</sup>
- Women who smoke and use oral contraceptives are up to 40 times more likely to have a heart attack than women who neither smoke nor use oral contraceptives.<sup>7</sup>

### Lung Cancer, COPD, and Lung Function

- The risk of developing lung cancer is 13 times higher for current women smokers compared to lifelong non-smokers.<sup>4, 17</sup>
- Lung cancer accounted for almost 13% of all smoking-attributable deaths among women in high income countries in 2004.
- Adenocarcinomas, a previously rare type of lung cancer that affects the very small airways of the lung, are more prevalent among women smokers than men smokers.<sup>8</sup>
- Women smokers are nearly 13 times more likely to die from chronic obstructive pulmonary disease (emphysema and chronic bronchitis) compared to women who have never smoked.<sup>4</sup>
- Women smokers have a higher risk of severe COPD and reduced lung function than male smokers, especially when the level of smoking exposure is low.<sup>9</sup>

- Girls who smoke can reduce their rate of lung growth and their level of maximum lung function. Women who smoke may experience a premature decline in lung function.<sup>7</sup>

### Other Cancers

- Women smokers are at greater risk of developing cervical cancer than non-smokers.<sup>10</sup>
- Smokers have an increased risk for cancer of the larynx, oral cavity, bladder, pancreas, uterus, kidney, stomach, esophagus, and liver, as well as colorectal cancer.<sup>11</sup> In 2004, approximately 6% of new cases of cancer among low and middle-income countries and 11% of new cases among women in high-income countries were attributable to tobacco.<sup>17</sup>

### Reproductive Harms

- Smoking reduces a woman's fertility. Women smokers tend to take longer to conceive than women non-smokers, and women smokers are at a higher risk of not being able to get pregnant at all.<sup>4</sup>
- Smoking by pregnant women increases the risk of spontaneous abortions, stillbirths, infertility, and having children with low birth weights who suffer from serious medical problems.<sup>6</sup>
- Women smokers who breastfeed their babies may produce less breast milk than non-smokers.<sup>17</sup>
- Women who smoke are more likely to experience premature menopause than non-smokers. On average women who are current smokers experience menopause 1-2 years earlier than nonsmoking peers.<sup>6</sup>

### Other Health Risks for Women who Smoke

- Smokers are at greater risk for developing osteoporosis and hip fractures than nonsmokers.<sup>12</sup>
- Smoking has also been linked with facial wrinkling. Smokers are significantly more likely than non-smokers to be evaluated as having prominent wrinkling.<sup>7</sup> Cigarette smoking and depression are strongly associated.

- Risk of other diseases, such as periodontal disease, gall bladder disease, peptic ulcer disease and cataracts, is higher among women who smoke than among non-smokers.<sup>17</sup>

### Dangers of Exposure to Secondhand Smoke for Women

- Globally, 35% of non-smoking adult women are regularly exposed to secondhand smoke.<sup>13</sup> Secondhand smoke alone causes approximately 600,000 premature deaths per year worldwide.<sup>13</sup>
- Because the prevalence of smoking is much higher in men than in women, secondhand smoke disproportionately harms women. Of all deaths attributable to secondhand smoke, 47% occur among adult women.<sup>13</sup>
- Secondhand smoke causes lung cancer, heart disease, and other health problems.<sup>11</sup>
- While women smoke less than men, many nonsmoking women and girls still suffer increased risk of lung cancer and other health issues due to secondhand smoke exposure from men.<sup>14</sup>
  - A Japanese study concluded that wives of heavy smokers had up to twice the risk of developing lung cancer as wives of non-smokers.<sup>15</sup>
  - Exposure to secondhand smoke during childhood and adolescence may be associated with impaired lung function among girls.<sup>7</sup>
- Exposure to secondhand smoke among pregnant women is a major cause of spontaneous abortions, stillbirths, and sudden infant death syndrome (SIDS) after birth.<sup>16</sup>

### Key Messages

- Tobacco use and exposure to secondhand smoke are a leading cause of death for women.
- Because the prevalence of smoking is much higher in men than in women, secondhand smoke disproportionately harms women.
- Strong action must be taken to protect women from the harms of tobacco use and exposure to secondhand smoke. Tobacco control policies, such as smoke-free environments, tobacco marketing bans, graphic warning labels and increased tobacco taxes, reduce tobacco use and will save the lives of women and girls around the world.

(1) World Health Organization (WHO). WHO Report on the global tobacco epidemic, 2008: The MPOWER package. Geneva: 2008. Available from [www.who.int/entity/tobacco/mpower/mpower\\_report\\_full\\_2008.pdf](http://www.who.int/entity/tobacco/mpower/mpower_report_full_2008.pdf). (2) World Health Organization (WHO). Women and health: Today's evidence, tomorrow's agenda. Geneva: World Health Organization; 2010. (3) Smoking-attributable mortality, years of potential life lost, and productivity losses—United States, 2000–2004. *Morb Mortal Wkly Rep.* 2008 Nov 14;57(45):1226-8. (4) U.S. Department of Health and Human Services (HHS). The health consequences of smoking: A report of the Surgeon General. Atlanta, Georgia: National Center for Chronic Disease and Prevention and Health Promotion, Office on Smoking and Health; 2004. Available from [www.cdc.gov/tobacco/data\\_statistics/sgf/sgf\\_2004/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgf/sgf_2004/index.htm). (5) Huxley R, Woodward M. Cigarette smoking as a risk factor for coronary heart disease in women compared with men: a systematic review and meta-analysis of prospective cohort studies. *The Lancet.* 2011 August 11. DOI: 10.1016/S0140-6736(11)60781-2 (6) Ernster VL. Impact of tobacco on women's health. In: Samet JM, Yoon S-Y, editors. Women and the tobacco epidemic: Challenges for the 21st century: World Health Organization; 2001. (7) U.S. Department of Health and Human Services (HHS). Women and smoking: A report of the Surgeon General. 2001. Available from [www.cdc.gov/tobacco/data\\_statistics/sgf/sgf\\_2001/index.htm](http://www.cdc.gov/tobacco/data_statistics/sgf/sgf_2001/index.htm). (8) Greaves L, World Health Organization (WHO). Sifting the evidence: Gender and tobacco control. Geneva: World Health Organization; 2007. (9) Soerheim IC, Johannessen A, Bakke P, Gulsvik A, Silverman EK, DeMeo DL, editors. Gender differences in COPD: Are women more susceptible to smoking effects? Practice variation, patient behavior and differences in disease susceptibility as sources of health outcome disparities; 2009; San Diego, California. (10) Husten CG, Chrismon JH, Reddy MN. Trends and effects of cigarette smoking among girls and women in the United States, 1965-1993. *Journal of the American Medical Women's Association.* 1996 January-April;51(1-2):11-8. (11) International Agency for Research on Cancer (IARC). IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Volume 83: Tobacco smoke and involuntary smoking: Summary of data reported and evaluation. Geneva: WHO; 2002. Available from: <http://monographs.iarc.fr/ENG/Monographs/vol83/volume83.pdf>. (12) Husten CG, Chrismon JH, Reddy MN. Trends and effects of cigarette smoking among girls and women in the United States, 1965-1993. *J Am Med Womens Assoc.* 1996 Jan-Apr;51(1-2):11-8. (13) Öberg M, Jaakkola MS, Woodward A, Peruga A, Prüss-Ustün A. Worldwide burden of disease from exposure to second-hand smoke: a retrospective analysis of data from 192 countries. *The Lancet.* 2011 January 8; 377(9760):139-46. (14) Moritsugu KP. The 2006 Report of the Surgeon General: the health consequences of involuntary exposure to tobacco smoke. *Am J Prev Med.* 2007 Jun;32(6):542-3. (15) Hirayama T. Non-smoking wives of heavy smokers have a higher risk of lung cancer: a study from Japan. *British Medical Journal (Clinical Research Edition).* 1981 January 17;282(6259):183-5. (16) U.S. Department of Health and Human Services. The health consequences of involuntary exposure to tobacco smoke: A report of the Surgeon General. Atlanta: Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; 2006. Available from [www.surgeongeneral.gov/library/secondhandsmoke/report/](http://www.surgeongeneral.gov/library/secondhandsmoke/report/). (17) World Health Organization (WHO). Gender, women, and the tobacco epidemic, 2010. Available from [www.who.int/tobacco/publications/gender/women\\_tob\\_epidemic/en/index.html](http://www.who.int/tobacco/publications/gender/women_tob_epidemic/en/index.html).