

Health Factsheet

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World No Tobacco Day Information Paper

Smoking is a contributory factor to many cancers and diseases. Local data shows that there is a higher proportion of smokers amongst cancer, heart attack and stroke patients than in the general population. On this World No Tobacco Day, learn more about the health effects of tobacco use and encourage smokers around you to quit.

BACKGROUND

Smoking is the most preventable cause of death globally. Tobacco kills nearly 6 million people each year, of which more than 600,000 are non-smokers dying from breathing second-hand smoke. If nothing is done to address tobacco use especially in developing economies, it is on track to kill more than 8 million people by year 2030^{1,2}.

IMPACT OF SMOKING IN SINGAPORE

A higher percentage of smokers are observed among heart attack and stroke patients as compared to the general population of Singapore residents in 2010 (Figures 1 and 2)³⁻⁷.

Figure 1: Percentage of smokers among Singapore residents and patients

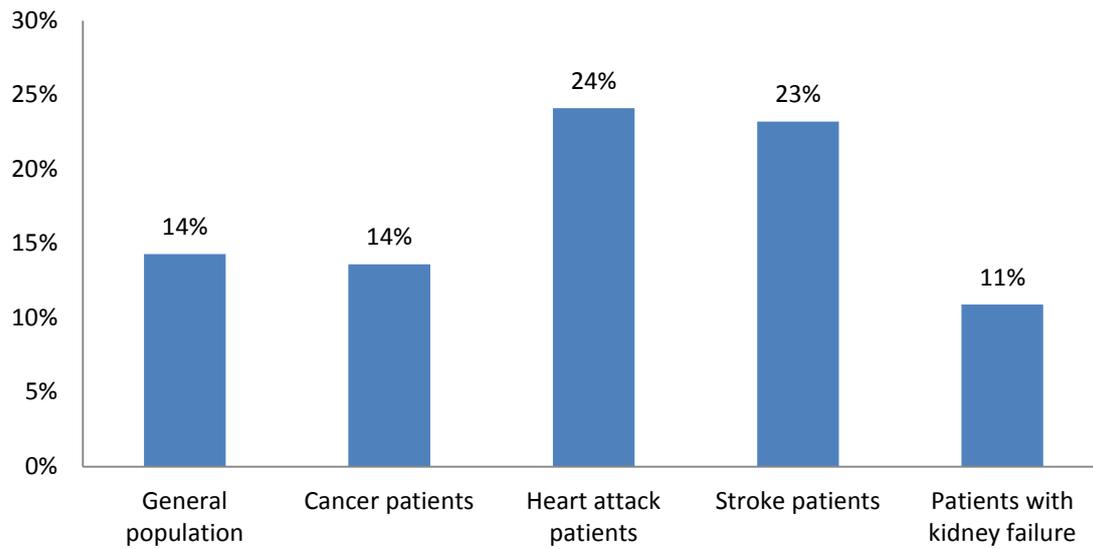
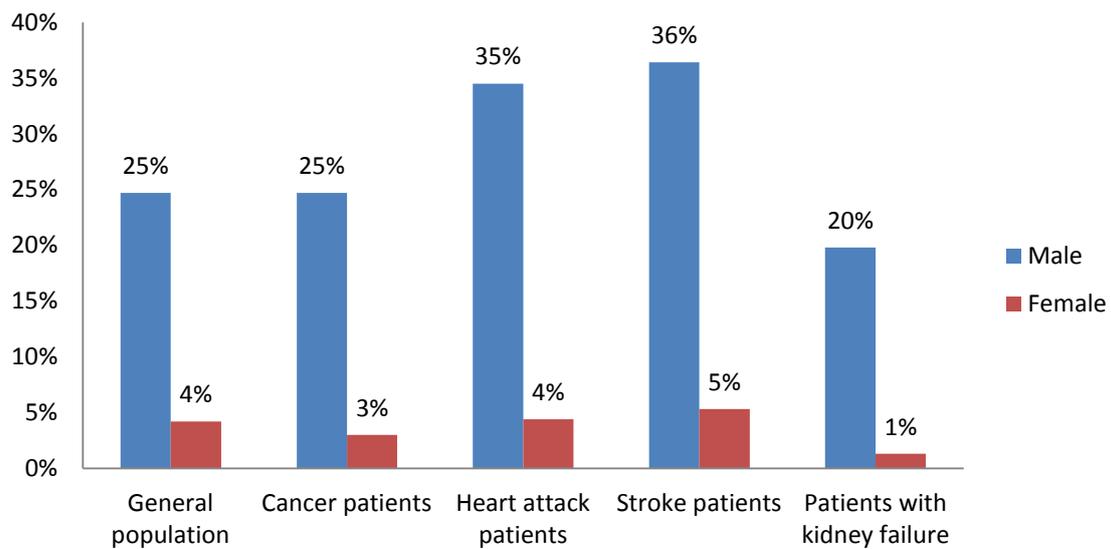


Figure 2: Percentage of smokers among Singapore residents and patients by gender



Sources:

- National Health Survey 2010
- National Registry of Disease Office 2011 and 2012

TOBACCO PRODUCTS IN SINGAPORE

The most common form of tobacco product in Singapore is cigarettes. There are also other forms of tobacco products in Singapore⁸.

Cigars contain higher amounts of tobacco than cigarettes. As the majority of the cigar smoke remains in the oral cavity, cigar smoking is usually associated with oral cavity cancer, throat cancer, larynx cancer, chronic heart disease and lung disease⁹.

Roll-your-own cigarettes, also known as *ang hoon*, are cheaper than cigarettes. They may be thinner but they contain the same harmful chemicals as found in cigarettes. As such, *ang hoon* and cigarette smokers face similar risk of smoking-related diseases¹⁰⁻¹².

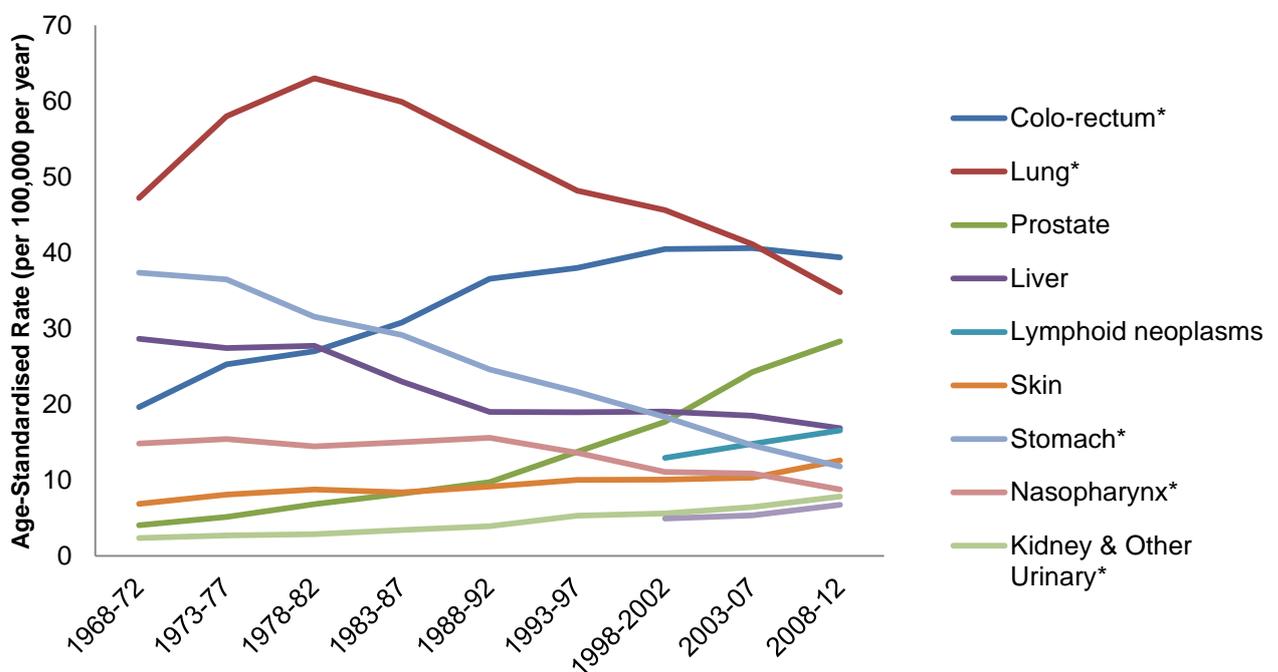
Shisha smoking is smoking from a waterpipe with partially burned flavoured tobacco. It is a popular social activity among youth smokers who view it as a harmless recreational activity. However, the smoke from shisha contains more harmful substances than cigarette; one session of shisha smoking is approximately equivalent to smoking 100 cigarettes¹³.

ADVERSE HEALTH EFFECTS OF TOBACCO PRODUCTS

Cigarette smoking increases the risk of cancer. Current smokers are more likely to be diagnosed with cancer as compared to never-smokers¹⁴. Specifically for lung cancer, compared with never-smokers, the risk of getting it is higher among former smokers and it is even higher among current smokers. For current smokers, the risk of getting lung cancer increases with the number of cigarettes smoked per day¹⁴.

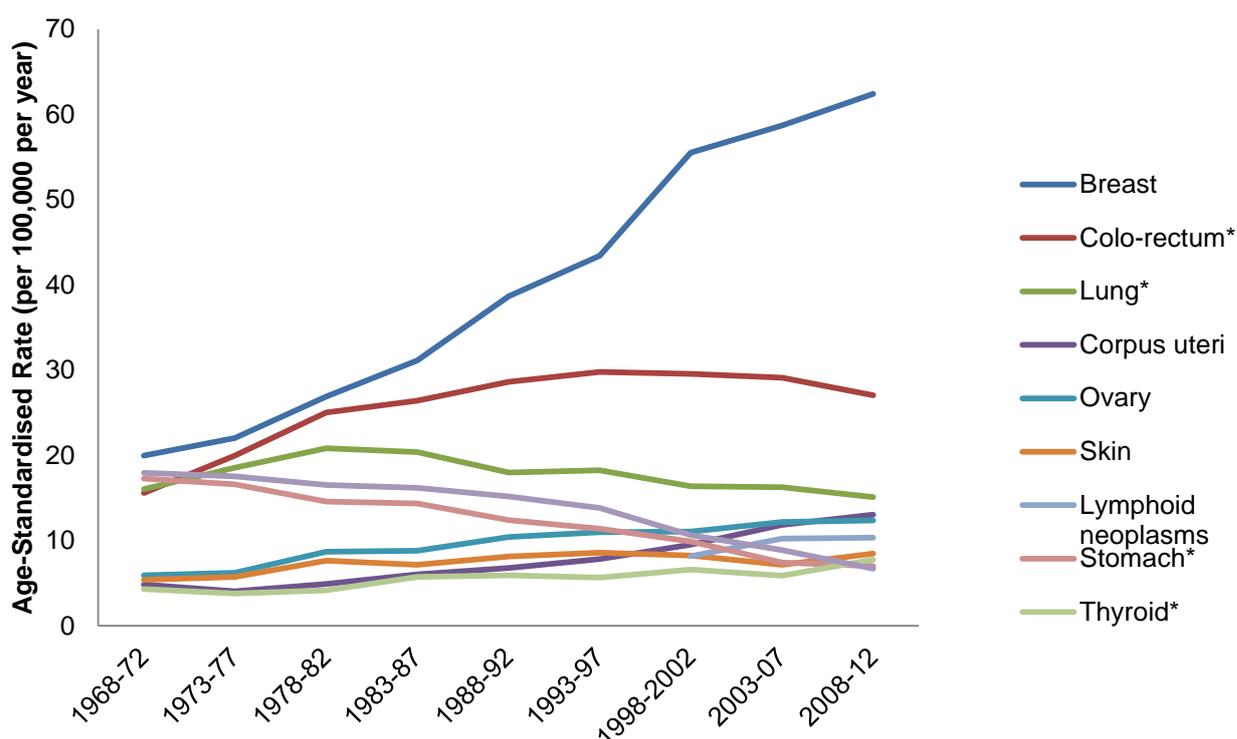
Smoking leads to cancers such as cancer of the lung, blood, cervix, colo-rectum, esophagus, kidney and other urinary cancers, throat, liver, pancreas, stomach^{15,16}. Some of these cancers are among the leading cancers affecting men and women in Singapore for the 5-year period 2008 to 2012¹⁷.

Figure 3: Leading cancers for adult male 1968 - 2012



* refers to smoking-related cancers

Figure 4: Leading cancers for adult female 1968 - 2012



* refers to smoking-related cancers

Smoking is also related to some of the leading causes of death, such as heart disease, pneumonia, stroke, chronic obstructive lung disease and diabetes in Singapore in the 5-year period 2008-2012¹⁸⁻²¹. In addition,

- Smoking is estimated to increase the risk of coronary heart disease and stroke by 2 to 4 times¹⁵.
- Smokers had a 30% higher chance of kidney failure as compared to never-smokers²².
- Smoking affects fertility, inborn baby's health, bone density, oral health, vision, diabetes development and control, immune function and arthritis^{15,23}.
- Second hand smoke is harmful to health. Exposure to second-hand smoke causes deaths from ischaemic heart disease, lower respiratory infections, asthma and lung cancer²⁴.

BENEFITS OF QUITTING SMOKING²⁵⁻³⁰

Ex-smokers live longer than those who continue to smoke. In fact, quitting smoking lowers the chance of lung cancer to 5.1 normal risks (ie. a person who is a never-smoker) within 6 years of quitting²⁹.

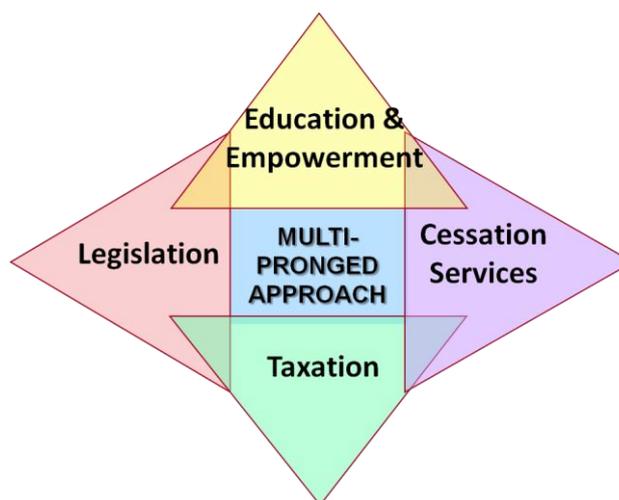
Similarly, quitting smoking can reduce the risk of all-cause death significantly. Smoking quitters reduced their risk of dying from lung cancer and it is more beneficial with longer smoke-free years³⁰. Even for smokers who are sick, quitting smoking can improve their health. Quitting smoking improves women's fertility, and for mothers who have just given birth, the survival rate and birth weight of their newborns.

THE NATIONAL TOBACCO CONTROL PROGRAMME

The National Tobacco Control Programme (NTCP) adopts a multipronged, whole-of-government strategy including taxation, tobacco control legislation, public education, collaborative partnerships and smoking cessation services to address tobacco use in the population. These strategies aim to reduce the supply of and demand for tobacco³¹.

The Health Promotion Board (HPB) has in place several tobacco control programmes to reduce smoking initiation among the young. These include³²:

- Educational co-curricular activities in educational institutions and on social / online media to raise tobacco awareness;
- Empowering teachers, youth workers, counsellors and parents to raise awareness of the benefits of a tobacco-free lifestyle among children and youth;
- Encouraging positive parental role modelling to prevent children from picking up smoking from their parents;
- Inclusion of tobacco-control messages in youth-centric premises, products, programmes or events; and
- Prohibition of under-aged smoking, in collaboration with the Health Sciences Authority, the Ministry of Education and its schools.



In 2011, the HPB introduced the I Quit campaign, a national anti-smoking campaign, which has a community-based but personalised approach to build a network of support to help smokers of all ages make their first or next attempt to quit smoking. The I Quit campaign was a marked shift from the usual scare tactics used in previous campaigns.

In 2014, the I Quit campaign will challenge smokers to weigh the pros and cons of smoking and inspire them to quit smoking by participating in a 28-day Countdown. The HPB will also step up infrastructural support for smokers to start their quit journey by increasing the number of smoking cessation touchpoints in the community and build the capacity of health professionals and HPB's Health Ambassadors to support smokers who are quitting.

For more information on the I Quit 28-Day Countdown, please refer to the website: <http://www.hpb.gov.sg/iquit>

I QUIT
28 DAY
COUNTDOWN

Stay smoke-free for **28** days
and you're 5 times more likely to quit for good.
Here's what you'll experience during your countdown.

21 DAYS TO GO
Breathing is easier, but cravings come at least 3 times a day.

14 DAYS TO GO
You're free from anxiety and your body is changing into a non-smoker's.

05 DAYS TO GO
Your brain receptors no longer respond to nicotine cravings.

28 DAYS TO GO
YOUR JOURNEY'S JUST BEGUN
Nicotine levels in your body drop and you start to feel slightly anxious.

00 DAYS TO GO
THE COUNTDOWN IS OVER
Physically and mentally, your body is back to how it was before you started smoking.

I QUIT
BECAUSE
I want to be a role model for my two daughters.

How you can stay vigilant

- Get rid of cigarettes and ashtrays to avoid temptation.
- Get the support of your loved ones by letting them know you're quitting.
- Keep your guard up even after 28 days. This is only the first step.

Head to iquitclub.sg and be a part of the largest quit-smoking movement in Singapore.

REFERENCES

1. World Health Organization. Tobacco Free Initiative, World Tobacco Day 2014. Website: <http://www.who.int/campaigns/no-tobacco-day/2014/en/> Accessed May 2014.
2. World Health Organization. Media Centre, Tobacco Fact Sheet N°339. Website: <http://www.who.int/mediacentre/factsheets/fs339/en/> Accessed May 2014.
3. Epidemiology and Disease Control Division. National Health Survey 2010. Epidemiology and Disease Control Division, Ministry of Health, Singapore, 2010.
4. National Registry of Disease Office. Singapore Cancer Registry 2012.
5. National Registry of Disease Office. Singapore AMI Registry 2012.
6. National Registry of Disease Office. Singapore Stroke Registry 2012.
7. National Registry of Disease Office. Singapore Renal Registry 2011.
8. Health Promotion Board. Get the Facts Right! Learn More about Tobacco Products, Nov 2013. Website: <http://www.hpb.gov.sg/HOPPortal/health-article/674> Accessed May 2014.
9. National Cancer Institute. Cigars: Health Effects and Trends. Smoking and Tobacco Control Monograph 9. Bethesda: US Department of Health and Human Services, National Institutes of Health, National Cancer Institute, 1998.
10. Tuyns AJ and Esteve J. 1983. Pipe, commercial and hand-rolled cigarette smoking in oesophageal cancer. *International Journal of Epidemiology*, 12(1): 110-113.
11. Stefani E, Oreggia F, Rivero S and Fierro L. 1992. Hand-rolled cigarette smoking and risk of cancer of the mouth, pharynx, and larynx. *Cancer*, 70(3): 679-682.
12. Shahab L, West R and McNeill A. 2009. A comparison of exposure to carcinogens among roll-your-own and factory-made cigarette smokers. *Addiction Biology*, 14(3): 315-320.
13. Mayo Clinic. Hookah Smoking: Is it safer than cigarettes? Website: <http://www.mayoclinic.org/healthy-living/quit-smoking/expert-answers/hookah/faq-20057920> Accessed May 2014.

14. Shakar A, Yuan JM, Koh WP, Lee HP, Yu MC. 2008. Morbidity and mortality in relation to smoking among women and men of Chinese ethnicity: the Singapore Chinese Health Study. *Eur J Cancer*, 44(1):100-9.
15. US Department of Health and Human Services. *The Health Consequences of Smoking- 50 Years of Progress: A report of the Surgeon General*. Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
16. US Department of Health and Human Services. *How Tobacco Smoke Causes Disease: What It Means to You*. Atlanta: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.
17. National Registry of Disease Office. *Singapore Cancer Registry Interim Report 2008-2012*. National Registry of Disease Office, Research and Strategic Planning Division, Health Promotion Board, Singapore, 2014.
18. Ministry of Health. *Principal Causes of Death*, Jun 2013.
Website:
http://www.moh.gov.sg/content/moh_web/home/statistics/Health_Facts_Singapore/Principal_Causes_of_Death.html
Accessed May 2014.
19. Picco L, Subramaniam M, Abdin E, Vaingankar JA and Chong SA. 2012. Smoking and nicotine dependence in Singapore: findings from a cross-sectional epidemiological study. *Ann Acad Med Singapore*, 41(8): 325-334.
20. Pope CA, Burnett RT, Turner MC, Cohen A, Krewski D, Jerrett M, Gapstur SM and Thun MJ. 2011. Lung cancer and Cardiovascular disease mortality associated with ambient air pollution and cigarette smoke: shape of the exposure-response relationships. *Environ Health Perspect*, 119(11): 1616-1621.
21. Bartal M. 2001. Health effects of tobacco use and exposure. *Monaldi Arch Chest Dis*, 56(6): 545-554.
22. Jin A, Koh WP, Chow KY, Yuan JM and Jafar TH. 2013. Smoking and risk of kidney failure in the Singapore Chinese Health Study. *PLoS One*, 8(5): 62962.
23. US Department of Health and Human Services. *Women and Smoking: A Report of the Surgeon General*. Rockville: US Department of Health and Human Services, Public Health Service, Office of the Surgeon General, 2001.
24. Oberg M, Jaakkola MS, Woodward A, Peruga A and Pruss-Ustun A. 2011. Worldwide Burden of Disease from exposure to second-hand smoke: A retrospective analysis of data from 192 countries. *The Lancet*, 377(9760): 139-

- 146.
25. US Surgeon General. 2012. The Health Benefits of Smoking Cessation: A Report of the US Surgeon General 1990. *Pakistan Heart Journal*, 24(1-2).
 26. Jha P. 2013. The 21st century benefits of smoking cessation in Europe. *European Journal of Epidemiology*, 28(8): 617-619.
 27. Ruano-Ravina A, Figueiras A, Montes-Martinez A and Barros-Dios JM. 2003. Dose-response relationship between tobacco and lung cancer: new findings. *Eur J Cancer Prev*, 12(4): 257-263.
 28. Ostbye T, Taylor DH and Jung SH. 2002. A longitudinal study of the effects of tobacco smoking and other modifiable risk factors on ill health in middle-aged and old Americans: results from the Health and Retirement Study and Asset and Health Dynamics among the Oldest Old survey. *Prev Med*, 34(3): 334-345.
 29. Wong KY, Seow A, Koh WP, Shankar A, Lee HP and Yu MC. 2010. Smoking cessation and lung cancer risk in an Asian population: findings from the Singapore Chinese Health Study. *Br J Cancer*, 103(7): 1093-1096.
 30. Lim SH, Tai BC, Yuan JM, Yu MC, Koh WP. 2013. Smoking cessation and mortality among middle-aged and elderly Chinese in Singapore: the Singapore Chinese Health Study. *Tob Control*, 22(4): 235-40.
 31. Health Promotion Board. Smoking Control Programmes for Adults, Oct 2013. Website: <http://www.hpb.gov.sg/HOPPortal/programmes-article/2490> Accessed May 2014.
 32. Health Promotion Board. Smoking Control Programmes for Youth, Jul 2012. Website: <http://www.hpb.gov.sg/HOPPortal/programmes-article/2488> Accessed May 2014.