The Union

Healthcare workers at a smokefree medical centre in Vietnam. Cessation advice integrated into primary care is an effective intervention. Credit: Matthieu Zellweger

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Factsheet 6.

Smoking cessation

The need for smoking cessation programmes

Tobacco is highly addictive, and tobacco dependency is recognised as a medical condition.[2] When smokers quit, they are very likely to start again.[3] Providing assistance for smoking cessation and tobacco dependency treatment are key tobacco control measures. The introduction of tobacco control legislation around the world has encouraged many smokers to quit.

Health benefits of smoking cessation

Smoking cessation brings immediate health benefits for smokers, whether or not they have a tobacco-related disease. For example, the decline in lung function stops within 48 hours of cessation. Former smokers live longer than continuing smokers. Cessation reduces the risk of cancer, heart disease, stroke and respiratory diseases. It also improves reproductive health.[4]

People who quit smoking before developing a tobacco-related illness can reduce most of the associated risks within a few years of quitting. These smokers, if they quit before the age of 35, have a life expectancy that is similar to non-smokers. And smokers quitting after the age of 35 will substantially reduce the risk of tobacco-related disease compared to continuing smokers.[5]

Smoking cessation services

A poll of US smokers in 2006 found that three quarters wanted to quit. However, the success rate among attempted quitters is very low.[6 7] Cigarettes are addictive, primarily because they deliver nicotine rapidly to the brain. Abstinence can create adverse moods and physical symptoms.[8] The following interventions assist those making a quit attempt:

Cessation advice integrated into primary healthcare services: Smokers are reminded at every medical visit that tobacco harms their health and the health of those around them. Repeated advice reinforces the need to quit. It is a relatively inexpensive intervention.

Quit lines and internet-based support: Inexpensive to run, easy to access and can operate beyond normal business hours. They can reach people in remote areas, introduce smokers to other therapies, and can be tailored to target groups. Quit lines linked to counseling services are more effective. Recent studies have shown that internet-based support also help,[9 10 11 12] as can text messaging.

Key Facts

- Cessation brings immediate and long-term health benefits.
- Cessation advice, quit lines, pharmacological and behavioural therapies are effective interventions.
- For young people the focus is largely on preventing them from starting using tobacco.[1]
- Article 14 of the WHO Framework Convention on Tobacco Control [WHO FCTC] requires parties to promote smoking cessation and treatment of tobacco dependency.

Pharmacological interventions

There are three main categories of medical intervention:

1. Nicotine replacement therapy (NRT) - low levels of nicotine are delivered to the body through skin patches, chewing gum, lozenges, nasal sprays and inhalers in order to mitigate withdrawal symptoms. NRT can increase a smoker's chances of quitting by 1.5 to 2 times.[14]
2. Sustained-release bupropion tablet - an anti-depressant that reduces withdrawal symptoms and increases the smoker's chance of quitting twofold.[15] Another antidepressant, nortryptiline, has also been shown to double the chances of quitting.
3. Varenicline tablet - reduces the need to smoke and also makes cigarettes less satisfying. A 2007 study found that varenicline increases the likelihood of a smoker quitting threefold.[16]

Combinations of different NRTs are effective, and no side effects of toxicity have been reported.[17 18 19] NRT is usually available without prescription.The other medications must be prescribed.

Electronic Nicotine Delivery Systems (ENDS) and e-cigarettes (ECs)

E-cigarettes have not been scientifically proven to be an effective cessation aid. Despite health claims made in e-cigarette marketing as yet they are unsupported by the scientific evidence.[20 21]

These products are not yet regulated, and their long-term impact on health is not yet known. However e-cigarettes are likely a lower-risk option than regular cigarettes.

Behavioural interventions

Behavioural interventions can be effective.[22 23] A combination of structured behavioural support and medication is believed to be the most effective way to help smokers quit.[24] Supervision of medication use, psychological support, and group counseling can all help. Interventions should be adapted to local conditions and cultures, and tailored to individual preferences and needs.

Availability of smoking cessation services

Cessation therapies are not available in all parts of the world, but availability is increasing.[13] Services to treat tobacco dependence are fully available in only 21 countries, 15% of the world's population. Nearly half of all countries, including more than 80% of low-income countries, provide only minimal, if any, support for those wanting to quit tobacco use.[25]

WHO FCTC requirements

Under Article 14 of the WHO FCTC, parties must:[26]

- Develop comprehensive guidelines based on evidence and best practice.
- Adopt measures to promote smoking cessation and treatment of tobacco dependence.

The WHO FCTC recognizes two key approaches to cessation - population level [including mass media, advice through primary care, national quit lines] and individual level [including access to medication and behavioural support].

Draft guidelines for the implementation of Article 14 include the following best practice recommendations:[27]

Smokefree signage at a restaurant / bar in Buenos Aires, Argentina. A focus should be on preventing young people from starting smoking.

Best practice

- Integrate smoking cessation services into government healthcare services.
- Make NRT products available without prescription.
- Adopt tax/price policies that make cessation products affordable.
- Require that cessation products and counselling are covered by private and government health insurance.
- Make available funding for smoking cessation programmes.
- Offer national quit lines as an effective population-level approach to help tobacco users quit.

References

Factsheet 6.

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Smoking cessation

[1] World Health Organization. International statistical classification of diseases and related health problems, 10th revision. Geneva: World Health Organization, 1992.

[2] Nicotine addiction in Britain. A report of the Tobacco Advisory Group of the Royal College of Physicians of London. London: Royal College of Physicians of London, 2000:10.

[3] The health benefits of smoking cessation: a report of the Surgeon General. Atlanta, GA: Dept of Health and Human Services, Centers for Disease Control and Prevention, National Centre for Chronic Disease Prevention and Health Promotion, Office of Smoking and Health; Washington, DC: 1990. http://profiles.nlm.nih.gov/NN/B/B/C/T/

[4] Doll R, Peto R, Wheatley K, Gray R, Sutherland I. Mortality in relation to smoking: 40 years' observations on male British doctors. Br Med J 1994;309:901-911. http://www.bmj.com/content/309/6959/901.full

[5] Lader D, Goddard E. Smoking-related behaviour and attitudes, 2003. Office for National Statistics, London 2004. www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_4085157

[6] Stopping smoking: the benefits and aids to quitting smoking. Factsheet No. 11. Action on Smoking and Health, London. 2007. http://ash.org.uk/about-ash/ash-publications

[7] West R, Shiffman S. Smoking cessation: Fast Facts. Oxford: Health Press, 2007

[8] Strecher V, Shiffman S, West R. Randomized controlled trial of a web-based computer-tailored smoking cessation program as a supplement to nicotine patch therapy. Addiction 2005;100:682-8. www.ncbi.nlm.nih.gov/pubmed/15847626

[9] Swartz L, Noell J, Schroeder S, Ary D. A randomised control study of a fully automated internet based smoking cessation programme. Tob Control 2006;15:7-12. http://tobaccocontrol.bmj.com/content/15/1/7.abstract

[10] Brendryen H, Kraft P. Happy ending: a randomized controlled trial of a digital multi-media smoking cessation intervention. Addiction 2008;103:478-84. www.ncbi.nlm.nih.gov/pubmed/18269367

[11] Strecher V, McClure J, Alexander G, Chakraborty B, Nair V, Konkel J et al. Web-based smoking-cessation programs results of a randomized trial. Am J Prev Med 2008;34:373-81. http://www.ncbi.nlm.nih.gov/pubmed/18407003

[12] Shafey O, Eriksen M, Ross H, Mackay J. The tobacco atlas (3rd ed.). Atlanta, GA: American Cancer Society, 2009. http://www.tobaccoatlas.org/

[13] Silagy C, Lancaster T, Stead L, Mant D, Fowler G. Nicotine replacement therapy for smoking cessation. Cochrane Database of Systematic Reviews 2004, Issue 3. Art. No.: CD000146. DOI: 10.1002/14651858.CD000146.pub2. http://www.ncbi.nlm.nih.gov/pubmed/15266423

[14] Hughes J, Stead L, Lancaster T. Antidepressants for smoking cessation. Cochrane Database of Systematic Reviews 2007, Issue 1. Art. No.: CD000031. DOI: 10.1002/14651858.CD000031.pub3. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD000031.pub4/full

[15] Cahill K, Stead L, Lancaster T. Nicotine receptor partial agonists for smoking cessation. Cochrane Database Syst Rev. 2007 Jan 24;(1):CD006103. http://www.ncbi.nlm.nih.gov/pubmed/22513936

[16] Sweeny C, Fant R, Fagerstrom K, McGovern J, Henningfield J. Combination nicotine replacement therapy for smoking cessation: rationale, efficacy and tolerability. CNS Drugs 2001;15:453-67. http://www.ncbi.nlm.nih.gov/pubmed/11524024

[17] Silagy C, Lancaster T, Stead L, Mant D, Fowler G. Nicotine replacement therapy for smoking cessation. Cochrane Database Syst Rev. 2004;(3):CD000146. http://www.ncbi.nlm.nih.gov/pubmed/15266423

[18] Fiore M. Treating tobacco use and dependence: an introduction to the US Public Health Service Clinical Practice Guideline. Respir Care. 2000;45:1196-9.

[19] Zhu S-H, Sun JY, Bonnevie E, et al. TobControl 2014;23:iii3–iii9. Four hundred and sixty brands of e-cigarettes and counting: implications for product regulation

[20] Rachel Grana, PhD, MPH; Neal Benowitz, MD, E-Cigarettes: A Scientific Review Stanton A. Glantz, PhD Circulation. 2014 May 13;129(19):1972-86. doi: 10.1161/

[21] Soria R, Legido A, Escolano C, López Yeste A, Montoya J. A randomised controlled trial of motivational interviewing for smoking cessation. Br J Gen Pract 2006;56:768-774. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1920717/

[22] Ranney L, Melvin C, Lux L, McClain E, Lohr K. Smoking cessation intervention strategies for adults and adults in special populations. Annals Int Med 2006 145;845-856. http://www.ncbi.nlm.nih.gov/pubmed/16954352

[23] West R. Helping patients in hospital to quit smoking. Br Med J 2002;324:64. http://www.bmj.com/content/324/7329/64

[24] WHO Report on the Global Epidemic 2013: Enforcing bans on tobacco advertising, sponsorship and promotion. Geneva 2013. World Health Organization. http://apps.who.int/iris/bitstream/10665/85380/1/9789241505871_eng.pdf

[25] The Framework Convention Alliance for Tobacco Control. www.fctc.org

[26] Conference of the parties to the WHO Framework Convention on Tobacco Control. Third session Durban, South Africa, 17–22 November 2008. First report of committee A. http://apps.who.int/gb/fctc/PDF/cop3/Draft_FCTC_COP3_22-en.pdf