

WORLD NO-TOBACCO DAY ■ 31 MAY 1999



Leave the pack behind

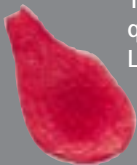


World Health Organization

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Message

from Dr Gro Harlem
Brundtland

Director-General of the World Health
Organization for World No-Tobacco Day 1999

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Giving up smoking is not easy. We know that nicotine is powerfully addictive, and all of us know people who have tried to give up smoking, only to find themselves drawn back to it a few months later. This is a challenge for us all, and we have to rise to it because we know that getting more smokers to quit is the key to reducing the projected tobacco-related death toll over the next two decades. A recent survey in a large developing country revealed that two-thirds of smokers mistakenly believe that smoking does little or no harm; few are interested in quitting, and fewer still have successfully quit. At present, most smokers who do successfully give up do so without formal help. But we need to greatly increase rates of successful quitting. Today we know that successful and cost-effective treatments exist. Nicotine replacement medicines such as nicotine gum, patches, nasal spray and inhalers as well as non-nicotine medicines such as bupropion can double people's chances of succeeding.



Giving up smoking is not easy, because nicotine is powerfully addictive.

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These need to be more widely available, but the cost also needs to be reduced to bring them within the reach of smokers everywhere. The good news is that there are real health gains to be made from stopping at any age. Those who give up in their early 30s enjoy a life expectancy similar to people who never smoked. I therefore invite all smokers to take a giant step towards better health and "leave the pack behind."



Why focus on smoking cessation for World No-Tobacco Day?

WHO annually sponsors the World No-Tobacco Day to call attention to the seriousness of the impact of tobacco on health. Smoking cessation, this year's theme, is a critical step towards substantially reducing the health risks run by current smokers, thereby improving world health. **Tobacco has been shown to cause about twenty five life-threatening diseases, or groups of diseases, many of which can be prevented, delayed, or mitigated by smoking cessation.**

Even at present, chronic diseases such as cardiovascular disease and cancer are major contributors to mortality in developing countries. As life expectancy increases in developing countries, the morbidity and mortality burden of chronic diseases will increase still further. This projected concentration of tobacco-related disease burden can be lightened by intensive efforts at smoking cessation. Studies have shown that 75-80% of smokers want to quit, while one-third have made at least three serious cessation attempts. Cessation efforts cannot be ignored in favour of primary prevention; rather, both efforts must be made in conjunction with one another.

If only a small proportion of today's 1.1 billion smokers were able to stop, the long-term health and economic benefits would be immense. Governments, communities, organizations, schools, families, and individuals are called upon to help current smokers stop their addictive and damaging habit.



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Tips

for planning a successful World No-Tobacco Day: 31 May 1999

The aim of World Tobacco Day is to focus attention on the health impact of smoking and the health gains from smoking cessation. As many activities as possible in each country need to be undertaken to mobilise public awareness, interest and action. Examples include:

- National and local campaigns to draw attention to the extent of the smoking problem. For example, TV and press coverage of studies of smoking prevalence and its impact on health in each country.
- Quit and Win competitions to encourage mass participation in attempted cessation.
- Media stories focusing on individual smokers and the strategies that helped them succeed in stopping.
- Lobbying of professional bodies representing health workers (e.g. doctors, nurses, dentists, pharmacists) to take smoking cessation on board as a major issue coming within their professional sphere of competence.
- Lobbying government and other providers of health care to give a higher priority to smoking cessation services.

- Forming alliances with pharmaceutical companies marketing effective aids to smoking cessation to increase public awareness and action on quitting smoking.

A large number of high profile activities at both the local and national level will be a mark of success on the day, but the underlying aim is to increase support for smoking cessation efforts throughout the year, and make a real difference to national rates of smoking cessation.



Research has shown that smoking cessation greatly reduces the risk of tobacco-related disease.

Some facts on global tobacco use

Scientific evidence has shown that smoking, the major preventable cause of disease world-wide, has a profound impact on public health. WHO estimates that about one third of the global adult population, or 1.1 billion people, of whom 200 million are female, are smokers. Data suggest that globally nearly 47% of men and 12% of women smoke. In developing countries, 48% of men and 7% of women smoke while in developed countries, 42% of men smoke as do 24% of women. Typically, there are gender differences in prevalence rates. For example, in Vietnam, the number of male smokers above the age of 15 is strikingly high, at 50%, while just 3% of females smoke. In the 1980s, about 20% of all deaths of men in Shanghai were due to smoking, while women's rates were much lower. This number will only increase as we start to witness the effects of increased cigarette consumption, especially in the younger generation.



Each year, tobacco causes 3.5 million deaths, or about 10 000 deaths per day. One million of these deaths currently occur in developing countries. The global tobacco epidemic is predicted to prematurely claim the lives of some 250 million children and adolescents, a third of whom are in developing countries. China, for example, predicts that of the 300 million males now aged 0-29, about 200 million will become smokers. Of these 200 million smokers, around 100 million will eventually be killed by tobacco-related diseases and half of these deaths will occur in middle-age and before age 70. **Research has shown that smoking cessation greatly reduces the risk of tobacco-related disease, so that most of these 100 million deaths are potentially preventable by intensive cessation interventions. By 2020, it is predicted that tobacco will become the leading cause of death and disability, killing more than 10 million people annually, 2 million of these in China alone, thus causing more deaths world-wide than HIV, tuberculosis, maternal mortality, motor vehicle accidents, suicide, and homicide combined.**

Health consequences of tobacco use

One out of every two smokers who start at a young age and continue smoking throughout their lives will ultimately be killed by a tobacco-related illness. On average, smokers who begin smoking in adolescence and continue to smoke regularly have a 50 percent chance of dying from tobacco. Half of these will die in middle age, before age 70, losing around 22 years of normal life expectancy. With prolonged smoking, smokers have a death rate about three times higher than non-smokers at all ages starting from young adulthood. A WHO study finds that world-wide deaths due to smoking could triple in the next two decades. Altogether, there are more than twenty five tobacco-related diseases known today.

- Acute health risks of tobacco use include shortness of breath, increased heart rate, exacerbation of asthma, impotence, infertility, and increased serum carbon monoxide.
- Long-term health risks of smoking, the major contributors to morbidity and mortality, include heart attacks and strokes, lung and other cancers (larynx, oral cavity, pharynx, oesophagus, pancreas, bladder, cervix, leukaemia),

and chronic obstructive pulmonary diseases (chronic bronchitis and emphysema).

- Not only the smoking individual, but surrounding individuals can be harmed by tobacco smoke. Breathing in other people's smoke has been shown to cause sudden infant death, respiratory illness and middle ear disease in babies and children, and lung cancer and heart disease in adults. Children are put further at risk because smoking by their parents increase the likelihood that they themselves will in time take up smoking.



The benefits of quitting smoking

HEALTH BENEFITS

Smoking cessation decreases health risks associated with tobacco use, thereby benefiting both public health and individual health. Intervention efforts that stop smoking can decrease the burden of diseases such as heart, pulmonary, and respiratory diseases and cancers. Individuals can directly benefit from their decision to quit smoking. Smokers who quit by their early thirties avoid almost all of the risk of premature death from smoking, and there are clear health benefits, including longer life, even for those who quit aged 60 and above. The pattern of health benefits from smoking cessation varies by disease. Smokers' risks of lung cancer are related both to how heavily they smoke and, in particular, how long they have been smokers. The risk incurred from 20 years of smoking is not great, but it increases exponentially with each additional year beyond that. Stopping smoking stabilises but cannot reduce the accumulated risk of lung cancer to that of someone who has never smoked, but since there would have been a further rapid escalation in the absence of quitting, there is a major reduction in risk in ex-smokers by comparison with



continued smoking. With heart disease, there is a rapid benefit, with the chances of a heart attack decreasing after just one day's abstinence. One year after quitting the excess risk of coronary heart disease is half that of a smoker and after fifteen years, the risk of coronary heart disease is that of a non-smoker. **No matter how heavily a person smokes, how impaired their health, or what their age, quitting smoking will decrease the health risks associated with smoking.**

PERSONAL BENEFITS

Individual benefits gained from quitting smoking include improved health, better taste of food, improved sense of smell, money savings, better self-esteem, and cleaner smelling breath, home, and car. Within weeks of quitting people reliably experience lower levels of perceived stress. Individuals who stop smoking can set a good example for their children, have healthier babies and children, not worry about exposing others to smoke, feel better physically, and attain freedom from addiction.

■ FINANCIAL BENEFITS

Beyond the public health domain, tobacco use is a major drain on the world's financial resources. It has been labelled a major threat to sustainable and equitable development. A World Bank study, "The Economic Costs and Benefits of Investing in Tobacco," estimated that the health care costs associated with smoking related illnesses result in a global net loss of US\$ 200 billion per year, with half of those losses occurring in developing countries. The same study indicates that smoking prevention ranks among the most cost-effective of all health interventions, as research shows that tobacco is fast becoming a greater cause of death and disability than any other single disease. It follows that smoking cessation efforts, by decreasing health risks in the same way as smoking prevention efforts, are cost-effective, as well. **A British report showed smoking cessation interventions to be among the most cost-effective of any medical interventions** (between £107 and £3622 per life year gained).

Exposure to environmental tobacco smoke by children from birth to age twelve produced avoidable costs ranging from US\$ 338,042 to US\$ 991,591 in a recent study from Hong



Kong. Research indicates smokers impose significant costs on employers through higher rates of absenteeism, inflated insurance premiums, reduced productivity, and higher maintenance costs, as well as inhalation of environmental tobacco smoke by non-smoking colleagues. Studies show that workplace restrictions limit the consumption of cigarettes, which could serve as a significant step towards smoking cessation.

Individuals who quit smoking make substantial savings through unbought cigarettes and lowered health care costs. For example, a Korean can save US\$ 285 annually if cigarettes are no longer bought, while a Norwegian can save US\$ 1982. From another perspective, the Korean will have an extra 39 hours worth of wages available for other purposes, while the Norwegian will have 95 hours worth of wages available. Smoking cessation programmes are highly cost effective with costs below US\$ 5000 per life-year. In contrast drugs to treat high cholesterol can cost from US\$ 20000 to US\$ 520000 per life year saved. Stated another way, for US\$ 1 million of public health expenditure,



200 years of life can be saved or only 2 years of life, depending on how it is spent.

(*New England Journal of Medicine*, 15 October 1998. Web site full article: <http://www.nejm.org/content/1998/0339/0016/1158.asp>)



Understanding tobacco addiction

■ TOBACCO IS ADDICTIVE

The World Health Organization has classified smoking as an addiction (Tobacco dependence syndrome: Classification F17.2 in the International Classification of Diseases, Tenth Revision). The 1988 US Surgeon General's Report concluded that "Cigarettes and other forms of tobacco use are addicting. Patterns of tobacco use are regular and compulsive, and a withdrawal syndrome usually accompanies tobacco abstinence. The pharmacological and behavioural processes that determine tobacco addiction are similar to those that determine addiction to drugs such as heroin and cocaine." Nicotine has effects on brain dopamine reward systems similar to those of drugs such as heroin, amphetamine and cocaine. In a ranking of the addictiveness of psycho-active drugs, nicotine was determined to be *more* addictive than heroin, cocaine, alcohol, caffeine, and marijuana.

The pharmacological actions of nicotine are predominantly stimulant, with effects on electrocortical activation, the heart and endocrine systems. The nicotine received in the body through cigarette smoking affects nearly all brain neu-



rotransmitters and neuroendocrine systems. Chronic exposure to nicotine through cigarettes causes structural changes in the brain by increasing the number of nicotinic receptors.

Acute consequences of nicotine use include increased heart rate, blood pressure, and flow from heart; and a narrowing of blood vessels. Other smoking effects, which may be due to other smoke components mainly, but with a contribution in some cases from nicotine, include decreased oxygen levels in blood due to increased levels of carbon monoxide; increased amount of fatty acids, glucose, cortisol and other hormones in the blood; and increased risk of hardened arteries and blood clotting (leading to heart attack and stroke); and carcinogenesis. The most serious chronic consequence of nicotine use is dependence. Once a person becomes a smoker, it is physically and psychologically difficult to break the habit. In addition to being physiologically addictive, cigarette smoking may also supply desired psychological rewards. This together with frequently repeated rituals of lighting up and puffing ensure that smoking becomes a powerfully compulsive behaviour.

Smoking cessation, a major focus of tobacco control and health promotion, involves the breaking of a physically addictive habit and the modification of learned behaviour. Smoking is a notoriously difficult habit to break, and very few smokers quit successfully without making several serious attempts. In the Dominican Republic, for example, a study found that a large majority of current smokers (87%) wished to quit, while 67.5% reported at least one serious quit attempt. **The chances of succeeding in a single unaided quit attempt are rated as no better than about 1 in 100. Researchers have found that the key clinical observation in smoking cessation is that attempts are cyclical, so that smokers who quit are at risk for relapse.** An example of a population at high risk for relapse are postpartum women who have quit smoking during pregnancy. Once the external motivating factor (the baby) has been removed, no internal motivating factors remain to deal with the increased stress levels of mothers with new-born infants. **It is important to realize that smokers often must make three or four cessation attempts in order to successfully stop smoking.**

■ TOBACCO INDUSTRY IS AWARE OF ADDICTIVE QUALITY OF CIGARETTES “IN THEIR OWN WORDS”

The tobacco industry has long been aware of the addictive nature of its product. Although internally conscious of the detrimental health effects of cigarette smoking, the tobacco industry has carefully marketed its product into a successful social and behavioural, not to mention physiological, niche. Once addicted to the nicotine in cigarettes, smokers have a difficult time ending their habit, both behaviourally and physiologically. The tobacco industry is aware of this dependence on nicotine, and works to maintain the necessary levels of the addictive drug in order to ensure the continuation of its product. If the tobacco industry publicly denies the addictiveness of its product, the industry's internal documents show a different understanding:

(<http://www.tobacco.org/Documents/documentquotes.html>):

“Nicotine is addictive. We are, then, in the business of selling nicotine, an addictive drug.” (Addison Yeaman from Brown & Williamson, 17 July 1963)

“Happily for the tobacco industry, nicotine is both habituating and unique in its variety of physiological actions.” (Research planning memo by R.J. Reynolds Tobacco Co researcher Claude Teague, 1972)

“Very few consumers are aware of the effects of nicotine, i.e., its addictive nature and that nicotine is a poison.” (Brown & Williamson memorandum signed by H.D. Steele, 1978)

“We have to satisfy the ‘individual’ who is either about to give up or has just done so... We are searching explicitly for a socially acceptable addictive product. The essential constituent is most likely to be nicotine or a direct substitute for it.” (Key Areas – Product Innovation Over Next 10 Years for Long Term Development, British American Tobacco Memorandum, August 1979, as reported in *The Guardian*, 15 February 1998)

“It has been suggested that cigarette smoking is the most addictive drug. Certainly large numbers of people will continue to smoke because they can't give it up. If they could they would do so. They can no longer be said to make an adult choice.” (British American Tobacco, 1980)

"Nicotine is the addicting agent in cigarettes." (Brown & Williamson memorandum from A.J. Mellman, 1983)

"Why do people smoke?... to relax; for the taste; to fill the time; something to do with my hands.... But, for the most part, people continue to smoke because they find it too uncomfortable to quit." (Philip Morris, internal presentation, 20 March 1984)

■ LIGHT AND MILD CIGARETTES

The terms "light" and "mild" are grossly misleading, implying a relatively healthier cigarette. In fact, "low-tar" cigarettes have no or minimal advantages over regular cigarettes. Because smoking is driven by a need for nicotine, smokers consciously or unconsciously regulate their intensity of puffing and the volume of smoke inhaled in order to achieve their desired nicotine dose. They may also resort to blocking the filter ventilation holes with their lips or fingers to increase smoke delivery. The upshot is that "low yield" brands deliver the same amount of nicotine and tar to the smoker as "high yield" brands. The increased intensity of smoking results in an undiminished risk of

chronic obstructive pulmonary disease and lung cancer, as well as an undiminished level of nicotine addiction.

The tobacco industry themselves have long been aware of smokers' tendency to smoke for the nicotine delivery more than for any other reason. The industry lets the consumers believe that they are smoking a healthier product, when in fact they are exposing themselves to the same negative health effects as from a regular cigarette. By advertising "light" products, the industry lures the consumer into a false sense of relative safety.

Internal tobacco industry documents show the industry's awareness of the negligible health benefits of "low-tar", "light", and "mild" cigarettes:

"Reducing the nicotine per cigarette might end in destroying the nicotine habit in a large number of consumers and prevent it ever being acquired by new smokers." (Complexity of the P.A.5.A. Machine and Variables Pool, British American Tobacco research and development, Minnesota trial record document number 10392, 26 August 1959)

"Human smokers differ greatly in the frequency and intensity of their puffing and the amount of each cigarette they smoke. Thus there may be little relation between the figures reported from the machine and the actual exposure of any given smoker with any given cigarette." (Ad Hoc Committee of the Canadian Tobacco Industry, A Canadian Tobacco Industry Presentation on Smoking and Health, A Presentation to the House of Commons Standing Committee on Health, Welfare and Social Affairs, 1969)

"If, as claimed by some anti-tobacco critics, the alleged health hazard of smoking is directly related to the amount of 'tar' to which the smoker is exposed per day, and the smoker bases his consumption on nicotine, then a present 'low tar, low nicotine' cigarette offers zero advantage to the smoker over a 'regular' filter cigarette." (Memorandum by researcher Claude Teague Junior, R.J. Reynolds Tobacco Co, 1972, as reported by the Associated Press, 3 April 1998)

"The trend toward low-tar cigarettes necessitates that ways be found to maintain nicotine satisfaction." (Lorillard memorandum, 1977)

"There is a danger in the current trend of lower and lower cigarette deliveries – i.e. the smoker will be weaned away from the habit. If the nicotine delivery is reduced below a threshold 'satisfactory' level, then surely smokers will question more readily why they are indulging in an expensive habit." (The Product in the Early 1980s, British American Tobacco, Minnesota trial record document number 11 386, 25 March 1977)

"Goal – Determine the minimum level of nicotine that will allow continued smoking. We hypothesize satisfaction cannot be compensated for by psychological satisfaction. At this point smokers will quit, or return to higher T&N brands." (Memorandum on the RT Information Task Force from Richard E. Smith to Alexander Spears, Lorillard, Minnesota trial exhibit number TE 10 170, 13 February 1980)



Specific targets of cessation efforts

■ ADOLESCENTS

The majority of adult smokers begin to smoke before they are twenty years old. Teenagers begin to smoke without realizing the addictive nature of nicotine, the pharmacological agent in cigarettes. The continuum of smoking behaviour among young people evolves in stages from preparation, to experimentation, to regular smoking, and finally to nicotine addiction. **In many instances, adolescents progress from their first experimental cigarette to strong nicotine dependence in a year or less.** Once a teenager realizes the extent of their addiction it is usually already both physically and psychologically difficult to quit. Health professionals may ignore teenage smoking, qualifying the oversight by assuming teenagers can easily quit. This assumption, however, is incorrect; teenagers, once addicted, are just as dependent on cigarettes as are adult smokers. In addition, the social pressures enveloping teenagers can make cessation even more difficult.

Too often, adolescent cessation programmes are ignored in favour of primary prevention programmes. Prevention programmes, however, may be indirectly helpful in the cessation

efforts of teenage smokers: the programme may educate and condition the teenager regarding the adverse health effects of smoking, thereby making the teenager more prone to successful cessation efforts. If a prevention programme fails, however, cessation programmes must be available for the addicted teenager to utilize.

Teenagers can also be targeted for cessation indirectly, through the targeting of their parents and role models. **Children are almost three times as likely to smoke if their parents do; therefore, helping parents stop smoking may not only prevent their children from starting smoking, but also may encourage adolescent cessation.**

Early cessation is essential to restoring good health to the smoker while sustaining the least health damage. Targeting teenagers in cessation efforts is the natural first step in comprehensive smoking cessation interventions. In order to target teenagers, age appropriate cessation materials and information must be accessible. To date, there has been little cessation effort directed towards teenagers – this is an area that requires more attention.

■ PREGNANT WOMEN

Numerous studies have unequivocally established that smoking during pregnancy leads to adverse health effects in both the mother and the child. Maternal smoking is also associated with medical complications such as abruptio placentae, placenta previa, bleeding during pregnancy, premature and prolonged rupture of the membranes, and pre-term delivery. Also, maternal smoking retards fetal growth, causing an average reduction in birthweight of 200g, and doubles the risk of having a low birthweight baby. Studies have shown a higher rate of fetal and infant deaths when the mother smokes. Smoking has also been shown to be an independent risk factor for Sudden Infant Death Syndrome (SIDS). **Smoking is probably the most important modifiable cause of poor pregnancy outcome among women in countries such as the US and the European Union.**

After pregnancy, continued parental smoking around infants and children can lead to such adverse health outcomes of passive smoking as increased rate of respiratory infections and middle ear disease, Smoking cessation by pregnant mothers improves fetal growth and perinatal



health by leading to heavier babies with less risk of asthma, Sudden Infant Death Syndrome (SIDS), and respiratory infections. In a study in the United States, a prenatal smoking cessation programme has been shown to yield major benefits: for every US\$ 1 spent, US\$ 3 was saved, and women in the intervention group were 2.5 times more likely to stop smoking than the women in the non-intervention group.

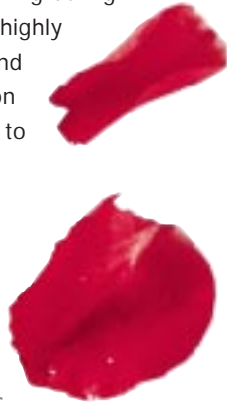
In order to reduce the risks of an unsuccessful pregnancy outcome, general prevention efforts need to be enhanced by specifically targeted cessation programmes aimed towards pregnant women, tailored to specific psychosocial and socio-economic needs. **Pregnant women must be informed about the health risks of smoking while pregnant, both for the mother and for the infant. The pregnant woman's partner must be actively involved and supportive in the cessation effort. If the partner smokes, he should also be involved in the cessation process.**

Cessation efforts should not be aimed solely at the pregnant mother, but also at the new mother, postpartum.

Smoking cessation programmes

Factors such as stress, postpartum depression, and anxiety may encourage the new mother to smoke again, especially since the external motivator (the infant in utero) has been removed. Studies have shown a relapse rate as high as 80% for mothers who had quit smoking during pregnancy. Practitioners should be highly sensitive to this relapse danger, and should tailor personalized cessation programmes to enable the woman to quit permanently.

Smoking is probably the most important modifiable cause of poor pregnancy outcome among women in countries such as the US and the European Union.



Because most relapse takes place in the first few weeks and months and a return to smoking after one year is less common, the success of smoking cessation programmes is often defined as complete abstinence from all forms of tobacco for one year following treatment and is measured using biochemical validation to support self-report. Cessation programmes are vitally important as the key to prevent smoking-related illnesses among current and future smokers. **Common features of successful smoking cessation programmes include social support, skills training and problem solving, healthy lifestyle education, and nicotine replacement or other pharmacological therapy or behavioural therapy.** Several different types of interventions have been shown to be successful at helping smokers stop smoking; these are discussed below.

■ BRIEF INTERVENTIONS BY HEALTH PROFESSIONALS

The importance of health care providers in counselling patients to quit smoking cannot be over-emphasized. It is not only doctors who can help their patients stop smoking.

Nurses, health visitors, dentists, and pharmacists also have important opportunities to assist their patients. It is important to note that every time a health care provider does not encourage smoking cessation to a patient who smokes, the provider misses an opportunity for intervention. Even if a physician's advice leads to no more than an estimated 2% cessation rate, this modest result is beneficial to the patient and is a cost-effective intervention, as one recent study found. **The few minutes each health care provider spends advising a smoking patient to quit can be not only effective in terms of minimizing health risks, but can also be a cost-effective intervention, requiring little time, money, and use of professionals to aid the smoker.**

At each phase of smoking cessation – preparation, intervention, and maintenance – **the health care provider can play a pivotal role.** Even before the smoking cessation process begins, **a health professional can be instrumental in accelerating a patient through stages of change:** precontemplation, contemplation, preparation, and action. These providers occupy a unique position in society; they have both the opportunity and the responsibility to educate their

large patient population. **As role models for healthy living, physicians should not smoke,** nor should they overlook smoking among their patients.

Furthermore, health care providers should give advice and assistance to all patients who smoke, including those with existing illness. Studies have shown that physicians who smoke are less likely to counsel patients on the danger of smoking and the importance of cessation, or to minimize the dangerous health consequences of smoking.

Attention to older patients is extremely important. Often more vulnerable due to increased number of ailments, **older patients can significantly decrease their risk for smoking-related diseases and thus gain substantial health benefits by quitting smoking.** Health care providers are a vital element in encouraging and aiding the cessation of their elderly patients who make more health care visits than their younger smoking counterparts. A Malaysian study found that very few medical students surveyed considered doctors' advice on smoking prevention to be an important component of a doctor's role; this attitude must be changed. Medical students

must be trained to understand the importance of smoking cessation in all of their patients, as well as to understand the vital role that they, as health providers, can play in encouraging a healthy lifestyle among their patients.

A recommended protocol for health professionals' smoking cessation interventions consists of the following six-step strategy:

1. Systematically identify tobacco users and document their status.
2. Strongly urge all smokers to quit.
3. Identify smokers willing to make a quit attempt: motivate those who are not ready to quit; reinforce their intentions.
4. Give advice; provide supplementary information; offer practical advice about how to deal with life as a non-smoker.
5. Advise course of action: help set a quit date and plan; offer nicotine replacement or other kinds of pharmaceutical therapy.
6. Schedule follow-up contact.

PERSONALIZATION

Targeted programmes can be aimed at specific groups. Higher levels of personalization of intervention programmes can lead to a higher success rate. **Personalized attention can be achieved in a doctor's office, where the health care provider tailors a specific cessation programme for each patient.** For example, a highly successful personalized programme in Sweden (in 1991) showed that physician encouragement and self-help manuals doubled the cessation rate among pregnant women. Another study measured the effectiveness of various programmes of cessation, some more individualized than others, concluding that the most individualized interventions proved most effective at all stages of the study. The personalization, based on the stage of change model, involved individualized manuals matched to the patients' stage of change.

MASS REACH PROGRAMMES

Individual nations' programmes are designed to reach wide ranges of the population, while occasionally tailoring the programmes toward individual specific regions or sectors of

the community. National mass reach programmes such as Japan's no-smoking week and "The Great American Smoke-out" in the United States, sponsored by the individual countries, can both educate the public and assist smokers to stop. Incentive-based mass reach programmes have been especially successful.

Quit and Win competitions, originally designed in Finland, have been successfully expanded to cover a wide and diverse international market. The incentive-based competition, with an international grand prize of US\$ 10,000, has evidenced highly successful abstention rates.

For the smoker wishing to quit, the contests provide support and incentive. For the organizers of the contest, coalition building is an added benefit to the more obvious benefit of recruiting smokers to quit.

This internationally applicable intervention programme provides a successful model for future incentive-based programmes.

Sweden's first nationwide Quit and Win Contest, held in 1988, produced a 20% abstention rate after one year,

indicating a successful mass outreach programme. Poland's efforts in the "Let's Quit Smoking Together!" campaign from 1992-1997 have also been impressive. Involving Poland's leading newspaper, TV network, and radio station, the Polish public health promotion effort was able to reach a large population, between 23 and 26 million each year. Participation in the contest has ranged between 14 000 in 1993 to 35 000 in 1995. Based on the campaign's efforts, smokers have controlled their smoking behaviour, attempted to quit, and have successfully quit smoking for good. Even if the campaign encouraged progression from precontemplation to contemplation to action without always producing a complete abstention in the smoker, the campaign can be termed successful.

Incentives, including a trip to Rome to visit Pope John Paul II, were used to encourage participation in the Quit and Win contest.

In 1994, thirteen countries participated in the first international Quit and Win contest sponsored by The National Public Health Institute (KTL) of Finland, in collaboration



with the WHO. By the 1996 competition, twenty five countries from around the world participated. The 1998 contest involved over fifty participating countries, with approximately 200 000 smokers registered according to the countries' reports. If the previous success rate persists, **between 3000 and 40000 smokers will successfully quit with the 1998 Quit and Win contest.** The international Quit and Win contests have proven to be successful smoking cessation activities that are applicable to wide ranges of cultures.

In addition to providing a "unique, positive approach" to a major world-wide health problem, as Professor Pekka Puska, the Chair of the International Coordinating Committee describes, the Quit and Win contests also promote wide international health collaboration in the face of the global focus of the tobacco industry. Quit and Win contests have been shown to be cost-effective, positive, and practical smoking cessation interventions. Although other intervention programmes have shown higher successful abstinence rates, the Quit and Win successes are more cost-effective and feasible for larger populations.

■ ALTERNATIVE METHODS

Many other smoking cessation treatments have been advocated, including hypnosis, acupuncture, peripheral nicotine antagonist such as lobeline, and mouth washes designed to make the taste of cigarettes aversive. The evidence in support of these methods is largely lacking, as there have been few adequate randomised controlled trials with follow up of all participants. Current evidence does not suggest specific efficacy above and beyond placebo effects. However, placebo effects may be valuable in themselves, and where smokers are keen to try these approaches there may be little to be gained from attempting to dissuade them.



Self-directed smoking cessation

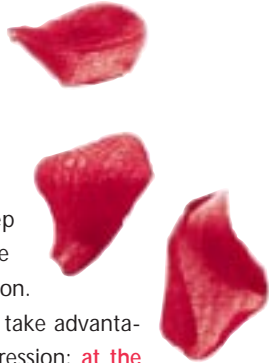
The vast majority of smokers who have or who will quit will use a largely self-directed programme. **People who are light smokers, who are highly motivated to quit, or who have limited access to medical or behavioural cessation programmes can achieve success in their cessation efforts if they employ an appropriately individualized self-directed cessation programme.**

■ SO HOW DO I QUIT SMOKING? HOW DO I PICK THE STRATEGY THAT'S GOING TO WORK FOR ME?

Every smoker who quits smoking needs a strategy which will work for them. According to a recent study in Britain, 69% of adult smokers would like to quit. Nicotine is a highly addictive drug, so quitting cigarette smoking will not be easy, even for a highly motivated individual. We know that initial smoking cessation attempts are often not successful, so the smoker determined to quit must be prepared to make multiple attempts. These recycled cessation efforts must not be ignored in favour of primary or initial interventions. Individuals must test different intervention

techniques to find the right one, realizing that it may take three or four tries before a successful programme is found. **It should be made clear to every attempting quitter that one lapse of resolve does not indicate a failed programme, but rather a small setback in what can ultimately be a successful programme.**

Prochaska and DiClemente's stages of change model becomes useful for those smokers who are not clearly motivated to actively attempt a cessation programme. **This model, spanning from precontemplation, to contemplation, to preparation, and finally to action, encompasses the wide range of smokers' positions. Health care providers, as well as health care education, legislation, and social support, should encourage a progression from one step to the next.** Even if an intervention does not bring a smoker to successful cessation, the smoker may at least progress from precontemplation to contemplation. With the next intervention, this smoker than may progress further to preparation, and eventually to action and a successful cessation. This model of progression mirrors the average cyclical cessation attempt: multiple tries with lessons learned at



each step, and each step building to the ultimate goal of complete abstinence.

Health care providers can take advantage of this model of progression: **at the precontemplation stage, smokers need motivation; at contemplation, smokers need information; at preparation and action, smokers need to establish a programme and set a quit date.** Health professionals should be aware of these stages, and should be ready to take proactive and positive action first to bring the smoker to the action stage, then to help the smoker follow through the cessation programme successfully.

Often, smoking cessation programmes are expensive or inaccessible to the larger population. **Health care providers, family, and friends are therefore the support mechanism for the majority of smokers who want to quit.** A common programme that health care professionals can recommend requires no outside expenses or materials, it simply requires a dedication on the part of the smoker and the smoker's family and friends. The strategy is as follows:

- **Commit to quit:** define and decide specific motivation and desire to quit.
- **Talk with clinician, discuss medications and strategies to deal with wanting to smoke again, maximize chances for success.**
- **Choose quit date, don't try to taper off; complete abstinence from quit date on.**
- **Get rid of all tobacco related equipment and clean all clothes and car in anticipation of quit date; immediately stop smoking at home and in car; don't go to places which would be prone to smoke.**
- **Don't worry about dieting until safely stopped quitting.**
- **Ensure and enlist support of co-workers, friends, and family to encourage efforts to quit and stay quit.**
- **If a parent, realize the example you'll set for your children.**
- **Learn how to avoid or cope with situations and behaviour that make you want to smoke.**

A combination of cessation interventions can be most effective. Behavioural therapy often cannot encourage cessation alone; often nicotine replacement or non-nicotine pharmacological therapy will benefit the smoker more actively. Since the smoker is addicted to the nicotine in cigarettes, a substitute form of the drug, administered through a pill, a patch, or gum, satisfies the smokers need for nicotine. **Nicotine replacement therapies have been shown to be twice as effective in successful cessation attempts as those attempts without them.** For many quitters, nicotine replacement therapy eases withdrawal symptoms and is a psychological, as well as physical, aid to the cessation process. **Non-nicotine pharmacological therapy, such as bupropion, functions through different pathways than nicotine replacement, and has also been proven to be twice as effective in helping smokers achieve successful cessation attempts.** Behavioural therapy can help the smoker overcome the social and psychological motivations for smoking.

The smoker attempting to quit must be aware before the quitting attempt of likely withdrawal symptoms: irritability,

impatience, hostility, anxiety, depressed mood, difficulty concentrating, insomnia, restlessness, and increased appetite and weight gain. Often, the physical withdrawal symptoms are the results of abrupt nicotine withdrawal. In these cases, nicotine replacement therapy or other medical interventions should be considered. Weight gain is a common concern for would-be quitters, especially among women. Although the smoker should be warned of the possibility or even likelihood of gaining weight, the average weight gain of 5-7 pounds poses a negligible health risk compared to the health risks of smoking. Dieting should not be considered until the individual has successfully stopped smoking, otherwise, the risk of relapse increases.

The smoker who is attempting a cessation programme should take advantage of a supportive social and familial network, as well as support and self-help material from health care providers. **Success is achievable: in the last three years in Hong Kong, over 100,000 people have successfully quit smoking. The smoker should be aware that although smoking cessation is a difficult process, millions of smokers have successfully quit.**

Pharmacological aids

to smoking cessation

Personal motivation and commitment are vital if smokers are to quit successfully. The situation is quite unlike some infectious diseases where vaccination or application of effective drugs provides a complete and sufficient treatment largely independent of the individual's knowledge or awareness. Many smokers wish that this were so for smoking too and persist in looking for a magic cure which will take away the need for them to take personal responsibility for the difficult task of changing their behaviour. **Perhaps the most important precursor to successful quitting is acknowledgement by smokers that they themselves have to take control of changing.** But that being said, there are now pharmacological aids which make a real difference to smokers' chances of succeeding in a serious quit attempt. Extensive and rigorous scientific research over the past two decades has shown that nicotine itself, the addictive drug underlying smoking behaviour, can be exploited as an effective aid to treatment, and evidence for the efficacy of new non-nicotine drugs has recently begun to emerge.



■ NICOTINE REPLACEMENT THERAPY

The rationale for nicotine replacement therapy (NRT) is that many of the difficulties of cessation stem from problems posed by nicotine withdrawal. The nicotine withdrawal syndrome (which comprises a range of mainly affective symptoms, including irritability, restlessness, feeling miserable, impaired concentration and increased appetite, as well as cravings for cigarettes) has an onset within hours of the last cigarette. **Numerous experimental and clinical studies have shown that NRT reliably attenuates the severity of withdrawal, thereby making it easier for would-be ex-smokers to cope with abstinence while unlearning the deeply ingrained habit elements of smoking.**

Nicotine replacement products are available in a number of forms, including gum, transdermal patch, nasal spray, lozenge and inhaler. The various forms of NRT differ in terms of route of administration and speed of absorption, as well as in the extent to which they offer a situational response to craving and a behavioral ritual to replace the rituals of cigarette smoking. None give the high concentration arterial bolus of nicotine characteristic of cigarette smoking, and the

overall dose of nicotine they provide is typically only one third to a half of that from cigarettes. This, coupled with the absence of toxic tar and gas phase components of cigarette smoke, gives them a reassuring safety profile. **Randomised trials have established that all forms of NRT are effective aids to cessation, on average close to doubling the chances of a quit attempt succeeding.** There is currently no reliable evidence that any one form of NRT stands out as more effective than the others, which means that choice of product will depend more on features such as ease of compliance with recommended dosing (the skin patch has a particular advantage here) and on availability. The efficacy of NRT appears to be largely independent of other elements of treatment: although absolute success rates are higher with more intensive behavioural support, the effect of NRT in doubling the chance of quitting is found in brief interventions and over-the-counter settings as well as in specialised smokers' clinics. This feature gives NRT an important role in public health approaches aimed at reaching the bulk of the smoking population with simple, brief interventions.



The effect of NRT in promoting cessation emerges right from the start of quit attempts. **Studies show that achieving complete abstinence within the first 48 hours is vital to long-term success.** Those smokers who are still smoking after this, even at very low levels, are almost invariably destined not to be successful on that attempt. **This means that health care providers can save resources by only offering repeat supplies of NRT to those who are completely abstinent at short term follow-up at one week or so.** There is no evidence that there is any benefit to be gained from prolonging use of NRT for more than about eight weeks.

The availability of NRT products varies across countries. In some they are available only on prescription, while in others they may be available over-the-counter in pharmacies or on general sale. Particularly in the developing world, the cost of these products may be a major barrier to more widespread use. It is currently unusual for health care systems to shoulder the cost of providing NRT to smokers, although there is evidence that overall quit rates are maximised where the costs of treatment are fully reimbursed.

There are very few instances in which the use of NRT is contra-indicated, and recent clinical practice guidelines have suggested that NRT should be part of the core treatment package offered to all smokers. Even in those instances where there has been understandable caution to advocate NRT use, such as pregnancy and advanced heart disease, rational arguments based on efficacy and safety suggest it would be preferable to the likely alternative of continued cigarette smoking.

■ NON-NICOTINE PHARMACOLOGICAL TREATMENTS

The success of NRT has prompted renewed interest in finding other drugs to aid smoking cessation. Many have so far failed to yield evidence of efficacy (including most anxiolytics and anti-depressants that have been tested), while in others such as clonidine signs of promise have been offset by an unacceptable side-effect profile. **Recently, the drug bupropion, an atypical anti-depressant with some noradrenergic and dopaminergic activity, became the first non-nicotine medicine licensed for smoking cessation in**

the USA, Canada and Mexico. The mechanism of action appears not to be related to the drug's antidepressant effect but rather to pathways common to addiction. **Clinical trials, among nondepressed smokers, have shown clear evidence of efficacy, and in a study recently published in the New England Journal of Medicine, bupropion and the nicotine skin patch appeared to have additive effects in enhancing outcomes.** Bupropion has a positive impact on weight in that smokers who used bupropion gained less weight than smokers who received placebo. This effect has also been observed in some trials of NRT, but the weight-gain suppressant effect of pharmacological treatment may not be maintained after cessation of therapy. In most countries bupropion is not yet available, but it is of considerable interest because of the light it may throw on brain mechanisms of nicotine addiction and for its potential in adding to the therapeutic effects of NRT.



Policies for public health

■ CREATING THE ENVIRONMENTS THAT WILL HELP MORE PEOPLE DECIDE TO QUIT, SUCCEED AT QUITTING, AND STAY QUIT FOR GOOD

A successful global smoking cessation programme necessitates a multi-faceted approach. Health education, public policy, and information dissemination programmes are all vital components in a comprehensive cessation effort. Health education through the media, schools, and health care providers, while actively promoting smoking prevention activities, will also encourage cessation activities. Motivation to quit is a major component of any cessation attempt, and educators, health care providers, and family members have the opportunity to encourage this motivation. Motivation is not always enough to overcome nicotine addiction, however, so that pharmacological methods such as nicotine replacement therapy and other non-nicotine medical therapies may also be utilized in order to give the smoker every possible tool to enable the attempt to have a successful outcome. These pharmacological therapies should be well-known by health care providers and should

be easily accessible to the smoker in need of a physical aid. Physicians and educators should not, however, be the only components of cessation attempts, rather, the smoker attempting to quit should be engaged on many levels, ensuring many possible chances for success. Legislation requiring higher priced cigarettes, reimbursement for medicines which treat nicotine dependence, increased intervention by health care professionals, positive media promoting healthy lifestyles, social support for healthier lifestyles, and mass cessation programmes, such as Quit and Win competitions, can all enable the smoker to not only want to quit, but to have the necessary tools to successfully complete the attempt. Globally, comprehensive tobacco control policies and programmes, targeting both prevention and cessation, can help stem the growth of today's tobacco epidemic.



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The Tobacco Free Initiative is a new cabinet project for the WHO created with the express aim of focusing international attention and resources on the global tobacco epidemic which is an entirely avoidable burden of disease.



World Health Organization