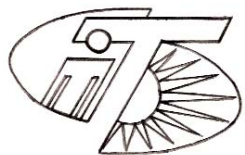
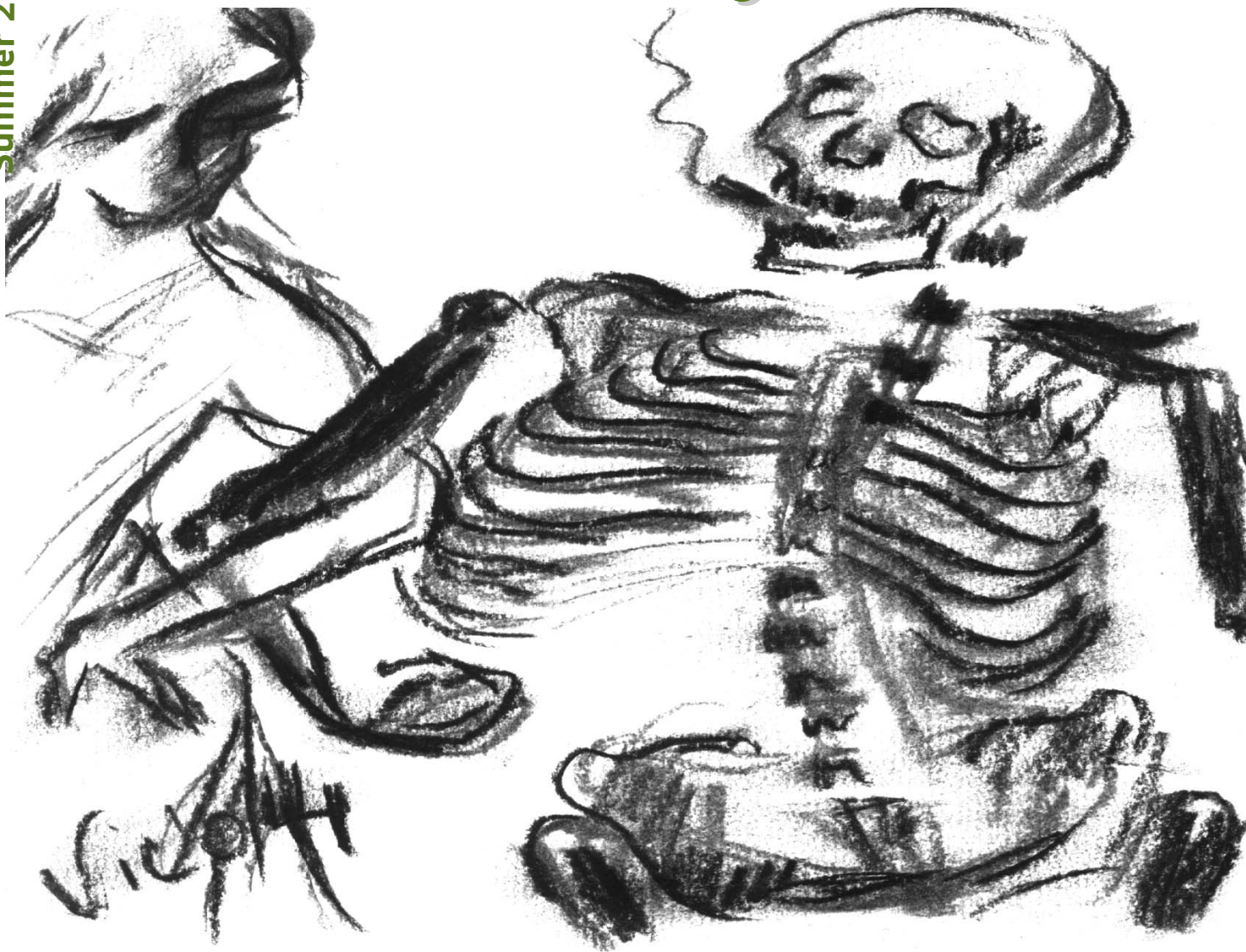


Medical STUDENT INTERNATIONAL Magazine

Summer 2004



IFMSA & ANTI-TOBACCO

TOBACCO: A RISK FACTOR FOR ORAL DISEASE

SMOKING CESSATION IN BRITAIN

FOR SMOKE-FREE WORKPLACES

TOBACCO IN NEPAL

INTERVIEW WITH THE HEALTH MINISTER OF INDIA

Anti Tobacco Strategies

RELIGIOUS ORGANIZATIONS AGAINST ADDICTION

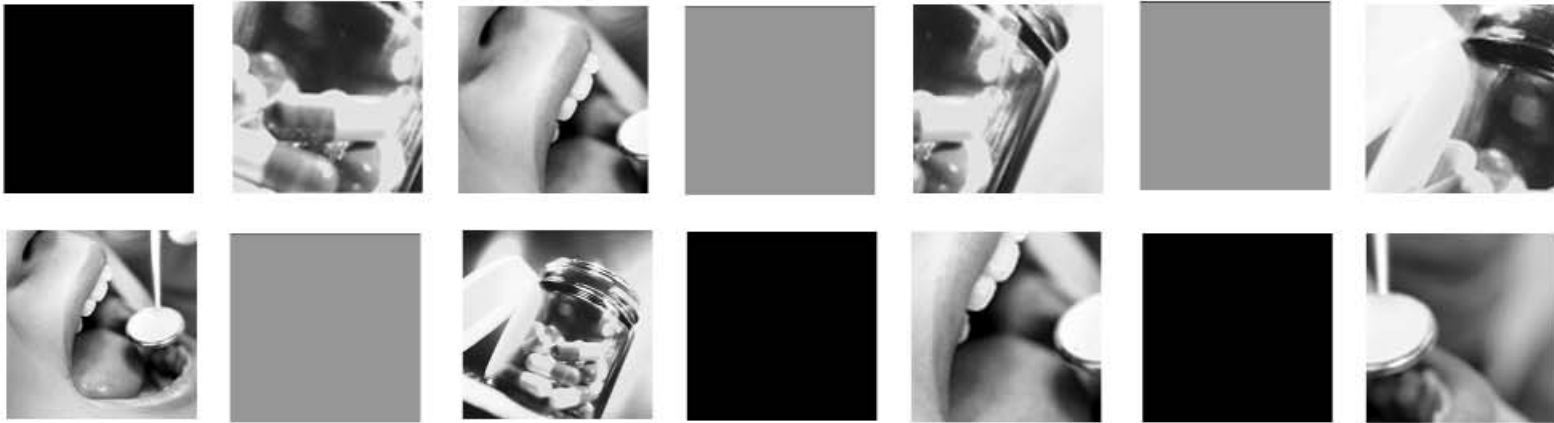
A SILENT EPIDEMIC

FIGHTING THE WINDMILLS

STOP SMOKING THE E-WAY!

GLOBAL ACTIVITIES FOR A TOBACCO-FREE FUTURE

THE TOBACCO CONTROL RESOURCE CENTRE



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ANTI TOBACCO STRATEGIES

From the Editors

This issue of the Medical Student International Magazine (MSI), being the thematic magazine of the International Federation of Medical Students' Associations (IFMSA), is different than most, since it is a joint publication. Five important bodies for international students with interests in global health, as well as in studying health sciences have met in a no-man's-land! Five active student members of the global citizens' society have consolidated their collaboration against tobacco consumption. Tobacco consumption has become a global health scourge and the leading preventable cause of death worldwide. Keeping this in mind we have decided to cooperate in order to publish an edition, strengthening our joint voice against the degradation of human quality of life. Apart from the IFMSA, the volunteer bodies that participate in the initiative are the European Dental Students' Association (EDSA), the European Medical Students' Association (EMSA), the International Association of Dental Students (IADS, as well as the scientific network of the Taxila -Center for Medical Reforms and Research (India). At this point we would like to express our sincere thanks to Mr Georgios Dafoulas (Greece), a member of the Supervising Council of the IFMSA in 2001-03 to whom the idea of the initiative belongs, as well as to Ms Gefsi Mintziori (Greece) who struggled as Director of the IFMSA Committee on Public Health in 2002-03 to launch the joint efforts and to put the project into effect!

The new issue of the MSI covers the multivariable phenomenon of tobacco consumption from many perspectives. It constitutes in fact a valuable resource. It is our earnest attempt to persuade you to begin thinking about smoking in a new and realistic way, being in accordance not only with the latest scientific data, but also with the ideas that flourish within the cycles of health policy makers! We deeply believe that our efforts are not voices crying in the wilderness. We hope that human communities across the globe are moving towards a healthier -tobacco free- future!

-The MSI Editorial Board



Photo: Malta Medical Students' Association

Anti -Smoking lesson: Students promoting smoke free life!

Medical Student International Magazine -the Thematic Magazine of the International Federation of Medical Students' Associations

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Anti-Tobacco & the IFMSA

Gefsi Mintziori describes the efforts of international medical students to promote Anti-Tobacco

Introduction

The statistics are staggering: one third of adults around the world smoke cigarettes, and half of them will die prematurely. By 2020, tobacco will account for one third of all adult deaths worldwide (1). This huge death toll is increasing rapidly, especially in low and middle-income countries, where most of the world's 1.2 billion tobacco users live (2).

The main obstacles in the global battle against tobacco use are the powerful addictive properties of nicotine, low prices of tobacco products, well-established social norms, and constant encouragement to smoke by tobacco industry advertising and promotion. Low prices and advertising can be countered by policies that raise taxes on tobacco products and outlaw all advertising and promotion of these products. Such policies are likely to have an even stronger effect if complemented by good public information on the associated health risks, by bans on smoking in public places, and by advice and help for people who want to quit. This is precisely the role of the international federation of medical student associations (IFMSA).

IFMSA declaration

In March 2000, during the 47th IFMSA general assembly in Kuopio, Finland, all IFMSA national member organizations unanimously voted to accept the IFMSA resolution against tobacco. The main point was that 'Smoking cigarettes is an enormous threat to public health, and is therefore of great concern to medical students all over the world'. As future physicians, we hope to persuade people that their health is in their own hands.

The world's 1st public health convention

Since 2000 the IFMSA has been an actively involved member of the framework convention alliance (FCA), a heterogeneous alliance of non-governmental organisations (NGOs) from around the world, which work both jointly and separately to support the development of a strong framework convention on tobacco control (FCTC) and related protocols (3).

During the world health assembly in May 2003, the 191 member states voted unanimously upon the world's first public health convention, the FCTC. The objective of the FCTC is 'to protect present and future generations from the devastating health, social, environmental and economic consequences of tobacco consumption and exposure to tobacco smoke.' Significant treaty provisions relate to:

- packaging and labeling;
 - passive smoking;
 - smuggling, taxation and duty-free sales;
 - product regulation, ingredient disclosure;
 - liability, treaty oversight and financing.
- The full text of the FCTC can be found at: www.who.int/gb/fctc/PDF/inb6/einb65.pdf

IFMSA volunteers and all other enthusiasts who run anti-tobacco related projects worldwide celebrated the signing of the FCTC, because it was the confirmation that we make a difference by 'acting locally, thinking globally'. The treaty was in fact based on the global vision and extensive experience of NGOs involved in anti-tobacco campaigns.

Future doctors and anti-tobacco

The anti-tobacco projects within the IFMSA make us feel proud of the work that is taking place within our national member organisations. Poster exhibitions, the initiative on smoke-free medical schools and smoking cessation telephone lines are some outstanding examples of the intervention of our global student network. On May 30th 2003, world anti-tobacco day, various activities took place around the world (4). In Bulgaria, the national organization held a public debate on passive smoking that lasted for 12 hours. In Brazil, there was a special event that included both lectures and debates on tobacco effects and smoking habits. In Egypt, there was a survey on smoking habits and people's knowledge and attitude to tobacco as well as posters promoting the day. In France, a poster campaign was organized for the day. Various other anti-tobacco projects ran throughout the year. In Japan,

there was distribution of leaflets and a poster exhibition to raise awareness of the effects of tobacco. In Romania, an anti-tobacco campaign was organised that included distribution of leaflets and lectures to school-children. In Slovenia a campaign was held that included counselling and an event with leaflet distribution and a poster and photo exhibition, the so called 'students' market'.

Conclusion

Anti-tobacco initiatives are common practice for all national and local IFMSA committees. IFMSA meetings are smoke-free for their duration. The standing committee on public health (SCOPH) intensively promotes anti-tobacco strategies on the local, national and international level. Co-operating with its partners, the IFMSA is motivated to continue its efforts in order to eradicate the scourge of smoking, jeopardizing human health across the globe.

Gesthimani (Gefsi) Mintziori, medical student, Aristotle University of Thessaloniki, Greece, initiative co-ordinator, IFMSA Stop TB Campaign, 2003-2004
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Photo: Jacco Veldhuyzen (The Netherlands)

A flicker of hope: Smoke -free life

www.ifmsa.org

MEDICAL STUDENT INTERNATIONAL



Fighting the Windmills

Nick Schneider explains why European GPs are active in the fight against tobacco addiction

While scientific data reveals the dangers imposed by tobacco consumption and specialists keep finding new diseases caused by active and passive smoking, the general practitioners have to deal with the physical and psychological effects of smoking on a day-to-day basis. They are the ones on the frontline, combating the addiction itself as well as the diseases which follow long-term tobacco exposure.

Whom to fight

Tobacco products are carefully designed to undermine efforts to quit using them, involving severe struggles for those trying to overcome addiction. Tobacco use has effectively been woven into everyday life and lifestyle, making its consumption socially acceptable and sometimes even rewarding. This effect has successfully been transmitted to the public by leading opinion-makers and the media, who have not hesitated in allying with the tobacco industry in its efforts to build a public image of healthy, young, successful smokers.

Fifty years after the so called 'frank statement' (4 January 1954), in which newspapers around the USA carried full-page advertisements educating the public about the alleged lack of evidence for the link between lung cancer and smoking, healthcare professionals still encounter difficulties in addressing the risks to their patients.



The victims

First of all, many patients are not informed about the risks of tobacco consumption and availability of cessation programmes. Secondly, they doubt their own effectiveness in tackling the problem, and are already frustrated by high rates of relapse. Combined with insufficient time for counselling, personal attitude of the GP, unclear funding mechanisms for cessation programmes and non-facilitating healthcare, the barriers to quitting are often too high for the patients.

Most smokers know about their addiction and are not happy about their unhealthy lifestyle; nevertheless it takes them several attempts to finally succeed in quitting. The personal habit of lighting a cigarette in certain situations, peer pressure and the fear of publicly admitting to addiction aggravate the situation. The general practitioner is often the only reliable partner in the fight against the addiction and its effects. According to the UEMO, the European union of general practitioners, a quit rate of 15-20 % is already considered a success in most smoking cessation programs.

The three pillars

The reduction of tobacco use requires a comprehensive, many-faceted strategy that includes prevention, cessation and protection.

Prevention is the easiest and most effective pillar in the fight against tobacco consumption. Engaging people in active and healthy lifestyles keeps people away from tobacco. Nevertheless, for those already smoking, the only effective way to combat the addiction consists in quitting and preventing relapse. The third pillar in the fight against cigarettes consists of the protection of non-smokers from passive smoking and other harmful effects of tobacco. As Gro Harlem Brundtland stated during her term in office as director general of the world health organization, 'a cigarette is the only consumer product which when used as directed kills its consumer'. Therefore, it is the duty of the physician to prevent this use as directed by the producers.

Smoking cessation counselling is widely recognized as an effective clinical practice which should be performed by healthcare professionals, as the likelihood of quitting increases with the number and diversity of healthcare providers involved. GPs see their patients on the most regular basis and are able to intervene in tailoring the message to their needs on a one to one basis. GPs and the primary healthcare professionals are to be educated about their valuable role in tobacco control. To achieve this, smoking cessation programmes shall become a crucial part of undergraduate and postgraduate medical education and new research evidence is to be transferred to the GPs and their team members through continuing medical education (CME).

Pharmacotherapy has proved to be effective in increasing the cessation rate and works best when combined with counselling. Nevertheless, doctors should remain trustworthy; playing a central role in tobacco control, they should set an example for peers and patients. Counselling is facilitated through clinical practice guidelines, practice tools, quick reference guides and other easily accessible resource materials, but a non-smoking doctor remains the best example for a patient willing to quit.

A European issue

The UEMO is working alongside other European and international medical associations, including EMSA, to curb the global epidemic of tobacco related disease. Its main objectives are to prevent the initiation

of tobacco use amongst young people and to promote cessation, whilst identifying the disparities related to tobacco use and its effects in different population groups. The UEMO uses its efforts to influence governments, healthcare and social systems in the European community, in order to put into practice comprehensive and co-ordinated tobacco control programs. The goal is to reduce disease, disability, and death related to tobacco use.

Together with UEMO, several European medical associations have allied their forces, establishing the 'tobacco action group' as a task force of the European forum of medical associations and WHO.

On the national and European level, these organisations and their members are encouraging the decision-makers to make the fight against tobacco consumption a priority in public health, through promoting smoke-free environments, funding effective treatment and research on tobacco cessation and making tobacco addiction treatment available to the public. Furthermore, governments are to monitor and report tobacco use, and should tax and regulate the sale and marketing of tobacco products.

Building on this partnership, the medical profession and the students in health professions should join UEMOs' call for the enactment of legislation in the prohibition of direct and indirect advertising of tobacco, the phasing out of tobacco subsidies, the high taxation of tobacco products, the exclusion of tobacco from national prices indices, the inclusion of effective health warnings on all tobacco products, the elimination of non-smokers' exposure to environmental tobacco smoke by ensuring smoke-free public places and the improvement of educational opportunities and resources for tobacco prevention.

Nick Schneider, medical student, Ruprecht-Karls-Universität, Heidelberg (Germany), permanent representative & CPME/PWG liaison officer of the European Medical Students' Association - EMSA
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The Tobacco Control Resource Centre

European medical associations take action to tackle tobacco, says Sinead Jones

Introduction

Each year, some 1.2 million people across the European region die from a tobacco-induced illness. Tobacco accounts for one in six deaths in Europe. The WHO European region has the highest tobacco consumption per head, the highest numbers of tobacco-related deaths, and the highest burden of disability caused by tobacco (1). Smoking is linked to over 40 diseases, more than 20 of them fatal.

Established in 1997 by the European Forum of Medical Associations and WHO, the TCRC supports national medical associations across Europe in their efforts to educate their members, help patients and inform public policy on tobacco. Actions include organising workshops on tobacco control and smoking cessation, carrying out surveys of tobacco use among medical practitioners, and coordinating support for international policy initiatives on tobacco. TCRC publications include *Doctors and Tobacco*, an action manual on tobacco for doctors and their professional associations, evidence-based reports, and *Tobacco Under the Microscope: The Doctor's Manifesto for Global Tobacco Control* (see page 7).

A doctor's action guide to the tobacco epidemic

Illness and deaths from tobacco are entirely preventable. As a doctor, you have enormous potential in reducing this burden. You have high credibility when speaking on matters of health. You have the opportunity to give personalised advice to your patients. Moreover, doctors often enjoy a privileged social position and have access to decision-makers.

This paper outlines four ways in which you can take effective action to help limit the tobacco epidemic.

1. Help your patients to quit

One in every two smokers will eventually die from a disease caused by tobacco. But while the risks for those who continue to smoke are high, quitting smoking at any age improves health and increases life expectancy. Many smokers want to stop, but find it difficult to succeed. The nicotine in cigarette smoke is highly addictive, acting through the same physiological pathways as cocaine and heroin (2).

As a doctor, you can help your patients to stop smoking. Even brief advice from a doctor significantly increases the likelihood that a smoker will succeed in quitting. An evidence-based protocol for a brief smoking cessation intervention known as the '5As' is recommended: ask whether the patient smokes and note it on the patient record; advise of the dangers; assess whether the

smoker is ready to try to give up; offer to assist those patients who are ready; and arrange a follow-up visit. This intervention need take only a few minutes, but doubles the smoker's chance of quitting from less than 3% for an unassisted attempt, to around 6% for smokers given brief advice. Nicotine replacement therapy should be recommended wherever appropriate, as it will double again the likelihood of success (3).

From time to time, the doctor should review all patients' smoking habits. Because nicotine is addictive, many smokers succeed in giving up only after several attempts. Smokers who try to quit but fail will need your reassurance, and your encouragement to try again.

2. Be a non-smoker

Our own smoking habits both reflect and influence our attitudes to tobacco. As well as endangering their own health, doctors who smoke risk sending a misleading message to their patients and to the general public. There is evidence that doctors who are smokers are less likely to discuss tobacco use with their patients and are less likely to be able to help their patients who smoke to stop (4). Moreover, patients may give less weight to advice on quitting when it comes from a doctor who smokes. If you smoke, give serious thought to stopping, for the sake both of your own health and that of your patients.

3. Make healthcare facilities smoke-free

Secondhand smoke can cause lung cancer and heart disease in adults (5). In children, passive smoking increases the risk of lower respiratory illness, reduced lung growth and middle ear disease. In addition, second-hand smoke can cause asthma, and increases the severity of the condition in children who are already affected (6). Both workers and the public should be protected from the health hazards of exposure to tobacco smoke, especially in health care facilities. If smoking is currently allowed on your healthcare premises, introduce a smoke-free policy to provide a healthier environment for patients and staff.

4. Campaign for effective tobacco control

As an individual and as a member of a professional association, you can make a difference by knowing what makes for effective public health policy on tobacco, and by speaking up for health at every opportunity (7). You can get the message across by working with the local community, media, politicians and decision-makers. Medical associations have a vital role to play in campaigning for comprehensive national tobacco control legislation that is monitored and enforced. Key elements include bans on

tobacco promotion, increasing prices through taxation, public education, health warnings, smoke-free public places, and support for smoking cessation. Ensure that action on tobacco is a priority for your association.

Time for action!

Every day, doctors come face to face with the suffering and misery caused by tobacco. In making a commitment to tackle tobacco - whether directly with your patients, or together with your colleagues - you can make a contribution towards halting this most preventable of epidemics and ensuring a healthier, tobacco-free world.

Sinead Jones

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For more information and to download resources and reports, visit the TCRC website: www.tobacco-control.org.

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Photo: Malta Medical Students' Association

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Global Tobacco Control

The Doctors' Manifesto for the control of tobacco consumption

Tobacco will kill almost five million people in the next 12 months. Doctors play a vital part in reducing preventable illness and death. But tobacco is not just a matter for doctors. National governments and international bodies must also act.

In the TCRC publication, Tobacco Under the Microscope: The Doctors' Manifesto for Global Tobacco Control, organisations representing more than 10 million doctors in 117 countries join forces to set out their vision for a tobacco-free future. The document is endorsed by the World Medical Association, the Commonwealth Medical Association, the European Forum of Medical Associations and the Standing Committee of European Doctors, and contains statements from more than 30 eminent doctors from developed and developing countries.

The Manifesto was prepared to help inform governments during the negotiations towards the WHO Framework Convention on Tobacco Control. The treaty, adopted by the World Health Assembly in May 2003, is the world's first global agreement devoted entirely to public health, and commits governments to introduce measures to protect the public health from tobacco.

In his foreword, Sir Richard Doll

who, some fifty years ago, uncovered the evidence linking smoking to lung cancer, states: 'Doctors helped establish the risks of tobacco, care for patients with illnesses caused by tobacco, and can help their patients to give up. They and their professional organisations also have a responsibility to protect health by urging effective public policies.'

The Manifesto presents key evidence-based measures to cut tobacco consumption and reduce tobacco-related illness and death:

- ~Clear and informative health warning on every packet of tobacco
- ~An end to misleading claims that some cigarettes are safer than others
- ~An increase in the price of tobacco through taxation
- ~The protection of non-smokers from tobacco smoke
- ~An end to all forms of tobacco promotion

Speaking at the launch of the Manifesto, Dr Gro Harlem Brundtland, the Director-General of the WHO, reiterated the important role of doctors in tobacco control. 'Behind this manifesto lies an enormous amount of evidence and science, and the personal experience of millions of doctors who have watched their patients get ill and

die from their tobacco addiction.' She continued 'When a physician speaks, most people take notice. So should policymakers. I commend this document to governments.'

From the outset, the medical profession has supported a strong treaty. Doctors are pleased to see that the agreed text of the Framework Convention commits governments to action on each of the key points included in the Manifesto. However, adoption of the Convention is only a starting point. It is now time for the countries to sign, ratify and begin implementation of the treaty without delay. Crucially, the treaty will only come into force when 40 states sign and ratify the text.¹ Doctors and their professional associations will continue to press governments to sign, ratify, and implement the FCTC without delay. Together, we can make a difference for a healthier, tobacco-free future.

To register your support for the Doctors' Manifesto, find out more about the evidence behind it, or send an electronic postcard, visit www.doctorsmanifesto.org. To find out more about the WHO Framework Convention, download the TCRC factsheet, The Doctor's Guide to the Framework Convention, from www.tobacco-control.org.

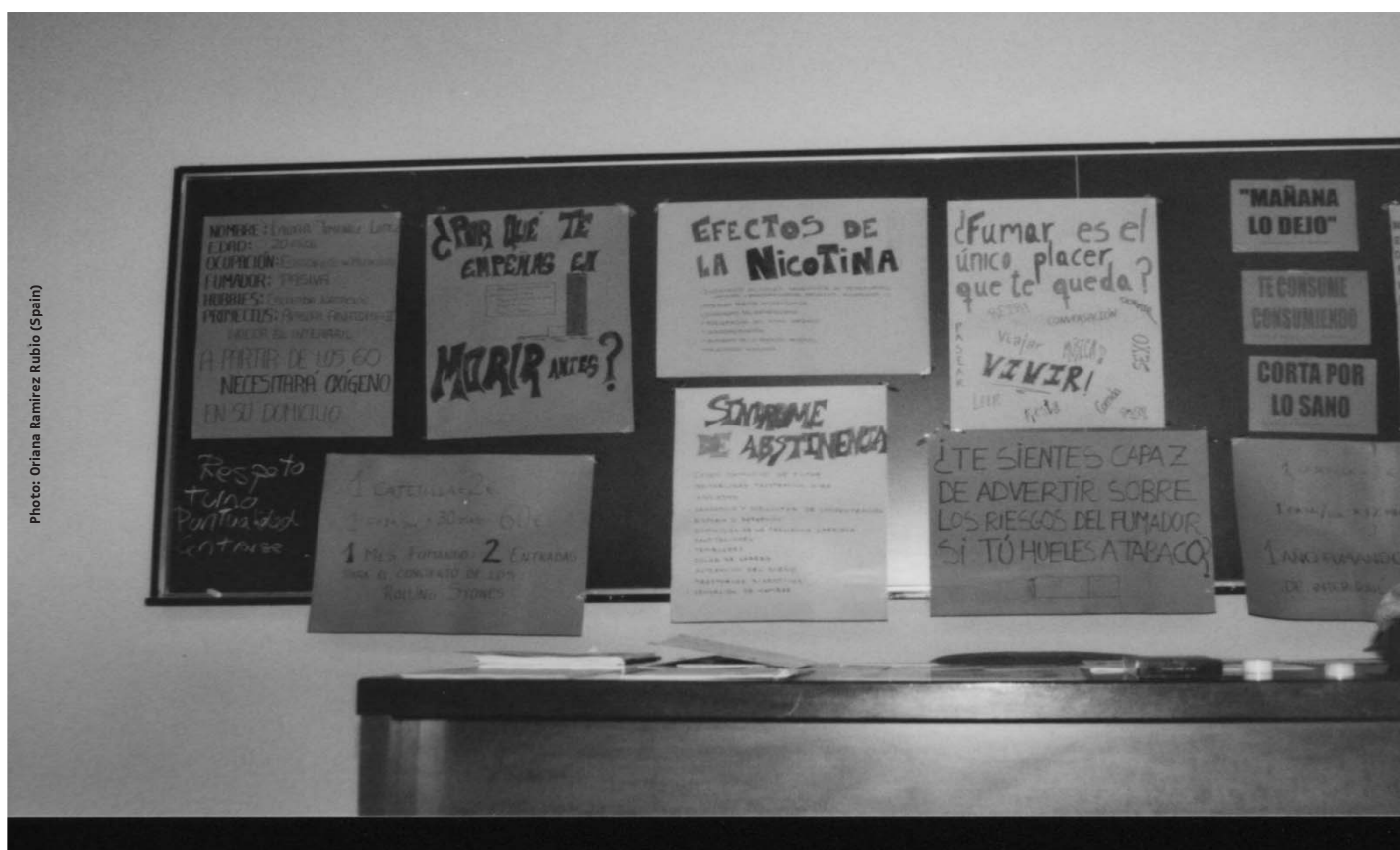


Photo: Oriana Ramirez Rubio (Spain)

Student Attempts to promote Tobacco -free Life at Spanish Universities



Tobacco in Nepal

Angel Magar & GR Ghimire take you through the situation of Tobacco Consumption in Nepal

Historical background

Tobacco has now been proven to be the weapon of mass destruction for the developing world, though its impact in developed nations is also significant. The history of the existence of tobacco in human society goes back to the 15th century when Native Americans were found to use tobacco even before Christopher Columbus discovered America. The word 'tobacco' seems to be derived from the name of the pot 'tobaca' or 'tobago', which was used in early days to keep tobacco leaves for inhalation of their smoke. Columbus carried tobacco from America to Europe. In the 16th century, the myth that tobacco acts as medicine made it quite popular in Europe and America. In 1605, Portuguese sea travellers are believed to have carried tobacco to India and it later spread to Nepal.

Situation in Nepal

More than 50 different types of tobacco-related substances are available in Nepalese communities. Some of the most extensively used forms are cigarettes (40%) bindi (30%) sulpa (15%), hukka (10%), tambakhu, khaini, jarda, pan masala, gul, chilim, maseri, chutta and mawa. They are consumed by either smoking, chewing or snuff inhalation. Most of these traditional forms of tobacco are being replaced by modern cigarettes.

Tobacco is considered by farmers to be a cash crop and is being cultivated in about 4 000 hectares of land in the Terai region of Nepal; about 6 000 metric tonnes of tobacco is produced annually. However, its consumption is more than 15 000 metric tonnes per year, of which about 10 000 Metric tonnes is imported, mainly from India; demand is increasing sharply every year. There are 4 cigarette factories and 35 other tobacco related industries registered in the ministry of industry; but there are many unregistered cottage industries related to tobacco and even home-made varieties are in use in many communities.

Over 6.6 billion cigarettes were produced by those registered industries in the year 2002-3, but the data of quantity imported and produced by other unregistered industries is not available. The available data indicate that the consumption of tobacco in Nepal has increased 1 200 fold in the last 15 years. Cigarettes make up about 40% of total tobacco consumption, 65% of which are of poor quality. This and the consumption percentage of other forms of tobacco indicate that the vast majority of consumers are from poor socio-economic backgrounds. According to an estimation by WHO, 4.1 million Nepalese consume tobacco, which accounts

for 38.4% of the total population above 15 years of age, with 48.4% in males and 28.7% in females. This smoking rate is significantly high compared with 27.3% in India.

Poor socio-economic status and literacy have been found to be associated with high prevalence of smoking: 32.5% in rural areas compared with 23.7% in urban areas and 22.3% among literates compared with 45.8% among illiterates. The rate in literate females is quite low at only 7.5%, whilst that in illiterate females is five times as high accounting for 38.6%. The pattern is similar in males: 32% in literates and 60.7% in illiterates. In 1998, 22% of the population of Kathmandu were smokers, compared with 81.8% (77.7% in 1981) in Jumla (86.6% in males and 76.75% in females). Studies have shown that 72% of Nepalese families have at least one smoking member and 12% of the Nepalese begin consumption of tobacco by the age of 10 years. The average age at which tobacco consumption starts is 16.6 years. WHO estimates that about 84.7% of males and 71% of females in Nepal consume tobacco. Research shows smoking prevalence in females in mountain regions to be 71.7% and in the Terai region to be 58.9%; this is one of

the highest percentages in the world.

We can conclude from the available statistics that the prevalence of tobacco use in Nepalese societies is alarmingly high and the cigarette consumption rate (CCR) indicates that this is an increasing trend. The CCR among the population over 15 years of age in 1970 was 170 cigarettes per person per year, while that in 1980 was 290. It increased to 580 in 1990 and 626 in 2000. The gravity of the impact of passive smoking is unpredictable.

It is worth mentioning that the prevalence of tobacco use is quite high in poor families and that they spend about 5% of their annual income on it. The poor have been victimised by the combined impact of modifiable factors, including peer pressure, curiosity, ignorance, illiteracy, unemployment, life stresses, frustration, depression, easy availability and advertising; these lead to a vicious cycle of disease and poverty. Children of smokers are at the highest risk of acquiring their bad habit, which is difficult to give up once established because the nicotine found in tobacco is an addictive substance that quickly makes the consumer dependant on it both physically and psychologically.

Drawing: Christina Vianu (Romania)



Human beings getting rid of the scourge of Tobacco consumption



Impact on health

Around 41 Nepalese die daily from tobacco-related diseases, which amounts to 1 500 deaths per year. Tobacco-associated non-communicable diseases such as carcinoma of various organs, ischemic heart diseases, chronic lung disease, hypertension, stroke, peripheral vascular disease and various foetal and pregnancy-related complications, rare in past decades, are now increasing alarmingly due to increased use of tobacco. Central hospitals are becoming burdened by the number of such cases and communicable diseases are still in high prevalence. So, Nepal is failing to combat the existing and emerging challenges created in the field of public health and national economy by the use of tobacco.

Tobacco and the economy

Nepal is facing severe economic crisis, partly due to political instability and the emergence of insurgency. Developmental activities are nil and the national economy is depending more and more on foreign aid. In the current situation, the government is unwilling to lose the cash obtained from tobacco industries in the form of tax. The government has charged tax of 2 paisa per cigarette for national products and 5 paisa per cigarette for those imported, from which the government has obtained about 3.44 billion NRs. (46.48 million US\$) in the year 2002-3. About 15% of this income has been spent on campaigns and advertisements against tobacco use, donations to related NGOs and

the running of a cancer hospital in Chitwan. We have no data regarding expenditure on the treatment of tobacco-related diseases or their impact on the national economy resulting from disabilities and death amongst the workforce. Yet we can easily guess that the loss is many times higher than the income from tax. Public debate and campaigning are creating pressure on the government to ban all tobacco-related industries.

Efforts to control

Some important steps taken so far are:

- promotion of anti-tobacco advertisements and campaigns;
- legal prohibition of advertising of tobacco-related substances in the media;
- increase in tax on tobacco-related products;
- legal prohibition of smoking in public places, including health institutes and hospitals, film theatres, public vehicles, parks and government offices;
- legal compulsion to print health warnings on the packaging of tobacco-related products;
- agreement on the international framework convention on tobacco control (FCTC) declared by the 56th general convention of WHO, held in Geneva in May 2003.

Various NGOs are said to work for the anti-tobacco movement, but most of them are limited to within the Kathmandu valley and are active only on May 31st, when celebrating 'Anti-tobacco Day'; however a few of them are working well. These efforts and their impact are not adequate to tackle the alarmingly increasing burden of extensive tobacco use.

The future

We are already late in perceiving tobacco as a weapon of mass destruction and announcing war against it. Public campaigning with the full support of governmental organizations and non-governmental agencies should be focused on labelling tobacco as a toxic addictive substance, and its production, transport and use should be legally prohibited. Along with this, programmes for tobacco cessation and social warning against tobacco use should be promoted. So legal initiatives along with public awareness are vital to begin the battle against tobacco. It is our right to live in a smoke-free environment and we should fight together to make our world a better place for future generations.

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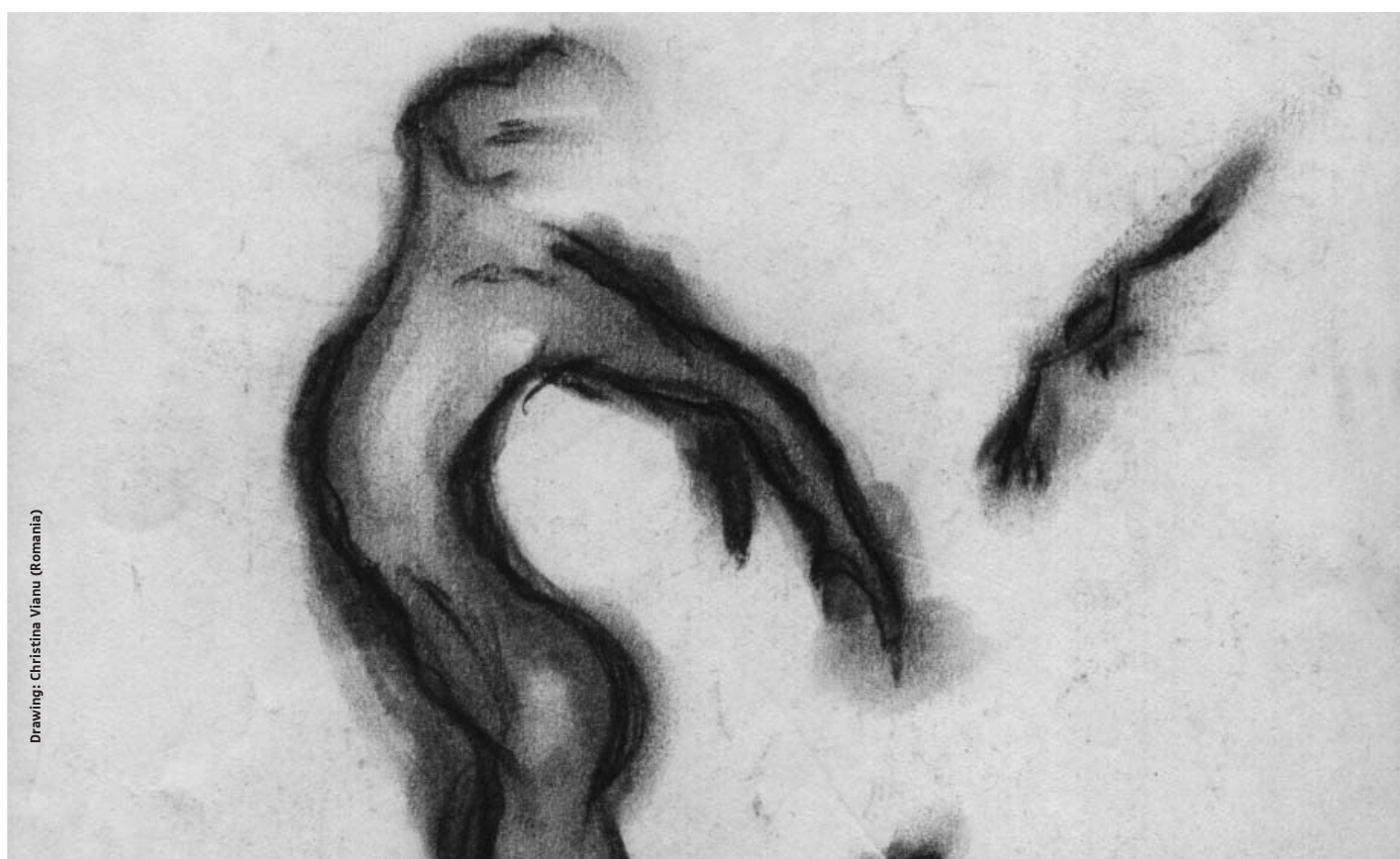
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Drawing: Christina Vianu (Romania)

A smoke-free life means a healthier body



Fighting for Smoke-Free Workplaces

A description of the efforts of AMA-MSS medical student section to promote Smoke-Free workplaces

The medical student section of the American medical association (AMA-MSS), with nearly 50 000 members, is the largest organization of medical students in the US, providing US medical students with a strong voice in advocacy. 'Tobacco-free workplaces' was one of five items on the 2003-4 AMA-MSS legislative, advocacy, and service priority list. Below is a description of the background behind this issue in the US, current legislative efforts and challenges, and what the AMA-MSS is doing to address this problem.

Background

In the US, active tobacco smoking is responsible for 440 000 deaths each year, making it the leading cause of preventable death (CDC 2002). However, exposure to environmental tobacco smoke (ETS), also known as passive or involuntary smoking, is recognized as the third cause of such death, claiming between 53 000 (Glantz 1991) and 62 000 lives per year (Wells 1994).

The overwhelming evidence that ETS exposure causes major morbidity and mortality in non-smokers has been reviewed and confirmed in numerous reports published by government agencies in the US (USDHHS, NCI, US EPA, NIOSH). Both adults and children exposed to ETS are at increased risk of respiratory illness including infection and malignancy. An estimated 3 000 deaths from lung cancer are attributed to ETS exposure each year. The overall risk of death due to heart disease increases by 30% in adults exposed to ETS in the home or workplace.

The workplace is being increasingly recognised as a locus for ETS exposure (Wells 1998, Pirkle 1996, Siegel 1993, Hammond 1995). Whilst the prevalence of smoking in the US has declined steadily over the last 20 years, research in 1999 showed that 25% of adults working indoors in the US are smokers (Farrelly 1999). In 1996, researchers found biochemical evidence that 87.9% of non-smokers in the US are exposed to ETS (Pirkle 1996). When relative person-minute exposure to ETS was compared in different environments in California, the workplace proved to be the most significant source of exposure in males (46%) and females (35%) (Lum 1994a, 1994b).

Policies to control smoking in the workplace vary significantly depending on occupation and other factors. Workers in restaurants and bars are known to be exposed to 1.6-2.0 and 4-6 times higher levels of smoke than office-based workers, respectively (Siegel 1993). Research in 1997 showed that only 46% of indoor workers had smoke-free workplaces. In the wake of smoking

restrictions in the workplace, the exposure rate of non-smokers to ETS has fallen from 53.5% in 1992-3 to 36.3% in 1995-6 (Gerlach 1997).

National smoke-free legislation efforts and challenges

The 'SmokeLess States' program is one of the largest and most visible philanthropic efforts to reduce tobacco use. The Initiative is a collaborative effort among the Robert Wood Johnson foundation (RWJF), the American medical association (AMA), and state-wide coalitions receiving grants that support activities to improve the tobacco policy environment. The RWJF has provided approximately \$40 million for educational and policy efforts undertaken by state-wide coalitions in 36 states and the district of Columbia during its first seven years. In 2001, the RWJF committed an additional \$52 million to the initiative, funding 42 state-wide coalitions.

Policy efforts focus on three key areas: (1) promoting ordinances to reduce public exposure to environmental tobacco smoke, including smoke-free workplaces and public places, (2) increasing state tobacco excise taxes to reduce the demand for tobacco products, and (3) fostering changes in Medicaid and state employee health insurance coverage and encouraging private health insurers to routinely cover tobacco dependence treatment.

The grantee states have made significant progress in coalition development, public education, prevention and treatment, and policy development to reduce tobacco use. The coalition structure that is at the heart of SmokeLess States grants has been crucial to the programme's effectiveness. This is because each coalition member-organization brings to the table different strengths and resources which, when taken together, make many victories possible.

As of August 2003, eight US states (California, Delaware, New York, Connecticut, Maine, Florida, Utah and Vermont) have passed smoke-free legislation, as well as more than 1 600 municipalities and four nations (Norway, Ireland, Philippines and Australia). In addition, several states and hundreds of cities as well as several countries are debating smoke-free workplace legislation.

Despite the success achieved thus far, efforts to introduce smoke-free legislation have been strongly opposed by the tobacco industry and hospitality owners (www.no-smoke.org/shenanigans.html). This opposition includes proposing alternate weak legislation, attacking scientific studies,

making false claims of economic losses by business owners and promoting better ventilation systems and standards. TobaccoScam (www.tobaccoscam.ucsf.edu) cites a 20-year, multi-million dollar effort by the tobacco industry to manipulate the restaurant industry as a political front to defeat smoke-free measures. Furthermore, the tobacco industry has repeatedly made groundless claims about the economic impact of smoke-free measures and has disputed the health dangers of second-hand smoke exposure. As a result, today's hospitality employees are exposed to more dangerous concentrations of second-hand smoke than any other group, while the dining public runs health risks ranging from asthma to more lethal heart attacks.

AMA-MSS projects

The AMA-MSS selected primary tobacco education and prevention as its national service project for 2002-4. MSS chapters across the country have taken the basic theme 'No butts about it...tobacco stinks,' and created a multitude of creative initiatives (Table 1). Furthermore, many chapters have been involved with projects in cooperation with outside groups. The AMA alliance's anti-smoking superhero, 'the Extinguisher' (www.ama-assn.org/ama/pub/category/2839.html), serves as a positive role-model by delivering a strong anti-tobacco message to 2nd-4th graders. Using a tobacco-free education program and poster contest, the American academy of family physicians TarWars® program (www.tarwars.org/curriculum.xml) has been employed by several chapters nationwide to target 4th-5th graders.

In addition to using creative programs and means to reach out to youths about the dangers of smoking in their local communities, AMA-MSS chapters nationwide joined together in a unified voice on April 2, 2003 during 'Kick butts day' (<http://kickbutts-day.org>). Whilst the projects were diverse, the message was clear: smoking has only negative impacts on health. The projects at medical schools around the country were focused on involving the local youth in the anti-smoking campaign. Activities included cigarette butt clean-ups, anti-tobacco track meets, survivor marches, pledge walls, and memorial services. In order to further educate the youth about social and political issues related to tobacco, innovative concepts including a mock trial for 'Mr. Butts', legislative breakfasts, working to pass local ordinances and examination of the ingredients of a cigarette were carried out.



In 2003, the AMA-MSS created the 'tobacco-free work places' informational pamphlet to campaign for smoke-free workplaces. The pamphlet describes issues regarding the reasons to advocate smoke-free workplaces, current state or worldwide legislation as of August 2003, and policies of the 1993 SmokeLess States program to reduce tobacco use. Also, the pamphlet describes current AMA policy and efforts to promote smoke-free workplaces. The pamphlet encourages the public to find out about current legislation of individual states on tobacco uses on the www.tobacco.org website. AMA also encourages the public to sign up on the smoke-free action network (www.smokefree.net/) to send letters to local elected officials for the drafting of smoke-free legislation. In addition, this website has the most updated information on state movements. A directory of other local coalitions is also provided.

As mentioned above, the AMA is part of the SmokeLess State national tobacco policy initiative. The newest section of this policy initiative is the tobacco tax challenge. According to this challenge, states can benefit by raising cigarette taxes, because as the price of cigarettes rises, the number of smokers will decline. Their 2003 updated pre-emption guide (www.ama-assn.org/ama/pub/category/print/3229.html) explains why the tobacco industry resents local control, and how SmokeLess States advocates can lobby against them. This is provided in the document titled 'Strategic thinking on state tobacco tax increase.' Lastly, organizations like the American lung association and American cancer society also guide the public to local smoke-free workplaces advocacy, opportunities and events.

From grassroots community action to political advocacy, the AMA-MSS has engendered a sense of the smoke-free workplaces campaign in its chapters nationwide. In so doing, the respective local communities around the country are also affected in a positive way. By working on the fronts of prevention (for the youth) and cessation (for current smokers), the AMA-MSS plays an important role in the battle against a problem that terminates more than 440 000 American lives each year. In the public health arena, AMA-MSS is working to make smoke-free workplaces a reality in each of the 50 states. With much progress, and despite a long road ahead, the AMA-MSS remains steadfastly committed to this communal responsibility.

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School	Projects
University of Miami	'They're rich, you're dead,' (www.mededu.miami.edu/Tobacco) a youth oriented tobacco awareness video including a medically illustrated rap song, personal testimonies of smokers, and explanations of how smoking causes disease.
University of Nebraska	A middle school carnival with interactive games aimed at teaching about the harmful effects of smoking on the body.
Uniformed Services University	Targeted 5th graders with visual aids demonstrating the consequences of smoking (including Mr. Lip-Dip, Smoked Lung Model, and Giant My Gross Mouth) and followed up with before and after surveys to assess what the students had learned about the dangers of smoking.
Arizona College of Osteopathic Medicine	Student Tobacco Education Program to educate 4th-6th graders using a Q&A team-based game attempting to answer basic questions about smoking, props illustrating the pathology of tobacco use, and the 'Jar of tar.'
University of South Carolina	Presented a resolution before the South Carolina medical association asking it to lobby the state legislature to utilize the income from the healthcare trust fund to fund a comprehensive tobacco control program in South Carolina.

Table 1: Examples of tobacco awareness projects initiated by AMA-MSS chapters



Smoking Cessation in Britain

Nidhi Gupta investigates the situation of smoking in the United Kingdom

A new 'shock' advert to promote smoking cessation has been premiered on British television. It shows arteries clogged with fat, representing the effects of cigarette smoke on blood vessels and is being sponsored by the department of health (DoH). The campaign to not only advocate and promote the cessation of smoking but also reduce passive smoking began in earnest in Great Britain three years ago with the national rolling out of the 'smoking cessation services'. Great strides have been made medically and socially to reduce tolerance to smoking; however, with over £9.3 billion generated from tobacco and the costs to the NHS only being £1.5 billion, there have not been as many advances as in other countries.

Britain has one of the highest smoking rates in Europe. 12 Million adults smoke cigarettes and 3 million people smoke pipes and cigars. There are currently estimated to be 11 million ex-smokers in Britain (1). The highest prevalence of smoking is within lower socio-economic groups (2).

Smoking is not only a problem for the adult population, but affects individuals of all ages, with children particularly susceptible. 75% of children become aware of cigarettes before the age of five, irrespective of their parents' smoking habits (3). By the age of 16, 66% of children have experimented with cigarettes (4). The experimentation of adolescents with tobacco despite it illegal for someone under the age of 16 to buy cigarettes since 1908, it is not illegal for them to smoke cigarettes and on average 450 children start smoking everyday (5). Illegal sales to children generated £108 million in taxes in 2001 and £35 million for the tobacco industry in Britain alone (6).

The harmful effects of not only direct smoking but also passive smoking have been well documented, although tobacco-sponsored research has attempted to prove otherwise, thus clouding the issue and causing it to remain controversial. For example, it takes over two and a half hours for the toxins and carcinogens in a room from one cigarette to fall to levels accepted by the

US environment protection agency (7). The sensitivity of developing children's lungs to tobacco can be seen in one study, which indicted that in homes where both parents were tobacco smokers, there was a 72% increased rate of illnesses in the children (8). It is estimated that 17 000 children under the age of 5 are admitted to hospital every year from the effects of passive smoking (9).

Despite the billions of pounds generated for the government from tobacco, the costs to human health, industry and the NHS far outweigh the benefits. The NHS spends £1.5 billion annually on treating patients with smoking related diseases. From 1997-8, 364 200 people were admitted with smoking related diseases, which occupied on average 9 500 hospital beds per day.

Over the past forty years, twelve times more people have died from tobacco than from British casualties in the Second World War (10). In industry, 64 million working days are lost each year to smoking related sick leave.

The cost of cigarettes has risen sharply over the past 20 years, with evidence that the more expensive the cigarettes, the less likely people are to buy them or to start smoking. In 1982, a packet of 20 king-size cigarettes cost £1.02 (of which 76p was tax), and in 2001, the same packet cost £4.33 (of which £3.23 was tax). However, this has not stopped British American Tobacco, the second largest tobacco company based in Britain, from making an operating profit in 2000 of £2 575 million (6).

Since 1971, the public and private sector has been working towards making smoking unattractive and discouraging individuals not only from smoking, but also from inflicting their smoke on others (2). The main aim of smoking cessation services has been to help people who want to stop to do so successfully, and to promote the benefits of cessation to those who do not yet wish to stop.

To this end, a number of funds have been made available: £1 million has been allocated to advertisements to maintain awareness of the general public and £138 million has been set aside for resources to aid cessation. Resources available include nicotine replacement products and Bupropion, available on prescription. Training for health-care professionals is available on three levels.

Sessions with individuals or groups to aid smoking cessation are used to provide practical advice and support including the making of a 'reasons for me to quit' list that can be referred to whenever a person desires a cigarette. Advice on how to reduce withdrawal symptoms and, importantly,

motivational support to help the person to persevere is also offered.

The smoking cessation services are working well, with 170 000 people a year giving up tobacco (11). However, there is currently heated debate surrounding the issue of passive smoking and whether or not England should follow the example of Singapore, Thailand, parts of Australia and America and more recently Eire in banning smoking in public places. The government introduced a voluntary code in 1998, which has thus far been unsuccessful, as was admitted by the public health minister Ms Melanie Johnson. There are currently no plans for a ban across England. Scotland is currently considering a law to ban smoking in public places, and a pub chain in England has recently announced that 50 of its 365 pubs will be completely smoke-free by Easter 2004.

Slowly but surely, progress has been made to stop smoking and reduce the devastating effects of tobacco on health. More work is needed, however the NHS 'stop smoking' services indicate that it is possible to help people to successfully stop smoking, thereby reducing their ill health and consequently their dependence on health-care services.

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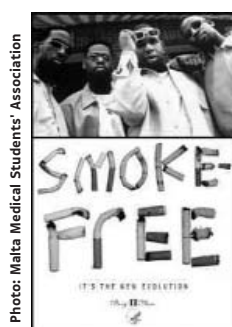


Photo: Malta Medical Students' Association



Religious Organizations Against Addiction

Niyati Rana presents ways of alternative treatment of nicotine addiction

Religion, in its true sense, guides humanity on the path of love, joy and celebration. Many enlightened masters, who have studied consciousness, life and human minds, have given us wonderful guidelines to enhance the quality of our lives. Such guidelines become paths and religions and religious organisations humanise civilizations by discouraging dehumanising deeds.

No social vices are desirable, but addiction in general and tobacco addiction in particular take centre stage; addiction is what society would define as dehumanising. Tobacco use, in both smoking and smokeless forms, is one of the major causes of preventable death across the world. It has caused millions of deaths globally, more than the number of soldiers killed in war.

Why is the habit of tobacco consumption, once considered sophisticated and glamorous, now seen as disgusting? The change in perspective results from recognition of its harmful, ruinous and deadly effects. Religious organisations play an important role in bringing about awareness of its fatal outcome. In fact, some religious organisations serve society by their efforts towards prevention and cessation of tobacco addiction; this article is a gesture in recognition their efforts.

Divine life society

Shivananda Swamiji, affectionately called 'Gurudev', laid the foundations of Divya Jivan Sangh (the divine life mission), an organisation with the belief that 'to serve humankind is to serve God'. Dr. Bhanushanker Adhvaryoo was a venerable disciple and one of the foremost propagators of Gurudev's divine life message. The divine life society, a union of education, service and spirituality, realised its ideals when Dr. Adhvaryoo, on 16th October 1956, chose Virnagar, a small village in Gujarat, for his noble deeds.

To realise their dream of creating a better society, and more specifically an addiction-free society, the first treatment camp was organized at Virnagar in 1987, followed by a few camps in the Saurashtra regions On 1st April 1989, at Virnagar, the divine life society organized 365 camps, each one informing people about the harmful effects of addictive substances like alcohol, opium and tobacco in its various forms. Victims wishing to be free of their addiction were given accommodation in a treatment centre. Experience had shown that mere words would not help them to get rid of their tobacco addiction: what they needed was an affordable, effective and safe weapon to fight against their craving. The treatment centre

provides free accommodation for two to three weeks, with medical care, psychological therapy and regular follow-up. A PDCA cycle (plan, do, check, act) has vastly improved the quality of treatment. Addicts are given individual time and attention by counsellors, maintaining their dignity and respect.

The principal drugs used are nicotine-free drops. Ridditobak nicotine-free drops change the taste of tobacco and stop craving; moreover, they cause aversion to tobacco smoking and chewing. Quitobak, another product, has not only nutritive value, but also unique anti-tobacco action: it makes tobacco tasteless or alters its usual taste to one which regular users do not like, thus preventing nicotine stimulation, and the addict finds tobacco to have lost its previous effects. Other drugs like Zyban®, homeopathy drops and Nux vomica are also used.

Bochasanvasi Shri Akshar purushottam sanstha (BAPS)

Anti-addiction campaigns are just one of the many social activities undertaken by BAPS under the inspiration of Shri Pramukh Swami. Anti-Addiction camps are held from village to village and conferences and exhibitions are organised on a regular basis. Through the conscientious efforts of Shri Pramukh Swami and his devotees, BAPS is playing a pivotal role in bringing awareness to the masses. It preaches against experimenting with tobacco in any form, as it leads to addiction and disease. Passive smoking also has harmful effects and that is why the warning notice that previously read 'Cigarette Smoking is injurious to your health' now emphasises more generally that 'Cigarette smoking is injurious to health'.

BAPS makes people familiar with the truth through harsh words and real pictures. Many articles, booklets and books have been published to serve the need of the anti-tobacco drives. The literature provided is used by doctors and nurses in the hope that thoughtful reading of it by addicts will motivate them to break the vicious circle, benefiting themselves, their families, society and future generations.

BAPS has organised international anti-addiction campaigns and achieved unprecedented success in relieving thousands of their unwanted and harmful habits. The 'international convention for better living', organised by BAPS in 1992, helped free 21 000 people from their addictions and the Yogiji Maharaj centenary celebration at Gandhinagar, Gujarat, helped 54 000 in the span of 34 days - over 1 500 a day or 100 people every hour!

The art of living foundation (AOL)

The art of living foundation works with the concepts of Satsang (fellowship), Seva (service) and Sadhna (self-discipline and arduous effort in search of God). The foundation guides us into the rich culture and spiritual heritage of Yoga and Ayurveda. AOL is like a crack in a wall, allowing light to enter and fight the darkness. Their basis is in the practice of Yoga and meditation and the use of herbs to cure diseases, depression and addiction.

Sudarshan Kriya, a form of Yoga, is considered to be the most efficacious remedy for addiction. Sri Ravishankar, founder of Ved Vigyan Maha Vidyapeeth, devised it. Defined as a rhythmic breathing process. The foundation believes that disharmony between body, mind, emotions and spirit are major causes of disturbed states of mind and addiction. Increased tobacco consumption is the fruit of an increasingly stressful lifestyle.

Sudarshan Kriya, a purgatory process, reduces anxiety and depression and converts perverse pleasure into heavenly pleasure. This self-help stress-management strategy is useful in reinstating the lost harmony of body and mind and thus overcoming the urge to consume tobacco. The effectiveness of Sudarshan Kriya has been proven through EEG. Mr. Narendra Kumar, assistant store officer at AIIMS, says that since 1992 he had been habitually chewing tobacco and was unable to break the habit. Mr. Kumar joined the basic AOL course and did not consume tea, coffee and tobacco for its duration. For the first five days he found it very hard and experienced withdrawal symptoms, but after regular follow-up with Sudarshan Kriya, craving for tobacco ceased completely.

Conclusion

Over time, divinity has manifested itself in human form; be it in the one who preached the lesson of 'Karma' or the one who was crucified, it has undeniably guided the world. Religious organisations are an extension of this. Cults differ in their methods, but by different paths reach a common destination: serving humanity. This inspiring blend of science and spirituality has proven to be a guiding light for addicts. It encourages necessary and optimistic life changes: from grim to grin, from deceptive pleasure to real and satisfying pleasure and from dependent moments to independent moments in life.

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Second -Hand Smoke: Clearing the Air

Tanith Muller & Sinead Jones investigate the current situation of passive smoking across Europe

Passive smoking is a growing concern across Europe. For more than a decade, convincing scientific evidence has been available to demonstrate that exposure to second-hand smoke both harms health, and worsens existing health problems (1). In the European Union alone, at least 22 000 people die each year because of exposure to second-hand smoke (2). Evidence of the benefits of smoke-free public places has also been accumulating. Smoke-free public places protect and improve the health of non-smokers. They also help smokers to stop. The potential public health benefit is substantial. This article summarises the health effects of passive smoking, describes evidence-based policies to protect non-smokers, and presents policy developments in selected European countries.

Second-hand smoke harms health

Tobacco smoke contains over 4 000 toxins, including more than 50 known to cause cancer (4). Involuntary smoking involves exposure to the same substances. Second-hand tobacco smoke consists of a gas phase and a particulate phase, with many harmful components being present as invisible, odourless gases (4). Successive expert groups have reviewed the scientific evidence and concluded that second-hand smoke causes illnesses - including fatal ones. The known health effects of passive smoking are summarised in Table 1.

Exposure to

second-hand smoke in Europe

Across Europe, many non-smokers are exposed to second-hand smoke daily. For many non-smokers, the main source of expo-

sure occurs in public places. Exposure in the workplace is of particular concern. More than seven million workers in the European Union are regularly exposed to second-hand smoke in the workplace. Workers in lower socio-economic groups are more likely to be exposed. Service sector employees have the highest levels of exposure, while office workers have the lowest (5).

Evidence-based protection against second-hand smoke

As policies to restrict or prohibit smoking in public places and workplaces have been introduced, evidence of their effectiveness has accumulated. A recent report (1) reviewed the available evidence and reached the following conclusions.

Restricting smoking improves health

Smoke-free public places improve and protect non-smokers' health (6), and can also benefit smokers. Smoking restrictions help those who wish to stop to do so, and reduce the number of cigarettes consumed by those who continue to smoke. Smoke-free workplaces reduce smoking prevalence by 4 % and overall tobacco consumption by 30 % (7).

Smoke-free is best

No safe level of exposure to tobacco smoke has been identified. Adverse effects can be detected at relatively low doses and short durations of exposure (8). Exposure to levels of tobacco smoke that may result in minor effects on health in one individual may precipitate more severe effects in another.

Partial restrictions are at best partially effective. Employees at worksites with partial restrictions on smoking are almost three times more likely to be exposed to second-hand smoke than those at smoke-free worksites (9).

Designated smoking areas are of little use unless they are physically isolated from non-smoking areas. One study (10) among casino workers found no differences either in the levels of tobacco smoke in smoking and non-smoking areas, or in the amount of nicotine absorbed by workers.

Introduction of smoke-free public places should be coupled with support to help smokers to quit (11).

Ventilation offers little protection

Ventilation and air cleaning offer little protection against the health hazards of second-hand smoke. Conventional ventilation systems cannot remove the gas phase of tobacco smoke, which contains many toxins and carcinogens. An assessment of filtered tobacco smoke concluded that it is as potent in inducing cancer as unfiltered smoke (12).

Legislation, not voluntary measures

Legislation for smoke-free areas is more

effective in protecting health than voluntary measures (13). Legislation should be clear and unambiguous. Restrictions should be clearly indicated, and adequately monitored and enforced.

Public awareness matters

Successful policies for smoke-free public places rely on an awareness of the health consequences of exposure to second-hand smoke and a level of social support. Legislation is most effective when supported by public information campaigns.

A comprehensive policy, progressively introduced

Legislation should make a clear commitment to smoke-free public places by a named date. Implementation can, however, be phased in over time. Clear targets must be set and the date on which particular measures come into force in various settings publicised in advance (14). Meaningful enforcement is required.

Recent developments in Europe (1024)

In countries such as Australia, Canada and the USA, many of the regulations to protect non-smokers have been enacted at local level. However, within Europe, action has thus far been at regional level, through the European Union, or at national level. This section summarises some of the approaches taken.

European Union

The European Union has passed a number of directives on health and safety at work. However, none offers explicit protection against second-hand smoke while working. Member states are obliged to translate European directives into domestic law. (For relevant directives see Table 2).

European council recommendations also refer to smoking in public places. Recommendations are advisory, and need not be translated into law within member states. The most recent recommendation, adopted in 2002, calls on member states to 'provide adequate protection from exposure to passive smoking at the workplace, in enclosed public places and in public transport ...' (15)

National policies

Within Europe, certain countries have introduced laws regulating smoking in public places. Others have extended existing laws, either by amending them or making new regulations. Still others have failed to enact any legislation, relying instead on voluntary measures.

Norway: smoke-free public places law

In Norway, all enclosed public places become smoke-free from 1st June 2004. Smoking rooms are not permitted. Norway introduced legislation restricting smoking in certain

There is Conclusive Evidence that Passive Smoking causes:

-Adults: Lung cancer, Coronary heart disease, Asthma attacks in those already affected program in South Carolina, Onset of symptoms of heart disease, Worsening of symptoms of bronchitis

-Children: Cot death, Middle ear disease (ear infections), Respiratory infections, Development of asthma in those previously unaffected, Asthma attacks in those already affected

Shortness of breath, Nausea, Airway irritation, Headache, Coughing, Eye irritation

There is Substantial Evidence That Passive Smoking causes:

Stroke, Development of asthma in those previously unaffected
Reduced foetal growth (Low birth-weight baby), Premature birth

Table 1: Known health effects of passive smoking



public places in 1988. Most recently smoking has been banned in all public places and workplaces except for those selling food and drink, where restrictions apply. The latest amendment ensures workers in the hospitality industry the same protection as others.

Ireland: smoke-free workplaces law

From 29th March 2004, smoking will not be permitted in workplaces in Ireland. The only exemption is for places where people live, such as prisons, nursing homes, psychiatric hospitals, and hotel bedrooms. The measures are introduced as regulations to the 2002 public health (tobacco) act. They follow a 1995 law prohibiting smoking in certain public places - including government buildings, cinemas and most educational and health facilities - and restricting smoking in restaurants and cafes.

Finland: smoke-free workplaces law

Finnish workplaces have been smoke-free since 1995, with the exception of restaurants and solo workplaces without any customer contact. In 1999, a law was passed introducing progressively more smoke-free areas in restaurants. In 2000, the Finnish parliament classified second-hand smoke as a carcinogen, with the result that it is regulated under health and safety legislation. By July 2001, smoking was permitted only in 50 % of the restaurant area, at maximum, on the condition that no smoke may spread to the smoke-free areas. Smoking is banned on public transport, in health and educational facilities, government buildings and all aircraft.

Sweden: smoke-free public places law

The Swedish Government has announced its intention to ban smoking in all bars and dining facilities by mid-2005. Under the proposal, smoking rooms will be permitted, but food and drink cannot be served in them. The tobacco act 1994 included restrictions on smoking in public places, and has been amended several times. Currently, smoking is banned in all enclosed public places and workplaces, except those serving food or refreshments.

Netherlands: smoke-free workplaces law, with exemptions

In the Netherlands, legislation making workplaces and public transport smoke-free came

into force on 1st January 2004. Smoking rooms are permitted at work. The original intention was that the law would cover all public places, but the government has allowed the hospitality industry until 2005 to find a 'compromise' for entertainment venues, bars, cafes and restaurants. Experience from other countries suggests that ineffective measures such as voluntary regulation and ventilation will be proposed instead of legislation.

France: smoking restrictions face enforcement problems

In France, laws restricting smoking in public spaces have been in place since 1992. The law requires that all cafes and restaurants provide a smoke-free area, and bans smoking from workplaces (except personal offices), public transport and other public places, including schools. In 2003, the Government acknowledged that compliance with the law was poor, and announced plans to enforce it more rigorously.

UK: voluntary measures only

In the UK, no law restricts smoking in public places. Successive governments have instead adopted a voluntary approach, persuading employers and businesses to increase provision for non-smokers. In 15 years, not one voluntary scheme has attained its agreed targets. Regulations to protect workers from second-hand smoke, promised by the government in 1998, have not yet been introduced. A voluntary charter agreed with the hospitality industry relies heavily on ventilation, and is supported by the tobacco manufacturers' association. The Government approach has been widely condemned by health groups, and pressure is mounting for legislation to protect non-smokers.

Future trends

Whilst exposure to second-hand smoke remains widespread across Europe, a handful of countries have adopted world-leading smoke-free legislation. The trend is towards evidence-based smoke-free policies, and away from less effective measures, including partial restrictions, ventilation, and voluntary agreements.

Introducing such policies requires political leadership and courage. The tobacco industry stands to lose millions in profits if smoke-free places are introduced (7), and campaigns strongly against them. It also attempts to influence the hospitality trade to oppose such measures (16). Courtesy of Choice and AIR are examples of hospitality industry campaigns that are funded by the tobacco industry.

While some progress has been made, much remains to be done. Classification of second-hand smoke as a workplace carcinogen by the European commission could protect millions of workers. Renewed action by governments is needed to ensure protection against second-hand smoke, as required by WHO framework con-

vention on tobacco control (FCTC). Health professionals can make a difference by communicating the health risks of second-hand smoke, and by speaking out in support of effective action for smoke-free public places.

For more information on smoke-free public places visit the TCRC website at: www.tobacco-control.org.

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-89/391/EEC (Management of health and safety at work): Introduces minimum standards for health and safety at work, including a right to risk assessments.
-89/654/EEC (Minimum safety requirements at work): Workers should be protected from second-hand smoke in canteens and restrooms.
-92/85/EEC (Safety and health at work of pregnant workers): Identifies pregnant or recently pregnant workers as a particular group for whom risk assessments are needed. Steps should be taken to protect women from workplace hazards.
-90/394/EEC (Protection of workers from carcinogens at work): Protects workers from exposure to known carcinogens. Does not include second-hand smoke, as this is judged to have arisen not from the work itself, but from other workers.

Table 2: EU Directives

E D S A

European Dental Student Association

For more information visit:
www.edsa.globaldent.com



E M S A:

European Medical Student Association

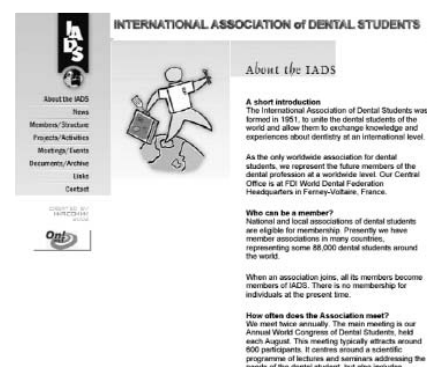
For more information visit:
www.emsa-europe.org



I A D S:

International Association of Dental Students

For more information visit:
www.iads-web.org



I F M S A:

International Federation of Medical Students' Associations

For more information visit:
www.ifmsa.org



T a x i l a:

Center for Medical Reforms and Research

For more information contact:
maulik_baxi@rediffmail.com





India's Political Attitude towards Tobacco

Maulik Baxi interviews the health minister of India

What are your views regarding the current situation of tobacco addiction in India?

Since I was a child, I have seen Indian people using tobacco in its various forms and the problems of addiction to it. I am fortunate to come from a religious background and did not see many of my family members using tobacco. However, as I grew up, I became aware of the impact tobacco has and the size of the problem. As a medical student, surgical resident and cancer surgeon, tobacco addiction has been a common problem among my patients. I agree that chewing and smoking, amongst other methods of using tobacco, are rampant in India.

The Government banned smoking in public places some years ago. Is there a plan to ban other methods of using tobacco such as chewing in India?

Yes, many states in India have banned any form of tobacco from being used in public places. Tobacco chewing or smoking is already banned on all government premises and in transport vehicles. We hope that this will extend to the whole of India.

What are your views about tobacco companies sponsoring sports events?

I am against any form of sponsorship from tobacco companies. Organisers of sports events should understand this. In Rajkot, the city I come from, we used to have an annual fair. One of the sponsors of that was a tobacco company. For the last three years we have stopped taking any sponsorship from tobacco companies and all forms of tobacco are strictly prohibited at the fair. We had to cope with the loss of Rs.25 Lacks (48000 Euros) but we worked hard and found other sponsors so that we no longer need tobacco companies.

Sub-mucous fibrosis (SMF) due to tobacco chewing is reported to be a very high-magnitude problem in India. Does the government have any plans to introduce any projects/programmes to reduce SMF?

We have included oral hygiene in the 'Swasthya Mela' (health fairs), which are organized by the department of health and family welfare. It would be better to incorporate oral healthcare into primary health services rather than to have a separate vertical project for SMF.

Due to heavy taxes, many cigarettes on the market are smuggled or contra brand varieties. What steps are being taken to prevent this?

Yes, this is an important aspect of cigarette sales, of which we are aware. We will consult

the ministry of finance and all other related departments to curb this. Smuggling not only means loss of revenue, it is also a threat to national security.

Some people favour making it compulsory for a share of tobacco companies' profits to be used for anti-cancer research. Does the Indian government have any plans to bring in such legislation in India?

No, we have no such plans. We are able enough to generate our own resources and will not go for this option. These provisions only encourage them to make more profit.

As a doctor, do you favour nicotine patches over cigarettes or do you think they are no better than smoking?

If they are found to be suitable in adequate clinical trials then we will definitely think about them.

The government has put through a law banning all types of direct or surrogate advertisements for baby food and breast milk substitutes. Are there any plans to bring in such a legislation banning cigarette and tobacco adverts?

This is an important question and concerns have been raised in the parliament also about surrogate advertising. We are going to involve every material liable to addiction in the forthcoming legislation.

When are you going to ratify framework convention on tobacco control (FCTC)?

Very soon. (India ratified FCTC on 5 February 2004).



The Union Minister of state for Health and Family Welfare (Health Minister of India), Dr. Vallabh Bhai Kathirya

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The national emblem of India



Global Activities for a Tobacco-Free Future

Taskin Tuna interviews Professor Reichart, member of the FDI

Introduction

Professor Reichart is a member of the congress & education committee in the Federation Dentaire Internationale (FDI), an international dental association. In August 2003 he attended the 12th world conference on tobacco and health in Helsinki, Finland, where the FDI and the world medical association (WMA) introduced a symposium called 'Health professionals globally: oral health or tobacco'. The congress, which was attended by more than 5000 participants from fields of medicine and politics, took place under the motto 'Global activities for a tobacco-free future'.

Through a short interview with Prof. Reichart we wanted to get the latest information about the impacts of tobacco use on oral health, FDI activities against tobacco consumption and the role of dentists in this campaign.

Prof. Reichart will be opening the scientific programme of the next IADS congress in Berlin, Germany, 9th-15th August 2004. For more information about the congress please visit www.iads-congress.de.

Questions

Professor Reichart, most people are aware of the harmful effects of tobacco consumption on general health. Are they also informed about the impacts on oral health?

First of all, I would like to say that the vast majority of people are not aware of the very many bio-negative effects of smoking on general health. What most people associate with smoking is lung cancer and, perhaps, cardiovascular disease. That smoking causes a number of other cancers such as cancer of the bladder, the pancreas, the stomach and many others is largely unknown; also, that it causes chronic obstructive lung disease. What people also don't know is that smoking is more addictive than, for example, heroine. In contrast to some knowledge about the effects on general health, most people don't know anything about effects on the structures of the mouth.

What are the facts a normal person should know about the impacts on oral health? What are the effects of 'smoking' and what are the 'oral' symptoms?

As is the case with the effects of smoking on general health, oral health will show symptoms or serious disease only after many years of tobacco addiction. The most serious diseases affecting the soft tissue structures of the mouth are oral pre-cancer and cancer. The correlation between these diseases and the habit of smoking and, in some countries, of chewing tobacco, is well established. Of

considerable epidemiologic significance is the fact that tobacco smoking has negative effects on gingival and periodontal health. Generally, gingivitis and periodontitis are more advanced and more severe in smokers compared to non-smokers. Also, treatment of gingival and periodontal disease is less effective in smokers. Wound healing after any type of surgery including periodontal surgery may be inhibited. Survival rates of implants in smokers are also reduced and implants may be rejected at an early stage. There are many other changes of the oral cavity due to smoking, including stains on the teeth, disturbances of taste and smell and halitosis, which stands for bad breath amongst other things.

What were the newest outcomes of the congress in Helsinki for the dental world?

The world congress against tobacco, or rather 'for a tobacco-free world', in Helsinki last year (2003) was important for the dental community, because a seminar was held during it by dental experts in the field, who conveyed the message that dentistry also has something to say when it comes to forming anti-tobacco leagues. This was very important because even the medical profession does not consider dentistry to have anything to do with tobacco or anti-tobacco activities. This is usually due to the narrow-minded perception of the dental profession which only seems to be focused on the reconstruction of dental hard tissue; this of course is not correct.

In 1996 the FDI created a special committee for tobacco. What were the aims?

The special group, which was started in 1996 but existed already in earlier years in a similar way, is of course focused on tobacco and oral health. Initially, the group was formed to gather knowledge about effects of smokeless tobacco and smoking on oral health. At the same time, it started to initiate anti-tobacco activities among the member states of the FDI. The aims therefore were to educate the dental team in the negative effects of smoking and to inform them about current knowledge and what can be done now and in the future, using the dental team as a platform for propagation of anti-tobacco activities.

What is the difference in the popularity of smoking between developed and developing countries? How has this changed during the past 2 decades?

The difference in smoking habits between the developed and the developing world is enormous. Principally, however, one should state



Prof. Peter A. Reichardt, FDI,
member of congress & education committee



that smoking is largely associated with the level of education. The less educated, the more people smoke. This has clearly been shown, for example, in Germany, where a microcensus was run during which 100 000 people were asked whether or not they smoked. It was clearly shown in up to 60-70 % of cases that people with the lowest level of education were smokers; 3-12 % of those with a high level of education were smokers. Recently, cigarette consumption has markedly increased in places such as China, Russia and some East European countries. As is also well known, the percentage of women smokers has dramatically increased in many countries. In some countries like the United States, whilst young men smoke less, young women take up smoking in large numbers. Another trend is that in many countries, including Germany, the age when young people start to smoke has markedly decreased: to start smoking at the age of 10-12 years is not unusual.

Being an internationally active organization, how do you treat this topic in different areas of the world?

The FDI tries to involve as many dental teams worldwide as possible in action for tobacco control. Recently, Prof. Petersen, chief of the oral health programme of the world health organization (WHO), has published a paper entitled 'Tobacco and oral health: the role of the world health organization'. Prof. Petersen clearly stated that oral health professionals and dental associations worldwide should consider themselves as a platform for future work for tobacco prevention. The problem, of course, is that in different parts of the world different smoking and chewing habits do exist. Particularly in South and Southeast Asia the chewing of the betel quid - including or not including tobacco - is a dangerous habit, leading to oral pre-cancer and cancer. The programmes against the use of tobacco either as so-called 'smokeless tobacco' or as 'smoked tobacco' have to be quite different in different parts of the world. Also, the mentality of people in different parts of the world has to be taken into account.

What have been the main activities since the FDI established the committee for tobacco? What have been the achievements of the 'FDI statement on tobacco'?

Certainly, the FDI statement on tobacco has been an important step forward. This statement was the basis for many countries, including Germany, in formulating similar statements against tobacco by their individual national dental associations. The framework convention for tobacco control, which was signed by member states of the world health assembly (WHA) in May 2003, is another big step forward in the fight against the use of tobacco.

What are the next steps? What is the role of a dentist or a dental team in the battle against tobacco consumption?

Future steps in the fight against tobacco smoking and chewing involve several issues. First of all, the dental team has to be informed in detail about the negative effects of smoking on general and oral health. Brochures and leaflets have to be prepared which address the dental team and, of course, the patient. In a further step, the dental team has to be informed about the basic procedures in the field of anti-tobacco activities. There is a wide range of intervention strategies. The more sophisticated ones involve specialists such as psychologists and people who are specifically trained in the fight against addiction. Certainly, the dental team should be able to simply inform patients about the negative effects of smoking, something which is called short term intervention. These are interventions of 2-3 minutes during which patients are informed about smoking and oral health problems.

What about concentration on education at universities? What can dental students do?

It does indeed seem to be most important to teach intervention strategies (anti-tobacco activities) both at undergraduate and post-graduate level. Only if students learn about the effects of smoking on oral health at an early stage will they be able to implement these intervention strategies in their daily practice. In this context, it has to be mentioned that awareness is the most important aspect of anti-tobacco activities. Only if the dental team is aware of its responsibility in this matter is it likely that patients will be offered intervention. Another most important aspect, of course, is to be a good example oneself. Young people including students should not start to smoke at all: since the dental team is part of the health care community it should abstain completely. In other words, a dental practice should be entirely smoke-free.

Finally, what other similar tasks exist in the FDI to improve (oral) health in the world?

The FDI is active in all aspects of oral health. There are a number of task groups which are dealing with the most important oral health-care problems. Infection control, for example, is an important topic. However, the FDI also tries to convey the principles of prophylaxis of oral diseases including periodontal disease and dental caries. It gives advice as to modern treatment strategies and, most importantly, the FDI releases statements on these in various fields of dentistry. As such, the work of the FDI is fruitful and stimulating. National dental associations have to try to implement what WHO and the FDI have suggested, which of course may be difficult in some instances. Anti-tobacco

activities were started in the United States, the United Kingdom and a few other countries some years ago, but most countries of the world are still in the very early stages of recognising that the dental team may play a role in this context. It may take another 10-20 years until anti-tobacco counselling has become routine in the dental practice.

Thank you very much, Prof. Reichart.

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A Silent Epidemic

Anabela Diana Serranito investigates the history of tobacco consumption through the years

It is presently estimated that 1.1 billion people worldwide use tobacco on a regular basis; this number is expected to rise to 1.6 billion by 2025. Tobacco constitutes a spreading, silent epidemic that is responsible for the premature death of about 4.2 million people annually. By 2030 this number could rise to 10 billion annually. In the face of such alarming numbers it is difficult to believe that tobacco was introduced into the western world from the new world less than 500 years ago.

According to plant geneticists, the tobacco plant has its genetic origin in the Andes. Man first cultivated it, in this region, as early as 5000-3000 BC, but when Columbus discovered America, tobacco use was a widespread custom on the American Continent, including the offshore islands like Cuba. Little is known of how tobacco came to be used by man, however it is a fact that it was included in many aspects of everyday life in various American Civilizations, playing an important role in religious ceremonies and as a medicinal plant.

In small quantities, tobacco has a mild effect on the user, and it was smoked, sniffed, chewed, eaten, drunk, smeared over bodies and even used as enemas. In larger doses, tobacco can produce hallucinations and trances, properties that were explored by the shamans in their religious celebrations. These qualities were embellished with mythical properties and tobacco came to be associated with cleansing and fertility. It would be applied to maidens on their wedding night, used in initiation ceremonies and blown on warriors' faces before battle. Cigars were offered as tokens of welcome and friendship, but were also used for relaxation purposes. It was also used as a medicinal plant, as tobacco has mild analgesic and anti-septic properties, already recognised in these societies. It was used to cure toothaches and other mild ailments, as well as to treat snakebites. Some South American tribes applied tobacco juice directly to their skin to kill lice and other parasites. Tobacco was also used as a pesticide and its smoke was blown over the seeds of corn and fruit.

Europeans were first introduced to tobacco with the landing of Columbus on the shores of the American continent in 1492. Whilst exploring the shores of the new land, Columbus writes in his log that they came into contact with the natives 'with a little lighted brand made from a kind of plant whose aroma it was their custom to inhale'. One Spaniard, Rodrigo de Jerez, took up smoking hand-rolled tobacco leaves, but on lighting up his first cigarette in a public place in Spain, was immediately thrown into jail

for three years by the Spanish inquisition. Nevertheless, the Spanish and Portuguese sailors, actively exploring the South American shores during this period, quickly adopted tobacco, smoking it during endless and tedious hours at sea and applying powdered tobacco to their wounds.

In 1518, a Spanish missionary, Romano Pane, sent King Carlos V a handful of seeds, which were carefully grown and cultivated and became the first European plantation. In 1556, tobacco was introduced to France by a French monk named Andre Thevet of Angouleme, who brought it back from Brazil. In 1559, the French ambassador in Portugal, Jean Nicot de Villemain, sent tobacco to Catarina de Medici, wife of King Henri II, describing it as a cure for migraines, from which the queen suffered terribly. She started using snuff and this habit promptly became fashionable in the French court and spread swiftly across Europe. Later, the botanist Du Champ christened the plant 'Herba Nicotiana' in honour of the French ambassador, forever immortalising his name. During the second half of the 16th century, tobacco use quickly spread its influence across many nations, and the supposed medicinal properties of the plant flared the imagination of many scholars, who wrote about its miraculous characteristics without ever actually having seen the plant. In 1571, a Spanish physician in Seville, Monardes, wrote of how tobacco could cure up to 37 different maladies. Tobacco also spread on a global level at a relatively rapid pace, being introduced to such distant places as the Philippines and Japan by Spanish, Portuguese and Flemish sailors.

During the 17th century, the tobacco trade became an organised monopoly and the implementation of new laws regulating the sale of tobacco were set down. In 1604 King James I of England was the first governor to tax tobacco. In 1606, King Philip III decreed that tobacco may only be cultivated in specific locations and later proclaimed Seville the tobacco capital of the world; all the tobacco produced in New Spain had to pass through this city before it could be sold to the rest of Europe. It is believed that the first European cigarettes appeared here. Beggars would collect tobacco from used cigars, patch it together and roll it in paper in order to smoke it.

The first anti-tobacco movements also began during this era. One of the earliest texts alerting people to the consequences of tobacco use was written in 1586 in Germany, entitled 'De plantis epitomr utilissima' and describing it as a 'violent herb'. In the early 17th century, the Russian Tsar, Michael

Feodorovich, forbade the possession and use of tobacco, after seeing the state capital nearly burnt down after guards fell asleep with lit pipes and set the wooden houses on fire. Those who chose to disobey would be punished by slitting of the lips, flogging and, in the case of some rich offenders, the confiscation of property or exile to Siberia. Tobacco was also banned in Turkey, Persia and India, and those who chose to disobey would pay for their addictive habit with their lives. Smoking was also banned in some European countries like Switzerland and France, but only for a short period of time.

In 1612, an Englishman, by the name of John Rolfe, began growing *Nicotiana Tabacum* in North America, which he had obtained illegally, as the Spanish had declared a penalty of death to anyone selling such seeds to a non-Spaniard. This tobacco species, that has its origin South America, was much milder than the tobacco product *Nicotiana Rustica*, grown by the local natives. Tobacco quickly became a lucrative trade for Jamestown, the first permanent English colony in the New World, exporting about 10 tons of tobacco in 1619, which quickly rose to 750 tons over a period of 20 years.

Tobacco slowly increased in popularity during the 17th and 18th centuries, gaining a definite stronghold on many cultures, but over the years, more and more scientists began to understand the chemical properties of tobacco and the dangerous health effects of smoking. In the mid 17th century the great plague struck Europe and tobacco, still believed to have great curative properties, was thought to have a protective effect, being made compulsory in Eton to prevent infection. The first warnings about the hazards of smoking and other tobacco use started appearing after the first half of the 18th century. In 1761, John Hill, an English physician, published an article that is most probably the first clinical study of tobacco effects, where he concluded that snuff users are vulnerable to cancers of the nose.

During the Crimean war, 1854-6, the Spanish introduced the British, French and Russian soldiers to the 'pepelete', a predecessor of the cigarette. After the war, the soldiers took back to their own countries the habit of smoking miniature cigars, made out of tobacco rolled in thin paper. During World War II tobacco consumption took another grand leap as cigarettes were offered along with food rations, addicting an entire generation of young men, who remained loyal customers after the war.

During the late 19th century and especially during the first years of the 20th



century, tobacco was widely studied and its effects on health became more evident. In 1912, Dr. Isaac Adler, was the first to suggest a strong link between lung cancer and smoking and in 1929, Fritz Lickint of Dresden published the first formal statistical evidence of the correlation between lung cancer and tobacco smoking. This evidence of tobacco's hazardous effects on the body began to grow, and during the following years more studies were published on the issue. In 1950, the journal of the American medical association presented an article stating a link between smoking and lung cancer, as well as chronic obstructive pulmonary disease. In 1962, the British royal college of physicians in London presented the first report on smoking and health and in 1964 the surgeon general of the public health service published the surgeon general's report, linking smoking and lung cancer and entitled 'smoking and health', the first of many reports to follow.

Faced with mounting evidence against tobacco use, tobacco companies struck back, creating doubt and controversy concerning health risks and marketing new products with filters and low tar, lulling the general public into a false sense of security. During the 1980s, tobacco companies also started investing heavily in marketing in developing countries so as to keep tobacco sales high.

On May 24th 1999, during the world health assembly (WHA), the governing body of WHO, a bold step towards global tobacco control was taken, when the 191 members present voted unanimously in favour of a resolution calling for work to begin on the framework convention on tobacco control (FCTC). This convention was WHO's first attempt at treaty-making and constitutes an international legal instrument that aims to combat the global spread of tobacco products. At a national level, it will support and aid authorities in strengthening their tobacco

control policies and programmes. In May 2003, at the 56th WHA, after many meetings so as to reach the final document, it voted unanimously to adopt the FCTC, and on June 16th 2003, the framework convention was opened for signature and ratification.

The next step will be making the FCTC a reality in the WHO member states that have signed the convention. For this, it will be necessary for the member states to include the recommendations set out in the convention in national laws and to prepare technical foundations for its local implementation.

Tobacco use has become firmly implanted in modern day societies, even though it is a proven fact that tobacco is a significant health risk, directly related to many diseases. Hopefully, during the next few decades, there will be a drop in the crescent growth it has had in the past, so as to reduce the heavy weight it bears on public health.

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TobaccoFactfile quiz

how much do you know about the global tobacco epidemic

1. By 2025, how many people does the WHO estimate will die each year from a tobacco-induced disease?

- a) 4 million
- b) 8 million
- c) 10 million

2.If current trends continue, how many people alive today will eventually die as the result of their tobacco use?

- a) 100 million
- b) 250 million
- c) 500 million

3.What proportion of all tobacco consumed worldwide is in the form of cigarettes ?

- a) 10%
- b) 60%
- c) 85%

4.According to the World Bank, what is the loss to the global economy for each one thousand tonnes of tobacco consumed?

- a) US \$1 billion
- b) US \$2 billion
- c) US \$5 billion

5. How many young people become addicted to tobacco every day?

- a) 80 -100,000
- b) 20 - 40,000
- c) 1 - 2,000

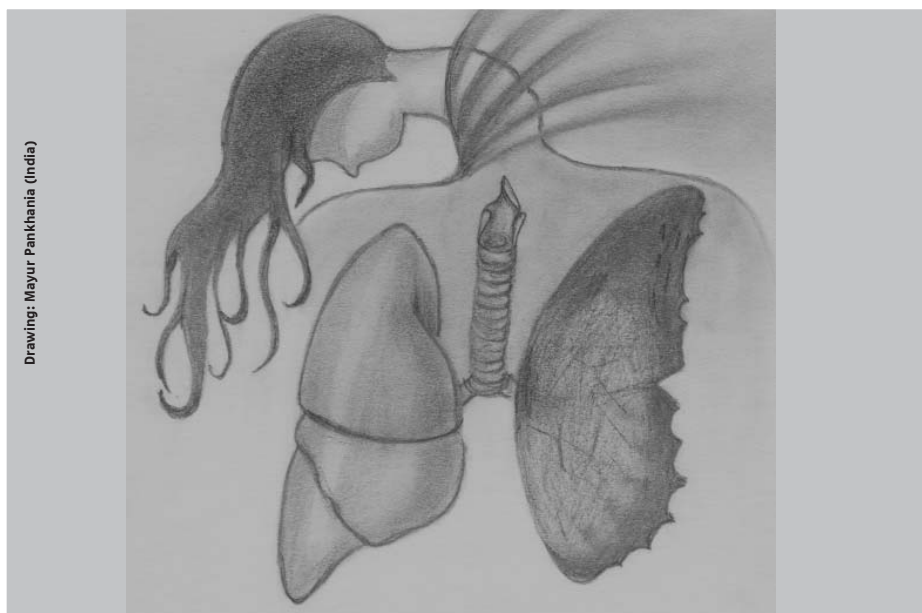
6. Worldwide, what proportion of children are exposed to second-hand smoke in the home?

- a) 75%
- b) 50%
- c) 30%

For more details, references and facts, visit the TobaccoFactfile website:
www.tobaccofactfile.org

Tobacco Factfile is a project of the BMA Tobacco Control Resource Centre. Quiz compiled by Jackie Shuttleworth

Answers: 1 (c), 2 (a), 3 (c), 4 (b), 5 (a), 6 (b)



An artistic presentation of the effects of tobacco consumption on pulmonary system



Smoking: A Psychiatric Illness?

Panos Alexopoulos talks about the consequences of smoking on human mental health

"Natuerlich ist man schon laengst ein Gefangener seiner eigenen Tiefe..."

Horst Krueger, "Das zerbrochene Haus"

According to the 2003 world health organization (WHO) report *Shaping the future*, 'the consumption of cigarettes and other tobacco products and exposure to tobacco products are the world's leading preventable causes of death, responsible for about five million deaths a year...' (1) Tobacco consumption constitutes not only a hazardous habit, increasing the risk of death owing both to cardiovascular and pulmonary diseases and to carcinogenesis, but also a psychiatric illness, as it is generally accepted that whilst people smoke tobacco for many reasons, for example social and cultural, the majority of smokers do so in order to experience the psychoactive properties of the nicotine contained in the smoke (2).

Until quite recently, nicotine dependence resulting from tobacco use was not classified as drug abuse, due to the fact that nicotine agonist effects were not associated with obvious intoxications, and because the habit was not considered socially undesirable or disruptive of productive activity. That viewpoint has changed. Published in 1988 in the surgeon general's report on health consequences of smoking, the summary of the cumulative findings of more than 2500 scientific papers has unequivocally concluded that cigarettes and other forms of tobacco are addictive and that nicotine is the drug in tobacco that causes addiction, as well as that the pharmacological and behavioural processes that determine tobacco addiction are similar to those that determine addiction to such drugs as heroin or cocaine (3, 4). Today, nicotine dependence is recognised as a psychiatric illness and as the 'most prevalent, most deadly, most costly, yet most treatable of all psychiatric disorders (5).

How nicotine acts

Nicotine interferes with the function of the brain and other parts of the nervous system. When smoked, nicotine enters the blood stream through the lungs; when chewed or sniffed, it passes through the mucosal membranes of the buccal and nasal cavity to enter the circulation. It crosses the blood brain barrier and stimulates the nicotinic acetylcholine receptors (nAChR), being especially concentrated in the midbrain tegmentum, the striatum, nucleus accumbens and the ventral tegmentum, (6,7) as well as in the muscles, adrenal glands, heart and other organs. Furthermore, nicotine binds not only to the cholinergic recep-

tors in the autonomic ganglia, adrenal medulla and neuromuscular junction, but also to the receptors in the nigrostriatal and mesolimbic dopaminergic neurons. Besides binding to receptors, nicotine alters the bioavailability of several neurotransmitters implicated in the pathogenesis of some of the major psychiatric disorders. These include dopamine, nor-epinephrine, serotonin, glutamate-aminobutyric acid (GABA) and endogenous opioid peptides (8, 9, 10).

Behavioural consequences of smoking

Research studies have concluded that tobacco consumption has the following effects on emotional health balance: enhancement of pleasure, facilitation of task performance, improvement of memory, reduction of anxiety and tension, antinociception and reduction of hunger contributing to the avoidance of weight gain (3).

Diagnosis of Nicotine Dependence

Nicotine dependence is incorporated in DSM-IV as a nicotine use disorder. Criteria include presence of at least three of the following in the same 12-month period:

- tolerance, made manifest by decreased effect of a given dose or increased dosing to produce to same effect;
- withdrawal after a period of abstinence;
- smoking a greater amount or over a more extended period than intended;
- a persistent desire to smoke and unsuccessful efforts to cut down;
- spending considerable time obtaining or using tobacco;
- giving up or curtailing important social, occupational, or recreational activities because of smoking;
- continued smoking despite knowledge of risks to health (3).

All things considered, the obvious conclusion to draw is that apart from causing cardiovascular and respiratory diseases, as well as neoplasias, the hazardous habit of tobacco consumption constitutes, due to

nicotine dependence, a psychiatric illness, jeopardizing the emotional balance of smokers. Although usually overlooked by mental health professionals, the psychiatric dimensions of nicotine dependence and its consequences should be highlighted, since they scourge the mental health of billions of smokers across the globe (11).

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Acknowledgements

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Smoking jeopardizes human emotional balance



Tobacco Lesions

C. Moireschi & Al. Canu take you through the effects of tobacco consumption on oral mucosa

Most lesions caused by tobacco can be classified with the white lesions of the oral mucosa, with the exception of the smoker's melanosis, which is a brown lesion. Tobacco is also one of the primary factors implicated in the development of oral squamous cell carcinoma. The most compelling statistical and clinical evidence supports tobacco and alcohol as primary factors. These lesions are typical in older people, but the increasing number of smokers in the younger population is causing them to appear earlier.

Nicotine stomatitis

This is a benign thickening of the oral mucosa, typically associated with tobacco smoking. It is usually seen in pipe smokers, but may also develop in cigarette and cigar smokers. It can also be seen in people who consume a large number of hot drinks but do not smoke tobacco of any kind. The alterations typically develop on the hard and soft palates, but can infrequently be seen on the retromolar pad and the posterior buccal mucosa.

The typical presentation is that of multiple, white, circular papules exhibiting red centres that may be slightly depressed. The erythematous portion represents dilated salivary gland duct orifices that are inflamed and exhibit squamous metaplasia. The surrounding white surface represents hyperkeratosis. The nodules are initially separated by normal mucosa, but the individual nodules coalesce, resulting in a diffuse white area interspersed with erythematous dots. The changes can extend to the gingiva where the tissue appears white and thickened. The keratosis may be smooth or fissured. In the western world, nicotine stomatitis is not considered a pre-cancerous condition, but patients should be carefully observed for changes in the involved area and for alterations at other mucosa sites that could represent pre-cancerous or cancerous alterations. This process may resolve on smoking cessation. Similar but more severe palatal changes may be seen in reverse smokers, who hold the burning end of the cigarette inside the mouth. This habit, which is not rare in India and some other Southeast

Asian and South American countries, has been associated with the development of dysplasia and squamous cell carcinoma.

Tobacco pouch

Smokeless tobacco (either snuff or chewing tobacco), placed directly in the mouth, can result in direct alterations of the oral mucosa. It occurs in all age groups, including childhood and adolescence. Typically, the lesion is found in the vestibule where tobacco is placed, and it may extend onto the gingiva and buccal mucosa. The changes range from wrinkling of tissue that disappears on stretching, to a granular surface with mild keratosis, to a greatly thickened tissue with well-developed fissures and keratosis. The



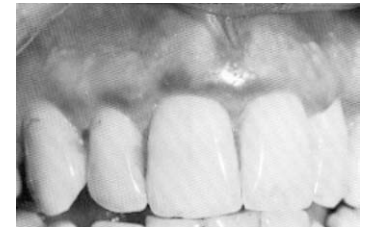
extent of changes depends on host susceptibility, the form and quantity of tobacco used, and the period of use. The gingiva may be inflamed and exhibit recession.

People who use smokeless tobacco are at higher risk of oral carcinoma than non-tobacco users. Well-documented cases exist of squamous cell carcinomas or verrucous carcinomas developing within tobacco pouches. These carcinomas usually present as large, exophytic lesions that develop at the site of tobacco placement. However some patients develop cancer at other oral mucosal sites. Although such tumours are usually quite obvious, more subtle clinical changes can also show atypical or dysplastic alterations.

Most carcinomas that develop in smokeless tobacco users occur in older individuals who have practiced the habit for many years, typically 30 years or more. Many tobacco pouches are easily reversible once the habit is discontinued. Histopathologic examination of the involved tissue is recommended if the patient will not stop

using tobacco or if tissue changes persist after cessation. Biopsy is also suggested if the clinical lesion is markedly papillary or demonstrates areas of redness or ulceration.

Smoker's melanosis



Individuals who smoke may develop benign areas of hyperpigmentation of the oral mucosa. Depending on the number of cigarettes smoked daily, as many as 31% of smokers may develop clinically visible areas of melanin pigmentation. Smoker's melanosis is seen more often in females and most frequently affects the anterior mandibular and maxillary gingiva. However, virtually any oral site may be affected. The pigmentation varies from light to dark brown and may appear diffuse or be more localised in nature. The diagnosis can often be made by correlating the patient's smoking history with the clinical presentation of the lesions. However, biopsy should be considered for pigmented lesions, either in unusual locations such as the hard palate, or with an unusual clinical appearance. Smoker's melanosis will usually disappear gradually during a 3-year period after smoking cessation.

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Acknowledgements

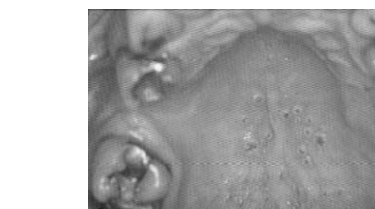
Checked by Prof. Corrado Paganelli, Department of Orthodontics, Dental Clinic, University of Brescia, Italy.

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Images taken from Neville BW, Damm DD, White DK, The color atlas of clinical oral pathology.

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Tobacco: A risk factor for Oral Disease

From a dental perspective, Steffen Lauritzen introduces you to oral diseases caused by smoking

Tobacco, general health and oral disease

About one third of the world's population smokes tobacco on a regular basis. In 2000, tobacco was the second most common cause of death. That year almost 5 million people died due to tobacco - more than 9 every minute - and every year the number increases (1). It is estimated that smokers die 7 years earlier than the population average. Tobacco is a factor in developing a wide array of health problems. Compared with non-smokers, there is an increased prevalence of different types of cancer, ischaemic heart disease, chronic lung disease, and many other conditions amongst smokers. However it has also been shown that people who cease smoking will return to nearly the normal risk level within 10 years (2,3).

Oral cancer & pre-cancer, diseases of the oral mucosa

Smoking tobacco can lead to different changes in the oral environment, some harmless, others severe and life threatening. The latter include oral cancers and pre-cancers. Of the different cancer types in the human body, about 2% occur in the oral cavity. The large majority of these are squamous cell carcinomas developing from the mucosal surface epithelium. It is estimated that more than 75% of all oral cancers are caused by tobacco (Fig. 2). The long-term survival prognosis for oral cancers is poor. Oral cancers are most common in the middle-aged and elderly, and more common in men than in women (3,4). The contents of tobacco smoke have a direct carcinogenic effect on the oral mucosa and the lung epithelium, in addition to the systemic effect. The effect seems to be the same regardless of the source of the smoke, be it cigarettes, pipes or cigars. Alcohol has been shown to increase the risk of oral cancers synergistically with tobacco smoke, presumably because alcohol increases the permeability of mucous membranes, thus enhancing the harmful effect of tobacco in the tissues (3,4).

Some lesions and conditions have been shown to have a higher risk of

malignant transformation than their corresponding healthy tissues. Oral leukoplakia, a white patch in the oral mucosa, is one of these. It occurs 6 times more often in smokers than non-smokers (Fig. 3). Some leukoplakias disappear on cessation of smoking, others do not. It is likely that the irreversible ones are the ones with the greatest potential for malign transformation (3,4). Snuff (smokeless tobacco) is a type of tobacco that is placed directly on the oral mucosa, and is allowed to diffuse passively through the contact surface. Snuff habits in Scandinavia, in particular Sweden, apparently do not pose an increased risk regarding oral cancer. However, the variety of snuff types used in other parts of the world seem to be as dangerous as cigarettes (3,4).

Periodontal disease

Periodontal disease is the result of progressive bone loss around the teeth. Sound teeth are rooted in the jawbones, but pathogenic bacteria may give rise to gingival infection and, if not arrested in time, irreversible degradation of the marginal bone. Nicotine contracts the fine capillaries, leading to a lowered blood perfusion of the peripheral tissues. This results in lowered tendency to bleeding and inflammation. Periodontitis and gingivitis are usually detected by increased bleeding from the dental soft tissues, but tobacco makes the bleeding less obvious. Furthermore the progression of bone loss in smokers is faster and more severe, regardless of oral hygiene and composition of bacteria, when compared with non-smokers (3,4). Cleaning the teeth of bacteria and calculus deposits and re-establishment of a healthy oral environment usually stops the progression of periodontal disease. Smokers, however, tend to respond less efficiently to this treatment, and are at high risk of losing one or more teeth due to excessive bone loss (3,4).

Implant survival and surgical healing

For more than 15 years, osseointegrated dental implants have been used to replace missing teeth. The dental implant is a titanium screw anchored in the jawbone. Due to a surface coating of titanium oxide, it is innocuous to the surrounding bone, enabling the bone to regenerate. It is crucial to healing that there be no inflammation in the surrounding tissues. The time it takes for the bone to regenerate should be minimised, decreasing the risk of tissue inflammation. In the context of the above, it is reasonable to expect that wound healing will be less efficient in smokers than in non-smokers. The lowered tissue perfusion and reduced

immune response makes healing slower and the risk of post-surgical infection higher. On top of this, bone regeneration is affected by altered perfusion. In smokers, the amount of bone anchoring the implant tends to be both less, due to previous degradation of bone, and of poorer quality, due to reduced remodelling osteogenesis. All in all, this results in a frequency of implant failure in smokers, reported to be about 5 times that in non-smokers (5-10 % compared to 1-2 %) (3).

Aesthetic changes

As severe as cancer, periodontitis and implant failure are, they remain infrequent. The risk is elevated, but the majority of smokers, luckily, will never have this kind of problem. Minor problems, less aggressive or lethal than those mentioned above, are a far more frequent concern for smokers. Smoking reduces the senses of smell and taste to variable extents, sometimes by up to 90 %, the ability to taste salt being especially impaired (4). The visible effects of tobacco are various. There is a strong tendency to discoloration in the oral soft and hard tissues, and cracks and edges of dental restorations (fillings etc.) in particular are remarkably susceptible. Discoloration from tobacco is far worse than from coffee, tea and red wine (4). Tobacco also contains foul-smelling elements, some of which are retained in the oral cavity, giving rise to greater or lesser degrees of halitosis (bad breath) (4).

The heat from tobacco smoke, especially from pipes, is sometimes so strong, that continuous smoking results in changes in the palatal mucosa. The surface epithelium may be hyperkeratinised, giving it a whitish appearance, whilst the small glands stand out as small red dots due to inflammation. The condition is completely reversible if smoking is ceased, and has been named 'smoker's palate' (Fig. 4) (3,4).

It has recently been discovered that smoking is a predisposing factor for oral candida infection. Smokers are more susceptible to fungal infections than non-smokers, and less sensitive to anti-mycotic treatment. It is not known why, but it may have something to do with the impaired blood perfusion and immune system (3,4).

Amongst the less frequent smoking-induced oral changes is 'hairy tongue', a condition where the filiform papillae are elongated and discoloured (usually brown, but sometimes green, red or even blue). This sometimes gives the tongue a somewhat scary appearance, although it is harmless; it can usually be treated by repeatedly brushing the tongue with a toothbrush.

(Continued on Page 23)

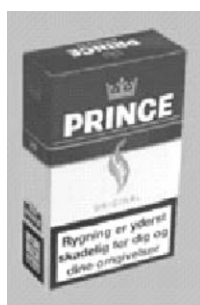


Fig. 1: Cigarette pack, notice the warning labels.



Medical Students' Smoking Habits

T. Kucmin, D. Mormon, Prof. Latalski & M. Goniewicz investigate the attitude of medics towards smoking

Smoking is one of the principal causes of morbidity and mortality in the developed world. In 1995, according to a WHO report, 98 024 million cigarettes were smoked in Poland. Prospective WHO research predicts smoking as the largest single health problem in 2020, causing an estimated 8.4 million deaths annually.

Aim of the study

The aim of the study was to collect information from medical students about smoking by doctors and in public places. We also wanted to check their knowledge about smoking and see if there are any exams in particular which force smoking students to smoke more.

Method

155 fifth-year students (61 male & 94 female) filled in an anonymous 44-item questionnaire. Most questions required 'yes or no'

answers, but some were open-ended.

Results

22 students (14.2%) smoke cigarettes daily, 24 students (16%) are ex-smokers and 109 students (69.8%) are non-smokers. The most common reasons for smoking were curiosity, peer-pressure and stress. There is a statistically significant correlation between smoking and living in the same apartment as other smokers.

Conclusions

The study was performed in order to see if there is any difference between the situation now and 7 years ago. According to data from 1995, the smoking rate among fifth-year medical students is now lower. 68.2% of smoking students smoke more before exams, the most stressful exams being pharmacology, pathomorphology, anatomy

and biochemistry. Prohibition of smoking in public places is supported by 85.5% of questioned students. 28.4% of all questioned students think that a doctor does not have to be a non-smoker. 77.4% of students think that non-smokers who work with people who smoke should receive extra money because of bad working conditions.

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Dr. Mariusz Goniewicz, Medical university of Lublin, Slovenia, Supervisor.

(Continued from Page 22)

Tobacco intervention in the dental practice

Dentists are regarded in many countries as that part of the healthcare system that has the greatest access to healthy patients. Many patients visit their dentist on a regular basis, and even in the absence of tobacco-related disease in the mouth, the trained dentist will

be able to recognise a patient's smoking habits (4).

Some dentists ask about the use of tobacco at every visit, but unfortunately not all do so. In Denmark, this has recently changed, since it has been added to the agreement between dentists and the department of health services: all dentists are now obliged to ask and advise. Advice or even interest from the dentist seems to have as much effect on smoking as advice from any other part of the healthcare system (1,4). The fraction of smokers that stop on their own initiative is as low as 2% every year. If a doctor or a dentist merely asks about smoking habits, the rate is doubled to 4%, and if an effort is made, including a ten-minute discussion and advice about ways to stop, the rate rises to 8% (2).

The internet is rich with more detailed descriptions of how to motivate and advise smokers on how to stop. For further reference and information, please visit <http://www.co.quitnet.com/> or <http://www.surgeongeneral.gov/tobacco/>

- settlements of high taxes and price levels to prevent smoking;

- prohibition of advertising and sponsoring by tobacco companies;

- labelling of cigarette packs - at least 30%, and preferably 50% of the pack has to be warning labels (Fig. 1);

- placing responsibility; tobacco-related expenses to society are to be partially paid by the tobacco industry.

These and other issues will hopefully prevent people from starting to smoke, and maybe also inspire some to quit smoking. The result from the treaty will almost certainly show in the statistics in a few years (5).

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Acknowledgements

Checked by Prof. Jesper Reibel, Department of oral pathology, School of dentistry, Copenhagen, Denmark.

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The WHO fight against tobacco

WHO started a fight against the widespread use of tobacco back in 1970, and since then, much has changed in taxes on tobacco, labelling, restraints on sales, contents of cigarettes, and much more. The most recent WHO treaty, signed by more than 40 member countries, has been a leap in the right direction. The former ones were all guidelines, this is a legally binding document treaty. Among the subjects of the treaty are the following:

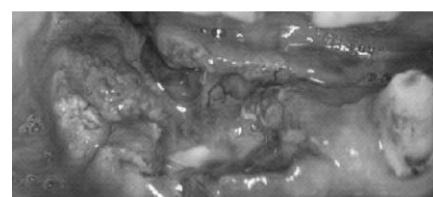
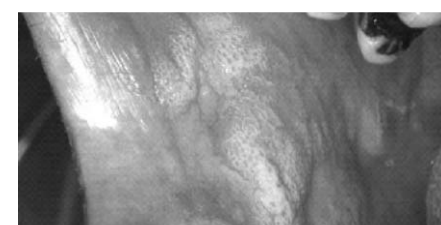
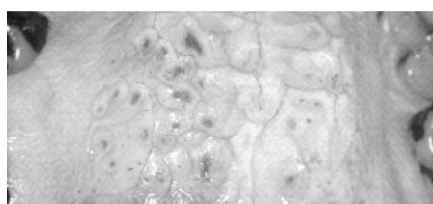


Fig. 2: Oral cancer in a heavy smoker located in the right floor of the mouth

Fig. 3: Tobacco induced white lesion (leukoplakia) in the lateral commissure. Note the brimstone-like appearance

Fig. 4: Smoker's palate, note the inflamed glands
(By courtesy of the Department of Oral Pathology, School of Dentistry, Copenhagen, Denmark)



Stop Smoking the e-Way!

Vinod Scaria reviews 'Stop Smoking' resources on the internet

The consumption of cigarettes and other tobacco products has already been acknowledged as the single largest preventable cause of mortality and morbidity worldwide. Quitting early on is perhaps the best way out. The internet is the single largest information source. It also hosts information on how to quit and be adherent to the decision to do so. There are also a number of support groups, mailing lists and online communities to help people. This article reviews some of the top online resources which may be of immense value to students and educators in informing prospective quitters.

Online Resources

TryToStop.org

<http://trytostop.org>

This is an excellent internet resource website maintained by the Massachusetts department of public health. A design marvel in itself, the website features a 'quit wizard' and bulletin board. QuitWorks (<http://quitworks.org>) is its sister website and features interactive telephone-based counselling.

Teens against tobacco use (TATU)

www.tatuusa.org

The program is a vehicle for a school or community-based service-learning project to discourage teenagers from using tobacco products. It is sponsored by the American lung association. The website features an excellent fact sheet and Flash presentations aimed at teenagers.

UCSF stop smoking site

<http://stopsmoking.ucsf.edu>

This is perhaps the best course available for cessation. Follow-up of all enrolled at regular intervals is unique to this service. Anybody willing to quit smoking can enrol on the course and personal information is kept confidential.

Stop Smoking!

<http://www.on.lung.ca/nosmoking/>

This website is maintained by the Canadian lung association. It features resources for smokers, teachers and students. There is an excellent and informative fact sheet. The website also features an excellent quitting program, 'Get on track'. To aid and inform prospective quitters, there is also a helpline and information centre. The website also indexes a number of informative links to other websites.

QuitNet

<http://www.quitnet.com>

The website claims to be the web's original 'quit smoking' site and operates in association with the Boston university school of public health. The slogan 'Don't quit alone' is displayed prominently. The site also claims to have played a key role in over 3000 quitting successes. The website features an excellent free support forum.

NetDoctor smoking resources

<http://community.netdoctor.com/ccs/uk/smoking/index.jsp>

This resource is a part of the NetDoctor portal www.netdoctor.co.uk. The resource website features an excellent community, a discussion board, an online coach and a 90-day quitting program.

Giving Up Smoking

<http://www.givingupsmoking.co.uk>

This well-designed UK based resource website takes you to the interesting world of quitters. This beautiful website has all types of information a prospective quitter could imagine. There is an excellent fact sheet and an excellent FAQ section. The website also lists local facilities available throughout the UK. There is also an excellent section on news updates and a South Asian Community.

Stop smoking center

<http://stopsmokingcenter.net/>

StopSmokingCenter.Net has a professionally moderated support group for smokers, ex-smokers and supporters.

Any review of Stop Smoking resources would not be complete without a mention of Nicotine Anonymous <http://www.nicotine-anonymous.org>, a not-for-profit US based organization which describes itself as 'a 12-step fellowship of men and women helping each other live nicotine-free lives' along the lines of the Alcoholics Anonymous '12 steps to achieve abstinence'.

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SMOKEOUT!



Image: Malta Medical Students' Association

In this World...



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The Teaching Geriatrics in Medical Education II -joint with WHO- Project (TeGeMe II)

Easing the Global Burden of Violence

in Lebanon, "Lebanon Refugee Project"
in Romania, "IMSF-Peace"
in Pakistan, "Training on Refugee Health"
in West Balkans, "The Re-Life Project"
across the Globe, Einstein Youth Violence Project
around the World, Peace Test

Meeting Global Public Health Needs

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- Taxila Center for Medical Reforms and Research

Health Politics with Dr. Mike Magee is a weekly multimedia webcast on today's most pressing health issues. Visit www.healthpolitics.com and select the **Global Health Channel** to view a program on tobacco's impact on global health and anti-tobacco strategies.

The screenshot shows the Health Politics website. At the top, it says "Health Politics with Dr. Mike Magee". Below this is a "Full Program Listing" section with a "Select A Channel" dropdown menu. The menu options are "About Health Politics", "About Dr. Magee", "Help", and "Home". There is a search bar with a "go" button and a "Search Tips" link. Below the search bar is a "Register for Health Politics" section with a form to enter an email address and a "go" button. On the right side, there is a "Program Listing" section. It features a photo of Dr. Mike Magee and a list of programs under the heading "Aging". The programs listed are "Aging: Part 1 - The Scope of the Challenge", "Aging: Part 2 - Preventing Illness, Maintaining Health", "The Hidden Costs of Caring for an Alzheimer's Patient", "The Economics of Living Longer", and "Where Is the Best Place to Die?". Each program has a brief description and a launch date.

Health Politics with Dr. Mike Magee

Full Program Listing

Select A Channel

- About Health Politics
- About Dr. Magee
- Help
- Home

Search Site go

Search Tips

Register for Health Politics

Enter your email address below to receive regular Health Politics program updates

Program Listing

Aging

Aging: Part 1 - The Scope of the Challenge
The changing demographics of aging
Launch Date: 8/8/2003

Aging: Part 2 - Preventing Illness, Maintaining Health
The economic, health and social consequences of an increasingly senior population
Launch Date: 9/13/2003

The Hidden Costs of Caring for an Alzheimer's Patient
The impact of Alzheimer's on families is dramatic
Launch Date: 1/21/2004

The Economics of Living Longer
How longevity and healthy aging affect health care costs
Launch Date: 3/11/2004

Where Is the Best Place to Die?
How the choice of site and type of end-of-life care can contribute to a "good death"
Launch Date: 3/31/2004

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