

# Public Health Aspects of Tobacco Control: Setting the Agenda for Action by Oral Health Professions Across Europe

Richard G. Watt<sup>a</sup>/Habib Benzian<sup>b</sup>/Viv Binnie<sup>c</sup>/Christine Gafner<sup>d</sup>/  
Marjolijn Hovius<sup>e</sup>/Tim J. Newton<sup>f</sup>/Robert E. Mecklenburg<sup>g</sup>

**Abstract:** Tobacco use is a significant public health problem across Europe. Each year over half a million Europeans die prematurely due to a smoking-related disease. Tobacco use is a primary cause of many oral diseases and adverse oral conditions. The prevalence of tobacco use varies considerably across Europe, although in many countries overall rates of use have declined in recent years. However, tobacco use among women and young people is rising in several European countries. Tobacco behaviour is influenced by an array of factors, and quitting is a major challenge for many tobacco users. Tobacco use is now considered a chronic progressive relapsing condition requiring very specific support and assistance. To reduce tobacco use across Europe, a range of complementary actions and policies are required at an international, national and local level. The WHO Framework Convention on Tobacco Control (FCTC) outlines an array of evidence-based policies that can be implemented to prevent tobacco use and promote cessation. National dental associations and professional groups across Europe have an important role to play in supporting the ratification and implementation of the FCTC. The aim of this paper is to outline the public health aspects of tobacco control and highlight how the oral health professions across Europe can become actively engaged in this important and relevant area of prevention.

**Key words:** public health, tobacco control, oral health professions

*Oral Health Prev Dent* 2006; 4: 19-26.

Submitted for publication: 01.12.05; accepted for publication: 09.01.06.

Tobacco use is one of the greatest global public health challenges. Worldwide it is estimated that over 4.9 million people will die prematurely due to tobacco-related diseases (WHO, 2002). Although rates of tobacco use have declined steadily in many developed countries over the past 30 years, rates remain

high amongst the poorer and socially isolated sections of many developed societies, thereby contributing significantly to health inequalities (WHO, 2002). In many parts of the developing world tobacco sales have risen steadily in recent years, and the global death toll inflicted by tobacco will therefore increase dramatically in the coming years.

The damaging effects of tobacco use on oral health are well established. The most significant effects on the oral cavity are oral cancers and potentially malignant lesions, increased severity and extent of periodontal diseases, as well as poor wound healing following surgery (EU Working Group, 1998; Winn, 2001). Tobacco-induced oral diseases contribute significantly to the global oral disease burden (WHO, 2005). The oral health professions across Europe have a professional and ethical duty to become actively engaged in efforts to combat tobacco use. Gillon (1995) identifies four key ethical principles by which health interventions should be appraised: beneficence, non-maleficence, equity and scope. These ethical principles are

<sup>a</sup> Department of Epidemiology and Public Health, University College London, UK.

<sup>b</sup> FDI World Dental Federation, Ferney-Voltaire, France.

<sup>c</sup> Department of Dental Public Health, University of Glasgow Dental School, Glasgow, UK.

<sup>d</sup> Progef, Neufeldr. Bern, Switzerland.

<sup>e</sup> InHolland University of Professional Education, School of Hygiene, Amsterdam, The Netherlands.

<sup>f</sup> Department of Dental Public Health, Kings College London, UK.

<sup>g</sup> Potomac, MD, USA.

**Reprint requests:** Prof. Richard G. Watt, Department of Epidemiology and Public Health, University College London, 1-19 Torrington Place, London WC1E 6BT, UK. E-mail: r.watt@ucl.ac.uk

**Table 1 Smoking prevalence across EU and Switzerland 2002-03**

Country	Total % of smokers	% men	% women	Country	Total % of smokers	% men	% women
Austria	29	32	26	Belgium	27	33	22
Cyprus	23	39	8	Czech R	30	38	23
Denmark	27	30	24	Estonia	31	45	18
Finland	22	26	19	France	30	36	25
Germany	32	37	28	Greece	45	51	39
Hungary	35	42	29	Ireland	27	28	26
Italy	24	31	17	Latvia	31	49	13
Lithuania	28	44	12	Luxembourg	37	39	26
Malta	25	42	29	Netherlands	30	33	27
Poland	31	39	23	Portugal	23	31	9
Slovakia	40	48	32	Slovenia	24	28	20
Spain	32	39	25	Sweden	17	16	19
UK	25	26	24	Switzerland	30	36	25

EU average 29% (35% men) (22% women)  
Source: Joossens, 2004

applicable to tobacco control and the duty of oral health professionals.

Although some progress has been made, a great deal more could be achieved if oral health professionals became more actively involved in tobacco control, and in particular provided cessation support to their patients who use tobacco. Increasingly patients expect oral health professionals to provide support and advice on tobacco cessation (Campbell et al, 1999; Rikard-Bell et al, 2003). It is now time oral health personnel as health professionals take their responsibility in providing cessation support to their patients.

The aim of this paper is to outline the public health aspects of tobacco control and cessation. The oral health professions across Europe have an important role to play in tackling the tobacco epidemic. This chapter will summarise the epidemiology of tobacco use across the European Union (EU) and Switzerland. The need to understand the nature and characteristics of tobacco use behaviour will be highlighted. As a chronic relapsing condition it is essential that effective actions are implemented to prevent the uptake of tobacco use, particularly amongst young people. An overview of the broader tobacco control agenda will be outlined to illustrate the importance of implementing a comprehensive range of policies to combat the activities of vested interest groups engaged in promoting tobacco use across Eu-

rope and globally. The oral health professions across Europe are in a unique position to help their patients stop using tobacco. Ways of supporting cessation activities delivered by oral health professionals will be outlined. High-quality targeted education and training that develop the dental teams' knowledge and skills in cessation are urgently needed. Training opportunities exist at both undergraduate and postgraduate levels. Finally, the role of dental professional organisations in tobacco control will be highlighted.

### **Scale of the challenge**

Tobacco use is a major public health problem across the world. The global death toll from tobacco consumption is now 4.9 million people per year and is estimated to reach 10 million by 2020 (WHO, 2002). In the European Union (EU) prior to enlargement it was estimated that tobacco use was responsible for more than half a million deaths each year (Ryan, 2000). In addition to the recognised impact on general health, tobacco use is a primary cause of many oral diseases and adverse oral conditions (WHO, 2005).

The prevalence of smoking across the EU varies considerably, from 17% in Sweden to 45% in Greece, with an overall average of 29% (Joossens, 2004) (Table 1).

Overall rates of tobacco use have declined in most European countries over the past 30 years. For example, in Iceland, Norway, Sweden and Slovenia there has been more than a 25% reduction in smoking rates between 1985-2003 (Joossens, 2004). The reduction in smoking has been most marked amongst men, whereas rates of smoking amongst women have actually increased in several countries. For example, in Greece, Lithuania, Finland, Hungary and Austria significant increases in smoking levels amongst women have been reported between 1985-2003 (Joossens, 2004). Another area of concern is the rate of smoking amongst young people across Europe. In many countries smoking rates are notably higher amongst girls than boys. It has been reported that over 30% of 15-year-old girls smoke at least once a week in Austria, Czech Republic, Finland, Germany, Slovenia and Spain (Currie et al, 2004).

In many European countries smoking levels are significantly higher amongst socially disadvantaged groups and is therefore a major contributory factor in creating health inequalities. In addition, the rates of quitting smoking are significantly lower amongst adults from lower socio-economic groups (Judge et al, 2005). The differences in quit rates between social groups is not merely a reflection of different levels of motivation. Evidence clearly indicates that smokers' level of nicotine dependence increases systematically with deprivation. Poorer smokers are essentially more addicted than more affluent smokers (Jarvis and Wardle, 1999). The prevalence of smoking is also higher amongst a range of vulnerable groups, including people with mental illness, the homeless and certain ethnic minority groups. In addition to smoking, the use of smokeless tobacco is a major concern in relation to oral pathology (Gupta and Warnakulasuriya, 2002). Smokeless tobacco use is common amongst certain ethnic minority groups and in countries such as Sweden.

### **Understanding tobacco use**

To be able to develop effective preventive strategies and treatments, it is important to consider the complex nature of tobacco use behaviour. The majority of smokers start in their teenage years when a variety of factors such as fashion, peer pressure and advertising are particularly influential on behaviour. Once dependence is established, smoking soon becomes an entrenched routine linked to a range of aspects of daily living and coping with pressures and stresses. However, the most powerful determinant of tobacco use is

nicotine dependence (Jarvis and Wardle, 1999). Heavy smokers are more dependent on nicotine and therefore find quitting more difficult. When people stop using tobacco they experience severe cravings and a range of unpleasant physical and psychological side-effects. Most smokers make repeated attempts to quit before eventually succeeding. Indeed, tobacco dependence can be considered as a chronic relapsing condition. This recognises the long-term nature of quitting and the fact that periods of relapse and remission are common. Such an approach has important implications on how best to support tobacco users to quit successfully. Whether or not smokers are successful in their quit attempts depends on the balance between that individual's motivation to stop tobacco use, their degree of dependence on tobacco and the social support environment during recovery.

### **Evidence-based action**

Clinical and public health interventions need to be based upon sound scientific evidence. A significant amount of high quality research has been published in the tobacco cessation field. Many of the studies were randomised controlled trials enabling meta-analysis to be undertaken of the pooled results. Based upon the available evidence, consensus guidelines on professional practice have been published (Fiore et al, 2000; West et al, 2000). These guidelines highlight the role of health professionals in tobacco cessation and outline the steps involved in assessment, support, treatment and referral. The quality of evidence in relation to oral health professionals' involvement in tobacco use cessation is less robust, with few well designed randomised controlled trials undertaken. However, the available evidence suggests that dentists and their teams are as successful in providing cessation support as other health professionals (Fiore et al, 2000; Warnakulasuriya, 2002). Major gaps remain in the evidence base for the primary prevention of tobacco use.

### **Tobacco control agenda**

In order to effectively reduce tobacco use across Europe, a range of complementary actions and policies are required at an international, national and local level. Examples of such interventions are given in Table 2 and are expanded below.

Effective smoke-free policies in the workplace and public spaces will reduce passive smoking, encourage

**Table 2 Tobacco control agenda**

- Smoke-free policies in public spaces and workplace
- Pricing - taxation levels
- Public education
- Controls on tobacco promotion (advertising, product placement etc)
- Regulation of sale to young people
- Packaging health warnings
- Regulation of products
- Control of smuggling
- Provision of effective and accessible cessation services

cessation and hence lower consumption, and decrease the number of negative role models available to children. In some countries, such as Ireland, Scotland and Italy, legislation on restricting smoking in public spaces has already been passed. Workplace smoking bans lead, on average, to 4% of smokers quitting, and reductions in smoking among continuing smokers (Jamrozik, 2004).

Regular increases in the cost of tobacco products in real terms (and increased taxation) have a direct effect on consumption, particularly amongst adolescents. An increase in the price of tobacco products of 10% has been shown to lead to a fall in smoking of 4% in adults and 6% in children (Jha and Chaloupka, 1999). However, increased prices may lead to increased smuggling of tobacco products, which should be addressed through appropriate mechanisms to detect and deter this criminal activity. Between 1990 and 1997 world-wide the smuggling of tobacco products increased by more than 110% (ASH, 2005).

There is some evidence that public education programmes, which are sustained and delivered in concert with other aspects of the tobacco control agenda, can be effective in reducing the prevalence of smoking. On 1 January 2004, one million people in Holland stopped smoking as part of a mass media campaign to encourage smoking cessation. At one year follow-up, 239,000 individuals (23.9%) were still not smoking (Kalkman, 2004). Increasingly countries are seeking to exercise greater control over the advertising and promotion of tobacco products both directly and indirectly through product placement and sports sponsorship. In 1975 the Norwegian government announced a ban on the advertising of smoking, which was associated with tobacco consumption reaching a plateau against a trend of increasing use over 20 years (Royal College of Physicians, 1983). An

EU wide ban on the advertising of tobacco products is planned for 2009 (Europa, 2003).

Greater restriction on the point of sale of tobacco products is important, particularly where young people may be able to access tobacco products - for example, vending machines provide a point of access that is largely unsupervised. Tobacco products contain thousands of compounds aside from nicotine, many of which are harmful, if not highly toxic. There is a need for greater regulation of the contents of tobacco products, comparable to the legislation covering food, drugs and other consumer products (Jamrozik, 2004).

In an expert review of tobacco control policy across 28 European countries the relative value of different policy options were considered and ranked (Joossens, 2004). Out of a possible maximum score of 100 the following points were allocated:

- Price/taxation policy (30 points)
- Workplace/public space smoking bans (22 points)
- Overall tobacco control budget (15 points)
- Advertising ban (13 points)
- Labelling/health warning (10 points)
- Tobacco dependence treatment (10 points).

The five countries with the highest scores for their tobacco control policies were Iceland, UK, Norway, Ireland and Malta.

### **WHO Framework Convention on Tobacco Control (FCTC)**

At the World Health Assembly in May 2003 a groundbreaking global public health treaty was agreed. The WHO Framework Convention on Tobacco Control (FCTC) outlines the following actions (WHO, 2003):

The core demand reduction provisions include:

- Price and tax measures to reduce the demand for tobacco
- Non-price measures to reduce the demand for tobacco including:
  - Protection from exposure to tobacco smoke
  - Regulation of the contents of tobacco products
  - Regulation of tobacco disclosures
  - Packaging and labelling of tobacco products
  - Education, communication, training and public awareness
  - Tobacco advertising, promotion and sponsorship

- Demand reduction measures concerning tobacco dependence and cessation.

The core supply reduction provisions include:

- Illicit trade in tobacco products
- Sales to and by minors
- Provision of support for economically viable alternative activities.

Pressure is now being placed on governments across the world to ratify and enact the convention. Other examples of policy approaches to tobacco control are the European Union Directive on Tobacco Advertising and a range of other EU directives.

### Supporting cessation activities

A key element in tobacco control most relevant to health service settings is the provision of evidence-based cessation services and support. Significant progress across Europe has been made in engaging the oral health professions in cessation activity. However, major barriers have been identified that need to be addressed to move this agenda forward (Table 3).

The diverse nature and range of barriers that limit oral health professionals' active engagement in cessation activities means that a multifaceted approach is required to facilitate progress in this important area of preventive practice. Evidence-based guidelines have been published, which summarise the research on the effectiveness of cessation services (Fiore et al, 2000; West et al, 2000). These need to be disseminated to oral health professionals in a format that is relevant, accessible and applicable in clinical dental settings to address practitioners' concerns over the effectiveness of cessation support. A fundamental barrier is the perceived time it takes to provide cessation support and the absence of any direct funding to reimburse oral health practitioners for their efforts. Reforming reimbursement systems to encourage preventive care is a significant challenge. Where fee-per-item systems operate, cessation activity should be incorporated as a recognised item of preventive care. It has been estimated that cessation advice delivered in dental settings takes under seven minutes per patient (Cohen et al, 1989). If the whole dental team becomes actively engaged in smoking cessation, the amount of time dentists are directly involved will be reduced further. In addition it is important to recognise the value of other direct and indirect compensation systems.

**Table 3 Perceived barriers limiting progress in cessation in primary dental care**

- Doubts about effectiveness of advice
- Lack of time and cost concerns
- Lack of knowledge and skill
- Fear of affecting patient/dentist relationship
- Lack of tailored back-up resources
- Assume responsibility of other health professionals
- Outdated concepts of prevention and behaviour change

Sources: Chestnut and Binnie, 1995; John et al, 1997; Warnakulasuriya, 2002; Watt et al, 2004

Developing the dental team's knowledge and skills to deliver effective cessation support is essential. Training covering all relevant aspects of cessation should be provided at both undergraduate and post-graduate levels. At the undergraduate level tobacco-related topics can be integrated into a range of subjects such as dental public health, behavioural sciences, communication skills, oral pathology, oral diagnosis and periodontology. A useful incentive to encourage oral health professionals' attendance at cessation courses is to have the programmes accredited for continuing professional development (CPD) points. In the UK, uptake of a cessation training resource was significant, in part due to the CPD points awarded for reading the guide (Beaglehole and Watt, 2004). Details of professional training are covered below and in other articles in this issue.

Evidence indicates that cessation rates double when pharmacological products such as nicotine replacement therapy (NRT) or bupropion (Zyban) are used (Fiore et al, 2000; West et al, 2000). However, in many European countries neither of these products can be prescribed by dentists at present. Reform of the prescription guidelines is urgently needed to enable dentists to prescribe these useful products. On a more practical level, tailored cessation resources for use in clinical dental settings are needed to enable cessation advice to become routinely incorporated into clinical dental practice. For example, medical history forms should contain standardised questions to assess patients' smoking patterns. In addition, information on local helplines and cessation services could be displayed in waiting areas.





### **Professional education, training and capacity building**

Appropriate education and training is required at both undergraduate and post-qualification (graduate) levels to enable all members of the oral health professions across Europe to engage effectively in tobacco prevention and cessation. Regarding certain public health aspects, the professional education and training should include:

- Knowledge of the local epidemiology of tobacco use and inequalities in tobacco use across social groups. Information on the groups with the highest prevalence of smoking provides important information on the priorities for the development of services and targeting of health promotion.
- A thorough understanding of the infrastructure for the delivery of healthcare (both general health and oral health) within the individual country, particularly in relation to tobacco cessation services.
- An understanding of contemporary theories of behaviour change and health promotion, in particular the range of factors and processes influencing behaviour.
- Knowledge of the nature and levels of tobacco dependence and nicotine addiction, and its impact on oral health and dental practice. Contemporary research has revealed much important information on the nature of nicotine addiction and dependence, which has important implications for the development of cessation services.
- An understanding of behaviour and specifically behaviour associated with addictions.
- Instilling positive attitudes towards the undertaking of smoking cessation activities among dental healthcare professionals, including the provision of professional role models in smoking cessation for members of the dental healthcare team.
- Knowledge of the available treatment options and their evidence base.
- The development of skills required to support sustained behaviour change in smoking cessation, including communication skills and pre- and post-quit date activities.
- Where relevant, the ability to work in a team approach, supporting other members of the dental team.
- Where relevant within the healthcare setting, the importance of and mechanisms for referring patients to specialist services for support.

### **Role of dental associations and professional groups**

National and international dental associations and professional groups have an important role to play in tobacco control. However, a recent survey of National Dental Associations (NDAs) across OECD countries revealed that only 50% of NDAs had a written policy on tobacco control (Beaglehole et al, 2005). The FDI and WHO have recently published a useful guide that outlines a range of actions NDAs can perform in relation to tobacco control (FDI/WHO, 2005). Key recommendations in the FDI Code of Practice on tobacco control for oral health professional organisations include (FDI, 2004):

- Actively support governments in the process leading to signature, ratification and implementation of the WHO Framework Convention on Tobacco Control
- Support and endorse the tobacco control activities of other health networks and professional groups
- Support campaigns for tobacco-free public places
- Actively participate in World No Tobacco Day every 31 May and in other global and countrywide public education campaigns
- Include tobacco control in the agenda of all relevant congresses and conferences
- Influence training institutions and educational settings to include tobacco control in their oral health professionals' curricula at undergraduate, continuing education and postgraduate levels
- Advise all, their members to deliver evidence-based cessation support to their patients

In addition, professional groups and associations could support their membership by publishing and disseminating cessation guidelines and resources designed for use in clinical dental settings. Lobbying governments to reform dental health care systems to facilitate an expansion of preventive practice is another important advocacy role that can be performed. For example, in many countries dentists are not able to prescribe nicotine replacement therapies (Beaglehole et al, 2005). Reforms of prescribing policies are therefore urgently required.

### **Research agenda**

A wealth of high quality international research has been undertaken specifically in relation to the evalu-

ation of cessation interventions (Fiore et al, 2000; West et al, 2000). However, significant gaps exist in the research base in relation to oral health and tobacco control. Research at a national and international level is required in the following areas:

- Primary prevention targeting young people in relation to the social impacts of tobacco use on oral health and the feasibility of the dental practices as a setting for preventive action
- Randomised controlled trials evaluating the effectiveness of different dental personnel engaged in cessation support in a variety of dental settings
- Community-based interventions focusing on health inequalities and patterns of tobacco use, for example tobacco chewing amongst ethnic minority groups
- Most effective referral pathways from primary dental care to specialist smoking cessation services
- Educational research to assess the impact and effectiveness of cessation training on different members of the dental team
- Oral health effects of passive smoking - e.g. the periodontal status of workers employed in smoking environments
- Relapse prevention - e.g. the role of oral health professionals in preventing relapse
- Evaluating different incentives and compensation systems aimed at encouraging oral health professionals' active involvement in cessation activities.

## CONCLUSION

Tobacco use remains a significant threat to health across Europe. Oral health professionals have a potentially important role to play in combating this major public health problem. This paper has outlined the nature of the challenge that needs to be addressed. Details have been presented of the tobacco control agenda which provide a range of opportunities for effective action. In particular the oral health professions have a unique role to play in providing cessation support to their patients. Other papers will explore in more detail how cessation support can be effectively delivered in dental settings and the educational developments needed to drive this agenda forward.

## REFERENCES

1. Action on Smoking and Health. [www.ash.org.uk/smuggling/](http://www.ash.org.uk/smuggling/)
2. Beaglehole RH, Watt RG. *Helping Smokers to Stop: A Guide for the Dental Team*. London: Health Development Agency, 2004.
3. Beaglehole RH, Tsakos G, Watt RG. Tobacco control and the dental profession. A survey of the OECD National Dental Associations. *International Dental Journal* 2005;55:325-328.
4. Campbell HS, Sletten M, Petty, T. Patients' perceptions of tobacco cessation services in dental offices. *Journal of the American Dental Association* 1999;130:219-226.
5. Cohen SJ, Stookey GK, Katz BP et al. Helping smokers quit: a randomised controlled trial with private practice dentists. *Journal of American Dental Association* 1984;118:41-45.
6. Chestnutt IG, Binnie VI. Smoking cessation counselling-a role for the dental profession? *British Dental Journal* 1995;179:411-415.
7. Currie C two more authors et al. *Young People's Health in Context: International Report from the HBSC 2001/2002 survey*. WHO Policy Series: Healthy Policy for Children and Adolescents Issue 4. Copenhagen: World Health Organisation Regional Office for Europe, 2004.
8. EU Working Group on Tobacco and Oral Health. Meeting Report. *Oral Diseases* 1998;4:484-487.
9. Europa (2003). [europa.eu.int/eurlex/pri/en/oj/dat/2003/L\\_152/L\\_15220030620-en00160019.pdf](http://europa.eu.int/eurlex/pri/en/oj/dat/2003/L_152/L_15220030620-en00160019.pdf) (accessed 1.12.05).
10. FDI/WHO. *Tobacco or Oral Health: An Advocacy Guide for Oral Health Professionals*. Lowestoft, Suffolk: World Dental Press, 2005.
11. FDI. *Code of Practice for Oral Health Professional Organisations in Tobacco*, FDI Policy Statement, New Delhi, 2004.
12. Fiore MC, Bailey WC, Cohen SJ et al. *Treating Tobacco Use and Dependence. Clinical Practice Guideline*. Rockville: US Department of Health and Human Services, 2000.
13. Gillon, R. *Philosophical Medical Ethics*. Chichester: John Wiley and Sons, 1995.
14. Gupta PC, Warnakulasuriya S. Global epidemiology and areca nut usage. *Addiction Biology* 2002;7:77-83.
15. Janrozik K. Population strategies to prevent smoking. *British Medical Journal* 2004a;328:759-762.
16. Jarvis M, Wardle J. Social patterning of individual health behaviours: the case of cigarette smoking. In: Marmot M, Wilkinson R (eds) *Social Determinants of Health*. Oxford: Oxford University Press, 1999.
17. Jha P, Chaloupka FJ. *Curbing the Epidemic: Governments and the Economics of Tobacco Control*. Washington DC: World Bank, 1999.
18. John JH, Yudkin P, Murphy M et al. Smoking cessation interventions for dental patients-attitudes and practices of dentists in the Oxford region. *British Dental Journal* 1997; 183:359-364.
19. Joossens L. Effective tobacco control policies in 28 European countries. *European Network for Smoking Prevention*, 2004. [www.ensp.org](http://www.ensp.org) (accessed 8.11.05.)
20. Judge K, Bauld L, Chesterman J, Ferguson J. The English treatment services: short term outcomes. *Addiction* 2005; 100 Suppl 2:46-58.
21. Kalkman M. Stivoro in 2004. Een rookvrije toekomst voor de nieuwe generatie. The Hague, 2005. [www.stivoro.nl](http://www.stivoro.nl) (accessed 1.12.05).
22. Royal College of Physicians. *Health or Smoking?* London: Royal College of Physicians, 1983.

23. Rikard-Bell G, Donnelly N, Ward J. Preventive dentistry: what do Australian patients endorse and recall of smoking cessation advice by their dentists? *British Dental Journal* 2003;194:159-164.
24. Ryan JF. Tobacco control issues in the European Union. *Euro-health* 2000;6:1.
25. Warnakulasuriya S. Effectiveness of tobacco counselling in the dental office. *Journal of Dental Education* 2002;66:1079-1087.
26. Watt, RG, McGlone P, Dykes J, Smith M. Barriers limiting dentists' active involvement in smoking cessation. *Oral Health and Preventive Dentistry* 2004;2:95-102.
27. West R, McNeil A, Raw M. Smoking cessation guidelines for health professionals. An update. *Thorax* 2000;55:987-999.
28. Winn D. Tobacco use and oral disease. *Journal of Dental Education* 2001;65:306-312,
29. World Health Organization. *The World Health Report: Reducing Risks, Promoting Healthy Life*. Geneva: World Health Organization, 2002.
30. World Health Organization. *WHO Framework Convention on Tobacco Control*. Geneva: World Health Organization, 2003.
31. World Health Organization. *Global Facts on Tobacco or Oral Health*. Geneva: World Health Organization, 2005.

