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Health Development Agency

Searching for the solution
Women, smoking and inequalities in Europe

International Network of Women against Tobacco – Europe

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About the Health Development Agency

The Health Development Agency (www.hda.nhs.uk) is the national authority and information resource on what works to improve people's health and reduce health inequalities. It gathers evidence and produces advice for policy makers, professionals and practitioners, working alongside them to get evidence into practice.

This document represents the views of the author and members of INWAT Europe who contributed to the seminar. Readers should note that the distinction between expert opinion, selected literature reviews and information from the seminar presentations is not always made clear, and that the views expressed here are not those of the HDA.

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Summary and recommendations

While making a strong case for the need to address the issue of women, low income and smoking, the seminar identified many gaps in our current knowledge and a need for further research. At the same time, there was agreement that the potential for tackling health inequalities and the gap between higher and lower socio-economic groups through policy and practice interventions is high.

Tobacco use is affected by a whole variety of social, economic, cultural and behavioural determinants. Patterns of smoking that may change and develop over a lifetime are affected by a wide range of variables – gender, age, social class and ethnicity. All are significant, but gender is an important variable that cuts across all others and allows us to examine the impact of a range of social determinants of smoking and, for poorer women, the cumulative effects of multiple disadvantage.

There is now very clear evidence that broad strategies to reduce smoking have been effective among better-off women. Only recently, however, have we begun to abandon the notion of 'one size fits all' and rise to the challenge of devising strategies that meet the needs of those in the lower socio-economic groups, and, as in some of the community-based projects described in this report, take a bottom-up approach to helping women and their families in deprived circumstances.

Traditional, broadly based tobacco control policies aim to reduce smoking across whole populations, and have a wide impact on changing smoking behaviour. In line with the stage of the epidemic, strategies such as tobacco taxation, restricting smoking in public places and public information are widely used by countries throughout Europe. These strategies continue to be important. But it is clear that if concerns about the current patterns of smoking among poorer women and girls – with stark implications for their health – are to be addressed, the challenge is to develop more effective policy tools.

Traditional tobacco control policies will need to be sensitive to gender and to the needs of low-income women, and to develop more tailored approaches. In this report we advocate taking a gender approach to identify issues that affect women, and then applying a further lens to identify the needs of disadvantaged women. This focus provides an understanding on which to base policies and strategies that support and empower women to escape from the deprivation, disease and poverty now associated with smoking. Without this shift of focus, and with a continued emphasis on reducing overall tobacco consumption, the gap between the higher and lower socio-economic groups is likely to persist and widen. It is important that these approaches be developed, implemented and evaluated on the basis of how the needs of low-income women differ from those of men and of more affluent groups.

Yet gender-sensitive tobacco control measures on their own may have limited impact on the effects of poverty on women and children, and on the way poorer women are tied into smoking. These problems can be addressed only by a wider, comprehensive approach to health inequalities that involves economic health and social policy at national and European levels.

Reducing smoking rates in the poorest and least powerful sections of society, especially among women, is a vital task and must be brought to the attention of politicians, civil servants and those who influence public opinion at national and European levels. A range of policy tools and frameworks are already available to assist in the development and implementation of strategies for action. A summary of the key issues that emerged from the presentations and discussions at the seminar follows, with recommended

action. The recommendations seek to use these to suggest how individual countries can develop comprehensive tobacco control policies that tackle smoking-related inequalities in health.

The recommendations fall into six areas.

- Research issues
- The biomedical research agenda
- Tailoring tobacco control
- A comprehensive policy approach
- Utilising tools – the four-stage model
- Expanding networks.

Research issues

Gender mainstreaming

Evidence was presented at the seminar of the major problems of gender bias, and the failure of researchers and others to identify gender-specific issues for either men or women. A gender analysis of all tobacco control research, programmes and strategies is needed. The most effective application of a gender analysis is to 'mainstream' the approach into existing mechanisms for developing policy and research agendas.

- **'Gender mainstreaming' tobacco control research, programmes and strategies**

Data collection and comparability

Discussions highlighted the need for systematic collection of comparable data. Health statistics and data relating to education levels, social class and income levels need to be standardised so that cross-country and cross-regional comparisons can be made, as recommended in *The Health Status in the European Union* (Ferrinho and Pereira Miguel, 2001). Eurostat, the Statistical Office of the EC, is the source for data on populations and demographics. Support for this organisation could be achieved by establishing common ground for a hierarchy of public health indicators to be used by international organisations.

- **Systematic collection of data (including longitudinal data) comparable between countries and regions**

The biomedical research agenda

The report *Part of the solution* (INWAT, 2000) refers to the conclusion of the European Network for Smoking Prevention (ENSP)'s 1998 conference 'that there was a relative scarcity of valid studies dealing specifically with women' (Joosens and Sasco, 1999). The US Surgeon General's report (HHS, 2001) similarly identifies the need to conduct further studies of the relationship between smoking and certain outcomes of importance to women's health. The extent of work to be done in this field is considerable, and includes areas not yet addressed.

Of particular concern are young women. In many European countries, smoking rates for young women are higher than those for young men and there is a growing body of evidence to suggest that, even at an early age, they smoke for different reasons and have different patterns of smoking that may very quickly tie them into the habit. Today's young female smokers may face a long period ahead of them as smokers and, if teenage girls continue to smoke and trends continue, future rates of female smokers could top male rates in older cohorts. For those young women who face the added disadvantage associated with poor education, low income and single motherhood, the impact on their health will be even greater. The greater vulnerability of these young women and their higher susceptibility to illness can only increase as exposure builds over their life course, in the absence of material and economic improvements.

A gender-sensitive approach to biomedical research is needed, that will identify the differentiated effects of tobacco use on girls and women.

The ENSP report (Joosens and Sasco, 1999) identifies a number of specific areas that are considered to be urgent. These include:

- Effects of nicotine dependence
- Impact of post-menopausal smoking on coronary heart disease
- Impact of hormone-replacement therapy
- Cerebrovascular disease
- Sensitivity to lung disease
- Investigation of mechanisms linking smoking to osteoporosis
- Smoking and skin condition
- Long-term effects of low body-mass index
- Impact of smoking pre-pregnancy.

Tailoring tobacco control

The seminar emphasised the need to establish measures of the effectiveness of tobacco control policies and interventions that build in gender and measures of socio-economic status.

Public places and protecting children from environmental tobacco smoke

The objective of policies to control environmental tobacco smoke is to guarantee that all public places should be smoke-free. These include schools, childcare and other health facilities, places where young people gather, sports clubs, restaurants, shopping centres, public transport, and all places of work. WHO has singled out workplaces and healthcare institutions as particular targets, where the importance of setting an example is emphasised.

Policies that restrict smoking affect all the population, but may have a differential impact on different groups. Such policies need to acknowledge these different responses in order to be gender- and class-sensitive.

Children are particularly vulnerable to the effects of passive smoking. Research evidence indicates that women in all socio-economic groups are very receptive to changes that will affect their children's wellbeing. But despite such evidence, gender and class sensitivity are also generally overlooked when advice is given to women smokers about the effects of smoking on their children.

While this is a contentious area, it is an example of where a broadly based tobacco control strategy can benefit from taking a gender perspective and a gender-sensitive approach.

- **Develop and promote greater understanding of the impact on poor women and their children of broadly based tobacco policies designed to reduce smoking in public places**
- **Develop and promote greater understanding of the circumstances in which children are exposed to environmental tobacco smoke from parents, and of the circumstances of maternal smoking (including by disadvantaged women), and how they might be helped to protect their children from the dangers of environmental tobacco smoke**

The workplace

Despite evidence from the USA of what potentially can be achieved in the workplace in providing protection for workers, there are huge disparities between the European countries in workplace provision of smoke-free policies.

The seminar highlighted both the need to develop workplace non-smoking policies as part of an overall effort to reduce workers' exposures to toxins in the workplace, and the importance of a more comprehensive approach than simply restricting smoking in the workplace and providing cessation programmes. Implicit in such a strategy is the need to address multiple levels of influence, and to shift responsibility for workers' protection from environmental tobacco smoke to include trade unions, national governments and the European Parliament and institutions. Central to the development of comprehensive policies is the need to work towards binding legislation that gives workers protection, and that is also enforceable.

- **Develop and implement comprehensive worksite policies in a health-and-safety context to protect workers in all sectors from the effects of environmental tobacco smoke**
- **Develop and implement more effective national and European legislation to protect employees from the effects of environmental tobacco smoke**
- **Classify environmental tobacco smoke as a human carcinogen**

The tax and price measure

Taxation is a very blunt instrument and, while it may be effective as a population strategy, there is insufficient and conflicting evidence in relation to its impact on different groups. Not enough is known about the differential effect of indirect taxation on women and men, and on low- and high-income consumers. What evidence is available is based largely on US, British and Canadian data. As these are all 'mature' smoking economies, the results may not be representative of other situations.

In many countries, many low-income smokers now purchase tobacco at a lower real price than in 1997. The solution and revitalisation of the price effect lies in the following:

- **National governments and the EU should take action to tackle smuggling and distribution of contraband**
- **National governments should use a proportion of tobacco tax to address the dimensions of disadvantage and provide cessation programmes focused on low-income smokers**
- **National governments should undertake gender impact assessments of fiscal policy to assess the differential effects of indirect taxation on women**

Public education/mass media approaches

The impact of mass media campaigns can be difficult to quantify, and assessing their differential impact even more

problematic. Recent evidence from the UK and elsewhere suggests that campaigns developed with sensitivity to the needs of disadvantaged groups are effective.

Cost is one of the main drawbacks of mass media approaches, with the lack of an effect after the first phase of the campaign indicating that a sustained and prolonged campaign is necessary to have an impact. Targeting different groups also presents a challenge – limited resources tend to rule out a multiple-message approach, and sensitivity is also important in designing appropriate strategies that avoid making women feel guilty and add to the stresses that keep women smoking.

The seminar recommended:

- **Creation and dissemination of a solid evidence base for public education programmes that addresses the social contexts of the lives of women smokers, including disadvantaged women, as well as the health damage smoking creates**
- **Development of a good infrastructure to provide back-up and support for women at local level, in support of mass media/public education programmes – this might include local programmes, self-help groups, locally developed materials and trained local workers**
- **Those responsible for public education campaigns should investigate the possibility of adapting or sharing television campaigns in different contexts and countries, taking care to respect cultural differences and ensure the relevance of any approach to a particular group**

Restricting tobacco marketing

Monitoring, scrutinising and exposing the marketing activities of the tobacco industry across Europe are important to protect countries with less stringent restrictions, and which are more vulnerable to the aggressive marketing strategies of the tobacco industry. Other more specific recommendations include:

- **A ban on all forms of tobacco promotion and marketing, to benefit all groups targeted by tobacco companies including women and low-income smokers**
- **In countries where tobacco is widely available, sales should be restricted to special shops to reduce access**

Cessation and support

More research is required on the gender-related factors associated with achieving and maintaining smoking cessation among women across their life course – and among poorer women in particular – on which to base targeted cessation programmes.

Within different countries there is a need for research to identify individual barriers to cessation, and to establish the drivers that motivate individuals to quit, to understand these in the wider contexts of women's lives, and to design programmes that reflect the realities of women's lives across their life course. The seminar recommended:

- **Research to explore how best to deliver cessation services to low-income groups**
- **Capacity-building and resource provision within countries to deliver services that are appropriate and effective**

Community-based initiatives

The advantages of some community-based programmes are that they are women-centred, view women as experts on their own lives, and take into account the stresses of women's lives, the role of smoking, and the barriers to quitting.

Despite limited evidence of effectiveness, these projects are seen as important in raising awareness among the population and developing an understanding of the interplay between the numerous factors related to individual smoking behaviour and the environment. Visible programmes to target special groups were seen as important. The seminar recommended programmes specifically targeting low-income women, in particular:

- **Demonstration projects with the following groups**
  - **low-income pregnant women**
  - **low-income mothers**
  - **immigrants in local communities**
  - **residents in long-stay institutions, eg prisons, hospitals**

A comprehensive policy approach

The seminar identified a comprehensive and integrated approach as the most effective way of addressing inequalities, and highlighted a number of policy tools and frameworks as means of developing such a strategy.

Defining the target group is fundamental to taking action on inequalities. Much of the research identifies poverty as the trap that keeps poor women – the most deprived group – locked into smoking. Increasing evidence suggests that smoking careers are shaped by a continuity of disadvantage

from childhood through adolescence into adulthood. Cross-sectional data, that illustrate relationships at one point in time, may not be sufficient, and more long-term, longtitudinal data, that describe patterns of smoking developed over a lifetime, are needed.

Policies that promote the systematic changes needed to affect women's tobacco use, including social and economic policies, would have a profound effect on the health of poorer women. This would also enhance opportunities for education and employment for women, resulting in meaningful increases in income.

Relevant authorities are urged to:

- **Collect longitudinal data that give insight into how disadvantage accumulates across the life course of individuals, reflecting women's various life stages**
- **Develop and implement policies that reduce income inequalities and improve the living standards of individuals, households and communities reliant on social benefits**

Utilising tools – the four-stage model

The seminar indicated how the four-stage model can be used to provide guidance and direction for those designing programmes and strategies to reduce inequalities. Such an approach needs to be developed with sensitivity and, while drawing on the available evidence, programmes need to be tailored to countries' individual needs.

The seminar suggested development of a tool, 'Guidelines for Action', outlining appropriate action at the different stages of the epidemic. In addition, Amanda Amos proposes a theoretical model that adds a further refinement and examines the effects of smoking in terms of stages of development, and also tracks the life course at different stages in individual countries. As has been observed, there is increasing evidence that smoking careers are shaped by continuity of disadvantage from childhood through adolescence into adulthood, and longitudinal data would give insights into how disadvantage accumulates across the life course of individuals. Given that the socio-economic backdrop of countries at different stages of development of the epidemic vary, these differences are likely to impact on – and show differences in – how disadvantage accumulates across the life course of individuals in countries at different stages of development.

- **Develop the four-stage model – 'Guidelines for Action'**

The four-stage model is also useful in addressing the huge disparities that exist between the countries of the EU. The model lends itself to carrying out research in groups of countries that can be identified as being at the same stage of development. For those countries for which inequality is not yet a major issue, this approach would also provide further guidance and direction for designing programmes and strategies to prevent the emergence of inequalities.

- **Design and implement collaborative research programmes based on the four-stage model**

It was suggested that a further tool be produced, designed to describe the burden of smoking-related disease for individual countries, with information presented on the basis of gender differences, emerging inequalities and the health impact on the nation's wellbeing.

- **Produce country-specific publications based on the four-stage model**

Expanding networks/building alliances

The report *Part of the solution* (INWAT, 2000) recommended that INWAT should continue to support relevant international networks and to promote the importance of tobacco control policies.

One of the outcomes of this seminar was to further reinforce the importance of extending the network to encompass groups and organisations that INWAT has yet to reach, and that work with women in different ways.

With so much emphasis in the seminar on the need to learn from the tobacco companies in devising effective marketing strategies, it was suggested that there is a need to take a more proactive approach that 'sells' the importance of the issue in order to get these important groups on board. In addition, there is a need to mobilise people at grassroots level to give the issue of smoking a much bigger public forum.

- **Expand the network and build alliances with:**
  - **women's health groups**
  - **women's political and social groups**
  - **organisations/agencies and professional groups concerned with poverty, social exclusion and low-income housing issues**
  - **the teaching profession**
  - **those working with the homeless, eg The Big Issue Foundation in the UK**
  - **environmental groups**

- **those who work in mental health**
- **prisons and prisoner welfare organisations**
- **charities that work with women**
- **religious organisations**
- **consumer organisations such as the Consumer Council in the UK**
- **labour unions/organisations and employers' federations**
- **women's advertising agencies**
- **women's media**

Yet it is clear that investigating the issue of smoking from the perspective of women's own experience and, in the case of this report, the experience of poor women, demonstrates the complex way in which smoking is woven into the fabric of life. For this reason, we need to do more than expand networks. We need to build alliances with women's organisations in which we not only ask for support for our aims, but also offer support; and we need to build relationships with women in these organisations that form the basis for working together, identifying common goals and taking action to achieve them. We need to take a collaborative approach with other agencies and develop ways of working with them in helping to achieve their aims of improving the conditions of women's lives, recognising that such help to break out of cycles and spirals of deprivation may be the necessary precursor to helping women to break out of the cycle of tobacco dependency.

Networking at this level requires commitment, expertise, and facilities to undertake the work and respond to the demand and needs generated by such activity. The 1999 INWAT seminar proposed a centre of excellence on women and tobacco that could undertake research and networking. The recommendations of the 2002 seminar, outlined in this report, reinforce the need to establish such a facility. A centre of excellence, with specialist technical competence, a directorship active in international networking and lobbying, and a fully resourced secretariat will require secure and adequate funding. INWAT Europe is committed to achieving this objective and to responding to the now urgent need for the development of effective strategies and programmes that reach poorer women.

Background

The report *Part of the solution: Tobacco control policies and women* (INWAT, 2000) came out of discussions during an expert seminar held in June 1999, and described frameworks for developing tobacco control policies devoted to the specific needs of women. An outcome of that INWAT expert seminar was a concern within European member states that the emerging pattern of smoking is increasingly concentrated among lower socio-economic groups. In August 2002 a further seminar – 'Women, Smoking and Inequalities in Europe' – was held in Berlin (see Appendix).

Searching for the solution summarises the key issues raised at that seminar, and areas where there was further discussion. The reference list develops some of the topics discussed and provides pointers to research on this neglected issue; it is not intended to be a complete literature review.

Time to act

Dr Gro Harlem Brundtland, Director General of the World Health Organization (WHO), states that the rights of women and children are basic human prerogatives, and points to 4 million unnecessary deaths per year from tobacco use and the likelihood that by 2020 tobacco use will be responsible for about 10% of the global burden of disease (WHO, 2001). Preventing a tobacco epidemic among young people makes sound economic sense. Dr Brundtland points to studies in Europe and the Far East to show that the economic benefits of tobacco to a country's economy are illusory. According to the World Bank, the use of tobacco results in a net loss to countries' economies of billions of dollars a year (World Bank, 1999).

The US Surgeon General's report on women and smoking (HHS, 2001) also asks 'what is needed to reduce smoking among women?' Summarising the evidence, the report concludes that the single over-arching theme is that smoking is a women's issue. It also makes a plea to 'act now – we know more than enough'.

Context

Tobacco smoking is the leading preventable cause of morbidity and premature mortality in the European Union. It is estimated that 500,000 citizens in the EU are killed by the consequences of their tobacco habit each year. About half these deaths occur in middle age.

The proportion of men in the EU who smoke (43% in 1995) has historically been higher than that of women (28% in 1995) (Eurostat, 1996), but in many countries the gap between the sexes has narrowed so that, if trends continue, female smoking rates may exceed those of men. This is already the case in Sweden, where about 20% of women smoke compared to 18% of men.

It has been suggested that the tobacco epidemic in any country develops in four stages, where typically smoking prevalence first rises sharply in men, followed later by a rise among women (Lopez *et al.*, 1994). In both genders a peak and fall in prevalence is followed some two to three decades later by a peak and fall in deaths caused by smoking. It is now becoming clear that there is also a social class dimension to the development of the tobacco epidemic. Typically, the more affluent are the first to take up smoking, and the first to give it up. As the better-off quit smoking, it becomes normative behaviour only among only those with less education and income. This trend began with the 'mature' smoking economies of northern Europe, but has now spread. With the exception of Portugal, smoking among women in the EU is now highest among lower socio-economic groups (European Commission, 1997).

Trends in smoking among the very worst off in society are especially worrying. For example, data from the UK indicate

that among the most deprived, smoking prevalence did not decline in the 1980s; and among single mothers, levels rose (Marsh and Mackay, 1994). In northern European countries smoking is now established as a marker of deprivation, and tobacco-related damage weighs most heavily on the most deprived women, who already suffer the poorest health. Smoking levels in these countries are typically two or three times higher among the poorest compared to the most affluent women, by standard social grouping. This has been identified as the primary reason for the gap in healthy life expectancy between rich and poor (Jarvis and Wardell, 1999). Acknowledging that the poorest socio-economic groups are likely to suffer the consequences of tobacco use more than the rich, a WHO report points out that in Canada, England & Wales and the USA, the middle-age mortality gap between rich and poor would be reduced by half to two-thirds if smoking could be eliminated (Bobak *et al.*, 2000).

Although the problem of 'poor smokers' has been acknowledged for a decade or more, there have been too few policy responses to address this problem in Europe. The severity of the problem calls for both concerted tobacco control programmes on a national level and, where appropriate, Europe-wide initiatives to reduce the gap. Evidence for the effectiveness of tobacco control interventions targeted at whole populations is growing; and there is now evidence for the effectiveness of some initiatives, albeit still very few, targeted at low-income groups. It is necessary for Europeans to share this information and experience to promote a decrease in tobacco consumption in the population and narrow the gap in smoking rates between higher and lower socio-economic groups.

In August 2002, the International Network of Women Against Tobacco (INWAT) hosted an international seminar on 'Women, Smoking and Inequalities in Europe'. The seminar brought together a number of invited delegates working on various aspects of inequalities, gender and smoking in Europe to share information and to explore more creative ways to work together.

The aims of the seminar were to:

- Explore how different countries view smoking and disadvantage
- Look at possible approaches to addressing the problem
- Discuss the evidence for effectiveness
- Explore ways to build new partnerships between organisations concerned with tobacco control, inequalities and women's health
- Discuss how future work on women, smoking and inequalities can fit into the EU's new public health agenda.

This report is an account of that seminar and the issues raised. It examines the evidence (presented by participants and from some of the literature), and puts forward the case for the importance of tackling health inequalities. The findings and discussion from the seminar are presented in this broader context and, while efforts have been made to draw on examples from different countries, this report is heavily dominated by UK literature. This is largely because, in Europe, smoking first started in the UK and so it is ahead of other countries in the development of the smoking epidemic. It is also in the UK that the social class patterning of smoking has first emerged. It is important to bear in mind this UK focus, which may not reflect the situation in other countries.

This report is intended for those responsible for tobacco control programmes nationally or locally in Europe; those responsible for programmes in non-governmental organisations dealing with children, poverty and disadvantage; and women's health advocates with an interest in inequalities, or women who wish to see action in these fields.

Why women?

Without disregarding the ways that smoking affects men, and their importance in relation to health inequalities among the poor, INWAT takes a special interest in women for several reasons.

- *Tobacco control has not addressed fully the issue of gender* – while the tobacco industry has long recognised that women represent a different market from men (targeting women specifically, further segmenting the market by socio-economic grouping, and developing different products for these groups), traditional tobacco control has failed many women because it has too often been designed with men in mind. INWAT has worked to change this emphasis, and progress has been made in improving women's representation in the tobacco control movement. It is important to continue this improvement and, when developing appropriate health promotion policies for women, to ask what it is that persuades women to smoke, and how these factors differ from those that predict smoking among men. What keeps women smoking, and what cessation policies are appropriate specifically for women? Where the circumstances of women's lives (and the role smoking plays) are different from those of men, effective cessation programmes need to be targeted in such a way that they are sensitive and empathetic to these differences.
- *Different health consequences of smoking for women* – this alone is sufficient reason for addressing the

particular needs of women. *Some like it Light* (Joosens and Sasco, 1999), the report of the European Network for Smoking Prevention (ENSP) Conference on Women and Tobacco, details clearly the consequences of smoking for women's health as they are presently understood. The US Surgeon General's report (HHS, 2001) describes the devastating impact of smoking on women's health, and poses questions in relation to environmental tobacco smoke and increased risk of breast cancer; the relationship between changes in the tobacco product and the increased incidence rates of adenocarcinoma of the lung; effects of employment in tobacco production on women's health, including pregnancy; and, in relation to comparisons between developed and developing worlds, how the effects are modified by differences in lifestyle and environmental factors such as diet and exposure to other sources of pollution.

- *Women, on average, are poorer than men* – and often economically dependent on men. Most single-parent, low-income families are headed by women. With women having major responsibility for childcare, allowing them less time for paid work, children represent a major factor in earning capacity and the earning differential between men and women. In most countries women's earnings, relative to those of men, are lower. In the Czech Republic, for example, 52% of women are economically active – across all employment sectors they earn, on average, 73.3% of male income and experience higher unemployment rates, 9.98% compared with 7.82% for men (Czech Statistical Office, 2000). Within workforces, women's employment tends to be concentrated in low-paid jobs, in a limited range of occupations in sectors such as service and health. In many European countries the number of female-led one-parent families is increasing – with the health and social problems associated with the downward spiral of economic disadvantage also likely to increase.
- *Future generations* – women have a leading role in ensuring the health of future generations:
  - smoking and, to a lesser extent, being exposed to second-hand tobacco smoke during pregnancy has a detrimental effect on the foetus
  - women still account for the great majority of childcare provision in Europe
  - poor smokers have an even greater burden, with stretched resources and the challenges of providing a smoke-free environment for children.

Women, smoking and inequalities in Europe

Women in Europe – the impact of smoking

WHO estimates that about 1.2 million deaths each year in the WHO European Region can be attributed to tobacco products. It is estimated that, unless more effective measures are implemented to help the current 200 million smokers to stop or reduce their tobacco consumption, tobacco will be responsible for 2 million deaths a year (20% of all deaths) by 2020.

An increasing number of these deaths are likely to be women. Since the end of the Second World War the prevalence of female smoking has risen sharply in western Europe. Evidence presented at the ENSP conference in 1998 (Joosens and Sasco, 1999) highlighted the growing burden of mortality associated with this rising prevalence. In the EU, the number of female deaths related to smoking rose from 10,000 in 1955 to 113,000 in 1995. Deaths among women from lung cancer doubled between 1973 and 1992. With the exception of women under 65 in the UK, lung cancer mortality is still increasing among women in most member states.

European Union data show that, in most member states, mortality from lung cancer is decreasing overall, but is still increasing for women. Cancers of the lung/bronchus are the most common cause of cancer among men, and the third most common among women. For women, the highest mortality for lung cancer is in Denmark and the lowest observed is in Spain (Ferrinho and Pereira Miguel, 2001).

The four-stage model of the smoking epidemic (Figure 1) pinpoints the different stages of development of the epidemic (Lopez *et al.*, 1994). The model is useful not only to indicate where different countries are in relation to the epidemic, but also where women are – women historically

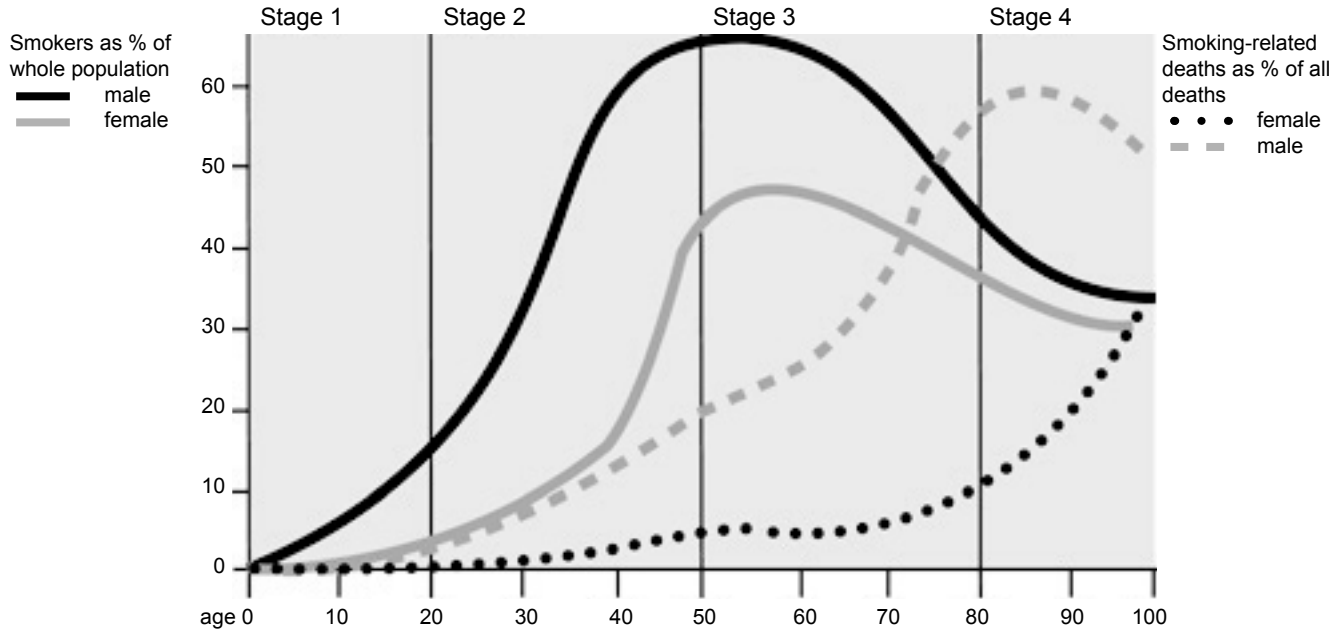

Figure 1: The four stages of the tobacco epidemic

lagging behind men. Although cross-national analysis of women's smoking is hampered by the lack of research and poor quality data, the data that are available show well established trends in the development of smoking behaviour over time that are differentiated by sex, age and socio-economic status. However, at any given point in time there are wide variations in prevalence of tobacco use between member states.

Smoking is first taken up by young adult men in higher socio-economic groups, with women taking up manufactured cigarettes later – uptake again beginning among younger women in higher socio-economic groups. The habit then spreads downwards to other social groups and, as new recruits grow older, to older age groups. In the typical development of the tobacco epidemic in any country smoking prevalence first rises sharply among men, often reaching a maximum level where 60–70% of men smoke. Two to three decades later, deaths from smoking begin to rise in men. The same pattern occurs later among women, as they typically reach maximum smoking prevalence 15–20 years after men.

This being the case, and given that cancer rates lag behind smoking by 25–30 years, an unavoidable increase in smoking-related diseases can be expected over the coming decades as changes in smoking prevalence are reflected in disease prevalence.

For most European countries, then, smoking represents the largest single determinant of avoidable deaths, and smoking-associated female deaths are still rising. Without action the trends are likely be sustained, with – on the basis of current trends – the burden increasingly being carried by women in the lower socio-economic groups.

The emerging health divide in Europe

Before looking at the issue of women, smoking and inequalities, we need to look at the broader picture and understand the nature of inequality at European level, to ask what is the nature of inequality and what lies at the root of these divisions.

Mackenbach and co-workers define socio-economic inequalities in health as systematic differences in morbidity and mortality between individual people of higher and lower socio-economic status, to the extent that these are perceived to be unfair (Kunst and Mackenbach, 2001; Mackenbach and Bakker, 2001). Over the past few decades there has been increasing awareness of inequalities in health and growing concern in many European countries, and by the end of the twentieth century socio-economic inequalities were seen as the biggest public health issue. In their review of relevant European data, Mackenbach and co-workers show that inequalities in self-reported morbidity are substantial everywhere – people with lower socio-economic status have higher morbidity rates. In a comparative study of 11 countries in western Europe they found that the risk of ill health was 1.5 to 2.5 times higher among those in the lower half of the socio-economic distribution than in the upper half.

In countries with available data, the findings for mortality also show socio-economic inequalities of considerable magnitude. This trend is not uniform: an analysis by cause of death reveals a striking north/south pattern within western Europe. In the Nordic countries and the UK, half or more of the socio-economic gap in total mortality is an excess risk of cardiovascular disease in lower socio-economic groups. In southern Europe, diseases such as cancers and gastrointestinal diseases have a large share in the excess risks. These differences are probably explained by differences in lifestyle – the differences in smoking rates and length of exposure to smoking and intake of animal fats in northern Europe compared with different patterns of alcohol consumption in the south.

Mackenbach and co-workers suggest that it is possible that the smaller size of inequalities in cardiovascular disease mortality in countries in the south of western Europe will prove to be a temporary phenomenon, reflecting changing patterns of smoking and other lifestyle changes in other countries in the past few decades (Kunst and Mackenbach, 2001; Mackenbach and Bakker, 2001).

Inequalities in health and smoking

Although not the only explanation for these inequalities, health-related behaviours, including smoking, are identified as important determinants of socio-economic inequalities in health. In most European countries smoking is now more prevalent in the lower socio-economic groups. Recent data from Spain, for example, show that smoking among females was rare until the 1960s. From 1968–72 onwards a converging pattern with males was observed. Women with a higher level of education started smoking before women with less education, but this pattern changed over the period 1978–82, with higher initiation rates among less-educated women during the last period studied (Schiaffino *et al.*, 2003). The authors of this Spanish study characterise the tobacco epidemic in Spain as being currently at the end of stage 3.

According to the four-stage model of the smoking epidemic (page 10), in high-income countries smokers in the earlier decades were more likely to be affluent. In the past four decades this pattern has been reversed – the result of lower uptake and higher cessation rates (Platt *et al.*, 2001). In countries where tobacco consumption is declining, the trend away from cigarette smoking has also been strongly socially differentiated, with women in higher socio-economic classes giving up smoking in larger numbers than women in disadvantaged groups. Some countries in southern Europe are at stage 2 (eg Portugal), where smoking rates peak at 50–80% among men while the trend among women is rising; or at stage 3 (eg Spain, Italy, France), where prevalence rates among men decrease and women's smoking rates peak at 35–45%.

This socio-economic patterning across Europe reveals that in mature smoking economies, prevalence is more likely to be associated with lower levels of educational attainment. In the UK (a stage 4 country), smoking rates among the most deprived are around 70–80%, compared with non-manual groups where there has been a sharp decline and smoking rates are now around 32%. Variations in cigarette smoking by educational level (a proxy indicator of socio-economic status) show that in mature smoking economies, higher prevalence is associated with lower educational attainment, as well as social and material disadvantage concentrated in areas of low income and multiple deprivation.

One of the difficulties of research in this area is that there is no uniform way of measuring inequality. Combining information on different markers, Jarvis (2001) uses a deprivation scale to demonstrate the relationship between smoking prevalence and deprivation. Factors taken into account include occupation, educational level, housing tenure, car ownership, unemployment, living in crowded accommodation, and single parenthood. As Richardson (2001) points out, the terms 'low income', 'poor smokers', disadvantaged' and 'living in poverty' are used interchangeably in the literature, and the means of categorising people into such groups is frequently unclear. Social classification fails to capture the experience of those groups whose social circumstances are especially associated with high levels of smoking.

Women smokers and inequality

For women smokers, research shows that the effects of different dimensions of poverty and disadvantage build up over time, and there is increasing evidence that smoking careers are shaped by the accumulation of disadvantage across the life course of individuals – what happens in childhood sets the pattern for adolescence and through into later life. Graham (1998), renowned for her work in this area, found that in Britain over 60% of women smokers experienced one or more of four forms of disadvantage. Among non-smokers, 60% experienced none of these disadvantages. Graham drew on data from the British Household Panel Survey, based on women aged 18–49 years old. In analyses that controlled for childhood disadvantage (measured by father's and mother's social class) and for age and cohabitation status, a set of socio-economic factors were found to be independently predictive of being a smoker. These factors were: leaving school without educational qualifications; a low-skilled occupation; living in social housing (rented from the local authority or housing association); and living in a household dependent on welfare benefits. Among women who left school without qualifications, 46% were smokers. Within this group, prevalence rose to 50% for those whose current or last job was a semi-skilled or unskilled manual one. When social housing was added to educational and occupational disadvantage, prevalence rose to 67%. When the additional disadvantage of living on means-tested benefits was added, prevalence climbed to 73%. Graham concluded that multiple, interlocking disadvantage increases the risk of smoking, and that tackling one of these layers can make a difference even when the others remain unchanged.

Families

One of the most significant social changes that has occurred in many countries in the EU over the past few decades has been the increase in numbers of children living in single-parent families or stepfamilies. Divorce, remarriage, and more children being born into single-parent families have all contributed to this change. In the EU the divorce rate tripled between 1960 and 1992, and the percentage of births outside marriage increased from 8% in 1980 to 20% in 1992. It has been argued that young people in single-parent households or stepfamilies may suffer more disadvantage than those from intact families. A recent report by Eurostat for the EC found that single-parent households in EU countries were three times more likely to live on low incomes than the rest of the population (Griesbach *et al.*, 2003).

In the UK, lone mothers with dependent children who are in receipt of income support have a smoking prevalence of 57% (Jarvis, 1998). In Sweden, lone mothers under 17 years old represent 42% of daily smokers, while the figure for women in this age group living with a partner is 22% (Swedish Bureau of Statistics, ULF, 1999–2000).

Not surprisingly, patterns of smoking and inequalities persist among women in pregnancy (Graham, 2002). In describing the picture for pregnant women across the Nordic countries, UK, Ireland, USA and Canada, Graham illustrates the negative socio-economic gradients in smoking and smoking cessation. There are negative socio-economic gradients in smoking before and during pregnancy, with higher rates among poorer smokers. Women in the higher social class are least likely to smoke and most likely to give up. Cessation rates fall from 70% among women in the most advantaged circumstances to around 40% for women in the poorest circumstances – evidence, Graham suggests, that health professionals' interventions are more effective among better-off women. In addition to the disadvantages associated with poverty and low income, babies born to these women begin life with the further disadvantages of detrimental effects of smoking in pregnancy and passive smoking.

Reducing socio-economic inequalities in smoking will therefore have an impact in reducing inequalities in mortality and morbidity. It is likely to affect not only the current generation of women smokers, but also their children, by creating smoke-free environments and breaking the pattern of smoking before these children adopt it.

Addressing the issue – whole population or targeted approaches in tobacco control?

The key question raised by the issue of inequalities in smoking is whether more targeted strategies are appropriate. Overall or population approaches may have less impact on smoking rates among the poorest groups – such approaches are likely to have little effect on groups in which smoking rates are high, and may increase the gap in smoking rates as more affluent smokers give up. Targeted approaches, on the other hand, have the advantage of concentrating efforts on groups with exceptionally high rates of smoking in order to reduce the gap. But it is not simply a matter of targeting – different, more relevant approaches are required.

This section has touched on the many questions raised in exploring the issues of women, smoking and inequalities in Europe. The issue is complicated by the fact that, while cigarette smoking varies markedly by socio-economic group, the pattern of socio-economic inequalities in smoking is itself variable according to the stage of the smoking epidemic in a particular country, different countries being at different stages of the epidemic. Despite the fact that the data are limited, we have enough information to know that the issue is a serious and increasing problem.

Potential solutions – what works?

While we know a lot about what makes for effective tobacco control to reduce smoking, we know less about inequalities and the impact of targeted approaches. It is clear from reviews of effectiveness (eg Secker-Walker *et al.*, 2003) that very few studies build in socio-economic variables to examine differential impact of interventions, and few further define outcomes by gender (Platt *et al.*, 2001). Furthermore there is shortage of such studies in Europe. Platt and co-workers examined 25 studies of effectiveness of cessation, but by far the majority of these were carried out in countries outside Europe – most being US studies. Of the rest, only studies from Finland, Ireland, Norway, the UK and Sweden were cited.

One of the purposes of the seminar was to explore in depth what is known about different approaches to helping women on low incomes to stop smoking, and to explore which factors are likely to have an impact, as well as to shed further light on the gaps in our knowledge. Papers were presented on the following themes:

- Public places and exposure of children to environmental tobacco smoke
- The workplace
- Taxation/price
- Public education/mass media approaches
- Restricting tobacco marketing
- Cessation help
- Community programmes.

This section presents an overview of each of the themes, drawing on both the seminar presentations and other sources.

Public places and exposure of children to environmental tobacco smoke

The adverse health effects of inhalation of environmental tobacco smoke (passive smoking) are well known and considerable – eg a woman who has never smoked has a 24% greater risk of lung cancer if she lives with a smoker. The objective of policy measures to control environmental tobacco smoke is to guarantee that all public places, including places of work and public transport, should be smoke-free. Restrictions in public places such as restaurants and transport facilities are becoming increasingly common in high-income countries in Europe. But evidence for the effectiveness of these policies is scarce in Europe. A review of 11 studies, however, has shown that carefully planned and resourced strategies do effectively reduce smoking in public places (Serra *et al.*, 2000).

Policies that restrict smoking affect the whole population, but may have a differential impact on different groups. Low-income women, especially lone parents, may have limited options and choices open to them – including less access to non-smoking areas and their own private space than the better-off. If they are more exposed to public areas that do not have smoking restrictions, they (and their children) will be more exposed to other people's tobacco smoke; or they may smoke more in their own home to compensate for periods of restriction; or, because of concerns about safety, they might smoke more in the home because they are afraid to go outside.

Children are particularly vulnerable to the effects of passive smoking. WHO estimates that almost half the world's children breath air polluted by tobacco smoke. The adverse health effects include lower respiratory tract illness, exacerbation of asthma, reduced lung function, middle ear disease, impaired cognitive functioning and childhood cancers. Maternal smoking also affects foetal growth and sudden infant death syndrome. A WHO review showed that maternal smoking has a greater impact than paternal smoking on children's environmental tobacco smoke (WHO, 1999b). While legislation may provide protection in schools and in childcare and health facilities, legislating to protect

children from the impact of parents' smoking is difficult. Parents of young children are usually targeted through opportunistic health advice by professionals as well as specific health education programmes.

Research evidence indicates that women in all socio-economic groups are very receptive to changes that will impact on their children's wellbeing. Illustrating this, a Dutch health education intervention that was targeted at mothers with young children had the specific aim of developing a protocol to allow healthcare workers to communicate with parents about preventing passive smoking (Crone *et al.*, undated). The main message was to refrain from smoking in front of the child. Although there was no indication of a differential impact on lower socio-economic groups, the study found that the prevalence of infant passive smoking decreased from 41 to 18%.

Despite such evidence, however, Greaves argues that gender and socio-economic sensitivities are overlooked in relation to the overall advice given to women who smoke, which concentrates on the effects of smoking on children (Greaves and Barr, 2000). While there is a clear need to protect children, advice is often given with little regard to, or understanding of, the issues for women themselves. Greaves argues that by failing to acknowledge the gender and economic aspects of the issue, the problem is oversimplified. Rather than assisting parents with the struggle to raise children in poverty, the solution is usually to place the responsibility on individual parents to correct the situation by pursuing strategies to persuade parents not to smoke in front of their children. This view blames parents (mostly mothers) for harming their children and, in turn, runs the risk of increasing the guilt that smoking mothers feel and adding to existing stresses. Greaves argues that policies to restrict smoking need to acknowledge these different responses in order to be gender- and class-sensitive (Greaves and Barr, 2000).

Smoking in the workplace

The workplace is seen to be an effective and appropriate context to encourage and support the cessation of smoking and to promote a smoke-free environment. More significantly, with the evidence of risk associated with exposure and the threat of litigation, protection from environmental tobacco smoke has become an increasingly important issue. Not surprisingly, however, the occupational differential that has emerged indicates that some groups are more at risk than others, and contributes to growing inequalities. A UK study carried out in 1997 by the Health Education Authority (Jarvis, 1998) showed that those with manual jobs are more likely to be exposed to the risks of environmental tobacco smoke – 27% of those working in manual jobs worked in places where smoking was allowed anywhere, compared to only 10% of non-manual workers (HDA, 2001). In the UK, close to 70% of women now work, and in some companies women now make up the majority of the workforce.

Workplace smoking control programmes typically operate at two levels of influence. The first targets the individual with smoking cessation programmes; the second, at the worksite level, provides both a protective smoke-free environment for non-smokers and a supportive environment to enable smokers to quit tobacco use. Studies in the USA, Germany and the Netherlands have shown that the introduction of workplace smoking policies, leading to a total ban on smoking in the workplace, have encouraged between 12 and 39% of smokers to give up. The same studies also show that among those employees who continue to smoke, the consumption of cigarettes decreases by three or four cigarettes a day (Brenner and Fleischle, 1994; Eriksen and Gottlieb, 1998; Willemsen *et al.*, 1999).

The 1999 INWAT seminar (INWAT, 2000) raised a number of issues for women in the workplace. In discussions, it was suggested that restrictions on smoking are more likely to be found in companies with a higher percentage of women in their workforce. It was also suggested that this may be due to women placing more direct pressure on management to create healthier workplaces, and that women generally may be more inclined to accept the moral and behavioural restrictions that these policies will create. Those companies with a higher percentage of female workers show more interest in understanding the implications and impact of workplace smoking restrictions on the predominantly female workforce – an area which is presently under-researched. As regards comparisons between employed and unemployed women, unemployed women are quoted as being 4.5 times more likely than employed women to relapse after first quitting smoking, and the outright prohibition of smoking within the workplace has been proven effective in causing female smokers to quit (INWAT/HDA, 2000).

Studies designed to test the efficacy of smoking cessation programmes among workers who are interested in quitting have generally shown that those programmes which are more intensive, with multiple sessions and multiple components, yield higher quit rates than shorter term, less intensive interventions (Fielding, 1991; Eriksen and Gottlieb, 1998). However, these programmes tend to recruit highly

motivated individuals who are committed to a quit smoking programme, and may therefore miss an important segment of the working population who are not interested in participating in these high-intensity programmes.

A second set of studies has concentrated on a workplace-wide approach, whereby a variety of interventions are utilised to reach a broad audience within the worksite. In doing so, they create a supportive climate promoting non-smoking among smokers at all levels of readiness to quit. Although these programmes are likely to result in lower quit rates than more targeted interventions, their overall *impact* may be greater. The impact of a programme is measured in terms of its *efficacy* in directly changing behaviour, and its *reach* – the proportion of the population reached either through their direct participation, or indirectly through the diffusion of intervention messages throughout the workplace (Glasgow *et al.*, 1999).

In the USA there is also a growing occupational disparity in smoking prevalence with regard to occupational status, with blue-collar workers more likely than white-collar workers to be smokers (Convey *et al.*, 1992; Nelson *et al.*, 1994). For women, the smoking prevalence is 33% for blue-collar workers (37% for men), and 20% for white-collar workers (21% for men) (Giovino *et al.*, 2000). In addition, the prevalence of smoking among blue-collar workers has declined more slowly, which may be due in part to working environments being less supportive of non-smoking, eg having a lower prevalence of restrictive smoking policies as compared to other workers (Holman *et al.*, 1998).

In recent years this growing occupational disparity has resulted in researchers both in the USA and Europe taking a wider view of the problem, and of the need for more comprehensive programmes incorporating health protection or health and safety with health promotion. There are growing precedents for worksite programmes that take such a combined approach (Maes *et al.*, 1998; Sorensen *et al.*, 1998). Sorensen has proposed a model for a comprehensive approach that would include: promoting cessation among individual workers; building social support for quitting and social norms that support non-smoking, and engaging management in ensuring a healthy work environment; and providing links to public policy initiatives that support tobacco control as well as broader efforts promoting worker health (Sorensen, 2001).

In her presentation at the 2002 INWAT seminar, Deborah McLellan expanded on the benefits of this multi-level approach. She outlined a study designed to explore whether an integrated health promotion and health-and-safety programme would result in increases in smoking cessation, compared to a standard intervention. Working with management, workers and unions, the intervention involved raising awareness of the dramatically increased health risks of combined exposure to toxic chemicals and tobacco smoke. An accompanying activity targeted management to reduce worker exposure to worksite hazards, including – but not limited to – tobacco smoke. The programme was comprehensive, operated at multiple levels, addressed the workers' social context, and included participatory strategies. The results showed that blue-collar workers were twice as likely to quit smoking (12% compared with 6%); the programme was equally as effective among women as men and proved to be a promising intervention.

McLellan also discussed the importance of building coalitions with trade/labour unions. Building on her theme of the importance of networks, she described a US network of public health researchers, advocates, and staff and members of labour unions – the Organised Labour and Tobacco Control Network. The organisation works with unions to reduce smoking and other workplace hazards, and has undertaken work with labour unions with a predominantly female membership.

An increasingly important aspect of protecting workers from the effects of environmental tobacco smoke is the need for effective legislation. In her paper presented at the seminar, Karola Grodzki described the difficulties that result from loopholes in the legislation – the fact that in most European countries environmental tobacco smoke is not classified as a human carcinogen; the use of vague and unspecific language in legislation; and the burden of responsibility being on individuals to take action against employers who fail to protect their employees. Against this background of insufficient legal protection for workers, an EU-funded project has been set up through the ENSP to collect, develop and disseminate tools, guidance and training on smoking policies. The project has brought together a network of 74 national trade union organisations from 34 countries, as well as industry federations and health-and-safety and training experts. The expected results of the project include consolidating the European trade union network, along with exchange of information on successful examples of protecting workers from environmental tobacco smoke, and the provision of training courses via the training academy of the European Trade Union Congress. At policy level, it is expected that the project will help in the move to harmonise legislation, bringing national and European legislation into line to protect workers.

The workplace provides an environment that can positively influence individual and cultural smoking behaviour, but voluntary agreements are likely to prove ineffectual. The evidence suggests that framing this protection in the context of health and safety, in partnership with labour organisations and networks, presents a more appropriate option for developing comprehensive approaches with greater chances of success. There are huge disparities between the European countries in workplace provision. For example, in Italy there are, as yet, hardly any worksite policies, and the concept of the right to sue is also unknown.

It is important to remember that many people are employed in smaller companies where they do not have access to health promotion and they are subject to fewer health-and-safety restrictions, or where health-and-safety restrictions are simply not enforced and conditions are not conducive to these types of controls. It may be that, even with legislation to protect employees, there will still be poorer workers in certain sectors who will remain outside such protection.

An initiative developed by the WHO European Partnership Project to Reduce Tobacco Dependence was the European Healthy Workplaces Project. The aim was to facilitate the development of sustainable workplace tobacco control activities in organisations across Europe, and two publications have been produced (Griffiths and Grieves, 2002a,b).

Taxation/price

The pricing of cigarettes has long been utilised as a major method of reducing consumption (Godfrey and Maynard, 1988; Townsend, 1988). Over the past 20 years UK governments have used price regulation through the taxation of tobacco as a high-profile method of tobacco control. Typically, increases in the price of tobacco have been related to decreases in its consumption. The WHO and the World Bank have found taxation to be the most effective option in reducing tobacco consumption, having the greatest impact on population health (World Bank, 1999; WHO, 2003).

But increases in taxation levels for tobacco may not be as effective a method of reducing consumption within lower-income groups as has been assumed. It has been suggested that these taxation policies specifically penalise poorer income smokers, as a disproportionately large amount of their income is spent on tobacco relative to higher-income groups. This, in turn, results in a reduction in this group's access to resources and creates increased economic hardships (Marsh and Mackay, 1994).

The failure of pricing policy to reduce smoking among those least able to afford it received further support in an update of Marsh and Mackay's analyses (Jarvis, 1998). They found that between 1976 and 1996, while smoking declined for those in the highest income groups, for those in the lowest income groups there was little change in smoking prevalence. For women in this group, overall smoking prevalence actually increased by 2% (for men it declined by 9%).

Christine Godfrey's paper (presented by Patti White) made the point that obtaining evidence for price impacts on different groups in the population is difficult and therefore the evidence base is limited. Other factors, such as income and individual preferences, are important in determining demand. Smoking is a series of different behaviours, and price and tax may have different impacts on different behaviours. The poor in any society are not a homogeneous group and there may be different price effects within poor groups.

There is a large evidence base for the effect of price generally, with low-income countries experiencing greater price effects than high-income countries (World Bank, 1999). The evidence in relation to impact on different socio-economic groups is mixed. In a study by Fry and Paschardes (1988), price was found to have an impact on the amount of cigarette expenditure by household. The impact was found to be higher for lower income households and for those in rented accommodation. Borren and Sutton (1992) found significant price effects but no significant gradient by socio-economic group. Townsend *et al*. (1994) found that smoking prevalence among men and women is more responsive in lower than in higher socio-economic groups to changes in the price of cigarettes. In both these studies, however, the sample sizes were small.

There is also some evidence on individual characteristics which may be related to low income. Chaloupka (1991) found those who were less educated were relatively price-sensitive compared to those with higher education levels. Among lone mothers, Blaylock and Blisard (1992) found that within the USA better educated lone mothers were less likely to smoke, but the actual amount consumed among smoking lone mothers did not differ by educational status. Working was also found to reduce the probability of smoking, and income had a negative impact on consumption levels. In the UK, Dorsett (1999) found that among lone mothers educational background was important for consumption levels.

There is considerable smuggling of cigarettes in the UK, and clusters of poor smokers in some areas may provide a useful market. There is evidence, based on a study carried out in the UK (Wiltshire *et al.*, 2001), that cigarette and tobacco smuggling is viewed positively by low-income smokers as a way of dealing with the increasing cost of cigarettes and is viewed as rational behaviour in the face of material hardship. (Interestingly, most of the smokers in this study said they would like to stop but perceived a lack of support to help them do so.) The scale of the smuggling problem is enormous – it is estimated that in the UK one in three cigarettes smoked is smuggled, with a cost to the economy of £350 million a year in lost revenue. Smuggling reduces the cost of a packet of cigarettes by up to 50%. Although between the mid-1970s and 1990s the real price of cigarettes rose by 20%, real incomes rose by 55% (Townsend *et al.*, 1994), resulting in the cost of cigarettes actually falling by 20% relative to average income. This means that, in real terms, cigarettes have actually become more affordable over time.

Lower income smokers also use other methods to control the cost of smoking and make it more affordable. These include: the use of 'down-trading', consuming a budget brand (Lambert and Butler has become the most popular legally sold cigarette with 14% of market share); switching from cigarettes to hand-rolling tobacco (this now accounts for 35–40% of market share); individuals making legal cross-border purchases for their own use or buying duty-free; or making cigarettes work harder by smoking more intensively.

Patti White's presentation concluded that strategies which will result in meaningful reductions in the prevalence of smoking among women in the lower socio-economic groups should emphasise making cigarettes less affordable through key pricing strategies. But tax alone is unlikely to solve the inequality issue, and part of the revenue should be used to help with quitting among the poor.

The issue is far from simple, and the effects of taxation and pricing polices on women (and low-income women) are not clear. The 1999 INWAT seminar (INWAT, 2000) reached the same conclusion, prioritising the need for a gender impact assessment of tobacco taxation and policy on women, particularly poor women.

Smuggling, which now costs European governments approximately 6.7 billion Euros a year, urgently needs to be addressed. Tackling smuggling has been successfully attempted in Spain and Italy, where the wholesale distribution of contraband is being targeted. It has been suggested that the EU should be urged to renegotiate the Tobacco Taxation Directives to enable member states to raise both upper and lower limits of the specific element of excise, with taxation being based as far as possible on a specific tax (HDA, 2001). There is also considerable support for the proposal that a proportion of tobacco tax should be allocated to address the dimensions of disadvantage, as well as providing cessation programmes focused on low-income smokers (Platt *et al.*, 2001). In Scotland, for example, a proportion of tobacco tax has been used to establish a National Health Improvement Fund.

Public education/mass media approaches

Mass media campaigns have long been advocated as a key strategy in helping large numbers of people to quit. Yet the impact of mass media campaigns can be difficult to quantify, and assessing their differential impact is even more problematic. In England, the Health Education Authority ran seven consecutive mass media campaigns aimed at C2DE socio-economic groupings (manual workers) between 1992 and 1999. The campaigns were further segmented by gender, age, region, and readiness to quit. Television, radio, press and posters were used. Evaluation of the campaign concluded that it was difficult to assess the direct impact of mass media campaigns on smoking rates, for the following reasons: changes in social attitudes and behaviours such as smoking occur relatively slowly; it is difficult to assess how far the campaigns are effective according to the available evidence; and mass media campaigns are only one aspect of a tobacco control policy. But the evaluation did suggest that mass media campaigns have a role to play in showing smokers that they are not alone, offering support and encouragement in ongoing attempts to quit (HDA, 2000).

There is some evidence that mass media approaches have been associated with a decline in smoking prevalence. Campaigns developed with sensitivity to the needs of disadvantaged groups have been shown to be efficient and equitable means (in the sense of affecting all socio-economic groups) of reducing smoking prevalence (Pierce *et al.*, 1998; McVey and Stapleton, 2000; Owen *et al.*, 2000). It has been suggested that the importance of the mass media is in providing 'rain in the garden' – nurturing all aspects of a tobacco control policy. Media campaigns serve the dual purpose of acting at both the individual level and, indirectly, on the broader health environment. In this way they have an impact by affecting social norms – seen as vital to tobacco control.

Some of the best evidence for effectiveness comes from the USA. The Massachusetts Tobacco Control Programme, in

which the mass media were used as part of a comprehensive tobacco control programme in the early 1990s, resulted in a 33% fall in consumption compared with just 10% in the rest of the country, and in a sharp drop in smoking among pregnant women (from 25 to 13%) and among young people. The California Tobacco Control Programme, which emphasised three types of message – passive smoking, encouraging quitting, and attacking the tobacco industry's image – had a significant impact. Smoking prevalence in California fell from 20.25% in 1993 to 17.3% in 1996 (Pierce et al., 1998). While declines were observed across socio-economic groups, the highest rate of decrease was seen among the highest income quartile (prevalence decreased from 18% in 1990 to 14.1% in 1999 in this group). During the same period, smoking prevalence decreased from 24.6% to 23.1% in the lowest quartile. Lower quit rates between the two groups were observed, which may have been attributable to demographic differences. In 1990 the age range for the lowest income quartile was 21–74 years, compared to 24–57 years in the highest income quartile, with a similar pattern persisting in 1999. (Younger smokers are still in the process of taking up smoking, while older smokers are less responsive to media messages and may be more isolated.)

In pointing to all the above evidence, in her seminar presentation Judith Watt argued strongly that to ignore use of the mass media is dangerous, and also drew attention to a number of other factors. Not surprisingly, given their lower disposable income, statistics show that lower social groups, far from being hard to reach, watch more TV. The very nature of broadcasting ensures that messages are effective in a wide range of target groups. It is the power of the broadcast message that it can look for the common ground, overarching what she describes as 'the fragmenting effect of over-targeting'.

Watt's research on a recent national mass media campaign shows that the media may also help individuals make a quick decision to stop smoking, given the right stimulus. This may be a shock tactic of very short duration, applied at intervals. Watt described how research into a media campaign in Australia clearly demonstrates a dose-related response – the more frequently the advertisement was shown, the greater the impact on quit rates.

There are disadvantages to use of the mass media, with cost being a key factor. Maintaining the impact of advertising has been shown to be important. In the West Yorkshire Smoking Health Trial (a TV campaign that was successful in reducing smoking), the lack of an effect after the first phase indicates that a sustained and prolonged campaign is necessary to have an impact (McVey and Stapleton, 2000). Such a strategy is determined by budgets, and careful use of budgets is essential in the management of the mass media. Too many messages and too much dilution, and the impact is lost. A three-message approach, such as that used by the California Tobacco Control Programme, is costly (approximately US$3 per person annually between 1989 and 1990). Limited resources would rule out a multiple-message approach.

The style of campaign is also an important consideration likely to engender much debate. A hard-hitting campaign, that tells the truth about the tobacco companies and their product and what it does to individuals, presented in stark reality, may be difficult to handle. But it is important to be clear about whose sensitivities such images offend. Can women handle these truths, or do those who work with women at community level assume they do not want to be confronted by them? It is known that many women who smoke harbour guilt as well as fear and anxiety about the impact on themselves and others, but the circumstances of their lives may be such that they are in no position to deal with these. Some argue that bombarding women with messages to which they feel powerless to respond only serves to increase feelings of guilt.

The only way forward with these types of campaign is to ensure there is a solid evidence base which is gender-sensitive. Difficulties arise with mass media campaigns when they are not sufficiently pretested with target audiences and, through insensitivity, risk alienating the very people they are trying to help; and when they are not sufficiently well supported with back-up services and telephone helplines. These problems can be overcome with careful development and pretesting of campaigns, and the development of a good local infrastructure to provide back-up and support. Cooperation between all those involved in developing the campaign, and providing local support and coordination, are the keys to success.

In his paper given at the seminar, Carl Simons described a well funded Dutch campaign that was run during the three months before the turn of the millennium, and incorporated several of these elements. The core of the campaign, an entertainment programme called 'I can do that too', was supported by promotions and a series of paid 'infomercials' in two popular entertainment programmes. The campaign was supported by evidence-based cessation methods through the infomercials, posters, leaflets and brochures. In all the media a special website and quit line were mentioned. The campaign achieved record attempts

to quit, which in turn generated further substantial free media and press coverage valued at approximately 1 million Euros. Evaluation of the campaign showed that there were four times the number of quitters than would have been observed around a regular new year: 800,000 people tried to stop and 12% were successful as long-term quitters (compared with normal quit rates of 7%; Baillie *et al.*, 1995). The impact on prevalence was to reduce smoking by 1%. Male smoking prevalence rates dropped from 30.6 to 29.3%, and women's rates dropped from 37.2 to 36.8%. The overall reduction was significant. The results also showed that the campaign reached lower-income groups, and that women were exposed to the campaign more often and made much more use of the cessation methods. The methods included a support package consisting of a self-help manual and information on other quit methods – written advice, telephone counselling, a TV-based smoking cessation course, and group courses (Willemsen *et al.*, 2003).

Describing the quit line support for this and other campaigns, Simons detailed the impact of different approaches. Survey results showed a very high level of use by women and, for the millennium campaign, a higher level of use by lower-income groups. Similarly, when the Dutch quit line number was used in conjunction with the new EU health warnings on tobacco packages (changes that came into effect on 1 May 2002, four months sooner than required by the EU), the number of calls to the quit line increased. This increase, initially sixfold and gradually stabilising to a point 3.5 times higher than previously, showed that relatively more callers were low-income smokers – many calling at the precontemplation stage of quitting. Despite the fact that the quit line now appeals to a much wider group of smokers at different stage of quitting, about 90% can be persuaded to have a meaningful conversation about smoking cessation. As a result of the quit line number being on cigarette packages, a much larger and broader group of smokers is being reached. The evaluation also showed that taking time to listen to win the caller's confidence, guided planning and use of a motivational interviewing technique were essential elements in achieving success with low-income smokers.

One proposal made at the seminar was that well researched TV campaigns could be adapted for use in many different cultural settings, with enormous cost savings and advantages for poorer countries. But cultural sensitivity is an issue, and yet another variable in ensuring the relevance of any approach to a particular group.

A word of warning was issued at the seminar – that advancing technologies may soon end the potential to maximise the use of mass media. With the advent of digital TV (more channels and smaller audiences), time for the big impact campaigns is running out.

Restricting tobacco marketing

Women as a group have long been a target of the tobacco companies, and the media still project very positive images of women's smoking using themes including glamour, emancipation, and using cigarettes as a coping strategy (Amos and Haglund, 2000). In her seminar presentation, Eva Kralikova described how in the Czech Republic, where smoking rates among women are high (50% of 15–18 year old girls smoke), tobacco advertising uses weight concerns, popularity, sharing cigarettes with friends and promoting a fashionable image. As in other countries, light cigarettes are promoted as a way of alleviating health concerns. Cigarettes are very readily and widely available, being sold in corner shops and food shops. The high prevalence of smoking among young women is a major cause for concern in terms of the impact on the health of these young women. In the Czech Republic there has been a degree of success in incorporating a two-day course on tobacco control into medical training for doctors, but little has been achieved so far in incorporating tobacco control into training for nurses.

The picture described by Kralikova of the clever marketing of cigarettes to women is a familiar one. Sales are increasing globally, and in countries where smoking rates are still low there is enormous potential for the tobacco industry to develop the female market. Women continue to represent a potentially lucrative market for tobacco companies.

Methods to increase awareness and sensitivity to the needs of the market were explored in detail in a presentation about the wider use of mass media. The anti-tobacco lobby often fails to understand that marketing is not only advertising, but a whole range of strategies to target and sell to the customer. In their paper, Martine Stead and Susan MacAskill argued that tobacco companies are extremely sensitive to their customers' needs and develop long-term relationships with them by focusing on designing products to suit the market, sensitive pricing strategies, getting into as many outlets as possible, and targeting their advertising and promotion. They foster brand loyalty using the whole range of marketing techniques. Marketing is about getting under the skin of the consumer, understanding the desires, needs and what drives consumer behaviour, and continually assessing the different sectors of the market. Without doubt the tobacco industry is extremely successful at this. The

presenters demonstrated that 'good tobacco marketing is about being a friend to the smoker'.

Along with low-income men, low-income women have been further targeted by an industry that has segmented its market by gender, age and socio-economic circumstances. Far from being deterred by the economic disadvantages faced by poor smokers, the tobacco industry has exploited the role of smoking in their lives to its commercial advantage. The marketing strategy has been to develop products that offer low-tar cigarettes at relatively low prices. The marketing strategy to promote these products includes the use of heavy advertising programmes. These campaigns are designed to attribute quality to these brands and to counter any suggestion that they are inferior products. In the UK the very names of these cheaper cigarettes – Mayfair, Sovereign, Royals – suggest class and quality.

Schemes through which smokers collect vouchers to exchange for gifts foster loyalty, and the illusion that the smoker is getting extra value. This illusory extra value also serves to offset any price increase. These strategies are effective (why else would the tobacco companies use them?). Small-scale qualitative research exploring the influence of cigarette coupon schemes on low-income smokers (Eadie *et al*., 1995) has shown that coupon schemes offer psychological rewards, helping to displace anxieties about cigarettes. This discourages and undermines quit attempts.

Not surprisingly, given the tobacco companies' diverse strategies, studies on the effect of advertising bans have shown that complete bans on advertising and promotion have greater impact than less stringent bans. In a study of 100 countries, a steeper downward trend over time was detected in countries with relatively complete bans on advertising and marketing than in those without such bans (Platt *et al.*, 2001). An analysis of 22 high-income countries between 1970 and 1992 concluded that a comprehensive approach can reduce smoking. The EU will ban all cross-border tobacco advertising and promotion by the year 2006. It is difficult to say what the impact will be – had it been a comprehensive advertising ban, on the basis of the above study it is estimated that that the Directive could reduce tobacco consumption by nearly 7%.

From the evidence, there is no doubt that women and lower-income groups have been specifically targeted by the tobacco companies, and their success is such that this targeting is likely to continue. Only by limiting their freedom to promote their product will the tobacco companies be curtailed in these activities. It is clear that a ban on tobacco marketing will benefit lower-income groups and help reduce inequalities.

But a word of caution is needed in the pursuit of protecting the interests of smokers in Europe and North America – especially poorer smokers. Unless a comprehensive ban is a global goal, there is a danger of simply displacing the problem to the relatively unprotected and therefore vulnerable burgeoning tobacco markets in Africa and Asia (Platt *et al.*, 2001).

Cessation help

There is considerable research evidence to show that men and women (as well as girls and boys) smoke for different reasons in different situations, and that women's experience of giving up smoking is different from that of men (Jacobson, 1986; Graham, 1993). Women smoke to cope with stress, the circumstances of their lives, multiple roles, and disadvantage. When quitting, women report less confidence in their abilities to quit, perceive more barriers, and are likely to anticipate weight gain as a likely outcome. Within tobacco control the traditional response has been to take a broad-based approach to reduce overall prevalence and consumption, and there have been few initiatives that have explored the need for gender-sensitive approaches to cessation or that have specifically targeted women. With the exception of work in Scotland (see Community programmes, page 23), few have addressed the needs of low-income women. This section describes some early, interesting and encouraging results of a UK cessation programme targeted at low-income groups – men and women.

Some studies have looked at motivation and desire to quit among low-income groups. Research in the UK shows that around two-thirds of smokers across all social groups would like to give up smoking (Jarvis, 2000), and that most poor people have the same desire to stop. In the UK, lower cessation rates in lower socio-economic groups are one of the contributors to inequalities in health. Yet in the least well-off groups there has been a very limited increase in cessation rates, from 8–9% cessation in 1973 to 10–13% for these groups in 1996, while cessation rates have more than doubled in the most advantaged groups, from 25 to over 50% (Acheson, 1998). Explanations for lower quit rates include motivation to quit, higher levels of dependence on nicotine, and greater stress. Other studies have identified factors that reinforce smoking as a social norm (including more advertising and promotion outlets) as inhibiting cessation (Stead *et al*., 2000; MacAskill *et al*., 2002).

Uwe Helmert presented a paper at the seminar describing a study in Germany that looked at the social determinants of smoking cessation. The study used a variety of methods to identify associations between smoking cessation and individual social characteristics and the accumulation of favourable or unfavourable social conditions. The variables included education, occupational status, family status, employment/unemployment, household income, community size and region. The results showed that population groups characterised by an accumulation of social disadvantages exhibited much lower quit rates for smoking than more privileged population groups. The conclusion was that this existing polarisation in smoking behaviour in Germany will increase further, pointing to a need to identify a strategy to reduce the social gradient in smoking cessation, as well as reducing the overall prevalence. Helmert advocated replacing sanction-oriented anti-smoking policy (eg increasing tobacco tax) with social policies and gender-specific anti-discriminatory approaches.

Of studies looking at the effectiveness of methods currently available, Platt and co-workers considered 25 studies published in the past 15 years, 16 of which were targeted at lower socio-economic groups. Half demonstrated a reduction in smoking, and half did not. Nine studies which were not targeted specifically at low socio-economic groups did produce findings about differential impact according to socio-economic status. In five studies, the intervention was at least as effective in low as in high socio-economic groups, whereas in four studies the intervention was shown to be less effective in low than in high socio-economic groups. For initiatives that were not specifically targeted they quote evidence for the effectiveness of a variety of cessation methods, but suggest that these are more effective in reducing overall prevalence and have little impact on lower socio-economic groups. They include: nicotine replacement therapy (NRT) increases quit rates from 1.5-fold to twofold; brief advice by a clinician can increase six-month abstaining by 2.5%; combined with NRT this figure rises to 6%; intensive support (such as a smokers' clinic) combined with NRT results in an increase of 8%. They point out that there is evidence for the effectiveness of a wide range of cessation methods, including advice and counselling from a nurse, counselling, group behaviour therapy and telephone helplines. But the authors found that these methods appear to be restricted in how far they reduce the socio-economic inequalities in smoking.

Some studies have examined attitudes to quitting and knowledge of methods of quitting. Jackson and Prebble (2001) carried out research for the Health Development Agency (HDA) among three health action zones identified as having similar levels of smoking cessation services. (Health action zones cover one-third of the English population and receive funding in an effort to target more disadvantaged communities.) Within these zones, small, self-contained areas known to have high levels of social deprivation were identified for further investigation. Investigators examined the perceived positive and negative aspects of smoking, barriers to cessation, and knowledge of cessation methods. Smoking was seen to be normalised with high levels of smoking among families and friendship groups.

Within these communities there did not appear to be an established culture of quitting. Apart from NRT, there was little awareness of many of the methods available, such as helplines. Smoking-related deaths and diseases were rarely prompts for individuals to quit, and often people had a fatalistic perception. Rather than attribute a cause/effect relationship, such outcomes were seen as a fact of life. Willpower was seen to underpin successful cessation. It was difficult to ascertain whether failure to utilise services and products that support smoking cessation resulted from a genuinely negative attitude to these services, or an internal postponement of quitting and general lack of self-belief.

In their seminar presentation, Susan MacAskill and Martine Stead described research among low-income smokers, also examining the perceived barriers to cessation. These appeared to fall into two categories: a community or an individual barrier. Within the community there was a general lack of appropriate role models; temptation was great because of the culture of smoking and the availability of cigarettes; cheap cigarettes were readily available; the communities these individuals lived in offered little in the way of alternative diversions; and there were often negligible cessation support services in the area. Individual barriers included a general mistrust of the motivations of the government, their health message seeming to some to be at odds with the policy to accrue revenue through taxation; a low confidence in the ability to quit; a desire for a 'magic wand' to enable quitting; a reluctance to risk bulk outlay for something that may not work (the research was carried out before NRT became available free from the NHS); and a general apprehension of the consequences of smoking cessation, eg bad temper and a reduced ability to cope with anxiety (MacAskill *et al*., 2002).

The researchers also looked at opportunities to aid the success of smoking cessation programmes. They suggested that strong social networks and the use of word-of-mouth promotion could help to recruit potential quitters, also

providing successful role models and an environment of mutual support. They also advocated an increase of available resources for individuals who are contemplating cessation in the form of free products and services and, for service providers, an increase in training and funding. It was suggested that services should take more tangible approaches, stressing the novelty factor of a 'new start' and highlighting the possibility of successful cessation. Finally, they concluded that individually tailored programmes were more successful in both motivating potential quitters and catering for their needs.

In 1998 the UK government published a white paper entitled *Smoking Kills* (Department of Health, 1998) in an attempt to address the smoking epidemic. The white paper introduced a range of tobacco control measures, including a budget of up to £60 million over three years to establish the first NHS smoking cessation services. These services were unique in that they were targeted at low-income groups in health action zones (see page 29). In November 2000 the Department of Health commissioned a national evaluation of these smoking cessation services. The interim evaluation of this ongoing programme (one of the few programmes specifically targeted at lower socio-economic groups) was described by Linda Bauld.

Part of the evaluation examined how successful the projects were at attracting target groups. It was found that services were specifically targeting pregnant smokers (97% of services) and economically disadvantaged individuals (100% of services). Various methods were used to reach these target groups, including widespread advertising of services to pregnant smokers within deprived areas; encouraging relevant professionals to refer individuals to services; training health visitors and midwives to provide smoking cessation services as part of their normal work; training volunteers or community workers; offering smoking cessation services to the family; offering cessation services in the client's home; using primary and secondary care venues; using non-health venues in deprived areas or in the city centre; and providing incentives to smokers, eg provision of leisure vouchers if attending on a regular basis.

The study found considerable evidence to suggest that, across the country, cessation services have been successful in reaching smokers in disadvantaged communities. In practical terms, four-week quit rates for individuals using these services were broadly similar for smokers living in more affluent and poorer areas, with males having a slightly higher success rate than females.

Figures indicated that smoking cessation services are saving lives at a cost of about £800 per life-year saved – a highly cost-effective, life-saving treatment. While there is still caution about the final results, this initiative is seen as a major step in targeting cessation support to deprived communities on a scale sufficient to meet potential demand.

Community programmes

The lack of understanding as to why low-income smokers are more likely to smoke, less likely to quit, and consume high quantities of tobacco was the basis for both qualitative research and community-based projects carried out in Scotland. As stated above, the research points to a number of factors, including poverty and coping with living in a disadvantaged environment; unemployment; the pro-smoking culture reinforced by use of cigarettes to foster social participation and belonging; limited experience of environments that encourage cessation; and limited experience of cessation. These factors all serve to reinforce high smoking rates of people living in deprived communities (Stead *et al*., 2000; MacAskill *et al*., 2002).

In the UK, community-based projects designed to help people identify problems in their communities, and local means of improving them, traditionally avoided the issue of smoking. One of the first UK projects to look at how smoking could be addressed at local level was the work funded by the Health Education Board for Scotland (HEBS) and the Chief Scientist's Office of the Scottish Office Home and Health Department. This nine-month project worked with local women to develop new initiatives and approaches to help women on low incomes reduce their smoking (Amos and Crossan, 1994). The project demonstrated that there was interest in the issue, and people were already addressing it. What was lacking was funding, training, appropriate support and resources.

Outlining the work of this and other ASH Scotland projects at the seminar, Maureen Moore described the supportive style of this initiative. Funding and help were offered to 19 projects. A database was set up and community workers were encouraged to use the information and networking facilities provided. Dissemination of the work and results was also supported through conferences, seminars and project bulletins. The project was swamped with applications for funding. (Funding requests amounted to seven times the amount of money available.) A total of 20 grants were awarded in sums of £500–3,000, allocated by a multi-disciplinary group set up to select initiatives. The final report (Amos and Crossan, 1994) concluded that much interest was

stimulated among groups and organisations. Importantly, it provided some valuable lessons about evaluation and the support and training required to assist community workers to develop community-based services.

Key lessons were learned from this initiative. The reduction of smoking among women on low incomes must be addressed within the wider strategies to tackle poverty, disadvantage and health; support from family, friends and community is vital; long-term funding is required to sustain any major impact on smoking prevalence; indirect strategies that help women develop new skills and self-confidence are important; more appropriate smoking education materials are needed; training for community-based support staff and partnership working with health services are essential; effective ways of evaluating these projects must be found; and more research is needed to inform the development of effective community approaches. Encouraged by these early successes, this work has now developed further: a project on 'Women, Low Income and Smoking' was carried out between 1996 and 1999 (ASH Scotland/HEBS, 1999); and in 1999 ASH Scotland began a three-year project, 'Tobacco and Inequalities', funded by HEBS.

One of the difficulties associated with community projects, and a criticism often levelled at them, is that they fail to show what they have achieved. This is one reason for the view that community projects are difficult to justify to funders. Supporters argue that this is because they are often judged on limited or inappropriate criteria. For example, measuring the effectiveness of a programme by the numbers of people who stopped is inappropriate when the objectives may have been to raise awareness, involve local people, promote buddy support, train local people, etc. Community projects have also often been planned with no attention paid to how to assess or measure outcomes – evaluation often being an afterthought. The local people involved in the programmes may have no expertise in the area of evaluation and may find the prospect daunting.

Evaluation is important in these projects to demonstrate what can be achieved through working with community groups. By building into the design of the project evaluation related to specific aims, resources can be allocated accordingly. Exploring different and more appropriate ways of evaluating community-based projects was one of the four objectives of the project. This was especially important as *Under a Cloud* (Amos and Crossan, 1994) identified the inappropriateness of focusing exclusively on 'success' defined as the numbers of women quitting, ignoring the processes that may support women to address the place of smoking in their lives.

As a result of the problems identified by 'Women, Low Income and Smoking' (ASH Scotland/HEBS, 1999), an evaluation pack was produced (ASH Scotland, 2002). Based on community groups' experiences of evaluation, this resource was extensively researched and pretested, and provides a step-by-step guide to planning and developing an evaluation.

Few community-based studies have been as well planned or documented as the Scottish initiatives. However, in England QUIT (the national charity that helps smokers quit) set up a three-year pilot 'Poverty and Smoking' project (QUIT, 2001). The project recruited and trained ex-smokers from low-income communities and professionals such as social workers and money advisers. Working in partnership with local agencies and community networks enabled QUIT to ensure the programme was developed appropriately and was relevant to local people. The results of the programme were extremely encouraging – it achieved overall cessation rates of 21% at 11–12-month follow-up.

Despite these encouraging reports, there is still a considerable lack of evidence for the effectiveness of community-based projects in helping women to stop smoking – and there is some evidence to the contrary. A recent Cochrane review (Secker-Walker *et al*., 2003) failed to detect an effect on the prevalence of smoking; however, the authors pointed to a need for those designing future projects to take account of this limited effect in determining the scale of projects and the resources devoted to them.

Nevertheless, these projects are important in raising awareness among the population, and in developing an understanding of the interplay between the numerous factors related to individual smoking behaviour and the environment. Visible programmes to target special groups were seen as important.

Research issues

Gender bias

Ulrike Maschewsky-Schneider presented a strong case for a systematic approach to redress gender bias and rectify the lack of gender sensitivity in research and policy areas. She described the major problems of gender bias and the failure of researchers and others to identify gender-specific issues – for men or women. Drawing on the results of her project, she also demonstrated how, without checks, potentially important differences between the genders are often overlooked.

The main problems of gender bias are androcentricity and over-generalisation (taking males as the norm); gender insensitivity; assuming gender homogeneity; and double standards (evaluation, treatment or measurement of identical behaviours, traits or situations differently on the basis of sex or gender). Using the concept of gender bias, an analysis of public health research in Germany was undertaken. The working areas for the project included analysis of literature, survey of projects, review of public health journals, networking and the production of guidelines.

The results of the literature analyses showed little evidence that gender had been a consideration. Reviewed articles that did include both sexes did not make this clear in the title or abstract. The majority of articles dealing with both sexes did not account for gender issues in the research questions; only half the authors considered the different life conditions of women and men in the main variables; and only one third of articles specified conclusions for men and women separately. Results of the survey, however, showed that participants were interested in doing gender-sensitive research. There was also increased awareness of including gender in public health research.

Given the importance of understanding how programmes and policies affect women and men differently, gender analysis is vital. A gender-based analysis ensures that tobacco policy is undertaken with an appreciation of men's and women's different social realities and circumstances. In her conclusion, Maschewsky-Schneider argued strongly that it was important to identify and acknowledge the different social and economic elements of life that determine health status and behaviours, and to include them in the design, evaluation and impact assessment of all policies and legal actions for tobacco control. This approach – gender mainstreaming – should be central to developing tobacco control policy.

This research drew on the work of Margrit Eichler. As a result of the interest in her approach she produced a handbook outlining guidelines for taking a gender mainstreaming approach in research and policy areas (Eichler *et al*., 2002).

Systematic collection of data and comparable data

In a paper on the social determinants of cigarette smoking cessation in Germany, Uwe Helmert identified problems in collecting data. National survey data produced different results from those collected by Germany's Microcensus study. This discussion highlighted the need for the systematic collection of comparable data. Both health statistics and data relating to education levels, social class and income levels need to be standardised so that cross-country comparisons can be made. The report *The Health Status in the European Union* (Ferrinho and Pereira Miguel, 2001) similarly acknowledges a need for improvement in the collection of data that are comparable between countries and regions. Eurostat (the Statistical Office of the European Community) is the source for data on populations and demographics. Support for this organisation could be achieved by establishing common ground for a hierarchy of public health indicators to be used by international organisations.

Discussion

Much of the discussion at the seminar centred around areas of tension that arose in relation to traditional tobacco control measures, and the need for policy measures that address the underlying causes of women's smoking – measures that impact on the social circumstances of women's smoking.

Targeted tobacco control

Overall, the evidence presented at the seminar highlighted that too few studies have looked at the impact of smoking on poorer women, and that there is a clear need for further research. Despite this, there was also a strong feeling that we do not necessarily need to wait to start taking action. In accordance with the presentations and many of the findings from studies in the literature, there was a view that comprehensive, multi-level tobacco control approaches that are targeted appropriately at particular groups of the population, in this case poorer women, are likely to be effective. At the same time, there may be situations when interventions, not necessarily differentiated by gender or by socio-economic group, are called for. For example, it might be appropriate for media campaigns to take an umbrella approach rather than targeting specific groups; or, at the community level, it may be appropriate to ensure the needs of other groups are met. Poverty traps whole communities, and in some initiatives it may be important that the needs of other groups (poor men, poor families) are also met. To be over-prescriptive runs the risk, on one hand, of missing opportunities to have an impact on the wider community, or on the other, of bypassing the needs of some groups altogether. Seeing different approaches as complementing one another, rather than as alternatives, also paves the way for more flexible and constructive strategies.

In line with the concept of gender-mainstreaming research, to be effectively targeted, tobacco control strategies need to be researched and evaluated using gender-sensitive criteria. There is also a need for targeting to be sensitive to socio-economic circumstances.

Defining and addressing inequalities

A recurring theme of the seminar was the need to return to the definition of poverty, and exactly who falls into the category when the term 'inequalities' is used. Is the target group those in manual socio-economic groups, or those in low-income households which are dominated by households with children – and by single-parent households in particular? Whatever definition is used, and while there are likely to be key common characteristics, the definition will differ from country to country, reflecting individual, national, social, economic, cultural and political differences.

While seeking a clearer definition of poverty, it is evident that tobacco use in mature smoking economies is concentrated disproportionately among lower socio-economic groups. Many researchers who have identified poverty as the trap that keeps poor people locked into smoking point to the need for wider interventions that reduce income inequalities and improve the living standards of individuals, households and communities reliant on social benefits. Thus, even with greater focus, tobacco control strategies alone may not be enough to close the gap, and we have to look to the wider social, economic and environmental factors that affect people's lives, not just at one point in time but throughout their lives. Such strategies require a more integrated comprehensive policy approach that incorporates measures to show an impact on these environmental factors. Specific policy tools and policy frameworks are discussed further on page 28.

Preventive action

While focusing on the needs of women, the presentations also highlighted the importance of taking into account

factors other than gender and low income. One drawback of the seminar, as perceived by some participants, was the 'over-representation' of the experience of western European countries. Much of this experience did not reflect the position of the poorer countries. Differences between the mature smoking economies of northern and western Europe and those of the south, and more particularly the middle-income countries of central and eastern Europe, were highlighted. In the same way that a gender-specific approach is important to reflect the differing needs of women, differentiation between countries is important to reflect the needs of countries at different stages of development.

Describing the situation in Turkey, Elif Dagli pointed out that countries where the tobacco companies have economic and commercial freedom are particularly vulnerable. Examples of tobacco companies displacing indigenous tobacco growers, exploiting economic disadvantage, and targeting women in these poorer countries, served to remind participants of the inequalities in relation to susceptible countries where the tobacco industry is subject to fewer restraints. The Turkish experience has been an increase in the importing of foreign brands and in the smoking rates of women in major cities, regardless of their traditional and conservative behaviour. Despite the fact that all tobacco advertising was banned in 1996, the tobacco industry still actively struggles to find ways to violate Turkish law. Consequently, the need for a country-specific approach to tackling problems was identified as being important. In the case of Turkey and other low-income countries, programmes can still be designed to protect groups targeted by the tobacco companies. The recent decision on enlargement, admitting a further ten Eastern European countries to the EU, makes this issue even more significant.

Historical perspectives can also provide the tools and frameworks with which to address problems and even take preventive action. The seminar discussed the value of the four-stage model (page 10) in addressing the huge disparities between the countries of the EU. The model allows for similarities to be identified, which in turn lends itself to carrying out research in groups of countries that can be identified as being at the same stage of development, and applying what is learned to countries at earlier stages. It also answers critics who question the value of collaborating at European level because of these differences.

For activists in the field looking for a response to the question 'what specifically should we do?', the answer is that any effective tobacco-control programme should incorporate a variety of elements. Some of these elements may take a broad, rather than a gender or a specifically low-income approach, and might reflect the stage of the epidemic – but within the broader framework the strategy would reflect not only gender-specific needs, but also other needs of the community regarding income, ethnicity, age and other relevant factors. How such approaches might be developed is described in more detail in the Recommendations (pages 2–6).

Tools and frameworks for research and policy

There are a number of tools and frameworks for tobacco control available at national and European levels. Concerted action to reduce prevalence and smoking-related diseases across Europe has been pledged by both WHO and the EU, and new initiatives present opportunities to develop policy responses to address the problem of inequalities in Europe. The tools and frameworks identified below lend themselves to developing research agendas and informing and designing appropriate policies.

Life-course research and policy frameworks

Hilary Graham reminds us that breaking the link between social disadvantage and smoking is a long-term process (Graham, 1999). Tackling the link requires an understanding of life-course influences on smoking, and such an approach can inform the way we think about polices to tackle the socio-economic gradients in women's smoking. She describes a framework that recognises both smoking habits and the socio-economic circumstances with which they are associated, influenced by the broader pathways individuals take and make as they journey through life. Her argument is simple – if smoking habits are determined by social pathways, then pathway policies are also tobacco control and health promotion policies.

Graham suggests that a policy approach that targets life-course disadvantage might involve policies to improve the life chances of children born into disadvantage; to encourage the upward mobility of children through programmes such as Sure Start (which aims to improve the health and wellbeing of families, and of children before and after birth, and has smoking targets built into it); and to develop educational support programmes that improve the living standards of young mothers at risk of long-term poverty.

Within the UK pathway policies already exist, for example Sure Start (described above) and New Deal, aimed at helping the young unemployed get into the labour market. Graham also suggests that it is important to think about community interventions that remove or reduce the kind of stresses associated with smoking, around environmental improvements, mental health schemes and family support programmes. Community-based smoking intervention programmes, informed by a community development approach, can support locally led initiatives to help women take care of themselves at those pressure points in their daily lives when they are most likely to turn to cigarettes – the daily triggers. These focus, for example, on childcare or alleviating workplace tedium, and can be characterised as 'coping strategies', both of an individual and a community kind.

The four stages of the tobacco epidemic

In countries where inequalities have not yet become an issue in tobacco control, using the four-stage model of how tobacco affects populations can provide guidance and direction for designing programmes and strategies to reduce inequalities (see page 10).

Setting targets for health improvements

Many governments are increasingly challenged by the need to set and define their targets for health improvements. These improvements often refer to reducing inequalities, to the benefit of disadvantaged groups. Targets have often been set with little reference to how they might be achieved, or if they are achievable. In many countries, culture changes within the health service sector have established more rigorous organisational systems that require management by objectives. It is now no longer sufficient to have in place what have been referred to as 'inspirational' targets, although in the past these have been helpful in putting inequalities on the agenda. What are required are specific

and realistic targets to meet the needs of policies and programmes of action on equity in health that are criteria-driven (eg Department of Health, 1999; Ferrinho and Pereira Miguel, 2001).

Kunst and Machenbach (2001) describe a systematic approach for combining available scientific evidence in the formulation of such targets. Their approach utilises the four-stage smoking epidemic model and extrapolates from existing data to project future possible trends; draw on empirical evidence for the effectiveness of selected policies and interventions; estimate the potential impact of these policies and interventions; and formulate realistic health equity targets. Tested in the Netherlands, application of this five-step approach led to the formulation of a number of realistic targets on inequalities in smoking. The results showed that – for men – a substantial reduction of smoking by income group could be aimed for. For women, however, the results showed that autonomous trends (trends likely to occur given the tendencies in the past) were likely to further increase smoking inequalities, and they recommended that targets should aim to halt this widening of the gap.

While drawing substantially on evidence and research, the model has the added advantages of linking action with targets, setting goals that are realistic and measurable, providing a framework for further research, and combining quantitative with qualitative information.

European frameworks

Platt *et al*. (2001) identify a number of existing frameworks for action. WHO and the EU have pledged action to reduce smoking and smoking-related diseases across Europe, although so far the emphasis has remained on reducing overall tobacco consumption, rather than addressing inequalities. The Framework Convention on Tobacco Control and the WHO Fourth Action Plan for Tobacco-free Europe are tools that can be used to address a whole range of issues – eg taxation, smuggling and tax-free tobacco products. The Framework Convention is also likely to lead to increased joint strategic planning between WHO and the EU (Platt *et al*., 2001).

In the UK, since the publication of *Smoking Kills* (Department of Health, 1998) and the white paper on public health, *Saving Lives* (Department of Health, 1999), the government has implemented a range of policy initiatives that have sought to improve the health of the poorest and to narrow the acknowledged gap in health inequalities. These have included policies that seek to tackle the broad social, economic and environmental factors thought to account for much of the observable inequalities in health. Many of these initiatives have been targeted at the poorest and most deprived individuals and areas of the country – they include the formation of 26 health action zones covering 13 million people in 81 of the most deprived 100 wards. They also include broader tax and welfare measures designed to reduce child poverty dramatically.

In Sweden, a new target proposed by the government in December 2002 is aimed at those groups with the highest smoking prevalence. The target also aims to achieve a smoke-free childhood (including pregnancy) for all children by 2014, a 50% reduction in tobacco use among the under-18s by 2014, and a smoke-free environment for all.

The new public health framework programme of the EU also presents an opportunity to develop policy responses to address the problem of inequalities in Europe. The report *The Health Status in the European Union* (Ferrinho and Pereira Miguel, 2001) reiterates the need for policy interventions – including action on the socio-economic determinants of health such as education and income, reduction of exposure to risk factors such as smoking, and formalising targets and recommendations on best practice.

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Appendix

Papers presented at the seminar 'Women, smoking and inequalities in Europe', 23–24 August 2002, Berlin

First Session

Chair – Elizabeth Tamang, Director, Regional Centre for Prevention, Italy

Margaretha Haglund, National Institute of Public Health, Sweden and Patti White, Health Development Agency, London
Overview of health inequalities: the case of the UK and Sweden

Uwe Helmert, Centre for Social Politics, University of Bremen
Social determinants of cigarette smoking cessation in Germany

Eva Kralikova, Charles University of Prague
Social environment, tobacco marketing and smoking among Czech women

Ulrike Maschewsky-Schneider, Berlin Centre for Public Health
Gender based analysis in public health research and policy: the impact on tobacco control strategies

Susan MacAskill and Martine Stead, Centre for Tobacco Control Research, University of Strathclyde, Glasgow
Living in deprived communities in the UK: barriers to stopping smoking

Second Session

Chair – Margaretha Haglund, Head, Tobacco Control Programme, National Institute of Public Health, Sweden

Debora McLellan, Dana-Farber Cancer Institute, USA
Programs and partnerships to reduce tobacco use among blue-collar and service workers

Karola Grodzki, European Trade Confederation
Environmental tobacco smoke and workers' health: workplace trade union policy

Judith Watt, Smoke-free London
Effective, efficient and equitable: using mass media to help low income smokers to quit

Linda Bauld, Department of Social Policy, University of Glasgow
Health inequalities in England: are smoking cessation services helping to 'narrow the gap'?

Carl Simons, DEFACTO, the Netherlands
Developing helpline services for low-income smokers

Maureen Moore, ASH Scotland
Tobacco and inequalities: a Scottish perspective

Third Session

Chair – Ulrike Maschewsky-Schneider, Berlin Centre for Public Health

Christine Godfrey, York University and Patti White, Health Development Agency
Inequalities and smoking: price

Martine Stead and Susan MacAskill, University of Strathclyde, Glasgow
A friend to the smoker: marketing and low-income consumers

Elif Dagli, Marmara University, Istanbul
Potential for prevention: women of low-income countries

Fourth Session (Discussion)

Chair – Patti White, Health Development Agency, London