Smoking, Low Income and Health Inequalities: Thematic Discussion Document

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Report for Action on Smoking and Health and the Health Development Agency

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1. Introduction

Despite a reduction in the overall prevalence of tobacco smoking in the UK over the last 30 years, there has been little change among those in lower income groups. Smoking in Britain has therefore become increasingly concentrated among the most disadvantaged in society.

The disproportionate number of smokers in lower social classes has contributed to the increased health inequalities between rich and poor. Death rates are now two to three times higher in disadvantaged social groups than the more affluent, and poorer people can also expect to experience more illness and disability problems.[1]

Analyses of smoking by lower income groups can be categorised by: manual or non-manual occupations; social class; deprivation levels. It is notable that the gradient between smokers and non-smokers becomes steeper when more determinants of disadvantage are taken into account.

1.1 Smoking Kills

In December 1998, the government published proposals designed to reduce smoking in the UK, as a White Paper entitled "*Smoking Kills*". The overall target set for adult smoking was a reduction from 28% to 24% or less by the year 2010; with a fall to 26% by the year 2005.

The White Paper set out targets to reduce smoking among children (11-15 year olds) from 13% to 9% or less by 2010; with a fall to 11% by the year 2005.

The government has also identified smoking during pregnancy as important due to the risks to the health of the child during pregnancy and from passive smoking during childhood. The target is to reduce the percentage of women who smoke during pregnancy from 23% to 15% by the year 2010; with a fall to 18% by the year 2005.

1.2 NHS Cancer Plan

In September 2000 the government announced its intention to exceed the *Smoking Kills* targets in its new NHS Cancer Plan. The Plan set the first ever smoking inequalities target. Its aim is to reduce smoking rates among manual groups from 32% in 1998 to 26% by 2010, in order to narrow the health inequalities gap.

1.3 Objectives

This report, commissioned jointly by the Health Development Agency (HDA) and Action on Smoking and Health (ASH) presents an overview of some of the published information surrounding low income and smoking. Validated research and expert opinion has been drawn upon in preparing this report. It provides analysis of current research with the intention of evoking further discussion leading to new incentives and policies for health inequalities.

This document forms part of a larger project sponsored by the HDA and ASH that is concerned with identifying interventions to decrease tobacco prevalence and consumption in disadvantaged groups, as well as both barriers and factors that encourage quitting.

The project has five components:

- A thematic discussion document based on a review of the literature on smoking and disadvantage
- A rapid mapping exercise to identify existing and recent projects
- Secondary data analysis of survey data to identify factors associated with quitting/not quitting among the most disadvantaged
- Qualitative research to identify low income consumers' views of products and treatments
- A seminar to debate the issues that emerge from these projects, with practitioners, academics and policy makers.

1.4 Content

This report is not intended to be comprehensive but its purpose is to provide some analysis and understanding of current research in order to provoke further discussion leading to new incentives and policies for health inequalities.

Firstly the report explains health inequalities and smoking, using statistics and research to show that it exists and why it is a growing problem. Secondly it attempts to review the evidence on why it exists, in order to help suggest pathways that could lead towards possible solutions.

Thirdly it examines barriers to cessation, past interventions, existing services and aids, previous media campaigns and community programmes in order to help assess why previous cessation measures may or may not have been successful.

1.4.1 Smoking Prevalence Statistics.

This section shows how the gradient for smoking prevalence statistics increases when more deprivation factors are taken into account.

1.4.2 The Increase in Health Inequalities

The problem of how smoking contributes to health inequalities is examined. Higher rates of smoking have increased health risks to the smoker, and also to non-smokers who are at risk through the effects of passive smoking. This category is divided into four main areas: health of the smoker; passive smoking; risks to young children; smoking during pregnancy.

1.4.3 Economic Effects

The economic issues surrounding health inequalities and smoking are important for any discussion for future work. There are two prevailing views, which suggest opposite strategies for tackling the cost of smoking to the smokers themselves. Some research shows that price elasticity and high levels of tax encourage low income smokers to quit. However, further evidence suggests that increasing the price of tobacco does not encourage quitting, but only increases the hardships on the lower income smokers.

A new development for policy makers to consider is the availability of cheap tobacco through smuggling. Recent research and interviews with experts suggest that this issue plays a key role for low income smokers. Smoking not only has economic costs to the smokers, but also to the broader community and the government.

1.4.4 Why Are People With Low Incomes Likely To Become Smokers?
This section reviews some of the available research that has attempted to understand the increasing gradient in smoking between the most well off in society and the most disadvantaged.

1.4.5 Barriers To Cessation
This section explores why lower income people may find it difficult to quit smoking and looks at why past interventions may not have been successful within this group.

1.4.6 Past Interventions
Evidence suggests that in order to find new and innovative solutions to the problem of smoking, and in particular among low income groups, it is important to assess what smoking cessation interventions have been tried in the past and how successful they have been.

1.4.7 Smoking Cessation Services and Aids
A comprehensive list of cessation services is outlined in the rapid mapping exercise. However, this report assesses some of the cessation services and aids in relation to their availability and appeal to lower income smokers.

1.4.8 Mass Media Campaigns
There is a lack of evaluation of mass media campaigns targeted at lower income groups, but evidence does suggest that television advertising campaigns do reach a large proportion of this group. Research shows that television viewing hours are high and therefore this medium is important as a tool for smoking cessation campaigns.

1.4.9 Community Programmes
Much of the research that analyses low income communities and their attitudes to smoking and cessation programmes has been carried out in Scotland. However, more recently QUIT has set up a pilot project to help run community projects across the UK and is currently in the process of evaluating its programme.

1.5 Terminology
Throughout the course of this study the terms ‘low income’, ‘poor smokers’ ‘disadvantaged’ and ‘living in poverty’ have been used uncritically – reflecting their use in academic and policy literature. These terms are used interchangeably in the literature and the means of categorising people into such groups is frequently unclear.

1.6 Interviews With Expert Informants
It has been identified that an area of “grey literature” exists and it is important to include it in this report. Expert informants were identified by ASH and the HDA. Those interviewed have a variety of knowledge and background. Therefore it was inappropriate to ask the same questions to each person. This is reflected in the meeting notes with regard to the fact that they do not follow a set structure.

2. Smoking prevalence statistics

The Independent Inquiry into Inequalities in Health[2], identified the fact that not only is smoking prevalence higher among men and women in lower socio-economic groups, they

also have lower cessation rates. Since 1973 rates of cessation have more than doubled in the most advantaged groups, from 25% to over 50%. In the least well off groups, there has been a very limited increase in cessation rates from 8% to 9% cessation in 1973 to 10% to 13 % in 1996.

These figures suggest that previous health promotion measures and tobacco control approaches have not been effective among the lower income groups. Possible reasons for the lack of success of past interventions are examined later in this report.

2.1 Manual and Non-Manual Occupation

In 1998, 33% of men and 34% of women in manual occupations smoked compared to 21% of men and 22% of women in non-manual occupations.[3]

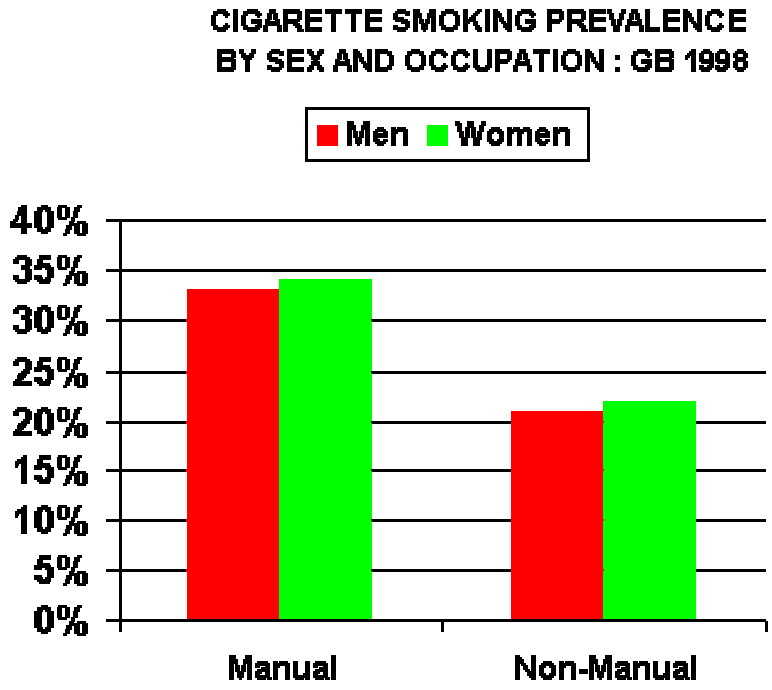
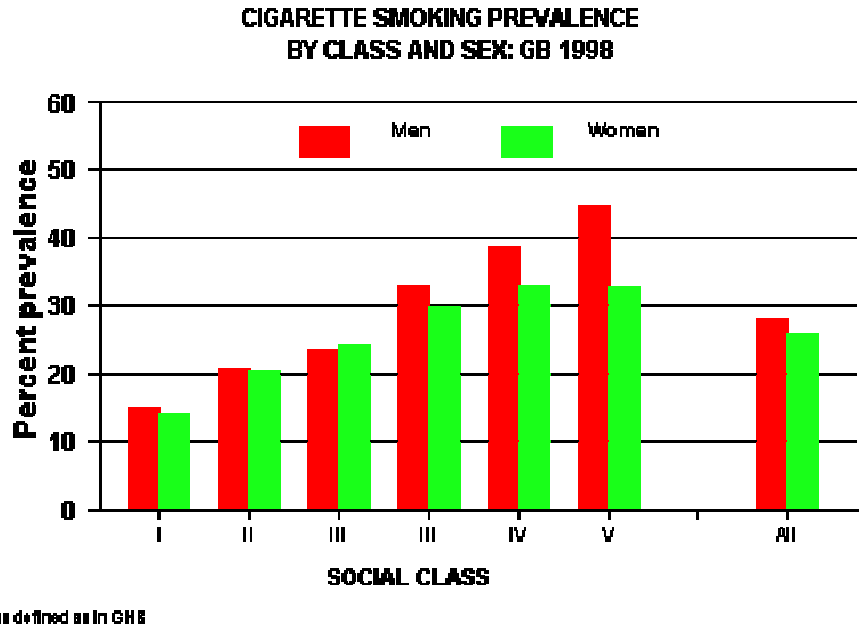


Figure 1

2.2 Social class

The widening gap becomes clearer as the gradient begins to rise more steeply when statistics are analysed by social class.

Figure 2



[Jarvis 2001]

2.3 Deprivation levels

Further analysis using a system of deprivation scoring shows the gradient becoming increasingly higher. Factors taken into account include: occupation; educational level; housing tenure; car ownership; unemployment; living in crowded accommodation; and single parenthood. The following graph shows the decrease in smoking by the most affluent since the 1970s but in the highest deprivation groups smoking prevalence has remained constant.

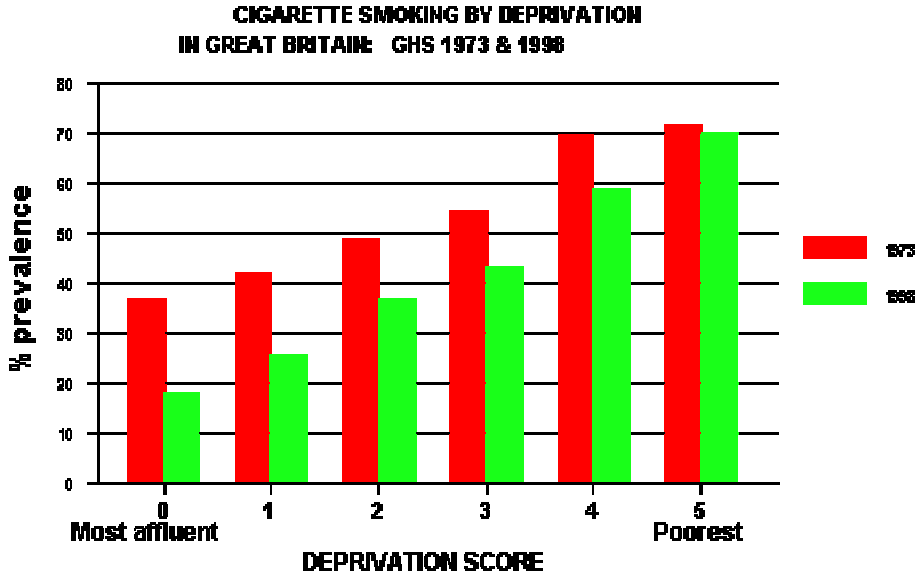


Figure 3

3. The increase in health inequalities

Inequalities in health exist, whether measured in terms of mortality, life expectancy or health status.[4] Smoking prevalence is an important component of the difference in state of health and death rates between social classes.

3.1 Health of the smoker

One in two long-term smokers will die prematurely as a result of smoking – half of those in middle age. Every year in the UK smoking kills approximately 120,000 people, accounting for one fifth of all UK deaths. Most die from one of the three main diseases associated with cigarette smoking: lung cancer, chronic obstructive lung disease (bronchitis and emphysema) and coronary heart disease.[5]

Tobacco smoking causes most lung cancer. It is also implicated in many other types of cancer. Overall about a third of all cancer deaths are caused by smoking.[6] A lifetime non-smoker is 60 per cent less likely than a current smoker to have coronary heart disease and 30 per cent less likely to suffer a stroke.[6]

The following table from the Independent Inquiry into Inequalities in Health[4] shows that lung cancer is decreasing across all social classes in Europe. However, the figures show that in the early 1970s unskilled workers were approximately three times more likely to suffer from the disease than the professional classes – in the early 1990s that figure increased to more than five times.

European Lung Cancer Rates
(rates per 100,000)

Social Class	Year 1970-72	1979-83	1991-93
I – Professional	41	26	17
II – Managerial & Technical	52	39	24
III – Skilled (non-manual)	63	47	34
III – Skilled (manual)	90	72	54
IV- Partly Skilled	93	76	52
V- Unskilled	109	108	82

Smoking is also an important cause of coronary heart disease (CHD). Figures from the same study show that there is a social class difference between those suffering from CHD.

Coronary Heart Disease (1986-92)
(Rates per 100,000
Men and Women aged 35-64)

Social Class	Men	Women
I/II	160	29
IIIN	162	39
IIIM	231	59
IV/V	266	78

Further medical conditions associated with smoking, while they may not be fatal, may cause years of debilitating illness or other problems.

3.2 Passive Smoking

Detrimental health effects have also been demonstrated in those exposed to other people's smoking. Passive smokers suffer an increased risk of a range of smoking-related diseases. For example, non-smokers who are exposed to passive smoking in the home, have a 25 per cent increased risk of heart disease and lung cancer.[7] Adults with asthma can experience a significant decline in lung function when exposed to tobacco smoke.[8]

With smoking prevalence being higher among manual classes, a 1997 Health Education Authority study showed that those in manual jobs are more likely to be exposed to the risks of passive smoking at work. 27% of those in manual jobs worked in places where smoking is allowed anywhere, compared to 10% of non-manual workers.

Manual workers are also more likely to be exposed generally to passive smoking. The Health Authority Study reported that 49% of non-smokers received a moderate or high daily exposure to passive smoke, as opposed to only 33% of non-manual workers.

3.3 Risk to young children

Passive smoking increases the risk of lower respiratory tract infections such as bronchitis, pneumonia and bronchiolitis in children. One study found that in households where both parents smoke, young children have a 72 per cent increased risk of respiratory illnesses.[9] Passive smoking causes a reduction in lung function and increased severity in the symptoms of asthma in children, and is a risk factor for new cases of asthma in children.[10] Passive smoking is also associated with middle ear infection in children as well as possible cardiovascular impairment and behavioural problems.[10]

Dorsett and Marsh (1998) explored the link between high levels of smoking and the growth of lone parenthood among young British women.
"*Giving up smoking is common among young women, but rare among lone parents….For many women, starting smoking is an unremarkable habit and will often begin in adolescence or shortly after, at a stage in life when the woman has no children. Later, those women who become and remain partnered, who become owner-occupiers and avoid contact with social security benefits seem frequently to relinquish their habit, often when they have their own children. Their partners often give up at the same time. Lone mothers remain trapped both in poverty and smoking."*

This high prevalence of smoking among low income lone parents increases the exposure of those children to the health risks associated with passive smoking.

There is sufficient evidence to conclude that maternal smoking causes an increase in the occurrence of Sudden Infant Death Syndrome (SIDS).

In 1999 the World Health Organisation (WHO) reported:
"Almost 50 studies have examined this relationship and all indicate an increased [SIDS] risk. Since reductions in the prevalence of prone sleeping position, eight studies have examined maternal smoking and SIDS. The pooled unadjusted relative risk from these studies is approximately 5, indicating that infants of mothers who smoke have almost five times the risk of SIDS compared with infants of mothers of who do not smoke…"

3.4 Smoking during pregnancy

The adverse effects of maternal smoking during pregnancy on foetal growth are well documented. Low birth weight (generally defined as less than 2500 grams) and intrauterine growth retardation (IUGR) are important risk factors for childhood morbidity and mortality. Low birth weight is associated with higher risks of death and disease in infancy and early childhood.

On average, smokers have more complications of pregnancy and labour that can include bleeding during pregnancy, premature detachment of the placenta and premature rupture of the membranes.[11] WHO have also revealed a link between smoking and ectopic pregnancy and congenital defects in the offspring of smokers.[10]
Smoking in pregnancy may also have implications for the long term physical growth and intellectual development of the child. In 1999 WHO concluded, *"Parental smoking is associated with learning difficulties, behavioural problems and language impairment in children".*

Graham (1993) explored the relationship between pregnancy, low income and smoking.
"The link between socio-economic status and smoking status is underlined in surveys of expectant mothers. Studies consistently report that high social class is linked to low smoking rates before pregnancy and high rates of smoking cessation during pregnancy."

4. Economic effects

4.1 Cost to the smoker

The economic burden of smoking weighs heaviest on the poorest. The General Household Survey 1998 states that men in the unskilled labour socio-economic group smoke an average of 120 cigarettes a week. The cheaper brands of cigarettes sell for approximately £3.90 a packet, so if a person buys 6 packets a week, this is £23.40 a week, or £1,216.80 a year.
According to the 1998 Independent Inquiry into Health Inequalities Report[12]
"*...the real price of tobacco has a disproportionate effect on the living standards of Britain's poorest households, for whom expenditure on tobacco is a larger proportion of disposable income. Households in the lowest tenth of income spend 6 times as much of their income on tobacco as households in the highest tenth Over 70 per cent of two-parent households on Income Support buy cigarettes, spending about 15 per cent of their disposable income on tobacco. Approximately 55 per cent of lone mothers on Income Support smoke, smoking on average 5 packets of cigarettes per week. Studies of the cost of meeting basic needs, which explicitly exclude spending on tobacco, indicate that Income Support levels are insufficient to secure a basic but adequate standard of living, especially if the households contain children"*

4.2 Taxation Policy

Increasing the price of tobacco through taxation is known to be one of the most effective means of encouraging smokers to quit.

In 1999 the World Bank reported:
"A basic law of economics states that as the price of a commodity rises, the quantity demanded of that product will fall. In the past, researchers have argued that tobacco's addictive nature would make it an exception to this rule: smokers, according to this

argument, are sufficiently addicted to smoking that they will pay any price and continue to smoke the same number of cigarettes to satisfy their needs. However, a growing volume of research now shows that this argument is wrong and that smokers' demand for tobacco, while inelastic, is nevertheless strongly affected by its price…..Researchers have constantly found that price increases encourage some people to stop smoking, that they prevent others from starting in the first place, and that they reduce the number of ex-smokers who resume the habit."

To quantify the response to changes in prices, economists calculate using price elasticity. This can be defined as the percentage change in the quantity of cigarettes brought, for a 1 per cent change in the price. The responsiveness of cigarette consumption to changes in real price, has been measured using a variety of models, giving estimates of the price elasticity of demand for cigarettes from –0.4 to –0.86, clustering around –0.55.[13] This means that, for example, a 10% increase in the price of cigarettes would reduce consumption by 5.5%.

It is argued therefore that price elasticity is particularly high among people on lower incomes and teenagers. An elasticity of –1.0 has been estimated for unskilled and manual workers.[13] The implication of this analysis is that increases in cigarette prices would narrow the health divide.[13]

However, critics of price elasticity disagree with this assessment. In 1994 Marsh and McKay reported:[14]

"*If the purpose of tobacco taxation is stop smoking most effectively among those who really cannot afford to smoke and who have most to gain by giving up, this policy is not working. Those least able to afford cigarettes are those most likely to smoke. Worse, almost the only people who genuinely cannot afford to smoke: the very lowest income families supporting young children, are at least twice as likely to smoke as similar families who could only just afford to smoke if they wanted to"*

The normal price of tobacco has a disproportionate effect on the living standards of Britain's poorest households, for whom expenditure on tobacco is a larger proportion of disposable income.[15]

Studies conclude that the motivation to stop smoking does not come from tobacco price increases. The 1998 Independent Inquiry into Health Inequalities[15] states:
"*A recent longitudinal survey of lone mothers found that living in severe hardship was a primary deterrent to quitting. This makes it unlikely that increasing the price of tobacco, and so decreasing disposable income and increasing hardship, will increase cessation rates in disadvantaged households*".

People from low income groups may also believe that the government is not committed to smoking cessation due to the revenue raised from taxation policies.
A respondent from qualitative research in Scotland suggested:[16]
"They're making so much money out of cigarettes: they promote for you to give up, but on the other hand they're making millions out of it".

4.3 Smuggling

Concerns have been raised that the increase in tobacco smuggling into the UK will undermine taxation policies aimed at reducing smoking prevalence.

In May 2000, a Tobacco Manufacturers Association report concluded:
"*The types of areas that experience high levels of black market activity in cigarettes also share some common characteristics. These characteristics are almost identical to those shared by areas experiencing high levels of black market activity in HRT:* [Hand rolling tobacco]

- *A high proportion of the population in social classes C2, D and E*
- *Higher rates of unemployment*
- *A high proportion of lone parent households*
- *Poorer levels of general health*
- *Higher levels of deprivation*
- *Higher rates of crime*
- *Slightly lower average incomes*

Once smuggling has taken hold in a community, it is more difficult for those purchasing cigarettes illegally to quit – because it brings the residents into an 'anti-legal sub culture where typically lone parents for example will trade cigarettes for services such as baby sitting and where the anti-legal nature of the group is self reinforcing'.[17]

4.4 Cost to the government

It has been estimated that, in England, 284,000 patients are admitted to NHS hospitals each year due to disease caused by smoking, occupying an average of 9,500 hospital beds every day.[18] In addition, smoking related illness accounts for 8 million consultations with GPs and over 7 million prescriptions each year.[19] In total, it is estimated that the cost of smoking to the NHS is up to £1.7 billion annually.[19]

There is also an economic cost to the country in terms of lost productivity through smoking related illness and through payments of welfare benefits to those who are unable to work as a result of smoking related illness. The costs of smoking to industry result from lost productivity caused by smoking breaks and increased absenteeism amongst smokers due to ill-health. One study in Scotland has estimated the cost of smoking related absence to be £40 million per annum.[20] In addition, productivity may be adversely affected by the discomfort and minor conditions exposure to passive smoking causes to non-smokers, which in turn may lead to friction between smokers and non-smokers. Finally, there are cleaning and building maintenance costs.

5. Why are people with low incomes likely to become smokers?

Marsh and McKay (1994) reported that those living on low income in Britain are most likely to take up smoking; least able to give up smoking; least able to afford smoking; most likely to suffer material hardship and most likely to suffer increased hardship because of their expenditure on tobacco.

Explanations for the increased smoking for those on lower incomes include:

modelling by parents; social environment; economic insecurity; isolation and stress of care-giving; poorer psychological and physical health; the lack of optimism and self esteem.

5.1 Modelling by parents

Parents are role models for the young and are a main source of primary socialisation. Their influence is paramount, particularly in the pre-school phase of a child's life.[21] The Royal College Physicians (1992) reported a significant reduction in the number of children taking up smoking will only occur when smoking among adult role models is considerably reduced.

Evidence from the Office of National Statistics (ONS) shows that unskilled workers are twice as likely to start smoking before the age of 16.

- "*59% of men and 40% of women from the unskilled manual socio-economic group started smoking before the age of 16%.*
- *30% of men and 20% of women from the professional group started smoking before 16."*

The ONS Teenage Smoking Attitudes in 1996 Survey further shows that children *"were almost three times as likely to be regular smokers if both their parents smoke than if neither did. (16% compared with 6%)"*

Attempts were made in the Survey to collect information from children which could be used as an indicator of their families socio-economic position: questions were asked on consumer durables in the home, the number of cars the family owned and whether the home was rented or owned. However, it was found that the pupils over-reported the availability of consumer durables and cars at these questions. The information was therefore not particularly useful in differentiating between smokers and non-smokers and socio-economic group.

5.2 Social Environment

Research shows that the likelihood of being a smoker is significantly increased not only for those in lower occupational class groups, but also for those living in rented accommodation, without access to a car, who are unemployed, and live in crowded accommodation.[22]

Qualitative research undertaken in disadvantaged communities in Glasgow uses the term "area effect" to show that place of residence may be associated with smoking independently of individual poverty and socio-economic status."[23] The report concludes:

"*A poorly resourced and stressful environment, strong community norms, isolation from wider social norms, and limited opportunities for respite and recreation appear to combine not only to foster smoking but also to discourage or undermine cessation.*"

5.3 Economic Insecurity

Factors creating economic disadvantage are: employment situation; number of children; extent of family support; and the ability to budget. Surviving on benefits while running a household and bringing up children can place excessive strain on an individual.[24]

5.4 Isolation and stress of care giving

Research on smoking and caring suggests that smoking is linked to features of care work that differentiate it and show it to more stressful than other kinds of paid and unpaid work. Studies have shown that lone parents on low income have a very high probability of being smokers.[25] [26]

A 1998 study which analysed poverty, smoking and lone parenthood, states[25]

"*It may as well be said now that if you are a poorly educated lone parent living in council accommodation and receiving Income Support, as so many lone parents are, then your chances of being a smoker are over 80 per cent*"

This can also be applied to caring professions. Some groups of nurses have been shown to have particularly high rates of smoking, including psychiatric nurses and nursing auxiliaries.[27] High levels of smoking among psychiatric nurses have been linked to a high incidence of boredom or stress at work, with smoking providing a way of coping with these aspects of their working lives.

5.5 Poorer psychological and physical health

Research shows that higher income groups live longer, are at reduced risk of coronary heart disease, are less likely to report being depressed, or to suffer recurrence of cancer, and are less susceptible to infectious illness than low income groups.[28]

Low income groups were identified as having the following characteristics:[28]

"*Poor people in a country such as the UK are less likely than those who are well off to eat a good diet, more likely to have a sedentary lifestyle, more likely to be obese and more likely to be regularly drunk."*

5.6 Lower self efficacy and lack of optimism

A study drawn up to examine health inequalities and policy in Britain (1999)[29] reports:

"*when you have relatively little money, a packet of 10 cigarettes is a cheap pleasure in the short term and can easily be seen as a rational choice. In the long term, of course, cigarettes are very expensive in both financial and health terms, but the less money you have, the less sense it makes to consider the long term."*

Feelings of low self esteem connected to unemployment can have a negative effect on smokers. Scottish qualitative research reports:[30]

"*Smoking also provided a means of coping with the frustration and demotivation of widespread unemployment. Not working had become a way of life for many, and the poor income offered by training schemes and low-paid work provided little incentive to try to move off benefit.*"

5.7 Teenagers

There is evidence to suggest that cigarettes provide a crucial resource and support system for low income teenagers facing life-events and experiences from which other children are protected.

Pressure for low income teenagers to smoke can be very persuasive and hard to resist because it may be perceived as more normal to do so. Research undertaken in Scotland states[31]

"*The strength of normative pressure to smoke was such that non-smokers described having needed a legitimate reason not to smoke as teenagers, such as asthma or a place in the school football team*"

Adult role models are important in teenage smoking uptake. Quitting by adults (especially by parents) reduces the likelihood of children taking up smoking.[32]
Reducing smoking among adults will lead to a reduction of tobacco related harm.

ASH and the Cancer Research Campaign report that efforts to reduce the multiple burdens of tobacco on society should never be focussed on exclusively on youth, as this heightens the definition of tobacco as adult and may even increase its appeal.[31]

5.8 Smoking During Pregnancy

High social class is linked to low smoking rates before pregnancy and high rates of smoking cessation during pregnancy.[33] There is also evidence of an association between smoking in pregnancy and benefit status, housing tenure and car ownership.[34]

Smoking during pregnancy shows correlation with marital status, with lone expectant mothers reporting significantly higher smoking prevalence rates and lower cessation rates than married or co-habiting mothers.[34]

Age and educational background are factors linked with smoking and pregnancy. The highest prevalence rates are found among expectant mothers under the age 20 and among women who left school at the minimum leaving age and with no educational qualifications. [34]

Knowledge of health risks does not stop low income expectant mothers from smoking. Graham (1993) reports:
"….there seems to be no straightforward connection between knowledge and behaviour: women know about the health risks of smoking during pregnancy but continue to smoke despite that knowledge. The crucial connections lay, instead, in women's material and financial circumstances."

5.9 Smoking in Prisons

The government has set up a Prison Health Policy Unit and Task Force to tackle health issues in prisons. The Prison Health Handbook states:
"*At any time, 65,000 people are held in one of 135 prison in England and Wales. A high proportion of prisoners come from socially excluded sections of our community*."

Prisons and Health Authorities have been asked to examine the health needs of prisoners, identifying appropriate services and ways of providing such services effectively. Health promotion has been identified as an essential component of the Task Force. It has a remit *"to produce a strategy document for prisons entitled 'Healthier Prisons: A plan for developing health in the prison setting'. It will encourage an evidence based 'whole establishment' approach to promoting health improvement in prisons, based on literature review and evidence, bringing together policy and practice."* This strategy paper is currently being drafted.

Smoking is highly prevalent among the prison population. Over three quarters of all prisoners smoke and over half are moderate or heavy smokers.[35] A survey of male

prisoners showed that 34% are interested in smoking as a health promotion issue.[35] A similar survey of female prisoners indicated that 34% would like advice about giving up smoking.[35]

Prison initiatives have included: self-help no smoking groups; smoking awareness sessions; and interest paid on the savings of inmates who do not purchase tobacco.[35]

5.9.1 Smoking Cessation in Wealstun Prison – A Case Study

Staff at Wealstun prison in Leeds have estimated that 300 out of the 580 prisoners are interested in giving up smoking. Providing one to one advice for 300 people would have been an impossible burden on prison resources so other approaches were explored. Initially training prisoners themselves to provide peer support was considered and advisors from Leeds Smoking Service (LESS) carried out two focus groups of prisoners to find out what their views were. The general consensus was very much against peer support at the early stages and very much in favour of having specialist advisors from LESS going in to the prison to facilitate groups. The men also felt very strongly that they should have access to NRT products.

The sessions began in January 2001. The first 8 sessions were run exactly as they would for any other group of smokers in the community. The first session for information; the second for planning and the third is the Quit Day. Subsequent sessions were for support, advice, problem solving and continuing motivation. Carbon Monoxide readings were checked at each session.

The most problematic time was identified as being 8pm onwards which is when they are locked up in their cells. Boredom was reported as a significant factor. All except one (his choice) inmate used patches and collect new ones daily from the nurse. Prison staff collect supplies of NRT from a local pharmacy using the voucher system already in place for other groups in the community.[36]

The group continued for 8 weeks as planned, with a majority of the sessions attended by 16-18 men. By the last 2 sessions the number had fallen to 9. Those no longer attending had reportedly gone back to smoking. The number achieving a 4 week quit was 5 inmates. All except one used NRT patches throughout. The remainder still attending the group were smoking but reported altered behaviour and were still making quit attempts. One man expressed an interest in joining a cessation group after his release the following.

Key Problems Identified

- Difficult to continue quit attempt after 8 pm due to boredom of being locked up
- Pay day on Friday was “like Christmas” with “plenty of cigs about”
- Some criticism about the strength of patches – medium strength not enough
- Lack of flexibility of prison schedule e.g. reprimanded or expelled for lateness to another class due to group participation
- Other drugs are a “trigger”

Positives Identified

- Getting information and attending the group
- Getting something for nothing

- Not being criticised for having a relapse
- Enjoyed the group but would have also like one to one talk with the advisors

6. Barriers to Cessation

Evidence shows that not only is smoking prevalence higher among people in lower socio-economic groups, they also have lower cessation rates.

The following graph shows that in 1973 there was not a major difference between the most and the least affluent groups in quitting smoking. However, the 1998 figures show how much the gap in quitting has increased.

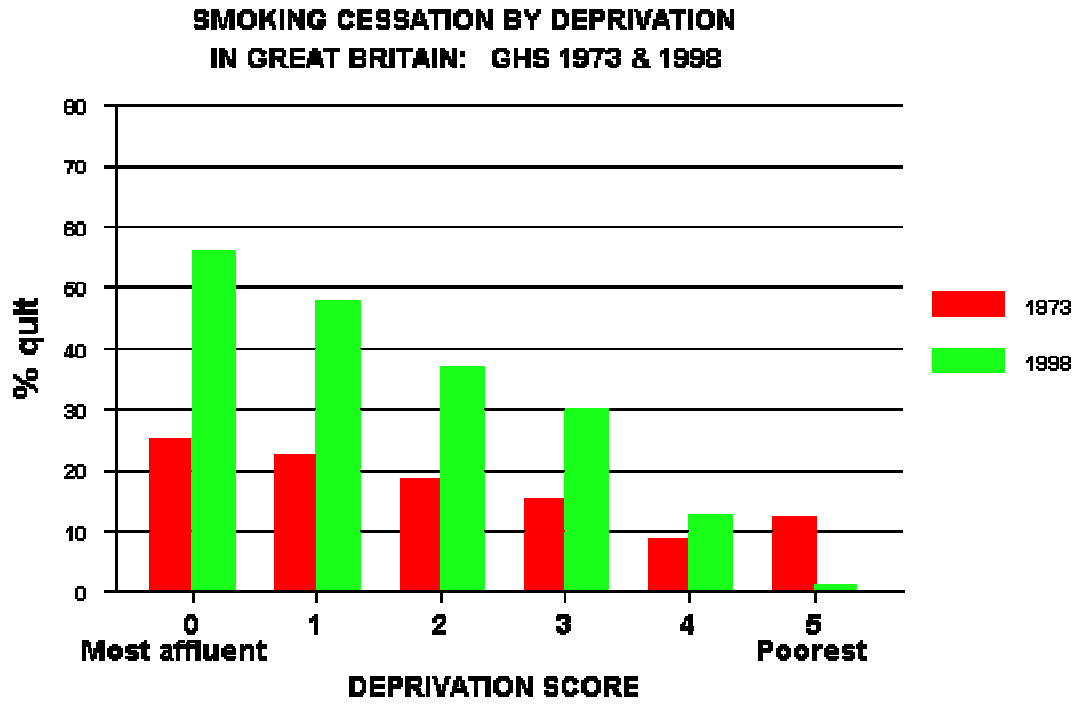


Figure 4

[Jarvis 2001]

However, people in low income groups do not appear to be less motivated to give up smoking than other social groups. In response to the question, 'would you like to give up smoking altogether' around two thirds of all smokers (across all social groups) state that they would.[37]

Evidence suggests that low income smokers are less likely to be able to overcome the barriers to successful cessation.[38] Fears of being unable to cope without nicotine have been found to be profound, particularly for women caring for children.[39]

6.1 Why are people with low incomes less likely to quit?

It is important to appreciate how hard it is for smokers to give up. Estimates of the chances of succeeding for at least a year in a serious unaided quit attempt are no better than about 1 in 100.[40]

If cessation is difficult for everyone, it may be especially difficult for those whose lives are particularly stressful to endure the short-term nicotine cravings and to lose sight of the longer-term gains of much improved health and more disposable income.

Factors that may affect the poor smoker when trying to quit include: motivation; higher dependence; and higher stress levels.[37]

6.1.1 Motivation and triggers for quitting

It is suggested that people give up smoking for reasons connected to optimism;[41] actual or anticipated improvements in life circumstances, health or feelings about oneself.[38]

Money and changes in perceived financial priorities

Improvements in financial circumstances can trigger cessation attempts. Conversely, a deepening of financial hardship can intensify the need for tobacco.[42]

Changes in employment status

Smoking can provide a means of coping with the frustration and demotivation of being unemployed[42]. Conversely feelings of optimism related to a new job and improved prospects can trigger a quit attempt.

Qualitative research in Scotland provides evidence of this:[42]

"For a handful of respondents, acquiring a job or moving to a better job had been a trigger to a cessation attempt. Respondents described how feeling better about themselves or the opportunity of a "fresh start" had led them to feel that this was a time when they have the confidence and determination to give up."

In relation to employment an important connection between work environment and smoking is now that the world of work is almost uniformly non-smoking there is a greater likelihood that a person can escape the smoking sub culture – they will be exposed to non-smokers and people who have quit, which may give them further incentive to quit. [43]

Health and fitness

Long-term health concerns and preventative health measures tend not to be motivating factors, particularly among young people.[42] In communities where health expectations are low, it is unsurprising that the future promise of better health or threat of worsening health has only a limited motivating effect.[42]

Diet

Among women, fear of weight gain is a fairly common deterrent from trying to give up – or a reason for starting again. Staying slim is one of the perceived benefits of smoking among school-aged girls and young women.[44][45]

Health inequalities in low-income groups are also linked to poor diet. Health promotion programmes aimed at improving the diet of poor communities should also promote smoking cessation programmes.[46]

Pressure and support from others

In a community where smoking is the norm, most smokers are surrounded by other adult smokers who reinforce rather than challenge smoking behaviour. Research consistently shows the importance of social environmental on smoking habits.

"*Even the more positive aspects of life, such as support networks and identity, seem to encourage rather than challenge smoking*" [42]

6.2 Nicotine dependence

There is strong emerging evidence that level of nicotine dependence increases systematically with lower income groups. This is evident from questionnaire indicators of dependence from the General Household Survey (e.g. time to first cigarette of the day; and perceived difficulty of going for a whole day with smoking) and from quantitative measures of smoke intake.

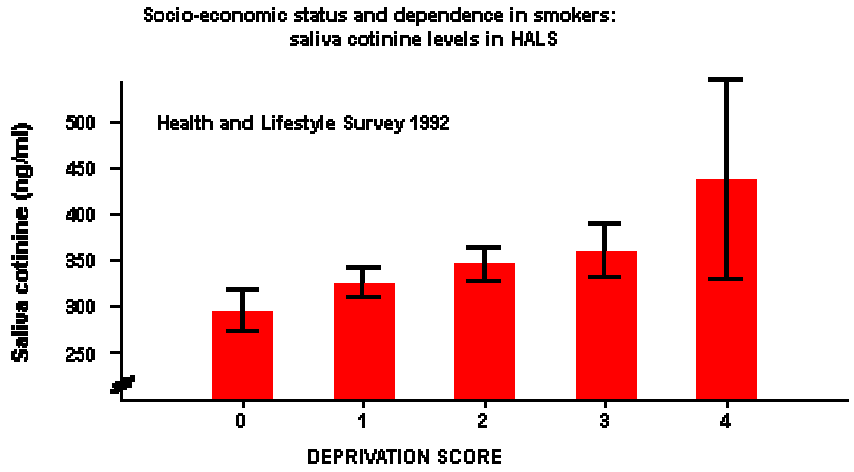


Figure 5

This may be due to economic factors, that is, each cigarette is worth more, and therefore more intensively smoked. For people on lower incomes the cost of buying tobacco is a higher percentage of their earnings. As reported in the Inequalities in Health Report[47]

"*...the real price of tobacco has a disproportionate effect on the living standards of Britain's poorest households, for whom expenditure on tobacco is a larger proportion of disposable income.*

Higher nicotine dependence may in part be due to age of starting to smoke, or to self medication for stress.[48] More research needs to be done to understand this issue.

Since nicotine dependence is an important determinant of ease of quitting, it is suggested that one reason for lower rates of cessation in lower income groups is higher nicotine dependence.[47]

7. Past Interventions

7.1 Objectives of Smoking Cessation Interventions

The importance of a comprehensive approach has long been recognised as the most effective strategy for reducing smoking levels. As well as strategies aimed at the individual, there is a need for policy and legislative measures, and social and environmental initiatives. The HDA recommends that each component of such a comprehensive strategy would encompass the following objectives: [49]

- Promote quitting among adults and young people
- Reduce exposure to environmental tobacco smoke
- Create a social environment that is supportive of non-smoking and cessation

Local strategies frequently include an alliance of NHS, local government, education and commercial interests, as well as voluntary agencies, to try to reduce smoking and to provide information on smoking by using local media, creating local activities and promoting debate to generate interest.

7.2 Types of Effective Interventions

Community wide approaches typically involve a range of agencies including health services, voluntary agencies, the media (paid and unpaid), as well as government and local authorities. Together they undertake a range of activities such as direct smoking cessation, help lines, training and resources for health professionals, development of policies to reduce smoking in public places, media campaigns and advocacy, reducing sales to minors and work in schools.

Components of a local strategy often include the following:

- Develop smoking cessation services
- Reduce smoking in public places including work places
- Support national media campaigns
- Use media advocacy
- Monitor the voluntary advertising ban
- Reduce sales of cigarettes to children under 16 years old
- Encourage the introduction of smoking policies in schools

8. Smoking Cessation Services and Aids

The Department of Health recommends three broad levels of smoking cessation services. [50]

- Specialist smoking cessation clinics/services – provided by specialists who have received training for the job.
- Intermediate intervention - usually provided on a one-to-one basis by specialist practitioners who will have undertaken some form of recognised training. e.g. a nurse trained to provide specialist smoking cessation support in a GP practice.
- Brief Interventions – usually provided GPs, health professionals and other relevant practitioners in the normal course of the professional's duties.

National Evaluation of Smoking Cessation Services in Health Action Zones

A one year evaluation of smoking cessation services began in September 1999.[51]

The report notes that the new services were developed at great speed in response to Ministerial expectations and thus encountered many teething problems. Despite this, the HAZ services have made very considerable progress.

In its conclusion the evaluation states:

"By the spring of 2000 all Health Action Zones had put in place a range of services that were beginning to reach smokers and help them to set quit dates and in many instances stop smoking".

Research has shown that low income smokers may prefer not to use cessation products and services available. Research in low income communities in Scotland states:[52]
"There was limited awareness of the help available to smokers, but also scepticism about the efficacy of any paid-for cessation products and services, and a cynicism that they were simply a way of financially exploiting smokers' addiction. Most who did attempt to quit did so 'unaided', relying on willpower".

8.1 Nicotine Replacement Therapy (NRT)

NRT has been shown to be an effective treatment aid, approximately doubling success rates from both brief and intensive. However, due to the perceived socio-economic gradient in nicotine dependence, NRT may have a differentially beneficial effect on smokers in lower income groups. There is a lack of effective research on the effectiveness of NRT within different social groups.

8.1.1 NRT and Cessation Programmes – A Case Study

GlaxoSmithKline (GSK) markets NRT products under the trade name of NiQuitin CQ. The products are sold in conjunction with a Committed Quitters Stop Smoking Plan. This behavioural support plan is offered free with the NRT products as an essential component of the smoker's quit attempt..

The GSK promotion materials state
"*Most smokers express little interest in intensive direct counselling, so written materials which can be read in the smoker's own home are consequently an important medium to motivate and inspire them during their quit attempt. To maximise the effectiveness of the behavioural support programme, adherence to a set of behavioural principals is fundamental, and it is these upon which the CQ Stop Smoking Plan is built*."

GSK evidence has shown that while the Stop Smoking Plan is aimed at all socio-economic groups, the uptake is highest in lower income groups. The enrolee information was fed into a profiling system and then indexed against the population to show the most prevalent groups to be 'low rise council', 'council' dwellers and 'blue collar workers'.

8.2 No Smoking Day

No Smoking Day is an annual day event held in March that aims to help smokers who want to stop by mobilising and publicising local cessation support services.
The organisation, No Smoking Day (NSD) points smokers to the cessation telephone help-lines, pharmacies and new cessation services. No Smoking Day's activity programmes

are aimed generally at “smokers who want to stop” but as the smoking population is largely now found among low income groups, the focus of the Day is principally on settings appropriate to those groups, using outlets such as Superdrug and bingo halls, and concentrating on tabloid press coverage.[53]

An awareness and participation survey of the No Smoking Day March 2000 was carried out.[54] In social classes D and E, 75% were aware of the Day. Younger groups and DE socio-economic groups were found to be more likely to intend to make a quit attempt on the Day. (12% of DE group compared with 8% of AB group).

A further 61% in the DE group saw or heard advertising and publicity about the Day. However, only 2% were aware of any No Smoking Day events in their area, and none had ever taken part in an event.

According to qualitative research commissioned by NSD[55] the target market of lower income groups seem to have become disillusioned with the idea of telephone help lines which are not perceived as offering real help, but are more interested in finding out more about how to access pharmacological help (Nicotine Replacement Therapy, Zyban) - particularly if this can be accessed on prescription/free of charge.

NSD qualitative research further stresses the need to use visual aids and mass media in aiding lower income smokers to quit.[55]
“Given the need for smokers to prepare for a cessation attempt, posters must be displayed as in advance as possible. Given the importance of the visual medium, a *TV campaign in the run-up to the Day is also strongly recommended. Funding a TV campaign would also help to offset smokers’ suspicions that the Government is paying lip service to cessation.”*

8.3 Telephone Helplines

“The telephone helpline offers an intervention with potential for widespread use which is also easily accessible. Several studies have shown that brief telephone counselling may enhance the short and long term cessation rates associated with self-help materials.” [56]

An analysis of a telephone helpline (Quitline) for smokers who called during a mass media campaign[56] showed that 63% of callers in one year were manual workers or unemployed. Of those 63% of callers, one fifth reported having successfully stopped smoking after one year.

“The profile of the callers suggests that the service is successful in attracting some of the groups highlighted in the UK government recent White Paper on tobacco, “Smoking Kills”. Given that one fifth of the smokers who called Quitline who were in manual occupations or unemployed reported having stopped at one year, it seems likely that such a service can make a major contribution to achieving smoking reduction among these priority groups.”

9. Mass Media Campaigns

While the impact of mass media campaigns can be difficult to quantify, there is evidence from England, Massachusetts, California and Australia that they have been associated with declines in smoking prevalence.[57]

Results from the General Household Survey, 1998 state:
"Households headed by semi or unskilled manual workers were the least likely to have any of the consumer durables listed with the exception of televisions and satellite TV." [the list included major kitchen appliances, telephone, central heating, video recorder, cd player and home computer].

This suggests that television provides an advertising medium that reaches lower income households.

A recent survey shows that social classes C2 and D watch 4 + hours of television per day, while social class E watch 5 + hours per day.[58]

Between 1992-1999 the Health Education Authority ran seven consecutive mass media campaigns specifically targeting C2DE socio-economic groupings. The target audience was further broken down by either region, gender, age or stage of change model. The campaigns were delivered using a variety of media formats over the eight year period, including television, radio, press and posters.

In 2000, the HDA published an evaluation of the impact of the campaigns.[59] The report concluded that it is difficult to assess the direct impact that mass media has on smoking cessation rates, for the following reasons:

- Changes in social attitudes and behaviours such as smoking occur relatively slowly
- It is difficult to assess the extent to which the campaigns are implemented according to the available evidence
- Mass media campaigns are only one aspect of a comprehensive tobacco- control policy.

These considerations make it difficult to judge the success or failure of mass media campaigns simply against smoking cessation prevalence outcomes alone. Even where positive changes in smoking rates are associated with mass media campaigns, direct attribution is difficult since campaigns are rarely run as control trials.

This evaluation suggests 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. They also show younger smokers strong, clear reasons for quitting.

10. Community Programmes

Many of the reviewed studies cover academic research and policy discussion on health inequalities. However, in Scotland extensive community-based research and programmes have been undertaken, providing a "bottom up" approach to the problem of smoking among low income groups.

Qualitative research conducted in disadvantaged areas in Scotland by the Centre for Tobacco Control explored possible explanations of why lower income groups are more likely to smoke, less likely to quit, and also consume proportionately high amounts of tobacco.

This research used the Prochaska stages of change model to assess the participants of the study.

Stages of Change Model:[60]
Precontemplation: The period before which smokers consider quitting the habit. Few interventions have been developed with the need of the precontemplator in mind.
Contemplation: Smokers are aware of the benefits but are still held back by the potential costs or barriers to changing their behaviour.
Preparation: The smoker is more motivated about quitting and more positive about the benefits. The smoker may have set a date to quit.
Action: The smoker now quits smoking. The stage is typically the hardest, and people have to work at the action stage for around 6 months.
Maintenance: From around 6 months to one to three years after quitting the past smoker must still work at remaining so.
According to the stages of change model, relapse is most likely within the first six months of cessation.

Some of the common themes emerging from the research provide qualitative explanations for the pathways by which residence in a poorer community leads to higher levels of smoking. The pathways identified in the study are:

- Coping with stresses caused by material circumstance and environment
- Coping with unemployment
- Pro-smoking community norms
- Isolation from wider social norms
- Smoking fosters social participation and belonging
- Limited experience of triggers and environments which encourage cessation
- Cumulative barriers to successful cessation

"*It was difficult to draw on support from others in a community where most people smoked and smoking was a integral part of life. Far from receiving encouragement from significant others for their attempts to quit, smokers often tended to experience indifference, or even the reverse*"

Quantitative research and programmes: Attempts to set up community-based projects to promote smoking cessation have met with mixed success.

10.1 Scottish Community Programmes

Smoking was found to be a major cause of health inequalities among women in Scotland. Rates of smoking-related diseases were identified to be higher among lower income women.[61]

The Health Education Board for Scotland (HEBS) and the Chief Scientists Office of the Scottish Office Home and Health Department carried out a nine month project in 1994, which aimed, through consultation with people working at community level, to identify ways of developing new initiatives and approaches for reducing smoking for women on low income.[61]

"The Project found that many people who work at community and local levels are already addressing this issue, and many more wish to become involved. However, many initiatives are being hindered by the lack of funding, training, appropriate support and resources".

Subsequently, between 1996 and 1999, HEBS funded a second "Women, Low Income and Smoking Project."[62] The project adopted a community development approach, which sought to work with those at community level to identify structures and initiatives that would address smoking reduction among women living on low income.

The project had four objectives:

- Funding and support of community based initiatives
- Exploration of different approaches and methods of evaluation
- Development of a communication and network facility
- Dissemination of the work throughout Scotland

The final report concluded that much interest was stimulated among groups and organisations wishing to work within a community development approach. It also provided some valuable lessons about evaluation and the support and training required to assist community workers to develop community based services.

In October 1999 ASH Scotland began a 3 year project "Tobacco and Inequalities" funded by HEBS. The project will build on the conclusions and recommendations from the Women, Low Income and Smoking Project. [63]

10.2 QUIT

QUIT set up a 3 year pilot Poverty and Smoking project in 1996 that offered practical smoking cessation services.[64] The project used a dual strand approach to help low income smokers who want to stop smoking:

1. The Community Adviser Programme recruited successful ex-smokers from low income communities and provided training that covered smoking cessation processes and developed group facilitation skills.
2. Training provided for professionals such as Social Workers and Money Advisors who are in regular contact with people on low income.

The project concluded that there were few smoking cessation services specifically targeting low income communities because it was believed that the stress of living on a low income in a deprived area made quitting a low priority.

QUIT believes that the project highlights the advantages of joint ventures between voluntary and statutory agencies that can provide integrated workable solutions.

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 QUIT programme achieved overall cessation rates of 21% at 11-12 month follow up.

References

Acheson D. (1998) Independent Inquiry into Inequalities in Health The Stationary Office. London

Adams C, Bauld L and Judge K, Leading The Way: Smoking Cessation Services in Health Action Zones submitted to the Department of Health, November 2000
Amos A and Crossan E (1994) Under a Cloud, Women, Low Income and Smoking, Health Education Board for Scotland.

ASH and Cancer Research Campaign (2000) Danger!PR In the Playground: tobacco industry initiatives on youth smoking.

ASH (1993) Her Share of Misfortune, Women Low Income and Smoking, An Expert Report of the ASH Working Group on Women and Smoking

ASH Scotland, HEBS (1999) Women Low Income and Smoking, Breaking Down the Barriers ASH Scotland : Women Low Income and Smoking Project

British Medical Journal (1998) Editorial, Nicotine Replacement Therapy for a Healthier Nation BMJ 1998 317:1266-1267

California Environmental Protection Agency (1999) Health Effects of exposure to environmental tobacco smoke. Smoking and Tobacco Control Monograph 10, National Cancer Institute.

Department of Health (1998) Smoking Kills: A White Paper on Tobacco The Stationary Office. London

Department of Health (2000) The NHS Cancer Plan Department of Health. London.

Department of Health (1999). Saving Lives. Our Healthier Nation. White Paper on Public Health The Stationary Office. London

Dorset R and Marsh A. (1998) The Health Trap: Poverty, Smoking and Lone Parenthood. London. Policy Studies Institute.

Elkind A K (1998) Smoking and the female professions: pre:occupational influences on the behaviour of recruits to nursing and teaching. Social Science and Medicine.

Graham H (1993) When Life's a Drag, Women, Smoking and Disadvantage

Godfrey C, et al (1993) The Smoking Epidemic – a prescription for change. HEA.

Health Development Agency (2000) Coronary Heart Disease: Guidance for implementing the preventative aspects of the National Service Framework London. HDA

Health Development Agency (2000) A Breath of Fresh Air, Tackling Smoking Through the Media London. HDA

Health Education Authority (1998), The UK Smoking Epidemic: Deaths in 1995. London. HEA

Jarvis M and Wardle J (1999) Social patterning of individual health behaviours: the case of cigarette smoking, chapter 11: Social Determinants of Health, Edited by Marmot and Wilkinson, Oxford University Press

Jarvis M (2001) Unpublished presentation to Department of Health Conference: Towards a Smoke-Free Future

Kay Scott Associates (2001) Kiss It Goodbye, Report on six qualitative discussion groups, prepared for No Smoking Day www.nosmokingday.org.uk

Leeds Smoking Services (LESS). Liz Hinchliffe, Specialist Smoking Cessation Advisor. Briefing on Prison Programme at Wealstun Prison

Marsh A and McKay S (1994) Poor Smokers. London. Policy Studies Institute

Marshall T, Simpson S, Stevens A, Department of Public Health and Epidemiology, University of Birmingham, 2000

No Smoking Day Survey, Fieldwork dates 9th-14th March 2000

Office for National Statistics 2000

Owen L (2000) Impact of a telephone helpline for smokers who called during a mass media campaign, Tobacco Control, Vol 9 No 2, pages 148-154

Parrott S, Godfrey C and Raw M. Costs of employee smoking in the workplace in Scotland. Tobacco Control 2000; 9: 187-192

Quick A Wilkinson R (1991) Income and Health, Towards Equality in Health, Socialist Health Association

QUIT, Executive Summary, Poverty and Smoking Report 2001 www.quit.org.uk

Poswillo D and Alberman E. (1992) Effects of smoking on the foetus, neonate and child. Oxford University Press.

Prochaska and DiClemente (1983): States of Change Model

Royal College of Physicians (1992) Health promotion, effective education and the personal-social development of young people. RCP, Smoking and the Young. RCP Publications Ordering Service

Stead M, MacAskill S, MacKintosh A-M, Eadie D, Hastings G (1999). An investigation into smoking cessation in disadvantaged communities: qualitative focus group research. Centre for Tobacco Control Research, University of Strathclyde

Shaw M, Dorling D, Gordon D, Davey-Smith G, (1999) The Widening Gap, Health Inequalities and policy in Britain, The Policy Press.

Stead M, MacAskill S, MacKintosh A-M, Reece J, Eadie D (2000) Its as if you're locked in: qualitative explanations for area effects of smoking in disadvantaged communities. Centre for Social Marketing, Centre for Tobacco Control, Centre for Social Marketing, University of Strathclyde.

Strachan DP and Cook DG, Thorax 1997; 52: 905 –914

Tobacco Manufacturers Association (Pieda Consulting), May 2000, The Black Market in Tobacco Products

Townsend J (1995) in Tackling Inequalities in Health, An Agenda for Action, Kings Fund

United States Environmental Protection Agency (1992) Respiratory effects of exposure to environmental tobacco smoke

Wakefield M, Gillies P, Graham H, Madeley R and Symonds M (1993) Characteristics associated with smoking cessation during pregnancy among working class women. British Journal of Addiction

World Bank (1999), Curbing the Epidemic, Governments and the Economics of Tobacco Control A World Bank Publication

World Health Organisation (1999) Tobacco Free Initiative, Consultation Report, International Consultation on Environmental Tobacco Smoke (ETS) and Child Health 11-14th January 1999, Geneva, Switzerland.

World Health Organisation, Controlling the Smoking Epidemic, WHO Technical Report, Series No. 636, Geneva, Switzerland

Appendix 1

Interviews with key informants

Professor Martin Jarvis, ICRF, University of London
Steve Crone, Andrea Martin, Kawldip Sehmi, QUIT
Professor Hilary Graham, University of Lancaster
Professor Alan Marsh, Policy Studies Institute
Doreen McIntyre, No Smoking Day
Dr Amanda Amos, University of Edinburgh, Medical School
Professor Gerard Hastings, Martine Stead, Anne-Marie MacKintosh, Centre for Social Marketing, University of Strathclyde
Paula Gaunt-Richardson, ASH Scotland

Advisory Notes from Meeting held on November 24th 2000
University of Edinburgh Medical School

Attendees:
Amanda Amos
Karen Richardson

1. Inequalities in Europe
Amanda Amos, Steve Platt and Odette Parry have recently completed a chapter on smoking policies for a European Commission book entitled "Handbook on Interventions and Policies to Reduce Socio-Economic Inequalities in. This should be published in 2001.

The UK seems to be more advanced on this issue than other European countries while North American research tends to focus on minority groupings rather than disadvantaged communities. A draft confidential copy of the chapter was made available for the review.

2. Qualitative Studies

Smoking and Disadvantage Study. This is a 2 year project (1999-2001) funded by the Chief Scientist's Office at the Scottish Executive. 100 people (50 men/50 women) aged 25-40 from two disadvantaged areas in Edinburgh have been interviewed in-depth.

The project is seeking to find out the meaning and context of smoking for those interviewed, e.g. outlining the typical daily pattern of when, and why, a person smokes. The interviews have explored the relationship between daily patterns of smoking, meanings attached to smoking, nicotine consumption, perceived dependence and motivation to quit among disadvantaged males and females. Getting cigarettes "on the cheap" is a new issue that has recently arisen, as is the interviewees' views on the Government's approach to tackling smoking. Two posters were presented at Chicago but the main findings of this study are not yet available.

3. Inequalities Research

The Department of Health (London) in Spring 2000 had two calls for research proposals. The first was on smoking and the needs of disadvantaged groups were highlighted. It is not known whether the final funding decisions on projects have been announced. The second was on inequalities research more generally. Proposals have been shortlisted and these include at least one on smoking cessation. A final decision on funding will be made in Spring 2001.

4. Economic and Social Research Council (ESRC)

A proposal has been submitted to ESRC for a series of multi-disciplinary seminars on smoking and disadvantage to be held in Edinburgh but covering the UK. The proposal is for 3 seminars: young people; adults; policy. The participants would be researchers (from within and out with the smoking field), practitioners and policymakers. This may also result in a book project.

5. INWAT Europe

The INWAT Europe Development Project is a 3-4 year programme funded by Europe Against Cancer. It aims to contribute to reducing tobacco use among women in Europe by developing a strong, effective and sustainable network which will raise awareness about this issue, promote communication and exchange of information and support, and develop consensus on a women centred tobacco central strategy for Europe. Seven countries are on the Advisory Group (Finland, Germany, Italy, Netherlands, Spain, Sweden, UK). The part-time project team which is based at the HDA. Amanda Amos is the evaluator on the project.

As part of developing a consensus on how to tackle this issue a seminar was held in 1999 that brought together a range of researchers etc from Europe and Canada. The seminar report outlines some useful frameworks which could be used in analysing and developing new approaches to tackle wider issues around smoking and inequality, not just gender issues (INWAT EUROPE, Part of the Solution, Tobacco Control Policies and Women).

6. Breathing Space Project

This is a 3 year (1998-2001) evaluative study of an innovative community based tobacco control intervention in an area of deprivation in Edinburgh. It is a quasi-experimental study with 1 intervention area and 3 control areas. It is funded by Department of Health (London). The grant holders are Steve Platt (RUHBC), Odette Parry (RUHBC), and Deborah Ritchie (QMUC). The researcher is Wendy Gnich (RUHBC).
[The evaluation report is still confidential at the time of meeting]. It will be titled: “Evaluating Community-based anti-smoking intervention in a low income area: a quasi-experiment study”.

7. European Network for Smoking Prevention

A report has been submitted to the European Commission in the framework of the Europe Against Cancer Programme. The project, which focuses on Women, Low Income and Smoking, runs from March 1999-June 2000. An interim report, for the period ending 31 January 2000, was submitted for the review.

<u>Recommendations from the Meeting</u>

There is still a considerable need for research on this issue at a variety of levels from ‘basic’ studies which increase our understanding of the factors that bind disadvantaged groups and individuals to smoking (including the dimensions of life-course/age, gender, ethnicity etc) to evaluative studies of both innovative interventions/programmes focusing on inequality and more routine services re their impact on disadvantaged groups. Despite an increased recognition of the need to locate tobacco control initiatives within a broader approach that tackles inequality, there is still a tendency at national and local levels to compartmentalise research, policy and action. Developing partnerships and crosscutting approaches should continue to be supported.

As a result of the White Paper there should now be a considerable amount of activity on this issue, and thus there is the potential to make major progress in moving the field forward. However there needs to be some mechanism for sharing and critically assessing this work. In Scotland, for example, there is currently no national evaluation strategy. Health Boards are developing their own programmes with differing amounts and levels of

evaluation. It is therefore not clear what conclusions will be able to be drawn about the impact of cessation services and other initiatives on reducing inequalities.

Contact:
Liz Batten at Southampton University, particularly on smoking and pregnancy.
Patrick West at MRC in Glasgow for data on young people.
Angela King at the Eastern Health Board in Dublin who produced a report “Smoking and Women: Barriers to Change” in November 1999.

Further publications to be included:
INWAT EUROPE, Part of the Solution, Tobacco Control Policies and Women.

Advisory Notes from Meeting held on November 28th 2000
PSI, Mornington Crescent

Attendees:
Alan Marsh
Adam Crosier
Karen Richardson

Overview
Alan Marsh gave an outline of his involvement in smoking and poverty. He felt he only ever had a tangential role in the smoking field because his main area of concern has always been poverty. He has been involved primarily due to the fact that two of his surveys have thrown up interesting propositions - firstly among smokers on low incomes (Poor Smokers), and later lone parents (The Health Trap).

His view of his own work is that it served as an alternative to the then dominant approach to smoking (addiction model) because it showed that people could stop smoking if there were benefits in doing so, and that for poor people there were fewer benefits attached to quitting. It was also important because it called into question the reliance on the fiscal measure of tax as the only Government policy for reducing consumption. (i.e. his work has shown that the price of cigarettes was an important policy tool in reducing consumption for people on higher and middle incomes – but that it had little effect lower down the income scale – and that therefore it was punishing the poorest disproportionately by making them poorer 'they spend around 17% of their total income on cigarettes').

Smuggling
Alan Marsh gave a viewpoint that the high level of taxation on cigarettes was a direct cause of the growth of smuggling in this country (similar to that in Canada under Sweenoy – an advocate of high tobacco taxes: a policy that backfired and led to massive smuggling from the US). Also, he feels that once the smuggling had taken hold, it was harder for people purchasing their cigarettes illegally to quit – because it brought them into an 'anti-legal sub culture where typically lone parents for example will trade cigarettes for services such as baby sitting and where the anti-legal nature of the group is self reinforcing'.

Welfare to work
Alan Marsh feels that the anti- poverty measures put in place by this Government are progressive. He believes that the incentive to work (particularly for lone parents) is the way out of poverty, and therefore for smoking.

What are the measures?
If one assumes that a lone parent is able to get a job on moderate earnings even for only 25 hours/week, with Working Families Tax Credit and some maintenance, the person is now able to reclaim 70% cost of childcare. The lone parent is in a position to acquire a level of earnings similar to that of a one income couple with children.

The other important factor about work and smoking is because the world of work is now almost uniformly non-smoking (particularly in the service industry where lone parents tend to work) there is a greater likelihood that they can escape the smoking sub culture – be exposed to non-smokers and people who have quit, which may give them further incentive to quit.

According to his survey of lone parents (cohort study of beginning at 900 people, now 750), between 1991 and 1999 the percentage of those who work rose from 29% to 38%. This was accounted for in part by the decrease in the number of lone parents with children under school age. In fact, most lone parents are not in the single never married under 20, but in their 30's, once or twice married, with older children.

Health Education

Alan Marsh believes an effective health education approach is to cause resentment towards tobacco companies (something he has encouraged Quit to do). He also feels that the social embarrassment attached to smoking is the driver behind the decreasing rates of smoking to date.

Future Work On Smoking and Low Income

Alan Marsh is planning to produce an update on Poor Smokers, using 10 years of data from his survey.

He has further started a new survey (5,000 sample –2,500 lone parents and 2,500 low income couples) which will have smoking information.

Advisory Notes from Meeting, 14th December 2000
No Smoking Day
Baldwins Gardens, London

Attendees :
Doreen McIntyre
Karen Richardson
Adam Crosier

Overview
Doreen McIntyre has considerable experience working on low income and smoking issues. She is currently the Director of No Smoking Day, and previously worked for Glasgow 2000 (Smoking Concerns) where much of her work focussed on disadvantaged communities. She has also worked on smoking issues with prisoners.

Glasgow 2000 was initiated in 1983 and sought to establish a comprehensive tobacco control programme for Glasgow including smoking cessation services. It was also concerned with environmental change and political issues associated with tobacco. The organisation sought to work both with intermediary agencies (including the Health Service and Social Services) and also provided frontline services to smokers. In Doreen McIntyre's opinion, the biggest hurdle was not the disadvantaged smokers, but health and social service professionals who felt reluctant and unable to tackle smoking with their client groups. This was also found to be true in working with the prison service. There is a general unwillingness to tackle tobacco issues, whereas other problems areas such as sexual health and drug use are openly dealt with.

Doreen McIntyre is involved in a pregnancy and smoking research project in Glasgow. The project employs a smoking adviser midwife whose sole interest is in smoking and providing support for cessation to pregnant smokers. Most of the study population are women living in very deprived communities.

Recommendations
Doreen McIntyre believes that empowerment is a key factor in smoking cessation work. Smoking may be the one area in a person's life where they have control, no one else can tell them when and where they can smoke. Giving up may also help a person feel they are taking control of their lives.

Smuggling has a big impact on low income groups. It undermines all efforts at pricing control and use of that route as a means of reducing prevalence.

No Smoking Day
A National Day event that uses the media and public relations to encourage quitting. No Smoking Day (the organisation) works closely with QUIT and points smokers to the Quit lines, pharmacies and new cessation services. No Smoking Day's activity programmes are aimed generally at "smokers who want to stop" but as the smoking population is largely now found among low income groups, the focus of the Day is principally on settings appropriate to those groups, using outlets such as Superdrug and bingo halls and concentrating on tabloid press coverage. The Day's evaluation in recent years shows high levels of awareness and positive response, including quit attempts, among C2DE groups whereas AB groups react more cynically to the Day.

Advisory Notes from Meeting held on November 24th 2000
Strathclyde University

Attendees:
Gerard Hastings
Anne-Marie MacKintosh
Martine Stead
Karen Richardson

Overview
The Centre for Social Marketing and the Centre for Tobacco Control Research at Strathclyde University have conducted qualitative focus group research with smokers and non-smokers in three Glasgow disadvantaged communities. This is part of a larger three year Cancer Research Campaign investigation into the nature of smoking and the barriers to cessation in low income. Further studies continue to be carried out in eight Glasgow disadvantaged communities.

The methods and results of the preliminary study were outlined. The project was particularly focussed on the ways in which smoking might be fostered (and smoking cessation hindered) by living in a community excluded culturally, economically and physically from mainstream society.

The team has assessed what factors influence low-income smokers, e.g. other problems, drug addiction, extreme poverty, strong sense of being part of a community of smokers. The question of why some people in the most disadvantaged communities don't ever start smoking still remains unanswered.

The "states of change" model that the team use as a basis for their work was explained. Discussions took place on why people give up smoking i.e. if there were any particular factors that influenced people – e.g. health, money, children, availability of cessation aids. It seems that the greatest influence was a person's own will power, and reaching the stage in the states of change model when a person truly wants to give up.

Recommendations from the Meeting

The project should include the work of Strathclyde University in its Literature Review. The interim report "It's as if you're locked in" was made available.

Contact Smoking Concerns in Glasgow who are undertaking a project involving free distribution of Zyban and NRT.

It is important to work in local communities with other groups that are concerned with health inequalities. e.g. diet and health promotion, alcohol-related problems.

Ensure that previous studies and reports carried on behalf of the HEA are not excluded from the project.

Advisory Notes from Meeting held on November 23rd 2000

Institute of Child Health

Attendees:
Hilary Graham
Adam Crosier
Karen Richardson

Overview
Hilary Graham felt that much of the work that has been done in terms of systematic reviews has not focused on social class as a key variable. In other words, systematic reviews that have been undertaken have tended to report on interventions that work to reduce smoking: it has been assumed uncritically, that they benefit social groups equally – but this is not certain.

In fact, many interventions known to be effective – i.e. those which conform to inclusion criteria of systematic reviews could well be contributing to the social gradient of inequality – because they benefit better off groups more than the poorest.

It is Hilary Graham's view that the inclusion or exclusion criteria used by systematic reviews mean that they miss many interventions that could work with disadvantaged groups.

Recommendations
Hilary Graham felt that the HDA proposal had defined the right areas for investigation, but she raised concerns about the resourcing – both in terms of time and money. She believes the components were 'spot on' and felt the work of the project is appropriate and necessary and would yield important findings if done properly. But at the same time she was concerned that there is a real danger that with the current resources the project may just repeat what has already been done, or only scratch the surface – or both (not desirable outcomes). The danger is that if this does occur – without evidence of a real commitment from the HDA that 'smoking and inequality' is a major area of concern for the organisation – it will be seen as tokenism by experts in the field – to such an extent that it may prove difficult, particularly at short notice, to get participants to the Conference.

Hilary Graham warned that the project may be risking duplication of what others have done e.g. as part of the EU network of policies and interventions to reduce health inequalities, Steve Platt, Amanda Amos, Odette Parry had undertaken a review of interventions with the potential to reduce the se gradient (chapter on socio/economic gradient and interventions to reduce smoking).

She further suggested being wary to not repeat existing literature review exercises. The review could take on areas of research with potential insights into the socio-economic patterning of smoking which have not yet been systematically incorporated into the evidence base of health promotion/tobacco control policy, e.g. longitudinal research which focuses on socio-economic inequality over the lifecourse. In epidemiological studies, the focus of this lifecourse research is on risk factors for ill health, including smoking; in social policy research, the focus is on social exclusion and smoking status data are sometimes collected.

Hilary Graham feels that there is a clear need for the HDA to invest in a systematic review of the evidence of effectiveness of interventions to reduce smoking – where social class is an explicit concern. Experts with experience and skills in systematic review should carry this out.

Hilary Graham suggested that the mapping exercise should include a few examples of innovative strategies being developed around the country. She also commented that evaluations were lacking – there needs to be a middle way between Cochrane criteria and no criteria to assess whether the interventions are making an impact.

The Secondary Data Analysis to be carried out needs to done thoroughly. Hilary Graham pointed out that there are several large data sets waiting to be analysed. It is important to analyse published research on smoking and class and to identify available data sets that have relevant questions on smoking status and smoking class.
She suggested 3 parallel data analyses: women; minorities; older people.

Hilary Graham supported the idea of consumer research on intervention products and services. But was again concerned at the time and money to be invested. She suggested that it could be linked in to the mapping exercise by following up on the more innovative projects. She was not aware of if any research has been carried out on what consumers in low income groups think about the current range of products and services that are available – the approach has been very top down.

<u>Suggested Contacts:</u>
Antony Glendinning for teenage smoking
James Nazroo for ethnic minority smoking issues
Mark Pettigrew, MRC SPHSU in Glasgow, for systematic reviews
Ken Judge for HAZ evaluation
Barbara Bellis Morecombe Bay HPU
Coventry HPU – where a peer programme of ex-smokers was carried out using the pack developed by Hilary Graham and Clare Blackburn.
Amanda Amos
Anne McNeil : Thorax Ref: Raw, M et al, Smoking Cessation Guidelines and their cost effectiveness, 53 S5, Part 1.

Anne Oakley at the Institute of Education/Campbell database
Patrick West at the MRC SPHSU in Glasgow
ESRC Regard Database

<u>Suggested Data Sets for Analysis</u>
ALSPAC
Southampton Women's Survey
West Midlands Survey
BHPS
S MacIntyre's 20-07 Survey, Young People's Survey (the latter is lead by Patrick West)
S Platt's European Survey – Co-ordinated by Candice Currie at SP's unit, RUHBC

Seminar – suggested invitees:
Researchers with a policy focus.

Regional leads OHN health inequalities
4 nations agencies (HEBS, HPANI, WA)
Some respondents to Mapping Exercise
Some DPHs
Leading experts in the field.

Advisory Notes from Meeting with Martin Jarvis, 31st October 2000
ICRF
Attendees
Martin Jarvis
Karen Richardson
Adam Crosier

Smoking Prevalence
Martin Jarvis has analysed data from General Household Surveys 1988-96 and documented how a whole range of circumstances can independently predict cigarette smoking[65]. His results concluded that the odds of being a smoker are significantly increased in those in lower occupational class groups, those living in rented accommodation, without access to a car, who are unemployed and in crowded accommodation.

Above and beyond this his conclusions also showed a substantial gradient by educational level, and an increased risk in those who are divorced or separated or lone parents.

Martin Jarvis states that the above variables are not an exhaustive list of factors influencing smoking prevalence, and as other work has shown smoking in more common in people suffering from mental illness or who are heavy drinkers or who are homeless. In fact, groups who have an extreme clustering of deprivation indicators, such as prisoners in gaol and homeless people sleeping rough, have been observed to have rates of smoking prevalence of 80-90 per cent[66][67].

Giving Up Smoking
Smoking prevalence can be broken down into who becomes a smoker and who gives up. Evidence has shown that those on lower incomes are less likely to give up smoking.

It may also be that they are more nicotine dependent, due to self-medication and the value given to the effects of the nicotine, e.g. the feeling that it really reduces stress levels. Poorer smokers also tend to start at a younger age.

Children
When carrying out surveys on children it can be difficult to ascertain their socio-economic status. Children may not know the earnings or social grouping of their parents. Issues affecting children smoking can include their background, low self esteem and low academic achievement.

The Economic Effect
Cigarettes are more valuable to those on lower incomes, and therefore the smoker is likely to smoke very intensely, taking a higher nicotine hit from each cigarette.
Lower income people are more likely to smoke roll ups and high yield, discount brands.

Sociological Literature
Martin Jarvis has carried out an analysis with Peto on why those on lower income are drawn to smoking and how smoking contributes to mortality by socio-economic group.

Policy Issues

The greater the success at reducing smoking the wider the health inequalities become. The widening health inequalities gap is almost all due to smoking cessation by the affluent. Death rates among the poorer socio-economic groups have not got worse, but have just improved among the middle classes.

Recommendations

Contact :
Patrick West
Joy Townsend.
Townsend has an econometric analysis, which concludes that those on lower incomes are more sensitive to higher tobacco prices than affluent people. However, this does not comply with other research on the issue.
Amanda Amos
Hilary Graham

He further recommends:

i. "Ten Town Study" by Peter Wincup and Derek Cook. This study follows the lives of children from 4 until they are 15.
ii. A study carried out in Aberdeen by Antony Glendinning. Adolescents – Social Science and Medicine.
iii. 1958 Birth Cohorts – A study of 18,000 children interviewed at ages 16, 23 and 33.

Advisory Notes from Meeting held on November 24th 2000
ASH Scotland

Attendees
Paula Gaunt-Richardson
Karen Richardson

The 3 year project that ASH Scotland and HEBS undertook from April 1996-March 1999 was outlined. The results of the project are detailed in Women, Low Income and Smoking Report: Breaking Down The Barriers.

The project was developed in response to the findings of the Under a Cloud Project (Crossan and Amos, 1994). It adopted a community development approach and sought to work with those at community level to identify support structures and initiatives that would address smoking reduction among women living on low income. Paula Gaunt-Richardson, Linda McKie and Joy Barlow were at the forefront of this work.

The overall budget for the small grants was £37,000. Funds were made available for 19 groups and organisations working in the statutory and voluntary sectors of health, education and social work. Grants of between £500-£3,000 were given to each initiative. A variety of methods were used by the initiatives to provide an opportunity for participants to address their smoking behaviour while developing new skills and interests and raising their confidence and self-esteem.

As a follow up to this work a new project on Tobacco and Inequalities has been developed by ASH Scotland (funded by the Scottish Executive and HEBS). It proposes to build on the conclusions and recommendations from the above. It will also widen the focus of the work to include younger people, older people, family work and men living on low income seeking to develop work that is sustainable beyond the funding of the project. From both projects it is hoped to make a series of recommendations about the development of work at community level and the appropriate methods of evaluation.

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[1] Acheson 1998

[2] Acheson 1998

[3] ONS 2000

[4] Acheson, 1998

[5] UK Smoking Epidemic: Deaths 1995, HEA 1998

[6] Department of Health 1999

[7] Law et al, BMJ 1997; Hackshaw et al BMJ 1997

[8] California EPA 1999

[9] Strachan and Cook, Thorax 1997

[10] WHO 1999

[11] Poswillo and Alberman OUP 1992

[12] Acheson 1998

[13] Townsend 1995

[14] Marsh and McKay 1994

[15] Acheson 1998

[16] Stead et al 2000

[17] Interview with Marsh 2000

[18] HEA 1993

[19] Department of Health 1998

[20] Parrot et al 2000

[22] Jarvis and Wardle 1999

[23] Stead et al 2000

[24] Stead et al 1999

[25] Dorsett and Marsh 1998

[26] Graham 1993

[27] Elkind 1998

[28] Jarvis and Wardle 1999

[29] Shaw et al 1999

[30] Stead et al 2000

[31] Stead et al 2000

[32] RCP 1992

[33] Wakefield et al 1993

[34] Graham 1993

[35] Marshall et al,

[36] LESS 2001

[37] Jarvis 2001

[38] Stead et al 2000

[39] Graham 1993

[40] Jarvis and Wardle 1999

[41] Dorsett and Marsh 1998

[42] Stead et al 2000

[43] Personal Interview Alan Marsh 2000

[44] Marsh and Mattheson 1983

[45] Graham 1993

[46] Personal interview Hastings, Stead and MacKintosh 2000

[47] Acheson 1998

[48] Jarvis 2001

[49] HDA CHD Guidance 2000

[50] Tobacco Policy Unit, Department of Health 2000

[51] Adams, Bauld, Judge, Glasgow University, 2000

[52] Stead et al 2000

[53] Interview with Doreen McIntyre, NSD 2000

[54] NSD Survey 2000

[55] Kay Scott Associates 2001

[56] Owen, Tobacco Control 2000

[57] Reid 1999

[58] TGI October 1999-2000

[59] HDA Media Campaign Analysis, 2000

[60] Prochaska and DiClemente 1983

[61] Amos et al, HEBS 1994

[62] ASH Scotland, HEBS 1999

[63] Personal Interview Paula Gaunt Richardson 2000

[64] QUIT 2001

[65] Social Determinants of Health, Oxford University Press, 1999, Edited by Michael Marmot and Richard G Wilkinson.

[66] Bridgewood and Malbon, 1995, Gill 1996

[67] Melzter, OPCS Psychiatric Morbidity among Homeless People. Use of alcohol, drugs and tobacco.