

Post war smoking policy in the UK and the redefinition of public health.

Virginia Berridge

London School of Hygiene and Tropical Medicine.

Version 22 March 2002. 9816 words.

Introduction

Historical work from the ‘deeper past’ about smoking has been relatively plentiful, and the earlier history of smoking as a cultural habit has been consistently explored¹. But there is still surprisingly little historical analysis of the post World War Two years.² These have been the province of journalism and of political science³, as well as of a growing historical activist strand of work.⁴ This paper will focus on the development of smoking policy in those post war years both as study in contemporary history, and also a story indicative of the dimensions of post war public health policy. Traditions of voluntary regulation in smoking policy, supported by some public health interests, came increasingly into conflict with an emergent militant ‘healthism’ from the 1970’s.⁵ The role of science and of new ‘scientific facts’ was of central policy significance in this struggle: that scientific battleground changed over time. Policy and ‘scientific facts’ were locked into mutually reinforcing relationships.⁶ This paper aims to identify the nature and determinants of the changing science and policy relationships within UK smoking policy. Its purpose, unlike much policy commentary on smoking, is to raise historical questions about policy, to establish the process of historical change in the post war period, rather than to support particular solutions.

There has been a substantial reduction in the proportion of cigarette smokers in the UK population, from 51% of men and 41% of women in 1974 to 28% and 26% respectively in 1998. While prevalence declined steadily throughout the 1970s and ‘80s, it levelled out

during the 1990s. However, figures for the second half of the 1990s showed smoking falling again among both men and women.. A clear class gradient in smoking developed since the 1970s when smoking was a cross class activity. In 1998, men who lived in 'unskilled manual' households were nearly three times as likely as those who lived in professional households to smoke.

Womens' smoking increased in the immediate post war years, but, like that of men, it began to decline from the 1970's. In the early 1970's a higher proportion of men than women at all ages were smokers. Since then prevalence at all ages has fallen faster for men than for women, so there is currently a similar prevalence at all ages for men and for women. Prevalence fell most for those over 50 and least for those under 25. Whereas in the 1970's, smoking was equally prevalent at all ages between 20 and 60 years, with lower rates for under 16s and over 60s, the peak prevalence for both men and women is now 20-24 years, falling progressively with age. The social profile of smoking has also changed - for both men and women - and smoking has become increasingly a lower rather than a cross class activity. This trend has been especially marked for women. About 40% of women in all social classes were smokers in the 1960's. By the early 1990's, only 13% of women in the highest social groups were still smoking, 35% in the lowest. This figure rose to 60% for lone mothers, a figure constant since the 1970's.⁷ Smoking rates in young adults and trends over time show little difference by gender. Martin Jarvis, a leading smoking researcher, has commented '...deprivation and family circumstances are major predictors of smoking, with similar associations to current cigarette smoking in men and in women'.⁸The main cultural change in the post war years has been the increased marginalisation of smoking and its gradual closer association with poorer groups in society, both men and women, although most attention has concentrated on the latter.

Chronology of smoking policy in the United Kingdom.

The periodization assigned to post war smoking policy has been unclear. Most analysts to date have not been writing with historical change in mind. They have been concerned either with ‘heroes and villains’ history ⁹. Or they have been concerned with the operation of networks and theories of policy influence, with static models of analysis ¹⁰. The latter type of work has stressed the operation of rival ‘issue networks’ and ‘producer networks’ in policy. Historical work has dealt with the industry ¹¹ ; that on the post war years has concentrated on the 1950s and the early epidemiological discoveries. ¹²

This paper emphasises rather a longer time scale and a four stage chronology for smoking policy. ¹³ In the first phase, the 1950s and 60s, smoking policy was marked by the cultural normality of smoking and by scientific and governmental uncertainty about the legitimacy of the new epidemiological ‘facts’ about risk. In the second phase in the 1970s, policy began to emerge at the governmental level. This was premised on the reduction of harm and of risk from smoking. It was marked by health education campaigns and voluntary agreements between government and industry, and on the scientific development of ‘safer smoking’, a strategy which also won support in public health circles. But overlapping with this phase came a new activist policy agenda which put the tobacco industry centre stage as ‘the enemy’ and which stressed the role of the media both as an agent of indoctrination, but also as a vehicle of public enlightenment about the risks of smoking. In the 1980’s, my third phase, the science caught up with these new policy agendas and reinforced them : ideas about risk expanded through the concept of passive smoking. In the 1990s came a further phase as the rediscovered concept of ‘addiction’ underpinned both new scientific alliances and a medicalised approach to smoking treatment and prevention policy.

The 1950s; scientific and policy uncertainty.

The story of the ‘discovery’ of the relationship between smoking and lung cancer through the epidemiological researches of Austen Bradford Hill and Richard Doll at the London School of Hygiene and Tropical Medicine has often been told. ¹⁴The key paper was published in the *British Medical Journal* on 30 September 1950. This was a case control study based on 20 London hospitals. Its conclusions were cautious. There was a ‘real association’ between the rise in lung cancer and smoking: the authors concluded that ‘smoking is a factor, and an important factor, in the production of carcinoma of the lung.’¹⁵ Further papers expanded the evidence; the results of a prospective study of British doctors which Doll and Hill started in 1951 continued to inform smoking policy into the 1990s. These conclusions about causation did not go unchallenged. One prominent opponent was the eminent statistician Sir Ronald Fisher, from whose work at Rothamstead agricultural station in the 1920s Hill had derived the original methodology for the randomised controlled trial. Fisher was a eugenicist, whose framework was the dominant hereditarian and genetic paradigm of British statistics of that time. Other scientists also took up this issue, concentrating on the interpretation of the effects of inhalation and of giving up smoking. ¹⁶

The Doll/Hill work established or refined new technical developments - large population based surveys, case control and prospective studies. The concept of ‘relative risk’ was first introduced in the smoking and lung cancer work, replacing an earlier emphasis on the importance of childhood in adult disease by one on risk factors for specific disease. The importance of this shift of scientific gaze has been underlined by historians of the American smoking story. Both Allan Brandt and John Burnham have argued that the developments marked major changes in the relationships between epidemiology and laboratory science.¹⁷ Changing patterns of disease, the move from infectious to chronic disease in the post war

years, led to a search for different models of causality and different techniques and styles of work

The establishment of this new epidemiological risk focussed way of explaining disease was a gradual process of what can be seen as ‘scientific claims building’¹⁸ It did not automatically lead to translation into policy. Other authors, Webster most notably, have traced the process of interaction between the Ministry of Health and its advisory committees in the 1950s, and also within the Medical Research Council, culminating in the MRC’s Special Report in 1957 accepting the causal link. This was followed by a statement in the House of Commons shortly afterwards expressing support for the conclusions. The sequence of events has been criticised for delay and prevarication and for a weak policy response when it came.¹⁹ A Ministry of Health circular encouraged local authorities to develop health education on the risks of smoking. This response has been ascribed to the smoking habits of key politicians and scientific advisors. The tobacco companies funded research at arms length through the Medical Research Council and tobacco tax was an important part of government revenue, 16% of central revenue in 1950.²⁰ Ian Macleod as Minister of Health remarked in 1956, ‘We all know that the Welfare State and much else is based on tobacco smoking’.²¹

This is one side of the picture. Other factors inhibiting action were also of importance. Politicians and civil servants were, like scientists, uncertain about the legitimacy of the epidemiological evidence. Sir John Charles, the Chief Medical Officer, commented, ‘...what I was looking for was evidence apart from the analogous or purely statistical. As far as I am aware, there is no **purely** pathological evidence of this long incubation period in lung cancer.’²² What kind of scientific proof was this? It did not offer the certainty of

laboratory evidence. There was suspicion of the possible temperance connections of Ernest Wynder, one of the American researchers whose work had paralleled that of Hill and Doll. 'He is a young man ' far gone in enthusiasm' for the causal relationship between tobacco smoking and lung cancer. (I had been told when I was in New York this spring that he was the son of a revivalist preacher and had inherited his father's antipathy to tobacco and alcohol. The American Cancer Society was very suspicious of his early work for this reason)²³ The politically sensitive public health issue in the 1950s was clean air and coal pollution, not smoking, as the governmental and Medical Research Council (MRC) debates make clear. The statement in the first draft of the MRC's 1957 statement that 30% or more of lung cancer deaths were due to air pollution was modified to read ' on balance it seems likely that atmospheric pollution plays some part in causing the disease, but a relatively minor one in comparison with cigarette smoking' ²⁴ Cigarettes were more politically acceptable than air pollution.

But smoking was a difficult issue in terms of policy making. It did not ' fit' with what was traditionally considered appropriate as public health intervention. Much public health concern had been for the containment of epidemics of infectious, not chronic, disease. Health advice about individual behaviour modification, where it was given, had usually been aimed at women and children rather than at men: yet the latter section of the population formed the majority of smokers in the 1950s. This, to civil servants, was another factor militating against taking up the issue.²⁵ Taking up smoking as a public health issue also had implications for the nature and funding of health education which were unwelcome to central government. The pre war and wartime connotations of 'propaganda' made policy makers very wary of intervening in matters of individual habit and preference to prescribe preferred patterns of behaviour. Health advice of the time was notable for

‘stating the facts’ about smoking and leaving individuals to make up their own minds.²⁶ Central government had recently divested itself of the responsibility for health education, held centrally during the war. It was again a local government responsibility in the 1950s, funded out of local rates. The Treasury was not anxious to resume central control and to mount a central campaign on smoking. After the Ministerial statement in 1957, health and local education authorities and the Central Council for Health Education (for which funding was devolved to the local authorities) were asked to give prominence to the connection between smoking and lung cancer in their activities. There was some resistance to widespread action in part because of the nature of the evidence and the progress of ‘disease’. As a Ministry civil servant pointed out, good publicity in an immunisation campaign had produced results within a few months; but publicity on lung cancer and smoking might show results only thirty or forty years hence.²⁷

The medical profession played a crucial role in defining the policy acceptability of this new epidemiological way of seeing. The 1962 Royal College of Physicians’ report *Smoking and Health* conveyed the epidemiological case in a vivid way into both the public and the policy domains. The College’s committee, originally on smoking **and** air pollution, began work in 1959. Its work was significant in a number of ways. Although its original focus was on educating doctors, the publicity given to the published report also brought the issue into the public domain and to the attention of policy makers. It also very clearly dropped any environmental association with the rise in lung cancer deaths. Individuals, its minutes record, could avoid the dangers of smoking, but not those of pollution. Air pollution, for the MRC as well, was a much bigger political issue. The committee was moving clearly towards a less politically contentious concept of health focussed more centrally on individual responsibility.²⁸

The response to the report within government was muted, focussing primarily on health education, a strategy which Enoch Powell, as Minister of Health, had recognised as ineffective in a 1961 minute.²⁹ The multiplicity of conflicting interests within government was clearly a factor. Treasury opposition to differential taxation ultimately prevailed, although not until the issue had been fully aired at the political level. This was not a foregone conclusion as the Cabinet committee discussions indicate.³⁰ The role of the industry was important, although its representatives were called in after the political decisions had been taken. Also behind these decisions lay a desire to achieve a balance in policy and a realisation that, without a huge change in the ‘social positioning’ of smoking, there was little point in initiating a major programme of change. The response of Cabinet secretary Norman Brook to the Cabinet committee’s suggestion of ‘trend setting’ and that non smoking should be given a social cachet was one of astonishment.. ‘Does this mean that Prime Ministers should not smoke-or at least should not be seen smoking in public?’ he wrote incredulously.³¹

The primary policy impetus was therefore the role of health education, and, increasingly, the regulation of public visibility through consideration of advertising control. The 1962 RCP Report had mentioned restriction of advertising. However, the importance accorded to ending or restricting advertising as a symbolic aim increased over time and became a central plank of the public health case in the 1970’s. In 1962, after the publication of the RCP Report, the Tobacco Advisory Committee, subsequently Council and later the Tobacco Manufacturers’ Association, agreed to implement a code of advertising practice which was intended to take some of the glamour out of cigarette advertisements. The code was based on the former ITA (Independent Television Authority) code governing cigarette

advertisements on TV. In the following year, 1965, after the publication of the 1964 US Surgeon General's report on smoking, the government used the powers vested in it under the terms of the 1964 Television Act to ban cigarette advertisements on television. The Labour Minister of Health, Kenneth Robinson, announced in 1967 the government's intention to introduce legislation in due course to take powers to ban cigarette coupon schemes, to control or ban other promotional schemes and limit other forms of advertising.

Robinson's desire to go further was however defeated by the opposition of Richard Crossman, who was overall Minister at the Department of Health and Social Security. When Robinson presented a draft bill to outlaw cigarette coupons to the Cabinet Home Affairs committee in July 1968, Crossman's reaction was brusque.

'I... simply blurted out that this was another of those Bills which we simply couldn't afford to pass when we were running up to an election because bans of this sort made us intensely unpopular, particularly with children and families. If you're going to deal with the cigarette - smoking problem you should not try this kind of frivolous but intensely unpopular method. There was a tremendously violent reaction with everyone saying that here we must stand on moral principle. I heard it from Eirene White, Dick Taverne, and Edmund Dell, representing the Board of Trade which has switched its Junior Ministers round, and, indeed, I only had two or three people on my side. However, I'm still just powerful enough to hold the thing up and finally I suggested that instead of forbidding coupons we should ration the amount of money to be spent on advertising and leave it to the cigarette manufacturers to decide how they should spend their money. I found this infinitely preferable. Harmony achieved.'³²

The episode underlined the dominance of electoral rather than 'industry influence' considerations in policy strategies. Crossman's opposition was founded on a longstanding

belief in the importance of smoking as a working class habit which had to be approached carefully for electoral reasons. His opponents included Dell, a Minister at the Board of Trade, who might have been expected to have industry interests more at heart but did not in this instance take a pro industry line. The only formal legal restrictions in existence were those on sales to children which dated from the turn of the nineteenth and twentieth centuries and the fears at that time of national degeneracy in the wake of Britain's defeat in the Boer War, modified again in the 1930s.³³

The reference to the turn of the century is relevant, because here, in the 1950s and 60s, we can see public health 'on the cusp', moving away from the mass campaign, service focussed public health ethos of the interwar years towards a new type of 'healthism' epitomised by the concern about smoking. This was the harbinger of the lifestyle public health of the 1970s. In the 1950s and early 60s the concern was that government should not assume too lightly the responsibility for advising the general public on their personal tastes and habits. It was up to individuals, as good citizens, to modify these if they thought fit. Meanwhile, both government, and public health interests, adhered to an agenda of reduction of risk.

The 1970's; Contested public health strategies. Activism ,risk reduction and voluntary agreements.

The 1970s saw significant changes in this stance, with the establishment of contested public health strategies. The publication of the second RCP report *Smoking and Health Now in* 1971 led to further action. This government action was founded on the concept of voluntary regulation, of informal, non statutory agreements between government and industry which became the norm in British smoking policy. These concentrated in three

areas; advertising and sports sponsorship; health warnings on packets; and product modification, the latter also connected with the possible regulation of tobacco and tobacco products or substitutes as pharmaceuticals. Overall, policy was founded on the concept of reduction of risk, or limitation of harm .But there was also a dividing of the ways in the 1970s. A new lifestyle oriented public health cohered initially round the smoking issue .This followed a policy line which stressed abstention rather than risk reduction and non cooperation with industry through a highly charged media campaign..

The regulation of these issues through voluntary agreement dated from 1971 when Sir Keith Joseph was Secretary of State for Health. Joseph initiated a cross government study of smoking policy and its economic consequences, which was never officially published, and whose contents were only summarised in a *Guardian* article some nine years later³⁴.The report concluded that either a twenty or a forty percent reduction in smoking would lead to a significant increase in the retired population. Small savings in health expenditure over twenty years would in due course be more than offset by increases in social security payments. But the main economic effects would be in revenue balance of payments and demand management fields. Consumer demand would rise if tobacco consumption fell . Britain's balance of payments would deteriorate by £50m over a five year period if consumption dropped by 20%. The effects of increased taxation of cigarettes on consumption was unpredictable. Britain's impending entry into the EEC in any case made taxation a difficult option because duty was already at a higher level than in many European countries.³⁵Joseph had initially planned an anti-smoking Bill, but scaled down his demands because of only moderate backing from colleagues .³⁶

The first voluntary agreement between the tobacco industry and government in April 1971 stated that all cigarette packs for sale in the UK should carry the words 'Warning by HM

Government: Smoking can damage your health'. All press and posters ads were to carry the reference 'Every pack carries a government health warning' and the industry agreed to establish a scientific liaison committee consisting of industry and DHSS (Department of Health and Social Security) nominated scientists to explore less dangerous forms of smoking and to devise a way of measuring tar and nicotine levels. The joint committee was replaced in 1973 by the Independent Scientific Committee on Smoking and Health (ISCSH). This was composed of public health and other scientists and advised both the government and the tobacco industry on the issue of the development of tobacco substitutes and of developing a 'lower risk' cigarette. The ISCSH produced two reports in the 1970's on these topics. Tar and nicotine tables were produced during the 1970s and their inclusion on packets formed part of later voluntary agreements.

The relationship with the industry was close. Comment since has focussed on the role of Dr R. B. Hunter, chair of the ISCSH throughout the 1970s and the committee secretary, Dr. Andrew Nelmes, who subsequently accepted jobs with the tobacco industry.³⁷ But the context within which the committee operated has received little attention. The parallels were with drug safety and regulation where cooperation with the industry was the norm. The ISCSH's activities paralleled those of the Committee on the Safety of Medicines, (CSM) which was also establishing a voluntary relationship with industry in these years in the interests of product safety.³⁸ The committee's focus was thus on safety rather than risk. Hunter and Frank Fairweather, chief scientific adviser to the committee, both had connections with the CSM. Smoking was located in the food and drug safety area of the Department of Health and Social Security in terms of policy responsibility.³⁹

Negotiation over the location and form of regulation was what also lay behind the other

main policy initiative of the 1970s - the attempt by Dr David Owen as Labour Minister of Health in the mid 1970s to bring tobacco products under the licensing provisions of the 1968 Medicines Act. Control and monitoring would have been vested in the ICSH which would have taken on a more extensive statutory role. However, Owen's departure from the DHSS saw these initiatives peter out under his successors. There was also legal opposition from one tobacco company.⁴⁰ A few years later, the issue of tobacco substitutes became an academic one; tobacco substitutes such as Cytrel and new Smoking Material proved resounding commercial failures. Apart from their commercial viability, they were the subject of a barrage of opposition from public health researchers and health education interests.⁴¹

Risk reduction had initially been supported by anti smoking forces. Safer smoking had been one aim of the anti smoking campaigners in the 1960s and into the 70s. Changing to pipes and cigars, as safer forms of smoking, was included in both the 1962 and 1971 RCP reports.⁴² When ASH (Action on Smoking and Health) was set up in 1971 as an anti smoking pressure group, those who worried about joining the new committee because they were smokers, were told that it was cigarettes rather than smoking per se with pipes and cigars, which was the main concern.⁴³ This 'hierarchy of objectives' paralleled the early nineteenth century temperance movement, which aimed to eradicate spirit consumption rather than stopping drinking overall. During the 1970s, this harm reduction objective became much less important and abstinence emerged as the major aim, with the tobacco industry as the enemy rather than collaborator in a shared agenda.⁴⁴

The roots of this significant change of public health stance were complex. New players entered the smoking policy arena and these had a significant impact on policy aims. The

foundation in 1971 of ASH as a pressure group modelled on the US Inter Agency Council, provided one impetus for change. ASH was a new style of health pressure group. It was primarily government funded: civil servants had previously pointed out that the impetus to introduce anti-smoking measures would be stronger if there was a voluntary movement pressing government from outside to take action.⁴⁵ ASH was a London centred organisation with few members; its major focus, in particular under the professional activist Mike Daube, its Director from 1973 onward, was on media publicity and hostility to the tobacco industry.⁴⁶ Although ASH cooperated in Owen's strategy for tobacco product licensing, increasingly, by the end of the decade, it felt the Labour government strategy had achieved little.⁴⁷

By the end of the 1970s a new style of public health was emergent both nationally within the UK and internationally as well. This stressed the role of individual prevention and responsibility for health, with its roots in the earlier 1950s epidemiological 'paradigm shift' epitomised by smoking and lung cancer. The concept of the 'risk avoiding individual' replaced the mass vaccination campaign image of 1950s public health. In the latter years of the 1970s a series of government prevention documents in the UK gave authority to these concepts. Smoking was a central issue and epitomised the new developments.⁴⁸

Based in this view a distinctive public health alliance developed round smoking, based initially on ASH and the Health Education Council (HEC), which had replaced the old Central Council in 1968.⁴⁹ It was deeply opposed to safer smoking. In one of its advertisements, the HEC portrayed safer smoking as being like jumping off the 36th rather than the 39th floor of a tall building. Dr Donald Ball, a public health member of the ISCSH, published a dissenting memorandum to its second report in 1979 which urged a different policy line. 'The only adequate response to the tobacco disease problem is preventative;

this requires measures which stop people smoking or prevent them starting.’⁵⁰ Public health researchers quoted science back at the committee and its conclusions. Martin Jarvis and Michael Russell of the Institute of Psychiatry pointed out that people smoked to maintain their nicotine levels, so that low tar/low nicotine cigarettes might actually cause more harm rather than less through ‘compensatory smoking’.⁵¹

So by the end of the 1970s, there were distinct policy positions. The ‘new public health’ lobby pressed for more stringent action, developing an agenda based on fiscal measures and the role of the media, both in terms of advertising control, and the use of the mass media for health campaigns. But product safety and voluntary regulation were the shared objectives of industry and government. These developments have been characterised from the political science perspective as rival ‘producer’ (industry/government) and ‘issue’ (public health activist) networks.⁵² However the situation was more complex—for public health and medical specialists were also involved on the product modification side through membership of ISCSH.⁵³

1980s; Environment and the individual : passive smoking and rupture with the industry.

The election of a Conservative government in 1979 led to a hardening of stance on all sides. Initially the signs of anti smoking interest in the new government were promising. The Secretary of State, Patrick Jenkin and his Under Secretary, Sir George Young, a keen anti smoker and member of the Commons All Party Group on Smoking (with the Conservative M.P. Lynda Chalker) used the threat of legislative action against advertising as part of the negotiations around a new voluntary agreement. There was no reason why Conservative MPs should not take up the issue. Numerous private members’ bills had been

introduced over the years by MPs from both parties. In the 1960s, both Sir Gerald Nabarro, a Conservative, and Labour MPs Laurie Pavitt and Dr. John Dunwoody had introduced bills, all of which were unsuccessful. However, commitment to beliefs in the freedom of the individual and the primacy of market forces tended to be held more widely in the Conservative than in the Labour party. But anti smoking sentiment in the Department of Health was soon defused. Both Jenkin and Young were moved to appointments elsewhere in Mrs Thatcher's reshuffle of September 1981. The possibility of legislation was lost and the one remaining Minister, Gerard Vaughan, was later replaced by Kenneth Clarke, a Nottingham M.P. with constituency interests in tobacco.⁵⁴ Mike Daube was later prevented from moving from ASH to a post at the Health Education Council. A leaked civil servant memo said that his appointment would have been a disaster.

This political change arguably placed the public health alliance in a policy *cul de sac*. Members played no part in the main agenda of government which focussed on the negotiation of voluntary agreements. Government, in its involvement in the establishment of the tobacco industry funded Health Promotion Research Trust in the early 1980s, (which funded health research which mostly did not deal with smoking) seemed almost deliberately to be ignoring its concerns. And the risk of smoking was, after all, voluntary.

That position was overturned in 1981, when papers by Hirayama and others in the *British Medical Journal* showed that the non smoking wives of smoking men had a higher risk of lung cancer.⁵⁵ A steady stream of evidence appeared to support this case. In the United States, the Surgeon General's report of 1986 accepted the health consequences of what it termed 'involuntary smoking' and a National Academy report of the same year assessed and measured its health effects. In Britain, the government accepted an Interim Statement

on the subject from the ICSH (under the chairmanship of Sir Peter Froggatt) in March 1987. In March 1988, the committee produced its fourth and last report. In a section on exposure to environmental tobacco smoke (ETS), the committee accepted a small increase in the risk of lung cancer for non smokers from exposure to ETS. Despite the uncertainties about quantifying risk which were attendant on this new ‘scientific fact’, the strategic significance of the concept was considerable.⁵⁶ As Froggatt later commented, ‘The argument that smokers poison only themselves (or their unborn children) can no longer be convincingly sustained. The conceptual framework within which government, industry and the profession have worked, is fundamentally changed.’⁵⁷

As analyses of these events in both the UK and the US have commented, smoking control moved from being a matter of individual free will and the regulation of self control to a potential harm to the whole community and a threat to ‘innocent victims’.⁵⁸ The smoker was an individual who harmed both him/her self and the environment and community at large. This shift in perception was congruent with changes in the ‘new public health’ which took on an environmental dimension in addition to the 1970’s focus on individual lifestyle.⁵⁹ This was a ‘scientific fact waiting to emerge’, an illustration of the interpenetration between scientific ‘fact creation’ and policy : for ASH and other anti tobacco organisations had already begun to argue for this policy position in the second half of the 1970’s. The arguments then tended to be on the basis of ‘rights’, and can be seen as a development of arguments put forward by an earlier interwar anti smoking organisation, the National Society of Non Smokers’ (NSNS) which had argued against the ‘nuisance’ aspects of smoking and the selfishness of smokers in inflicting their habit on others.⁶⁰ The changes of the early 1980’s gave this position the authority of science, changing a moral issue into a technical scientific one although with continuing moral overtones.

The ‘fact’ of passive smoking was, and has continued to be, the subject of debate. Some emanated from tobacco industry related organisations.⁶¹ The scientific data on passive smoking were critically reviewed by the tobacco industry funded statistician Peter Lee.⁶² But the data were also regarded with some disfavour by anti tobacco researchers. Richard Peto, a leading epidemiologist, pointed out that smoking tobacco was still the greatest risk to the individual smoker.⁶³ In 1998, the expert committee which had replaced the ISCSH, the Scientific Committee on Smoking and Health (SCOTH) published a further report on passive smoking which used meta-analysis, (a scientific compilation of the results of many different studies) to reaffirm its status as a scientific fact. It linked ETS (environmental tobacco smoke) to lung cancer, heart disease, SIDS, (sudden infant death syndrome) asthma and middle ear disease in children. The committee recommended that smoking in public places should be restricted among its other recommendations.⁶⁴

What was the overall impact of passive smoking as a scientific fact? It certainly symbolised a final rupture with the tobacco industry. ‘They (the industry) wouldn’t cooperate with me now. Passive smoking was the big watershed’ said one epidemiologist in an interview.⁶⁵ It coincided with an increasingly overt hostility to the industry on the part of public health researchers.⁶⁶ Nevertheless the voluntary traditions of policy remained strong and Britain deliberately avoided the route of legal regulation with much less emphasis also on law cases against tobacco companies. The particular issues it heightened were those of public visibility and regulation of public and workplace space.⁶⁷ But it also threw into sharp relief the tension within policy about what strategies were to be followed.

On the one hand, the dominant voluntary traditions of governmental policy making continued. As well as the more public agreements on advertising and sports sponsorship,

cooperation between government and industry in the field of research also continued, with the involvement of leading researchers. The ISCSH committee worked, at arms length, with industry through the Tobacco Products Research Trust, set up with money from the industry under the terms of the 1980 and 1984 voluntary agreements.⁶⁸ The programme produced significant work on the role of nicotine, concluding that the toxicity of cigarettes might be reduced more if nicotine levels were reduced less than those for tar.⁶⁹ This continued the risk reduction strand within policy making.

Passive smoking also underpinned a harsher stance and the formation of new anti tobacco alliances. The developing role of the BMA (British Medical Association) was one example. The organisation was reconstructing its rather fusty and doctor focussed image in the 1980s by involvement in public health issues (AIDS was another example). It took up the smoking issue in 1984. Here, like the HEC and ASH, with whom it worked closely, the BMA took a high profile media conscious stance, opposing any notion of risk reduction. This absolutist position was demonstrated in 1985 in the furore over Skoal Bandits, sachets of sucking tobacco. These were made illegal by government in 1989 when regulations were introduced under section 11 of the Consumer Protection Act after a campaign led by ASH Scotland.⁷⁰ This rare example of legal restriction was, significantly, of a product aimed at children. In the 1990s, the anti tobacco forces, looking to the US, also turned their attention to litigation, although with notably small success.

One anti smoking strategy was shared between government and anti tobacco forces. This was the important role for taxation as a tool of smoking control. Here again the 1970s had been the crucial decade for a change of policy. The taxation of cigarettes was a declining proportion of central government revenue, but it was to become a central plank of anti

tobacco strategy. In 1950, tobacco tax formed 16 % of central revenue. This figure was 8% by the late 1960s, a figure which had fallen to 4% by 1987 and was 3.6% in 1996.⁷¹ The role of taxation figured in the first two RCP Reports on Smoking, but the emphasis was on differential taxation, imposed to discourage more hazardous forms of smoking. This was in line with the general emphasis at this time on ‘harm reduction’ in smoking policy. As the 1970’s progressed, an argument on taxation became an important plank of the anti tobacco case. Taxation became seen as a tool of potential abstention from smoking rather than one for reducing harm. The Commons Expenditure committee argued in 1977 for increased taxation and this was taken up in the subsequent White Paper. As Daube, then Director of ASH, and otherwise critical of the government’s anti smoking record, commented, ‘cigarette taxation is the one area in which the Labour administration can be fairly proud of its record’⁷² Chancellor of the Exchequer Dennis Healey introduced regular annual increases in tax from 1974 to 1977 and in 1978 introduced a supplementary tar tax on cigarettes.

This reliance on tax as a tool in smoking policy was a significant reversal of earlier post war political attitudes, which had stressed the potential disbenefit to poor, and to old smokers, from high tobacco taxes. Health economists were beginning to have influence in health policy discussions in the 70s: Joy Townsend, then Chief Research Officer at the University of Essex Department of Economics, argued strongly for increased taxation. Her argument was that taxation would advantage rather than disadvantage working class smokers. The low price elasticity of demand for cigarettes would mean that if their price was raised consumers would buy fewer of them and spend more. The end result would be a greater proportionate reduction in the cost of living for poor families.⁷³ Smoking was a ‘waste of working class life’ and policies involving taxation could help prevent this. High

prices would stop working class consumers from smoking. By the 1990's, however, the growing class differential in smoking brought realisation that tobacco price and taxation had different effects on different socio-economic groups. This was highlighted by the 1994 Marsh and MacKay report, *Poor Smokers*, from the Policy Studies Institute⁷⁴. The policy dilemma was that tobacco taxes were indeed reducing smoking, but they had had little or no effect on those who smoked most and could least afford it - the poorest families, whose smoking rates had remained high. Tobacco taxation had therefore been a means of amplifying rather than reducing disadvantage. This was a difficult issue to air publicly in the mid 1990's because of implications for discussion of social security payments.⁷⁵ The initial media discussions can be seen as part of the reviving policy interest in inequalities (or variations) in health.

1990s; addiction and a medicalised public health

Passive smoking had symbolised a ' new environmentalism' within public health as a whole, moving away from the the single focus on individual responsibility of the 1970s. But this was ' environmental individualism' ,the role of the individual in the domestic or work environment. The 1990s saw a further reorientation of anti tobacco forces and also of public health interests in government. The lifestyle agenda of 1970s public health, already modified by the environmental individualism of the passive smoking case, took a new turn.. A more medicalised public health was the result, based on the 'rediscovery of addiction'. The notion of ' involuntary smoking' first developed through passive smoking in the early 1980s, was modified. The lack of volition was now on the part of the individual smoker.

The concept of dependence or addiction (the two were distinct historically) had not been absent in the smoking field in the post war period, or before then, but had not had any

particular policy significance. In earlier times, the idea of the cigarette as ‘enslaving’ had been part of general discourse. The concept of enslavement had however not been in tune with the key public health emphasis since the 1970s on self determination and individual responsibility. But addiction did become a central public health concept in the 1990s. Epidemiology was forming new scientific alliances as its own ability to provide explanation came under increasing attack; these new relationships between different scientific arenas had already been demonstrated in the development of the scientific case for passive smoking where the discovery of ‘markers’ for smoke intake had helped strengthen the case.⁷⁶ For addiction, the evidence came from the field of psychopharmacology, the effects of drugs on the mind and brain , a scientific arena which had been largely separate from public health epidemiology in previous decades. Smoking researchers accepted the inequality arguments in relation to the impact of tobacco taxation, but argued that the root cause was dependence or addiction and that therefore ‘treatment’ was needed. The medical ‘magic bullet’ was nicotine replacement therapy (NRT), free to those on low incomes. This policy strategy paralleled the provision of methadone to drug addicts, another medical public health strategy which had attained increased priority in the wake of AIDS.

The prescribing history of NRT had been tortuous. It moved from a ‘quack’ remedy to one ‘owned’ by psychologists in the 1970s and 80s. In the 1990s and 2000s in the Labour government’s policy documents – the smoking White paper, the NHS National Plan of 2001 - it emerged as a central response to the issue of teenage mothers and their smoking habits. NRT was provided both within primary care and over the counter (OTC). The addiction NRT policy thus linked key planks of government health policy, inequalities and teenage pregnancy ,the focus on primary care. The RCP gave its authority to this

rediscovered ‘scientific fact’ through its report on *Nicotine Addiction* published in 2000. Its cover showed a woman avidly drawing on a cigarette.⁷⁷ Anti smoking interests, which had been hostile to the idea of risk reduction since the 1970s, reconsidered it. The idea of a Nicotine Regulatory Authority was floated in policy documents, including the House of Commons Health Committee report on *The tobacco industry and the health risks of smoking*, published in 2000.⁷⁸ The public health risk reduction agenda of the 1970s was to some degree reinstated, but through a medicalised policy thrust. This was symbolic of a new ‘pharmaceutical public health’ emergent in the 90s, in which curative intervention and treatment technology were classified as prevention- as a public health activity.⁷⁹

Conclusion; themes and agendas.

The particular case study of smoking throws light on the nature of British health policy making in the post war years. It has been the argument of this paper that neither the political science ‘insider/ outsider’ models nor the journalist ‘heroes and villains’ arguments do justice to the complexity of interactions within this area of policy. From the 1970s, smoking policy agendas bifurcated, with strands which aimed at reduction of risk; and elimination of it. The influence of doctors, epidemiologists and other scientists was of continuing importance, in some cases working across what were often presented as deep divides within policy. Public health interests and scientists were involved in these government committees, some of which also linked to industry. The voluntary regulation traditions of policy making for smoking were shared with areas seen within government as related, in particular medicines control, where cooperation with industry was also the norm. The expert committee was a key site of interchange between science and policy in the British smoking story - both in the RCP committees outside government, and in the role of the ISCSH and its successor SCOTH (Scientific Committee on Smoking and Health) This

distinctive British configuration deserves to be stressed, if only because the US history, operating from the start within a more legalistic tradition, is often seen as the universal historical model.

Science and the role of scientific facts was a crucial animating force. Smoking policy in its changes of emphasis, was emblematic of the reconfiguration of post World War Two public health and its scientific orthodoxies. Smoking was the major issue which marked the redefinition of public health around lifestyle issues. The 'new public health' policy programme' focussed on fiscal (taxation) and media strategies (advertising bans and mass media campaigns) with a new and distinctive role for 'health activist' groups like ASH with a strongly anti industry stance. This was a model of public health activism which was replicated in other areas, for example diet and heart disease. Epidemiology became the public health science - but redefinitions in public health in the 1980's and '90's - towards greater environmental and biomedical emphases - were reflected in new scientific alliances and new concepts like passive smoking and addiction. It has been the argument of this paper that these scientific facts and policy positions were constitutive of each other. Policy objectives and agendas defined what was legitimate and illegitimate science as well as the other way round. In the 1990s industry, but this time the pharmaceutical industry, became an ally rather than an opponent of control because of the pharmaceutical remedies available. The 1970s hostility to the tobacco industry was heightened as this alternative industrial alliance was cemented. Policy was also a matter of central/ local relationships as the issues of workplace regulation and of the impact of Scotland on policy development indicate.⁸⁰ Increasingly, the European and international dimensions of policy making came to the fore. Smoking policy, in particular anti smoking derived legitimacy through the dissemination of transnational models of policy making.⁸¹

Policy making and the agendas of activists, of industry and of politicians also interacted with the more intangible processes of cultural change, the relative marginalisation of tobacco and its 'de-normalisation' in the post war years. The cultural context of smoking changed. Anecdotal evidence confirms that picture. Smoking was culturally destabilised, no longer an activity for polite society. The public health researcher Walter Holland remembered how Bradford Hill, long after the initial smoking and lung cancer research was published, would keep a full cigarette box in his room at the London School of Hygiene and Tropical Medicine ready to offer to visitors. Eventually he asked Hill why he continued to do this, given his own research conclusions. Hill was horrified. 'But it would be ill mannered not to offer visitors a cigarette'⁸². Gladwell's discussion of cultural 'tipping points' is relevant here to the interaction between culture and formal regulation, part of a complex historical process which marginalised smoking in post war Britain⁸³. Along with that cultural redefinition of tobacco have gone various attempts to recategorise and redefine it as a substance. Are tobacco and its active principle nicotine to be termed medicine, substance, or 'drug'? Tobacco was a 'borderline substance' (a term used within government regulation) and this definition has both reflected and contributed to the nature of the policy response. Assessing the impact of that policy response is a further complexity.

The case of smoking policy thus contributes to a wider history of post war policy making in public health. Its developing historiography also indicates an important role for contemporary health history and its practitioners. Archives and historical data have begun to play an important role in anti tobacco activism in recent years. This usage presents some of the problems of writing history 'through the wrong end of the telescope'. Time specific and contingent analysis is absent; and models of positivist scientific discovery

predominate.⁸⁴ This is reminiscent of the difficulties of ‘amateur’ and ‘professional’ history ,much discussed among nascent social historians of medicine. At such a stage in the current health policy historiography ,it is important that contemporary historians join in.

¹ R.B.Walker, ‘Medical aspects of tobacco smoking and the anti- tobacco movement in Britain in the nineteenth century’ *Medical History* 24 (1980),391-402 ; Jordan Goodman, *Tobacco in History . The Cultures of Dependence.* (London ,1993).

² Matthew Hilton . *Smoking in British popular culture,1800-2000* (Manchester,2000); Charles Webster, ‘Tobacco smoking addiction : a challenge to the National Health Service’ *.British Journal of Addiction*,79(1)(1984),8-16 ; Charles Webster.*The Health Services since the war. Volume I. Problems of Health Care. The National Health Service before 1957.*(London ,1988); Charles Webster , *The Health Services since the war. Volume II .Government and Health Care. The British National Health Service 1958-1979.* (London ,1996).

³ Peter Taylor, *Smoke Ring. The Politics of Tobacco.* (London,1984);M.Read, *.The Politics of Tobacco.* (Aldershot,1996)

⁴ David Pollock,*Denial and Delay .The Political History of Smoking and Health, 1951-1964:Scientists, Government and Industry as seen in the papers in the Public Records Office.* (London,1999).

⁵ A term also used by Ian Tyrrell in his study of Australian smoking policy. *Deadly Enemies.Tobacco and its opponents in Australia.* (Sydney,1999)

⁶ Sheila Jasanoff, in particular, has talked of the ‘ co-production’ of knowledge between government agencies and scientists. Sheila Jasanoff, *The Fifth Branch ; Science Advisers as Policy Makers.* (Cambridge,Mass.,1990)

⁷ Nicholas Wald and A. Nicolaidis-Bouman. *U.K.Smoking Statistics. Second edition.* (Oxford,1991)

⁸ Martin Jarvis,. ‘Cigarette smoking in young adults : are women overtaking men?’ Unpublished paper,1999.

⁹ Taylor,*Smoke Ring* , 1984

¹⁰ Read,*Politics*, 1996.

¹¹ B.W.E. Alford, W.D. and H.O.Wills and the development of the U.K. tobacco industry,1786-1965. (London,1973). Howard Cox, *The Global Cigarette : origins and evolution of British American Tobacco,1880-1945.* (Oxford, 2000).

¹² Hilton, *Smoking*, 2000; Webster, ‘Tobacco smoking addiction’,1984 ; Paolo Palladino

‘Discourses of Smoking, Health, and the Just Society :Yesterday, Today, and the return of the Same?’ *Social History of Medicine* 14 (2) (2001),313-35.

¹³ It should be noted that, because of this longer time scale, the paper does not attempt an in depth study of each of those periods.

¹⁴ Richard Doll ‘ Journal interview 29. Conversation with Sir Richard Doll.’ *British Journal of Addiction* 86 (1991),365 –77. Richard Doll , ‘The First Reports on Smoking and Lung Cancer’ pp.130-142. In Eds.Stephen Lock, Lois Reynolds and Tilli Tansey,*Ashes to Ashes : The History of Smoking and Health.* (Amsterdam,1998)

- ¹⁵ Richard Doll and Austin Bradford Hill, 'Smoking and Carcinoma of the Lung. Preliminary Report' *British Medical Journal*, 2(1950), 739-48.
- ¹⁶ Ronald Fisher, 'Dangers of Cigarette Smoking', *British Medical Journal*, 2 (1957), 297-8; *idem.*, 'Lung Cancer and Cigarettes?' *Nature*, 182 (1958), 108; *idem* 'Cancer and Smoking' *Nature*, 182 (1958), 596. See also Christopher Booth, 'Clinical Research', in eds. William Bynum and Roy Porter, *Companion Encyclopaedia of the History of Medicine .Volume 1.* (London, 1993).
- ¹⁷ Allan Brandt, 'The cigarette, risk and American culture'. *Daedalus*, 119 (4) (1990), 155-76; John Burnham, 'American Physicians and Tobacco Use :Two Surgeons General, 1929 and 1964' *Bulletin of the History of Medicine* 63 (1989), 1-31.
- ¹⁸ The literature on the social construction of science is a large one. For a recent contribution, which examines struggles over the credibility of science advice, using a theoretical framework grounded in the metaphor of performance, see Stephen Hilgartner *Science on Stage. Expert Advice as Public Drama.* (Stanford, 2000).
- ¹⁹ Charles Webster, 'Tobacco smoking addiction: a challenge to the National Health Service.' *British Journal of Addiction* 79(1)(1984), 8-16.
- ²⁰ Wald and Nicolaides-Bouman, 1991, op.cit.
- ²¹ Letter from Ian Macleod to John Boyd Carpenter 29 January 1954. Ministry of Health papers. MH 55/ 1011.
- ²² Sir John Charles to Percy Stocks 18 February 1953. Ministry of Health papers. MH55/1011.
- ²³ Note by Neville Goodman to Mr. Gregson, 28 October 1953. Ministry of Health papers. MH55/1011.
- ²⁴ Cabinet papers CAB 130/127/GEN 588. Meeting of Cabinet committee on cancer of the lung. First meeting 7 May 1957. There was concern that the 30% statement would achieve 'unwarranted prominence'. Memorandum on the Medical Research Council report 31 May 1957 reports that MRC have decided to modify the statement's reference to atmospheric pollution.
- ²⁵ Minute to Mr Pater about MRC statement on the connection between smoking and lung cancer 1 April 1957. Ministry of Health papers. MH55/2220(4)
- ²⁶ This theme constantly intrudes into the political discussions. See, for example the second meeting of the Cabinet committee on cancer of the lung in June 1957. Cabinet papers. CAB 130/127/588.
- ²⁷ Minute from Judd to Heald 5 September 1960. Ministry of Health papers .MH55/2226.
- ²⁸ Committee to report on smoking and atmospheric pollution. Minutes of the fourth meeting. 17 March 1960. Royal College of Physicians archive.
- ²⁹ Minute from Enoch Powell 11 November 1961. Ministry of Health papers. MH55/2227.
- ³⁰ The Cabinet papers indicate that there was support for the use of differential taxation, recommended as a harm reduction option in the RCP report. This appears to have been defeated in part by strong Treasury opposition. See discussion in CAB 21/4878, 1962-3.
- ³¹ Norman Brook to Prime Minister 11 July 1962. Cabinet Papers. CAB 21/4878.
- ³² Richard Crossman. *The Diaries of a Cabinet Minister. Volume Three. Secretary of State for Social Services, 1968-70.* (London, 1977) p.147. See also Charles Webster, *The Health Services since the war. Volume II. Government and health Care. The British National Health Service 1958-1979.* (London, 1996), pp.244-45.
- ³³ Matthew Hilton, ' 'Tabs', 'Fags' and the 'Boy Labour problem' in late Victorian and Edwardian Britain. *Journal of Social History*, 28,(3) (1995), 587-607; John Welshman, 'Images of youth; the issue of juvenile smoking, 1880-1914' *Addiction*, 91(9) (1996), 1379-86

-
- ³⁴ Melanie Phillips, 'Curb smoking' call unheeded' *Guardian* 6 May 1980 ,p.1 and 2.
- ³⁵ Cabinet Office. *Cigarette Smoking and Health .Report by an interdepartmental group of officials .October 1971*. See also discussions of this committee in CAB 152.16/10.
- ³⁶ See Webster,1996, p.425.
- ³⁷ Peter Taylor, 1984. *Smoke Ring* ,.97-8.
- ³⁸ *Wellcome witnesses to twentieth century medicine*. Volume 1,1997. Seminar transcript on the Committee on the Safety of Drugs.
- ³⁹ Interview with DHSS civil servant by V.Berridge 7 April,1997.Interview conducted on the basis of anonymity.
- ⁴⁰ Webster, 1998, pp. 665-8
- ⁴¹ See, for example, Martin Jarvis and Michael Russell, 'Comments on the Hunter Committee's second report' *British Medical Journal* , 280 (1980),994-5.; Health Education Council, *Annual Report,1977-78*. (London,n.d.)
- ⁴² Royal College of Physicians. *Smoking and Health* (London,1962),p.48 ; Royal College of Physicians, *Smoking and Health Now* (London, 1971)p.131.
- ⁴³ H.B.Wright,Institute of Directors Medical Centre agreed to join the ASH committee,'provided I am allowed to go on smoking my pipe...' The acceptance list noted,'Yes and pipe' ASH archive Box 29. Wellcome Library for the History and understanding of Medicine,London.
- ⁴⁴ The main liaison initially had been between Charles Fletcher,secretary of the first Royal College of Physicians' committee and G.F.Todd ,Director of the Tobacco Research Council, an industry funded organisation. Todd provided the statistics for the first RCP report.
- ⁴⁵ Minute from Enid Russell-Smith 5 February 1962 Ministry of Health papers,MH 55/2204.
- ⁴⁶ Mike Daube: interviews re ASH as a political pressure group. C.1975/6. William Norman papers ASH archive SA/ASH R. Wellcome library for the History and Understanding of Medicine, London.
- ⁴⁷Michael Daube , ' The politics of smoking: thoughts on the Labour record.' *Community Medicine* . 1 (1979), 306-14.
- ⁴⁸ DHSS, *Prevention and Health : Everybody's Business*. (London, 1976); House of Commons Expenditure Committee, *First report from the 1976-77 session. Preventive Medicine. Volume 1. Report* .(London,1977) For general discussion of these developments ,see Rob Baggott, *Public Health.Policy and Politics*. (Basingstoke,2000)p.51.
- ⁴⁹ Virginia Berridge,'Smoking and the new health education' in ed. Sander Gilman ,*Smoking.A Culutral History*. (forthcoming,2002)
- ⁵⁰ Health Education Council,*Annual Report* (London,1978)p.11 ; Independent Scientific Committee on Smoking and Health *Second Report of the Independent Scientific Committee of (sic) Smoking and Health .Developments in Tobacco Products and the Possibility of 'Lower Risk' cigarettes. Dr.J.Donald Ball,Minority Report*. (London,1979),pp 49-55.
- ⁵¹ Jarvis and Russell, *BMJ*, 1980.
- ⁵² For example in Read,1996.
- ⁵³ Membership of the committee in the 1970s included public health researchers and clinicians such as Walter Holland, Peter Armitage, and David Poswillo, an oral surgeon,who was later chairman of the ISCSH and its successor,SCOTH.
- ⁵⁴ This well known sequence of events is recounted in Taylor, 1984, pp.145-6.
- ⁵⁵ T.Hirayama, 'Non-smoking wives of heavy smokers have a higher risk of lung cancer : a study from Japan.' *British Medical Journal* 282 (1981), 183-85.

- ⁵⁶ Independent Scientific Committee on Smoking and Health . *Fourth Report of the Independent Scientific Committee on Smoking and Health* (London, 1988)
- ⁵⁷ Peter Froggatt, ‘Determinants of policy on smoking and health’ *International Journal of Epidemiology* , 18 (1) (1989) ,1-9.
- ⁵⁸ Virginia Berridge ,‘Passive smoking and its pre-history in Britain : policy speaks to science?’ *Social Science and Medicine* ,49 (9) (1999),1183-1195 ; Allan Brandt,. ‘ Blow some my way : passive smoking, risk and American culture’ pp.164-191 in Eds. Stephen Lock,Lois Reynolds and E.M.Tansey, *Ashes to Ashes : the History of Smoking and Health*. (Amsterdam,1998).
- ⁵⁹ Alan Petersen and Deborah Lupton, *The New Public health. Health and Self in the Age of Risk*. (London,1996),33.
- ⁶⁰ For the National Society of Non Smokers ,see Hilton, *Smoking* ,76.
- ⁶¹ FOREST,Freedom Organisation for the Right to Enjoy Smoking Tobacco. , Information sheet no.1. A response to passive smoking. (London,1991)
- ⁶² Peter Lee, *Environmental Tobacco Smoke and Mortality.A detailed review of epidemiological evidence relating environmental tobacco smoke to the risk of cancer,heart disease and other causes of death in adults who have never smoked*. (Basel,1992).
- ⁶³ For example , in a public lecture given at the London School of Hygiene and Tropical Medicine 14 March,1995.
- ⁶⁴ SCOTH (Scientific Committee on Tobacco and Health. *Report of the Scientific Committee on Tobacco and Health*. (London,1998).
- ⁶⁵ Interview with epidemiologist who works on smoking,by V.Berridge, 4 July 1996.
- ⁶⁶ This hostility was supported through historical data placed in the public domain as a result of law suits in the US. Much of the industry material related to the US tobacco industry. See, for example Stanton A. Glantz, John Slade,Lisa A.Bero ,Peter Hanauer, and Deborah E.Barnes, *The Cigarette Papers*. (Berkeley,1996) .
- ⁶⁷ Advertising became a symbolic objective despite some dispute about what its effect actually was .In 1992, the conclusions of the Smee Report on advertising, produced by the government’s chief economic adviser ,broadly accepted the symbolic case. For discussion of this ,see House of Commons Health Committee , HCP 221 . *Minutes of Evidence. Appendices.Memorandum submitted by ASH*. (London,1992); Simon Chapman,*Cigarette Advertising and smoking : a review of the evidence*. (London,1985). The regulation of public and workplace space continued the longstanding emphasis on voluntarism and regulation through codes of practice.
- ⁶⁸ Cheryl Swann and Peter Froggatt, *The Tobacco Products Research Trust, 1982-1996*. (London,1996).
- ⁶⁹ Nicholas Wald and Peter Froggatt, eds. *Nicotine, smoking and the low tar programme*. (Oxford ,1989)
- ⁷⁰ Martin Raw, Patti White, and Ann McNeill, *Clearing the Air. A Guide for Action on Tobacco*.(London,1990).
- ⁷¹ Joy Townsend. , ‘Price and Consumption of tobacco ‘ pp.132-42 in, *Tobacco and Health* , *British Medical Bulletin*, 52:1(1996). eds.Richard Doll and John Crofton; Geoffrey Hardman and Alan Maynard, ‘ Consumption and taxation trends’ pp. in *Preventing Alcohol and Tobacco Problems, Vol.1. The Addiction market*. eds. Alan Maynard and Philip Tether,(Aldershot ,1990)
- ⁷² Daube,1979,p.309.
- ⁷³ Joy Townsend., ‘Smoking and class’ *New Society* 30 March, 1979,pp.709-10.
- ⁷⁴ Alan Marsh and Stephen McKay, *Poor Smokers*. (London,1994.)
- ⁷⁵ Interview with researcher by V.Berridge,3 November 1997.

⁷⁶Virginia Berridge, 'Passive smoking and its pre-history in Britain : policy speaks to science?' *Social Science and Medicine* ,49 (9),(1999),1183-1195.

⁷⁷ Royal College of Physicians,*Nicotine Addiction*. (London,2000)

⁷⁸ House of Commons Health Committee . *The Tobacco Industry and the Health Risks of*

Smoking .Volume 1 Report and Proceedings of the Committee .(London,2000).

⁷⁹ The illicit drugs field provided further examples of this.The issue of the advertising ban attracted most public attention.

⁸⁰ Exemplified in this paper by the Skoal Bandits campaign,but also with strong Scottish leadership on smoking and public health issues more generally.

⁸¹ The most recent international health dimension is the proposed International Framework Convention on Tobacco Control,where initial protocols cover advertising, smuggling and treatment.

⁸² Interview with Walter Holland by V.Berridge 6 March 1997.

⁸³ Malcolm Gladwell,*The Tipping Point. How Little Things can make a Big Difference*. (London,2000).I owe this reference to an unpublished paper by Allan Brandt.

⁸⁴ Pollock's use of the historical material is one example.