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Creating smoke-free environments: public and private places

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Declaration

I declare that this thesis has been composed by me. The critical review is my own work. Much of the research reported here has been conducted within research teams. I have made a substantial contribution to that work and my contribution is clearly indicated. I have the agreement of all colleagues from the research teams in submitting this work and in claiming ownership of the sections that I declare my own. I have permission from all the publishers and the authors to reproduce the published papers in this thesis. The work has not been submitted for any other degree or professional qualification

Deborah Ritchie

October 2011

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I would like to thank my PhD advisor Professor Steve Platt for his constant support throughout my research career and for his patience and advice in completing this thesis. I also thank Professor Odette Parry for her belief in me, her generous support and for her critical comments on the drafts of this thesis.

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I thank my husband for always encouraging me in my career and for his unfailing support. Thanks are due to my daughter Hannah for her encouragement and sense of humour. Finally, a big thank you to my grandson Kai who wisely said that it did not matter if I did not become a doctor!

Abstract and purpose of the critical review

The purpose of the critical review is understood to be a critical reflection and comment on the work presented in the papers. The critical review is centred on the papers, as they form the substance of the submission, and the wider tobacco control literature. This review has not attempted to re-analyse the findings of the studies but attempts to draw wider lessons from the studies and to contribute to the future implementation of tobacco control policy and programmes. It will be claimed that the contribution to the research studies, the publications and the critical review represents a significant body of work and contribution to the advancement of knowledge in tobacco control.

The aim of the thesis is to present and critically review six publications on the social de-normalisation of tobacco use, as it relates to public and private smoke-free environments and professional engagement in Scotland. The publications are treated as a coherent body of tobacco control research and draw upon three studies conducted over the period 1999-2007.

Breathing Space Study 1: 1999-2002 evaluated an intervention which aimed to produce a significant shift in community norms towards non-smoking in a low-income area. A process evaluation, as part of a quasi-experimental design, was undertaken in the intervention area, using a range of qualitative methods, including observation, in-depth interviews and focus groups. **Papers 1 and 2** explore the context of health promotion professional practice in the development and implementation of tobacco control interventions in one disadvantaged community.

The Qualitative Community Study 2: 2005-2007 aimed to explore the impact of the Scottish smoke-free legislation on attitudes and behaviour, at both individual and community levels, in four socio-economically contrasting localities in Scotland. A longitudinal qualitative evaluation was conducted using observation, in-depth interviews with smokers and ex-smokers, key stakeholders and focus groups. **Papers 3 and 4** explore qualitative differences in the experience of smoke-free legislation in advantaged and disadvantaged communities, with particular consideration of the unintended consequences of the legislation for some smokers.

The Smoke-free Homes Study 3: 2006-2007 aimed to describe changes in smoking behaviour and attitudes to smoking following implementation of the smoke-free legislation. It sought to identify the potential enablers and barriers to reducing SHS exposure in the home. A cross-sectional study was conducted using qualitative interviews. **Papers 5 and 6** explore the changing discourses about second-hand smoke exposure, and the development of smoking restrictions in the home, with a particular focus on motivation to protect children. In addition, insight into the changing culture of professional practice in creating smoke-free homes was gained.

Key findings A synthesis of key findings from these publications supports the identification of three major themes: the experience of power at each stage of the process of the social de-normalisation of tobacco use; the experience of

stigmatisation of smoking as a consequence of policy; and health promotion practice as both barrier to and enabler of the implementation of smoke-free environments in the community and the home. The thesis also highlights the benefits and challenges of two research methodologies, process evaluation and qualitative longitudinal research (QLLR), in capturing both intended and unanticipated aspects of policy and practice implementation. This synthesis of the key findings that cut across the three studies has generated four research questions that are explored in this critical review:

1. How can policy be evaluated in community settings and in the home?
2. How do smokers, particularly disadvantaged smokers, engage with tobacco control policies and interventions?
3. Is professional practice a barrier or facilitator to understanding the impact of tobacco control policies and interventions?
4. What are some of the key unintended consequences of recent tobacco control policies?

Conclusion This thesis contributes to knowledge through a critical account of the re-shaping of smoking as a collective lifestyle, in both public and private domains. The social de-normalisation of tobacco use is experienced differently in advantaged and disadvantaged social contexts. Population tobacco control strategies may benefit from contextual adjustments, particularly for those smokers who live in areas of disadvantage and thus experience dual stigmatisation. Additionally, the effectiveness of future interventions would be enhanced by a more nuanced understanding of smoking behaviour, as a collective social practice, embedded in specific spaces, places and times.

The Publications

Breathing Space Study 1: 1999-2002

Paper 1: Deborah Ritchie, Odette Parry, Wendy Gnich and Steve Platt (2004) Issues of participation, ownership and empowerment in a community development programme: tackling smoking in a low-income area in Scotland. *Health Promotion International*, **19**, (1), pp.51-59.

Paper 2: Deborah, Ritchie, Wendy Gnich, Odette Parry and Steve Platt (2008) People pull the rug from under your feet': barriers to successful public health programmes. *BMC Public Health*, **8**, 173

The Qualitative Community Study 2: 2005-2007

Paper 3: Deborah Ritchie, Amanda Amos, Claudia Martin (2010) Public Places after smoke-free -a qualitative exploration of the changes in smoking behaviour. *Health & Place*, **16**, (3), pp.461-469

Paper 4: Deborah Ritchie, Amanda Amos, Claudia Martin (2010) 'But it just has that sort of feel about it, a leper' - stigma, smoke-free legislation and public health. *Nicotine & Tobacco Research*, **12**,(6), pp.626-629

The Smoke-free Homes Study 3: 2006-2007

Paper 5: Richard Philips, Amanda Amos, **Deborah Ritchie**, Cunningham-Burley S, Martin C (2007) Smoking in the home after the smoke-free legislation in Scotland: qualitative study. *British Medical Journal*, **335**, pp.553-557.

Paper 6: Deborah Ritchie, Amanda Amos, Richard Phillips, Sarah Cunningham-Burley, Claudia Martin(2009) Action to achieve smoke-free homes- an exploration of expert views. *BMC*, **9**,112.

Errata: the publications

Breathing Space Study 1

Paper 1: Ritchie D, Parry O, Gnich W, Platt S (2004) Issues of participation, ownership and empowerment in a community development programme: tackling smoking in a low-income area in Scotland. *Health Promotion International* **19** (1), pp.51-59.

P52- change from '56 semi-structured interviews' to 59 semi-structured interviews.

P 52 -change from '7 interviews with project co-ordinators' to 8 interviews with project co-ordinators.

P52- change from '28 interviews with intervention team members' to '30 interviews with intervention team members.

P 57- change from 'engaging with the own local community'

to 'engaging with their own local community'.

The Qualitative Community Study 2: 2005-2007

Paper 3: Ritchie D, Amos A, Martin C (2010) Public Places after smoke-free -a qualitative exploration of the changes in smoking behaviour. *Health & Place* **16** (3) pp. 461-469

p.465- change from 'even where there some shelter had been created' to

'even where some shelters had been created'.

Paper 4: Ritchie D, Amos A, Martin C (2010) 'But it just has that sort of feel about it, a leper'- stigma, smoke-free legislation and public health. *Nicotine & Tobacco Research* **12**(6) pp.626-629

P628- change from 'attribution negative stereotypes' to 'attribution of negative stereotypes'

My contribution to the published papers

My contribution is drawn from three research studies and I was a member of three research teams as follows:

Breathing Space study 1: 1999-2002

The research team was led by Professor Steve Platt (SP), co-investigators were Professor Odette Parry (OP) and Deborah Ritchie (DR) and Research Fellow Dr. Wendy Gnich (WG). The funding was provided by the Department of Health.

The Qualitative Community Study 2: 2005-2007

The research team was led by Dr. Claudia Martin (CM), co-investigators were Professor Amanda Amos (AA) and Deborah Ritchie (DR). The funding was provided by NHS HealthScotland (CLEAN).

Smoke-free homes study 3:2006-2007

The research team was led by Professor Amanda Amos (AA), co-investigators were Dr. Claudia Martin (CM) and Deborah Ritchie (DR) and Research Fellow Dr. Richard Phillips (RP). The funding was provided by NHS HealthScotland (CLEAN).

A detailed account of my contribution to the study design, data collection, data analysis, research outputs and manuscript development is presented in the table below.

Paper	Study	Study Design, data collection data analysis and outputs	Manuscript development
1	<p>Breathing Space Study 1</p> <p>Funded by Department of Health</p> <p>PI Professor Steve Platt</p> <p>DR,OP co-investigator (grant-holder)</p> <p>Research fellow WG</p>	<p>DR- involved in all stages of the research project. This included proposal development, study design, data collection, analysis, and research outputs. My special contribution was expert knowledge of the practitioner and community context, and the design and execution of the process evaluation component of the study.</p>	<p>DR produced first draft on which OP, SP WG commented. DR co-ordinated the comments. DR submitted as first author. DR responded to the reviewers' comments.</p>
2	As above	As above	As above
3	<p>Qualitative Community Study 2</p> <p>Funded by NHS Health Scotland</p> <p>DR, AA co-investigator (grant-holder)</p> <p>PI Claudia Martin</p> <p>AA co-investigator</p>	<p>DR involved in all stages of the research project. This included proposal development, study design, data collection, analysis, and research outputs. My special contribution was designing and conducting the observations in public places component of the research.</p>	<p>DR produced the first draft on which to AA, CM commented. DR co-ordinated the comments. DR submitted as first author. DR responded to the reviewers' comments.</p>
4	As above	As above	As above
5	<p>Smoke-free homes Study 3</p> <p>Funded by NHS Health Scotland</p> <p>PI Professor Amanda Amos</p> <p>DR, CM co-investigator (grant-holder)</p> <p>Research fellow Richard Phillips</p>	<p>DR involved in all stages of the research project. This included proposal development, study design, data collection, analysis, and research outputs. My special contribution was designing and conducting the expert groups</p>	<p>RP produced the first draft on which to AA, DR, CM, SCB commented and input. RP co-ordinated the various inputs and sent back to the co-authors for comments and RP submitted as first author. RP responded to the reviewers' comments following consultation with the co-authors.</p>
6	As above	As above	<p>DR produced the first draft on which AA, CM, SCB commented. DR co-ordinated comments. DR submitted as first author. DR responded to the reviewers' comments.</p>

Chapter 1 Introduction

The aim of the thesis is to provide a critical review of the contribution to the field of tobacco control of six published papers that have explored the development of smoke-free communities and smoke-free homes in Scotland. The six papers are treated as a coherent body of tobacco control research and draw upon the empirical work of three tobacco control studies conducted over the period 1999-2007. The synthesis of the key findings that cut across the three studies has generated four research questions that are explored in this critical review:

1. How can policy be evaluated in community settings and in the home?
2. How do smokers, particularly disadvantaged smokers, engage with tobacco control policies and interventions?
3. Is professional practice a barrier or facilitator to understanding the impact of tobacco control policies and interventions?
4. What are some of the key unintended consequences of recent tobacco control policies?

The scope of this critical review does not allow for a comprehensive assessment of the literature on the de-normalisation of tobacco use. It is recognised that there are many policies and interventions integral to the de-normalisation of tobacco use that are informed by a significant body of literature. Here, however only the development of public and private smoke-free environments within community contexts is explored. In this introductory chapter I will therefore provide some background on exposure to second-hand smoke as a public health problem and consider the international and Scottish evidence of the benefits of smoke-free environments. I will first, define second-hand smoke (SHS) and explore why exposure to SHS is considered a public health problem, highlighting the health consequences of exposure to second-hand smoke to both children and adults. As the studies are located in Scotland, a short background on the recent history of Scottish tobacco control policy is presented. Next, I consider the international evidence, drawn primarily from two recent systematic reviews (IARC, 2009; Callinan et al., 2010), on the main benefits of smoke-free environments. The consistency of the Scottish

findings with the international evidence on the effectiveness of smoke-free environments is explored, drawing on findings from the Scottish portfolio of evaluation studies (CLEAN) of the implementation of Scottish smoke-free legislation. In particular, evidence on the impact of Scottish smoke-free legislation on adults' and children's exposure to SHS, improvement in air quality and improvement in bar workers' health, and socio-cultural impacts are described. Lastly, I draw on qualitative findings to explore the barriers and motivators of smoke-free homes from a UK perspective. The introductory chapter concludes with a brief outline of the particular contribution of the six publications that are considered by the critical review and the structure of the thesis is outlined.

The development of smoke-free environments in public and private places -a cornerstone of recent Scottish tobacco control policy- was informed by the growing international consensus about the serious harm caused to non-smoking adults and children as a result of their involuntary exposure to second-hand smoke (SHS) (Surgeon General Report, 1986; 2006). In 2003, the first global public health treaty for tobacco control, known as the Framework Convention on Tobacco Control (FCTC), was negotiated. Article 8 of the FCTC covered protection from exposure to tobacco smoke. Guidelines to support the implementation of Article 8, published in 2007, set out 'best practice' guidance on the implementation and enforcement of smoke-free environments for both indoor and outdoor public places, public transport and workplaces. This international consensus and the growing body of evidence that creating smoke-free environments is an effective and acceptable public health intervention led, in Scotland, to the enactment of smoke-free legislation in March 2006. Exploratory research to inform policy and interventions for smoke-free homes followed. Some seven years earlier a community development intervention '*Breathing Space*', which was an early example of a project aiming to de-normalise tobacco use in the community, had been developed and implemented in Edinburgh.

1.1 What is second-hand smoke and why is it a public health problem?

In 2006 the *Report of the U.S. Surgeon General* reviewed evidence on second-hand smoke exposure (SHSE), also known as environmental tobacco smoke (ETS) or passive smoking. The Surgeon General's executive summary (2006) defined SHS:

“as a mixture of two forms of smoke given off by burning tobacco. Side-stream smoke comes from the end of a lighted cigarette, pipe, or cigar and mainstream smoke is exhaled by smokers. It is also a known human carcinogen (cancer-causing agent). Side-stream smoke has higher concentrations of carcinogens than mainstream smoke” (p.iv)

The U.S Surgeon General's Report (2006) reached a number of important conclusions which indicated the need for public health intervention. SHSE is harmful and hazardous to the health of the general public and is particularly dangerous to children who are sensitive to SHS. It is estimated that 40% of children worldwide are regularly exposed to indoor SHS (Oberg et al., 2011). Most SHS exposure of children occurs in the home and the car. Children are unable to avoid SHS exposure and are more heavily exposed than other age groups (Oberg et al., 2011). The Surgeon General's report (2006) stated that there was no safe level of exposure to SHS. Exposure to SHS has an immediate effect on the cardio-vascular system of adults causing increased platelet aggregation, endothelial dysfunction and arterial stiffening. It also reported a causal association between inhaling second-hand smoke and the development of lung cancer, coronary heart disease and strokes in non-smoking adults (U.S. Surgeon General Report, 2006). Furthermore, the Surgeon General's report and the more recent Royal College of Physicians' report have stated that children who are exposed to SHS are at an increased risk of sudden infant death syndrome, acute respiratory problems and exacerbation of asthma and middle ear infections (U.S. Surgeon General, 2006; RCP, 2010). The BMA report argued that children's absence from education, as a consequence of these illnesses, has an impact upon their future educational attainment. This is particularly pertinent for children who are already socially disadvantaged (Muller, 2007).

Smoke-free environments are developed primarily to protect non-smokers. Hole (2005) estimated that prior to the implementation of smoke-free legislation 865 people died in Scotland each year as a result of exposure to SHS. There was an expectation that smoke-free legislation, which would ban smoking in enclosed public places, would save 400 lives each year, with longer term health benefits over 20 years (Haw & Gruer, 2007). There was a secondary aim of creating environments that would support healthy lifestyle choices and thus help people to quit smoking (Callinan et al., 2010). In addition, smoke-free legislation was believed to shape new social norms about the acceptability of smoking (IARC, 2009).

1.2 Scottish policy background

The extent of smoking-related damage to public health in the United Kingdom has been acknowledged in recent national policy statements and legislation in which smoking is identified as a first order public health priority. The studies presented as part of this thesis were conducted between 1999- 2007 during a period of comprehensive tobacco control in Scotland when several national policies and key legislation were implemented. In 1998 the first UK Government policy addressing tobacco control was published. The White paper *Smoking Kills* (Secretary of State for Health, 1998) detailed a comprehensive strategy to reduce smoking, including a series of measures for reducing smoking among young people, new cessation services for adults (especially those who are economically disadvantaged), and action on smoking among pregnant women. The White Paper also described proposals for working in partnership with businesses to restrict smoking in public places, places of work and government offices. Proposals for abolishing tobacco advertising and promotion, altering public attitudes, preventing tobacco smuggling, and supporting research were also outlined and implemented in the Tobacco Advertising and Promotion Act 2002.

'Breath of Fresh Air for Scotland' (published in 2004) was the first Scottish tobacco control action plan, launching the debate in Scotland on the proposal to implement smoke-free public places. A public consultation was launched and 53,000 responses

were received, 80% of which supported the proposed legislation (Donnelly & Whittle, 2008). The Smoking, Health and Social Care (Scotland) Act 2005 provided the legislation for a complete ban on smoking in enclosed public places (with a few exemptions such as psychiatric hospitals and residential homes) came into force on March 26th 2006. Donnelly & Whittle (2008) concluded that the success of the Scottish smoke-free legislation was mainly due to political leadership and the widespread consultation with all interested parties, as well as an understanding of the opposition of various groups. Additional factors included a large scale public education media campaign and robust (non-confrontational) enforcement in the immediate post- implementation phase.

1.3 International & UK evidence

A body of international evidence has consistently demonstrated the effectiveness of legislation to create and sustain smoke-free public places and the health benefits to non-smokers (including those exposed at work). An overview of the international evidence of the effectiveness of smoke-free policies was summarised in IARC (2009) and in a recent Cochrane review (Callinan et al., 2010). The main conclusion from both is that the effectiveness of the smoke-free legislation is generally consistent across those countries that have fully implemented smoke-free legislation. In addition, a recent review of the impact of the smoke-free legislation in England demonstrated similar findings to the Scottish evaluation and was consistent with the wider international literature (Bauld, 2011).

The main benefits of smoke-free environments, as evidenced in the international literature, include: improvements in bar-workers respiratory health; reductions in SHS exposure for adult non-smokers and children; improvements in air quality in public places and workplaces; reductions in daily consumption of tobacco; positive changes in attitudes to smoke-free environments and generally high levels of compliance (which are increased by support from public education and media campaigns) (IARC, 2009; Callinan et al., 2010). There was no evidence of displacement of smoking to the home. Findings related to changes in prevalence of smoking were less clear cut (IARC, 2009; Callinan et al., 2010). Several

international studies have presented evidence of reduced hospital admissions for acute coronary syndrome following the implementation of smoke-free legislation for both the general population and non-smokers (IARC, 2009). In Scotland a 17% reduction in hospital admissions for acute coronary syndrome was recorded over one year (Pell et al., 2008). Goodman et al (2009) reviewing the international literature also described the consistent health benefits to both the general population and workers that have occurred as a consequence of the implementation of smoke-free legislation. In addition, there is evidence of consistent short term health benefits to bar workers' respiratory health (Goodman et al., 2009).

1.4 Evaluation of smoke-free legislation in Scotland

CLEAN was a Scottish portfolio of studies that evaluated the implementation of Scottish smoke-free legislation. It included seven research studies which drew upon both quantitative and qualitative methods (Haw et al., 2006). Key findings from the CLEAN research collaboration are consistent with, and support, the findings from the international evidence (IARC, 2009; Callinan et al., 2010). Key findings that are relevant to this thesis cover adults' and children's reduced exposure to SHS (Haw & Gruer, 2007; Akhtar et al., 2007), improvements in air quality (Semple et al., 2007^{a,b}), improvements in bar-workers health (Ayres et al., 2009) and socio-cultural impacts (Eadie et al., 2008, 2010; Hilton et al., 2008; Heim et al., 2009; Ritchie, Amos & Martin, 2010^a; 2010^b-papers 4 & 5).

As part of the CLEAN collaboration, Haw & Gruer (2007) examined population-level changes in adult non-smokers' exposure to SHS after the implementation of the Scottish smoke-free legislation. Their study used a repeat cross-sectional survey, implemented before and one year after the legislation. Serum cotinine is a metabolite of nicotine and has a longer half-life than nicotine. It is detected in bodily fluids and is used as a biomarker to assess exposure to tobacco or tobacco smoke (Collier et al., 1994). The study found that, among non-smokers living in non-smoking households, there was a 49% fall in the geometric mean salivary cotinine concentration. However, the decrease in salivary cotinine concentration among non-smokers, living in smoking households, was not statistically significant and thus remains a public

health concern. Overall the salivary cotinine concentration in the study population of adult non-smokers fell by 39%. Importantly, there was no evidence of displacement of smoking to the home after the implementation of legislation and non-smokers were more likely to report household smoking restrictions.

Akhtar et al (2007) examined population-level changes in child exposure to SHS after the implementation of smoke-free legislation in Scotland. The study carried out a repeat, nationally representative, cross-sectional survey of primary seven children (aged 11), before and after legislation. The study found that the mean salivary cotinine concentration level fell by 39% in non-smoking children, one year after the implementation of legislation. The findings were statistically significant where neither of the parents, or only the father smoked. There was little impact on SHS exposure when both parents smoked, or only the mother smoked. There was no displacement of smoking to the home following the implementation of smoke-free legislation. In addition, children who lived with non-smokers were more likely to enjoy complete household smoking restrictions post-legislation (Akhtar et al., 2009). Akhtar et al (2010) also concluded that there are social inequalities in children's exposure to SHS. While there was greater absolute reduction of salivary cotinine concentration among children in lower socio-economic groups, who were most heavily exposed to SHS, serum cotinine concentration levels remained high for these children post-legislation (Akhtar et al., 2010).

Semple et al (2007^a) compared levels of SHS in 41 bars in Scotland before, and two months following, the implementation of smoke-free legislation. They found a reduction of 86% in levels of SHS indicating a high degree of compliance with the legislation and a large reduction of SHS exposure for bar workers and non-smoker patrons. A further follow-up of 72 bars at 12 months found that reductions in exposure had been sustained (Semple et al., 2007^b). Ayres et al (2009) examined changes in the health of 371 bar workers in 72 bars pre-legislation and two months and one year after legislation and found significant reduction in respiratory and sensory symptoms.

Two qualitative studies examined the socio-cultural impact of the smoke-free legislation. One study, the *Qualitative Community Study 2*, which constitutes a focus for this thesis, is considered in chapter 4. The second qualitative study was the community bars study carried out by Eadie et al (2008) which was conducted in eight bars in contrasting communities. It is to this study that we now turn.

While an overview of the smoke-free legislation in Scotland suggested that there was 98% compliance with the smoke-free legislation in Scotland (Donnelly & Whittle, 2008), the findings of the study by Eadie et al (2008) suggested a more nuanced and complex picture of compliance and support for the legislation, particularly in disadvantaged communities. They report that compliance was variable across the community bars, with more incidents of non-compliance and less support for the smoke-free legislation in the disadvantaged communities. Some non-compliance was unchallenged and at times bar staff were complicit with non-compliance. Differences between the bars in their non-compliance with the smoke-free legislation were found to be related to smoking norms of the customers, management attitudes and management competency.

A subsequent publication from the Community Bars study explored the social and health factors that influenced support or opposition for the smoke-free legislation, as well as the social and contextual factors effecting changes to the leisure environment. Heim et al (2009) argued that the debates prior to the implementation of smoke-free legislation in Scotland underplayed the importance of the social meaning and the social context of smoking. Opposition to the legislation was expressed as objections to loss of freedom to exercise personal choice and concerns about the impact upon the social environment, as well as some practical issues regarding enforcement. Smokers were most likely to oppose the smoke-free legislation and were vocal in their resistance to the public health messages both before and after the introduction of the legislation. Social concerns were particularly pertinent in the disadvantaged communities where the pub was seen as a central community facility and its potential loss (because of changes to the culture of the pub, or for economic reasons) was perceived as an attack on the traditional community culture. Heim et al (2009) concluded that understanding social and contextual concerns is an important pre-

requisite for more appropriate communication about the benefits of smoke-free legislation in the future, particularly for disadvantaged communities which are more likely to be pro-smoking and less likely to accept the health messages about smoke-free environments.

A small element of the BHETSE study included qualitative interviews with twelve bar workers conducted retrospectively. The findings highlighted improvements to bar workers' working lives and general acceptance of the legislation by bar patrons. However, older men appeared to find it more difficult to adjust to the legislation (Hilton et al., 2008)

Overall, smoke-free legislation in Scotland has resulted in significant health benefits for non-smokers, children and workers previously exposed to SHS (Donnelly & Whittle, 2008). However, the findings from qualitative studies also indicated that compliance was variable, particularly in disadvantaged communities where a pro-smoking culture was sustained. Some smokers have remained resistant to the public health messages post-legislation. In addition, children living with smokers remain exposed to high levels of SHS post-legislation, particularly when the mother smoked.

Significant public health challenges to protecting some groups from the effects of SHS persist. It is the aim of this thesis to reflect upon the experiences of the social de-normalisation of tobacco use from the perspective of smokers and health professionals, as illustrated by findings in the six publications. In order to shed light on barriers to the successful creation of smoke-free public and private spaces, this thesis explores some of the intended and unintended consequences of the impact of smoke-free policies.

1.5 Smoke-free homes

It has been suggested that populations become more amenable to smoking restrictions in the home as they are exposed to the changing social norms about smoke-free environments (IARC, 2009). Smoke-free homes are associated with lower consumption of tobacco and greater intention to quit, and complete bans on smoking in the home are argued to be more effective in reducing children's exposure

to SHS than those with partial restrictions (IARC, 2009). Sims et al (2010) identified a decline in children's exposure to SHS in England from 1996-2006. However, children from disadvantaged communities were most exposed (Sims et al., 2010). There was a suggestion that community exposure in areas of deprivation was an important influence on the level of children's exposure to SHS that was independent of parental smoking status (Sims et al., 2010). However, despite this promising overall decline in children's overall exposure to SHS several barriers to smoke-free homes are apparent, as evidenced in the findings of UK qualitative research studies.

There is a high prevalence of smoking in disadvantaged communities of the UK and smoking in lower socio-economic groups is linked to multiple social and economic disadvantages, ill health, and poor life-expectancy (Graham et al., 2006; Jarvis et al., 2003). In disadvantaged communities smoking behaviour in the home is embedded in particular cultural and social norms (Poland, 2000) and people from lower socio-economic groups, women and older smokers are less likely to have smoke-free homes (IARC, 2009). Sociological perspectives highlight the personal, emotional and structural barriers experienced by smokers when attempting to quit smoking and change smoking behaviours (Graham et al., 2006).

Three key qualitative research studies on smoke-free homes have been conducted in the UK (Jones et al., 2011; Robinson & Kirkcaldy, 2007,^{a,b} 2008, 2009; Phillips et al., 2007-paper 5). In Merseyside Robinson and colleagues conducted 10 focus groups with parents with at least one child under five, living in deprived communities. In Scotland, Phillips and colleagues conducted interviews with 50 participants aged 18-75 years across all socio-economic groups. In Nottingham, Jones and colleagues conducted interviews with 22 participants selected from Sure Start centres. Findings from these studies suggested that the term 'passive smoking' is well recognised but often poorly understood by parents (Jones et al., 2011; Robinson & Kirkcaldy, 2009; Phillips et al., 2007-paper 5; Robinson & Kirkcaldy, 2007^b). Many mothers continue to smoke in the home and expose their children to harmful levels of SHS. In their study of parents, Robinson & Kirkcaldy (2007^b) explored how some respondents discounted scientific explanation of SHS in favour of lay explanations (which did not recognise SHS as harmful to children). In all of

the three UK studies some mothers negated the possible harms of SHS, enabling them to continue to see themselves as caring mothers (Robinson & Kirkcaldy, 2007^b; Phillips et al., 2007-paper 5; Jones et al., 2011). The Merseyside study also demonstrated how mothers experienced stigma and guilt about smoking in the home which compromised their view of themselves as good mothers (Holdsworth & Robinson, 2008). Moreover, in the Scottish and Nottingham studies, the knowledge of how to protect their children effectively from SHS was often confused, leading to inappropriate action that would not fully protect their children (Phillips et al., 2007-paper 5; Jones et al., 2011).

In the Scottish study the key motivation for having some form of household restriction on smoking was aesthetic rather than health-related, although an emerging discourse about protecting children was evident (Phillips et al., 2007-paper 5). Subsequently, the Nottingham study reported similar findings about the motivators and barriers in developing smoke-free homes (Jones et al., 2011). Many homes in the Scottish and Nottingham studies were found to have some form of household smoking restriction; either complete or partial. Partial restrictions were often modified to protect children, or to meet the demands of social occasions and accommodate smokers. Hence, restrictions were found to be fluid and dynamic (Jones et al., 2011; Phillips et al., 2007-paper 5). Indeed, mothers in the Liverpool study described how their smoking could change over the course of the day depending upon the social and physical environment at the time (Robinson & Kirkcaldy, 2007^a). For example, when mothers tried to reduce their children's exposure to SHS they were often thwarted by competing caring demands and felt unable to assert themselves because of the norms and expectations of their particular social environment (Robinson, 2008). In addition, in the Scottish study, parents and health professionals expressed concerns about environmental barriers such as lack of outside space and inclement weather (Phillips et al., 2007-paper 5, Ritchie et al., 2009-paper 6).

Overall, the UK qualitative research has highlighted the motivators and barriers to smoke-free homes, particularly for those disadvantaged homes with the highest levels of exposure to SHS. Women who live in disadvantaged areas and who do not

work have arguably experienced the least disruption to their established indoor smoking patterns as a consequence of smoke-free legislation, and so continue to expose their children and other adults to tobacco smoke in their homes. Based on the findings of these qualitative studies, there appears to be consensus that the effectiveness of future interventions will depend in large measure on their sensitivity to gender and particular social and environmental contexts (Phillips et al., 2007-paper 5; Robinson & Kirkcaldy, 2007^{a,b}; Jones et al., 2011). This short overview demonstrates the value of qualitative research in enhancing both an understanding about the complex issue of smoking and disadvantage, as well as identifying barriers to, and facilitators of, smoke-free homes. The public health challenge is to develop more effective solutions to the barriers to achieving a smoke-free home.

1.6 Contribution of the papers

My published research has provided critical insight into how those living and working in different communities have experienced the social de-normalisation of tobacco use and its consequences, as it relates to smoke-free environments and to professional engagement, in Scotland from 1999-2007. In particular, I have advanced understanding about the unintended consequences of social de-normalisation strategies for some smokers.

My contribution to the field has also furthered understanding of motivators and barriers to the development of smoke-free homes in Scotland, from both lay and professional perspectives. I will demonstrate how this understanding has informed further research and public health practice.

Disadvantaged smokers and community settings are cross-cutting themes throughout this thesis. A comprehensive exploration of the literature on community development and disadvantaged smokers is beyond the scope of the thesis. However, papers 1 and 2 provide an account of community development theory, and papers 2 & 3 gives some background to disadvantage and smoking, a theme which is developed in chapter 4. My contribution to this body of knowledge also rests on an exploration of professional engagement with community development approaches in tobacco control; this has informed both policy and health promotion practice. The health

promotion concepts of participation and empowerment are embedded in the arguments of the thesis and these are explored in detail in paper 1. Furthermore, my contribution to understanding the experiences of disadvantaged smokers, particularly in respect of the unintended consequences of de-normalisation strategies, has been widely disseminated.

Structure of the thesis

The thesis is divided into five chapters. **Chapter one** is an introduction to the thesis. It provides some background information on the harm caused to children and adults by their exposure to second-hand smoke and considers international evidence on the positive impact of smoke-free legislation on population health. Following a short account of the Scottish policy context, key relevant findings from the Scottish evaluation of smoke-free legislation (CLEAN) are presented. In particular, evidence on the impact of smoke-free legislation on adults' and children's exposure to SHS, improvement in air quality and improvement in bar workers' health, and the socio-cultural impacts are described. The chapter concludes with consideration of the motivators and barriers to smoke-free homes.

Chapter two comprises the six published papers upon which the thesis draws.

Chapter three outlines key methodological challenges for the qualitative evaluation of tobacco control programmes and policy. Process evaluation and qualitative longitudinal research are explored to provide insight into the challenges involved in evaluating tobacco control in a community context.

In **chapter four** the six papers are viewed together through the lens of the social de-normalisation of tobacco use.

Chapter five provides a concluding discussion to demonstrate how the key findings have been synthesised and taken forward into further research, policy and practice.

Chapter 2 The Publications

The reader is now invited to read the six publications found in appendix 4

Breathing Space Study 1: 1999-2002

Paper 1: Deborah Ritchie, Odette Parry, Wendy Gnich and Steve Platt (2004) Issues of participation, ownership and empowerment in a community development programme: tackling smoking in a low-income area in Scotland. *Health Promotion International*, **19** (1), pp. 51-59.

Paper 2: Deborah, Ritchie, Wendy Gnich, Odette Parry and Steve Platt (2008) 'People pull the rug from under your feet': barriers to successful public health programmes. *BMC Public Health*, **8**, 173

The Qualitative Community Study 2: 2005-2007

Paper 3: Deborah Ritchie, Amanda Amos, Claudia Martin (2010) Public Places after smoke-free - a qualitative exploration of the changes in smoking behaviour. *Health & Place* **16** (3), pp.461-469

Paper 4: Deborah Ritchie, Amanda Amos, Claudia Martin (2010) 'But it just has that sort of feel about it, a leper' - stigma, smoke-free legislation and public health. *Nicotine & Tobacco Research* **12** (6), pp. 626-629

The Smoke-free Homes Study 3: 2006-2007

Paper 5: Richard Philips, Amanda Amos, Deborah **Ritchie**, Sarah Cunningham-Burley, Claudia Martin (2007) Smoking in the home after the smoke-free legislation in Scotland: qualitative study. *British Medical Journal*, **335**, pp.553-557.

Paper 6: Deborah Ritchie, Amanda Amos, Richard Phillips, Sarah Cunningham-Burley, Claudia Martin (2009) Action to achieve smoke-free homes- an exploration of experts' views. *BMC Public Health*, **9**,112

Chapter 3 Evaluation in tobacco control

3.1 Introduction

This critical reflection of the evaluation of tobacco control is situated within the context of the three studies conducted in community contexts:

Breathing Space Study 1: 1999-2002 evaluated a community based intervention which aimed to produce a significant shift in community norms towards non-smoking in a low-income area. A process evaluation, as part of a quasi-experimental design, was undertaken in the intervention area, using a range of qualitative methods, including observation, in-depth interviews and focus groups.

The Qualitative Community Study 2: 2005-2007 aimed to explore the impact of the Scottish smoke-free legislation on attitudes and behaviour, at both individual and community levels, in four socio-economically contrasting localities in Scotland. A longitudinal qualitative evaluation was conducted using observation, in-depth interviews with smokers and ex-smokers, key stakeholders and focus groups.

The Smoke-free Homes Study 3: 2006-2007 aimed to describe changes in smoking behaviour and attitudes to smoking following implementation of the smoke-free legislation. It sought to identify the potential enablers and barriers to reducing SHS exposure in the home. A cross-sectional study was conducted using qualitative interviews.

A full account of the study designs and findings are found in the published final reports (Platt et al., 2003^{a,b}; Martin, Ritchie, & Amos, 2008; Amos et al., 2008).

In this chapter, I will firstly focus upon the ‘self’ as researcher and provide a short historical account to outline some key influences in my research journey. I will then explore how the philosophy and values that have underpinned my health promotion practice have, in turn, influenced my epistemological position in research. I will draw upon two key issues to consider some of methodological challenges for the

evaluation of tobacco control programmes and policy. The two key issues that emerged through my research journey were linked to:

- a) Evaluation methods and the complexity of health promotion.
- b) Capturing intended and unanticipated processes in tobacco control policy and practice.

3.2 Research journey- from practitioner to academic researcher

Here I will briefly outline, in the spirit of a reflexive researcher, how my health promotion and research experience has influenced my epistemological stance. I will also explore my epistemological stance in the context of health promotion values and practice.

Reflexivity can be defined as those processes where we actively recognise how we maintain a dynamic of self-awareness in our role as researcher (Finlay, 2002). Finlay (2002) argued that social constructionists who engage in reflexivity have adopted a position where the focus is on interaction and shared discourses, rather than on inward subjectivity. I will try to avoid indulging in excessive self-analysis; rather I will trace key influences and experiences that have shaped my development as a researcher. I will first explore how my professional history, through my roles in community development practice, practitioner research and as academic researcher has shaped my position within the research process.

My research journey began by undertaking evaluation as a health promotion practitioner in an innovative community development project, located in a disadvantaged health project in Edinburgh in the 1980s. I was inexperienced in conducting research or evaluation. I drew upon the expertise of others and learnt as I went along. At that time, there was a prevailing discourse of empowerment of both individuals and community that permeated every aspect of community development work. Participation was central to this endeavour. At the beginning of the project there was an expectation of funders that a three year evaluation would be conducted. The objectives were unclear at the beginning of the community development process;

and the project's work was shaped by engagement with the community about their own health priorities. Because the evaluation was not designed at the beginning of the project the data were collected retrospectively from local people and local professionals. The respondent stories, which told of the experiences and benefits of using the project, were presented each year in an annual report and formed the basis of the final evaluation and a publication (Ritchie, 1991^{a,b}; Ritchie & Ritchie, 1991). The evaluation provided a powerful account of how the project developed and how the project was experienced locally. Moreover, the findings resonated with my own experience of working in a participatory way with the community.

My first experience of undertaking evaluation in the community development project shaped my later stance as a researcher, in the following way. It contributed to my current understanding that the relationship between the researcher and the researched is dynamic and interactive in the co-production of meaning. The findings in the research process are mediated through the researcher, and meaning is created through the shared exploration of researcher and researched (Ritchie & Lewis, 2003). This position is informed by many of the values underpinning community development practice. There are certainly critiques in the literature about the authority and power of the researcher in the co-construction of the research data (Riesman, 2008). The research teams in which I have been involved have endeavoured to be reflexive and transparent in the sharing of values and assumptions in the analysis of data and have recognised how the research process and the interventions themselves were not value-free. This is particularly relevant in the context of tobacco control, where there are often conflicting interests in creating or not creating smoke-free cultures.

Through my first experience of evaluation I developed research imperatives which have influenced my subsequent research. These imperatives include the importance of engaging in empowering processes, coupled with the participation of participants in the research process. They have at times led to some frustration in research projects; such as *Breathing Space Study 1* where the role of participatory research methods was not clear. I also understand how these imperatives of empowerment have shaped my analytical lens. In the *Qualitative Community Study 2*, for example, my interest in the unintended consequences of policy was in part driven by the

importance which I place on listening to participants' voices. This is particularly important when researching disadvantaged and marginalised groups which are disempowered and /or disengaged.

Following my initial community development experience I was employed by the NHS Health Board as a health promotion officer. Here I was involved in commissioning research and evaluating health promotion projects, from large scale mental health media campaigns for young men (Ritchie, 1996^{a,b,c}; Ritchie, 1999) to smaller-scale projects. During this time I was often involved as an 'expert' practitioner, for example, on SIGN guideline groups where I grappled with the debates about the hierarchy of evidence in terms of the realist and relativist debate. I often found myself arguing that the evidence for the effectiveness for programmes should also be ranked according to whether the programmes had incorporated community engagement processes (Killoran et al., 2000). During this time I believed that the prime purpose of research and evaluation was to improve practice and to access the voices of the most disadvantaged. This role in the NHS eventually led to my involvement in the *Breathing Space Project Study 1*. Here, my interest was fuelled by the expressed concerns of the community leaders about the high prevalence of smoking in their local area and requests from the community health project for our involvement in their innovative smoking work. Unusually, as a community development worker, I had previously been involved in the issue of smoking in a disadvantaged community as a member of the Women and Low Income project, which generated the 'Under the Cloud' report (Crossan & Amos, 1994). Prior to this smoking had not usually been identified as a key public health priority by workers in disadvantaged communities.

I was invited to join the *Breathing Space Project Study 1* research team as a co-investigator; whilst at the same time I was co-ordinating the intervention team. This was a tricky role for me and I encountered difficulties in maintaining and understanding the boundary between the research team and the intervention team. I did not fully grasp at the outset how the quasi-experimental study design would create artificial boundaries between the research team and the intervention team.

However, my involvement as a practitioner in the research team met some of the requirements of a participatory research process.

Then, at an early stage of *Breathing Space Study 1*, I quit my health promotion role and took up an academic position. While this meant that I relinquished co-ordination of the intervention team, I was able to maintain my role as a researcher in *Breathing Space Study 1*. This was my first experience as an academic researcher, where I became actively involved in data collection and analysis for the process evaluation. I did, however, refrain from collecting data from any members of my previous team; although I had access to these data during the analysis. The changed role meant that I was continuously reflecting upon the impact of ‘myself’ on the project. One of my key contributions to the research team was my practitioner experience. This enabled me to provide unique insights into the mechanisms of health promotion practice and was particularly useful when the implementation of the intervention became problematic. This understanding of practice led to the development of two *Breathing Space* papers that constituted a resource for subsequent community development practice. This commitment to improving practice is evident throughout the publications presented here.

I was involved in the evaluation of two subsequent projects *Qualitative Community Study 2* and the *Smoke-free Homes Study 3* that were both part of the Scottish portfolio of studies that evaluated the implementation of Scottish Smoke-free legislation. The portfolio was called the CLEAN collaboration and included seven research studies, which drew variously upon both quantitative and qualitative methods (Haw et al., 2006; Health Scotland, 2011). This portfolio of research studies was designed so that each study aimed to answer specific research questions. I was involved in two qualitative studies that were primarily designed to explore the experience of the smoke-free legislation in the home and community.

The key factor for my development as a researcher was the multi-disciplinarity of the portfolio of studies. The CLEAN collaboration encouraged dialogue between the research teams. This facilitated the crossing of epistemological boundaries which in turn led to a broader understanding of the problem. This understanding derived from

the different research methodologies and methods which were applied in investigating the impact of the smoke-free legislation.

Working across the boundaries of different research methodologies in the CLEAN collaboration meant that we were able to, for example, use the insights from the qualitative findings to illuminate the quantitative findings from other CLEAN studies, and vice versa. We also collaborated with the other qualitative research team in the CLEAN collaboration, who were also working in bars, leading to a shared understanding between the two qualitative studies.

It is apparent, from the publications presented here, how my professional role within health promotion has influenced my position as a researcher. My own position is that health promotion should be understood as an ethical and political project in which local voices are privileged and situated within their social context. Community-based health promotion approaches are indeed influenced by the philosophy of community development whereby communities identify shared problems and through a process of empowerment and resistance collectively determine solutions (Freire, 1972). However, based upon my experience as both a health promotion practitioner and a researcher, I also argue that this idealistic stance has proved difficult to achieve in practice, as it often positions health promotion in opposition and resistant to dominant policy priorities. In addition, aspirations of empowerment and participation are often compromised in top-down policy initiatives and programmes. The findings from the papers reviewed here demonstrate that the aspirations of empowerment and participation are not fully realised or understood in practice (Ritchie et al., 2008-paper 2; Ritchie et al., 2004-paper 1). However, health promotion continues to claim and aspire to these central values.

This short account of my own research journey throws some light on the development of key issues which are evident in the six publications presented here. These are research to improve practice; the voice of research participants to influence and improve future policy and practice; compromises and constraints in participation; and the utility of different research methodologies.

3.3 Epistemology

The key issues and early research experiences explored above have shaped my own epistemological stance. A key concern for me has been how my epistemological stance resonates with the philosophy and values underpinning health promotion practice. In the current phase of my research journey, as evidenced by the studies presented here, I might be best described as an epistemological pragmatist. Pragmatism, which utilises mixed methods in study design, can involve both qualitative and quantitative methods in the same study. Alternatively, it can mean that comparison is made of findings from studies that have used different methodologies (Morgan, 2008). Pragmatism is congruent with my ontological position in relation to health promotion research, and tends towards subtle realism. This means that *“an external reality exists independent of our beliefs and understanding but reality is only knowable through the human mind and socially constructed meanings”* (Snape et al., 2003, p. 16). It also includes a relativist position that *“there is no single shared social reality, only a series of alternative social constructions”* (Snape et al., 2003, p.16). This blurring of understanding of the nature of reality as both objective and subjective potentially leads to a lack of clarity and fudging of my ontological and epistemological stance in conducting health promotion research. However, Snape and colleagues (2003) have explored the limitations of epistemological purism and argued that *“philosophical positions have been allowed to undermine pragmatic considerations”* (p.17).

In his paper exploring pragmatism in research, Morgan (2008) argued that researchers’ ‘top down’ concern with ontology limits the possibility of alternative methodological assumptions and constrains dialogue between communities of scholars who hold different beliefs about the nature of reality and truth. He also described the boundary between objectivity and subjectivity as a *“forced dichotomy”* and *“artificial”* (Morgan, 2008, p.59), arguing that social researchers need to shift from their preoccupation with ontology, and their tendency towards rigid adherence to the philosophy of knowledge. Rather he argues, they need to move towards becoming *“communities of scholars who share dynamic systems of beliefs”* that are not constrained by ontological assumptions or *“disconnected from practical*

decisions and the actual conduct of research” (Morgan, 2008, p.46, p.50). He also argued that pragmatism does not produce “*incommensurable kinds of knowledge*” (Morgan, 2008, p.46). But rather that the process of inter-subjectivity allows researchers to move backwards and forwards between different kinds of knowledge. This is an important consideration for health promotion research.

My epistemological understanding has developed in part as a function of my early research experiences. I have also been influenced by the health promotion literature. Certainly in health promotion research there has been longstanding debate about the nature of health promotion evidence (Nutbeam,1998; Tones & Tilford, 2001; Rootman et al., 2001; Thorogood & Coombes, 2004). A broad consensus has developed that both quantitative and qualitative research, either as mixed or single methods, are required in health promotion; and that both processes and outcomes should be valued (Nutbeam,1998; Tones & Tilford, 2001; McQueen et al., 2001; Thorogood & Coombes, 2004).

In health promotion research, pragmatism enables us to use the most appropriate research design to answer the particular research questions. It also values the process of conducting health promotion as much as the outcomes (Nutbeam,1998; Potvin, Haddad & Frohlich, 2001; Snape & Spencer, 2003). Nutbeam (1998) also argued that evaluation designs need to consider the stage of the programme development and combine different methodologies to answer the questions relevant for these different stages; there can be “*no single methodology*”(p27). Indeed, a wide range of evaluation methodologies are required which derive from the conceptualisation and the theoretical foundations of the programme (Nutbeam,1998; McQueen et al., 2001; Potvin, Haddad & Frohlich 2001).

The WHO report on evaluation, whilst dated, has outlined a convincing case for pragmatism in health promotion research (Rootman et al., 2001). The philosophical differences between the methodologies should not be conceptualised as a barrier. Rather, as McQueen et al (2001) argued, evaluation designs should be informed by, and be consistent with, the epistemological and theoretical assumptions underpinning the health promotion activity.

In the three studies presented here, the research teams held that both pragmatism and social constructionism facilitate the application of methodology that supports the health promotion perspective. The studies from which the papers presented here are drawn illustrate how different methodologies have utility.

In the *Breathing Space Study 1* a methodology informed by pragmatism was adopted and used both quantitative and qualitative methods. A qualitative process evaluation was embedded within a quasi-experimental study design. The researchers navigated within two epistemological positions: first positivism, where the researcher adopts a neutral stance with the world independent and unaffected by the researcher and, second, social constructionism, where social reality is co-produced between those researched and the researcher. Hence, research methods were used that had different epistemological roots.

Some would argue that combining methods with different epistemological roots in the same study design will present analytical difficulties. Indeed, Snape & Spencer (2003) stated that “*there is some debate about whether mixing methods across paradigms may lead to a lack of analytical clarity because each method relies on different assumptions in data collection and produces different types of data which may be difficult to reconcile*” (p.17). For many this is perceived as epistemologically impure. Usually the health promotion research endeavour is underpinned by pragmatism, and this often means that methodological pluralism is operationalised within health promotion research. In *Breathing Space Study 1* it was argued that the mixed methods were complementary and added to the overall study design.

The *Qualitative Community Study 2* and *the Smoke-free Homes Study 3* studies aimed to capture the socially constructed meanings attributed to the implementation of a tobacco control policy, across both time and place and to understand how decision making and choice is shaped in different social contexts through social interaction. A social constructionist perspective was thus adopted and qualitative methods were employed. The perspective of social construction in these two qualitative studies was informed by the seminal work of Berger and Luckman (1966) who explored how reality is a taken for granted assumption; whilst there is an

external 'real' world we only know of this world through our socially constructed meanings. Berger & Luckman (1966) challenged both 'taken for granted ways' of understanding our world and the notion that our knowledge of reality is unproblematic.

Berger and Luckman (1966) drew upon three key concepts in their treatise of the social construction of knowledge: objectivation, externalisation and socialisation. Moreover, they perceived social reality as a twofold process; first, shared meanings of social reality are constructed by people in their social interaction with each other; and, second, that people respond to social reality as if it is a fixed or pre-given reality. This is an ongoing process that is sustained by social processes and social practices. If we use the example of smoking and the cigarette, we can understand that the concept of objectivation implies that reality appears to be already ordered by objects; the cigarette is objectified, as a pre-given and fixed reality. It is understood, by smokers, as an object of pleasure, or, for some, as an addiction rather than as a composition of more than 4,000 chemicals. This process of objectivation is constructed by language and the inter-subjective world. Our everyday social interactions produce forms of knowledge that we share, thereby giving meaning to phenomena. These meanings are sustained through social practices, such as those involved in sharing a cigarette together. Berger and Luckman (1966) called this shared knowledge and meanings "*the social stock of knowledge*" p.56.

The concept of externalisation is how we give meaning to objects through symbols. Language is a complex system of attributed symbols that are products of our social construction. The symbol of a cigarette in advertising, such as the colours of a particular brand, for example, can be understood in the absence of the actual object of the cigarette. These systems of meanings are internalised through both primary and secondary socialisation.

Socialisation means that we can understand and share the social stock of knowledge that has been constructed over time. Berger and Luckman (1996) stated that choices and options for individuals, whilst appearing to be subjective are limited by the socio-cultural context of the individual. The process of internalisation constructs

society, identity of self and reality as an ongoing circular process, but the process of social construction is also dialectical; individuals are active agents in an ongoing construction of the social world, but constrained by social structures, that are in turn socially constructed (Burr, 2003).

Another, important point arising from Berger and Luckman's (1966) work is how knowledge of the social world is not fixed, but historically and culturally contingent. Because of this, all knowledge is relative. Whilst reality is only knowable through socially constructed meanings there is no fixed shared social reality, only a series of alternative social constructions that are specific to time, place and culture. Hence, what is essential in evaluating smoke-free legislation, in the context of changing smoking cultures, is how the discrepancies in our shared understanding of the social stock of knowledge about smoking and health are re-constructed by secondary socialisation through the de-normalisation of tobacco use and the institutional structures of legislation. In the *Qualitative Community Study 2*, the primary interest of the research is the potential for the process of social construction to transform and reconstruct social practices and social roles through social interaction. How do smokers construct and re-construct the smoke-free world through their interaction with each other and through the constraints of smoke-free legislation and within the socio-cultural context of their smoking?

3.4 Key issues in my research journey

In conducting this review of the methodologies and methods used in the three tobacco control studies presented here, two key issues have emerged. First, I explore the implications of the complexity of health promotion for the conduct of evaluations, and, second, I explore the challenges of capturing the intended and unintended processes of change in policy and practice evaluations.

Two of the studies are explored in order to review critically how process evaluation and qualitative longitudinal evaluation (QLLR) contributed as methodologies to the evaluation of the implementation of policy and practice in community settings.

Process evaluation is defined by Tones & Tilford (2001) as “*taking place during the programme and provides a ‘documentary evidence’ of accompanying processes*”(p.114). This enables the evaluator to record that “*important conditions for a successful intervention have taken place*” (Tones & Tilford, 2001, p.114) and to assess whether the objectives of the intervention have in fact been implemented. In the ***Breathing Space Study 1*** example a process evaluation was conducted to address some of the issues of complexity in community evaluations. It aimed to track and make sense of evolving programme dynamics and interactions, with a focus on capturing interactions between the participants and wider systems, as well as both the intended and unanticipated aspects of the programme. The evaluation recorded the actual processes of the implementation of the programme and also aimed to gain insights into key stakeholders’ experience of implementing the programme.

The second example is the ***Qualitative Community Study 2*** that adopted a qualitative longitudinal research (QLLR) design to address some of these issues of complexity in evaluating at the community level. To reiterate, the overall objective was to explore how the Scottish smoke-free legislation might re-shape the assumptions, beliefs and social rules about smoking in public places and how individuals and communities would change and sustain their social practices over time. QLLR is an evolving methodology which has become increasingly acceptable in policy evaluation (Molloy, Woodfield & Bacon, 2002; Holland, Thomson & Henderson, 2006). Key features of QLLR are those qualitative methods that allow for an exploration of change over time and which can capture how meanings change over time in particular social contexts (Holland, Thomson, & Henderson 2006; Molloy, Woodfield & Bacon, 2002). Hence, tobacco control policy can be explored within the wider societal shifts in the de-normalisation of tobacco use (Chapman & Freeman, 2007). QLLR enables the resultant policy developments to be explored at the micro level of community and individuals. The QLLR design was therefore adopted because it enabled the researcher “*to investigate how people’s everyday attitudes and actions are embedded in patterns of socio-cultural change, such as those that question previously taken for granted assumptions and beliefs about social rules*” (Holland, Thomson & Henderson, 2006, p. 2).

3.4.1 Evaluation methods and the complexity of health promotion

Evaluation is defined by Green & South (2006) as “*assessing the effects of an intervention and whether goals have been achieved*” (p.12). An important aspect of health promotion evaluation is recognition of the complexity of the environment within which the health promotion intervention is delivered. Complexity presented challenges to the evaluation of *Breathing Space Study 1* and the *Qualitative Community Study 2* in relation to the following considerations: the intervention environment is not always stable; the interventions incorporated multiple streams of activity and involved complex partnerships; objectives were often emergent and changed over time; the intervention worked differently in a range of contexts and there were often differential effects and unintended outcomes (Rogers, 2008; Judge & Bauld, 2001; Pawson & Tilley, 1997).

Understanding of complexity in health promotion evaluation takes into account the different spheres of influence on health which overlap and interconnect. This is illustrated by, for example, the Dahlgren and Whitehead (1991) social model of the main determinants of health, which comprises: age; sex and hereditary factors; individual lifestyle factors; social and community networks; living and working conditions; and general socio-economic, cultural and environmental conditions. The complexity of this social model of the determinants of health (Dahlgren & Whitehead, 1991) shapes some of the challenges that are inherent in health promotion evaluation (Nutbeam, 1998; Rootman et al., 2001; Potvin, Haddad & Frohlich, 2001; Thorogood & Coombes, 2004). The individual’s lifestyle is not independent of the environment in which he/she lives. While an understanding of the influence of the socio-cultural context on health behaviour is embedded in a sociological perspective (for example, Cockerham, 2011), it was more usual, at the time these studies were conducted, for smoking behaviour to be de-contextualised from the socio-cultural environment in policy and practice. In the three studies discussed here, I was interested in both individual lifestyle changes in smoking behaviour and the individual’s adaptation to smoke-free legislation, as well as wider social and environmental changes at the community level.

In a health promotion context, delivery of health interventions in the community is part of a settings-based approach to promoting health. This stresses the importance of locating health interventions within the socio-cultural and socio-economic environment in which people live, work and play, rather than focussing solely on individual lifestyles and individual health behaviour (Naidoo & Wills, 2000). It can generate many strands of health promotion activity, with many stakeholders across a range of sub-settings within the community (Naidoo & Wills, 2000). Health promotion interventions in community settings tend to be multi-component and complex, precisely because of the wide range of influences that shape an individual's health behaviour and the health of the community. McQueen et al (2001) argued that community evaluation is not designed to assess change by measuring solely the behaviour of the individuals within it. Rather, the focus should be on measuring change in the collective health behaviour of the community.

Participatory and community action approaches to health promotion evaluation are particularly complex. Indeed, where interventions are theoretically informed by community health promotion there is an assumption that the evaluation should also be participatory and empowering of the research participants and the community (Potvin, Haddad & Frohlich, 2001; Springett et al., 2001). Ideally, in health promotion research the intervention/evaluation process is fully participatory and the findings negotiated with participants. However, in the three studies presented here, time and resources constrained a full participatory process. Community-based evaluations often involve multiple stakeholders in partnership. This includes both professional and lay stakeholders who hold different and sometimes competing disciplinary and lay understandings of the intervention and its theoretical underpinnings. This can lead to problems in evaluating '*the complexity of practice*' (Green & South, 2006). In *Breathing Space* we found we had mistakenly assumed a shared understanding of the community development theory that informed the intervention. This limited insight into the lack of shared understanding within the intervention team led to confusion around the development of the aims and objectives of the intervention, which delayed implementation.

Furthermore, the evaluation funding bodies tended to be interested in establishing the effectiveness (or otherwise) of the interventions i.e. measurement of outcomes and impacts. It was therefore this imperative which shaped study design, at the expense of privileging the health promotion values of participation and empowerment. This was most challenging in the case of the evaluation of the *Breathing Space Study 1* which had adopted a community development approach which is evolving in nature and does not lend itself easily to the identification of clearly defined and anticipated outcomes at the beginning of the project (Jewkes, 2004).

Recent work by Patton (2011) has offered a convincing argument for not conducting outcome evaluations in community programmes that are iterative, participatory and constantly evolving. The participants in his community leadership programme were resistant and hostile when asked by the evaluators to standardise their intervention model after a period of formative evaluation. They were more interested, as practitioners, in developing and changing their programmes and did not accept that interventions could be standardised within constantly evolving and complex environments.

In response to these arguments Patton (2011) urged that evaluation should be ongoing and developmental, and evaluation feedback should be a consistent feature of the programme. He argued that evaluation should aim to help practitioners develop and refine the programme on a continual basis. Moreover, he argued that summative evaluation often failed such programmes. This is because the evaluators make unrealistic assumptions about the stable and fixed nature of programmes located within community complexity.

Patton (2011) provided some helpful concepts to understand complexity: “*non-linearity, emergence, dynamical systems, adaptiveness, and uncertainty*” (p7). These concepts will be defined and illustrated with examples from the three studies.

Non-linearity means that interventions can proceed in unexpected ways and small actions within an intervention can have large repercussions. Hence, for example, in *Breathing Space Study 1*, a period of sickness for a key member of personnel at a local health project led to major repercussions for the project that in turn led to

unexpected approaches being developed within the community. In *Breathing Space* the integration of process evaluation into the study design led to an understanding of such repercussions.

Emergence means that it is difficult to predict what will happen in advance as objectives and the activities of the intervention will be evolving. This argues a need to build flexibility into the study design so that emerging issues can be captured. In the *Qualitative Community Study 2* a longitudinal qualitative research design was adopted to provide such flexibility. In *Breathing Space Study 1* emergence was central to the community development theory that informed the intervention. It was expected that the objectives of the intervention would evolve over time as the project engaged with the local community and stakeholders.

A dynamical system means that interventions are operating in wider systems that are continuously changing and interacting with other parts of the system. In *Breathing Space Study 1*, for example, a national tobacco control policy was implemented during the life of the intervention. This meant that the intervention had to change and interact with new smoking cessation systems that were delivered, as a result of policy change, in the local primary care setting.

Adaptiveness means that members of an intervention are operating within practice and policy environments that are constantly changing. It also means that members of an intervention team are often working across disciplinary boundaries and working in partnership. They therefore need to adapt to, and interact with, a wide range of stakeholders. In *Breathing Space Study 1*, this can be illustrated by the conflicts and misunderstandings that occurred in the partnership between community and NHS health board groups. Capturing the perspectives and experiences of the key stakeholders of working together in *Breathing Space* was central to the process evaluation.

Uncertainty means that the conditions within which interventions are operating are unpredictable and not controllable. What is of particular relevance to the *Breathing Space Study 1* was the uncertainty about the extent of community engagement with smoking. The subsequent success of the project was dependent upon this

unknowable element. In the *Qualitative Community Study 2* there was uncertainty about the mechanisms of the implementation of smoke-free legislation at the micro level of community.

These concepts illuminate the complexity of conducting evaluations in community settings. They give rise to some methodological implications when conducting evaluation in complex community systems that are uncertain and not controllable.

A consideration of Patton's (2011) complexity constructs would have been a useful addition in the design of *Breathing Space Study 1* and have enabled us to focus more on the evolving and changing nature of the intervention. In particular there was an underestimation of the impact of change and uncertainty. Developmental evaluation may have facilitated further understanding of how systemic barriers were operating within the sub-systems of the *Breathing Space* partnership, the community and the wider policy system. It may also have assisted understanding of the problems the intervention team were facing when adapting to a changing external policy environment, at the same time as trying to achieve the pre-defined outcomes of the intervention.

Ways of capturing complexity in community based evaluations is an ongoing endeavour. Work in this area is evident in the evaluation of Health Action Zones (Judge, 2000; Judge & Bauld, 2001), and the development of a framework for measuring community health and well-being (Hashagen, 2003) and the application of the theory of change in community health promotion (Mackenzie & Blamey, 2005). The constraints of space do not allow for a full exploration of these new developments. Rather, examples of the particular methodological issues that were encountered in the three studies presented here will be further explored in the next section.

3.4.2 Capturing intended and unanticipated processes in policy and practice

A second key element of the three studies was to capture processes of change in the context of shifting smoking cultures and the emergence of new social norms about

smoking. The studies aimed to capture how our shared understanding of the social stock of knowledge about smoking are constructed and re-constructed. Both intended and unanticipated processes of change were captured by process evaluation in *Breathing Space Study 1* and QLLR in the *Qualitative Community Study 2*.

Breathing Space used a quasi-experimental design with an embedded process evaluation. The intention was to measure processes using qualitative methods and outcomes using quantitative methods. It aimed to consider how the processes of programme implementation were related to programme outcomes. The integration of both processes and outcomes was to provide a critical understanding of how the programme was delivered and in what conditions outcomes were produced (Nutbeam, 1998; Pawson & Tilley, 1997). Importantly, the outcome data in ‘*Breathing Space*’ actually showed no differential effect in the intervention community. It was therefore critical that process evaluation had been included in the study design as this provided an understanding of the ‘failure’ of the intervention.

The process evaluation aimed to capture change within a complex range of health promotion activities. These activities were multi-layered in a range of sub-systems within the community. The sub-systems comprised young people’s settings, primary care, community facilities and the workplace. The intervention activities were different in each of these settings and involved a range of stakeholders. The process evaluation also teased out the logic of the programme and the ‘fit’ with the underpinning community development theory.

The scope of process evaluation has been problematised within recent literature. Munro and Bloor (2010) questioned whether process evaluation claims too much in the context of complex community evaluations. They were particularly concerned about whether the findings from process evaluation can claim to be usefully applied in other contexts. While Munro & Bloor (2010) stress the value of the richness of the insights found in process evaluation they qualify this by stating that “*deepened understanding will always be nuanced and qualified*” (p.710). They were also critical of gathering process evaluation where there is a lack of clarity about the anticipated outcomes. However, Oakley et al (2006) strongly advocated for process

evaluation in RCTs of complex interventions because of their “*multi-faceted nature and dependence on social context*”(p.413) and have argued that process evaluation is useful in developing an understanding of how interventions fail. This was a particularly poignant point for *Breathing Space*. Hawe, Shiell & Riley (2004) have also noted that, whilst the RCT should be delivered in a standard way, this may not allow for consideration of contextual issues. They argued that it is the process evaluation that provides insights into such complexity and allows for a more sophisticated addition to the RCT design. It is this nuanced understanding of how and which mechanisms work in which particular context that is of value to health promotion. Hawe, Shiell & Riley (2004) have also argued that health promotion programmes require contextual adjustments when they are subsequently delivered in different contexts. Evaluating programmes without consideration of context can produce misleading learning and limit opportunities for generalisation of the findings. It is the linking of process and outcome evaluation that is valuable for complex evaluations (Potvin, Haddad & Frohlich, 2001). While process evaluations are now commonly embedded in RCTs and quasi-experimental studies, at the time of *Breathing Space* this was a relatively new practice in health promotion evaluation.

The process evaluation element of *Breathing Space* was also important in its own right, because of its potential to shed light on intervention implementation. One of the first learning points from *Breathing Space* was that our understanding, at the time, of conducting a quasi-experimental study design precluded the use of process evaluation as a formative approach. It has been suggested that formative evaluation can be utilised as a form of feedback and as part of an ongoing process of programme development, resulting in adjustment to and re-shaping of the intervention (Tones & Tilford, 2001). For example, when it was observed that the *Breathing Space* intervention was floundering, the research team wished to share how this was happening with the intervention team. However, the roles adopted by the researchers and the requirements of the quasi-experimental study design for a more neutral researcher stance, rendered such sharing of findings problematic. Our understanding of the quasi-experimental design meant that feedback from the process evaluation, to enable practice development during the implementation of the

intervention, was not considered appropriate. In retrospect, a formative evaluation would have added to the quality of the intervention.

The second learning point related to objective setting for the outcome evaluation, in relation to the evolving nature of community development. In retrospect, the outcome evaluation in *Breathing Space* was conducted too early during the initial engagement with the community, rather than at the point when the programme was fully designed and implemented. In some respects, the identification of anticipated outcomes for *Breathing Space* was prematurely forced in order to conduct the pre-intervention survey. This survey was conducted prior to the development of the intervention because of the requirements of a quasi-experimental design to establish a baseline. Moreover, the predicted outcomes for the intervention did not fully reflect the final aims and objectives that evolved for the community intervention. Importantly, this process evaluation has demonstrated that the timing of the stages of an outcome evaluation needs to be considered carefully, especially when using community development methods. Patton (2011) urged consideration of how much time is required for programme development, particularly for those programmes which design the content of the programme in an iterative and evolving way. Patton (2011) suggested that conducting a summative evaluation in many community programmes may not be useful. He noted that continuous developmental evaluation was more highly valued by programme implementers (Patton, 2011).

The third learning point was the negative impact of the unanticipated changes (e.g among key stakeholders and in the wider external policy environment) that occurred during the project. The intervention team had to adjust unexpectedly to resource changes, personnel changes and top-down policy changes that had not been anticipated. These changes inevitably impacted on the predicted outcomes and the shape of the intervention.

Breathing Space has provided an example of how process evaluation can capture and enhance understanding of programme implementation that is of potential value to future tobacco control interventions using a community development approach. Importantly, the process evaluation illuminated the complexity of the practice and

policy environment. 'Failure' of the intervention was understood to be a function of contextual factors and the processes of constant change rather than the theoretical approach of the intervention (even though the intervention team lacked a shared understanding of the theory of the programme). 'Failure' of the intervention can also be considered a function of the premature execution of the outcome evaluation before the intervention was fully developed and implemented, but this was only understood through the process evaluation. The linking of process and outcome data was essential for understanding the 'failure' of the intervention. The *Breathing Space* study lends support to those authors who have strongly advocated for this merging and linking of process and outcome data (Oakley et al., 2006; Potvin, Haddad & Frohlich, 2001).

The *Qualitative Community Study 2* provides a further example of the importance of capturing intended and unanticipated processes in policy and practice. To reiterate, QLLR is a new and evolving longitudinal methodology for the evaluation of policy that uses qualitative methods. Data is collected at different time points from the same or a similar panel of participants, in order to capture change in policy and practice. QLLR contributed to an understanding of how change can be explored during the implementation of policy. Holland, Thomson & Henderson (2006) stressed the importance of the '*situation specific experience*' (p.2) of policy on everyday lives. In justification of the longitudinal qualitative approach they cite Henwood and Lang (2003) who argue that '*panel studies based upon quantitative methods are unable to access the fluid and often highly situation specific experience, understandings and perceptions that mediate the ways in which people deal with and respond to social change*' (p.2).

The deployment of QLLR methods allows components of change in the implementation of tobacco control policy to be grasped. Use of QLLR in the *Qualitative Community Study 2* enabled the researchers to adjust, and respond to, unanticipated events occurring during the research process. QLLR design also enabled the researchers to capture a deep insight into the process of change in social practices over time and importantly enabled them to uncover unintended consequences of policy. QLLR was used to capture the fluid and dynamic nature of

change over time and place. There were, however, a number of challenges encountered in using QLLR for the first time, including baseline assessment, managing the large qualitative data set, potential attrition, purposive sampling and discreet observations. Some of the challenges faced in QLLR, such as establishing a baseline and sample attrition, are also found in conventional longitudinal (panel) quantitative survey methods.

The first learning point to arise in the QLLR was during the establishment of the baseline for individuals and the communities, before the implementation of the smoke-free legislation. Here, there was concern about how to establish a ‘true’ baseline; when the trend towards a smoke-free culture in public places had started pre-implementation. This led to questions about how to assess what changes were related to the legislation and what changes might have occurred anyway. In order to establish a qualitative baseline, interviews were conducted with the purposively selected panel in each of the four communities, two of which were advantaged and two disadvantaged. Observations were conducted in public places in each of the four communities. It was found that there were different starting points in relation to the experience of the communities at the pre-legislation stage. The advantaged communities were already developing cultures that were favourable to smoke-free, with more observed no-smoking areas in public places than in the disadvantaged communities. Hence, it was anticipated that the impact of the smoke-free legislation would potentially be experienced differently by the different communities. It is this complex understanding of differential change, as a consequence of public policy, that is essential for improving public health without increasing inequalities in health. Unlike the imperative for the establishment of a baseline in experimental research study designs, a ‘true baseline’ was not established in the *Qualitative Community Study 2*. Since the baseline from a qualitative perspective can be understood as contextual and contingent on time and place, the imperative of ‘accuracy’ was deemed less important in this study. Instead, it was important to understand the current and possible differential context of smoking in public places pre-implementation of smoke-free legislation in all four communities, and then to understand, post-implementation, what influenced social practices in these contexts.

Other research designs, such as repeat cross sectional surveys, might have been used, but this would not have captured the dynamic nature of the change process that was made possible by returning to the same panel each time (Molloy, Woodfield & Bacon, 2002). While conventional longitudinal (panel) quantitative survey methods are able to capture change over time, they are not suited to capturing the qualitative and contextual nature of change.

In using QLLR for the first time, there were a number of learning points in relation to the management of what is, for qualitative research, a large dataset. First, there were a number of challenges to be addressed regarding the analysis of change across the four waves of data collection using a range of data collection methods (interviews, focus groups, key stakeholder interviews and observations) across four communities. There were particular concerns about how to maintain distinct and individual participants' accounts over the different waves of data collection. This was important because one of the research interests focussed on individuals' stories of how, over time, they adjusted to the smoke-free legislation. This was termed 'the within case analysis'. Capturing these processes of change involved using a range of qualitative methods and deep immersion in the communities. However, reducing and managing large datasets using a range of qualitative methods is problematic. These issues were addressed through consideration of ways to integrate data generated by different methods and at different levels, whilst retaining the richness of the data. A detailed account of the processes involved in the analysis is provided below and further expanded in the appendices (1 & 2). This detailed attention to the analysis is mainly because of the evolving nature of QLLR and the current interest in the practicalities of 'how to do' a QLLR analysis.

The process of the 'within case analysis' firstly involved conducting a descriptive analysis of each participant's accounts across the whole dataset, and then viewing each set of accounts through a longitudinal lens. This was achieved by summarising the descriptive themes at each wave for each participant. For the 'within case analysis' each individual participant was summarised by the following themes at each wave: demographics; children and family; smoking in the home; smoking outside the home; smoking in the street; smoking at work; smoking at leisure;

smoking with friends and types of socialising; cigarettes; alcohol; eating and drinking; views of the ban and passive smoking. It was found to be important to maintain descriptive themes in the summaries and not to begin to move to analytical coding too early before the waves were completed. Next, participant summaries, both thematically and with a longitudinal perspective, were situated within the participant's own community. Following this, the summaries were qualitatively compared across all the communities. That is, participants were viewed together across all the communities. This was referred to as the 'across case analysis.'

The 'within community analysis' and the 'across community analysis' were conducted in a similar way to the individual participant analysis. Firstly, each of the community observations, in each of the four communities, was summarised at each wave. This meant that a longitudinal qualitative analysis of the summaries of all the community venues was conducted to develop a community picture of the adjustment to smoke-free legislation. The 'across community analysis' entailed a longitudinal qualitative comparison across all four communities. Particular comparisons were made for the two advantaged and the two disadvantaged communities. The participants' accounts were then situated across all four communities over time. By conducting an 'across case analysis' of all participants and all communities, and by using the analysis of the shared themes across the dataset and then comparing the processes of change within and across the communities, the different types of data were cross-cut (Holland, Thomson & Henderson, 2003).

The development of individual and community summaries captured the longitudinal aspect of the data. However, balancing the thematic analysis with the preservation of the individual panel member's accounts across time was challenging. This was because the process of fragmenting the data thematically might threaten notions of time and context. As Holland, Thomson & Henderson (2003) have argued, de-contextualised participants' accounts run the risk of becoming "isolated stories" (p21). A criticism of thematic analysis is that it mainly focuses on content rather than context (Riessman, 2008). A further criticism of thematic analysis is the assumption that accounts of individuals located in any one theme are similar (Riessman, 2008). However, the thematic analysis across the whole dataset was useful in enriching the

later longitudinal analysis of the individual and community accounts. In this way, the different types of data were integrated and interrogated for themes that related to both content and context and then later viewed longitudinally. A limitation of the summaries was that they tended to fracture the individual and community accounts. However, by linking the summaries with the thematic analysis, the richness of data relating to individual and community change across time and place was preserved to some extent. Additionally, summarising individual accounts at each wave aided the researchers' familiarity with the participants' stories over time, and reduced the risk of fracturing individual accounts. As the researchers carried out observations they became much immersed in the different communities. This assisted in developing rich understanding of each community over time.

A detailed account of the process of the individual participant analysis is found in appendix 1 and of the process of community analysis is found in appendix 2.

Another learning point in QLLR related to the retention of the panel participants over time. In the *Qualitative Community Study 2* the waves of data collection were conducted over a relatively short period of time and the panel of participants was largely maintained across waves. This was achieved by a strategy which involved using postcards to maintain regular contact with participants, keeping up to date tracking information (such as contact numbers for family members and mobile phone numbers), and by offering small payments as honoraria. Attrition rates were low: 88% of the initial sample was successfully re-interviewed at time point 3 and the panel at this point had an almost identical age and gender profile to the original panel.

A fourth learning point related to benefits of purposive sampling in capturing unanticipated changes in policy implementation. Molloy, Woodfield & Bacon (2002) pointed out the benefits of a flexible purposive sample, whereby changes can be made to the sample to capture issues that might not have been previously envisaged. They argued that it is more important to maintain the diversity of the sample across time through further purposive sampling, than retain the original panel. Changes were made to the QLLR sample for two unanticipated reasons. First, the researchers

had been surprised by how many people, particularly those in the disadvantaged communities, had narrow social lives that were mostly focussed in the home and who were therefore not socialising in public places. As the research was particularly interested in individuals who socialised in smoke-free public places, a small sub-group sample who identified themselves as ‘regular socialisers’, was purposively selected. This sub-group included those who had indicated in previous waves that they were still frequenting bars, clubs or cafés. Second, the original study period was from October 2005 to December 2006. However, because it had been an unusually warm winter during wave 3 and as smoking in public was now an outside activity, the research failed to capture any of the anticipated effects of the weather. Because of this a fourth wave of data collection took place during January to March 2007 to capture any potential differences due to colder weather. A sub-sample of socialisers was purposively sampled primarily to explore seasonality effects.

A final learning point relating to the use of methods for capturing changes in the use of public spaces necessitated the visiting and revisiting of selected community leisure venues. These covert observations in public spaces, which included pubs, cafes and streets, were challenging. This issue was explored in the paper ‘*Covert observation in practice: lessons from the evaluation of the prohibition of smoking in public places in Scotland*’ co-authored with other colleagues in the CLEAN collaboration who conducted covert observations (Petticrew et al., 2007).

The observations, which were semi-structured, involved recording a range of phenomena, including the layout of the venue, smoking-related signage, designated non-smoking areas, how many smokers and non-smokers were present, how often and for how long smokers left the venue to smoke outside, and whether smokers congregated or smoked alone. Any smoking-related incidents were recorded as ‘vignettes’, along with critical incidents of observed infringements of the law. In total, 54 observations were conducted across the four data-collection waves. There were two main areas of learning related to discreet observations in the *Qualitative Community Study 2*. The first was the management of personal safety and the second related to ethical issues. Below, I present an extract from my contribution to the joint paper to illuminate this learning:

Extract from Petticrew M, Semple S, Hilton S, Creely K, Eadie D, **Ritchie D**, Ferrell C, Christopher Y, Hurley F. (2007) Covert observation in practice: lessons from the evaluation of the prohibition of smoking in public places in Scotland. *BMC Public Health*,7, 204.

'The observational element of the Qualitative Community Study presented a number of challenges, which were overcome primarily by working within existing community networks. Where there were particular concerns for safety, such as in areas of socio-economic deprivation, local people were recruited through local community projects or contacts to accompany the fieldworker into the location. Two female fieldworkers were deployed in each location to act as participant observers. Blending into the context aimed to reduce the risk of threats to personal safety and to limit any bias introduced through observer effects.

There are ethical issues involved in 'covert' observation in a community context, in particular the potential to violate the principle of informed consent and the need to avoid invading personal privacy. However, all the places in which data collection occurred were 'public places' and the individuals and the specific locations remain protected by anonymity and confidentiality. Personal information concerning research participants that may have been inadvertently divulged during the observations and through the unavoidable conversations that occur has been kept confidential and under review to identify any sensitive material that may not have been appropriate to record' (Petticrew et al., 2007, p.204).

3.5 Conclusion

The chapter has provided an exploration of how my early health promotion practice and research experiences informed my epistemological stance in the studies presented here. In addition, the values and philosophy of health promotion also influenced my research imperatives of valuing the voice of the participants and making a contribution to practice and policy. Key themes that emerged from a critical reflection of the methodologies and methods were explored to consider the complexity of tobacco control evaluation in community settings and to capture the intended and unintended processes of change in policy and practice implementation. Several challenges in using both process evaluation and QLLR were explored. Solutions generated from their practical application have been suggested. A

contribution is made to knowledge based on my reflections on the practical application of process evaluation and QLLR.

Chapter 4 Social de-normalisation of tobacco use – learning from the Scottish context

4.1 Introduction

The focus of this chapter is to review the six published papers, as they collectively relate to the development of smoke-free environments and to professional engagement through the lens of the social de-normalisation of tobacco use, in the development of tobacco control in Scotland from 1999-2007. The concept of de-normalisation will be explored within the context of four key papers that have informed recent discussions in the literature (Bell et al., 2010^{a,b}; Chapman & Freeman, 2007; Hammond et al., 2006).

The smoker's experience of the de-normalisation of tobacco use has been considered, in a limited way, within the tobacco control literature. Smoking is generally perceived as an individual behaviour; however, attention to the social meaning of smoking is often absent (Mckie, Laurier, & Taylor, 2003). The six papers, viewed together, provide a critical overview of the different stages of the social de-normalisation of tobacco use, as it relates to smoke-free environments in Scotland. In addition, the six papers illuminate how those living and working in communities have experienced the social de-normalisation of tobacco use and its consequences. As part of this account, the unintended harms of a de-normalisation strategy, such as stigmatisation, are considered, particularly for those smokers living in disadvantaged communities (Poland, 2000; Chapman & Freeman, 2007; Heaton, Vallone & Cartwright, 2009; Bell et al., 2010^{a,b}).

Understanding of the concept of stigma is informed here by the work of Goffman (1963) who describes a stigmatised person as being:

“reduced in our minds from a whole and usual person to a tainted, discounted one. Such an attribute is a stigma, especially when its

discrediting effect is very extensive; sometimes it is also called a failing, a shortcoming, a handicap. The term stigma then will be used to refer to an attribute that is deeply discrediting” (Goffman, 1963, p. 12-13)

Within tobacco control the concept of stigma is useful for understanding issues around power and the social processes of marginalisation. Stuber, Galea & Link (2008) conceptualise stigma as:

“the negative labels, pejorative assessments, social distancing and discrimination that can occur when individuals who lack power deviate from group norms. Stigma is at once a social process of marginalization perpetrated by those who do the stigmatizing and at the same time a condition that stigmatized individuals must navigate.” (Stuber, Galea & Link, 2008, p.421)

The explicit use of stigma, as a tool for public health in the social de-normalisation of tobacco use, will be discussed in a later section of this chapter.

Another useful concept for understanding the way in which individual and social health is promoted through tobacco control is that of ‘bio-power,’ which was developed by Foucault. Bio- power is defined as:

“power employed to control individual bodies and populations.”
(Gustaldo, 1997, p.114)

Here, the concept of bio-power and its relevance within tobacco control is apparent through the state’s application of disciplinary powers, targeting smoking, at both the macro and micro level. This might include, for example, smoke-free legislation and changing professional discourses of smoking behaviour (macro level), and associated smoking cessation treatments (micro level).

From a health promotion perspective, the concept of the ‘social body’ is useful for understanding how the individual body is embedded in and shaped by the ‘social body’ or the ‘population body’. Such understanding links macro and micro levels of power (Gustaldo, 1997). Health promotion activities seek to improve both the health

of the individual body and the social body, at the population level. Through health promotion the ‘social body’ becomes a ‘governable body’. In the analysis of health promotion developed by Gustaldo (1997) disciplinary control over the social body is exercised through a ‘web of micro-powers’, of which health promotion constitutes one example.

4.2 Defining social de-normalisation of tobacco use

Drawing upon the definition used in the Canadian national strategy (1999) Chapman & Freeman (2007) have described the de-normalisation of tobacco use as:

“activities undertaken specifically to reposition tobacco products and the tobacco industry consistent with the addictive and hazardous nature of tobacco products, the health and social and economic burden resulting from the use of tobacco, and the practices undertaken by the industry to promote its products and create social goodwill toward the industry” (cited in Chapman & Freeman 2007, p.26).

Chapman & Freeman’s (2007) development of the concept of de-normalisation, to include challenges to the acceptance of smoking, is of particular relevance to the understanding of social de-normalisation of tobacco use adopted in this chapter.

They write:

“ the term [de-normalisation] is also used to encompass efforts challenging notions that smoking ought to be regarded as routine or normal, particularly in public settings ” (Chapman & Freeman, 2007, p.26).

Chapman & Freeman (2007) reached their understanding of de-normalisation of tobacco through a review of the key activities undertaken by the tobacco control community, such as media campaigns, to reposition tobacco products as harmful and unappealing to the smoker. Bell et al (2010^{a,b}) have also emphasised how de-normalisation strategies are concerned with transforming social norms about tobacco

use, in order to depict smoking as non-normal behaviour. Bell et al (2010^b) have argued that the strategy of smoke-free environments has been one of the most successful de-normalisation approaches.

Chapman & Freeman (2007) drew upon two theoretical positions to explore the social de-normalisation of tobacco use. First, they explored how changed social norms about smoking have influenced smoking behaviours. The normalisation and de-normalisation of health behaviours are linked to perceptions about the prevailing social norms and acceptability of those behaviours. Hammond et al (2006) stated that the marketing strategies of tobacco companies are focused upon maintaining an acceptable image of smoking. Indeed, the social acceptability of starting and maintaining smoking are shaped by social norms (Hammond et al., 2006). In tobacco control, two forces compete to influence the social acceptability of smoking. The tobacco industry competes to maintain the normalisation of smoking, while tobacco control aims to de-normalise the social acceptability of smoking. Hammond et al (2006) explored two approaches to de-normalisation: tobacco industry de-normalisation and social de-normalisation. They developed three measures of social de-normalisation beliefs: *'belief that society disapproves of smoking; belief that there are fewer places I feel comfortable to smoke; and belief that people who are important to me believe I should not smoke'* (p229). Hammond et al's (2006) findings suggested that smokers exposed to high levels of social de-normalisation are more likely to intend to quit than those smokers exposed to low levels of social de-normalisation. In addition, they found that those smokers with higher socio-economic status had stronger social de-normalisation beliefs.

Secondly, Chapman & Freeman (2007) have explored how Goffman's (1963) concept of stigmatisation can be related to the changing social unacceptability of smoking and the smoker. Both Chapman & Freeman (2007) and Bell et al (2010^{a,b}) emphasised how stigma has been used to counter the social acceptability of smoking. It is also argued, however, that stigmatisation of smokers is less acceptable when the smoker is disadvantaged, and that more consideration should be given to addressing the negative impact of stigmatisation (Bell et al., 2010^{a, b}).

The reflections of Bell et al (2010^{a,b}) and Chapman & Freeman (2007) on the current trend in the social de-normalisation of tobacco use have highlighted the need for qualitative research that would draw upon the experience of smokers of the de-normalisation strategies for tobacco use. They also argued for studies to consider the potential harms caused by this de-normalisation trend (Bell et al., 2010^{a,b}, Chapman & Freeman, 2007). The papers presented in this thesis have attempted to address these gaps in the literature. They illustrate how smokers talk about their own and others' smoking in the context of smoke-free environments, and also consider the social process of the de-normalisation of tobacco use over time. In addition, the unintended consequences of stigmatisation are considered.

4.3 De-normalisation of tobacco use in Scotland 1999-2007

The papers report findings from three studies that were conducted during a period of de-normalisation of tobacco use (1999-2007) when policy, legislation, smoking cessation service development and health promotion in the community contributed to shifts in the social unacceptability of smoking. The papers have explored some of the emerging social practices of smokers that were shaped by the prioritisation of smoking as a public health concern. The underlying social processes, such as the enactment of legislation and changing professional discourse, were explored at the micro level (individual) and meso level (community and home), and where smoking behaviours are embedded within a particular social context. The social practices that have emerged through the creation of smoke-free environments and the development of professional practice are the focus for this exploration of the social de-normalisation of tobacco use.

Insights into some of the different stages of the process of de-normalisation of tobacco use are drawn from the overview of the six papers presented here. The stages span early local grassroots' tobacco control activities, creation of a comprehensive national smoke-free legislation, and emergence of new discourse about the unacceptability of smoking in the home. This period of tobacco control activity marked a shift in the sphere of influence of tobacco control. In the early

stages, the main focus was upon taxation, media campaigns, community campaigns and service development which aimed to influence community cultures, smoking lifestyles and professional practices. In the later stages of the process of the de-normalisation of tobacco use it was observed that tobacco control activities reached into the private lives of smokers, where public health expectations about smoking behaviour targeted both public and home environments. However, it is important to note that it is not claimed that these stages are linear or predictive steps in the de-normalisation of tobacco use strategies. Nor are all tobacco control activities considered in this discussion. Rather, the papers provide an insight into the social meaning of smoking as it relates to the development of smoke-free environments, at a particular time and in particular social contexts in Scotland.

The stages of the de-normalisation of tobacco use, during the period 1999-2007 in Scotland, are considered next through an understanding of how power is used by government and via health promotion. It is argued that an understanding of the power relations between government, health promotion, smokers and non-smokers was central to the de-normalisation of tobacco use

Breathing Space Study 1 (1999-2002). This study was carried out at an early stage in the de-normalisation of tobacco use when it was unusual for disadvantaged communities, and professionals working therein, to be involved in tobacco control. The findings from ***Breathing Space Study 1*** suggested that there was, at that time, resistance from both the community stakeholders and the health professionals to the prioritisation of tobacco control work. These groups argued that smoking in disadvantaged communities was a culturally normative behaviour, and that there were far more pressing needs for their clients to address than tobacco use. The findings also suggested that the health professionals involved in the ***Breathing Space*** intervention lacked tobacco control experience, and a shared theoretical understanding of how to implement tobacco control programmes in the community. At this time, in Scotland, there was limited experience of smoking cessation, tobacco control and the prioritisation of tobacco control among health professionals.

Community development was the discourse framing health promotion intervention which addressed de-normalisation of tobacco use in *Breathing Space Study 1*. Participatory approaches were prioritised at the local level, alongside the emergence of national tobacco control policy. Importantly, during the life of the *Breathing Space Study 1* the impact of the UK *Smoking Kills* White paper (Secretary of Health, 1998), which had emphasised the importance of smoking as a public health issue, began to shape the development of the national smoking cessation service in Scotland. This White paper, and subsequent guidelines and funding, was an enactment of governmental powers to shape and prescribe smoking behaviours as unhealthy. These macro level policy developments caused disruption to some of the activities at the local level in the *Breathing Space* intervention. However, despite such disruption, the translation of governmental powers at the micro level, through community initiatives and the development of smoking cessation services, during this early stage of de-normalisation, were experienced by smokers and community stakeholders as a constructive use of power, rather than as coercive power. The community development focus of *Breathing Space Study 1* suggested that the values of participation and empowerment were embedded in these micro power processes of health promotion. Participation and empowerment in health promotion practice are utilised to avoid victimisation and subjugation which would be considered a negative use of power in health promotion (Tones & Tilford, 2001). However, despite the stated aims of *Breathing Space Study 1* to embed participation and the empowerment of individuals and the community into the intervention, papers 1 and 2 illustrate problematic aspects of using participatory processes at that historical period.

Drawing upon Gastaldo (1997), who has used a Foucauldian perspective to conduct a wider analysis of health promotion, it can be argued that, at this stage of the de-normalisation of tobacco use in *Breathing Space*, health promotion was an active agent in prescribing smoking as an unhealthy behaviour and proposing a ‘non-smoking’ lifestyle as a normative expectation at both individual and population levels. Here, power is experienced as diffuse and subtle, rather than as an oppressive or violent force. The shifts in the discourse of smoking resonate with this analysis of

power. Healthy lifestyles and health priorities are first determined by government policy. Health promotion is then adopted by government, as a participatory approach, to predefine a normal healthy lifestyle, and in this case defining smoke-free as normative. However, this is a complex process that may engender both co-operation and resistance. Utilising health promotion at this early stage of de-normalisation of tobacco avoided coercive prescription by the state. Normality is therefore constructed through participation, and thus the health of the social body is managed through the discourse of health promotion. In this way Gustaldo (1997) argued, people change their health behaviours without feeling coerced, and power is experienced as constructive. Using Gustaldo's analysis of health promotion, *Breathing Space study 1* can be seen to represent the earlier stages of de-normalisation of tobacco use by predefining the smoke-free lifestyle as a priority in a disadvantaged community. *Breathing Space study 1* also illustrated how policy and funding began to shape the professional discourse about smoking behaviours. However, papers 1 and 2 illustrate how resistance to the prescription of a smoke-free lifestyle and the lack of engagement of professional health workers, acted as a barrier at this early stage of the de-normalisation of tobacco use, in one disadvantaged community.

The papers based on the empirical findings from *The Qualitative Community Study 2* (2005-2007) provide an insight, from four contrasting communities (two advantaged and two disadvantaged communities), into the explicit use of legislation to de-normalise tobacco use in public places. This was achieved by the enactment of legislation in March 2006 that limited the places where smokers could smoke and served to reinforce emerging social norms around smoke-free public places. *The Qualitative Community Study 2* was carried out at a later stage of the de-normalisation of tobacco use, when public support for more comprehensive tobacco control strategies had increased. Public support was shaped by both significant public debate and consultation, and thus maintained the participatory processes described in the earlier stages of the de-normalisation of tobacco use.

In the two more advantaged communities it was observed that there were more smoke-free public places prior to the implementation of legislation. The early stages of the de-normalisation strategy had provided these more affluent communities with the opportunity to experience smoke-free environments voluntarily, without any direct imposition by the state. In these advantaged communities, smokers' discourse was generally supportive of smoke-free environments, supporting Hammond et al's (2006) contention that smokers from higher socio-economic groups are more likely to consider smoking to be unacceptable than smokers from lower socio-economic groups.

However, in the disadvantaged communities smoking continued to remain a culturally normative behaviour, with smoking remaining highly visible in public places, prior to the implementation of the smoke-free legislation. These disadvantaged communities had been less influenced by the more subtle cultural shifts in the normative status of smoking, appearing less susceptible to the wider changes within society. This may have been due to the higher levels of smoking and the lack of prioritisation of smoking by health professionals in such communities. The empirical findings, illustrated by the papers presented here, suggest that the disadvantaged communities were less aware of the significant public consultations and debates about the smoke-free legislation. Indeed there was less support for the smoke-free legislation in the disadvantaged communities (Haw & Mackie, 2009). Power was not perceived as constructive, but more coercive in these communities. Pre-legislation discourses in the disadvantaged communities were centred more on resistance to the legislation. While disadvantaged communities generally complied with legislation, a discourse of resistance and disempowerment was expressed by some smokers. The rationale for compliance was described as loyalty towards publicans, rather than concern for health.

From a Foucauldian perspective, it can be said that smokers in both advantaged and disadvantaged communities engaged in self-regulatory activities to control their public smoking. The disciplinary power of government was therefore diffused and localised through a set of social practices that operated at the meso level of the community. Through the implementation of legislation smokers adjusted their

smoking behaviours in public places and smoke-free behaviours became embedded in everyday social practices. The diffusion of the localised nature of power through new social practices is illustrated by the ways in which smokers complied with the legislation, but at the same time expressed resistance. New identities for smokers emerged and were shaped through the enactment of these disciplinary powers of state legislation. Smokers developed new identities as both considerate and compliant smokers alongside identities as stigmatised smokers.

Compliance with the smoke-free legislation was high in all socio-economic groups, with minimal infringements (Haw & Gruer, 2007; Donnelly & Whittle, 2008; Ritchie, Amos, Martin, 2010^{a, b}-papers 3 & 4; Eadie et al., 2008). However, the nature of compliance with the legislation was qualitatively different in the advantaged and disadvantaged communities. Whilst smokers understood that they had no choice but to comply, they were able to exercise their own agency in how they complied and how they expressed resistance. It is notable how resistance became more muted as the new social practices of not smoking in public places became socially embedded in the public domain. Enforcement officers were appointed to monitor and enforce compliance, although this was to be non-confrontational enforcement (Donnelly and Whittle, 2008). However, if smoke-free legislation was to be effective and sustained smokers were required to regulate their own smoking body, as well as participate in regulating the social smoking body. Foucault's (1979) concept of panopticism, namely surveillance of the population by the state, by unseen or imagined observers, in order to produce self-regulatory societies, is useful in understanding how smokers complied with legislation and regulated their own smoking behaviour, even in the absence of overt observers in the form of enforcement officers.

The papers presented here have provided a rich description of how smokers adapted to the smoke-free environments and developed new sets of social practices, by adopting self-regulatory behaviours, which were shaped by the localised and diffuse nature of power.

The Smoke-free Homes Study 3 (2006-2007) was also carried out during a later stage of the de-normalisation of tobacco use. During this period the spatial boundaries of smoke-free environments began to shift from the public domain to the private domain (the home). The study provided insight into how social norms helped to create smoke-free environments in the home. Changing attitudes towards smoking in the home were shaped, in part, by the then recent de-normalisation strategies of smoke-free legislation in public places (Akhtar et al., 2009, 2007), and also by an emerging lay understanding of the harms caused by exposure to second-hand smoke, along with increasing acceptance that young children should be protected from exposure to tobacco smoke (Phillips et al., 2007-paper 3).

The discourse of the de-normalisation of smoking had thus moved into the private sphere of the home. The views of professional experts of the development of smoke-free homes (Ritchie et al., 2009 -paper 6) illustrated how some of the professional discourses about conducting interventions in disadvantaged homes resonated with earlier professional discourses about barriers to conducting interventions in disadvantaged communities (illustrated in papers 1 and 2). Many of these professional concerns were based upon professional understanding of the social, cultural and environmental barriers associated with the realities of people's lived experience. These papers demonstrate how professionals valued their knowledge of the social context of people's everyday lives and the relationship between smoking behaviours and social context. Arguably, such knowledge is an under-represented element within tobacco control literature. The redefining of the value of health professionals' tacit and experiential knowledge of social context might usefully inform future tobacco control interventions and may comprise a necessary step in addressing the needs of disadvantaged smokers. The papers from *Breathing Space Study 1*- paper 1, and paper 2, and *The Smoke-free Homes Study 3* –paper 6 have also provided insights into the influence of the culture of health professionals' practice on the implementation of the tobacco control interventions. These papers suggest that an understanding of the cultures of practice is an essential component of a de-normalisation strategy of tobacco use.

4.4. Summary: how the six published papers contributed to understanding of the de-normalisation of tobacco use

Through the review of the six papers, discrete but overlapping stages emerge in the portrayal of de-normalisation of tobacco use. Jacobson & Banerjee (2005) have previously described stages in the de-normalisation of tobacco use as a social movement, and have used the perspective of the trans-theoretical model of behaviour change. They argued that the current stage of tobacco control, in developed countries, is the action stage incorporating voluntary efforts, legislation and changing social norms (Jacobson & Banerjee, 2005). However, this review has provided insight into how power relations and participation are enacted during the different stages of the de-normalisation process. Bio-power, as explored in this overview, is both constructive and restrictive in tobacco control policy. Both compliance and resistance are shown to be embedded in the process of the de-normalisation of tobacco use. In the earlier stages of de-normalisation of tobacco use in *Breathing Space Study 1* participatory and empowerment processes are shown to be evident. At this time-point smoking is highly normative in public places but tobacco use is not yet a high political, professional or community priority. In this early stage of the de-normalisation of tobacco use community development is a ‘*constructive power*’ (Gustaldo, 1997, p.119) used to create and define healthier lifestyles and change smoking behaviours. During this stage, power is mainly enacted through funding for small projects, exploratory research, new policies and services for smoking cessation. Over time, a comprehensive tobacco control policy is introduced and more domains are subject to legislation or policy, such as advertising. In addition, policy documents are used to initiate debate on smoke-free environments.

In the later stages of the de-normalisation of tobacco use, as the new social norms of smoke-free environments becomes more embedded (for example in workplaces and some public places), legislation is implemented further to enforce the normative culture of non-smoking within the public arena. In the later stages of de-normalisation of tobacco use, power is mainly enacted by health promotion in a more coercive way, through smoke-free legislation.

Importantly, the discourse of empowerment is still utilised during the development of legislation. Empowerment is primarily adopted as a way of managing the conflicting interests of the commercial leisure sector and the tobacco industry with the goals of tobacco control, rather than as a process of engagement with those disadvantaged communities which experience the implementation of smoke-free environments more acutely. However, participatory processes are evident in the large-scale public consultation conducted prior to the approval of smoke-free legislation by Parliament. Despite this, it is also apparent from papers 3 and 4 that many participants, particularly those in disadvantaged communities, were unaware of, or failed to engage with, any consultation process. On the contrary, they felt disempowered.

The six published papers make clear that health promotion adopts a dual stance in relation to power relations, comprising both participation and subjugation in the management of the health of the 'social body'. While the discourse of empowerment and engagement is privileged in the earlier stages of re-shaping smoking behaviour and cultures, in the later stages the power of legislation is used as a form of subjugation. Health promotion is therefore an agent of both empowerment and subjugation. It is suggested here that the inherent tensions of empowerment and subjugation are problematic for health promotion practice, when operating in an evolving culture of the de-normalisation of smoking. It is particularly problematic when considering certain sub-populations of disadvantaged smokers, who have higher levels of smoking, and live in communities where smoking is a culturally normative behaviour.

The normal practice of health promotion would be to adopt an empowerment approach when working with disadvantaged communities, in order to increase the engagement and participation of the community regarding issues of public health concern. This is well illustrated in the example of *Breathing Space Study 1*. Whilst papers 1 and 2 have explored the problematic nature of participatory approaches, it is argued here that the processes of engagement and collaboration were not embedded throughout the de-normalisation strategy for the disadvantaged communities. This is

of particular concern when empowerment and participation are key goals of health promotion. The overview of the six papers raises some interesting questions for the strategy of normalising smoke-free environments. Importantly, the strategy of de-normalisation of tobacco use was mainly focussed at the population level, resulting in a failure to fully recognise those contextual factors that might potentially impact upon the smoking behaviours of particular populations, such as smokers in disadvantaged communities. In addition, a consideration of consultation approaches with disadvantaged communities would suggest that active collaboration methods could be explored further (Arnstein, 1971, Milio, 1986; Tones & Green, 2004; INVOLVE 2011).

4.5 Social de-normalisation of tobacco use and disadvantaged smokers

Poland et al (2006) have argued for a greater understanding of the social context of smoking and tobacco use, particularly among smokers who are more socially disadvantaged. These disadvantaged smokers experience a double stigma, first through their biographies of disadvantage (Graham et al., 2006) and, second, through being a smoker (Bell et al., 2010^{a,b}, Ritchie, Amos & Martin, 2010^{a,b}-papers 3 & 4; Thompson, Pearce & Barnett, 2007). Previous considerations of the de-normalisation of tobacco use have tended to focus on young people and the de-normalisation of the tobacco industry (Hammond et al., 2006), rather than the experience of disadvantaged smokers.

Rates of smoking amongst the most disadvantaged remain high and these smokers present a continuing challenge for tobacco control in the de-normalisation of tobacco use (Jarvis et al., 2003; Graham et al., 2006; Bauld, Judge & Platt, 2007; Bell et al., 2010^{a, b}). Importantly, the experience of disadvantage is itself a barrier to successful quitting (Hiscock, Judge & Bauld, 2010). As smoking becomes more socially unacceptable, the residual smokers are more likely to be marginalised (Stuber, Galea & Link, 2008).

In their evaluation of the Scottish smoke-free legislation Eadie et al (2008) found that compliance was variable and non-compliance was not challenged in disadvantaged communities as bar staff were often complicit in these infringements. Whilst there is

evidence of increasing support following the implementation of smoke-free legislation, qualitative findings suggest that support, engagement and compliance requires a more nuanced and complex understanding of the particular social context of the smoking behaviours (Eadie et al., 2008).

Thompson, Pearce & Barnett (2007) considered the spatial segregation of disadvantaged groups as a result of de-normalisation strategies, suggesting that this leads to greater marginalisation and increased inequalities in smoking. The authors argued that the processes of stigmatising people who continue to smoke, and the subsequent spatial segregation into 'smoking islands' of smokers in the poorer communities, may lead to a reinforcement of smoking, rather than quitting.

Bandura's social learning theory suggested that changes in health behaviour are related to people's self-efficacy and their expectations about whether their actions will lead to certain outcomes (Bandura, 1977). Self esteem, self efficacy and general beliefs about ourselves and perceptions of how other people behave towards us are central to understanding the health promotion endeavour (Naidoo & Wills, 2000). It is argued that stigma increases low self-esteem, low self-efficacy and poor mental health, and feelings of stigma are likely to make it more difficult for people to manage their addiction to nicotine and quit smoking (Louka et al., 2006; Burgess, Fu & van Ryn). On the other hand, it has also been argued that the de-normalisation of the social acceptability of smoking may encourage smokers to quit (Hammond et al., 2006). Bauld et al (2007) reported that whilst smoking cessation rates were lower in disadvantaged areas, a greater proportion of smokers were treated, but they also argued for more innovative interventions and policies to address the specific needs of disadvantaged smokers. Moreover, changes in the social unacceptability of smoking may increase support for more radical and comprehensive tobacco control (Hammond et al., 2006; Bell et al., 2010^{a,b}).

Akhtar et al (2010) explored the impact of the implementation of the smoke-free legislation in Scotland on social inequalities and SHSE among primary schoolchildren aged eleven. They concluded that SHSE was reduced across all the socio-economic groups of those children aged 11 who were sampled. However,

children from lower socio-economic groups continued to have higher levels of salivary cotinine concentrations, and were more likely to have a mother who smoked. While smoking in the home did not increase after the implementation of the smoke-free legislation (Akhtar et al., 2009), children's exposure to SHS in the home remained high in lower socio-economic groups (Akhtar et al., 2010).

Richmond, Haw & Pell (2007) reported on the impact of socio-economic deprivation on perceptions of the Scottish smoke-free legislation after one year. After adjusting for deprivation, they found that customer support in bars for the legislation was lower and complaints were more common.

4.6 Summary: how the six published papers contributed to understanding of the de-normalisation of tobacco use and disadvantaged smokers

The *Qualitative Community Study 2* was the first study to explore empirically the impact of smoke-free legislation on disadvantaged and advantaged communities. The visibility and normative element of smoking behaviour in public places appeared to be related to the nature of the stage of the de-normalisation of tobacco use in each of the advantaged and disadvantaged communities. Discourses of stigmatisation were more pronounced in the disadvantaged communities, where it was observed that smoking was more highly visible and normative. Experiences of stigmatisation were perceived to be a consequence of smokers' smoking behaviour in public places (Ritchie, Amos & Martin, 2010^{a,b}-papers 3& 4). In their evaluation of compliance with smoke-free legislation in community bars in Scotland, Eadie et al (2008) supported these findings and argued for future smoke-free interventions to target support to smokers who live in disadvantaged areas.

While changes in smoking status were modest in Scotland after the implementation of smoke-free legislation (Ritchie, Amos & Martin,, 2010^a- paper 3; Hyland et al., 2009; Haw et al., 2009; Fowkes et al., 2008), smoke-free legislation was found to affect levels of consumption by smokers (explored in paper 3). These modest changes in quitting may be related to the argument that stigmatisation has an impact on self-esteem and self-efficacy and decreased mental health (Louka et al., 2006;

Burgess, Fu & van Ryn 2009). On the one hand smoke-free legislation appeared to provide external cues to be smoke-free in the public domain. On the other hand, perceptions of stigmatisation of the smoking behaviour suggested a negative impact upon the self-esteem and self-efficacy required to sustain quitting (Ritchie, Amos & Martin, 2010^{a,b}, - papers 3 & 4). After the implementation of the smoke-free legislation it was observed in the disadvantaged communities that external cues to smoking, such as variable compliance with the legislation, smoking outside and in the home, suggested a continued pro-smoking culture (Ritchie, Amos & Martin 2010-paper 3). In addition, women smokers in the disadvantaged communities were found to have restricted social lives that were mostly home-based, and they were therefore less exposed to the newly created smoke-free environments in public places (Robinson et al., 2010). In disadvantaged communities the continued pro-smoking culture, the home based social lives of women and stigmatisation of smoking behaviour may have resulted in more modest changes in quitting (Ritchie, Amos & Martin 2010-paper 3). However, there were also some positive narratives about quitting and reducing consumption, as demonstrated in the *Community Qualitative Study 2*. Notably, however, this finding related to both advantaged and disadvantaged communities (Ritchie, Amos & Martin 2010-paper 3).

The *Smoke-free Homes Study 3* found fewer smoking restrictions in the homes of the disadvantaged, compared to the more advantaged smokers. This suggested that the de-normalisation of tobacco use was less embedded in the social practices of disadvantaged, compared to more advantaged homes. Although there were more restrictions in the latter, it is important to note that there was some form of restriction across all socio-economic groups, often shaped by concerns about protecting children (Phillips et al., 2007-paper 5).

The expert groups of tobacco control professionals, who were participants in the *Smoke-free Homes Study 3*, prioritised the need for smoke-free homes' interventions in the more disadvantaged communities where smoking at home was more normative. But the expert groups were particularly worried about further stigmatising disadvantaged parents, whom they considered to have less choice and fewer resources in creating smoke-free homes (Ritchie et al., 2009- paper 6). The

professional groups considered the limited readiness of health professionals to develop interventions for smoke-free homes in the more disadvantaged homes, at that point in time. This consideration was shaped by their perception of available social, cultural and physical resources, and the normative element of smoking in such communities.

The tacit and experiential knowledge that practitioners hold about disadvantaged smokers proved to be an important element in the development of recommendations to shape interventions for smoke-free homes. Practitioner knowledge informed understanding of the experience of disadvantaged smokers and the barriers that are encountered by smokers in creating smoke-free homes. The knowledge of the professional experts led to specific recommendations to avoid further stigmatisation or victimisation of parents who smoke in their home, and to develop interventions in the home that were sensitive to their particular needs and circumstances (Ritchie et al., 2009-paper 6). However, in *Breathing Space study 1* the culture of professional practice was itself a barrier to the development of tobacco control interventions. Health professionals found it problematic to prioritise smoking as an issue for their clients. The perception that smoking was stigmatised health behaviour appeared at that time to be embedded in the culture of health promotion practice. It would seem, from study 1 and study 3, that health professionals, similarly to smokers, hold ambivalent positions in relation to considering smoking as both a public health priority and as stigmatised health behaviour. This was particularly pertinent during the early phases of the de-normalisation of tobacco use. It is suggested here that the nature of the professional values and the experiential knowledge exercised by health professionals, both in terms of their stigmatisation of smoking behaviour and their tacit knowledge of working with disadvantaged smokers, may contribute to the culture of professional health promotion practice (Fisher & Owen, 2008).

Additionally, the findings presented in papers 3 and 4 added to an understanding of how place and space are important elements in shaping new practices in smoking behaviours, particularly in disadvantaged communities. The papers build on the work by Thompson, Pearce & Barnett (2007) who explored how the impact of creating 'smoking islands' have the potential to further marginalise disadvantaged smokers.

What papers 3 & 4 added is an understanding of how place can be re-shaped in order to accommodate new social practices of not smoking in indoor public places. Importantly, the provision for smoking outside varied according to the type of the community, with more comfortable provision available for advantaged smokers. In the advantaged communities there was more emphasis on the benefits of the newly formed social networks in the re-creation of space. In the disadvantaged communities accounts were more likely to illustrate concern about being observed and viewed negatively by others when occupying outside spaces to smoke. The nature of the places where the smokers were allowed to smoke was perceived as contributing to the smoker's negative identity and subsequent feelings of stigmatisation.

4.7 Stigma as a tool for the de-normalisation of tobacco use

Smoking is a negative attribute which can be used to distinguish the smoker from 'normal' people, thus creating the distinction between discredited smokers and respectable non-smokers. In the previous sections of this chapter, the de-normalisation of tobacco use has been understood through the development of new social practices, and in relation to broader notions of power. Stigmatisation of smokers has been presented as a function of the power relations and social control that operated during the process of re-shaping smoking as unacceptable health behaviour. Stigmatisation has also been highlighted as a particular issue for disadvantaged smokers, who experienced dual stigmatisation, as a consequence of their biographies of disadvantage and their identities as smokers (Graham et al., 2006). Burgess, Fu & van Ryn (2009) concluded in a narrative review of the literature that there is evidence that strategies aimed at reducing SHS do contribute to the stigmatisation of smoking and further research is required to understand the negative consequences on mental health, increased consumption of cigarettes and decreased help-seeking.

Bell et al (2010^{a,b}) have reflected upon other fields of addiction where the focus is on de-stigmatisation, rather than the stigmatisation of the addictive behaviour, in order to encourage the use of treatment services. They draw upon the inverse care law to illustrate how those most in need often fail to utilise health services, particularly those who are most disadvantaged. The authors thus argued that stigmatisation may lead to

less utilisation of health services. However, Bauld, Judge & Platt (2007) have also explored the utilisation of smoking cessation services, likewise indicating that smoking cessation is less successful among disadvantaged smokers, but also reported that smokers in disadvantaged areas make proportionally higher use of these services.

Bell et al (2010^a) have conducted empirical research in Canada with GPs and smokers from different social classes on the impact of the de-normalisation of tobacco use on their daily lives. Their findings are similar to those presented in papers 3 and 4 (Ritchie, Amos & Martin, 2010^{a,b}). While there was support for more smoking restrictions, the smoke-free legislation was experienced as too restrictive and participants experienced stigmatisation as a consequence of their smoking (Bell et al., 2010^a).

The issues involved in the stigmatisation of smokers as consequence of de-normalisation of smoking behaviour are considered in paper 4. The aim of the following section is not to reiterate the arguments presented in paper 4; rather it is to focus on the public health tensions arising from a de-normalisation of tobacco use strategy that explicitly adopted stigmatisation as a form of social control that was both acceptable and effective. In paper 4, it is argued that this strategy may have particular negative consequences for some disadvantaged smokers.

Poland et al (2006) have made the case for tobacco control researchers and practitioners to be more reflexive in conducting tobacco control research and practice, arguing that such reflexivity will allow for an engagement with resistance to tobacco control strategies and potentially allow for a greater sensitivity by the tobacco control community towards the needs of the 'harder to reach' groups. Reflexivity, according to Finlay & Gough (2003), provides opportunities to be aware of one's own position as a researcher, but also to "*interrogate the rhetoric underlying shared social discourses*" (Finlay & Gough, 2003, p.ix). Here, reflexivity provides an opportunity to interrogate some of the negative aspects of a successful tobacco control strategy. It is interesting to note how a key tobacco control journal was unwilling to publish the stigma paper (paper 4) because it focused upon negative consequences of the de-normalisation of tobacco use. Such an account, it was felt by the editors, might be

perceived as useful by the tobacco industry. The position adopted here resonates in part with the position taken by Mair & Kierans (2007) who criticised the tobacco control research community for their moralising agenda. This limits the ability of researchers to explore social practices as social phenomena. This has particular resonance with the issue of stigmatisation discussed here. With some notable exceptions (including Kim & Shanahan, 2003; Farrimond & Joffe 2006; Chapman & Freeman, 2007; Stuber, Galea & Link, 2008; Bayer, 2008; Burgess, Fu & van Ryn 2009; Ritchie, Amos & Martin, 2010^b –paper 4 Bell et al., 2010^{a,b}) tobacco control has been reticent to engage with public health tensions arising from the use of stigmatisation as a central plank of de-normalisation strategy.

Stuber, Galea & Link (2008) have highlighted a lack of understanding of the processes involved in the stigmatisation of smokers, as a consequence of de-normalisation policies in tobacco control. The papers presented here (particularly paper 4) have provided some insight into these social and cultural processes of stigmatisation of smoking. Stuber, Galea & Link (2008) have explored how the stigmatisation of smokers is enacted at the individual level through social pressures exerted by family and friends in their social network. In addition, they have argued that stigmatisation is shaped by the structural mechanisms of tobacco control policy that aimed to re-shape social norms of the acceptability of smoking (Stuber, Galea & Link, 2008).

While arguing that tobacco control policies may lead to stigmatisation of smokers, Stuber, Galea & Link (2008) simultaneously note that they may benefit smokers' health by encouraging quitting. Similarly, Bayer (2008) questioned whether or not stigma is necessarily a negative burden, and indeed whether it always conflicts with improving health. Bayer (2008) also suggested that the literature on stigmatisation has generally ignored the agency of people to be resistant to stigmatisation, rather than powerless victims. This position arguably counters some of the public health arguments about the link between stigma and poor self esteem (Bayer, 2008). It is apparent from papers 3, 4 that smokers use their agency to adapt to the smoke-free legislation, particularly through the re-creation of the public spaces to facilitate social smoking and in the re-shaping of their identity as smokers. It was also found that smokers generally used their agency to reduce their consumption of cigarettes, rather

than to quit as a result of the smoke-free legislation ((Ritchie, Amos & Martin, 2010^a-paper 3; Hyland et al., 2009; Haw et al., 2009). Notwithstanding this, many of the smokers in the *Qualitative Community Study 2* expressed a desire to quit, even if this was not generally acted upon (Ritchie, Amos & Martin, 2010^{a,b} - papers 3 & 4).

Importantly, in the studies presented here, and in other literature, smokers appeared to hold concurrent and ambivalent identities of themselves as smokers. Smokers expressed beliefs that they were responsible smokers who protected non-smokers from their tobacco smoke, whilst at the same time experiencing themselves and their smoking as stigmatised (Poland, 2000; Thompson, Pearce, Barnett, 2007, 2009; Ritchie, Amos & Martin, 2010^{a,b}; Bell et al., 2010^{a,b}). By holding these ambivalent positions smokers may be attempting to rebalance the negative aspects of stigmatisation through the adoption of the public health message that urged smokers to protect non-smokers from their smoke in the creation of smoke-free environments.

It is possible, however, that the emerging discourses about protecting children from second-hand smoke in the private space of the home, illustrated in paper 5, indicates a potential for increased smoker-related stigma. This may also explain why health professionals find smoke-free homes' interventions particularly problematic. Stuber, Galea & Link (2008) considered that policies separating smokers from non-smokers, as in for example smoke-free environments, may create a more acute perception by smokers of their stigmatisation. They also argued that stigmatisation is not distributed equally across all social groups and may therefore contribute to disparities in smoking. However, unlike the findings presented in our papers, Stuber, Galea & Link (2008) argued that compared to less educated smokers, more highly educated smokers perceived a higher level of stigmatisation as a consequence of their smoking. It is agreed, however, that tobacco control policies should alleviate disparities in health, and not further contribute to the marginalisation of certain groups through stigmatisation (Stuber, Galea & Link, 2008; Burris, 2008).

The public health debate is, in effect, about the success of the de-normalisation strategy in shaping smoking as socially unacceptable (and the consequent reductions in consumption of tobacco), balanced against the potential burden of stigmatisation

for those groups of smokers who are already marginalised through socio-economic disadvantage. Moreover, it is about the potential of the stigmatisation of smokers to impede their ability to quit because of the resultant poor self-esteem and reduced self-efficacy. Analysis of the tensions inherent in the de-normalisation strategy of tobacco use introduces an ethical dimension to this public health approach. This leads to consideration of the balance between benefits and harms, and the potential to redress the balance of the negative impact of stigmatisation of smokers.

Bayer (2008), considering the ethics of stigmatisation, asserted that there is a legitimate obligation to protect the health of smokers and non-smokers, because of the undisputed serious harm of smoking and second-hand smoke. However, he also considered that there is 'good' stigma, whereby the experience of segregation is temporary, as in the segregation created through the imposition of smoke-free environments. Bayer (2008) argued that the stigmatisation process related to the behaviour of smoking, rather than the stigmatisation of the whole person. He claimed that smokers could change their behaviour, thereby shedding their stigmatised smoking identities. Importantly, he argued that public health should develop interventions that alleviate the experience of stigma, and offer opportunities for change, and that, if such measures are in place, stigmatisation is morally defensible (Bayer, 2008). Bayer's paper has generated significant discussion in the literature. Some have argued forcibly against the use of stigma in any circumstances, because it is dehumanising and cruel (Burris, 2008). Bell et al (2010^b) challenged Bayer's position, particularly in respect of the impact of stigmatisation on disadvantaged smokers, urging scrutiny of the de-normalisation of tobacco use as a public health tool. However, in response to Bell et al's, (2010^b) criticisms, Bayer (2010) has queried whether de-normalisation strategies, whilst previously defensible, have now indeed reached their limit for disadvantaged smokers, as such population level strategies may create further health inequalities.

4.8 Summary: how the six published papers contributed to understanding of the de-normalisation of tobacco use and the stigmatisation of smokers

Empirical evidence about smoking and stigma is mainly absent in the literature. The papers presented here provide an insight into the actual experience of being a stigmatised smoker. Smoke-free legislation contributed to the awareness of stigmatisation and to the spoiled identity of smokers. What is of importance here is the empirical evidence of felt stigma, as presented in paper 4 (Ritchie, Amos & Martin, 2010^b). Smokers engaged in the self-stigmatisation of their own smoking behaviour, often in the absence of any overt enactment of stigma by others. While Burris (2008) was unclear whether smokers are stigmatised, the work presented here has provided empirical evidence of stigmatisation. It has illustrated how the smokers' experience of stigmatisation appears to incorporate the same five elements that are distinguished in the Link & Phelan (2001) framework conceptualising stigma and considered in paper 4.

The stigmatisation of smoking as an explicit and effective strategy of tobacco control presents an obligation, from a public health perspective, to alleviate some of the negative consequences for some smokers. This obligation particularly applies in the case of disadvantaged smokers. Certainly, it is argued, tobacco control interventions should not contribute to an increase in inequalities in health.

The papers presented here have contributed further insights into the culture of professional practice and tobacco control. The practice of health professionals during the earlier stages of de-normalisation of tobacco use appeared to act as a barrier to the implementation of interventions. In *Breathing Space study 1*, observations of the managerial decision-making processes suggested that indeterminate aspects of implementation may have been shaped by the lack of prioritisation of smoking and by their perception of smoking as stigmatised health behaviour, at this time (paper 2). The empirical findings from the observations of professional practice suggested that there was a failure at both the managerial and practitioner levels to fully understand the relationship between empowerment and the self-esteem of smokers. The existence of a perceived association between stigma, low self-esteem, low self-

efficacy and poor mental health has been explored earlier in the chapter (Louka et al., 2006; Burgess, Fu & van Ryn, 2009). Feelings of stigmatisation are likely to make it more difficult for people to manage their addiction to nicotine and quit smoking (Louka et al., 2006). It is suggested here that the links between self-esteem, stigma and empowerment should be explored further in future research.

The barriers to tobacco control practice are in part a function of professionals' perceptions about damaging their relationships with clients if they raise the issue of smoking. This concurs with research among GPs who were concerned with harming their relationship with their patients, if they discussed smoking behaviours (MacIntosh & Coleman, 2006). More recent work by Stuber & Galea (2009) suggested that smokers often do not disclose their smoking status to their health practitioners. The links between the culture of professional practice and the nature of the professional relationship with clients, vis-à-vis the stigmatisation of health behaviour, requires further exploration.

There are other professional considerations illustrated here about further stigmatising disadvantaged smokers, particularly mothers in the development of smoke-free homes (papers 6). Health professionals also have concerns shaped by their perceptions of the environmental and cultural constraints about developing interventions in disadvantaged communities (paper 6).

4.9 Conclusion

This review of the process of de-normalisation of tobacco use has identified some discrete but overlapping stages that related to the use of and engagement with power. It has been illustrated how power is utilised as both subjugation and a constructive force in tobacco control. The negative consequences of subjugation, in the form of stigmatisation, therefore need to be examined. Disadvantaged groups have less power to engage in the political and policy processes. There was indeed only limited engagement of disadvantaged smokers in the debates and consultation about smoke-free legislation. They are also more likely to experience the cumulative impact of stigmatisation in their lives, rather than just the stigma generated by tobacco control policies and this may relate to modest changes in quitting (Link & Phelan, 2006;

Louka et al., 2006; Burgess, Fu & van Ryn, 2009). The engagement and participation of smokers might have been more usefully embedded during all the stages of the de-normalisation of tobacco use. A proactive approach to the engagement of disadvantaged smokers may redress some of the imbalances of power in policy processes. The findings presented here have illustrated how Bayer's argument of 'not can we but should we?' (Bayer, 2008) is applicable to the de-normalisation of tobacco control. However, the argument might be usefully expanded through the addition of an important caveat emphasising the importance of redressing the balance between stigmatisation and de-normalisation for some smokers.

The asset-based model for promoting health, as described by Morgan & Ziglio (2007), highlights the capability of individuals and communities to take action to improve health, rather than focussing on the deficits in their health and their resources. The empirical findings presented here have highlighted some positive narratives around reducing consumption and making some changes to smoking in the home. While these may not represent successful outcomes from the perspective of health professionals they were valued outcomes for the participants. If these empirical findings were viewed through the lens of an asset-based model, the emphasis would not be on the lack of success of the disadvantaged smokers, but on their potential to create and sustain health. This would mean valuing the small steps that are taken to improve health, for example, by valuing the partial smoking restrictions developed in some homes. Interventions in the home would then be sensitively delivered, with professional encouragement for attempts to be smoke-free. This encouragement should be given despite environmental and cultural constraints that prevent some smokers from creating a totally smoke-free home. A more inclusive approach to the de-normalisation of tobacco use strategy would mean that the positive aspects of the smoker's identity, such as considerateness, would be reinforced. It would also mean a re-framing of success for those smokers who have reduced their consumption as a consequence of smoke-free environments, even if they have not managed to quit.

In the context of stigmatisation an asset- based perspective would mean considering the cumulative impact of stigma across the life-course of the disadvantaged smoker. This perspective would lead to the creation of health promotion programmes that consider positive and protective impacts upon health (Morgan & Ziglio, 2007). Furthermore, developing an understanding of the particular social context in which the smoking behaviour of the disadvantaged smoker is embedded, along with a consideration of the community capacity and capability that is available to redress the stigmatisation of the smoker, may further illuminate the relationship between stigma, consumption and disadvantage in order to generate effective action.

Chapter Five Concluding discussion

The thesis contributes to knowledge in two key areas. First, through reflection on the practical application of process evaluation and qualitative longitudinal research (QLLR), and second, by providing insights into the process of the social de-normalisation of tobacco use in Scotland.

5.1 Contribution to methodology

The practical application of two research methodologies, process evaluation and QLLR, has provided understanding of the processes of complexity and change in the evaluation of policy and practice in the community setting.

Some benefits have been shown, in both using process evaluation and QLLR, to capture both intended and unanticipated processes in the implementation of policy and practice. Whilst some challenges in their use have been described, this has been countered with an account of some of the solutions that were generated. In particular, the accounts of process evaluation and QLLR have provided some learning points as a contribution to knowledge.

In respect of *Breathing Space Study 1* the findings have demonstrated the importance of embedding process evaluation into a quasi-experimental study design. While this is now not new, at the time the study was conducted process evaluation was a relatively new development in quasi-experimental studies. However, the account of the utility of using process evaluation does counter some of the recent criticisms in the literature (Munro & Bloor 2010). The account of linking the process evaluation to the outcomes was critical in understanding how the intervention ‘failed’. Importantly, there was a synergy between the process and the outcome data. It is this nuanced and contextual understanding of the intervention that is illuminated by process evaluation, and is invaluable for improving practice. Formative evaluation, which is derived from a process evaluation, would have further aided practice; but was constrained in *Breathing Space*.

The *Qualitative Community Study 2* offers a new understanding of the practical application of QLLR and thus enhances the theoretical literature on QLLR, as an evolving method to evaluate policy (Molloy, Woodfield & Bacon, 2002; Holland, Thomson & Henderson, 2006). A unique contribution to knowledge is illustrated by the detailed account of how to conduct a longitudinal analysis of qualitative data. The practical concerns about using QLLR particularly centred on the management of large qualitative data sets and the potential for the data to be de-contextualised and fragmented. In addition, there were challenges involved in the integration of different types of qualitative data collected at different time periods. These concerns were addressed by working as an interpretive research community (see Ritchie, Amos & Martin, 2009, 2010), who are deeply immersed in the communities and very familiar with the participants' accounts across time. This allowed for the researchers' rich understanding of the individual participants and communities to be captured and avoided fragmenting the data in the analytical process. Furthermore, the interpretive research community generated analytical solutions to cross-cut the different types of data. This was achieved through summarising the individual and the community accounts and then comparing across individuals and communities, using a longitudinal lens.

5.2 Contribution to tobacco control

During a period of de-normalisation of tobacco use from 1999-2005, prior to the implementation of smoke-free legislation in Scotland, there was a decline in overall smoking prevalence from 30.7% in 1999 to 26.7% in 2005 (Scottish Government, 2011). The recent Scotland's People Annual Report (2011) showed that whilst there is an encouraging decline in smoking from 26.7% in 2005 to 24.2% in 2010, there was no change in this trend following implementation of smoke-free legislation in March 2006. Moreover, in 2010 disadvantaged smokers continue to live in communities where smoking remains highly visible and culturally normative, despite changes in the acceptability of smoking in the general population. The rate of smoking in disadvantaged communities in 2010 is 44 % in the 10% of the most deprived communities, compared to 9% in the 10% of the least deprived communities in Scotland (Scottish Government, 2011). Inequalities in health are

evident in these smoking rates. The high rates of smoking in the disadvantaged communities suggest that there is a continuing social acceptance of smoking and that the impact of social de-normalisation has been more limited in disadvantaged communities.

Poland et al (2006) argued for further understanding of the social context for socially and economically marginalised groups. They stated that the social meaning of smoking in the context of people's everyday lives was not often a central concern in tobacco control research (Poland et al., 2006). Chapman & Freeman (2007) and Bell et al (2010^{a,b}) argued for qualitative research to contribute to an understanding of the lived experience of smokers of the social de-normalisation of smoking. Whilst understanding of the social context is not new in tobacco control, it may be a missing element in addressing tobacco control in disadvantaged communities. Findings presented here have made a significant contribution to developing understanding of the social context of smoking practices in public and private places and the consequences of policy, particularly for disadvantaged smokers.

This thesis has illustrated that there are different experiences of the social de-normalisation of tobacco use in socio-economic groups and communities across time. The different experiences are in part a function of smokers' agency to engage with tobacco control policy in the re-shaping of their smoking practices. Smokers in disadvantaged communities have experienced a lack of engagement with consultation processes in the development of tobacco control legislation and were more resistant than advantaged communities to the creation of smoke-free environments. This was evident in the narratives of disempowerment, resistance and variable compliance with legislation in disadvantaged communities. Professionals were concerned about disempowering smokers who they understood to experience more cultural and environmental barriers in quitting smoking and adjusting to smoke-free environments in public and private places. These findings of the negative impacts of creating smoke-free environments adds to the work of Eadie et al (2008) who explored the variability in compliance in disadvantaged communities and Heim et al (2009) who explored how negative views about the legislation were mostly influenced by social concerns. The findings presented here suggest that there is a

caveat to the literature on the success of the smoke-free legislation (Donnelly & Whittle, 2008) and that it is important to consider how some disadvantaged smokers were disempowered and stigmatised in the re-shaping of their smoking behaviours in public spaces. While the discourse of empowerment and engagement is privileged in the earlier stages of re-shaping smoking behaviour and cultures, in the later stages the power of legislation is used as a form of subjugation. The tensions between empowerment and subjugation is particularly problematic when considering the needs of certain sub-populations of disadvantaged smokers, who have higher levels of smoking, and live in communities where smoking is a culturally normative behaviour. Further understanding of the use of power and empowerment to engage, educate and support disadvantaged smokers during a process of the social de-normalisation is required.

Stigmatisation was an intended outcome of a de-normalisation of tobacco use strategy. However it is argued here that stigmatisation was experienced more acutely by some smokers and the impact of policy was not experienced equally across different social groups. The exploration of smokers' experience of stigmatisation as a consequence of their smoking in public places adds to the findings of Thompson, Pearce & Barnett (2007) who argued that the processes of stigmatising people who continue to smoke, and the subsequent spatial segregation into 'smoking islands' of smokers in the poorer communities, may lead to a reinforcement of smoking, rather than quitting. An important point from this thesis is related to the relationship between stigmatisation, self esteem and self efficacy, particularly for those disadvantaged smokers who experience dual stigmatisation. This contributes to the work of Louka et al (2006) and Burgess, Fu & van Ryn (2009) who reported that low self-esteem as a consequence of stigmatisation may make it more difficult for smokers to quit. While there is evidence of disadvantaged smokers accessing smoking cessation services, with the largest number of quit attempts in the most deprived communities in Scotland, the quit rate at one month was 31% in the most deprived communities compared to 43% in the least deprived communities (Galbraith, Munnoz-Arroyo & Hecht, 2009). The stigmatisation of smokers, and in particular disadvantaged smokers,

needs further consideration in relation to their ability to sustain quit attempts and change smoking cultures in public places and the home, particularly in the context of their stressful and impoverished lives. In addition, the experiential knowledge held by practitioners of the potential barriers for smokers who live in particular social contexts, needs to be incorporated as a valid part of the ‘evidence’ informing interventions. The findings also make a contribution to the debates in the literature about the ethics of stigmatisation as an explicit goal for public health (Bell et al., 2010^{a,b}; Stuber, Galea & Link, 2008; Bayer, 2008; Burris, 2008).

People from lower socio-economic groups are less likely to have smoke-free homes (IARC, 2009). Akhtar et al (2010) concluded that there are social inequalities in children’s exposure to SHS, as the levels of exposure for children from lower socio-economic groups remained high in the home post-legislation. The findings presented here, therefore, make an important contribution to the growing UK qualitative research in developing understanding of the socio-cultural and environmental motivators and barriers to smoke-free homes (Jones et al., 2011; Robinson & Kirkaldy, 2009; Phillips et al., 2007; Robinson & Kirkaldy, 2007^{a,b}). This understanding of the socio-cultural and environmental motivators and barriers to smoke-free homes provides insight into the area effect of the disadvantaged community on children’s SHSE reported by Sims et al (2010).

The conclusion of this thesis is that stigmatisation of smokers is an effective public health policy in reducing the exposure of non-smokers to SHS. However, the balance between success and unintended consequences of smoke-free policy for some smokers does require additional consideration by policy makers and practitioners. The additional burden of stigmatisation for disadvantaged smokers, the continuing social acceptability of smoking in disadvantaged communities and the cultural and environmental barriers may make it more difficult for these smokers to sustain quit attempts. Smoke-free policies, while successful in reducing exposure to SHS, may lead to greater inequalities in health if quit rates remain modest for disadvantaged smokers. Contextual adjustments may be required in the implementation of policy and the development of services, particularly adjustments that counter stigmatisation and increase participation of

disadvantaged smokers. There is limited evidence of effective interventions for disadvantaged smokers (Murray et al., 2009), however further development of interventions that are showing promise for disadvantaged smokers (for example incentive schemes, improving access to smoking cessation services such as pharmacy schemes, as well as client centred approaches) is required (Bauld et al., 2007).

5.3 Impact on policy, practice and research

The papers derived from the three studies from 1999-2007 represent a body of work that has influenced policy, research and practice in Scotland, England and internationally.

Influencing Policy

The findings from the Breathing Space study and paper 1 have been used in the report '*Towards a Future without Tobacco*' (2006) by the Smoking Prevention Working Group. It is used as evidence in section six of the report where implications of research evidence are drawn upon to influence future tobacco control action. The report makes recommendation to use the findings from 'Breathing Space' '*for any future smoking prevention initiatives based on community development principles*' (Scottish Executive, 2006, section 6).

Influencing Research

The study design that was developed by the Scottish research team for the longitudinal qualitative evaluation of the Scottish smoke-free legislation described in papers 3, 4 was used by both the Evaluation of the English smoke-free evaluation and the Welsh Smoke-free legislation Evaluation. Deborah Ritchie was a consultant to the Welsh evaluation led by Professor Odette Parry. The experience of conducting covert observations in public places (paper 3) was used to train the observers in the Welsh evaluation. Deborah Ritchie was involved in the training of the Welsh evaluators.

The findings that are explored in papers 5 and 6 have led to a unique partnership with ASH Scotland and Aberdeen University to develop interventions for smoke-free homes, influence policy makers and develop resources for tobacco control practitioners. This practice/policy/research partnership has been funded by the Big Lottery for £500,000. The partnership also has an aim of developing the research capacity within the voluntary sector.

Influencing Practice

Paper I is also used as a text for the Open University level 3 Health Promotion Course and Deborah Ritchie was asked to be a critical reader during the development of the course as a consequence of the community development experience demonstrated by the publication. The course aims to develop health promotion practitioners.

The findings from the Smoke-free homes (papers 5 and 6) have been used to initiate debates with practitioners about the next stage of development in tobacco control. It represents a sensitive area for public health as interventions are conducted within the private sphere of the home. These debates have been conducted within meetings with tobacco control practitioners across the UK (South West England Tobacco Control Network 2008; N. E. England Tobacco Control Network 2008; Perth Practitioner Conference, 2009) and also as an agenda item at the Research and Evaluation Sub-Group of the Scottish Ministerial Working Group on Tobacco Control (Scotland). The findings were also used to develop debate in a workshop for tobacco control practitioners from across the UK for the prestigious UK Centre for Tobacco Control Studies' training programme in March 2009 at Bath University.

Importantly, as a direct consequence of a presentation on the UK smoke-free homes findings by Deborah Ritchie to the new Global Bridges project for Global Tobacco Control in May 2011 in Minnesota, USA, it was decided by the Global Management Board that the topic of smoke-free homes was added to the aims of the global project. A profile of Deborah Ritchie was made for the Global Bridges' website and

the focus of the interview is based upon the experience derived from the smoke- free homes' research. The Global Bridges project is funded by the Mayo Clinic and The American Cancer Society www.globalbridges.org.

The six papers and the contribution to the three research studies form a substantial and coherent body of work. This has been widely disseminated in forty seven presentations both nationally and internationally (appendix 3). There are five further linked publications to the three studies (appendix 3). I have indicated my contribution to the three research studies and the publications and I am the sole author of the critical review. This represents a substantial and significant contribution to the expansion of knowledge in tobacco control.

References

Akhtar P, Currie D, Currie C, Haw S (2007) Changes in child exposure to environmental tobacco smoke (CHETS) study after implementation of smoke-free legislation in Scotland: national cross sectional survey. *British Medical Journal*, **335**, pp.545-9

Akhtar P, Haw SJ, Currie D, Zachary R, Currie CE (2009) Smoking restrictions in the home and second-hand smoke exposure among primary school children before and after introduction of the Scottish smoke-free legislation. *Tobacco Control*, **18**, pp. 409-415.

Akhtar P, Haw S, Levin K, Currie D, Zacaary R, Currie CE (2010) Socio-economic differences in second-hand smoke exposure among children in Scotland after introduction of the smoke-free legislation. *Journal of Epidemiology and Community Health*, **64**, pp. 341-348.

Amos A, Phillips R, Ritchie D, Cunningham-Burley S, Martin C (2008) *Qualitative Study of Smoking in the Home Final Report*. NHS Health Scotland
www.healthscotland.nhs.uk

Arnstein SR (1971) 'Eight rungs on the ladder of citizen participation' In Chan SE, Passet BA. *Citizen Participation: Effecting Community Change*. New York, Praeger Publications.

Ayres JG, Semple S, MacCalman L, Dempsey S, Hilton S, Hurllet JF, Miller BG, Naji A, Petticrew M (2009) Bar workers' health and environmental tobacco smoke exposure (BEHTSE): symptomatic improvement in bar staff following smoke-free legislation in Scotland. *Occupational & Environmental Medicine*, **66**, pp.339-46.

Bandura A (1977) *Social Learning Theory*. Englewood Cliffs, Prentice Hall.

Bauld L (2011) *The Impact of Smoke-free Legislation in England: Evidence Review*. University of Bath for Department of Health

http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_124959.pdf. [accessed August 31st 2011]

Bauld L, Judge K, Platt S (2007) Assessing the impact of smoking cessation services on reducing health inequalities in England: observational study. *Tobacco Control*, **16** (6), pp. 400-404.

Bauld L, McNeill A, Hackshaw L, Murray R (2007) *Nice Rapid Review. The effectiveness of smoking cessation interventions to reduce the rates of premature deaths in disadvantaged areas through proactive case finding, retentions and access to services*. University of Bath and Nottingham for NICE.

<http://www.nice.org.uk/nicemedia/pdf/EvidencesummarysmokingCessation.pdf>. [accessed October 4th 2011].

Bayer R (2008) Stigma and the ethics of public health: Not can we but should we? *Social Science & Medicine*, **67** (3), pp. 463-472.

Bayer R (2010) Stigma and the ethics of public health redux: A response to Bell et al. *Social Science & Medicine*, **70** (60), pp. 800-801.

Bell K, McCullough L, Salmon A, Bell J (2010^a) 'Every Space is claimed': smokers' experiences of tobacco denormalisation. *Sociology of Health & Illness*, **32** (6), pp.1-16.

Bell K, Salmon A, Bowers M, Bell J, McCullough L (2010^b) Smoking, stigma and tobacco denormalization: Further reflections upon the use of stigma as a public health tool. A commentary on *Social Science & Medicine's* Stigma, Prejudice, Discrimination and Health Special Issues (67:3). *Social Science & Medicine*, **70**, pp.795-799.

Berger P, Luckman T (1966) *The Social Construction of Reality. A Treatise in the Sociology of Knowledge*. London, Penguin Books

Burgess D, Fu S, van Ryn (2009) Potential Unintended Consequences of Tobacco-Control Policies on Mothers Who Smoke. A Review of the Literature. *Am J PrevMed*, **37** (2S), pp. S151-158

- Burr V (2003) *Social Constructionism*. 2nd edition. London, Routledge Taylor & Francis Group.
- Burris S (2008) Stigma, ethics and policy: a commentary on Bayer's 'Stigma and the ethics of public health: not can we but should we'. *Social Science & Medicine*, **67**(3), pp.473-47.
- Callinan JE, Clarke A, Doherty K, Kelleher C (2010) *Legislative smoking bans for reducing second-hand smoke exposure, smoking prevalence and tobacco consumption*. Cochrane Database of Systematic Reviews. Issue 4. Art.No. CD005992. doi:1002/14651858.CD005992.pub2.
- Chapman S, Freeman B (2007) Markers of the de-normalisation of smoking and the tobacco industry. *Tobacco Control*, **17**, pp. 25-31
- Cockerham, W (2011) *Medical Sociology* 12th edition. Boston, Pearson.
- Collier AM, Goldstein GM, Shrewsbury RP, Davis SM, Koch GG (1994) Cotinine elimination and its use as a biomarker in young children involuntarily exposed to environmental tobacco smoke. *Indoor Environment*, **3**, pp.353-359.
- Crossan E, Amos A (1994) *Under a Cloud- Women, Low Income and Smoking*. Edinburgh, Health Education Board for Scotland.
- Dahlgren G, Whitehead M (1991) *Policies and strategies to promote social equity in health*. Stockholm, Institute for Future Studies.
- Donnelly P, Whittle P (2008) After the smoke has cleared- Reflections on Scotland's tobacco control legislation. *Public Health*, **122**, pp.762-766.
- Eadie D, Heim D, MacAskill S, Ross A, Hastings G, Davies JB. (2008). A qualitative analysis of compliance with smoke-free legislation in community bars in Scotland: implications for public health. *Addiction*, **103**, pp.1019-26
- Eadie D, MacAskill S, Heim D, Hastings G (2010) Responding to change: how did bar workers adapt to the smoke-free legislation in Scotland? *International Journal of Environmental Health Research*, **20**, pp.13-36.

- Farrimond H, Joffe H (2006) Pollution, peril and poverty: a British study of the stigmatization of smokers. *Journal of Community & Applied Social Psychology*, **16**, (6), pp.481-491.
- Finlay L (2002) "Outing" the Researcher: The Provenance, Process, and Practice of Reflexivity. *Qualitative Health Research*, **12**, pp. 531-545
- Finlay L, Gough B (eds) (2003) *Reflexivity A Practical Guide for Researchers in Health and Social Sciences*. Oxford, Blackwell Publishing
- Fisher P, Owen, J (2008) Empowering interventions in health and social care: Recognition through 'ecologies of practice.' *Social Science & Medicine*, **67**, pp. 2063-2071.
- Foucault M (1979) *Discipline and Punishment. The birth of the prison*. London, Penguin.
- Fowkes FJI, Stewart MCW, Fowkes GR, Amos A, Price JF (2008) Scottish smoke-free legislation and trends in smoking cessation. *Addiction*, **103**, pp.1888-95.
- Freire P (1972) *Pedagogy of the oppressed*. Harmondsworth, Penguin.
- Galbraith L, Munoz-Arroyo R, Hecht G (2010) *NHS Smoking Cessation Services Statistics (Scotland) 1st January- 31st December 2009*. Edinburgh, ScotPho <http://www.scotpho.org.uk/smokingcessationstats.2009/> [accessed September 16th 2011].
- Goffman E (1963) *Stigma Notes on the Management of Spoiled Identity*. London, Penguin Books.
- Goodman PG, Haw S, Kabir Z, Clancy L (2009) Are there health benefits associated with comprehensive smoke-free laws. *International Journal Public Health*, **54**, pp. 367-378.
- Graham H, Inskip H, Francis B, Harman J (2006) Pathways of disadvantage and smoking careers; evidence and policy implications. *Journal of Epidemiology Community Health*, **60** (suppl.2), pp. ii7-ii12
- Green J, South J (2006) *Evaluation*. Berkshire, Open University Press

Gustaldo D (1997) Is health education good for you? Re-thinking education through the concept of bio-power In Petersen A, Bunton R (eds) *Foucault Health and Medicine* London, Routledge, chapter 6, pp. 113-133.

Hammond D, Fong GT, Zanna MP, Thrasher JF, Borland R (2006) Tobacco denormalization and industry beliefs among smokers in four countries. *American Journal of Preventive Medicine*, **31**, pp.225-32.

Hashagen S, Paxton S (2003) Frameworks for measuring community health and well-being, In Orme J, Powell J, Taylor P, Harrison T, Grey M (eds) *Public health for the 21st Century. New Perspectives on Policy, Participation and Practice*. 2nd edition. Berkshire, Open University Press, chapter 17, pp.302-321.

Haw S, Gruer L, Amos A, Currie C, Fischbacher C, Fong G, Hastings G, Malam S, Pell J, Scott C, Semple S (2006) Legislation on smoking in enclosed public places in Scotland: how will we evaluate the impact? *Journal of Public Health*, **28**, pp.24-30.

Haw S, Guer L (2007) Changes in exposure of adult non-smokers to second-hand smoke after implementation of smoke-free legislation in Scotland: National cross sectional survey. *British Medical Journal*, **335**, p.549

Haw S, Mackie L (2009) 'Fresh Air' In Barlow, J (ed) *Substance Misuse, Policy and Practice Implementation. Research Highlights in Social Work*. London, Jessica Kingsley, pp.53-61.

Hawe P, Shiell A, Riley T (2004) Complex interventions: how 'out of control' can a randomised trial be? *British Medical Journal*, **328**, pp.1561-3

HealthScotland (2011) Clean-air Legislation Evaluation (CLEAN)

<http://www.healthscotland.com/Sotlandshealth/evidence/smokefreelegislation/studyc ontactscleancollaboration.aspx> [accessed February 16th 2011].

Healton CG, Vallone D, Catwright J (2009) Unintended consequences of Tobacco Policies. Implications for Public Health Practice. *American Journal of Preventive Medicine*, **37** (2S):S18

- Heim D, Ross A, Eadie D, MacAskill S, Davies JB, Hastings G, Haw S (2009). Public health or social impacts? A qualitative analysis of attitudes towards the smokefree legislation in Scotland. *Nicotine & Tobacco Research*, **11**, pp.1424-1430.
- Henwood K, Lang I (2003) Qualitative Research Resources: A consultation exercise with UK social scientists. A report to the ESRC. In Holland J, Thomson R, Henderson S (2006) *Qualitative Longitudinal Research: A Discussion Paper*. London, London South Bank University.
- Hilton S, Cameron J, MacLean A, Petticrew M (2008) Observation from behind the bar: changing patrons' behaviours in response to smoke-free legislation in Scotland. *BMC Public Health*, **8**, p.238.
- Hiscock R, Judge K, Bauld L (2010) Social inequalities in quitting smoking: what factors mediate the relationship between socio-economic position and smoking cessation? *Journal of Public Health*, **33** (1), pp.39-47
- Holdsworth C, Robinson JE (2008) 'I've never ever let anyone hold the kids while they've got ciggies': Moral tales of maternal smoking practices. *Sociology of Health & Illness*, **30** (7), pp.1086-1100.
- Hole D (2005) *Passive Smoking and associated causes of death in adults in Scotland*. Edinburgh, NHS healthscotland.
- www.healthscotland.com/researchcentre/pdfs/MortalityStudy.pdf [accessed September 5th 2011]
- Holland J, Thomson R, Henderson S (2006) *Qualitative Longitudinal Research: A Discussion Paper*. London, London South Bank University
- Hyland A, Hassan LM, Higabee C, Borland B, Travers M, Hastings G, Fong GT.(2009) The impact of smoke-free legislation in Scotland: results from the ITC Scotland/UK longitudinal surveys. *European Journal of Public Health*, **19**, 2, p.198 doi:10.1093/eurpub/ckn141
- IARC (2009) *IARC Monographs on the evaluation of carcinogenic risks to humans Vol 13: Evaluating the effectiveness of smoke-free policies*. International Agency for Research on Cancer, Lyon, France.

INVOLVE (2011) *Strengthening participation: learning from participants*.

www.involve.org.uk [accessed September 18th 2011].

Jacobson PD, Banerjee A (2005) Social Movements and human rights rhetoric in tobacco control *Tobacco Control*, **14**, (suppl 11):ii 45-ii49

Jarvis MJ, Wardle J, Waller J, Owen L (2003) Prevalence of hardcore smoking in England and associated attitudes and beliefs a cross sectional study. *British Medical Journal*, **326**, pp. 1061-1066.

Jewkes R (2004) Evaluating sensitive interventions: preventing intimate partner violence In Thorogood M, Coombes Y (eds) *Evaluating Health Promotion: practice and methods*. 2nd edition, Oxford, Oxford Medical Publications. Chapter 8, pp. 111-122

Jones LL, Atkinson O, Longman J, Coleman T, McNeill A, Lewis SA (2011) The motivators and barriers to a smoke-free home among disadvantaged caregivers: identifying the positive levers for change. *Nicotine & Tobacco Research*, **13** (6), pp.279-486

Judge K (2000) Testing evaluation to the limits: the case of English Health Action Zones. *Journal of Health Services Research and Policy*, **5** (1), pp. 3-5.

Judge K, Bauld L (2001) Strong theory, flexible methods: evaluating complex community-based initiatives. *Critical Public Health*, **11** (1), pp. 19-38

Killoran Ross M, Ritchie D, de Castecker L, Gordon J, Lawrie S, Mathuner N (2000) *Mental Health Promotion and Young People*. Glasgow, Scottish Needs Assessment Programme

Kim SH, Shanahan J (2003) Stigmatizing smokers: public sentiments toward cigarette smoking and its relationship to smoking behaviours. *Journal of Health Communications*, **8**, pp. 343-367.

Link BG, Phelan JC (2001) Conceptualizing stigma. *Annual Review of Sociology*, **27**, pp.363-385.

Link BG, Phelan JC (2006) Stigma and its public health implications. *The Lancet*, **367** (9509), pp.528-529.

- Louka P, Maguire M, Evans P, Worrell M (2006) ‘ I think that it’s a pain in the ass that I have to stand outside in the cold and have a cigarette’ Representations of smoking and experiences of disapproval in UK and Greek Smokers. *Journal of Health Psychology*, **11**(3), pp.441-451.
- MacIntosh H, Coleman T (2006) Characteristics and prevalence of hardcore smokers attending UK General Practitioners. *BMC Family Practice*, **7** (24), 7
- Mackenzie M, Blamey A (2005) The practice and the theory: lessons from the application of a theories of change approach. *Evaluation*, **11** (2), pp. 151-68.
- Mair M, Kierans C (2007) Critical reflections on the field of tobacco research: the role of tobacco control in defining the tobacco research agenda. *Critical Public Health*, **17**, pp.103-112.
- Martin C, Ritchie D, Amos A (2008) *Evaluation of the Smoke-free Legislation in Scotland Final report NHS Health Scotland* www.healthscotland.nhs.uk
- Mckie L, Laurier E, Taylor R J (2003) Eliciting the smoker’s agenda: implications for policy and practice. *Social Science and Medicine*, **56**, pp. 83-94.
- McQueen DV, Anderson LM. (2001) What counts as evidence: issues and debates In Rootman I, Goodstadt M, Hyndman B, McQueen D, Potvin, L, Springett, J, Ziglio, E (eds) *Evaluation in Health Promotion Principles and Perspectives*. WHO Regional Publications, European Series No. 92. chapter 3, pp.63-82
- Milio N (1988) ‘Making healthy public policy: developing the science by the learning the art’: an ecological framework for policy studies’. *Health Promotion*, **2** (3), pp.263-74.
- Molloy D, Woodfield K, Bacon J (2002) *Longitudinal Qualitative Research Approaches in Evaluation Studies Working Paper Number 7*. London, Department of Work and Pensions
- Morgan A, Ziglio E (2007) Revitalising the evidence base for public health: an assets model. *Promotion & Education*, suppl **2**, pp. 17-22.
- Morgan, D (2008) Paradigms Lost and Pragmatism Regained In Plano Clark V, Cresswell JW (eds) *The Mixed Methods Reader*. London, Sage. chapter 2, pp.27-65

- Muller T (2007) *Breaking the cycle of children's exposure to tobacco smoke*. London, British Medical Association.
- Munro A, Bloor M (2010) Process Evaluation: the new miracle ingredient in public health research? *Qualitative Research* **10** (6), pp. 699-713
- Murray RL, Bauld L, Hackshaw LE, McNeill A (2009) Improving access to smoking cessation services for disadvantaged groups: a systematic review. *Journal of Public Health*, **31** (2), pp.258-277
- Naidoo J, Wills J (2000) *Health Promotion Foundations for Practice*. 2nd edition Edinburgh, Bailliere Tindall in association with the RCN.
- Nutbeam D (1998) Evaluating health promotion-progress, problems and solutions. *Health Promotion International*, **13** (1), pp. 127-33.
- Oakley A, Strange V, Bonell C, Allen E, Stephenson J. Ripple Study Team (2006) Process evaluation in randomised controlled trials of complex interventions. *British Medical Journal*, **332**, pp.413-6
- Oberg M, Jaakkola M, Woodward A, Peruga A, Pruss-Ustun A. (2011) Worldwide burden of disease from exposure to second-hand smoke: a retrospective analysis of data from 192 countries. *Lancet*, **377** (9760), pp.139-146.
- Patton M (2011) *Developmental Evaluation Applying Complexity Concepts to Enhance Innovation and Use*. New York, The Guildford Press
- Pawson R, Tilley N (1997) *Realistic Evaluation*. London, Sage.
- Peeticrew M, Semple S, Hilton S, Creely K, Eadie D, Ritchie D, Ferrell C, Christopher Y, Hurley F (2007) Covert observation in practice: lessons from the evaluation of the prohibition of smoking in public places in Scotland. *BMC Public Health*, **7**, 204.
- Pell JP, Haw S, Cobbe S, Newby DE, Pell ACH, Fischbacher C, McConnachie A, Pringle S, Murdoch D, Dunn F, Oldroyd K, MacIntyre P, O'Rourke B, Borland W (2008) Smoke-free Legislation and Hospitalizations for Acute Coronary Syndrome. *New England Medical Journal*, **359**, pp.482-491.

Philips R., Amos A, Ritchie D, Cunningham-Burley S, Martin C (2007) Smoking in the home after the smoke-free legislation in Scotland: qualitative study *BMJ* **335**, pp.553-557.

Platt S, Gnich W, Rankin D, Ritchie D, Truman J, Backett-Milburn K (2004) 'Use of Process Evaluation' In Thorogood M, Coombes Y (eds) *Evaluating Health Promotion* (second edition) Oxford, Oxford University Press. chapter 6 pp. 73-89.

Platt S, Parry O, Ritchie D, Gnich W, Major K. (2003)^a *Evaluation of a community-based anti-smoking intervention in a low-income area: a quasi experimental study. Final Report April 2003 (peer reviewed)* Department of Health, London.

Platt S, Parry O, Ritchie D, Gnich W (2003)^b *Evaluating a community-based anti-smoking programme: lessons for policy, practice and research*. Edinburgh, RUHBC Research Findings Papers, Issue 2, September 2003

Poland B (2000) The 'considerate' smoker in public space: the micro-politics and political economy of 'doing the right thing.' *Health & Place*, **6**, pp.1-14.

Poland B, Frohlich K, Haines RJ, Mykhalovskiy E, Rock M, Sparks R (2006) Commentary: The social context of smoking: the next frontier in tobacco control? *Tobacco Control*, **15**, pp. 59-63.

Potvin L, Haddad S, Frohlich K (2001) Beyond process and outcome evaluation: a comprehensive approach for evaluating health promotion programmes. In Rootman, I, Goodstadt M, Hyndman B, McQueen D, Potvin L, Springett J, Ziglio E (eds) *Evaluation in Health Promotion Principles and Perspectives*. WHO Regional Publications, European Series No. 92, chapter 2, pp. 45-62.

RCP (2010) *Passive Smoking and children: a report of the Tobacco Advisory Group of the Royal College of Physicians*. London, Royal College of Physicians.

Reissman C (2008) *Narrative methods for the Human Sciences*. London, Sage.

Richmond L, Haw S, Pell J (2007) Impact of socio-economic deprivation and type of facility on perceptions of the Scottish smoke-free legislation. *Journal of Public Health*, **29** (4), pp.376-378.

Ritchie D, Ritchie R (1991) 'The Craigmillar Health Project: helping people to define their own health needs.' *Journal of Complementary Medical Research*, **5** (3), pp.460-464.

Ritchie D (1991)^a An Experience of Community Care: 3 Years of the Craigmillar Health Project 1989-1991. Edinburgh, Lothian Regional Social Work Department.

Ritchie D (1991)^b Caring in the Community A Research Report on Interagency working in the Craigmillar Health Project. Edinburgh, Lothian Regional Social Work Department.

Ritchie D (1996)^a *A Qualitative Study of Young Men's Perceptions of Emotional Health which informed the Development of a Mental Health Media Campaign Promotion of Mental Health*, Vol **6**, Avebury Press.

Ritchie D (1996)^b *Destigmatisation of Mental Distress: A Research Report on a Mental Health Promotion Campaign*. Edinburgh, Lothian Health.

Ritchie D (1996)^c *Mental Distress and Young Adults: A Research Report on a Mental Health Promotion Campaign*. Edinburgh, Lothian Health.

Ritchie D (1999) Young Men's Perceptions of Emotional Health: Research to Practice *Health Education*, **99** (2), pp.7-75.

Ritchie D (2001) 'Breathing Space' - Reflecting upon the realities of community partnerships and workers' beliefs about promoting health. *Health Education Journal*, **60** (1), pp.73-92.

Ritchie D, Gnich W, Parry O (2004) 'We know what you did last Summer' In Nina Hallowell, Julia Law, Susan Gregory- *Reflections on Research: The Realities of Doing Research in the Social Sciences*. Maidenhead, Open University Press, chapter 5, pp.110-141.

Ritchie D, Gnich W, Parry O, Platt S (2004) Issues of participation, ownership and empowerment in a community development programme: tackling smoking in a low-income area in Scotland. *Health Promotion International*, **19**, No. 1, pp.51-59.

Ritchie D, Gnich W, Parry O, Platt S (2008) People pull the rug from under your feet': barriers to successful public health programmes *BMC Public Health* **8**, 173.

- Ritchie D, Amos A, Phillips R, Cunningham-Burley S, Martin C (2009) Action to achieve smoke-free homes- an exploration of experts' views. *BMC Public Health* **9**, 112
- Ritchie D, Amos A, Martin C (2010)^a Public Places after smoke-free -a qualitative exploration of the changes in smoking behaviour. *Health & Place*, **16**, pp.461-469.
- Ritchie D, Amos A, Martin C (2010)^b 'But it just has that sort of feel about it, a leper'- stigma, smoke-free legislation and public health. *Nicotine and Tobacco Research*, **12**, 6, pp. 622-629.
- Ritchie J (2003) The Applications of Qualitative Methods to Social Research In Ritchie, J., Lewis, J (eds) *Qualitative Research Practice A guide for social science students and researchers*. London, Sage, chapter 2, pp.24-46.
- Ritchie, J., Lewis, J (eds) *Qualitative Research Practice A guide for social science students and researchers*. London, Sage, chapter 2: 24-46.
- Robinson J (2008) "Trying my hardest": The hidden social costs of protecting children from environmental tobacco smoke. *International Review of Qualitative Research*, **1**, pp.173-194.
- Robinson J, Kirkcaldy AJ (2009) 'Imagine all that smoke in their lungs': parents' perceptions of young children's tolerance of tobacco smoke. *Health Education Research*, **24** (1), pp. 11-21.
- Robinson J, Kirkcaldy AJ. (2007^a) Disadvantaged mothers, young children and smoking in the home: Mothers' use of space within the their homes. *Health &Place*, **13**, pp.894-903
- Robinson J, Kirkcaldy AJ. (2007^b) "You think that I'm smoking and they're not": Why mothers still smoke in the home. *Social Science & Medicine*, **65**, pp.641-652.
- Robinson J, Ritchie D, Amos A, Cunningham-Burley S, Greaves L, Martin C (2010) "Waiting until They Got Home": Gender, Smoking and Tobacco Exposure. *Social Science & Medicine*, **71**, pp. 884-90.
- Rogers P (2008) Complicated and Complex Aspects of Interventions Evaluation *Evaluation*, **14**, 1, pp.29-48.

Rootman I, Goodstadt M, Hyndman B, McQueen D, Potvin L, Springett J, Ziglio E (2001) (eds) *Evaluation in Health Promotion Principles and Perspectives*. WHO Regional Publications, European Series No. 92.

Scottish Executive. *A breath of fresh air for Scotland. Improving Scotland's health: the challenge. Tobacco control action plan*. Edinburgh, TSO, 2004.

Scottish Executive. Smoking health and social care (Scotland) act 2005. *Part 1 Smoking: prohibition and control*. Edinburgh, TSO, 2005.

Secretary of State for Health. *Smoking Kills: A White Paper Tobacco*. London, Stationery Office. 1998

Semple S, Creely K, Naji A, Millar BG, Ayres JG (2007^a) Second-hand smoke levels in Scottish pubs: the effect of smoke-free legislation. *Tobacco Control*, **16**, pp 127-132.

Semple S, Maccalman L, Naji A, Dempsey S, Hilton S, Miller BG, Ayres JG (2007^b) Bar workers' Exposure to Second- Hand Smoke : The Effect of Scottish Smoke-Free Legislation on Occupational Exposure. *The Annals of Occupational Hygiene*, **51** (7) pp.571-580.

Sims M, Tomkins S, Judge K, Taylor G, Jarvis MJ, Gilmore A (2010) Trends in and determinants of second hand smoke exposure indexed by cotinine in children in England from 1996-2006. *Addiction*, **105** (3) pp.543-53.

Snape D, Spencer L (2003) The Foundations of Qualitative Research In Ritchie J, Lewis J (eds) *Qualitative Research Practice A guide for social science students and researchers*. London, Sage, chapter 1, pp. 1-23.

Springett J (2001) Participatory approaches to evaluation in health promotion In Rootman I, Goodstadt M, Hyndman B, McQueen, D, Potvin L, Springett J, Ziglio E (eds) *Evaluation in Health Promotion Principles and Perspectives*. WHO Regional Publications, European Series No. 92, chapter 4:83-106

Stuber J, Galea S (2009) Who conceals their smoking status from their healthcare provider? *Nicotine & Tobacco Research*, **11** (3), pp. 303-307.

Stuber J, Galea, S, Link B (2008) Smoking and the emergence of a stigmatized social status. *Social Science & Medicine*, **67**, pp. 420-43.

The Scottish Executive *Towards a Future Without Tobacco. The Report of the Smoking Prevention Working Group*. Scottish Executive, Edinburgh. 2006

The Scottish Government (2011) *Scotland's People Annual Report: results from 2009/2010 Scottish Household Survey*. A National Statistics Publication for Scotland. The Scottish Government, Edinburgh.

Thompson L, Pearce J, Ross Barnett J (2007) Moralising Geographies: stigma, smoking islands and responsible subjects. *Area*, **39** (4), pp.508-517.

Thompson L, Pearce J, Ross Barnett J (2009) Nomadic Identities and socio-spatial competence: making sense of post smoking selves. *Social & Cultural Geography*, **10** (5), pp.565-580.

Thorogood M, Coombes Y (2004) *Evaluating Health Promotion: practice and methods*. 2nd edition. Oxford, Oxford Medical Publications.

Tones K, Green J (2004) *Health Promotion Planning and Strategies*. London, Sage Publications.

Tones K, Tilford S (2001) *Health Promotion effectiveness, efficiency and equity* 3rd edition Cheltenham, Nelson Thornes.

U.S. Department of Health and Human Services (1986) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General*.

Rockville (MD): U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, Center for Health Promotion and Education, Office on Smoking and Health. DHHS Publication No. (CDC) 87-8398

U.S. Department of Health and Human Services (2006) *The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General—Executive Summary*. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Coordinating Center for Health Promotion, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health.

UK Government (2002) *Tobacco Advertising and Promotion Act 2002*. London, Stationery Office.

WHO (1986) *The Ottawa Charter for Health Promotion*, 1 (4), pp.iii-v

WHO (2005) *WHO Framework Convention on Tobacco Control*. World Health Organisation, Geneva. www.who.int/fcts/text_download/en/index.html. [accessed July 11th 2011]

WHO (2007) *Guidelines on protection from exposure to tobacco smoke: Article 8 of the WHO FCTC*. World Health Organisation, Geneva.

www.who.int/fctc/guidelines/article_8/en/index.html. [accessed July 11th 2011]

Appendix 1 QLLR- Process of the Individual Analysis

Panel /focus groups and key stakeholders	Types and process of data analysis across
Wave 1 (pre-legislation)	<p>Within Case analysis</p> <p>Descriptive summaries of participants</p> <p>Analysis of daily grids</p> <p>Re-reading before next interviews</p>
Wave 2 (post legislation)	<p>Descriptive summaries of participants accounts</p> <p>Research team working as an interpretive community to explore emergent themes and analytical hunches (but very much at the exploratory stage and identifying unexpected findings)</p> <p>Analysis of daily grids</p> <p>Re-reading before next interviews</p>
Wave 3 (post-legislation)	<p>Descriptive summaries of participants accounts</p> <p>Research team working as an interpretive community to explore emergent themes and analytical hunches (but very much at the exploratory stage and identifying unexpected findings)</p> <p>Analysis of daily grids</p> <p>Re-reading before next interviews</p>
Wave 4 (post-legislation)	<p>Descriptive summaries of participants accounts, Research team working as an interpretive community to explore emergent themes and analytical hunches (beginning to move from the exploratory stage to analytical coding)</p> <p>Analysis of daily grids</p>
Post data collection	<p>Within case analysis</p> <p>Comparing qualitatively the accounts of cigarette consumption in the daily grid with the interview transcripts at each wave and across waves</p> <p>Across case analysis</p> <p>Thematic analysis across the participants’ accounts in the whole data set</p> <p>Longitudinal thematic analysis across the participants’ accounts in the whole data set</p> <p>Situating participant summaries, both thematically and with a longitudinal perspective, within each community and across all the communities i.e reviewing individual participant summaries with the thematic analysis and then situating these accounts within their own community observations and also across all the communities and across time.</p>

Appendix 2 QLLR-Process of the Community Analysis

Community	Type of data analysis
Wave 1 (pre-legislation)	<p>Within Community Analysis</p> <p>Summaries of observations in community venues</p> <p>Re-reading before next observations</p>
Wave 2 (post-legislation)	<p>Summaries of observations in community venues</p> <p>Research team working as an interpretive community to explore emergent themes and analytical hunches (but very much at the exploratory stage and identification of unexpected findings)</p> <p>Re-reading before next observations</p>
Wave 3 (post-legislation)	<p>Summaries of observations in community venues</p> <p>Research team working as an interpretive community to explore emergent themes and analytical hunches (identification of unexpected findings)</p> <p>Re-reading before next observations</p>
Wave 4 (post-legislation)	<p>Summaries of observations in community venues</p> <p>Research team working as an interpretive community to explore emergent themes and analytical hunches (beginning to move from the exploratory stage to analytical coding)</p>
Post data collection	<p>Within community analysis</p> <p>Longitudinal qualitative analysis of the summaries of the all the community venues to develop a community picture for each community of the adjustment to smoke-free legislation</p> <p>Across community analysis</p> <p>Longitudinal qualitative comparison of each community. And comparisons of the two advantaged and two disadvantaged communities</p> <p>Situating the participants' accounts, within their own community and across all communities over time</p>

Appendix 3: Presentations and Linked Research Publications

Linked research publications

1. Platt S, Gnich W, Rankin D, Ritchie D, Truman J, Backett-Milburn K (2004) 'Use of Process Evaluation' In Thorogood M, Coombes Y. *Evaluating Health Promotion* (second edition) Oxford University Press. chapter 6 pp 73-89 chapter 6 pp 73-89 chapter 6 pp 73-89 chapter 6 pp 73-89 chapter 6 pp 73-89.
2. Ritchie D, Gnich W, Parry O (2004) 'We know what you did last Summer' In Nina Hallowell, Julia Law, Susan Gregory- *Reflections on Research: The Realities of Doing Research in the Social Sciences*. Maidenhead, Open University Press, chapter 5, pp.110-141
3. Peeticrew M, Semple S, Hilton S, Creely K, Eadie D, Ritchie D, Ferrell C, Christopher Y, Hurley F (2007) Covert observation in practice: lessons from the evaluation of the prohibition of smoking in public places in Scotland. *BMC Public Health* 2007, 7,
4. Robinson J, Ritchie D, Amos A, Greaves L, Cunningham-Burley S, Martin C (2011) Volunteered, negotiated, enforced: Family politics and regulation of home smoking. *Sociology of Health and Illness*, **33** (1), pp. 66-80.
5. Robinson J, Ritchie D, Amos A, Cunningham-Burley S, Greaves L, Martin C (2010) 'Waiting until they got home': Gender, smoking and tobacco exposure in households in Scotland. *Social Science and Medicine*, **71** (5), pp.884-890.

Presentations

1. Ritchie, D (2011) *Smoke-free homes: findings from UK Qualitative studies*. Nursing Faculty, UCLA, Los Angeles May 2011.
2. Ritchie, D (2011) *Smoke-free homes and the role of health professionals*. Invited expert at Global Bridges Meeting, Mayo Clinic, Rochester, Minnesota, USA, May 2011.
3. Ritchie, D (2011) *Smoke-free homes and the role of health professionals*. Invited Plenary Mayo Clinic Annual Nicotine Dependence Conference. Mayo Clinic Rochester, Minnesota, USA, May 2011.
4. Ritchie, D (2010) *A Discursive Space: The Nursing Role in Tobacco Control- an international symposium* with Nursing Professors from the USA and chaired by Tobacco Control lead, Department of Health England. SRNT Europe Conference Bath University, September 6th-9th 2010.
5. Ritchie, D (2010) *Stigma and Tobacco Control* SRNT Europe Conference Bath University, September 6th-9th 2010.

6. Ritchie D (2010) *'But it just has that sort of feel about it, a leper'- stigma, smoke-free legislation and public health*. STCA Glasgow ,March 12th 2010.
7. Ritchie, D , Amos, A, Martin, C (2009) *The Scottish Smoke-Free Legislation-gains and losses in affluent and deprived communities* World Tobacco or health conference Mumbai, India, March 8th-March 12th 2009.
8. Robinson J, Ritchie, D, Amos A (2009) *A gender based analysis of Smoke free legislation World Tobacco or health conference* Mumbai, India, March 8th-March 12th 2009.
9. Ritchie D (2009)*Smoke-free homes workshop* UKCTCS Public Health research Centre for Excellence in Tobacco Control March 2009 for UK Tobacco Control Practitioners Bath University.
10. Ritchie, D (2009) *Smoke-free homes* Perth Practitioner Conference, June 2009.
11. Ritchie, D (2008) *Scottish Smoke-free Legislation, Consumption and Quitting: Implications for smoking cessation* University of Edinburgh Tobacco Control Research Groups Seminars.
12. Amos, A, Ritchie, D Martin, C (2008) *Key debates in smoke-free homes* North East of England Tobacco Control Network, July 2008.
13. Ritchie, D , Amos, A, Martin, C (2008) *Scottish Smoke-free consumption and quitting implications for smoking cessation UK* Smoking cessation Conference, June 2008.
14. Amos, A, Ritchie, D Martin, C (2008) *Key debates in smoke-free homes* UK Smoking cessation Conference, June 2008.
15. Robinson J, Amos A, Ritchie D, Greaves L, Cunningham-Burley S *Smoking lives; a gendered exploration* UK Smoking cessation Conference, June 2008.
16. Ritchie, D (2008) *Key debates in future action to achieve smoke-free homes* Exeter, South West England Tobacco Control Network, June 2008.
17. Ritchie D, Amos A, Martin C (2008) *A longitudinal qualitative study of the impact of the Scottish Smoke-free legislation-the gains and losses experienced in affluent and deprived communities*. The Call to Action Conference, Cardiff, April 28-29th 2008.
18. Amos A, Ritchie D, Martin C (2008) *'Be much more 'straight''- key debates in future action to achieve smoke-free homes* The Call to Action Conference, Cardiff, April 28-29th 2008.
19. Ritchie D, Amos A, Martin C (2008) *'The unintended consequences of smoke-free policies' a challenge for healthy public policy*. UKPHA. Liverpool, April 1st- 3rd 2008.
20. Ritchie D, Amos A, Martin C (2007) *'The unintended consequences of smoke-free policies'* South West England Tobacco Control Network, Taunton, December 6th 2007.
21. Ritchie D, Amos A, Martin C (2007) *A longitudinal qualitative study of the differential impact of the Scottish smoke-free legislation – a comparison of affluent and deprived communities*. 4th European Conference on Tobacco or Health Basle Switzerland, October 2007.

22. Amos A, Ritchie D, Philips R, Cunningham-Burley S, Martin C (2007) *The vulnerable child- lay explanations for smoking rules and boundaries in the home following the Scottish smoke-free legislation*. 4th European Conference on Tobacco or Health Basle Switzerland, October 2007.
23. Ritchie D, Martin C, Amos A (2007) *Socio-cultural change in communities: a longitudinal qualitative study*. Smoke Free Society Conference. Edinburgh, September 10th-11th 2007.
24. Amos A, Philips R, Ritchie D, Cunningham-Burley S, Martin C (2007) *Smoke free Homes*. Smoke Free Society Conference. Edinburgh, September 10th-11th 2007.
25. Amos A, Philips R, Ritchie D, Cunningham-Burley S, Martin C (2007) *Smoke free Homes*. STCA June 2007.
26. Martin C, Amos A, Ritchie D *A Qualitative study of changes in smoking (and drinking behaviour) following the implementation of the Prohibition of Smoking in Public Places legislation*. NATCEN London, 26th June 2007.
27. Martin C, Amos A, Ritchie D (2007) *Longitudinal qualitative community study: the contribution of mixed methods and the ethnographic approach*. UKPHA Edinburgh, 2007.
28. Martin C, Ritchie D, Amos A (2005) *'Qualitative Study of Changes in Smoking (and Drinking) Behaviour following Implementation of the Prohibition of Smoking in Enclosed Public Places*. NHS Health Scotland Seminar: Health and Economic Impact of Smoke- Free Legislation, Edinburgh, June 8th 2005.
29. Parry O, Ritchie D, Platt S *Lessons from the process evaluation of a community-wide, anti-smoking intervention in a low income area of Scotland*. 12th World Conference on Tobacco or Health, Helsinki, August 2003.
30. Ritchie D, Gnich W, Parry O, Platt S (2003) *Qualitative Evaluation of a Community-Based Initiative: Recommendations for improving health promotion practice*. VI European Conference on Health Promotion and Education Equity, solidarity and responsibility for Health. 18th-21st June 2003 Perugia, Italy.
31. Ritchie D, Parry O, Gnich W, Platt S (2003) *Challenges for Community Development Practice- learning from evaluation* UKPHA Cardiff, March 18th 2003.
32. Ritchie D, Parry O, Gnich W, Platt S (2002) *Lessons from a Community Development Evaluation* Community Development Conference, Glenrothes, Fife NHS Board, November 26th 2002.
33. Ritchie D, Parry O, Gnich W, Platt S (2002) *Learning from Evaluation- lessons for practice* Lothian Health Public Health Matters Conference, Edinburgh, December 12th 2002.
34. Platt S, Gnich W, Parry O, Ritchie D (2002) *Community-based interventions to reduce smoking: learning from a systematic review and quasi-experimental evaluation study*. Invited seminar presentation, Edinburgh Health Research Group, Edinburgh, October 2002.

35. Gnich W, Parry O, Ritchie D, Platt S *Attempting to change the 'culture' of smoking: findings from the evaluation of 'Breathing Space'*. Invited seminar presentation, The Social Research Association in Scotland, Edinburgh, September 2002.
36. Ritchie D, Parry O, Gnich W, Platt S (2002) *The Principles of Community Development in Smoking Initiatives: A Help or a Hindrance?* 3rd European Conference on Tobacco or Health Closing the Gap -Solidarity for Health Warsaw Poland, 20-22 June 2002.
37. Platt S, Gnich W, Parry O, Ritchie D (2002) *Assessing the Effectiveness of a Community –Based Anti-Smoking Intervention in a Low Income Area.* 3rd European Conference on Tobacco or Health Closing the Gap -Solidarity for Health Warsaw Poland ,20-22 June 2002.
38. Platt S, Gnich W, Parry O, Ritchie D *Assessing the effectiveness of a community-based anti-smoking intervention in a low income area.* Evidence, Policy, Practice: Public Health Research in Scotland, Edinburgh, June 2002.
39. Ritchie D, Gnich W, Parry O, Platt S (2002) *Differing perspectives on a community based initiative tackling smoking in a low income area: implications for practice* UKPHA 10th Annual Public Health Conference Glasgow, March 5-7th 2002.
40. Gnich W, Ritchie D, Parry O, Platt S *Capturing complexity: developing a framework for an economic evaluation of a community-based non-smoking project in a low-income area.* Faculty Of Public health Medicine Conference Turnberry, November 2001.
41. Gnich W, Platt S, Parry O, Ritchie D *Lay participation in survey based evaluation research.* Invited seminar presentation, Social Processes, Society and Health IDG, Edinburgh University, May 2001.
42. Platt S, Gnich W, Elton R, Parry O, Ritchie D *Correlates of cigarette smoking in low income populations: a cross-sectional study in Edinburgh, Scotland.* UKPHA 9th Annual Public Health Forum, Bournemouth, 27-29 March 2001.
43. Gnich W, Platt S, Parry O, Ritchie D *Lay participation in survey based evaluation research.* UKPHA 9th Annual Public Health Forum, Bournemouth, 27-29 March 2001.
44. Ritchie D (2001) *Promoting Health in areas of low income is it possible?* . UKPHA 9th Annual Public Health Forum, Bournemouth, 27-29 March 2001.
45. Platt S, Parry O, Gnich W, Elton R, Ritchie D *Smoking-related inequalities: evidence from a study of low income populations in Edinburgh.* Royal Hallamshire Hospital, Sheffield, 23 March 2001.
46. Ritchie D, Platt S, Parry O, Gnich W(2000) *'Breathing Space' - Reflecting upon the realities of community partnerships and workers' beliefs about promoting health.* International Health Equity Conference. Havana Cuba.
47. Platt S, Parry O, Gnich W, Ritchie D, Elton R. *Inequalities in smoking: public health implications of findings from an ongoing research study,* Public Health Department, Lothian Health, 21 December 2000.

Appendix 4: The Publications