SMOKING GEOGRAPHIES
SPACE, PLACE AND TOBACCO

Ross Barnett, Graham Moon, Jamie Pearce, Lee Thompson & Liz Twigg

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Smoking Geographies
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This collective monograph records the outcomes of a research collaboration that has extended over many years. We have shared a commitment to bring a geographical lens to bear on smoking behaviour and to uncovering how geography can play a part in understanding not only why people smoke but also broader issues of tobacco control. We have sought to bring both quantitative and qualitative perspectives to bear on what is, by any analysis, a major source of mortality and morbidity, and a vexed and much-debated policy issue. Our own original research sits alongside our assessment of the multidisciplinary perspectives that make up the contemporary geography of smoking.

In writing we took a genuinely collective approach. Each chapter has passed through many hands both in its initial development and in final drafting. From initial discussions in Christchurch, New Zealand, where we have each, on occasion, been based, we have subsequently met in various combinations in Southampton, Portsmouth and Edinburgh, passed drafts by email and converged to the final text. We each take responsibility for the whole.
We each acknowledge the support of partners, spouses and colleagues. Graham and Liz acknowledge Tom, Laura and Joe for their forbearance and Mickey Moon who was a research subject in the original British Doctor’s Study that linked smoking to lung cancer. Jamie gratefully acknowledges the support of a European Research Council grant (ERC-2010-StG grant 263501). He would also like to thank Vicky, Ted and Maddie for their support and patience. Lee Thompson would like to acknowledge her mother Ethne Thompson who, by her own admission, gave up smoking too late. She died of lung cancer in 2008.
Chapter One
Introduction

1.1 Background

The global tobacco industry is one of the most profitable and deadly in the world. In 2014, 5.8 trillion cigarettes were sold to more than one billion smokers worldwide, 64% of whom were in the Asia Pacific region (Euromonitor International 2014). Over the next five years it is predicted that the industry will continue to grow, especially in emerging markets, in Asia, the Middle East and Africa, where tobacco companies have taken full advantage of rising populations, increased incomes and lax regulatory environments. If current consumption trends continue, approximately one billion people will die from tobacco use during the twenty-first century (Jha 2009). The tobacco industry also remains a major employer, but, especially in countries such as China or Malawi where tobacco is central to the economy and in addition to causing many premature deaths, the industry has also contributed to deforestation and a reduction in food growing (The Guardian 2015).

In richer nations tobacco smoking was, until recently, a regular, normal, everyday activity. While smoking rates have passed their peak and substantially declined since the 1970s, social and ethnic inequalities in consumption have risen as smoking has become concentrated among more marginalised groups. In low- and middle-income countries social differences in smoking are also now becoming more apparent, but gender differences remain most significant. Male smoking prevalence rates remain high and approximate those of higher-income countries in the early twentieth century (Thun et al. 2012). By contrast smoking prevalence...
among women is usually low, but in those countries where cultural constraints have lessened, the number of female smokers is on the rise. These epidemiological trends are paralleled by changes in the global tobacco industry. In higher-income countries contracting markets have meant that tobacco has reduced in significance, both as an agricultural crop and production industry, but in low-income countries this picture is reversed. Understanding such trends and their significance is important not only for public health but also for the future regulation and control of tobacco consumption.

Whilst the use of tobacco can be traced back to around 5000 BCE, and tobacco trade began during the early sixteenth century, it was the introduction of automated cigarette production in the 1880s that enabled a rapid increase in consumption. Between 1880 and 1910 the number of manufactured cigarettes rose from 500 million to 10 billion (Brooks 1952). By the mid-twentieth century, smoking had transformed in high-income countries into a non-contentious, socially accepted activity which, significantly, involved both men and women. Until the 1920s smoking by women had been stigmatised; smoking was a manly attribute. Female emancipation and, perhaps more importantly, competition between cigarette companies for market share, saw smoking by women become far more common, with their smoking rates coming to approximate those of men. The success of the cigarette was nothing short of spectacular and from the 1930s onwards it became a central icon of the new consumer culture and, among women, a symbol of glamour and independence.

In high-income countries, the trends in smoking prevalence and tobacco consumption over the latter half of the twentieth century are closely tied to the epidemiological evidence that emerged from the 1930s onwards demonstrating a causal link between prolonged smoking and poor health (Doll & Hill, 1954; Hammond & Horn, 1954; Royal College of Physicians of London, 1962; United States Department of Health and Human Services, 1964). This led to changes in public perceptions of the health risks of tobacco consumption and the social norms around smoking. Whilst these early studies were later shown to greatly underestimate the health hazards of smoking (Peto 1994), they were fundamental in initiating the slow shift in public attitudes and the development of anti-smoking policies over the next few decades. By the 1970s, the risks for other groups, most notably women who smoke during pregnancy, were recognised and central to policy efforts (Berridge & Loughlin 2005). The emerging scientific consensus on the dangers of exposure to second-hand smoke (‘passive smoking’ or ‘environmental tobacco smoke (ETS)’) was essential in compelling many national governments to act in limiting the places in which people could smoke (Brandt 2003). Policies of the 1980s and 1990s recast smoking as a wider threat to public health, and tobacco control policies tended to focus on reducing exposure to second-hand smoke amongst non-smokers.

Despite the concerted efforts of the tobacco industry to manufacture doubt (Proctor 2012), public awareness of the health hazards of smoking and ETS rose,
with the result that smoking is now considered by many to be a remarkable, unclean, or even immoral activity. It has evolved from a normalised activity embedded in the practices of everyday life to an abnormal activity that is often viewed with disdain, and tends to be displaced from everyday human interactions across much, but not all, of the world (Chapman 2008). Tobacco control policies have, through information campaigns and restrictions on where and when people can smoke, been designed to convey smoking as a socially unacceptable, unusual practice and the times, opportunities and spaces for smoking have been radically constrained. Whilst the denormalisation of smoking in high-income countries has been widely regarded as a significant public health success, this transition raises a number of new and important research concerns and policy dilemmas. Important among these has been the globalisation of the tobacco industry. Contracting markets in richer nations have, in turn, resulted in the incursion of large multinational tobacco companies into poorer countries. As these companies have sought new markets, global smoking prevalence has risen, especially amongst women and younger people. Further, in high-income countries, the unacceptability of smoking and the reduction in tobacco use has been far more pronounced among higher socioeconomic groups. Social and ethnic gradients in smoking thus have significantly increased, resulting in smoking now being an indicator of social deprivation and disadvantaged places. As smoking becomes denormalised, it is likely that those who continue to smoke will become increasingly marginalised and stigmatised.

On the basis of the above evidence it is undeniable that smoking and tobacco are significant topics for study. The public health ‘toll’ of the ‘smoking epidemic’ is well documented, with an estimated 100 million deaths attributed to tobacco over the twentieth century, more than the total deaths in World War I and World War II. Smoking remains one of the most important public health challenges worldwide, and is identified as a key determinant of preventable mortality and morbidity in developed and developing countries. Active smoking has adverse health effects including lung cancer, cerebrovascular disease and heart disease, and has been estimated to cause at least five million premature deaths annually (WHO 2008). It is thought that the consumption of tobacco is complicit in approximately 18% of all deaths and 40% of cancer deaths worldwide (WHO 2008). In the UK, one in five deaths are attributable to smoking and it is estimated that the total direct cost to the National Health Service of treating diseases directly caused by smoking is over £5 billion per year (Allender et al. 2009).

1.2 Smoking and Tobacco; The Importance of Geography

Given the widespread and significant health, social and economic burdens that have been attributed to tobacco consumption, it is unsurprising that tobacco research has received a great deal of academic attention. Research into tobacco
consumption and smoking spans a number of disciplines with important contri­butions from the medical sciences, social sciences and the humanities. Collectively, this body of work has provided a variety of insights into issues such as: the biological effects of prolonged smoking; the implications of environmental tobacco smoke for public health; smoking as marker of social class; stigmatisation of smoking and the smoker; smoking as a performed identity; and representations of smoking in literature and on film. The work has not only broadened our appreciation of the medical and conceptual understanding of tobacco consumption, but also it has profoundly shaped public health policy development and underpins on-going tobacco control measures.

Geographers are relative newcomers to these debates, perhaps reflecting the predominant focus until recently amongst health geographers on disease distribution and care provision (Kearns & Moon 2002). While geographers have made important intellectual and policy-related contributions including exploring the macro- and micro-level spatial processes implicated in understanding health, they have paid little attention to smoking. This is unfortunate, not only because smoking remains a leading cause of death and disease but also because many geographical processes, such as globalisation, urbanisation, increased poverty and inequality, give rise to stresses that are directly implicated in smoking. Thus, it is important to understand the contexts within which different health behaviours, including smoking, take place, for in the absence of such an approach our view can only be a partial one. Geographical approaches thus can add value to the existing smoking literature by emphasising the importance of national and local economic, social and physical environmental factors and the interconnections between them.

This book provides a comprehensive analysis of how space and place, at multiple scales, affect the geography of smoking. Not only is such an approach overdue but also, by examining different geographical scales and the links between them, we aim to provide an enhanced insight on the national and local factors which have shaped processes of tobacco production, consumption and the development and implementation of tobacco control policies. The recent adoption of stricter smoke-free laws in Beijing, for example, must be seen in a national context, where variations in the implementation of such policies are apparent, but also from a global context in which China is responding to global pressures about how it wishes to present its most public face to the world. By explicitly considering the issue of scale, a geographical approach seeks not only to identify and understand such interactions but also how they play themselves out in different places. In adopting such an approach we build from an acknowledgement of both the health ‘toll’ of smoking and also its position as a civil liberty issue, drawing on our own published studies as well as presenting new research. Our diverse perspectives enable us to examine simultaneously smoking as both a quantitative epidemiological topic and as a sociopolitical and cultural phenomenon.
Our overarching assertion is that an in-depth understanding of the relations between smoking and place thus requires not only an appreciation of the ecologies of the spaces in which people live their lives, including the resources, rules and meanings ascribed, but also attention to the wider social structures that operate to constrain and/or enable human behaviour. As we shall see, understanding the geography of smoking necessitates a recognition that global-level processes matter just as much as local particularities; this monograph will pay particular attention to the many connections across these scalar processes. The transition in smoking from high-to low-income countries, and within developed countries from high to low socioeconomic groups, represents the interplay of global concerns such as the uneven implementation of tobacco control policies, marketing tactics and production priorities of multinational tobacco companies as well as individual behaviour. Yet these transitions have not been uniform, as evidenced by the resistance of some nation states to implementing globally agreed tobacco control initiatives, differential uptake of public health messages, and of course the rich diversity of place-based factors that have mediated the local geographies of smoking initiation and cessation.

At the same time as providing an account of the relations between smoking and place, our monograph contributes more broadly to well-established, as well as more recent, debates in geography. In many ways, deep attention to the dynamics of smoking reveals the intricate connections between human wellbeing and a host of multiscalar social, economic and political processes that have received much attention from geographers. Smoking research offers the opportunity to explore the material impacts of macro-level contemporary concerns such as global structural changes, fiscal retrenchment, neoliberalism, globalisation, climate change and so on. These—and other—core concerns in human geography have been closely aligned in the literature with issues such as the global (de)regulation of trade, rising social inequalities and various dynamic urban processes including urban segregation, gentrification and environmental (in)justices. Similarly, research on smoking enlightens key debates in social and cultural geography such as how race, identity and stigma are bound up in place. Smoking offers a vector for exploring the human costs of these processes for local populations, and providing opportunities to consolidate our understanding of connections across space.

In the next section of this chapter consideration is given to the ways in which past geographical scholarship has examined smoking and tobacco use. This is followed by a consideration of some of the key connections between geographical work on smoking and wider research on alcohol, obesity, inequalities and other pertinent areas of interdisciplinary scholarship. In doing so, the section will trace the transmission of geographical work into other disciplinary areas as well as identify common factors influencing different types of health behaviours. This section also considers the links between these geographical analyses and tobacco control policy with a view to identifying the recent efficacy and future potential
of geographical ideas. In the final section an outline of each chapter in the book is provided. This includes a discussion as to how the chapters contribute to the overarching aims of the book.

1.3 Geographical Approaches to Past Smoking Research

While geographers have increasingly become interested in different health behaviours and their influence on health, there has been little research on smoking. In this section we highlight some of the key foci of the few past research endeavours as well as the key gaps in the geographical literature that are addressed in this book.

Looking broadly, both within and beyond geography, much research effort has aimed at identifying and subsequently intervening in the individual factors that contribute to continued tobacco use. By adopting an individual behaviour perspective, researchers have identified factors such as education, knowledge of tobacco products, IQ, ethnicity, relationship status, amongst many other concerns as being linked to smoking initiation, behaviour and cessation. While this research has been important, it provides only a partial account for the social and cultural factors that are integral to understanding smoking and it is perhaps unsurprising that reductions in smoking have not been as substantial as might have been anticipated. Health and human geographers have been foremost in insisting on understanding how these individual factors, and the environments and places in which people find themselves, interact to produce economic, social and cultural spaces that are more or less favourable to initiating or continuing smoking (Collins & Procter 2011; Pearce, Barnett & Moon 2012). While individual factors are undoubtedly important, their impact is often critically constrained by geographical context. Contextual as well as individual factors need to be investigated and considered by policymakers in developing the next generation of tobacco control policies. Geography’s close involvement with the development of multilevel modelling in relation to health has been instrumental in enabling effective consideration of smoking as an outcome of both individual and contextual processes (Duncan, Jones & Moon 1996; Duncan, Jones & Moon 1999) (see Chapter 2).

At the national level, geographers have shown that the prevalence of smoking may be influenced by various policies including tobacco taxation, the advertising of tobacco products or wider social policy initiatives such as urban regeneration (see Chapter 8). For example, smoking prevalence is often higher in tobacco-growing areas and reduces when tobacco agriculture is subject to restructuring (Yang et al. 2015). Equally, although evidence is limited, studies have explored the links between smoking and area-based housing improvement policies (Blackman et al. 2001; Bond et al. 2013). Other geographical accounts have enriched our understanding of the implications of various tobacco control initiatives.
For instance, policy interventions such as ‘smoking bans’ have often been championed as significant public health successes (Barnett, Pearce, Moon et al. 2009). Yet, although such initiatives have altered social norms and led to reductions in smoking prevalence, there can also be a multitude of unintended consequences. Policies such as smoking bans have displaced smokers to marginal places (e.g. smoking areas in hospital grounds), and in turn led to a further stigmatisation of those who smoke (Collins & Procter 2011). These developments are potentially significant, as smokers who are often socioeconomically disadvantaged in a number of ways become exiled from public and private social spaces leading to ‘spoiled’ identities and feelings of low self-efficacy, powerlessness and hopelessness (Thompson, Barnett & Pearce, 2009). As Thompson, Pearce & Barnett (2007) demonstrate, the marginalisation of smokers can lead to active resistance to cessation efforts, hence ultimately undermining tobacco control initiatives (see Chapter 6).

Geographical work has also considered processes that have been conceptualised as operating at the local level. Specific constructs have been demonstrated to function in settings such as residential neighbourhoods, workplaces and schools. In our earlier work we contended that at the broadest level, two key pathways (or domains) that implicate geographical constructs operate: place-based ‘practices’ and place-based ‘regulation’ (Pearce et al. 2012) (see Chapter 5). Within these domains a variety of specific processes are likely to function, including: social capital and cohesion, social practices including ‘normalised’ behaviours, contagion through peers and social networks, neighbourhood crime, disorder and stress, legislative concerns restricting places for smoking such as the recent smoking bans that have been implemented in many countries, the local availability of tobacco retailing surrounding places of residence and schools, the advertising of tobacco products, and recent policy efforts to ‘regenerate’ socially deprived settings and in doing so improve the health of local residents (including an increase in smoking cessation). There is a large body of work demonstrating that residents of socially disadvantaged neighbourhoods are more likely to smoke or suffer from related health outcomes even after accounting for various other individual- and area-level factors which might account for differences in smoking behaviour (Duncan et al. 1999) (see Chapter 4).

Geographers have also explored how characteristics of the local social environment, such as levels of social capital between neighbours and community social norms and attitudes, develop to affect the acceptability of smoking. For instance, Thompson et al. (2007) argue that whilst many societies have become increasingly less accepting of smoking, some neighbourhoods might be considered ‘smoking islands’ in which a local culture of tobacco consumption ensures smoking remains a normal activity. Usually these are poorer neighbourhoods, where smoking can be seen as a shared community response to adversity. Other work has considered the physical characteristics of local neighbourhoods and how these might be important in understanding behavioural decisions.
Neighbourhood ‘liveability’ may, for instance, influence the social ties between local residents and the disruptions of these connections can influence health through various pathways including smoking (Ellaway & Macintyre 2009; Shareck & Ellaway 2011). Work in this area includes studies of local crime and incivilities, quality of the neighbourhood infrastructure and the absence of local goods (see Chapter 5).

Others have emphasised that places are dynamic and it is imperative to consider the reciprocal relationships between place and smoking beyond spatially delimited boundaries. Not only do physical and social structures of places act on individuals (i.e. constrain or enable smoking) but individuals perform the structures through their social practices, which in turn affect the wider system and reinforce the initial structures that affected their smoking (Poland et al. 2006). Thus, smoking may be a way of coping in a stressful environment, but can also form a mechanism for asserting community identity (Pearce et al. 2012). An in-depth understanding of the relationship between places and smoking requires appreciating the meaning that is attached to places, the resources within them, and the routine actions of people within such spaces (Frohlich et al. 2002). Rather than considering smoking as simply a behaviour, the intention is that smoking is reconceptualised as a set of social practices that is embedded in place (or ‘social context’) which in turn is represented and mediated by local populations (Poland et al. 2006). This complex set of processes has been encapsulated through the notion of ‘collective lifestyles’ which is similar to Bourdieu’s concept of ‘habitus’ whereby power is expressed through patterns of socialised norms and tendencies that influence individual behaviour and thinking. Such ideas are helpful in explaining how individual and collective behaviour and a series of resources can be brought together in local settings to explain the uneven social geography of health outcomes, such as smoking (Frohlich et al. 2002; Poland et al. 2006). The approach is analytically advantageous because it provides simultaneous consideration of the role of wider structural and societal forces at the same time as examining the mediating effect of local neighbourhood particularities (the resources, rules and practices).

Other work has provided an explicit counterpoint to biomedical explanations of smoking. Bell (2013), for example, emphasises that much smoking research is designed to serve the interest of public health, and hence has led to a close alignment between smoking research and tobacco control. The author calls for more work which critiques the notion of the smoker as a ‘rational agent’ and recognises that smoking can be an attractive and pleasurable activity set within a social context (Bell, 2013). Similarly, Tan (2013) calls for greater recognition of the ways in which certain spaces can empower smokers and contribute to enhancing their personal spaces of wellbeing, restoring their ‘spoiled identities’. These insights are not intended to downplay biomedical and disabling implications of smoking but rather to emphasise the need to fill a lacuna in geographical scholarship, and develop our understanding of why some smokers, particularly younger ones, are resistant to smoking-cessation measures.
Despite some attention to national level factors, to date most geographical research on smoking has primarily concentrated upon local neighbourhood-level influences. This is not unexpected given the more micro-focus of much of cultural and health geography and its aversion to examining national political and socio-economic processes underlying changing geographies of smoking, especially in richer countries. Yet, as human geographers have long appreciated, neighbourhoods are fluid and non-bounded, and their makeup partially reflects broader macro-level social and economic processes that have accumulated over many decades. With few exceptions (Yang et al. 2015), political economy interpretations of smoking are largely absent from the geographical literature, which is surprising especially given the past focus of geographers on macro-level processes such as globalisation, deindustrialisation and national political restructuring. In high-income countries the economic and social consequences of these processes, such as the growth of concentrated urban poverty and income inequality, are well known, but their links to health behaviours and health inequalities are not. For instance, it was not until just over a decade ago that smoking research in geography first attempted to make links with income inequality and health debates, especially as they related to ethnic differences in smoking in Aotearoa-New Zealand (Barnett Moon & Kearns 2004).

Similarly, with the exception of smoke-free legislation, which has a distinct spatial component, studies of tobacco control legislation have been virtually absent from the geographical literature. This is a pity especially given global and national variations in policy enforcement that have accompanied the implementation of the World Health Organisation’s Framework Convention on Tobacco Control (FCTC). To date, such research has been conducted largely by non-geographers, which has meant a lack of attention to the social, economic and political factors associated with the uneven uptake of FCTC objectives as well as the implications for global health. Again, this absence is not surprising but the lack of such research indicates a reluctance of geographers to engage with political economy interpretations of tobacco control policies and their outcomes. The same can be said of studies of the multinational corporations popularly known as ‘Big Tobacco’. As a response to their contracting markets in richer countries multinational tobacco companies have extended their tentacles to middle- and low-income nations, where they have attempted to influence public opinion and to hinder the implementation of tobacco control measures (see Chapter 3). Geographers have led research on globalisation yet have remained remarkably silent about the activities of Big Tobacco and how it is changing global geographies of smoking. Conflicts between economic development and health concerns in these countries deserve increased attention.

In summary, while geographical research on smoking has emerged in the last few decades its approach has been partial and left many important questions unaddressed. This is perhaps surprising given the societal implications of smoking, the intrinsic significance of space and place in understanding smoking, and the
intersection between smoking research and numerous staple concerns in contemporary human geography. In this book we seek to address some of these deficiencies through greater attention to both macro- and micro-concerns, both of which are necessary in an examination of the changing nature of the smoking epidemic.

1.4 Geographies of Smoking: Making Connections

In approaching geographies of smoking it is important to make wider connections between smoking research and other research areas in geography and the social sciences. These connections are important because they help to identify common antecedents whether they be social, economic, political or physical. Identifying these links enables us to trace the diffusion of geographical ideas into other scholarly areas and the policy realm. Key among these are parallel work on: other health behaviours, such as alcohol consumption, physical activity and sexual health; the significance of neighbourhood effects on health; and links between smoking and work on health inequalities. In addition, tobacco control initiatives, which seek to denormalise smoking as well as the social meaning of smoking, also need to be considered with respect to other parallel areas of health promotion, particularly those that engage with area-based policy.

While smoking is an important health behaviour, other health behaviours have received considerably more attention from geographers and other disciplines with interests in space and place. For instance, in their review of alcohol, drinking and drunkenness, Jayne, Valentine & Holloway (2011) uncover the breadth of spatial work on, for example: alcohol use in various types of drinking venues, the role of drinking in understanding identity, lifestyle and sociability, outlet density and ‘problem’ drinking, and the intended and unintended implications of alcohol-related legislation. Similarly, there is a large body of work engaging with geographical concerns relating to the ‘obesity epidemic’, in particularly studies of the environmental drivers of diet, nutrition and physical activity. Geographical accounts have been helpful in revealing the multilayered and intersecting factors working across multiple sectors that are influencing the population-level rise in overweight and obesity (Pearce & Witten 2010). Mirroring debates in the smoking and alcohol literatures, geographical accounts of obesity have included explanations operating at scales from the global to the local. Geographers have also been particularly well positioned to offer epistemological and methodological insights such as emphasising the complexities of everyday life and incorporating a wider set of issues, including attending to the concerns of those with impairments, disabilities or chronic illness as well as considering the mediating role of other environmental concerns such as pollution or weather (Andrews, Hall, Evans & Colls, 2012).

As this book will demonstrate, work on the geographies of smoking is developing interesting forays into other disciplines as well as making important
contributions to numerous interdisciplinary themes. Most obviously, health geographers are starting to engage with biomedical perspectives of smoking and contributing to the fields of public health and tobacco control (Poland et al. 2006; Thompson et al. 2007; Thompson, Barnett & Pearce 2009; Thompson, Pearce & Barnett 2009; Collins & Procter 2011). This includes examining spatial factors affecting motivations to smoke or to quit, and evaluating the efficacy and unintended consequences of policy interventions. Recently, a substantial body of multidisciplinary work has also sought to identify ‘neighbourhood effects’ on health. With contributions from sociology, epidemiology, anthropology and elsewhere, work in this field has indicated that various characteristics of local neighbourhoods, such as aspects of the local urban infrastructure, features of the physical environment, and community social capital partially explain differences in health between local areas. Neighbourhood work has been instructive in considering both the importance of local context in explaining tobacco consumption and related outcomes, but has also advanced conceptual understanding of the reciprocal relationship between places and health.

Other significant fields of interdisciplinary study include the work on health inequalities which has been an enduring multidisciplinary theme in many countries, particularly since the early 1980s. For the past 150 years, the geographical literature on health inequalities has drawn attention to the stark differences in health outcomes and behaviours between nations, regions and urban neighbourhoods (Pearce & Dorling 2009). Since the 1970s, partly because of the socio-economic impacts of neoliberalism and globalisation, social gradients in health have steepened in most countries. Smoking tends to be considerably higher amongst socially disadvantaged groups and is a key factor in understanding social and spatial inequalities in health. Drawing on a multitude of theoretical perspectives including structuralist or political economy accounts, socioecological approaches, and lifecourse perspectives, health geographers have used quantitative and qualitative approaches to examine the role of place in understanding increased inequalities in smoking.

Geographical research has also engaged with important public policy issues whether these be climate change, globalisation and development, or poverty and urban regeneration. The wider policy literature is helpful in informing any assessment of the implementation and effectiveness of different tobacco control policies over the past few decades. Measures such as raising taxation on tobacco, restricting the marketing of tobacco products (Stead et al. 2016), limiting the places people can smoke (Barnett, Pearce, Moon, et al. 2009) curbing the availability of cigarettes to young people (Eadie et al. 2016), and smoking cessation initiatives offered through the health care system (Hiscock et al. 2009; Hiscock, Bauld, Amos & Platt 2012; Griffin, Moon & Barnett 2015) have all formed part of a strategy to denormalise tobacco use and reduce the health burden of smoking.

Despite the introduction of numerous policy initiatives in high-income countries, smoking prevalence remains stubbornly high amongst some social groups
and still continues to increase in many poorer countries. The ‘next frontiers’ of tobacco control will therefore be about achieving marginal gains from a number of interventions that will also need to work in progressive and socially acceptable ways, and recognise the multiple levels of social context in which ‘decisions’ to smoke are taken. Geographical work is likely to increasingly contribute to new strategies for addressing smoking prevalence and inequalities in smoking-related outcomes which will require attention to a wider set of factors, including some classic geographical concerns such as regulation and governance, public and private spaces, marginalisation and stigmatisation, and social and economic inequalities. There are significant opportunities for including a wider set of factors that beneficially affect the daily lives of peoples and the distinctive cultures that emerge in neighbourhoods to resist, mediate but also influence tobacco control measures (see Chapter 5). The successful development of policy initiatives to address the burden of tobacco-related health outcomes relies on understanding these multilayered mechanisms – identifying and understanding the ways that space, place, people and policy/governance interact. A geographical lens is ideal to investigate the complexity of these relationships by addressing area effects in the broadest sense. This geographical lens covers global and local sites of smoking, the patterning of mortality and morbidity, area-based attitudes and barriers to smoking cessation, and sites of compliance and resistance to the regulation of smoking, as well as locations where the performance of smoking continues. These are issues that will be revisited throughout the book.

It is also important that future policy work integrates the views and beliefs of smokers. Mainstream tobacco control research articulates the smoker as either a ‘rational agent’ in need of guidance or as casualties of frailties (e.g. physiological addiction) or external forces such as peer group pressures or the tobacco industry (Bell 2013). However, an agenda that is positioned entirely within a tobacco control framework excludes research seeking to understand the meaning (e.g. the role of smoking in identity formation amongst young people) and the social context of smoking (e.g. the reality of smoking in everyday life) (Poland et al. 2006). These concerns restrict our understanding of smoking and the smoking person as well as the ways in which public health messages (e.g. encouraging smoke-free homes) are received, negotiated and mediated. A geographically inflected critical social theory allows for a much deeper understanding of the ways that populations are governed at a distance in the modern state (see Chapter 6). In terms of tobacco control, this governance takes the form of legislation regarding where people may smoke, but also more subtle governance as a climate is produced in which smoking becomes ‘denormalised’. This governance may be resisted, complied with, or generally negotiated at a local level. Grasping how governance is negotiated is crucial to understanding issues of power and empowerment, since elements of empowerment (at a community and individual level) are central to contemporary health promotion, including smoking cessation, as well as to the performance of smoking as an act of resistance.
1.5 Writing Smoking Geographies

Our ambition in writing this monograph is to develop a nuanced understanding of the pathways linking individuals and places to smoking and tobacco, and to consider the policy implications that flow from this enhanced understanding. We seek to investigate how local particularities (e.g. resources, regulation, practices etc.) mix with, and reinforce, structural factors (globalisation, trade agreements etc.) to account for tobacco use and inequalities in smoking. Using new empirical material and a range of different theoretical perspectives we will draw on the burgeoning literatures in the fields of human geography, medical sociology, public health and epidemiology which have identified place-based mechanisms associated with smoking behaviour. We worked collectively on the chapters, aiming to produce a genuinely co-produced text.

The monograph consolidates and extends our own research on smoking geographies conducted over the past quarter-century. It provides a mixture of new research alongside a synthesis of existing material. Given the context in which we have worked, inevitably the empirical focus of the monograph is the United Kingdom (UK) and Aotearoa-New Zealand. This geographical focus is highly appropriate for a monograph on the geographies of smoking. There are many similarities between the UK and Aotearoa-New Zealand contexts that enable comparative work such as the paralleled and rapid rise in social and economic inequalities since the 1980s and common timeframes in tobacco control interventions. Yet, at the same time, the inclusion of material from Aotearoa-New Zealand allows us to deepen our analysis and attend to a broader set of cultural concerns including postcolonialism and the health of distinctive ethnic groups in a different context. Smoking rates amongst Māori and Pacific peoples in Aotearoa-New Zealand remain high and, as we shall see, this can be connected to a range of geographical concerns, each of which have locally embedded policy implications. Where appropriate, the work from the UK and Aotearoa-New Zealand is complemented by a synthesis of material from elsewhere, which again enables us to widen and deepen the scope of the book.

The monograph is structured to ensure systematic consideration is given to all of our key concerns. The next two chapters examine the key structural factors implicated in the geographies of tobacco consumption, including a number of historical concerns. We consider not only the evolution of global and national changes in smoking and the tobacco economy but also seek to examine the drivers of these trends and some of the more localised implications. In Chapter 2 we start by considering the global geographical evolution of the tobacco or smoking epidemic. Tobacco use has a deep history in the Americas and has spread throughout the world over the last 500 years. Its use has shifted from being attached to ceremony and ritual to being a product of everyday consumption. There have also been very significant shifts in the patterning of tobacco use. Following, although not immediately, from the evidence linking tobacco smoking and lung cancer
published in the 1950s, rates of smoking have declined in much of the industrialised world. This general decline has not occurred equally; tobacco use has become clustered amongst those who are socioeconomically disadvantaged. The burden of tobacco has also shifted from the industrialised to the non-industrial and industrialising nations of the world. Chapter 3 turns to the economic geography of tobacco using a framework based on processes of globalisation and global consumption networks. We build on our spatialisation of the smoking transition to examine how the tobacco industry has responded flexibly to increasing global regulation. This entails both an examination of the globalisation project within the tobacco industry and a comparative assessment of the ways in which national governments and international agencies have attempted to regulate tobacco, both as an agricultural crop and as a manufacturing industry. We will also consider tobacco smuggling and changes to the tobacco retail environment.

In Chapters 4 and 5 we shift our attention from global trends and processes to more localised geographies of smoking. At the same time we seek to draw out connections between the global and local, and more particularly the multiscalar processes affecting tobacco use. These issues are important because in recent years there has been renewed interest in the role of place and how it helps to shape the geography of health outcomes. Chapter 4 explores the links between the neighbourhood socioeconomic environment with smoking behaviour and cessation. It reviews the different scales at which contextual influences tend to operate and the relative significance of such area effects in influencing smoking prevalence and cessation. We also examine the contribution of contextual influences on smoking to increasing health inequalities. These themes are further developed in Chapter 5, where we pay closer attention to the local processes that operate to affect smoking. It is evident that pathways to smoking are multiple, intertwined and multiscalar. An important pathway that implicates geographical constructs is through various place-based practices concerned with the act of smoking. We consider how localised and interrelated conceptions such as social capital, local behavioural norms and stigma, community resilience and resistance, geographical contagion, residential segregation, and local crime and disorder can operate to affect smoking, providing a means by which norms of smoking behaviour can be changed or reinforced.

In the next chapter we shift our focus away from exploring localised social and environmental processes that are predominantly informed by socioecological theory, to a complementary set of concerns relating to the important issue of tobacco denormalisation. Utilising a set of theoretical perspectives, including concepts from Foucault, Goffman and Bourdieu, Chapter 6 discusses the denormalisation of smoking as a sociospatial process and how people come to engage in their own purifications of space as a response to denormalisation. It investigates stigmatisation, the limitations of a continued focus on individual agency at the expense of context/environment, and a continuing tendency to ‘police the poor’.
We conclude with a brief discussion of the responsive geographies of tobacco practices on the internet and the rise of electronic cigarettes. The focus throughout the chapter is on the ways in which these myriad (non)smoking spaces are created, attempts made to govern them and those who inhabit them, as well as processes of resistance to regulation and governance.

Chapter 7 examines the substantive human implications of tobacco consumption. Using the metaphor of the ‘gateway’ we begin with a spatialised consideration of the classic gateway through which smoking leads to poor health. We present our own research on small area geographies of tobacco-related mortality, showing how social and spatial factors influence the distribution of deaths that can be attributed to smoking. We then examine how policy developments can impact on smoking-related morbidity and how these impacts can have paradoxical consequences for geographies of inequality. Alongside these considerations of health outcomes we also examine co-behaviours: the close association of smoking with other health-related behaviours. We address this issue through a case study of the gateway relationship between tobacco and cannabis smoking, reflecting on the direction in which the gateway leads.

In Chapter 8 we turn our attention to policy implications. A reduction in smoking prevalence has become a policy priority in many countries. We contribute to this agenda by reflecting on the lessons learnt from geographical work on smoking including our own. Chapter 8 is organised into two main sections. We begin by reviewing the range of traditional tobacco control policies which have been introduced, particularly in richer countries, and the significance of increased regulation restricting the places in which people can smoke. A second section provides a discussion of the problems faced by current tobacco control policies: the limited effectiveness of current policy approaches in reducing smoking rates among an increasingly disadvantaged smoking population, tobacco control policies and smoking inequalities, national and local variations in policy enforcement, and the need for new directions in tobacco control which pay more attention to how the socioeconomic environment shapes tobacco consumption.

In the final chapter we draw the book together by identifying common themes as well as placing the work within a wider context. We summarise our conclusions concerning the role of space, place and scale in understanding the contemporary situation regarding the position of smoking and tobacco within society. In the context of what some have seen as the end-game regarding tobacco consumption, we set out a geographical research agenda for effective understanding of the challenges inherent in moving to a smoke-free world.


Chapter Two
The Geo-epidemiology of an Addiction

2.1 Introduction

This chapter maps key aspects of spatial transitions in patterns of smoking, focusing on the spatial and temporal variations in smoking prevalence at global, national and subnational scales. A geo-epidemiological lens is used to highlight the sociospatial nuances of the global tobacco epidemic. The chapter illustrates how the geography of smoking is embedded within several other geographical processes such as the spatialisation of socioeconomic class structures and the cultural geography of gender and religion. Global variations in political and economic development are also fundamental for understanding the contemporary and historical nature of the smoking epidemic as less-developed nations often rely on a tobacco and cigarette production industry to bolster their economies. Likewise, those regions with unstable political infrastructure may lack the required level of advocacy to formulate anti-tobacco legislation.

In this chapter and elsewhere in the book (especially Chapter 3) we also make reference to the activities of Big Tobacco – that is the five multinational companies and state monopolies that are central to the tobacco economy and characterised by horizontal and vertical integration across all aspects of tobacco production, manufacture, distribution and retailing. The role of Big Tobacco is crucial in understanding the geographies of both smoking and tobacco production.
Big Tobacco’s goal is to increase profits by selling more tobacco-related products. Anti-tobacco legislation prevents this in many industrialised regions and so efforts are now concentrated in less developed countries. Moreover, Big Tobacco is astute in cornering non-traditional markets via aggressive advertising campaigns and changing cultural norms (e.g. women in Muslim societies) and its influence is critical in explaining subtle differences in smoking rates between countries.

It is not the intention of this chapter to examine and discuss smoking geographies for every global region and nation within those regions. Such descriptive accounts, where they exist, are available elsewhere (WHO 2013b; WHO 2015) and the resultant geographical picture is both complex and dynamic. The purpose here is to draw attention to the different models of smoking transition which explain shifts in smoking rates over time, within and between global regions and which help us understand historical and contemporary smoking geographies. Whilst these models may fail to account for all of the geo-epidemiological subtleties in smoking patterns, they do serve as a useful framework to investigate smoking epidemiology. The approach is essential for embracing (what might simply be seen as a policy or technical concern) the multifaceted nature of the geographies of smoking.

Through necessity this chapter embraces and integrates many issues and processes that are pertinent for our appreciation of smoking geographies, some of which are developed in more detail later in the book. Here the emphasis centres on illustrating how their combined interaction influences smoking patterns. However this chapter does begin with an important and necessarily detailed critical discussion of smoking measurement. Monitoring and understanding global and national transitions in smoking behaviour relies on some form of empirical measurement or estimation of smoking prevalence over geographical space and for different sociodemographic groups. This information is also regarded as ‘intelligence’ in facilitating effective sociospatial scrutiny of anti-smoking policies and smoking cessation support. It also reveals unevenness in the ability to regulate the tobacco industry and the activities of Big Tobacco.

Although such information varies as to its coverage and quality, it can be used to evidence broad patterns within and between nations and chart global shifts in smoking prevalence. These are outlined in the second part of the chapter and show that, since the second half of the twentieth century, much of the industrialised world has witnessed declining rates of smoking but these patterns of reduction are not the same across all sociodemographic groups. Moreover in other nations, particularly those from the developing world and less-industrialised nations, smoking prevalence is increasing (WHO 2014a). It is these changes over time that are central to our discussion and we begin to pick up on the drivers that control these transitions which ultimately lead to the widening of sociospatial smoking-related health inequalities.
2.2 Measuring Tobacco Consumption

This section begins by focusing attention on smoking measurement as undertaken in the industrialised nations. Here routine surveys, and model-based estimates use data collection systems which are relatively sophisticated. They may reflect the complex nature of smoking behaviour which involves several stages of construct refinement before measurement instruments can be devised. Operationalisation of data collection often embraces the natural history of an individual’s experience of tobacco use through four stages, beginning with initiation, through transition to established use, and then current use and eventually (thoughts on) cessation (IARC 2008). Physiological measurements (e.g. cotinine levels) may also be taken to validate survey responses about smoking status and to estimate levels of under-reporting. Importantly, these data-collection systems can reveal the important sociodemographic detail which underpins smoking transitions.

However, for the less-developed areas of the world and the newly industrialised nations, direct measurement of smoking prevalence is often non-existent or of poor quality. Instead, surrogate measurement methods using supply, sales or tobacco production data may be used to estimate consumption. Although constrained in their ability to demonstrate within-region and sociodemographic disparities, these broad-brush measures provide clear evidence of the global shift in tobacco consumption from the more to less developed nations and an increasing prevalence amongst women in some of the latter (Ng et al. 2014).

2.2.1 The survey approach

Where regular monitoring of smoking does take place, most nations rely on national surveys. For these countries, the greatest drawback with such sources is their usual inability to provide valid estimates at a local or community level (Twigg, Moon & Jones 2000; Davies & Jenner 2010). Their sample design often involves some form of stratification based on socioeconomic indicators and a clustered approach to final sample selection, resulting in many local areas not being sampled. The Health Survey for England (HSfE), for example, serves as a useful case study in point. This is an annual survey which was first introduced in 1991, instigated to provide regular information regarding the nation’s health and associated risk factors. A set of core questions are covered each year but each survey has a specific focus on a disease or condition (e.g. respiratory disease), behaviour (e.g. physical activity), or population group (e.g. minority ethnic groups) which is revisited in a later survey to monitor change. The survey has delivered a core module on adult smoking behaviour (16+) every year since its inception and also surveys the smoking behaviour of children (over 8 years of age).