

The Social Impacts of Bed Bugs on Inner-City Residents

By

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ABSTRACT

Bed bugs are making a large international comeback. While people from all economic and social backgrounds can experience a bed bug infestation, the social impacts on the lives of low-income people are potentially far greater given the condition of their living accommodations as well as the financial costs associated with dealing with an infestation. Utilizing the Community Economic Development and Social Determinants of Health approaches, this thesis argues that the experience of a bed bug infestation poses a significant threat to inner-city residents—economically, socially, and in terms of human health. Interviews with 16 inner-city residents, 2 landlords, 1 property manager, 2 By-Law Enforcement Officers, and 5 representatives of inner-city agencies in Winnipeg are drawn upon in developing this argument. In addition, relevant policy documents and other secondary sources are utilized to assess the effectiveness of policies and practices in place to respond to this issue and to offer a more comprehensive approach for responding to the social impacts of bed bugs in the city of Winnipeg.

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Introduction

The experience of waking up to tiny insects feeding on your blood is enough to make anyone cringe. Bed bugs survive by feeding on human blood, predominantly at night while people are sleeping. According to a report released by the World Health Organization (WHO), bed bugs “thrive in conditions of temperature and humidity that are considered comfortable for most people, and those same people usually provide them with ample blood meals and plenty of choice harbourage nearby” (Bonney, Kampen, & Sweeney, 2008, p. 133). Attracted to a human host by a combination of body temperature and carbon dioxide, bed bugs are very difficult to combat (Poorten & Prose, 2005). The bites from bed bugs have not been proven to spread disease, and most bites produce minor skin irritations or lesions that clear up in a couple of weeks. Few people experience more severe symptoms such as infection, allergic reactions, scarring, and hypersensitivity to the bites that can lead to further complications and symptoms (Poorten & Prose, 2005, p. 185).

After the Second World War bed bugs entered into a long period of decline whereby infestations became quite rare. Over the last decade, however, bed bugs have made a large international resurgence and “can be found in all the temperate areas of the world—almost anywhere people have established cities” (Bonney, et al., 2008, p. 133). Hotel rooms, apartments, attached homes, single family homes, college residences, and even libraries have all been sites of bed bug infestations. The WHO also reports that the bed bug problem is likely to become worse on an international scale. For example, in the United States reports of bed bug infestations are rapidly increasing, with one large national extermination company seeing an increase of 300% in bed bug control calls from

2000-2001. This was followed by a 70% increase in 2002 as well as another 70% increase in 2003 (Bonney, et al., 2008, p. 134). Canada has seen increases similar to the United States. The WHO report states that “between the beginning and end of 2003, public health officials in Toronto, Canada, reported a 100% increase in phone complaints about bedbugs, a 100% increase in the number of commercial treatments for bedbugs in private residences and a more than 50% increased incidence of bedbugs in public shelters” (Bonney, et al., 2008, p. 134). Winnipeg has also been suffering from this recent bed bug resurgence. According to Lincoln Poulin, the manager of one of the city’s pest control companies, “[since] 2003, we’ve noticed a dramatic increase. I mean calls up 700 percent!” (ctvwinnipeg.ca, 2008).

There are a few theories as to why bed bugs are making such a massive comeback. A rise in international travel is thought to be a main factor in distributing bed bugs in luggage and belongings from hostel and hotel stays. As well, modern heating and air conditioning systems are thought to provide a more stable environment for bed bugs to flourish. The purchase of second hand furniture is also thought to be a factor in distributing bed bugs locally. Changes in pesticide use, such as bans on certain effective chemicals such as DDT and a greater resistance to the chemicals currently being used, has made it harder to eliminate bed bugs. Another possible factor is the stigma associated with bed bug infestations that leads to a lack of reporting by the hotel and hospitality industry, as an infestation can be very harmful to business (Doggett, Geary, & Russell, 2004; Poorten & Prose, 2005).

Bed bugs do not discriminate, as people from all economic and social backgrounds can experience a bed bug infestation. Nevertheless, the condition of living

accommodations (cracks in walls, loose floorboards, and other flaws in older infrastructure that provide harbourage for the bugs to flourish), as well as the financial costs associated with dealing with an infestation (laundering, replacing damaged bedding and furniture), can potentially have a far greater impact on low income people (Bonney, et al., 2008). The purpose of this thesis project, therefore, is twofold: to explore the social impacts of a bed bug infestation on socially and economically marginalized citizens, specifically, those living in inner-city Winnipeg; and to assess the effectiveness of policies and practices in place to respond to this issue.

This project broadens the focus from the direct health effects of bed bugs (bites, infections) to understanding how people's experiences with bed bugs affect their lives, including not only their ability to manage effectively the social and economic costs associated with an infestation, but also their relationships with family and friends and their sense of self or identity. In this regard, there is a social stigma associated with having bed bugs. As Jil Brody (2008b, p. 1) states, this stigma can cause "intense feelings of shame (often leading victims to isolate themselves from others), anxiety, stress, and insomnia." It is important, therefore, to examine how people interpret and deal with this stigma. To realize this objective, two approaches will be utilized. On the one hand, a Community Economic Development (CED) approach will be used to locate the issue of bed bugs in the context of poverty and housing in Winnipeg's inner-city communities. On the other hand, a Social Determinants of Health (SDH) approach will be employed to locate the experience of a bed bug infestation as a threat to public health.

Also significant are the policies and practices in place to respond to the growing problem of bed bug infestations in Winnipeg. Several municipal and provincial pieces of

legislation are relevant in this regard. For instance, the Manitoba Residential Tenancies Act and Neighbourhood Liveability By-Law specify the legal obligations of landlords and tenants in relation to the treatment of a bed bug infestation. Social assistance policies and practices specify the amount of compensation afforded to low-income residents who are dealing with an infestation. By assessing the effectiveness of existing policies and practices—as well as drawing upon the experience of other jurisdictions in combating the bed bug problem—the aim will be to offer a more comprehensive approach for responding to the social impacts of bed bugs.

Chapter One provides the broader context for situating the issue of the social impacts of a bed bug infestation for inner-city residents by elaborating on the Community Economic Development and Social Determinants of Health approaches. Chapter Two explains the methodology employed in this study. While Chapter Three focuses on the economic, social, and health impact of bed bugs, Chapter Four examines current policies and strategies in place in Winnipeg in relation to the bed bug epidemic. This chapter will also examine conflicts between landlords and tenants as a result of these policies, as well as the standpoint of landlords and By-Law Enforcement Officers in regards to bed bugs and policies pertaining to the problem. Lastly, Chapter Five draws on the experience of the City of Toronto in formulating recommendations for a comprehensive approach for combating bed bugs in the City of Winnipeg.

Chapter One

Poverty, Housing, and Human Health

In order to gauge the social impacts that a bed bug infestation can produce, it is necessary to establish the wider social context in which the experience of dealing with an infestation occurs. To this end, this chapter considers the indicators (in particular, poverty) that distinguish the inner city from the rest of Winnipeg and the living conditions (in particular, housing) that prevail in Winnipeg's inner-city communities. A Community Economic Development (CED) approach is used to frame these issues. Poverty and housing are then located within the context of the Social Determinants of Health approach. In this way, the issue of bed bugs can be situated within the wider social context of poverty, housing, and human health.

Poverty and Inner-City Winnipeg

Winnipeg, like many other Canadian cities, is faced with the problem of centralized poverty and inner-city decline. Shauna Mackinnon (MacKinnon, 2009, pp. 29-30) states that “[in] Winnipeg, poverty can be found in pockets throughout the city, however much of it is spatially concentrated in Winnipeg's inner city.” Winnipeg's inner city, which includes the North End, represents an area of geographic class division (see appendix A for inner-city boundaries). Jim Silver (2006) refers to this division as racialized poverty as certain racial and ethnic groups have historically been over represented in this area of the city.

In his historical analysis of Winnipeg's inner city, Silver (2006) points out that Winnipeg's North End was designed over a century ago to accommodate Jewish and

other Eastern European citizens who migrated to the city. At the time, these groups were discriminated against by the largely Anglo-Saxon upper- and middle-class citizens living in Winnipeg. Many of these new immigrants served as the city's industrial working class, holding jobs in the railway and manufacturing sectors as Winnipeg served as an important transportation and industry hub at the time. The infrastructure in the North End was poorly built to serve these new racialized citizens. Silver (2006, p. 5) notes: "When Eastern European immigrants poured into the North End at the turn of the last century, 100 years ago, developers slapped up quickly-constructed, cheaply made housing on smaller than normal-sized lots, often disconnected from sewer and water lines, and with inadequate provision for recreational spaces." Therefore, as Silver (2006) points out, inadequate housing "has always been a North End problem." Housing developers made large profits while the citizens lived in substandard housing. Nevertheless, while these early residents may have been working-class poor, and their living conditions desperate, the inner-city nonetheless constituted a culturally vibrant community with many local shops and markets.

After World War Two, the inner city underwent massive structural changes that can be attributed to the processes of suburbanization, cultural shifts in racism and discrimination, and cutbacks in public spending, as well as global economic shifts that further devastated this area (Silver, 2006). For instance, racialized attitudes towards the Eastern European and Jewish inhabitants began to shift and many of the racial barriers faced by European residents were becoming eroded. These shrinking racial barriers—coupled with a post war economic boom, the rising availability of the automobile, and the growing trend of suburbanization—meant that many of these early inhabitants could

afford to move out to the newer suburbs. Also, many of these residents were now second and third generation Canadians who were better educated and could therefore occupy more professional level and better paying jobs (Silver, 2006). When these early inner-city settlers left, many of the local businesses followed, which resulted in a hollowing out of the inner-city.

In the 1960s, many Aboriginal citizens began moving in from local reserves to take advantage of the affordable housing in the North End. This housing was in poor condition and was largely privately owned by slum landlords. Most Aboriginal people “were poorly prepared for modern urban life, having lived in rural and often remote communities without adequate educational opportunities and without much experience in the paid labour force, and having been subjected to the damage of colonization” (Silver, 2006, p. 3). These new Aboriginal Winnipeggers quickly became the targets of the “unrelenting discrimination and racism” that Silver identifies as “a constant in Winnipeg’s history” (Silver, 2006, p. 3).

The lack of good quality education and the other cultural/structural factors faced by Aboriginal peoples have been influenced by global economic factors as well. These changes have had a tremendously negative impact on all people living in this area of the city. As part of the globalization trend, the process of de-industrialization in the Western world has “removed from inner-cities the very kinds of decently-paid jobs that would otherwise have enabled many of those now among the poor to pull themselves out of poverty” (Silver, 2006, p. 3) These are the jobs that people with modest educations could have received in the past, such as working in a factory or in manufacturing. Historically, many inner-city residents were employed in these disappearing industries, resulting in a

lack of good jobs for the unskilled labour force. The combination of an absence of good jobs, low quality housing stock, racism and discrimination, and lack of sustained and adequate government support has created a situation of concentrated poverty in Winnipeg's inner city.

Evidence of the growth of this increase in concentrated poverty is found in census data. For example, from 1966 to 1996 the population of Winnipeg as a whole grew by 31.20 percent, whereas during this same time period Winnipeg's inner city population declined by 25.5 percent. Winnipeg inner-city's overall share of the population declined from 28.7 percent to 16.3 percent over the same time period, while the proportion of people living in poverty increased from 20.6 percent in 1971 to 28.4 percent in 1996 (MacKinnon, 2009).

In the *2009 State of the Inner-City Report*, an annual report produced by the Canadian Centre for Policy Alternatives–Manitoba, Mackinnon outlines some of the poverty demographics that distinguish the inner city. While many indicators of poverty have shown some improvement in terms of population growth, poverty rates, etc. from the 1996 to the 2006 census (MacKinnon, 2009), there are still strong economic class divisions between those living in the inner-city and the rest of Winnipeg. For one, the poverty rate in the inner city is much higher than the rest of the city. According to 2006 census statistics, Winnipeg has a poverty rate of 20.2 percent as a whole, whereas the poverty rate in the inner city is 39.6 percent. Income distribution is another indicator of poverty in the inner city. Winnipeg as a whole enjoys an average household income of \$63,023, whereas this average goes down to \$40,900 in the inner-city. The median

income in Winnipeg is \$49,790; in the inner-city the median is 31,773 (MacKinnon, 2009).

Racialized poverty is still very prevalent in the inner city today. While women, new immigrants, single parent families, and persons with disabilities are over represented among poor populations, Aboriginal peoples are especially vulnerable. According to Mackinnon (2009, p. 30) “Aboriginal people make up approximately 10 percent of Winnipeg’s population yet constitute 25 percent of those living in poverty.” Although they are not the only population group subjected to inner-city poverty, Aboriginal peoples are one of the hardest hit populations due to their lack of labour force experience, racial discrimination, and the lack of formal education (Silver, 2006). Aboriginal poverty is also much higher in the inner city. Aboriginals make up 21 percent of the inner-city population, yet represent 37.4 percent (after tax) of the percentage of inner-city residents living in poverty. In fact, 65 percent of Aboriginal peoples in the inner-city were living in poverty in 2006, which is actually an improvement over a staggering 80.3 percent in 1996 (MacKinnon, 2009).

Along with high poverty rates, the inner-city also has suffered from declining infrastructure, especially in terms of the availability of safe, adequate, and affordable housing. Many local Community Economic Development (CED) researchers have written extensively on the poverty and housing crisis plaguing the inner-city, as well as proposed solutions to reverse the cyclic nature of poverty in this area. Many of these authors have worked extensively within different inner-city organizations, and communicate the successes and challenges currently facing the inner city.

Safe, Adequate, Affordable: A CED Approach to Housing

Community Economic Development is an approach to community building that provides an alternative to contemporary capitalism as well as neo-liberal policies associated with these economic structures (Loxley, 2007). The Canadian CED Network (2010) defines CED as “action by people locally to create economic opportunities and better social conditions, particularly for those who are most disadvantaged.” At the core of CED is the assumption that “people have to be directly involved in determining what ‘development’ means to them” (Silver & Loxley, 2007, p. 6). CED also “promotes holistic approaches, addressing individual, community, and regional levels, recognizing that these levels are interconnected” (“The Canadian CED Network: What is CED,” 2010).

Researchers often distinguish between two types of CED. The first is the transformative approach, which views CED as being an alternative to capitalist modes of production. The second type of CED is the gap-filling approach, which utilizes CED as a means of poverty reduction by filling gaps that the capitalist system has left behind, such as the poverty crisis in Winnipeg’s inner-city. Gap-filling CED is the more mainstream type of CED as it “challenges neither the existence of private enterprise, nor the legitimacy of the state that supports private enterprise” (Loxley, 2007, p. 9). Therefore, the gap-filling approach has become more accepted and user friendly to mainstream institutions. Gap-filling CED is often proposed in areas of geographical poverty such as developing countries where the reaches of capitalism are not well established. Many transformative CED activists may still engage in gap-filling CED as a means of poverty reduction or as a means of displaying CED as a viable alternative to capitalism.

At its core, however, CED is an economic strategy that focuses on a variety of social problems in combating poverty and promoting sustainable community economic development, such as grassroots community participation and involvement, cultural diversity, local trade and business, education, skill development, and housing. As such, the provision of safe, adequate, and affordable housing is an important component of a holistic CED approach to community building.

Four principles of CED can be directly related to housing. These include: (1) promotion of public health; (2) improvement of the physical environment; (3) promotion of neighbourhood stability; and (4) the promotion of human dignity (Silver & Loxley, 2007, p. 7). Local authors argue that core housing needs are not being met in Winnipeg's inner-city, thus creating a barrier to successful CED. Housing stock is in poor shape. Much of this housing is in the private market. These policies have left housing in private hands with governments reluctant to invest in solving the problem. Leaving housing in private hands is detrimental to low-income individuals, as private landlords want to invest in housing that is going to be profitable. Citizens who cannot afford to pay rents for good quality housing move to neighbourhoods where they can afford to live, which normally happens to be older areas of the city where the housing stock is more run down. Those who can afford to move tend to migrate into newer areas of the city. The private sector tends to follow these citizens out and little is invested into the older infrastructure, thus accelerating the process of inner-city decline (Deane, 2006; Silver, 2006; Silver & MacKinnon, 2009; Skelton, Selig, & Deane, 2007).

Ian Skelton, Cheryl Selig, and Lawrence Deane (2007, p. 55) point out that “[ten] percent of Winnipeg dwellings are in need of major repair, which significantly exceeds

the national average of 7 percent and is the highest percentage among Canada's twenty-five metropolitan areas." The low rents of these properties attract those who cannot afford better, but this is not a positive function of the market. Skelton and his colleagues (2007, p. 56) go on to state that "Housing prices in many of Winnipeg's inner-city neighbourhoods have fallen so low over the recent period that the private sector has ceased to invest in these areas." Housing may be affordable, but it is becoming less liveable and more run down.

The high percentage of housing stock in decline is troubling, as 60.9% of inner-city residents rent their living space. The opposite is the trend in the rest of the city, where 72.3% of Winnipegger's own homes and 27.7% rent (MacKinnon, 2009). This situation raises the importance of landlord/tenant relations. Renting limits the power and control that tenants have over their living accommodations. They are dependent on landlords to ensure that buildings are safe, healthy, and properly maintained. Therefore, tenants have to rely on their landlords to deal with any building-related issues. This gives landlords the upper hand as tenants are dependent on their landlords' willingness to address certain issues.

In Winnipeg, the relationship between landlords and tenants is governed by some important pieces of legislation, such as the Neighbourhood Liveability By-Law, the Public Health Act, and, most importantly, the Residential Tenancies Act. The Residential Tenancies Branch (RTB) is the local body that oversees the Residential Tenancies Act, as well as other pieces of legislation that are applicable to this act, such the two by-laws previously mentioned. Both landlords and tenants can make claims to the RTB to mediate disputes over the terms and conditions of a tenancy agreement, including issues

such as compensation, security deposits, repairs, notices to move, non payment of rent, noise, privacy, and payment of utility bills ("Residential Tenancies Branch,"). Another avenue that tenants and landlords can explore to mitigate any disputes or concerns surrounding the rental unit is by contacting City of Winnipeg By-Law Enforcement Services. According to the City of Winnipeg website "Community By-Law Enforcement Services regulates the maintenance of properties and other aspects of neighbourhood liveability in order to develop and maintain safe, orderly, viable and sustainable communities and to promote and maintain the health, safety and welfare of residents" ("City of Winnipeg: Community By-Law Enforcement Services,").

The Social Determinants of Health (SDH) Approach to Housing

The provision of safe, adequate, and affordable housing is an issue that needs to be located within the Social Determinants of Health approach. There is a great deal of literature that identifies a relationship between poverty, housing, and human health. Therefore, inner-city poverty and the issues surrounding poverty (such as housing) should be viewed in their relation to human health.

In contrast to the traditional medical approach to health, which focuses primarily on biomedical and behavioural risk factors (such as cholesterol levels, body weight, physical activity, diet, and tobacco and alcohol use), the SDH approach "sees the mainsprings of health as being how a society organizes and distributes economic and social resources" (Raphael, 2004, p. 2). A major tenet of this approach is that in any given society higher levels of social inequality produce poorer health outcomes for

everyone, especially those in lower income groups (Micheal Marmot, 2006; Raphael, 2001).

In this regard, the SDH approach examines health outcomes across the social gradient in relation to economic classes. As you move up the social gradient, quality of life and health improve at every level. Michael Marmot (2006, p. 2) states that the social gradient “runs from top to bottom in society, with [poorer] standards of health at every step down the hierarchy. Even comfortably off people somewhere in the middle tend to have [more compromised] health than those [above] them.” The SDH approach argues that differences within the social gradient can vary all the way from the community level to international comparisons, and that larger societal factors play a major role in societal, community, family, and individual health.

Within the SDH approach, and for the purpose of this project, the relationship between income and health outcomes can be looked at in terms of both material and psychological dimensions. From the materialist perspective a person’s socioeconomic position within a nation is a powerful predictor of his or her overall health, “as it serves as an indicator of material advantage or disadvantage over the lifespan. Material conditions—reflecting the impact of various social determinants of health—determine health by influencing the quality of individual development, family life and interaction, and community environments” (Raphael, 2006, p. 657). From this perspective, being able to afford the necessities to maintain a decent standard of living strongly has an effect on childhood development as well as human health more generally.

Representing a modern extension to the materialist approach is the neo-materialist approach. Raphael (2006, p. 658) states that “[differences] in health among nations,

regions, and cities are related to how economic and other resources are distributed within the population. American states and cities with more unequal distribution of income—as well as poor quality of numerous social determinants of health—have more low-income people and greater income gaps between rich and poor.” The distribution of resources is a determining factor for the overall well-being of citizens. The states with greater gaps between rich and poor as well as less distribution of resources, through social spending on resources such as education, libraries, social supports, and health, have poorer health outcomes (Raphael, 2006, p. 658). Raphael (2006, p. 658) states:

The neomaterialist view directs attention to both the effects of living conditions on individuals’ health and the societal factors that determine the quality of the social determinants of health. How a society decides to distribute resources among its citizens is an especially important contributor to the quality of various social determinants of health.

Housing is a key variable in determining material health outcomes. As Toba Bryant (2003, p. 54) states, “housing costs are critical because they are one of the largest monthly expenditures most people face. When housing costs eat up the majority of a person’s income, it affects other aspects of their lives.” Also, those without means often cannot afford quality housing, which means they are often exposed to environmental factors such as mould, dampness, neighbourhood crime and violence, heat, pest infestations, housing that is in disrepair, and overcrowding (Dunn, 2000; Shaw, 2004).

The psychosocial approach, advanced by Richard Wilkinson and Michael Marmot (2006), argues that health inequalities in developed nations are strongly influenced by citizens’ interpretations of their standing within the social hierarchy. Raphael (2006b) believes that there are two mechanisms by which this occurs. The first is at the individual level, whereby “the perception and experience of personal status in unequal

societies lead to stress and poor health” (Raphael, 2006, p. 658). The second mechanism by which this occurs is at the communal level, where the “widening and strengthening of hierarchy weakens social cohesion—a determinant of health” (Raphael, 2006, p. 658). This lack of social cohesion creates distrust and suspicion between community members, which in turn weakens support for “communal structures such as public education, health, and social programs” (Raphael, 2006, p. 658). Such individualism creates an exaggerated desire for reduced taxes, consequently weakening public infrastructure (Raphael, 2006).

Eric Brunner and Michael Marmot (2006) elaborate on the psychosocial perspective to argue that social inequalities create psychological consequences (namely, stress) that translate into biological consequences. These are related to ‘fight or flight’ instincts in human beings that become permanently activated through psychosocial stress. Psychological health is related to biological health and these psychological factors have negative effects on human health (Brunner & Marmot, 2006).

Social exclusion is also an important determinant of health. SDH literature outlines how different members of society are more likely to experience poverty and, subsequently, poorer health outcomes. As Grace-Edward Galabuzi (2009, p. 253) notes, “social exclusion is used to broadly describe the structures and the dynamic processes of inequality among groups in society, which, over time, structure access to critical resources that determine the quality of membership in society and ultimately produce and reproduce unequal outcomes. Groups in society experiencing some form of social exclusion tend to have poorer health status and sustain higher health risks.” Galabuzi (2009, p. 254) goes on to state that “[in] the Canadian context, social exclusion defines the inability of certain subgroups to participate fully in Canadian life due to structural

inequalities in access to social, economic, political, and cultural resources arising out of the often intersecting experiences of oppression relating to race, class, gender, disability, sexual orientation, immigrant status, and the like.” Social exclusion is not only centred around socio-economic and political inequalities; “social exclusion is also characterized by processes of group or individual isolation within and from Canadian societal institutions such as the school system, criminal justice system, health care system, as well as special isolation or neighbourhood segregation” (Galabuzi, 2009, p. 254). Poverty is a product as well as a cause of social exclusion.

Another important concept related to social exclusion is the racialization of poverty, as racial and gender differences in health status “tend to reflect differences in societal and economic conditions” (Galabuzi, 2009, p. 252). The negative health outcomes of racialized poverty are not only connected to material deprivation. The psychological effects of social exclusion also play a key role as “racialized community members, recent immigrants and refugees, women, men, and their children, experience the psychosocial stress of discrimination and racism, which contribute to such health problems as hypertension, mental health, and behavioural problems such as substance abuse” (Galabuzi, 2009, p. 252).

The relationship between social support and health outcomes is also recognized in the SDH literature. James R. Dunn (2000, p. 344) states that “[it] is now widely acknowledged that the quantity and particularly the quality of social contacts individuals have are strongly associated with a wide variety of threats to health status.” Two theories—the buffering hypothesis and the direct effect hypothesis—can explain how social support influences health. According to Dunn (2000, p. 344), “the ‘buffering

hypothesis' suggests that support may reduce the importance of the perception that a situation is stressful, and second, it may in some way tranquilise the neuroendocrine system so that people are less reactive to perceived stress." The direct effect hypothesis of social support "suggests that direct benefits of social support occur as a result of the perception that others will provide assistance in the event of stressful occurrences" (Dunn, 2000, pp. 344-345), resulting in an "increased overall positive affect and in elevated senses of self esteem, stability and control over the environment" (House et al., cited in Dunn, 2000, p. 345). These positive psychological states can influence ones susceptibility to physical illness "through their effects on neuroendocrine or immune system functioning, or through changes in health promoting behaviours" (Cohen & Syme, cited in Dunn, 2000, p. 345). Another function of the direct effect hypothesis is that it may operate through "increased sense of predictability, stability, and control because they [social relations] provide the opportunity for regularized social interaction and the concomitant feedback that allows for the adoption of appropriate roles and behaviours" (Cohen and Syme, cited in Dunn, 2000, p. 345).

Connecting the CED and SDH Approaches

The main connection between CED and SDH perspectives is the importance of a sense of control of one's life, as well as the importance of socio-economic position as a key factor and a key determinant of health. Both the CED and SDH approaches argue that housing plays a key role in the power and control that individuals have over their lives, and the vital importance of housing as a human need in Canada today. In this regard, while local CED researchers provide an important historical context in which to understand the

economic, social, and housing history of Winnipeg's inner city (Deane, 2006; Silver, 2006), Canadian SDH authors analyze structural shifts in Canada's housing policies at the national level, outlining how governmental policies have been devastating to those who need housing the most.

These two perspectives also share much in common politically. For instance, both stress a need for social housing. Social housing differs from traditional for-profit rental arrangements and can take the form of either public housing (housing that is government funded) or non-profit and co-operative housing (housing that is owned and maintained by non-profit and cooperative housing providers) ("BC Housing: Definition of Social and Supportive Housing," 2007). Social housing can address the need for safe, adequate, and affordable housing because it can focus on providing services over maximizing profit. These two perspectives also make an ideological separation from free-market capitalism, as housing is viewed as an essential human need over profit making.

Although set within different frameworks, the CED and SDH fields of research complement each other more than they differ. CED argues that providing social housing programs are integral to community economic development as they "bring about physical development in the neighbourhood and create assets among individuals, stimulating cycles of self-maintaining economic and social growth" (Rubin quoted in: Skelton, et al., 2007). John Loxely (2007, p. 15) elaborates on this point, stating that housing is important to CED because "it clearly fulfils a basic human need ... and it can play an important role in helping promote neighbourhood stability." The SDH research argues that living conditions are an important determinant of health. Therefore, government investment in social housing for those who need it is important to the health of a society.

Both the CED and SDH approaches examine social policy in relation to its importance in addressing issues surrounding social inequality. Within the SDH perspective, there is a strong relationship between high levels of social and economic inequality and poor health outcomes. Because the focus on health policy alone does little to address broader issues surrounding social inequality and health outcomes, SDH researchers see all social policy in its relation to health policy.

Bringing Bed Bugs into the Picture

Bed bugs do not discriminate, as anyone can encounter them in their travels, in a variety of public spaces, and in their homes. Nevertheless, the CED and SDH approaches provide a context for exploring the social impacts that an infestation can have for low income and marginalized people.

Bed bugs are tied to housing, and safe, adequate, and affordable housing is integral to community development and positive health outcomes. Winnipeg has suffered the effects of inner-city decline due to a lack of investment in housing, leading to a shortage of quality housing. Therefore the housing and health relationship is essential to understanding the social impact of bed bugs.

As discussed earlier, lower-income citizens are concentrated into certain geographical areas. In Winnipeg this has taken place in the inner-city. A problem such as bed bugs does not affect all people equally, as the problem is concentrated in older housing stock which is often occupied by individuals without the means to afford better. The bed bug problem has become integrated into the process of poverty centralization

and inner-city decline in Winnipeg. As such, bed bugs should be viewed as a problem that is part of a larger crisis, rather than as an isolated issue.

The CED and SDH frameworks can be utilized to connect bed bugs to poverty and housing in relation to a number of social issues:

- Issues of power and control (relations between landlords and tenants)
- Access to resources (material dimension of health)
- Social supports and social exclusion
- Social stigma

CED provides the social context in which to situate the bed bug outbreak within the inner-city poverty and housing crisis. CED also advocates strategies at the community level, which involve the active participation of local community groups and citizens. Therefore, for the purposes of this study, CED will be used in its capacity to promote strategies that improve social well being within the community. The SDH framework provides the context in which to connect the social impacts of bed bugs to human health. Social determinants of health in an SDH framework stem from material and social experiences, in contrast to biomedical determinants of health

The SDH research on housing and health has drawn attention to a host of significant issues that affect people's quality of life, including space and overcrowding, dampness and cold, the presence of radon and carbon monoxide gases, the impact of tobacco use, the presence of mould and lead, the occurrence of accidents in the home, and levels of crime and safety in the neighbourhood (Bryant, 2003; Dunn, 2000; Fuller-Thomson, Hulchanski, & Hwang, 2000; Krieger & Higgins, 2002; Matte & Jacobs, 2000; Raphael & Bryant, 2006a, 2006b; Shaw, 2004; Siegrist & Marmot, 2004; Wilkinson,

1999). Fuller-Thomson, Hulchanski, and Hwang (2000) have summarized this research into four categories:

1. specific physical or chemical exposures (e.g., lead, radon, asbestos, electromagnetic fields, urea formaldehyde insulation);
2. specific biological exposures (e.g., dampness and mould, dust mites, cockroaches);
3. physical characteristics of the house (e.g., housing design, overcrowding, density, indoor air quality); and
4. social, economic, and cultural characteristics of housing (e.g., housing tenure, housing satisfaction, housing affordability).

To date, however, the SDH literature has not included attention to bed bugs as a threat to health. One of the purposes of the present study is to rectify this omission by exploring the social impacts of a bed bug infestation for inner-city residents. I will argue that bed bugs are a threat to health when connected to low incomes and substandard housing. The following chapter elaborates on the methodology used in carrying out this research.

Chapter Two

Methodology

Two main research strategies are utilized in this project. The first involves the use of data collected from one of the studies conducted as part of the SSHRC/CURA project entitled “Transforming Aboriginal and Inner-city Communities” (see: <http://www.manitobaresearchalliance-tiac.ca/>). This study received approval and was conducted under the guidelines of the University of Manitoba Research Ethics Board. The second involves a content analysis of policies that pertain to bed bugs in Winnipeg.

The Interviews

In total, 26 semi-structured, open-ended interviews were completed between January and April of 2009. The study’s respondents included: 16 inner-city residents who had experienced a bed bug infestation; 5 workers at inner city agencies; 3 landlords; and 2 public health inspectors. While the interviews with inner-city residents and workers were designed to uncover their experiences with a bed bug infestation, interviews with landlords and public health inspectors were aimed at uncovering the strategies involved in combating this problem.

Inner-city residents were recruited for this study through advertising and word of mouth. Posters were placed in various inner-city community centres to advertise the study. All of the interviews with inner-city respondents were conducted at the Spence Neighbourhood Association and the other interviews were conducted at various locations throughout the city (for instance, inner-city agencies such as transition houses and drop-in centres).

Respondents were paid an honourarium of 25 dollars for their participation before the interviews commenced. Receiving the honourarium was not contingent on completing the interview. Before any interviews were conducted, participants were fully briefed on the objectives of the study, the issue of confidentiality, and for what purposes the information they provided would be used. Respondents were also advised that they were able to withdraw from the interview at anytime without reason. Respondents signed a consent form outlining these ethical guidelines (see Appendix B).

The length of the interviews varied from under 30 minutes to over one hour, and were digitally recorded and later transcribed. While an interview schedule was utilized (see Appendix C), respondents were also probed with follow-up questions depending upon the topics introduced during the interview relating to a respondent's experiences with bed bugs.

The inner-city residents interviewed in this study represented a diverse group ranging in age from mid-twenties to late fifties. The sample includes ten women and six men. Many of the respondents interviewed were on some form of social or disability assistance, and all rented their dwellings. Nine of the respondents were Aboriginal, and many respondents were single mothers. Two landlords and one property manager were also interviewed for this study, all either owning or managing properties located in the inner city. Five employees of inner-city agencies and two Public Health By-Law Enforcement officers from the City of Winnipeg By-law Enforcement Services were also interviewed (see Appendices D and E). To ensure confidentiality, all respondents have been assigned pseudonyms and any information that could reveal their identity has been omitted in the reporting of the findings.

The interview transcripts were analysed with a view to determining the main themes regarding the social impacts of a bed bug infestation, particularly the social, economic, and human health costs associated with an infestation. Inner-city respondents' experiences are used to demonstrate the social impacts of bed bugs, and are also connected to the SDH literature to make the case that bed bugs are a threat to public health. In presenting the findings, some respondents' stories are provided in full, while other respondents' experiences are drawn upon to illustrate the themes that emerged. The interviews with landlords, By-Law Enforcement Officers, and agency representatives are used to supplement this work, especially in relation to the policies and practices for responding to bed bug infestations.

Content Analysis

The second research strategy involves a content analysis of current policies that pertain to bed bugs in Winnipeg, such as the 'Neighbourhood Liveability' By-Law, which replaced the 'Maintenance and Occupancy By-Law' on November 1, 2008, as well as the Manitoba 'Residential Tenancies Act.' Documents obtained from the Residential Tenancies Branch are also used to outline the legal obligations of landlords and tenants in relation to the treatment of a bed bug infestation. As well, given that Winnipeg is not the only Canadian city to have encountered an increase in bed bug infestations, the strategies adopted in other jurisdictions can be useful in devising effective policies and practices. In this regard, documents relating to the policies and practices implemented in the City of Toronto will be examined.

Chapter Three

The Economic, Social, and Human Health Impacts of Bed Bugs

The purpose of this chapter is to draw upon the experiences of inner-city residents to understand the social impacts of encountering a bed bug infestation. The discussion is broken into three parts. The first section explores the economic costs of bed bugs, including participants' material losses from bed bug experiences, how this impacted their daily lives, and how respondents coped with these losses. The second section, the social costs of bed bugs, examines how bed bugs affected respondents in various social spheres—family, friendships, work, and school—as well as their identity or sense of self. The final section locates bed bugs as a public health threat by exploring the economic and social impacts of bed bugs in their relation to human health from a Social Determinants of Health perspective.

Drawing upon the interviews with inner-city respondents, I argue that the experience of a bed bug infestation has a devastating impact—economically and socially—on marginalized citizens. I also argue that these material and social impacts, coupled with respondents' often traumatic experiences surrounding infestations, pose a significant threat to human health.

The Economic Costs of Bed Bugs

I have to start over. It's just like a house fire, you know, where you have to start all over. (Cindy)

A bed bug infestation has economic consequences for anyone who encounters one. Bed bugs are extremely difficult to treat as they “shelter in a variety of dark locations, mostly

close to where people sleep. These include under mattresses, floorboards, paintings and carpets, behind skirting, in various cracks and crevices of walls, within bed frames and other furniture, and behind loose wallpaper” (Doggett, et al., 2004, p. 35). Bed bugs can also be found inside electronic equipment such as clocks and computers (Toronto, 2008). While the landlord or property owner is responsible for the extermination costs of bed bugs, the treatment of an infestation requires a very comprehensive approach from the tenant in order to ensure that the problem is dealt with effectively. All furniture and personal belongings where the bugs can hide must be inspected for signs of an infestation, and then either steam cleaned or discarded. There is evidence that if furniture is exposed to high temperatures (above 45 degrees Celsius) or cold (below -15 degrees Celsius) bed bugs are not able to survive. All bedding, clothing, and any other washable fabrics must be put in plastic bags and then placed in a dryer for at least twenty minutes on high temperature. All areas of the dwelling must be vacuumed thoroughly, including all crevices, closets, dressers, mattresses, and furniture. The vacuum bag must be immediately double wrapped and discarded after use (Bonney, et al., 2008; Open Doors," 2008; Toronto, 2008). Other costs that stem from infestations include cleaning supplies, mattress covers and other bed bug prevention supplies, and staying at alternate locations while extermination is underway (Bonney, et al., 2008; Toronto, 2008).

A bed bug infestation can result in a severe loss of personal property. While these costs can be a financial burden for most people, they can be devastating for individuals and families on a very limited budget, as is revealed in Margaret’s story.

Margaret's Story

Margaret moved from The Pas, Manitoba to Winnipeg in 2005 with her two young grandchildren, aged two and eight years old. She moved to Winnipeg to be close to the hospital as one of her grandchildren had a health condition that required frequent medical attention. Margaret has a grade 10 education and has worked a variety of jobs back home, ranging from being a cook at a logging camp to working at a casino. Having few supports in Winnipeg and limited income, she was on her own raising two small children.

Margaret has had very little success with housing in Winnipeg; she has lived in three apartments since moving to the city, all in significant states of disrepair. She moved from her first apartment because it was badly infested with mice. Her second apartment was where she encountered bed bugs. This apartment was in very poor condition, but she was desperate to find more liveable accommodation. When she first moved in the apartment was not clean, and the fridge was full of mould. As Margaret described, "it smelled like a sardine" inside. Her new landlord took advantage of her desperate circumstances by paying Margaret \$150 out of her own damage deposit to do the cleaning herself.

Soon after moving into the apartment, Margaret discovered small bites on the body of her two-year-old-grandson, which she thought were mosquito bites. She told me: "The landlord came in and then he said he had a screen, there were no screens in there, and then he said 'Are you sure those are mosquito bites?' ... I said, 'Okay, what are you talking about? Are you trying to tell me that there's bed bugs here?'" It was at this point that the landlord informed her that the apartment block was infested with bed bugs.

After being informed of the infestation, Margaret started seeing bed bugs throughout the apartment at night and started noticing bites on herself as well as her grandchildren. She had itchy reactions to the bites—which she described as comparable to a cigarette burn—that have left her with permanent scars. Unfortunately, her landlord was very uncooperative in dealing with the situation. Instead of calling an exterminator, he gave her a can of *Raid* to spray around the apartment. Margaret had the wherewithal to call the Health Department to complain, but her landlord responded by becoming very confrontational and calling her a “troublemaker.” Margaret’s concern for her grandchildren’s health, coupled with her own personal fears (her landlord was rumoured to have a history of violence towards women), made her decide that the best course of action was to move.

Margaret sought the help of a counsellor, who immediately phoned her social assistance worker. She was given \$300 to replace all of her beds, and was told to go to the Salvation Army for more clothes. When Margaret moved out of the infested apartment, the family left all of their possessions behind, including their furniture and beds, bringing with them only the clothes on their back. She told me “I lost everything in there; I didn’t want to take nothing because it was too much, eh, too much stress, frustration, anger, because now I just moved in there and I lost all my money in there.”

Being on a limited budget, Margaret was forced to buy replacement furniture and bedding second hand. Because social assistance gave her very little money, she was not able to replace everything she had. She also had to spend her own money to launder all of the second hand clothing she purchased out of fear of bringing bed bugs into her new

apartment. She was unable to afford new beds for herself and the children and when discussing their new sleeping arrangements she commented:

My grandson and me, my little one, he slept on a single bed, just one part, box spring. That's what we slept on. And my eight year old one, he had only two pillows and a, and a comforter. That's how we moved into that other place.... When you lose something like that it's really, really bad and then when you have good beds and then you go and sleep on welfare beds, like, springs and that.

Clothes and bedding are not the only items she left behind in her escape from the bed bugs. She lost other important items such as her old photo albums, volunteer certificates, and her grandchildren's school certificates. In the end, Margaret figures she lost around \$2,000 because of the bed bugs. To make matters worse, before her last month's rent expired on her old apartment she returned to retrieve some important items. Upon entering the building Margaret was confronted by her landlord:

My grandson said, 'Look, he's wearing your shoes.' And I saw him wearing them, and he come, you know, 'What the hell,' I said, 'I didn't even give you my notice or anything. I still have my key and I, this place is paid for 'til the end of the month.' And he, and he said 'You want your stuff? You can't go in there. You're not allowed to go in there. That's not your place anymore.' And then he went running into his apartment, you know, and he came out with one of my baskets, and he just slid it out, threw it out in the hallway at us. And then he, he had my stuff in his apartment, lots of stuff already. I said, 'You can have them all.'

The apartment Margaret is living in now is not much better. The sink leaks, the bath fixtures are broken, and the windows leak. When I asked her about her new landlord she told me "The only problem that I have in there is he doesn't fix anything.... And it's almost been two years. I told him and I quit bothering him." She has not had a kitchen light for over ten months, and she said "My windows aren't sealed right. I have to put facecloths in the bedroom window."

Although the apartment she currently lives in has problems, Margaret is happier because there are no mice or bed bugs. Bed bugs have had a major impact on her health and personal well being. She states:

It's so hard to deal with them, like, it's so hard, too hard to live in a place where there's bed bugs because you can't sleep at night. And then it's hard for you to sleep when you have to leave the lights on at night. Same with the mice and 'cause I, I left the lights on 'cause I was scared...

Her experience in Winnipeg has left her with sleeping problems:

Oh, it's really, really bad, like, mentally, like, when you have a spring on your head, like, you know, and your body, it's really, like, especially when you have arthritis... [It's] really bad because you're sleeping on a spring and, like, you know, you can't sleep right, you can't sleep you—I don't know how to call it but, like, you're sleeping on a spring and then you don't sleep good.

Given that she was caring for a sick grandchild, dealing with bed bugs made an already stressful situation much worse for Margaret. As she remarked: "I had to go back and forth to the hospitals. My head was just going and then, like, those mice and bed bugs could have given me a nervous breakdown because, like, still today I can't sleep right." Looking back, Margaret wishes she would have taken action against her landlord, but it was just too difficult with two young children to look after. She told me "They are very hard to deal with these landlords—and especially when you don't know how to stick up for yourself."

Margaret says that her main way of coping with bed bugs is to go to the peace sharing circles and talk about her experience: "I felt really, really dirty because of those bites all over. At first I was ashamed but after it was all over, it's better to come out in the open, and talk about it to other people." For Margaret, an important part of healing is talking about your problems and not keeping them inside.

She has decided now that her grandson is healthy enough she is going to return home to The Pas to live with her brother. She compares the housing in Winnipeg to her experiences working in a camp:

I'm tired of Winnipeg because I don't have the right housing around here. I'm tired of living in—it's just like a camp, like a, a cabin that's not looked after right.... Just garbage, garbage housing here in Winnipeg. And if you have no choice, you have to take it.

Loss of Clothing, Bedding, Furniture, and Other Possessions

The costs of laundering or having to discard clothing or bedding was reported by almost all the inner-city residents interviewed. Although discarding clothing is not necessary, as the heat from a dryer can kill bed bugs, many respondents were either unaware of this option or the infestation was severe enough that they felt this was the appropriate course of action. Bed bugs can hide anywhere, including electronics, with one respondent reporting that bed bugs were even coming out of his computer keyboard. Many respondents also reported having to throw away mattresses and other furniture that bed bugs had infested. Some respondents also lost irreplaceable items such as collectables, with one respondent, Cindy, losing her entire book collection.

Cindy and Robert had experiences similar to Margaret, where they vacated their apartment to escape infestations, leaving many of their possessions behind. In many cases, infestations added unneeded expense—and stress—for people who were already struggling with personal difficulties. Margaret was in a new city trying to raise two young children, one of them sick, and so was ill prepared for dealing with an infestation, both financially and emotionally. This was a common experience for many respondents.

Christine talked about the cost of laundering and having to stay in a hotel while extermination was under way:

I've spent so much money on laundry it's not even funny. Because I'm just so paranoid of having the whole thing over again. 'Cause really, for me, the easiest solution would be to just throw my furniture out and buy new again. But then, you know, the bed bugs could be in the carpet, could be ... (Christine)

I actually spent quite a bit of money on hotels when I found out we had bed bugs. When they sprayed, I checked into the Days Inn. And that was over a hundred dollars a night, you know. Fortunately I have my dad, he's helped me quite a bit that way, but I mean, like, he wanted me to go home. But I said I couldn't, I couldn't just go back to The Pas. But in order for me just to get a decent night's sleep, you know what I mean, I just couldn't, I couldn't be at home. I didn't want to be at home because I knew that there were the bed bugs there and I didn't have, I didn't have, like, a safe place just to be during the day because I knew there were the bed bugs there. Even just sitting down in the living room I had in the back of my mind that they were crawling towards us, you know. (Christine)

Jennifer and Julie talked about having to discard their beds and other possessions:

I had to throw away my beds, we had, we had to throw, like, some clothing and bag a whole bunch of the blankets and stuff like that and then, and then we had to sleep on the floor because we aired out the beds and the couches and everything. So, it was horrible sitting on the floor watching TV. (Jennifer)

I threw some bedding and some, some shoes and some clothes, some of them, and I was just about to throw my mattress and I don't know where I'm going to get my mattress if I throw my mattress out. (Julie)

Adam mentioned how disruptive the extermination process was, including the damage to his possessions that resulted:

Every time we have to get a spray, we have to move furniture; we have to move our stuff, push it to the middle of the floor. And then we've got to push it, it's a pain; and then you've got to push it all back. We [have] to pull everything from the wall, push it to the middle, [and] push it all back. Every time I do it I end up breaking something. Then I, then I get upset because I say 'if it wasn't for this spray and bed bugs I wouldn't be breaking something every six weeks.' I broke a mirror, I've broken lamps, and the workers that come in they break stuff; the people spraying, they knock over stuff. (Adam)

Samantha's Story

Samantha is a 44-year-old Aboriginal woman who has lived in Winnipeg for about 16 years. She grew up in a small community in Northern Manitoba, graduated high school, and went on to study Social Work in Thompson, Manitoba. Three years into her program she dropped out of university to start a family. Although she currently has a steady boyfriend of 6 years, Samantha chooses to live on her own as she prepares to finish her degree in Social Work.

It has been a rocky two years for Samantha. Before she moved into her current apartment she spent three months in the hospital (as she required an invasive surgery for a cyst in her sinus cavity), followed by three months in a rooming house as she awaited a fairly large residential school settlement. She works part time at a women's resource centre, and her other main source of income comes from disability assistance.

Bed bugs were not something Samantha had in mind when she moved into her apartment in December of 2008. Before moving in Samantha bought all new furnishings. In February of 2008 she started noticing small bites that she thought were mosquito bites. She mentioned the bites while visiting a friend in a neighbouring apartment block, and her friend suggested that she might have bed bugs and that her building had just been fumigated. This raised Samantha's suspicions, as she had seen an extermination vehicle outside and had smelled chemicals in the hallways.

Her caretaker was not very accommodating when she informed her about the bites, telling her that she did not have bed bug bites and that she would need proof for them to do anything about it. Samantha stated, "She gave me a little jar, thinking 'well,

I'm supposed to catch a little bug, and put it in this jar.' 'Cause they wanted to see the evidence. And I thought that was so ridiculous."

Samantha was eventually able to catch a bed bug with a piece of tape in her clothes closet. Her apartment was sprayed by exterminators a week later. Unfortunately, chemical extermination had very little impact and she was still suffering from bed bugs at the time of the interview.

The experience has had a tremendous impact on Samantha's life, and in many ways. First, having to deal with bed bugs has been very expensive. Samantha had to throw out all of her new possessions—her bed, a dresser, as well as much of her clothing—which she estimated cost her over \$6,000 dollars:

All the money I spent, like, I just, I felt so bad, I just cried. Because all that money I had, you know, all in the garbage. I don't have nothing. My son gave me a futon again, like, now that's infested.

Her son has also provided her with an air mattress to sleep on as she cannot afford to buy a new bed. She also spends over \$30 a week on laundry, which has become a compulsive ritual for her:

See, I'm becoming obsessed too, like, I'm washing, continually washing clothes—with money I don't have—all the time, over and over again. Because I, when I put them on, you feel the clothes you're wearing, they're on.

Samantha's relationship with her rental agency has made things worse. She has never encountered bed bugs prior to moving into this apartment, yet her rental agency has not been willing to admit that they have had any bed bugs in the building, opting to blame her instead.

I think they have a tendency to blame the tenant. Because when I had told them the second time that I had bed bugs, they said, 'Well, what are you doing, isn't the place clean or are you bringing people over?' And that's, none of it is true. Like, they just came out and they made me feel like shit... Oh yeah. and they

came, the second time they sprayed they said, 'The third time, if they have to come and spray again you're paying for it.' I was like, 'I never brought them here. It's your apartment block. It's your property, and it's your responsibility.' And she said, 'Well, you have to pay seventy-five dollars.' I said, 'I'm not paying for it.' 'You'll get evicted.' I said, 'Please,' you know.

Unaware of her rights, Samantha did not know what to do, but she believes that the rental agency was responsible for destroying her possessions:

You know, I just don't have the energy anymore because I just live without...and yet I hate that, too. 'Cause just, I'm not the type of person to lie down and just let it happen. But I just feel cornered.

Bed bugs have also affected Samantha's relationships. Her boyfriend will not stay overnight at her apartment, and although he is in denial, she believes that she has already transferred bed bugs to his place. She does not have anyone over, and has not told many of her friends. When she does meet up with people, it is at other locations. Bed bugs have led to social isolation for Samantha: "sometimes I choose not to come out or socialize with friends."

Bed bugs have also had a significant impact on Samantha's psychological well being. She has trouble sleeping, which is having an impact on her grades at school as well as her performance at work:

You know what, I can't remember the last good night's sleep I've had all night. 'Cause I'm always turning the light on, always looking like this, getting up or looking like that, or – There's not one good night's sleep I've ever had, ever.

The psychological effect of bed bugs follows Samantha everywhere, even at work where she finds herself inspecting for bugs. She also feels that she is now at risk of losing her job and failing her courses:

I'm very lethargic. I just don't have, I don't have the energy or the motivation. I just, it just sucks out of me. Like, where I'm staying, I want to get out of there but I need the money, you know, and I need, I can't, I can't move.

When asked if bed bugs were affecting her healing from her recent surgery she replied:

Yes, very much, because you need, you need rest, you need sleep. I just went for a CT scan last week. The cyst they took out here is growing back, so I don't know what's going to happen after that.

Samantha has also had reactions to the bed bug bites. She developed an infection from the bites that required antibiotics and has led to permanent scarring. Also, the chemicals used in the exterminations have irritated her sinus condition, causing her much discomfort.

All of these impacts of bed bugs have left Samantha suffering from depression: “I'm taking something to sleep now. I'm taking Xanyx at night and in the afternoon.” One of her other coping strategies—which adds to the financial cost of the infestation—is to go to a hotel for the evening, just to leave everything behind for a good night's sleep.

Samantha is waiting for another payout from the residential schools survivors' fund, and hoping then she can move out of her apartment. She plans on starting fresh, leaving with only the clothes on her back.

The Social Costs of Bed Bugs

The experience of having bed bugs has an immense social cost to inner-city residents that encounter them. While these social costs originate from the stress associated with the presence of bed bugs, there are also experiences surrounding bed bug infestations that can cause considerable stress and frustration, affecting other aspects of people's daily lives. For one, dealing with a bed bug infestation is very time consuming, and requires much preparation and effort to effectively control. This can be quite a shock to those who are unprepared and uninformed about how to handle the situation. Also, the experiences of

having to deal with landlords, social assistance, and other forms of income assistance reduce the power and control that inner-city citizens have over their lives. These situational life experiences can inflict immense damage on family relationships, the ability to undertake educational endeavours and employment, social relationships, and self identity.

Bill's Story

Bill is a 39-year-old professional auto body technician. He is currently married with two teenage children. Approximately one year before our interview, Bill was a victim of criminal violence when he was randomly assaulted and set on fire by two strangers. Seventy percent of his left leg was severely burned, requiring many reconstructive surgeries and skin grafts and leaving him bedridden for many months. Bill has been unable to work as a result of his injury. Being out of work for an extended period of time hurt Bill's family financially. His wife does work as a babysitter but Bill's income was his family's main source of economic support. Eight months before our interview Bill and his family moved into the bottom suite of a duplex.

Before they moved in, their place was supposed to have been fully cleaned and painted; yet, none of this was done.

We walked into a disgusting house...and [the] people that lived there before us, they were really dirty, disgusting people and the place was gross. We had human feces on the wall, like... Nothing was cleaned, nothing. Oh, the place was like really gross and disgusting. Like, if you would have seen it you would have looked and told the guy basically to 'take it and stick it where the sun don't shine' and walked away. But we had no choice, basically. That was because of my burn and everything I'm constantly moving around in fear that these guys will catch me one day. So I'm always on the move. So when that happened, we had no choice.

Unfortunately, having to clean a badly maintained suite was about to become the least of Bill's problems. The family did not know that the unit they were moving into was severely infested with bed bugs until one night, shortly after moving in, Bill woke up to find bed bugs crawling all over him:

I was sleeping at night and, all of a sudden, I just feel like little bites all over my back and in my legs and I was wondering why. I lift my blanket, couldn't see anything with the lights off. Turned the lights on. Then, all of a sudden, there's these little flat brown and red bugs all over underneath my body and biting me.

The infestation was so severe that in a very short time all of Bill's possessions were fully infested with what appeared to be thousands of bed bugs. The whole family had to live with bed bugs crawling on them throughout the night. Bill recalled that they were everywhere, in the couches, beds, clothing, and even underneath the carpeting. The family was severely traumatized by the experience.

On one occasion Bill and his wife were babysitting his sixteen-month-old niece. When his wife went to check on the baby she lifted her blanket to find hundreds of bed bugs attacking the infant. They then flipped the mattress to find that "there was like thousands of them all in between the mattresses."

Bill was also still in the early processes of recovering from the assault at the time of the infestation, which meant he spent much of the day in bed and still had healing wounds.

Because of the operations and everything I was going through, most of my leg was still all unhealed skin grafts. Like, it would still constantly be bleeding...and a couple times I looked when I changed my dressings [and] I'd find those in my dressings. Like, I actually found bed bugs inside the dressing. And I'm like, euwww, they're going straight after the blood that was dripping out of my leg.

Bill had promptly contacted his rental agency and informed them of the infestation, but received no assistance or cooperation—even after a third complaint:

Honestly, they were completely frustrating. They did not want to deal with this. They were giving us the run around when we went to them... Each time he sloughed us off. 'Well, we'll do it next week' or 'We'll do it next month.' And I couldn't deal with it anymore. I couldn't sleep. I was basically sleeping on just a white sheet in the middle of the carpet floor, just so I can see if there's any bugs climbing on me or coming near me.

Frustrated by the landlord's response, Bill contacted the Residential Tenancies Branch as well as workers at the Health Department, who informed Bill of his rights and advised him on the appropriate course of action. The Health Department issued his rental agency three written warnings to fumigate the apartment, which the rental agency ignored. The property manager was then informed that if he continued to refuse to act, Bill's rent would be forwarded directly to the Residential Tenancies Branch to cover the cost of extermination. After this final warning, Bill's property manager decided to take action.

It took over three months from the time Bill's family learned of the infestation for the house to be fumigated by a local extermination company. During this time period, bed bugs took a massive toll on Bill and his family. For one, bed bugs infested their belongings so badly they had to throw away many of their possessions: "beds, a loveseat, chair, couch, if it had upholstery it was thrown out. Anything they could hide or lay their eggs in we had to get rid of it." Bill estimated that this loss cost him about \$5,000, and he is still paying for it.

Oh, it was ridiculous. Like, the stress of it, like, where the heck am I going to get \$2,000 for all this? The couch, the beds, some of the beds. Where am I going to get \$2,000 just to start off with? That's what the first bill was—two grand just to start to buy two beds, a couch bed just for me, my wife, and my nephew and my daughter... And after that we slowly started buying furniture here and there.

Bill has had to replace his furniture from second-hand stores on credit as he cannot afford to buy new furnishings on his limited budget. Bill's family also had to cover the cost of cleaning supplies (such as vacuum bags and Lysol) both before and after the infestation.

In addition to the financial expense, bed bugs have also severely impacted Bill's friendships:

Yeah. I told them [his friends] about it and that if they come over basically they have to really be careful 'cause if they go on you they can transfer from one home to another just by going on to another person. I even told them, you know, 'Guys, we got bed bugs. When you come in, if you're going to come and visit, fine, we'll check you before you leave. That way, you're not going to be taking nothing home with you.' And that's pretty frustrating when you're telling your friends and you got to check them, like, check their back and get them to go in the washroom and check, like, you have wood ticks when you check for those ... That's basically what they were going through every time they have to leave my place and that's really frustrating and angry. Like, your friends start to say, 'Oh I'm not going over there anymore.' I had that happen for a while... a lot of people are 'Ugh, I'm not going there the guy's got bed bugs.'

Some of Bill's friendships still have not recovered since the infestation:

They won't even come and visit. They're scared that they're going to get bed bugs on them, and they're going to bring it to their house. And I keep telling them, I says, you know, 'It has been dealt with, Landlord and Tenants dealt with it, we had the Health Board down here, we had them fumigate everything. Whatever we had is all discarded, we destroyed and, like, got rid of everything that we had. You guys can come and visit now. It's all clean, even the Health Board approved it. Like what else do you need?'

Having bed bugs even landed Bill in a fist fight with one of his friends:

A friend of mine he, his name is "J," he came over visiting and then when he was leaving he actually had a bed bug on him, it was right on the back of his shoulder when he got up. And I go 'J. come here.' He comes over, I take it off him, and I put it in like we have a pill bottle. We put them all in the pill bottles; fill them in there until they die. And he looked at me, 'Ugh what did you just take off me?' I says, 'Sorry, it's a bed bug. I told you guys we'll have to check you now.' He says, 'You're not touching me.' I says, 'Well you want to take them home with you?' He says, 'No I'm not taking home with me. I ain't coming to visit you anymore. You're sick. You got bed bugs' and all that. And then he's got a, basically he started putting me and my family down and he didn't know the situation, that

we moved into a house that was infested all our furniture was nice, new. And then he started getting really angry with me. Then we ended up, words were exchanged. And he stood up and then I tried to stand up, I fell back, I grabbed him by the right here so I didn't fall, so I grabbed him, pulled him forward and he came forward a little bit and he was going to give me a punch. Then that's when the fight started. All over stupid bed bugs.

Bill's children have also suffered stigmatization from their friends. Bill informed me that before his family experienced bed bugs:

Aw, man. I couldn't keep the kids out of my house. I had, like, thirty kids everyday in my house. I'm like 'Get out, go home already, you got a home go home.'

After the bed bugs, his children's friends "won't even come around." Instead his children were being ostracized by their friends:

Constantly being bugged every day, 'Hey bed bugs, hey bed bugs,' kids calling them down, belittling them. It got to the point where my kid was starting to cry and I'd come home 'Dad, dad, dad,' I'm like 'Oh, okay, that's enough.' And then when I go to the school, talk to the, the principal, the vice principal, I says, 'You know, why don't you guys sit these people down and explain to them bed bugs are everywhere. Even though you're a clean person it just takes one person just to carry just the, the one bug or the egg into another home. Like it, it goes anywhere it's just like lice.'

As a result, Bill's children have begun to blame him, which has had a severe impact on his relationship with his children.

Yeah. And my daughter, even a couple times we got into a few words me and her. And I told her, I said, 'You know, it's not my fault.' 'Well you guys should have checked the place out. You guys should.' 'Well how are we supposed to know that there's, the place is infested with bed bugs, were we supposed to get a magnifying glass, rip the carpets apart and look through everything?' ...They're saying that we could have did a better job for finding a place with no bugs. And we did a good job for finding a place but we didn't know there was bugs or not so it's hard to know.

Bill informed me that bed bugs almost led to a complete family breakdown, and nearly ended his marriage. He was fighting with his wife and children constantly, which, coupled with his injury meant that:

I was basically ready to give up. I was going to honestly even commit myself. Like I was at the end of the rope I, I, I didn't see nothing anymore when I'm being eaten alive by these bugs in my own bed and that, I was almost at the point of giving completely up.

Bills family suffered much psychological stress from the experiences of being bitten from the bugs. Everyone in the family also suffered from a severe lack of sleep, often only being able to sleep for a couple hours a night, which has also had an impact on their well being.

Like, I even ask them [his children] every once in a while, say, 'So how you guys sleeping?' 'Well, I still feel them.' I says, 'You mean the bugs?' He says, 'Yeah.' I says, 'You know, after what we went through, you guys waking up with hundreds of bugs crawling all over you,' I says, 'You guys are going to, that's going to be in your head for a long time.' I said, 'You guys are going to take a long time to get over that, it's going to take a long time just to go to sleep without feeling anything crawling or biting.'

Bill and his wife have required prescription medications in order to get much needed rest:

My doctor put me on medication, like I said, Amitripylene to help me sleep, deal with it. He, my wife's doctor also placed her on Lorazapan, that's a heavy muscle relaxer 'cause she was having, also like with me, we couldn't sleep, like, when we were going, trying to go to work or try to see our doctors and we got bags under our eyes and we look like holy we're almost ready to hospitalize me 'cause of the lack of sleep and stuff... They were going to try and give my the, the two younger ones also some sleeping medication. I was, like, don't know if they should be even start that, that's, that's not a good idea.

It is not just the bed bug bites themselves that have put Bill under a lot of stress, but all of the life events he has been through because of the infestations:

You're being eaten alive by these bugs and your family is being destroyed. Your kids can't sleep, your wife can't sleep, you have to get rid of all your furniture and start everything over again, and you get hard times from your landlord. It's just so stressing I think I've like I grown at least a hundred white hairs this year alone... Just little bed bugs they, they do a heck of a lot of harm. Like physically, emotionally, stress wise. I'm surprised me and my wife are still together... And mentally, you're constantly feeling like these bugs are all over you, no matter if they're gone. It's just a feeling when you, when you have them all over and you wake up and they're everywhere, it's just that feeling they're still there.

Bill was at a point in his life where he should have been focused on rest and healing after his severe injury. Having this experience with bed bugs has prolonged his healing, which means he will not be able to return to work as soon as he hoped.

It's put me way behind. Like, from what Dr."L," Dr."B," and Dr."D" stated, that basically this situation has put me at least six months behind on healing and recovery and physiotherapy.

Bill and his family have now begun the process of rebuilding their relationships and their lives. Bill stated during the interview that things are going much better than they were at the time of the infestation, but this experience will definitely have a long term impact on his family.

Bed Bugs, School, and Work

The Canadian Centre for Policy Alternatives report, *It Takes all Day to be Poor*, chronicled the lives of six inner-city Winnipeg residents living in poverty. The participants wrote journal entries detailing their daily experiences for a period of four months. Their stories demonstrate the tremendous obstacles and stresses that they face in their daily lives trying to escape the cyclical nature of poverty. Jil Brody (2009) explains that the project allows the reader to "examine the details of being poor, not just the superficial images that prop up stereotypes." She states:

These courageous individuals agreed to take on what would be an arduous four month commitment: journalling on a regular basis about their daily lives... the ordinary and extraordinary; the challenges and accomplishments; the joys and disappointments; the thoughts and feelings about living poor in a society that lives rich; a society that thinks of the poor as not only having less but also as 'being less,' if that society thinks of them at all. The diarists wanted us to know they are responsible, motivated, honest, hard-working people. They wanted us to know about their circumstances and how they felt about living in poverty. (2009)

Similar to the respondents in the *It Takes All Day to be Poor* study, many of the respondents in my project were undertaking the very difficult process of escaping poverty. In particular, many respondents explained the difficulties encountered in their work and school lives that stemmed from bed bugs.

While going to school and working in paid employment represented a way out of poverty, and an opportunity for respondents to better both their own situation and that of their families, encountering bed bugs presented an obstacle to achieving these goals. They often experienced intense stress and sleep deprivation, which made it hard for them to focus or perform in their responsibilities. Julie discussed how she often felt tired at school because she was unable to sleep: "Sometimes I just, I don't feel, I just don't want to go to school 'cause I need more rest." Recall that Bill explained how a general lack of sleep affected his family's performance and how his slow healing has delayed his ability to return to work, which is his family's main source of income. Bill's wife has also had a difficult time maintaining her work responsibilities. She was the family's only source of income at the time, as Bill refuses to go on social assistance.

Yeah, 'cause you can't go to work on two hours of sleep. Or even [my wife], she's with her babysitting and that with the Women's Centre, she couldn't even baby-sit for two hours every morning for the kids. That really affected a lot.

Samantha is working as well as going to school. She wants to finish the Social Work degree that she began after high school. As discussed previously, she has found

this task to be incredibly difficult because of her experience with bed bugs. She needs to be able to work to make ends meet while going to school as much as she needs to succeed in school to get a better job. Samantha discussed how her performance at both tasks has started to decline, and that she fears both losing her job as well as failing in school, which has made her life even more stressful and difficult to manage.

Another respondent, Christine, is a young single mother living with her three-year-old daughter. She has been enrolled in Adult Education, working towards her grade 12, and is currently enrolled in “Taking Charge,” a life-skills training course that will help prepare her for academic studies. The program provides assistance to students wanting to finish high school, parental training, CPR, and stress management, as well as other important courses. “Taking Charge” will also assist with tuition for students who move on to college or university, which is a long term goal for Christine. Education is a way for her to get a good job and off of social assistance. Christine is very dedicated to both her child and her educational plans and—in contrast to some other respondents—has managed to maintain her daily responsibilities while going through a very difficult time with bed bugs. In fact, Christine mentioned that other women at her school were also going through the same experience with bed bugs. It is likely that this shared experience served as a source of support for her, as she had other people with which to relate her experiences. Although she was able to complete her assignments on time Christine still described bed bugs as “the big pink elephant in the room that nobody wants to talk about.” This is because bed bugs are always on her mind throughout the day, and she often finds herself going to check herself “after every little itch” while at school.

For some respondents, then, bed bugs have created a barrier for carrying out their work and school responsibilities in order to better their situation.

Relationships with Friends and Family

Bed bugs have also affected some respondent's family relationships as well as their relationships with friends. These conflicts have ranged from minor bickering to major fighting. The experience of Bill's family was one of the most difficult. During the interview Bill discussed how he was "constantly fighting" with his wife and children, and how he has lost many close friendships—even getting in a fist fight with a close friend—over bed bugs. Bill also described how bed bugs have impacted his teenage children's social lives; how they have gone from being very popular to losing friends and being insulted by other kids their own age. Experiencing bed bugs has been devastating to Bill's family. As he explained:

Like, it just basically got to the point where we were almost at a complete family breakdown. I was going to leave her unless we contacted Landlord and Tenants, the Health Board, and the people who owned the property.

Cindy's children were also upset with her over the bed bugs. Her boyfriend's suite was infested and he most likely brought them into her home. Her children were upset with her for letting her boyfriend bring in bed bugs. Although no serious conflicts occurred, she stated:

They were just getting mad at my boyfriend bringing the bed bugs to the home... They said you should have had a different boyfriend, not him, he has bed bugs, you know.

One respondent, Adam, who lives in Manitoba Housing, discussed how bed bugs have caused fights between the tenants in his building and ended friendships.

Believe it or not it's caused feuds between people in my building. It's caused fights. Actually, there are people that are, that don't talk to each other anymore. Just 'cause one accuses another one of starting it all. The other one confronts the other one and then, they argued about it and then this one has their own group of friends and this one has their group of friends and they got their little cliques and, and now they don't even talk to each other some of them in the elevator, its caused like a friction.

Bed Bugs, Social Stigma, and Identity

Bruce Link and Jo Phelan (2001) build on the work of Erving Goffman, as well as other social theorists, to provide a sociological conceptualization of stigma. Within their conceptual framework, a stigma exists when:

- People distinguish and label human differences.
- Dominant cultural beliefs link labelled persons to undesirable characteristics—to negative stereotypes.
- Labelled persons are placed in distinct categories so as to accomplish some degree of separation of “us” from “them.
- Labelled persons experience status loss and discrimination that lead to unequal outcomes.
- Stigmatization is entirely contingent on access to social, economic, and political power that allows the identification of differentness, the construction of stereotypes, the separation of labelled persons into distinct categories, and the full execution of disapproval, rejection, exclusion, and discrimination. (Link & Phelan, 2001, p. 367)

Link and Phelan (2001, p. 367) go on to state, “we apply the term stigma when elements of labelling, stereotyping, separation, status loss, and discrimination co-occur in a power situation that allows the components of stigma to unfold.” The role of power is essential and stigma “is entirely dependent on social, economic, and political power—it takes power to stigmatize.” The authors point out that the role of power is often overlooked and taken for granted: “[when] people think of mental illness, obesity, deafness, and having one leg instead of two, there is a tendency to focus on the attributes

associated with these conditions rather than the power differences between people who have them and people who do not” (Link & Phelan, 2001, p. 375).

The stigma surrounding bed bugs was very much evident in the interviews with inner-city residents. Some respondents compared the stigma surrounding bed bugs to that of having lice. This stigma is based on negative stereotypes relating to social class and hygiene: bed bugs only happen to poor people and dirty people. One respondent, Anna, stated:

People assume it’s cause you live in, like, a shitty, I mean, I do live in a shitty apartment, but, like, it’s because people assume, you know, you, like, live in a dump somewhere. Or that you’re, like, dirty, you don’t take care of yourself.

Some respondents contributed to this stigmatization process. Bill engaged in stereotyping by suggesting that bed bugs were connected to lack of cleanliness on the part of inner-city residents:

Yeah, West End is really bad for it. Not many people keep such a clean home. Like, they don’t really use Lysol and, like, really clean ... A lot of other residents in the area, they’re not so clean so if they don’t do their laundry and stuff next thing you know, bugs start happening and then basically the area it has been infested.

Like Bill, other respondents made references that stigmatized and placed blame on others for bed bugs. While Ronald prefaced his comment with “I’m not racist but ...” he went on to blame Aboriginal peoples for the bed bug epidemic:

I’m not racist but... I think it’s the Aboriginals that bring them in. Like, there’s a lot of street people and they’re very dirty. Like, I’m not perfect either but I’m a lot more cleaner than they are. So, you know.

Lucie, meanwhile, attributed the prevalence of bed bugs to people who were involved in the drug and sex trades:

Well, let's face it, there's drugs out there. There's guys who bring girls into their apartment. The girls transfer the bed bugs 'cause they go from place to place. They bring the bed bugs and I know that ... So I'll tell you, lots of people who um are transients, getting high, they get bed bugs and they don't give a shit. As far as they're concerned they can just wash, throw the clothes in the garbage, or get new clothing.

Respondents also discussed how the stigma surrounding bed bugs has led to status loss and discrimination. One respondent, Jessica, said in reference to her friends: "Well they just don't come around. Yeah, so they're no support. They're, like, 'Eeuw, like you have a disease or something.'" Christine was also subject to discrimination when she first approached her property manager about having bed bugs:

I went there the very next morning and I spoke to the property manager. So she took me into a little office and she told me that they would get someone to come in to spray my apartment and at that time she asked me if I shopped at Value Village, if I shopped at thrift stores, and if I was on social assistance and I was, like, 'Well why does social assistance have anything to do with me getting bed bugs?' And then she said that 'Well if you're on social assistance you can get bed bugs from the office because you can get them from the chairs.'

Christine was also worried that if she told her ex-husband about her experiences with bed bugs, he would be able to use this information against her in a custody battle, as if having bed bugs made her an unfit parent. According to Christine, "I actually kept it from him, because I didn't want him to use that against me to take my daughter away from me."

It was also revealed by some of the respondents that living in certain apartment blocks known for having bed bugs makes it difficult for them to move to other rental accommodation. This is because some landlords will refuse admission or place conditions on prospective tenants that come from these locations. As one respondent, Adam, stated:

[If] I put on [a rental application] that my last place was Manitoba Housing, the word is out on us hey, if I put on there I've been three years in Manitoba

Housing, most residential agencies know that we have bed bugs now. They'll tell you if you move in there you can't bring anything with you, you got to buy totally new stuff hey.

One of the landlords interviewed for this study, Richard, confirmed Adam's assertion:

Oh yes, there are certain buildings I will not accept tenants from. In fact, there's a very close building. Because I live in the neighbourhood I speak to the locals, and I spoke to their caretaker who said that he self treats all the bed bug cases he has. And by the way, he has three-quarters of the suites of a thirty-two suite building full of bed bugs. If you do your research you'll find that if you self treat and if you do it ineffectively you don't kill bed bugs, you spread them. And so it's not surprising that three-quarters of their suites have bed bugs. So do I accept tenants from that building? Not on your life.

Landlords may be justified in taking precautions to protect the well being of their tenants (as well as in preventing the financial hardships bed bugs can create). Unfortunately, however, this creates a difficult situation for those trying to escape bed bugs, and often leads to people being labelled and discriminated against based on where they live. As Adam commented, "that's the thing I hate about it. I hate being marked, like blacklisted. Like, people think like we're going to infect you or something, hey."

The stigma surrounding bed bugs can also have an impact on one's identity and self-perception. Many respondents were well aware of the impact of this social stigma on their identity, and talked about how they felt dirty, ashamed, and embarrassed when they first discovered bed bugs:

Well, it made us feel like, basically, I felt disgusting, dirty. Like, the medication that the doctor put me on just to deal with it, it's hard to deal with. (Bill)

When I found out it was a bed bug I was like 'Oh my god,' you know, I was, you know, like, I was in tears. I felt dirty, you know, I had no idea where they came from. I thought maybe you got them like you do lice. Like they, I can't even explain how dirty I felt, especially when it came to my daughter. I mean, like, maybe finding the bites on myself would have been a little easier to deal with but finding them on her, you know what I mean? (Christine)

We were really embarrassed cause just it's gross, you know, and, like, it's just sort of like indicative of living in a dirty place. (Anna)

Given their awareness of the social stigma surrounding people who encounter bed bugs, respondents often felt the need to point out during the interview how clean they were, and how clean they kept themselves:

I'm a clean freak so, like, that's what killed me. I was, like, we're so clean all the time, like, we always clean, why are we getting this problem, you know? (Anna)

I'm a cleaning nut. I have to be clean 'cause [referring to his injuries]... So my house is, basically, I could eat off my floors, that's how clean I keep it. (Bill)

Bed Bugs and Social Exclusion

It is also important to consider the experiences of inner-city citizens with bed bugs in the context of social exclusion. Shauna Mackinnon (2008, p. 1) explains:

Used in its broadest sense, social exclusion speaks to the lack of income as central to all exclusion, but it includes many other dimensions, such as health, education, access to services, housing, debt, quality of life, dignity and autonomy. Social exclusion can describe something more complex than is colloquially understood by poverty, in that it is dynamic, multi-dimensional, often deeply rooted and relational. It allows room for understanding that discriminatory and exclusionary practices may be causes of poverty.

The relationship between social exclusion and bed bugs is twofold. First, as has just been discussed, the stigma surrounding bed bugs can be a cause of social exclusion. Citizens who cannot access a decent apartment, and become withdrawn from friendships, work, and education—all because they have bed bugs—are experiencing social exclusion.

Second, the experience of having bed bugs is much worse for citizens who are already experiencing social exclusion. As discussed by Link and Phelan (2001), power plays a pervasive role in the context of stigma. Poverty and marginalization reduces the power and control people have over their living space. Many of the respondents in this

study relied on social assistance as their main source of income, and all either rented or lived in Manitoba Housing buildings. In order to deal with a bed bug infestation respondents had to rely on third parties for assistance. For example, both Alvin and Adam live on social assistance in a Manitoba Housing complex that is infested. Both informed me that they are only allowed a new bed every few years, and have had to fight in order to get their infested mattresses replaced. Alvin has already gone through two beds, one of which was a gift from his brother. Given the affordability of Manitoba Housing, both men would find it very difficult to pack up and leave. Adding to this dilemma, if they did choose to leave to rent in the private market, it is likely that they would not be accepted into a new place, or would have to leave all of their possessions behind, due to the fact that people from Manitoba Housing are labelled because of bed bugs. Therefore, these two men are forced to rely on Manitoba Housing's ability to curtail the bed bug epidemic, and both were still suffering at the time of the interviews.

The experience is the same for those renting from private landlords or rental agencies in that they have very little control over the outcome of the situation. It is up to the landlord to properly treat the building, and the onus is on Social Assistance to decide how much funding will be provided to replace damaged items, cover laundering costs, and the like. Many of the people interviewed were truly suffering precisely because of the lack of power and control they have in their daily lives. Margaret and Jennifer were given \$300 from Social Assistance to replace beds for their entire family. This is not enough to replace one person's bed—let alone everyone in the household. Jennifer explained:

I told my worker and then my worker was saying that well they can't do anything for beds until I get a, a note from the exterminators that they came in and

sprayed and what they sprayed, and I said 'okay.' Well, and I gave them their, the note what they wanted and that's when they gave me the three hundred for the beds and, and the sixty dollars for the laundry.

Respondents were often unaware of their rights or the appropriate course of action to take when they first discovered bed bugs. This often led to them being taken advantage of by landlords, some of whom threatened respondents with the costs of extermination, and often avoided taking action until they were forced to by the Health Department or the respondent moved away. A few participants even came to the interview in desperation, looking for advice as they were unaware of what to do and did not know where to go to get some assistance.

Many respondents, then, experienced some form of conflict with their landlords, and most were not satisfied with the outcome of that experience. As Margaret stated, "They are very hard to deal with these landlords and especially when you don't know how to talk for yourself, especially when you don't know how to stick up for yourself, your rights and everything."

Toba Bryant (Bryant, 2003, p. 54) states that "*Meaningful dimensions* of housing refer to one's sense of belonging and control in one's own home. Home is also an expression of social status—prestige, status, pride and identity. These dimensions provide surface for the expression of self-identity, and represent permanence, stability and continuity in everyday life." The meaningful dimensions of housing are also an important determinant of health. As Michael Marmot and Richard Wilkinson (2001, p. 1233) state, "[social] dominance, inequality, autonomy, and the quality of social relations have an impact on psychosocial wellbeing and are among the most powerful explanations for the pattern of population health in rich countries."

Bed Bugs as a Public Health Threat

It opened my eyes a hundred percent. Like, I never really thought of it before, these tiny little bugs, how they could just bug you so much, well no, they can destroy your life. They can destroy your family. They can get you sick. (Bill)

As revealed in the respondents' stories, bed bugs have had a devastating impact on people's lives. Economically, many have lost important belongings and some have had to start over. This has caused immense stress and challenges for citizens with marginal incomes. The experience of bed bugs has also led to problems within people's social spheres, as all respondents had daily responsibilities such as parenting, continuing education, employment, etc. Some respondents, such as Adam and Peter, were suffering from disabilities that often made regular daily tasks a challenge. The psychological impact these respondents experienced from bed bugs, combined with a general lack of sleep, made it difficult for most of them to cope within their daily tasks, which had a compounding stress effect on their lives.

It is important, therefore, to locate bed bugs as a public health threat, both in terms of the material and psychological dimensions of the experience of an infestation.

Material Dimensions of Health

According to the SDH approach, people's material conditions are a strong predictor of their overall health over the lifespan. The material dimensions of health surrounding a bed bug infestation are both direct and indirect. The direct material determinants of health stem from not having access to the resources to maintain adequate health. Material conditions can predict a person's likelihood of developing physical, developmental, educational, and social problems. This is due to a variety of reasons, ranging from the

inability to afford decent housing, a healthy diet, and other necessities to maintaining good health.

As Bryant (2003) has noted, when housing costs eat up too much of someone's income, this has implications for other important living expenses, such as food, clothing, dependent children, education, transportation, etc. The cost of bed bugs is a housing expense; therefore, money spent on bed bugs takes away from other needed goods. This can be devastating for people on very limited budgets. Many respondents discussed spending money out of their own pocket to cover bed bug expenses that social assistance would not reimburse. At the time of the interviews, a few respondents were still desperately trying to recover financially from their bed bug experience. These material hardships also cause unnecessary stress for those who already suffer the increased levels of stress associated with living in poverty. Many respondents reported excessive stress surrounding the financial fallout from bed bug infestations, often worrying about how they were going to afford to replace necessary items while living on social assistance. This associated stress can produce the indirect effects of the material determinants of health.

A deprivation of crucial life resources increases the levels of psychosocial stress that negatively impact human health. The health impact of psychosocial stress is twofold. First, a common response to material deprivation and the stresses associated with it can lead to health-threatening behaviours such as smoking, alcoholism, poor diet, and lack of physical activity (Raphael, 2006, p. 656). Second, there is a great body of research that suggests that psychosocial stress itself is responsible for a wide range of health problems.

The Psychosocial Dimensions of Health

James R. Dunn (2000, p. 347) states that:

The psychosocial interpretation implies that in addition to the direct material effects of one's material circumstances, the social meanings people attach to their material circumstances, how they feel about their material circumstances, and ultimately, how they feel about themselves, are also influential in the production health inequalities. It implies that to trace pathways between social inequality and health, research needs to consider both the *material* and the *meaningful* dimensions of the ordinary, everyday conditions of people at different points of the social hierarchy.

Eric Brunner and Michael Marmot (2006) elaborate on the psychosocial perspective to argue that social inequalities create psychological consequences (namely, stress) that translate into biological consequences. These are related to 'fight or flight' instincts in human beings that become permanently activated through psychosocial stress. Psychological health is related to biological health and these psychological factors have detrimental effects on human health (Brunner & Marmot, 2006).

The theory behind the psychosocial approach is that people lower in the social gradient experience greater amounts of stress than those above them. Michael Marmot and Richard Wilkinson (2001, p. 1233) state that "[economic] and social circumstances affect health through the physiological effects of their emotional and social meanings and the direct effects of material circumstances." Therefore, how people interpret their situation given their social position within the social hierarchy has much bearing on overall health outcomes. This theory would support the argument that those of low income have a greater health-related impact from bed bugs than those of higher standing because they experience bed bugs differently. This experience creates a different social meaning for socially excluded groups with little social support, and

marginalized/racialized citizens who lack power, control, and autonomy over their livelihood (given their reliance on welfare, landlords, charity, etc).

According to this psychosocial approach, people are very aware of their social position, and it is this awareness that increases the stresses of everyday experiences. This is because people tend to compare themselves to those in other social positions in society (Raphael). In this regard, someone experiencing bed bugs who is financially secure may feel assured that he or she will be able to pay the costs, and still be able to afford basic necessities. However, someone who is living in poverty may experience great distress, and feelings of hopelessness when faced with the economic and social consequences of bed bugs. The point of this discussion is not to argue that those who are financially stable do not suffer from bed bugs, just that those living in poverty suffer on a larger scale.

Now that the psychosocial approach has been outlined, it is important to examine exactly what health risks are linked to psychological distress. Almost all respondents reported suffering stressful life events, as well as an alarming amount of sleep deprivation. There is much well supported research that both stress and lack of sleep have significant impacts on work, school, families etc., which can create further stress and health-related outcomes. These two indicators are also interrelated. Stress can have a significant impact on sleep duration, as sleep duration can have a significant impact on stress. I will briefly discuss both.

Sleep deprivation has been linked to a host of health issues, including heart and circulatory conditions, hypertension, weight gain, diabetes, psychological problems, and a weakened immune system (Gottlieb, et al., 2006; Zee & Turek, 2006). For example, Tara W. Strine and Daniel P. Chapman (2005, p. 25) found that “[our] results corroborate

previous research indicating that insufficient sleep is a major public health problem.” Therefore, if sleep deprivation is considered a major public health problem, and bed bugs drastically affect the amount sleep people receive, then bed bugs should be considered a major public health problem as well. Lack of sleep can also have effects on education and learning, transportation safety, and work behaviour (Carskadon, 2004).

Almost all respondents reported a general lack of sleep and poor sleep conditions (no mattresses, sleeping on the floor, poor quality mattresses). For instance:

[Bed bugs] didn’t make me sleep too good. I’m on anxiety pills so sometimes I take sleeping pills just to sleep. And then if I do that, yeah, I’m asleep and they have all the blood they can drain out of me and then next thing you know I’m all scarred up. I didn’t know, I don’t feel it. (Peter)

I can’t sleep at night ‘cause I have to look around my bed there, if I see anything and, I just don’t know, I can’t sleep... (Julie)

I just sleep on a blanket. Yeah a hard blanket, I got used to it. (Adam)

Stress has many of the same implications for health as sleep deprivation, especially in influencing heart and circulatory problems. As discussed, people of low economic status already suffer from higher levels of chronic stress, which impacts their health (Brunner & Marmot, 2006; Kelly, Hertzman, & Daniels, 1997; Siegrist & Marmot, 2004). Therefore, experiencing bed bugs makes life tougher for people who already have it tough as it is. These conditions make life almost impossible for people trying to raise families, possibly get an education, and hold down a job.

Other health impacts that stemmed from the bed bug bites included prolonged healing times and permanent scarring. Respondents such as Margaret, Julie, and Samantha all have suffered permanent scarring as a result of bed bugs and both Bill and Samantha pointed out that bed bugs have lengthened their healing experiences:

And with me, like, I was bedridden for months on end. I couldn't get out of bed and that, and then I can't move and these things are basically having a feast. And when I changed my dressings on my burned leg and then I start finding them inside the dressings actually going after the, the fresh skin and the, the, the blood that's still bleeding through and they're going after that, like whoa. Yeah and I'm, like, I was so terrified that I'd have some kind of bacteria, I'd have some kind of infection, gangrene, something would happen. Like, I was almost at the point of a total nervous breakdown that doctor even says 'Okay, we're putting you on medication here, you're going to start sleeping, you're going to start healing yourself up 'cause you're not sleeping, you're not healing.' If anything I was getting worse. And he was almost ready to actually re-hospitalize me. (Bill)

It is also important to examine the relationship between psychosocial stress and a lack of sleep on respondent's mental health. James Krieger and Donna L. Higgins state that:

[Concerns] about substandard housing and fear of homelessness are psychosocial stressors that can lead to mental health problems. Preliminary research has suggested that residents' perceptions of their homes (e.g., pride in and satisfaction with their dwelling and concerns about indoor air quality) are associated with self-rated health status... For example, excessive noise (common in poorly insulated housing units) has been associated with sleep deprivation that leads to psychological stress and activation of the hypothalamic-pituitary-adrenal axis and sympathetic nervous system. These factors are major contributors to allostatic load (the wear and tear accumulated by an organism as a result of physiological responses to environmental stressors). (Krieger & Higgins, 2002)

Some respondents in this study pointed out that bed bugs have affected their mental well being. Depression and anxiety were two common ailments suffered by respondents. One respondent, Adam, made reference to many of the residents in Manitoba Housing experiencing depression over bed bugs:

Some people could be normal, they appear normal but they're, they got a different psychological problem. And someone could be, some of them have even went into depression over this, hey.

Many respondents, such as Samantha and Bill, also made reference to taking different medications to treat anxiety and depression, and get to sleep because of bed bugs.

Therefore, bed bugs must not only be viewed in the relation to physical health, but also in relation to mental health and well being.

Concluding Remarks

In this chapter, it has been demonstrated that the social impacts of bed bugs go far beyond them being a “nuisance” or “pest.” Bed bugs present a major hardship for inner-city residents. The barriers that poverty presents to respondents makes it very difficult to mitigate the financial setback that accompanies an infestation. This experience is not only difficult because of material hardships, but also because of the personal and social costs encountered by inner-city residents. These hardships have a profound impact on respondents’ social spheres (family, friends, work, and education), as well as their self perception and identity.

The social impacts that respondents encountered with bed bugs present a public health threat that must be recognized within a Social Determinants of Health context. The health impacts of bed bugs must also be recognized as part of a larger housing and poverty crisis, as these impacts are a result of poverty. Therefore, the wider social context of inner-city poverty plays a major role in understanding the social impacts of an infestation, and must be given consideration in addressing the bed bug outbreak. In the next chapter, I examine the current policy structures and strategies in Winnipeg that pertain to combating the bed bug problem.

Chapter Four

Current Policies and Strategies in Winnipeg and Their Relation to Landlords, Tenants, and Bed Bugs

In the first part of this chapter, I will analyze the current policy framework in Winnipeg as it relates to bed bugs, as well as the avenues available for landlords and tenants to resolve conflicts. The chapter will then go on to look at conflicts that have arisen between respondents in the study and their rental agencies. Also discussed will be the lack of awareness of their legal rights and responsibilities that many respondents reported, and how this lack of awareness has contributed to these conflicts.

Interviews for this study were also conducted with two landlords and one property manager. These interviews will be drawn upon to examine the issue of bed bugs from a landlord's perspective, as well as look at the strategies landlords are utilizing to deal with bed bugs. Interviews conducted with two individuals from the City of Winnipeg By-Law Enforcement Services will be used to explore their experiences with bed bug infestations, including the procedures they follow when a complaint is issued over bed bugs. I will also address the fact that bed bugs are no longer considered a public health threat in Winnipeg, and how this change has affected the role that these officers can play in dealing with infestations.

The Current Policy Framework

The Residential Tenancies Branch

The Residential Tenancies Branch (RTB) is the legal avenue that both landlords and tenants can use in Winnipeg to resolve any conflicts arising from a rental agreement. The

RTB enforces the Winnipeg Residential Tenancies Act, which outlines the responsibilities of landlords and tenants, as well as other city by-laws that relate to this act. The RTB has the power to mediate and make rulings over disputes that arise between landlords and tenants. In order to file a dispute the party filing must pay a fee, which is \$20 in the case a claim for compensation ("Residential Tenancies Branch,").

The responsibilities of landlords and tenants are outlined in the Residential Tenancies Branch newsletter and website. With regard to bed bug infestations, an article published in the RTB newsletter states that if a property has a bed bug (or any other insect) infestation the landlord must:

- Arrange for proper extermination of the insects as soon as possible.
- Inform tenants of the problem and what steps tenants must take (preferably in writing) to allow the exterminators to treat the problem properly.
- Inform tenants if any potentially harmful chemicals will be used to treat the infestation ("Open Doors," 2008, p. 3).

The RTB website outlines similar requirements of landlords, stating a landlord is generally responsible to:

- investigate complaints about pests in a rental unit or residential complex;
- get rid of the pests using commonly accepted methods; and
- make any repairs necessary to prevent pests from getting into the unit or complex.

("Residential Tenancies Branch: Pest Control,")

Landlords are responsible for extermination and elimination of the infestation without unreasonable delay. The landlord is not financially responsible for the loss of

any tenant's personal property unless it is the result of the landlord's negligence in addressing the problem ("Open Doors," 2008). Therefore, tenants are responsible for replacing any damaged items unless they can prove that the landlord has been negligent.

According to the RTB website, tenants are obligated to keep their rental units clean and uncluttered "to try to prevent pests from entering the rental unit and multiplying" ("Residential Tenancies Branch: Pest Control,"). The tenant also has an obligation to alert the landlord of a pest problem before it spreads to other units. Once the landlord has notified the tenant about what is being done, the tenant is responsible for allowing the landlord and exterminator access to the dwelling to deal with the infestation. Tenants are also responsible for co-operating with the landlord by following instructions given to them by the landlord before, during, and after extermination. This involves cleaning, laundering, removing items from the walls and premises, and other important steps to ensure that the treatment will be successful. If the tenant does not fully co-operate with a landlord in getting rid of pests, a written notice to vacate the rental unit may be issued. The RTB newsletter article also states that "[if] tenants do not co-operate fully with the landlord and more pest extermination treatments are required because of it, landlords can file a claim against the tenants for the extra costs" ("Open Doors," 2008, p. 3).

The policy stance of the RTB is very similar to that of Toronto, Ontario, another Canadian city that has been experiencing a bed bug epidemic. The City of Toronto website states: "[if] a tenant has a problem with bed bugs or other insects or pests, they should immediately inform the landlord, superintendent or property manager, who is responsible for ensuring homes are pest-free. Tenants are responsible for cooperating

with the landlord's efforts to control bed bugs.” The City of Toronto’s website clearly states that landlords “are responsible for the costs for treatment. Landlords can apply to the Landlord and Tenant Board for an order to charge a tenant (extra money above rent or key deposit) if a tenant causes them needless expense, such as missing an appointment to let a pest control operator into the unit.

The Neighbourhood Liveability By-Law:

Prior to November of 2008, the City of Winnipeg Maintenance and Occupancy By-Law was the main legislation to deal with bed bug infestations in rental accommodation. This by-law clearly identified the party responsible for dealing with the infestation:

No owner shall permit the existence of mice, rats, lice, bed bugs, cockroaches, silverfish or other insects, rodents or vermin in any dwelling or part thereof ("The City Of Winnipeg: The Maintenance and Occupancy By-Law," 1988).

On November 1st, 2008, the City of Winnipeg Maintenance and Occupancy By-Law was replaced by the Neighbourhood Liveability By-Law, which is intended “to regulate the maintenance of properties and other aspects of neighbourhood liveability in order to develop and maintain safe, orderly, viable and sustainable communities and to promote and maintain the health, safety and welfare of residents.” The wording surrounding bed bugs in the new by-law is now more inclusive, as both owners and occupants have a burden of responsibility:

The owner *and occupant* must ensure that nuisances and unsanitary conditions are not created or allowed to exist on residential properties...[This] includes the obligation to prevent the existence of mice, rats, lice, bed bugs, or other rodents... [emphasis added]

While occupants as well as owners are now tasked with responsibility in responding to a bed bug infestation, it is noteworthy that the new by-law does little to address the conditions that underline which parties are responsible in the event of an infestation, making this new legislation much more difficult to interpret than the previous, which clearly identified the owner of the property as the responsible party for remedying and infestation. As Jill Brody (Brody, 2008a, p. 2) states, “it is foolhardy to believe that the new by-law...will address the bed bug plague hitting inner-city rental addresses.”

Landlord and Tenant Conflicts

While many respondents experienced some form of conflict with their landlords, Christine’s experience with her rental agency was one of the most troubling.

Christine’s Story (cont’d)

As mentioned in the last chapter, Christine is a young, divorced, single mother who is working towards her grade 12 and has plans to go to college. Before moving into a Manitoba Housing complex in October of 2008, she had been renting from a private rental agency for over four years. It was in April of 2008 when she first became aware of bed bugs in her apartment. Noticing a bug on her three-year-old daughter’s stomach, Christine killed the bug and placed it in a zip lock bag. Upon conducting some research on the Internet, she determined it to be a bed bug. Christine contacted the property manager of her building the next morning.

Christine's troubles with the rental agency began with her first contact with her property manager. As discussed earlier, the woman took her into a small room and began asking her if she shopped at Value Village or other thrift stores, and if she was on social assistance as her property manager believed you can get bed bugs from the chairs in the welfare office. Christine was very upset from this line of questioning but chose to cooperate as she feared eviction. She told her property manager that she communicated with her social assistance worker over the phone. Her property manager then informed her that if she was responsible for the bed bugs and other suites did not have them, then she would be liable for the cost of extermination plus subject to an eviction. Christine was very upset on hearing this news: "I left there in tears thinking, you know, 'Oh my god,' because I've got a small baby, you know. Where am I, where am I going to go, I'm, it's just me and my daughter here. Where am I going to go?"

Her property manager arranged for an extermination and then phoned Christine to arrange a payment schedule:

And I've never dealt with anything like that before, you know. So, and like I said, just me being here by myself I didn't want to get evicted because, like I said, I have a small baby. You know so I wanted to do whatever she wanted me to do. She said, 'Well, we'll have to work out some kind of payment plan.' And I was like, 'Fine, sure, okay.' But after Monday came around I got an invoice about a week later for thirteen hundred dollars and that was for my, the fumigation of my place, the places around me and the common area as she called it. And plus the laundry room. And she told me to ask my worker for a one time grant of a thousand dollars so I could pay off that thousand, that thirteen hundred dollars. I called my worker and I asked her about it because, like I said, I had never... So I was willing to jump through hoops and, you know, do whatever she wanted me to do. But then my worker referred me to the West Central Women's Resource Centre where I met "M.C."

Christine was not aware of her legal rights until her visit to the women's centre. In addition, she received support from a worker at the Spence Neighbourhood Association:

Through “M’s” advisement I stopped all contact with the rental agency and the property manager and I eventually got a letter from my caretaker. It was some kind of... property possession, it was pretty well an eviction notice plus a court date.

Christine’s property management company had filed a claim against her through the Residential Tenancies Branch (RTB) in order to recover the \$1300 extermination cost.

It is important to point out that Christine is quite positive that she was not responsible for the infestation. She had lived in the building for four years without seeing a bed bug, and had bought new furniture when she moved in:

I was living with that property management for four years. I had never come across anything. And then all of a sudden I’ve got bed bugs. Where did they come from? And I can’t have the answers because I don’t know where they came from, you know.

Christine was also under the impression that other people in the building had been suffering from bed bugs for quite some time.

I was living in that apartment for four years and a lot of people around me were constantly moving in and out. And in those moves there were always, like, mattresses and box springs in the hallways, right? I was there for so long and living in that apartment and people were moving in constantly, in and out of the, of the building... Maybe someone had bed bugs but didn’t want to say and didn’t want to come out and say, like, you know, ‘I have bed bugs.’ You know, they tried to remedy it themselves. ‘Cause I know that I’ve seen a lot of Raid cans and the smell of bleach, you know, coming from apartments. And I think that maybe some of the residents in that apartment building were trying to remedy the bed bugs themselves. And then somehow they managed their way to my apartment.

While Christine was likely not the first person to have bed bugs in the building, she was most likely the first person to come forward. “That’s why I got the thirteen hundred dollar invoice is because I was the first one to come out and say, ‘Look, I’ve got bed bugs.’”

Before the claim against her was heard in court, Christine did a great deal of research on the Internet to prepare for her case. When she arrived at the RTB for her hearing she was asked three separate times if, rather than going to court, she would like to enter mediation, to which she repeatedly replied, “No.” Christine felt that “it was almost like as though they were, they were trying to force me into mediation.” She was very opposed to mediation, since “to me mediation is like accepting part of the, part of the blame.”

With the help of the workers from the West Central Women’s Resource Centre and the Spence Neighbourhood Association, Christine prepared her case for court, arguing that there was no way of proving she introduced bed bugs into the building. She also provided photographs of her baseboards and other areas of the apartment to show avenues where bed bugs could have entered her apartment. She won her case, but unfortunately her battle did not end there, as her rental agency appealed the RTB decision. When she arrived for her second court appearance, her rental agency withdrew proceeding at the last minute.

Throughout this process, Christine experienced harassment from both her rental agency as well as their lawyer. Prior to the hearing, she was approached by her rental agency’s lawyer:

Oh yeah, he, the guy who represented Globe was there in the hallway, like, in the lobby area, and he came and he sat down beside me while I was waiting for my lawyer to show up before our court date. And he came to sit beside me and he’s like, ‘All we wanted was three to four hundred dollars for you to help us out with the bill.’ And I just sat there and I looked at him and I didn’t say anything to him because why, why would, why should I have to pay three, four hundred dollars? And then he also mentioned that he said that ‘I have, I have so much information against you and your lawyer that I could have blew your lawyer out of the water with all the information that I have, but I just don’t want to bother.’ I was like, ‘Oh.’ I didn’t, I didn’t want to say anything to him, you know.

Her rental agency then began giving her threatening calls, claiming she owed money for services she did not utilize:

The property manager had called me up a few times and left a few nasty messages on my voicemail, coming up with ridiculous amounts of money she said that I owed the company but due to past parking, parking fees. I, I didn't have a parking spot until I requested one in 2007. I have all those papers at home to show that I was never charged for those, those years from 2005 to 2007. But all of a sudden she's calling me and telling me that I owe back payments.

Shortly after this affair, Christine finally got an apartment in Manitoba Housing, as she had been on the waiting list for quite some time. Unfortunately, she has experienced bed bugs at her new place of residence as well, but during the interview acknowledged that Manitoba Housing has handled the situation much better than her previous rental agency. Even though her relationship with Manitoba Housing has been positive, she says that because of what happened at her previous rental address, "I'm really paranoid... it's definitely made an impact on me, you know... I am trying to follow the guidelines as best as I can when it comes to the treatments and stuff like that."

Sources of Landlord-Tenant Conflicts

Christine was not the only respondent that experienced conflict with their rental agency. In fact, many respondents had negative experiences with their landlords and very rarely did the situation go smoothly. One source of conflict, such as in Christine's case, came from landlords attempting or threatening to charge tenants for extermination costs. As discussed in Chapter Three, Samantha was also threatened by her landlord that if her suite required further treatments, she would be billed for the costs. Bill, as discussed in the previous chapter, had to get both the RTB and By-Law Enforcement Services

involved before his landlord called exterminators to his apartment, which meant he suffered from bed bugs for roughly three months before the situation was properly dealt with. Bill was not the only respondent who had to pressure his landlord to take action. Julie decided to self-treat her suite for bed bugs, because her landlord ignored her requests for assistance stating:

I talked to my landlord about that the second time 'cause I told him to find me a spray for bed bugs. I told him, and he said 'Do you have bed bugs?' 'Yes' I told him. When he asked me how they look like and I just told him they're small, they're red I told him, and he said he's going to buy a spray or he's going to send somebody to spray the whole suite and he never came. I just borrowed my friend's money, I just went to the store get my own spray, spray my own bed and then my kid's bed.

Another source of conflict was with landlords who did not remedy the problem, or handled the situation poorly. For example, Margaret was handed a can of *Raid* from her landlord when she told him she had bed bugs, which is an ineffective form of treatment. When she tried to seek help from By-law Enforcement Services she was then harassed and called a "troublemaker" by her landlord. Some landlords wanted proof of the infestation, which was in violation of their obligation to investigate all reports of infestations upon being notified of a potential problem.

In the case of respondents such as Margaret and Robert, they moved away to escape the bed bugs, leaving their possessions behind. Much of this conflict stems from respondents not being aware of their legal rights and the appropriate legal routes to pursue in the event of an infestation. When people are not aware of their legal rights, they can easily be taken advantage of by their rental agencies.

Tenants, unaware of their legal rights, may not report infestations out of fear that they may be held financially liable. Many respondents suspected infestations in their

building before they experienced bed bugs themselves. The fear of reporting makes the situation worse for everyone. Both respondents and the two landlords interviewed for this study acknowledged a lack of reporting. According to the RTB, not reporting an infestation violates a tenant's obligation to report. Therefore, not being aware of their legal rights and responsibilities places tenants at risk of being held liable for an infestation, as well as helping spread the infestation to other units. When landlords threaten tenants with the costs of repairs, and behave in ways that make tenants afraid to report, the bed bug situation will only continue to get worse in the long run. As Christine stated:

All I know is that I think people are scared to come out and say that they have bed bugs to their managers if they've heard of someone like me who's been, you know, given the invoice of the whole fumigation treatment, and then they think 'Well, I don't want to get charged that much,' you know. So they just try to remedy it themselves.

Another problem facing inner-city rental addresses is the condition of some the rental units themselves. As discussed in Chapter One, much of the housing stock in inner-city Winnipeg is of poor quality. Many respondents reported their dwelling being in a significant state of disrepair. The RTB website states that landlords have a responsibility to maintain and repair the rental unit to ensure that pests are not able to gain access. Yet, many of the places these citizens are renting have plenty of cracks and crevices to enable the bugs to enter their apartments. Christine even photographed some of the loose floorboards and such in her apartment before her case at the RTB as evidence that there were plenty of places for bed bugs to gain access.

The Standpoint of Landlords

Bed bugs present a major problem not only for inner-city residents, but also for inner-city landlords. Although many cases of landlord negligence have been pointed out, this does not mean that all landlords are negligent. In fact, some of the negative responses respondents may have received from landlords may stem from the immense amount of frustration that bed bugs have caused them. Landlords may be responsible for keeping their buildings bed bug free, but it is important to point out that they are not always to blame for the outbreak. The landlords interviewed for this study rely on their properties for their main source of income, and so a large infestation could put them out of business. Similar to inner-city residents, then, bed bugs present a major threat to their economic wellbeing. Also, the landlords interviewed recognized that being negligent in dealing with bed bugs has worse financial consequences in the long than dealing with an infestation promptly. As such, these individuals were quite proactive and genuinely concerned for the well-being of their tenants. It is important, therefore, to look at what steps they have taken to deal with the bed bug outbreak.

The one property manager and two landlords interviewed for this study encourage an open dialogue between themselves and their tenants when it comes to bed bugs, and all suggested that a lack of timely reporting of infestations from tenants has become a problem. One landlord, William, was aware of how the stigma and stereotyping surrounding bed bugs hampered the reporting of infestations:

The issue I find with this is that some people will not come forward and tell you, tenant wise... They will not come forward and tell you that they have a problem with it because they feel embarrassed, they feel uninformed, they've been hearing on the media unfortunately that this is somewhat of a hygiene problem which we know it's not. If you understand any professional thing it's not necessarily a hygiene problem, so some people unfortunately they feel that you

will look at them you know in a disrespectful or a shameful manner... As well, yeah, some people will be concerned about the costs and what the consequences are and they don't want to be the so-called, you know, person that their neighbours find out is creating or causing the problem so to speak. But I would rather them tell me as soon as possible so I can then, you know, deal with the issue right away before it turns into a bigger issue.

The landlords also pointed out that even though they have been successful at treating bed bugs, the costs of bed bug control are immense. William stated:

Oh, we've spent so far probably about \$5,000, \$5-10,000 dollars over the last couple of years. It's a very expensive issue to deal with, it's almost becoming a line item on our expense and income statements which is, you know, not good, right.

Unfortunately, the cost of treating bed bugs is being passed on to tenants. As Richard noted:

Well, sometimes I don't raise my rent because the building is operating quite fine, but this last year I decided if bed bugs are going to cost that much, I'm raising my rent... I was allowed 2.5 percent, and I raised it 2.5 percent.

Richard went on to explain that a 2.5 percent increase would cover his bed bug expenses for that year. Therefore, if he did not have to treat for bed bugs, he most likely would have not increased rent.

The property manager and landlords interviewed undertake a very thorough and proactive approach to combating their bed bug problems. This mainly involves prompt and proper extermination techniques as well and keeping an open dialogue with tenants, and encouraging them to come forward if they encounter bed bugs. Richard goes as far as distributing bed bug literature and speaking to all of his tenants about bed bugs. Aside from this, there are some other innovative solutions that they have come up with to combat bed bugs more diligently and effectively. I will briefly discuss a few of these strategies.

To prevent floor to floor spread in his building, Richard has made sure to seal off his apartment units:

Because we own a concrete apartment block with concrete floors, there's no ability to transfer between floors, so I took expanding foam and I sealed all the plumbing joints between floors, so if there was ever a future case I could isolate it between floors.

Richard also makes sure to check for signs of bed bugs during his yearly plumbing inspections.

Self treatment is another option that those interviewed have been exploring. They have been looking into either becoming licensed exterminators themselves, or getting their own employees licensed. Self-treatment, when undertaken by a properly trained individual, is advantageous for three reasons. First, self treatment is much more cost efficient than paying extermination companies, and this cost savings could be passed on to tenants. Second, self treatment assures quality control. Ensuring that the job is being done properly increases your chances of getting a quick and effective handle on the problem. The third advantage to self treatment is that it provides a faster response time than waiting for an appointment with a local extermination company. This reduces the amount of time the tenant suffers from the outbreak and allows the landlord to reduce spreading through immediate treatment. As William remarked:

So it's a win-win in my opinion. If you're a responsible, hands-on, socially responsible landlord like we are told we are, then it would be less cost for us to do it ourselves and we would definitely do a more, you know, a more thorough job than anybody could do...What's faster, less wait time, more, you know, twenty-four hour, we could work Sundays, Saturdays, we could work around the tenant's schedule on a better situation if that was available.

This strategy also has the advantage of making tenants less hostile and militant towards landlords as they can "see results" in a shorter time period.

Unfortunately, the self-treatment process may not be possible for insurance liability reasons, which has landlords concerned about the option:

So we were looking at that but then unfortunately the liability issue came in and there's pretty much no insurance company that will give you insurance for that, so that became a huge problem. So if we were to become licensed and do it ourselves, we couldn't get liability insurance from an insurance company to do the work on our tenants or anyone else for that matter.

Richard has come up with a very innovative solution to combating bed bugs:

We also have a trailer that will heat furniture, so if I do have a tenant that comes to me and says 'Well, gee, I'm, I'm running away from this place that has bed bugs, I'm an excellent tenant but I can't stand the place, my landlord is a jerk,' I can load his stuff into my trailer, heat it and sterilize his equipment and then he can move in... That will be a free service in that once I determine that you're a good tenant, and a good risk. For me to obtain accurate information that service has to be free, and if I charge even a nominal amount people will say 'no,' and it will cost me more in the long run.

These are all part of the innovative strategies that some in the rental business are coming up with to combat bed bugs. These three respondents interviewed for the study admitted to spending countless hours researching bed bugs in order to ensure that their tenants and businesses are protected. At the time of interview, all three had been very successful in controlling bed bug populations.

The Role of By-Law Enforcement Officers

If it wasn't for them, oh man, I would still be living in bed bug city. (Bill)

As discussed in Chapter One, City of Winnipeg By Law Enforcement Officers are responsible for enforcing city by-laws such as the Neighbourhood Liveability By-Law and the Public Health Act. I asked one inspector, Shaun, what distinguished By-Law Enforcement Officers from Health Inspectors:

As of November 1, 2008 we became the, the City of Winnipeg By-law Enforcement Services and what they did was they now took things that Health Inspectors used to do and gave them to By-law Enforcement Officers who really just need some education, like, grade twelve education and a by-law or law/minor law course 'cause they're just enforcing minor laws. So right now we have a split sort of office where we have Public Health Inspectors and we got By-law Enforcement Officers. What happens is some of the By-law Enforcement Officers, because the way the division was we didn't have enough work for Public Health Inspectors so they had to be put into by-law. By-law used to be, we used to call it Housing, it used to be Public Health and then Public Health, like, food basically, we just did restaurants and then Public Health Housing and Housing included any housing complaint in regards to yards inside/outside problems and then daycares, residential cares, stuff like that. Now we have By-law enforcement and they deal anything that can be enforced under a bylaw and the main by-law is the Neighbourhood Liveability By-law. So we have By-law Officers who aren't necessarily trained in the health, well, they aren't trained at all in the health component and health aspect or community component anymore, and they deal with non-unsanitary conditions, so conditions that are considered violations. So they're only looking at that bed bugs issue as 'is it a violation of the by-law?'

It can be deduced from this statement, therefore, that in the event of a bed bug complaint, Public Health Inspectors are not necessarily the ones responding, but rather the By-Law Enforcement Officers. This is because bed bugs are not considered a public health threat; rather, they are a violation of a by-law. This change in policy has also limited the power that Public Health Inspectors and By-Law Enforcement Officers have in dealing with bed bug complaints, as I will explain below.

During the interviews, the two Public Health Inspectors working for the City of Winnipeg By-Law Enforcement Services explained the process by which they would respond to a bed bug complaint from a tenant. First, they must come and physically inspect the premises to verify that bed bugs are present. Photos are taken, and all information is documented. The second step is to alert the landlord of the situation and that he/she must take action to remedy the problem. If the landlord does not comply

within a given time period, which is usually a couple of weeks, he/she will be contacted again to determine what is taking place. If a By-Law Enforcement officer feels that sufficient action has not been taken, the landlord will be issued a written order and a timeline to organize extermination. If the landlord chooses not to follow this order, he/she runs the risk of being issued a charge under the Neighbourhood Liveability By-Law. Both inspectors told me that they have never issued a charge for bed bugs.

One strategy that inspectors have utilized in when a severe infestation is present is to shut down the rental unit. This has only happened in extreme cases, where a severe infestation was combined with other mental or physical health problems of tenants. One of the health inspectors, Sara, informed me:

In those cases [where a rental unit was closed] there were health issues involved. For instance, one tenant was HIV positive and she was presenting with a total body rash as a result of the bed bug bites, and she just was psychologically, you know, pretty badly affected by these bed bugs and 'cause the infestation was in such a stage that they couldn't fight it. And in that particular case the landlord actually refused to do any treatment there because they had some conflicts with that tenant about, I don't know, non-payment of rent. So that was one case where the apartment was closed and they moved out. Another case where I closed an apartment was the tenant in there complained it was a bad infestation and the tenant had health problems. He had, I can't remember the, the name of it but he couldn't feel, like, from the waist down or whatever he couldn't, he didn't have any sensation so if he got bit or whatever he wouldn't have known that he was getting bitten.

A By-law Enforcement Officer's ability to shut down an apartment is very important to the well being of both the tenant as well as other tenants in the building who may be affected by the spreading infestation. Also, I was informed that all necessary steps are taken to ensure living arrangements have been made for a tenant before the rental unit is closed. In one case, a tenant's mental health worker called the Health Department over the tenant's well being:

The complaint was phoned in by this tenant's worker, like, a mental health worker. And she said, 'It's really bad in there can you come down and take a look?' So we went down, and I think that's the one where we didn't even have to really do any inspection. We could just see these dead bed bugs on the floor. They were dead from previous treatments but at that time of inspection the last treatment was like a month ago from the date that we went there, and the tenant didn't realize how bad it was for some reason. We walked into the hallway and right to the living room. He had a futon couch bed and we just lifted up the mattress to look underneath and there was, like, a huge mass of bed bugs... Yeah. So we stepped out of the apartment and spoke to that mental health worker and told her, you know, 'This is, this is a really bad infestation,' and I recommended to her that, you know, this guy, does he have a family to go to or friends that he can, you know, get out of here temporarily? (Sara)

In the new Neighbourhood Liveability By-law, bed bugs are considered "unsanitary" or "nuisances" but are not specifically referred to as a public health threat.

This takes away some of the power that By-law Enforcement Officers used to have. I was informed by Shaun that

Pre-April 1st it was clearly in there as being unsanitary.... Post-April 1st we haven't issued any orders, closing orders or health hazard orders as they're now called, for bed bugs... because they're now, well, the doctors have defined them as a parasite, they don't carry disease, they're not a transmitter of illness, so therefore they're just considered parasites that are nuisance insects.

Without having bed bugs classified as a health threat, officers at By-Law Enforcement Services have reduced powers in ensuring the well being of citizens, especially persons who require critical care such as those living with disabilities and mental health issues. Having the power to close a rental unit puts greater pressure on negligent property owners as they lose their ability to generate revenue until the bed bug situation has been remedied.

Both Health Inspectors stated that reports of bed bugs have been increasing over the last couple of years, and they have been witness to some pretty grisly scenes

involving bed bugs. One case that particularly affected Sara was when a man slept in his bathtub for two weeks to avoid getting bitten:

This complaint, complainant phoned in and he says 'They're so bad that I've been sleeping in my bathtub for the past two weeks that's how bad they are and, I would like to have something done and the landlord's not doing anything here.' So I went and did the inspection and confirmed that there was bed bugs and I saw his blankets and stuff in the bathtub and I just, you know, that particular complaint, just, I don't know, sleeping in a bathtub because you have bed bugs is to me not, not so great.

In sum, the two Public Health Inspectors interviewed for this study were greatly concerned about the well being of citizens suffering from bed bugs in Winnipeg. Until bed bugs are recognized as a serious public health threat, their powers may be limited in terms of the steps they can take in dealing with severe infestations.

Concluding Remarks

In Winnipeg, the policy stance towards bed bugs is inadequate and little has been done to address the plague hitting the inner-city at either the municipal or provincial level. Unless a more comprehensive bed bug strategy is deployed in Winnipeg, it is unlikely that the bed bug epidemic will be adequately addressed. The next chapter will address policy recommendations and strategies that should be undertaken in Winnipeg to help deal with the bed bug epidemic.

Chapter Five

Strategies for Combating the Bed Bug Problem

There is no simple solution to combating the bed bug epidemic that is affecting residents in Winnipeg's inner-city communities. The World Health Organization (WHO) has stated that "[under] prevailing conditions, it seems inevitable that bed bugs will continue to spread and cause increased problems" (Bonney, et al., 2008, p. 137). Therefore, the purpose of the following discussion is threefold. The first section will take a comparative approach in analysing the current bed bug control policies and strategies in place in the City of Toronto in contrast to the very weak bed bug policy framework that prevails in Winnipeg. The experience of Toronto will be used to make recommendations for devising potential policy solutions for Winnipeg. The second section will look at current methods of bed bug control, and discuss the importance of an integrated pest management strategy. The final section will focus on strategies for dealing with bed bugs at the community level.

The Toronto Bed Bug Project

A successful bed bug policy needs to involve a two-pronged approach: it needs to incorporate steps toward eliminating the bed bug epidemic, and it needs to provide relief and resources to those already suffering from a bed bug epidemic. The City of Toronto, which has been suffering from a dramatic increase in bed bug infestations since 2003, has taken a very comprehensive policy approach to dealing with bed bugs. The City of Toronto recognizes the importance of an integrated control strategy that involves co-operation from a variety of stakeholders in the bed bug epidemic. Toronto is far ahead of

Winnipeg in terms of how it has responded to this problem. Much of this progress can be attributed to the Toronto Bed Bug Project.

According to City of Toronto website, in February 2008 “the Board of Health recommended Toronto Public Health lead a community wide action committee on Bed Bugs.... In April 2008, the bed bug action committee was renamed the Toronto Bed Bug Project” (Toronto, 2009). That same month, in a report titled *Bed Bug Issues in Toronto*, Dr. David McKeown (2008a, p. 6), Toronto’s Medical Officer of Health, outlined the preliminary mandate for the bed bug project:

- Development of bed bug control strategies (immediate interventions and longer term maintenance);
- Identification of resource and funding requirements (internal and external);
- Development of an infestation tracking/reporting system;
- Development of Public Education and outreach strategies;
- A review of available corporate legislative tools that can be applied to bed bug control initiatives;
- Development of advocacy strategies (internal and external funding demands); and
- Establishing monitoring and evaluation processes.

Although going into detail on all of the policy recommendations, partnerships, and accomplishments of the Toronto Bed Bug Project are beyond the scope of this thesis, it is important to provide an overview of this committee in order to formulate a model for the City of Winnipeg.

On November 12 2008, in a detailed report on the Toronto Bed Bug Project, McKeown described the project as a “multi-stakeholder, city-wide approach to bed bug control in Toronto” which is comprised of “city divisions, housing providers, health care organizations, social services agencies, community groups, landlord and tenant representatives and other appropriate stakeholders” (McKeown, 2008b, pp. 1-3). McKeown (2008b, p. 3) went on to state: “[the] role of this committee was to develop a

comprehensive action plan to reduce bed bug infestations in the city of Toronto, with particular emphasis on vulnerable populations.”

The Toronto Bed Bug project is “comprised of a steering committee and seven workgroups whose membership consists of staff from Public Health, Shelter, Support and Housing administration, Solid Waste, as well as community agencies, health care organizations, social services, pest management professionals and landlord and tenant representatives” (McKeown, 2008b, p. 3). The seven workgroups are as follows:

- Bed Bug Control Issues
- Public Messaging
- Legislative Review
- Education and Outreach
- Community Based Responses
- Tracking and Monitoring
- Health issues (McKeown, 2008b).

Whereas the city of Winnipeg still considers bed bugs to be ‘unsanitary’ or a ‘nuisance,’ Toronto Public Health, in formulating the Bed Bug Project, approaches bed bugs as a public health threat, demonstrating just how far behind Winnipeg is in tackling the bed bug epidemic. In particular, the City of Toronto Board of Health has recognized some of the social impacts of bed bugs. As Dr. McKeown (2008a) notes:

Bed bug bites can cause physical and psychological discomfort... Individuals who are repeatedly bitten by bed bugs may show psychological symptoms of nervousness, agitation and sleeplessness. There is also an underlying social stigma that very often accompanies confirmation of bed bug infestations and this can result in isolation and withdrawal.

Some of the major accomplishments of the Bed Bug Project merit discussion. The project has produced literature to enhance public knowledge about bed bugs, educate all stakeholders on appropriate steps to proper bed bug management, and combat the stigma surrounding bed bugs. According to the City of Toronto website, “The project has

also been developing a public messaging campaign to reduce stigma (‘anyone can get bed bugs’) and increase awareness” (Toronto, 2009). Similar to Winnipeg’s legal framework “legislation in Ontario doesn’t specifically refer to bed bug infestations” (McKeown, 2008b, p. 5). As such, the project has “conducted a literature review of local and international legal approaches in order to develop an appropriate legislative strategy that could support the integrated pest management approach” (McKeown, 2008b). This review includes an examination of whether a municipal bed bug prevention and control by-law would be feasible.

According to the City of Toronto website (Toronto, 2009) “[there] are currently five pilot projects through Toronto Community Housing Corporation which are investigating methods to control, to reduce, and prevent bed bug infestations in their buildings.” During the preliminary assessment of the pilot projects, a number of common issues and challenges have been identified, including:

- Improper or lack of preparation by tenants due to physical limitations and mental health issues. In many cases the task of preparing a unit can be overwhelming for tenants.
- Improper disposal of furniture and belongings that are infested with bed bugs, thus causing spread to hallways and elevators.
- Premature disposal of furniture that is infested with bed bugs. Furniture or belongings are frequently discarded where instead, they could have been treated by vacuuming, steam cleaning or laundering. Where furniture needs to be discarded it must be destroyed upon disposal to prevent it from being reused. Often this is not the case.
- Lack of cooperation and, in some cases, poor communication between management and tenants.
- Lack of resources for tenants who do not have the funds to obtain mattress covers and to launder all of their belongings.
- Units being sprayed several times without successful results.
- Lack of reporting infestations by tenants.
- Tenants performing their own incomplete pest control treatment and exposing themselves to hazardous levels of pesticide dusts and chemicals due to incorrect use.

- Not enough time given by property management to allow tenants to properly prepare for the application of pesticide. (McKeown, 2008b)

A number of strategies have also been proposed that will be implemented and evaluated in the pilot projects. These include:

- Conducting a survey in each building to determine the true extent of the problem.
- Getting all stakeholders involved (i.e. family, friends, tenant groups, social workers and community health officers) to help engage tenants in creating a sense of community with the building and to develop a building-specific control strategy.
- Providing a series of educational seminars on how to properly prepare your unit for bed bug treatment with the use of visual aids. Education needs to encompass prevention methods.
- Providing mattress encasements for both the mattress and the box spring to the tenants. Funding for this strategy is currently being sought outside of government.
- Providing free or subsidized laundry services.
- Providing vacuum cleaners and hand held steamers on loan with instructions on proper use.
- Pesticide treatment by professionals only, to ensure safe application and appropriate use of pesticides according to the standard protocols for treatment.
- Securing funding for the above initiatives. (McKeown, 2008b)

On the basis of suggestions from the Bed Bug Project, the Toronto Medical Officer of Health has recommended that Toronto’s City Council approve a request for emergency funding of \$75,000 to assist vulnerable adults that do not qualify for the Ontario Works /Ontario Disability Support Program (OW/ODSP)—a program that will be discussed in the third section of this chapter. This funding will be used to “purchase services to prepare their residences for bed bug pesticide treatment” (McKeown, 2008b, p. 2) It has also been recommended that “the Board of Health reiterate its request to the government of Ontario to fund bed bug control initiatives for vulnerable populations as part of their poverty reduction strategy” (McKeown, 2008b).

The future plans of the Toronto Bed Bug Project are to:

- Expand educational outreach and support to those affected.

- Encourage citizens to report their infestations in a prompt manner to property management.
- Develop best practice protocols for businesses to prevent practices that may be contributing to the spreading of infestations such as selling used furniture and moving furniture.
- Document each of the pilot projects, including the successes, challenges and failures. Create templates from these projects that can be applied to other building locations.
- Create templates from the projects that can be applied to other building locations.
- Work with the pesticide industry to lobby for more effective chemical options to treat bed bugs.
- Secure adequate sustainable funding for an integrated bed bug control strategy for Toronto, including the Bug and Scrub program (McKeown, 2008b).

A Bed Bug Strategy for the City of Winnipeg

The City of Winnipeg would do well to follow the lead set by the City of Toronto in creating its own Bed Bug Project. This strategy would unite landlords, social agencies, tenants, the City Health Department, extermination companies, and other stakeholders currently fighting the bed bug epidemic to set up a co-ordinated effort rather than leaving individual parties to fend for themselves. This strategy has the potential to be more successful, as a unified body can better distribute funding, make policy recommendations, and disseminate knowledge and educational materials, as well as create best practice protocols that everyone can follow. Rather than being a top-down government approach, a centralized committee would represent all affected parties in the bed bug epidemic, employing solutions that benefit everyone.

Neighbourhood Liveability, the Residential Tenancies Branch, and Enforcement

In company with formulating a Winnipeg Bed Bug Project, changes need to be made to the current Neighbourhood Liveability By-Law and Residential Tenancies Act to better

address bed bug issues. First, bed bugs present their own unique set of circumstances and should therefore constitute their own separate section within the by-law rather than being grouped with other pests and problems. Second, the rights and responsibilities of landlords and tenants should be clearly indicated within the legislation. Most respondents interviewed for this study did not see the current RTB rights and responsibilities framework as problematic; rather, the issue was that this framework is not clearly indicated within the legislation. A good example is Christine's experience, where her rental agency tried to pursue compensation for extermination that they are legally responsible for paying for. Had the landlord's responsibility for extermination clearly been indicated in the by-law, her rental agency may not have pursued legal action and Christine would have been saved the trauma of going through a legal battle. Third, bed bugs need to be recognized as a public health threat and placed under the mandate of Public Health Inspectors. Recognizing bed bugs as a health threat would expand the scope of powers that Public Health Inspectors have in dealing with infestations.

Stronger enforcement of bed bug violations and harsher penalties for those that violate by-laws also need to be put in place. This was one strategy that received much support among the landlords interviewed. Richard, for one, felt that these penalties must be very harsh in order to be effective:

I believe that if the Health Department has to tell a landlord to treat a suite properly that he should receive an automatic three thousand dollar fine. I also think that if a tenant doesn't cooperate with the landlord he should also receive a three thousand dollar fine.

As discovered in my interviews with By-Law Enforcement Services, not a single charge has been issued for bed bug violations. It should be clearly mandated that after a certain point of non-compliance, a charge is to be issued. Tough law enforcement is by no

means the solution to solving the bed bug epidemic, but is something that needs to be considered as an option to control the spread of bed bugs as well as provide relief to those who suffer for long periods without extermination.

Bed Bugs and Housing: Safe, Adequate, and Affordable

As discussed throughout this thesis, bed bugs tie into a larger problem surrounding a lack of safe, adequate, and affordable housing. Therefore, the quality of housing in inner-city Winnipeg must be part of an anti-bed bug strategy. Many respondents in this study discussed in detail that the overall quality of their housing was quite poor. As discussed earlier, poor quality housing can influence the spread of bed bugs and provide a site for them to flourish.

As discussed in Chapter One, property owners are very reluctant to invest in housing stock in Winnipeg's inner-city. Since the private market will not invest the resources necessary to improve housing conditions, some non-market solutions need to be explored. First, new social housing units need to be built and well maintained in order to provide quality dwellings for those in need. This social housing can be provided in different ways. One way is to expand the current level of housing provided by Manitoba Housing. This would involve building new units, as well as retrofitting and developing existing city units. Another solution, keeping in line with a CED approach, would be access to municipal, provincial, and federal funding for local housing and non-profit agencies in order to set up social and co-operative community housing projects. Rather than being completely government mandated, these projects would give greater

autonomy and decision making power to community members, which is a core principle of CED.

Utilizing a CED approach, social housing developments can employ local residents and companies creating useful employment opportunities and job experience. For example, local community-operated construction companies with a CED mandate can be used to build, renovate, and manage these projects. This employment focuses not on profit, but rather job creation, skill development, and keeping important financial assets within the community. These projects can focus employment opportunities to those who need it most: local community residents. Second, policies must be in place to encourage the private sector to invest not only in bed bug elimination and prevention, but the overall quality of housing to prevent the spread and harbourage of bed bugs.

One way of achieving these goals is by enacting tougher housing standards for landlords as part of a bed bug control strategy. Unfortunately, requiring landlords to invest further in low-rent properties may force them to pass this cost onto the tenant, or abandon properties altogether. Therefore, some form of tax or similar subsidies need to be implemented to encourage landlords to invest in bed bug prevention and elimination on their properties, while at the same time keeping these dwellings affordable for those who need it most.

Public Awareness and Education

The City of Winnipeg needs to take action to educate the public about bed bugs. As discussed in Chapter Three, the social stigma surrounding bed bugs is still very much alive, and many of the respondents in this study were unaware of what to do in the event

of an infestation as well as of their legal rights and responsibilities. Raising awareness about bed bugs is an important strategy as it will encourage people to report infestations by reducing the social stigma associated with them, as well as reduce tenants' fears that they will be held liable by their landlords.

The Internet is a good source for people to find information, and an easily accessible website would serve to better inform the public about bed bugs. The City of Winnipeg website offers a good deal of general information about bed bugs, such as how to identify bed bugs and different control methods ("City of Winnipeg: Insect Control,"). As discussed previously, however, the City of Winnipeg has a very ambiguous policy stance towards bed bugs when it comes to landlord and tenant responsibility, and this stance is reflected in the city's website.

In contrast, the City of Toronto website, under the recommendation of the Bed Bug Project, has been revamped to provide a variety of resources to a variety of different parties, including landlords, the general public, extermination professionals, and health care professionals. Also, fact sheets created through the Toronto Bed Bug Project are available in multiple languages, focusing on a variety of topics pertaining to bed bugs. The website is clearly laid out, and provides users with almost everything they need to know in the event of a bed bug infestation, including information on their legal rights and responsibilities, and how to access different public services and the Toronto Bed Bug Project, as well as a section outlining what the City of Toronto is doing to combat bed bugs. A survey has also been created on this website to gather essential data on bed bugs (McKeown, 2008b; Toronto, 2009). According to McKeown (2008b, p. 4), "the Toronto

Public Health bed bug webpage ... is currently the second most frequently viewed link on the Toronto Public Health Website.”

While a website is an important venue for public education, not all citizens have access to computers. As such, the City of Winnipeg should also be engaged in a targeted advertising campaign about bed bugs. This advertising could take many forms, and many good suggestions were made by respondents in the interviews, ranging from large scale television and media campaigns to posters, signs, or billboards in areas where bed bugs are most prevalent. Another good strategy would be to mail out pamphlets to citizens, informing them about bed bugs, their rights, and important steps to take in the event of an outbreak.

Bed bugs are now a reality in Winnipeg, and if action is not taken quickly, the problem is only going get worse and more people are going to suffer because of this problem. The City of Winnipeg should therefore:

- Set up a multi-stakeholder committee modeled from the Toronto Bed Bug project to develop policy strategies that involve participation and co-operation with all parties affected by this epidemic.
- Make the City of Winnipeg website clearer and more accessible, similar to Toronto’s, providing information, resources, fact sheets, and other important resources to all stakeholders, including community agencies, tenants, landlords, extermination companies, and medical professionals.
- Set up Pilot Projects similar to those in Toronto in Manitoba Housing complexes in order to come up with a more successful strategy for curbing and preventing infestations.

- Provide funding for educational campaigns to raise public awareness surrounding bed bug infestations as well as help combat the stigma surrounding bed bug infestations.

Conventional and Non-Conventional Control Strategies

While several reasons for the spread of bed bugs have already been discussed in the introduction to this thesis, it is important to revisit the control strategies employed in combating bed bugs. Regulatory controls in middle- to high-income countries have banned the use of certain insecticides that in the past were very effective in controlling bed bugs (Bonney, et al., 2008). The banning of certain substances, coupled with other changes in pesticide management over the past several decades, has resulted in the loss of DDT, organophosphates, carbamates, and pyrethroids. Compounding the problem, recent successful strategies to combat other insects such as cockroaches rely on toxic baits, gel traps, and hormonal growth regulators rather than broadly acting insecticides that are more successful in treating bed bugs. This means that bed bugs, if present, are no longer exposed to these broadly acting insecticides during treatments for cockroaches and other pests. Also, these modern treatments are successful in eliminating cockroaches, red ants, and some species of spiders, which are some of the common bed bug's natural predators (Doggett, et al., 2004, p. 34; Poorten & Prose, 2005, p. 184).

The old insecticides, such as DDT, that used to be successful on bed bugs have been replaced by newer, less potent insecticides, such as synthetic pyrethroids, which have had mixed results. According to the WHO (Bonney, et al., 2008) some

exterminators have experienced good results on infestations using these modern chemicals, but there are some drawbacks to these newer products.

First, Doggett et al. (2004, p. 34) state that synthetic pyrethroids “do not have as long a residual activity as previous chemicals, which means the reinfestations are more likely to occur.” Also, synthetic pyrethroids may have a repellent effect on bed bugs, where they may be able to avoid lethal contact with the chemical. Therefore, these chemicals are not as potent of a weapon against bed bugs. According to Doggett et al. (2004, p. 34) “[resistance] to insecticides has long been recognised in bed bugs but only recently has this extended to the synthetic pyrethroids.” Although there has been little formal study of insecticide resistance within bed bug populations, there have been reports that in some locales bed bugs are becoming resistant to many of the chemicals exterminators are legally allowed to use today (Bonney, et al., 2008; Doggett, et al., 2004).

Given these shortcomings of current chemical controls for bed bugs, unless new insecticides with a very high success rate in exterminating bed bugs enter the market it is unlikely that chemical extermination methods alone will be sufficient in combating the bed bug epidemic.

It is often noted that an Integrated Pest Management (IPM) approach is the most effective way to deal with a bed bug infestation. This requires informed and active participation from both the landlord and tenant. According to the *Toronto Bed Bug Manual* (2008, p. 10) an IPM approach “usually includes a variety of methods: the use of fumigation and pesticides, cleaning and vacuuming the infested space, laundering and drying clothes at high temperatures, and regularly monitoring sleeping areas.” An IPM

strategy also includes protocols to prevent further infestation, such as proper handling and inspection of furniture. The *Toronto Bed Bug Manual* provides a more detailed list of the steps that need to be taken when assessing and preparing for an infestation. In order for an IPM approach to be successful, all parties need to be educated about bed bugs and tenants must work closely with pest control services and their landlords in “implementing treatment strategies, assessing their effectiveness and deciding on the need for further treatment” (Toronto, 2008, p. 10). Therefore, public policy that is centred on educating and informing citizens about bed bugs, as discussed previously, is necessary for an IPM strategy to work.

Another important concern surrounding the use of chemical pesticides is the implications they can have to human health. Some respondents in the present study reported negative reactions to chemical treatments, citing that the chemicals irritated existing health conditions or made them ill. Other respondents, such as Margaret, were very concerned about the health of themselves and their children after being exposed to insecticides. It is noteworthy that study participants living in Manitoba Housing were exposed to these chemicals on a regular basis, with little success in controlling bed bug populations. Aside from these more conventional methods of controlling bed bug infestations, there are also some emerging non-chemical treatments for bed bugs as part of an IPM approach that should be explored.

There is research supporting the use of desiccant dusts such as diatomaceous earth (DE) and Dri-die as non-toxic natural pesticides against bed bugs. DE has long been recognized as a universal pesticide for a variety of applications ranging from agriculture to household pest control (Benoit, et al., 2009; Korunic, 1998). Zlatko Korunic (1998, p.

87) states that “[diatomaceous] earth is a geological deposit consisting of the fossilised skeletons of numerous species of siliceous marine and fresh water unicellular organisms, particularly diatoms and other algae.” These deposits are the fossilized remains of these organisms dating back millions of years and take the form of a soft chalky rock. DE particles are picked up by rough bodied insects such as bed bugs. This abrasive material scratches the cuticular surface of the bed bug causing “damage to cuticular lipids, resulting in death by rapid desiccation” (Benoit, et al., 2009, p. 572).

As discussed in Chapter Three, extreme temperatures such as heat can be effective bed bug control methods, and have been used as extermination methods for at least a century. Modern heating equipment and technologies allow exterminators to isolate and heat an entire building or parts of that building. In fact, heat treatments for bed bugs can be advantageous as heat can get into areas where chemical pesticides cannot. William Quarles (Quarles, 2006, p. 6) states that “[heat] can reach lethal levels inside mattresses, pillows, wall voids, books, and all contents within a given habitation.” The use of a commercial steam unit is another affective, yet time consuming, use of heat to effectively kill bed bugs at all stages of development. (Kells, 2006, p. 109)

Aside from alternative treatment strategies, bed bug detection is very important. Dogs can be trained to easily detect the scent of bed bugs, which can lead to accurate and fast identification of infestations. According to one website (“Bedbugdog,” 2010), “[traditional] bedbug detection methods can be very time consuming and labour intensive. Certified Bedbug Dogs generate quicker and more accurate results. For example, the bedbug canine can search the average hotel room in less than two minutes.” Having access to quick detection may serve as an asset for the City of Winnipeg.

Fighting Bed Bugs at the Community Level

There are many things that can be done at the community level that could help control the bed bug epidemic, as well as provide relief for those who are currently suffering. The following are some suggestions of strategies that could be employed in Winnipeg.

Vacuuming is an essential part of a successful bed bug control strategy, but many of those living in inner-city Winnipeg do not have access to a vacuum. As one of the By-law Enforcement Officers I interviewed noted:

Nobody has vacuums anymore. It's unbelievable. It's unbelievable because I started late eighties and I'd see people vacuum. I don't see anybody with a vacuum, almost never. So therefore you're not decreasing the small nymphs or vacuuming up some of the adults and stuff like that. You could ask, you could probably take a general survey of this. If you ask all those people who have bed bugs 'Do you vacuum, or do you have a vacuum?' because I bet you would have a high percentage of people who have a continuous problem, and they don't vacuum.

Previously, it was mentioned that Toronto Community Housing Corporation is providing vacuum cleaners on loan as part of their pilot projects. Providing this important resource is also an important CED strategy, as it this enables community members to have the tools to improve their social conditions. As discussed earlier, vacuuming is essential to the proper management of a bed bug infestation. This strategy could be implemented in Winnipeg's inner-city communities to provide vacuums to everyone who needs them. Municipal and provincial funding should be approved for local agencies to provide vacuum loan programs for those who cannot afford them.

Another important strategy would be to assemble a manual for housing providers and community agencies. The *Toronto Bed Bug Resource Manual* was produced in 2008 by the Community Bed Bug Committee and Woodgreen Community Services. Toronto Public Health provided assistance by funding the printing of the document as well as by

providing input on the content in the manual. Although this manual is intended for use by housing providers as well as community agencies, it includes a wealth of information, protocols, and fact sheets for anyone looking for information about bed bugs in Toronto.

The City of Toronto has also taken the lead with its Bug and Scrub program, which is a social purpose enterprise created by the Seaton House Men's Shelter. The program offers assistance to tenants in preparing their household for bed bug treatment, while providing employment for homeless people.

Bug and Scrub is currently the only bed bug treatment business of its kind in Toronto. It provides much needed support to those who are unable to prepare their units before effective pest control measures can take place. The support is above and beyond that provided by traditional pest management companies. Bug and Scrub has been an integral part of successful case management approaches for vulnerable people facing bed bug infestations (McKeown, 2008b, p. 8).

Bug and Scrub is another example of a CED based enterprise, as it seeks to not only serve a social role by improving the living conditions of those in need, but it also provides an important economic function to the community by offering employment opportunities, skills training, and job experience to marginalized citizens. Funding a similar program in inner-city Winnipeg would be a useful strategy for these reasons.

In addition, direct funding to those suffering from bed bug infestations is also important, as many respondents were not able to afford the cost of replacing their possessions. Toronto has started to make progress on this front with the Ontario Works/Ontario Disability Support Program (OW/ODSP), a collaboration between Toronto Public Health, Bug and Scrub, Toronto Social Services, OW, and ODSP Toronto District offices that was set up to “develop protocols and establish working relationships when seeking funds to assist clients who may not have the financial resources to deal with their bed bug issues” (McKeown, 2008b). The funding is provided on a case-by-

case basis and is “required for furniture/mattress replacement and contracting services such as Bug and Scrub to conduct heavy cleaning, and any other necessary preparation work for successful bed bug treatment” (McKeown, 2008b). This program benefits the community in two ways: by providing important services to those who cannot afford them, and providing employment opportunities for Bug and Scrub.

The Importance of Inner-City Agencies

Inner-city agencies provide vital resources to residents through various services such as advocacy, providing an important social space within the community, shelter, charity and second hand goods, programming and skills training, etc. These agencies are essential to community building, and must be supported in their battles with bed bugs

Inner-city community agencies are a vital resource for residents to turn to when seeking advice and support in the event of infestations. Agencies often served as the first point of contact for respondents where they were informed of their rights and given advice on how to handle the situation. These agencies can inform tenants about their rights and who they should contact, and community workers have even accompanied and supported inner-city residents through RTB hearings. Many of the respondents in this study utilized the services of local agencies to cope with their experiences with bed bugs. Recall that Christine sought the support of a worker at the local Women’s Resource Centre, as well as the Housing Safety Manager at her local neighbourhood association. Bill’s family had a similar experience:

It’s like we were running into so many walls and we finally seen a friend of ours at the Women’s Centre down here. She showed us which way to go, take the proper steps and to do it. So I started contacting these people, letting them know. And I never knew that you could actually get help with bed bug situations.

And then when I found that out I started contacting them, the wife started contacting them, dealing with them.

Agencies also provide an important social space for inner-city residents. Many respondents had some level of involvement with local agencies (such as women's centres) where they volunteered, worked, or visited regularly. This involvement provides not only an avenue for people to speak to staff about important issues, but was also a space where they had an opportunity to talk to and share experiences with other residents in the community.

Respondents often turn to local agencies for a variety of important services, and bed bugs have had a profound impact on this service provision. The bed bug outbreak has hurt local agencies both financially and in terms of the types of services they can provide. One of these services is providing used clothing, furniture, and other second-hand items. Local residents rely on these services. Unfortunately, bed bugs have put a strain on this type of service delivery because it can aid in re-cycling the problem. Financially, the cost of dealing with bed bugs has taken vital resources and money away from service provision and directed it towards bed bug control within the agencies. Also, taking donations such as used clothing has become a problem for agencies as bed bugs have undermined these services. Good employees have also left their jobs because of the stress involved in dealing with a bed bug infestation at the agency office.

As such, the first line of defence that inner-city residents often turn to is ultimately threatened because of the bed bug outbreak. Inner-city agencies are going to require anti-bed bug funding, as well as having anti-bed bug strategies in place to mitigate the impact of bed bugs on their agency.

Inner-city agencies can also play an important political role through collective action. In keeping with a CED approach, local involvement is key to the decision making process. By banding together, rather than working separately, agencies should pressure local governments to recognize the threat that bed bugs pose in their communities. If the City of Winnipeg does not make the first move in initiating collective action similar to the Toronto Bed Bug Project, inner-city agencies will have to take action first in both raising awareness about the severity of the bed bug outbreak, and pursuing action strategies at the local and governmental level.

The Role of Social Assistance

Almost all respondents in this study were receiving some form of social assistance, and for almost all of these respondents this was their main (if not only) source of income. This reliance on social assistance has made them vulnerable during the event of bed bug infestations for two reasons.

First, dealing with a bed bug infestation creates extra expenses, and most respondents were on a highly restrictive budget in the first place. Respondents were often left covering the long-term cost of bed bugs out of their own pocket, as social assistance often did not adequately provide funds to cover the costs of an infestation. For example, some respondents reported that they were only given \$300 to replace all of their family members' beds. This amount is not even enough to afford one used bed—let alone provide for an entire family. As well, respondents often reported that their social assistance workers did not fully reimburse them for their increased laundry costs, cleaning supplies, furniture, clothing, etc. There is no way these respondents could be

able to come up with the money on their own limited budgets to replace these items. Therefore, without financial assistance, tenants were often forced to rely on charity or gifts from family members, to buy second-hand items (which increases the potential for another infestation), or to live without.

Second, being on social assistance often forces respondents to live in housing that is in keeping with their meagre budgets. This often translates into either living in private housing that is of substandard condition or, if available, in a Manitoba Housing complex. As Christine noted, “I would have rather not moved into Manitoba Housing but the situation that I was in at the time I almost had no choice...I was looking for a place but I couldn’t really afford anything with the income that I’m getting through social assistance.” Several of the respondents living in Manitoba Housing felt that moving to get away from bed bugs was too cost prohibitive. These respondents pointed out that if they left Manitoba Housing, then they would be spending too much of their monthly incomes on rent. There are also many perks associated with living in Manitoba Housing, such as free laundry facilities, which result in lower monthly expenditures for these residents.

Also, respondents stated that they had to apply for moving costs when they chose to leave their apartments to escape bed bugs. Another concern was that if their rent was higher at their new residence, social assistance did nothing to increase their allowance. One respondent, Lucy, pointed out that the rent at her new building went up so much that it almost eliminated all of the money Social Assistance gave her for food every month, which left Lucy wondering, “what am I going to eat now, bed bugs?”

Social Assistance funding needs to be increased to an amount where bed bug victims can actually afford to replace beds and other important items after an outbreak.

As one By-Law Enforcement Officer stated during our interview:

I don't think Social Services funding has changed since I've started. People get almost the same amount for their living expenses as they did, like, when I started twenty years ago... That's brutal... I have a hard time with what they do give people.

An increase in funding can help minimize the social impacts of bed bugs through providing financial relief to those in a desperate situation. In particular, the amount provided by Social Assistance to replace damaged items must be reasonable so that people can replace these items.

Dumpster Diving and Used Goods

A main topic of concern discussed by respondents in this study was issues surrounding “dumpster diving,” a term used to refer to the practice of scavenging articles of clothing, furniture, and the like from garbage containers found in the city's back lanes. All of the landlords reported dumpster diving as being a problem that they have witnessed, and many respondents felt that this represented a major issue in their neighbourhoods. In an area of concentrated poverty, it can be expected that out of desperation, people will collect perfectly good looking beds or other furniture and bring it back to their apartments; however, these items may be infested with bed bugs. One strategy to combat this practice is to slash, spray paint, or use some method of destruction to ensure that people do not pick up infested items. One landlord, Richard, stated:

Well, there's a number of things that can be done, one is the furniture that piles up in the alleys is prime pickings and you often see people dragging them down the lane into other people's buildings. Fortunate it doesn't happen in mine, so

one the City of Winnipeg should be picking up that furniture quicker. They will pick it up if you call within five business days and that's fine, but people should be required to call in and they don't. Most people will just dump it in the alley and hope it goes away. I think there should be penalties for doing so.

In addition to identifying these strategies in any educational awareness or public education campaigns, the City of Winnipeg needs to implement more effective protocols for the collection and disposal of bed bug infested articles.

Also, many local agencies and charities distribute furniture and clothing to those living in the inner-city. These essential services are under threat because of bed bugs. Therefore, anti bed bug strategies need to be in place in all businesses, charities, and agencies that distribute used goods to prevent the spread of bed bugs. As Richard states:

I think that second hand stores, even my favourites like the Mennonite Central Committee, the thrift shops of all sort should be required to have anti bed bug policies, and I think there should be fines for them if they distribute bed bug infested furniture. I realize that people can't afford new furniture; neither can they afford bed bug infestations.

Concluding Remarks

Winnipeg requires a comprehensive bed bug strategy to prevent, combat, and provide relief to people from bed bugs. Strategies similar to the Toronto approach need to be undertaken immediately in Winnipeg as the problem is only likely to become worse. These strategies are going to require financial backing from the city and provincial governments, as well as participation from a multitude of involved parties to co-ordinate policy and funding. Having a cohesive strategy involving all parties will be more effective than individual entities working on their own. In order for these strategies to take place, the City of Winnipeg must recognize the serious nature of the bed bug epidemic as a threat to public health and act accordingly.

As part of a successful bed bug control strategy an Integrated Pest Management approach must be developed by the City of Winnipeg to establish guidelines and best practice policies for landlords, tenants, and extermination companies to follow in the event of infestations. Chemical exterminations alone will not be successful in fighting bed bugs and some innovative types of treatment discussed in this chapter will need to be considered.

Lastly, work needs to be done at the community level to ensure that those suffering the most from beds bugs receive the help they need. In addition to providing adequate social assistance, local agencies and charities—essential services in the community—require adequate supports in dealing with bed bugs on their own premises, as well as providing services to community members suffering from bed bugs. Community initiatives such as Bug and Scrub can also contribute to combating the problem, as well as offering job training and experience for inner-city residents.

Conclusion

The primary goal of this thesis has been to focus on the social impacts of a bed bug infestation for inner-city residents, that is, to broaden the focus from the direct health effects of bed bugs (bites, infections) to understanding how people's experiences with bed bugs affect their lives, including not only their ability to manage effectively the social and economic costs associated with an infestation, but also their relationships with family and friends and their sense of self or identity. In order to realize this goal, bed bugs have been situated in a greater poverty and housing crisis that is taking place in inner-city Winnipeg. A historical analysis of inner-city Winnipeg has been presented, as well as an analysis of the structural poverty and unique challenges faced by inner-city residents. Research provided by local Community Economic Development activists has been utilized in order to provide a context in which to present bed bugs as part of a larger set of economic and social circumstances, as well as to formulate action strategies for the city of Winnipeg to deal with the bed bug epidemic. The Social Determinants of Health perspective has been adopted to address the issue of bed bugs as a public health threat.

Drawing on interviews with inner-city residents, it has been demonstrated that the social impacts of bed bugs extends well beyond the effects of bites themselves. Interviews with inner-city residents have revealed the profound impacts that bed bugs have both economically and socially in their lives. Furthermore, utilizing an SDH approach, these social and economic impacts have underscored the profound health threat that bed bugs present to marginalized citizens.

Another important goal of this thesis has been to provide an analysis of the current policy framework in Winnipeg. Chapter Four of this thesis not only demonstrates the lack of cohesive bed bug policy in Winnipeg, but also asserts that this lack of policy creates unnecessary conflict between frustrated tenants and landlords in the event of an outbreak, which was a major source of stress for participants of this study. This chapter also presented the standpoint of landlords, demonstrating that the bed bug outbreak has a profound impact on all parties, and that there are some socially conscious, concerned landlords that are actively engaged in fighting the bed bug epidemic. Lastly in this chapter, the strategies and viewpoint of the City of Winnipeg By-Law Enforcement Services were presented.

Chapter Five presented the major strides that have been undertaken in Toronto to combat the bed bug epidemic. Through comparative analysis, this policy framework is used to describe the lack of progress Winnipeg has made in its bed bug control strategy. The Toronto experience, interviews from the Winnipeg study, and information from other sources were drawn upon to make recommendations towards a successful bed bug control strategy for the City of Winnipeg.

Several policy recommendations have emerged from this investigation. Perhaps most important to the success of a major policy strategy towards preventing and combating bed bugs is the recognition of the social impacts of bed bugs; specifically, the threat of bed bugs to human health. Bed bugs are likely going to continue to be a problem in Winnipeg's inner-city, which is why understanding their immense social impacts is so important. If bed bugs continue to be recognized as a pest they may not receive proper attention. Recognizing the economic, social, and health impact of bed bugs legitimizes

the need for immediate action to be taken. Utilizing a Social Determinants of Health approach, bed bugs present a public health threat. Therefore, more research within the SDH framework needs to include this recognition of bed bugs as a health threat.

If the proper steps are undertaken it is possible to both mitigate the social impacts that inner-city residents are experiencing from bed bugs, as well as curtail the current epidemic hitting inner-city Winnipeg. In order for this strategy to be successful, it needs to be inclusive and cohesive. The quicker this action is taken, the less inner-city Winnipeggers will have to suffer from the potentially devastating impacts of bed bugs.

In closing, it is important to acknowledge that bed bugs are part of a broader set of structural and institutional social issues. As argued in this thesis, the social impacts of bed bugs are deeply rooted in a larger poverty and housing crisis in Canada. This is because marginalized citizens lack the power and control over their daily lives to effectively manage the impacts of an infestation. Future research in this area should therefore consider these larger structural issues—such as the role of the welfare state in Canada in relation to the bed bug epidemic—in more depth than has been possible here. For example, the experiences of a country such as Sweden could be drawn upon to demonstrate the positive social and economic outcomes that progressive social policy can achieve.

Gregg Olsen (2002, p. 3) states that “social democratic Sweden has long been celebrated as one of the most egalitarian of nations, and its welfare state has often served as an archetype.” In fact Sweden fares much better than Canada on a majority of social and economic indicators, ranging from income distribution, employment, poverty, child poverty, health care provision, life expectancy, employment security, social supports,

civic participation, and levels of unionisation to name a few (Jackson, 2002; Olsen, 2002).

Of prime example, housing policy differs greatly in Sweden than in Canada. Twenty-one percent of the housing stock in Sweden is municipally owned by legally independent public housing companies where the business concept is “co-operative owner occupation” (Cecodhas, 2010). Rents in this system are cost based, and are negotiated between the company and the local tenants’ union. These public companies compete with the private market. This private-public competition is aided by the presence of the Swedish Union of Tenants, which had 550,000 members in 2002. This union performs very important functions for its members, including the annual negotiations of rents for tenants—the results of which, by law, “become a target minimum and maximum when the rents are set in the privately owned rental stock” (“The Swedish Union of Tenants,” 2010, p. 4). The union also engages in the rousing of public opinion and political lobbying, supporting members in landlord/tenant relations, informing members of their legal rights and obligations, as well as providing tenants with many other benefits that come with union representation. While the full scope of Swedish experience is well beyond the scope of this thesis, it does provide an important avenue to pursue in order to improve the housing and poverty conditions—including the social impacts of bed bugs—in the Canadian context.

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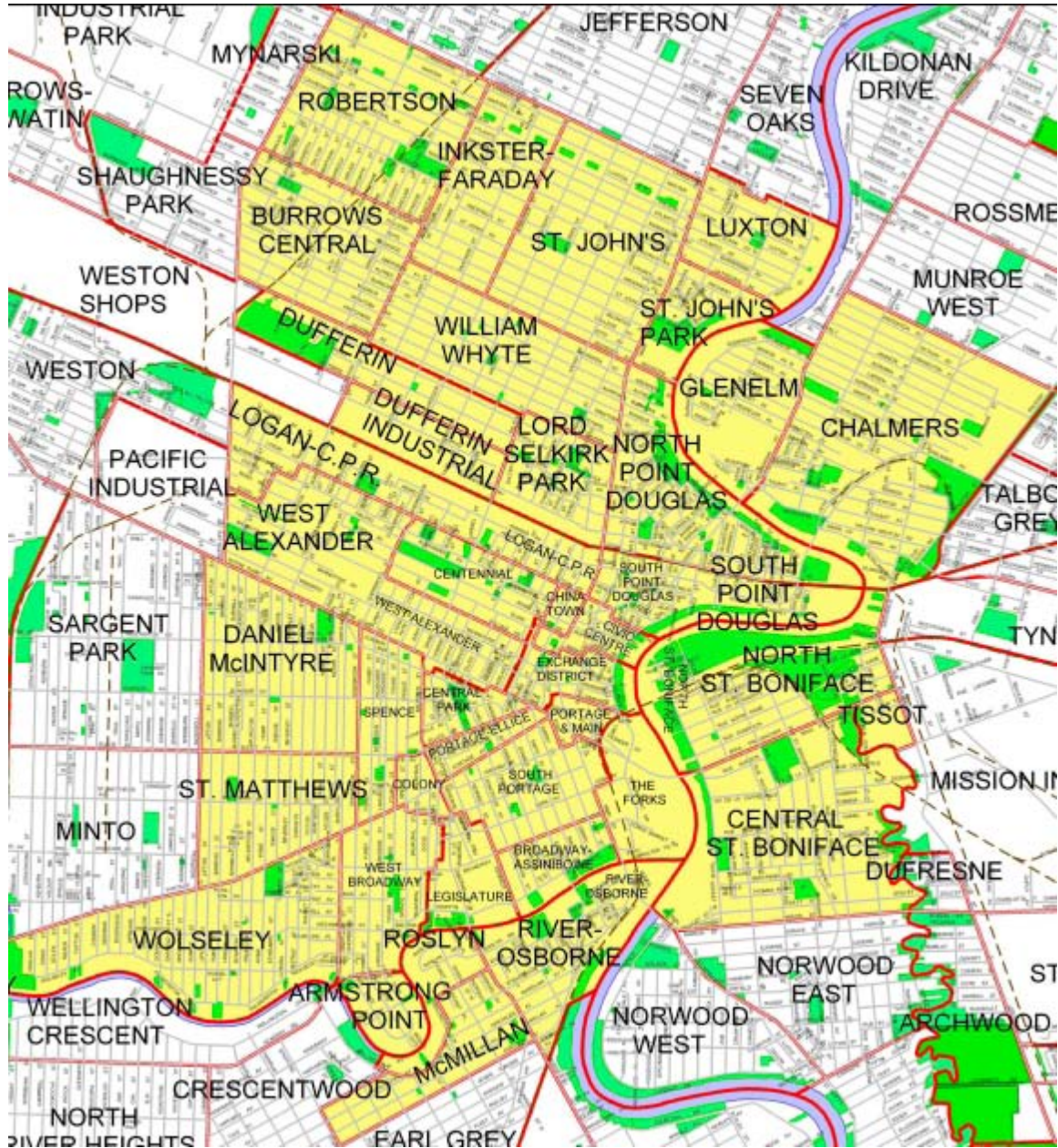
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Appendix A Winnipeg Inner City Boundaries



Inner City—Western Boundary—from Ingersoll St. at Portage Ave., North to Notre Dame Ave., North on McPhillips St., East on Logan CPR, North on Arlington St., West on Dufferin Ave., North on Mc Phillips St. to Carruthers Ave.

Inner City—Northern Boundary—from Carruthers Ave. at McPhillips St., East to Main St., North to Mattheson Ave E. South on the Red River and across the Red River and North on Henderson Hwy., East on Munroe Ave. to Raleigh St.

Inner City—Eastern Boundary—from Raleigh St. at Munroe Ave., South to Archibald St. to the Seine River and South to Marion St.

Inner City—Southern Boundary—From Marion St. and the Seine River, West , across the Red River to Osborne St., North to Corydon Ave., West on Corydon Ave., then North on Stafford St. , East on Grosvenor Ave., West on Wellington Cres. and North to the Assiniboine River. West along the Assiniboine River to Lindsay St., and North to Portage Ave. (MacKinnon, 2009, pp. 45-46)

Appendix B Interview Consent Forms



CONSENT FORM FOR RESIDENTS

“Don’t Let the Bed Bugs Bite!”

Dr. Elizabeth Comack
Department of Sociology
University of Manitoba
(phone: 474-9673)

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of this study is to explore the social impact of a bed bug infestation on people who have experienced it, as well as measures that can be taken to resolve this problem. The interview will likely be about a half hour in duration. You will be asked about your experiences with bed bugs, and what that experience involved (for instance, how recently you have encountered them, what steps were taken to deal with them). With your permission, our conversation will be digitally recorded. What is said will be held in strictest confidence. Only the Researcher (Elizabeth Comack), the Research Assistant (James Lyons), and the person who transcribes the interview will have access to what you say. Each interview will be assigned a number and the contents will be stored on a password-protected computer in a secure office at the University of Manitoba. A report on the findings of the study will be released by the Canadian Centre for Policy Alternatives—Manitoba (CCPA-MB). In reporting on the results of the study, your name and any information that might identify who you are will not be revealed. At the end of the study (by September of 2009), the recordings and transcriptions will be destroyed. You are free to withdraw from the study at any time. You can choose to have the digital recorder turned off at anytime during our meeting, and to not answer any of the questions I might ask of you. You are free to ask for clarification or any other questions you may have about this study.

To compensate you for your time (regardless of whether you complete the interview) you will be given a sum of \$25. If you would like to receive a copy of the report of the study (which will be available by September of 2009), please check the line below and one will be sent to you.

Please send me a copy of the report _____ yes _____ no
If yes, address where report is to be sent:

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Participant's Signature

Researcher's Signature

Date

Principal Researcher:

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This research has been approved by the Psychology/Sociology Ethics Review Board at the University of Manitoba. If you have any concerns or complaints about this project you may contact the above-named person or the Human Ethics Secretariat at 474-7122 or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.



CONSENT FORM FOR AGENCIES

“Don’t Let the Bed Bugs Bite!”

Dr. Elizabeth Comack
Department of Sociology
University of Manitoba
(phone: 474-9673)

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of this study is to explore the social impact of a bed bug infestation on people and agencies who have experienced it, as well as measures that can be taken to resolve this problem. The interview will likely be about a half hour in duration. You will be asked about your agency’s experiences with bed bugs, and what that experience involved (eg. measures taken to combat the problem, any financial costs associated with these measures). With your permission, our conversation will be digitally recorded. What is said will be held in strictest confidence. Only the Researcher (Elizabeth Comack), the Research Assistant (James Lyons), and the person who transcribes the interview will have access to what you say. Each interview will be assigned a number and the contents will be stored on a password-protected computer in a secure office at the University of Manitoba. A report on the findings of the study will be released by the Canadian Centre for Policy Alternatives—Manitoba (CCPA-MB). In reporting on the results of the study, your name and any information that might identify who you are will not be revealed. At the end of the study (September of 2009), the recordings and transcriptions will be destroyed.

You are free to withdraw from the study at any time. You can choose to have the digital recorder turned off at anytime during our meeting, and to not answer any of the questions I might ask of you. You are free to ask for clarification or any other questions you may have about this study.

If you would like to receive a copy of the report of the study (which will be available by September of 2009), please check the line below and one will be sent to you.

Please send me a copy of the report yes no

If yes, address where report is to be sent:

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Participant's Signature

Researcher's Signature

Date

Principal Researcher:

Dr. Elizabeth Comack
Department of Sociology
University of Manitoba and
Research Associate with the
Canadian Centre for Policy Alternatives–Manitoba
Phone number: 474-9673
Email address: comack@cc.umanitoba.ca

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CONSENT FORM FOR LANDLORDS AND HEALTH INSPECTORS
“Don’t Let the Bed Bugs Bite!”

Dr. Elizabeth Comack
Department of Sociology
University of Manitoba
(phone: 474-9673)

This consent form, a copy of which will be left with you for your records and reference, is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve. If you would like more detail about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The purpose of this study is to explore the social impact of a bed bug infestation on people who have experienced it, as well as measures that can be taken to resolve this problem. The interview will likely be about a half hour in duration. You will be asked about your experiences with bed bugs, and what that experience involved. With your permission, our conversation will be digitally recorded. What is said will be held in strictest confidence. Only the Researcher (Elizabeth Comack), the Research Assistant (James Lyons), and the person who transcribes the interview will have access to what you say. Each interview will be assigned a number and the contents will be stored on a password-protected computer in a secure office at the University of Manitoba. A report on the findings of the study will be released by the Canadian Centre for Policy Alternatives—Manitoba (CCPA-MB). In reporting on the results of the study, your name and any information that might identify who you are will not be revealed. At the end of the study (September of 2009), the recordings and transcriptions will be destroyed. You are free to withdraw from the study at any time. You can choose to have the digital recorder turned off at anytime during our meeting, and to not answer any of the questions I might ask of you. You are free to ask for clarification or any other questions you may have about this study.

If you would like to receive a copy of the report of the study (which will be available by September of 2009), please check the line below and one will be sent to you.

Please send me a copy of the report yes no

If yes, address where report is to be sent:

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors,

or involved institutions from their legal and professional responsibilities. You are free to withdraw from the study at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed as your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

Participant's Signature

Researcher's Signature

Date

Principal Researcher:

Dr. Elizabeth Comack

Department of Sociology

University of Manitoba and

Research Associate with the

Canadian Centre for Policy Alternatives–Manitoba

Phone number: 474-9673

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This research has been approved by the Psychology/Sociology Ethics Review Board at the University of Manitoba. If you have any concerns or complaints about this project you may contact the above-named person or the Human Ethics Secretariat at 474-7122 or e-mail margaret_bowman@umanitoba.ca. A copy of this consent form has been given to you to keep for your records and reference.

Appendix C

Interview Schedule for Inner-City Residents

As I indicated earlier when we went over the consent form, the purpose of this study is to explore the social impact of a bed bug infestation—to get a better handle on what it means for the people who experience it and measure that can be taken to respond to the problem.

1. Are you living in a house or apartment?
2. Do you rent or own your dwelling?
3. How long have you lived there?
4. Have you encountered bed bugs? How recently? Have you encountered them previously?
5. What first alerted you to the problem?
6. What measures were taken to combat the problem?
 - Did you have to launder all of your bedding and clothing? How much did this cost?
 - Did you have to get rid of your bed or other furniture? What did you do to replace it?
 - Was your dwelling sprayed? With what? How many times/how often? Who paid for this service?
 - What other strategies were used to deal with the bed bugs?
7. If renting: How helpful has your landlord/rental agency been in dealing with this problem?
8. Have you had any contact with the Health Department? What did that involve?
9. Have you told your friends, neighbours, and/or family about your experience? (If not, why? If yes, what was their response?)
10. Do you think there is a lot of stigma associated with having a bed bug problem? If so, in what way?
11. Would you say that this experience has created stress in your life? Can you tell me more about that?
12. What do you think needs to be done to ensure that you don't encounter this problem again?
13. Is there anything else that needs to be said about this issue?

Appendix D

Interview Schedule for Landlords

As I indicated earlier when we went over the consent form, the purpose of this study is to explore the social impact of a bed bug infestation—to get a better handle on what it means for the people that experience it, as well as what is being done to deal with the issue.

1. Have bed bugs been a problem in any of your properties? How recently? Have they been a problem previously?
2. What first alerted you to the problem?
3. What measures were taken to deal with the problem?
4. Was there a financial cost associated with dealing with the problem? If so, how significant was that for your business?
5. Have you had any contact with the Health Department about this issue? What did that involve?
6. How did your tenants respond when bed bugs were discovered? What about your employees/caretakers?
7. What impact do you think this problem has had for your business?
8. Do you think there is a stigma associated with having a bed bug problem? If so, in what way?
9. What more do you think needs to be done to deal with this problem?
10. Is there anything else that needs to be said about this issue?

Thank you.

Appendix E

Interview Schedule for Inner-City Agencies

As I indicated earlier when we went over the consent form, the purpose of this study is to explore the social impact of a bed bug infestation—to get a better handle on what it means for the people—and agencies—that experience it and measures that can be taken to respond to the problem.

1. Has your agency encountered bed bugs? How recently? (Have they been a problem previously?)
2. What first alerted you to the problem?
3. What measures were taken to combat the bed bugs?
4. Was there a financial cost associated with dealing with the problem? If so, how significant was that for your agency?
5. Has your agency had any contact with the Health Department about this issue? What did that involve?
6. How did your clients respond when bed bugs were discovered? What about your employees?
7. What impact do you think this problem has had for your organization?
8. Do you think there is a stigma associated with having a bed bug problem? If so, in what way?
9. What do you think needs to be done to ensure that you don't encounter this problem again?
10. Is there anything else that needs to be said about this issue?

Thank you.