Individual Well-Being as a Function of Place Among Clients of Residential Addictions Treatment Facilities in Winnipeg

By

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A Thesis submitted to the Faculty of Graduate Studies of

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ABSTRACT

This study evaluates place-based social and material networks that are thought to influence individual well-being, as they relate to the study population, clients of residential addictions treatment facilities in Winnipeg. This research is part of a more general consideration of the health affects of facility siting.

Without any serious inquiry into the environments of existing addictions treatment facilities, their influence on clients' well-being, and the land-use policies which govern their existence and location, we are not only ignoring the potential for creating a more useful understanding of our health resources, but potentially entrenching existing social-spatial inequities.

A cross-sectional case study, using a survey questionnaire was used to explore potential links between individual health and facility location. This quantitative analysis of place-based influences on health considers data on thirty-two clients, from three addictions treatment programs, located in three distinct neighbourhoods in Winnipeg.

The study findings provide evidence that facility location is linked to various place-based social and material networks, which are associated with indicators of individual well-being. The methodology employed in this study may be relevant to those, especially urban planners, with an interest in exploring the inter-relationship between well-being and the social/built environment and/or in evaluating the siting of health facilities.

KEYWORDS:

Urban; Planning; Addictions; Treatment; Facility; Health; Well-being; Social capital; NIMBY; Winnipeg.

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DEDICATION

I dedicate this work to the very dearest in my life, my wife Sheeva, and our most wonderful daughter, Meaghan. I must also credit the support of my parents, without which, this effort would not have been possible.

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CHAPTER 1: INTRODUCTION

1.1 Study Overview

Issues associated with the excessive consumption of alcohol and drugs pose significant challenges to well-being in urban environments, yet matters related to the siting of addictions treatment facilities receive little attention from an urban land-use perspective. In Winnipeg, the placement of treatment facilities is constrained by regulatory requirements (i.e. Zoning By-law) and NIMBY ("*Not in my back yard*") opposition, resulting in a pattern of segregation whereby the majority of treatment facility beds are often situated in high-poverty[1] urban environments.

The broad intent of this study is to illustrate potential intersections between the siting of addictions treatment facilities and a research agenda focusing on urban health[2]. The more immediate focus of this study considers the influences of local social and environmental conditions on the well-being of individuals (clients) attending residential addictions treatment programs in Winnipeg. Though unexamined to date, this thesis argues that [in the context of addictions treatment] the combination of where an individual who is receiving treatment lives, where treatment is delivered, and the social-material networks to which a client is exposed are related to an individual's notion of well-being.

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[1] Carter (2005), identifies 'high poverty' neighbourhoods in Winnipeg using a threshold where 32%+ of area households live in poverty – double the Canadian household rate in 2001.

[2] The foremost notion of health that I adopt for this study is that of subjective well-being. I understand subjective well-being as a type of informed fulfillment by individuals that is evaluated as good by the individuals themselves. This understanding of health is associated with a range of factors which may relate to, but is not limited to, physical environments, access to essential resources/services and achieving satisfying relationships with others.

This study offers a review of literature related to urban health issues and examines theories of mechanisms by which location and social-material networks may influence an individual's notion of personal health. A review of medical, social, and planning literature is used to frame a typology of well-being that is designed to assist in assessing the health characteristics of local physical and relational networks. The categories of neighbourhood context, community resources, social networks and network culture are presented as promising areas for further inquiry into urban health issues, facilities siting, and health policy development.

1.2 Study Background

This study is about human well-being, local environments and professional agency. It considers notions of individual health as a function of urban contexts and their associated social and material networks. My interest in exploring potential relationships between social networks, the location of facilities and perceptions of personal well-being came into focus as a result of participating, as a research associate, in the study titled: "*Clean and sober places: Exploring the therapeutic landscapes of addiction recovery*"[3]. The three-year study, initiated by Geoff DeVerteuil and Robert Wilton in 2004, was funded through a research grant by Social Science and Humanities Research Council of Canada (SSHRC)[4].

The *Clean and Sober Places Study* explored the relationship between substance abuse treatment and the immediate built/social environment in Winnipeg [Manitoba], as well as in Hamilton and Toronto [Ontario]. The project focused on how substance abuse

[3] Hereafter referred to as the "Clean and Sober Places Study"
[4] SSHRC grant #410-2004-1764

treatment interacted with the internal spaces of a facility and the surrounding neighborhood, particularly with regards to how facilities located in "detrimental areas" attempt to sustain therapeutic "spaces of recovery". In Winnipeg, the study considered seven substance abuse treatment facilities and involved a combination of staff interviews, client interviews, neighbourhood/environmental scans and a program of participatory observation at select facilities. The study findings from Winnipeg were reported in a chapter for the book titled, *Therapeutic Landscapes*, which was edited by Allison Williams and published in December of 2007.

During the course of my role as a research associate in that study, Winnipeg adopted another in a long line of legal approaches to dealing with urban substance abuse problems, namely the Winnipeg Drug Treatment Court (WDTC). According to the Addictions Foundation of Manitoba (AFM), the WDTC has been established to break the cycle of drug use, criminal behaviour and incarceration through a diversion court for drug addicted non-violent offenders[5]. Drug Treatment Courts are "special courts" that divert drug-addicted offenders away from incarceration and towards an extensive supervision and treatment program that involves the judiciary, addiction service providers and community agencies.

The AFM recognizes that conventional criminal justice strategies have not been able to effect a significant reduction in relapse rates or the demand for and flow of drugs into our communities. According to the AFM, Drug Treatment Courts have proven to be both 'tough' and effective. Offenders who come before the WDTC are said to participate

[5] Addictions Foundation of Manitoba (2006): Winnipeg Drug Treatment Court http://www.afm.mb.ca/Partnerships/DrugTreatmentCourtsFAQs.htm

in treatment plans that typically are longer and more rigorous than the probation and/or jail sentences they might receive in a conventional court. AFM also maintains that Drug Courts are cost effective when compared to the cost of jailing an individual. The Corrections and Conditional Release Statistical Overview - Annual report for 2006 - states the federal average daily inmate cost has increased from $195.00 in 2000-2001 to $241.00 in 2004-2005. The annual average cost, in 2004-2005, for keeping an inmate in a penitentiary was $87,919.00 per year, while the cost to maintain an offender in a community based treatment program was substantially less at $20,320.00 per year[6].

The Drug Court approach to addictions management follows a longstanding tendency to encapsulate alcohol and drug policy within the jurisdiction of criminal law. Under the Drug Court approach, resident drug treatment programs are promoted to taxpayers as being longer and more rigorous than probation and/or jail sentences, and substantially cheaper than incarcerating an individual. However, these 'savings' do not account for potentially important health implications and unforeseen costs – both economically and socially – in using existing treatment infrastructure to enact Drug Court addictions management policy. This is especially true in the Winnipeg context, where social and political conditions have limited funding for treatment programs and restricted the placement of treatment facilities, often to already marginalized neighbourhoods. Without any serious inquiry into the environments of existing treatment facilities, their influence on clients' well-being, and the land-use policies which govern their existence and location, we are not only ignoring the potential for creating a more useful

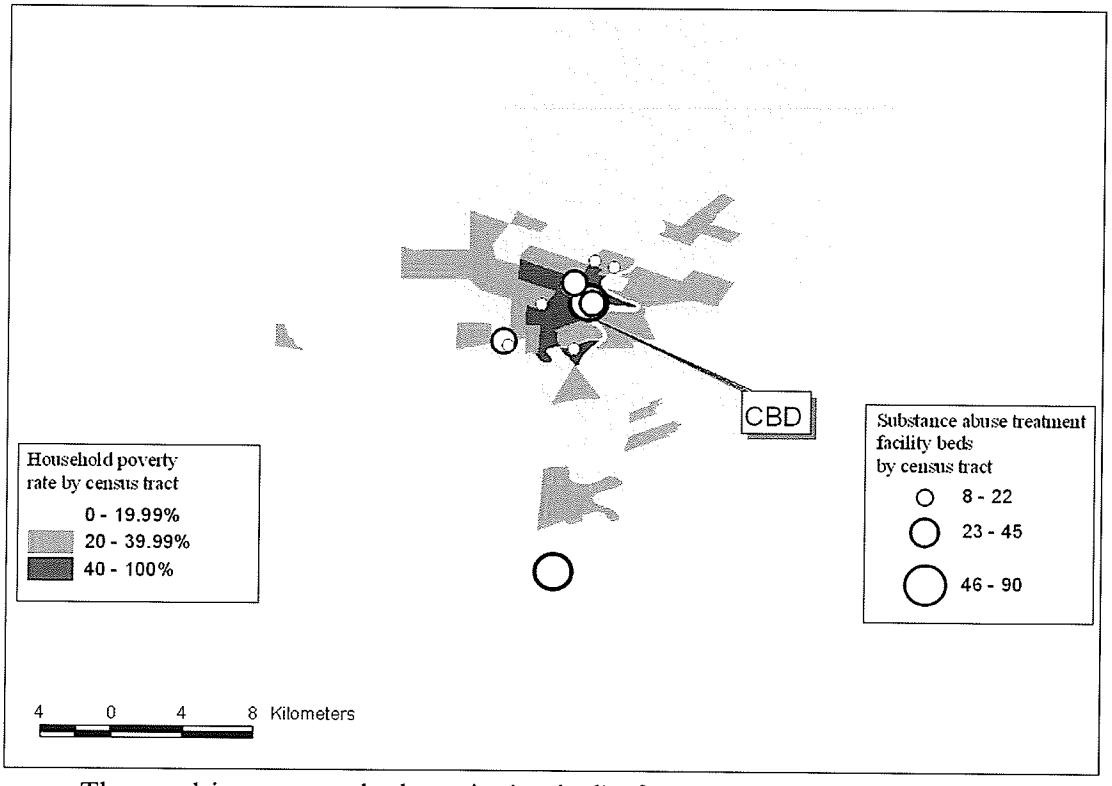
[6] Addictions Foundation of Manitoba (2006): Winnipeg Drug Treatment Court http://www.afm.mb.ca/Partnerships/DrugTreatmentCourtsFAQs.htm

understanding of our treatment resources, but potentially entrenching existing place-based inequities. Consequently, I argue that facility location is associated with particular social-material characteristics, which influence the sense of well-being experienced by clients attending residential programs for the treatment of addictions in Winnipeg.

1.3 Context for Addictions Treatment in Winnipeg

Addictions treatment facilities in Winnipeg have historically been concentrated in high poverty, inner city areas. The map in Figure 1.1 shows treatment facilities, by number of beds, overlaid on census tract income groupings for Winnipeg.

Figure 1.1: Winnipeg's Substance Abuse Treatment Beds by Census Tract and Household Poverty Rate, 2001 (Adapted from Williams, 2008, 83)



The resulting pattern looks quite 'typical' of an aging North American city, with an impoverished core area and expanding suburbs. There is a clear clustering of facilities in the poorer areas of the city – including neighbourhoods with high (40%+) poverty rates

– where over half of the beds are within a few blocks of each other, just north of the central business district (CBD). In effect, community-based inequities have persistently channeled most facilities to unpromising and stigmatized locations that may challenge the ability to create and sustain healthy and supportive environments.

The concentration of social services in distressed neighbourhoods is not a "natural" product of a free-market system but rather the legacy of decades of marginal funding, discrimination and segregation. This concentration of services can be partially explained via a combination of loosely organized forces that include: a history of marginal funding for substance abuse treatment; the historical proliferation of drinking establishments along the Main Street strip; and neighbourhood resistance originating from NIMBY type opposition, which often shunts treatment facilities to non-residential and often challenging locations.

The influence of neighbourhood zoning regulations also plays a role in the placement of facilities. Historically, planning policy has played a significant role in creating this legacy, contributing to both segregation and isolation enforced through discriminatory zoning policy. Conditional zoning approval is generally required to open a 'neighbourhood rehabilitation home', which makes relocation difficult and tends to 'lock in' the existing pattern. There is also a 'saturation' bylaw that states that no 'neighbourhood rehabilitation home' may be within 990 feet of another facility[7]. The existing concentration of treatment centers in the inner city – adjacent to areas of high poverty and often perceived as bleak environments – have potentially harmful

[7] Winnipeg Zoning By-law 6400/94

implications because of evidence that neighbourhoods are associated with both the current well-being and the future opportunities of residents.

In addition to challenges posed by the concentration of treatment facilities in the urban core, there is growing recognition of emerging class-based difficulties. Preliminary findings originating from the *Clean and Sober Places Study* (2004) revealed that frontline treatment facilities in Winnipeg are concerned that increasing numbers of substance abusers are being channeled from more affluent neighbourhoods, to inner-city treatment facilities, which can place additional strain on the already tenuous social structure of these programs. During study interviews, facility staff characterized some of these *non-traditional* clients as being unusually "needy", "demanding" and "disrespectful of staff and other clients". This is said to be especially true in the case of younger suburbanites that have exhausted their own neighbourhood-based resources and are showing up in greater numbers at inner-city treatment facilities, where they can disrupt the treatment environment of *traditional* clients. Among frontline facilities, a 'traditional client' is generally described as a male individual who has an inconsistent employment record, is a long-term substance abuser, and who frequents inner-city addictions treatment programs where he is generally known to the center's intake staff; whereas the profile of a non-traditional facility user may be described in relative terms as a younger individual who is, or was recently employed, comes from a middle-to-upper income family, grew-up in a suburban/working-class setting and transitions among programs - usually not as a means of survival, but as a conditional requirement to maintain employment or school status. Differences arising from clients' socio-economic backgrounds are further polarized by evidence of a hierarchy among substance abusers, with solvent 'sniffers' for example,

considered by some clients as a sub-class among 'users'. Consequently, there is growing concern that channeling clients across neighbourhoods may exasperate existing difficulties reported by treatment facility staff and their clientele, especially those situated in already marginalized inner-city facilities. Evidence for the ongoing challenges facing Winnipeg's addictions treatment facilities, and their client populations, suggests that key issues related to treatment facility location and client well-being remain to be investigated.

1.4 Research Objectives and Questions

This study will seek to offer insight into the relationship between the location of an addictions recovery facility and an individual's sense of well-being. Embarking on this study, I have assumed that the location of a particular treatment facility will influence variables related to client well-being. To test this supposition I will review available literature and develop a typology for social-material networks that will be used to explore variables thought to be related to location and well-being.

Given the purpose of this study, the central research question is: How does location influence the social and material networks experienced by individuals recovering from addictions? A subset of this question is: How do social and material networks relate to an individual's sense of well-being? These research questions will be used to guide investigation into describing and demonstrating a methodology that will:

1. Offer a typology for comparing place-based social and material networks
2. Establish links between facility location and indicators of individual well-being

3. Consider the relative merit, with respect to individual well-being, of the placement of addictions treatment facilities in various urban environments.

1.5 Significance of Research

The topic of this study is timely in that recent efforts to locate a youth addictions treatment facility to a Winnipeg residential neighbourhood have been quashed by NIMBY opposition, with little apparent regard for the net public benefit/impact of the proposed facility location (see Chapter 5 for further discussion).

This thesis contributes to planning practice and scholarship by advocating a methodology that has potential to:

- allow for a better understanding of the location of a facility as it relates to individual well-being
- inform current planning practice as it relates to decision-making concerning the siting of a facility
- offer an avenue for reconnecting planning practitioners with an agenda relating to public health

1.6 Summary of Chapter Topics

This study is based on an investigation of the health effects of facility location on individuals attending residential treatment programs for addictions issues in Winnipeg. My participation as a research associate in an earlier study, initiated in 2004 and titled: *Clean and sober places: Exploring the therapeutic landscapes of addiction recovery*, served as essential background for relating to the study population and treatment context in Winnipeg.

Chapter 2, *Literature Review*, discusses potential intersections between the idea of place and varied notions of health. The purpose of the literature review is to examine urban health relationships – particularly those between location and social-material networks – to suggest the beginnings of a typology of those interactions to aid in exploring individual health issues. The resulting *typology for well-being* is discussed in Chapter 3 and was used to formulate the study questionnaire.

Throughout this chapter, critical discussion debates the strengths and weaknesses of various health perspectives, including those originating in medical research and planning practice. The literature review relates that although the profession of planning has historical connections to population health, the majority of population health issues are currently defined using medical terms and are addressed through medical practice; whereby, this dissolution of professional influence has weakened the ability for planning practitioners to effectively address issues related to health and location. This chapter concludes by offering four categories that frame a *typology for well-being*.

Chapter 3 discusses issues related to the research methodology. A *typology of well-being* is proposed as an ordering structure to enable the analysis the nesting of "healthy" environments within a framework of place-based, physical and relational networks. The four categories for the *typology of well-being*, developed in the review of literature, are described. The roll of the earlier study titled: *Clean and sober places: Exploring the therapeutic landscapes of addiction recovery* is addressed in the context of informing the methodology for the current study. Details concerning the study population, the survey instrument and limitations of the study are discussed.

Chapter 4 reviews the implementation of the typology in evaluating the health affects of facility location for the study population. Evidence is discussed and arguments are made for the place effects of health concerning the location of addictions treatment facilities.

Finally, Chapter 5 discusses the effectiveness of using the *typology for well-being* to investigate the association between facility location and individual well-being. The discussion argues that the study typology is a useful construct in understanding the relationship between location and well-being. Advantages and limitations of the study methodology are presented and suggestions are made for adapting the typology for use in future research. Study findings are related to current events in Winnipeg concerning treatment facilities placement and avenues are recommended for reconnecting the profession of planning on issues of population health.

CHAPTER 2: URBAN PLANNING AND HEALTH – LOCAL NETWORKS AND WELLBEING

2.1 Introduction

The purpose of this study is to examine how factors related to the location of a particular residential drug treatment facility might influence a client's conception of personal well-being. This literature review is intended to provide a framework for a *typology of well-being* that will be used to facilitate the development of a survey instrument for the study (see Chapter 3 for more detail). Although much has been written on how and why urban living may affect health, there is currently little attention concerning potential correlations among location, social-material networks, well-being, and the study population. The literature review, which follows, is categorized according to four focus areas: *Urban Planning and Population Health*; *Characteristics of Place and Health*; *Effects of Neighbourhood Change*; and *Reconnecting Professions on a Health Agenda*.

2.2 Urban Planning and Population Health

Health issues have historically functioned as a cornerstone for the urban planning profession. Adapting to the evolving and often challenging living conditions associated with the early industrial era required that planners adopt new concepts for urban design and town planning. Sun exposure, air quality, low density and separation of functions became important considerations in planning a healthy city (Knowlton, 2001; Mumford, 1961; Porter, 1999). Now, roughly two centuries following the advent of the industrial era, the separation of functions within urban areas is linked to various inefficiencies and environmental impacts (Maantay, 2001; Schilling & Linton, 2005). Current urban

development critics are calling for higher urban population density and a greater mix of functions in order to promote sustainable development practices (i.e. reduce the demand for 'greenfield' development and associated infrastructure). As such, planners across the globe are increasingly being encouraged to participate in discussions on urban form and urban land-use management in order to mitigate urban health and wellness problems that a higher density and a mix of functions may cause[8].

2.3 Shifting Focus in Public Health: 1900–2000's

In 1900, communicable diseases accounted for roughly 60% of all deaths in the United States, with the three leading causes of death being pneumonia/influenza, tuberculosis, and diarrhea/enteritis[9]. Today, infectious diseases stemming from unsanitary conditions are no longer recognized among the leading cause of morbidity and mortality in most cities. In Canada for example, non-communicable diseases, as heart disease and cancer, are currently recognized among the top forms of morbidity in urban populations[10]. While positive measures of health are generally highest among 'wealthy' industrialized nations, the focus on urban health issues has shifted to 'lifestyle diseases' in an attempt to describe forms of non-infectious disease that persist – and in some cases, increase in prevalence – in 'wealthy' societies.

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[8] For example, the WHO Healthy Cities programme engages local governments in health development through a process of political commitment, institutional change, capacity building, partnership-based planning and innovative projects.

[9] Centers for Disease Control and Prevention. *Leading Causes of Death, 1900-1998.*
Source: http://www.cdc.gov/nchs/data/statab/lead1900_98.pdf

[10] Statistics Canada. *Selected leading causes of death, by sex 1997.*
Source: http://www40.statcan.ca/l01/cst01/health36.htm
Statistics Canada. *Age-standardized mortality rates by selected causes, by sex (Both sexes) 2001-2004.*
Source: http://www40.statcan.ca/l01/cst01/health30a.htm?sdi=causes%20death

Lifestyle diseases are thought to be the result of an inappropriate relationship between people and their environment and are associated with a range of ailments including: Alzheimer's disease, arteriosclerosis (a form of vascular disease), cancer, cirrhosis (liver disease), diabetes, heart disease, nephritis/CRF (kidney disease), and stroke. A key difference between lifestyle diseases and communicable diseases is found in the approach to medical intervention: "lifestyle programs focus on exercise, diet, stress management and smoking cessation, whereas disease-management programs place greater emphasis on the management of the complications of chronic disease, of symptoms, and of health-seeking behaviours" (Alter, 2007, 887). Susceptibility to lifestyle type diseases are thought to be influenced by the way a person lives and behaves in relation to a given time, social environment and place, which are associated with risk of disease factors as dietary habits and levels of physical exercise.

2.4 The Professionalization of Public Health

An age of rapid urbanization, originating in the industrial era, coincided with a profound transformation of human settlement processes and their outcomes, many of which are not well understood in terms of both positive and negative impacts on urban populations. Although the professional domains of public health and urban land-use planning emerged with the common goal of preventing outbreaks of infectious disease among urban populations, there is less direct overlap between these fields today (Corburn, 2004). Moreover, many key issues related to individual health now fall within the professional spheres of medicine and criminal law – while former interrelations between urban planning and health, social, and environmental policies have gradually

dissolved – often giving way to sectoral approaches for enacting corrective measures to overcome unsatisfactory conditions in urban areas (Hodge, 1997; Hodge et al., 2006).

A cornerstone of sectoral approaches to the management of health issues involves the use of *specialized* indicators for health research, whereby aggregated results formulate particular conceptions of health. While indicators of *subjective well-being* and *quality of life* are generally developed across various 'informal' community-based surveys; the overt 'medicalization' of the urban environment, especially using frameworks of disease, injury and disability, is evident across many evaluations of population health. For example, *life expectancy* is commonly used as a summary statistic for a community's health status. Other common examples of urban health indicators include: live-birth rates, crude death rates, infant mortality rates, age-specific death rates, neonatal death rates, under 5-year death rates, and age adjusted death rates; as well as indicators of diseases and ill health, which include incidence rates, prevalence rates, health facility visits and disability rates (Takano, 2003, 77).

2.5 Alternative Viewpoints on Population Health

In a collection of research published from the 1950's to the 1980's, Thomas Mckeown postulated that increases in population in the early industrialized world should be credited to evolving socio-economic conditions rather than decreases in morbidity and mortality, which are most commonly attributed to medical interventions and advancements in public health (Colgrove, 2002). Proponents of Mckeown's perspective have criticized the 'medical' approach to urban health issues as being entrenched in a strict biological paradigm of 'cure' versus 'care', which eschews social factors such as class, income and living environments. Despite being largely discredited by subsequent

research, McKeown's analysis of historical population growth continues to generate debate concerning the future of public health efforts

Mekeown's ideas continue to resonate through investigations based on interdisciplinary approaches, which consider the broader socio-historical context within which health and illness are created. Interdisciplinary approaches to health issues postulate the root causes of health and social problems as being embedded in social structures and social practices that shape the environments in which we live and work (Murray & Poland, 2006). This type of research challenges public health professionals to view targeted interventions (cure), and social change (care), as complementary measures in all efforts to improve the conditions in which people live (Colgrove, 2002).

2.6 Examining the Role of Planning in Population Health

The categorization of the various dimensions of health and well-being within distinct professional fields has contributed to uncoordinated efforts to understand the health needs of urban populations and a general failure to act upon links between social environments and well-being (Duhl & Sanchez, 1999). Klinenberg (2002) wrote on the practical effects of this unraveling in relation to the Chicago Heat wave of 1995, where weak social networks and a lack in critical social and material supports were implicated in the death of hundreds of poor and/or elderly city residents. Unfortunately, the same principles were in operation in New Orleans, both before and after Hurricane Katrina struck in 2005.

In both cases, Chicago and New Orleans, strategies for survival depended upon who they [the affected population] could count on for assistance – private resources, social networks or public support. But not all networks are created equal – some connect

people to rich resources, while others connect people who are similarly disadvantaged. Those lacking key social networks were often among the last to evacuate New Orleans and the most dependent upon city, state, and federal governments to provide food, shelter, clothing, transportation, and medical attention. Arguably, social networks played an important role in determining whether people evacuated before or after Hurricane Katrina struck, or even evacuated at all, and also have long-term implications in how affected residents cope with reconstructing their lives.

The striking inability to adequately respond to population health needs in both Chicago and New Orleans suggests that health issues should be on the agenda of policymakers in all sectors. Efforts dedicated to improving urban health conditions must be coordinated to identify and anchor key points for promoting urban health within a holistic framework. One effort towards holistic urban health reform is the WHO Healthy Cities Project. The WHO Healthy Cities Project, associated with the Ottawa Charter for Health Promotion (1986), attempted to translate some key points of the Ottawa Charter into reality through infusing urban health with public health policies, creating health-promoting environments, strengthening community action through active public participation and promoting equity in health at the local level (Hancock, 1993).

Given the complexity and diversity of urban health issues, some proponents are identifying the need to move toward a holistic interpretation of health, which acknowledges and interacts with both the empirical perspective and constructivist views concerning the determinants of well-being. The call for a 'blended' approach to address issues of urban health is echoed in a growing body of interdisciplinary health research. Blended research may employ unconventional methods to explore understandings of

health issues. For example, *critical discourse analysis*[11] may be used as a means to expose ideological underpinnings related to common health beliefs, doctor-patient interaction, and the dissemination of health information in the realms of entertainment and mass media (Lupton, 1992).

Although there is a wide range in methodological approaches used to study urban health issues, a growing body of urban health literature provides supporting evidence for coordinated efforts to propose key questions that may help guide the study and practice of urban health in coming decades (Northridge, 2003; Vlahov et al, 2004; Wood, & Giles-Corti, 2007). A main consideration within this line of inquiry examines the specific features of cities that are causally related to health, the extent to which these features are unique to a particular place, city or region – or are different from one another – and ultimately, to what extent these location-based features are modifiable in order to allow interventions that can improve the health of urban populations (Vlahov et al, 2004). A sub theme within this body of inquiry involves the reintegration of urban health studies into a framework that draws on the strengths of diverse academic areas of study (e.g., ecology, epidemiology, sociology, planning). This integrated approach to health research is expected to provide insights into the key features of cities and how these elements of urbanization influence population health. A broad scan of related literature suggests that most of the consequential factors linking health and well-being to location can be considered within three general themes: the local social environment, the local material environment, and access to resources.

[11] Critical discourse analysis is a 'contemporary' approach to the study of language and discourses in social institutions. Drawing on poststructuralist discourse theory and critical linguistics, it focuses on how social relations, identity, knowledge and power are constructed.

2.7 Characteristics of Place and Health

The cities that we inhabit include characteristics that may encourage unhealthy patterns of behaviour and produce health related problems for their inhabitants. Although various efforts have been made to assess the impact of living in urban areas at a given place and time, a convincing framework that encompasses key issues related to the idea of urban health has yet to evolve. Nevertheless, attempts aimed at evaluating these differences among urban areas offer avenues for considering what specific features of cities are causally related to health, the extent to which these features are associated with a particular place, and ultimately, to what extent these location-based features can be adapted to improve the health of urban populations.

Various methods have been used to consider relationships between urban place and health. Two approaches to understanding the impact of urban living on health have been particularly dominant in recent literature, namely, a presumed *urban health penalty* and *urban sprawl* (Freudenberg et al, 2005; Sturm & Cohen 2004; Ewing et al, 2003; Berrigan & Troiano, 2003; Jandy et al, 2002). While both methods have merit, a deeper understanding of the influence of the urban context on population health requires a more comprehensive framework.

Ellen and Turner's (1997) survey of literature related to neighbourhood conditions suggests that neighbourhood context can influence an individual's well-being through stresses associated with the local social and material environment, and through the quality of local social networks, local institutions and neighbourhood resources. Ellen and Turner's findings are supported by a recent review of existing literature that showed increasing supports for the argument of some links between social capital and the

environments in which people live, and between social capital, physical environments and health (Wood & Giles-Corti, 2007). Conversely, a study by Gatrell et al (2004) found that, in spite of the tendency for people with higher social and economic capitals to be clustered together, the social spaces related to ill health were dispersed across different geographical locations. Other studies suggest that, under certain circumstances, individual traits play a formative role in determinants of well-being, regardless of location. For example, a study considering the built environment, social capital and mental health suggested that people suffering from depression were unlikely to interact much with their neighbours regardless of where they live, and people living in places where there is little contact between neighbours are perhaps more likely to feel downhearted and depressed (Araya et al, 2006). While a Canadian study of the health effects of socially patterned attributes of communities in British Columbia, including social capital, concluded that the community of residence did little to explain health inequalities (Veenstra, 2005).

Regardless of existing study outcomes, a key challenge in considering the health effects of location for a given population relates to defining "place". For example, in terms of clients attending residential programs for the treatment of addictions issues: How does one define the extent of the treatment environment in relation to individual well-being? Is the realm of influence best described by the physical limits of the treatment facility, or the street on which the facility is located, or the neighbourhood in which the facility is located, or even the social network of the treatment cohort itself? One approach to defining "place" is to identify distinguishing characteristics associated with the notion of community.

While community ordinarily refers to a place, especially one's place of residence, it also carries other meanings. A definition of "community" can range from a noun-based identifier attached to a particular physical location on to less physical concepts such as the ideological markings which define a given collective or group of like minded individuals; for example, a political organization, or a criminal gang. Although used in various ways, the meanings of "community" on the whole indicate a certain degree of commonality that involves people, place, activity and time. It is useful to consider what these different aspects of community – people, place, activity and time – imply for research guided by simple causal models in which community characteristics are thought to implicate health outcomes. For example, one might correctly assume that a dilapidated neighbourhood environment is directly correlated to the health of its residents, whereby the assumption of a health connection is based on the act of residing as a necessary condition for exposure. However, this approach is reductive since most acts of residence go far beyond a person simply being placed within a given location, thereby allowing for exposure to be a possible condition of ill health.

The physical characteristics of a treatment environment help constitute but one aspect of place-based influences that play roles in determining the health of an individual client. In addition to the effects of the physical environment people commonly attribute emotional and social meanings to their community. This occurs while performing day-to-day activities, spending time with others, traveling to and from locals and seeking better living conditions. In performing such acts of residence, people use their "community" as a resource for meeting the needs of everyday life. Whether in groups, or as individuals, different people act within and upon their community-based environment in different

ways and community involvement varies across dimensions including, ease of relations, frequency of contact, and duration of interaction. These active social dimensions of "place" were evident during my involvement in the *Clean and Sober Places Study* as some clients of residential treatment facilities suggested that moving to neighbourhoods perceived as having greater social status would be problematic since they [clients] are stigmatized as drug abusers (Williams, 2007, 90). Wilkinson (1999) substantiates this view in suggesting that a lack of social cohesion is implicated in negative health effects through mechanisms such as shame, disrespect, social anxiety and perceptions of inferiority induced by interacting with people of higher social status. However, this view may be reductive as inequality can have positive as well as negative health effects; deprivation can be both a source of hopelessness and a source of action whereby the notion of 'hitting the bottom' may support the required conditions to foster unprecedented lifestyle changes. Seen in this way, individual responses to health challenges may largely depend on how one perceives structural inequalities with respect to their well-being.

The act of residing in a treatment "community" implies client exposure to both a distinct material environment and involvement in a specific social network with potential health consequences. Wood & Giles-Corti (2007) view the link between social capital (social networks) and local urban environments as being comprised of various community-based trends/attributes that include:

- **Contextual trends** (macro-level)
    - Neighbourhood stability and adaptability
    - Crime
    - Violence

- **Neighbourhood design** (meso-level)
    - Walkability & destinations
    - Presence & adequacy of amenities / facilities

- **Neighbourhood attributes** (micro-level)
    - Opportunities to meet others & interact socially
    - Quality of neighbourhood environment
        - Aesthetics / upkeep
        - Access to nature / greenery
        - Feelings of safety
        - Incivilities & disorder

Seen in this way, the notion of "community" could be used to describe attributes of both the physical characteristics of a specific location and the character of its social network.

2.7.1 Social Networks and Concepts of Well-being

In spite of literature suggesting that social conditions play a role in shaping individual outcomes, there is little consensus on the type and extent of "community" networks that may influence people's ability to gain access to opportunities, resources and information. The following section provides background for understanding the concept of social capital and sets the foundation for arguments about the relationship between theories of social capital and notions of urban health that aim to exemplify how exposure to place-based social networks might affect individual well-being.

Within current health-based literature the evolving concept of social capital is highly contested and consequently has been difficult to define, much less implement as an assessment tool. At the community level, social capital is believed to promote health

via stress-buffering and the provision of social support through extra-familial networks, as well as informal social control over deviant health behaviors such as underage smoking and alcohol abuse (Kawachi, 2000). However, utilizing social capital as a variable to describe a relationship between environment and health is challenging because there is no standard definition for the term.

The characteristic dimensions of social capital range across variables as: *type* (informal to formal); *size* (limited to extensive); *spatial context* (household to global); *structure* (homogeneous to heterogeneous); *relational* (vertical to horizontal); and *quality of relations* (i.e. norms of trust and reciprocity). Despite uncertainty over the core structural characteristics of social capital, various reports have established links between robust social networks – anchored by trust and reciprocity – and access to key resources and supports that may promote health (Kawachi et al 1997; Klinenberg, 2002; Putnam, 2000; Taylor et al 1997; van Kemenade, 2003; also see Table 2.1, below). Conversely, Bourdieu (1986) offered that social capital theory explains how groups in society work to maintain status and control resources, thereby perpetuating inequalities in health. A similar viewpoint is shared by Wilkinson (1996) who postulates that repressive societies are less socially cohesive, which is said to be evident in high crime rates among populations suffering from inequality. However, Cattell & Evans (1999) cautions that it is not necessarily the case that all deprived areas are subject to a lack of social cohesion or a deficiency in social capital.

Table 2.1: Definitions of Social Capital

Authors	Definition
World Bank (2001)	Social capital refers to the institutions, relationships and norms that shape the quality and quantity of a society's social interactions.
Isuma (2001)	Social capital is generally defined as the series of relationships, networks and norms that facilitate collective action. The approach is heuristic rather than definitive. In other words, it encourages questions and reflection rather than providing answers. It is this heuristic quality that is the primary, very powerful advantage of the concept of social capital.
Coleman (1990)	Social capital is therefore made up of relationships of authority, relationships of trust and norms. [...] Like other forms of capital, social capital is productive, making possible the achievement of certain ends that would be unattainable in its absence. [...] Unlike other forms of capital, social capital inheres in relationships among persons. It is lodged neither in individuals nor in physical instruments of production.
Putnam (2000)	The features of social organization such as social networks, norms and social trust that facilitate coordination and cooperation for mutual benefit.
Fukuyama (1997)	Social capital is a capability that arises from the prevalence of trust in a society or in certain parts of it. It can be embodied in the smallest and most basic social group, the family, as well as the largest of all groups, the nation, and in all other groups in between.
Landry, Amara & Lamari (2001)	Social capital refers to the resources gained from participating in relationship networks that are relatively institutionalized.

Source: van Kemenade. (2003). Social Capital as a Health Determinant How is it Defined?

Studies of the health effects of social capital are further complicated by mixed understandings concerning the causal relationship between social capital, social cohesion and health. In considering the health consequences of social capital one might be lead to believe that social capital is associated with increased social cohesion, or sense of community, which is positively associated with health benefits (Pooley et al, 2005; Bolin et al, 2003). However, it has been suggested that individuals may continue to experience place-based health benefits despite a lack of participation in one's local social

community. A cross-sectional review of census tract data for Los Angeles supports this view as it found no evidence to support the supposition that greater levels of neighbourhood attachment increased the health benefits associated with social capital (Carpiano, 2007). The proponent of the study offered that residents with no/low neighbourhood attachment may benefit from community resources, such as formally organized groups concerned with the neighbourhood (e.g., community associations, block clubs, or crime watch groups), but may not contribute their own time and energy towards these groups; while residents who are more attached to the neighbourhood may be subject to more health risks from the demands of being involved in the community network (Carpiano, 2007, 650).

Further complicating the situation is a general failure to agree on a defining scale, or range of scales, at which social networks are thought to be most influential. Altschuler (2004) acknowledges that one of the more problematic methodological issues centers on the debate over whether social capital is a variable that reflects the characteristics of individuals or groups. Some proponents view social capital as better represented by the traits of individuals connected within a larger network of resources (Brehm & Rahn, 1997, Portes 1998). Other theorizing extends the properties associated with social capital to the scale of communities and even nations. At the world level, the culture of 'individualism' associated with Western Society has been accused, by some, of instituting policies and practices that deteriorate social bonds. In *Unhealthy Societies: the Afflictions of Inequality*, Wilkinson (1996) suggests that economic inequality is the major public health issue facing Western nations. In his analysis, increasing economic inequality decreases social cohesion and fosters conditions in which increased mortality

and morbidity occurs. Similar research, based in a Canadian context, suggests that poverty affects health and economic inequality erodes social cohesion leading to increased health risk for all citizens (Raphael, 1999). At the same time, critics of social capital argue that its use in public health research obscures the structural inequalities of class, race, and gender that are the main social factors that impact health (Muntaner et al, 2001). In spite of these challenges, Taylor (1997) points out that a broad array of adverse health outcomes are consistent across environments related to community, family, work, and peers; and that unhealthy locations are those that threaten safety and undermine the creation of extended social ties.

A defining characteristic of the study population, clients of treatment facilities for addictions issues, is the mobility involved in attending a resident type treatment program. While the notion of social capital has an inherent spatial dimension, few studies have considered the relationship between mobility, both into and out of neighbourhood areas, and social capital. However, a cross-sectional study of available household level data by Kan (2007) suggests that social capital may mitigate neighbourhood instability and promote neighbourhood cohesion by encouraging residents to stay put; while mobility-prone individuals will have less incentive to invest in local area social capital because the stock of social capital that one has accumulated in one location will become less useful after the individual has moved (437).

2.7.2 Evaluating Health (Well-being) Among Client Networks

The realm of urban health remains contested in terms of its conception, ranging from the pragmatic disease-based framework of the medical profession to more conceptually based social models. Traditionally, population health studies have focused

on 'medical health' indicators such as morbidity, mortality and physical disability, and it was only during the past two decades that scientific inquiry began to question the impact of 'non-medical' factors such as quality of life, life satisfaction, working conditions, income, unemployment, poverty or social networks on the health status of individuals (van Kemenade, 2003).

Having written extensively on the concept of social capital, Putnam (2000) appears less interested in the questions over indicators, perhaps suggesting this debate is of less critical importance than observing the key dimensions along which forms of social capital vary. Putnam proposes that the most important feature in assessing social capital is making the distinction between bridging (or inclusive) social capital and bonding (or exclusive) social capital. According to Putnam, many groups simultaneously bond along some social dimensions and bridge across others; for example, bonding or bridging can occur relative to a myriad of factors, including religious affiliation, gender, ethnicity, age, geography, education, and ideology (Putnam, 2000). Putnam describes the practical distinction between the notions of bridging and bonding in that bonding social capital is good for getting by, but may come at the expense of bolstering a narrower self conception, while bridging social capital is crucial for getting ahead and can generate broader identities and reciprocity.

Various studies of social capital have accepted the theoretical distinction between bonding and bridging social capital to evaluate social networks (Patulny & Svendsen, 2007). In terms of the study population, clients of residential addictions treatment facilities in Winnipeg, the social capital based notions of bridging and bonding highlight two key implications in terms of developing a study typology – network depth and extent.

It is postulated that many clients entering residential treatment programs will be coming from neighbourhoods other than those in which their respective treatment facilities are located. It is expected that this inter-neighbourhood mobility will have two key implications on the type of social capital experienced by these clients. First, it is anticipated that clients, sharing a background of addiction, will experience bonding capital within their peer group – a potential indicator of the depth of their social network. Second, it is expected that as clients enter "new" neighbourhood environments they will be exposed to potential health benefits and risks via "new" opportunities to engage in bridging capital – a potential indicator of network extent.

2.7.3 Network Culture and Urban Health

The concept of "culture" has been defined in a variety of ways which are of use for this study, including: a group of people whose shared beliefs and practices identify the particular place, class, or time to which they belong and a particular set of attitudes that characterizes a group of people[12]. As such, the notion of culture among social networks considers relational attitudes and actions among participants across the primarily socio-cultural dimensions of trust, safety, and reciprocity.

The cultural aspect of social networking has been explored by Stephenson (2001) in her study of social capital among Street Children in Moscow. Stephenson's exploratory research revealed that a particular association of street children had developed an extensive social network based on mutual obligations of support and trust. The network was characterized by a normative code of both legitimate and illegitimate

[12] Encarta® World English Dictionary © 1999 Microsoft Corporation. All rights reserved. Developed for Microsoft by Bloomsbury Publishing Plc.

means of survival, but established limits on particular criminal behaviours as stealing and prostitution. The life-stories of interviewees demonstrated that although they operated outside of many established cultural norms, street children had established important social networks which enabled competencies and connections for day-to-day survival. The street children's accesses to socio-cultural networks based on trust, safety and reciprocity played an important role in their immediate well-being, as well as their longer-term life plans.

Understandings and health outcomes related to social capital have been shown to differ across cultural groups. For example, a study using data on objective neighbourhood socioeconomic deprivation, subjective neighbourhood social capital and children's perceived health from both the United States and the Netherlands suggests that associations between the wider social environment and health outcomes vary across different populations and cross-national contexts (Drukker et al, 2005). Cultural norms have also been shown to impact the social networks of various population sub-groups. Research considering Filipino men living with HIV/AIDS in Los Angeles indicated several important distinctions concerning the central role of, what the study termed "disruption", in social capital (Takahashi & Magalong, 2008, 195):

1. Social disruption was viewed as both cause and effect in terms of explaining behavior that is generally viewed as health denigrating.

2. As social networks and the resources available through them become *disrupted*, individuals and groups that experience marginalization and social disadvantage (in this case, stigmatization associated with sexual identity and HIV/AIDS), seek accepting networks/ places that often put them at risk of illness/death, but provide

relative acceptance and support (the acceptance and support denied them because of their marginalization and social disadvantage).

3. To enhance health and well-being, such individuals are often asked to separate themselves from ''negative'' individuals and places. This is, for example, the typical approach advocated for substance users, who are asked to disconnect themselves from their networks of ''using'' partners, friends, and acquaintances. But, in separating themselves, these individuals may seek familiar and similar places and networks in new locations. In other words, separating from previous networks of support, even if they supported typically defined negative health behaviors, creates need for new socio-spatial networks and routines that do not rely on such social capital. This is difficult, and often, not sustainable because of a lack of networks and resources that might replace those that are deemed inappropriate and unhealthy.

The proponents of the study suggested that future research emphasize how the concept of "disruption" influences both individual and community-level interactions (e.g., conflict may be an effective means of relationship formation and resource acquisition in particular social contexts). Therefore, although social networks may be seen as an effective means for acquiring resources and improving health, when viewed from a cultural perspective, social capital has both positive and negative dimensions with respect to health promotion and quality of life.

2.7.4 Neighbourhood Resources and Urban Health

Social networks are not passive systems, where these networks are established and how they function have an effect on the people who interact through them. The

placement, layout and design of neighbourhoods, transportation networks, housing, greenspaces and recreational opportunities result in physical places that influence how people spend their time and what activities they participate in (Hartig & Lawrence, 2003). Contextual factors such as access to neighbourhood resources and services, along with the character of the physical environment may influence opportunities for meeting others and participating in extended social networks. Physical environments are thought to facilitate informal networking by providing opportunities for casual interaction between neighbours (Baum and Palmer, 2002). There is also evidence that impromptu encounters between area residents are correlated to frequency of walking (Lund, 2003), and that walking behaviour is encouraged by positive perceptions of the material environment (Lund, 2003; Ross, 2000; Ziersch et al, 2005).

Network resources, such as means of transportation, availability of housing and employment opportunities are certainly not equitable across spatial regions and are not even necessarily accessible to all residents of a particular area. Bourdieu (1986) suggested that social capital would be better understood in a broader social context of power relations, which includes competition for resources between privileged groups and deprived groups. Stephens (2007) forwards Bourdieu's notion of power brokering in suggesting that a lack of neighbourhood resources, like good housing, cash dispensing machines, or medical services leads to local network building, while the same lack of material resources may limit membership in wider social networks with more powerful members (9).

2.8 Neighbourhood Areas as Spatial Units for Studying Well-being

While wealth and poverty feature prominently in the literature on health inequalities, fewer studies have specifically focused on the relationships between the types of place people reside in, and their experiences of, and attitudes to, health inequalities (Davidson et al, 2008). Two areas of concern in studying the place effects on health are being able to meaningfully define the geographic boundaries associated with the population being studied and properly identifying the influence of context.

Characteristics related to urban health often appear evident across urban living areas, which are subject to distinction across numerous dimensions, including, but not limited to: income, status, segregation, density, access to resources and physical form (see Table 2.2, below). However, researchers are cautioned to be selective in their use of area surveys to assess population health as there may be too little meaningful place-to-place variation between large administrative boundaries to justify intensive data collection for estimating population health.

Table 2.1: Conceptual Framework for Relating Urban Areas and Drug Risk Behaviour (Adapted from: Galea et al, 2005, 129)

URBAN CHARACTERISTICS		INDIVIDUAL MEDIATOR/MODERATOR VARIABLES	OUTCOMES
PRIMARY	*SECONDARY*		
Residential segregation	Built environment	Other factors that may affect health (eg., family history, individual socioeconomic status)	Drug use, abuse, dependence, and consequences (eg., injection, sniffing, overdose, HIV)
Income Distribution	Access to substances		
Neighbourhood deprivation	Availability of public transportation	Social resources (eg., social networks, social support)	
Population density	Social and health services	Stress: life stressors, social strain, psychological distress	

Using data from the 1990 Ontario Health Survey, Boyle and Willms (1999) noted a lack of evidence for place effects on health-related quality of life and general well-being within large jurisdictional boundaries, thereby raising questions about the usefulness of these geographic boundaries for studying place effects on health. Given limitations associated with using large-area administrative datasets, Boyle and Willms recommend that the salient features of context be defined so that spatial groupings can be configured and sampled to adequately represent influences within context that have relevance for human behavior.

Neighbourhood units have been used as spatial context to examine relative differences in area poverty and health, while an emerging body of research indicates that neighbourhood level differences in social capital remain after adjusting for individual factors such as age, sex, marital status, race and socioeconomic factors such as income and education (McCulloch, 2003; Subramanian et al., 2003). However, using the neighbourhood as a spatial unit to compare an individual's conception of well-being has proved to be challenging. A qualitative study of well-being among women residing in a relatively deprived neighbourhood in Edinburgh, Scotland found respondents that referred to their immediate neighbourhood as "up here" – suggesting that they understood their homes to be situated in a location that is geographically distinct from "down there" – despite the fact that the geographical area represented by the term "down there" was in fact only a few streets away from the women's homes. (Airey, 2003, 135).

A Canadian based study by Veenstra et al, (2005) examined the degree to which relationships between social capital and health are embedded in neighbourhood areas.

While involvement in voluntary associations was shown to have a limited, but positive relationship with well-being, the observed health effects did not appear to be embedded at the level of a particular neighbourhood. The authors speculated that either:

> (i) the associations our respondents belong to span many neighbourhoods, making neighbourhood-specific health effects of associational involvement weak to nonexistent, and/or (ii) associational networks manifest themselves similarly in all neighbourhoods, at least as far as their health relevant characteristics are concerned (Veenstra et al, 2005, 2815).

Veenstra et al (2005), summarized their findings on the place effects of social capital on health by suggesting that "further research into the spatially situated nature of such networks of association is needed in order to clarify this (non-) finding" (2815).

In addition to difficulties in defining the social-spatial bounds of a "neighbourhood", critics have argued that one's neighbourhood of residence may be understood as a limitation to the development of social capital, rather than the main source of beneficial social connections. Stephens (2007) suggests that "membership in local networks will not advantage residents of deprived communities when particular neighbourhoods carry stigma and signs of non-distinction" and in these cases "social capital is more about the importance of connections developed outside neighbourhoods, and the effect of the symbolic capital accrued to those who live in a particular area, than it is about social capital developed within neighbourhoods" (9). A qualitative study of the dynamics between poverty and exclusion, neighbourhood, and health and well-being by Cattell (2001) also found that it was the stigmatized reputation of an area and its people which contributed to isolating residents from each other, restricting the flow of

information, and acting as a block to the development of trust or a local cooperative culture (1512).

2.9 Effects of Neighbourhood Change

Although evidence concerning how neighbourhood conditions affect residents is not conclusive, there is a growing consensus among researchers, advocates, and policy makers that the concentration of poverty in inner-city neighbourhoods is harmful to residents and to the larger urban community (Turner, 1998). High-poverty areas are thought to foster challenging socio-environmental conditions which lead to higher than average occurrences of substandard education, unemployment, teen parenthood, homelessness, drug abuse, and violent crime (Orr et al, 2003). In the United States, recognition of neighbourhood effects associated with the concentration of poverty in central-city neighbourhoods lead to the institution of Moving to Opportunity (MTO) type programs in the early 1990's (Turner, 1998). The catalyst for Moving to Opportunity programming, designed to reduce concentrations of poverty, originated in a landmark desegregation lawsuit against housing authorities in Chicago.

In 1966, a class action lawsuit was filed on the behalf of Dorothy Gautreaux and other Chicago public housing residents against their representative housing authorities – the Chicago Housing Authority (CHA) and the U.S. Department of Housing and Urban Development (HUD). The lawsuit accused the agencies of racial discrimination for siting the majority of public housing in low-income and 'black' neighbourhoods (Gallagher, 1994). Subsequent rulings in favour of the plaintiffs resulted in the CHA building public housing facilities throughout the city along with subsidy programs being offered by HUD. The Gautreaux program, a direct outcome of the original lawsuit against the CHA

and HUD, provided an opportunity for families who were residents of public housing, or eligible to move into public housing, to obtain housing certificates to move to predominantly white or racially mixed neighbourhoods (Turner, 1998).

Interest in the links between place of residence and educational prospects soared after sociologist James Rosenbaum studied Gautreaux families in 1989 to test the benefits of moving to a low-poverty neighbourhood and found that moving to the suburbs drastically changed many lives (see Figure 2.2, below).

Figure 2.2: Gautreaux Program – Relationship Between Youth Achievement and Mobility (Adapted from: Planning, July 1994, 13)

Attribute	City	Suburbs
School dropout rate	20%	5%
Students choose college track	24%	40%
Attend college	21%	54%
Attend four-year college	4%	27%
Employed full-time (if not in college)	41%	75%
Pay under $3.50 per hour	43%	9%
Pay over 6.50 per hour	5%	21%
Get job benefits	23%	55%

Rosenbaum's data on the Gautreaux program suggested "Mothers were more likely to hold jobs, even if they had never worked before, and children were more likely to stay in school and go on to college or land full-time jobs" (Gallagher, 1994, 12). Since Gautreaux, efforts aimed at improving educational outcomes and employment opportunities have become a mainstay of anti-poverty programs such as MTO. However, Rosenbaum cautioned that evidence from the Gautreaux study suggests that many low-income students faced a difficult adjustment in moving from inner-city to suburban

schools as some students who were formerly on the honor roll found themselves struggling to make grades in their new environments. Still, in his articles, Rosenbaum indicated increased school and community supports existed for many of the families who used housing vouchers to get to the suburbs and managed to stay there.

Moving to Opportunity (MTO) programming was initiated as a demonstration program to test the benefits of moving into a low-poverty neighbourhood. Unlike the Gautreaux program, MTO is not driven by court order and is not meant to reduce segregation, but to reduce concentrations of poverty (Gallagher, 1994). Housing authorities in five U.S. cities - Baltimore, Boston, Chicago, Los Angeles, and New York - worked in partnership with local nonprofit counseling organizations, between 1994 and 1998, to recruit about 4,600 very low-income families for MTO (Orr et al, 2003). The families, all of whom lived in public housing or private assisted housing projects in the poorest parts of these cities, responded to outreach that offered them a chance to move with housing vouchers from their current homes and neighbourhoods. Follow-up evidence from these MTO programs indicates that individuals who moved tended to exhibit less stress and better mental health (Feins 2005; Leventhal & Brooks-Gunn, 2003).

It is important to note that in some cases there was little or no impact evident from changing the subject environment and certain resources associated with the new environments improved while other behaviours, like parenting behaviour and student effort remained entrenched within old value sets. Rosenbaum reported that although many MTO participants initially had difficulty adjusting to various expectations associated with their *new* neighbourhood, when tracked down an average of 17 years

after their move, only 30 percent had moved (Rosenbaum, 2001). Rosenbaum suggests that those who moved into low-poverty neighbourhoods decided to adopt new norms, and they received substantial benefits from complying with them and these normative constraints, which they initially found restrictive, were later perceived as liberating.

Based on Gautreaux type comparisons, researchers have posted a number of hypotheses as to why changes in environment like MTO might promote student achievement and general well-being. Some of these findings, namely, peer support and role models; collective efficacy and norms; effort and outlook support the rational for a category of network culture within the study typology. Further, influential physical characteristics such as institutional resources, facilities and equipment can be linked to notions of network resources.

2.10 Reconnecting Professions on a Health Agenda

There are seemingly more questions than answers on how to reintegrate various professionals in the public realm on a shared health agenda. Professional responses to health issues follow three general forms. In the medical approach, emphasis is on health 'curative' care delivery and screening high risk groups for disease. The behavioural approach focuses on high risk attitudes and behaviours, such as drug abuse, whereby programs and policies are devised to support behavioural change and 'harm reduction'. The socio-environmental approach integrates the medical and behavioural approaches with a focus on high-risk conditions (Labonte, 1993).

Critics of Canadian government policy suggest that although poverty and low incomes are key predictors of collective health, governments and public health communities favour individualistic, biomedical and lifestyle approaches to issues of

public health (Coburn, 2004; Raphael, 2003). When attending to the social dimensions of health, much of the current public discourse concerning issues of health inequality focuses on the health impacts of poverty. The focus on the health impacts of poverty generally follows a group-risk assessment whereby the needs of particular risk-groups are assessed and result in specific health-based policy and programming recommendations. Dennis Raphael (1998), who has written extensively on the relationship between poverty and health in the Canadian context, challenges what he terms as the "group-risk metaphor". Raphael asserts that health inequalities exist across the socioeconomic gradient, not just between poor and non-poor, and the mechanisms by which these socioeconomic gradients in health occur seem to involve the basic structures and functioning of a society – and population responses to these – not simply that individuals lack resources to be remedied with a health initiative.

In spite of formative attempts to reintegrate urban health into a wider research/policy agenda, what appears to be missing is a comprehensive framework for understanding the key issues linking urban health among various bodies of knowledge. Such an effort will likely prove to be a formidable task, potentially requiring a broader scope of investigation before key influences can be identified and any valid generalizations can be made. In terms of exposures or risk factors, thinking on health issues has expanded its scope beyond intrinsic individual factors or behaviors to consider factors exogenous to the individual (e.g., socio-economic status), individual inter-connections (e.g., social networks and social supports), and contextual factors that are not characteristics of any one individual (e.g. material environment) (Lochner & Kawachi, 1999). Similarly, considering the well-being of clients of treatment programs involves an

understanding that population health is not an aggregate of the health of independent individuals, but rather a product of inter-dependent individuals who influence one another's health and well-being. The widening of the scope of health research to include these social-contextual factors has made the description or characterization of states of health and the determinants of those states, considerably more difficult than it was even a few decades ago.

The complexity surrounding issues of urban health compound the challenges facing any effort to integrate public professions (i.e. planning and medicine) on a comprehensive approach to studying and responding to urban health issues. Theories of social capital postulate that social networks are shaped by location which in-turn influence human behaviour and impact well-being. In spite of this understanding, there is little consensus on practical responses to this knowledge. This lack of harmony clearly indicates that reconnecting professionals on a public health agenda is not a linear task. Moreover, the existing body of literature related to urban health is relatively immature, so we are left searching for more connections before an integrated vision of urban health relationships becomes evident. Nonetheless, there is evidence to suggest that further insights from social theory may offer an opening framework for reconnecting disparate fields around a shared urban health agenda at both the level of an individual and the scale of society.

2.11 Categories for a Place-based Typology of Well-being

A formal goal of this research project was to develop a *typology for well-being* to consider evidence for the health implications of social networks among clients of residential addictions treatment facilities in Winnipeg. Findings from the literature review

were used to develop the *typology for well-being*, which consists of four 'parent' categories for describing potential relationships between place-based social-material networks and well-being. The four categories are: Network Depth, Network Extent, Network Culture and Network Resources. Chapter 3 provides a description and the operational structure for each category of the typology.

CHAPTER 3: METHODOLOGY

3.1 Research Approach

This study examines the relationship between the location of health [addictions treatment] facilities and individual [client] health. The study was informed by a combination of exploratory and descriptive research approaches. Neuman (1997) notes that descriptive research and exploratory research have many similarities; they blur together in practice (20). Descriptive research presents a picture of the specific details of a situation, social setting, or relationship, whereas, explorative inquiries are useful in describing tentative theories surrounding the issue of interest as well as develop techniques and a sense of direction for future research (Neuman, 1997, 20-21).

As such, descriptive data was gathered through the administration of a survey questionnaire, while explorative inquiry was facilitated by the development and use of a typological framework for analyzing the nesting of social capital within "healthy" environments. The typology served two main purposes. First, it was used to frame the development of the survey instrument. Second, following data analysis, the typology was reconsidered as a guide – to make recommendations – for further investigations into relationships between place and health.

3.2 Role of the Literature Review in Developing the *Typology of Well-being*

The specific goal of the literature review was to examine a wide range of urban health perspectives – on the relationship between location and health – and to suggest the beginnings of an 'exploratory typology' of those interactions to aid in explaining links between facility location and well-being. The review of literature included an

examination of main and secondary authors writing on urban health issues and on the notion of social capital as it relates to well-being. Access to, participation in, and the quality of place-based social and material networks were identified in the literature review as potential indicators of individual well-being. Consequently, special consideration was given to arranging an evaluation of each treatment facility in terms of an individual client's conception of community-level networks as defined by existing theories of social capital. The resulting *typology of well-being* was designed to evaluate the robustness of these localized social networks across four key dimensions: *Network Depth*; *Network Extent*; *Network Culture*; and *Network Resources* (the chapter sub-sections, *3.3.1 – 3.3.3*, describe the four categories of the *typology for well-being*).

3.3 Developing a Typology of Well-being

The study of urban health is an exceedingly eclectic field. Perspectives on urban health issues range widely from anthropology through to women's studies, medicine, planning, economics, sociology and politics, all of which, along with others not mentioned, contribute to scholarly enquiry in this domain. The range of disciplines, research approaches, and theoretical frameworks, which accommodate the subject of urban health tend to complicate efforts to effectively ground the subject. Given this consideration, typologies provide a means of summarizing complex data into an 'economical' form, in a way that allows comparison across a large number of different units (Neave, 2003). The analytical approach used to develop the *typology for well-being*, from the review of literature, on through creation of the survey instrument, is summarized in Figure 3.1, below.

Figure 3.1: Goals of Typologies (Adapted from Elman, C., 2005)

	Description (*Literature Review*)	**Classification** (*Typology for Well-being*)	**Explanation** (*Survey Instrument*)
Analytic move(s)	Defines compound concepts (types) to use as descriptive characterizations.	Assigns cases to types.	Makes predictions based on combinations of different values of a theory's variables. Places data in relevant cells for congruence testing and comparisons to determine whether data is consistent with the theory
Question(s) answered	What constitutes this type?	What is this a case of?	If the underlying theory is correct, what do I expect to see? Do I see it?
Example	What kinds of features contribute to shape understandings of urban health that extend overtly medicalized* conceptions of well-being? *i.e. medial statistics as live birth rates	How are social-material networks associated with conceptions of well-being? *Note – This line of inquiry was framed by typology categories of: Network Depth; Network Extent; Network Culture; and Network Resources.*	*Theory* - According to various conceptions of social capital, networks of trust and reciprocity are associated with positive health benefits. *Test* - Do the opinions of clients of residential addictions treatment facilities agree with the underlying theoretical framework?

The guiding structure for developing the typology applied in this study follows what Neave (2003) refers to as a 'grounded typology'. Grounded typologies build out from current 'states of play' in which the object under analysis [understandings of urban health] is subject to variety, divergence and difference across various academic and professional disciplines. The grounded typology is an 'explorative' instrument, whose main purpose is to investigate the status of individual 'units' as they now are and to plot them along a series of comparable dimensions, features or characteristics (Neave, 2003). As such, grounded typology can be used as a guide to making productive comparisons for testing underlying theory. The later chapter sub-sections, 3.3.1 – 3.3.3, provide an overview of the four categories that makeup the *typology for well-being* developed and

applied in this study: *Network Depth*, *Network Extent*, *Network Culture* and *Network Resources*.

3.3.1 Social Networks – Network Depth and Network Extent

Although a review of literature established no general agreement on the definition of social capital, those who use it as a category of research tend to share an interest in identifying "who" forms ties with one another. I considered the role of social networks, specifically social capital, in terms of its influence on an individual's sense of well-being. A distinction was drawn between the notions of bridging and bonding as classes of mechanisms that address how specific networks of social capital are realized. In keeping with the concepts of bridging and bonding, an assumption was made that relationships involving similar persons foster understandings and support (with positive and/or negative effects), whereas dissimilar persons, in loose networks of weak ties, provide wider access to diverse resources along with potential exposure to "new" health benefits and/or risks. This is an important consideration as the study population shares a background related to addictions (grounds for potential bonding), yet I contend that the physical location of the treatment facility (if different from the client's former living environment) may offer opportunities for bridging outside of the recovery peer group (to positive and/or negative effect). To paraphrase Cattell (2001), I want to know if different forms or aspects of social capital have different implications, and if so, which kinds of networks, homogeneous or heterogeneous, strong or weak ties, are most effective in generating and sustaining social capital and benefiting health, well-being and quality of life (1503). In terms of the study population – clients of addictions treatment programs –

this line of inquiry may best be served by developing questions concerning social networks along the following themes:

1. With respect to clients, how are their treatment environments and social networks bounded?
2. What are the influences bounding the network?
    a. Are they local in origin?
    b. Are they part of a given treatment program regime?
    c. Do these social networks extend into the surrounding community?
3. How are clients embedded within the network?
    a. Are clients relationally embedded and bonding with others clients involved in the treatment program (network depth), or participating in a more extensive network (network extent), or isolated from the area networks?
4. How is participation in a given network to a client's advantage/detriment?

3.3.2 Network Culture

Within the typology, the concept of "culture" has been defined as a group of people whose shared beliefs and practices identify the particular place, class, or time to which they belong. As such, the notion of culture among social networks considers relational attitudes and actions among participants across the primarily socio-cultural dimensions of trust, safety, reciprocity, participation and collective action.

Various studies have associated the cultural dimensions of social networks with positive and negative health affects (Takahasi & Magalong, 2008; Drukker et al., 2005; Stephenson, 2001). In her study on street children in Moscow, Stephenson (2001) explored the (sub)cultural norms and practices which enabled homeless children to build 'alternative careers'. Both non-criminal and criminal (sub)cultures were observed as a way to get access to important networks and resources, thereby showing how young people use their social skills and associated cultural norms and values in order to survive. Stephenson's study demonstrates that children's (sub)cultural networks play an important role in shaping their trajectories, and that they are resourceful social agents who find surrogate families and establish ad hoc social memberships (Stephenson, 2001, 530). For the purpose of this study, guiding questions related to cultural networks include:

1. What motivates tie formation? Is the motivation self-centered or altruistic?
    a. Does the structure of local cultural networks determine "who" forms ties with one another?
2. What is the role of network culture in shaping the relative well-being of clients in a given treatment environment?
    a. How does network culture influence resources flowing through the network?
3. How does an individual benefit as a result of network embeddedness in the area of the treatment facility?
    a. How is network embeddedness detrimental?
    b. How are *disruptions* embodied within local network culture?

4. In the case of addictions treatment facilities, does outsider involvement in local cultural networks impose a cost on the greater society in which it is embedded, or does it constitute a public good, or is the outcome negligible for the greater society?

3.3.3 Network Resources

The category of network resources considered client views on primarily material differences across neighbourhood areas. The placement, layout and design of neighbourhoods, transportation networks, housing, greenspaces and recreational opportunities result in physical places that influence how people spend their time and what activities they participate in (Hartig & Lawrence, 2003). Consequently, contextual factors such as access to neighbourhood resources and services, along with the character of the physical environment were thought to influence opportunities for meeting others and participating in extended social networks.

There is a range of literature that supports evidence for the relationship between health and access to material resources. Tangibly, aspects of the physical environment impact on opportunities for social interaction and recreation and the formation of support networks; while less tangibly, perceptions of social isolation and inclusion, personal safety and friendliness are potentially influenced by the interchange between social capital and people's physical environments (Wood & Giles-Corti, 2007). Consequently, the typology category of *Network Resources* considers where people live, work, and how they get around, what kind of environmental hazards they face and what kind of amenities they enjoy. *Network Resources* may be conceptualized through the following line of inquiry:

1. What kinds of resources are available (or restricted) to a client as a consequence of the location of a particular treatment facility?
2. How does network formation relate to the material environment of the treatment program?
    a. How does a client benefit (or not benefit) from access to resources as a result of the location of a treatment facility?

3.4 Choice of Survey Method

A contextual study of treatment facility cohorts shifts attention to how the complexities of urban living may affect an individual's conception of health. Health associations are observed within a more nuanced urban scale that includes various embedded physical and social factors that may be shown to influence an individual's notion of well-being. It follows that the study of urban health relationships should draw on diverse study methods, including categorical and exposure-based knowledge, and on different disciplines including ecology, sociology, and urban planning.

A cross-sectional case study using a survey questionnaire was used to explore the interrelationship between notions of social capital, urban health, and facilities location. This research project was divided into two study areas. The first consisted of a literature review of potential relationships between place, social networks and well-being. While the second study area involved administrating a surveying questionnaire with clients of facilities that provide residential addictions treatment programs in Winnipeg.

A case study was used to look at a cross-section of social networks, both within the client cohort, and to potential networks extending outside of the immediate recovery

environment[13]. A case study was appropriate because "the logic of a case study demonstrates a casual argument about how general social forces shape and produce results in particular settings" (Walton, 1992, appearing in Neuman, 1997, 30). Moreover, given that the participants in this study were transient due to program duration and dropout, the cross-sectional approach allowed for detailed analysis by taking a snapshot of what occurred at a single, fixed-time point (Neuman, 1997).

The choice of a survey method for data collection was considered appropriate for this study as it complemented my previous experience working with a research team that considered addictions treatment programs under the rubric of "therapeutic environments". My role as a research associate for the *Clean and Sober Places Study* provided related background for the current study through a program of client and staff interviews, participatory observation and neighbourhood/environment scans. The *Clean and Sober Places Study* considered the extent to which the immediate surroundings of addictions treatment facilities (e.g. treatment settings; immediate vicinity; neighbourhood location) positively and/or negatively impacted on the client recovery process. The current study extends the former study by examining the influence that geospatially based social-material networks have on the 'health' of clientele. When viewed together, these studies offer the prospect for a more integrated reading into health consequences associated with the milieu of addictions treatment facilities.

For the *Clean and Sober Places Study*, I gathered qualitative data through: semi-structured open-ended interviews with facility staff and clients; engaged in participant observation with the clients of select facilities; and conducted environmental scans of the

[13] The immediate recovery environment is defined as the internal confines/spaces of a recovery program's built environment.

locales (all in Winnipeg) where the respective treatment facilities were located. During my period of involvement in this study, I participated in interviewing 24 facility staff members across 8 treatment facilities, conducted 12 client interviews and was responsible for carrying out longitudinal participant observation studies with the clients of three treatment programs.

The *Clean and Sober Places Study* offered an array of useful input to inform the present study. For example, the flexibility of person-to-person conversations during the interviews triggered unexpected responses, allowed for clarification of responses, and captured the nuances of answers through body language (Neuman, 1997). Furthermore, the participant observation offered firsthand insight into the socio-political dimensions of the treatment environment as experienced by the clients of a given program; while neighbourhood scans detailed the environmental characteristics associated with various facilities. In its entirety, the parallel study allowed for a more nuanced understanding of the local treatment context and allowed for the construction of a survey instrument with a reduced likelihood of errors and/or misunderstandings.

The *Clean and Sober Places Study* was also invaluable in establishing a reciprocal sense of trust and working relationships with the clients and staff of local treatment programs, which in turn provided an access point to conduct the current investigation within this typically private aspect of urban life. In facilities where participant observation was conducted, the observation portion of the study always preceded the client interview process. This intentional ordering of the study allowed the facility's staff, the clients in the program, and the researcher, a period of time to become acquainted.

3.5 Location and Description of Study Area

Winnipeg was selected as the immediate study area as I had already developed a level of first-hand knowledge of the local treatment environment through my involvement in the *Clean and Sober Places Study*. With the help of local facility/program managers, I was able to survey clients using a survey questionnaire developed for this study (see: Appendix B).

For the current study, I surveyed 32 clients from Winnipeg based treatment facilities located in three distinct locales. Facility settings – all within City of Winnipeg limits – ranged from a neighbourhood area adjacent to the downtown/business district, to a 'North End' residential neighbourhood and a semi-rural/ex-urban community setting. The treatment programs offered by the three facilities varied across many dimensions including location, population, funding source, method of client intake, operating budget, treatment focus, duration of programming and philosophic underpinning.

Facility "A" offered a 10-month treatment program to an entirely male client population of 7-12 individuals who shared space in one of two single detached homes in a 'North End' residential neighbourhood. Facility "B" was run from a large 2½ story home situated in at the boundary of a low-income residential neighbourhood adjacent to the Central Business District and offered an employer sponsored addictions treatment program. Facility "C" had a regular population of around 100 clients who came primarily from the criminal justice system, had a high proportion of Aboriginal clients, was located

in a ex-urban setting, and offered a broad array of programming options including job training and a GED[14] accreditation program.

3.6 Sample Selection

The participants in this study were individuals attending residential recovery programs for substance abuse in Winnipeg. The subject population among substance abuse recovery facilities in Winnipeg is limited by spatial and programmatic constraints. As the key focus of the study considered the health effects of location, an effort was made to gain access to facilities in different areas of the city. The study included both females and males and was restricted to individuals who were at least 18 years of age. The smallest facility catered to as few as 7 clients at a time, while the largest facility served up to 100+ clients at a time. As such, the sample population was too small to warrant random selection across all three facility locations studied.

Permission to conduct the survey questionnaire with clients of participating treatment facilities was a multi-step process. First managers of each facility were contacted to obtain consent on behalf of their facility/program (see Appendix D). Then a notice was posted within consenting facilities detailing the goals of the study and a signup sheet was provided to allow clients to express interest in participating in the study. A meeting time was then scheduled during which participating clients were asked to sign a consent form and complete the survey instrument.

[14] General Equivalency Diploma

3.7 Survey Instrument

For this study, health was explored from a perspective of *networks*, both social and material, which are thought to embody indicators related to 'quality of life' and 'well being'. Zeisel (1981) stated that "standardized questionnaires are useful if you know what you want to find out from people, if you want to discover regularities among groups of people with particular characteristics, and if you want to be able to quantify your data" (176). The literature review for this study considered the notion of health as a function of location and in relation to social networks. Information gained from the literature review was used to construct a *typology of well-being* for analyzing the nesting of social capital within "healthy" environments. The survey structure was based on grouping questions as per the typology developed through the literature review (see Appendix A). In this way, the interview questionnaire attempted to link indicators of individual well-being with perceptions of the facility neighbourhood, cross neighbourhood comparisons, participation in social networks, access to key resources, and attitudes to mixing with others.

Prior to administering the survey, it was pre-tested to alert the researcher of potential problems (Zeisel, 1981). The results of the pre-test provided insight into the anticipated effectiveness of the survey and allowed for necessary changes to the survey to occur. The survey opened with a section on client's socio-economic profiles and moved to questions concerning the four categories of the typology developed for exploring the relationship between well-being and place: *Network Extent*; *Network Depth*; *Network Culture*; and *Network Resources*. According to Neuman (1997) the use of a survey instrument allows for the gathering of a breadth of data and the development of a well-

grounded mental picture of what occurred (20). Similarly, the study survey provided the means to capture experiences of clients across different socio-environmental contexts – providing new information on the study population.

Clients at each facility were notified through a descriptive "bulletin board" posting, which explained the study and included a signup sheet to participate in the research. Arrangements were made with each facility to conduct the survey on-site and in a group setting. In each case, I was present to administer the survey and answer any questions that might arise. A statement of Informed Consent (see Appendix E) was provided and participants were asked to read and sign the consent form prior to starting the survey.

The sample of participants for the survey was developed through the reliance of available subjects (convenience sample). In the end, the total sample consisted of 32 clients across 3 facilities. A single group meeting was conducted at each participating facility. The reasoning for this was threefold. First, the study was voluntary, and clients were made aware of the group setting prior to my visit to administer the survey. Second, it was understood that most clients were comfortable with their environment, as well as familiar with others within their treatment cohort as a function of participating in a residential treatment environment. Third, the group survey scenario allowed me to conduct the survey in person and be available to answer any questions that arose as a result of the study.

3.8 Limitations of this study

This cross-sectional case study used a survey questionnaire to consider an adult population undergoing treatment for substance abuse among three residential treatment

facilities in Winnipeg. Participants in the survey were selected based on a sample and not the entire population of each facility.

Constraints of this study relate to the relatively limited sample population and potential difficulties in accessing the population. In situations where sample populations are known to be limited, Stake (in Denzin & Lincoln, 2005) recommends drawing on a "purposive sample, building in variety and acknowledging opportunities for intensive study" (451). A purposeful sampling method implies that the participants in the survey group consisted only of those subjects that met the needs of the study. Since this case study depended on the ability to make distinctions between the extended[15] social and material contexts where the "recovery" took place, variation in the location/character of recovery facilities was a key concern, while sampling according to individual client attributes was not a priority.

A shortcoming associated with cross-sectional research is that it cannot capture social processes or change (Neuman, 1997, 28). However, given the transient nature of the study population, the cross-sectional approach was well suited to providing a "snapshot" of a particular client cohort within the recovery environment. Other concerns related to sample selection and involved the limited sample population, variations in recovery philosophies, and the influence of programmatic/regulatory differences between facilities. Stake noted that "even in larger collective case studies, the sample size is usually much too small to warrant random selection... [and the] potential for learning is a different and sometimes superior criterion to representativeness" (Stake in Denzin and Lincoln, 2005, 451).

[15] Urban milieus outside of the clients' peer group and immediate recovery environment

CHAPTER 4: DATA ANALYSIS

4.1 Introduction

This study explored the milieu of residential addictions treatment for a correlation between place and wellness. The depth and complexity of addictions treatment programs considered in this study offered a challenging context for comparison, especially as programs and treatment philosophies varied between the respective treatment facilities. Apart from such challenges, responses by interviewees from each facility offered perspectives on how socio-environmental factors may influence client well-being, as well as contributed to assembling a refined understanding of various intersections, convergences and distinctions between notions of individual health and facility location.

4.2 Client Profiles

Data was gathered on a total of 32 clients attending one of the three treatment facilities in Winnipeg. Table 4.1 provides an overview of client profiles from each of the three facilities. For the purpose of illustrating the contextual differences between the three facilities, each facility was assigned a neighbourhood identifier – shown in *braces* – after each facility's pseudonym appearing in the table header columns – Facility "A" (*residential*); Facility "B" (*inner-city*); Facility "C" (*ex-urban*). Facility "A" included a total of 12 client responses; Facility "B" a total of 9 client responses; and Facility "C" a total of 11 client responses.

A number of programmatic differences and intake requirements are reflected in the client profile data (Table 4.1). For example, clientele of Facility "A" (residential) were all males due to facility intake requirements, while the study population of Facilities

Table 4.1: Summary of Client Profiles by Facility

	Facility A – Residential (*n=12*)	Facility B - Inner-city (*n=9*)	Facility C - Ex-urban (*n=11*)
Gender	100% male	67% male	64% male
Age	18-24 = 8% 25-34 = 17% 35-44 = 50% 45-54 = 17% 65+ = 8%	18-24 = 22% 25-34 = 22% 35-44 = 34% 45-54 = 22%	18-24 = 36% 25-34 = 36% 35-44 = 18% 45-54 = 10%
Education	33% <High School 42% High School 25% University/College Degree	33% <High School 45% High School 22% University/College Degree	73% <High School 18% High School
Martial status	67% Single 33% Separated	67% Single 22% Married 11% Separated	82% Single 18% Separated
Client length of stay in treatment program	1-7 Days 8% 8-14 Days 8% 15-28 Days 8% 29-42 Days 0% 43-56 Days 8% 56+ Days 67% Low 6 days High 622 days Average 159 days	1-7 Days 22% 8-14 Days 0% 15-28 Days 34% 29-42 Days 0% 43-56 Days 22% 56+ Days 11% No response 11% Low 5 days High 78 days Average 31 days	1-7 Days 0% 8-14 Days 0% 15-28 Days 0% 29-42 Days 0% 43-56 Days 0% 56+ Days 100% Low 81 days High 168 days Average 118 days
Mobility over last 2 years - # of different residences stayed at for more than one month	1 17% 2 25% 3 8% 4 8% 5 25% 6 to 8 8% 7 8%	1 33% 2 22% 3 22% 3 to 4 11% 6 67%	1 27% 3 18% 3 to 4 9% 4 9% 6 9% 7 9% 10 to 15 9% no response 9%
Sources of income	fulltime job 58% EI 8% welfare 8% EI, welfare, full 8% welfare, full, other 8% other 8%	fulltime job 33% welfare 11% temp and EI 11% other 44%	fulltime job 9% only temp 9% welfare 64% temp, EI, Welfare 9% other 9%
Yearly income	17% <$10,000 25% $10,000 - $19,000 42% $20,000 - $39,000 8.3% $40,000-$59,000	11% <$10,000 22% $10,000 - $19,000 11% $20,000 - $39,000 11% $40,000-$59,000 22% >$60,000 23% no response	27% <$10,000 46% $10,000 - $19,000 18% $20,000 - $39,000 9% no response

"B" (inner-city) and "C" (ex-urban) were approximately 2/3rd males. Programmatic differences are also evident in clients' length of stay in their respective treatment program, which ranged from a low of 5-days at Facility "B" to a high of 622-days at Facility "A". Facility "C" (ex-urban) had the youngest clientele with 72% of its survey cohort being below 35 years-of-age, while Facility "B" (inner-city) followed at 44% and Facility "A" (residential) had 25% of its clientele in the same age group. Surveyed clients of Facility "C" (ex-urban) had the lowest rate of High School graduates at 18%, while clients of Facilities "A" (residential) and "B" (inner-city) reported similar rates of High School graduation at 42% and 45% respectively.

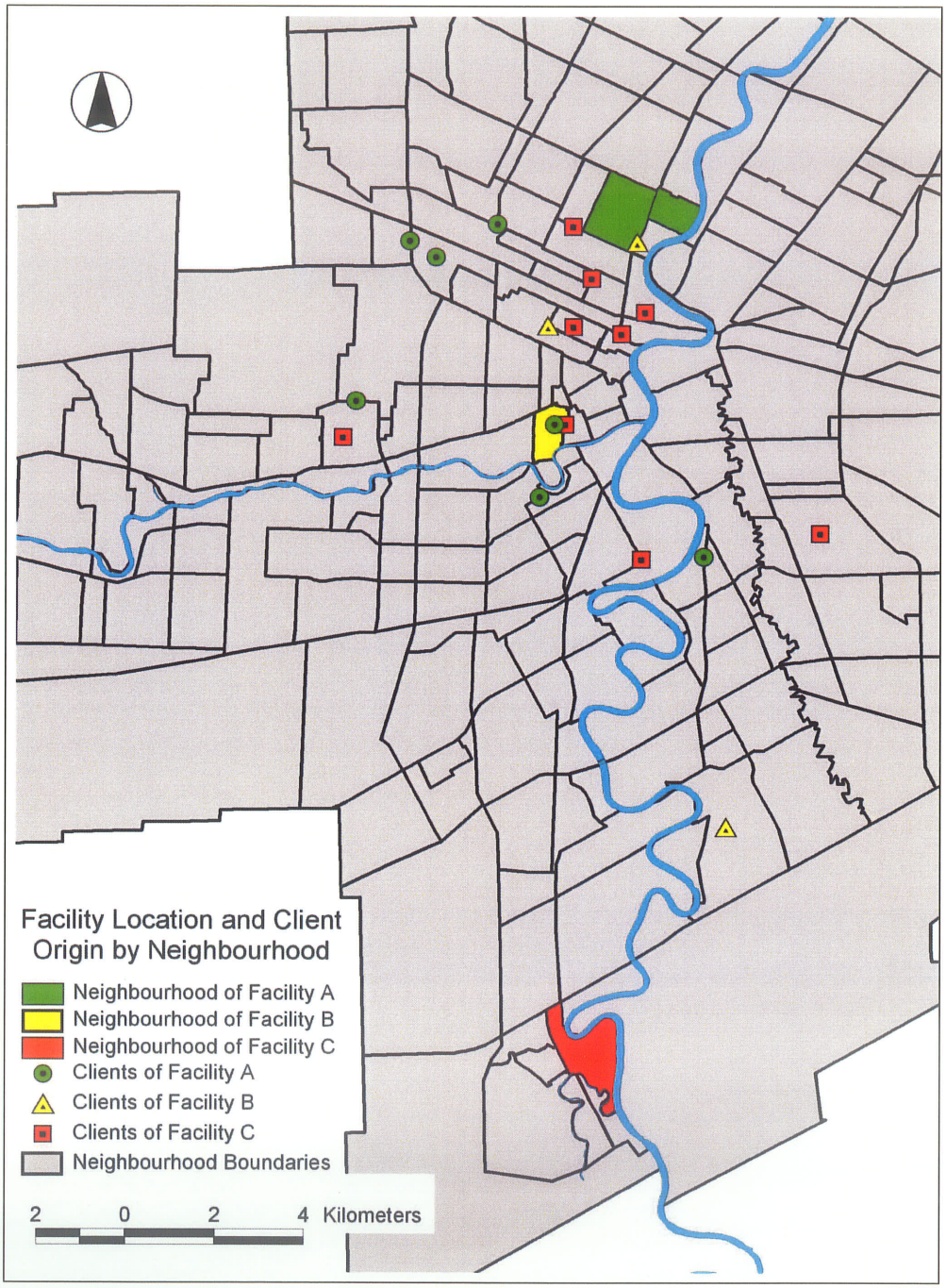
4.3 Mapping Client Origin

A key objective of this study was to evaluate the health effects of neighbourhood mobility within Winnipeg. As such, I have chosen to focus on those clients whose residence was within the city of Winnipeg prior to entering a treatment facility. Responses related to jail, including the Healingly Correctional Center, the Remand Center and Stony Mountain Penitentiary, as well as those from outside of Winnipeg were discounted in the following mapping/analysis exercise.

The map in Figure 4.1 was created using GIS to show the location of the three treatment facilities in relation to the origins of the clients prior to entering each respective program. In the interest of anonymity, a client's origin neighbourhood was recorded as the street and closest intersecting street where they lived prior to entering the current treatment program, while facilities were identified at the neighbourhood level. The intake requirements for all three treatment facilities being studied require that potential clients be abstinent for a pre-determined period of time prior to being admitted into a treatment

program. As such, prior client residences may include recognized detoxification sites such as the Health Sciences Center.

Figure 4.1: Facility Location and Client Origin by Neighbourhood Area



On the first read of the map in Figure 4.1, there existed a gap in data from those who attended all three treatment facilities. Facility "A" (residential) has 7 out 12

responses mapped, Facility "B" (inner-city) has 3 out of 9 mapped and Facility "C" (ex-urban) has 9 out of 11 responses mapped. A high proportion of client intake to treatment programs via the correctional system, (usually as a condition of parole), so a portion of the unmapped data correlates with the removal of 'jail' as a prior residence response. Clients of Facility "A" reported both jail and out of province responses for prior residence, Facility "B" (which advertises services both locally and internationally) reported both jail and out of country intake, and Facility "C" reported both jail and out of city responses.

On a second read of the map, Facility "C" (ex-urban) showed the widest overall intake catchment of all facilities and the greatest distance between the facility neighbourhood and the origin neighbourhood of its clients. Since Facility "C" was located in a neighbourhood on the City's edge, clients may have been trying to remove themselves from neighbourhoods that have challenging environments (generally characterized as high poverty and high crime neighbourhoods). Client intake for Facility "A" (residential) appears to be more localized, with clients generally coming from neighbourhoods that are closer to the facility neighbourhood. Exceptions to these observations in the case of Facility "B" may be related to its offering of unique partnership programs with employers that offer treatment for employees with addictions.

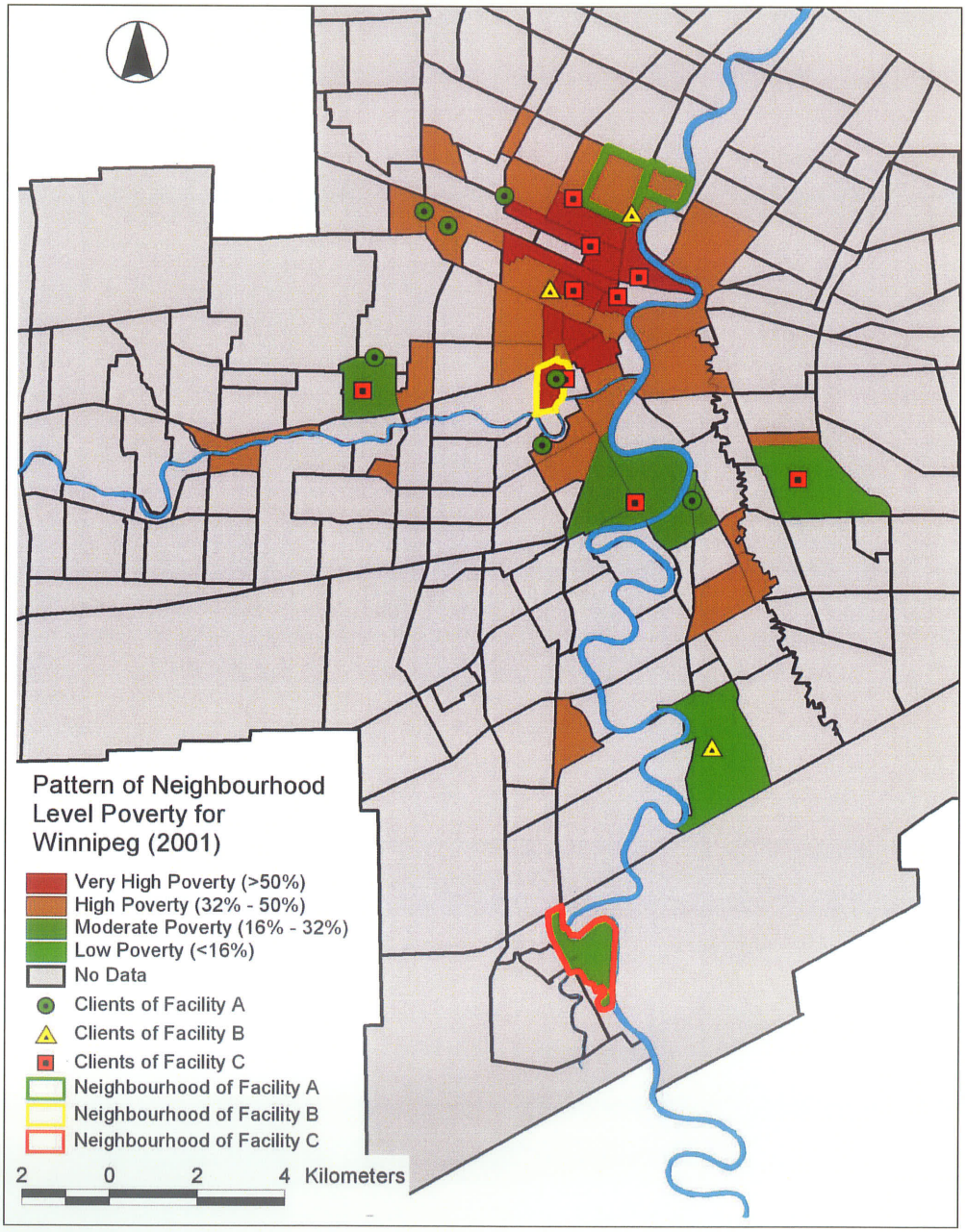
4.3.1 Mapping Relative Neighbourhood Poverty

Neighbourhood conditions associated with high poverty areas have been linked to decreased levels of social cohesion. The objective of the following mapping exercise was to provide a baseline for comparing the socio-economic variables of a client's origin neighbourhood with the client's then current facility neighbourhood. Poverty rates of

treatment facility neighbourhoods were compared with the poverty rates of client's origin neighbourhoods in order to examine area poverty rates in relation to client mobility.

The map in Figure 4.2, Select Pattern of Household Poverty for Winnipeg (2001),

Figure 4.2: Select Pattern of Household Poverty for Winnipeg



was adapted from *Poverty Changes in Winnipeg Neighbourhoods 1981-2001* (Carter et al, 2005) to show all neighbourhoods with "very high" (>50%) and "high" (32% - 50%)

household poverty levels[16]. Neighbourhoods with low (<16%) and moderate (16% - 32%) household poverty levels were only mapped if they represented clients' former neighbourhoods, or in the case of treatment facilities that were not located in high to very high poverty areas.

A rate of poverty comparison matrix (Table 4.2) was created to evaluate the effect of client mobility and area poverty levels. The categories for facility and client neighbourhood level poverty in Table 4.2 correspond to Figure 4.2 and range from very-high, high, moderate and low levels of poverty. The Facility neighbourhood poverty levels were assigned to the y-axis and the client neighbourhood poverty levels to the x-axis.

Table 4.2: Rate of Poverty Comparison Matrix

		Client *Poverty Rate of Origin Neighbourhood*			
		Very-high poverty	High poverty	Moderate poverty	Low poverty
Facility *Poverty Rate of Treatment Facility Neighbourhood*	Very-high poverty	0	1	2	3
	High poverty	-1	0	1	2
	Moderate poverty	-2	-1	0	1
	Low poverty	-3	-2	-1	0

For the purpose of evaluation, each change in poverty, either up or down one level, was viewed as having a value of one. Correspondingly, a move from a high poverty

[16] Carter (2005) defines high poverty neighbourhoods using a threshold double the Canadian household rate in 2001 (32%). Using this guideline, neighbourhoods in Winnipeg with 32% or more of the households in poverty were considered a high poverty neighbourhood.

area to a lower poverty area was assigned a negative value indicating a decrease in area poverty, while a move from a low poverty area to a higher poverty area was assigned a positive value. In this manner a client moving from a high poverty to high poverty area would be assigned an evaluation value of 0 (indicating no appreciable change), while a move from a moderate poverty neighbourhood to a very-high poverty neighbourhood would be assigned a value of +2 to indicate the increased poverty level associated with the facility neighbourhood.

Using the *Rate of Poverty Comparison Matrix* in Table 4.2 to compare relative changes in area poverty experienced by clients, due to mobility, revealed distinct patterns for all three facilities. Clients of Facility "A" (residential) showed little overall change with 4 out of 7 (57%) having no appreciable change in area poverty and the remaining 43% moving either one level up, or one level down in area poverty (see Table 4.3).

Table 4.3: Facility A (Residential) – Rate of Poverty Comparison

Client Id	Poverty Rate of Origin Neighbourhood	Poverty Rate of Treatment Neighbourhood	Relative Change in Poverty Level
1	High poverty	High poverty	0
2	Moderate poverty	High poverty	1
3	High poverty	High poverty	0
4	High poverty	High poverty	0
5	Moderate poverty	High poverty	1
6	Very-high poverty	High poverty	-1
7	High poverty	High poverty	0

All three clients of Facility "B" (inner-city), located in a high poverty neighbourhood, experienced an increase in relative area poverty levels over their origin neighbourhoods (see Table 4.4).

Table 4.4: Facility B (Inner-city) – Rate of Poverty Comparison

Client Id	Poverty Rate of Origin Neighbourhood	Poverty Rate of Treatment Neighbourhood	Relative Change in Poverty Level
1	High poverty	Very-high poverty	1
2	High poverty	Very-high poverty	1
3	Low Poverty	Very-high poverty	3

Facility "C" (ex-urban) displayed the greatest overall change in area poverty experienced by clients with 89% of clients recording a decrease in area poverty levels. This was even more remarkable in that 67% of Facility "C" clients moved the entire range from very-high poverty neighbourhoods to the low poverty neighbourhood of the facility (see Table 4.5).

Table 4.5: Facility C (Ex-urban) – Rate of Poverty Comparison

Client Id	Poverty Rate of Origin Neighbourhood	Poverty Rate of Treatment Neighbourhood	Relative Change in Poverty Level
1	Very-high poverty	Low poverty	-3
2	Moderate poverty	Low poverty	-1
3	Very-high poverty	Low poverty	-3
4	Moderate poverty	Low poverty	-1
5	Very-high poverty	Low poverty	-3
6	Very-high poverty	Low poverty	-3
7	Very-high poverty	Low poverty	-3
8	Very-high poverty	Low poverty	-3
9	Low Poverty	Low poverty	0

4.4 Analysis of Survey Responses

Questions from the survey questionnaire were categorized within a typology for further analysis. The typology, described in Chapter 3, consists of four sub-categories related to social-material networks, which were identified through the literature review and thought to relate to well-being and place. The four categories include: *Network Depth*, *Network Extent*, *Network Culture* and *Network Resources*.

The typology categories are not mutually exclusive and questions were assigned to the categories on a consideration of best fit. For example, the category of *Network Depth* was associated with questions that attempted to identify the level of bonding/connection that occurs between like-minded individuals. The category of *Network Extent* was aligned with questions that were used to test for 'bridges' between individuals of different backgrounds/interests. The category of *Network Culture* included questions related to the inherently subjective aspects of social-material networks including: feelings of safety, trust, and reciprocity. *Network Resources* included comparisons of network characteristics related to the physical environment/neighbourhood of a given facility.

The context of addictions treatment programs presented a challenging milieu for direct comparison as various facilities offered specific programs intended to serve particular client needs. Programs differ across a variety of dimensions including: duration, client intake, gender of clientele, range of treatment, staff involvement, roles and responsibilities expected of clients, etc... Such programmatic differences may account for client survey responses which obscured the intent of the comparison for which the survey questions were developed. For example, suppose a hypothetical facility,

known as "X", has shown a strong bias toward inter-client bonding over facility "Y". This bias could have then been interpreted as a function of a facility's location. However, the underlying reason that facility "X" tended toward inter-client bonding may have been related to the design of the program (i.e. an intensive four-week program that restricts clients from leaving the facility versus an twelve-week program that allows clients to access the surrounding community on evenings and weekends). Although differences in survey responses between clients of various facilities may have been the result of programmatic differences, these differences have not been considered within the scope of this analysis.

4.4.1 Network Depth

The analysis presented in the following sections considered each of the typology categories: *Network Depth*, *Network Extent*, *Network Resources* and *Network Culture*. Client responses to survey questions have been categorized by theme and organized into tables that provide the subject of the question asked in the first column, followed by a summary of responses by facility.

The category of *Network Depth* compared the level of bonding among clients across all three facilities. Table 4.6, *Network Depth*, considered the ease of inter-client friendships, the proximity of family and friends in relation to the treatment facility, as well as client awareness of "others" in the treatment area neighbourhood.

Table 4.6: Network Depth

Theme	Facility A Residential (n=12)	Facility B Inner-city (n=9)	Facility C Ex-urban (n=11)
Easy to make friends with other clients	Yes – 83% No – 17%	Yes – 100% No – n/a	Yes – 55% No – 36% No response – 9%
Relatives in facility neighbourhood	Yes – 16% No – 83%	Yes – 33% No – 67%	Yes – 9% No – 82% No response – 9%
Friends in facility neighbourhood	Yes – 16% No – 83%	Yes – 33% No – 67%	Yes – 91% No – n/a No response – 9%

4.4.1.1 Summary of Network Depth

Facility "A" (residential) was located in an aging residential neighbourhood just outside of the city's core. Facility "B" (inner-city) was located in an inner-city neighbourhood adjacent to downtown. Facility "C" (ex-urban) was located in an "edge-community" within the city's outer boundary.

Ninety-one percent of clients attending Facility "C" (ex-urban) reported that they had friends in the surrounding neighbourhood compared to only 16% in Facility "A" (residential) and 33% in Facility "B" (inner-city). Although clients of Facility "C" claimed the highest rate of neighbourhood area friendships, they also reported lower rates of family residing in the surrounding neighbourhood (9%), than either Facility "A" (16%), or Facility "B" (33%). Clients of Facilities "A" (residential) and "B" (inner-city) showed tendencies for clients bonding with individuals within their treatment cohort. Clients of Facility "C" (ex-urban) reported the highest number of friends in the neighbourhood in spite of the fact that they came from a wider range of catchments compared to clients of the two other facilities (see Figure 4.1 for map of client origins by facility). Neighbourhood contacts outside of the immediate treatment cohort may be

indicative of bridging, a concept explored in the next section of the typology, *Network Extent*.

4.4.2 Network Extent

The typology category of *Network Extent* was used to explore the range of a client's social-material network outside of the treatment program cohort and immediate bounds of the facility. Table 4.7, *Network Extent*, considered client's notions of facility boundaries, client's familiarity with the surrounding neighbourhood, the frequency of visits outside of the facility, client's conceptions of neighbours and access to communication aids (internet, email, and phone).

When responding to the perceived extent of facility neighbourhood boundaries, clients of Facilities "A" (residential) and "B" (inner-city) tended to identify the area limited to the block or street on which the facility was located. Clients of Facility "C" (ex-urban) identified the widest boundary with 18% of respondents specifying an area greater than a 15 minute walk from the facility. Clients of Facility "B" (inner-city) indicated the greatest degree of familiarity with their treatment facility neighbourhood and the second highest frequency of visits outside of the treatment facility. Clients of Facility "C" (ex-urban) indicated the lowest level of daily outside visits, 62% less than Facility "B" and 73% less than Facility "A".

Table 4.7: Network Extent

	Facility A- Residential (n=12)	Facility B - Inner-city (n=9)	Facility C – Ex-urban (n=11)
Describe facility boundaries	Block/street 58% Several blocks 25% Within 15-min walk 8% >15 min walk 8%	Block/Street 56% Within 15-min walk 33% >15 min walk 11%	Block/Street 36% Several Blocks 9% Within 15-min walk 27% >15 min walk 18% No response 9%
How well do you know surrounding neighbourhood?	Know area very well – 33% Know area well – 42% Not well – 25%	Know area very well – 56% Know more than most – 11% Not well – 33%	Know area very well – 10% Know area well – 35% Not well – 45% No response – 10%
How often do you go outside of facility area?	Everyday – 100%	Everyday – 89% 1-2 times per week – 11%	1-2 times per week – 63% Everyday – 27% No response – 10%
Recognize adults in neighbourhood	No – 33% A few – 58% Most – 9%	No – 56% A few – 22% Most – 22%	No – 27% A few – 55% Most – n/a No response – 18%
Easy to make new friends in neighbourhood	Yes – 58% No – 33% No response – 9%	Yes – 56% No – 22% No response – 11% Don't want to – 11%	Yes – 36% No – 55% No response – 9%
Spoke to neighbours	Yes – 92% No – 8%	Yes – 44% No – 56%	Yes – 36% No – 55% No response – 9%
Talk with neighbour 5 minutes or more	1 or 2 42% 3 to 5 8% none 50%	1 or 2 22% none 78%	3 to 5 9% 6 or more 18% none 55% no response 18%
Computer with internet	Yes – 66% No – 33%	Yes – 22% No – 78%	Yes – 55% No – 45%
E-mail address	Yes – 25% No – 75%	Yes – 67% No – 33%	Yes – 36% No – 64%
Phone	Anytime – 67% Cell phone – 33%	Anytime – 22% Cell phone – 33% Certain times – 33% Pay phone – 11%	Anytime – 36% Certain times – 27% Pay phone – 36%

A key measure of *Network Extent* is the ability to forge relationships with individuals from outside of the treatment cohort. A necessary condition for making 'outside' contacts is exposure to an area's inhabitants. Exposure to 'others' was first tested in terms of client recognition of adults in the neighbourhood. Facility "B" (inner-city) recorded the lowest overall scores (56% do not recognize local adults) out of the three facilities being studied, while Facility "A" (33%) and Facility "C" (27%) posted similar results. The next test for 'outside' relations involved testing for communication with neighbours. Clients of Facility "A" (residential) reported the highest rate of speaking to neighbours at 92%, more than two times higher than Facility "B" (44%). Facility "C" (ex-urban) reported the lowest rate of speaking to neighbours at 36%. To control for short/informal conversations, such as passing greetings, clients were asked to identify conversations with neighbours that lasted 5 minutes or more. Clients of Facility "B" (inner-city) indicated the lowest rate with 78% having no conversations of 5-minutes or more, while clients of Facility "C" (ex-urban) reported 55% and Facility "A" (residential) 50%.

Communication aids, such as Internet access and phone use were considered potential indicators of *Network Extent* by allowing clients to network outside of the facility cohort. Clients of Facility "A" reported the highest rate of access to a computer with an internet connection, but had the lowest rate of clients with an email address. In terms of phone use, clients of Facility "A" indicated the highest level of anytime phone access at 67%, with clients of Facilities "C" and "B" following at 36% and 22% respectively.

4.4.2.1 Summary of Network Extent

Clients of Facility "A" (residential) provided the highest overall evidence for 'bridging' social networks (*Network Extent*) by leading in favourable responses across 6 of 10 categories. These findings are less conclusive when compared to the findings in section 4.3, *Network Depth*, where Facilities "A" and "B" show strong tendencies toward forming bonds within their respective client cohorts. Clients of Facility "C" (ex-urban) showed the lowest indication of *Network Extent* in spite of recording the highest number of neighbourhood area friends in the previous section, *Network Depth*.

4.4.3 Network Resources

The area in which treatment programs are located impacts client activities and access to resources. The typology category of *Network Resources* was used to formulate an image of area services, client's means of transportation, and job opportunities. Table 4.8, below, lists the categories used for evaluating facility area *Network Resources*.

Table 4.8: Network Resource Matrix

	Facility A – Residential (n=12)	Facility B - Inner-city (n=9)	Facility C - Ex-urban (n=11)
Percentage of clients who identified services within 15-minute walk	ATM – 100% Bus stop – 100% Church – 100% Grocery store – 100% Park – 100% Video rental – 100% Pharmacy – 92% Bank/CU – 83% Bar – 83% Convenience store – 83% Laundromat – 83% Pay phone – 83% Restaurant – 83%	Bus stop– 100% Convenience Store – 100% Pharmacy – 100% Coffee shop – 89% Department store – 89% Grocery store – 89% Gym – 89% Hair salon – 89% Liquor store – 89% Park – 89% Pay phone – 89% Restaurant – 89%	Bus stop – 100% Church – 82% Grocery Store – 82% Gym – 82% Pay Phone – 82% Restaurant – 82% ATM – 73% Convenience store – 73%
Important area services used	Grocery store – 100% Bus stop - 42% Convenience store – 33% Bank – 33% Video rental – 33%	Gym – 44% Bus stop – 33% Church – 33% Grocery store - 33%	Convenience store – 64% Grocery store – 46% Restaurant – 18%
Nearby places visited / services used (> One response)	Grocery store 6 Convenience store 4 Video store 3 A.A. meetings 3 Park 3 Library 2 Downtown 2	AA meetings 3 Grocery Store 1 Convenience store 2 Church 2 Gym 2	Convenience store 4 Boundary walk 3 Grocery store 3 Store 3
Important area services missing	Gym = 42% No response – 42%	No response – 78%	No response – 36%
Modes of transportation used (multiple responses coded)	Bus – 83% Walk – 42% Bike – 42% Vehicle as passenger – 17% Vehicle as driver – 8%	Bus – 56% Walk – 67% Vehicle as passenger – 33% Vehicle as driver – 22%	Bus – 91% Walk – 73% Vehicle as passenger – 18%
Job opportunity	yes 42% no 17% have job 25% not looking 8% no response 8%	no 33% have job 22% not looking 44%	yes 45% no 55%

4.4.4 Network Culture

The category of *Network Culture*, considers client's attitudes across the primarily socio-cultural dimensions of trust, safety and comfort. Clients were asked to indicate whether their current facility neighbourhood was different from the last neighbourhood where they lived (see Table 4.9). Clients of Facilities "B" (inner-city) and "C" (ex-urban) noted similar rates of agreement at 82% and 78% respectively, while 58% of clients attending Facility "A" (residential) agreed that the neighbourhoods being compared were different. Differences were found in physical distinctions (i.e., housing styles), resource availability (i.e., businesses, restaurants and buses), and social conditions (i.e., crime, prostitution and notions of safety).

Client's satisfaction with their facility area environment was ranked and ordered, in terms of comfort, on a likert-type scale ranging from "great" to "uncomfortable". Clients of Facility "A" (residential) indicated the greatest overall level of comfort with their facility area neighbourhood with 92% of clients citing a rating in the top two categories of "pretty good" to "great". Facilities "B" (inner-city) and "C" (ex-urban) followed at 78% and 64% respectively.

Social contact was identified as a key dimension of well-being, with feelings of isolation understood to have a negative influence on an individual's conception of wellness. Clients of Facility "C" (ex-urban) reported the highest rate of feeling isolated at 46%. Facility "A" showed a substantially lower rate of feeling isolated at 8%, while no clients of Facility "B" (inner-city) reported feelings of isolation. When responding to the notion of isolation, clients were given the opportunity to cite "friends outside the program" and "friends within the program" as reasons for not feeling isolated. Clients of

Facilities "A" (residential) and "B" (inner-city) reported similar levels of friends from within the treatment program at 38% and 36% respectively, while only 9% of clients of Facility "C" (ex-urban) reported friendships within the program. A lack in feelings of isolation was attributed to friends outside of the treatment program by 64% of Facility "B" (inner-city) clients, 38% of Facility "A" (residential) clients and 36% of Facility "C" (ex-urban) clients.

Table 4.9: Network Culture (I)

	Facility A – Residential (n=12)	Facility B - Inner-city (n=9)	Facility C - Ex-urban (n=11)
Is the facility neighbourhood different from the last neighbourhood where you lived?	Yes – 58% No – 42%	Yes – 78% No – 22%	Yes – 82% No – 9% No response – 9%
Differences between neighbourhoods (summary of responses in 3 categories)	**Social:** People; Drunks and riffraff; More action on street; Quiet at night; No hanging out on street corners **Physical:** Traffic; Bigger yards (outside the city); House styles; No heavy traffic; Better neighbourhood **Resource:** More business; Better access than former neighbourhood	**Social:** Quiet; Less young families; Previous area was pricey **Physical:** Live on 9 acres; Neighbours are far apart; Dirt roads; More commercial; Bush versus city; Tough to find parking; Some projects scattered about **Resource:** No bus; Upscale shops; Restaurants; Theatres	**Social:** Quiet; No fighting; Clean; Gang violence; Assaults; Drug users; Drug dealers; Bikers; People of questionable behaviour; No drunks; I feel safe with my kids; Prostitution; Crime; Shitty people; No gangs; Crack houses **Physical:** Better area; Less traffic **Resource:** n/a
Comfort level with facility area	Ok, but could be better 8% Pretty good 75% Great 17% Doesn't matter 0% Uncomfortable 0% no response 0%	Ok, but could be better 11% Pretty good 56% Great 22% Doesn't matter 11% Uncomfortable 0% no response 0%	Ok, but could be better 9% Pretty good 55% Great 9% Doesn't matter 18% Uncomfortable 0% no response 9%
Feel isolated	Yes, isolated – 8% No (friends in program) – 38% No (friends outside) – 54%	No (friends in program) – 36% No (friends outside) – 64%	Yes, isolated – 46% No (friends in program) – 9% No (friends outside) – 36% No response – 9%

Clients were asked to compare the relative safety of the facility neighbourhood with their previous neighbourhood (see Table 4.10). Results were as expected with areas in and adjacent to the inner-city reporting lower relative safety than those in the ex-urban region. Ninety-one percent of clients of Facility "C" (ex-urban) reported that their facility neighbourhood was safer than their origin neighbourhood, followed by Facility "A" (residential) at 58% and Facility "B" (inner-city) at 33%.

Another dimension of safety considered whether clients felt safe to walk alone in their facility area neighbourhood after dark. Again, clients of Facility "C" (ex-urban) reported the highest level of agreement with 90% rating the category of *walking alone* in their facility area neighbourhood as "fairly safe" to "very safe". Facilities "A" (residential) and "B" (inner-city) were comparable with 58% and 55% rating their neighbourhoods as "fairly safe" to "very safe" to walk alone after dark.

Clients were asked to rank their perceived level of trust in neighbourhood area residents. Clients of Facility "B" (inner-city) indicated the greatest degree of trust, with 44% indicating either agreement or strong agreement, while clients of Facility "A" (residential) and "C" (ex-urban) shared similar levels of trust with 36% and 33% of respondents indicating either agreement or strong agreement. The comparable levels of area trust between Facilities "A" and "B" was unexpected, especially as Clients of facility "B" had the fewest number of clients rating their facility neighbourhood as safer than their previous neighbourhood.

The top three free-time activities by respondents from each of the three treatment programs were as follows: Facility "A": Group meeting (100%); visit friends (83%);

TV/movie (83%); Facility "B": Visit family (89%); group meeting (78%); walking (78%); and Facility "C": Visit family (80%); TV/movie (80%); visit friends (70%).

Table 4.10: Network Culture (II)

	Facility A – Residential (n=12)	Facility B - Inner-city (n=9)	Facility C - Ex-urban (n=11)
Facility area safer than previous neighbourhood?	Facility – 58% Previous – 33% Same – 9%	Facility – 33% Previous – 56% Same – n/a Neither – 11%	Facility – 91% Previous – n/a Same – n/a No response – 9%
Safe to walk alone in facility neighbourhood after dark	Very safe – 8% Fairly safe – 50% Somewhat dangerous – 42%	Very safe – 33% Fairly safe – 22% Somewhat dangerous – 44%	Very safe – 45% Fairly safe – 45% Somewhat dangerous – 9%
Trust people in facility area neighbourhood	Strongly agree – 8% Agree – 25% Unsure – 50% Disagree – 8% Strongly disagree – 8%	Strongly agree – 11% Agree – 33% Unsure – 44% Disagree – 11% Strongly disagree – n/a	Strongly agree – Agree – 36% Unsure – 55% Disagree – n/a Strongly disagree – 9%
Stolen damaged property in facility	Yes – 50% No – 42% No response – 8%	Yes – n/a No – 100%	Yes – 9% No – 82% No response – 9%
Free time activities	religious activities 75% gym 50% I don't have much free time 17% group meeting 100% reading 50% restaurant 58% shopping 67% sleeping 33% TV/movie 83% visit family 58% visit friends 83% walking 75% work 8%	religious activities 44% gym 56% I don't have much free time 0% group meeting 78% reading 67% restaurant 67% school 11% shopping 67% sleeping 33% TV/movie 56% visit family 89% visit friends 67% walking 78% work 0%	religious activities 50% gym 30% I don't have much free time 30% group meeting 20% reading 50% restaurant 60% school 30% shopping 60% sleeping 50% TV/movie 80% visit family 80% visit friends 70% walking 60%

Clients were asked to list their likes and dislikes related to their respective facility neighbourhoods (see Table 4.11). Client's comments concerning likes and dislikes were grouped into three general categories: social, physical, and resource. Client's 'likes' were similar across all three facilities with *social* attributes identified as *quite, clean and safe*, *physical* attributes as *trees, parks, rivers, and housing styles* and *resource* attributes as *bus service, shops and recreational facilities*. Client dislikes ranged across facilities with the greatest distinctions evident across Facility "C" (ex-urban) versus Facilities "A"

(residential) and "B" (inner-city). Clients of Facilities "A" (residential) and "B" (inner-city) cited similar dislikes in *noise, traffic and crime*, while clients of Facility "C" (ex-urban) criticized the area neighbourhood as *too quiet, having too little traffic and subject to excessive travel distances.*

Table 4.11: Network Culture (III)

	Facility A - Residential (n=12)	Facility B - Inner-city (n=9)	Facility C - Ex-urban (n=11)
Likes re: facility neighbourhood (summary of responses in 3 categories)	**Social**: quiet; clean; good neighbours; family oriented **Physical**: trees; parks; river; old houses; pleasant surroundings; east side of Main St is ok; **Resource**: bus; stores; close to everything; school	**Social**: quiet; people; anonymity; I like the city; don't see many drunks **Physical**: parks; well kept houses; beautiful gardens; big old houses; older trees; rivers; residential **Resource**: unique shops; stores; convenient location; businesses; downtown; bus	**Social**: quiet; safe & secure; clean; homey **Physical**: park; river; landscape is nice; less traffic; **Resource**: store; sport facility; swimming pool
Dislikes re: facility neighbourhood (summary of responses in 3 categories)	**Social**: bit of a rough neighbourhood; having to bike through the North end; people on Main Street; people still in the problem; some of the people; the little store run by the chink; access to booze and drugs; parties at night **Physical**: traffic; West side of Main St; Autobin in back lane dark at night; aphids/worms/trees **Resource**: stores don't offer as much; not enough entertainment; distance from downtown the patio bar at Cathedral St and Main St.	**Social**: noise (sirens); unsafe; crime; violence; prostitution **Physical**: conjestion; parts of neighbourhood seedy **Resource**: n/a	**Social**: quiet; people see us as addicts; no minorities **Physical**: barely any traffic; **Resource**: too far from Downtown; bus service; bar close by; too far from airport; too far from malls
Which neighbourhood do you prefer?	Current (Facility) – 58% Former – 33% No response – 8%	Current (Facility) – 56% Former – 33% Both – 11%	Current (Facility) – 63% Former – 27% No response – 10%

Clients were asked to indicate whether they preferred their current neighbourhood in the area of the facility, or their former neighbourhood prior to entering the treatment program. Results for clients of all three facilities showed a preference, in the range of 56% - 63%, for the current facility neighbourhood.

4.5 Another Level of Analysis – *Clean and Sober Spaces Study*

For the final level of analysis, I compared findings that emerged from the study with knowledge gained from my participation in the *Clean and Sober Places Study*. Select evidence from the current study was evaluated in relation to comparable data from the *Clean and Sober Places Study*, which included: neighbourhood environmental scans; client/staff interviews at all three facilities; and participant observation studies conducted with clients of Facility "A" (residential) and Facility "C" (ex-urban). This additional level of analysis provided an opportunity to further explore areas of the study typology where the results appeared inconsistent in explaining the place effects of health for the study population.

4.5.1 Client Characteristics in Relation to Facility Intake Practices

An area of concern for the study typology was the inability to capture the potential influence of facility policies on client networks. A failure to consider the influence of programmatic constraints may lead to incorrect attributions being made concerning the relationship between place and well-being. For example, a client's apparent lack of engagement in neighbourhood networks may be related to facility policies that directly limit client exposure to neighbourhood level networks. Facility intake practices may also limit the diversity among client cohorts with positive or

negative effects for client networking. Given these concerns, typical client intake paths and key facility distinctions were documented for each facility using information from the *Clean and Sober Places Study* and client attributes captured in the survey questionnaire. Client characteristics tracked by the survey questionnaire included variables as: age, education, marital status, client mobility, client income and length of stay in program (see Table 4.1).

Data on client characteristics was used to compare client socio-economic attributes both across and within facility client cohorts. Facility "C" had the youngest average age of clientele of all three facilities. Facilities "A" and "B" were nearly identical in terms of levels of education and marital status, both with higher average levels of education among clients than clients of Facility "C". In terms of reported annual income, 73% of Facility "C" clients made less than $20,000, while Facility "A" reported 42% and Facility "B" 33% for the same category. Overall, the measured characteristics among clients of Facility "C" appeared more consistent across the study population than within client cohorts at either Facilities "A", or "B". Given these findings, I suspected that the evidence for similarities, across a wide range of client attributes, within the client cohort of Facility "C" may be related to facility intake practices.

The range of diversity in characteristics as age, gender, racial background, level of education, and income among the client population depends on facility intake practices. The diversity, or lack thereof among client populations of various facilities has implications for assessing the place effects of social networks. One concern for evaluating the health effects of mobility was the potential for confusing the influence inter-neighbourhood mobility on social networks with the sway of the client cohort. This

was of particular concern in the case of large facilities with strongly defined intake practices. Consequently, an advanced understanding of facility intake practices, physical differences in facilities and sites, and variations in treatment philosophies allowed for greater certainty in making attributions concerning the place effects on health.

4.5.2 Facility Details – *Clean and Sober Places Study*

While considerations related to client mobility were limited to the level of the individual respondent for this study, the *Clean and Sober Places Study* used staff interviews to evaluate client intake practices at the facility level. The *Clean and Sober Places Study* appraised facilities for differences in core treatment philosophy and client intake practices, as well as conducted a physical survey of facility area neighbourhoods allowing comparisons of neighbourhood context, facility building type, site size, and site arrangement.

Facility "A" (residential) was described as providing a 'supportive living environment' for fourteen male clients based on a treatment philosophy grounded in principles originating from A.A. (Alcoholics Anonymous). Facility "A" (Residential) was operated from two locations (with seven clients in each location), each in detached single family homes located in similar aging residential areas. The houses were well maintained and nondescript within the surrounding neighbourhoods. Clients attending Facility "A" came from diverse socio-economic backgrounds, with education levels ranging from less than grade 12 to university education and ranged in previous neighbourhood origin from Winnipeg area neighbourhoods (i.e. St. James, St. Vital & the 'North End') to Boston, Massachusetts. The Manager of Facility "A" (residential) reported that the majority of

clients (of the all male program) were referrals from shelters and intake through informal partnerships with detoxification facilities.

Facility "C" (ex-urban) worked in close association with the justice system and engaged a large proportion of their clientele through addictions treatment, often mandated as a condition of parole, or in lieu of time to be served incarcerated, or as a basis for a more favourable court judgment. Facility "C" was situated on extensive grounds, which included separate ancillary facilities for wood and automotive shops, daycare, education facilities, a gym and special cultural facilities. Facility "C" offered supportive living for 100+ clients and offered a range of vocational, cultural, educational and communicative skills deemed necessary for successful reintegration into society. Facility "C" was the only program that offered supportive living arrangements for clients with children.

Facility "B" (inner-city) presented an 8-week supportive living program for up to sixteen clients, which was centered on a philosophy of "bio-psycho-social" interventions. Facility "B" was operated from a multi-story, detached single-family home, located in an aging residential neighbourhood adjacent to the downtown CBD. The sole identifier of the facility from other homes in the neighbourhood was a small plaque engraved with the program name, which was located next to the mailbox at the front door. Client intake practices at Facility "B" followed more of a 'business plan' approach than the other two facilities by widely advertising their services and in developing affiliations with local businesses to offer employee addictions treatment services.

In spite of the aforementioned programmatic differences among the various facilities, the survey responses completed by clients of Facilities "A" and "B" demonstrated a positive relationship between the typology categories for well-being and

place. However, in the case of Facility "C", the relationship between place and health was not as clear. Consequently, Facility "C" was selected for closer analysis in an attempt to explain potential incongruities. It was hoped that problematic areas may be explained using observations from the *Clean and Sober Places Study,* which included information on client intake paths, programmatic rules and client responsibilities.

4.6 Comparative Analysis – *Clean and Sober Places Study*

For an additional level of analysis, particular concepts arising from the current study were selected for comparison with knowledge gained during the *Clean and Sober Places Study*. Attempts were made to substantiate the results from the client survey with supporting evidence from the *Clean and Sober Places Study* program of interviews and participant observation.

Overall, the current study suggests that, of the three facilities, clients of Facility "C" (ex-urban) were the least involved in social networks outside of the treatment milieu, felt the most isolated, and expressed the least overall level of integration with their facility area neighbourhood. These observations, indicative of stigmatization, largely compliment the fact that client population of Facility "C" experienced the greatest overall reduction in area poverty in moving into the facility area neighbourhood and reported the greatest degree of difference between the facility neighbourhood and their former neighbourhood. However, these findings find less support in that 91% of Facility "C" clients felt that the facility neighbourhood was safer than their former living environment, they had access to the largest facility site and range of facility amenities, and reported the greatest proportion of clients who preferred the facility neighbourhood over their former neighbourhood. In defense of the network-based typology for place and well-being, I

suggest that combinations of client intake paths and programmatic variables – which are discussed in the following sections – are primary factors in clarifying these incongruities.

4.6.1 Neighbourhood Area Friends – Network Depth

Clients of Facility "C" reported a substantially higher rate of friends in the facility area neighbourhood (91%) than Facility "A" (16%) and Facility "B" (33%). This is unusual given that clients of Facility "C" experienced the most overall social-material change in entering the 'new' neighbourhood, including the greatest reduction in; reported the lowest amount of family in the facility area neighbourhood; reported the least ease in making 'new' friends in the facility neighbourhood; and reported the lowest level of speaking to area neighbours. Given the evidence to the contrary, I suspect that a misunderstanding of the survey question is a factor in these results. Clients of Facility "C" may have included client friendships in this category, which was intended to test for neighbourhood friends outside of the treatment program. An explanation for this finding may be in the intake path of clients (primarily via the justice system) and the overall population of the facility (100+) as compared to Facilities "A" (14) and "B" (16); both characteristics leading for a higher possibility that clients of Facility "C" will know others in the program.

4.6.2 Client Relations – Network Depth

Of the three facilities, individual clients of Facility "C" reported the least 'ease' in bonding with other clients in their program. Based on client interviews conducted at this facility, I suspect that a relatively closed social environment and stigma, associated with the social-material characteristics of the facility, might be implicated in this finding. The

character of the facility building elicited associations with 'institutional' facilities among both clients of Facility "C" and clients of other facilities. One client of Facility "C", who supported the program and credited the program with positive life changes, remarked that he initially viewed the program as a "rat factory". The same description of the facility [*rat factory*] was used by a client of Facility "A", who having never attended Facility "C", developed his opinion in conversations with others. Similar language has been used in the context of 'slang' to characterize jails and psychiatric institutions (Green, 2006, 1176) and is consistent with the fact that the primary client intake path of Facility "C" is via the justice/corrections system. As such, client intake practices at Facility "C" may be described as a near 'closed loop' whereby clients perceive, at least initially, little meaningful social change in making the transition from the court/justice system [institution] to the facility environment [institution]. Consequently, narrow client intake paths may limit client exposure to diverse social networks and – depending on the primary intake path and facility context – impede social interaction within the client cohort.

4.6.3 Facility Area Neighbours – Network Extent

Familiarity with neighbours was not necessarily related to facility programming as expected, whereby restrictive programming rules were expected to be correlated with less client recognition of facility area neighbours. In spite of being subject to the most restrictive 'leave' policies, clients of Facility "C" (ex-urban) reported a substantially greater overall level of recognition of neighbourhood area adults – who were not a part of their respective program – than clients of Facility "B" (inner-city). This finding appears even more problematic given the greater separation of Facility "C" (ex-urban) from the

surrounding neighbourhood versus Facility "B" (inner-city). However, this finding is consistent with clients' reported length-of-stay in their programs. Of the survey population, the client of Facility "C" with the least exposure to the facility neighbourhood had logged 81-days at the facility, in contrast to clients of Facility "B" where the longest term in the program was 78-days and the shortest 5-days. Therefore, the substantially higher rates of recognition of neighbourhood adults among clients of Facility "C" are not as surprising given the substantially lower overall levels of program/neighbourhood exposure noted among clients of Facility "B".

In certain cases, client responsibilities associated with facility programming offered unique avenues for extending social networks. Clients of Facility "A" (residential) experienced a wide range of opportunities which allowed more direct interaction with area social networks than clients of Facility "C" (ex-urban). For example, programmatic requirements for clients of Facility "A" involved leaving the premises to attend regular A.A. (Alcoholic Anonymous) meetings. Moreover, the facility manger lived off-site and clients were expected to monitor each other's behaviour. Most clients held full or part-time jobs and returned to the facility after working hours, often congregating in the living room, with a picture window overlooking the front street – where they watched T.V., observed happenings on the street and talked. Conversely, clients of Facility "C" received the majority of their treatment programming within the confines of the facility, often worked onsite within the facility program, and functioned within a more regimented program, which limited access to the surrounding community.

Programmatic responsibilities for clients of Facility "A" (residential) also included yard work (cutting the lawn, maintaining planting beds, shoveling snow). In

performing these duties, clients were exposed to area neighbours, which enabled them to extend their social networks outside of the program. During participant observation investigations conducted under the *Clean and Sober Places Study*, clients of Facility "A" discussed their knowledge of people to either side of the facility, across the street and across the backlane; in most cases knowing names and in some cases aware of their occupations extended family relations and personal stories.

4.6.4 Physical Environment – Network Resources

Clients of Facility "C", with children, focused on environmental characteristics related to the safety and well-being of their children. These clients were able to participate in cultural activities housed in special amenities on the facility grounds. Clients of Facility "C" conceived of their neighbourhood area in broader spatial terms than clients of the other two facilities, which was consistent with the fact that Facility "C" maintains the largest facility, on the largest grounds, with immediate access to 'rural-type', forested walking paths. This notion of scale is also reflected in that clients of Facility "C" reported the lowest level of overall familiarity with their surrounding neighbourhood over the other two facilities. This was unexpected as the most recent client of Facility "C", who participated in the survey, had been in the facility neighbourhood 75-days more than either comparable clients from Facilities "A" and "B".

4.6.5 Client Responsibilities – Network Culture

Of the three facilities, clients of Facility "C" had the least amount of 'free-time' due to programmatic expectations and responsibilities. Clients of Facility "C" were involved in all levels of the facility's operation from food preparation, laundry, cleaning

and monitoring the facility and grounds after hours and on weekends. Clients responsible for monitoring the facility during off hours and on weekends met weekly to discuss issues and considered the revision of visitation and client day-pass policies. During participatory observation at Facility "C", I noted that clients 'new' to the program appeared largely 'detached' from their surroundings and subject to a hierarchy (lower status) in relation to more 'established' clients. I suspected that 'new' clients may be initially overwhelmed in defining their roles and social position in the facility, causing them to withdraw. Facility "C" also had the strictest policy regarding curfews and the granting of 'client passes' allowing temporary leaves from the facility.

4.6.6 Stigma – Network Culture

Some clients expressed sensitivity concerning how they were viewed by 'others'. One particular client of Facility "B" (inner-city), interviewed for the *Clean and Sober Places Study*, related his experience of facing the cashier of a local grocery store in the company of his girlfriend and child, and having felt that he was "living a lie", whereby he was giving off the impression of being a "family man" for which he was undeserving. This same client was asked if he had a preference in terms of facility location if the facility were to be moved to any neighbourhood in the city. He responded that 'other' neighbourhoods may invoke a greater sense of stigma, whereas he preferred the current location because he could relate to the neighbourhood's social environment.

4.7 Implications of Findings

I suspect that the typology for area-based networks is inadequate as a standalone tool to evaluate the relationship between place and well-being in the current study context

given the dynamic character of addictions treatment programs. Variations in treatment program philosophies, client rule/responsibilities and client intake paths may influence some, or all of the typology categories. These findings are closely linked to the study population and do not necessarily discount adaptation of the typology for future studies. Rather, a careful consideration of extenuating contextual influences is recommended to enable a more complete understanding of study findings arising from use of the typology for area networks.

CHAPTER 5: CONCLUSION

5.1 Study Review

This study set out to examine a range of urban health concepts with the purpose of developing a clearer understanding of the relationship between individual well-being and facilities location. To do so, it has drawn on literature concerning various existing population health models and indicators, both quantitative and qualitative, including medical investigations into population health (i.e. medicine, psychology, biology) and research related to socio-cultural health issues (i.e. planning, economics, geography, sociology). The review of literature was used to establish an exploratory *typology of well-being*. The typology was used to frame a survey questionnaire to examine how the location of an addictions treatment facility – associated with particular social-material networks – affects client's health.

The study involved a survey of 32 clients attending residential addictions treatment programs, across three treatment facilities, in Winnipeg. The participants in the survey were predominantly single males and ranged in age from 18 to 65+. Client's length of stay in the treatment programs ranged from 5-days to 622-days, with an average stay of 103-days. Facility comparisons were conducted using a survey questionnaire, developed from the *typology of well-being*, as well as my experience as a research associate for the earlier *Clean and Sober Places Study* on addictions treatment environments in Winnipeg.

Facilities were purposefully selected to offer a distinct range of social-material environments and were identified in the study as follows: Facility "A" (residential),

located in an ageing residential neighbourhood characterized by mature trees and multiple-story detached homes; Facility "B" (inner-city), situated adjacent to the CBD, at the edge of an impoverished urban neighbourhood, with a preponderance of rooming houses and a longstanding reputation in the media for crime and drug issues; and Facility "C" (ex-urban), located at the City's outer edge – outside of the perimeter 'ring' highway – and having the outward character, unlike the rest of the city, of a small independent town.

5.2 Typology of Well-being

From the literature, a *typology of well-being* was developed for the purpose of framing data collection on urban health in the context of facilities placement and social-material networks. The typology of area networks was used to develop a survey questionnaire for the study, which considered a client's relative wellbeing in terms of four categories: *Network Depth, Network Extent, Network Culture* and *Network Resources*.

5.3 Overview of the Results

Social-material networks constitute aspects of everyday life that are useful to understand in terms of potential relationships to health benefits and health inequalities. I embarked on this study under the assumption that the location of an addictions treatment facility is associated with particular social-material networks that have health implications for clients. The final study question consisted of two parts.

1. How do social and material networks relate to an individual's well-being?

2. How does facility location relate to the social and material networks experienced by clients?

In spite of complications related to programmatic differences between facilities (i.e. treatment philosophy, program regulations and client intake paths), the *typology of well-being* was successful in framing a survey instrument, which showed a positive correlation for facility location and indicators of well-being.

Since explorations of urban health in this context, with this population, have not been conducted before, linking the notion of client well-being with concepts of social-material networks allowed new relationships to be established. The implications of these study findings for health promotion are that social and material networks are, to a certain degree, individual constructs, which are shaped by urban environments. However, understanding place-based networks is part of understanding social capital and material resources as varying aspects of complex urban processes and not necessarily as some sort of good or panacea. Such understandings may enable us to conduct more complete enquiries into health and well-being.

5.4 Uses and Limitations of the Study Typology

I would argue that the *typology of well-being* presented in this study is a useful construct for identifying social-material conditions which are thought to influence an individual's health. With respect to the study population, the typology was useful in identifying specific conditions related to client health as consequence of minimizing risks and accessing resources. Furthermore, as a concept which attempts to unravel the spatial, structural and cultural aspects of health, the typology is a helpful heuristic tool in

considering avenues for future investigations into relationships between one's place of residence and well-being. On its own however, I suspect that the typology is not wholly adequate for explaining the various effects of place on health.

The ability to distinguish areas of the typology where the facility location did (or did not) influence well-being was facilitated by both the survey questionnaire and experience from the earlier *Clean and Sober Places Study*. However, this study was cross-sectional and cannot reveal the causal direction of these associations. This leaves potentially important questions unanswered (see section 5.8: *Recommendations for Further Study*).

In addition to area-based distinctions, facilities differed in the programs they offered and the philosophies that guided their operation. Programmatic differences among the facilities studied included, but are not limed to: modes of client intake, length of program, treatment philosophy, range of available treatment resources, number and background of staff, and client rules and responsibilities. Potential variations in client responses associated with programmatic differences between facilities were not intentionally controlled during this study; as such these considerations were beyond the scope of this investigation.

5.5 Lessons Learned

My role as a research associate in the *Clean and Sober Places Study* offered key advantages in facilitating many aspects of this study. For example, interviewing clients, staff and administration of various facilities and conducting participant observation in select facilities allowed congruencies between facilities to emerge as well as highlighted

contradictions, such as programmatic differences. Had I relied solely on insights from the literature review to formulate the survey questions, important differences in program philosophies, client intake paths and client culture among the facilities would not have emerged.

This knowledge had implications in formulating the study. For example, the broadened definition of urban health, used to formulate the typology, was not necessarily implicit in the structure of the study survey questionnaire. This was intentional as I was concerned that participants' views on well-being may be inadvertently biased by the philosophy and teachings of their respective treatment programs, thereby, creating the potential for survey responses that did not correspond to client's unconditioned beliefs concerning health issues. This is an important consideration as I intended to compare individual conceptions of well-being both before, and after entering a treatment program environment. However, the treatment environment was now viewed as a potential source for 'new', less mature understandings of health that may not properly explain the respondents' established personal beliefs and practices. Had development of the survey questionnaire not been supplemented by my earlier experiences in the treatment environment as a research associate, similar incorrect attributions could have been made. As such, I strongly recommend that any future studies use a range of sources and methods to inform all levels of their study.

Finally, using the typology revealed the inherent complexity of urban health issues, as perspectives of clients of each treatment facility added a new layer of information about location and health. Consequently, I recommend the use of the

typology developed within this study for subsequent studies. However, given the influence of the differing hierarchical perspectives, I recommend that follow-up studies employ interviews to clarify areas within the typology that seem polarized by 'professional' versus 'lay' understandings of health. A foundation for this political focus could emerge out of the cultural aspects of the existing study typology. Using a broadened political scope to augment the small area social-material framework used in this study may be beneficial, as health politics have far reaching influences on understandings of health, the nature of accepted methods for health intervention, and avenues for funding health infrastructure.

5.6 Meeting Study Goals

A goal of this study was to offer advice to local government decision-makers, planners and responsible institutions, on policies and actions that may enhance the health of the citizenry. The study charted an exploratory path, the results of which indicate that there are spatially overlapping networks associated with improvements in individual health quality, as well as with degraded health and well-being. This suggests that researchers should endeavour to better understand how networks operate, at times in unexpected ways, to enable improved health and wellbeing. In particular, there is a need to clarify understandings concerning the net social benefits and impacts related to the siting of health facilities.

The timeliness of the debate over siting health facilities became evident during the final stages of this study when residents of a Winnipeg neighbourhood gathered to oppose plans for building a new treatment facility for severely addicted youth. The new

facility was planned with the intention to replace an ageing building elsewhere in the city, which the program was using under lease agreement, but found inadequate. The proposed facility was described as: 'a "secure", seven-day "drying-out" facility for kids aged 12 to 17 years whose parents have obtained a court order to send them for treatment' (Winnipeg Free Press, January 14, 2008). The new facility was to be a 7,535 sq/ft prefabricated, single-story structure located on the 'sprawling' grounds of an existing resource and residential care centre that provides supportive programs for people with developmental disabilities.

The proposed site for the treatment facility was supported by both the Province, which was funding the program, and the City of Winnipeg planning department. The Province maintained that the project fit into the concept of therapeutic services, which the existing facility already provided, and would have little impact on the surrounding neighbourhood. In spite of having the support of two levels of government, plans for the facility were quashed shortly after area residents had conducted an intense lobbying effort, which included contacting area New Democrat MLAs and cabinet ministers for Provincial Water Stewardship and Healthy Living, and members of the PC caucus (Winnipeg Free Press, January 30, 2008). In addition to intense NIMBY opposition, proponents of the new facility faced regulatory blocks to development. The subject property, situated along the Red River, was zoned residential, requiring the site to be rezoned for the intended use, while a variance was necessary to allow the new facility to be constructed closer than zoning regulations allowed to the existing treatment centre.

5.7 Role of Planners

The siting of an addictions treatment facility is subject to various complications. In addition to regulatory barriers (i.e. zoning approval), the approvals process for addictions treatment facilities siting is subject to NIMBY opposition, in part due to what has been described as '...widespread public apathy towards people with addictions and the organizations designed to assist them [which] has major implications in terms of social geography and facility location' (DeVerteuil et al, 2008). Where the current role of planning practitioners is by-and-large limited to the technocratic aspects of the facilities approvals process (i.e. zoning and variance approvals), my summary recommendations for engaging planning practitioners on an urban health agenda include:

- Actively responding, as a profession, to the need for further research and methods for reintegrating urban planners on a public health agenda
- Endeavoring to better understand the relationship between facilities siting and well-being
- Acting on the need for a convincing policy response to NIMBY opposition over public health facility siting.

Evidence of a link between one's conception of individual health and neighbourhood conditions would imply that urban policy and decision-making processes reflect this relationship. For example, if availability of community resources, employment and social networks are associated with an improvement in an individual's conception of health, then providing incentives that target treatment related investments in such neighbourhoods could benefit treatment center recovery rates. If travel times or

transportation costs are significantly related to individual concepts of a healthy environment, then the relocation of treatment facilities, or improvements in transportation linkages for treatment clients are likely policy levers. Moreover, it is my opinion that public policy should not conspire to reinforce patterns of segregation by supporting regulations that promote the concentration of residential treatment programs in high poverty neighbourhoods. As such, the verification of contextual effects on health is relevant to informing NIMBY disputes over the location of treatment centers. Tradeoffs between the various socio-contextual influences should be expected. For example, identifying the optimal location for clients living in disadvantaged neighbourhoods could involve a trade-off between the burden of travel and exposure to a more desirable, but distant treatment location where resources are more available.

These preliminary recommendations come with a cautionary note - attempts to regulate the formation, dismantling, and sustainability of social-material networks for strategic purposes do not necessarily operate in expected ways (i.e., dismantling some social-material networks may not always be negative, but their substitution may become problematic). One only needs to be reminded of the study of Filipino men with HIV in Los Angeles, California where researchers noted:

> *To enhance health and well-being, such individuals* [HIV positive] *are often asked to separate themselves from "negative" individuals and places. This is for example the typical approach advocated for substance users, who are asked to disconnect themselves from their networks of "using" partners, friends, and acquaintances. But, in separating themselves, these individuals may seek familiar and similar places and networks in new locations. In other words, separating from previous networks of support, even if they supported typically defined negative health behaviors, creates need for new socio-spatial networks and routines that do not rely on such social capital. This is difficult, and often, not sustainable because of a lack of networks and resources that might replace those*

that are deemed inappropriate and unhealthy (Takahashi & Magalong, 2008, 195).

Dimensions of social-material networks may hold keys to better understanding what can be done in terms disentangling place-based social and material networks to offer insight into positive and negative connections with health. It is my contention that practitioners of urban planning should be at the forefront in attempts to unlock the spatial characteristics that regulate these network interactions and their connections to well-being. Through such research and practice, urban planners and medical practitioners may better understand the complex nature of urban health, and how social-material networks might best be tapped for improving quality of life to benefit all of society.

5.8 Recommendations for Further Study

Applying the study typology developed herein has provided new insight into the spatial relationship between social-material context and well-being for clients attending residential addictions treatment programs, thereby revealing potentially interesting mechanisms that can be tested in future research. There is a need, in future studies, to clarify how social-material networks change over time and how these changes end up promoting and/or denigrating area health. Future studies should also explore the power dynamics that exist within these networks, which may facilitate or restrict access to critical resources for particular populations.

Addressing a follow-up study, I recommend using a longitudinal study method to explore casual relationships between social-material networks and well-being. A three stage approach - for this study population – would be to arrange to interview clients prior

to entering the residential treatment environment, during program attendance, and after program completion, to enable comparative views on the health effects of place. I would add to such a study, a more nuanced evaluation of the political dimensions of wellbeing, as a health construct, that holds a vital role in both understanding and responding to public health needs.

5.9 Final Thoughts

The agenda for this study involved examining urban health issues, across various disciplinary boundaries, to explore the emergence of theoretical frameworks that reach beyond the confines of individual disciplines. This study contributes to the ongoing re-alignment and re-configuration of urban health research, across established categories of knowledge, as a means of producing new understandings, revised theoretical frameworks and new methods. Throughout this study I have discussed how constructs at multiple levels (e.g., qualities of the built environment, social networks and cultural phenomena) may be associated with individual conceptions if health. Recognizing that the role of specific health constructs may be different across urban contexts makes the careful specification of the key exposures of interest to be critical. This study has elaborated potential casual mechanisms - as suggested by current related literature, including planning literature - that would link notions of individual health to social-material networks and urban context. The notion of urban health - posited within the *typology of well-being* developed and applied herein to examine the interactions of urban context and well-being - provides an analogy to motivate the revision of urban policy as it relates to facility siting. However, knowledge of the role of social networking remains

underdeveloped, even apart from contextual considerations and health related issues. The challenge in drawing conclusions about relations between health and social factors multiply when we investigate the environmental factors that may moderate them. As such, the typology for well-being developed and applied in this study should be regarded as a preliminary tool that requires refinement as findings accumulate from future research.

Attempts to evaluate the relationship between place and health require research designs that combine both qualitative and quantitative investigation and analysis. The study of individual conceptions of health requires methods that would consider the multiple levels of potential influence in the urban context, along with the appropriate specification of important urban constructs. This is needed before convincing frameworks can be devised to assess whether, and how these variables influence health. Study designs must include clear definitions of key spatial terms, such as neighbourhood and community, as well as consider the range of meanings assigned to notions of health across time and space. Participatory methods of inquiry may serve to identify key issues, define research questions and how to frame them through meaningful indicators.

For urban residents, the best possible health can only be achieved if due consideration is given to the creation of a broadly favourable environment (Wilkinson & Marmot, ed. 1998). While the notion of health has become a central concept used to evaluate urban quality of life, professional planning practice appears to have strayed from its early efforts to improve industrial era living conditions, giving way to the 'medicalization' of health and the highly specialized domain of professional medicine

(Lantz et al., 2007). This is disconcerting, as narrow conceptions of health may not support the conditions which stimulate public discussion and support open consideration of health issues that are inclusive of the views of marginalized, excluded, or non-dominant groups. In this case, decision-making would be, for the most part, limited to the realms of political institutions and professional health authorities. Creating more livable urban environments that are conducive to health and well-being requires a well integrated approach between urban planners and health professionals. There is still a need for wider learning from the mistakes and oversights of professionals entrusted with population health, as in the case of the Chicago heat wave of 1995, which have resulted in unnecessary hardship and/or tragic ends. That being said, this is a particularly opportune time for the discipline of urban planning to reengage health as an increasingly relevant and challenging field of action.

REFERENCES

Airey, L. (2003). "Nae as nice a scheme as it used to be": lay accounts of neighbourhood incivilities and well-being. *Health and Place*, 9(2): 129–137.

Alter, D. (2007). Therapeutic lifestyle and disease-management interventions: pushing the scientific envelope. *Canadian Medical Association Journal*, 177(8): 887-889.

Altschuler, A. (2004). Local services and amenities, neighbourhood social capital, and health. *Social Science & Medicine*, 59(6):1219-1229.

Araya, R., Dunstan, F., Playle, R., Thomas, H., Palmer, S., Lewis, G. (2006). Perceptions of social capital and the built environment and mental health. *Social Science & Medicine*, 62(12): 3072–3083.

Baum, F., Palmer, C., (2002). 'Opportunity structures'; urban landscape, social capital and health promotion in Australia. *Health Promotion International*, 17(4): 351–361.

Berrigan, D., Troiano, R. (2003). The association between urban form and physical activity in U.S. adults. *American Journal of Preventative Medicine*, 23(2 suppl):74-79.

Bolin, K., Lindgren, B., Lindstrom, M., Nystedt, P. (2003). Investments in social Capital - implications of social interactions for the production of health. *Social Science & Medicine*, 56(12): 2379–2390.

Boyle, M., Willms, D. (1999). Place Effects for Areas Defined by Administrative Boundaries. *American Journal of Epidemiology*, 149(6): 577-585

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (ed.), Handbook of theory and research for the sociology of education, Westport, CT: Greenwood Press: 241-258.

Brehm, J., Rahn, W. (1997). "Individual-level evidence for the causes and consequences of social capital", *American Journal of Political Science*, 41(3): 999-1023.

Carpiano, R. (2007). Neighbourhood social capital and adult health: An empirical test of a Bourdieu-based model, *Health & Place*, 13(3): 639–655.

Carter, T., Polevychok, C., Sargent, K. (2005). Poverty Changes in Winnipeg Neighbourhoods 1981-2001. Canada Research Chair in Urban Change and Adaptation: Research Highlights. Available at: http://ius.uwinnipeg.ca/CRC/RH-05.pdf

Cattell, V. (2001). Poor people, poor places, and poor health: the mediating role of social networks and social capital. *Social Science & Medicine*, 52(10): 1501–1516.

Cattell, V., Evans, M. (1999). Neighbourhood Images in East London: Social capital and social networks on two East London estates. York: Joseph Rowntree Foundation

Colgrove, J. (2002). The McKeown Thesis: A Historical Controversy and Its Enduring Influence. *American Journal of Public Health*, 92(5): 725-729.

Corburn J. (2004). Confronting the challenges in reconnecting urban planning and public health. *American Journal of Public Health*, 94(4): 541–546.

Davidson, R., Mitchell, R., Hunt, K. (2008). Location, location, location: The role of experience of disadvantage in lay perceptions of area inequalities in health. *Health & Place*, 14(2): 167–181.

Denzin, N., Lincoln, Y. eds. (2005). The Sage Handbook of Qualitative Research. 3rd ed. Thousand Oaks: Sage

DeVerteuil, G., Wilton, R., Klassen, S. (2008). Making Clean and Sober Places: The Intersections of Therapeutic Landscapes and Substance Abuse Treatment. Book chapter in Therapeutic Landscapes, Allison Williams, ed. Ashgate Pub Co.

Drukker, M., Buka, S., Kaplan, C., McKenzie, K., Van Os, J. (2005). Social capital and young adolescents' perceived health in different sociocultural settings. *Social Science & Medicine*, 61(1): 185–198.

Duhl, L., Sanchez, A. (1999). Healthy Cities and the city planning process: A Background Document on Links Between Health and Urban Planning. Available at: http://www.who.dk/document/e67843.pdf.

Ellen, I, Turner, M (1997). 'Does Neighbourhood Matter? Assessing Recent Evidence'. *Housing Policy Debate*, 8(4): 833-866.

Elman, C. (2005). Explanatory Typologies in Qualitative Analysis. *International Organization*, 59: 293-326. Published online by Cambridge University Press 17May2005.

Ewing, R., Schmid, T., Killingsworth, R., Zlot, A., Raudenbush, S. (2003). Relationship between urban sprawl and physical activity, obesity, and morbidity. *American Journal of Health Promotion*, 18(1): 47-57.

Feins, J., Shroder, M. (2005). Moving to Opportunity: The Demonstration's Design and its Effects on Mobility. *Urban Studies*, 42(8): 1275-1299.

Freudenberg, N., Galea1, S., Vlahov1, D. (2005). Beyond urban penalty and urban sprawl: back to living conditions as the focus of urban health. *Journal of Community Health*, 30(1): 1-11.

Galea, S., Rudenstine, S., Vlahov, D. (2005). Drug use, misuse, and the urban environment. *Drug and Alcohol Review*, 24: 127-136.

Gallagher, M. (1994). HUS's Georgraphy of Opportunity. *Planning*, 60(7): 12-13.

Gatrell, A., Popay, J., Thomas, C. (2004). Mapping the determinants of health inequalities in social space: can Bourdieu help us? *Health & Place*, 10(3): 245-257.

Green, J. (2006). Cassell's Dictionary of Slang. Second Edition, Cassell.

Hancock, T. (1993). The Evolution, Impact and Significance of the Health Cities/Healthy Communities Movement. *Journal of Public Health Policy*, 14(1): 5-18.

Hartig, T., Lawrence, R. (2003). Introduction: The Residential Context of Health" *Journal of Social Issues*, 59(3): 455-473.

Hodge, G., Gostin, L., Gebbie, K., Erickson, D. (2006) Transforming Public Health Law: The Turning Point Model State Public Health Act. *The Journal of Law, Medicine & Ethics*, 34(1): 77–84.

Hodge, G. (1997). Implementing modern public health goals through government: an examination of new federalism and public health law. *Journal of Contemporary Health Law Policy*, 14(1): 93-126.

Jandy, S., Boarnet, M., Ewing, R., Killingsworth, R. (2002). How the built environment affects physical activity: views from urban planning. *American Journal of Preventative Medicine*, 23(Suppl 2): 64 –73.

Kan, K. (2007). Residential mobility and social capital. *Journal of Urban Economics*, 61(3): 436–457.

Kawachi, I. (2000). Social Capital. Source: John D. and Catherine T. MacArthur Research Network on Socioeconomic Status and Health. http://www.macses.ucsf.edu/Research/Social%20Environment/notebook/capital.html

Kawachi, I., Kennedy, B., Lochner, K., Prothrow-Stith, D. (1997). Social capital, income inequality, and mortality. *American of Journal of Public Health*, 87(9):1491-1498.

Klinenberg, E. (2002). Heat wave: a social autopsy of disaster in Chicago. Chicago: University of Chicago Press.

Knowlton, K. (2001). Urban History, Urban Health. *American Journal of Public Health*, 91(12): 1944–1946.

Labonte, R. (1993). Health Promotion and Empowerment: Practice Frameworks. Toronto: Centre for Health Promotion and ParticipAction.

Lantz, P., Lichtenstein, R., Pollack, H. (2007). Health Policy Approaches To Population Health: The Limits Of Medicalization. *Health Affairs*, 26(5): 1253-1257

Leventhal, T., Brooks-Gunn, J. (2003). Moving to Opportunity: an Experimental Study of Neighbourhood Effects on Mental Health. *American Journal of Public Health*, 93(9): 1576-1582

Lochner, K., Kawachi, I., Kennedy, B. (1999). Social capital: a guide to its measurement. *Health & Place*, 5(4): 259-270.

Lund, H. (2003). Testing the claims of new urbanism: local access, pedestrian travel and neighboring behaviors. *Journal of the American Planning Association*, 69(4): 414–429.

Lupton, D. (1992). Discourse analysis: a new methodology for understanding the ideologies of health and illness. *Australian Journal of Public Health*, 16(2): 145-150.

Maantay, J. (2001) Zoning, equity, and public health. *American Journal of Public Health*, 91(7): 1033–1041.

McCulloch, A. (2003). An examination of social capital and social disorganisation in neighbourhoods in the British Household panel study. *Social Science & Medicine*, 56(7): 1425–1438.

Mumford, L. (1961). The city in history. its origins, its transformations and its prospects. New York, Harcourt, Brace and World Inc.

Muntaner, C., Lynch, J., Smith, G. (2001). Social capital, disorganized communities, and the third way: Understanding the retreat from structural inequalities in epidemiology and public health. *International Journal of Health Services*, 31(2): 213-237.

Murray, M., Poland, B. (2006). Health Psychology and Social Action. *Journal of Health Psychology*, 11(3): 379–384.

Neuman, W. (1997). Social research methods: qualitative and quantitative approaches. Boston; Toronto: Allyn and Bacon, 3rd ed.

Neave, G. (2003), "Research and Research Training Systems: towards a typology" Report to the Higher Education Division, UNESCO, [mimeo] 23 pp.

Northridge, M,. Sclar, E,. Biswas, P. (2003). Sorting out the connections between the built environment and health: a conceptual framework for navigating pathways and planning healthy cities. *Journal of Urban Health*, 80(4): 556–568.

Orr, L., et. al. (2003). Moving to Opportunity Interim Impacts Evaluation: Final Report. U.S. Department of Housing and Urban Development (HUD). http://www.abtassociates.com/reports/2003302754569_71451.pdf

Patulny, R., Svendsen, G. (2007). Exploring the social capital grid: bonding, bridging, qualitative, quantitative. *International Journal of Sociology and Social Policy*, 27(1/2): 32-51.

Porter, D. (1999). Health, Civilization and the State: A History of Public Health From Ancient to Modern Times. New York, NY: Routledge.

Pooley, J., Cohen, L., Pike, L. (2005). Can sense of community inform social capital? *The Social Science Journal*, 42(1): 71–79.

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology*, 24: 1-24.

Putman, R. (2000). Bowling Alone. New York, NY: Simon & Schuster.

Raphael, D. (2003). Barriers to addressing the societal determinants of health: public health units and poverty in Ontario, Canada. *Health Promotion International*, 18 (4): 397-405.

Raphael, D. (1999). Economic Inequality and Health: Policy Implications Keynote Presentation to the Pathways to Health Conference Antigonish, Nova Scotia. http://www.utoronto.ca/qol/IHpaper1.PDF

Raphael, D. (1998). Public Health Responses to Health Inequalities *Canadian Journal of Public Health*, 89: 380-381.

Rosenbaum, J., DeLuca, S., Tuck, T. (2001). Moving and Changing: How Places Change People Who Move Into Them. Institute for Policy Research Northwestern University. Institute for Policy Research Working Paper, WP-02-09. http://www.northwestern.edu/ipr/publications/papers/2002/WP-02-09.pdf

Ross, C. (2000). Walking, exercising, and smoking: does neighbourhood matter? *Social Science and Medicine*, 51(2): 265–74.

Schilling, J., Linton, L. S. (2005). The Public Health Roots of Zoning: In Search of Active Living's Legal Genealogy. *American Journal of Preventive Medicine*, 2005, 28(2S2): 96–104.

Statistics Canada (1997). Selected leading causes of death, by sex http://www40.statcan.ca/l01/cst01/health36.htm

Statistics Canada (2004). Age-standardized mortality rates by selected causes, by sex (Both sexes) 2001-2004 http://www40.statcan.ca/l01/cst01/health30a.htm?sdi=causes%20death

Stephens, C. (2007). Social capital in its place: Using social theory to understand social capital and inequalities in health. *Social Science & Medicine* xx: 1-11.

Stephenson, S. (2001). Street children in Moscow: using and creating social capital. *The Sociological Review*, 49(4): 530-547.

Sturm R, Cohen D. (2004). Suburban sprawl and physical and mental health. *Public Health*, 118: 488-496.

Subramanian, S., Lochner, K., Kawachi, I. (2003). Neighbourhood difference in social capital: A compositional artifact or a contextual construct? *Health & Place*, 9(1): 33–44.

Takahashi, L., Magalong, M. (2008). Disruptive social capital: (Un)Healthy socio-spatial interactions among Filipino men living with HIV/AIDS. *Health & Place*, 14(2): 182–197.

Takano, T. ed. (2003). Healthy Cities and Urban Policy Research. London; New York: Spon Press.

Taylor, S., Repetti, R., Seeman, T. (1997). Health Psychology: What is an unhealthy environment and how does it get under the skin? *Annual Review of Psychology*, 48: 411-447.

Turner, M. (1998). Moving Out of Poverty: Expanding Mobility and Choice through Tenant-Based Housing Assistance. *Housing Policy Debate*, 9(2): 373-394.

van Kemenade, S. (2003). Social Capital as a Health Determinant: How Is It Defined? Health Policy Research Working Paper Series, Working Paper 02-07. Health Canada.

Vlahov, D, Gibble, E, Freudenberg, N, Galea, S. (2004). Cities and health: history, approaches, and key questions. *Academic Medicine*, 79(12): 1133-1138.

Veenstra, G. (2005). Location, location, location: contextual and compositional health effects of social capital in British Columbia, Canada. *Social Science & Medicine*, 60(9): 2059–2071.

Veenstra, G., Luginaah, I., Wakefield, S., Birch, S., Eyles, J., Elliott, S. (2005).Who you know, where you live: Social capital, neighbourhood and health. *Social Science and Medicine*, 60(12): 2799-2818.

Williams, A. ed. (2007). Therapeutic Landscapes. Burlington, VT: Ashgate Publishing Limited.

Wilkinson, R. (1999). Health, Hierarchy, and Social Anxiety. *Annals of the New York Academy of Sciences*, 896(1): 48–63.

Wilkinson, R., Marmot, M., ed. (1998). Social determinants of health: the solid facts. Copenhagen, WHO Regional Office for Europe, (document EUR/ICP/CHVD 03 09 01).

Wilkinson, R. (1996). Unhealthy Societies: the Afflictions of Inequality. NY: Routledge.

Wood, L., Giles-Corti, B. (2007). Is there a place for social capital in the psychology of health and place? *Journal of Environmental Psychology, in press, accepted manuscript.* doi:10.1016/j.jenvp.2007.11.003

Ziersch, A., Baum, F., MacDougall, C., Putland, C. (2005). Neighbourhood life and social capital: the implications for health. *Social Science & Medicine*, 60(1): 71–86.

APPENDIX A

PRELIMINARY SURVEY STRUCTURE – BASED ON TYPOLOGY OF WELL-BEING

Sub-themes from Typology	Potential variables to model individual well-being	Response coding
Typology Category: **Network Depth** (*Bonding*) *Theme: Ties with similar individuals (good for getting by)*		
Familiarity with treatment cohort	Length of stay in treatment program	Date – dd/mm/yy
Bonding with like individuals	Client friends	Across likert scale
Typology Category: **Network Extent** (*Bridging*) *Theme: Ties with different individuals (good for getting ahead)*		
Communication with 'others'	Friendly neighbours / talk to neighbours	Across likert scale
Opportunities to network outside of client cohort	Access to alternate forms of communication (i.e. phone / internet)	Yes / No / Limitations to access
Typology Category: **Network Culture** *Theme: Feelings of safety, trust and belonging*		
Safety	Safe to walk in neighbourhood in the evening	Across likert scale
Trust	Experience of theft of, or damage to personal property while in program	Yes / No
Typology Category: **Network Resources** *Theme: Physical environment and availability/access to material supports*		
Services / amenities	Local shops, transportation, leisure facilities, schools, facilities for children	List of amenities / Across likert scale
Neighbourhood comparison	Differences between current facility and former client neighbourhoods	List of differences / Across likert scale

APPENDIX B
SURVEY QUESTIONNAIRE

UNIVERSITY of MANITOBA | Faculty of Architecture

Department of City Planning
201 Russell Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9458
Fax (204) 474-7532

Survey Questionnaire

____

- Please do not mark your name anywhere on these pages -

Please attempt to answer all of the following questions. However, you have the right to refuse to answer any question(s) without affecting your rights as a participant in this study.

1) **Gender**

☐ Female ☐ Male

2) **Age**

☐ 18-24 years
☐ 25-34 years
☐ 35-44 years
☐ 45-54 years
☐ 55-64 years
☐ 65+ years

3) **Education**

☐ Less than high school
☐ Graduated from high school
☐ University/College degree

4) **Marital status**

☐ Single
☐ Married
☐ Separated/Divorced

5) **How did you obtain most of your money over the last 12 months?**

☐ I did not do anything to make money
☐ I received only employment insurance (EI) payments
☐ I received social assistance (welfare) payments
☐ I worked only at temporary jobs
☐ I worked at temporary jobs and received employment insurance (EI) payments
☐ I worked a fulltime job
☐ I obtained income in other ways

6) **What was your income in 2005?**

☐ Less than $10,000
☐ $10,000 to $19,000
☐ $20,000 to $39,000
☐ $40,000 to $59,000
☐ $60,000 and over

7) **Do you have access to a phone while staying at ____ ?**

- ☐ Yes, I can use the phone at ____ any time I need to make a call
- ☐ Yes, but I can only use the phone at ____ at certain times
- ☐ No, I have no access to a phone unless there is an emergency
- ☐ I have a cell phone that I use while staying at ____
- ☐ I usually use a pay phone, or a phone outside of ____

8) **Do you have an e-mail address?**

☐ Yes ☐ No

9) **Do you have access to a computer with an Internet connection while staying at ____?**

☐ Yes ☐ No

10) **Have you had the opportunity to find a job since entering ____?**

- ☐ Yes
- ☐ No
- ☐ I haven't been looking for a job
- ☐ I already had a job

11) **Place a check mark in the box beside each of the following services that you know are within a 15 minute walk from ____?**

☐ Community / Recreation center	☐ Gym or fitness center	☐ Restaurant
☐ Grocery store	☐ Church	☐ Park
☐ Pool/video game hall	☐ Library	☐ Bus stop
☐ Bank machine / ATM	☐ Bank or Credit union	☐ Bakery
☐ Money Mart/ Cheque cashing	☐ VLT's (gambling)	☐ Bingo hall
☐ Coffee shop / Donut shop	☐ Convenience store	☐ Pay phone
☐ Liquor store / Beer vendor	☐ Video rental store	☐ Bar/Lounge
☐ Barber shop / Hair salon	☐ Pharmacy / Drug store	☐ Book store
☐ Department store	☐ Laundromat	☐ Access to a computer with Internet
☐ Health clinic / Hospital	☐ Pawn Shop	

12) **Write down three of the most important services that you currently use in the neighbourhood around ____. You can choose services from the list in the last question. You can also add services that are not on that list.**

a)_____ b)_____

c)_____

13) **Write down any services that you think are very important to have, but are missing from the neighbourhood around ____.**

_____

_____

_____

14) **What kind of transportation do you use the most while staying at ____?**

- ☐ bus
- ☐ walk
- ☐ I drive my own vehicle
- ☐ I am a passenger in someone else's vehicle
- ☐ bicycle
- ☐ I don't leave very often

15) **When did you enter the program here at ____?**

Day _____ Month _____ Year _____

16) **In the past 2 years, how many different places have you lived in or stayed at for at least one month or more?** _____

17) **Indicate the street and the closest crossing street where you lived prior to entering ____.** *(Do not include the address number)*

Before coming to ____, I was living on _____ (STREET)
near _____ (CROSS-STREET) in _____(CITY)

18) **Suppose you were talking to someone else who lives here in Winnipeg and you were telling them where ____ is located. What name would you use for the neighborhood around ____?**

_____

19) **If you are talking to someone about the boundaries of the neighborhood around_____, would you describe it as?**

- ☐ The block or street that ____ is located on
- ☐ Several blocks or streets in each direction around ____
- ☐ The area within a 15-minute walk from ____
- ☐ An area larger than a 15-minute walk from ____

20) **How often do you go to places outside of ____?**

- ☐ Once or twice a week
- ☐ Every day
- ☐ Less than once a week
- ☐ I usually don't leave
- ☐ I never leave

21) **How comfortable do you usually feel about staying in the neighbourhood around ____?**

- ☐ The neighbourhood around ____ is ok, but it could be better
- ☐ The neighbourhood around ____ is pretty good
- ☐ The neighbourhood around ____ is great and I would consider moving here myself
- ☐ The neighbourhood around ____ doesn't matter to me
- ☐ The neighbourhood around ____ makes me very uncomfortable and I would like to be in a different neighbourhood

22) **Does the neighbourhood around ____ seem very different from the neighbourhood where you lived before coming to ____?**

- ☐ Yes, these neighbourhoods are very different
- ☐ No, these neighbourhoods are not very different
- ☐ I was already living in this neighbourhood before coming into this program

23) **If you answered yes to the last question, please list a few things that you feel are different.**

_____

_____

24) **Which neighbourhood do you like more?**

- ☐ I like the neighbourhood that I lived in before coming to ____
- ☐ I like the neighbourhood around ____

25) **List three things that you like about the neighbourhood around ____.**

a)_____ b)_____
c)_____

26) **List three things that you <u>do not</u> like about the neighbourhood around ____.**

a)_____ b)_____
c)_____

27) **List a few places that you have gone to that are within walking distance of____?**

a)_____ b)_____
c)_____

28) **How well do you feel you know the neighbourhood around ____?**

- ☐ I feel that I know the area well
- ☐ I feel that I know the area very well
- ☐ I feel that I know more about this neighbourhood than most people around here
- ☐ I don't know much about this neighbourhood

29) **Since coming to ____ have you spoken to anyone in the neighbourhood that is not part of the program?**

- ☐ Yes. I have spoken to people in this neighbourhood that are not part of ____
- ☐ No. I have only spoken with people at ____

30) **Do you feel isolated from family and friends while staying in the neighbourhood around ____?**

- ☐ I feel isolated here at ____ because I have no friends or family nearby
- ☐ I don't feel isolated here at ____ because I have friends here in ____
- ☐ I don't feel isolated here at ____ because I have connections with friends or family outside of ____

31) **Do you think that it was easy to make friends with other clients when you first arrived at____?**

- ☐ Yes. I think it was easy to make friends with other clients
- ☐ No. I don't think it was easy to make friends with other clients

32) **Do you think you would have an easy time making new friends with people who live in the neighbourhood around ____?**

- ☐ I think it would be easy to make new friends in this neighbourhood
- ☐ I don't think it would be easy to make new friends in this neighbourhood

33) **Would you say that the neigbourhood around ____ is safer, or less safe than the last neighbourhood that you lived in before coming here?**

- ☐ I think the neigbourhood around ____ is safer
- ☐ I think the neigbourhood where I last lived is safer

34) **Do you recognize adults that are not clients in the neighborhood around ____?**

- ☐ I do not recognize any adults in this neighbourhood who are not clients
- ☐ I recognize a few adults in this neighbourhood who are not clients
- ☐ I recognize most adults in this neighbourhood who are not clients

35) **I think that most people in this neighborhood can be trusted**

- ☐ Strongly Agree
- ☐ Agree
- ☐ Unsure
- ☐ Disagree
- ☐ Strongly Disagree

36) **Do you have any relatives that live in the neighborhood around ____?**

- ☐ I have relatives that live in the neighborhood around ____
- ☐ I do not have any relatives that live in the neighborhood around ____

37) **Do you have any close friends that live the neighborhood around ____?**

- ☐ I have close friends that live in the neighborhood around ____
- ☐ I do not have any close friends that live in the neighborhood around ____

38) **While you have been at ____, have you had anything stolen or damaged?**

☐ Yes ☐ No

39) **How safe is it to walk alone in the neighborhood around ____ after dark?**

- ☐ It is very safe to walk alone in the neighborhood around ____after dark
- ☐ It is fairly safe to walk alone in the neighborhood around ____ after dark
- ☐ It is somewhat dangerous to walk alone in the neighborhood around ____ after dark
- ☐ It is very dangerous to walk alone in the neighborhood around ____after dark

40) **In the past week, how many of your neighbors around ____ have you talked with for 5 minutes of more?**

☐ None ☐ 1 or 2 ☐ 3 to 5 ☐ 6 or more

41) **Mark the boxes that show what you like to do in your free time away from ____?**

- ☐ Spending time visiting with family and relatives
- ☐ Spending time visiting with friends
- ☐ Exercising at a gym
- ☐ Eating out at a restaurant
- ☐ Watching TV or going to a movie
- ☐ Attending religious or spiritual activities
- ☐ Other things such as _____
- ☐ Walking
- ☐ Shopping
- ☐ Sleeping
- ☐ Attending a group meeting
- ☐ Going to classes or school
- ☐ I don't have much free time
- ☐ Reading

Thank you for your participation

APPENDIX C

JOINT-FACULTY RESEARCH BOARD (JFREB) – HUMAN ETHICS APPROVAL CERTIFICATE

UNIVERSITY
OF MANITOBA

OFFICE OF RESEARCH
SERVICES
Office of the Vice-President (Research)

244 Engineering Bldg.
Winnipeg, MB R3T 5V6
Telephone: (204) 474-8418
Fax: (204) 261-0325
www.umanitoba.ca/research

APPROVAL CERTIFICATE

15 May 2006

TO: **Shaun Klassen** (Advisor D. van Vliet)
Principal Investigator

FROM: **Wayne Taylor, Chair**
Joint-Faculty Research Ethics Board (JFREB)

Re: **Protocol #J2006:045**
"Dimensions of Urban Health: Evaluating Social Networks Experienced by clients of Residential Substance Abuse Treatment Facilities in Winnipeg"

Please be advised that your above-referenced protocol has received human ethics approval by the **Joint-Faculty Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement. This approval is valid for one year only.

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

Please note:

- **if you have funds pending human ethics approval, the auditor requires that you submit a copy of this Approval Certificate to Kathryn Bartmanovich, Research Grants & Contract Services (fax 261-0325), including the Sponsor name, before your account can be opened.**

- **if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.**

APPENDIX D

FACILITY CONSENT LETTER – FACILITY ADMINISTRATOR

Study Permission Letter:

UNIVERSITY OF MANITOBA | Faculty of Architecture

Department of City Planning
201 Russell Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9458
Fax (204) 474-7532

June, 2006

Dear _____,

My name is Shaun Klassen. I am a graduate student in City Planning at the University of Manitoba. One of the requirements of this program is to complete a thesis project. I have chosen to undertake a study assessing whether the location of facilities for the treatment/recovery from substance abuse has an impact on client's ability to establish networks based upon notions of social capital.

I am writing you to obtain general permission to have your organization participate in my study. This study will involve the completion of a survey questionnaire by clients in your program. This study is entirely voluntary and only clients who are 18+ years of age will be able to participate. You will be asked to inform clients about the upcoming study and to note those who are interested in participating. Together, we will schedule an available time for myself to stop by to administer the survey. In the interest of participant confidentiality, I ask that you provide a room/area within the facility to conduct the survey. Prior to administering the survey, I will inform all potential subjects that their involvement in the study is voluntary and all participants will be required to fill out participant consent forms.

Ideally, my study will involve a one-time visit to your facility at a time when all consenting clients are able to fill out the survey. Otherwise, the study may involve more than one visit to complete the data collection. It is estimated that the survey will take approximately 20-30 minutes to administer.

I will be in attendance during the duration of the study to answer questions and facilitate the survey process. Since this study is for a thesis, the collected data may be made available to the chair of my advisory committee, Dr. David van Vliet, at the University of Manitoba.

I want to assure you that although I will be publishing my study, I will not be using any client names, staff names, or names of your facilities in any of the documentation. All of the information I collect will be strictly confidential. Participation in the survey is voluntary and participants have the right to withdraw at any time. I will keep the survey forms stored under lock and key until I finish my thesis, after which I will shred these documents.

There is minimal risk to the subjects/organizations participating in this study. Since this is an independent study with no budget allocation, there are no monetary benefits forthcoming to participants in this study.

If you would like information about the results of my study when it is completed, I will be happy to e-mail you a written report.

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 facility administrator. 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 this study at any time 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.

You can reach me, Shaun Klassen, at 231-XXXX, or you can contact the chair of my thesis committee, Dr. David van Vliet at 474-XXXX.

This research has been approved by the Joint-Faculty Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-4122. A copy of this consent form has been given to you to keep for your records and reference.

---------- ----------

Administrator's Signature Date

---------- ----------

Researcher's Signature Date

Would you like a summary report of this study?

Administrator's Name: _____

☐ Yes ☐ No

If you would like a summary report of this study, please provide an e-mail address so that this information can be forwarded (note: this report will only be available after the thesis has been completed).

E-mail address: _____

APPENDIX E
PARTICIPANT CONSENT LETTER – CLIENT

Participant Consent Form:

UNIVERSITY OF MANITOBA | Faculty of Architecture

Department of City Planning
201 Russell Building
Winnipeg, Manitoba
Canada R3T 2N2
Telephone (204) 474-9458
Fax (204) 474-7532

June, 2006

Dear Study Participant,

My name is Shaun Klassen. I am a graduate student in City Planning at the University of Manitoba. One of the requirements of this program is to complete a thesis project. I have chosen to undertake a study assessing whether the location of facilities for the treatment/recovery from substance abuse has an impact on client's ability to establish networks based upon notions of social capital.

I am writing to ask you to be a participant in the study. If you agree to participate, you will be asked to complete a survey style questionnaire. It is expected that this survey will take between 20-30 minutes to complete.

Since this study is for a thesis, the collected data may be made available to the chair of my advisory committee, Dr. David van Vliet, at the University of Manitoba.

I want to assure you that although I will be publishing my study, I will not be using any client names, staff names, or names of your facilities in any of the documentation. All of the information I collect will be strictly confidential. Your participation in the survey is voluntary and you have the right to withdraw at any time. I will keep the survey forms stored under lock and key until I finish my thesis, after which I will shred these documents.

There is minimal risk to the subjects/organizations participating in this study. Since this is an independent study with no budget allocation, there are no monetary benefits forthcoming to participants in this study.

If you would like information about the results of my study when it is completed, I will be happy to e-mail you a written report.

Your signature on this form indicates that you have understood to your satisfaction the information regarding participation in the research project and that you agree participate in this study. 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 this study at any time, and/or refrain from answering any

questions that 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.

You can reach me, Shaun Klassen, at 231-XXXX, or you can contact the chair of my thesis committee, Dr. David van Vliet at 474-XXXX.

This research has been approved by the Joint-Faculty Research Ethics Board. If you have any concerns or complaints about this project you may contact any of the above-named persons or the Human Ethics Secretariat at 474-4122. A copy of this consent form has been given to you to keep for your records and reference.

---------- ----------

Participant's Signature Date

---------- ----------

Researcher's Signature Date

Would you like a summary report of this study?

Subject's Name: _____

☐ Yes ☐ No

If you would like a summary report of this study, please provide an e-mail address so that this information can be forwarded (note: this report will only be available after the thesis has been completed).

E-mail address: _____

APPENDIX F

M.C.P. THESIS PRESENTATION SLIDES

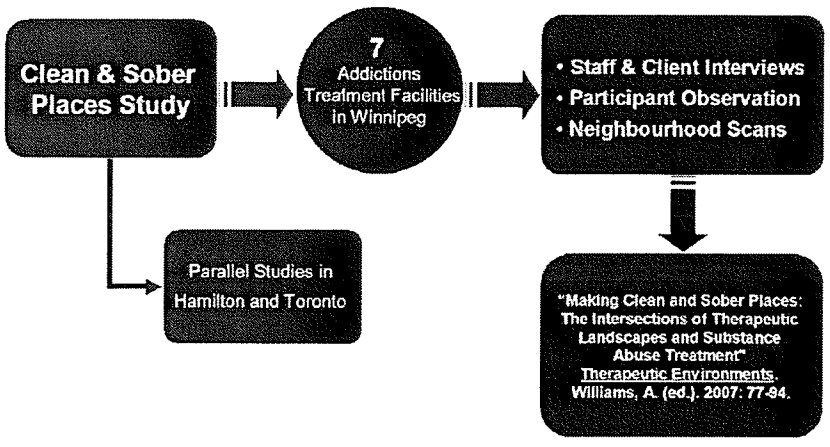
INDIVIDUAL WELL-BEING AS A FUNCTION OF PLACE AMONG CLIENTS OF RESIDENTIAL ADDICTIONS TREATMENT FACILITIES IN WINNIPEG

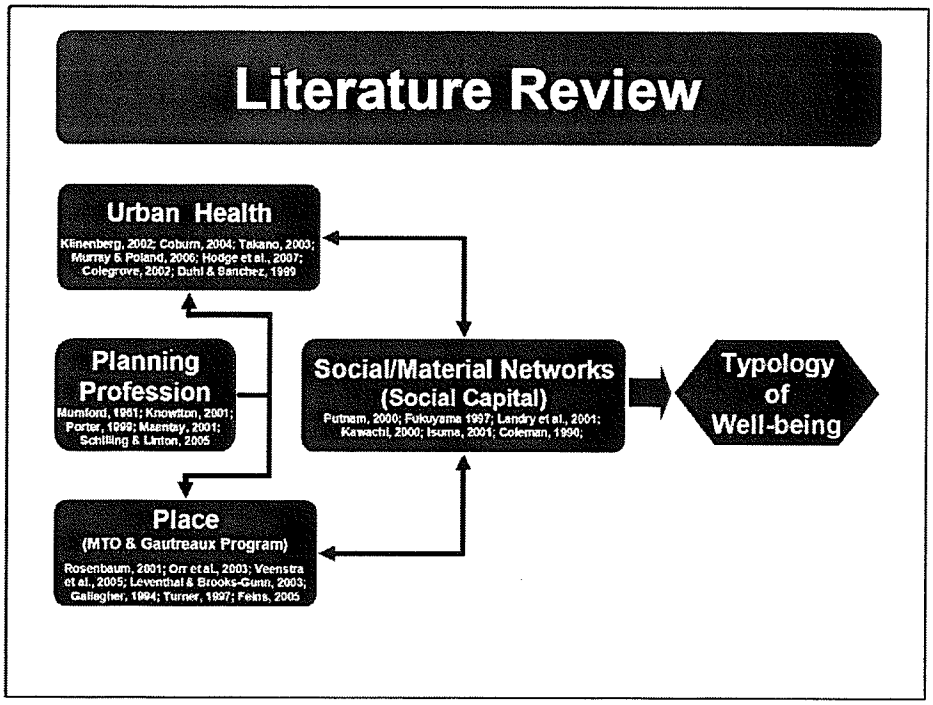
Master of City Planning
Department of City Planning
University of Manitoba

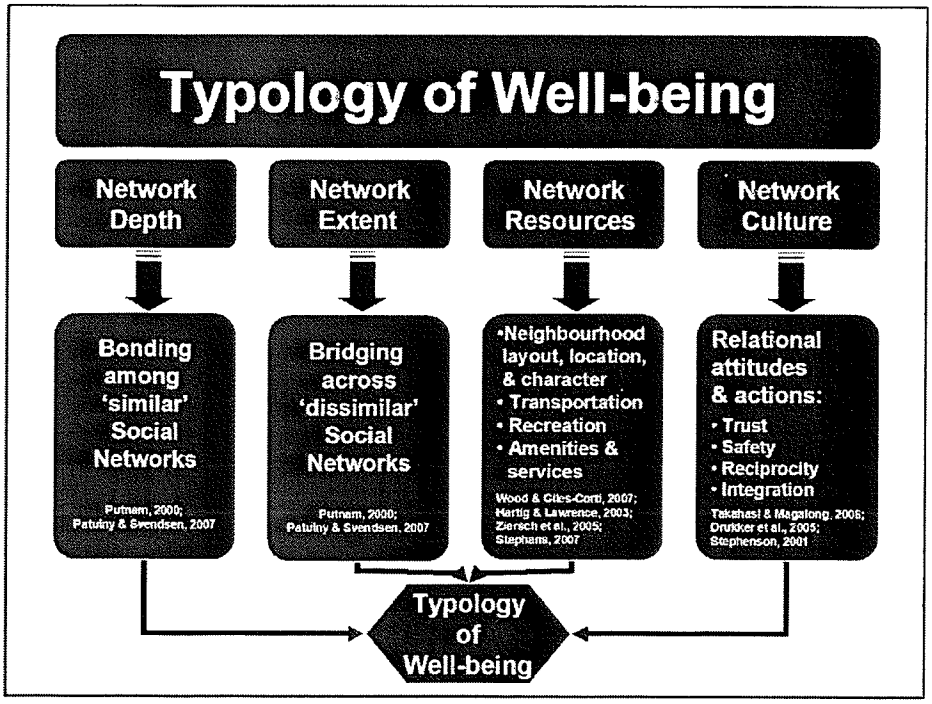
Shaun Klassen

March 14, 2008

Study Context




Literature Review
Urban Health
Kitnenberg, 2002; Coburn, 2004; Takano, 2003; Murray & Poland, 2006; Hodge et al., 2007; Colegrove, 2002; Duhl & Sanchez, 1999
Planning Profession
Mumford, 1961; Knowlton, 2001; Porter, 1999; Maantay, 2001; Schilling & Linton, 2005
Social/Material Networks (Social Capital)
Putnam, 2000; Fukuyama 1997; Landry et al., 2001; Kawachi, 2000; Isuma, 2001; Coleman, 1990;
Typology of Well-being
Place
(MTO & Gautreaux Program)
Rosenbaum, 2001; Orr et al., 2003; Veenstra et al., 2005; Leventhal & Brooks-Gunn, 2003; Gallagher, 1994; Turner, 1997; Feins, 2005


Typology of Well-being
Network Depth
Network Extent
Network Resources
Network Culture
Bonding among 'similar' Social Networks
Putnam, 2000; Patulny & Svendsen, 2007
Bridging across 'dissimilar' Social Networks
Putnam, 2000; Patulny & Svendsen, 2007
•Neighbourhood layout, location, & character
• Transportation
• Recreation
• Amenities & services
Wood & Giles-Corti, 2007; Hartig & Lawrence, 2003; Ziersch et al., 2005; Stephens, 2007
Relational attitudes & actions:
• Trust
• Safety
• Reciprocity
• Integration
Takahasi & Magalong, 2005; Drukker et al., 2005; Stephenson, 2001
Typology of Well-being

Survey Instrument

Typology of Well-being

Survey Questionnaire

41 Questions

Likert scale / Open-ended / Multiple choice

Study Population:
32 Clients of
3 Addictions Treatment Facilities in Winnipeg

Analysis

32 Clients of Three Facilities

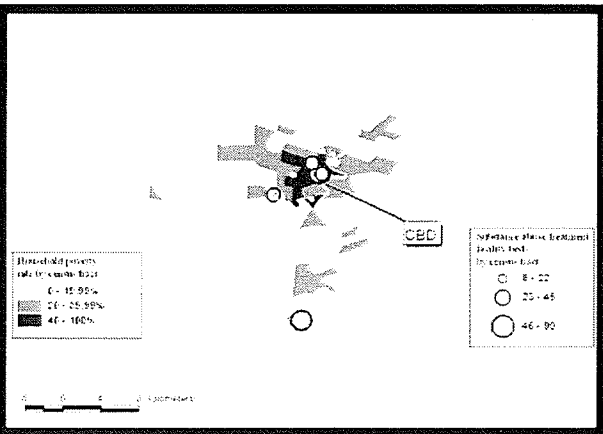
	Facility A "Residential" (12 respondents)	Facility B "Inner-city" (9 respondents)	Facility C "Ex-urban" (11 respondents)
Easy to make friends with other clients	83%	100%	55%
Recognize adults in neighbourhood outside of facility	58%	22%	55%
Easy to make friends in facility area neighbourhood	58%	56%	36%
Spoke to neighbours	92%	44%	36%
Talk with neighbour for 5-minutes or more	42%	22%	9%

Analysis

32 Clients of Three Facilities

	Facility A "Residential" 12 respondents	Facility B "Inner-city" 9 respondents	Facility C "Ex-urban" 11 respondents
Relative change in respondent's area poverty level	minimal	all up	majority down
Facility area different than respondent's former neighbourhood	58%	78%	82%
Facility neighbourhood safer than respondents former neighbourhood	58%	33%	91%
Report feeling isolated	8%	0%	46%
Prefer facility area over former neighbourhood	58%	56%	63%

Facility Context



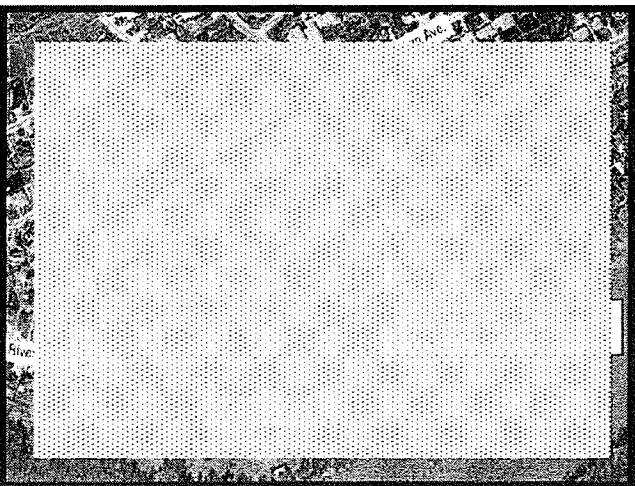
'...widespread public apathy towards people with addictions and the organizations designed to assist them has major implications in terms of social geography and facility location.'

DeVerteuil et. al. "Making Clean and Sober Places" Therapeutic Environments. Williams, A. (ed.). 2007: 79.

Recommendations

- Respond to the need for reintegrating urban planners on a public health agenda
- Endeavor to better understand the relationship between facilities siting and well-being
- Act on the need for a convincing response to NIMBY opposition over public health facility siting

So What?



Source: Santin, A. "Drug-treatment proposal has neighbours concerned." Winnipeg Free Press, Jan. 14, 2008: B1.