Understanding the Early Years
Community Impacts on Child Development

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by
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Acknowledgements

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1.   Introduction

Understanding the Early Years Community is one component of a national initiative developed to increase understanding of the first six years of child development and learning. The Community component is designed to assist communities across Canada in achieving their goal of improving child development by providing them with the necessary information to enhance community resources and services. The Understanding the Early Years (UEY) Community component will work with community organisations by providing research and information in support of the community's own activities to improve community capacity.

The city of North York has launched an innovative initiative called the Early Years Action Group (EYAG) to ensure that all its children will enter school ready to learn. Because of the congruence of the goals of the EYAG and UEY, North York will serve as a prototype project before UEY is expanded to other communities.

The research support provided to the community consists of information drawn from three components: a School Readiness to Learn Questionnaire, the comprehensive National Longitudinal Survey of Children and Youth (NLSCY) and a Community Mapping Study.

The School Readiness to Learn Questionnaire has been designed to measure children's readiness to learn when they start school. Kindergarten teachers rated different aspects of development for each child in their class. All children aged 5 and 6 years old were assessed. This questionnaire was administered in April 1999 to all teachers of kindergarten children within the English Public School System in the former North York School Board of Education (now amalgamated and part of the Greater Toronto District School Board). Data were collected on 5009 preschoolers in North York.

The NLSCY is a national longitudinal survey, which has collected information on almost 24,000 children across Canada. The NLSCY is a child-focused instrument that collects information from parents, teachers, principals, and children. The results provide national data for comparison. A modified version of the NLSCY was used in the UEY Community initiative to collect comprehensive data on a random sample of 1260 preschool children (the NLSCY Teacher and Principal Questionnaires were not used in this collection). The data will be used to conduct

analyses to provide explanations regarding the link among children and family characteristics, community resources, and children's outcomes. Three additions were made to the NLSCY. These include, adding some objective direct assessments of the child's development, information on community characteristics and resources, and questions on the child's use of non-parental care in the early years. Direct assessments of the child were administered at home. Perception of community characteristics and use of community resources were collected from parental responses. The non-parental care questionnaire was administered to care providers of all children in the sample who are receiving some form of non-parental care (estimated to be about 40%, see "Impacts of Non-Parental Care on Child Development, HRDC Working Paper, 1999") and whose parents gave permission. The NLSCY data collection took place during May and June of 1999.

In addition, the Community Mapping Study was designed to complement the NLSCY and provide additional information about the resources available within the community. It will result in a series of detailed maps indicating the distribution, intensity and range of programs and services available within North York. The Community Mapping Study is underway and is expected to be completed by October of 1999.

Since the North York study was a protoype, that will later be expanded to other communities across the country, the aim was to develop and test a model of instruments and procedures that can be used by other participating communities across Canada. This paper provides the background for the NLSCY and the Community Mapping Study, based on an annotated bibliography, issues for studying community impacts, and the framework for guiding the research and policy strategy for the Applied Research Branch.

2.   Annotated Bibliography

2.1   Overview Based on the Literature

Though it is often assumed that there is a relationship between community characteristics and child development, research in the area is sparse. Of the past research that has been undertaken, most has been relatively small in scale, American-based and focused mainly on adolescents and older children. In addition, because few studies have looked beyond the impact of the socio-economic climate within a community to the more social characteristics (e.g., community involvement, safety) that could potentially affect child development, the relevance of past studies to the examination of community impacts on preschool-age children is somewhat limited.

This work, rather than being an annotated bibliography in the traditional sense (i.e., in-depth review of all available literature), represents a more focused review in which articles were selected to guide the framework for research on community impacts. The focus is on measurement, and empirical research, to determine the most successful ways to measure the impacts of the community on child development for longitudinal surveys such as the NLSCY. Only the most recent studies examining the characteristics of communities, their residents, and their available facilities were examined.

The first section outlines the main theories, models and definitions used to conceptualize children's communities. Most often the first obstacle encountered when researching community impacts is due to the controversy over definitions of communities and neighbourhoods (two terms which are often used interchangeably). Although in the past communities have often been defined geographically (based on Census Enumeration Areas or zip codes) recent research has suggested that in order to more accurately represent a community as it is perceived by its residents, more sociological definitions (e.g., characterized according to individuals sense of shared space) should be employed.

Theories explaining the mechanisms by which communities affect child development are useful when framing data and research questions. There are several guiding theories linking community and child development, however theories of Social Contagion and Collective Socialization are particularly prominent. The Theory of Contagion hypothesizes the spread of deviant behaviour

through imitation, modeling, and social learning from children's peers within the neighbourhood. At issue is whether such peer effects are equally strong for positive and negative outcomes. The Theory of Collective Socialization has a similar orientation except that it hypothesizes about the impact of adult role models and informally shared parenting functions by community residents. Both models therefore focus on the child's interactions with other members of the community and argue for a socially based definition of the neighbourhood.

Additional theories, which though less often employed are nonetheless important to consider when examining community influences, include theories of Relative Deprivation, Competition for Scare Resources, and Neighbourhood Resource Use. The theory of Neighbourhood Resource Use is particularly useful for work related to the NLSCY as it focuses on the manner in which the availability and accessibility of community resources can influence the use of programs and services by residents and, as a result, their child's healthy development. Each theory is described in greater detail in the body of the bibliography. The relative merits of each theory are not clear, since there are few empirical studies to test them against the reality of child outcomes.

The studies in Section 2 investigate community influences by examining socio-economic and family structure variables. Most often such investigations involve secondary analysis of existing data (quite often the census). Such data sources are often ill-suited to answer relevant questions because they do not provide sufficient detail on key variables hypothesized to affect child development, resulting in the use of proxy variables in the research. Variables that have demonstrated significance include for example, parent's labour force participation and marital status, the socio-economic characteristics of the family and larger community, and the concentration of people and the ethnic or cultural diversity in the area. Although these variables yield little specific information about how the community, through its resources and structure, can influence child outcomes, they do contribute important information about the influence of the child's wider socio-demographic environment.

The overall objective of this study is to determine the effects of community factors, over and above individual and family characteristics (including socio-economic ones) on child development. Census variables are clearly not comprehensive enough, as they do not provide sufficient data on relevant social characteristics of neighbourhoods (such as cohesion, safety, and

resource use) that have been theorized to influence child behaviours. In Section 3, the results of empirical studies linking community factors, particularly social factors, to children's outcomes were examined. Factors that have been shown to increase positive outcomes include greater safety and cohesion, increased participation in community activities and higher levels of collective efficacy (social cohesion and a willingness to intervene for the common good) within communities. It became evident that the complex relationships between community variables and child outcomes, as suggested by the theories, had not often been empirically studied due to data deficiencies.

A variety of child outcomes have been examined in research studies investigating community impacts. Measures pertaining to young children include those that relate to cognitive and behavioural functioning, motor social development, and community participation, which has been used both as a dependent and an independent variable. Outcomes relating to adolescents and older children have been more numerous as the bulk of research has studied children in these age ranges, possibly because effects are stronger for older children as a result of increased interactions with their communities. Outcomes that have been studied include drug involvement, violent crime and other forms of delinquency, child maltreatment rates, sexual activity and education measures (including both levels of attainment and drop-out rates).

In Section 4, recent surveys with varying degrees of community content were examined. Some of the studies are in progress. Some, such as the Boston or Chicago instruments focused almost entirely on community relevant factors whereas others (Survey of Volunteering) contain only one or two questions of interest. A short description of categories and concepts measured on each survey was noted.

Based on the foregoing work, in chapter 4 of this paper a framework for research and data collection was developed. Since it was clear that the NLSCY alone would not be an appropriate tool for data collection, the data strategy for the pilot project in North York includes a Community Mapping Study. Decisions on data were made based on policy relevant research questions that were to be answered through the research. Definitions, variables to be measured, and the framework for analysis are presented.

In Chapter 5, the data strategy is laid out, showing how data collection would be spread out over the NLSCY and the Community Mapping Study. The final chapter provides an outline for the Community Mapping Study. The study is designed to provide results as stand alone research but also to be incorporated with the NLSCY.

The key subject areas for data collection for the NLSCY were community involvement, cohesion, safety/crime, resource use, and socio-economic characteristics. In Appendix A, the potential variables in the subject areas, the questions/instruments used to collect the data and their sources (previous use in a study) are listed. This inventory permitted comparisons, tests, and evaluations before decisions were made for the NLSCY.

Appendix B shows the instrument for the Community Program Survey. This instrument will provide information on community resources, whether they were used by the NLSCY sample or not. Comparisons of results among communities will show the areas of community investments that are most beneficial for families with children. Appendix C outlines the items used to assess the physical characteristics of the communities in the neighbourhood observation component.

2.2   Theories, Models, and Definitions

2.2.1   Definitions

Controversy over defining neighbourhoods for measurement

There is a great deal of controversy in the literature surrounding the best way to define and conceptualize neighbourhoods and communities for measurement. Most studies have employed a geographical definition, dividing communities according to municipal boundaries, or census tracts. Postal (zip) codes have also been employed because they provide a better indication of local characteristics than city, county, or provincial/state measures. However, concern has been raised that a neighbourhood as defined in this manner may still differ from the conceptualization of the neighbourhood that is held by the community's residents. The same difficulties arise when defining boundaries according to census tracts as they may be too large or even too small (depending on the area) to accurately reflect the environment with which the child interacts on a day to day basis (Brooks-Gunn, Duncan, Klebanov, & Sealand, 1993; Kohen, Hertzman, &

Brooks-Gunn, 1998). Census tracts can represent upwards of 2000 people, which is likely much larger than a child's perception of his/her neighbourhood (Coulton, Korbin, Su, & Chow, 1995).

An alternative view is to define the neighbourhood from a sociological standpoint in which people's perspectives of their communities are used to define its boundaries (e.g., Boston Dorchester Cares Project - Neighbourhood Interview; Program on Human Development in Chicago Neighbourhoods – Community Survey Questionnaire, 1994). This would examine an individual's sense of shared space and institutions with which they interact. Although this method may more accurately conceptualize the neighbourhood as its residents view it, it remains a very difficult concept to operationalize. Geographically defined boundaries are much easier to measure and, therefore, more often employed. Furthermore, because until recently, few community-based studies had been undertaken, researchers wanting to examine neighbourhood effects had to rely on census data (geographic boundaries) as it was all that existed.

2.2.2   Theoretical perspectives

Though research on community influences is relatively new, a wide variety of theoretical models currently exist in the literature. This discussion will focus on five of the most prominent and relevant to our research: Social Contagion, Collective Socialization, Neighbourhood Resources, Competition, and Relative Deprivation. These models are outlined in the following two articles:

1. Furstenberg, Frank F. Jr., and Hughes, Mary Elizabeth (1995). "The influence of Neighbourhoods on Children's Development: A Theoretical Perspective and a Research Agenda," in *Indicators of Children's Well-Being, Volume III. Cross-Cutting Issues: Population, Family, and Neighbourhood: Social Development and Problem Behaviours.* Paper prepared for the Conference on Indicators of Children's Well-Being, Rockville, MD. 1995. Institute for Research on Poverty Special Report, No. 60c.

2. Jencks, Christopher and Susan E. Mayer (1990). "The Social Consequences of Growing Up in a Poor Neighbourhood," pp. 111-186, in L.E. Lynn, Jr. and G.H. McGeary (Eds.) *Inner City Poverty in the United States*. Washington D.C.: National Academy Press.

Social Contagion, also known as the epidemic model focuses on the role of imitation, modeling, and social learning from children's neighbourhood peers in shaping their behaviours. Generally

speaking, it implies that "like begets like." That is, if good behaviour (e.g., graduating from university) is modeled it will increase the likelihood that other children within the neighbourhood will value an education and strive to advance academically. Conversely, negative behaviour (high crime rates, poor school attendance) should increase rates of deviant behaviours. The model does account for individual differences, which also frame behaviours, but states that even after accounting for personal characteristics, overall, the tendency will be for children within neighbourhoods to conform.

The theory of **Collective Socialization** looks at the impact of adult role models and informally shared parenting functions by residents in the community and in this sense they are somewhat similar the Contagion theory. The main difference between the two models is that in the former the child is influenced by and influences his/her peers, and in the later they are influenced by other adults within the community. According to this theory, adults can serve two main functions. First, they can act as positive role models, which help children to objectively assess the results of certain choices and behaviours (e.g., education creates opportunities), and at the same time exert social controls on the children by monitoring behaviours, being aware of and dealing with potential trouble.

The institutional model, better known as the **Neighbourhood Resource Theory** investigates the links between the quality and quantity of services available to residents such as police, parks, recreation, and health and the development of the children in the community. It implies that increased availability of services will lead to enhanced opportunities for development, enrichment of experience and reduced chance of problems. Resources within a community can also include social relationships developed among community members and therefore this concept known as social capital falls under the broader domain of resources. Three forms of social capital are particularly prominent in their influence on community members: shared norms, reciprocal obligations, and opportunities for sharing information, the presence of all of which can contribute to development (Coleman, 1988). Sampson (1992) argues that social capital is a key determinant of social organisation within a community and an important way to connect the child with his/her community. Social organisation among neighbours can in turn facilitate the generation of further social capital.

The final two theories that of **Competition for Scarce Resources** and **Relative Deprivation** are similar in that they focus on the negative impacts that certain neighbourhood structures (particularly being surrounded by affluent educated neighbours) can have on children. Theories of competition look at the effects of winning or losing in a competition for scarce resources within the community, while under the tenets of relative deprivation individuals appraise the impact of their situation relative to others in their communities, and subsequently adjust their behaviours accordingly. In these cases being surrounded by highly affluent neighbours would lead both children and adults to appraise their situations as worse than their neighbours, which may translate into lower achievement both academically and otherwise. For instance, Jencks and Mayer use the example of children who are not excelling academically because of a lack of effort. If these children are then moved from a lower to a higher socio-economic environment, their effort will only further decrease relative to their peers, if they appraise themselves as being much worse off. In terms of Competition theory more problems are likely to arise when neighbours are more heterogeneous (i.e., the gap between the rich and poor is wider). There appears to be no consensus on the relative merit of these theories and there are few empirical studies to test them against the reality of child outcomes.

Additional discussions of theoretical positions can be found in:

1. Cook, T.D., Furstenberg, F.F. Jr., Kim, J.R., Teitler, J.O., Geitz, L.M., Eccles, J., Elder, G.H. Jr., and Sameroff, A. (1994). *Neighborhood differences in resources for promoting the positive development of adolescents: The roles of financial, human, social, cultural and psychological capital.* Manuscript in preparation.

2. Coleman, James S. (1988). "Social Capital in the Creation of Human Capital," *American Journal of Sociology*, 9: S95-S120.

3. Sampson, Robert J. (1992). "Family Management and Child Development: Insights from Social Disorganization Theory," in J. McCord (Ed.), *Advances in Criminological Theory* (Volume III). New Brunswick, NJ: Transaction Books.

4. Wilson, W. J. (1987). *The Truly Disadvantaged: The innercity, the underclass, and public policy.* Chicago: University of Chicago Press.

5. Wilson, W. J. (1991). "Public Policy Research and the Truly Disadvantaged," pp. 460-481, in C. Jencks and P.E. Peterson (Eds.) *The Urban Underclass*. Washington, D.C.: The Brookings Institution.

6. Garner, C.L. and Raudenbush, S.W. (1991). "Neighbourhood Effects on Educational Attainment: A Multilevel Analysis," *Sociology of Education*, 64: 251-262.

2.2.3   Additional models

1. Kupersmidt, J.B., Griesler, P.C., DeRosier, M.E., Patterson, C.J., and Davis, P.W. (1995). "Childhood Aggression and Peer Relations in the Context of Family and Neighbourhood Factors," *Child Development*, 66: 360-375.

These authors address three additional models stressing the type of dynamic relationship between the child and his/her environment as an important determinant for outcomes:

- *The Protective Model* – The protective model, as its title applies, examines ways that children living in risky environments may be protected from developing problems. A healthy neighbourhood can play a key role in this interaction. Children in high-risk families for instance, only stand to benefit by living in low risk opportunity and resource filled environments as the neighbourhood can work to buffer the family-related risk factors. The model predicts no effect on children who are not at-risk.

- *The Potentiator Model* – This model focuses on the potential impacts of healthy neighbourhoods on the development of low-risk children. In this case, the only children affected by living in a low risk neighbourhood would be low-risk children whose development could be enhanced by this positive experience, no effects would be seen for other children.

- *The Person-Environment Fit Model* – This model looks at the relationship between the characteristics of a neighbourhood and the traits of an individual who lives within that neighbourhood. The more similarities between the two, the lower the likelihood of problems.

2. Theory of concentrated poverty and social isolation **(Wilson 1987, 1991)** as discussed in Furstenburg and Hughes.

This theory, linking the context of child rearing to child development, asserts that child development is dependent on the socio-economic conditions of the environment in which the child is raised. Children raised in impoverished environments may be isolated from social networks and resources that foster healthy development. Persistent poverty in neighbourhoods, in turn is created from combinations of a variety of economic social and cultural factors. Downward trends in the economy, re-structuring of the labour force, increased competition for jobs requiring higher levels of education, and changes in family structure have all contributed to concentrated poverty in neighbourhoods and therefore to the increased risk of developmental problems.

2.3   Neighbourhood Socio-Economic Indicators (Census and Administrative Information)

1. Brewster, K.L., Billy, J.O.G., and Grady, W.R. (1993). "Social Context and Adolescent Behaviour: The Impact of Community on the Transition to Sexual Activity," *Social Forces*, 71: 713-740.

Keywords: sexual behaviour, adolescents, social disintegration, socio-economic status

Background: This article examined the role of community characteristics in influencing the sexual behaviours of adolescents. Sampled were 734 women (under 20) who took part in cycle 3 of the National Survey of Family Growth (NSFG-III) in the United States.

 Dependent Variables:

- Contraceptive use

- Age at first non-marital intercourse

Independent Variables:

- Community variables: Socio-economic status (SES), female labor force participation; religiosity (proportion of religious adherents and religious conservatives); social disintegration (mobility, proportion unemployed, separated or divorced); racial and ethnic composition; service availability (family planning clinics, abortion providers); and the proportion of non-marital teen births.

- Family and individual predictors (e.g., education, living arrangements, religious affiliation).

Results: Characteristics of an adolescent's community can play an important role in determining his/her sexual behaviours. After accounting for individual factors, several of the community characteristics were predictive of increased risk for intercourse. A community's social disintegration was particularly important (with greater mobility in occupied housing units and the proportion of divorced or separated females increasing risk for sexual activity). The level of educational attainment in the immediate community also exercised an effect, the higher the education – the lower the risk). Higher socio-economic status of the neighbourhood, and higher proportions of foreign-born or Black residents served to decrease risk. A lower marital dissolution rate and a more active female labour force increased the probability that contraceptives will be employed.

2. Brooks-Gunn, J., Duncan, G.L., Klebanov, P.K., and Sealand, N. (1993). "Do Neighbourhoods Influence Child and Adolescent Development?" *American Journal of Sociology*, 99: 353-395.

Keywords: theories (Social Contagion, Collective Socialization), childhood, adolescence

Background: The association between neighbourhood socio-economic characteristics and developmental outcomes of children was expected to differ for two age points (early childhood and adolescence). In early childhood, the home environment was predicted to have the biggest effect, while for adolescents, neighbourhood factors (e.g., schools, peer groups, economic opportunities) were postulated to have more of an influence.

Methodology: This study looked at the association between selected neighbourhood characteristics (census data) and cognitive and behavioural functioning at 36 months of age. Data came from the Infant Health and Development Program (IHDP), which sampled 895 premature, low birth weight infants from among 8 medical sites in the United States. Additionally, 2200 women from the Panel Study of Income Dynamics (PSID) were used to investigate the two adolescent developmental outcomes.

Dependent Variables:

- Cognitive functioning (Stanford-Binet IQ at 36 months)

- Behavioural functioning (Child Behavior Checklist for ages 2-3)

- High school drop-out rate, and teenage out-of-wedlock births

Independent Variables:

- Social isolation – Proxy variables were used to measure social isolation. Neighbourhoods where at least 40% of the people who were not elderly were poor and no more than 10% of families had incomes above $30,000.

- Neighbourhood characteristics - Percentage of 1) employed males who are in professional or management occupations; 2) lone female-headed families; 3) families receiving public assistance; 4) males unemployed during the past year; and percentage who are Black in the neighbourhood.

- Family variables - Family structure, economic resources (total income, mother's education, female-headed household, and mother's race).

Results: Overall, results indicated that after controlling for family resources, the neighbourhood factors most likely to affect child and adolescent healthy development were the presence of two-parent families and affluent neighbours of higher occupational prestige. Results appeared to be most consistent with the theory of Collective Socialization, which stressed the importance of the resources, role models, and informal monitoring provided by affluent neighbours. Some evidence was found for the Contagion theory.

3. Chase-Lansdale, P.L. and Gordon, R.A. (1996). "Economic Hardship and the Development of Five- and Six-Year Olds: Neighbourhood and Regional Perspectives," *Child Development*, 67: 3338-3367.

Keywords: neighbourhood resources, competition for scarce resources, problem behaviours, cognitive and reading abilities, childhood

Background: Using data from the U.S. National Longitudinal Survey of Youth (NLSY) this study examined the impact of neighbourhood characteristics on the incidence of problem behaviours, and the cognitive and reading abilities of 5 and 6 year old children. The authors investigated neighbourhood or community influences in terms of economic and social resources, hypothesizing that living among higher SES families will increase children's cognitive functioning because of widened opportunities within their neighbourhoods for education and development. Furthermore, the degree of crowding within a community may accentuate competition for scarce resources (e.g., when there is a limited number of kindergarten slots).

Dependent Variables:

- I.Q. (Peabody Picture Vocabulary Test), reading (Peabody Individual Achievement Test of Reading Recognition) and problem behaviour (Child Behaviour Checklist)

Independent Variables:

- Neighbourhood variables (SES, male joblessness, concentration of people, racial similarity and adult presence - for monitoring and supervision, defined as the ratio of adults 25-64 to children 0-17).

- Family variables (e.g., income, number of adults and children in household, mother's age at first birth).

Results: In certain regions of the United States (particularly those that have experienced declining economic growth – Northeast and Midwest) children in neighbourhoods with characteristics such as high SES and racial similarity showed higher levels of cognitive functioning. In areas where the presence of adults was higher, increased behavioural competence

was also observed. This indicates that favourable neighbourhood characteristics can have a protective effect for families living in high-risk regions of the country and provides support for the Neighbourhood Resource Theory.

4. Chase-Lansdale, P.L., Gordon, R.A., Brooks-Gunn, J., and Klebanov, P.K. (1997). "Neighbourhood and family influences on the intellectual and behavioural competence of preschool and early school-age children," in J. Brooks-Gunn, G.J. Duncan, and J.L. Aber (Eds.) *Neighbourhood Poverty: Context and Consequences for Children* (Volume 1). NY: Russell Sage.

Keywords: theories (Collective Socialization, Neighbourhood Resource), affluence, cognitive and behavioural functioning

Background: This study examined the neighbourhood and family effects on the functioning of preschool (3-4 years) and early school (5-6 years) aged children in the United States. Cross-sectional data (i.e., sample of children who were 3 or 5 years in 1986) from the National Longitudinal Survey of Youth (NLSY), which began in 1986 and will follow 7000 children from infancy to late adolescence were used. A sample of children from the IHDP (an eight site study of an early educational intervention for premature and low-birth-weight children and their parents) was also employed to get a longitudinal look (same children sampled at age 3 and 5) at the development of these children.

Dependent Variables:

- Verbal abilities (PPVT-R) both age groups

- Behavioural Functioning - Child Behaviour Checklist (2-3 years), Revised Child Behaviour Profile (4-5 years)

- Cognitive Functioning - Stanford-Binet Intelligence Scale (age 3), Wechsler Preschool and Primary Scale of Intelligence (age 5)

Independent Variables:

- IHDP family variables – child's gender, race, mother's years of schooling, female-headed family, maternal age at birth, maternal employment (unemployed, part-or full-time, and family income to needs ratio).

- NLSY individual and family measures – same as IHDP measures, with addition of whether or not the child was enrolled in regular school during the survey week as a control variable.

- Neighbourhood factors - SES (low, high) male joblessness, family concentration, and ethnic diversity.

Results for Preschoolers: Preschool children showed few direct neighbourhood effects, with the only significant predictor of higher I.Q. scores being the presence of affluent neighbours (IHDP), supporting the authors' hypothesis that affluence would be the factor most likely to impact development in younger children. As such, it lends support to the Neighbourhood Resource theory, which postulates children from affluent neighbourhoods would fare better because of increased opportunities for enrichment and development.

Male joblessness had a paradoxical relationship, being associated with an increase in children's internalizing problems in the NLSY sample and a decrease in internalizing problems in the IHDP sample. Despite these neighbourhood effects, family factors explained most of the variance, leading the authors to conclude that "the family is the primary socializing unit for preschool children and that direct neighbourhood influences on such young children, as measured by the five factors, are small or filtered by family experience."

Results for Early School Age Children: Most of the effects on school age children were also accounted for by family variables. The neighbourhood variable affluence was strongly related to PPVT and reading recognition scores (NLSY) and verbal IQ (IHDP). Ethnic diversity had conflicting effects, and male joblessness was related to increased internalizing and externalizing problems in children. The effects of male joblessness could be explained by the theory of Collective Socialization, as it may result in lower levels of positive behavioural modeling and supervision.

This study also discussed the problem of selection bias and the resulting difficulty of separating the effects of family from neighbourhood characteristics as an important limitation to research studying community impacts on development.

5. Crane, Jonathan (1991). "The epidemic theory of ghettoes and neighbourhood effects on dropping out and teenage childbearing," *American Journal of Sociology*, 96(5): 1226-1259.

Keywords: Epidemic theory (Social Contagion Theory), neighbourhood quality, adolescent behaviours

Background: The relationship between neighbourhood effects and high school drop-out and teenage childbearing rates were analyzed to determine whether there was a sharp increase in these social problems in the worst neighbourhoods of large cities in the United States. Data were drawn from the Neighborhood Characteristic File of the PUMS (Public Use Microdata Samples) samples from the 1970 Census. It was only in 1970 that the Census Bureau defined a neighbourhood and this was the first time that neighbourhood data were available. Neighbourhoods were defined geographically and are about the same size as census tracts (averaging 4-5 thousand people). Only teenagers living with their parents were included in the analyses.

Dependent Variables:

• School drop-out and teen childbearing rates

Independent Variables:

• Neighbourhood Quality (percentage in the neighbourhood who hold professional or managerial jobs- % high status)

• Control variables such as SES, family structure, mobility, ethnicity

Results: Results lend support to the Epidemic (Social Contagion) theory, which predicted that a child's tendency for deviance will increase if he/she associates with deviant peers. Overall, findings indicated that incidence of both dropping out and teenage child bearing was increased for children raised in neighbourhoods of lowest quality (having the lowest proportion of neighbours

in high status occupations). Effects were particularly strong for those in the lowest end of the Neighbourhood Quality range.

6. Garner, C.L. and Raudenbush, S.W. (1991). "Neighbourhood Effects on Educational Attainment: A Multilevel Analysis," *Sociology of Education*, 64: 251-262.

Keywords: school achievement, neighbourhood deprivation

Background: This study examined neighbourhood effects on the educational attainment of a group of 2,500 adolescents in Scotland. Each of the respondents had finished their last compulsory year of school between the years of 1984 and 1986. Data from the survey were linked to information collected in the 1981 Census and hierarchical linear regression was employed to determine the influence of individual ability, family background, schooling, and neighbourhood characteristics on the end-of-school attainment of these young people.

Dependent Variables:

- General attainment score upon secondary school completion (scale consisting of 14 items) accounting for both educational attainment and years of schooling.

Independent Variables:

- Individual characteristics: Two measures of prior attainment (verbal reasoning and reading ability obtained from tests conducted in all schools when children were aged 11 and 12).

- Family measures: Father's occupation (social class) and employment status, length of parental schooling, family size, single-parent family status.

- Schooling measures: School membership (to measure variation among schools).

- Neighbourhood measures: Enumeration district of neighbourhood (from Census), and a composite measure (12 variables) of deprivation (e.g., proportions of unemployed, youth unemployed, single-parent families, low-earning socioeconomic groups, overcrowding, and the percentage of permanently sick individuals.)

Results: Several characteristics including having an unemployed or lower occupational status father, being a member of a large, single-parent family, or having parents with lower levels of education had negative impacts on educational attainment. Prior school attainment had the largest impact on future educational achievements. However, after controlling for pupil ability, family background, and schooling, the authors found a significant association between neighbourhood deprivation and lower educational attainments. The full analytical model explained the majority of the variance, and the remaining unexplained variance was insignificant indicating that there were few additional neighbourhood effects that were not accounted for. Findings suggested that policies to alleviate educational disadvantage cannot be focused solely on schooling, but must form part of a broader initiative to tackle social deprivation in the larger society.

7. Kupersmidt, J.B., Griesler, P.C., DeRosier, M.E., Patterson, C.J., and Davis, P.W. (1995). "Childhood Aggression and Peer Relations in the Context of Family and Neighbourhood Factors," *Child Development*, 66: 360-375.

Keywords: community resources, peer rejection, neighbourhood companions, aggression

Background: This study examined the relationship of neighbourhood and family factors on childhood aggression and peer relations for 1271 elementary school children (all children in grades 2 to 5) in a southern city in the United States. Children were assigned to 1 of 8 family types based on income, ethnicity, and household composition. Census data were used to identify the 29 neighbourhoods (high or low SES) studied. Data on the students were obtained from school archives and teacher reports.

Dependent Variables:

- Aggressive behaviour: children were asked to nominate 3 peers who fight a lot.

- Peer Rejection: children were asked to nominate the three peers they liked the most and the least.

- Home and Neighbourhood Play Companions: children were asked to indicate the children they played with (from two rosters) in their neighbourhood, and in their homes or peers'

homes. The number of reciprocated nominations received by each child was counted to provide an estimate of the number of companions (in the same grade) that each child had.

Independent Variables:

- Family and neighbourhood measures of ethnicity, family income (poverty), and household composition factors were used. Gender and developmental differences were also factors.

Results: Results indicated that neighbourhood context was an important indicator of childhood aggression and peer relations even after controlling for familial factors. Living in a low-income home increased children's risk of aggression, poor peer relations, and having fewer play companions. In general, results followed the same pattern for Black children and those of single parent families. Lower SES neighbourhoods were also associated with poorer outcomes, perhaps because children from lower SES environments had fewer positive role models. Because these children also had fewer playmates it emphasizes the important role of social class in facilitating peer relationships. High levels of stress associated with poverty can also be linked to antisocial behaviours, or it may be that aggression is a learned response from living in an unsafe environment.

Neighbourhood context, particularly neighbourhood income level often mediated the family effects. For instance, Black children from single parent, or low-income families who lived in middle SES environments appeared to be protected from aggression, and had more neighbourhood play mates. This indicated that communities with more resources may be able to better provide for children and buffer the risk family-related risk factors. These same children, however, were at increased risk of being rejected by their peers, providing support for the idea that people like to associate with others whom they see as similar to themselves.

2.4   Community Indicators

1. Boyle, Michael H. and Ellen L. Lipman (1998). *Do Places Matter? A Multilevel Analysis of Geographic Variations in Child Behaviour in Canada.* Applied Research Branch, Strategic Policy, Human Resources Development Canada. Working paper W-98-16E.

Keywords: neighbourhood disadvantage, problem behaviour, geographic location

Background: This paper examined the influence of geographical location on emotional and behavioural problems of Canadian children aged 4-11 years. It assessed the impact of disadvantage of the family as compared to the neighbourhood on child problem behaviours.

Methodology: Data for this study came from 7,799 families (11,516 children) who participated in the first wave of the Canadian National Longitudinal Survey of Children and Youth (NLSCY) collected in 1994-1995. Multilevel modeling was used to estimate variations in child problem behaviour associated with geographic area and determine the explanatory power of socio-economic disadvantage. The effects of geography were evaluated for three areas: the provinces of Canada; Census Metropolitan Areas (CMAs) and Census Enumeration Areas (EAs).

Dependent Variables:

- Scale score measures of hyperactivity, conduct and emotional problems (originally developed for use in the Ontario Child Health Study and Follow-up).

- Neighbourhood Disadvantage constructed from Census data on a) percentage of total neighbourhood income coming from government transfer payments; b) mean household income in 1000's of dollars; percentage of neighbourhood population aged 15 years and over c) without a secondary school certificate; d) with a university degree or certificate; and d) unemployed.

Independent Variables:

- Sex and age of child; sex, age, and birthplace (within or outside of Canada); number of siblings in the family, single or two-parent family, family income (above or below the poverty line) and SES of the Person Most Knowledgeable (PMK) about the child.

Results: Significant place-to-place variation existed in child problem behaviour, and the amount of variation depended on the size of the geographical area - about 6% of the variation was associated with between neighbourhood differences; about 2% between CMAs; and less than 1% between the provinces.

Neighbourhood disadvantage was also associated with child behaviour problems. Children were more likely to have conduct problems, hyperactivity or emotional problems if they came from a

neighbourhood with a high percentage of single-parent families. Among the indicators of socio-economic disadvantage, the strongest predictors of child problem behaviour were single-parent family status, and family SES. The independent variables in this study accounted for only 2.6 % (emotional problems) to 3.7% (hyperactivity) of the variance, after removing child sex and age from the model. Most of this variance was due to parent/family variables.

2. Brook, Judith S., Nomura, Carolyn, and Cohen, Patricia (1989). "A Network of Influences on Adolescent Drug Involvement: Neighbourhood, School, Peer, and Family," *Genetic, Social, and General Psychology Monographs*, 115(1): 125-145.

Keywords: drug use, cohesion, school, peer, and family influences

Background: This was a two-year study, set in upstate New York that examined the interrelationship of neighbourhood, school, peer, and family factors, and adolescent drug involvement. A total of 518 adolescents were seen twice throughout the study, while they were between the ages of 9-18 and 11-20. The sample was considered broadly representative of American families with respect to SES and family structure.

Dependent Variables:

- Drug involvement over time (frequency, duration, and severity of use)

Independent Variables:

- Neighbourhood factors: Cohesion (The people in this neighbourhood often share things to help each other out.); fear (People should not walk alone in this neighbourhood.); good/bad neighbourhood (Is this a good neighbourhood to grow up in?); satisfaction (I would move out of this neighbourhood if I could.)

- School factors: Autonomy (Students here choose a lot of their own academic program.); conflict (There is a lot of fighting between students in or around school.); personal ties (Good students here help out students who aren't doing well.); positive learning environment (Students and teachers are proud of the school.)

- Peer factors: Aggression against peers (How often does the child pick on his/her friends?); close friends (Do you have one or more friends who would turn to you for advice or help?); number of achieving friends (How many of your friends get all A and B grades?); general sociability (Do you enjoy yourself when you are with people your own age?); peer alcohol use, cigarette, and illicit drug use

- Family factors: Maternal and paternal affection and conflict, family SES

Results: Physical (bad neighbourhood) and social aspects (less cohesion, and overall dissatisfaction with the neighbourhood) were related to greater drug involvement over time. Greater school conflict, a negative learning environment and poorer peer and family relationships were also associated with increased drug involvement.

Each of the domains (neighbourhood, school, peer, and family) was significantly related to drug involvement over time. However, only the peer and family factors remained significant after controlling for demographic variables. Family and peer domains had direct effects on drug involvement while the neighbourhood and school domains had an indirect influence. Neighbourhoods with good living conditions that were socially supportive and perceived as satisfactory were linked to schools with little conflict and an emphasis on student independence in the context of a positive learning environment; good relations with achieving and non-drug-using friends; and a nonconflictual and affectionate parent-adolescent relationship.

3. Coulton, C., Korbin, J., Su, M., and Chow, J. (1995). "Community-level factors and child maltreatment rates." *Child Development*: 66: 1262-1276.

Keywords: community social organisation, child maltreatment

Background: This was a cross-sectional examination of the rates of child maltreatment in urban neighbourhoods in the state of Ohio, USA. It answered three research questions: 1) Are maltreatment rates a function of structural conditions associated with the level of community social organisation? 2) Are maltreatment rates and other behavioural outcomes (e.g., violent crime, drug use) interrelated? 3) Do the determinants of each differ?

Methodology: Using census and administrative agency data for 177 urban census tracts, the authors employed factor analysis to measure levels of social organisation within the area. The term community social organisation "refers to patterns and functions of formal and informal networks, institutions and organisations in a given area. Community social organisation is strong to the degree that these local structures are able to accomplish the goals of residents and exert social control from within the community."

Dependent Variables:

- Rates of child maltreatment, violent crime, drug trafficking, juvenile delinquency, teen childbearing, and low birth weight

Independent Variables:

- Community social organisation: measured by examining a variety of characteristics of a community and its residents. Factor analysis revealed that indicators of many of these concepts were highly inter-correlated and therefore three indicators of community structure were employed – impoverishment (poverty, employment, vacant housing, population loss, female-headed households) child-care burden (ratios of kids to adults, females to males, % of population that is elderly) and instability (proportion of residents that moved in last five years, those with household tenure less than 1 year and over 10 years). Factor scores were calculated for each census tract for each of the dimensions of community structure. Additionally, a geographic location variable was calculated for each tract because of the recognition that the resources in an area can be affected by resources available in surrounding areas.

Results: Impoverishment was highly correlated with maltreatment rates. Areas with the highest incidence of maltreatment among children were those that also experienced poverty, unemployment, female-headed households, racial segregation, abandoned housing, and population loss. The child-care burden factor had a significant but somewhat weaker effect (maltreatment rates were higher in areas with many kids, few elderly, and low proportions of adult males). Areas with higher mobility (i.e., instability) also had higher maltreatment rates. There was an interaction between instability and impoverishment, with the effects of instability

on maltreatment being less pronounced in areas that are most impoverished. Risk of maltreatment was also higher for neighbourhoods in close proximity to high poverty areas. Finally, child maltreatment rates were indeed correlated with other types of deviant behaviours.

Findings suggest that a community's level of social organisation, functioning, networks, and resources were important influences on their rates of maltreatment and other incidence of deviant behaviours. The seemingly paradoxical relationship between instability and impoverishment needs to be further examined. However, one explanation may be that because a lot of mobility in impoverished areas is over short distances (i.e., within blocks of the original location) perhaps social networks are not being disrupted and therefore problems are minimized.

4. Dewitt, D.D., Offord, D.R., and Braun, K. (1998). *The Relationship Between Geographic Relocation and Child Problem Behaviour*, Applied Research Branch, Strategic Policy, Human Resources, Development Canada. Working paper W-98-17Es.

Keywords: moving, problem behaviour (school failure, substance use), social control, attachment to social institutions

Background: The goal of this study was to determine the extent of the relationship between a family's geographical relocation and subsequent problem behaviours in their children. The research was guided by Social Control theory, which states that problem behaviour results from children's attachments to institutions and people (e.g., schools, family) being broken. The role of social control as a mediator of the relationship between relocation and problem behaviours was examined. Data from cycle one of the Canadian NLSCY were employed, and children aged 0-11 were studied.

Dependent Variables:

- Problem behaviour: Physical aggression-conduct problems, indirect aggressive and antisocial behaviours, property offenses, school failure, lifetime tobacco and alcohol use.

Independent Variables:

- Geographic relocation – total moves and recency of last move.

- Measures of social control (mediators): Family-related (harmony, parental monitoring, parenting), school-related (negative school attitudes, number of school changes, low achievement), and community-related (participation in sports and other organised activities outside of school).

Results: Moving house was a common experience for children in Canada, while 25% had never moved, 32% had moved three or more times. The number of residential moves a child had experienced was an important indicator of problems, with those who had moved three or more times being twice to three times more likely than non-movers to experience the variety of negative behavioural outcomes (with the exception of antisocial behaviours).

Some mediating effects were observed. Children were less likely to have problems if they had high parent/child attachment and family harmony and more positive attitudes toward school. Problems were more common in children experiencing inconsistent and punitive parenting practices. Increased vulnerability to the effects of moving was observed among children with lower levels of academic achievement and more negative attitudes toward school. Frequent involvement in out-of-school sports or other community activities (i.e., attending church or participating in clubs) also exerted a protective effect.

Overall, moving was not an inherently stressful process for many children. These results tend to support a commonly held view that moving contributes to aberrant child behaviour by intensifying problems (i.e., problem behaviour risk factors) that already exist within the family.

5. Kohen, Dafna E., Hertzman, Clyde, and Brooks-Gunn, Jeanne. *Neighbourhood Influences on Children's School Readiness,* Applied Research Branch, Strategic Policy, Human Resources Development Canada. Working paper W-98-15E.

Keywords: school readiness, safety, cohesion, toddlers' and preschoolers' competencies

Background: This study examined the effects of neighbourhood and family characteristics on children's school readiness. The sample included toddlers (aged 2-3) and preschoolers (aged 4-5) who participated in the first cycle of the Canadian NLSCY. For each age group and for each competence measure, the first analytical model estimated neighbourhood effects after controlling

for province of residence. Subsequent models then examined the mediation role of family characteristics on these relationships.

Dependent Variables:

Measures of school readiness:

- Toddlers (aged 2-3) - Maternal reports of motor and social development and problem behaviour

- Preschoolers (aged 4-5) - Receptive verbal abilities (using the PPVT-R) and problem behaviour scores (maternal rating)

Independent Variables:

- Family variables - province, sex of the child, number of people in the household, PMK age at the birth of the child (teen or non-teen)

- Family socio-economic characteristics - household income, PMK's level of education and single-female headship

- Neighbourhood characteristics: Poverty (percentage of families in the neighbourhood with household incomes less than $20,000); affluence (percentage of families in the neighbourhood with household incomes greater than $50,000); neighbourhood family structure (percentage of single female headed families); neighbourhood unemployment (above the national average versus below the national average, 1994); neighbourhood safety - interviewer's ratings of the safety and general condition of the neighbourhood (e.g., volume of traffic; presence of garbage, litter, or broken glass; any people loitering, arguing, shouting or fighting; conditions of buildings on block); neighbourhood cohesion - a scale score of 5 items: (e.g., there are adults in the neighbourhood that children can look up to; people are willing to help their neighbours)

Results for Toddlers: Neighbourhood affluence was an important determinant of motor social competence while affluence and fewer single female-headed families were significantly associated with behavioural competence. However, family characteristics such as high levels of

household incomes and maternal education mediate neighbourhood effects and were significant independent contributors.

Results for Preschoolers: Neighbourhood socio-economic characteristics such as affluence, neighbourhood safety and cohesion, poverty and single female headship had an effect (in the expected direction) on preschoolers' verbal ability scores. Family characteristics such as high levels of household income and maternal education were associated with higher verbal ability scores for children. These family characteristics mediated the effects of neighbourhood socio-economic characteristics. The effects of neighbourhood female headship on children's verbal ability scores were mediated by neighbourhood safety.

Neighbourhood poverty, single female-headed families, and unemployment were associated with higher behavioural problem scores. Ratings of unsafe neighbourhoods were associated with behaviour problems but these effects were mediated by PMK ratings of neighbourhood cohesion. Family characteristics such as low levels of PMK education and single female-headship were associated with higher ratings of behaviour problems but neighbourhood effects persist over and above family effects.

The results of this study provided some evidence that neighbourhood variables appear to exert larger, more direct impacts as children get older. This can be confirmed by further examination of neighbourhood effects on school-aged children using additional outcome measures such as standardized tests and teacher ratings of competence, available for older children. One limitation of this study was the issue of selection bias (the process whereby families chose particular neighbourhoods in which to live), leading to difficulties in separating neighbourhood effects from those that result from the characteristics of the family that chooses to live in the neighbourhood. Few studies have controlled for this bias.

6. Offord, David R., Lipman, Ellen L., and Duku, Eric K. (1998). *Sports, the Arts, and Community Programs: Rates and Correlates of Participation,* Applied Research Branch, Strategic Policy, Human Resources Development Canada. Working paper W-98-18E.

Keywords: sports, arts, community participation, socio-demographic factors, problem behaviours

Background: This paper employed data from the Canadian NLSCY to assess children's rates of participation in sports, arts, and community programs according to selected socio-demographic variables, and whether such participation was associated with improved psychosocial adjustment in children.

Dependent Variables:

(Note: These variables were also used as independent variables in some of the analyses)

- Participation in any sports involving coaching or instruction outside of school hours; participation in unorganised sports or physical activities; taken lessons or instruction in music, dance, art or non-sport activities; and taken part in any clubs, groups or community programs with leadership (Scouts, Girl Guides, Brownies, Cubs, Church groups).

Independent Variables:

- Sociodemographic and family variables - age groups (6-8, 9-11), gender, income, single-parent status, number of siblings, and family functioning (scale of six dimensions, including problem solving, communication, roles, affective responsiveness, affective involvement, and behaviour control).

- Community variables - availability of good parks and playgrounds, and extent to which area was seen as good place to bring up children (deemed a civic neighbourhood).

- Child characteristics - presence of one or more problems (emotional or behavioural disorder, repeated a grade, or impairment in social relationships). In one of the analyses, this variable was used as an outcome measure.

Results: Incidence of one or more problems decreased if children were younger, female, or participated in unsupervised sports or the arts. Low income, single-parent status, family dysfunction, and living in non-civic neighbourhoods were independently associated with an increased rate of problems.

Overall, participation rates were low in all types of programs, with many children reporting that they never participated in these activities. Furthermore, participation was lower for children from

lower income groups, single parent families, and except for community programs, those with more siblings.

In terms of community variables, strong agreement or agreement by the PMK that there were good parks, playgrounds, and play spaces in the neighbourhood indicated increased rates of participation in each of the activities, (except community organisations). A non-civic neighbourhood was associated with higher rates of almost never participated in all activities (strongest relationship seen with sports).

7. Sampson R, Raudenbush S, and Earls F. (1997). "Neighbourhoods and Violent Crime: A Multilevel Study of Collective Efficacy." *Science*, vol. 277 (August 15): 918-924.

Keywords: collective efficacy, social cohesion, informal social control, violence

Background: This article analyzed data from a 1995 survey of 8,782 residents of 343 neighbourhoods in the community design component of the Project on Human Development in Chicago Neighbourhoods. It was hypothesized that collective efficacy, defined as social cohesion among neighbours combined with their willingness to intervene on behalf of the common good, was linked to reduced violence.

Dependent Variables:

- Incidence of violence in neighbourhood

- Personal victimization (e.g., mugging, fight, or sexual assault)

- Census variables to reflect neighbourhood differences in poverty, race and ethnicity, immigration, the labor market, age composition, family structure, home-ownership, and residential stability

Independent Variables:

- Collective efficacy constructed using the combination of two likert-type scales – a) informal social control; and b) social cohesion and trust (See Appendix for complete details on variables.)

Results: Personal background variables - high SES, home-ownership, and age were positively associated with collective efficacy, whereas high mobility had a negative association. At the neighbourhood level, after controlling for these personal background variables, concentrated disadvantage and higher immigrant concentration decreased incidence of collective efficacy, whereas residential stability had the opposite effect.

Even after controlling for the relationship between neighbourhood social composition and violence, a strong association remained between higher levels of collective efficacy and lower incidence of violent acts. Increasing collective efficacy in a neighbourhood was also related to decreased personal victimization, even after taking into account the effects of neighbourhood characteristics such as concentrated disadvantage, residential stability and immigrant population. Lack of collective efficacy within a neighbourhood was also associated with increased homicides.

Three other scales derived from the community survey were also examined: neighbourhood services, friendship and kinship ties, and organisational participation. When these factors, along with neighbourhood characteristics (e.g., prior homicides, concentrated disadvantage, concentration of immigrants, and residential stability) were controlled, collective efficacy remained the largest predictor of violent crime. Results suggested that personal ties, organisational affiliation, and local services by themselves were not sufficient to reduce violence, which was more directly attributable to informal social control and cohesion among residents.

The authors noted that other dimensions of neighbourhood efficacy that may be potentially important should be explored (e.g., political ties) as well as additional influential factors that were linked to the wider political economy need to be examined.

8. Simcha-Fagan, Ora, and Schwartz, Joseph E. (1986). "Neighbourhood and delinquency: An assessment of contextual effects," *Criminology*, 24(4): 667-703.

Keywords: organisational participation, personal ties, criminal subculture, adolescents

Background: The authors differentiated between the effects of individual and family factors from community contextual factors on delinquency for a sample of adolescent males in twelve New York City neighbourhoods. The 12 neighbourhoods had relatively similar social-demographic

profiles. Measures of neighbourhood characteristics were derived from census data and information reported in the Simcha-Fagan neighbourhood questionnaire.

- Neighbourhood characteristics: A pool of 90 items was factor analyzed to identify 3 separate neighbourhood dimensions: 1) Deviant-Criminal Subculture (e.g., low community attachment and network size and breadth, social disorder, conflict subculture and illegal economy, and neighbourhood anomie); 2) Informal Structure of Personal Ties/ Community Informal Structure (average residential stability, informal neighbouring, extent of local personal ties); 3) Formal Institutional Structure / Community Organisational Participation (average parental education, and community organisation and involvement).

- Individual measures included school attachment-commitment, association with delinquent peers, self-reported delinquency, and official recorded delinquency.

Results: The community's level of organisational participation and presence of social disorder-criminal subculture were the two factors most strongly associated with adolescent delinquency. As expected, high community participation was linked to low delinquency, while higher levels of social disorder led to high delinquency. Low family income, delinquent peers, and older ages were related to high self or officially reported delinquency.

Indirect effects were also present. For instance, residential instability was associated with decreased community participation, which in turn led to lower school attachment and higher reported delinquency. Furthermore, low economic characteristics of communities were associated with the presence of disorder-criminal subculture, which in turn had a direct effect on delinquency.

9. Duncan, Greg J., & Stephen W. Raudenbusch (1998, #3). *Neighborhoods and Adolescent Development: How Can We Determine the Links?* Joint Center for Poverty Research, Northwestern University Institute for Policy Research, Evanston, IL. http://www.jcpr.org/neighbor_dev.html

Keywords: neighborhood context, adolescent development, behaviour, measurement, methodology

Background: This study aimed to identify promising survey methods that may be used to obtain an unbiased understanding of neighbourhood effects. It was argued that: 1) the use of small samples from a few select neighbourhoods diminishes the possibility of distinguishing among the various ways that context may influence youth; 2) studies that measure neighbourhood characteristics based on parent/youth self reports will likely produce spurious results, especially when youth outcomes are based on self report as well; 3) more reliable neighbourhood data may be drawn from independent samples of residents or by systematic social observation (SSO); 4) employing outcome correlations for youth living in close proximity to one another is an effective means of estimating the upper bound of neighbourhood effects; 5) quasi- and random-assignment experimental studies represent the most promising method to date for determining neighbourhood influences.

Methodological issues: The discussion of methodological issues was framed within a model where adolescent i's achievement or problem behaviour (y) is an additive function of i's family (FAM) and extra-familial context (CON):

$$y_i = \text{A'FAM}_i + \text{B'CON}_i + e_i$$

Simultaneity: First addressed was simultaneous causation, where contextual conditions may be caused by the behaviour of the adolescent just as contextual conditions influence behaviour. This was considered especially important in the extra-familial context, for example, where individuals self-select themselves into particular peer groups, hence determining the context within which they find themselves.

Omitted-context variables: When regression analysis was conducted with adolescent outcomes as the dependent variable and family and contextual characteristics as independent variables, estimates of respective influences may be biased should context variables be omitted in the equation. This type of error becomes particularly problematic when using administrative data approaches (i.e. census data), which may use single measures of neighbourhood characteristics.

Endogenous membership: Neighbourhood context has been identified as a function of individual constraints and decision-making, rather than an entirely random process. For example, the propensity of families to live in better or worse neighbourhoods depends in part on a combination

of parental background, characteristics and choices. The complexity of this issue is problematic for measurement, hence making the direction of the relationship and biases difficult to identify.

Families as mediators and moderators: Neighbourhood characteristics, while affecting children directly, also shape family characteristics such as income, living conditions and parental mental health, which may in turn affect children. If this is indeed true, accounting for mere family differences may underestimate the effects of neighbourhood context, and the authors claim it is more useful to conceive of these relationships recursively, with families acting as mediators.

Variability in contextual characteristics: Diversity among neighbourhood contexts implies a need for widely dispersed samples across a variety of communities. Further, it is claimed that researchers must go beyond assessing "good" and "bad" neighbourhoods, recognizing all contexts that exist along the continuum and how competing theories of neighbourhood effects may be applied. In attempting to achieve a representative sample while remaining within budget constraints, many surveys use cluster samples. The authors cautioned against this practice due to decreased geographic variability, which may prevent a true modeling of neighbourhood context.

2.5 Measures / Surveys

See Appendix A for a full listing of community-relevant questions.

1. Program on Human Development in Chicago Neighbourhoods – Community Survey Questionnaire – 1994

This is an excellent source of questions that address a variety of community issues including: perception of crime; neighbourhood quality characteristics; neighbourhood cohesion (e.g., ties to others in the community, ability to rely or to be able to turn to neighbours when there are problems in the community, or when in need of assistance); and perception of one's own neighbourhood (in terms of the boundaries governed, name, major landmarks or stores, satisfaction with neighbourhood as a place to live, qualities of previous neighbourhood, community organisations and services). Interviewers also observed neighbourhoods and commented on visibility of garbage, lighting, people seen, feelings regarding own level of comfort/safety, and land use in neighbourhood).

2. Boston Dorchester Cares Project – Neighborhood Interview

This survey contains a variety of questions pertaining to the respondent's own spatial-geographic conception of their neighbourhood and general attitudes toward their neighbourhood as a place to live and bring up children. There are also questions relating to relationships with others in the neighbourhood such as familiarity with neighbours and social ties. One section addresses social problems in the community, both from the respondent's perspective and from the perspective of the interviewer. Other questions address participation in community efforts to address problems, attendance of religious, educational, social, political, or other groups, and their awareness of community programs, organisations, and people. Questions pertaining to the respondent's own personal health over the past few weeks (regarding anxiety, stress, other symptoms of poor health), parenting practices, and their relationship with a partner are also included.

3. Simcha-Fagan Questionnaire

The questions in this survey are very similar (some identical) to those employed in the Chicago Neighbourhood Survey. For example, this questionnaire has questions about the visibility of various social problems in the neighbourhood and general sentiments of people in the neighbourhood regarding being out alone at night. Respondents are asked to identify (by name, and on a map) their neighbourhood, and whether they believe the boundaries identified are shared by most people in the area. The survey also includes questions about the availability of special programs and services directed at children of all ages and about the existence of a neighbourhood newspaper, bulletin, or newsletter. Involvement in community organisations and associations is also probed, both within and outside of their own neighbourhoods. Respondents are also asked to compare their own neighbourhood to others in the city, in terms of safety (danger), and whether they believe their neighbourhood has changed in this regard in the past couple of years. The last section includes selected questions pertaining to social cohesion.

4. Calgary Youth Violence Survey

Part C of this survey contains a number of pertinent questions pertaining to self-identification of one's community, general attitudes toward the community, and what could be done to improve it. There are many questions that address participation in community activities, membership in clubs or groups, and social life (including type of activities engaged in, how often, and with whom).

Another section deals with issues related to crime and criminal activity including: criminal involvement, related resources available within the school and frequency of use of resources, and contact with/general perception of the police. Respondents are also asked about their perception of youth crime and its frequency in their community as compared to other areas of the city, sources of anxiety/fears about their own community, and steps or practices taken to protect self (while at home, or in the community).

5. Quality of Life Survey – York University

Section A of this survey is focused primarily on the neighbourhood a respondent lives in, with a few questions pertaining to the broader community (city). There are a series of questions that address neighbourhood characteristics including the quality and number of resources (schools, parks and playgrounds), physical condition of streets, houses and buildings, and the physical environment (noise and air pollution). There are a few questions that address perceptions of others in the neighbourhood, relations and ties with neighbours, and sense of belonging (feeling a part of a particular neighbourhood - socially or culturally). Some questions also address satisfaction with the neighbourhood, duration of residence, and safety from crime. The questions pertaining to the broader community include those that ask about the availability of shopping, entertainment, cultural, recreational and sports facilities/ opportunities, as well as job opportunities and the general economic environment.

6. The Panel Study of Income Dynamics (PSID)

This is a longitudinal survey of a representative sample of U.S. men, women, and children, and their families. Data on employment, income, wealth, housing and food expenditures, transfer income, neighbourhood characteristics, and marital and fertility behaviour as well as intergenerational data and information on life events such as early childbearing, divorce, illness are included. A component on child development covering children from birth through age 12 is also available.

7. Survey of Volunteering

This survey includes questions regarding social activities and organisations to which individuals belong and the frequency of their involvement in these activities. The types of organisations

listed include charitable, professional, political, cultural, educational, hobby or sports organisations, religious affiliation, neighbourhood, civic, community or school groups. Respondents are also asked about the type of involvement they have with any group (pay membership dues, attend meetings, participate in meetings, other) and the number of associations or organisations of which the person is a member or participant. There are also questions about voting in the last federal, provincial, municipal or local elections.

8. Australian Living Standards Survey

This survey defines neighbourhood as 'your street and the few streets around it', or 'the area close by'. Section 124 of the survey includes a series of questions (17) pertaining to neighbourhood quality such as the physical environment, access to public parks or playing fields with play equipment for young children, and the visibility of police services. Section 125 of the survey asks respondent ten questions that pertain to how well they know their neighbours (i.e., social cohesion), what they would most like to change or improve about their neighbourhood; and crime victimization. The last section of the survey has 5 general questions regarding the family's present economic circumstances.

9. Coulton, C.J. (1995). "Potential and Problems in Developing Indicators on Child Well-Being," in *Indicators of Children's Well-Being, Volume III. Cross-Cutting Issues: Population, Family, and Neighbourhood: Social Development and Problem Behaviours.* Paper prepared for the Conference on Indicators of Children's Well-Being, Rockville, MD. 1995. Institute for Research on Poverty Special Report, No. 60c.

Though this is a paper focused largely on a theoretical discussion of the outcome orientation vs. contextual orientation in measuring community variables, it does provide good sources of community indicators. Community outcome measures for children are available from the following sources: U.S. Census, municipal housing and police departments, county coroner, children's services, vital registry, juvenile court, and through boards of education. These outcome measures include those that pertain to social behaviours (teen childbearing, delinquency, and drug violation arrest rates), health and safety, cognitive development and achievement, and economic well-being. Community context indicators (sources such as – Census, public assistance counts, municipal housing, police, recreation and parks departments) include those pertaining to

socio-economic composition, age and family structure, residential mobility, and environmental stress (vacant and boarded houses, housing code violations, and personal crime). Support for effective parenting (school locations, recreational opportunities, and community participation), and drug arrests are also examples of contextual indicators.

3.   Issues for Studying Community Impacts on Child Development

The relevant issues involved in studying the impact of community and neighbourhood characteristics on child development from the perspective of the Applied Research Branch (ARB) of Human Resources Development Canada are examined in this chapter. It outlines the main process and content issues to be considered for data collection in order to understand the role of the community in child development.

3.1   Objective

The objective is to obtain rich data, empirical evidence and policy relevant information for the development of public policies and for providing communities with tools to develop and refine local strategies and interventions to ensure that resources are being effectively used to provide children with optimal chances for healthy development and readiness for learning.

3.2   Past Research

Though the effects of community and neighbourhood factors have been postulated for some time, empirical research on the subject is scarce. Studies that have examined community influences have been highly specific, limited in scope, and focused mainly on older children and adults. Very little research has been on younger children, perhaps because researchers feel that children's interactions with their broader communities are limited when they are young. Furthermore, despite the general acceptance of the premise of the Neighbourhood Resource theory in the community literature, few studies have examined the impact of resource availability, accessibility, and use. The intention of ARB is to build on past work as much as possible, and to coin empirical knowledge with respect to community impacts on child development by breaking new ground in data collection and research.

One of the major drawbacks of past research is that most of it has been small in scale and relied on aggregate, census measures of community such as income, and occupational and educational attainments of residents in a given geographical area. Many were proxy variables since no data was available on the actual variables (e.g., the ratio of children to adults as a measure of communal supervision or collective socialization).

Although such studies have been able to isolate the important neighbourhood socio-economic influences, they did not take into account the complexity of interactions between children and their neighbourhoods, or social factors (e.g., cohesion, safety) which theories suggest to be key factors associated with child outcomes. Furthermore, because the child's interaction with his/her community is dynamic, with each influencing and being influenced by the other, more complex measures were needed.

3.3   Theoretical Perspectives

Many competing theories currently exist in the literature, suggesting sometimes conflicting mechanisms of influence. Very little empirical evidence, however, exists to test their relative merits. This discussion will focus on five of the most prominent and relevant to our research: Social Contagion, Collective Socialization, Neighbourhood Resources, Competition, and Relative Deprivation. Based on the theories and existing research results, the research framework (see chapter 4) views the community as a physical environment, a social environment, a resource, a collectivity, and as a group working for a common good. Because empirical information about the proposed theories is scarce, our goal will be to attempt to test these theories to determine if, and if so how, communities exert their impacts on child development.

The theories of Social Contagion and Collective Socialization, also known as Epidemic models, focus on the roles of imitation, modeling, and social learning on development. The former (Contagion) focuses on the influences of children's neighbourhood peers, while the latter (Socialization), emphasizes the impact of **adult** role models and informally shared parenting functions by residents in the community in shaping children's behaviours. The Epidemic models fit mostly under the frame of the community as a social environment, where negative social environments may deprive children of positive social supports and expose them to anti-social behaviours while positive environments should have the opposite effect. Modeling of good behaviour by others, for instance, (e.g., graduating from university) should increase the graduation rates of children within the neighbourhood, as they should place more value on education and strive to advance academically. Conversely, negative behaviour (criminal activity, poor school attendance) should increase deviant behaviours. Adults serve a dual role as they are also able to exert social controls by monitoring the behaviour of neighbourhood children and

dealing with potential trouble. If neighbourhoods have the additional benefit of functioning with high levels of cohesion with similar values and shared goals among residents, further positive modeling and potential for healthy social learning will be available for their children.

The theory of Relative Deprivation is also related to the larger social environment in which a family lives. Relative Deprivation focuses on the negative impacts that certain neighbourhood structures (particularly being surrounded by affluent educated neighbours) can have on children. Under the tenets of this model, individuals appraise their situation relative to others in their communities, and subsequently adjust their behaviours accordingly. In these cases, being surrounded by highly affluent neighbours would lead both children and adults of lower economic means to appraise their situations as worse than their neighbours, which could translate into lower achievement, both academically and otherwise.

The Neighbourhood Resource Theory views the community as a resource and investigates the links between the quality and quantity of services available to residents such as police, parks, recreation, and health and the development of children. It implies that increased availability of services will lead to enrichment of experiences, more opportunities for development and fewer chances for problems. Social relationships developed among community members (social capital) are also important resources for fostering development. When resources are scarce, the theory of Competition also applies. In such cases, families may have to compete for resources and the effects of winning or losing these competitions can have important effects on development, as some children may go without valuable or even essential resources.

Furthermore some theories assume a limited geographical area and a high population density. Rural areas have lower population density and may not have as many resources available for their residents, and as a result families experience lower levels of service utilization. This could result in fewer opportunities for social interaction as well as service utilization, and in turn negative impacts on child development. On the other hand these children may have a better physical environment and perhaps closer relationships, which could provide positive impacts, according to other theories.

When communities are characterized in terms of their physical characteristics and infrastructure, the theory of Relative Deprivation and Neighbourhood Resource availability are most often

discussed. Children in neighbourhoods with rich resources and diverse services may benefit positively, while those that live in less endowed neighbourhoods may be at a disadvantage. This disadvantage may have a heightened impact, if comparisons can be made, when deprivation can have a double effect, first from the actual deprivation and second due to lowered expectations and unachieved potential.

3.4   Main Issues for Measurement

3.4.1   Defining communities

The terms neighbourhood and community are seen as equivalents, measured either as a social construct or a geographical entity. Most studies have used geographic boundaries for communities, classifying them according to the residents who live within a certain electoral area or postal code range. Though this method is commonly employed in research, it implies that residents of certain geographical spaces share a sense of community and common use of resources that exist within that given geographical space. In not all cases, however, is this true, as many families may travel to different communities in order to obtain certain programs or services. Therefore, depending on the characteristics of surrounding neighbourhoods (e.g., SES, resource availability, and mobility of residents) benefits may be obtained from contiguous communities. Furthermore, a geographical definition may also outline a community that is much larger than the child's frame of interaction.

The sociological definition of a neighbourhood, defines communities more in terms of sense of community and group of interest that is geographically anchored. This definition is based more on proximity and face to face interaction among residents and relies on members of communities to set their own boundaries for their sense of neighbourhood. This definition, (though perhaps more accurate in determining how residents function in their neighbourhoods) presents many difficulties for measurement. In particular it becomes difficult to set standard boundaries of each community as social boundaries would likely change between communities and families. It also raises the question of whether the most accurate way to measure community impacts would be to look only at individual's social networks or the broader social communities in which they live.

3.4.2   Measuring child outcomes

Measures for children are often unstable, as rapid changes are common in early years. Proxies are commonly employed for studies of young children but their accuracy is often questionable. Furthermore, because younger children's interactions within their communities often occur indirectly, parents are most often the primary respondents for data collection on such interactions.

3.4.3   Measuring community variables

Research experience isolating variables of community influence is limited. The literature identifies some issues of measurement, and to some extent questions for data collection can be drawn from previous surveys. However, because much of the past work on community impacts has focused on older children, some of the questions do not directly apply to the preschool population but would be invaluable as children age into adolescence. Data collection on resource use within communities would necessitate community specific information on services, programs, and community concerns, as they would necessarily change from one area to another. This also requires additional data manipulation before analysis.

3.4.4   Presence and use of resources

There are three important aspects to consider when measuring community resources (their availability, use, and barriers to access) and confusion among these factors can lead to measurement difficulties (barriers discussed in subsequent section). The mere presence of adequate high quality resources within a community is not enough to judge their impacts on child development. Although resource availability has an effect on children's outcomes, if resources are not used, or are used infrequently they will be of little value. The empirical measurement of the relationship between the child's **use** of available resources and their outcomes, is one of the main goals of this project. Little research regarding the use and frequency of use of community services and resources has been undertaken in the past. A related measurement issue is that the accuracy of response is limited by the parent's knowledge of available resources and accurate recall of past resource use. Having an accurate listing of available resources in each of the communities studied (from which parents could indicate whether or not a resource had been used) could increase reliability of results. For policy and program decisions, it will be important to

differentiate between services that are essential and those that have little impact on child development.

Confusion again arises when considering families who make use of resources from adjacent neighbourhoods. For example, if residents are only questioned on their use of resources within certain geographical boundaries, the results do not provide a true picture of resource use. Parents may, for a variety of reasons (e.g., cost, availability, and program content) choose to make use of resources in other communities and this could greatly benefit their children's development. It would be valuable to know how densely services need to be distributed and how complimentary services may be cost effectively spread over larger geographic areas.

3.4.5   Social, economic, and physical barriers to use of services

In studying resource use it is also crucial to examine barriers to access, which often prevent families from taking full advantage of community services. Barriers may be social or cultural (language differences), physical (transportation problems), or economic (user fees). Reasons for low rates of resource use can vary and it is important to differentiate between lack of use because a family was unaware that a service existed or because they made a conscious choice not to participate and non-use because of barriers to accessibility. Information on low rates of community participation and resource use because of financial, time, or other barriers within the family are useful for community service planning.

3.4.6   Selection bias

Selection bias (the process by which families seek out certain neighbourhoods in which to raise their children) is a concern when studying community effects. However, few studies have been able to control for the processes that interact and influence individuals to choose environments in which to raise their children. It has been suggested that, if given the choice, residents prefer neighbours who are similar to themselves and living conditions that they find desirable. However, if options are limited, it may not leave families with a great deal of control over their living environment. Concentrations of poor individuals in poor neighbourhoods may, therefore, result in concentrating poor outcomes as well. However, broader factors such as proximity to work or schools, safety, areas full of parks and play spaces, and away from busy roadways are other possible reasons that certain neighbourhoods may be selected. Therefore, without clear

understanding of why one neighbourhood was selected over another, and the implications of having the ability to choose a particular neighbourhood, results have the potential for bias. Results may be more accurate if information were available on whether the present neighbourhood is an improvement over a previous neighbourhood; but complete avoidance of selection bias may not be possible.

3.4.7   Separating contextual factors from community factors

Children and their families are a part of a larger community and it has often been difficult for researchers to separate the effects of community variables from individual or family characteristics. This introduces the question of whether, given specific individual and family characteristics, children will develop in the same manner regardless of the communities in which they are raised. The issue is to separate and value the effects of the characteristics of the child, his/her family, and the larger community on child development. Furthermore, it is important to know which effects are strong at each stage of development, since the relationship of the child to herself/himself, his/her family and the community changes over time. This requires sufficient longitudinal data on each of these factors.

3.4.8   The dynamic relationship between community and child

Children are regularly interacting with their larger communities and depending on the community's characteristics can either draw benefits or increase risk of problems as a result. However, these relationships are dynamic, with communities influencing children's development, while the child's individual characteristics (e.g., physical, emotional, social, and cognitive) are simultaneously impacting on and even changing their communities. This reciprocal relationship makes measuring community impacts even more difficult. Although through regression analysis it is possible to determine that a relationship between community and child exists, it remains difficult to determine its direction. That is, (stated in an overly simplified manner) did the community affect the child or did the child affect the community? While this issue is recognized, data and analysis solutions are not evident. Analysis on how community service provision has changed in relation to the proportion of child residents is one way to identify the presence of such a dynamic relationship.

3.4.9   The changing relationships of communities as children grow

Community effects are filtered through residents' perceptions of themselves and their place within the communities. Children's perceptions of their surroundings and their use of resources (e.g., play groups) likely differ from those of their parents. However, it is likely that many of effects of the community on children of young ages work indirectly through their through their parents or other adults within the community, indicating that the differences in perceptions may not be extremely important for children of young ages. Still, parents' perceptions of their communities and their use of resources may change depending on the number of other children they have and as their children grow. When children are young, parenting resources, playgroups, and other parents with small children are often drawn on for support. However as children age, their activities become more independent and in many cases require less parental involvement (e.g., sports, arts, and community programs such as Guides or Scouts). The child's social networks also widen, and it is likely that the community begins to exert a more direct effect. These changes may have important implications for understanding the processes through which communities impact child development and if and how they change as children grow.

3.4.10 Direct and indirect effects

Communities may impact on children either directly or indirectly, depending on whether the interaction is with the child, the child's parent, or even another adult in the community. This must be reflected in the research framework. Community factors most likely to affect children directly would include having good role models, safe and clean play spaces, and other community resources such as toy libraries, gym jams, and sporting activities. Communities can have their indirect influence on parents through their provision of information on parenting and child development through resource or drop-in centres and parenting classes. Data should permit research to identify whether the manner in which the community has its influence (direct vs. indirect) is an important determinant of the types of child outcomes that are achieved, and whether these influences vary with the child's characteristics?

3.4.11 Changes associated with age

As noted above, children's perspectives change as they age - their interests change, their social ties expand, and they travel more and use increasing areas of their communities. As a result, it is

likely that the factors influencing development change as children grow older and they are exposed to different aspects of and resources in their communities. Data should allow analysis that can describe the critical ages at which certain types of community factors have more or less of an effect.

3.4.12 Past and present community impacts

Moving is not an uncommon transition for many children, with some children having relocated several times in their lives. Past research has indicated that frequent moving can cause problems for children as it can hinder their abilities to form attachments to both people and institutions within their communities. Even moves within a child's community could be disruptive. Frequent relocation to new communities can lead to a decreased sense of community and cohesion among residents, which can increase risk for poor child outcomes. To fully analyze the impact of residential moves, not only should data be collected on the move (or history of moves) but also on the communities in which the child has lived.

If the child has experienced a move, the effects of the current community of residence must be separated from the characteristics of previous places of residence, in order to understand how the characteristics of the old and new neighbourhoods have their effects. That is, are the effects of the current community of residence mediated by the characteristics of the child's former neighbourhoods? Is it the case that positive moves (such as when the child moves into a safer or more cohesive neighbourhood) may have different developmental impacts than relocations to poorer neighbourhoods (e.g., those with fewer resources, lower SES)? And, if so, what is the impact of living in several different neighbourhoods, each with its own mix of characteristics that can hinder or enhance development? It is also important to understand whether these impacts have critical points in the child's developmental trajectory at which time they have the greatest effect, and if these effects endure. The issue is to cost-effectively collect sufficient data to answer questions such as these. To avoid response burden and problems with recall, essential questions may be limited to the previous and present neighbourhoods.

3.4.13 Risk and protective factors

Though the child's environment has an effect on his/her development, the ways these effects influence behaviour are not well understood. While some community models focus on the risks

associated with living in poorer neighbourhoods, others focus on the protective factors that good neighbourhoods can contribute. While protective factors can protect a child by reducing the effect of certain risk factors, they do not always prevent negative outcomes. At issue is whether positive community variables can serve as protective factors when the child is exposed to personal and family risk factors. Are some outcomes more susceptible to community influences under conditions of risk? If sufficient data are available on the outcomes of the children in the neighbourhood and if community data are available in adequate detail, analyses to explain the variations in outcomes and the role of communities should be possible.

4. A Framework for Research and Data Collection

The research framework is a tool to examine the impact that residential communities may have on child development presented from the perspective of the Applied Research Branch of Human Resources Development Canada.

This section has three main purposes: It will create a framework for testing and measuring the ways in which communities may have an impact on children's development; it will examine the potential effects of community characteristics over and above individual and family variables; and hypothesize how these effects are achieved, all of which will help to focus both instruments and analysis on answering the research and policy questions.

4.1 Setting the Context

The community factors that affect children's outcomes, the processes by which they exert their effects and the relative importance of community effects compared to other factors are not clearly understood.

- Do families select communities that have neighbourhood conditions that they consider desirable for raising children? (The question of choice and the fact that the lower the income, the fewer the options families may have can complicate analysis.)

- Will children develop in certain ways regardless of the community in which they are raised?

- If the child moves to another community that is more or less pro-child, will they continue to develop in the same ways?

- Do community effects, particularly for young children, work through their parents, or even other adults? Does this change with age, as children use the wider community independently?

- Do the number and characteristics of communities that the child has lived in have an effect and how enduring are these effects? Are communities more important at one stage in life and does that effect persist?

- How does a community impact on a child's development? Which community variables exert the most impact? Some theories postulate negative effects on development, while others focus on the possible positive influences of community variables. Do communities have a risk or protective effect and does this depend on the characteristics of the child and his/her family?

The theories dealing with neighbourhood influences on child development suggest that these community impacts depend on the child's interactions with adult residents, the resources available, the resources used, and the characteristics (e.g., safe, clean) of the community.

4.2   Defining Communities

A neighbourhood can be defined for research purposes either geographically or socially, and past studies have employed both definitions. There are advantages and disadvantages associated with each type of definition. Often, for ease of analysis and because of the high reliance of previous research on census data, geographical boundaries have been favoured for research and analysis. This research will examine communities in a geographical context, (based on city boundaries) but will also explore the social relationships within neighbourhoods that may impact on a resident's sense of community and subsequently their children's development.

4.3   Community Factors that Influence Child Development

Although research has often focused on the impact children's individual, family, and peer characteristics may have on their healthy development, few studies have examined the role the child's community plays in the developmental process. Though conventional wisdom maintains that communities have an independent effect on children, empirical results are not clear. The relationships between community and child development are complicated and multiple. Therefore, the theories linking communities with child development rely on untested assumptions or partial explanations of these complex social phenomena. The theories, as they relate to the framework may be clustered in five groups.

4.3.1   The community as physical environment

The physical and infrastructure aspects of the community such as the quality of the homes, the presence or absence of graffiti and the presence or amount of green space are seen to affect the development and behaviour of children. These variables could be seen as indicators of a greater

malaise or deterioration in a community, but may not be a direct influence on behaviour. Some theorists see a relationship between lower estimations of self-worth and poorer environments and the resulting negative behaviour that is a consequence. The Theory of Relative Deprivation is built on this assumption. Critics suggest that the community serves as backdrop or a context and therefore does not have a direct influence on development. Others indicate that the nature of the physical environment can affect the richness of the child's experience with consequences for development. It remains to be proven whether certain behaviours would occur regardless, due to individual or family factors rather than due to the neighbourhood.

4.3.2   The community as a social environment

Social characteristics of the community such as the average income and education of residents, diversity, number of single parents and number of children per adult resident may have an impact on the outcomes of children raised in the neighbourhood. The process by which they impact development is unclear. The Theory of Social Contagion focuses on the role of imitation, modeling, and social learning from the child's neighbourhood peers in shaping behaviours while the Theory of Collective Socialization is based on the impact of adult role models within the child's community. Proponents of social learning suggest children use role models from the community and aspire to community standards. Critics suggest that social learning occurs through interaction, generally with others who are similar. Such "anchoring" in the community is closely related to socio-economic status. Affluent families have more relationships outside the community that may be important to the family than do lower income families. Negative social environments may deprive children of positive social support and expose them to anti-social behaviour and peer pressure.

4.3.3   The community as a resource

Resources such as the local presence of facilities such as libraries, swimming pools, and scouting programs are important for the development of children. The quality and quantity of services available to families with children may have varying impacts on development. Related theories include Neighbourhood Resource Utilization and Competition for Resources. Difficulties arise because distribution of families is not random (i.e. families may choose to locate in communities that have desirable resources such as good schools, access to children's hospitals, and police

protection) and such self selection may create bias. Furthermore, the presence of such resources does not ensure that they are used and there may be variation in use among the neighbourhood population. There appears to be a variation in the use of resources due to age and the time spent in the neighbourhood. For example, while small children may only use resources when taken to them by their parents, older children may independently and frequently use them. It has also been noted that those who spend more hours in the neighbourhood, such as non-working adults (young mothers), seniors, and teens may benefit more from the use of resources. Finally, when barriers to access such as location, time, transportation and, most commonly, cost arise, they can limit children's exposure to programs and services.

4.3.4   The community as a collectivity

Variables such as social cohesion and neighbourliness make a difference to the process of raising children. Homogeneous characteristics and shared values are considered to hold the residents together as a collectivity. Collective efficiency is more likely when there is social cohesion. Two antecedents are issues. First, residents may select communities that mirror their values and interests and second, a certain stability in the population is required for such a collectivity to develop. Critics suggest that such variables may serve as factors for positive development but that social norms may not prevent negative development. Also that diverse neighbourhoods may have sub-groups with social norms, based on other factors than neighbourhood residence.

4.3.5   The community working for common good

Residents are involved in their communities because they see the value of working toward a common good, where everyone benefits. In such cases, residents are willing to make investments in their community as they are rewarded both as individuals and as members of their larger society. On the one hand, variables of shared interest would include the presence of community associations, and community activities such as block parents and block parties, and on the other hand indications of community responsibility, such as willingness to intervene in a fight, report incidents, and discipline or protect children. Theories of collective efficacy and collective socialization fall into this category. These interactions may be sustained efforts or occur at specific times as required. The resulting social networks are considered a benefit but critics have noted that social networks may be built along class lines. Furthermore, individuals with lower

incomes cannot make the time investment required for the common good when they are preoccupied with making a living. Some have suggested that self-policing has a stronger effect on negative behaviour than socialization, which may contribute to positive behaviours. In any case, adults may consider such actions more worthwhile than do the children in these neighbourhoods.

4.4   Framework for Studying Community Impacts on Child Development

Communities can affect children's development through a variety of pathways. Figure 1 depicts a framework of the relationship of components and how these processes may work. Research results elucidating the interplay of these relationships would equip communities to better respond to the needs of their children, and would enable all levels of government to make effective policy and program decisions to enhance child development.

The framework accommodates multiple mechanisms of impact. Central to the framework is the understanding that children are part of larger communities. Factors describing these communities (e.g., safety, neighbourhood and average socio-economic characteristics) can have an impact on their development. If a child has spent time in more than one community, it is likely that the characteristics of their previous community environment(s) also play a role in shaping their development. In such cases, accounting for the influence of the child's past environment will be important in order to fully understand how communities may have their impact (depicted by the two interlocking rectangles to the left of Figure 1). Frequent moving for instance, may result in an impaired sense of stability and attachment between the child and his/her community. Moving into a better neighbourhood may serve as a protective factor while moving into a worse one may be a risk factor.

The larger arrows represent the directions in which the community has its impact. Children and their families regularly interact with their larger communities, and depending on the community's characteristics, either draw benefits or increase risk of problems as a result. Community factors can effect children directly, and can also influence them indirectly through interactions with their parents, which then filter down to the child. The arrows are two-directional because the relationships are dynamic with the child's (or children's) physical, emotional, social, and

Figure 1: Framework for Research on Community Influences on Child Development

Community

Current

Past

Potential Influences
 Community as:
- an environment
- a social environment
- a resource
- a collectivity
- working for the common good

Parent

Child

Child Outcomes

Physical

Social

Emotional

Cognitive
Learning

Communication
Language
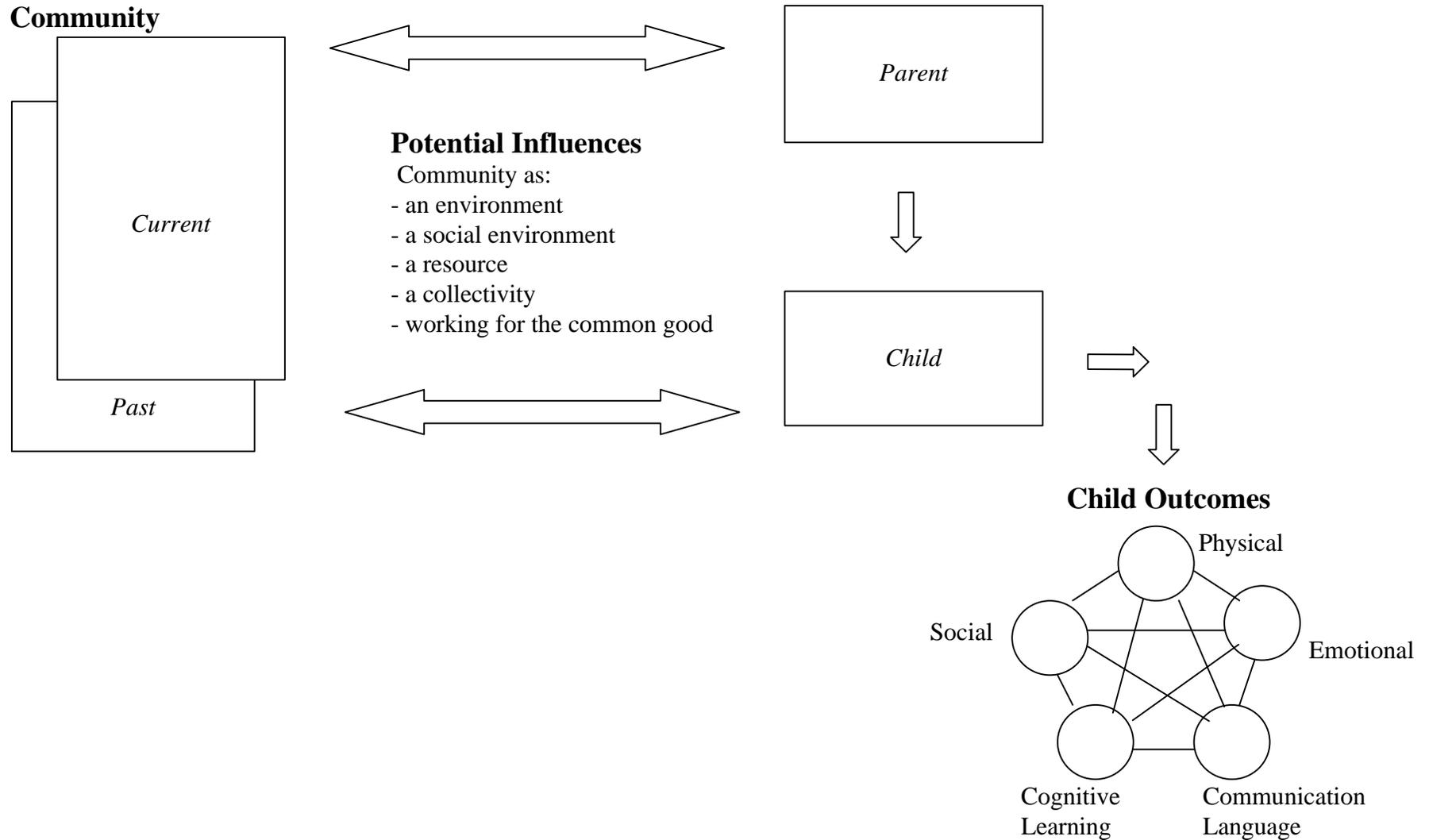
cognitive characteristics influencing their larger community while the community's characteristics are simultaneously impacting on the child's development.

The text between the two arrows represents the main ways, (based on existing theories of community influence) by which the community has its impact. Each of these influences was summarized above. Though the relationships are different depending whether the impact is directly on the child or through the parent, the underlying concepts are similar.

The final component of the diagram is the child's outcomes shown as five inter-linked balls, which represent the domains of child development. Whether the community's influence is felt directly or indirectly, it has an impact on the child and this impact is observed through these developmental outcomes. A holistic view of child development requires healthy development across five main outcomes: physical health, emotional and social development, cognitive learning, and language communication. Communities may influence each of the five outcomes and impact them differently. Lines connect each of the developmental domains because they are all inter-related and may impact or be impacted by the others.

4.5   Research Questions

Research using this framework should determine whether or not communities impact child development over and above individual and family variables, and if they do, the mechanisms for such an effect and the type and degree of change in the outcome. The following policy-relevant research questions are proposed.

1. How do communities impact child outcomes? What is the relative importance of these factors compared to other factors affecting child development?

2. What factors in the community support child development making it "pro-child" or a good place to raise children?

- Physical and infrastructure environment (presence of parks, conditions of buildings)

- Characteristics of the community (education, income, safety) - the social environment

- Community resources (presence and use of facilities and services)

- Characteristics of residents (cohesion, common interest)

3. Do communities have a differential impact depending on the developmental domain and stage of development of the child?

5.   Questions for Measurement and Data Collection

5.1   Background

Neighbourhood socio-economic characteristics (e.g., family structure, educational, employment, and income rates) have often been associated with child outcomes. Neighbourhoods of a higher socio-economic status have been linked to reduced maltreatment rates, increased verbal abilities and motor social, behavioural, and cognitive functioning of children. Disadvantaged neighbourhoods have reported higher levels of delinquency, crime, and teenage pregnancies in their older children.

A wealth of socio-economic information is collected through the NLSCY and other similar studies. Only recently have more of the social characteristics of communities (neighbourhood cohesion or attachment) been measured in larger scale studies, though most are American and have focused on older children. Although the NLSCY currently contains questions regarding some of the social aspects of communities (e.g., safety, cohesion, mobility) questions are needed to ensure a complete list of community variables.

In order to develop the questions for measurement it is important to consider the five ways in which communities may impact children's development according to theories discussed in the framework. High quality physical environments, with more resources, strong social networks, positive role models, and residents who can work together toward common goals all have the potential to enhance child development. However, the processes by which these factors have their influence remain unclear, due in part to the difficulties of measuring the dynamic nature of the interactions that communities have with their members. In addition, these relationships may be at work not only in the child's current community of residence but also in any other neighbourhood in which he or she has lived previously. Therefore, sufficient community data are necessary to test the effects of these motions, and to identify proven policy-relevant variables that can be targeted for policy action. When data needs were closely examined, a two pronged data strategy appeared to be the best option, first an expanded community section in the NLSCY Parent Questionnaire and second, a Community Mapping Study.

5.2   Purpose

The overall goal was to create the best instruments to measure and understand community influences. Choices regarding adding and removing questions on instruments were made based on direction provided through consultations, past studies, existing literature, and the research questions.

The purpose of this chapter is to outline the data needs in order to measure the impact of various aspects of communities on children's development. The chapter consists of two sections. The first looks at potential questions posed to parents regarding their perceptions of their communities and their use of resources within the area. The second section outlines some of the main concepts to be measured in the Community Mapping Study of community characteristics and available resources.

5.3   The NLSCY Parent Questionnaire - Community Component

Although recently some research has been undertaken to assess the influence of community variables on children's development, most of these studies have not examined the relationship on young children. Studies examining community impacts on youth, have focused mainly on adolescents or older children perhaps because as children age their social interactions broaden and their communities have a more direct impact on their development. There were few studies with questions regarding community impacts on young children that could be drawn on, even though the NLSCY would have benefited from research experience with operationalization and field tested questions.

The NLSCY currently contains questions about most of the community variables identified as important in the literature. However, enhanced content (particularly with a child-centered focus) is needed in order to identify the full impacts of communities on children's development. In accordance with the research framework, further questions are required about the child's movement between neighbourhoods, the levels of safety and cohesion in those neighbourhoods and especially the child's use and frequency of use of community resources. The Parent Questionnaire therefore, will be amended to include the parents' perception of the community and its characteristics and their awareness and use of available resources. Additional questions should be kept to a minimum so as not to overburden respondents and items that can be collected

by observation (i.e., in the Community Mapping Study) should be excluded from the Parent Questionnaire.

5.4   Community Mapping Study

The Community Mapping Study has two main purposes. First it serves to complement the NLSCY Parent Questionnaire, allowing measurement of concepts that were not feasible in the parent interview (either because of time constraints or because the parent would not be the best source of information). Secondly, objective information is collected about the community, its characteristics, and its resources without relying on parents' perceptions.

The Community Mapping Study will also be important in empirically determining the characteristics and resources of specific communities that are associated with healthy child development, and the distribution of resources in relation to the distribution of children in residential areas. This study will map out the community in terms of its child-related resources, services, and programs. It will also examine general conditions of residents' neighbourhoods including general safety, quality of infrastructure, and incidence of problem behaviour (such as crime or delinquency). Services will be classified according to their main purposes: education, sports and recreation, entertainment and culture, social, health and wellness, and special interests.

Other sources of data, such as the census (for measures of population density, and diversity such as the number of languages spoken) and administrative records from local police and municipalities will also be assembled to gain a more complete picture of the communities characteristics.

5.5   Data Collection Strategy

Based on the discussion in this chapter, concepts to be measured in both sections have been combined into one chart and are presented in Table 1. They have been classified according to the categories of community influence outlined in the research framework. Some overlap does exist, in that some of the concepts to be measured could have been classified in more than one of the categories. In such cases, the category that best describes the item was chosen. (See Table 1 for details of the data strategy).

Table 1: Data Collection Strategy for North York Community Project

Pilot for Understanding the Early Years Community Impacts on Child Development

Notes:

1. Items to be measured are listed in the left-most column. Method of data collection (NLSCY, resource availability to be mapped, neighbourhood observation, or social and economic statistics) is listed on the right. Efforts will be made to collect data on all listed items, however, in cases of data shortages, particularly for items relying on existing databases, modifications may be required. Questions are subdivided according to the category in which they were classified in the community framework paper (e.g. the community as a physical environment, a social environment, as providing resources to parents and young children, as a collectivity, and as working for the common good.)

2. Bolded items are those already present on the NLSCY and are contained in the chart so the reader can understand the breadth of coverage for each category.

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
1. A Physical Environment				
For the child being surveyed				
- **Dwelling owned by a member of the household**	X			
- **Dwelling subsidized by the government for any reason**	X			
- **Dwelling in need of repairs**	X			
- **Number of bedrooms in dwelling**	X			
- **Type of dwelling**	X			
- **Presence of good parks, playgrounds, and play spaces in neighbourhood**	X			
- Number of years child has lived in neighbourhood	X			
- **Perception of neighbourhood as a place to bring up children**	X			
- **Number of times child has moved, or changed his/her place of residence**	X			
- In comparison to previous neighbourhood, rating of neighbourhood as a place to raise children	X			
For the child's neighbourhood				
- Number of subsidized units in neighbourhood				X
- General condition of most of the buildings on the block			X	
- Presence of abandoned houses or stores			X	
- Percent of dwellings in need of major repair in neighbourhood			X	
- Condition of streets and roads			X	
- Volume of traffic on the street or road			X	
- People exhibiting anti-social behaviours (e.g., intoxicated, loitering, fighting)			X	

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
- Presence of garbage, litter, or broken glass in the street or road, on the sidewalks, or in yards			X	
- Based on street level frontage, land use in neighbourhood			X	
- Presence of public parks or playgrounds		X		
- Quality of equipment and buildings in parks and playgrounds			X	
- Lighting conditions in neighbourhood			X	
- Number of people (families, children) seen in neighbourhood			X	
- Amount of noise in the neighbourhood			X	
- Number of stop lights and cross walks			X	
- Width of streets			X	
- Transience in neighbourhood (percent families moving in and out)				X
- Population density				X

2. A Social Environment
 	
For the child being surveyed
 	
- **Safety for outdoor play during the day**
- **Safety in walking alone in neighbourhood after dark**
- Perception of child's safety because of the rate of crime in neighbourhood
- **Presence of adults in neighbourhood that children can look up to**
- Perception of neighbourhood as a place to bring up children in terms of
  a) the number of families with children
  b) good schools, nursery schools
  c) adequate facilities for children (e.g., playgrounds, pools)
  d) safe and clean community
  e) presence of health facilities
  f) active, involved residents
	X
	X
	X
	X
	X			

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
g) accessible public transportation - Interviewer assessment of safety when walking in neighbourhood			X	
For the child's neighbourhood				
- Reported incidents of violence (including domestic violence) burglary, assault, and homicide				X
- Number of collisions per intersection per million vehicles per year				X
- Incidence of crime in public schools				X
- Juvenile crime rates				X
- Child abuse/neglect cases confirmed per 1,000 children				X
- Percent of children in foster homes or in care				X
- Housing affordability ratio – house and rent prices (income spent on rent)				X
- Home ownership in neighbourhood percent of low income dwellers, mean education, occupation, and income of neighbourhood, unemployment rates				X
- Family structure, adult to child ratios				X
- Child care supply and demand				X
- Diversity of neighbourhood (ethnic, cultural, linguistic)				X
- Density of households in neighbourhood				X
3. Provinding Resources to Parents and Children **a.** *Educational Resources* *For the child being surveyed* - **Child's visits to the library** - **Child's attendance at nursery school, play group, or other early**	 **X** **X**			

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
childhood program or activity (not including child care programs or time spent in elementary school) – specify (e.g., nursery school, toy library, drop-in centre, infant stimulation program, play group, mom and tot program)				
- **Number of hours in attendance at programs (per week)**	X			
- Child's use of book clubs or literacy programs (i.e., dial a story)	X			
- Child and parent's use of family or parent resource centres, support services or programs (e.g., Parent Child Resource Centre for Mom & Tots, family support network)	X			
- Parent's attendance at parenting classes, courses, or workshops (total hours)	X			
- Child's attendance at educational centres or workshops (e.g., science centre)	X			
- Child's participation in enrichment programs (i.e. Better Beginnings Now, Adventure Place Early Intervention Programs)	X			
- Location of the majority of these resources (available within a short walk bus ride or drive from home)	X			
For the child's neighbourhood				
- Availability of drop-in, parent or family resource centres		X		
- Availability of parenting classes, parent relief and family support programs		X		
- Availability of book clubs, literacy programs, libraries, toy libraries		X		
- Availability of other educational centres and workshops		X		
- Distribution of schools, nursery schools, and kindergartens		X		
- Distribution of play groups, early childhood programs, child care centres, day cares, family home care etc…		X		

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
- Availability of enrichment programs (Better Beginnings and CAP-C sites, Adventure Place)		X		
- Availability of services for children with special needs (children with or at risk of problems) such as behavioural, developmental, physical, mental, speech language problems, and infant stimulation programs.		X		
- Library books borrowed per juvenile				X
- Distance to school from school boundaries		X		
b. *Sports and Recreation*				
- Child's use of the parks and playspaces in neighbourhood	X			
- **Child's participation in sports involving coaching or instruction (outside of school hours in the past 12 months)**	X			
- **Child's participation in unorganized sports or physical activities**	X			
- **Child's participation in any clubs, groups, or community programs with leadership, such as Beavers, Sparks or church groups**	X			
- Parent's involvement in any sports, music, or arts related groups (e.g., coaching, music or dance lessons)	X			
- Child's use of recreational or community centres in neighbourhood	X			
- Child's use of indoor, outdoor, and wading pools	X			
- Child's use of other recreational resources not mentioned – specify	X			
- Location of the majority of these resources (available within a short walk, bus ride, or drive from home)	X			
For the child's neighbourhood				
- City parks/recreation expenditures per capita				X
- Location and distribution of indoor, outdoor, and wading pools in		X		

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
neighbourhood				
- Location and distribution of skating rinks		X		
- Location and distribution of recreational or community centres in neighbourhood		X		
- Other centres offering sports and recreational programs		X		
- Usage/attendance rates for recreational and community centres				X
c. *Entertainment and Culture*				
For the child being surveyed				
- **Child's participation in lessons or instruction in music, dance, art, or other non-sport activities**	**X**			
- Frequency of child's attendance at the following:	X			
a) Movies				
b) Theatre (plays)				
c) Art shows or exhibits				
d) Museums				
e) Zoos				
f) Spectator sports (watching hockey or baseball)				
g) Music performances				
h) Child activity or play centres (e.g., gymborees, arcades)				
- Location of the majority of these resources (available within a short walk, bus ride, or drive from home)	X			
For the child's neighbourhood				
- Presence of and general attendance at museums, art galleries, zoos,		X		X

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
theatres, cinemas, and child activity or play centres (e.g., gymborees, indoor/outdoor amusement centres)				
- Presence of shopping facilities		X		
- Number of courses available at public schools (e.g., art, music)		X		
- Art performances in public areas (i.e., parks)		X		
- Children's festivals, performers, or events		X		
d. *Special Interest*				
For the child being surveyed				
- **Other than on special occasions (such as weddings or funerals) frequency of family's attendance at religious services or meetings in the past year**	X			
- **Parent involvement in any local voluntary organizations such as school groups, church groups, community or ethnic associations**	X			
- Frequency of parent involvement in any of the following local voluntary organizations: a) school associations (including PTA) b) religious affiliated groups c) neighbourhood, civic or community associations d) cultural or ethnic affiliated associations e) political or advocacy associations	X			
For the child's neighbourhood				
- Presence of places of worship in neighbourhood		X		
- Availability of recycling programs		X		

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
- Number of members of chamber of commerce		X		
e. *Health and Wellness*				
For the child being surveyed				
- **In the past 12 months number of times parent has seen or talked on the telephone with any of the following about their child's physical or mental health:** **a) A general practitioner/family physician** **b) A pediatrician** **c) Another medical doctor (such as an orthopedist, or eye specialist)** **d) A public health nurse or nurse practitioner** **e) A dentist or orthodontist** **f) A psychiatrist or psychologist** **g) Child welfare worker or children's aid worker** **h) Any other person trained to provide treatment or counsel (e.g., speech therapist or social worker)**	X			
- Use of parent help line (caring for kids)	X			
- Use of a home visitation program	X			
For the child's neighbourhood				
- Availability of family doctors, pediatricians, dentists, eye specialists, other MD's (e.g., orthopedist), public health nurse or nurse practitioners		X		
- Presence of health clinics, hospitals		X		
- Presence of pediatric hospitals		X		
- Presence of mental health clinics and psychologists/psychiatrists		X		

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
- Presence of counseling programs		X		
- Calls to parent help lines				X
- Availability of nutrition or other health programs (e.g., pre- and post-natal care/support programs, breastfeeding clinics/classes, health promotion/education programs)		X		
f. *Societal*				
For the child being surveyed				

- Reasons child did not participate in programs or services within community:
  a. Child was not interested in participating
  b. Resources were only available to older children
  c. Resources were not available in preferred language
  d. Programs were too costly
  e. Difficulty getting to the program or service (i.e., no bus, no car, no parking)
  f. There is not enough time
  g. Unaware that resource existed
  h. Concerned about the level of quality the service provided
  i. Other. Specify ………….
	X			

For the child's neighbourhood				
- Presence of emergency response services – rates per 1000 people (police, fire, ambulance, community policing), 911 use		X		X
- Presence of crisis centres		X		

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
- Availability of multicultural services or services for newcomers and immigrants		X		
- Availability of public transportation and programs providing transportation to those in need		X		
- Public buildings accessible to disabled people		X		
4. A Collectivity *For the child being surveyed* - Child experiencing problems (e.g., bullying) with older children when playing in the neighbourhood	X			
- Number of children child knows that live within walking distance to his/her house	X			
- Frequency of child's visits with other children in neighbourhood	X			
- Perception of community (close knit)	X			
- **Willingness of neighbours to help each other out**	**X**			
- **Adults in neighbourhood can be counted on to watch out that children are safe and don't get into trouble**	**X**			
- **Neighbours keep their eyes open for possible trouble when respondent is away from home**	**X**			
- Frequency of contact (visits or talking) with neighbours	X			
For the child's community - Existence of a community newspaper				X
- Signs announcing community meetings or events				X

The Community As:	NLSCY	Community Mapping		
		Resource availability	Neighbourhood observation	Census and other statistics
5. As Working for the Common Good *For the child being surveyed* - **Willingness of neighbours to get together to deal with problems** - Participation/involvement solicited by a local organization - Frequency with which respondent votes in municipal, provincial, or federal elections *For the child's neighbourhood* - Adult volunteer rate - Youth volunteer rate - Voting rates - Presence of Neighbourhood Watch Groups or Block Parents - Presence of non-government organizations (such as the Lung Association, The Boys and Girls Club) - Numbers and usage rates of food banks or food assistance/clothing programs	X X X	X X X		X X X X

5.5.1   The community as a physical environment

This section focuses on the infrastructure and physical characteristics within a neighbourhood that could help or hinder child development. The Mapping Study will collect the majority of these data through direct observation. Administrative data can provide the most reliable estimates of land use, traffic, and the general conditions of buildings in the area.

Residential mobility is an important variable with regard to the physical quality of the past and present neighbourhood. Current questions in the NLSCY are sufficient to determine the effects that the experience of a move has on children's development. However, in order to determine whether the characteristics of the communities in which the child has lived have an independent effect, it is important to know whether by relocating the child has moved to a neighbourhood that would be better or worse for enhancing development. Parents of children who have moved are now asked to rate (based on characteristics hypothesized to influence development) their new neighbourhood in comparison to their old one.

5.5.2   The community as a social environment

There is no dispute in the literature that safety is an important component of a healthy community. Safety, fear, and in a broader sense whether the neighbourhood is a good or bad place for children to grow up (which encompasses an element of safety) has been linked to better verbal ability scores in preschoolers, fewer behavioural problems and increased participation in sports, arts, and community programs (which in turn has a further beneficial effect on children's development). Drug involvement has also been found to be higher for youth living in bad neighbourhoods. Neighbourhood safety can affect the child directly (if they are victimized) or indirectly through the parent's reactions to or fears of victimization.

Parent's perceptions of their neighbourhoods are important as they influence their actions and level of comfort in daily activities. In addition, when children are young and spend the majority of their time with their parents, these perceptions can also influence the way the child views his/her world. Therefore, it is important to collect data on parents' perceptions of safety as it relates to their children and how this may influence the decisions that they make about their child and his or her safety. Moreover, because of the important role of social learning in shaping the behaviours of young children, data on the levels of delinquency (or conversely stability and

safety) in communities will be collected. Perceptions of the social environment will be measured through the Parent Questionnaire, but complemented with data from the Mapping Study.

5.5.3   The community as a resource

Available, affordable, and accessible child friendly resources within the community are key to healthy development. The presence of libraries, sports and craft programs, and resource and parent drop-in centres can all foster development in each of the five outcomes outlined in the framework. Although there is no dispute that community resources are crucial determinants of positive outcomes, few studies have examined their role in the developmental process and therefore, few questions would be adopted from other surveys.

This section in the NLSCY is not comprehensive enough and will require the greatest enhancement. Some questions on children's participation in sports, arts and community programs were included in the activity section of the Parent Questionnaire and questions on children's use of childcare services are plentiful. One study employing the existing NLSCY questions did find that participation in sports and arts programs increased if there were good parks, playgrounds, and play spaces available in the neighbourhood and that increased participation in unsupervised sports or the arts had the additional impact of decreasing incidence of problem behaviours.

Questions in this additional component will measure residents' resource use, frequency of use, and barriers to access. The Mapping Study will heavily complement questions in the NLSCY as it will depict, in detail, the distribution of the community's resources. Research results on the relationships between resource use and child outcomes will be important in helping communities decide where to focus their financial investments and voluntary effort in the future.

Resources were classified according to six main headings: Education, sports and recreation, entertainment and culture, special interest, health and wellness, and societal. In the Mapping Study the availability of programs and services within the child's community are measured. And, in the Parent Questionnaire respondents are asked about the frequency with which they or their children use certain child-centered resources, and whether the said resource was present within their community or involved travel outside the community.

Assessing some of the reasons for non-use of resources within a community may reveal important information about barriers. There are many reasons why families may not make use of available resources, including accessibility problems (e.g., cost, location), time or other constraints, or simply lack of interest. Barriers preventing resource use are important concerns for community planners involved in targeting, prioritizing, and service distribution decisions.

5.5.4   The community as a collectivity

Social cohesion refers to the sense of neighbourliness and belonging among community members and the extent to which they come together to deal with problems, are willing to help and trust each other, and share similar goals and values. Greater cohesion and collective efficacy (to be discussed in the following section) among neighbourhood residents have been associated with fewer behavioural problems and higher verbal competence in young children, lower levels of delinquency in older children (e.g., drug use), and decreased incidence of violence and personal victimization in adults.

Measures of cohesion (particularly in relation to children's parents) are currently very strong on the NLSCY, however some additions are necessary. In order to enhance the focus of measures on the child, questions concerning the child's social networks, friends, and experiences in the neighbourhood were added. Questions have been added on whether or not the child is interacting with other children within the community and if so, the frequency of such interactions, both of which should contribute to the child's sense of community belonging. All but two questions (the existence of a community newspaper and the presence of signs announcing community events) will be measured on the Parent Questionnaire.

5.5.5   The community for the common good

The concept of collective efficacy describes the willingness of neighbourhood residents to act to achieve a shared or common good of their larger community. Activities of residents who are concerned about the common good extend past helping out only in times of trouble to taking pro-active roles in ensuring the well-being of the entire community. Communities highly focused on the common good would likely have strong resident participation in programs providing services for the neighbourhood's children, such as Neighbourhood Watch, as well as higher volunteer rates. Most of this information will be collected through the Community Mapping Study.

6.   Outline for the Community Mapping Study

The Community Mapping Study undertaken in North York as a pilot study is one component of a package of initiatives designed to assist communities in assessing community resources available to families with children in order to improve children's readiness to learn. The data collected will be used to provide the community with research results regarding the contribution that their resources and services are making to the healthy development of their children. The outline for the Community Mapping Study sets out the following: type of data collected, some potential data sources, the main issues for measurement, and project outputs.

6.1   Objectives

The four main objectives of the Community Mapping Study are to:

- Show the distribution of programs and services available to families with children within the city of North York;

- Show the intensity of coverage and use of resources and services (i.e., how resources are clustered within certain areas, and which areas have resources that are used most often);

- Show the mix or range of services and describe their characteristics; and

- Assess the physical characteristics of the neighbourhoods in which the children grow.

This will be accomplished through the production of a series of detailed maps identifying the availability of resources within defined areas from which children are sampled as well as a report synthesizing findings. Communities can use both products to make decisions regarding child-oriented services that are cost-effective.

The intent of this project is to complement each community's own efforts to assess its services and characteristics that support child development, to collaborate as much as possible on data collection, and to reach data sharing agreements. Since many communities across the country will be conducting the Community Mapping Study it is important to have one standard instrument, to permit sharing of information between communities and comparisons to a national

average. The research results will be used to inform decisions taken at the community, provincial, and federal levels.

6.2   Research Questions

The pairing of the NLSCY and the Community Mapping Study will allow the examination of the complex relationships between the presence and use of community resources and child outcomes. Specific research questions for the Community Mapping Study have been developed in order to analyse how the diversity, intensity, and distribution of resources can impact child development. The questions are as follows:

1. What are the relationships between specific types of programs or services and child development outcomes?

2. What combination or mix of programs can have a positive impact on outcomes?

3. Do the lack of programs or services in a child's residential environment impact on his/her outcomes?

6.3   Data to Be Collected

A more complete picture of the role of communities in child development and the research questions are outlined in the Framework for Research and Data Collection (Chapter 4). The framework identified five aspects of the child's community that may impact child development: 1) the physical and infrastructure environment (presence of parks, conditions of buildings), 2) the characteristics of the community (education, income, safety), 3) the presence and use of community resources, 4) residents working as a collectivity, and 5) residents working for the common good.

In order to assess the impact of these five aspects of the community on child development, data should be collected on:

1. availability of community services - location (including full addresses and phone numbers of community organisations and facilities);

2. descriptive information about community-based programs and services;

3. statistics on various social and economic characteristics (e.g., crime, safety); and

4. neighbourhood characteristics - observations of specified neighbourhood characteristics for each neighbourhood in North York.

Data on these factors will be collected through the NLSCY and the Community Mapping Study. Table 1 shows how questions on these topics will be distributed between the NLSCY and the Community Mapping Study.

The range of services available within the community, will be sorted into six categories (educational, health and wellness, sports and recreation, entertainment and culture, special interest, and societal). Each category contains a broad range of resources available to parents and young children. Through the Community Mapping Study, data will be collected on all available programs and services in each of these categories and could include for example, information on the availability, location, and population served by the service or program where available.

6.4   Methods of Data Collection for the Community Mapping Study

1. To develop information on *resource availability*, an inventory of resources will be developed and presented by a series of detailed maps to show the distribution, intensity, and range of programs or services offered within each enumeration area within the community.

2. The ***community program survey*** (see Appendix B) will be administered to community programs identified under each of the 6 resource categories. This study focuses on programs serving or targeting children aged 0-6 or their parents or guardians (including prenatal programs). The program or service should be provided directly to members of the target population (does not include advocacy or committee work) and may directly or indirectly support children's development. The programs must be ongoing and have been offered in the last 6 months. They may include services and support, screening or assessment, treatment or intervention, lessons, information, and counseling or assistance. Included for example are food banks, job support programs, help for family violence, literacy programs, nutrition programs, grassroots community programs, prenatal and perinatal programs. A program may be part of a larger organisation or

stand on its own. It may take place at more than one site. Program managers (administrators) will be questioned in greater detail about their program's strengths and weaknesses, its costs, and the demand for the program from the community. An effort will be made to sample all programs targeting children aged 0-6 in the North York area, however, it is acknowledged that identifying and surveying programs is an on-going process and the inventory developed will in no way be exhaustive.

3. The *statistics on the social and economic characteristics* within communities will be obtained from the Census and other local and provincial databases (see Sources of Community Information below). General information such as the average income level, occupational class, population density and adult to child ratios, home ownership, and crime rates for the community would be useful in getting a better look at the wider socio-demographic environment in which children are being raised. Such information will be combined, where possible, with the distribution of resources.

4. *Observations of neighbourhood characteristics* (see Appendix C) will be conducted by assessing randomly selected blocks within each Enumeration Area in the city[1] according to a specified set of criteria for each characteristic. This would include characteristics such as the volume of traffic, the presence of litter or graffiti, and the neighbourhood's lighting conditions.

6.5   Analyses and Products

The information will be compiled in both maps and reports.

6.5.1   Large scale maps

Community Resources

Each map that will be created to show the distribution of community resources will first display the density of children within the area served by a school according to age (i.e., 6 and under). Separate maps can then be plotted to show the distribution of resources for each of the 6 resource categories (e.g., education, sports and recreation, health and wellness, entertainment and culture, special interest, and societal). The "societal" and "special interest" categories could be plotted

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[1]   Except EA's with no children aged 0-6 or those with populations of under 40 residents.

together on the same map, because only small numbers of resources exist in these two groups. The specific programs and services that exist within each category (e.g., doctors, dentists, and health clinics under the health and wellness heading) could be plotted with different colour schemes to distinguish among the various subtypes. Simple data analysis can then be conducted to determine the numbers of children in relation to the numbers of service providers or facilities, and the attendance or usage rates of each.

It would also be useful to create additional resource maps on transparent paper, so that maps could be overlaid upon each other and concentrations of more than one type of resource could be examined at one time. Other factors to be mapped (e.g., crime rates, or neighbourhood income levels) could also be presented in this manner in order to complete the view of the community.

Community Program Survey

The NLSCY component of this study will measure individual and family resource use, while the Community Mapping component will focus on resource availability.

Communities do not generally collect the type of resource use data that this project requires. Data on the usage rates of specific programs and facilities are difficult to obtain. Agencies do sometimes compile usage information for their own needs, but it is often sporadically collected, with many gaps and differing degrees of reliability.

The Community Programs Survey will, therefore, attempt to get a general picture of supply and use. Qualitative (content analysis) and quantitative (descriptive statistics) techniques would be employed to analyze the data collected in the survey. Such information would be particularly useful from the community's perspective, as analysis would identify the services that have the greatest impact on child development, the demand for such services and the critical services that are being used infrequently or not at all. It would also permit a look into the supply and usage in neighbourhoods of different socio-economic status. Pairing this information with the NLSCY child outcome data, could not only isolate what is working, but also give some indication as to why services work the way they do. This information would be invaluable to communities as it could increase the ability to differentiate among patterns of usage, guide funding decisions and aid in prioritizing among competing programs and interventions.

Neighbourhood Characteristics

Much of the social and economic (Census) and physical (neighbourhood observation) characteristics of communities could be plotted on maps. Geographical areas could then be examined on the basis of their resource availability and child outcomes to ascertain the relationship between resources and outcomes for children and to determine characteristics associated with specific outcomes.

6.5.2   Reports

The majority of the data to be collected will also be presented in a research report, consisting of small-scale maps and outcome-based analysis that would profile the North York community (based on integration with the larger NLSCY) where applicable. Data analysis will depend on two factors: first, in consideration of results that are needed to answer the research questions (see Framework for Research on Community Influences on Child Development) and second, in order to meet the research needs of the community, in this case the North York Early Years Action Group (EYAG). Consultations with the EYAG will ensure that all relevant analyses are conducted.

As this is a prototype project, information collected will be also be used to develop and refine the set of instruments to be used in the expansion of UEY to other communities across the country. As research from UEY becomes available, communities will benefit from comparisons to national data and data sharing between communities.

6.6   Sources of Community Information in North York

Where existing information is available in the community, it will be used as the basis for further data collection or analysis.

The Metro Task Force on Services to Young Children and Families in the city of Toronto has recently undertaken a community mapping initiative entitled the Metro Report Card on Children. This project was designed to identify children living in high risk areas (as a result of poverty) and map these areas based on a broad range of social indicators (e.g., birth weight, availability of child care, presence of schools and other community resources). The city of North York was included in their analyses. In addition, the Healthy Babies, Healthy Children group of Metro

Toronto has compiled an inventory of services available to parents with young children that can also be used as a starting point to identify the types of services that are available.

6.6.1   Sources specific to North York

Several possible data sources within the greater Toronto area could be helpful in the mapping process. Community Information Centres (CIC) exist throughout Ontario and provide information for community residents regarding the programs and services within their areas. The CIC of Metropolitan Toronto publishes a directory of community services in Metropolitan Toronto (also known as the Blue Book) and houses an electronic database of over 3800 community services and programs within the area. As North York has recently amalgamated with the larger Toronto region, information regarding resources within North York are available on this directory.

In addition, the North York library runs a community information service known as the LINK Community Information & Referral Service. This service provides information about and referrals to community organisations and agencies (such as child care, education, employment, recreation, housing and volunteering) in and around the area. Data collected by the Metro Task Force and the Healthy Babies Healthy Children inventory will also be a valuable source of information. On-going consultations with members of the community will continue to reveal additional sources of information.

6.6.2   Additional sources and contacts for the Community Mapping Study

A variety of sources could be used to collect information for UEY Community project. They include, but are not limited to the following:

- Community Services Departments

- Police Departments and the R.C.M.P.

- Departments of Education - public and separate school boards

- Public Health Departments

- Municipal Housing Authorities

- Ministries of Community and Social Services

- Ministries of Health

- Statistics Canada

- United Ways

- Community projects (e.g., needs assessments, service directories)

- Canadian Census

- Children's Services

- Vital Registries

- Regional, National Libraries

- Non-Governmental Organisations

- Justice Departments

- Parks and Recreation Departments

- Volunteer Information Services

Appendix A: Community Measures

Table A.1. Perception of Personal Involvement in Neighbourhood

Variable	Questions Used to Measure Variable	Source
Informal Neighbouring	• number of adults known in neighbourhood • frequency of conversation with neighbours • frequency of the exchange of favors	Simcha-Fagan Questionnaire
Local Personal Ties	• number of adults known in neighbourhood • proportion of friends in neighbourhood • proportion of relatives in neighbourhood	Simcha-Fagan Questionnaire
Organisational Involvement	• number of organisations in neighbourhood adult family members belong to • residents ever organised to solve problems • have been asked to local organisation to participate	Simcha-Fagan Questionnaire
Neighbourhood Attachment	• plans to stay in neighbourhood (length of time) • feels "really belongs" in neighbourhood • if could/unlikely to move out	Simcha-Fagan Questionnaire
Network Size and Breadth	• number of people considers friends • number of close friends • proportion of friends outside of neighbourhood	Simcha-Fagan Questionnaire
School Attachment –Commitment (13 variables)	• likes school • cares what teachers think • feels satisfied with school program • is not bored at school	Simcha-Fagan Questionnaire
Involvement in or Perception of Social activities / Organisations in Community	• frequency of involvement in groups specified • name of charitable, professional association, political organisation, cultural, education or hobby organisation, sports organisation, religious affiliation group, neighbourhood, civic community group or school group • type of involvement they have with any group (pay membership dues, attend meetings, participate in meetings, other) • number of associations or organisations in which person is a member or participant • their awareness of community programs, organisations, and people (asked to identify if they have heard of a given group, if so, whether or not they got help from this group, and the type of help they received) • questions pertaining to educational, cultural, and recreational activities (how time was spent, whether or not there was engagement in given activities such as going to museums, listening to music, attending concerts or the theatre,	Survey of Volunteering Calgary Youth Violence Survey Boston Survey - Neighbourhood Interview General Social Survey, Cycle 10, Family Section F

Variable	Questions Used to Measure Variable	Source
	recreation sports, however no link to location (community or neighbourhood)	
Respondent's Perception of Own Neighbourhood	• Rating of neighbourhood as a place to live; best and worst things about neighbourhood; what could be changed to make it easier to raise children. • What is liked/disliked most about living in this neighbourhood. • Reasons why respondent might choose to move out of the neighbourhood (escape crime, drugs, better schools, affordable housing, safety, better friends for children, escape racial tension, closer proximity to stores or other facilities). • Awareness or perception of social problems in the neighbourhood (people drinking in public, drugs, visible qualities of neighbourhood. • How they feel toward their neighbourhood as a place to live, to bring up children; how their present neighbourhood compares to others in the city as well as to that where they grew up; additional questions regarding their own experiences growing up; perception of number of adults and children in neighbourhood; number of strangers. • Respondents are asked to compare their own neighbourhood to others in the city, in terms of safety (danger), and whether they believe their neighbourhood has changed for the better, worse, or stayed the same in the past couple of years.	Chicago Community Survey Questionnaire – 1994; Boston Survey – Neighborhood Interview Chicago Community Survey Questionnaire – 1994; Boston Survey – Neighborhood Interview; Simcha-Fagan Questionnaire Boston Survey – Neighborhood Interview Simcha-Fagan Questionnaire
Defining One's Neighbourhood	• Respondent defines the boundaries of their neighbourhood (name, number of blocks perceived to be included, major streets, parks, stores, and other landmarks thought to be boundaries of neighbourhood). • Name of other neighbourhood they would choose to move to (identified by name or street boundaries). • If had to move, how much would respondent miss current neighbourhood • Likelihood of choosing to move from current neighbourhood within next 5 years. • Use of a map for identification of neighbourhood; whether or not they believe this is a common perception. • How long they anticipate living in this neighbourhood; whether they consider it a	Chicago Community Survey Questionnaire – 1994; Calgary Youth Violence Survey; Simcha-Fagan Questionnaire Boston Survey – Neighborhood Interview

Variable	Questions Used to Measure Variable	Source
	'home' or merely a 'place where they live.'	
Residential Tenure / Mobility	- number of times person has moved in past 10 years - distance away from previous residence - reasons for last move (17 various reasons, including; home purchase, larger home, better neighbourhood or change in neighbourhood, financial reasons) - ownership of present dwelling by member of household - tenure in present household - type of dwelling now residing in	General Social Survey, Cycle 10, Family Section R/L; Calgary Youth Violence Survey
Informal Structure of Personal Ties	Average Residential Stability; Informal Neighbouring and Local Personal Ties (see above)	Simcha-Fagan Questionnaire

Table A.2. Perception of Neighbourhood Cohesion/Resources

Variable	Questions Used to Measure Variable	Source
Social Cohesion	• Neighbours get together to deal with problems in community. • Neighbourhood is close-knit. • No one in neighbourhood cares much about what happens to you. • If needed to borrow $30 in an emergency, could you turn to a neighbour. • If away, know can turn to neighbours to watch out for trouble around my place. • How would you describe the other people who live around here as neighbours? • Whether or not respondent considers themselves as being part of a particular area or neighbourhood in the community. • In past year, have neighbours done anything that has upset or irritated you? (if yes, the frequency that this has occurred). • Of the ten families that live the closest to you, how many do you know by name? • Do most of the people who live in this area come from the same social or cultural background that you do?	Simcha-Fagan Questionnaire Chicago Community Survey Questionnaire – 1994; Australian Living Standards Survey
Informal Social Control	• Questions that address the likelihood that residents would respond collectively to various issues (incidents of graffiti, fight the closure of a fire station).	Quality of Life Survey – York University
Civic Neighbourhood	PMK feels the neighbourhood is an excellent or good place to bring up children and strongly agrees or agrees with each of the following statements: • It is safe to walk alone in this neighbourhood after dark; • It is safe for children to play outside during the day; • If there is a problem around here, the neighbours get together to deal with it; • There are adults in the neighbourhood that children can look up to; • People around here are willing to help their neighbours; • You can count on adults in this neighbourhood to watch out that children are safe and don't get in trouble; and • When I'm away from home, I know that my neighbours will keep their eyes open for possible trouble.	See: Offord *et al*. (1998). Data from the NLSCY.

Variable	Questions Used to Measure Variable	Source
Availability of Resources	• entertainment, cultural facilities and recreational and sports opportunities, shopping facilities in the broader community (city) • access to public parks, playing field with play equipment for young children; the visibility of police services • questions that pertain to the availability of special programs and services directed at various age groups (including young children and teenagers); as well as the existence of a neighbourhood newspaper, bulletin, or newsletter	Quality of Life Survey – York University Australian Living Standards Survey Simcha-Fagan Questionnaire
Good Parks and Play Grounds	• The PMK (person most knowledgeable) strongly agrees with the statement "There are good parks, playgrounds, and play spaces in this neighbourhood."	See: Offord *et al*. (1998). Data from the NLSCY.
Quality of Neighbourhood Parks / Playgrounds, Buildings, and Physical Environment	• The equipment and buildings in the park or playground closest to you are well kept. • The park or playground closest to you is safe during the day. • The park or playground closest to you is safe at night. • Children have nowhere but in street to play. • condition of streets and roads, houses and buildings • number of parks and playgrounds • quality of schools that children in area attend • amount of noise and air pollution (and sources)	Chicago Community Survey Questionnaire – 1994 Quality of Life Survey – York University; Australian Living Standards Survey

Table A.3. Perception of Neighbourhood Problems (Safety/Crime)

Variable	Questions Used To Measure Variable	Source
Neighbourhood Anomie	• People around here will take advantage of others. • I do not know who I can really count on • people around here don't care about others.	Simcha-Fagan Questionnaire
Social Disorder	• presence of litter or trash on streets • presence of drug addicts in neighbourhood • presence of abandoned houses or stores	Simcha-Fagan Questionnaire
Conflict Subculture	• presence of fights with weapons in neighbourhood • presence of youth gang conflicts • people badly hurt in a quarrel	Simcha-Fagan Questionnaire
Illegal Economy	People in the neighbourhood make part/all of their income from: • a regular 9 to 5 job • selling stolen goods • selling drugs	Simcha-Fagan Questionnaire
Association with Delinquent Peers (8 variables)	Number of friends who have/ been: • suspended from school • picked up by police • done things which could have gotten them into trouble with police • drink beer or wine; hard liquor; use marijuana; use cocaine; use hard drugs	Simcha-Fagan Questionnaire
Self-Reported Delinquency (33 variables)	• broken windows of a school building • taken money that does not belong to you • used a knife or other weapon in a fight • sold illegal drugs such as heroine, marijuana, LSD, or cocaine	Simcha-Fagan Questionnaire
Severe Self-Reported Delinquency	• Fifteen self-reported items pertaining to Index crime categories were selected, and included offenses legally classified under assault, robbery, burglary, grand larceny, vehicle larceny, and arson.	Simcha-Fagan Questionnaire
Neighbourhood Safety	• worry about personal safety while waiting for public transportation after dark, while walking alone to car in a parking garage, or when alone in home in the evening or at night (frequency of such, and whether it would increase if they felt safer) • how often person carries something to defend self or alert others (and what type(s) of object is/are carried); if they have ever taken a self-defense course for own personal safety • when alone in different situations/scenarios,	Violence Against Women Survey (Statistics Canada) Calgary Youth Violence Survey

Variable	Questions Used To Measure Variable	Source
Neighbourhood Crime	steps taken to increase sense of personal safety. • perceived safety walking alone in community at night; when alone in home at night; perceived safety waiting for or using public transportation alone after dark • fear threat of some form of bodily injury or physical assault with or without a weapon, including that by a group or gang • fear someone will expose themselves to you • fear sexual assault (varying degrees) • fear of intentional damage to personal property or personal theft, including by force or threat of force • perception of youth crime in own community as compared to others in city • perceived frequency over past 5 years • involvement in various criminal/illicit activities • whether or not their school has a regular resource/police officer who visits school, and personal contact with this officer • contact with police other than that through their school, and for what reason • perception of police, and their competence in doing their job • questions pertaining to safety from crime • questions pertaining to crime victimization	Calgary Youth Violence Survey; Simcha-Fagan Questionnaire Calgary Youth Violence Survey Quality of Life Survey – York University Australian Living Standards Survey
Interviewer's Perception of Neighbourhood	• questions regarding visibility of garbage etc., lighting, people seen, how interviewer felt with respect to own level of comfort/safety, land use in neighbourhood	Chicago Community Survey Questionnaire – 1994
Deviant-Criminal Subculture	• (low) Neighbourhood Attachment; (low) Network Size and Breadth; Anomie; Social Disorder; Conflict Subculture; and Illegal Economy (see above).	Simcha-Fagan Questionnaire

Table A.4. Neighbourhood Social and Economic Characteristics

Variable	Questions Used to Measure Variable	Source
Society		
Community Organisational Participation	- organisational Involvement. - applicants referred by volunteer center - charitable contributions - volunteer rate - volunteer rate for community activities - youth volunteer rate - 1 hr/week - youth involvement in community service	Simcha-Fagan Questionnaire; Hart Environmental Data - Indicators of Sustainability (Toronto)
Neighbourhood Disadvantage	percent of total neighbourhood income coming from government transfer payments; percent of neighbourhood population aged 15 years and over without a secondary school certificate; percent of neighbourhood population aged 15 years and over with a university degree or certificate; mean household income in 1000's of dollars; and percent unemployed aged 15+	NLSCY (See: Boyle & Lipman, 1998).
Index of Neighbourhood Quality	percentage in the neighbourhood who hold professional or managerial jobs	See: Crane, 1991. Data from the PUMS (Public Use Microdata Samples) file of the 1970 Census.
Social Isolation	neighbourhoods where at least 40% of the people who were not elderly were poor and no more than 10% of its families had incomes above $30,000	See: Brooks-Gunn *et al*. (1993), PSID data (Panel Study of Income Dynamics)
Impoverishment	factor scores for poverty rate, unemployment rate, vacant housing, population loss, female-headship, and percentage black	See: Coulton *et al*. (1995). Census and administrative agency data for Cleveland, Ohio.
Male Joblessness	percent of males aged 16-64 not in labour force; percent of males 16-64 who worked fewer than 26 weeks	See: Duncan & Aber, 1997. Data from PSID.
Neighbourhood SES	- the proportion 25 years and older with 16 years or more education - median family income - proportion of the population with poverty level income	See: Brewster *et al*. (1993) Data from Cycle III of the National Survey of Family Growth (NSFG-III)
Neighbourhood Low/High SES	percent of families with children headed by females; percent of non-Latino individuals who are black; percent of non-Latino individuals	

Variable	Questions Used to Measure Variable	Source
	who are white; percent of non elderly individuals who are poor; percent of families with children living as subfamilies; ratio of children to families with children; ratio of 2-parent families to children • percent of individuals aged 25+ with 13+ years of schooling; percent of workers in executive/professional occupations	See: Duncan & Aber, 1997. Data from PSID.
Family Concentration	• ratio of persons to occupied units; percent of all individuals aged 0-17; percent of all individuals aged 65+	See: Duncan & Aber, 1997. Data from PSID.
Social Disintegration	• proportion of the female population (15 years and older) separated or divorced • proportion of occupied housing units moved into [in a 5 year period] • proportion of civilian labour force currently unemployed	See: Brewster *et al.* (1993). Data from Cycle III of the National Survey of Family Growth (NSFG-III)
Instability	• factor scores for the proportion who have moved within past 5 years, the proportion of households who have lived in their current home for less than 10 years, and the percent of households that have lived in their current home less than 1 year	See: Coulton *et al.* (1995). Census and administrative agency data for Cleveland, Ohio.
Social Integration	• includes measures of geographic mobility, unemployment rates, and marital instability	See: Brewster *et al.* (1993).
Services	• city human services expenditures per capita • attendance at community center • library circulation rates	Hart Environmental Data - Indicators of Sustainability (Toronto)
Pregnancy/Birth	• young female pregnancy rate - age 14-17 • births to mothers under age 18 • births to mothers without 12 years of education • births to unwed mothers • births to females under 18 per 1,000 live births • substance-exposed newborns per 1,000 live births • teenage pregnancy rate • low-birthweight infants	Hart Environmental Data - Indicators of Sustainability (Toronto)
Health	• perceived quality of life	Hart Environmental Data - Indicators of Sustainability (Toronto)
Diversity	• employment discrimination complaints • racism perception • discrimination perception voiced	Hart Environmental Data - Indicators of Sustainability

Variable	Questions Used to Measure Variable	Source
	• disability accessible public buildings • discrimination complaints filed in Minnesota • quality of life for people with long-term limitations • percent of foreign-born individuals; Index of ethnic diversity	(Toronto) See: Duncan & Aber, 1997. Data from PSID
Culture	• percent of listed heritage sites 'designated' • public library use; Library books borrowed per juvenile • city financial support of arts organisations per capita • Museum of Science & History attendance • public library book circulation per capita • public library materials per capita • symphony attendance per 1,000 population • zoo attendance per 1,000 population • amount and number of public grants for arts • commercial and industrial projects with public art component • number of art courses available at public schools • number of art/performances in public parks • number of children in Citywide Arts Program • number of historic, protected structures • number of people served by museums • number/location of public art sites in city • opportunities to participate in art (theater, etc) • total seating for public visual/performing arts • number of books and subscriptions in public and college libraries • circulation rate for library system • per capita library checkouts annually • public participation in the arts	Hart Environmental Data - Indicators of Sustainability (Toronto)
Connectedness (See Measure for Social Cohesion)	• people can rely on others in community for help • dispute resolution center cases handled • neighborliness • gardening activity	Hart Environmental Data - Indicators of Sustainability (Toronto)
Children	• children in foster care per 1,000 children • children involved in divorce per 1,000 children • childcare arrangement satisfaction • divorces involving children • runaways per 1,000 children • students who move more than once/year • factor scores for the ratio of children to adults, the ratio of males to females, and the	Hart Environmental Data - Indicators of Sustainability (Toronto) See: Coulton *et al*. (1995). Census and administrative agency

Variable	Questions Used to Measure Variable	Source
	percentage of the population who are elderly	data for Cleveland, Ohio
Abuse	- child abuse/neglect cases confirmed/1,000 children - child abuse/neglect - abuse/neglect of children - number of children receiving protective services for abuse/neglect - percent of women turned away from battered women shelters - child abuse reported to CAS, CCAS, and JFCS - child abuse reported to the police	Hart Environmental Data - Indicators of Sustainability (Toronto)
Recreation		
Land Use	- total length of hiking trails - public park acreage per 1,000 population - public access sites on lakes and rivers - recreational trail miles	Hart Environmental Data - Indicators of Sustainability (Toronto)
Accessibility	- event/days of bookings at city facilities - city parks/rec. expenditures per capita - number of residents per facility - funding amounts and sources for recreation facilities - number of people using facilities each month - park and facility space per capita by district - variety of available recreational and sporting options - percent of population whose activity is limited by disabilities	Hart Environmental Data - Indicators of Sustainability (Toronto)
Public Safety		
Traffic	- number of pedestrian or bicycle accidents involving injury per year - DUI arrests per 10,000 population - vehicle traffic accidents per 1,000 - percent traffic injuries to cyclists/ pedestrians	Hart Environmental Data - Indicators of Sustainability (Toronto)
Violence	- murders per 10,000 population - violent crimes reported per 100,000 - violent/injury related death rate per 100,000 - homicide rate per 100,000 - number of forcible rapes reported - calls to Assaulted Women's Helpline - calls to Toronto Rape Crisis Centre - gay/lesbian bashings reported to 519 Church St - homicides and attempts	Hart Environmental Data - Indicators of Sustainability (Toronto)

Variable	Questions Used to Measure Variable	Source
	• non-sexual assaults • number of violent crimes on public transit • violent crime rate	
Services	• fire call response time • priority one police call response time • rescue call response time • number of sworn police officers per 1,000 people • number of residents and city staff who received disaster training	Hart Environmental Data - Indicators of Sustainability (Toronto)
Juvenile Crime	• apprehensions of children	Hart Environmental Data - Indicators of Sustainability (Toronto)
Drugs	• number of presentations of drug prevention program	Hart Environmental Data - Indicators of Sustainability (Toronto)
Domestic Violence	• domestic assault reported per 100,000 population • domestic violence reported to police	Hart Environmental Data - Indicators of Sustainability (Toronto)
Accidents	• deaths from all accidents per 100,000 population • accidental deaths per 100,000 population • motor vehicle accidents per 1,000 population • deaths by motor vehicle per 100,000 by age groupings • number of accidents per intersection per million • vehicles per year	Hart Environmental Data - Indicators of Sustainability (Toronto)
Crime	• reported incidents of violence, burglary, rape and indecent assault • crime index per 10,000 • incidence of crime in public school/1,000 students • juvenile cases referred to court - ages 12-17 • rapes reported per 10,000 population • crimes per 100,000 population • people feeling safe walking alone at night • people reporting being victims of crime • number of reported crimes per 100,000 pop. • number of neighbourhood watch groups • crimes against people • juvenile crime	Hart Environmental Data - Indicators of Sustainability (Toronto)

Variable	Questions Used to Measure Variable	Source
	• youth crimes as ratio of ethnic population • percentage who decreased park use due to fear • percentage of people who feel safe walking alone after dark • property crimes • crime victims as percent of population • people who feel safe in communities	
Housing		
Ownership	• home ownership rate	Hart Environmental Data - Indicators of Sustainability (Toronto)
Cost	• affordability of single family home • low-income renters paying > 30% of income on rent • percent of renters paying more than 30% of income for housing • housing affordability ratio - house prices • housing affordability ratio - rent prices • owners who cannot afford to live in the city • renters who cannot afford to live in the city	Hart Environmental Data - Indicators of Sustainability (Toronto)
Condition	• low-income housing w/severe physical problem • percent of dwellings in need of major repair	Hart Environmental Data - Indicators of Sustainability (Toronto)
Availability	• annual applicants for affordable housing • new housing starts • number of people using homeless shelters • distribution of affordable housing throughout city • number of beds in shelters for homeless • number of homeless people • number of rehabilitated affordable housing units • number of transitional housing units available • yearly percentage increase in number of dwelling units • waiting time for subsidized housing	Hart Environmental Data - Indicators of Sustainability (Toronto)

Appendix B: Community Program Survey

Hi. My name is . . . . and I am working on a project initiated by the Early Years Action Group (EYAG) in the former city of North York. The EYAG is a broad-based coalition of individuals and approximately 40 organisations committed to supporting child development and ensuring that all children are ready to learn early in their lives.

This project is designed to help your community understand the role that its recreational, medical, social, educational, and cultural resources play in ensuring healthy child development. I would like to ask you a few questions about the program(s) that you are providing to the families with children in your community.

Background Information

Program name:
Agency/Centre name (if applicable):
Street and number where program is delivered:
City:
Postal Code:
Phone:
Closest cross street (for mapping purposes):

1. We would like to get a short description of the program. What is the main purpose or objective of this program? What types of activities are involved?
    Note to interviewer: The respondent does not have to answer each element of this question. The goal is to get some idea of the components of the program so that we are able to categorize it for analysis into one of the six categories (sports and recreation, entertainment and culture, health and wellness, special interest, societal, educational) and the questions are meant as a guide. Please obtain as much of a description as necessary to enable this categorization.

2. What is the main client group that is served by this program?
    ❑ General population
    ❑ Prenatal
    ❑ Children (Birth to 6 years)
    ❑ Children (7 to 12 years)
    ❑ Youth (13-18)
    ❑ Parents/Caregivers
    Note: If main client group is only children or youth aged 7 to 18 survey does not continue as focus is children 0-6.

3. Is the program targeted toward a specific population or group? Mark all that apply.
    ❑ Women
    ❑ Aboriginals
    ❑ Low income children and/or families with children
    ❑ Immigrant and refugee families
    ❑ Specific language and/or cultural groups – please specify _____
    ❑ Other agencies and staff serving children and/or families with children
    ❑ Persons with disabilities – please specify _____

    ❑ Children with special needs – please specify _____
    ❑ Single parent families _____
    ❑ Other _____

4. How often do you feel this program adequately reaches the target group it is intended for?
    ❑ Almost always
    ❑ Often
    ❑ Sometimes

5. Where do the majority of the program's clients live?
    ❑ Specific Neighbourhood(s) (please specify): _____
    ❑ All of North York
    ❑ East York
    ❑ York
    ❑ Etobicoke
    ❑ Scarborough
    ❑ Toronto
    ❑ All of Metro (new city) Toronto
    ❑ Outside of Metro Toronto

6. What proportion of the program's clients come from outside of the North York area?
    ❑ All or almost all
    ❑ More than half
    ❑ Half
    ❑ Less than half
    ❑ Almost none or none

7. How would you describe the most successful aspects of the program?

8. Are there aspects of the program that you would like to see improved upon? Are there any future plans or desires to modify the program in any way? Please explain.

9. How has the demand for this program changed over the past 1-2 years?
    ❑ Decreased
    ❑ Slightly decreased
    ❑ No change
    ❑ Slightly increased
    ❑ Increased

10. Has the funding you have received for this program increased or decreased over the past 1-2 years?
    ❑ Decreased
    ❑ Slightly decreased
    ❑ No change
    ❑ Slightly increased
    ❑ Increased

Comments _____
_____

11. Over the past 12 months, how often has this program been running at full capacity (i.e., all available spots in the program are taken)?
    ❑ All or almost all of the time
    ❑ More than half of the time
    ❑ About half of the time
    ❑ Less than half of the time
    ❑ Never or almost never

12. a. Is there a waiting list to access this program?
    ❑ Yes (if yes go to 12b)
    ❑ No   (if no go to13)

    b. What is the average waiting time for access?
    _____

13. Is this program offered in languages other than English?
    ❑ No, and no interpreter is available
    ❑ No, but an interpreter is available
    ❑ Yes please specify language(s)

14. Is the location in which this program is being offered? Mark all that apply.
    ❑ Accessible by public transportation (e.g. bus)
    ❑ Accessible to disabled persons (e.g., wheelchairs)
    ❑ Accessibility not relevant (e.g. worker travels to meet client, such as in home visiting)

15. Do you charge a fee for this program?
    ❑ Yes
    ❑ No (if no go to 18)

16. a. Is this program financially subsidized?
    ❑ Yes (if yes go to 16b)
    ❑ No   (if no go to 18)

    b. What proportion of this program's clients use subsidies?
    ❑ Almost all or all
    ❑ More than half
    ❑ Half
    ❑ Less than half
    ❑ Almost none or none

17. Are you aware of any barriers (physical or social) that may prevent families from obtaining subsidies. Please specify:

   _____
   _____

18. Are you aware of any barriers (physical or social) that may prevent families from accessing this program or service. Please specify:

   _____
   _____

19. What percentage of this program is run by the following:
   i. Paid staff
   ❑ 100%
   ❑ 75-99%
   ❑ 50-74%
   ❑ 25-49%
   ❑ 1-24%
   ❑ none

   ii. Volunteers
   ❑ 100%
   ❑ 75-99%
   ❑ 50-74%
   ❑ 25-49%
   ❑ 1-24%
   ❑ none

20. Which of the following best applies to this program or organisation:
   ❑ government sponsored
   ❑ private
   ❑ non-profit/charity
   ❑ combination (please specify): _____

21. Which of the following sources provide the majority of this program's funding?
   ❑ Provincial Ministries (please specify ministry) _____
   _____
   ❑ Federal Government (please specify department) _____
   _____
   ❑ Regional or Municipal Government (please specify) _____
   _____
   ❑ Local businesses (please specify) _____
   _____
   ❑ Charitable organisations (please specify) _____
   _____
   ❑ Private Foundations (please specify) _____
   _____

❑ Fund Raising _____

_____

❑ Participant User Fees _____

_____

❑ Other _____

_____

Additional Comments

If the respondent has additional comments please record them below.

_____

_____

Confidentiality

The Healthy Babies Healthy Children program focuses on preventing problems and providing early support services for families to give children a better start in life. The HBHC group in this area is trying to compile a list of all the programs and services that are available to children and families with children. A comprehensive list of programs will ensure that when families need information about programs they will be able to choose the program that best meets their individual needs and circumstances.

It would be extremely helpful if the information that you have provided about the [NAME OF PROGRAM] could be shared with HBHC.

1. Do you agree to share this information with the HBHC program? (Please circle response).
        Yes   No

2. Would you allow the EYAG to share the information with other community organisations?
        Yes   No
    If yes, go to Thank You section. If no, go to C.

3. I understand that some of the questions that I have asked you may be sensitive and you may not want to share this information with anyone else. As an alternative, would you agree to share all the information except that asked in the more sensitive questions (Numbers 7,8,16,17,18)?
        Yes   No
    If yes, go to Thank You section.

4. Would you agree to share any of the information that has been collected?
        Yes (Specify what and with whom.) _____
        No (Please try to get a reason.) _____

Thank you for your time, we appreciate your help.

Appendix C: Observations of Neigbourhood Characteristics

Researchers will be given a randomly selected address within each Enumeration Area in the city of North York (roughly equivalent to one or two face blocks) to observe. They are asked to explore this area and rate it according to the following characteristics. Exploring the area includes walking up and down the area within the specified boundaries with the observation area being the houses and the street in front.

Time of day: Began observation _____ AM or PM
                       Ended observation _____ AM or PM
Date: _____
Day: _____
Neighbourhood or area: _____
Street address: FROM _____
                         TO _____
Enumeration area number: _____

1. Based on street level frontage, how would you characterize land use on this block or road?
   - ❏ Primarily residential
   - ❏ Primarily commercial
   - ❏ Mixed residential and commercial use
   - ❏ Primarily industrial
   - ❏ Primarily vacant houses
   - ❏ Primarily vacant lots or open space
   - ❏ Primarily services or institutional (e.g., schools, churches, hospitals)
   - ❏ Primarily park, playground
   - ❏ Other specify (e.g., rural or farm area) _____

2. How would you rate the general condition of most of the buildings in the block area?
   - ❏ Badly deteriorated (5 or more problems*)
   - ❏ Poor condition with peeling paint and need of repair (3-4 problems)
   - ❏ Fair condition (1-2 problems)
   - ❏ Well kept with good repair and exterior surface (0 problems)
   - ❏ Other specify _____
   * Problems include things such as broken window, broken doorway, peeling paint.

3. Are there abandoned houses, stores, or other buildings in the area?
   - ❏ Yes
   - ❏ No

4. What percent of dwellings are in major need of repair (4 or more problems)?
   - ❏ More than half
   - ❏ Half
   - ❏ Less than half
   - ❏ None

---

5. What is the general condition of most streets and roads in the area?
    - ❏ Very good - recent resurfacing or smooth
    - ❏ Moderate - some evidence of repairs, but evidence that they are kept in good repair
    - ❏ Fair - minor repairs needed but not rough surface (except maybe one or two small potholes or cracks)
    - ❏ Poor - large potholes and other evidence of neglect

6. How would you rate the volume of traffic on the street or road (# cars per minute)?
    - ❏ No traffic permitted
    - ❏ Very light (1-3 cars)
    - ❏ Light (4-6 cars)
    - ❏ Moderate (7-9 cars)
    - ❏ Very heavy (10 or more cars)

7. Are people observed who are exhibiting **anti-social** behaviours (e.g., intoxicated, fighting, etc.)
    - ❏ No persons observed
    - ❏ No, none behaving in anti-social ways
    - ❏ Yes, one or two
    - ❏ Yes, a group of three or more

8. Looking at the overall appearance of the area, is there garbage, litter, or broken glass in the street or road, on the sidewalks, or in yards?
    - ❏ Almost none or none
    - ❏ Yes, but not a lot (1 or 2 pieces)
    - ❏ Yes, a little bit (3-12 pieces)
    - ❏ Yes quite a lot (13-30 pieces)
    - ❏ Yes, almost everywhere
    Comments: _____

    _____

9. Lighting conditions in neighbourhood:
    - ❏ Well lit – presence of many street lights and other light sources
    - ❏ Moderately lit – some lights, but there are areas where more or better lighting would be useful
    - ❏ Poorly lit – few to no lights, in great need of better lighting
    Note: We are measuring the presence of lighting sources, therefore this can be done during the day.

10. Are children (aged 12 and under) and families with children seen in neighbourhood?
    - ❏ No children/families visible
    - ❏ Yes, one or two
    - ❏ Yes, several

11. How would you rate the amount of noise (e.g., from traffic, trains, planes, and industry) in the neighbourhood?
    - ❑ Excessive – causes a disturbance
    - ❑ Moderate – somewhat disturbing
    - ❑ Light – hardly noticeable

12. Number of stop lights observed:

     _____

13. Number of crosswalks observed:

     _____

14. Width of streets:
    - ❑ 1 lane
    - ❑ 2 lane
    - ❑ 3 lane
    - ❑ 4 lane
    - ❑ Other specify: _____

15. Is there a park or playground in the area?
    - ❑ Yes (go to 15 a)
    - ❑ No   (go to 16)

     15a. How would you rate the quality of equipment and buildings in parks and playgrounds?
    - ❑ Excellent - new or well maintained, clean and safe area
    - ❑ Very good - evidence it's kept in good repair and condition
    - ❑ Fair - some repairs required
    - ❑ Poor - badly deteriorated showing signs of neglect, in need of many repairs

16. How safe do/would you feel when walking in the neighbourhood?
    - ❑ I would feel safe walking during the day and night
    - ❑ I would feel safe walking during the day but not at night
    - ❑ I feel uncomfortable, but generally safe
    - ❑ I do not feel safe at all

17. Is there a bus/subway stop (or other form of public transportation) in the area?
    - ❑ Yes
    - ❑ No

18. Are there signs announcing community meetings or events (e.g., cultural events – arts, festivals, concerts, athletic, political or popular entertainment – rock bands, or personal notices)? *Note: signs posted on posts do count as long as they are announcing community events.*
    - ❏ No signs visible, but there is a place where notices could be posted
    - ❏ No signs visible and no place for them to be posted
    - ❏ Yes, signs visible but on lamp/electric posts
    - ❏ Yes, signs visible on a place designed for notices

19. Additional comments and observations about neighbourhood (i.e., is homelessness observed; weather conditions influencing observations?):

    _____

    _____