

**Applied Research Branch  
Strategic Policy  
Human Resources Development Canada**

**Direction générale de la recherche appliquée  
Politique stratégique  
Développement des ressources humaines Canada**

**Healthy Immigrant Children:  
A Demographic and Geographic Analysis**

**W-98-20E**

**by**

**Audrey Kobayashi, Eric Moore and Mark Rosenberg  
October 1998**

The views expressed in Working Papers are those of the authors and do not necessarily reflect the opinions of Human Resources Development Canada or of the federal government.

Les opinions exprimées dans les documents de travail sont celles des auteurs et ne reflètent pas nécessairement le point de vue de Développement des ressources humaines Canada ou du gouvernement fédéral.

■

The Working Paper Series includes analytical studies and research conducted under the auspices of the Applied Research Branch of Strategic Policy. Papers published in this series incorporate primary research with an empirical or original conceptual orientation, generally forming part of a broader or longer-term program of research in progress. Readers of the series are encouraged to contact the authors with comments and suggestions.

La série des documents de travail comprend des études analytiques et des travaux de recherche réalisés sous l'égide de la Direction générale de la recherche appliquée, Politique stratégique. Il s'agit notamment de recherches primaires, soit empiriques ou originales et parfois conceptuelles, généralement menées dans le cadre d'un programme de recherche plus vaste ou de plus longue durée. Les lecteurs de cette série sont encouragés à faire part de leurs observations et de leurs suggestions aux auteurs.

==



First edition/Première édition - Internet 1998

**ARB publishes papers within the following thematic areas:**

Changing Nature of Work; Employment Insurance Renewal; Exclusion, Marginalization and Overcoming Barriers; Investing in Children and Families; Labour Market Adjustment; Lifelong Learning; Macroeconomic/Labour Market Analysis Services; Skills Requirements in the Knowledge-Based Economy; Social Union: The Knowledge and Information Aspects; and Youth Transitions.

A complete list of publications is available upon request, or by visiting our Web site as listed below.

**La DGRA publie les documents selon les domaines thématiques suivants :**

Adaptation au marché du travail; Apprentissage continu; Compétences requises dans l'économie axée sur le savoir; Exclusion, marginalisation et obstacles à surmonter; Investir dans les enfants et les familles; L'union sociale : connaissances et information; Nature changeante du travail; Renouvellement de l'assurance-emploi; Services d'analyse macroéconomique/du marché du travail; et Transitions chez les jeunes.

Une liste complète des publications est disponible sur demande, ou en visitant notre site Web à l'adresse ci-dessous.



**General enquiries regarding the documents published by the Applied Research Branch should be addressed to:**

Publications Coordinator  
Applied Research Branch  
Strategic Policy  
Human Resources Development Canada  
140 Promenade du Portage IV, 4<sup>th</sup> Floor  
Hull, Quebec, Canada  
K1A 0J9

Telephone: (819) 994-3304  
Facsimile: (819) 953-8584  
E-mail: [research@spg.org](mailto:research@spg.org)  
<http://www.hrdc-drhc.gc.ca/arb/>

**Si vous avez des questions concernant les documents publiés par la Direction générale de la recherche appliquée, veuillez communiquer avec :**

Coordonnatrice des publications  
Direction générale de la recherche appliquée  
Politique stratégique  
Développement des ressources humaines Canada  
140, Promenade du Portage IV, 4<sup>e</sup> étage  
Hull (Québec) Canada  
K1A 0J9

Téléphone : (819) 994-3304  
Télécopieur : (819) 953-8584  
Courrier électronique : [research@spg.org](mailto:research@spg.org)  
<http://www.hrdc-drhc.gc.ca/dgra/>

## Executive Summary

Few studies have been conducted on immigrant children and their access to health services in Canada. Importantly, the research that is available indicates several issues of specific concern to the immigrant population, and a strong need for public policy approaches that provide culturally sensitive and accessible services. This paper examines data from the National Longitudinal Survey of Children and Youth (NLSCY) on immigrant children and children of immigrants, to identify barriers they may face in gaining access to social services, particularly health care, as well as their formal and informal service networks.

The results of the analysis demonstrate that, although there is little variation in the health status of immigrant and non-immigrant children, the formal and informal support accessed by their parents varies considerably. Those families from the most recent immigrant groups in Canada's largest cities, most of whom are visible minority families, and those with lowest proficiency in the two official languages, have the least access to both formal and informal networks. Older immigrant families have greater access, although less than non-immigrant families. Lone-parent families, both immigrants and non-immigrants, have least access to informal services, but are higher users of formal services. These findings confirm the hypotheses that a child's experience varies more according to the characteristics of the household than those of the individual child, and that there are significant variations among immigrant groups in their needs for social services and, in particular, for health services, based on length of time since immigration and geographic location.

This report raises two critical policy issues. First there is strong evidence that lack of informal support and use of formal supports are linked to language and other ethnic and cultural issues for immigrant children and their families, especially in the earliest years after immigration. Barriers need to be identified and broken down, especially in our largest cities where immigrants and new Canadians concentrate. Secondly, children in immigrant as well as non-immigrant lone-parent families lack informal supports and concomitantly use formal supports more than children in two-parent families. We should not be surprised to find that poverty is the most significant factor influencing the experiences of lone-parent families, but additional work also needs to be done to understand the cultural factors that influence support networks and the resources available to lone parents. The results suggest the need for developing programs to foster greater access to services and to provide greater support to lone-parent families in general and immigrant lone-parent families in particular.

## Sommaire

Peu d'études ont été menées sur les enfants immigrants et sur leur accès aux services de santé au Canada. Il importe de noter que la recherche qui existe soulève plusieurs questions d'intérêt particulier pour la population immigrante, et la nécessité pressante d'établir des méthodes de politique gouvernementale qui permettront de mettre en place des services accessibles et adaptés à la culture. La présente étude analyse les données de l'Enquête longitudinale nationale sur les enfants et les jeunes (ELNEJ) qui ont trait aux enfants immigrants et aux enfants d'immigrants, dans le but de cerner les obstacles que leur présente l'accès aux services sociaux, notamment aux soins de santé, ainsi qu'aux réseaux de services formels et informels.

Les résultats de l'analyse démontrent que, bien qu'il y ait peu d'écart entre le bilan de santé des enfants immigrants et celui des enfants non immigrants, le recours de leurs parents aux soutiens formels et informels diffère considérablement. Les familles des plus récents groupes d'immigrants au Canada établis dans les plus grandes villes canadiennes, dont la majorité sont des minorités visibles, ainsi que celles qui ont le plus bas niveau de compétence dans les deux langues officielles, ont le moins accès aux réseaux à la fois formels et informels. Les familles immigrantes de longue date ont un meilleur accès à ces réseaux, bien que cet accès soit encore moindre que celui des familles non immigrantes. Les familles monoparentales tant immigrantes que non immigrantes, ont le moins accès aux services informels, bien qu'elles utilisent plus fréquemment les services formels. Ces conclusions appuient l'hypothèse selon laquelle les caractéristiques du ménage ont une plus grande incidence sur l'expérience de l'enfant que les caractéristiques propres à l'enfant même, et que les besoins en matière de services sociaux varient de façon importante parmi les groupes immigrants, notamment dans le cas des services de santé, et ce en fonction de la date d'entrée au pays et de l'emplacement géographique.

Le présent rapport soulève deux questions cruciales d'ordre politique. D'abord, il existe des preuves concluantes que le manque de soutien informel et le recours au soutien formel sont reliés à la langue et à d'autres questions ethniques et culturelles dans le cas des enfants immigrants et de leurs familles, notamment au cours des toutes premières années après l'immigration. Il y a lieu de cerner ces obstacles et de les éliminer, plus particulièrement dans les plus grandes villes où la concentration d'immigrants et de néo-Canadiens est élevée. En deuxième lieu, les enfants issus de familles monoparentales immigrantes et non immigrantes n'ont pas de soutiens informels et concomitamment, ont recours aux services de soutien formels plus souvent que les enfants issus de familles biparentales. Il ne devrait donc pas être surprenant de constater que la pauvreté est le facteur qui influe le plus sur les expériences des familles monoparentales; c'est pourquoi des études doivent être entreprises afin de cerner les facteurs culturels qui influent sur les réseaux de soutien et sur les ressources dont disposent les parents seuls. Les résultats appuient la nécessité d'élaborer des programmes pour promouvoir un plus grand accès aux services et pour fournir un soutien accru aux familles monoparentales en général, et aux familles monoparentales immigrantes en particulier.

## Acknowledgements

The authors are grateful to the staff at Human Resources Development Canada, particularly Satya Brink and Cindy Cook, and to several anonymous reviewers, for their assistance in the development of this paper.

## Table of Contents

<b>Executive Summary</b> .....	3
<b>1. Introduction and Statistical Overview of Immigrants and Immigrant Children in Canada</b> .....	7
<b>2. Research on Immigrant Children and Health Services in Canada</b> .....	12
<b>3. Methodological Issues</b> .....	17
<b>4. Analyzing the Health and Informal and Formal Supports for Immigrant Children</b> ....	21
4.1 The Distribution of Immigrant Children by Size of Urban Area.....	21
4.2 The Health Status of Immigrant Children .....	22
4.3 Recent Health Problems .....	28
4.4 Informal Support for Immigrant Children.....	29
4.5 Formal Support for Immigrant Children.....	36
<b>5. Conclusions</b> .....	44
<b>References</b> .....	47

## 1. Introduction and Statistical Overview of Immigrants and Immigrant Children in Canada

This paper examines data from the National Longitudinal Study of Children and Youth (NLSCY) on immigrant children and children of immigrants,<sup>1</sup> to identify barriers they may face in gaining access to social services, particularly health care. We also examine their parents' informal and formal access to services, and how such access might be affected by various social, economic and cultural factors. Although research to date on immigrant children and children of immigrants in Canada is extremely sparse, it indicates not only that children in immigrant households face specific access issues, but that it is their experience as members of immigrant families in Canada, rather than their differentiation based on place of birth, that most influences the height of such barriers. Both immigrant children and children of immigrants are likely to consider Canada as home, and to lack "meaningful connections to their 'old' world" (Zhou 1998, 1; see also Gans 1992), yet both share a social context provided by the entire immigrant community. Furthermore, among the most recent immigrants to Canada, the considerable majority of whom are visible minorities, both groups share a context of racialization.

A large proportion of immigrants arrive in Canada unfamiliar with procedures for gaining access to social services. Because it takes time both to gain knowledge of how things work in Canada, and to develop a community support network, they have specific needs for getting 'plugged in' to the system. Those who do not function in either of the official languages also face the challenge of negotiating the system in a foreign language. While many of the issues of settlement are shared, however, the immigrant population is nonetheless extremely diverse, according to language, cultural practices and the ways they are viewed by the larger society. Their experiences vary individually, dependent upon whether a child's education is received primarily in Canada, as well as upon the length of time required to become proficient in one of the official languages. We hypothesize in this paper that a child's experience varies more according to the characteristics of the household than those of the individual child. In other words, growing up in an immigrant household is more significant than having been born outside Canada, because the child is so strongly dependent on the parents' abilities to access support services. We also

---

1 We define 'immigrants' as those born outside of Canada, in contrast to the legal definition of 'Landed Immigrant,' which refers to an individual who has immigrated to Canada but has not received Canadian citizenship.

hypothesize that there are significant variations among immigrant groups in their needs for social services and, in particular, for health services, based on length of time since immigration and on their geographic location.

The first section of this paper uses published data from the Census and from immigration sources to provide a general overview of the immigrant population. This demographic description is followed by a brief review of the literature on immigrant children in Canada and a somewhat more detailed review of immigrants and health care. Finally our analysis of Cycle 1 of the NLSCY data (1994) investigates the health status of immigrant children and children of immigrants, as well as their utilization of formal and informal support services.

The findings of this report are extremely preliminary. They say more, ultimately about the utility of the NLSCY to analyze conditions for immigrant children than they do about the children themselves. We conclude the paper, therefore, with suggestions of ways in which to make the survey reflect more adequately the rapidly growing immigrant population, as well as with some speculation on the major areas of policy development required for healthy immigrant children.

### ***Immigrants and Immigrant Children in Canadian Society: A Brief Statistical Overview***

Immigrants and their children represent an increasing proportion of the Canadian population. The 1996 Census found approximately five million immigrants, whose numbers had increased by 14.5 percent since 1991, slightly more than three times the rate of the growth of the Canadian-born population (four percent). As a result, the proportion of immigrants has grown from approximately 16 percent of the total population in 1991 to 17.4 percent in 1996.<sup>2</sup>

Reflecting historical immigration patterns, just over half of the total immigrant population in 1996 had originated in the United Kingdom or the United States, but the immigrant population has changed dramatically in recent years. Between 1991 and 1996, only 23 percent of immigrants originated in these traditional source areas, while the balance were from non-traditional countries, including over half (57.1 percent) from Asia and the Middle East. During 1995-96, 66.1 percent of new immigrants were from Asia and the Middle East; over 10 percent were from Hong Kong alone. There have also been increases in the numbers of immigrants from Africa, the Caribbean, and Central and South America.

---

2 *The Daily*, 4 November 1997.



According to data provided by Statistics Canada, these households do not differ substantially from other Canadian households on most socio-economic indices (Canada, Citizenship and Immigration 1996; *The Daily*, 4 November 1997). The majority of immigrants living in Canada (81 percent) have become Canadian citizens. The immigrant population is slightly older than the Canadian-born population.<sup>3</sup> Immigrants have slightly higher average levels of education than the Canadian-born but a higher proportion also have less-than-grade-9 education. Immigrants are more likely to be employed, and have slightly higher incomes on average, but also have a slightly higher proportion with low incomes. In 1991, nearly all immigrants (94 percent) could conduct a conversation in English or French, although many of them could not do so on first arrival. Family composition of immigrant households is quite similar to that of those born in Canada, although immigrant families are more likely to include seniors. Immigrant women have slightly higher fertility rates than Canadian-born women.

These aggregate figures mask the fact, however, that the immigrant population is also very diverse. The bimodal distributions on education and income, in particular, indicate a greater range of socio-economic statuses among immigrant groups, and suggest the need to distinguish analytically between those living below and above the poverty line, rather than to lump them together as averages. Although, as will become apparent, data limitations prevent us from doing so in the current research, we believe strongly that research on immigrants must take into account this diversity, according to national origin, cultural and racial background, and other differentiating factors between and within immigrant groups.

Immigrants are also very unevenly distributed geographically. Ninety-six percent of immigrants live in metropolitan areas, 48.4 percent in Toronto and Vancouver alone. There is also a variety of regional patterns according to place of origin. For example, Asians (predominantly East Asians) make up more than half of the Vancouver immigrant population, while Toronto's population is more diverse, and includes 55.7 percent of Canada's total population of African-Caribbean origin. In Montreal, members of communities originating in Africa and the Caribbean dominate both the immigrant stream and the visible minority population. By contrast, Winnipeg,

---

3 39% of people born in Canada are under age 25, while only 15% of immigrants are under age 25. If these figures could be dis-aggregated to identify those born to immigrant parents, however, the figures would be much closer.

with only two percent of the total immigrants in Canada, has six percent of immigrants from Southeast Asia (predominantly the Philippines).

Immigrant children and children of immigrants represent a growing component of the Canadian population, and will make up an increasing proportion of Canada's population in the future. The 1996 Census of Canada found that children under 15 make up 19.8 percent of the total population. As a result of decreasing fertility, this figure has steadily declined over the past four decades.<sup>4</sup> Among immigrants, however, the figure is slightly higher, at 20.7 percent, and has been slowly increasing over the past decade. This percentage increases to 22.3 percent for immigrants who came to Canada in 1996. The number of children being raised in immigrant households is therefore increasing.<sup>5</sup>

The proportion of children is higher yet among visible minorities, who now make up a strong majority of new immigrants. In 1996, 24.3 percent of the visible minority population (both immigrant and Canadian-born) was under 15, and the majority of these were immigrant children or children of immigrants.<sup>6</sup> The visible minority population is even more strongly concentrated than the total immigrant population in Canada's major cities, particularly Toronto and Vancouver.<sup>7</sup>

Nearly a decade ago, based on data from the 1986 Census, researchers predicted that the gap between haves and have-nots within the immigrant population would increase, resulting in deteriorating conditions for immigrant children and reducing their chances for successful integration in Canada. In 1986, although the proportion of immigrant children living in lone-parent families (12 percent) was somewhat lower than that for Canada as a whole (14 percent), the majority of those children lived in low-income families (Burke 1992; see also Samuels 1990). The pattern was also strongly geographically differentiated. While about 31 percent of immigrant children lived in low-income families, in the city of Montreal the figure was nearly

---

4 In 1956, it was 32.5% (Hersak and Francolini 1987, p. 11).

5 The figures on immigrant children alone are somewhat misleading. Because the majority of children born to immigrant parents are born in Canada, the proportion of children being raised in immigrant households is higher than the proportion of children born outside Canada.

6 In 1996, 68.1% of visible minorities were immigrants. This pattern varies geographically, however; for example in Nova Scotia the majority (69%) of visible minorities are born in Canada, while in most other cities the reverse is true. It also varies by group, ranging from 65% Canadian-born for those of Japanese background to 29% for those of South Asian background (*The Daily*, 17 February 1998).

7 Statistics Canada 1996 *Nation* tables.

half. Over the past decade, the total number of lone-parent families in Canada has soared to 14.5 percent of all Canadian families, the majority (84 percent) being led by women, and representing nearly 20 percent of all Canadian children.<sup>8</sup> The growth among immigrants, however, has been much slower; currently only about five percent are headed by a lone parent (Canada, CEC 1996). Nonetheless, there are significant questions concerning whether the stress on lone-parent families, especially mother-led families below the poverty line, is significantly different because of cultural, linguistic, or other factors found in immigrant families that may affect access to social services, especially for those most recently arrived.

Burke's (1992) prediction accords with the American research on immigrants which depicts an 'hourglass' economy in which some immigrant groups are being sifted to the bottom of the socio-economic pile, while others are flourishing at the top, with fewer and fewer in the middle. As in Canada, these patterns vary significantly by ethnicity, geographic location and generation, and the downward poverty spiral quickens significantly for mother-led lone-parent families (for a review, see Zhou 1998). While there is reason to believe that differences in social policy as well as differences in the characteristics of the immigrants themselves would create significantly different patterns among immigrants in Canada, there are also strong similarities which call for detailed comparative study.

These sketchy demographic figures indicate a number of significant issues for children in immigrant households. In particular, researchers need to recognize the diversity of the immigrant population, which includes both refugees and economic immigrants, the high concentrations of immigrants in Canada's major cities, significant poverty levels for about one third of immigrant families, and the increasing role of issues concerning 'race' (and racism). All of these issues are major areas of public policy concern that will gain increasing importance in the coming decades.

---

8 Statistics Canada 1996 *Nation* tables.

## 2. Research on Immigrant Children and Health Services in Canada

The recent literature on immigrant children and children of immigrants in Canada is remarkable for its paucity. The vast majority of the literature on immigration focuses on adult immigrants, with particular emphasis on their integration into the labour market. In recent years, there has been increasing interest in the circumstances of immigrant and visible minority women, whose circumstances strongly affect those of children (Lynam 1985; Estable 1986; Ontario Council of Agencies Serving Immigrants 1988; Boyd 1984, 1992; Geschwender 1994; Peake and Wekerle 1994; Ng 1996; San Martin 1996). For some women, such as live-in care-givers, the circumstances of immigration can have drastic effects upon their children's lives, as they are unable to immigrate as a family group (Daenzer 1993; Jakubowski 1997). The major focus of the literature on immigrant children in Canada has been on psycho-social aspects of adaptation, a topic which we do not address here (Beiser *et al.* 1995).

During the 1970s, there was considerable interest in the processes of adjustment and integration of immigrants (Richmond and Kalbach 1971). Such research has fallen off in recent years, in large part because it tended to adopt an assimilationist model that accepted uncritically the normative aspects of the 'host' society. Building on Breton's pathbreaking paper on institutional completeness (1964) the recent focus has been on resources within communities to establish their own identities, rather than their adaptive responses to a dominant culture (Lalonde and Cameron 1993). This trend has very important implications for understanding some of the ways in which communities marshal resources to access public services, especially in areas of high urban concentration, and especially where it can be shown that there are strong comparative differences among immigrant groups or from one generation to the next (Kurien 1991; Matsuoka and Sorenson 1991; Johnson 1992; Rosenberg and Jedwab 1992; Strom *et al.* 1992; Fong and Guilia 1996). Renaud (1994) shows that such questions are fundamentally related to questions of family status, while others (Compère and Duval 1992) stress the importance of social services that meet the needs of specific immigrant groups, or the significance of political mobilization (Souglobin

1991). An entire book series has been published to emphasize the power of small ethnic communities in effecting social change.<sup>9</sup>

Recent work in the United States would indicate that for children, the adaptive process is more strongly related to experience as a member of an immigrant household than it is to immigrant status *per se* (Zhou 1998). Nearly all those who immigrate as children have a much stronger knowledge of and attachment to the new society than to the country of origin, so experiences of those who immigrate as young children (the 1.25 generation), and those born to immigrant parents (the 1.5 generation) do not differ substantially (Firmat 1994; Rumbaut 1991), although “there are important differences between children of different cohorts of the one-and-a-half and second generation, particularly in their physical and psychological developmental stages, in their socialization processes in the family, the school, and the society at large, as well as in their orientation toward their homeland” (Zhou 1998, p. 3). Any analysis of social service needs of immigrant children, particularly needs with respect to language and schooling, but also any needs that depend upon an understanding of subtle cultural differences, should take this point into consideration.

Ironically, there was a brief flurry of research on immigrant children during the 1980s, after the parliamentary Standing Committee on Labour, Employment and Immigration (Canada 1985) raised the alarm about rapid aging of the Canadian population. The Committee’s *Annual Report* suggested that immigration policy be used to increase the number of immigrant children and to counter-balance the aging effect. Subsequent demographic studies show that immigration of children could not offset declining fertility rates enough to have a substantial impact on the age structure of the Canadian population into the next millenium (Beaujot 1992; George *et al.* 1991; Hersak and Francolini 1987). This opinion was supported by the comprehensive *Review of Demography and its Implications for Economic and Social Policy*, and demographic interest in immigrant children has been considerably lessened since, while research on the elderly has escalated.

Many researchers recognize the educational context as of fundamental significance for the adaptation and socialization of children from immigrant families. Unfortunately this literature is

---

9 See the AMS Press series on immigrant and ethnic communities in the US and Canada, general editor Robert J. Theodoratus.

very uneven. Much of it was produced during the 1970s and early 1980s, and does not reflect the dramatic diversification of the immigrant population in recent years. In a comprehensive review of the literature on immigrant youth and the second generation, Peter Li notes the following trends:

- Children from ESL (English as a Second Language) classes face relative disadvantages during the early years of education (Cummins 1981, 1984; Samuda 1984; Samuel and Verma 1992) but immigrant children catch up to their peers very quickly (Jones 1987). The effect of age at immigration on the catch-up process is controversial (cf. Inbar 1977 and Jones 1981; 1987).
- Higher levels of education among immigrant parents have a positive effect on children (Richmond and Kalbach 1980).
- The culture and values of the dominant group are reflected in the Canadian school system, resulting in disadvantage for immigrant and visible minority children (Hebert 1992; Samai 1992), except those of Jewish and Asian background who are believed to benefit from strong ethnic identity and family influences (Samai 1992).
- There is increasing interest among education researchers in the effects of racism among school children (Clifton and Perry 1985; Hebert 1992; Dei 1993).

Aside from this sparse literature on racism and education, the issue of how visible minority children, especially those in immigrant households, experience racialization in Canada remains virtually unexplored.<sup>10</sup> Given the dramatic demographic changes that have occurred among the Canadian immigrant population in recent years, especially in the major cities, this issue should be a major research priority.

Overall, our review of the literature on immigrant children and children of immigrants shows that there is very little direct research, especially in the critical area of access to social services. Emerging trends indicate the need to integrate a number of key issues that include the

---

<sup>10</sup> We have not reviewed the psychological literature on children and racism here. A brief survey of that literature, however, shows that it is very sparse, and pays more attention to the development of racist attitudes in children than to the experiences of racialized children. The term 'racialization' refers to the process, based on racism, by which people are categorized into racial groups and experience the results of that categorization in the form of discrimination (see Miles 1989).

demographic and socio-economic characteristics of immigrant groups, social and cultural differences in the role of children across communities, the organizational abilities of communities to gain access to social services, the significant impact of racism upon recent immigrant groups' abilities to adjust successfully to Canadian society, and the need for public policy initiatives that address the specific needs of immigrant communities.

### ***Immigrant Children and Health Services***

Although there has been very little research in Canada on immigrant children and health services, what research exists indicates several issues of specific concern to the immigrant population. There is some evidence to suggest that immigrants and those from minority ethnocultural groups have higher utilization of health care services (Wen *et al.* 1996), which would indicate a need to discover whether higher utilization is a result of the need for a wider selection of social services that are not being provided or that are not sensitive to the needs of immigrant communities.

Several researchers have provided convincing evidence of the need for cultural sensitivity in addressing the health needs of a diverse population (Masi 1993; Mensah 1993). Stephensen's (1995) study of 20 Vietnamese immigrants and 20 health care workers in Victoria, British Columbia, shows that health care workers often fail to communicate effectively, fail to take into account a client's established medical expectations, such as for example his or her expectations of the role of traditional medical practices, and fail to understand that there may be specific circumstances, such as experience of torture on the part of refugees, which significantly affect their relationship with medical professionals. He suggests the need for community-based client advocates and for translation training for health care staff. Similarly, Anderson (1986) finds that the dissonance between Western and traditional forms of treatment can lead to reduced use of health services and non-compliance.

Legault *et al.* (1997) provide one of the most sophisticated analyses to date of the contradictions faced by immigrants within the health care service. Their study of 297 young immigrant families and 40 practitioners finds marked differences between the priorities of families, which are toward their children, and those of physicians, which are toward the mothers. Differences in priorities for health care are related to economic issues. Immigrant families' most significant problem is isolation, followed by problems of day care and education, but practitioners tend to

assume that couple relationships are the dominant issue. Families also tend to seek help on social issues from informal ethnocultural networks, where possible, before they turn to professional assistance, although they prefer to seek medical assistance from health professionals.

Although statistical patterns do not show significant differences between the general health care status of immigrants and refugees and those born in Canada, Bollini (1992) suggests the need for health care that takes into account the relationship between health and migration. The most striking examples include the need for culturally sensitive treatment of patients with HIV/AIDS in certain communities, and the need to understand the effects of health problems related to war in others. Such understanding needs also to take into account the gender differences in the effects of war. Among refugees from the former Yugoslavia, for example, women are more likely to have experienced rape, while men are more likely to have been injured through more traditional warfare, while children experience a variety of war-related traumas (Korac 1991). More commonly, refugees show signs of poor health because less serious problems such as dental disease and respiratory problems have been untreated or undiagnosed (Dillman *et al.* 1993).

Matsuoka and Sorenson (1991) illustrate the need to take into account intra-cultural differences in the provision of culturally appropriate health care. Immigrants from countries that have been affected by civil war, such as Ethiopia, cannot be considered homogenous. They suggest that service agencies hire workers from a variety of backgrounds, and take a bridging approach to provision of services in a non-discriminatory manner. These suggestions support Anderson's (1993) emphasis on the need to make ethnocultural communities partners in research, as well as in health care service.

Although the research to date on immigrants and health care services is very limited, especially for children, there is strong agreement on the need for public policy approaches that will provide the most culturally sensitive services, as accessibly as possible. Information on the characteristics of immigrant populations that affect access to health care services, however, is extremely limited. The balance of this paper uses data from the NLSCY in a very preliminary exploration of some of the factors that affect immigrant children's access to services.



### 3. Methodological Issues

Identifying immigrant and non-immigrant children for analytical purposes in contrast to legal purposes is not a straightforward process. Conceptually, there are 3 groups of children to distinguish: those children born outside of Canada of non-Canadian parents who can be unambiguously identified as *immigrant children*; those children born in Canada where at least one parent is an immigrant whom we identify as *non-immigrant children of immigrant parents*; and a third group of children born in Canada whose parents are non-immigrants and these we identify as *non-immigrant children of non-immigrant parents*. Our study focuses on the first two groups, identified in the American sociological literature as the “1.25” and “1.5” generations.

Various forms of parental organization add to the complexity of distinguishing immigrant children from non-immigrant children. We make the following distinctions:

- (a) *Immigrant Children*
  - I. Two parents, both immigrants
  - II. Lone parent, immigrant
- (b) *Non-Immigrant Children of Immigrant Parents*
  - I. Two parents, both immigrants
  - II. Lone parent, immigrant
  - III. Two parents, one an immigrant or immigrant parent, one other adult
- (c) *Non-Immigrant Children of Non-Immigrant Parents*
  - I. Two parents or two adults, non-immigrant
  - II. Lone parent, non-immigrant

This report uses two methods of analysis, cross-tabulations and logistic regression. The results of the cross-tabulations are presented in tabular form where the above categories are used to distinguish immigrant children, non-immigrant children of immigrant parents and non-immigrant children of non-immigrant parents. In the logistic regression models, we differentiate immigrant children born outside of Canada from those born in Canada. In other words, the contrast is between Category A - Immigrant Children in one group and Category B - Non-Immigrant Children of Immigrant Parents and Category C - Non-Immigrant Children of Non-Immigrant Parents combined into a second group.

For both the cross-tabulations and the logistic regression models, the weighting procedures recommended by Statistics Canada are used, but this does not obviate the fact that the total sample size for the NLSCY Cycle 1 is 22,831 and that the number of children who fall into Categories A and B is very small (see below) relative to the total sample size. In the case of the tabular data, the Statistics Canada procedures for identifying large coefficients of variation are applied, identifying estimates which need to be treated with great caution. Where the number of observations in a cell falls below 10, the results are suppressed completely.

**Table 1: The Distribution of Category A Immigrant Children in NLSCY by Age, Sex and Years Since Immigration**

Age	Years Since Immigration		
	0 to 4	5 to 9	10+
<b>Females</b>			
0	3	0	0
1	5	0	0
2	9	0	0
3	10	0	0
4	9	0	0
5	8	1	0
6	9	4	0
7	11	12	0
8	11	18	0
9	14	14	0
10	7	12	1
11	5	8	4
<b>Total</b>	<b>101</b>	<b>69</b>	<b>5</b>
<b>Males</b>			
0	2	0	0
1	3	9	0
2	7	0	0
3	11	0	0
4	12	1	0
5	10	4	0
6	13	6	0
7	8	7	0
8	4	10	0
9	8	12	1
10	12	18	3
11	9	19	3
<b>Total</b>	<b>99</b>	<b>86</b>	<b>7</b>

Source: NLSCY 1994

Table 1 summarizes the distribution of Category A - Immigrant Children by age, sex and years since immigration. Most of the children have arrived in Canada in the past nine years. Only 367 children fall into Category A and they make up only 1.6 percent of all children in the NLSCY sample. Given that approximately 17 percent of the total Canadian population was born outside Canada, immigrant children are clearly under-represented in the NLSCY sample. Table 2 provides a similar summary of the distribution of Category B - Immigrant Children with the additional category of family organization provided to capture the complexity of this group. The total number of children who fall into Category B is 2,735, 12.0 percent of the NLSCY. This leaves 19,729, or 86.4 percent of children in the NLSCY sample, who fall into Category C - Non-Immigrant Children of Non-Immigrant Parents.

**Table 2: The Distribution of Category B Non-Immigrant Children of Immigrant Parents in NLSCY by Age, Sex, Years Since Immigration and Family Organization**

Age	Single Parent Years since Immigration			Two Parents/Both Immigrants Years since Immigration			Two Parent/One Immigrant or Immigrant Parent/One Other Adult Years since Immigration		
	0 to 4	5 to 9	10+	0 to 4	5 to 9	10+	0 to 4	5 to 9	10+
<b>Females</b>									
0	0	3	3	31	12	13	10	14	58
1	4	1	8	23	16	15	10	9	64
2	1	2	3	7	11	16	5	14	47
3	1	2	4	4	14	9	4	9	62
4	0	1	6	1	19	21	0	7	55
5	0	5	12	3	4	20	0	9	58
6	1	1	8	2	4	25	1	7	64
7	0	2	4	0	6	23	1	5	55
8	0	0	9	1	3	29	2	3	50
9	1	0	7	0	1	22	0	1	59
10	0	0	11	0	0	31	0	1	56
11	0	1	4	0	0	24	0	0	62
<b>Total</b>	<b>8</b>	<b>18</b>	<b>79</b>	<b>72</b>	<b>90</b>	<b>248</b>	<b>33</b>	<b>79</b>	<b>690</b>
<b>Males</b>									
0	1	2	6	26	17	13	14	8	62
1	1	0	8	28	31	16	7	22	73
2	2	1	5	15	15	10	4	12	57
3	0	2	12	4	24	12	2	13	66
4	0	2	8	1	17	14	2	15	61
5	0	1	10	1	18	20	0	3	53
6	0	2	8	0	13	19	2	7	60
7	0	1	8	3	3	24	0	3	59
8	1	1	5	2	3	26	0	3	61
9	0	0	6	0	0	31	0	0	66
10	0	0	9	1	0	27	1	1	49
11	0	0	4	0	2	24	1	0	65
<b>Total</b>	<b>5</b>	<b>12</b>	<b>89</b>	<b>81</b>	<b>143</b>	<b>236</b>	<b>33</b>	<b>87</b>	<b>732</b>

Source: NLSCY 1994

Three logistic regressions models are presented for each question analyzed:

- (a) *The Basic Model* contains the basic characteristics of the child and the person most knowledgeable (PMK) about the child or the household as independent variables;
- (b) *The Ethnicity Model* uses the ancestor question for the child, added to the list of independent variables;
- (c) *The Community Model* drops the ancestor question for the child and adds a set of independent variables to measure various socio-economic characteristics of the adult population of the places where children live.

Table 3 summarizes the independent variables used in the three models. In the case of categorical variables, the reference category is defined in the right-hand column. The remaining variables are all treated as continuous in the logistic regression models.

All of the logistic regression models have overall fits which are statistically significant at  $p < 0.0001$ . The focus of the discussion, therefore, is on the interpretation of the parameter estimates and their corresponding odds ratios. For ease of presentation, the odds ratios are discussed in terms of their percent effect on the dependent variable. They are rounded off to the nearest percent.

For the Basic and Ethnicity Models, the odds ratios represent how much the likelihood of the dependent variable changes based on a unit change in the coefficient of the independent variable. For the Community Models, we re-calculate the odds ratio based on a 10 percent change in the coefficient of the independent variable, applying the formula  $\exp^{r*10}$ , where  $\exp$  is the exponent and  $r$  is the parameter estimate.

**Table 3: Independent Variables Used in Logistic Regression Models**

Independent Variables	Definition	Reference Category
AGE	Age of child	
FEMALE	Sex of child	Male
EUROPE	Region of birth of PMK	Canada
ASIA	Region of birth of PMK	Canada
OTHER	Region of birth of PMK	Canada
NOENGFR	PMK speaks neither official language	PMK speaks at least one official language
IMMGRAN	Immigrant child as identified under Category A	All other children
SPAR	Only PMK present and children	All other parental arrangements
METRO	Urban places with populations > 500,000	Urban places with populations < 100,000
MEDIUM	Urban places with populations between 100,000 and 500,000	Urban places with populations < 100,000
RURAL	Rural places	Urban places with populations < 100,000
FRENCH	Ancestor question for child	All other categories
GERMAN	Ancestor question for child	All other categories
ITALIAN	Ancestor question for child	All other categories
CHINESE	Ancestor question for child	All other categories
POLISH	Ancestor question for child	All other categories
PORTUG	Ancestor question for child	All other categories
SASIAN	Ancestor question for child	All other categories
BLACK	Ancestor question for child	All other categories
NAMIND	Ancestor question for child	All other categories
PCT65	Percent of the population aged 65 and over	
TOTIMM	Percent of the adult population who are immigrants	
RECIM	Percent of the adult population who immigrated between 1988 and 1991	
LOWED	Percent of the population aged 15 and over with less than grade 9 education	
UNI	Percent of the population aged 15 and over with a university education	
UNEMP25	Unemployment rate for the population age 25 and over	
GOVTRAN	Percent of neighbourhood income from government transfers	
MEDINCF	Median income for census families	
NEIPROB	Derived neighbourhood problem index	

Source: NLSCY 1994

PMK = Person most knowledgeable

## **4. Analyzing the Health and Informal and Formal Supports for Immigrant Children**

### **4.1 The Distribution of Immigrant Children by Size of Urban Area**

Category A - Immigrant Children and Category B - Non-Immigrant Children of Immigrant parents are heavily concentrated in Canada's largest urban areas. In contrast, while there is certainly an urban bias to the geographic distribution of Category C - Non-Immigrant Children of Non-Immigrant Parents as well, they are more evenly distributed throughout Canada's urban and rural systems. If cities of 100,000 to 500,000 are included, over 90 percent of Category A - Immigrant Children and Category B - Non-Immigrant Children of Immigrant Parents live in metropolitan or medium size cities and less than 10 percent live in Canada's small towns and rural areas.

Focusing on Category A - Immigrant Children and the region of birth of the PMK, one can see that immigrant children of parents born in Asia and to a slightly lesser extent Europe, are almost exclusively concentrated in Canada's largest and medium-sized cities (Table 5). Using the birthplace of the PMK as the basis for classifying Categories B and C - Non-Immigrant Children, one sees much the same concentration in Canada's largest cities, where Asia is the region of the PMK's birth (Table 6). It is also interesting to note that those among Categories B and C - Non-Immigrant Children whose PMK's birthplace was the United States are distributed throughout the urban and rural system in a pattern almost identical to those of Categories B and C - Non-Immigrant Children whose PMK's birthplace was Canada. Notwithstanding the limitations imposed by the sampling frame, both Category A - Immigrant Children, and Category B - Non-Immigrant Children of Immigrant parents, are 'big city kids.'

In the following sub-sections, as we discuss the health status of immigrant children, their support systems and the factors underlying their health status and support systems, this geographical context must always be kept in mind. It suggests that lack of supply of formal services is not a likely explanation for poor health and lack of social support because there are likely to be more formal services in Canada's metropolitan and medium-sized cities compared to small towns and rural areas. This does *not*, however, mean that immigrant children and their families do not face demographic, language, ethnic and cultural factors and other socio-economic factors which act as

barriers to access to the formal services found in Canada's metropolitan and medium size cities. Geography matters, but not exclusively.

**Table 4: Percent of Immigrant and Non-Immigrant Children by Urban or Rural Location**

Immigrant Family Class	Size of Urban Area						Rural	Total
	>500K	100-500k	30-100k	15-30k	0-15k			
A. Immigrant Children:								
2 parents, both immigrants	82.8	11.1	0.7	1.5	1.6	2.2	100.0	
1 single parent, immigrant	84.5	6.1	1.2	2.7	4.2	1.4	100.0	
B. Non-Immigrant Children of Immigrant Parents:								
2 parents, both immigrants/1 an immigrant or immigrant parent	84.7	8.7	2.6	0.5	1.5	1.9	100.0	
1 single parent, immigrant	83.9	8.2	3.8	1.2	0.9	2.0	100.0	
C. Non-Immigrant Children of Non-Immigrant Parents:								
2 parents or 2 adults	39.6	17.9	7.8	3.5	9.3	21.8	100.0	
1 single parent	40.4	20.9	12.9	4.3	9.5	12.0	100.0	

B3 collapsed into B1.

Source: NLSCY 1994

**Table 5: Percent of Immigrant Children by Region of Birth of PMK and Urban or Rural Location**

Region of Birth of PMK	Size of Urban Area						Rural	Total
	>500K	100-500k	30-100k	15-30k	0-15k			
United States	68.5	13.6	0.0	0.0	13.4	4.6	100.0	
Europe	86.0	9.3	0.3	2.2	1.1	1.2	100.0	
Asia	91.2	6.8	0.4	1.2	0.0	0.4	100.0	
Other	81.0	11.6	1.3	2.0	1.3	2.7	100.0	

Source: NLSCY 1994

## 4.2 The Health Status of Immigrant Children

There are competing arguments about the health status of immigrant children. One view is that immigrant children are likely to have poorer health than their non-immigrant counterparts, all other things being equal, because of the conditions in many parts of the world from where Canada draws its immigrants. The counter view is that because screening on health is part of the process for immigration to Canada, and as a result of self-selection among those who chose to

come to Canada, all other things being equal, immigrant children are likely to be more healthy than non-immigrant children. There is no doubt considerable variation among immigrant children. For example, we might expect that refugee children have considerably lower health status than children of independent immigrants, but the data do not allow us to make so fine an analysis.

**Table 6: Percent of Non-Immigrant Children by Region of Birth of PMK and Urban or Rural Location**

Region of Birth of PMK	Size of Urban Area					Rural	Total
	>500K	100-500k	30-100k	15-30k	0-15k		
Canada	38.2	18.5	8.9	3.7	9.7	21.0	100.0
United States	47.9	17.2	7.9	2.7	3.0	21.3	100.0
Europe	68.9	16.0	4.4	2.0	2.8	5.9	100.0
Asia	89.2	4.6	2.7	0.5	2.4	0.5	100.0
Other	80.0	11.1	2.1	1.3	1.7	3.8	100.0

Source: NLSCY 1994

Based on the Peabody Assessment Tool, we used a derived score on physical and health problems (Variable APACS02) to compare the health of Category A - Immigrant Children with Categories B and C Non-Immigrant Children.<sup>11</sup> Following a division of age groups used by Cheal et al. (1997), we divide children into those between less than 4 years of age and those between 4 and 11 years of age. Table 7 tells us three important things about immigrant children. First, there do not appear to be meaningful differences in the percentage of Category A - Immigrant Children whose health is rated as less than “very good” compared to the percentage of Categories B and C, Non-Immigrant Children of either Immigrant Parents or Non-Immigrant Parents whose health is rated as less than “very good”. Secondly, there appear to be only slight differences between younger and older children. Thirdly, there do appear, however, to be meaningful differences between children whose health is rated as less than very good and those with very good health, depending on whether children live in lone-parent families or with two

11 Readers need to recognise that Variable APACS02 is limited in its application as a measure of relative health status focusing only on 4 and 5 year olds as part of an assessment carried out by a non-medical specialist. At the time that this report was produced, the child health variables which are part of Cycle 2 of the NLSCY were not available for analysis. We do not believe that the general arguments presented in this sub-section would be radically altered using other measures of immigrant and non-immigrant children’s health status.

parents, regardless of whether they are Category A - Immigrant or Categories B and C, Non-Immigrant Children of Immigrant parents or Non-Immigrant Parents. Some caution must be applied to this observation given some of the coefficients of variation are very large.

**Table 7: Percent of Immigrant and Non-Immigrant Children with Health Problems**

Immigrant Family Class	Age	
	0 to 3	4 to 11
A. Immigrant Children:		
2 parents, both immigrants	9.9	9.9
1 single parent, immigrant	*	16.3
B. Non-Immigrant Children of Immigrant Parents:		
2 parents, both immigrants/1 an immigrant or immigrant parent	13.9	15.1
1 single parent immigrant	4.6	20.8
C. Non-Immigrant Children of Non-Immigrant Parents:		
2 parents or 2 adults	9.3	10.9
1 single parent	14.7	17.4

Non-releasable estimates: c.v. > 33.3

Marginal estimates 16.6 < c.v. < 33.3

< 10 observations in the numerator

B3 collapsed into B1.

Source: NLSCY 1994

Converting the scale on which health status of children is measured into a binary variable between those in good health (i.e., their rating is very good or better on the derived score) and those in poor health (i.e., their rating is less than very good on the derived scale), 18,796 children have 'very good' health status, and 2,659 have 'poor' health status, from a total NLSCY sample size of 21,455.<sup>12</sup> Using logistic regression and the Statistics Canada supplied weights, the Basic Model (Table 8) shows that female children (FEMALE) are 28 percent less likely than male children to have their health rated poor. Children of lone parents (SPAR) are 65 percent more likely than children living in two-parent or two-adult families to have their health rated poor. Living in a metropolitan area (METRO) reduces the likelihood that a child will have his or her health rated poor by 21 percent. The AGE variable is statistically significant, but has only a

<sup>12</sup> Because of non-response factors, the sample size for a particular question in the NLSCY survey does not always equal the total number of children in the study.



marginal effect on the increased likelihood of poor health. Although these data do not allow us to explain the patterns, we can speculate that the relatively poorer health of children in lone-parent families is due to poverty and lack of access to services, while the relatively better health of urban children reflects easier access to services.

Keeping in mind the limitations of the Peabody Assessment Tool as a measure of health status, children whom we classified as Category A - Immigrant Children (IMMGRAN) are 24 percent less likely than those in Categories B and C - Non-Immigrant children to have their health rated poor. Where the PMK speaks neither official language (NOENGR), children are 57 percent less likely to have their health rated poor. Similarly, in the Community Model (Table 8), an area with a ten percent higher proportion of recent immigrants (RECIM) decreases the likelihood of children having their health rated poor by 17 percent. An area with a 10 percent higher proportion of the adult population with less than a high school education (LOWED) increases the likelihood of children having their health rated poor by 10 percent. Median family income by area (MEDINCF) is statistically significant, but has very little impact on the likelihood of children having their health rated poor. The region of origin variables in the Basic Model and the ethnicity variables in the Ethnicity Model present highly contradictory results which we believe are related to the small number of actual observations and we have therefore chosen not to interpret them.

These findings would suggest that immigrant children enjoy better health than Canadian-born children but, again, these findings must be viewed very cautiously. We are not able to determine adequately the extent of variation among immigrant groups from different source areas, or to distinguish among categories of immigrants (such as, for example, refugees and economic migrants). The fact that the most recent immigrants seem to be in better health does not tell us whether this is related to the source areas, and we cannot speculate on whether there is a tendency for health status to lessen with greater time in Canada. The results do, however, support our contention that the health of children is strongly related to the characteristics of the parents, including their family status, their connection to and knowledge of the local community and its services, their levels of education, and their geographic location in relation to public services.

Table 8: Models of Health Status Using Logistic Regression

Variable	DF	The Basic Model			The Ethnicity Model			The Community Model			
		Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Odds Ratio (10% Change)
<b><i>INTERCEPT</i></b>	1	-2.0392	0.0001		-1.7654	0.0001		-1.9401	0.0001		
AGE	1	0.0198	0.0017	1.020	0.0197	0.0019	1.020	0.0214	0.0008	1.022	
FEMALE	1	-0.3234	0.0001	0.724	-0.3311	0.0001	0.718	-0.3181	0.0001	0.727	
EUROPE	1	0.0466	0.6362	1.048	0.1037	0.3139	1.109	0.1292	0.1989	1.138	
ASIA	1	0.6243	0.0001	1.867	0.7582	0.0001	2.134	0.7790	0.0001	2.179	
OTHER	1	0.3399	0.0001	1.405	0.3540	0.0001	1.425	0.4264	0.0001	1.523	
NOENGFR	1	-0.8428	0.0027	0.431	-0.7955	0.0049	0.451	-0.9125	0.0013	0.402	
IMMGRAN	1	-0.2705	0.0303	0.763	-0.2971	0.0178	0.743	-0.2127	0.0919	0.808	
SPAR	1	0.0502	0.0001	1.651	0.4724	0.0001	1.604	0.4491	0.0001	1.567	
METRO	1	-0.2328	0.0001	0.792	-0.2258	0.0001	0.798	-0.1068	0.0678	0.899	
RURAL	1	0.0470	0.4094	1.048	0.0371	0.5158	1.038	-0.1118	0.0653	0.894	
FRENCH	1				0.1142	0.0203	1.121				
GERMAN	1				0.0661	0.3282	1.068				
ITALIAN	1				-0.6151	0.0001	0.541				
CHINESE	1				-0.2327	0.1416	0.792				
POLISH	1				0.1138	0.3362	1.121				
PORTUG	1				-0.0888	0.6115	0.915				
SASIAN	1				-0.6740	0.778	0.935				
BLACK	1				0.3147	0.0451	1.370				
NAMIND	1				-0.1455	0.0001	0.865				
PCT65	1							-0.0036	0.3549	0.996	0.965
TOTIMM	1							-0.0037	0.1871	0.996	0.964
RECIM	1							-0.0183	0.0421	0.982	0.833
LOWED	1							0.0095	0.0024	1.010	1.100
UNI	1							-0.0055	0.0989	0.995	0.947
UNEMP25	1							-0.0000	0.4849	1.000	1.000
GOVTRAN	1							0.0076	0.0514	1.008	1.079
MEDINCF	1							-0.0000	0.0117	1.000	1.000
NEIPROB	1							0.0021	0.0859	1.002	1.021
Sample Size		21455			21455			21455			

Source: NLSCY 1994

Table 9: Models of Poorer Recent Health Status Using Logistic Regression

Variable	DF	The Basic Model			The Ethnicity Model			The Community Model			
		Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Odds Ratio (10% Change)
<b><u>INTERCEPT</u></b>	1	-1.6916	0.0001		-1.363	0.0001		-1.6543	0.0001		
AGE	1	-0.0510	0.0001	0.950	-0.0518	0.0001	0.950	-0.0507	0.0001	0.951	
FEMALE	1	-0.1348	0.0009	0.874	-0.1355	0.0008	0.873	-0.1317	0.0012	0.877	
EUROPE	1	0.2377	0.0052	1.268	0.2038	0.0233	1.226	0.3282	0.0002	1.388	
ASIA	1	-0.0581	0.5983	0.944	0.1443	0.2567	1.155	0.1033	0.3676	1.109	
OTHER	1	0.1261	0.1023	1.134	0.2218	0.0066	1.248	0.2350	0.0036	1.265	
NOENGR	1	-0.6520	0.0119	0.521	-0.6683	0.0105	0.513	-0.5929	0.0229	0.553	
IMMGRAN	1	-0.5201	0.0001	0.594	-0.5266	0.0001	0.591	-0.4793	0.0005	0.619	
SPAR	1	0.2340	0.0001	1.264	0.2316	0.0001	1.261	0.2090	0.0001	1.232	
METRO	1	0.1446	0.0412	1.156	0.1489	0.0361	1.161	0.3242	0.0001	1.383	
MEDIUM	1	0.1596	0.0437	1.173	0.1619	0.0412	1.176	0.2323	0.0037	1.262	
RURAL	1	0.0558	0.4582	1.057	0.0622	0.4091	1.064	-0.0112	0.8839	0.989	
FRENCH	1				0.1604	0.0005	1.174				
GERMAN	1				0.0972	0.1226	1.102				
ITALIAN	1				-0.0213	0.8308	0.979				
CHINESE	1				-0.1648	0.3038	0.848				
POLISH	1				0.1698	0.1048	1.185				
PORTUG	1				0.346	0.0131	1.413				
SASIAN	1				-0.6082	0.0387	0.544				
BLACK	1				-0.0654	0.6968	0.937				
NAMIND	1				-0.1994	0.0001	0.819				
PCT65	1							0.0068	0.0624	1.007	1.070
TOTIMM	1							-0.0104	0.0001	0.990	0.901
RECIM	1							-0.0005	0.9536	1.000	0.995
LOWED	1							0.0039	0.2013	1.004	1.040
UNI	1							-0.0054	0.0758	0.995	0.948
UNEMP25	1							-0.0000	0.1783	1.000	1.000
GOVTRAN	1							-0.0015	0.9691	1.000	0.985
MEDINCF	1							-0.0000	0.4205	1.000	1.000
NEIPROB	1							0.0031	0.0055	1.003	1.031
Sample Size		21455			21455			21455			

Source: NLSCY 1994

### 4.3 Recent Health Problems

We also examined whether Category A - Immigrant and Categories B and C - Non-Immigrant Children can be differentiated with respect to poorer recent health.<sup>13</sup> Treating poor recent health as a dichotomous variable, 2,844 children fall into the category of having poor recent health and 18,611 fall into the category of having good recent health out of a total sample size of 21,455. In a series of logistic regression models using Statistics Canada weights, (Table 9) results are consistent with those found for health status in most cases.

In the Basic Model (Table 9), Category A - Immigrant Children (IMMGRAN) are 41 percent less likely to indicate poorer recent health. With the increase in AGE from younger children to older children, the likelihood of having poorer recent health goes down marginally. Being a FEMALE child also reduces the likelihood of having poorer recent health by 13 percent. Children in lone-parent families (SPAR) are over 26 percent more likely than those in two-parent families to indicate poorer recent health. In contrast to the above analysis, living in a metropolitan area (METRO) or a medium sized city (MEDIUM) also increases the likelihood that a child indicates poorer recent health (15 and 17 percent respectively) compared to children living in smaller towns. Again, we have chosen not to interpret the odds ratios based on ethnicity and PMKs' region of origin, because of the small number of observations.

In the Community Model (Table 9), a 10 percent higher proportion of recent immigrants by area (TOTIMM) reduces the likelihood of poorer recent health by 10 percent. While the neighbourhood problems index by area (NEIPROB) measure is statistically significant, the parameter estimates are very small and the consequent odds ratios indicate only marginal increases in the likelihood of poorer recent health for those living in areas with higher scores on this index.

Notwithstanding the limitations of the measures of health status used, the small numbers indicating poor health are similar to those reported in surveys of all Canadian children. The National Population Health Survey, Statistics Canada (1998, p. 3) reports that 89 percent of the population younger than 12 was in excellent or very good health in 1996/97. Taking health status

---

13 Since the cross-tabulations generated mostly values which were either marginal estimates or non-releasable estimates, they are not reported.

and poorer recent health together, Category A - Immigrant Children fare better than Categories B and C - Non-Immigrant Children. Although the evidence is inconclusive, it also suggests that children whose PMKs come from specific regions of origin and children who identify certain ethnocultural groups have odds ratios indicating in some cases a greater likelihood of poorer health or recent poorer health, and this area needs further study. Female children seem to do better than male children, and children of two-parent families seem to be healthier than children in single-parent families. Somewhat surprisingly, living in a metropolitan area decreases the overall likelihood of poor health, but increases the likelihood of recent poor health. This finding needs to be understood in a context where living in either higher levels of concentration of immigrants, or higher levels of recent immigration, which reduce the likelihood of reporting poor health. While living in large cities may have both positive and negative effects on health, therefore, *where* one lives in the city may be even more important. As a whole the findings indicate significant diversity in patterns of informal support related to community factors.

#### **4.4 Informal Support for Immigrant Children**

On behalf of each household, the PMK was asked to respond to the statement, “If something went wrong, no one would help me” (ASPHQ01A), on a 4-point scale between strongly agree and strongly disagree. Aggregating the agree and strongly agree responses, we created Table 10 - “No Help”. For households where the time since immigration is less than five years, lone-parent families with an immigrant child from Category A and lone-parent families where the parent is an immigrant but the child is a non-immigrant from Category B are most likely to indicate that they have no informal support (39.3 percent and 73.6 percent respectively). There is also convergence over time among all three categories of children and between children from lone-parent families compared to children in two-parent or two-adult families. This convergence would suggest that the strongest need for improvement of services, or for changing services to meet specific immigrant needs, is among those most recently immigrated, especially those for whom the difficulties of migration are combined with the difficulties of family separations.

**Table 10: “No Help” If Something Went Wrong (Percent)**

Immigrant Family Class	Years Since Immigration			
	0 to 4	5 to 9	10 +	Non-Immigrant
<b>A. Immigrant Children:</b>				
2 parents, both immigrants	4.1	9.6	*	
1 single parent, immigrant	39.3	16.9	*	
<b>B. Non-Immigrant Children of Immigrant Parents</b>				
2 parents, both immigrants	4.7	9.0	9.7	
1 single parent immigrant	73.6	12.6	4.5	
2 parents, 1 an immigrant or immigrant parent, 1 other adult	*	*	5.0	
<b>C. Non-immigrant Children of Non-Immigrant Parents:</b>				
2 parents or 2 adults				5.1
1 single parent				7.7

Non-releasable estimates: c.v. > 33.3

Marginal estimates: 16.6 < c.v. < 33.3

< 10 observations in the numerator

Source: NLSCY 1994

Using the same format as above, the PMK was also asked to respond to the statement, “I have family and friends who help me feel safe, secure and happy” (ASPHQ01B). The disagree and strongly disagree responses are aggregated in Table 11 - “Family and Friends”, indicating that particularly where the time since immigration is less than five years, lone-parent families where the parent is an immigrant but the child is a non-immigrant in Category B are most likely to indicate they have no informal support (45.1 percent).

The results of the logistic regression analyses using the Statistics Canada weights can be found in Table 12, which treats those who agree or strongly agree as one response and those who disagree or strongly disagree as the opposite response to “No Help”. Only 1,096 PMKs responded that they agreed or strongly agreed that they had no one to help them. The remaining 20,359 disagreed or strongly disagreed.

Although a strong majority of parents feel that they have friends and relatives to support them, those who do not represent a basis for concern, especially among those who have immigrated recently and have not yet established support networks. In the Basic Model (Table 12), for Category A - Immigrant Children (IMMIGRAN), the likelihood of PMKs indicating no one to

help them increases by almost 46 percent. Among the regional origin variables, ASIA and the OTHER origin of PMK group have statistically significant parameter estimates indicating that PMKs are 42 and 23 percent respectively more likely to agree that they have no one to help them if something goes wrong. Being a lone-parent household (SPAR) increases the likelihood of indicating that there is no one to help by 68 percent, while living in a metropolitan area (METRO) increases the likelihood of indicating that there is no one to help by 47 percent.

**Table 11: “No Family or Friends” To Provide Support (Percent)**

Immigrant Family Class	Years Since Immigration			Non-Immigrant
	0 to 4	5 to 9	10 +	
A. Immigrant Children:				
2 parents, both immigrants c	8.1	16.0	*	
1 single parent, immigrant	9.8	*	*	
B. Non-Immigrant Children of Immigrant Parents:				
2 parents, both immigrants	3.3	15.2	7.1	
1 single parent immigrant	45.1	10.9	5.8	
2 parents, 1 an immigrant or immigrant parent, 1 other adult	*	*	5.3	
C. Non-Immigrant Children of Non-Immigrant Parents:				
2 parents or 2 adults				5.6
1 single parent				8.5

Non-releasable estimates: c.v. > 33.3

Marginal estimates: 16.6 < c.v. < 33.3

< 10 observations in the numerator

Source: NLSCY 1994

None of the ethnocultural identification variables is statistically significant in the Ethnicity Model (Table 12). This finding does not necessarily mean that there is no relationship between ethnocultural factors and levels of informal support, but only that such a relationship is not discernible using this data set.

In the Community Model (Table 12), factors that increase the likelihood of ‘no help’ are: areas with higher levels of total immigration (TOTIMM) (7 percent); a higher proportion of the adult population with less than grade 9 education (LOWED) (10 percent); a lower proportion of the population with a university education (UNI) (25 percent), and the proportion of neighbourhood income coming from government transfers (GOVTRAN) (10 percent). With each 10 percent change in the parameter, higher median family income (MEDINCF) has almost no effect, but is statistically significant.

Taking the same approach using logistic regression and the Statistics Canada weights to analyze whether households indicated that they have no family or friends to provide support, 1,089 respondents disagreed or strongly disagreed that they had family or friends to help them while the remainder, 20,366 agreed or strongly agreed with the statement.

The Basic Model in Table 13 shows that households with Category A - Immigrant Children (IMMIGRAN) are almost 56 percent more likely to indicate that they do not have family or friends to provide support. Increased age of the child (AGE) and living in a medium size city (MEDIUM) decrease the likelihood of indicating that children and their families have no family or friends to provide support by 2 and 20 percent respectively. In contrast, PMK identification with the other region of origin (OTHER) increases the likelihood of indicating no family or friends to provide support by 26 percent, being in a lone-parent household (SPAR) increases the likelihood by 45 percent and living in a metropolitan area (METRO) increases the likelihood by 286 percent. These findings indicate substantial lack of support for immigrant families, lone parents and those in the largest cities.

In the Ethnicity Model (Table 13), only PMKs of children who identified their ethnicity as GERMAN or Portuguese (PORTUG) are almost 49 percent and 48 percent respectively less likely to indicate that they have no family or friends to provide support. In contrast, PMKs whose children identified their ethnicity as FRENCH, POLISH, or South Asian (SASIAN) are 51 percent, 53 percent and 241 percent respectively more likely to indicate that they have no family or friends to provide support.

The Community Model (Table 12) provides evidence for both the arguments that areas with large established immigrant populations are likely to provide supportive environments and that areas with large new immigrant populations are likely to provide less support. A ten percent higher proportion of (TOTIMM) is increased by 10 percent, indicates that PMKs are 18 percent less likely to indicate that they have no family or friends to provide support. When the proportion for recent immigration (RECIM) is increased by 10 percent, the odds ratio indicates that PMKs are 103 percent more likely to indicate that they have no family or friends to provide support. Areas where the population has low educational levels (LOWED) and areas where there are high levels of university educated adults (UNI) are also areas where PMKs are more likely to indicate that they have no family or friends to provide support (29 percent and 10 percent respectively).



Table 12: Models of “No Help” Using Logistic Regression

Variable	DF	The Basic Model			The Ethnicity Model			The Community Model			
		Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Odds Ratio (10% Change)
<b><i>INTERCEPT</i></b>	1	-3.1905	0.0001		-3.1631	0.0001		-3.30360	0.0001		
AGE	1	0.0057	0.5032	1.006	0.0052	0.5386	1.005	0.01040	0.2262	1.010	
FEMALE	1	0.0962	0.0939	1.101	0.0983	0.0875	1.103	0.10240	0.0758	1.108	
EUROPE	1	-0.1756	0.1890	0.839	-0.1468	0.2908	0.863	-0.20580	0.1313	0.814	
ASIA	1	0.3469	0.0064	1.415	0.3961	0.0074	1.486	0.22440	0.0956	1.252	
OTHER	1	0.2103	0.0381	1.234	0.2313	0.0313	1.260	0.11870	0.2667	1.126	
NOENGFR	1	-0.2245	0.4217	0.799	-0.1802	0.5225	0.835	-0.45720	0.1091	0.633	
IMMGRAN	1	0.3758	0.0049	1.456	0.3984	0.0031	1.489	0.29750	0.0277	1.346	
SPAR	1	0.5209	0.0001	1.684	0.5320	0.0001	1.702	0.45330	0.0001	1.574	
METRO	1	0.3836	0.0003	1.468	0.3824	0.0003	1.466	0.26080	0.0224	1.298	
MEDIUM	1	0.0321	0.7934	1.033	0.0326	0.7907	1.033	0.00977	0.9371	1.010	
RURAL	1	0.1178	0.2974	1.126	0.1218	0.2853	1.130	0.05100	0.6608	1.052	
FRENCH	1				-0.0468	0.4952	0.954				
GERMAN	1				-0.1546	0.1212	0.857				
ITALIAN	1				0.1895	0.1675	1.209				
CHINESE	1				-0.2635	0.1850	0.768				
POLISH	1				-0.2707	0.1336	0.763				
PORTUG	1				-0.1968	0.4074	0.821				
SASIAN	1				0.1093	0.6822	1.116				
BLACK	1				-0.4084	0.0906	0.665				
NAMIND	1				0.0039	0.9077	1.004				
PCT65	1							-0.00947	0.0713	0.991	0.910
TOTIMM	1							0.00718	0.0300	1.007	1.074
RECIM	1							-0.00153	0.8680	0.998	0.985
LOWED	1							0.00933	0.0300	1.009	1.098
UNI	1							0.02250	0.0001	1.023	1.252
UNEMP25	1							-0.02280	0.6665	0.998	0.796
GOVTRAN	1							0.01760	0.0026	1.018	1.192
MEDINCF	1							-0.00000	0.0001	1.000	1.000
NEIPROB	1							-0.00011	0.9459	1.000	0.999
Sample Size		21455			21455			21455			

Source: NLSCY 1994

Table 13: Models of “No Family or Friends” to Provide Support Using Logistic Regression

Variable	DF	The Basic Model			The Ethnicity Model			The Community Model			
		Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Odds Ratio (10% Change)
<b><i>INTERCEPT</i></b>	1	-2.6784	0.0001		-2.6237	0.0001		-3.27580	0.0001		
AGE	1	-0.0188	0.0225	0.981	-0.0193	0.0196	0.981	-0.01330	0.1108	0.987	
FEMALE	1	-0.1034	0.0632	0.902	-0.1022	0.0677	0.903	-0.11310	0.0433	0.893	
EUROPE	1	0.0762	0.5130	1.079	0.1602	0.1937	1.174	0.11800	0.3275	1.125	
ASIA	1	-0.1814	0.2123	0.834	-0.3000	0.0805	0.741	-0.21580	0.1597	0.806	
OTHER	1	0.2322	0.0159	1.261	0.2958	0.0045	1.344	0.23880	0.0197	1.270	
NOENGFR	1	-0.2681	0.3455	0.765	-0.2396	0.4055	0.787	-0.29460	0.3095	0.745	
IMMGRAN	1	0.4438	0.0006	1.559	0.4221	0.0014	1.525	0.36210	0.0063	1.436	
SPAR	1	0.3740	0.0001	1.454	0.3881	0.0001	1.474	0.33130	0.0001	1.393	
METRO	1	0.2481	0.0096	1.282	0.2464	0.0104	1.279	0.31560	0.0022	1.371	
MEDIUM	1	-0.2265	0.0490	0.797	-0.2084	0.0712	0.812	-0.14890	0.2008	0.862	
RURAL	1	-0.1347	0.2018	0.874	-0.1205	0.2552	0.887	-0.25420	0.0183	0.776	
FRENCH	1				0.4129	0.0001	1.511				
GERMAN	1				-0.6634	0.0001	0.515				
ITALIAN	1				-0.1327	0.3643	0.876				
CHINESE	1				0.1492	0.4495	1.161				
POLISH	1				0.4220	0.0021	1.525				
PORTUG	1				-0.6440	0.0162	0.525				
SASIAN	1				1.2277	0.0001	3.414				
BLACK	1				-0.3239	0.1657	0.723				
NAMIND	1				-0.0757	0.0814	0.927				
PCT65	1							0.00234	0.6378	1.002	1.024
TOTIMM	1							-0.02030	0.0001	0.980	0.816
RECIM	1							0.07090	0.0001	1.073	2.032
LOWED	1							0.02540	0.0001	1.026	1.289
UNI	1							0.00950	0.0147	1.010	1.100
UNEMP25	1							-0.00005	0.3401	1.000	1.000
GOVTRAN	1							0.00381	0.4692	1.004	1.039
MEDINCF	1							0.00000	0.0218	1.000	1.000
NEIPROB	1							-0.00353	0.0660	0.996	0.965
Sample Size		21455			21455			21455			

Source: NLSCY 1994

**Table 14: Use of Community Services (Percent)**

Immigrant Family Class	Years Since Immigration			Non-Immigrant
	0 to 4	5 to 9	10 +	
A. Immigrant Children:				
2 parents, both immigrants	10.1	5.5	*	
1 single parent, immigrant	13.4	47.0	*	
B. Non-Immigrant Children of Immigrant Parents:				
2 parents, both immigrants	11.9	12.9	5.6	
1 single parent immigrant	*	55.4	21.8	
2 parents, 1 an immigrant or immigrant parent, 1 other adult	32.1	7.2	12.8	
C. Non-Immigrant Children of Non-Immigrant Parents				
2 parents or 2 adults				11.9
1 single parent				34.3
Non-releasable estimates: c.v. > 33.3				
Marginal estimates: 16.6 < c.v. < 33.3				
< 10 observations in the numerator				
Source: NLSCY 1994				

**Table 15: Use of Health Professionals (Percent)**

Immigrant Family Class	Years Since Immigration			Non-Immigrant
	0 to 4	5 to 9	10 +	
A. Immigrant Children:				
2 parents, both immigrants	16.0	13.9	*	
1 single parent, immigrant	12.8	51.6	*	
B. Non-Immigrant Children of Immigrant Parents:				
2 parents, both immigrants	17.2	12.0	16.2	
1 single parent immigrant	21.8	35.5	24.9	
2 parents, 1 an immigrant or immigrant parent, 1 other adult	*	10.9	25.2	
C. Non-Immigrant Children of Non-Immigrant Parents:				
2 parents or 2 adults				23.2
1 single parent				37.3
Non-releasable estimates: c.v. > 33.3				
Marginal estimates: 16.6 < c.v. < 33.3				
< 10 observations in the numerator				
Source: NLSCY 1994				

Taking the tabular and logistic regression analyses together for both questions, what emerges is a picture of those Category A - families with immigrant children indicating a lack of informal support in the early years after immigration to Canada. Consistently, households with immigrant children, lone-parent families and families in metropolitan areas indicate that it is less likely that they have informal support. It is difficult to discern any trends in the data based on region of origin or ethnicity, and we cannot be sure to what extent the needs of lone-parent immigrant families overlap with those of other Canadian families, but there is a clear indication that

informal support networks play a key role in the integration of new immigrants, and that they vary considerably from group to group and from place to place.

**Table 16: Use of Religious Services (Percent)**

Immigrant Family Class	Years Since Immigration			Non-Immigrant
	0 to 4	5 to 9	10 +	
<b>A. Immigrant Children:</b>				
2 parents, both immigrants	22.1	12.2	*	
1 single parent, immigrant	13.9	35.8	*	
<b>B. Non-Immigrant Children of Immigrant Parents</b>				
2 parents, both immigrants	7.2	13.1	7.3	
1 single parent immigrant)	*	20.0	11.9	
2 parents, 1 an immigrant or immigrant parent, 1 other adult	*	12.9	14.5	
<b>C. Non-Immigrant Children of Non-Immigrant Parents:</b>				
2 parents or 2 adults				9.7
1 single parent				13.7

Non-releasable estimates: c.v. > 33.3

Marginal estimates: 16.6 < c.v. < 33.3

< 10 observations in the numerator

Source: NLSCY 1994

#### 4.5 Formal Support for Immigrant Children

Formal support for children and their families is analyzed through a set of questions which ask whether the respondent received help during the past 12 months from community or social service professionals (ASPHQ02A), health professionals (ASPHQ02B) or religious or spiritual leaders (ASPHQ02C). Although many of the coefficients of variation are too large to be released or are marginal estimates at best, there does appear to be a pattern, expressed in Tables 14 to 16. Among Category A - lone-parent families with immigrant children, the percentage who use community services, health professionals and religious services increases between 0 to 4 years since immigration and 5 to 9 years since immigration. The percentages go from 13.4 percent to 47.0 percent for community services, from 12.8 percent to 51.6 percent for health professionals and 13.9 percent to 35.8 percent for use of religious services respectively. One possible interpretation is that as immigrant parents and children learn more about formal services, their use of them increases. Another interpretation is that the increases reflect the growing problems of lone-parenting over time.

Focusing on community services (Table 17), 3,188 respondents indicated that they had received help from a community or social service professional and the remaining 18,267 indicated negatively. The Basic Model, using logistic regression and the Statistics Canada weights, shows

that if the child is an immigrant the likelihood of using community or social services declines by 22 percent (IMMGRAN). The likelihood of using community services also declines marginally with age of the child (AGE). Where the region of birth of the PMK is EUROPE or ASIA, the likelihood of using community services declines by 31 and 30 percent respectively. The likelihood of using community services also declines by 53 percent if the PMK speaks neither official language (NOENGR) and for children living in metropolitan areas (METRO) and medium size cities (MEDIUM), by 15 and 16 percent respectively. In contrast, being a child from a lone-parent family (SPAR) increases the likelihood of use of community services by 286 percent.

When the ethnic group identifiers are taken into account in the Ethnicity Model (Table 17) using logistic regression and the Statistics Canada weights, the likelihood of using community services increases by almost 18 percent for those children who identify their ethnic origin as FRENCH. For those children who identify their ethnic origins as ITALIAN, CHINESE, Portuguese (PORTUG) or BLACK, the likelihood of using community services declines by 25 percent, 50 percent, 61 percent and 38 percent respectively.

In the Community Model (Table 17) using logistic regression and the Statistics Canada weights, an increase of ten percent in the proportion of immigrants in an area decreases the likelihood of using community and social services by seven percent. A difference of ten percent in the proportion of adults with less than a grade-9 education reduces the likelihood of using community and social services by 14 percent while a difference of ten percent in the proportion of adults with a university education reduces the likelihood of using community and social services by nine percent. An increase of ten percent in income in an area resulting from government transfers increases the likelihood of using community and social services by 14 percent. While the neighbourhood problem index (NEIPROB) is statistically significant and associated with a lower likelihood of using community services, the odds ratio have less than a four percent impact in relative terms.

Taken together the models suggest that use of community services is less likely among Category A - Immigrant children especially where the PMK speaks neither official language. The region of origin for the PMK, the ethnic/cultural origin variables for children, city size effect and many of the community model variables are consistent with the view that immigrant children and new

immigrant families are less likely to access community services. While it is possible that this is the result of lesser need, the more likely explanation is that cultural and linguistic barriers prevent greater use of these services (cf. Masi et al., 1993). The one variable that operates in the opposite direction is being the child of a lone-parent regardless of whether the parents are immigrants or non-immigrants. Lone-parent families are much more likely to use community and social services and there can be little doubt that such usage is linked to the many problems that children and their lone parents face on a day-to-day basis.

On the use of health professionals to provide help for personal problems, 5,192 respondents provided a positive response and 16,263 responded negatively. This is one of the few cases where being a Category A - Immigrant Child is not statistically significant at  $p < 0.05$  in the Basic Model (Table 18) when logistic regression and the Statistics Canada weights are applied. Greater likelihood of use of health professionals is, however, strongly linked to being a lone-parent (SPAR) and weakly linked to female children (FEMALE). The odds ratio for the former indicates that lone parents are 95 percent more likely to use health professionals while the odds ratio for female children increases the likelihood of use by 8 percent. The remaining statistically significant variables are linked to a lesser propensity to use health professionals. The PMK coming from one of three regions of origin reduces the likelihood of using health professionals by 14 percent for EUROPE, 30 percent for ASIA and 28 percent for OTHER. Living in a metropolitan area (METRO), medium size city (MEDIUM) or rural area (RURAL) also reduces the likelihood of using health professionals by 21 percent, 13 percent and 11 percent respectively

In the Ethnicity Model using logistic regression and the Statistic Canada weights (Table 18), children whose ethnic identification is FRENCH or ITALIAN are 20 and 24 percent respectively more likely to use the services of health professionals. In contrast, those children whose ethnic identification is CHINESE or South Asian (SASIA) are 37 and 40 percent respectively less likely to use the services of health professionals.

An increase of ten percent in the proportion of immigrants in an area (TOTIMM) results in a seven percent decrease in the likelihood of using the services of a health professional in the Community Model using logistic regression and the Statistics Canada weights (Table 18). In contrast, a ten percent increase in the proportion of *recent* immigrants in an area (RECIM) increases the likelihood of using the services of health professionals by 47 percent. Median

family income (MEDINCF), unemployment in the population over 25 (UNEMP25) and neighbourhood problems (NEIPBROB) are all statistically significant, but only affect the odds ratios fractionally. While immigrants make lesser use of services in general, therefore, they are more likely to turn to health professionals. Given their higher health status, we think the reasons have more to do with lack of access and with barriers to their participation in other areas.

In comparing and contrasting the use health professionals with the use of community and social services professionals, more respondents indicated that they sought help from health professionals compared to community and social services professionals. This is not so surprising given most families are more likely to identify readily a health professional (especially family physicians or general practitioners) in their neighbourhood or near to where they work and to assume that there will be no costs in seeing a health professional because of provincial health insurance plans.<sup>14</sup> Alternatively, there is no way of knowing whether the higher rates of use of professional health services are the result of conflating physical health problems with personal health problems.

In terms of the variables identified in the three models in Table 18, there is a strong similarity with those discussed with respect to the use of community and social service professionals. Lone-parenthood again stands out in understanding the likelihood of increased use of services provided by health professionals. Taken together, the region of origin of the PMK and ethnic group identity imply that children and their families from some groups face barriers to health services.

The final set of logistic regression models using the Statistics Canada weights is summarized in Table 19. In these models, we examined the use of religious services as a formal support mechanism. Only 2,456 respondents indicated that they sought help from a religious or spiritual leader, in contrast to 18,999 who provided a negative response to this question.

In the Basic Model (Table 19), being a Category A - Immigrant Child (IMMIGRAN) increases the likelihood of seeking help from a religious or spiritual leader by 79 percent. Higher AGE of the child and being FEMALE increase the likelihood of seeking help from a religious or spiritual leader by three and ten percent respectively. The OTHER origin group also increases the

---

<sup>14</sup> This assumption, may in fact, be erroneous depending on the nature of the personal problem and whether the physician can find an applicable billing code under the provincial health plan.

likelihood of seeking help from a religious or spiritual leader by 52 percent. Lone-parenthood (SPAR) increases the likelihood of seeking help from a religious or spiritual leader by almost 48 percent. In contrast if the PMK speaks neither official language (NOENGFR), there is 71 percent decrease in the likelihood that a religious or spiritual leader provided help and living in a metropolitan area (METRO) decreases the likelihood a religious or spiritual leader provided help by 22 percent.

Respondents whose children's ethnic identification is FRENCH or CHINESE in the Ethnicity Model (Table 19) are 30 and 67 percent respectively less likely to have help from a religious or spiritual leader. On the other hand, respondents whose children ethnic or cultural group identification is GERMAN or BLACK are 72 and 56 percent respectively more likely to have help from a religious or spiritual leader.

In the Community Model (Table 19), a ten percent increase in proportion of immigrants (TOTIMM) increases the likelihood of using a religious or spiritual leader for support by 21 percent. In contrast, a 10 percent increase in the proportion of *recent* immigrants (RECIM), the size of the population with less than a grade 9 education, or the size of the population with a university education reduce the likelihood of using religious or spiritual leaders for support by 31 percent, 20 percent and 24 percent respectively. The effects of the median family income variable (MEDINCF) and the neighbourhood problem index (NEIPROB) are statistically significant but have only marginal effects on the odds ratios.

While the results in Table 19 are not as compelling as those in Tables 17 and 18, they accord with many of the critical variables already identified. Although fewer respondents indicated that they seek help from religious and spiritual leaders, there are indications that families with immigrant children and families and children where religious attachment might be stronger or better organized, such as in established immigrant areas, are more likely to seek help from a religious or spiritual leader. Without measures of religiosity, however, caution should be taken in attaching too much significance to individual ethnic or cultural groups. Lone parents indicated that they are more likely to seek help. Finally, it is worth noting that there are even barriers to seeking help from religious and spiritual leaders if the PMK speaks neither official language and in areas of recent immigration supporting the view that language and the early years of immigration are critical in accessing all formal services.



Table 17: Models of Use of Community Services Using Logistic Regression

Variable	DF	The Basic Model			The Ethnicity Model			The Community Model			
		Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Odds Ratio (10% Change)
<b><u>INTERCEPT</u></b>	1	-1.8038	0.0001		-1.7802	0.0001		-1.57830	0.0001		
AGE	1	-0.0138	0.0184	0.986	-0.0147	0.0120	0.985	-0.01380	0.0185	0.986	
FEMALE	1	-0.0080	0.8403	0.992	-0.0117	0.7669	0.988	-0.00501	0.8993	0.995	
EUROPE	1	-0.3726	0.0002	0.689	-0.2396	0.0217	0.787	-0.31110	0.0024	0.733	
ASIA	1	-0.3436	0.0041	0.709	-0.1162	0.3822	0.980	-0.21190	0.0863	0.809	
OTHER	1	0.0939	0.2194	1.098	0.2341	0.0040	1.264	0.17270	0.0309	1.189	
NOENGFR	1	-0.7639	0.0050	0.466	-0.6657	0.0153	0.514	-0.72070	0.0086	0.486	
IMMGRAN	1	-0.2497	0.0490	0.779	-0.2621	0.0404	0.769	-0.22290	0.0808	0.800	
SPAR	1	1.3494	0.0001	3.855	1.3542	0.0001	3.874	1.34100	0.0001	3.823	
METRO	1	-0.1681	0.0089	0.845	-0.148	0.0217	0.862	0.00487	0.9444	1.005	
MEDIUM	1	-0.1806	0.0138	0.835	-0.1694	0.0212	0.844	-0.13800	0.0631	0.871	
RURAL	1	-0.8420	0.2151	0.919	-0.0917	0.1773	0.912	-0.07430	0.2832	0.928	
FRENCH	1				0.1642	0.0002	1.178				
GERMAN	1				0.1174	0.0559	1.125				
ITALIAN	1				-0.2873	0.0111	0.750				
CHINESE	1				-0.6939	0.0005	0.500				
POLISH	1				-0.0508	0.6595	0.950				
PORTUG	1				-0.9424	0.0001	0.390				
SASIAN	1				0.2089	0.3570	1.232				
BLACK	1				-0.4779	0.0040	0.620				
NAMIND	1				-0.0361	0.1609	0.965				
PCT65	1							0.00067	0.8525	1.001	1.007
TOTIMM	1							-0.00767	0.0032	0.992	0.926
RECIM	1							0.00164	0.8375	1.002	1.017
LOWED	1							-0.01500	0.0001	0.985	0.861
UNI	1							-0.00923	0.0023	0.991	0.912
UNEMP25	1							-0.00001	0.2316	1.000	1.000
GOVTRAN	1							0.01310	0.0007	1.013	1.140
MEDINCF	1							-0.00000	0.2789	1.000	1.000
NEIPROB	1							-0.00315	0.0115	0.997	0.969
Sample Size		21455			21455			21455			

Source: NLSCY 1994

Table 18: Models of Use of Health Professionals Using Logistic Regression

Variable	DF	The Basic Model			The Ethnicity Model			The Community Model			
		Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Odds Ratio (10% Change)
<b><i>INTERCEPT</i></b>	1	-1.0424	0.0001		-1.0609	0.0001		-1.16070	0.0001		
AGE	1	-0.0080	0.0929	0.992	-0.0088	0.0630	0.991	-0.00759	0.1118	0.992	
FEMALE	1	0.0723	0.0247	1.075	0.0765	0.0178	1.079	0.06590	0.0412	1.068	
EUROPE	1	-0.1463	0.0498	0.864	-0.1116	0.1514	0.894	-0.15970	0.0360	0.852	
ASIA	1	-0.3620	0.0001	0.696	-0.0892	0.4063	0.915	-0.42940	0.0001	0.651	
OTHER	1	-0.3331	0.0001	0.717	-0.2141	0.0031	0.807	-0.35440	0.0001	0.702	
NOENGFR	1	-0.1129	0.5294	0.893	-0.0683	0.7247	0.938	-0.07790	0.6678	0.925	
IMMGRAN	1	-0.1840	0.0767	0.832	-0.1505	0.1499	0.860	-0.23210	0.0268	0.793	
SPAR	1	0.6687	0.0001	1.952	0.6756	0.0001	1.965	0.69740	0.0001	2.009	
METRO	1	-0.2342	0.0001	0.791	-0.229	0.0001	0.795	-0.26820	0.0001	0.765	
MEDIUM	1	-0.1343	0.0252	0.874	-0.1263	0.0357	0.881	-0.14140	0.0200	0.868	
RURAL	1	-0.1141	0.0406	0.892	-0.1094	0.0501	0.896	-0.10200	0.7340	0.903	
FRENCH	1				0.1860	0.0001	1.204				
GERMAN	1				0.0822	0.1019	1.086				
ITALIAN	1				0.2142	0.0061	1.239				
CHINESE	1				-0.4675	0.0014	0.627				
POLISH	1				-0.0915	0.3146	0.913				
PORTUG	1				-0.0256	0.8453	0.975				
SASIAN	1				-0.5062	0.0344	0.603				
BLACK	1				-0.2389	0.1029	0.787				
NAMIND	1				0.0296	0.1530	0.971				
PCT65	1							0.00007	0.9810	1.000	1.001
TOTIMM	1							-0.00738	0.0004	0.993	0.929
RECIM	1							0.03850	0.0001	1.039	1.470
LOWED	1							0.00370	0.1326	1.004	1.038
UNI	1							-0.00000	0.9967	1.000	1.000
UNEMP25	1							-0.00002	0.0335	1.000	1.000
GOVTRAN	1							-0.00542	0.0922	0.995	0.947
MEDINCF	1							0.00000	0.0002	1.000	1.000
NEIPROB	1							-0.00651	0.0001	0.994	0.937
Sample Size		21455			21455			21455			

Source: NLSCY 1994

**Table 19: Models of Use of Religious Services Using Logistic Regression**

Variable	DF	The Basic Model			The Ethnicity Model			The Community Model			
		Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Parameter Estimate	Pr > Chi-Square	Odds Ratio	Odds Ratio (10% Change)
<b><i>INTERCEPT</i></b>	1	-2.3421	0.0001		-2.3939	0.0001		-2.03450	0.0001		
AGE	1	0.0252	0.0001	1.026	0.0264	0.0001	1.027	0.02330	0.0004	1.024	
FEMALE	1	0.1060	0.0168	1.112	0.0988	0.0267	1.104	0.10070	0.0239	1.106	
EUROPE	1	-0.1850	0.0874	0.831	-0.2528	0.0240	0.777	-0.30040	0.0061	0.741	
ASIA	1	0.0087	0.9433	1.009	0.3310	0.0140	1.392	-0.09520	0.4533	0.909	
OTHER	1	0.4192	0.0001	1.521	0.3849	0.0001	1.469	0.32640	0.0001	1.386	
NOENGFR	1	-1.2486	0.0004	0.287	-1.1572	0.0011	0.314	-1.23320	0.0005	0.291	
IMMGRAN	1	0.5846	0.0001	1.794	0.6102	0.0001	1.841	0.65820	0.0001	1.931	
SPAR	1	0.3898	0.0001	1.477	0.3728	0.0001	1.452	0.45450	0.0001	1.575	
METRO	1	-0.2512	0.0009	0.778	-0.2549	0.0008	0.775	-0.35670	0.0001	0.700	
MEDIUM	1	-0.0784	0.3529	0.925	-0.1026	0.2262	0.902	-0.14340	0.0939	0.866	
RURAL	1	0.1178	0.1266	1.125	0.1037	0.1810	1.109	0.24700	0.0018	1.280	
FRENCH	1				-0.3517	0.0001	0.703				
GERMAN	1				0.5437	0.0001	1.722				
ITALIAN	1				0.1272	0.2601	1.136				
CHINESE	1				-1.0967	0.0001	0.334				
POLISH	1				0.0952	0.4248	1.100				
PORTUG	1				-0.1424	0.4453	0.867				
SASIAN	1				-0.2639	0.3151	0.768				
BLACK	1				0.4431	0.0034	1.557				
NAMIND	1				0.0339	0.1682	1.035				
PCT65	1							-0.00837	0.0517	0.992	0.920
TOTIMM	1							0.01910	0.0001	1.019	1.210
RECIM	1							-0.03640	0.0001	0.964	0.695
LOWED	1							-0.02190	0.0001	0.978	0.803
UNI	1							-0.02690	0.0001	0.973	0.764
UNEMP25	1							-0.00000	0.4928	1.000	1.000
GOVTRAN	1							-0.00572	0.2294	0.994	0.944
MEDINCF	1							0.00000	0.0053	1.000	1.000
NEIPROB	1							0.00152	0.0039	0.996	1.015
Sample Size		21455			21455			21455			

Source: NLSCY 1994

## 5. Conclusions

This analysis paints a complex picture of the comparison between immigrant and non-immigrant children. It is clear that the specific family context for the child is critical in all domains.

Children of lone parents are more likely to report health problems, to have access to fewer informal social supports and make greater use of community and social services professionals, health professionals and religious and spiritual leaders. While these findings are no doubt true of all lone-parent families, it is important to recognize the specific conditions faced by immigrant lone-parent families, especially because of the compounding effects of lone parenthood combined with recent immigration status.

The immigrant, ethnic and region of origin effects are more noticeable in the models of informal and formal support, and especially the formal support models, than in the models which examine health status. There are consistent and noticeable effects associated with French as the child's ethnic or cultural identification and formal support. If we assume this effect mainly reflects children and families living in Québec and a significantly different service environment from the rest of Canada, this suggests the need for a more detailed and in-depth analysis that goes beyond what can be done using the NLSCY data. More generally, however, these results indicate that the ethnocultural community plays a significant role in the development of and access to both formal and informal support networks. The fact that such networks are significantly more developed among the more established ethnocultural groups also indicates a need to focus attention on the concerns of recently arrived immigrant groups.

There are also consistent and noticeable effects associated with Asia as the PMK's region of origin and Chinese and South Asian as the child's ethnic identification. These variables increase the likelihood of indicating no informal support or formal support. We might be capturing the changing patterns of immigration to Canada and the fact that greater proportions of immigrants are now arriving in Canada from east and south Asia. This finding also supports the need for more detailed and in-depth analysis.

Geographically, there are important differences between the largest urban areas and the rest of Canada. Children and their families who live in the largest metropolitan areas have less access to informal supports and are also less likely to use formal services than children and their families

with similar characteristics in other urban and rural areas. It should be remembered, however, that many of the children who have higher utilization rates (especially lone parents and immigrants) also tend to concentrate in the largest metropolitan areas. The critical contrast between areas of established immigrants and areas of new immigrants can also be observed in this study. Finally, there is fairly consistent evidence to support the proposition that the relations among health status, informal support and formal support play themselves out most obviously in those parts of our largest metropolitan areas which are socially and economically disadvantaged in other ways.

The analysis as a whole makes a strong case for attempts to augment the NLSCY in the largest metropolitan areas. Our analysis shows that more of the problems associated with health, informal and formal support among immigrant children and their families are likely to focus on the largest metropolitan areas where immigrant children and families are concentrated. Without any changes, future researchers will continue to have only 367, or less than two percent of the observations out of approximately 22,831 observations in Cycle 1 of the NLSCY, which can unequivocally be classified as immigrant children of immigrant parents. In future cycles of the NLSCY, a richer segment of the database to focus on such issues linked to immigrant children should be of the highest priority.

Now that the children's health variables are available, it would be a worthwhile exercise to go back and replicate the analyses carried out in this study. We would, however, be surprised to find major differences in health status between immigrant and non-immigrant children all other things being equal. It would also be useful to control for household socio-economic status. In another set of experimental models not presented in this report, a derived measure of household socio-economic status was inserted into logistic regression models similar to those presented in this report. While the individual parameter estimates changed marginally, the overall structure of the models remained virtually unchanged with respect to the role of the critical family, immigration, ethnic and community variables, although the role of socio-economic status itself is statistically significant. In other words, those variables that are statistically significant in the models discussed in this report are the same variables that are statistically significant in the experimental models that we chose not to include. Using both improved measures of health status and/or household socio-economic status, it might also be interesting to test various interaction effects, especially with variables like lone parenthood, whether the PMK speaks neither official

language, whether the child is an immigrant or non-immigrant, and between health status and socio-economic status.

Finally, from a policy perspective, this report raises two critical issues. First there is strong evidence that lack of informal support and use of formal supports are linked to language and other ethnic and cultural issues for immigrant children and their families, especially in the earliest years after immigration. Barriers need to be identified and broken down, especially in our largest cities where immigrants and new Canadians concentrate. While we are unable to say anything about the process of racialization of new immigrants using the data available, the fact that the majority of immigrants are now visible minorities should not be ignored in the attempt to understand their experiences on arrival in Canada. Secondly, children in lone-parent families lack informal supports and concomitantly use formal supports more than children in two-parent families. We should not be surprised to find that poverty is the most significant factor influencing the experiences of lone-parent families, but additional work also needs to be done to understand the cultural factors that influence support networks and the resources available to lone parents. Developing programs to foster the former and reduce the latter represents a public policy challenge of immense proportions.

## References

- Anderson, Joan M. 1986. Ethnicity and illness experience: ideological structures and the health care delivery system. *Social Science and Medicine*, Vol. 22, No. 11, pp. 1277-1283.
- Anderson, Joan M. 1993. Ethnocultural communities as partners in research. In *Health and Cultures: Exploring the Relationships* Vol. I, Eds Ralph Masi, Lynette Mensah and Keith A. McLeod, pp. 319-328. Toronto: Mosaic.
- Beaujot, Roderic. 1992. The socio-demographic impact of immigration. In *The Immigration Dilemma* ed. Steven Globerman, pp. 43-77. Vancouver, B.C.: The Fraser Institute.
- Berryman, Jack. 1984. Immigrant children and the importance of self-esteem in second language learning. *Multiculturalism*, Vol. 2, pp.13-17.
- Beiser, Morton, Rene Dion, Andrew Gotowiec, Ilene Hyman, and Nhi Vu. 1995. *Immigrant and refugee children in Canada*. Culture/Community/Health Studies, Clarke Institute of Psychiatry.
- Bollini, P. Health policies for immigrant populations in the 1990s: A comparative study. *International Migration*, Vol. 30, special issue, pp. 103-119.
- Boyd, Monica. 1984. At a disadvantage: The occupational attainments of foreign born women in Canada. *International Migration Review*, Vol.18, No. 4, winter, pp.1091-1119.
- Boyd, Monica. 1992. Gender, visible minority and immigrant earnings inequality: reassessing an employment equity premise. In *Deconstructing a Nation: Immigration, Multiculturalism and Racism in '90s Canada* ed. Vic Satzewich, pp. 279-322. Halifax: Fernwood.
- Breton, Raymond. 1964. Institutional completeness of ethnic communities and the personal relations of immigrants. *American Journal of Sociology*, Vol. 70, pp. 103-205.
- Burke, Mary Anne. 1992. Canada's immigrant children. *Canadian social Trends/Tendences sociales canadiennes*, Spring, pp. 5-20. Ottawa: Statistics Canada.
- Canada, Citizenship and Immigration. 1996. *A Profile of Immigrants in Canada*. Citizenship and Immigration Canada.
- Cheal, David, Martin D. Dooley, Mark Kelly, Sarah Landy, Ellen L. Lipman, Lynn McIntyre, David R. Offord, David P. Ross, Katherine Scott and Kwok Kwan Tam. 1997. Canadian children in the 1990s. Selected findings of the National Longitudinal Survey of Children and Youth. *Canadian Social Trends*. No. 44, Spring, pp. 2-9.
- Compère, Lejacques and Jacques Duval. 1992. Mental health and ethnocultural communities: from social marginalization to existential precariousness/Santé mentale et communautés ethnoculturelles: de la marginalisation sociale à la précarité existentielle. *Santé Mentale au Québec*, Vol. 17, No. 2, pp. 285-293.

- Cummins, James P. 1981. Age on arrival and immigrant second language learning in Canada: A reassessment. *Applied Linguistics*, Vol. 2, pp. 132-149.
- Cummins, James P. 1984. Psychological assessment of minority language students. In *Multiculturalism in Canada: Social and Educational Perspectives* Eds Roland J. Samuda, John W. Berry and Michel Laferriere, pp. 238-249. Toronto: Allyn and Bacon.
- Daenzer, Patricia. 1993. *Regulating Class Privilege: Immigrant Servants in Canada, 1940s - 1990s*. Toronto: Scholars Press.
- Dei, Sefa George J. 1993. The challenges of anti-racist education in Canada. *Canadian Ethnic Studies*, Vol. 25, No. 2, pp. 36-51.
- Dillman, Erick, Renato Pablo and Ann Wilson. 1993. Patterns of health problems observed among newly arrived refugees to Canada. In *Health and Cultures: Exploring the Relationships*, Vol II, eds. Ralph Masi, Lynette Mensah and Keith a. McLeod, pp. 253-262. Toronto: Mosaic.
- Estable, Alma. 1986. *Immigrant Women in Canada: Current Issues*. A background paper prepared for the Canadian Advisory Council for the Status of Women. Ottawa.
- Firmat, Gustavo Pérez. 1994. *Life on the Hyphen: The Cuban-American Way*. Austin: University of Texas Press.
- Fong, Eric and Milena Gulia. 1996. The Attainment of Neighborhood Qualities among British, Chinese, and Black Immigrants in Toronto and Vancouver. *Research in Community-Sociology*; Vol. 6, pp. 123-145.
- George, M. V., F. Nault and A. Romaniuc. 1991. Effects of fertility and international migration on changing age composition in Canada. *Statistical Journal of the United Nations Economic Commission for Europe*, Vol. 8, No. 1, pp.13-24.
- Hebert, Yvonne. 1992. Multicultural education and the minority language child. *Canadian Ethnic Studies*, Vol. 24, No. 3, pp. 58-74.
- Hersak, G. A. and S. Francolini. 1987. *Immigration of children as a response to demographic concerns. L'immigration des enfants: une solution aux préoccupations démographiques*. Document de travail démographique No. 3. Population Working Paper No. 3. Pub. Order No. WH-5-110. 1987. 36 pp. Policy and Program Development, Employment and Immigration Canada.
- Inbar, Michal. 1977. Immigration and learning: the vulnerable age. *Canadian Review of Sociology and Anthropology*, Vol. 14, No. 2, pp. 218-234.
- Jakubowski, Lisa Marie. 1997. *Immigration and the Legalization of Racism*. Halifax: Fernwood.
- Johnson, Graham. 1992. Ethnic and racial communities in Canada and problems of adaptation: Chinese Canadians in the contemporary period. *Ethnic Groups*, Vol. 93, No. 3, pp. 151-174.



- Jones, Frank E. 1981. Age at immigration and educational attainment. *Canadian Review of Sociology and Anthropology*, Vol. 18, No. 3, pp. 393-405.
- Jones, Frank E. 1987. Age at immigration and education: further exploration. *International Migration Review*, Vol. 21, No. 1, pp. 70-85.
- Jones, Frank E. 1981. Age at immigration and educational attainment. *Canadian Review of Sociology and Anthropology*, Vol. 18, pp. 393-405.
- Jones, Frank E. 1987. Age at immigration and education: further explorations. *International Migration Review*, Vol. 21, No. 1, pp. 70-85.
- Kobayashi, Audrey. 1992. *Ethnicity, the Family and Demographic Change in Canada*. A report submitted to the Review of Demography and its Implications for Social and Economic Change. Ottawa: Health and Welfare Canada.
- Korac, Maja. 1991. Representation of Mass Rape in Ethnic-Conflicts in What Was Yugoslavia. *Sociologija*; Vol. 36, No. 4, pp. 495-514.
- Lurien, G. 1991. South Asians in Canada. *International Migration*. Vol. 29, No. 3, pp. 421-433.
- Lalonde, Richard N. and James E. Cameron. 1993. An intergroup perspective on immigrant acculturation with a focus on collective strategies. *International Journal of Psychology*, Vol. 28, No.1, pp. 57-74.
- Lambert, Wallace E. 1987. The fate of old-country values in a new land: a cross-national study of child rearing. *Canadian Psychology / Psychologie canadienne*, Vol. 28, No. 1, pp. 9-20.
- Li, Peter S. with the assistance of Lori Wilkinson. 1996. *Bibliography on Immigration: Sociological Perspective*. Prepared for Strategic Policy, Planning and Research and Metropolis Project. Ottawa: Citizenship and Immigration Canada.
- Lynam, M. Judith. 1987. Support networks developed by immigrant women. *Social Science & Medicine*, Vol. 21, No. 3.
- Masi, Ralph. 1993. Multiculturalism in health care: understanding and implementation. In *Health and Cultures: Exploring the Relationships* Vol. I, Eds Ralph Masi, Lynette Mensah and Keith A. McLeod, pp.11-32. Toronto: Mosaic.
- Matsuoka, Atsuko and John Sorenson. 1991. Ethnic identity and social service delivery: some models examined in relation to immigrants and refugees from Ethiopia. *Canadian Social Work Review / Revue Canadienne de Service Social*, Vol. 8, No. 2, pp. 255-268.
- Mensah, Lynette. 1993. Transcultural, cross-cultural and multicultural health perspectives in focus. In *Health and Cultures: Exploring the Relationships*, Vol. I, Eds Ralph Masi, Lynette Mensah and Keith A. McLeod, pp. 33-41. Toronto: Mosaic.
- Miles, Robert. 1989. *Racism*. London and New York: Routledge.

- Ng, Roxana. 1996. *The Politics of Community Services: Immigrant Women, Class and State*. 2<sup>nd</sup> ed. Halifax: Fernwood.
- Noivo, Edite. 1994. *Ethnicity, gender and violence: inter-generational relations in immigrant families*. Paper of the International Sociological Association.
- Peake, Linda and Gerda R. Wekerle. 1994. *Women's organizations and the city: the politics of grassroots change*. Paper of the International Sociological Association.
- Ralston, Helen. 1994. *Community organization among South Asian immigrant women in Canada*. Paper of the International Sociological Association.
- Reitz, Jeffrey G. 1980. Immigrants, their descendants, and the cohesion of Canada. In *Cultural Boundaries and the Cohesion of Canada*. Ed. Raymond Breton, et al., pp. 329-417. Montreal, Quebec: Institute for Research on Public Policy.
- Renaud, Jean. 1994. *New immigrants and the choice of a neighborhood*. Paper of the International Sociological Association.
- Richmond, Anthony H.; Kalbach, Warren E. 1980. *Factors in the adjustment of immigrants and their descendants*. Census Analytical Study, 1971 Census of Canada. Ottawa: Statistics Canada.
- Rosenberg, M. Michael and Jack Jedwab. Institutional completeness, ethnic organizational style and the role of the state: the Jewish, Italian and Greek communities of Montreal. *Revue Canadienne de Sociologie et d'Anthropologie / Canadian Review of Sociology and Anthropology*, Vol. 29, No. 3, pp. 266-287.
- Rumbaut, Rubén G. 1991. The agony of exile a study of the migration and adaptation of Indochinese refugee adults and children. In *Refugee Children: theory, Research and Services* Eds Fredrick L. Ahearn, Jr. and Jean L. Athey, pp. 53-91. Baltimore: Johns Hopkins University Press.
- San-Martin, R. Magaly. 1996. To Bring Forth a Voice: The Latin American Women's Collective in Toronto. *Fireweed*, Vol. 54, Summer, pp. 8-28.
- Souglobin, Sergei. 1991. Ethnic politics in a multi-ethnic state: Canadian immigrant communities and political process. *Migracijski teme*, Vol. 7, No. 1, pp. 47-58.
- Statistics Canada. 1998 *National Population Health Survey Overview 1996-97*. Ottawa: Minister of Industry. Cat. No. 82-567-XPB.
- Stephenson, Peter H. 1995. Vietnamese refugees in Victoria, B.C.: An overview of immigrant and refugee health care in a medium-sized Canadian urban centre. *Social Science and Medicine*, Vol. 40, No. 12, pp. 1631-1642.
- Strom, Robert, Darlene Johnson, Shirley Strom and Susan Daniels. 1992. Supporting the adjustment of immigrant families. *International Journal of Sociology of the Family*, Vol. 22, No. 1, pp. 35-43.

Wen, shi Wu, Vivek goel and J. Ivan Williams. 1996. Utilization of health care services by immigrants and other ethnic/cultural groups in Ontario. *Ethnicity and Health*, Vol. 1, No. 1, pp. 99-109.

Zhou, Min. 1998. Growing up in America: the challenge confronting immigrant children and children of immigrants. Forthcoming in *Annual Review of Sociology*.

Zhou, Min and Carl L. Bankston III. 1998. *Growing Up American: How Vietnamese Children Adapt to Life in the United States*. New York: Russell Sage Foundation.