Understanding the Early Years:

Cape Breton - Victoria, Nova Scotia

A Community Research Report

Prepared for:
Human Resources and Skills Development Canada

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KSI RESEARCH INTERNATIONAL INC. WITH
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EXECUTIVE SUMMARY

The Cape Breton – Victoria Understanding the Early Years (UEY) project includes the grade primary children from two counties on Cape Breton Island. The Cape Breton Regional Municipality is a mostly urban county located on the eastern side of Cape Breton Island, and Victoria County covers a vast rural area on the north-east end of the island. The area is a popular tourist destination, known for the Cabot Trail and wilderness areas. The traditional industries of mining and steel-making have declined over the past 20 years, along with a decline in the island's fishing industry, which was once strong and vibrant.

The Cape Breton – Victoria Understanding the Early Years project is being hosted and managed by the Cape Breton Family Place Resource Centre. Understanding the Early Years is a national initiative aimed at strengthening the capacity of communities to use quality local research to help them to make decisions to enhance children's lives. This report is based on information collected with the *Parent Interviews and Direct Assessments of Children Survey (PIDACS)* in the community of Cape Breton – Victoria, as well as 2006 Canadian Census data. The PIDACS provides information on developmental outcomes of children and their families and neighbourhood environments and experiences.

The data in this report, which were collected from parents and their grade primary children using the PIDACS, are a snapshot from late 2008 to early 2009 of the lives of grade primary children whose parents agreed to participate in the survey. The 594 parents who were interviewed and 601 children who completed the direct assessments provide information on how grade primary children in Cape Breton – Victoria are doing. Other local information available through the UEY project includes the results of grade primary teacher assessments of children's development using the *Early Development Instrument*, information on the availability and accessibility of programs and services, and data from the Canadian Census describing local socio-economic characteristics. Taken together, these data can be used to start conversations in the community about the implications of the research and the needs of children in Cape Breton – Victoria. This process can help communities develop a community action plan aimed at addressing the needs of the community.

The 2006 Canadian Census data indicated that the average family income of the community was about $60,000, which was considerably below the Canadian average of $82,000. The community's median income, at about $52,000, was also below the national median income of about $66,000. The unemployment rate was about 17% and more than 20% of the families had annual incomes below $30,000.

Despite the economic challenges facing many families, only 11% families indicated poor family functioning and about 10% of mothers were experiencing depression. These levels were comparable to the Canadian PIDACS averages. Also, 60% of the families had a positive parenting style, which was above the Canadian PIDACS average. The children in this community tended to be actively engaged in unorganized sports, with an average rate of 4.9 times per week. However, their use of most types of educational, entertainment, cultural and recreational resources was below the Canadian PIDACS average; the exceptions were attending movies and the use of ice rinks and skiing facilities. An important concern was that the grade primary children in this community watched television or videos on

average about 1.9 hours per day, which was well above the Canadian average of 1.6 hours per day.

The most prominent barriers to children's participation in community activities were that parents were unaware the resource was available (43%), programs were not available nearby (42%), programs were not available at convenient times (42%), programs were too costly (37%), and programs were only available to older children (36%).

About 59% of the families in this community used some form of child-care arrangement while working or studying. The most frequently used type of care was care in the family home by a relative.

This study showed that most grade primary children in Cape Breton – Victoria were generally faring well; the average scores on receptive vocabulary and number knowledge were comparable to the Canadian PIDACS averages, and the average score on an assessment of pre-literacy skills was higher than the Canadian average. The proportions of children in Cape Breton – Victoria displaying inattention, anxiety or depression were comparable to the corresponding Canadian averages, while the prevalence of physical aggression was below the Canadian average. The prevalence of children with significant health problems based on assessments of general health, asthma, allergies and other chronic conditions was comparable to the Canadian PIDACS average.

As the community works towards developing its action plan, it can consider the strengths and weaknesses uncovered by this local research. The UEY Initiative stresses the importance of a coordinated approach that involves families, teachers, and the wider community to determine the best programs and services to meet children's needs during their formative years.

I

INTRODUCTION

I. INTRODUCTION

A. CAPE BRETON – VICTORIA, NOVA SCOTIA - MILIEU FOR YOUNG CHILDREN'S DEVELOPMENT

Research based on the earlier Understanding the Early Years (UEY) studies and the National Longitudinal Survey of Children and Youth has shown that the social and economic context of the community and the socio-economic demographics of the population are helpful in understanding the factors that may contribute to children's developmental outcomes.

The Understanding the Early Years (UEY) Cape Breton – Victoria project encompasses two counties on Cape Breton Island. The Cape Breton Regional Municipality is a mostly urban county located on the eastern side of Cape Breton Island. It is one of the most scenic islands in the world, covering a total area of 2,470 square kilometres. Victoria County is predominantly rural, covering a total area of 2,768 square kilometres. It is a major tourist destination in the summer months, famous for its Cabot Trail that skirts scenic low and highlands and covers vast wilderness areas. Over the last few decades, the traditional industries of mining and steel-making have declined alongside the island's fishing industry, which was once strong and vibrant.

When the 2006 Canadian Census was taken, the population of Cape Breton – Victoria was approximately 107,000 (see Table 1-1). There were about 22,000 children and youth from ages 0 to 18, and of these about 5,300 were children aged 0 to 5 years. However, the pre-school population in both counties has been declining. Cape Breton – Victoria had levels of family income that were considerably lower than the rest of Canada; the average income was about $60,000 while the median income was about $52,000. The unemployment rate was also very high: 16.6% compared with the national rate of 6.6%. However, the level of post-secondary education of adults was only slightly lower than the national average, with nearly 50% of adults having a post-secondary education.

The 2006 Canadian Census data also showed that Cape Breton – Victoria had a relatively small Aboriginal population, at 1.4%. Also, between 2001 and 2006 less than 1% of its population were recent immigrants. Only about 8% of the residents of Cape Breton – Victoria had moved during the year preceding the 2006 Canadian Census, a rate that was considerably lower than the national average.

The children of both Victoria County and the Cape Breton Regional Municipality are served by the Cape Breton – Victoria Regional School Board. The School Board provides educational services to more than 18,000 students in 56 schools, including 39 elementary schools. It is noted for its diverse programs and its commitment to providing the best educational programs and services to the children in this community.

TABLE 1-1. 2006 Census Profile for Cape Breton – Victoria compared with Nova Scotia and Canada

	Cape Breton – Victoria	Nova Scotia	Canada
Total population	107,340	903,090	31,241,030
Number of children ages 0-18	22,225	192,965	7,154,210
Number of children ages 0-5	5,295	50,760	2,013,065
Average family income (economic families)	$59,560	$67,672	$82,325
Median family income (economic families)	$51,884	$57,078	$66,343
Economic families with income below $30,000 (%)	22.2	18.7	15.1
Education - Population 15 years and older with:			
No certificate, diploma or degree (%)	30.4	26.8	23.8
High school or equivalent (%)	23.9	22.8	25.5
Post secondary education (%)	45.7	50.4	50.7
Unemployment Rate (% adults 15 years and over)	16.6	9.1	6.6
Moved residence within previous year (%)	8.1	12.2	14.1
Aboriginal population (%)	1.4	2.7	3.8
Immigrated 2001-2006 (%)	0.2	0.8	3.6

Source: Statistics Canada custom tabulations from the 2006 Census

Note. The term "economic family" refers to a group of two or more persons who live in the same dwelling and are related by blood, marriage, common law or adoption. The term "post-secondary education" refers to any education following high school completion, such as education in vocational colleges, community colleges and universities.

Agencies working with families with young children face the challenge of serving a sparse, mainly rural population spread across a vast area. Families face this challenge as well when trying to access services. This barrier is magnified by low income levels and a lack of reliable transportation services. Other issues include insufficient funding, large caseloads, long waiting lists and a limited capacity to meet the demand for programs. These issues affect the quality and quantity of service that can be delivered.

Despite these challenges, agencies have become adept at working together to offer the best possible services to families. Many agencies may have their central office in the Cape Breton Regional Municipality but offer outreach services to rural areas through a variety of on-site programs, short-term programs, regional clinics and home visitation programs. Many agencies use a 'family-centred' approach with collaboration and networking as well-established and ongoing practices. As a result, families are empowered to take a lead role in the planning of service delivery; they have input into decision making and are valued and respected for their contribution. There is a strong, independent spirit among the population, with culture that embraces its heritage and traditions. The families of Cape Breton – Victoria are striving to strengthen their communities in the hope of decreasing migration to other provinces where jobs are more plentiful.

B. WHAT THIS STUDY IS ABOUT

Background: Understanding the Early Years Initiative

There is increasing evidence to support the importance of investing in the early years of children's development. Recent research shows that the formative years are critical, and that the kind of nurturing and stimulation that children receive in their early years of life can have a major impact on the rest of their lives. The evidence also suggests that neighbourhoods and communities in which children grow up and learn influence their development; these neighbourhoods affect parents' ability to provide a positive family environment and the ability of others in the community to support the development of children as they grow up.

Among neighbourhoods, communities and regions across Canada, policies and programs to enhance children's early development differ in important ways. They are shaped by a broad policy community that includes families, the private and voluntary sectors, and governments at local, provincial, territorial and federal levels. Gathering community-specific information on children and the places in which they are raised can help the community design policies and deliver programs that are sensitive and responsive to local needs. *Understanding the Early Years (UEY)*, a national initiative funded and managed by Human Resources and Skills Development Canada, is contributing to this process.

UEY's overall purpose is to enable members of communities to work together to address the needs of young children by:

- Raising family and community awareness of the importance of family and community factors that can influence young children's development; and by
- Strengthening their ability to use local data to help them to make decisions to enhance children's lives.

The Initiative provides three years of funding to community-based, not-for-profit organizations, on behalf of their communities, to help them to learn to generate and use local information on:

- the development of grade primary (the year before Grade 1) children;
- family and community factors that influence children's development;
- local programs and services for young children and their families; and
- local socio-economic characteristics.

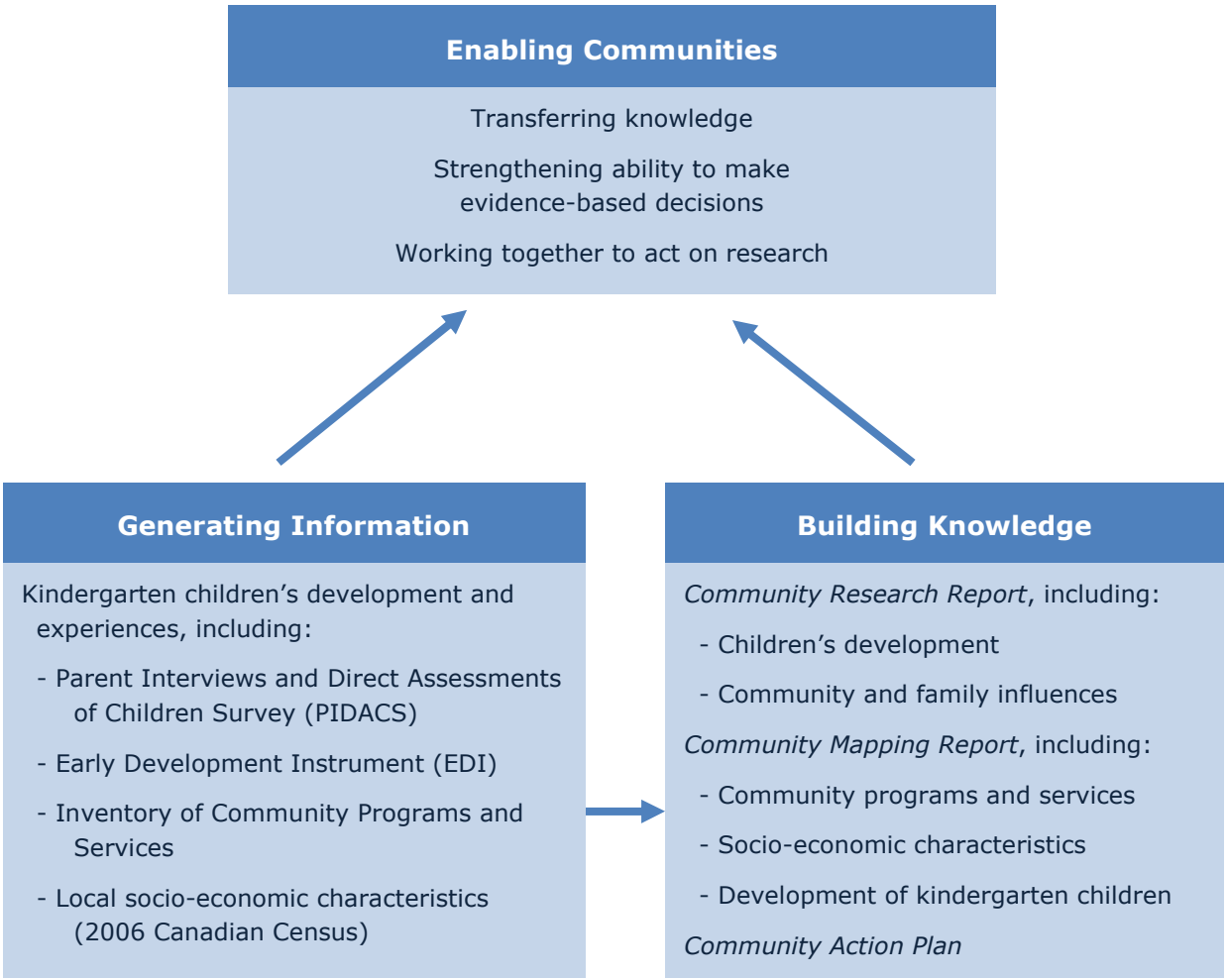
This information enables local UEY project staff, the UEY community coalition of organizations and individuals, and other community members to develop approaches to enhance the development of young children by building on the community's strengths and by addressing weaknesses in programs and services. Moreover, the information fosters partnerships among community groups and individuals, enabling them to make informed decisions on the best approaches for young children to thrive.

Each community project involves the participation of parents, teachers, schools, school boards, community organizations, and others interested in the well-being of children. UEY communities include children from diverse cultural, linguistic and economic backgrounds.

UEY was launched in 1999 as a research initiative to enhance knowledge of community factors that influence the early development of children. It began with a pilot initiative in North York, Ontario and included 12 community projects by 2002. In 2004, UEY became a national initiative. A further 21 community projects began their three years of UEY activities in 2005, another 15 projects began in 2007, and one First Nations project began in 2008. This report, *Understanding the Early Years: Cape Breton – Victoria, Nova Scotia*, presents results for one of the 15 community projects that started UEY in 2007. Please see Appendix A for a list of all the UEY communities.

Figure 1-1 illustrates key components of the UEY Initiative and how it works in participating communities.

FIGURE 1-1. Key Components of the UEY Design



C. HOW THE STUDY WAS CONDUCTED

This report for Cape Breton – Victoria is a key piece of the local research made available to the community through the UEY Initiative. It highlights findings from the information collected from parents and children using the *Parent Interviews and Direct Assessments of Children Survey*, and presents them in the context of the social and economic characteristics of the community. The total set of UEY information includes parents' and teachers' perspectives on the development of grade primary children, direct assessment results on grade primary children's cognitive abilities, parents' perspectives on family circumstances and children's experiences, local information on programs and services, and local socio-economic characteristics. Table 1-2 indicates the types of data and their sources for UEY Cape Breton – Victoria.

TABLE 1-2. Types of UEY Information and Data Sources

Type of Information	Data Source	Collected By
Development of grade primary children		
Parents' perspectives	Interview with parents using the *Parent Interviews and Direct Assessments of Children Survey*	R.A. Malatest & Associates Ltd., under contract to Human Resources and Skills Development Canada
Children's abilities	Three direct assessments of children's cognitive abilities using the *Parent Interviews and Direct Assessments of Children Survey*	R.A. Malatest & Associates Ltd., under contract to Human Resources and Skills Development Canada
Teachers' perspectives	Teacher-completed checklist, the Early Development Instrument	The Offord Centre for Child Studies at McMaster University, Hamilton, Ontario, under contract to UEY Cape Breton – Victoria.
Family circumstances and children's experiences at home and in the community	Interview with parents using the *Parent Interviews Direct Assessments of Children Survey*	R.A. Malatest & Associates Ltd., under contract to Human Resources and Skills Development Canada
Information on community programs and services	*Inventory of Community Programs and Services*	UEY Cape Breton – Victoria.
Local socio-economic characteristics	2001 and 2006 Canadian Censuses (and other available data)	Statistics Canada

The parent and child data in this report are from the *Parent Interviews and Direct Assessments of Children Survey* collected during the 2008-09 school year. The social and community contexts of the Cape Breton – Victoria community, presented in the Introduction, were provided by the local UEY project staff and developed from 2006 Canadian Census data.

Parent Interviews and Direct Assessments of Children Survey

The *Parent Interviews and Direct Assessments of Children Survey* (PIDACS) uses instruments designed for and adapted to five-year-olds in the National Longitudinal Survey of Children and Youth.[1] It has two complementary components: the PIDACS parent interviews and direct assessments of children's cognitive development. Together, they provide information on children's developmental outcomes in three domains: learning, social skills and behaviour, and physical health and well-being. Additional information is also collected on many of the important family, neighbourhood, and community factors that are known to influence these outcomes.

The PIDACS parent interview is conducted with the 'person most knowledgeable' (PMK) of the child, which is usually the mother or female guardian. In less than 10 per cent of the families surveyed, the PMK is the father or male guardian. The interview is conducted on the telephone or on the Internet; in-person interviews are conducted when the other options are not feasible. Parents are interviewed in the language of their choice when possible. The interview covers family, social and economic circumstances, children's activities at home, and involvement in the community, including child-care arrangements. The interview also includes questions on the child's behaviour and development, including positive social behaviour, anxiety, depression, physical aggression, and physical health and well-being.

The PIDACS direct assessments are conducted with the child by a trained assessor at the child's school. The assessments include measures of children's receptive vocabulary, copying and printing skills related to early literacy, and number knowledge. The instruments used to assess these skills are described in greater detail later in this report. The data from the PIDACS direct assessments can be used with the data from the PIDACS parent interviews to describe children's outcomes in three domains: learning, which includes general knowledge, language development and cognitive development; social skills and behaviour; and physical health and well-being.

The PIDACS target population in each UEY community was children who entered grade primary in autumn 2008. In most UEY communities, all the eligible children and their parents were invited to participate; in communities with more than 600 kindergarten children, including Care Breton – Victoria, a sample was drawn with the intention of representing the kindergarten population. The data collection occurred from late autumn 2008 to spring 2009. Thus, the vast majority of the children were five or six years old at the time of the data collection. In Cape Breton – Victoria, 594 parents or guardians were interviewed, and 601 children were administered the PIDACS direct assessments. The average age of this sample of children in Cape Breton – Victoria was 5 years, 10 months.

The PIDACS sample size for Cape Breton – Victoria is sufficiently large to provide accurate estimates of the mean scores for the measures of children's outcomes and for various aspects of family and community context. For example, on the measure of receptive

[1] The National Longitudinal Survey of Children and Youth is a comprehensive, longitudinal survey designed to measure and track the well-being and life experiences of Canada's children and youth as they grow up. It has been collecting data every two years since 1994. The Survey is conducted by Statistics Canada and sponsored by Human Resources and Skills Development Canada.

vocabulary, the average score in Cape Breton – Victoria was 100.6. The standard error of this estimate, which provides an indication of how accurately the estimate was measured, is 0.5. If one could repeat the study a number of times, the estimates of the mean would lie within a range of plus or minus two standard errors, or between 99.6 and 101.6, about 19 times out of 20. All comparisons were tested for statistical significance at this level of significance ($p < 0.05$).

Generally when an estimate of a *statistic*, such as the difference between the mean for the community and the national average, is statistically significant it is not necessarily of substantive importance. This is often the case when sample sizes are large. Therefore, the reader is urged to consider the results for estimates that are statistically significant in substantive terms; for example, ask whether the difference in the percentage of children is important relative to the community's goals. Conversely, when sample sizes are small, an estimate may not be statistically significant, even though the results appear to be substantively important. This occurs, for example, in some of the cross-tabulations in this report when the cell size for a sub-population, such as unemployed fathers, is small. In that case, the difference in grade primary children's outcomes between employed and unemployed fathers may appear large but is not statistically significant. In this case one cannot claim that the difference is important, as it may be simply attributable to sampling error.

The accuracy of the PIDACS data can be strengthened by weighting the data to make them representative of the entire population of grade primary children in Cape Breton – Victoria. Not all families participated in the study, and it is possible that the families that agreed to participate differ in systematic ways from those that did not participate. Therefore a sample design weight was constructed to compensate for potential biases that might have resulted from non-response. For example, if only 8% of low-income families participated, a sample weight would make the data reflect the 10.8% actual incidence of low-income in a community. This was achieved by comparing the distribution of a measure of socio-economic status (SES) (derived from family income, years of education, and types of occupations) for the completed interviews and direct assessments for Cape Breton – Victoria with the distribution of SES of the target population based on 2006 Canadian Census data. The design weights remove bias associated with SES by weighting the responses of families differentially, such that the weighted sample has the same SES distribution as the 2006 Canadian Census.

The PIDACS indicators developed for this study were carefully examined to ensure that they were valid and reliable measures of the concepts being assessed. Validity refers to whether an instrument is measuring what it is intended to measure. For example, the PIDACS assessment of receptive vocabulary uses the Peabody Picture Vocabulary Test – Revised (PPVT-R). A number of studies have shown that receptive vocabulary is a moderately strong predictor of early reading skills.[2]

[2] Scarborough, H. S. (1998). Early identification of children at risk for reading disabilities: Phonological awareness and some other promising predictors. In B. K. Shapiro, A. J. Capute, & B. Shapiro (Eds.), *Specific reading disability: A view of the spectrum* (pp. 77-121). Hillsdale, New Jersey: Erlbaum.
Schatschneider, C., Fletcher, J., Francis, D., Carlson, C., & Foorman, B. (2004). Kindergarten prediction of reading skills: A longitudinal comparative analysis. *Journal of Educational Psychology, 96*(2), 265-282.

Reliability refers to the consistency of a measurement process. For example, if a child were assessed using a particular measure, and then reassessed the next day following the same procedures, would the two scores be the same or similar? Reliability is closely related to validity, because acquiring evidence of the consistency of measurement requires that the various tasks or items observed are valid indicators of the underlying concept. The PIDACS instruments were carefully selected from those used in previous studies, including the UEY pilot studies and the National Longitudinal Survey of Children and Youth, to ensure that they are valid measures with high reliability.

The interpretation of each community's PIDACS results is strengthened by comparing the results to the Canadian PIDACS average. The Canadian average for each indicator was estimated with PIDACS data collected in the first 21 UEY communities in 2006-07 (a total sample of 8,834 children). The socio-economic composition of the full set of these 21 UEY communities (based on family income, years of education and types of occupations) is very similar to that of the Canadian population of families with young children, based on 2006 Canadian Census data. However, to strengthen the comparisons, a design weight was constructed to increase the accuracy of the PIDACS UEY-21 estimates as national norms.

In statistical analysis of survey data, weighting is often applied to make the sample more like the population under study. The weighting process to make the UEY-21 data representative of the Canadian population was achieved by linking the UEY-21 data to the 2006 Canadian Census data using geographic information, derived from the postal codes, that exists on both sets of data. The weights were constructed such that the weighted UEY-21 data have the same distribution of socio-economic characteristics as the full population of Canadian children. These design weights were then used in estimating the national averages of each PIDACS indicator. These approximated national averages are used for comparative purposes in this report, referred to as 'Canadian PIDACS average' or denoted as 'Canada (PIDACS)' in the tables and graphs.

The use of PIDACS to provide information to communities has a number of strengths, but it also has some limitations. The survey provides reliable and valid information on children's cognitive, behavioural and health outcomes, and a wide range of family, neighbourhood and community factors for each community. The results can be easily interpreted, and used in conjunction with the *Community Mapping Report* to develop the *Community Action Plan*.

However, PIDACS cannot measure in detail all aspects of children's outcomes, as the administration time for the three direct assessments was about 30 minutes, which is appropriate for children this age. The PIDACS parent interview is very extensive, but it too cannot cover all aspects of family and community life. Another limitation is that the sample size for each UEY community is not sufficiently large to accurately determine which family and community factors have the strongest relationship with the various developmental outcomes. An analysis of these relationships will be provided in an integrated report that uses data from communities funded in 2005 and 2007.

Finally, UEY is a descriptive study designed to provide a rich description of the family and community factors that affect childhood outcomes. Research aimed at understanding the causal relationships between these factors and childhood outcomes requires longitudinal studies that follow children over several years, such as the National Longitudinal Survey of

Children and Youth and Ontario's Better Beginnings Better Futures Program,[3] and studies that involve the random assignment of communities to treatment and control groups.

The PIDACS data collection was conducted by an independent contractor, R. A. Malatest & Associates Ltd., hired by Human Resources and Skills Development Canada. The collection was done in collaboration with participating parents, school boards, schools, and local UEY staff. The analysis of the data and the preparation of the reports were sub-contracted by R.A. Malatest & Associates Ltd. to KSI Research International Inc., which was responsible for analysing the data and writing community-specific research reports for each of the UEY communities. This report is one of these.

Another key piece of information for this community was collected from grade primary teachers, who provided their perceptions of children's development using the *Early Development Instrument (EDI)*. Teachers completed the checklist between February and March 2009. The EDI provides information at a group level for five domains of children's development: physical health and well-being; social competence; emotional health and maturity; language and cognitive development; and communication skills and general knowledge. The instrument was developed by the Offord Centre for Child Studies at McMaster University in Hamilton, Ontario.

The Cape Breton – Victoria UEY project contracted with the Offord Centre for Child Studies at McMaster University for their EDI data collection. The collection was carried out in collaboration with participating schools, school boards, and local UEY staff. Each UEY project will use the EDI results in their locally-produced mapping report and action plan; however, the EDI results are not included in this report.

[3] Peters, R. DeV., Arnold, R., Petrunka, K., Angus, D. E., Brophy, K., Burke, S. O., Cameron, G., Evers, S., Herry, Y., Levesque, D., Pancer, S. M., Roberts-Fiati, G., Towson, S., & Warren, W. K. (2000). *Developing Capacity and Competence in the Better Beginnings, Better Futures Communities: Short-Term Findings Report*. Kingston, Ontario: Better Beginnings, Better Futures Research Coordination Unit.

D. PORTRAIT OF THE GRADE PRIMARY CHILDREN'S FAMILIES

PIDACS includes a number of measures of the family backgrounds of the children in the study. Factors which have been found to be relevant to many children's outcomes in other studies include family income, the level of education of the parents, the employment status of the parents, and family structure. In addition, the survey also includes variables indicating immigrant status and Aboriginal background. These factors are discussed below, comparing the Cape Breton – Victoria results for family income, parents' employment, parents' level of education, and family structure to the Canada averages derived from the UEY-21 PIDACS data. Other demographic characteristics are compared to the national average derived from the 2006 Canadian Census.

Family Income

National research based on the National Longitudinal Survey of Children and Youth indicates that family income has an influence on children's developmental outcomes. The results for receptive vocabulary among 4- and 5-year-olds suggest that the relationship is curvilinear, with scores increasing steadily for families with annual incomes between $10,000 and $30,000; however, for annual incomes above $30,000, the relationship is relatively weak.[4] Results from the 2006 Canadian Census show that 15.1% of Canadian children were living in families with annual incomes below $30,000. Several US studies have examined the effects of living in low-income families, and have compared the effects on children when they are in their pre-school years versus when they are older.[5] The results suggest that the risk associated with living in a low-income family increases with the length of time a family is in poverty, and that generally the effect during the early years is more detrimental to children than during their primary or secondary school years.[6]

The median family income of the families in the Cape Breton – Victoria PIDACS sample was about $50,000, which was substantially below the Canadian PIDACS median of $73,800. (The average income for the PIDACS is not reported, as the sample means can be strongly influenced by outliers.) About 29% of the children surveyed were living in families with annual incomes below $30,000. The Canadian PIDACS average was 16%.

Family income is not the sole determinant of children's developmental outcomes, but children living in poor economic circumstances often face challenges in the behavioural and learning domains when they begin school.

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[4] Willms, J. D. (2002). Socioeconomic gradients for childhood vulnerability. In J. D. Willms (Ed.), *Vulnerable Children: Findings from Canada's National Longitudinal Survey of Children and Youth* (pp. 71-102). Edmonton, Alberta: The University of Alberta Press.

[5] Duncan, G. J., Brooks-Gunn, J., & Klebanov, P. K. (1994). Economic deprivation and early child development. *Child Development*, *65*, 296-318.

[6] McLeod, J. D. & Nonnemaker, J. M. (2000). Poverty and child emotional and behavioral problems: Racial/ethnic differences in processes and effects. *Journal of Health and Social Behavior*, *41*(2), 137-161.

Parents' Employment

National findings from the National Longitudinal Survey of Children and Youth showed that children's behavioural and health outcomes are unrelated to parental employment, after controlling for other family demographic factors, such as income and parental education. However, children's level of receptive vocabulary is related to mothers' employment; children whose mothers were unemployed were more likely to have low receptive vocabulary scores.[7] For mothers, there appears to be a trade-off: mothers who are not employed have more time to be engaged with their child, but they are also more likely to experience depression.[8] Later in this report, results describing levels of parental engagement and maternal depression are presented.

In Cape Breton – Victoria, 32% of the mothers surveyed were not employed. This was comparable to the Canadian PIDACS percentage of mothers of grade primary children (33%). Respondents also reported that 14% of the fathers of grade primary children in Cape Breton – Victoria were not employed, which was much higher than the Canadian PIDACS percentage (6%).

The implications of these findings can only be considered in the greater socio-economic context, the effects of which play out differently for every family.

Parents' Level of Education

Several studies have found a significant relationship between levels of parents' education and a wide range of developmental outcomes.[9] During the early years of a child's life, the level of the mother's education plays a more prominent role in children's language development than does that of the father, but the effects of the father's education become important for school achievement after the child starts school.[10]

About 7% of the mothers and 6% of the fathers surveyed reported that they had not completed secondary school. The Canadian PIDACS average for the mothers of kindergarten children not completing secondary school was 5%; for fathers it was 7%.

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[7] Brownell, M. & Willms, J. D. (2008). Early predictors of childhood outcomes at school entry. A paper in the HRSDC series, *Successful Transitions*. Ottawa: HRSDC.

[8] Dahinten, V. S. & Willms, J. D. (2002). Maternal depression and childhood vulnerability. In J. D. Willms (Ed.), *Vulnerable Children: Findings from Canada's National Longitudinal Survey of Children and Youth* (pp. 211-228). Edmonton, Alberta: The University of Alberta Press.

[9] Bradley, R. H. & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology*, *53*, 371-399.

[10] Willms, J. D. (2002). Socioeconomic gradients for childhood vulnerability. In J. D. Willms (Ed.), *Vulnerable Children: Findings from Canada's National Longitudinal Survey of Children and Youth* (pp. 71-102). Edmonton, Alberta: The University of Alberta Press.

Family Structure

According to results from parents' reports in PIDACS, about 15% of Canadian families with young children are headed by a single parent, usually the mother. Approximately 31% of the children in Cape Breton – Victoria PIDACS sample were living in single-parent families.

Single mothers tend to be at increased risk of various physical and mental health problems and are more likely to have low levels of education. Many single-parent families also experience prolonged periods of low income. Several large-scale studies have found negative effects on children's outcomes associated with growing up in a single-parent family, but these effects are largely attributable to low levels of income and education.[11] One of the problems often experienced by single parents, for example, is a lack of resources and transportation for their children to participate in sports and recreational programs.

About 17% of the children in the Cape Breton – Victoria sample did not have any brothers or sisters, while 49% had one sibling, and 34% had at least two siblings. The average number of siblings in the Cape Breton – Victoria PIDACS sample was 1.3, which was the same as the Canadian PIDACS average.

Other Demographic Characteristics

About 3% of the children in the PIDACS sample for Cape Breton – Victoria were of Aboriginal background. About 3.8% of Canadians were of Aboriginal background based on the 2006 Canadian Census.

Less than 1% of the children in the Cape Breton – Victoria PIDACS sample were immigrants, or born outside Canada. Results from the 2006 Canadian Census also indicate that less than 1% of the families in this community were recent immigrants who had immigrated between 2001 and 2006, while the national rate was 3.6%. Since the number of immigrant children in the sample was quite small, this factor is not considered further in this report.

In 99% of the families in the Cape Breton – Victoria PIDACS sample, English was the language that the mother and father learned at home during childhood. In the remaining 1% of the families, French was the childhood language of at least one parent, or the parents spoke a language other than English or French during their childhood.

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[11] Strohschein, L., Tramonte, L. & Willms, J. D. (2009). The effects of divorce and separation on children's developmental outcomes. Research monograph in the Successful Transitions series. Ottawa: Human Resources and Skills Development Canada.

II

HOW ARE CHILDREN DOING IN CAPE BRETON – VICTORIA?

II. HOW ARE CHILDREN DOING IN CAPE BRETON – VICTORIA?

A. DEVELOPMENTAL OUTCOMES IN EARLY CHILDHOOD

The research on child development has provided guidance on the developmental outcomes that are most important at various stages of development. Efforts to monitor early childhood outcomes have emphasized developmental outcomes in five domains: (1) physical well-being and motor development, (2) social and emotional development, (3) approaches to learning, (4) language development, and (5) cognition and general knowledge.[12] This framework is consistent with the priorities of UNICEF, which include healthy growth and development, less disease and fewer illnesses, thinking and language skills, emotional and social skills, and self esteem.[13]

Most young Canadian children are healthy, exhibiting low rates of infant and childhood mortality and morbidity.[14] Among pre-school children, asthma is a prominent health concern, which, along with other chronic health problems, contributes to respiratory illness. Allergies, chronic ear infections, and health problems stemming from injuries also affect many Canadian children. The prevalence of childhood obesity has increased dramatically in the past two decades and has recently been recognized as a major health problem in Canada for children during the pre-school years.[15, 16]

Aside from indicators of children's health status, the domain of physical well-being also includes children's gross and fine motor development. Gross motor development pertains to children's use of large muscle groups to walk, sit, stand and run. Fine motor development refers to the use of their hands to eat, draw, print, write and perform many other detailed activities. By age five, most children can balance on one foot, hop, and do somersaults, as well as copy shapes, draw a person, and print some letters. Children vary in their rate of development of fine and gross motor skills, but substantially poor development can indicate that a child may require medical attention or other special services.[17]

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[12] Willms, J. D. & Beswick, J. F. (2005). *Early Years Evaluation - Teacher Assessment: Revised*. Fredericton, New Brunswick: Canadian Research Institute for Social Policy.

Rhode Island Kids Count (2005). Getting Ready: Findings from the National School Readiness Indicators Initiative, A 17-State partnership. Available on-line: http://www.gettingready.org/matriarch/MultiPiecePage.asp_Q_PageID_E_318_A_PageName_E_NationalSchoolReadinessIndicat.

[13] UNICEF (2002). *UNICEF's priorities for children, 2002-2005*. New York: UNICEF.

[14] Canadian Institute of Child Health (2000). *The Health of Canada's Children: A CICH profile.* Ottawa: Canadian Institute of Child Health.

[15] Tremblay, M., & Willms, J. D. (2000). Secular trends in body mass index of Canadian children. *Canadian Medical Association Journal, 163*(11), 1429-1433.

[16] Canning, P. M., Courage, M. L., Frizzell, L. M. (2004). Prevalence of overweight and obesity in a provincial population of preschool children. *Canadian Medical Association Journal*, *171*(3), 240-242.

Willms, J. D. (2004). Early childhood obesity: A call for early surveillance and preventive measures. *Canadian Medical Association Journal*, *171*(3), 243-244.

[17] Shelov, S. P. (ed.) (2004). *Caring for Your Baby and Young Child: Birth to Age 5*. Elk Grove Village, IL: American Academy of Pediatrics.

The domain of outcomes that measure social and emotional development includes positive social skills, such as children's ability to get along with other children, accept responsibility for their actions, and work independently. During the pre-school years, some children are physically aggressive more often than other children their age, and when children enter school, hyperactivity and inattention emerge as important behavioural problems.[18] The term 'approaches to learning' pertains to children's engagement in learning, and comprises such factors as enthusiasm, curiosity, and persistence in completing tasks.

The rate at which children acquire language differs considerably among children, even among those from the same family. During the 1970s and 80s, researchers were concerned with whether variation in early literacy skills was attributable mainly to differences in children's innate capacity, or to differences in their exposure to speech and language. The evidence indicated that hereditary effects are relatively weak: only about 10 to 12% of the variation in children's vocabulary scores was explained by parents' vocabulary scores.[19] Recent research that has examined children's vocabulary growth during the pre-school years suggests that about 20% of the variation is attributable to the quantity of the mother's speech and the frequency with which mothers use particular words.[20] It is also related to children's exposure to language in the home and to the nature of their interactions with their parents.[21]

Cognitive development includes the abilities to reason, understand relational concepts, build concepts, and work with mathematical concepts. During the pre-school years, these abilities are closely tied to children's language development. Together, language and cognitive development are key predictors of the rate at which children acquire reading skills in grades 1 and 2.[22] This, in the longer term, has important implications for their progress at school.

The PIDACS includes a broad range of outcome measures. These include three direct assessments of children's language, cognitive development and pre-literacy skills, as well as parents' assessments of pro-social behaviour, behavioural problems, and several aspects of physical health. The measures used in PIDACS are described below in three sections, one each for the cognitive, behavioural and health domains. Each section also provides the results for Cape Breton – Victoria on each assessment.

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[18] Tremblay, R. E., Nagin, D. S., Séguin, J. R., Zoccolillo, M., Zelazo, P. D., Boivin, M., Pérusse, D., & Japel, C. (2004). Physical Aggression During Early Childhood: Trajectories and Predictors. *Pediatrics*, *114*, 1, 43-50.

Willms, J. D. (2002). Socioeconomic gradients for childhood vulnerability. In J. D. Willms (Ed.), *Vulnerable Children: Findings from Canada's National Longitudinal Survey of Children and Youth* (pp. 71-102). Edmonton, AB: The University of Alberta Press.

[19] Scarr, S., & Weinberg, R. A. (1978). The influence of "family background" on intellectual attainment. *American Sociological Review*, *43*, 674-692.

[20] Huttenlocher, J., Haight, W., Bryk, A., Seltzer, M., & Lyons, T. (1991). Early vocabulary growth: Relation to language input and gender. *Developmental Psychology*, *27*(2), 236-248.

[21] Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: P. H. Brookes.

[22] Scarborough, H. S. (1998). Early identification of children at risk for reading disabilities: Phonological awareness and some other promising predictors. In B. K. Shapiro, A. J. Capute, & B. Shapiro (Eds.), *Specific reading disability: A view of the spectrum* (pp. 77–121). Hillsdale, NJ: Erlbaum.

Schatschneider, C., Fletcher, J. M., Francis, D. J., Carlson, C. D., & Foorman, B. R. (2004). Kindergarten prediction of reading skills: A longitudinal comparative analysis. *Journal of Educational Psychology*, *96*(2), 265-282.

B. DEVELOPMENTAL SKILLS

The PIDACS includes three measures of children's developmental skills.

Receptive Vocabulary. Children's language development was assessed with the *Peabody Picture Vocabulary Test, Revised – PPVT-R*, which assesses the vocabulary that children understand when they hear spoken words. This is called receptive vocabulary. The assessor says a word, and the child is asked to point to one of four pictures on an easel plate that corresponds to the word. The PPVT-R was used with English-speaking children and the Échelle de vocabulaire en images Peabody (EVIP) was used with French-speaking children. The PPVT-R was developed by Lloyd and Leota Dunn at the University of Hawaii, while the EVIP was developed by Claudia M. Thériault-Whalen at St. Thomas University in Fredericton, New Brunswick. The scores were scaled to have a mean of 100 and a standard deviation of 15 for the Canadian PIDACS sample.

Number Knowledge. The *Number Knowledge* assessment gauged children's intuitive knowledge of numbers by assessing their understanding of quantity (more versus less), their ability to count objects, their understanding of number sequence, and their ability to do simple arithmetic. The assessment was developed by Dr. Robbie Case and his colleagues at the Ontario Institute for Studies in Education at the University of Toronto. It is administered orally and the child must respond verbally without using paper or a pencil to figure out answers. The scores on this assessment were also scaled to have a mean of 100 and a standard deviation of 15 for the Canadian PIDACS sample.

Pre-literacy skills. An assessment of children's pre-literacy skills was based on the *Who Am I?*, which was developed by Dr. Molly de Lemos and her colleagues at the Australian Council for Educational Research. It is an assessment that involves various copying and writing tasks; for example, it assesses children's ability to conceptualize and to reconstruct geometrical shapes and to use symbolic representations, as illustrated by their understanding and use of conventional symbols such as numbers, letters and words. Children are asked to copy five shapes (such as a circle or a diamond) and to write their names, numbers, letters, words, and a sentence. As with the PPVT-R and Number Knowledge, these scores were scaled to have a mean of 100 and a standard deviation of 15 for the Canadian PIDACS sample.

Children with very low scores on the direct assessments used in PIDACS are at risk of experiencing slow development in their reading skills as they proceed through the primary grades. The choice of a cut-off score to define this vulnerability is rather arbitrary. For the Peabody Picture Vocabulary Test, a score of 85 is often set as the low-score threshold. Children with scores below 85 on the PPVT are at risk of experiencing difficulties learning to read,[23] and in Canada about 20% of children are then at risk of not making the critical transition from learning-to-read to reading-to-learn around Grade 3 or 4. In this study the low-score threshold was set at 85, which is about one standard deviation below the mean, for all three PIDACS direct assessment measures.

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[23] Speece, D. L., Ritchey, K. D., Cooper, D. H., Roth, F. P., Schatschneider, C. (2004). Growth in early reading skills from kindergarten to third grade. *Contemporary Educational Psychology*, *29*, 312-332.

TABLE 2-1. Mean scores on the direct assessments of grade primary children

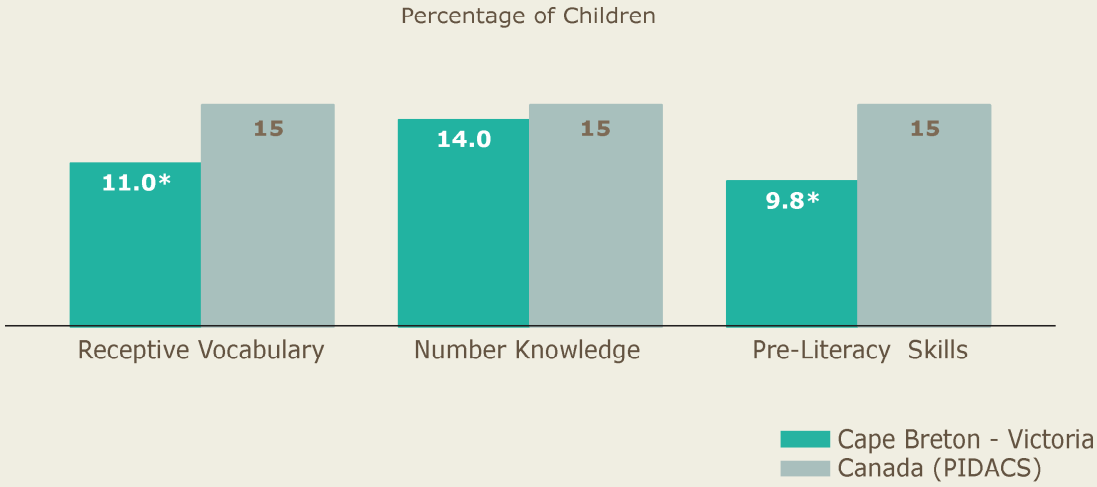
	Cape Breton – Victoria		Canadian Average (PIDACS)	
	Mean	**S.D.**	**Mean**	**S.D.**
Receptive Vocabulary	100.6	11.9	100.0	15.0
Number Knowledge	100.1	14.8	100.0	15.0
Pre-Literacy Skills	**105.3**	14.6	100.0	15.0

Note: Figures in bold text differ significantly from the Canadian PIDACS average.

Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton – Victoria).

Table 2-1 depicts the average scores on the direct assessments for the participating children. The children of Cape Breton – Victoria had an average score of 100.6 on the assessment of receptive vocabulary. This was comparable to the Canadian PIDACS average. (See discussion regarding the Canadian PIDACS average on page I-9). The average score on the assessment of number knowledge was 100.1, which was also comparable to the Canadian average. On the assessment of pre-literacy skills, the children of Cape Breton – Victoria had an average score of 105.3, which was above the Canadian PIDACS average.

FIGURE 2-1. Grade primary children with low scores on the direct assessments



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

Figure 2-1 shows the percentage of children in Cape Breton – Victoria with scores below 85 on the three direct assessments. About 11% of the children in this community had low scores on the assessment of receptive vocabulary. This prevalence of vulnerability was lower than that seen in the Canadian PIDACS population. About 14% of the children in Cape Breton – Victoria had low scores on the assessment of number knowledge, which was comparable to the percentage in the Canadian PIDACS population. In contrast, on the assessment of pre-literacy skills, about 10% scored below 85, which was lower than the percentage in the Canadian PIDACS population.

C. BEHAVIOURAL OUTCOMES

PIDACS Assessments of Behavioural Outcomes Based on Parent Interviews

In PIDACS interviews, parents provided their perceptions on how their grade primary child behaves at home and in the community. These yielded information on children's developmental outcomes that included a measure of positive social behaviour and four behavioural problems that are displayed by some children this age: inattention, anxiety, depression and physical aggression. Each scale is based on several questions; for example, the parent is asked how often his or her child cannot sit still or is restless, and answers with one of three possible responses: 'never'; 'sometimes'; or 'often'. The responses for each measure are assigned scores of 0, 1 or 2 for 'never'; 'sometimes'; or 'often', respectively, and averaged across the questions to create a scale ranging from 0 to 2. A child is considered to have a behavioural problem if he or she has a score that is *greater than* 1.0 on the relevant measure. On the measure of positive social behaviour, a child is considered to have 'low positive social behaviour' if he or she has a score that is *less than* or equal to 1.0.

Positive social behaviour. Children who exhibit higher levels of positive social behaviour are more likely to try to help and comfort others. They may offer to help pick up objects that another child has dropped or offer to help a child who is having trouble with a difficult task. They might also invite their peers to join in a game.

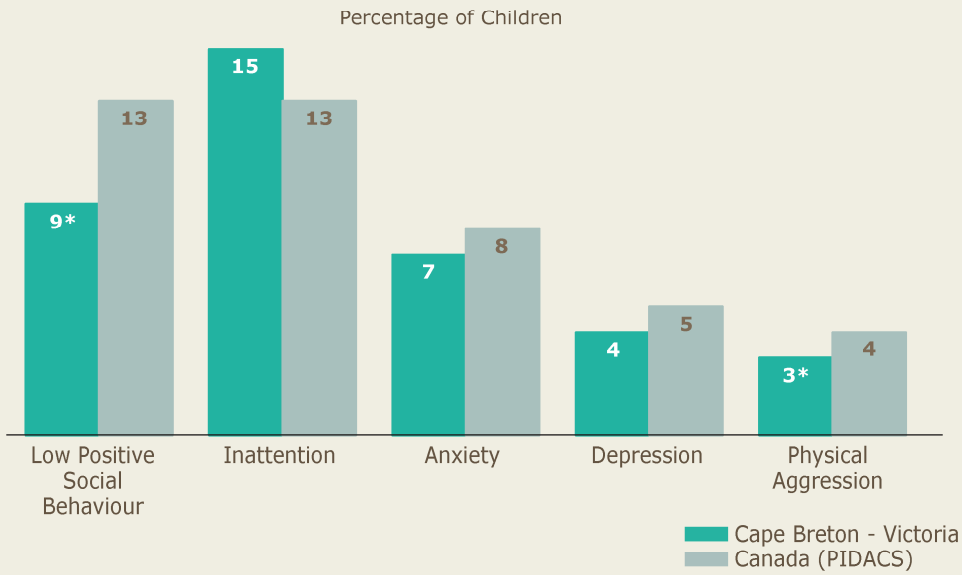
Inattention. Children who are inattentive tend to have trouble sitting still, are restless or easily distracted, have trouble sticking to any activity or concentrating for long periods, and may have difficulty waiting their turn in games or groups. Children who are considered 'hyperactive' often display these traits, but not all inattentive children are hyperactive.

Anxiety. Children with anxiety problems tend to be fearful, worried, or nervous and high-strung. Quite often they cry more than other children.

Depression. At this age, some children also display depressive symptoms, such as being unhappy or sad more often than other children, or having trouble enjoying activities.

Physical aggression. Children at age five can on occasion be hostile or aggressive towards others. However, some children are aggressive more often than others. For example, if another child accidentally hurts them, they assume that the other child meant to do it, and then react with anger and fighting. Some children at this age also physically attack others or threaten them, or they are cruel and bully other children.

FIGURE 2-2. Grade primary children with low positive social behaviour and behavioural problems



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

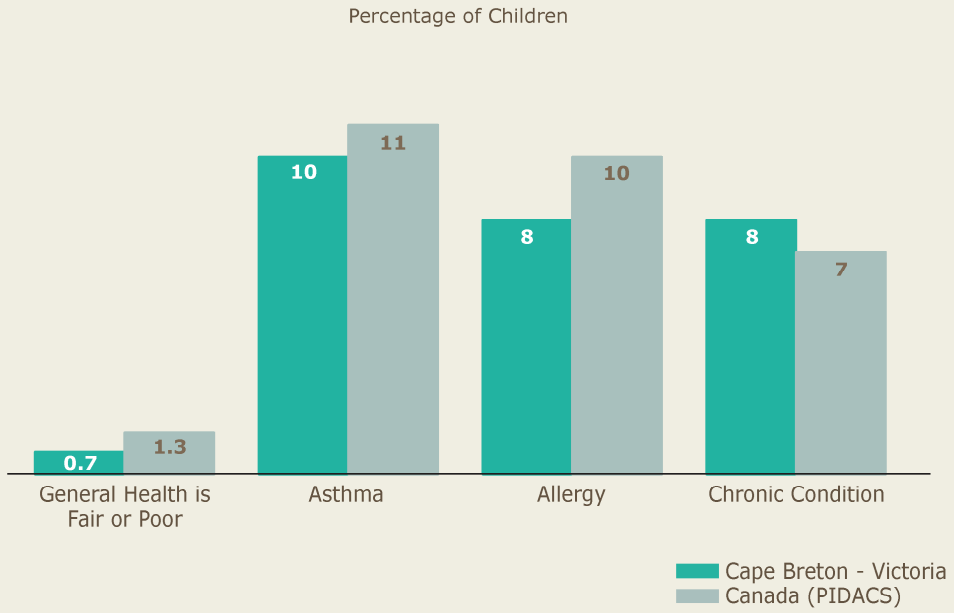
Figure 2-2 shows the proportion of children with low scores on the measures of positive social behaviour, and data for the four types of behavioural problems, based on the reports of parents in the PIDACS interview. In Cape Breton – Victoria, a smaller proportion of children displayed low positive social behaviour than was the case among their Canadian PIDACS counterparts (9% locally as opposed to 13% nationally). About 15% of the children in the community had problems with inattention, 7% displayed high levels of anxiety, 4% displayed depressive symptoms, and 3% were physically aggressive. The results for inattention, anxiety, and depression were not significantly different from the corresponding Canadian averages. However, the results for the measure of social behaviour and the prevalence of physical aggression were relatively low.

D. HEALTH OUTCOMES

PIDACS Assessments of Health Outcomes Based on Parent Interviews

During the PIDACS interview the parent provided information on the general health of his or her child, and indicated whether the child had any physical, mental or health problems that limited his or her child's activities. This included only health conditions or problems that had lasted or were expected to last for at least six months. The parent was also asked if the child had a respiratory problem, such as hay fever or asthma; any food, digestive or other allergies; or chronic conditions other than asthma or allergies, such as heart problems, epilepsy, cerebral palsy, or a kidney condition.

FIGURE 2-3. Grade primary children with health problems



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

Figure 2-3 shows that in Cape Breton – Victoria, less than 1.0% of the children were considered to be in fair or poor health by their parents. The proportions of children with asthma, allergies and other chronic health problems were 10%, 8% and 8%, respectively. With respect to the prevalence of poor general health and the incidence of the specific health problems, grade primary children in Cape Breton – Victoria did not differ significantly from the corresponding Canadian PIDACS averages.

E. INEQUALITIES IN OUTCOMES

Table 2-2 provides information on inequalities in outcomes between boys and girls and between sub-populations defined by the demographic factors described in the Introduction. For each group, it displays the prevalence of children with low scores on the three direct assessments of cognitive skills; with low scores on the measure of positive social behaviour; with the four types of behavioural problems; and with poor health outcomes. Differences between the sexes or sub-populations that are statistically significant ($p < 0.05$) are indicated with bold text. When cell size for a cross-tabulation is less than 10, the estimate is not shown.

In Cape Breton – Victoria, there were relatively few inequalities in children's outcomes among the sub-populations examined. Children whose mother or father was unemployed tended to have lower scores on the measure of number knowledge, but this difference was not significant for receptive vocabulary or pre-literacy skills. A higher percentage of boys than girls had low scores on the measure of pre-literacy skills, and boys were more likely to display inattention or poor social behaviour.

TABLE 2-2. Differences among Cape Breton – Victoria sub-populations in grade primary children's developmental outcomes (% children)

	Cognitive			Behavioural					Health			
	Low Receptive Vocabulary	Low Number Knowledge	Low Pre-literacy Skills	Low Positive Social Behaviour	Inattention	Anxiety	Depression	Physical Aggression	Poor General Health	Asthma	Allergies	Chronic Condition
All Children	11	14	10	9	15	7	4	3	0.7	10	8	8
Child's Sex												
Girls	11	13	**6**	**5**	**9**	6	3	1	1.2	8	6	7
Boys	11	15	**13**	**12**	**20**	8	5	4	0.3	11	9	8
Family Income												
Below $30,000/year	12	14	8	11	22	11	5	**6**	1.4	12	10	7
At or above $30,000/year	6	10	8	8	11	7	4	**2**	0.7	10	7	9
Mothers' Employment												
Not employed	11	**16**	12	10	**21**	9	5	4	0.6	9	8	10
Employed	7	**10**	7	8	**12**	7	3	2	0.8	10	8	7
Fathers' Employment												
Not employed	7	**22**	13	10	21	10	5	5	2.6	8	6	4
Employed	8	**10**	8	8	12	6	3	2	0.3	8	7	10
Mothers' Education												
Did not complete secondary	10	13	17	7	25	13	5	3	2.6	5	2	5
Completed secondary	8	12	7	9	13	7	4	3	0.6	10	9	8
Fathers' Education												
Did not complete secondary	0	9	16	9	26	10	0	9	0.0	6	0	15
Completed secondary	9	11	9	9	12	6	4	2	0.6	8	8	8
Family Structure												
Single-parent family	9	13	7	9	19	8	4	3	1.0	12	10	7
Two-parent family	8	12	9	9	13	7	4	2	0.6	8	7	9
Aboriginal Status												
Non-Aboriginal	7	11	8	9	14	7	4	2.6	1	10	8	8
Aboriginal	21	14	7	5	15	6	6	4.6	0	11	16	0

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.
Source: PIDACS, 2008-09 (Cape Breton – Victoria).

III

FAMILY AND COMMUNITY SUPPORT FOR EARLY CHILDHOOD DEVELOPMENT

III. FAMILY AND COMMUNITY SUPPORT FOR EARLY CHILDHOOD DEVELOPMENT

A. FAMILY LIFE

Earlier research based on the National Longitudinal Survey of Children and Youth identified four factors that were strongly related to children's developmental outcomes: parenting skills, the cohesiveness of the family unit, the mental health of the mother, and the extent to which parents engage with their children.[24] The PIDACS included measures of these four key aspects of family life. The measures used and the results pertaining to Cape Breton – Victoria are described below.

Family Functioning and Maternal Depression

The concept of family functioning refers mainly to the cohesiveness and adaptability of the family. It concerns how well the family functions as a unit, not just the strength of the relationships between spouses or between parents and their children. A number of studies have shown that family functioning is related to children's developmental outcomes, especially children's behaviour.[25]

In this study, family functioning is assessed with 12 items pertaining to a family's ability to communicate, to make decisions and solve problems as a group, to discuss feelings and concerns, to get along together, and to feel accepted for whom they are. The total scores on the scale range from 0 to 36, with higher scores indicating a more positively functioning family. A cut-off score of 24 was used to denote families that had poor family functioning. About 10% of the families in the 21 UEY communities assessed with PIDACS in 2006-07 (i.e., the Canadian PIDACS data) scored below 24 on this scale.

According to Health Canada, about 5% to 7% of mothers experience depression after the post-partum period.[26] Depression is often accompanied by insomnia, emotional problems, anxiety, and feelings of guilt. These in turn can have adverse effects on a mother's interactions with her child, leading to poorer social and cognitive developmental outcomes.[27] Depression among fathers may also have adverse effects, but the number of fathers studied in earlier research based on UEY and the National Longitudinal Survey of Children and Youth was insufficient to estimate its effects.

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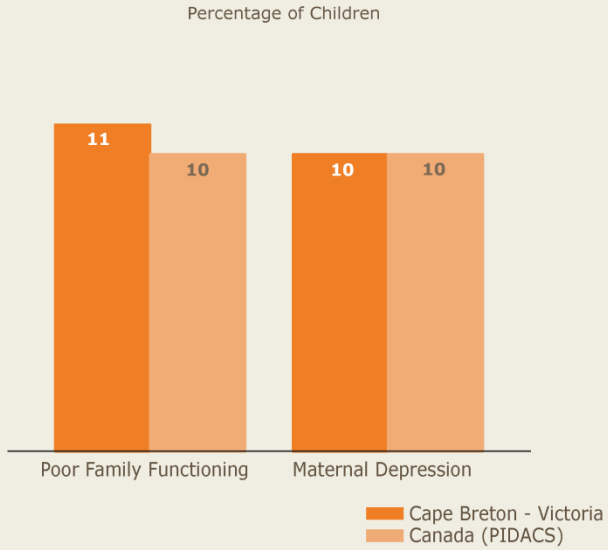
[24] Willms, J. D. (2002). Research findings bearing on Canadian Social Policy. In J. D. Willms, (Ed.), *Vulnerable Children: Findings from Canada's National Longitudinal Study of Children and Youth* (pp.331-58). Edmonton, AB: University of Alberta Press. (page 356)

[25] Racine, Y. & Boyle, M. H. (2002). Family functioning and children's behaviour problems. In J. D. Willms, (Ed.), *Vulnerable Children: Findings from Canada's National Longitudinal Study of Children and Youth* (pp. 199-210). Edmonton, AB: University of Alberta Press.

[26] Health Canada. (1999). Women's Health Strategy. Ottawa, ON: Bureau of Women's Health and Gender Analysis, Health Canada. Retrieved from the Health Canada Web site: www.hc-sc.gc.ca/english/women/womenstrat.htm

[27] Murray, L., & Cooper, P. (1997). Effects of postnatal depression on infant development. *Archives of Disease in Childhood, 72*(2), 99-101.

FIGURE 3-1. Percentage of families with poor family functioning and mothers with signs of depression in families with grade primary children



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

The PIDACS interview included 10 items pertaining to maternal depression. Respondents were presented with a set of statements describing certain feelings and behaviours and asked to indicate how often they had felt or behaved that way during the previous week, for example, "I felt that I could not shake off the blues, even with help from my family or friends", "I felt lonely", and "I had crying spells". On such statements respondents who were mothers or female guardians would have indicated that they felt this way: "Rarely or none of the time (less than 1 day)", "Some or a little of the time (1-2 days)", "Occasionally or a moderate amount of the time (3-4 days)", and "Most or all of the time (5-7 days)". These answers were scored and then scaled on a four-point scale, with 0 denoting "Rarely or none of the time" and 3 denoting "Most or all of the time". In this report, a low-score cut-off of 0.75 was used to identify mothers who were displaying strong signs of depression. Using this cut-off of 0.75, it was found that about 10% of mothers in the Canadian PIDACS displayed signs of depression. This prevalence was comparable to that seen in other studies, including the National Longitudinal Survey of Children and Youth.

Figure 3-1 shows the prevalence of families with poor family functioning and the prevalence of maternal depression. About 11% of the families in Cape Breton – Victoria had low scores on the measure of family functioning, while 10% of the mothers were displaying strong signs of depression. On both of these indicators, the results for Cape Breton – Victoria were comparable to the corresponding Canadian PIDACS averages. (See discussion regarding the Canadian PIDACS average on page I-9).

Table 3-1 depicts differences among sub-populations of Cape Breton – Victoria in the prevalence of families with poor family functioning and maternal depression. For most factors the differences were not statistically significant. Low-income families and families in which the mother was unemployed were more likely to have poor family functioning. Also, the prevalence of depression was higher amongst unemployed mothers.

TABLE 3-1. Differences among Cape Breton – Victoria sub-populations in maternal depression and poor family functioning in families with grade primary children (% children)

	Poor Family Functioning	Maternal Depression
All Children	11	10
Child's Sex		
Girls	12	12
Boys	11	8
Family Income		
Below $30,000/year	**18**	13
At or above $30,000/year	**10**	9
Mothers' Employment		
Not employed	**16**	**15**
Employed	**10**	**8**
Fathers' Employment		
Not employed	17	14
Employed	11	9
Mothers' Education		
Did not complete secondary	18	12
Completed secondary	11	9
Fathers' Education		
Did not complete secondary	21	17
Completed secondary	11	9
Family Structure		
Single-parent family	10	12
Two-parent family	12	9
Aboriginal Status		
Non-Aboriginal	11	9
Aboriginal	16	23

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

Source: PIDACS, 2008-09 (Cape Breton – Victoria).

Parenting Practices

A number of studies have shown that children have better developmental outcomes when parents are loving and responsive to their child's needs and socialize their child by making demands for mature behaviour and by supervising their child. In PIDACS, parents answered 14 questions that were used to develop scales for these two critical dimensions of parenting practices.

***Love and Support**:* This scale measures the extent to which parents are loving, responsive to the child's needs, and recognize the child's individuality. Parents who are loving and supportive tend to praise their children more, and are warm and expressive. Parents would score low on this measure if they tended to be harsh with their children, neglectful, or detached.

***Authority**:* This scale measures parents' efforts to socialize their child into the family and society by supervising the child, making demands for mature behaviour, and demanding compliance. Parents scoring high on this scale tend to set boundaries and expectations. They consistently reinforce behaviour that is 'in bounds', and when their child is 'out of bounds' they guide him or her towards appropriate behaviour. These parents would be intolerant of misbehaviour, but not over-controlling.

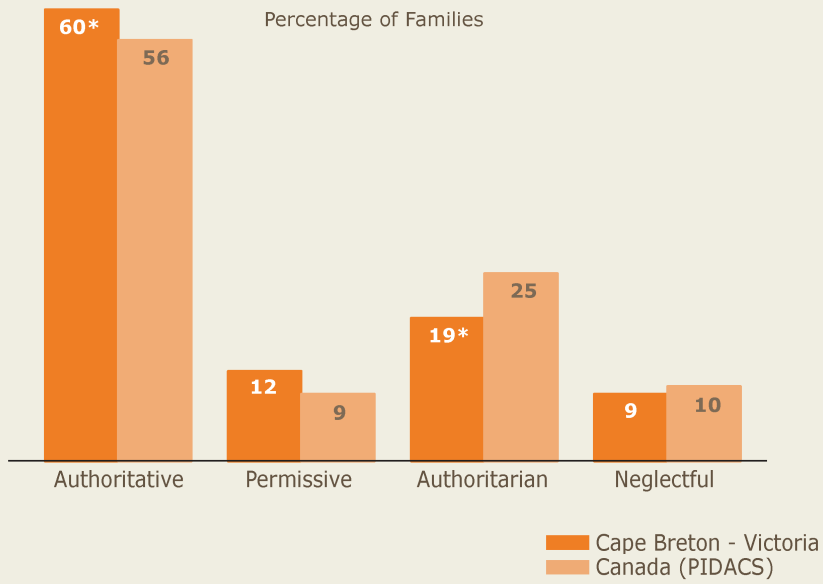
As illustrated in Table 3-2, these two constructs are commonly used in a typology of parenting styles, which classifies parents in terms of their responses to the needs of children for nurturance and supervision.[28]

TABLE 3-2. Typology of parenting styles as a function of "Love and Support" and "Authority"

		Love and Support	
		High	*Low*
Authority	*High*	**Authoritative**	**Authoritarian**
	Low	**Permissive**	**Neglectful**

[28] Baumrind, D. (1991). The influence of parenting style on adolescent competence and substance abuse. *Journal of Early Adolescence, 11*(1), 56-95.

FIGURE 3-2. Parenting styles of parents with grade primary children



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

Parents who score high on both dimensions of parenting are considered 'authoritative' parents. Several studies, including studies based on the National Longitudinal Survey of Children and Youth have shown that children of these parents have better developmental outcomes.[29] In contrast, parents who are loving and supportive but lack authority are considered 'permissive', while those who display authority but are less loving and supportive are considered 'authoritarian'. Parents who are less loving and responsive and do not adequately monitor their children's behaviour are referred to as 'neglectful'. Based on their scores on the measures of 'love and support' and 'authority', parents were classified as authoritative, permissive, authoritarian, or neglectful. With this classification, about 56% of Canadian parents (PIDACS 2006-07) were authoritative, 9% were permissive, 25% were authoritarian, and 10% were neglectful.

Figure 3-2 shows the percentage of families in each of the four categories for Cape Breton – Victoria compared with the national average. Sixty per cent of the families were classified as authoritative, which was above the Canadian PIDACS average. The prevalence of authoritarian families was lower than the Canadian average.

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[29] Chao, R. K. & Willms, J. D. (2002). The effects of parenting practices on children's outcomes. In J. D. Willms, (Ed.), *Vulnerable Children: Findings from Canada's National Longitudinal Study of Children and Youth* (pp. 149-165). Edmonton, AB: University of Alberta Press.

Other research, including research based on the National Longitudinal Survey of Children and Youth, has also shown that parental engagement with children in such activities as reading to them, playing games with them, or simply talking and laughing with them has positive effects on their development. In PIDACS, parents were asked a number of questions on engagement with their children. The best marker of engagement, in terms of its relationship to children's development, is the amount of time parents spend reading to their child. In contrast, time spent watching television or videos takes away from time spent doing constructive activities; excessive amounts can have a detrimental effect on children's outcomes.

In Cape Breton – Victoria, 76% of the parents read to their child at least once every day. This was comparable to the Canadian PIDACS average, which was 77%. On average, the grade primary children spent 1.9 hours per day watching television, which was higher than the Canadian average of 1.6 hours.

Table 3-3 depicts differences among sub-populations in Cape Breton – Victoria in the percentage of parents displaying an authoritative parenting style, the percentage reading to their child at least once a day, and the average time children spent watching television or videos. There were no significant differences among sub-populations in the percentages of parents displaying an authoritative parenting style or reading to their child. The time spent watching television was higher for children whose mothers had not completed secondary schools, and boys tended to watch slightly more television than girls.

TABLE 3-3. Differences among Cape Breton – Victoria sub-populations in parenting practices (authoritative style, reading to child, and child watching television or videos) in families with grade primary children

	Authoritative Style (% children)	Reads to Child at Least Once a Day (% children)	Child Watching Television or Videos (hours)
All Children	60	76	1.9
Child's Sex			
Girls	62	77	**1.8**
Boys	59	74	**2.0**
Family Income			
Below $30,000/year	58	73	1.9
At or above $30,000/year	59	78	1.9
Mothers' Employment			
Not employed	61	78	2.0
Employed	59	75	1.9
Fathers' Employment			
Not employed	66	67	2.1
Employed	59	77	1.9
Mothers' Education			
Did not complete secondary	60	70	**2.4**
Completed secondary	61	77	**1.9**
Fathers' Education			
Did not complete secondary	66	76	2.2
Completed secondary	60	76	1.9
Family Structure			
Single-parent family	59	74	1.9
Two-parent family	61	76	1.9
Aboriginal Status			
Non-Aboriginal	60	76	1.9
Aboriginal	58	68	2.2

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

Source: PIDACS, 2008-09 (Cape Breton – Victoria).

TABLE 3-4. Parents' engagement with their grade primary children and their children's literacy activities (% children)

	Cape Breton – Victoria	Canada (PIDACS)
Parent does the following activities with the child at least once every day		
Encourages him or her to use numbers in daily activities	74	71
Teaches him or her to read words	**77**	63
Tells stories	**54**	61
Takes him or her outside to play	**41**	47
Watches television with him or her	**59**	47
Teaches him or her to print letters or numbers	**61**	46
Sing songs (including action songs)	**50**	41
Plays cards or board games	8	9
Child does the following activities at least once every day		
Plays with pencils or markers doing real or pretend writing	**77**	72
Reads or tries to read	**82**	71
Looks at books, magazines, comics, etc. on his or her own	**73**	63
Does puzzles	**15**	10

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton – Victoria).

Table 3-4 shows the percentage of parents who were engaged with their child doing various activities at least once every day. For four of the eight activities – teaching the child to read words, watching television with the child, teaching the child to print letters or numbers, and singing songs with the child – the parents in Cape Breton – Victoria were more engaged than their Canadian PIDACS peers. They were less engaged, however, in telling stories or taking the child outside to play. On all four of the literacy-related activities, the children in Cape Breton – Victoria were more engaged than were their Canadian counterparts.

TABLE 3-5. Differences among Cape Breton – Victoria sub-populations in parents' engagement with their children and grade primary children's literacy activities (% children)

	Parents' Engagement with Child								Child's Activities			
	Encourages Use of Numbers	Teaches to Read Words	Tells Stories	Takes Outside to Play	Watches Television	Teaches Printing	Sings Songs	Plays Games	Does Real or Pretend Writing	Reads or tries to Read	Looks at Books, Etc.	Does Puzzles
All Children	74	77	54	41	59	61	50	8	77	82	73	15
Child's Sex												
Girls	75	78	55	**36**	63	64	**60**	7	**89**	**91**	**84**	16
Boys	73	75	52	**46**	56	58	**42**	9	**67**	**75**	**63**	14
Family Income												
Below $30,000/year	74	77	**40**	39	59	67	52	12	80	84	75	**21**
At or above $30,000/year	74	77	**57**	45	60	58	49	7	77	81	72	**13**
Mothers' Employment												
Not employed	73	76	57	42	61	**67**	54	**14**	**83**	84	76	17
Employed	74	77	52	40	58	**57**	49	**6**	**75**	81	71	14
Fathers' Employment												
Not employed	67	71	54	51	59	58	47	6	75	77	72	15
Employed	74	76	58	40	60	60	48	7	75	80	72	13
Mothers' Education												
Did not complete secondary	69	77	**33**	32	56	66	40	17	80	78	71	13
Completed secondary	75	77	**55**	42	59	61	51	8	78	83	73	15
Fathers' Education												
Did not complete secondary	75	91	66	35	65	59	50	9	68	80	81	26
Completed secondary	73	75	56	42	59	60	48	6	76	81	71	13
Family Structure												
Single-parent family	75	80	**45**	42	58	63	55	**13**	82	86	73	20
Two-parent family	73	76	**57**	41	59	60	47	**6**	75	81	72	14
Aboriginal Status												
Non-Aboriginal	74	77	53	41	58	61	50	8	78	83	73	**15**
Aboriginal	74	84	63	54	79	63	69	21	90	90	79	**33**

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

Source: PIDACS, 2008-09 (Cape Breton – Victoria).

Table 3-5 displays differences among sub-populations in Cape Breton – Victoria in the percentage of parents engaged in various activities with their child at least once every day, and the percentage of children that were engaged in literacy activities at least once every day. There were very few significant differences among sub-populations. The most noteworthy differences were associated with the child's sex. Parents were more likely to take boys outside to play, whereas they were more likely to sing songs with girls. Also, girls were more engaged than boys in literacy-related activities.

B. CHILDREN'S PARTICIPATION IN COMMUNITY ACTIVITIES

PIDACS included a number of questions regarding the nature of children's activities and the family and children's use of community resources. The neighbourhood and the wider community are the centre of most young children's lives outside the family home. They provide opportunities for children to play, meet friends, and interact with adults. Although research on the effects of community resources has been quite limited, access to resources undoubtedly plays an important role in children's development.[30]

An important example is the opportunity to engage in sports activities in the local neighbourhood. Research on Canadian youth has found that children's involvement in unorganized sports is an important protective factor against childhood obesity, more so than participation in organized sports involving a coach or instructor. The amount of time children spend watching television and videos is a risk factor for childhood obesity.[31] In this case, the Canadian average levels of participation in organized and unorganized sports activities are arguably not the best benchmarks; these levels of participation are considered too low by many researchers, such as those who compile the annual report card for Active Healthy Kids Canada. Similarly, researchers maintain that Canadian children spend too much time in front of a television or computer.[32]

Physical and Leisure Activity

Figure 3-3 shows the number of times per week that grade primary children in Cape Breton – Victoria were engaged in sports and other activities. On average, they were engaged in organized sports that involve a coach or instructor about 1.1 times per week, which was lower than the Canadian PIDACS average of 1.4 times per week. However, the children in Cape Breton – Victoria were more frequently engaged in unorganized sports: 4.9 times per week compared to the Canadian PIDACS average of 3.8 times per week. Unorganized sports do not involve a coach or instructor, and thus can include many types of activities that children engage in such as running, skipping, swimming or sports activities in their neighbourhood. Although the overall level of activity of the children in this community was above the Canadian PIDACS average, Canada's *Physical Activity Guide for Children* recommends that children gradually increase the amount of time spent in physical activity per day to 60 minutes of moderate physical activity and 30 minutes of vigorous activity.[33]

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[30] Connor, S. & Brink, S. (1999). *Understanding the Early Years – Community Impacts on Child Development.* Hull: Applied Research Branch, Strategic Policy. Human Resources and Skills Development Canada.

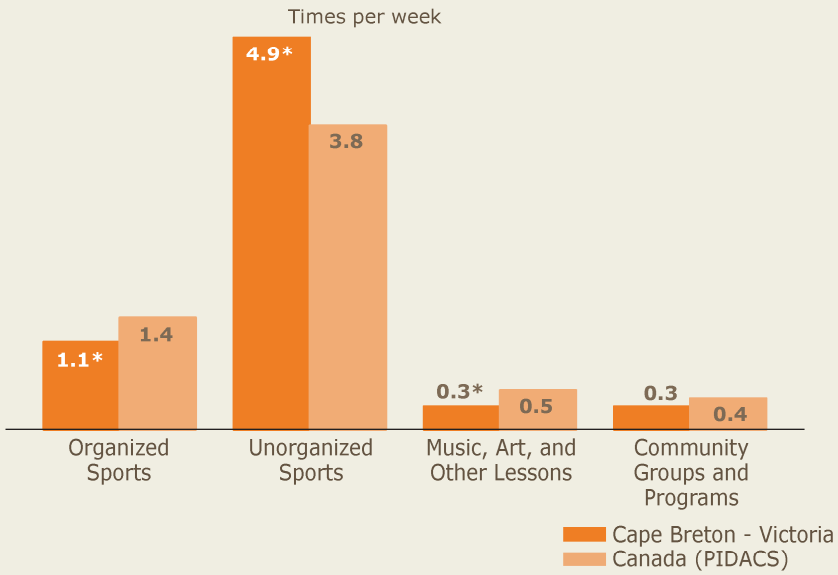
Hertzman, C. & Kohen, D. (2003). Neighbourhoods matter for child development. *Transitions, Autumn*, 3-5.

[31] Tremblay, M.S. and Willms, J.D. (2003). Is the Canadian childhood obesity epidemic related to physical inactivity? *International Journal of Obesity*, *27*(9), 1100-1105.

[32] Active Healthy Kids Canada (2007). *Older but not wiser: Canada's Future at Risk. Canada's Report Card on Physical Activity for Children and Youth – 2007*. Toronto: Active Healthy Kids Canada.

[33] Public Health Agency of Canada (2007). Canada's physical activity guides for children and youth. Online at: http://www.phac-aspc.gc.ca/pau-uap/paguide/child_youth/index.html.

FIGURE 3-3. Grade primary children's participation in sports and other activities



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

The participation rate of Cape Breton – Victoria children in art, music and other lessons was lower than the Canadian PIDACS average, while their participation in clubs, groups, and community programs, such as Beavers, Sparks, and church was comparable to the Canadian average.

Differences among sub-populations in participation in organized and unorganized sports are shown in Table 3-6. On average, grade primary children in low-income families and in families in which either the mother or father was unemployed or had not completed secondary school were less likely to participate in organized sports. Boys also tended to participate in organized sports more frequently than girls. These inequalities were not evident for children's participation in unorganized sports.

TABLE 3-6. Differences among Cape Breton – Victoria sub-populations in grade primary children's participation in sports (times per week)

	Organized Sports	Unorganized Sports
All Children	1.1	4.9
Child's Sex		
Girls	**1.0**	4.9
Boys	**1.2**	4.8
Family Income		
Below $30,000/year	**0.8**	5.0
At or above $30,000/year	**1.3**	5.0
Mothers' Employment		
Not employed	**0.8**	**5.2**
Employed	**1.3**	**4.8**
Fathers' Employment		
Not employed	**0.7**	4.8
Employed	**1.3**	4.9
Mothers' Education		
Did not complete secondary	**0.6**	5.2
Completed secondary	**1.2**	4.9
Fathers' Education		
Did not complete secondary	**0.5**	4.5
Completed secondary	**1.3**	4.9
Family Structure		
Single-parent family	1.0	5.1
Two-parent family	1.2	4.8
Aboriginal Status		
Non-Aboriginal	1.2	4.9
Aboriginal	1.4	5.4

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

Source: PIDACS, 2008-09 (Cape Breton – Victoria).

Use of Community Resources

PIDACS asked parents a number of questions about their child's use of educational, entertainment, cultural and recreational resources in their community. The results give an indication of how often during the previous 12 months children used the following resources:

Educational Resources

- library or bookmobile, including the school library;
- book clubs and reading programs;
- family resource centres or drop-in programs;
- educational or science centres;

Entertainment and Cultural Resources

- sporting events, at local or professional venues;
- movies;
- museums, art galleries, or exhibits;
- plays or musical performances;

Recreational Resources

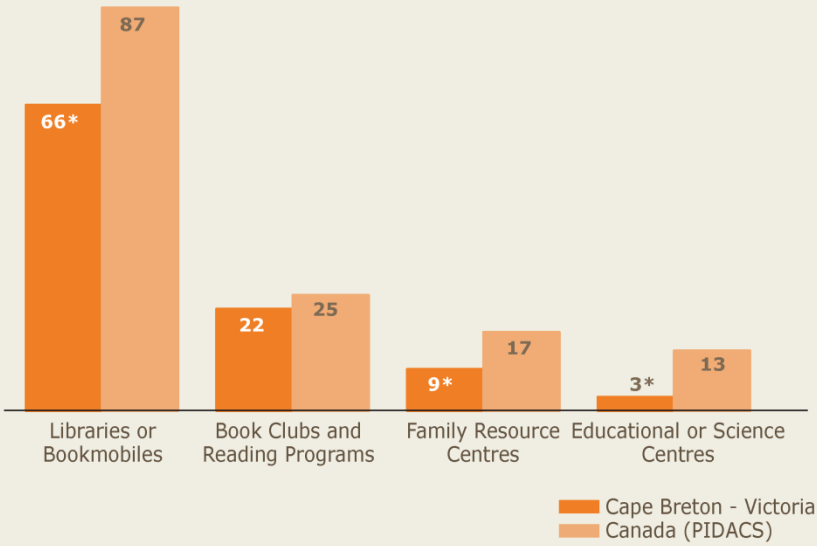
- parks, play spaces and recreational trails;
- beaches, indoor or outdoor pools, or wading pools;
- skating or hockey rinks or skiing facilities;
- recreational or community centres; and
- provincial or national parks and camping areas.

The availability of each type of educational, entertainment, cultural and recreational resource varies among communities, and, in some communities, the use of some resources was low because the resources were not readily available in the community.

Figures 3-4, 3-5 and 3-6 show the percentage of children in Cape Breton – Victoria that used these various kinds of resources.

FIGURE 3-4. Use of educational resources by grade primary children

Percentage of children attending at least once per month

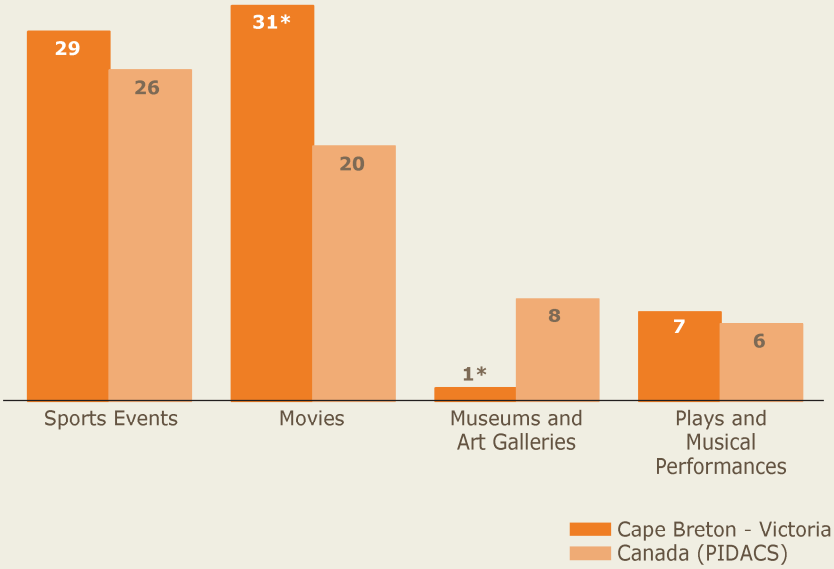


Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

About 66% of the grade primary children in Cape Breton – Victoria used libraries or bookmobiles at least once every month. This was considerably lower than the average participation rate of Canadian children in the PIDACS sample. However, participation rates in book clubs and reading programs were comparable to the Canadian PIDACS average. Only about 9% of the grade primary children in Cape Breton – Victoria used family resource centres, and 3% attended educational or science centres. These rates were both lower than the frequency at which Canadian children this age used these types of resources.

FIGURE 3-5. Use of entertainment and cultural resources by grade primary children

Percentage of children attending at least once per month

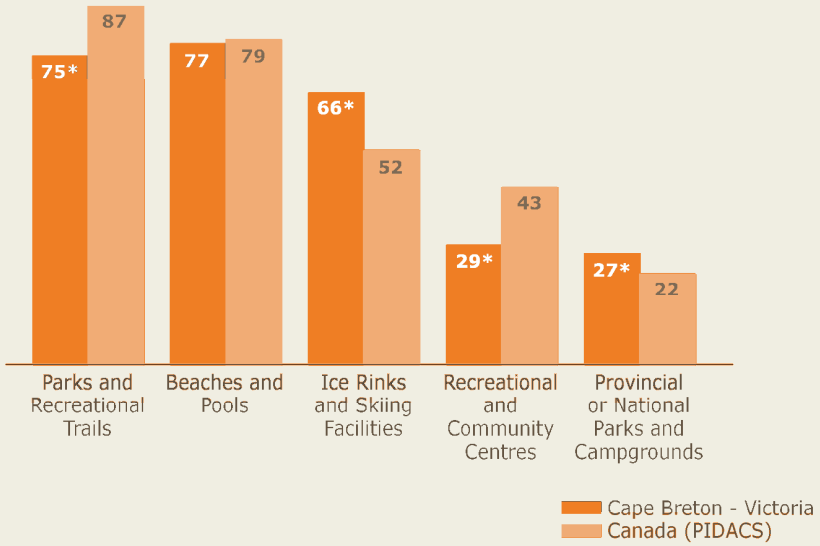


Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

Attendance at sporting events was a frequent activity for the grade primary children of Cape Breton – Victoria. Nearly 30% of the children participated in this activity at least once per month, which was comparable to the Canadian PIDACS average of 26%. Going to movies was also a popular activity, with about 31% of the children in Cape Breton – Victoria going at least once per month, a rate that was considerably higher than the Canadian average. Only 1% of the children visited museums and art galleries, a rate below the Canadian average, while 7% regularly attended plays and musical performances, a rate which was comparable to the Canadian PIDACS average.

FIGURE 3-6. Use of recreational resources by grade primary children

Percentage of children attending at least once per month



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

Seventy-five per cent of the children in Cape Breton – Victoria used parks, play spaces and trails at least once per month. This rate was high but below the Canadian PIDACS average. However, this was offset by their use of provincial and national parks and campgrounds, which was above the Canadian average. Children in Cape Breton – Victoria also made frequent use of beaches and swimming pools, and their use of ice rinks and skiing facilities was above the Canadian PIDACS average. Only 29% used recreational and community centres at least once per month, a rate that was below the Canadian average.

Table 3-7 displays differences among sub-populations of Cape Breton – Victoria in their use of community resources. The results showed that there were very few inequalities associated with the use of educational, entertainment, or cultural resources. However, low-income families and families in which the parents were unemployed or had not completed secondary school, were less likely to use recreational resources. These differences were most apparent in the use of ice rinks and skiing facilities.

TABLE 3-7. Differences among Cape Breton – Victoria sub-populations in grade primary children's use of community resources (% children)

	Educational				Entertainment and Cultural				Recreational				
	Library or bookmobile	Book clubs and reading programs	Family resource centres	Educational or science centres	Sports events	Movies	Museums and art galleries	Plays and musical performances	Parks and recreational trails	Beaches and pools	Ice rinks and skiing facilities	Recreational and community centres	Parks and campgrounds
All Children	66	22	9	3	29	31	1	7	75	77	66	29	27
Child's Sex													
Girls	69	24	8	4	27	35	1	9	72	79	68	**25**	**22**
Boys	64	21	11	1	30	27	2	5	78	75	65	**33**	**32**
Family Income													
Below $30,000/year	59	22	13	1	**20**	34	1	6	**71**	**69**	**58**	27	21
At or above $30,000/year	68	25	9	4	**35**	32	1	7	**80**	**80**	**71**	32	30
Mothers' Employment													
Not employed	70	22	12	3	**20**	27	2	5	77	**71**	**60**	24	26
Employed	65	22	9	3	**32**	32	1	8	75	**80**	**70**	31	28
Fathers' Employment													
Not employed	61	15	6	0	29	20	2	11	71	71	**57**	36	37
Employed	68	23	9	3	31	31	1	7	77	81	**74**	30	28
Mothers' Education													
Did not complete secondary	54	10	12	0	15	29	0	6	**53**	67	**47**	15	**13**
Completed secondary	68	24	9	3	30	31	1	7	**77**	78	**69**	31	**29**
Fathers' Education													
Did not complete secondary	77	4	9	0	24	21	4	13	75	**61**	55	17	21
Completed secondary	66	23	8	3	31	30	1	7	77	**80**	72	33	29
Family Structure													
Single-parent family	66	24	12	3	24	36	2	7	74	72	**60**	28	26
Two-parent family	67	22	8	3	31	29	1	7	77	79	**71**	30	29
Aboriginal Status													
Non-Aboriginal	66	22	9	3	29	31	1	7	75	77	67	29	28
Aboriginal	73	22	17	0	33	47	0	6	79	75	53	41	16

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

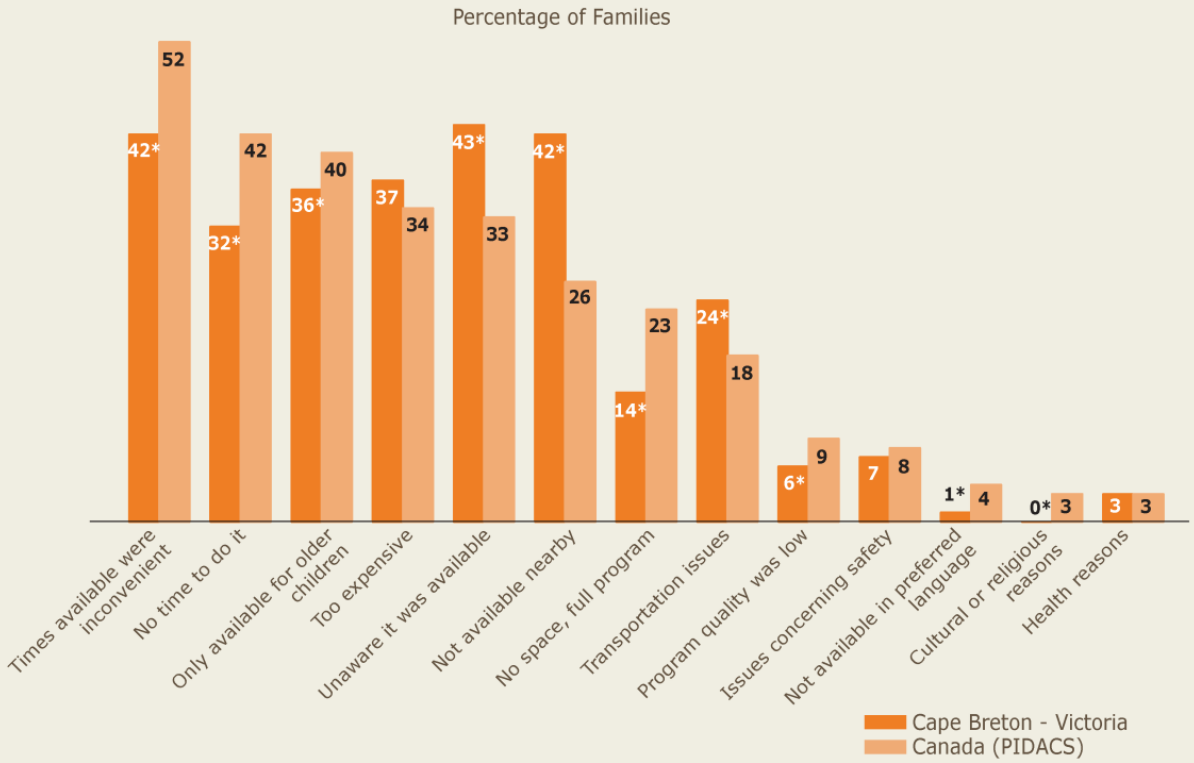
Source: PIDACS, 2008-09 (Cape Breton – Victoria).

Barriers to Family Use of Programs and Community Resources

The factors that facilitate or impede children's participation in community activities vary among communities. PIDACS included a set of questions on the factors that parents felt were barriers to their children's participation. For the full UEY-21 PIDACS sample, the barriers to participation, in order of the frequency indicated by parents' responses, were:

a. Programs were not available at convenient times.
b. There was not enough time.
c. Programs were available to older children only.
d. Programs were too costly.
e. Parents were unaware that the resource existed.
f. The programs of interest were not available in the community.
g. No space available in program (e.g., program full).
h. Getting to the program or service would have been difficult (e.g., no parking, no bus, no car).
i. Quality of the program provided.
j. Safety concerns.
k. Programs were not available in preferred language.
l. Cultural or religious reasons.
m. Health reasons.

FIGURE 3-7. Barriers to the use of programs and resources for grade primary children



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

Figure 3-7 shows the percentage of families in Cape Breton – Victoria that considered each issue to be a barrier to their use of programs and resources. The five most prominent barriers identified by the parents were that they were unaware the resource was available (43%), programs were not available nearby (42%), programs were not available at convenient times (42%), programs were too costly (37%), and programs were only available to older children (36%).

Table 3-8 displays differences in the perceived barriers to the use of programs and resources among sub-populations of Cape Breton – Victoria for the five most important barriers identified. Program cost was an important barrier for low-income and single-parent families, as well as families in which either the mother or father was unemployed or the father had not completed secondary school. Aboriginal families were more likely to indicate that programs were only available for older children.

TABLE 3-8. Differences among Cape Breton – Victoria sub-populations in the five most prominent barriers to grade primary children's use of community resources (% children)

	Unaware it was available	Not available nearby	Times available were inconvenient	Too expensive	Only available for older children
All Children	43	42	42	37	36
Child's Sex					
Girls	**48**	41	45	36	39
Boys	**39**	44	40	37	33
Family Income					
Below $30,000/year	45	44	**35**	**54**	39
At or above $30,000/year	45	45	**45**	**30**	36
Mothers' Employment					
Not employed	**50**	46	37	**49**	40
Employed	**41**	41	45	**32**	34
Fathers' Employment					
Not employed	50	53	41	**46**	**51**
Employed	41	42	46	**29**	**33**
Mothers' Education					
Did not complete secondary	43	45	**24**	50	33
Completed secondary	44	43	**43**	36	36
Fathers' Education					
Did not complete secondary	53	51	42	**57**	52
Completed secondary	42	43	45	**30**	35
Family Structure					
Single-parent family	45	43	37	**48**	39
Two-parent family	42	42	45	**32**	34
Aboriginal Status					
Non-Aboriginal	43	42	42	37	**35**
Aboriginal	48	57	58	36	**68**

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

Source: PIDACS, 2008-09 (Cape Breton – Victoria).

C. USE OF CHILD-CARE ARRANGEMENTS

High quality child-care programs can have strong and enduring effects on a wide range of early childhood outcomes,[34] and generally, the effects are stronger for children from low socio-economic backgrounds.[35] One must, however, stress the importance of 'high quality'. Programs are effective if they have developmentally-appropriate practices, a curriculum that emphasizes language development, a low child-to-teacher ratio, and programming that is embedded in local service delivery systems.[36] The quality of child-care programs tends to vary considerably in Canada, and therefore their effects also vary.[37]

In PIDACS, the parents were asked a series of questions on the types of care arrangements they used while they were working or studying. Parents were asked whether their child was cared for outside the home, and if so, how the care was provided and for how many hours per week. Table 3-9 summarizes the findings.

In Cape Breton – Victoria, 41% of the families cared for their children at home without any other type of arrangement. This was comparable to the Canadian PIDACS average of 42%. For another 37% of families, care was provided by a relative at home, or by a relative in someone else's home. For those who used an alternate arrangement, the most frequent types were care by a relative at home (19%) and care in someone else's home by a relative (18%). About 9% of the parents of grade primary children used day-care centres or before- and after-school programs. The Canadian PIDACS average was 19%.

The study also found that among those using a child-care arrangement, about 36% used two or more different types of arrangements. On average, children were cared for in child-care arrangements for about 18 hours per week.

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[34] Currie, J. (2001). Early childhood education programs. *Journal of Economic Perspectives*, *15*, 213–238.

Schweinhart, L. J. & Weikart, D. P. (1997). The High/Scope preschool curriculum comparison study through age 23. *Early Childhood Research Quarterly*, *12*(2), 117-43.

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TABLE 3-9. Use of child-care arrangements for grade primary children during out-of-school hours (% children)

	Cape Breton – Victoria	Canada (PIDACS)
Did not use a child-care arrangement	**41**	42
Used at least one type of care arrangement	**59**	58
Most frequently used type of care arrangement		
In own home by a relative (excluding siblings)	18	8
In own home by a sibling	1	1
Someone else's home by a relative	18	10
In own home by a non-relative	6	5
Someone else's home by a non-relative	6	15
Day-care centre	3	10
Before-school or after-school program	6	9
Other child-care arrangement	1	1
Among those using a care arrangement, use of multiple types of care arrangements		
One only	64	59
Two types	24	20
Three or more types	12	11
Total time using some form of care arrangement (hours per week)	17.5 hours	18.4 hours

Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton – Victoria).

TABLE 3-10. Differences among Cape Breton – Victoria sub-populations in the use of child-care arrangements for grade primary children (% children)

	Uses Child-Care Arrangement
All Children	59
Child's Sex	
Girls	58
Boys	61
Family Income	
Below $30,000/year	**47**
At or above $30,000/year	**66**
Mothers' Employment	
Not employed	**27**
Employed	**75**
Fathers' Employment	
Not employed	**37**
Employed	**64**
Mothers' Education	
Did not complete secondary	**20**
Completed secondary	**62**
Fathers' Education	
Did not complete secondary	**39**
Completed secondary	**62**
Family Structure	
Single-parent family	57
Two-parent family	60
Aboriginal Status	
Non-Aboriginal	60
Aboriginal	44

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.

Source: PIDACS, 2008-09 (Cape Breton – Victoria).

Table 3-10 displays differences among sub-populations of Cape Breton – Victoria in the use of child-care arrangements. The most important determinants of whether parents used a child-care arrangement were family income, whether the parents were employed, and whether the parents had completed secondary school.

D. NEIGHBOURHOOD CHARACTERISTICS

The quality of a neighbourhood and the local community can have positive effects on children's developmental outcomes in several ways. For example, the availability of local playgrounds and pools can directly affect children's physical development. When the neighbourhood is a safe place for children to play, it is easier for parents to be engaged with their children in positive ways. Social support plays an important role; if parents feel supported by their neighbours, friends and family, there tend to be lower levels of family stress and fewer parents experiencing depression.[38]

Three aspects of neighbourhood characteristics were assessed with PIDACS: neighbourhood quality, neighbourhood safety, and neighbourhood cohesion. PIDACS also included a measure of parents' social support. These measures and the results for Cape Breton – Victoria are described below and presented graphically in Figure 3-8.

Neighbourhood Quality. The PIDACS interviewer asked parents some general questions on the quality of their neighbourhood, such as whether the neighbourhood had lots of other families with children, good schools and nursery schools, adequate facilities for children, such as playgrounds and pools, good health facilities, actively-involved residents, and accessible public transportation. The responses were scaled on a ten-point scale, such that 5 was a neutral response. An average rating above 5 was considered to reflect a 'quality neighbourhood'. Only 51% of the parents in Cape Breton – Victoria considered their neighbourhood to be of high quality. This was considerably lower than the Canadian PIDACS average of 77%.

Neighbourhood Safety. The PIDACS parent interview included four questions on neighbourhood safety. Parents were asked whether it was safe to walk alone in their neighbourhood after dark; whether it was safe for children to play outside during the day; whether there were safe parks, playgrounds, and play spaces; and whether one could count on adults in the neighbourhood to watch out that children were safe. As with neighbourhood quality, ratings above 5 on the ten-point scale were interpreted as indicating 'safe neighbourhoods'. Ninety-two per cent of the parents in Cape Breton – Victoria considered their neighbourhoods to be safe, which was comparable to the Canadian PIDACS average of 90%.

Neighbourhood Cohesion. This PIDACS measure refers to whether neighbours were close and supported each other. In communities that scored high on this measure parents felt that neighbours helped each other, that when there was a problem the neighbours got together to deal with it, that there were adults in the neighbourhood that children could look up to, that parents watched out to make sure children were safe, and that when the family was away from home the neighbours kept their eyes open for possible trouble. Ratings above 5 on the ten-point scale for this measure were considered indicative of a 'cohesive neighbourhood'. In Cape Breton – Victoria, 92% of the parents considered their neighbourhoods to be cohesive, which was comparable to the Canadian PIDACS average of 91%.

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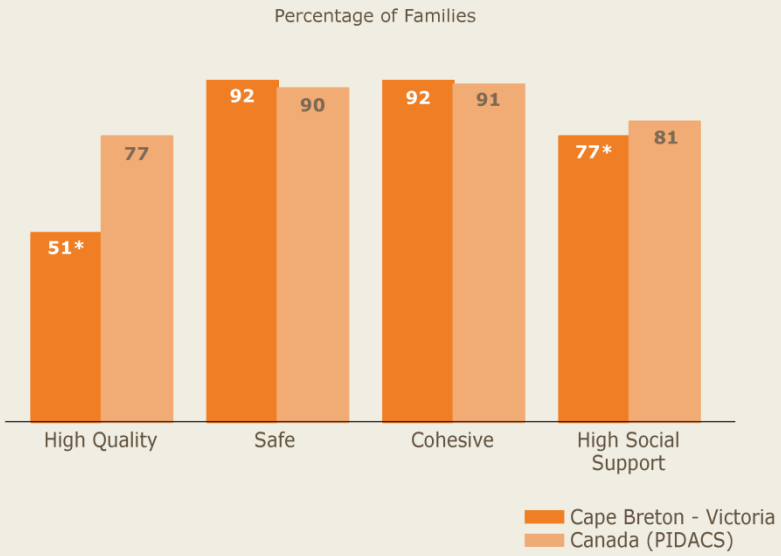
FIGURE 3-8. Assessments by parents of grade primary children of neighbourhood characteristics and social support



Note: Statistically significant differences are indicated with an asterisk.
Source: PIDACS, 2006-07 (Canada) and 2008-09 (Cape Breton - Victoria).

Social Support. This PIDACS measure assesses the level of support that the parent felt from friends and family members. In communities that scored high on this measure, parents felt that there were family members and friends who helped them feel safe, secure and happy, that there were people they could turn to for advice or to talk about problems, and that there were people who shared their interests and had similar attitudes and concerns. As the scores on this measure were negatively skewed, a higher cut-off point, 6.67 on the ten-point scale, was used to indicate a high level of social support. About 77% of the parents in Cape Breton – Victoria indicated that they felt high levels of social support, which was below the Canadian PIDACS average of 81%.

Table 3-11 displays differences among sub-populations of Cape Breton – Victoria in the percentage of families reporting high levels on the measures of neighbourhood characteristics and social support. The most important differences concern levels of social support. A high level of social support were less likely to be reported by low-income and single-parent families, families in which the father was unemployed, and families in which either the mother or father had not completed secondary school. A higher percentage of low-income and single-parent families also considered their neighbourhoods to lack social cohesion.

TABLE 3-11. Differences among Cape Breton – Victoria sub-populations in parents' assessments of neighbourhood characteristics and social support (% families)

	High Quality	Safe	Cohesive	High Social Support
All Children	51	92	92	77
Child's Sex				
Girls	55	91	94	78
Boys	48	92	91	75
Family Income				
Below $30,000/year	47	89	**88**	**69**
At or above $30,000/year	54	92	**95**	**79**
Mothers' Employment				
Not employed	48	89	89	72
Employed	52	93	94	78
Fathers' Employment				
Not employed	46	89	91	**65**
Employed	55	91	94	**82**
Mothers' Education				
Did not complete secondary	46	92	88	**53**
Completed secondary	52	92	93	**79**
Fathers' Education				
Did not complete secondary	**25**	81	91	**52**
Completed secondary	**55**	91	94	**82**
Family Structure				
Single-parent family	45	94	**88**	**71**
Two-parent family	53	91	**94**	**80**
Aboriginal Status				
Non-Aboriginal	50	91	93	76
Aboriginal	68	100	100	83

Note: Differences that are statistically significant ($p < 0.05$) are in bold text.
Source: PIDACS, 2008-09 (Cape Breton – Victoria).

IV

LOOKING FORWARD

IV. LOOKING FORWARD

A. WHAT MAKES CAPE BRETON – VICTORIA UNIQUE?

Community-based research is important as it can help a community and its members understand how well their youngest citizens are developing and how they might provide the best possible environment for them. In this study, children's cognitive skills, behaviour, and physical health and well-being were assessed during grade primary using two approaches: by direct assessments of children's development and by parent perceptions through the *Parent Interviews and Direct Assessments of Children Survey (PIDACS)*.

The first approach involved direct assessments of the children's language and cognitive skills. The children of Cape Breton – Victoria had scores on receptive vocabulary and number knowledge skills that were comparable to the Canadian PIDACS averages (See discussion regarding the Canadian PIDACS average on page I-9). However, they scored above average on an assessment of pre-literacy skills.

The second approach involved the children's parents, who assessed their children's behaviour and health outcomes as part of the PIDACS parent interview. Based on parents' responses, the proportions of children in Cape Breton – Victoria with inattention, anxiety or depression were comparable to the corresponding Canadian PIDACS averages. The prevalence of physical aggression was below the Canadian average. Nine per cent of the children in the sample had low scores on the measure of positive social behaviour, which was also lower than the Canadian average. On assessments of general health, asthma, allergies, and chronic conditions the proportions of children with significant health problems were comparable to the Canadian PIDACS averages.

The 2006 Canadian Census data indicated that the average level of family income in Cape Breton – Victoria was about $60,000, which was considerably below the Canadian average of about $82,000. The community's median income, at about $52,000, was also below the national median of about $66,000. Also, about 22% of the families had annual incomes below $30,000, which was considerably above the national average of 15.1%. The unemployment rate was also much higher than the Canadian rate.

Despite the economic challenges facing many families, levels of poor family functioning and maternal depression were comparable to the Canadian PIDACS averages. Moreover, 60% of the families had a positive parenting style, which was above the Canadian PIDACS average. Seventy-six per cent of the parents read to their child at least once every day. Television watching was relatively high, with children watching television on average about 1.9 hours per day. The children in this community tended to be actively engaged in unorganized sports, with an average rate of 4.9 times per week. Their use of most types of educational, entertainment, cultural and recreational resources was below the Canadian PIDACS average; the exceptions were attending movies and the use of ice rinks and skiing facilities.

The most prominent barriers to participation were that parents were unaware the resource was available (43%), programs were not available nearby (42%), programs were not available at convenient times (42%), programs were too costly (37%), and programs were only available to older children (36%). About 59% of the families in this community used some form of child-care arrangement while working or studying. The most frequently used type of care was care in the home by a relative. An especially noteworthy finding is that only 51% of parents considered their neighbourhoods to be of high quality, which is much lower than the Canadian PIDACS average of 77%.

B. CONCLUDING REMARKS

The UEY Initiative is providing communities with valuable information on their needs and strengths. UEY is helping communities with different economic, social and physical characteristics to understand how their young children are faring, what the community is doing to support those children, and which family and community factors may influence young children's development. This *Community Research Report* for Cape Breton – Victoria, Nova Scotia presents data on grade primary children's development and on family and community experiences from the *Parent Interviews and Direct Assessments of Children Survey.* The data were provided by parents and trained assessors reporting on the development of the children in their homes and at school.

Other local information available through the UEY project includes the results of grade primary teachers' assessments of children's development using the *Early Development Instrument*, information on availability and accessibility of programs and services, and results describing local socio-economic characteristics from the Canadian Census. Taken together, these data can be used to start conversations about the implications of the research and the needs of children in this community. The local UEY project staff will work with the UEY coalition of community organizations and individuals to create an evidence-based *Community Action Plan* to address the gaps in community supports for their young children. Through the development of the *Community Action Plan*, and through events and activities to share the research information with parents, service providers, educators and others, the UEY staff and coalition will engage this community to better understand the importance of the development of their young children and the approaches to enhance that development.

APPENDIX A: LIST OF PARTICIPATING COMMUNITIES

COMMUNITY	HOST ORGANIZATION
UEY Pilot Communities (5) Funded in 2000	
UEY PRINCE ALBERT	Saskatchewan Rivers School Division No. 119, Prince Albert, Saskatchewan
UEY WINNIPEG	Winnipeg School Division No.1, Winnipeg, Manitoba
UEY NORTH YORK	Adventure Place, North York, Ontario
UEY PRINCE EDWARD ISLAND	Early Child Development Association of PEI, Charlottetown, Prince Edward Island
UEY SOUTHWESTERN NEWFOUNDLAND	Community Education Network, Stephenville, Newfoundland
UEY Pilot Communities (7) Funded in 2001	
UEY ABBOTSFORD	United Way of the Fraser Valley, Abbotsford, British Columbia
UEY SASKATOON	Saskatoon Communities for Children, Saskatoon, Saskatchewan
UEY SOUTH EASTMAN	South Eastman Health/Santé Sud-Est Inc., Steinbach, Manitoba
UEY NIAGARA FALLS	Early Childhood Community Development Centre, St. Catharines, Ontario
UEY DIXIE-BLOOR OF MISSISSAUGA	Peel District School Board, Mississauga, Ontario
UEY MONTRÉAL	Centre 1, 2, 3 Go!, Montréal, Québec
UEY HAMPTON	Hampton Alliance for Lifelong Learning, Hampton, New Brunswick
UEY Communities (21) Funded in 2005	
UEY GREATER VICTORIA	Community Social Planning Council of Greater Victoria, Victoria, British Columbia
UEY MISSION	United Way of the Fraser Valley, Abbotsford, British Columbia

UEY OKANAGAN SIMILKAMEEN	School District No. 53 (Okanagan Similkameen), Oliver, British Columbia
UEY SUNSHINE COAST	Powell River Child, Youth and Family Services Society, Powell River, British Columbia
UEY CAMPBELL RIVER	Campbell River Child Care Society, Campbell River, British Columbia
UEY NORTH SHORE	North Shore Community Resources, North Vancouver, British Columbia
UEY NORTHEAST SASKATCHEWAN	Northeast Regional Intersectoral Committee, Melfort, Saskatchewan
UEY DIVISION SCOLAIRE FRANCO-MANITOBAINE	Division scolaire franco-manitobaine, Lorette, Manitoba
UEY NIAGARA REGION	Early Childhood Community Development Centre, St. Catharines, Ontario
UEY OTTAWA	Success by 6/6 ans et gagnant Ottawa, Ottawa, Ontario
UEY NORTHERN REGION OF ONTARIO	Superior Children's Centre, Wawa, Ontario
UEY KAWARTHA LAKES AND HALIBURTON COUNTY	Ontario Early Years Centre - Haliburton Victoria Brock, Lindsay, Ontario
UEY LOWER HAMILTON	Wesley Urban Ministries, Hamilton, Ontario
UEY MILTON	Reach Out Centre for Kids, Burlington, Ontario
UEY NORTHUMBERLAND COUNTY	Northumberland Child Development Centre, Port Hope, Ontario
UEY POINTE-DE-L'ÎLE	Centre 1, 2, 3 Go!, Pointe-de-l'Île, Montréal, Québec
UEY MONTRÉAL CHASSIDIC AND ORTHODOX COMMUNITY	YALDEI Developmental Centre, Montréal, Québec
UEY GREATER SAINT JOHN	Family Plus-Life Solutions Inc., Saint John, New Brunswick
UEY CUMBERLAND COUNTY	Cumberland Mental Health Services, Amherst, Nova Scotia
UEY HALIFAX WEST AND AREA	Sackville-Bedford Early Intervention Society, Lower Sackville, Nova Scotia
UEY WESTERN NOVA SCOTIA	Nova Scotia Community College (Kingstec Campus), Kentville, Nova Scotia

UEY Communities (16) Funded in 2007	
UEY BURNABY	Burnaby Family Life, Burnaby, British Columbia
UEY NEW WESTMINSTER	Lower Mainland Purpose Society, New Westminster, British Columbia
UEY WEST KOOTENAY	Kootenay Boundary Community Services Co-operative, Nelson, British Columbia
UEY NORTH PEACE - NORTHERN ROCKIES	North Peace Community Resources Society, Fort St. John, British Columbia
UEY KAMLOOPS	Interior Community Services, Kamloops, British Columbia
UEY COWICHAN VALLEY	Volunteer Cowichan, Duncan, British Columbia
UEY RED DEER	Family Services of Central Alberta, Red Deer, Alberta
UEY MOOSE JAW - SOUTH-CENTRAL SASKATCHEWAN	Prairie South School Division No. 210, Moose Jaw, Saskatchewan
UEY REGINA	Regina Qu'Appelle Health Region, Regina, Saskatchewan
UEY SOUTHEAST SASKATCHEWAN	Holy Family Roman Catholic School Division No. 140, Weyburn, Saskatchewan
UEY PRINCE ALBERT GRAND COUNCIL	Prince Albert Grand Council, Prince Albert, Saskatchewan
UEY SELKIRK-INTERLAKE	Lord Selkirk School Division, East Selkirk, Manitoba
UEY MALTON	Peel District School Board, Mississauga, Ontario
UEY GEORGINA	York Child Development and Family Services, Newmarket, Ontario
UEY PICTOU, ANTIGONISH AND GUYSBOROUGH	Kids First Association, New Glasgow, Nova Scotia
UEY CAPE BRETON – VICTORIA	Cape Breton Family Place Resource Centre, Sydney, Nova Scotia