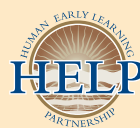


Our children's voices: The Middle Years Development Instrument

Measuring the developmental health and
well-being of children in middle childhood



Vancouver MDI
2010



a place of mind

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Partnership



a place of mind

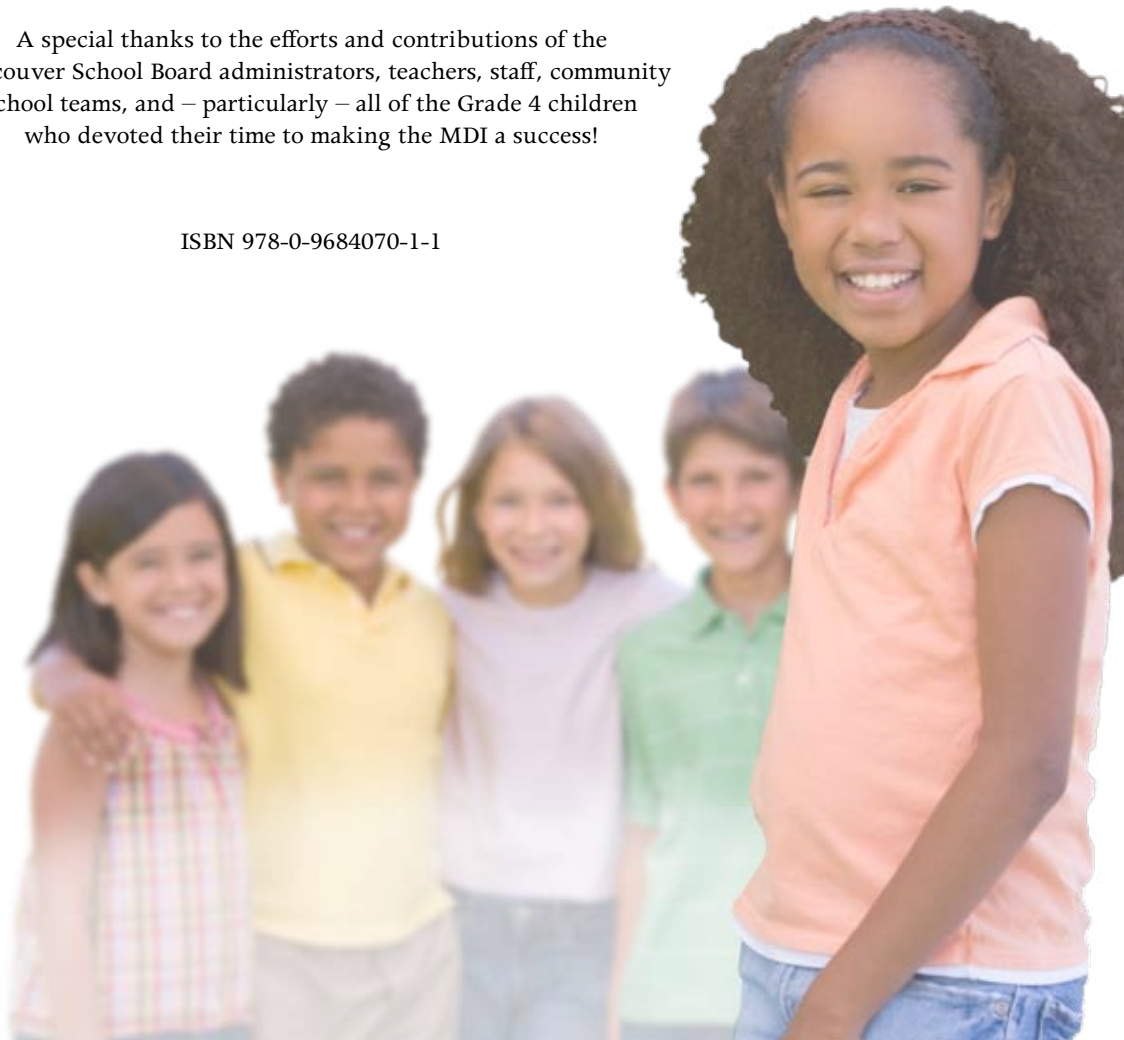
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Executive Summary

Middle childhood – the time between 6 to 12 years of age – marks a distinct period in early human development. Children experience important cognitive, social, and emotional changes that establish their identity and set the stage for development in adolescence and adulthood (Eccles, 1999).

When we look at this age group as a whole in Vancouver, or at a broader level throughout BC and Canada, we find there is no population-level information available on the developmental health and well-being of children in middle childhood.

The Middle Years Development Instrument

A new tool – the Middle Years Development Instrument (MDI) – has been designed to fill in this gap. The MDI was developed via a partnership among individuals at the Vancouver School Board, the United Way of the Lower Mainland, and the Human Early Learning Partnership (HELP) of the University of British Columbia (UBC) to collect population-level information on children. The MDI is a child self-report survey that gathers information from children on their social and emotional development, physical health and well-being, relationships and connectedness with parents, school and neighbourhood adults, and peers, school experiences, and how they spend their time during the after-school hours.

Vancouver Implementation of the MDI

The MDI was administered to 3,026 Grade 4 students (representing 80% of the public school Grade 4 student population in Vancouver) in January 2010, after four years of preparation, collaboration, pilot studies, and validation research.

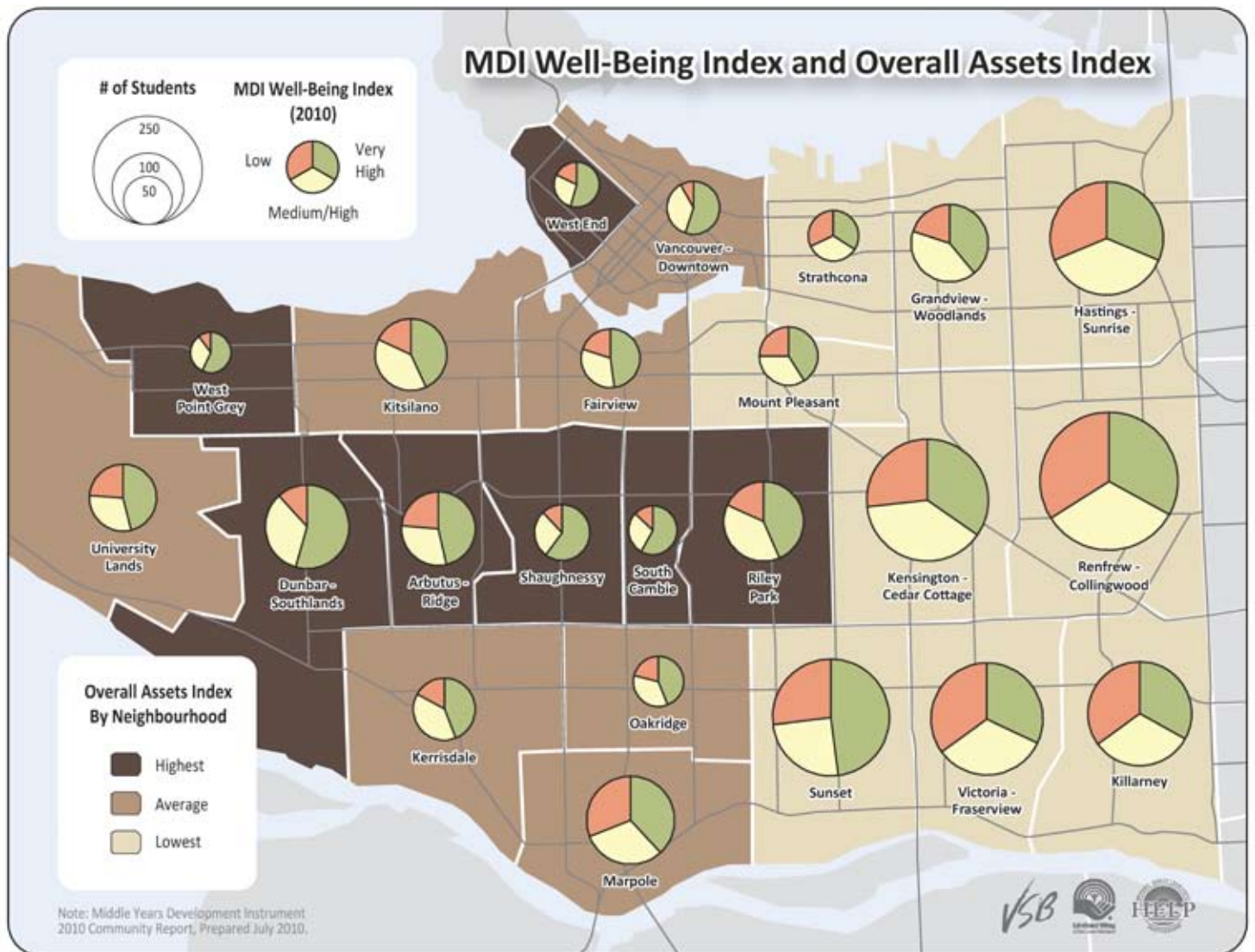


Key finding 1: Relationships, health habits, and activities at home, in school, and in communities matter

The majority of children in Grade 4 reported high levels of overall health and well-being, as measured by their own reports of self-esteem, optimism, overall health, happiness, and absence of sadness. However, one in four children (26%) reported low levels of overall health and well-being.

Children’s overall health and well-being is related to the presence of key assets in their lives (see Map 1):

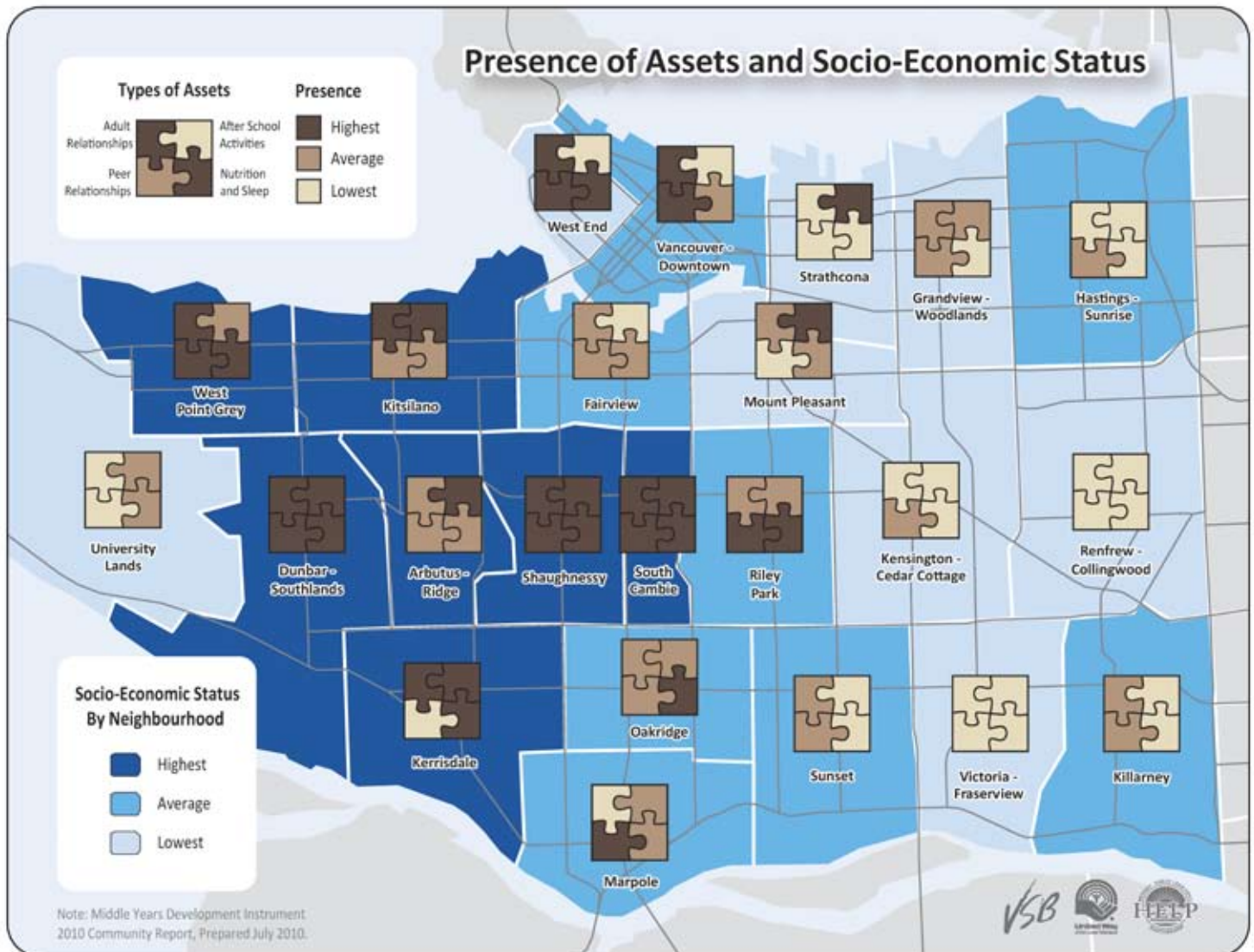
- Supportive relationships with adults at home, at school, and in the neighbourhood
- A sense of belonging and friendships with peers
- Good health habits (for example, regular breakfast, meals with family members, good sleeping habits)
- Participation in meaningful activities (for example, music, arts, sports, youth groups)
- Positive experiences at home, in school, and in the community (for example, a positive, supportive school climate).



Map 1: MDI Well-Being Index and Overall Assets Index

Key finding 2: Children’s well-being and their assets vary across neighbourhoods

We found considerable variation in the presence of assets and children’s overall health and well-being across the 23 Vancouver neighbourhoods. On average, children in neighbourhoods with higher socio-economic status reported a higher presence of assets that require financial resources as well as time resources (for instance, music lessons, participation in team sport) (see Map 2):



Map 2: Presence of four types of assets and neighbourhoods’ average socio-economic status

What is Middle Childhood and Why is It Important?

Middle childhood – the time between ages 6 to 12 – universally marks a distinct period in human development. Children undergo important cognitive, social, and emotional changes that establish their identity and set the stage for development in adolescence and adulthood (Eccles, 1999).

“When people think of dramatic changes in children over time, they typically think about the first two or three years of life. Although these years are marked by striking changes, the developmental and social changes that occur between 6 and 14 are dramatic as well.”

(Eccles, 1999; p. 30).

It is during this time that children master fundamental academic skills, such as reading, writing, and arithmetic. Children become more aware of themselves and of the world around them during middle childhood (Selman, 1980). This period has also been identified as a time in which children expand their social world beyond the family and move into ever widening social circles, such as peer groups, neighbourhood, and school environments (McHale, Crouter, & Tucker, 2001). What happens during middle childhood is critical for health, well-being, adjustment, and success in late childhood, adolescence, and early adulthood (Hertzman & Power, 2006). Middle childhood is a time of opportunity to optimize health and promote positive future development (Masten & Coatsworth, 1998).

The factors influencing positive development during this time are not well understood. Some of the most important changes and transitions in middle childhood occur in the following domains:

- **Brain development** – During the middle childhood years there are important improvements in prefrontal cortex functioning, an area in the brain responsible for planning, decision-making, emotional regulation, and abstract thought (Steinberg, 2005).
- **Environments in which children spend most of their time** – Increasingly, time is spent in social settings, such as schools, neighbourhoods, and the larger community during middle childhood. Children are presented with new challenges and expectations outside the family (Eccles, 1999; Masten & Coatsworth, 1998; Pianta, 2006).
- **Developmental tasks** – Children master academic tasks such as reading, writing, and arithmetic. They become more self-aware, reflective, and less egocentric. They begin to consider feelings and perspectives of others with improved social understanding (Selman, 1980).
- **Social relationships** – With more time being spent in social settings outside the family, a shifting social focus from the family towards the peer group occurs during middle childhood (Gavin & Furman, 1989). Being part of a peer group, having friends, and positive relationships with significant adults inside and outside the family (for example, teachers, adults in the neighbourhood, family friends) are key for positive social and emotional development and well-being during this time (Scales, Benson, & Mannes, 2006).
- **Involvement in meaningful activities** – Children have a natural determination to excel, be good at something, and to be socially engaged. Noted developmental psychologist, Erik Erikson (1968), described this phase in development as a time of “industry,” with specific attention being directed to developing a sense of competence in a variety of situations and activities, and learning how to cooperate with both peers and adults. Especially during middle childhood, when the peer group becomes increasingly significant, it is important for children to be involved in activities in which they can succeed and experience their own strengths and talents in a meaningful way (for example, participation in sports after school, playing an instrument, being part of a drama group).

In British Columbia in 2009–2010, there were approximately 580,000 students in the public school system. Almost 45,000 of these children were enrolled in Grade 4 (BC Ministry of Education, 2010). However, to date, little information has been available in BC or Canada documenting children’s experiences both in and out of school during the middle childhood years.

What are the psychological and social experiences of children in Canada during the middle childhood years? How do they feel about themselves, their families, their peers, their schools, and their neighbourhoods? How do they spend their time during the after-school hours? In what ways do their relationships with adults and peers in their expanding social worlds (home, school, community) matter?

The MDI: Measuring Child Development

The purpose, development, and implementation of the Middle Years Development Instrument

In 2007, Dr. Kimberly Schonert-Reichl, University of British Columbia, in partnership with United Way of the Lower Mainland, published a report entitled, "Middle Childhood Inside and Out: The Psychological and Social World of Children 9 - 12."

(The report can be downloaded at: <http://www.uwlm.ca/why-united-way/overview>.)

The study collected data (from teachers and the children themselves) on developmental health and well-being of children in middle childhood, with a specific focus on children ages 9 to 12 years.

The study generated a large amount of public interest, especially from educators, parents, and community service providers, in part because prior to this time period, there was little information on children's well-being on this age group in both British Columbia and across Canada. To date, there is still no systematic information at a population-level on the developmental health and well-being of children in middle childhood for Vancouver or for British Columbia. The Middle Years Development Instrument (MDI) has been designed to fill this void.

The Middle Years Development Instrument was developed through a partnership among individuals from the Vancouver School Board, the United Way of the Lower Mainland, and the Human Early Learning Partnership at the University of British Columbia. The MDI is a self-report survey completed by children in middle childhood. It is designed to collect population-level information on five domains pertaining to children's overall health and well-being:

- 1. Social and emotional development**
Empathy, optimism, happiness, prosocial behaviour, self-esteem, psychological well-being.
- 2. Connectedness**
Connectedness with adults at home, in school, and in the neighbourhood, peer belonging, friendship intimacy, awareness of community programs.
- 3. School experiences**
Academic self-concept, school supportiveness, school belonging, future goals, experiences with bullying.
- 4. Physical health and well-being**
Overall health, body image, nutrition habits, sleep.
- 5. Constructive use of after-school time**
Participation in organized and structured activities and programs, after-school time use, wishes and barriers for after-school activities.



Importance of the MDI

The MDI enables us to hear our children's voices on five critical aspects of their development and well-being for the first time in Canada.

The MDI gives children an opportunity to share their own thoughts, wishes, and needs as they move through middle childhood. Listening to children's voices is a fundamental step in the process of engaging them and providing children with positive learning experiences, both in and out of school, in enabling them to make responsible decisions and establish healthy habits, and in supporting them to accomplish their goals.

Children love thinking/talking/writing about themselves. Children love it when people are interested in them.

Grade 4 teacher

The information obtained from the MDI is designed to raise awareness about how our children are doing, and to help us create positive environments for children in schools and communities. It is hoped that MDI data, in combination with information from other sources, can be used by schools and communities to discuss, develop, plan, and implement practices, programs, and policies that engage and support children, their families, and their educators.

This report represents a collaborative effort to systematically collect and share information from children in middle childhood, link results of the MDI to existing research, and provide information on resources and tools that schools and communities can draw upon in their efforts to create environments in which all our children can thrive.

Data Collection

From 2006 to 2010, the MDI was developed and pilot tested in collaboration with teachers and parents to ensure its feasibility, scientific reliability and validity. The MDI was administered in January 2010 to 3,026 Grade 4 students in the public school system of Vancouver.

The participation of schools, teachers, and children was voluntary. The participation rate was extraordinarily high, thanks to the efforts of administrators, teachers, and parents and due to the broad support we have received for the administration of the MDI. Our final sample represents 80% of the public school Grade 4 student population in Vancouver. More than 90% of all children participated within surveyed classrooms.

I liked how it made the class focus on the world as it relates to them. Some of them probably don't often stop to think about the people in their life who want them to be happy and successful.

Grade 4 teacher

Why do we need another assessment or survey?

The MDI taps into areas that have great significance in children's lives but that are not typically evaluated in other assessments. Rather than evaluating how children perform academically, the MDI gives children a voice, an opportunity to communicate to adults in schools and communities about what their experiences are inside and outside of school. In this regard, the MDI has great potential to provide educators, parents, researchers, and policy makers with much needed information about the psychological and social worlds of

children during middle childhood. Such information can help schools, program planners, and community members find ways to create environments that help children thrive.

Good to have students to reflect about themselves, life, friends, school. Provided students with the reminder that if they do have problems they have resources and people available to help.

Grade 4 teacher

This is one of the first efforts to create a population-based measure of children's social and emotional development and well-being both inside and outside of school. The MDI provides a unique window into the lives of children during the middle childhood years by focusing on child development and the factors identified in the research as promoting resiliency and positive social, emotional, and physical health. The MDI extends evaluations in school that typically focus narrowly on academic achievement. The MDI thus takes a "whole child" approach – an approach that is gaining momentum with researchers and educators across North America.

Theoretical Frameworks for Development in Middle Childhood

The conceptual framework that informed the development of the MDI was derived from literature on social and emotional learning and development (Greenberg et al., 2003), positive psychology (Huebner, Gilman, & Furlong, 2009; Seligman & Csikszentmihalyi, 2000), resiliency and competence (Luthar, 2006; Masten & Coatsworth, 1998), and a strengths and asset-based approach to child development (Lerner, Fisher, & Weinberg, 2000; Theokas & Lerner, 2006).

The development of the MDI was informed by ecological theories on human development (Bronfenbrenner, 2005) and theories that emphasize the developmental primacy of social relationships (Ainsworth & Bowlby, 1991; Ryan & Deci, 2000; Thompson, 1999). These theories illustrate how social, biological, and cultural factors in different ecological contexts (for example, family, school and community) jointly influence children's development.

What the MDI is

- ✓ The MDI provides representative and reliable information on children's feelings, thoughts, assets, strengths, needs, and wishes during the middle childhood period.
- ✓ The MDI allows adults in families, schools, and, communities to examine whether their assumptions and expectations about their children's development and experiences are compatible with the children's own perceptions.
- ✓ The MDI can be a powerful tool for the mobilization and enhancement of initiatives that are sensitive to and build upon existing leadership, partnerships, resources, and strengths in the participating schools and communities.

What the MDI is NOT

- ✗ The MDI does not diagnose children with specific learning disabilities or areas of developmental delay.
- ✗ The MDI data cannot be used to prescribe specific practices or programs to teachers, parents, schools, or communities.
- ✗ The MDI does not assess the success or failure of children in the middle childhood period.
- ✗ The MDI does not identify individual children or teachers.
- ✗ The MDI does not compare classrooms or schools.

Vancouver MDI Findings

Key finding 1: Relationships, health habits, and activities at home, in school, and in communities matter

Most children in Grade 4 reported medium to very high levels of overall health and well-being (as measured by their self-reports on self-esteem, optimism, overall health, happiness, and absence of sadness). However, one in four children (26%) reported low levels of overall health and well-being (see Figure 1).

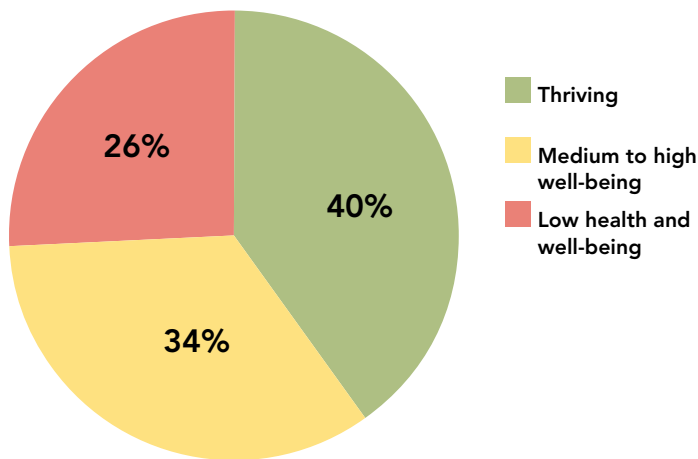


Figure 1: Proportion of Grade 4 students with low, medium to high, or very high overall health and well-being

Children’s overall health and well-being

Thriving (very high overall health and well-being): Children reported very high levels of self-esteem, optimism, overall health, happiness and low levels of sadness.

Medium to high overall health and well-being: Children reported medium to high levels of self-esteem, optimism, overall health, happiness and low levels of sadness.

Low overall health and well-being: Children reported a low level in one of the five indicators of well-being (self-esteem, optimism, overall health, happiness and sadness).

Key assets

Children’s overall health and well-being is related to the presence of key assets in their lives:

- Supportive relationships with adults at home, at school, and in the neighbourhood
- A sense of belonging and friendship with peers
- Good health habits (for example, regular breakfast, meals with family members, good sleeping habits)
- Participation in meaningful activities (for example, music, arts, sports, youth groups)
- Positive experiences at home, in school, and in the community (for example, a positive, supportive school climate)

Finding

Although most children reported having four or five of these assets in their lives, there was considerable variability across children in how many of the assets they reported: about one third (32%) of all children reported having five of these assets present, another third (32%) reported 4 assets, 1 in 5 children reported three assets (20%), 1 in 10 reported two assets (10%), and about every twentieth child reported only one or no asset (6%).

Why does this matter?

Children who reported having more assets in their life are more likely to be characterized as thriving. In fact children with four or five assets are three to four times as likely to reported medium to very high levels of well-being as compared to children who have only one or no asset (Figure 2).

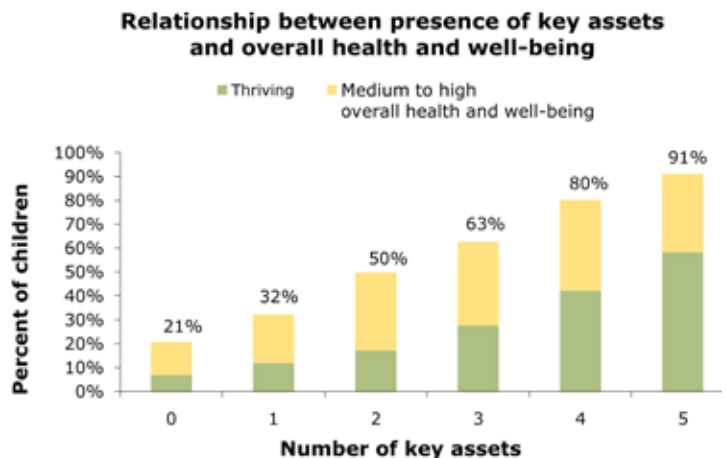


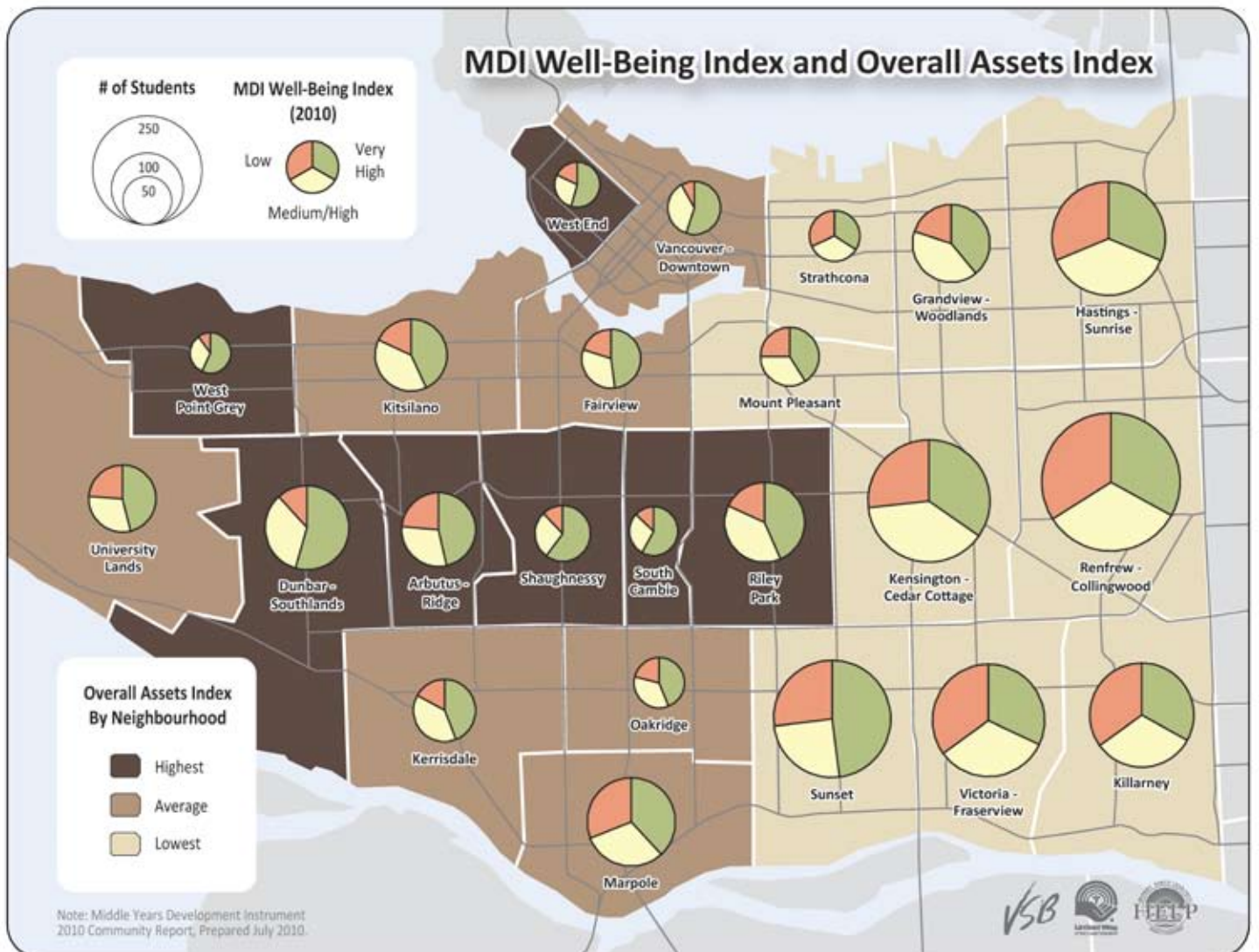
Figure 2: Relationship between presence of assets and medium to very high overall health and well-being

Key finding 2: Children’s well-being and their assets vary across neighbourhoods

We found considerable variation in the presence of assets and children’s overall health and well-being across neighbourhoods. On average, children in neighbourhoods with higher socio-economic status reported a higher presence of assets that require financial as well as time resources (for instance, music lessons, participation in team sport). In neighbourhoods where children reported the highest average presence of assets, almost all children are thriving (for example, South Cambie; West End), but in neighbourhoods in which children have on average fewer assets, just over half of the children are thriving (*see Map 1*).

Overall Assets Index

The Overall Assets Index indicates the average level - for all 4th graders living in that neighbourhood - of their supportive adult relationships, positive peer relationships, good health habits, and positive experiences and participation in activities. For the purposes of illustration, the average levels are divided into thirds, as indicated by the three brown background colours (dark-highest; medium-average; light-lowest).



Map 1: MDI Well-Being Index and Overall Assets Index

Finding

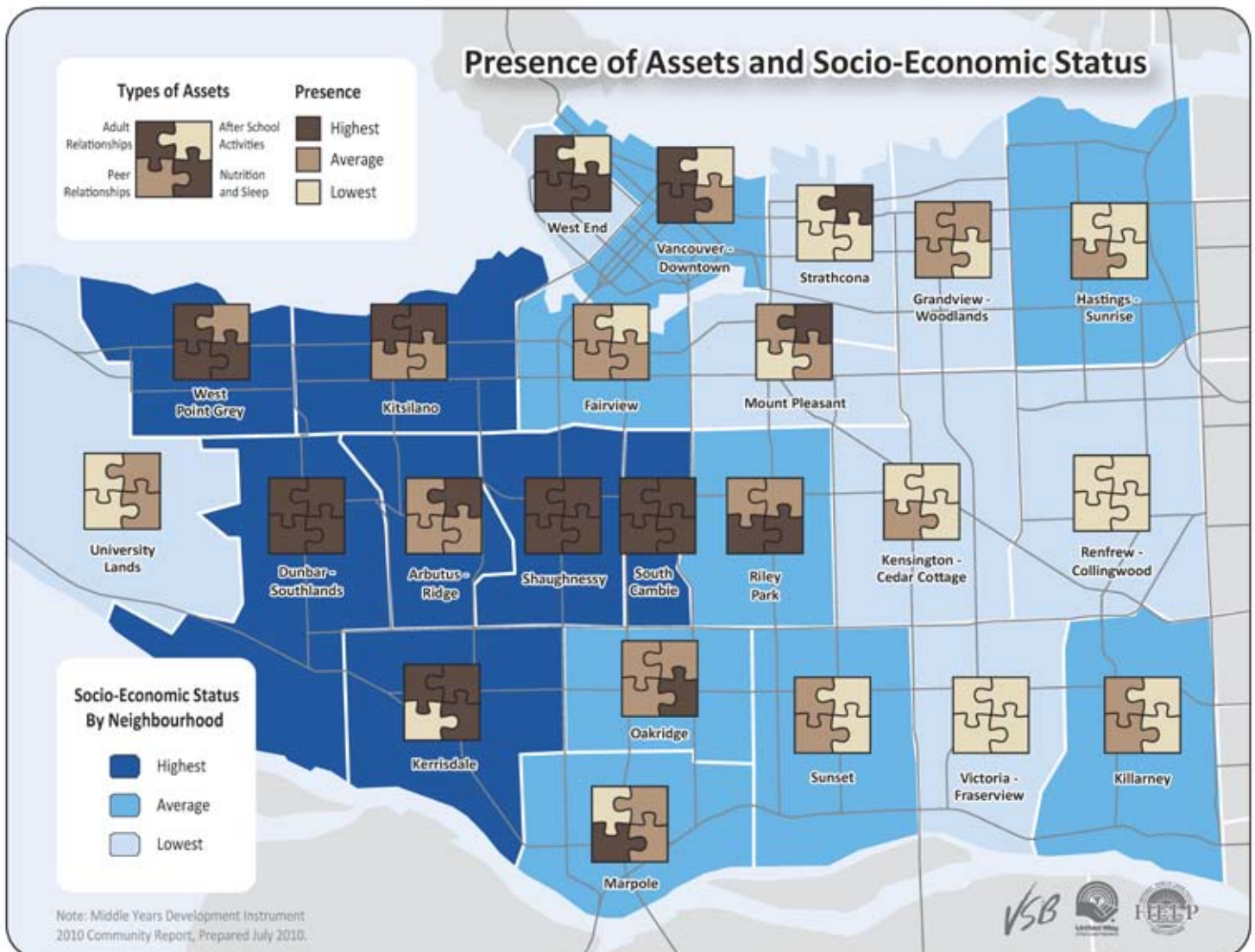
The average presence of assets at the neighbourhood level is associated with neighbourhoods' average socio-economic status (see Map 2). The blue background colours indicate the neighbourhoods' average socio-economic status (measured by a composite of income, education levels, employment rates, occupational status, and residential stability). The puzzle pieces indicate the average neighbourhood levels for four types of assets: supportive relationships with adults at home, at school, and in the

neighbourhood; positive relationships with peers; good health habits (nutrition and sleep); and participation in after-school activities (such as music lessons, or team sports).

(Please note that the asset 'positive experiences at home, in school, and in the community' is not included in this map.)

The association between assets and socio-economic status at the neighbourhood level does not mean that all assets are

directly influenced or even determined by socio-economic status. However, numerous assets – such as children's access to after-school activities; regular breakfast and meals with the family; relationships with neighbours – depend on time, financial resources, the availability of infrastructure, and access to information. For more information on socio-economic status measures see: www.earlylearning.ubc.ca/wp-uploads/web.help.ubc.ca/2010/03/SD39_Van_SES_T1T21.pdf



Map 2: Presence of four types of assets and neighbourhoods' average socio-economic status

Bioecological theory of human development

Urie Bronfenbrenner's bioecological theory of human development (1979; 2005) illustrates how a child's everyday activities and social relationships in the home, in school, and in the community jointly influence the child's development. For

children's optimal development, it is therefore critical that a child has key assets in each of these different contexts.

It is important to realize that the same experience or activity does not always have the same effect on children. This is because all children's development is affected by the unique combination of

their own personal characteristics, the social contexts in which they live, and the cultural background in which they have grown up. Therefore, when we try to support children in their optimal development and well-being, we need to consider all of these different factors, and try to understand how they interact.

Social relationships and child health and well-being

Children were asked on the MDI to tell us about their experiences of support from and connection with adults in their schools and neighbourhoods, with their parents or guardians at home, and with their peers.

Why does this matter?

Belonging is a fundamental need for people of all ages (Ryan & Deci, 2000). Feeling well-connected is one of the most important assets for a child's well-being. Children need adults who care about them, believe in them, and listen to them. They also need to feel that they belong in school and that they have friends they can count on.

Children who do not feel connected are more likely to drop out of school and to suffer from mental health problems. Friendships and peer support are also critical for motivation and can affect a child's academic and life success. Children's connections to their parents also continue to play a central role in development (Masten & Coatsworth, 1998). A single caring adult – which could be a family member, a teacher in the school, or a neighbour – can make a powerful difference in a child's life (Darling, Hamilton, & Hames, 2003; Masten & Motti-Stefanidi, 2009; Scales, Benson, & Mannes, 2006).

The Importance of Relationships and Connectedness – Attachment theory

Attachment, support, and nurturance within the family are the primary forces that promote positive development in early childhood (Bowlby, 1988). In middle childhood, out-of-family relationships – in particular with peers, teachers, and adults in the community – become increasingly important and form a new significant source for developing the foundations of positive social and emotional growth (Pianta, 2006). Through safe and nurturing relationships, children learn the foundations of social and emotional competence, they learn to trust, and come to develop a sense of self-worth, a critical aspect of social and emotional health.

“Stated simply, relationships are the ‘active ingredient’ of the environment’s influence on healthy human development. They incorporate the qualities that best promote competence and well-being – individualized responsiveness, mutual action-and-interaction, and an emotional connection to another human being, be it a parent, peer, grandparent, aunt, uncle, neighbour, teacher, coach, or any other person who has an important impact on the child’s early development.” (National Scientific Council on the Developing Child, 2004).”

Supportive relationships with adults

Finding

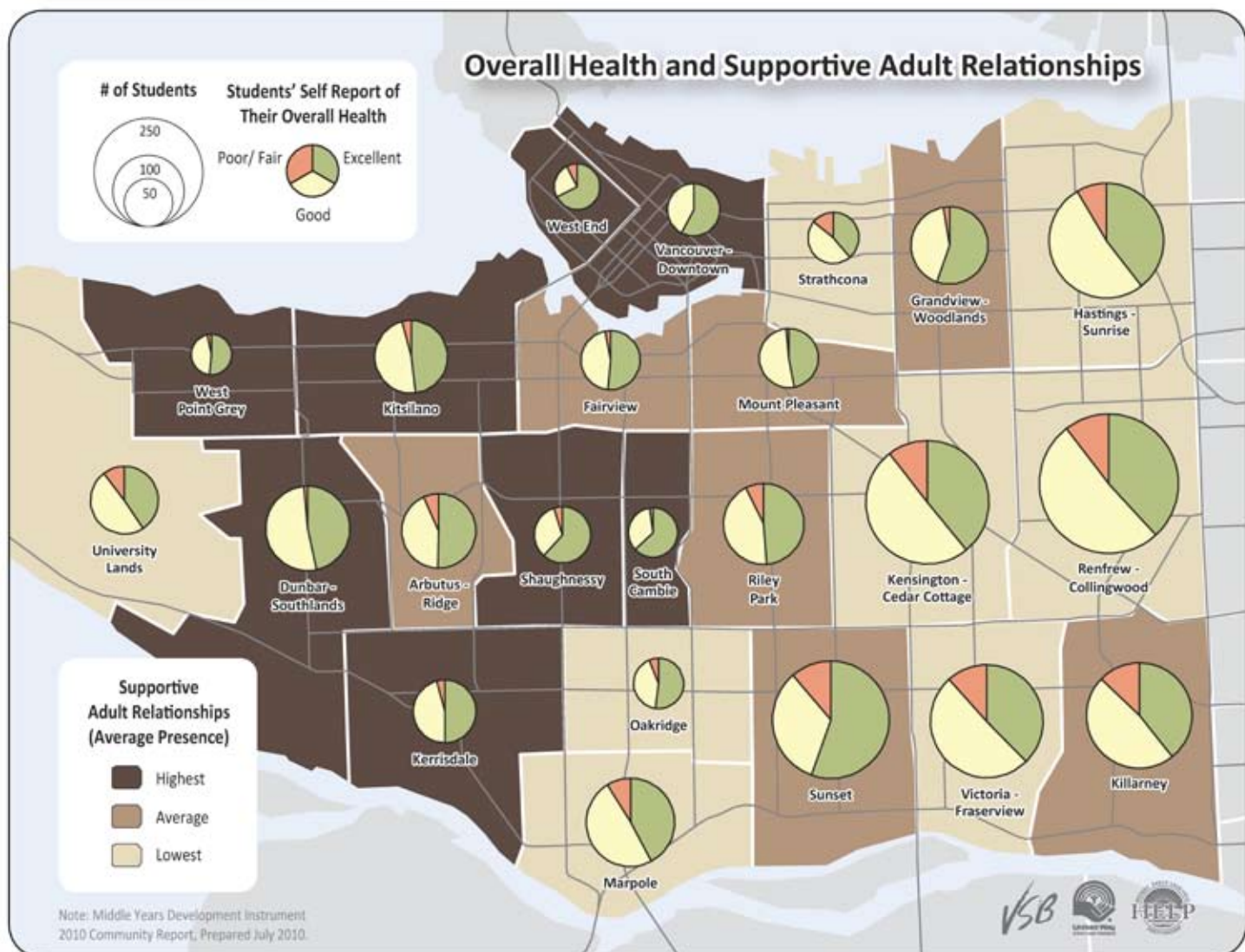
Connectedness to adults and peers, in the different social worlds of home, school, and community, account for the assets with the strongest association with children's overall health and well-being.

The presence of supportive relationships with adults at home, in school, and in the neighbourhood is strongly correlated with children's self-report of their overall health.

“Every child requires someone in his or her life who is absolutely crazy about them.”
Urie Bronfenbrenner

In fact, supportive relationships with adults have a stronger association with children's perception of their overall health than children's health habits (that is, their nutrition and sleep habits).

Map 3 shows the relationship between supportive adult relationships and overall health. It must be noted that the association of supportive adult relationships with other aspects of children's well-being (for example, self-esteem, optimism, happiness) is equally strong.



Map 3: MDI Overall Health and Supportive Adult Relationships

Connectedness to Adults

High: Children who usually indicated that statements such as “There is an adult who really cares about me” or “There is an adult who believes I will be a success” were “pretty much” or “very much” true for them were identified as having high levels of connectedness to adults.

Medium: Children who reported that these statements were “a little true” or who reported a mix of positive and negative responses were designated as having a medium level of connectedness to adults in a given context.

Low: Children who usually reported that these statements were “not at all true” for them were designated as feeling low levels of connectedness to adults in a given context.

Overall Health

High: Children who responded with “excellent” to the question, “In general, how would you describe your health?” were designated as high in general health.

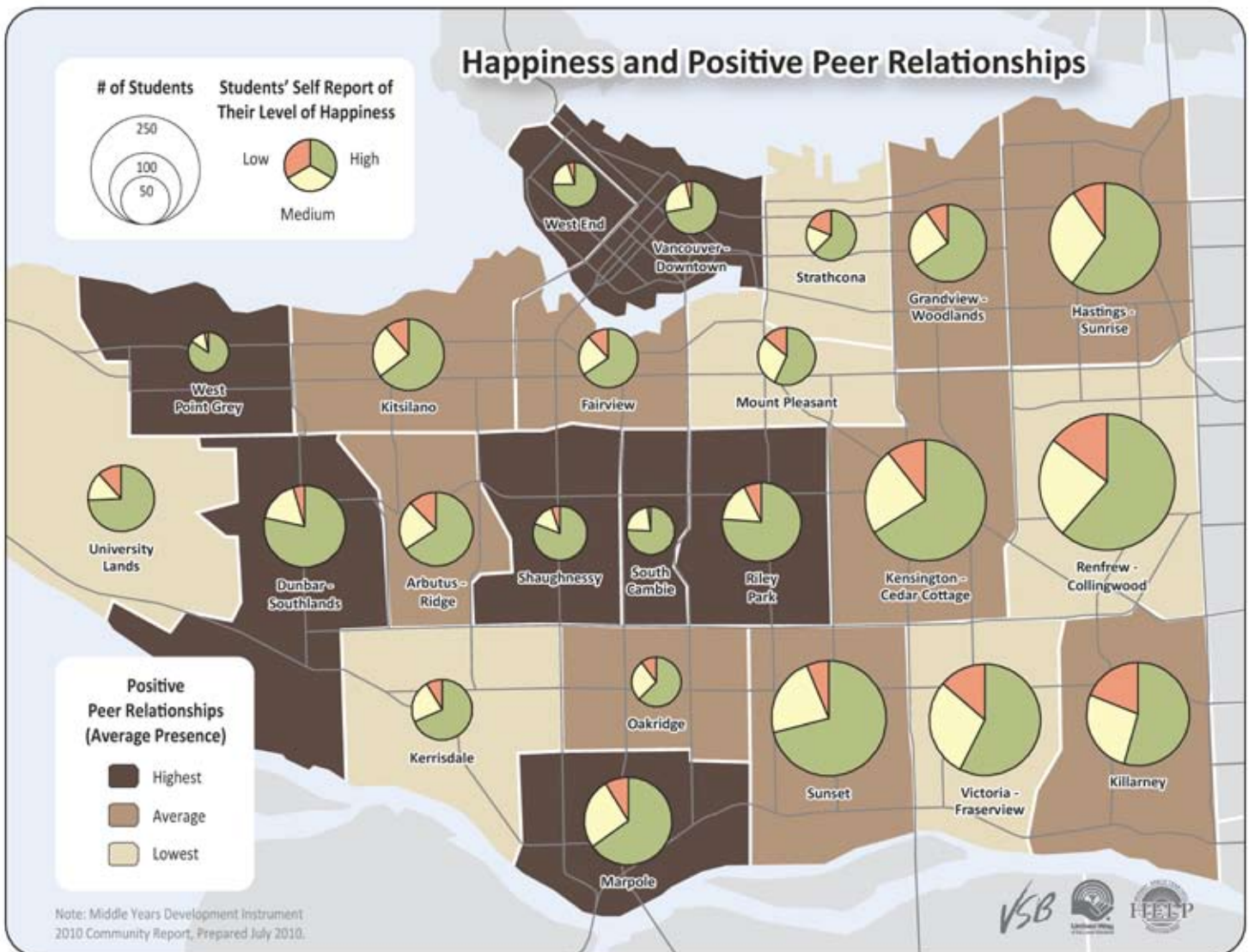
Medium: Children who responded with “good” to this question were designated as medium in general health.

Low: Children who responded with “poor” or “fair” to this question were designated as low in general health. In Vancouver, almost one in 10 children reported that their health is “fair” or “poor.”

Positive relationships with peers

Like supportive relationships with adults (at home, in school, and in the neighborhood), positive relationships with peers were strongly associated with all the reported overall health and well-being indicators on the MDI. In fact, the two relationship assets are the assets that were more strongly associated with children’s self-reported health and well-being outcomes than the other assets (good health habits, school experiences, participation in activities).

Map 4 shows the relationship between children’s happiness and positive peer relationships at the neighbourhood level.



Map 4: Happiness and Positive Peer Relationships

Happiness

High: Children who usually responded that they “agree” or “strongly agree” with statements such as “I am happy with my life” or “The things in my life are excellent” were designated as high in subjective well-being. In Vancouver, about two in three children fell into the high range for subjective well-being.

Medium: Children who responded that they “don’t agree or disagree” with these statements, or who reported a mix of positive and negative responses were considered medium in subjective well-being. In Vancouver, about one in four children fell into the medium range.

Low: Children who usually responded that they “disagree” with these statements were designated as having a low level of subjective well-being. In Vancouver, about one in 10 children were in this low range for subjective well-being.

Peer belonging and friendship intimacy

High: Children who usually indicated that statements such as “When I am with other kids my age, I feel I belong” (peer belonging) or “I have a friend I can tell everything to” (friendship intimacy) were “most of the time” or “always” true for them were designated as having a high level of peer belonging and friendship intimacy, respectively.

Medium: Children who responded “sometimes” to these statements or who reported a mix of positive and negative responses were considered medium in peer belonging and friendship intimacy.

Low: Children who usually responded “not at all” to these statements were designated as having low levels of peer belonging and friendship intimacy.



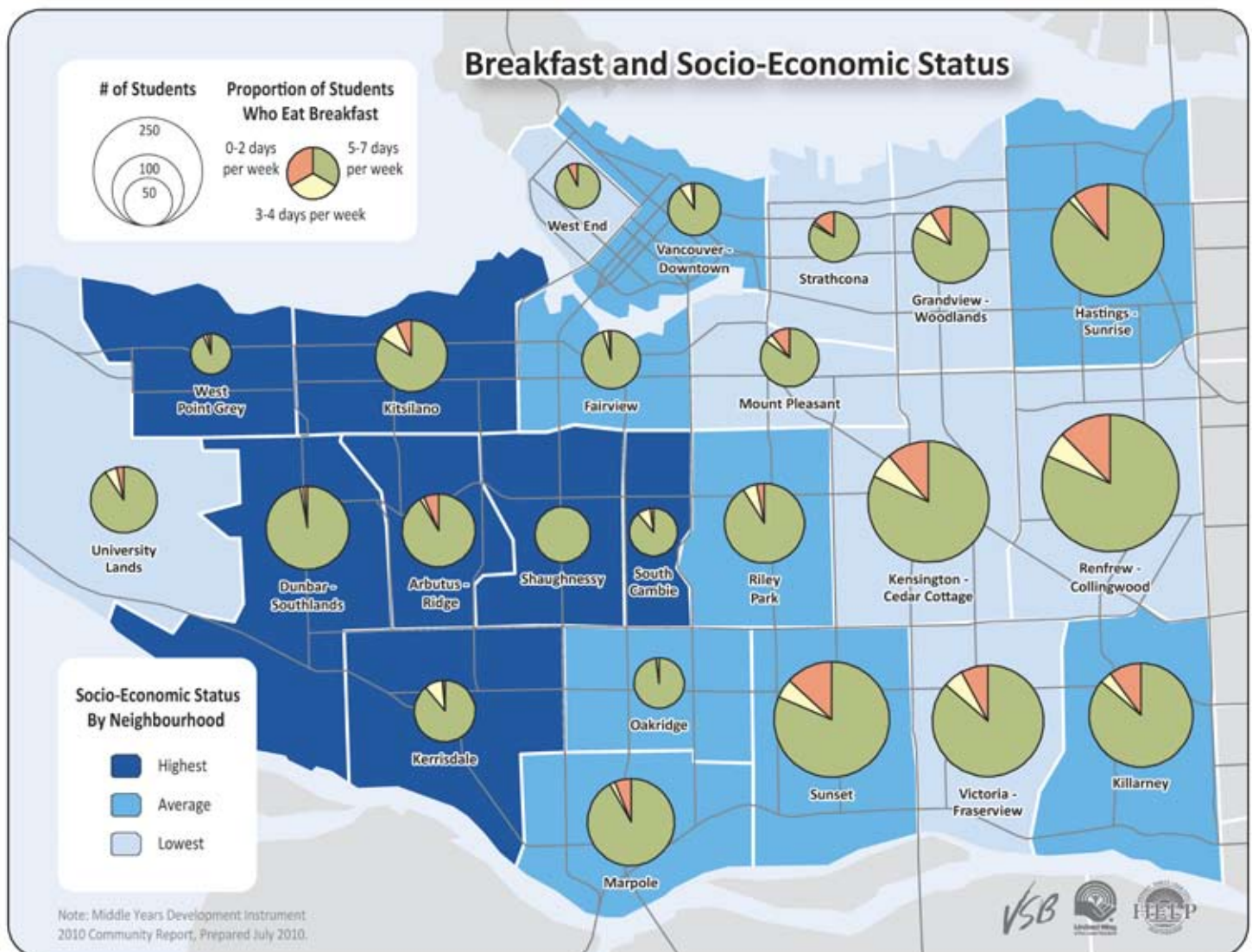
Good health habits (nutrition and sleep)

On the MDI, children reported on a number of habits related to their nutrition and sleep. For example, children reported how many times per week they eat breakfast, how often they get a good night's sleep, when they typically go to bed on a school day, and on how many days per week they eat a meal with their family.

In this report, we highlight a finding that illustrates the relationship between how often children in a neighbourhood reported they eat breakfast per week, and the neighbourhoods average socio-economic status (See Map 5). As can be seen, there

are some neighbourhoods where all children who live in those neighbourhoods reported that they eat breakfast 5-7 times per week. On the other end of the spectrum are neighbourhoods in which 10-15% of the children reported they eat breakfast 2 times or less per week. The map shows that the neighbourhoods with the lowest average socio-economic status (light blue) are the neighbourhoods with the highest percentages of children who reported they eat breakfast 2 times or less per week (pink sections of the pie charts). This map represents a good example of an asset – eating breakfast regularly – that is strongly associated with socio-economic status. The finding suggests that a lack of time resources and financial resources is, at least to some extent, the reason for this re-

lationship. In fact, in British Columbia, the child poverty rate is at 21.9%, well above the national average of 15.8%, and two percentage points higher than the runner-up, Saskatchewan (Campaign 2000; 2009). Also, research in Canada as well as in the US has documented that there is a growing proportion of our society that is poor in regard to money and time. This group of people has been referred to as the working poor, as they represent families in which both parents work full time (or more) – so that they do not have time to spend with their families – and at or below minimum wage – so that their income does not suffice to lift the families out of poverty (Zuberi, 2006).



Map 5: Breakfast and Socio-Economic Status

School experiences

Children were asked on the MDI about their school experiences in the following areas: academic self-concept, school climate, school belonging, and experiences with peer victimization. Within a school system, caring, supportive relationships are evident in the ways teachers and staff interact with children, and in how children interact with each other.

Why does this matter?

School success is most likely when children learn within a safe, caring, and supportive environment. Children's sense of safety and belonging at school has been shown to foster school success in many ways. When children feel their needs are being met at school, they are more likely to feel attached to their school. In turn, children who feel more attached to their school have better attendance and higher academic performance. These children are also less likely to engage in deviant or delinquent behaviours, such as aggression against peers or under-age drinking (Masten & Motti-Stefanidi, 2009).

School climate and support

Finding: The MDI data show that the vast majority of 4th graders reported high levels of school supportiveness and positive school climate (68%), and another 24% reported medium levels of school supportiveness and school climate. The MDI data thus indicate that most children find teachers and students in their school treat each other with respect and care about each other. About the same proportions of children reported high levels of school belonging (that is, the feeling that they belong to the school) and academic self-concept (that is, the belief that they can master all the school tasks). Similarly, about two-thirds of all children reported they are never bullied in school. In every community, however, there are children who reported low levels of school belonging, negative school climate, and high frequencies of being bullied by peers.

Worries and victimization at school

Over the past 10 to 15 years, media attention about the challenges and long-term impact of school bullying has raised public awareness concerning peer victimization in schools around the world. Bullying is a distinct form of aggressive behaviour in which one child or a group of children act repeatedly to cause harm or embarrassment to other children who cannot defend themselves easily.

Why does this matter?

Being victimized by peers is associated with a host of negative outcomes, both concurrently and over time (McDougall et al., 2008). On the MDI, children were asked to report on how often they are bullied by their peers. Given that bullying can take many forms, children were asked to report on four different kinds of peer victimization – physical, verbal, social, and cyber victimization.

Definition of sadness and worries

Low: Children who reported that they “never” or “hardly ever” “feel sad” or “worry” were assigned into the low category because they reported low levels of sadness and worries. (Note: Low levels of sadness or worries were considered a positive developmental outcome.)

Medium: Children who responded “sometimes” to these statements or who reported a mix of positive and negative responses were designated as having a medium level of sadness and worries.

High: Children who usually responded “often” or “always” to these statements were designated as reporting high levels of sadness and worries. (Note: High levels of sadness or worries were considered a negative developmental outcome.)



Finding

The MDI data show that children's levels of worries are significantly related to the extent to which they are bullied in school. (Note: This graph presents the findings for "social bullying." In the MDI, children reported also on verbal, physical, and "cyber" bullying. The results for the other three kinds of bullying closely resemble the results shown here, and they are therefore not shown separately.) Of course, bullying is not the only factor that contributes to children's level of worries. For example, supportive relationships with adults and peers or a supportive school climate serve as protective factors against the harmful effects of being victimized. *Figure 3* illustrates the relationship between children's self-reported high levels of worries and the frequency with which they were bullied socially by their peers in the school year (2009-2010).

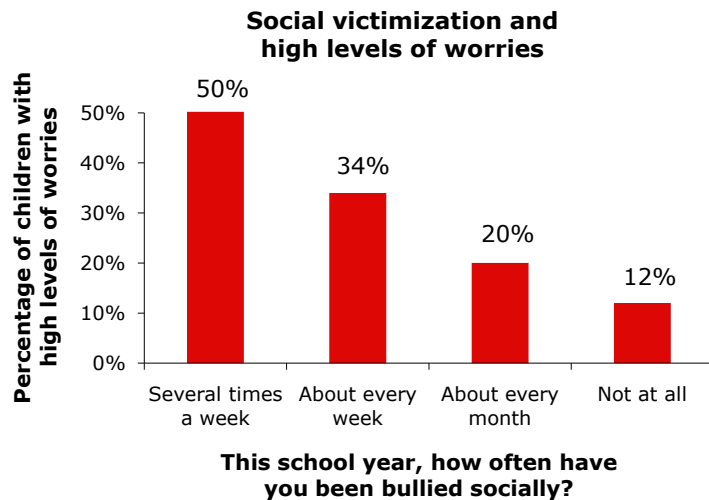


Figure 3

Of the children who were socially bullied several times a week, 50% percent reported high levels of worries, whereas of the children who were not bullied, only 12% reported high levels of worries.

What can parents, schools, and communities do?

School communities undertake a number of actions to create positive school climates in which children are less likely to be bullied. These actions range from developing, implementing, and reinforcing a strong Code of Conduct that applies to all members of the school community, to providing supervision and a range of activity options for the less structured times of the day (recess, lunch break), and to implementation of various social skills and/or bullying prevention programs.

It has consistently been demonstrated that bullying prevention lessons alone do not effectively reduce bullying. Approaches that are integrated into a holistic, school-wide strategy, however, can be very successful. These approaches ideally engage school staff, students, parents, and community partners. Importantly, these programs do not solely focus on discouraging negative behaviours, but teach good social problem solving skills and provide all children opportunities to engage in meaningful, collaborative activities.

One of the most widely recognized programs with a strong research-evidence base is the Caring School Communities program, developed by the Developmental Studies Center. www.devstu.org/caring-school-community

The BC Ministry of Education provides information for parents, schools, and communities on programs and resources on the topic of "Safe, Caring and Orderly Schools" online. www.bced.gov.bc.ca/sco/resources.htm

Promoting Relationships and Eliminating Violence Network (PREVNet) is a national network of Canadian researchers, non-governmental organizations (NGOs) and governments committed to stop bullying. Bullying is wrong and hurtful. Every child and youth has the right to be safe and free from involvement in bullying. It affects children and youth who are bullied, those who bully others, and those who know it is going on. Further information on PREVNET, their anti-bullying programs, research, newsletters, and additional resources can be found at www.prevnet.ca



Constructive use of after-school time

We know that the environments in which children live, learn, and play are important, yet we know very little about how school-aged children actually spend their out-of-school hours.

Why does this matter?

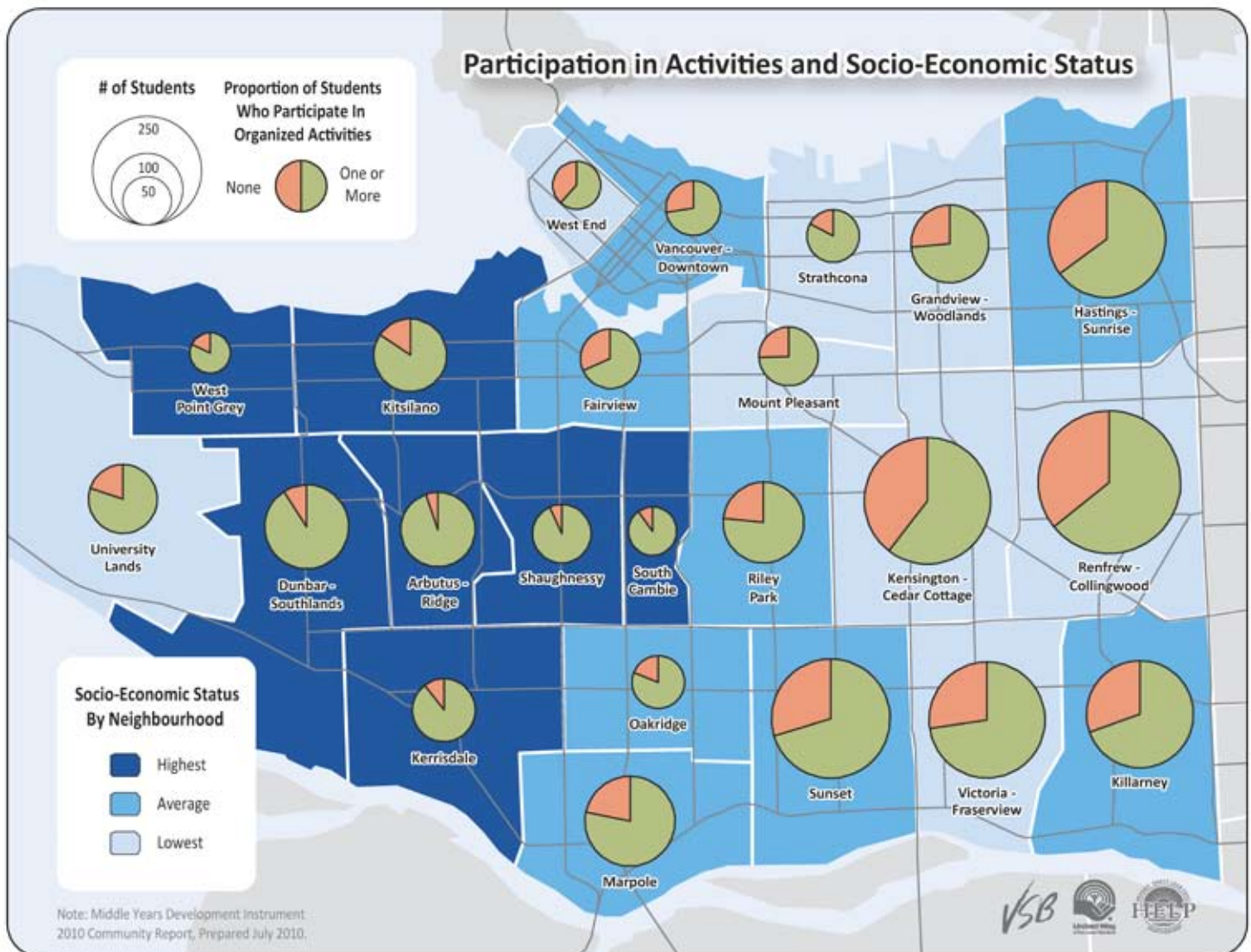
Children's involvement in constructive activities outside school provides important developmental and socialization contexts. These activities create different opportunities for children to build relationship skills and gain competence.

Organized recreational activities, such as sports and art groups, provide rich experiences through which we can promote the positive development of children and youth. For example, we know that children who are more involved in extra-curricular activities at school tend to do better in school and are less likely to drop out (Mahoney, Cairns, & Farmer, 2003). The information provided by the MDI attempts to fill in some gaps in the existing research on activity participation during after-school hours.

Participation in organized activities and socio-economic status

Many organized after-school activities and programs rely on human and financial resources.

Finding: There is an association between the participation rates in after-school programs and activities (for example, music lessons, youth club; volunteering; sports club) and the average socio-economic status of a neighbourhood (see Map 6).



Map 6: Relationship between participation in organized activities and socio-economic status

Self-Determination Theory

According to Self-Determination Theory (Deci & Ryan, 1985; Ryan & Deci, 2000), there are three universal human needs – Autonomy, Belonging and Competence – that are essential for our motivations and for our well-being. Activities that fulfill any of these three needs have a strong motivating effect on children, and they foster children’s well-being. The following three types of activities are especially apt to engage children:

- 1. Autonomy:** Activities that provide choices and that give children the opportunities to engage in experiences that are respecting of and complementary to their personal, social, and cultural goals and values.
- 2. Belonging:** Activities that provide the opportunity to be with friends and mentors and that allow children to build and strengthen positive relationships over an extended period of time.

- 3. Competence:** Activities through which children can learn new and enhance existing skills and knowledge in areas of competence that are of interest to the children and that are valued by others that are important to them (for example, by the child’s family, teachers, friends, and mentors).

Website and resources: www.psych.rochester.edu/SDT/

Prosocial behaviour and participation in organized music and/or team sport activities

Finding: the MDI data shows the strongest association with children’s self-reported prosocial behaviour (for example, helping, sharing and cooperating), is found with children’s participation in collaborative activities: music and team sports.

Figure 4 shows the relationship between children’s self-reported levels of prosocial behaviour and their participation in organized music and/or team sport activities. The bars represent the percentages of children who reported low levels of prosocial behaviour for three groups:

- Children who do not participate in organized music or team sports (left bar);
- Children who participate in either organized music or team sports (middle bar); and
- Children who participate in organized music and team sports (right bar).

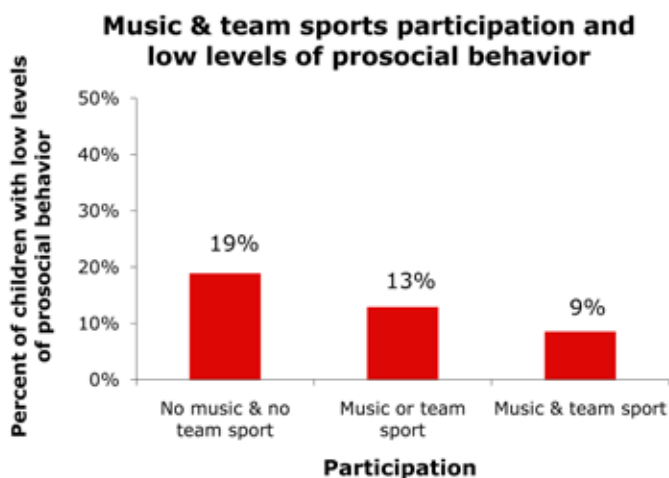


Figure 4

Of the children who participate neither in an organized music activity (for example, music lessons; choir) nor in an organized team sport (for example, soccer), 19% percent reported relatively low levels of prosocial behaviours (for example, whether they help other students solve a problem). Among the children who are participating in both organized music activities and in team sports, only 9% reported low levels of prosocial behaviour.

Like the overall participation rates in organized after-school activities and programs, music and team sport participation is, at the average neighbourhood level, associated with the neighbourhoods’ average socio-economic status (See Map 7).

Why does this matter?

Prosocial behaviour is one of the most important threads of our social fabric. We rely and thrive on each other’s help, assistance from friends, support from our families, and the collaboration of colleagues. In BC, the Ministry of Education states that prosocial behaviour, as a component of “social responsibility,” is one of the main goals of education.

Prosocial behaviour

High: Children who usually responded that statements such as “I helped someone who was hurt” were either “always” or “a lot” like them were designated as high in prosocial behaviour.

Medium: Children who responded that the statements “kind of” described them or who reported a mix of positive and negative responses to these statements were designated as medium in prosocial behaviour.

Low: Children who usually responded “not at all” or “a little” to these statements were designated as low in prosocial behaviour.

What can families/parents, schools, and communities do?

Respect in Sport

Respect in Sport is a program to train youth leaders to recognize, understand, and respond to issues of bullying, harassment, abuse, and neglect. In the training program, youth leaders learn how to create a safe, healthy, and positive environment for our children and youth.

www.respectinsport.com

High Five

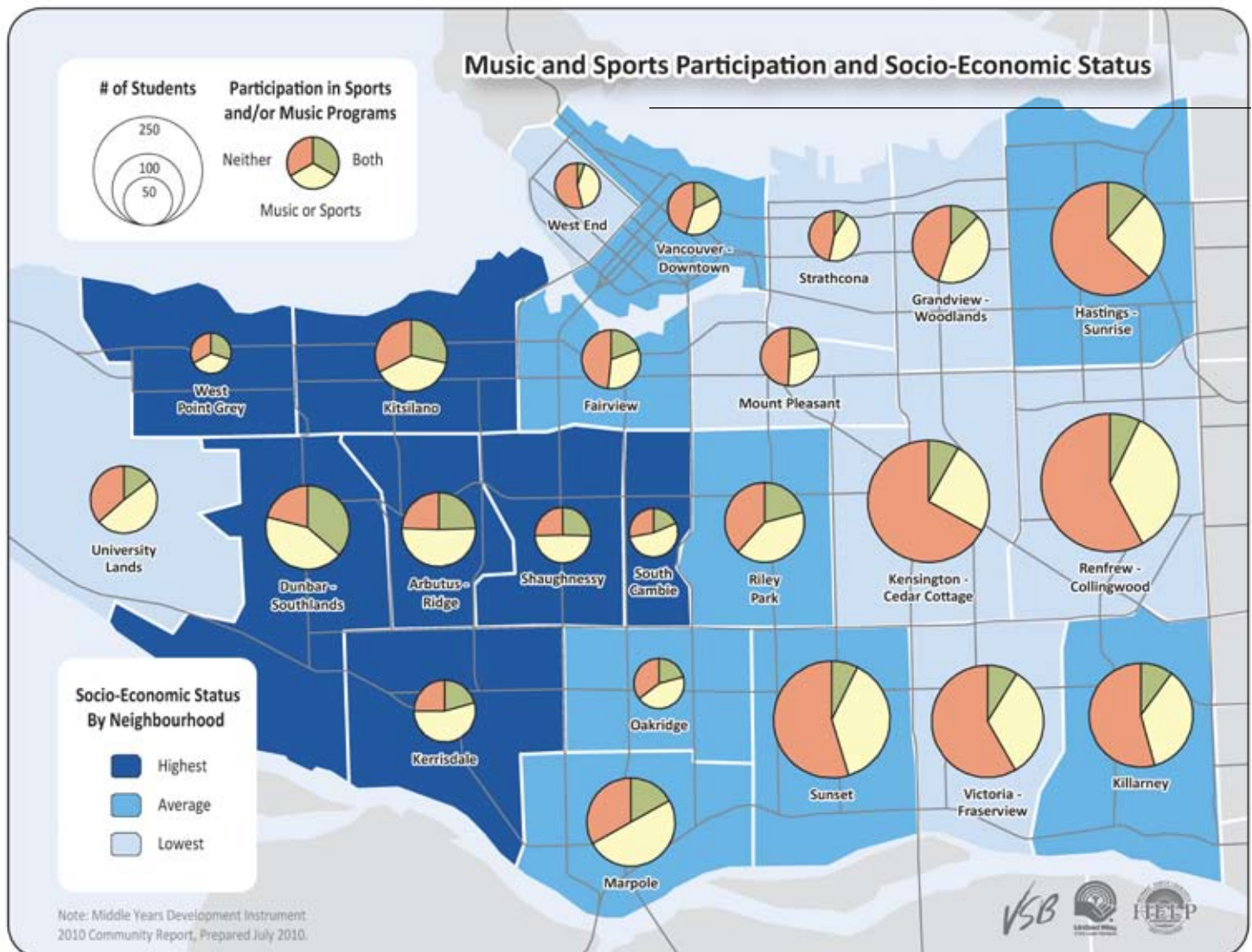
HIGH FIVE® refers to a set of research-based quality standards for sport and recreation programs for children aged 6-12. Youth leaders can obtain training from the BC Recreation and Parks Association to learn how to implement programs with the following characteristics: mentoring by a caring adult, the opportunity to play, to make friends, to master skills, and to participate.

www.highfive.org

Social and Emotional Learning

Learning social and emotional skills and competencies in life is essential for children to recognize and manage their emotions, form positive relationships, make responsible decisions, and care for themselves and others in life. Often, children learn social and emotional skills in day-to-day interactions. Social and emotional skills can also be taught in school and after-school activities, and through specific intervention programs (Durlak, Weissberg, & Pachan, 2010). Identifying factors that promote social and emotional competencies, and understanding the underlying processes involved, is a key strategy for the development of successful initiatives to enhance social and emotional health and well-being, and set the path for future positive development.

Source: Collaborative for Academic, Social, and Emotional Learning (CASEL). For further resources, please visit www.casel.org. For information on the BC Ministry of Education's Performance Standards for Social Responsibility, please go to www.bced.gov.bc.ca/perf_stands/social_resp.htm



Map 7: Relationship between participation rates in organized music and/or team sport activities and socio-economic status

Sadness and TV Watching

Figure 5 illustrates the relationship between children's self-reported levels of sadness and their daily amount of time watching TV. The bars represent the percentages of children who reported very high levels of sadness, for three groups:

- Children who reported they watch TV for more than two hours per day (left bar);
- Children who reported they watch TV for less than two hours per day (middle bar); and
- Children who watch no TV (right bar).

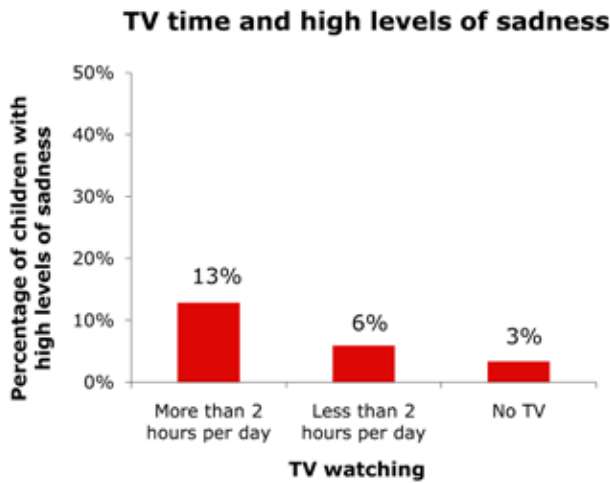


Figure 5

Finding: Of the children who reported watching more than two hours TV per day, 13% percent reported high levels of sadness (for example, that they feel upset about things). That percentage is twice as high as for the children who watch less than two hours of TV per day (6%), and about four times higher than for the children who do not watch TV. Similarly, children who watch more than two hours TV per day reported, on average, lower levels of happiness than children who watch less than two hours per day or no TV at all.

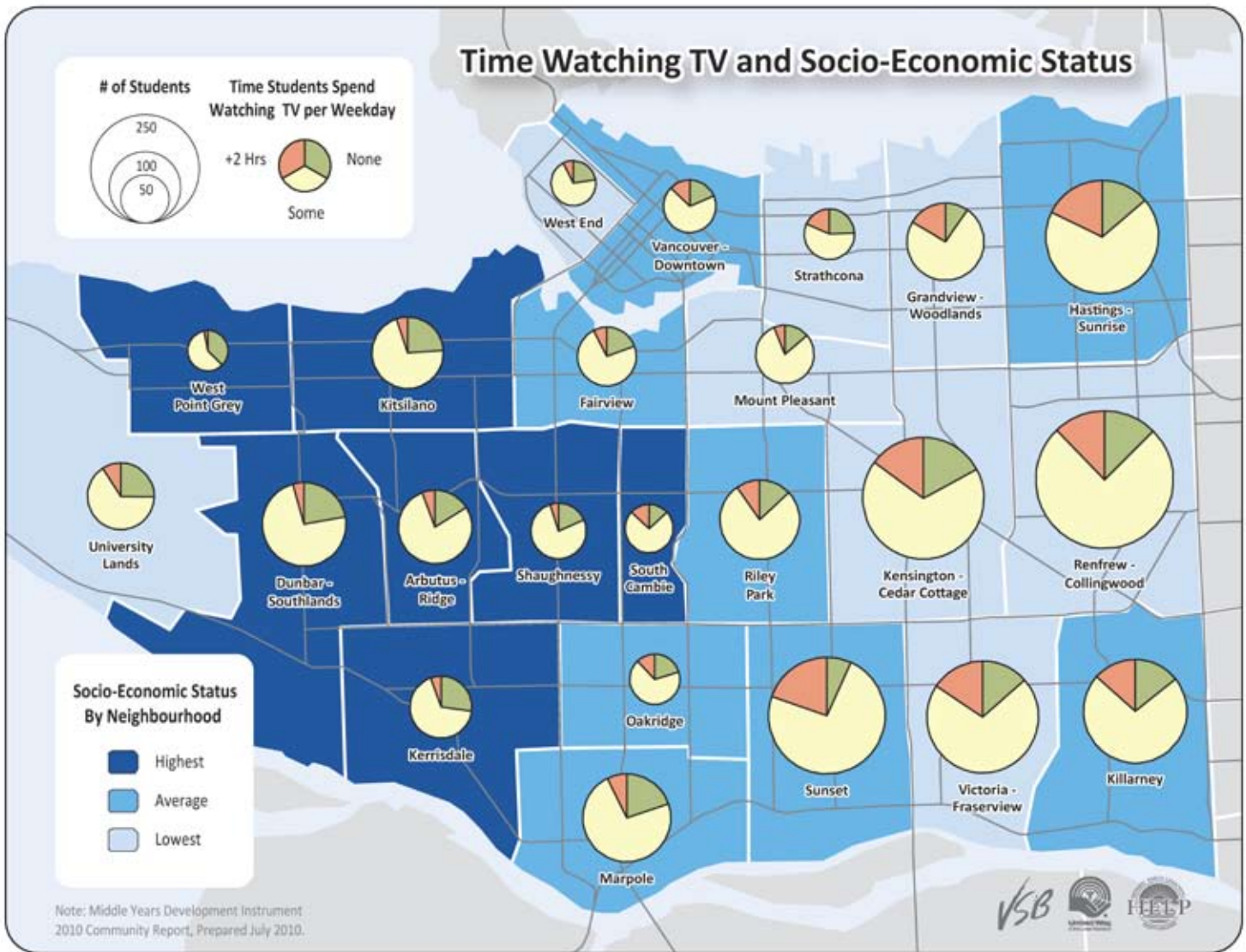
There are three possible explanations for this finding:

- Children who are not engaged in social activities (for example, team sports; choir; band; youth club; playing with friends; spending time with parents) may be sadder – and they may also have more time to watch TV.
- Alternatively, it could be that children who frequently experience sadness have a tendency to watch more TV.
- Finally, it may be that an extreme amount of TV watching (more than two hours per school day) makes children sad. In any case, an excessive amount of TV watching seems to be an indicator of low well-being.



Why does this matter?

Data from the MDI supports the hypothesis that higher amounts of TV watching time are related to less participation in organized after-school activities. This may have to do with lack of opportunities and lack of resources. Children in neighbourhoods with higher socio-economic status reported higher participation rates. Children in neighbourhoods with lower socio-economic status reported higher rates of TV watching. This association between neighbourhoods' average socio-economic status and the proportion of children watching more than two hours TV per school day is shown in Map 8.



Map 8: Relationship between time watching TV and socio-economic status

What do Vancouver children do after school, from 3pm to 6pm?

The previous section highlighted some of the relationships between children’s after-school activities and specific health and well-being outcomes. In the following section, we provide a descriptive summary of the activities that children do after school between 3pm and 6pm.

Table 1 shows where children typically go and spend their time after school until 6pm. The table shows the percentages of children who endorsed specific response options on the MDI (for example, how often children go home directly after school).

Table 2 shows the percentages of children who participate in specific types of organized, supervised after-school activities (for example, music lessons, team sports, participation in youth organizations).

Children’s wishes and barriers for after-school activities

Whereas most questions on the MDI asked the children about the activities they are doing, the very last questions on the MDI asked them about the activities they *wish* to be doing. In addition, the MDI allowed children to report what barriers kept them from doing the activities they wished to be doing.

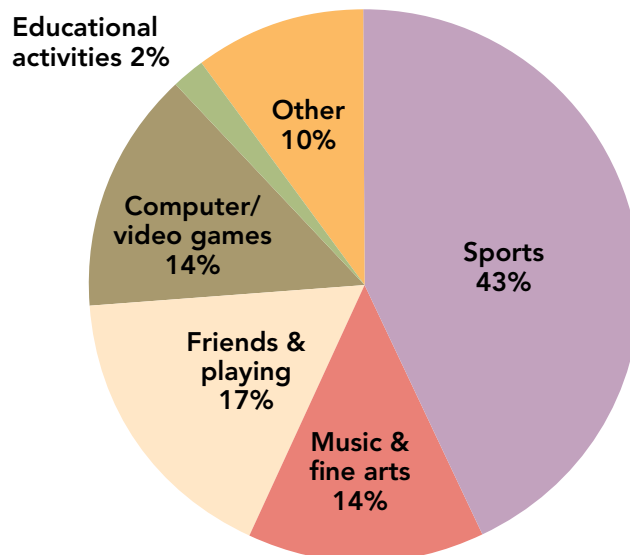
In this section of the MDI, children were first asked whether they already participate or do not participate in the activity they wish to be doing. Almost 50% of all 4th graders reported that they already did the after-school activities they wished to be doing, and just over 50% of the children reported that they did not participate in the activity they wished to be doing after school. When asked which one activity they wished to be doing after school, over 43% of those children mentioned a sports activity (for example, swimming, soccer), about 14% mentioned a fine arts or music activity (for example, drawing, cooking, piano lessons), just over 17% mentioned that they would like to be with

Table 1: Where do children go after school?

How often do you go to these places after school until 6pm?	Never	Once or twice a week	Three or four times a week	Every Day
I go home.	9%	15%	24%	52%
I go someplace else, for example, a family member’s home, or other places.	48%	35%	11%	6%
I go to a park, playground, or community centre.	49%	37%	10%	4%
I go to a friend’s house.	47%	44%	7%	1%
I go to an afterschool program/daycare.	61%	19%	10%	10%
I stay at school to participate in afterschool activities.	67%	24%	6%	4%
I hang out at the mall or stores.	64%	28%	7%	1%

Table 2: How many children are engaged in different types of organized, supervised after-school programs and activities?

During last week, after school (3pm - 6pm), did you participate in:	No	Yes
Individual sports with a coach or instructor	60%	40%
Team sports with a coach or instructor	69%	31%
Art or music lessons	65%	35%
Education lessons or activities	67%	33%
Youth organizations (eg: Scouts, Boys & Girls Clubs)	88%	12%



Most frequently desired after-school activities by children who do not participate in the activity they wished to be doing (1,600 children)

friends (to hang out or play), and another 14% mentioned they would like to spend (more) time on the computer, play video games, or watch TV. Finally, 2% stated they would like to be in youth clubs or educational activities, and the remaining 10% of the activities children reported were either only mentioned once or twice (for example, climbing a mountain) or could not be assigned to any of the above categories for types of activities (for example, taking a nap, shopping). *(Please note that each child listed one wish on the MDI. Children might, of course, wish to participate in more than one after-school activity, but the MDI did not collect that information).*

Children were asked about the barriers for their participation in after-school programs. Table 3 lists the most frequently reported barriers toward participation.

What stops you from participating in the activities that you want to participate in after school?

(Children could check multiple answers.)

	% of Children
I have to go straight home after school.	41%
I am too busy.	40%
I have too much homework to do.	33%
The schedule does not fit the times that I can attend.	30%
It costs too much.	21%
My parents do not approve.	19%
I need to take care of brothers or sisters or do other things at home.	17%
The activity that I want is not offered.	16%
None of my friends are interested or want to go.	16%
I don't know what is available.	14%
I am afraid I will not be good enough in that activity.	12%
It is too difficult to get there.	11%
It's not safe for me to go.	8%

Table 3: Barriers for participation in after-school programs

The relationship of early developmental outcomes and development in middle childhood

At a population level, children's overall health and well-being is also related to developmental outcomes during the early years. This is illustrated in Map 9. The background colours of the neighbourhoods represent an aggregate of kindergarten children's developmental outcomes. (The developmental outcomes were rated on the Early Development Instrument by the children's kindergarten teachers.)

The green colours indicate that children in these neighbourhoods had, on average, developmental outcomes ratings in the highest or in the higher than average range, respectively. The yellow colour indicates an average range, and the pink colours the lower than average or lowest range, respectively.

The pie charts represent the number of children living in a neighbourhood, and



the proportion of children that reported very high, medium to high, or low levels of health and well-being.

The data from the EDI were not collected from the same children as for the MDI. The EDI data were collected in 2006, on kindergarten children living in the same 23 Vancouver neighbourhoods as the children who participated in the MDI in 2010. The EDI data collection is thus from the year during which

the MDI cohort was in Grade 1. This is the closest year for which EDI data are available for Vancouver.

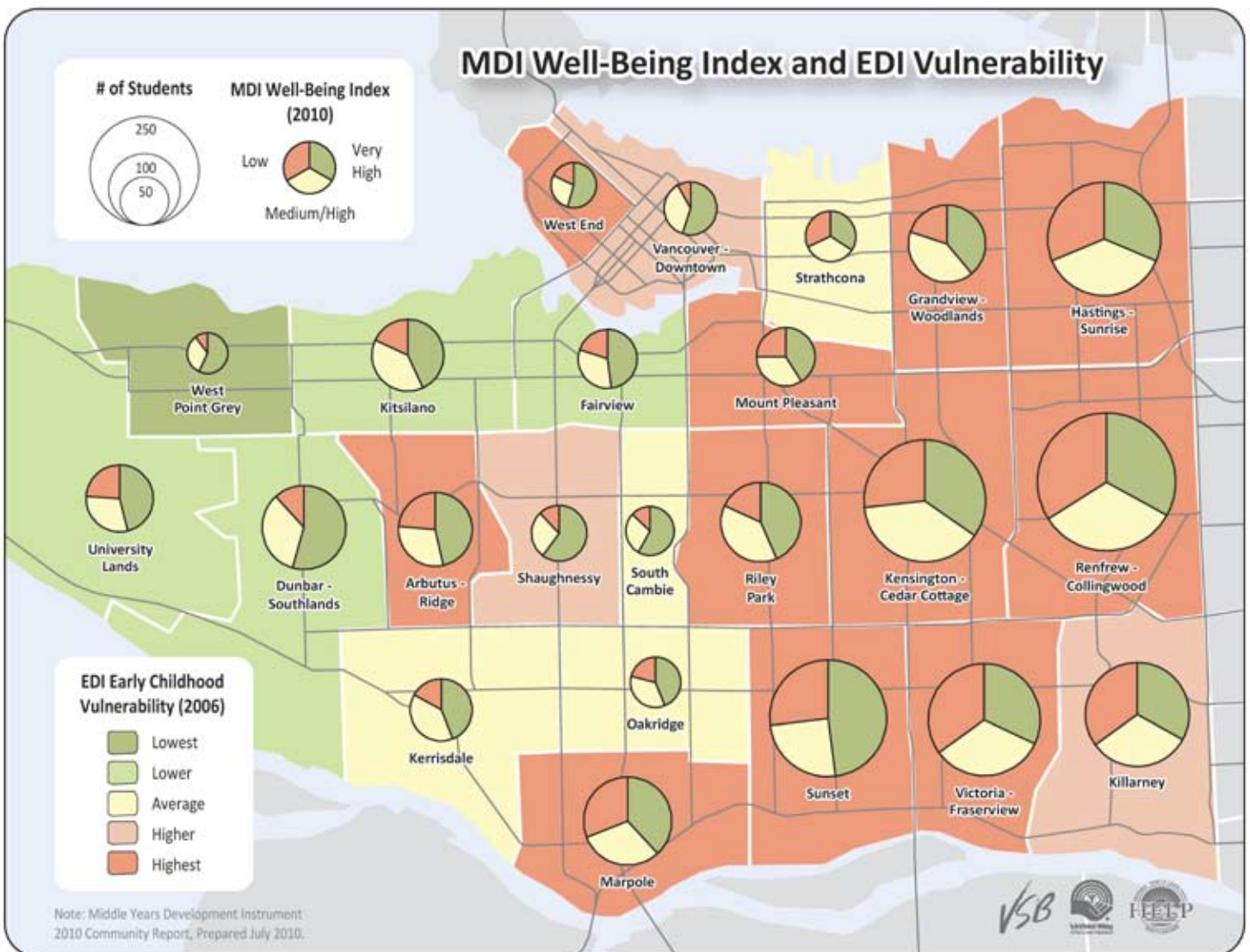
For information on the Early Development Instrument (EDI), please visit the website of the Human Early Learning Partnership, University of British Columbia: www.earlylearning.ubc.ca/research/initiatives/early-development-instrument

Why does this matter?

It has been shown that developmental health during the early years provides a strong foundation for health, achievement, and well-being during childhood and adolescence, and also predicts health outcomes, career success, and satisfaction with life in adulthood (Keating & Hertzman, 1999).

If children are provided with positive experiences and grow up in caring, supportive family and community contexts, the beneficial effects on their development serve as a strong

foundation for the next developmental period. Naturally, each developmentally period is inseparably connected with the one preceding and the one succeeding it. Our goal as parents, teachers, researchers, community service practitioners and professionals, community members, and policy makers is therefore to support children to the best of our knowledge, our resources, and capabilities from the very beginning of their lives, until these children have grown to be the ones who give love, care, and support to the next generation.



Map 9: Relationship of neighbourhood-level aggregates of early developmental outcomes (from 2006 EDI data) and the neighbourhood-level MDI Well-Being Index (from 2010 data)

Note: Data were not collected from the same children, but the cohorts represent the same 23 Vancouver neighbourhoods.

Concluding Remarks

Research and theory are in concert in suggesting that middle childhood – the ages between 6 and 12 years – represents an important developmental period in which to intervene so that future problems can be prevented. The research findings presented in this report suggest that there is a clear and urgent need for increased attention to the social and emotional well-being and health of children during the middle childhood years. We found that a notable portion of the Grade 4 children in our study – 26% – were categorized as “low” in child health and well-being, and another 34% were considered medium. These findings indicate that less than half of our children are thriving and meeting their fullest potential.

The middle childhood years are a time that is particularly critical developmentally because it represents the transition from childhood into adolescence. Transitional periods are particularly important times in which to study development because they

show ways in which children’s growth can be fostered. Although transitional periods are considered to be times of **increased risk** (such as the stress pile-up that occurs when multiple changes occur in a relatively short period), they are also times in a child’s development in which there is **increased opportunity** for prevention/intervention efforts. Hence, middle childhood is a time of great opportunity to optimize health and promote development.

We have outlined many ways in which different assets affect the development of children and stressed the need to take both a systems-level and a developmental perspective on children. As children grow older and move beyond the family into the larger spheres of school and community, they can be exposed to a wider array of risk and protective factors such as supervised activities and their involvement with peers. This exposure may lead to increased risk, but also may provide the opportunity for children to encounter others in their social

networks, such as neighbours or teachers, who provide support and nurturance (Schonert-Reichl & LeRose, 2008). Our findings indicate that these protective systems – in the form of assets – vary across socio-economic lines. Moreover, our findings indicate that the greatest number of children thrive when they experience the presence of key assets in their lives. Indeed, optimal development is most likely when we consider the many factors that impact the lives of our children.

In conclusion, in this report we present an overview of our data on the health and well-being of 4th grade children in Vancouver. Our hope is that such data can be used to not only raise awareness about the health and well-being of children during the middle childhood years, but to also help inform planning efforts to promote positive development so that all of our children can reach their greatest potential.



Student Responses to Individual Items

In the table below, we provide information on the percentage of children from the school district who endorsed each response for selected individual items on the MDI.

Connectedness

Questions	No	Yes	Don't Know
1. Are there places in your neighbourhood/community that provide programs for kids your age, like sports and other clubs and activities?	9%	69%	22%
2. Are there safe places in your neighbourhood/ community where you feel comfortable to hang out with friends, like playgrounds, parks, or community centres?	8%	74%	18%

School Experiences

Questions		Not at All True of Me	Somewhat True of Me	Very True of Me
1. I feel like I belong in this school.		5%	33%	62%
2. When I grow up, I have goals and plans for the future.		5%	28%	67%
3. How important is it to you to do the following in school:	Not Important at All	Not Very Important	Somewhat Important	Very Important
3a. Make friends?	1%	5%	26%	68%
3b. Get good grades?	1%	2%	16%	81%
3c. Learn new things?	1%	2%	21%	76%

Physical Health and Well-Being

Questions	Never	1 or 2 Times a Week	3 or 4 Times a Week	5 or 6 Times a Week	Every Day
1. How often do your parents or other adult family members eat meals with you?	4%	11%	9%	16%	60%
2. How often do you eat food like pop, candy, potato chips, or something else?	8%	51%	25%	10%	6%
	Before 9:00pm	Between 9:00pm and 10:00pm	Between 10:00pm and 11:00pm	Between 11:00pm and Midnight	After 12:00am/ Midnight
3. What time do you usually go to bed during the weekdays?	23%	46%	18%	8%	6%

Additional Resources and Research

Canada Health Tips for Healthy Kids: www.hc-sc.gc.ca/hl-vs/child-enfant/index-eng.php

Edutopia (Lessons and videos on Social and Emotional Learning): www.edutopia.org/

The Search Institute: www.search-institute.org/

Find Youth Info - Resources and effective programs to help youth-serving organizations and community partnerships:
www.findyouthinfo.gov

What Works (Character Education), US Dept of Education's Institute for Education Sciences: www.ties.ed.gov/nceewwc/

Centre for Social and Emotional Education: www.csee.net

Educators for Social Responsibility (ESR): www.esrnational.org/home.htm

Education.com - Online magazine with special issue on bullying by researchers from around the globe:
www.education.com

Social Responsibility and Collaborative Learning Environments (SRCLE): www.srcle.net

For more resources on Social Responsibility, contact: Lisa Pedrini (Manager, Social Responsibility and Diversity),
lpedrini@vsb.bc.ca or Jan Sippel (Abuse Prevention Coordinator), jsippel@vsb.bc.ca

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