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Recently, important changes have been made to the reporting techniques of the Early Development Instrument (EDI) outcomes at the provincial level. Three changes in process have occurred that necessitate an update of research.

HELP has incorporated the use of 3 year “waves” instead of 1 year “cycles”. Waves are now used because the Human Early Learning Partnership (HELP) has enough annual data over time to include three year samples. Some communities, Mission being one of them, have seen changes to their EDI outcomes because waves have incorporated other cycles of EDI data into their results.

Another reason to update Mission’s EDI results, stems from technical advancements and national level changes to the ‘communication skills & general knowledge’ domain section of the questionnaire in the instrument. The originator of the EDI, the Offord Centre for Children at McMaster University, made *some* changes to the response questions of the instrument in the domain for the last round of EDI. For many communities the communication skills and general knowledge domain is showing very different outcomes for children, not only in this last wave, but also in the preceding wave.

The final reason is HELP finessed the use of postal codes to map children’s’ EDI results. The technology used to map these results now has more precision than in prior years. This means that children are being mapped more accurately geographically which at times, entails children’s movement between neighbourhoods causing changes in EDI outcomes for neighbourhoods.

Because of these obvious differences in results – cycles to waves, etc. – an amendment with the newest and most relevant data pertaining to Mission’s children needed to be brought forward so that future planning efforts could be guided by the most accurate research available. This amendment also provides the opportunity to include a new layer of research that will enable Mission to understand its neighbourhoods better using research techniques that HELP uses in *The British Columbia Atlas of Child Development*. This new layer of research will classify Mission’s neighbourhoods into 1 of 5 categories using ‘waves’ and socioeconomic data pertinent to each domain of development. A policy mix tool will then help us to understand what intervention levels we should institute services, supports and resources to better support our community.

In the end, we will have the most up to date information on children’s development and outcomes which will help guide us in our efforts to implement an action plan that supports our community’s weaknesses and encourages its strengths.



Neighbourhood Classification & Socioeconomic Status (SES)

Recall that EDI maps primarily consist of average scores and percent of children vulnerable by domain (measuring developmental readiness). If one were to overlay the average score maps for neighbourhoods, under percent of children vulnerable maps for each domain, we would see that the colours for both maps by neighbourhood could be the same or contrasting.

This colour scheme is the first step for classifying neighbourhoods into average, low challenge, high challenge, buffered or wide range neighbourhoods. For example, **average, low challenge** and **high challenge** neighbourhoods' colours for average scores and vulnerabilities by domain mimic each other, i.e., yellow on yellow, green on green and red on red respectively, creating results that we **would expect** to see. For example if average scores are high (green) then it would intuitively make sense that vulnerabilities would be low (green). However, if the map for social competence average scores showed Northeast as dark green and the map for social competence percent vulnerable showed Northeast as dark red we would then be able to visually understand that the contrast between average scores and vulnerabilities is what we **wouldn't expect** to see – high scores against high vulnerabilities. This neighbourhood would be classified as **wide range**. Conversely, if these same maps showed average scores as dark red and vulnerabilities as dark green, again what we **wouldn't expect** to see – low scores against low vulnerabilities – we would then classify this neighbourhood as **buffered**. Both wide range and buffered neighbourhoods are particularly interesting because specific factors may be significant in offsetting our expectations.

There are four broad factors that influence children's development and outcomes.

- The biological predisposition of the child and intimate relationships (what is going on in the home)
- Neighbourhood structure and cohesion (Are neighbourhoods diverse culturally, socially and economically? Do residents 'feel' a sense of belonging and safety? Are neighbourhoods physically and socially traversable? Are neighbourhoods experiencing high growth and development?)
- Services, supports and resources available and accessible to families with young children (the funding and sustainability of programs, barriers to services, supports and resources)
- The socioeconomic status (SES) of families (census variables used to predict the social, economic and cultural health of communities)

HELP uses the last factor as a measure to better understand 'what is going on in neighbourhoods' and 'why neighbourhoods' results are so different from each other'. Specific socioeconomic factors significantly correlate with specific EDI domains of development. What this means is that it has been scientifically proven that the degree of variation in

vulnerability between neighbourhoods, province wide, is associated with the socioeconomic characteristics of neighbourhoods for each domain of development. More simply put, the stronger a neighbourhood is socially and economically the better off childhood developmental outcomes should be because there are fewer difficulties to overcome to foster healthy early development in their neighbourhoods. This is the next step in classifying neighbourhoods – understanding the role that SES has on EDI results.

For neighbourhoods that are classified as average, high challenge or low challenge we **would expect** to see SES that are reflective of these results. These neighbourhoods are called Chameleon communities. For example, average neighbourhoods have yellow average scores and yellow vulnerabilities, so it would make sense to see SES that is reflective of these results – yellow. This type of classification would then be known as ‘average Chameleon’ because the EDI results take on the colours of the SES.

In some cases we see neighbourhoods with great SES (green) yet they still exhibit unusually high proportions of ‘low scores’ (red) and ‘high vulnerability’ (red) which are what we **wouldn’t expect** to see. This map would be called a ‘high challenge Janus’ community. ‘Janus’ represents the Roman god of beginnings and endings (depicted as a double-faced head with each head looking in the opposite directions) and is used as a metaphor for the two faces of colour-contrasting communities. Conversely, we could label neighbourhoods with poor SES (red) and low challenge EDI (high scores, low vulnerability – green) as ‘low challenge Janus’ communities.

Finally, buffered and wide ranging communities have EDI results that are a mixed bag of positive and negative development outcomes respectively. Recall that buffered communities have low average scores and lower vulnerability rates – a positive outcome, while wide ranging communities have high average scores and higher vulnerability rates – a negative outcome. Special attention should be given to these communities that exhibit ‘mixed bag’ results with regards to SES. Could the positive results that buffered communities experience be related to positive SES or other positive factors? The answer simply is yes. In fact this is probably the case for low challenge and average communities as well. The opposite effects could also be true for wide range and high challenge communities experiencing poor SES or other negative factors. When we see buffered, wide range and high challenge communities with great SES then we need to take careful consideration of the other 3 important factors that influence child development: what is happening in the home; what is happening in neighbourhoods; and what services, supports and resources are available and/or accessible to families with young children.

With the classification of neighbourhoods by EDI and SES communities can then decide what policy mix (Figure 1) they should consider for services, supports and resources in order to appropriately support children’s developmental outcomes. The policy mix incorporates intervention levels based on classification of neighbourhoods with varying degrees of emphasis.

Figure 1 – Policy Mix (Kershaw, et al., 2005)

Community Type	Policy Mix			
	<i>Civil Society</i>	<i>Universal</i>	<i>Targeted</i>	<i>Clinical</i>
<i>High Challenge (low average scores, high vulnerabilities)</i>	++	++	+++	+
<i>Buffered (low average scores, low vulnerability)</i>	++	++	+	+
<i>Wide Range (high average scores, high vulnerability)</i>	+++	+	++	+
<i>Low Challenge (high average scores, low vulnerability)</i>	+	++	+	+
		Normal Emphasis	+	
		Increased Emphasis	++	
		Special Emphasis	+++	

There are four intervention levels as outlined in figure 1 (above).

- **Civil Society interventions** affect all families regardless of class or ethnicity...“it takes a community to raise a child” is the underlying theme for this type of intervention which tends to have a greater influence at the vulnerable end of the distribution of children¹ These interventions relate to town planning, access issues and provincial and federal policy.
- **Universal interventions** (i.e., drop-in programs, library storytimes) are available for everyone to use, however, accessibility needs to be considered. Like civil society interventions, universal interventions tend to shift the entire distribution of children to the right¹ when barriers are addressed.
- **Targeted interventions** are designed for subsets of families to use as defined by some characteristic (i.e., income, location, risk, and ethnicity). When access barriers are considered, targeted interventions have a greater influence on the vulnerable end of the distribution of children¹.
- **Clinical interventions** usually involve specific and individual care and impact the vulnerable end of the distribution of children¹.

It is imperative to recognize that if neighbourhoods are accurately classified and the correct policy mix is instituted for services, supports and resources then the first two factors greatly influencing childhood development – ‘what is happening in the home’ and ‘what is happening in neighbourhoods’ would also be positively affected.

The following section maps Mission’s neighbourhood classification and policy using current EDI data and 2001 Census data.

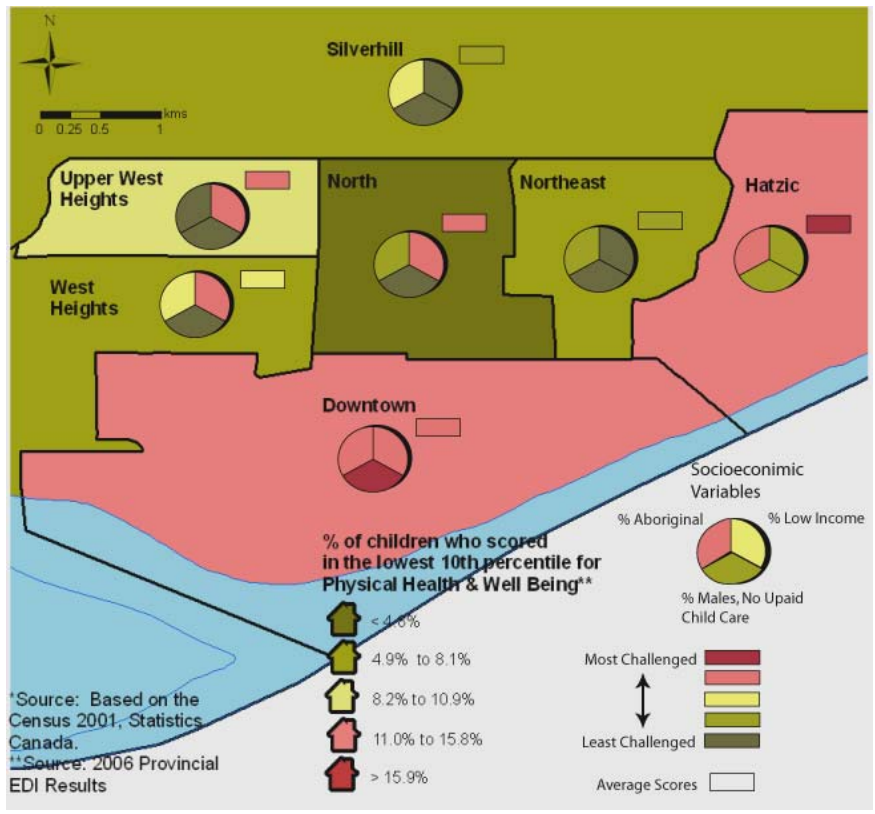
¹ The distribution of children refers to all children in individual domains of development. If we were looking at a normative data sample the distribution of children would be in the shape of a bell curve. The left side of the curve would represent the vulnerable end of the distribution while the peak (or middle) would represent the average outcomes for children and the right side would represent children that are developmentally excelling. If universal interventions were effective then the entire ‘bell curve’ would move across the scale horizontally and all children’s outcomes would improve. If civil society, targeted and clinical interventions were effective then the left side of the ‘bell curve’ would move horizontally across the scale creating a steeper incline on the left side of the curve – the middle and right side of the curve would stay stationary.



EDI Domains by Classification & Best Policy Mix

Physical Health & Well-being

- Average scores are represented by the rectangles beside the upper right quadrant of the SES pie charts.
- SES is represented by the pie chart and the three most relevant variables for 'physical health and well-being' are % Aboriginal, % Low Income and % Males, No Unpaid Child Care. Together these variables represent about 34% of the variation in variability between neighbourhoods.
- Silverhill and Northeast are typical low challenge chameleon neighbourhoods.
- Downtown is a typical high challenge chameleon neighbourhood while Hatzic is a high challenge Janus neighbourhood.

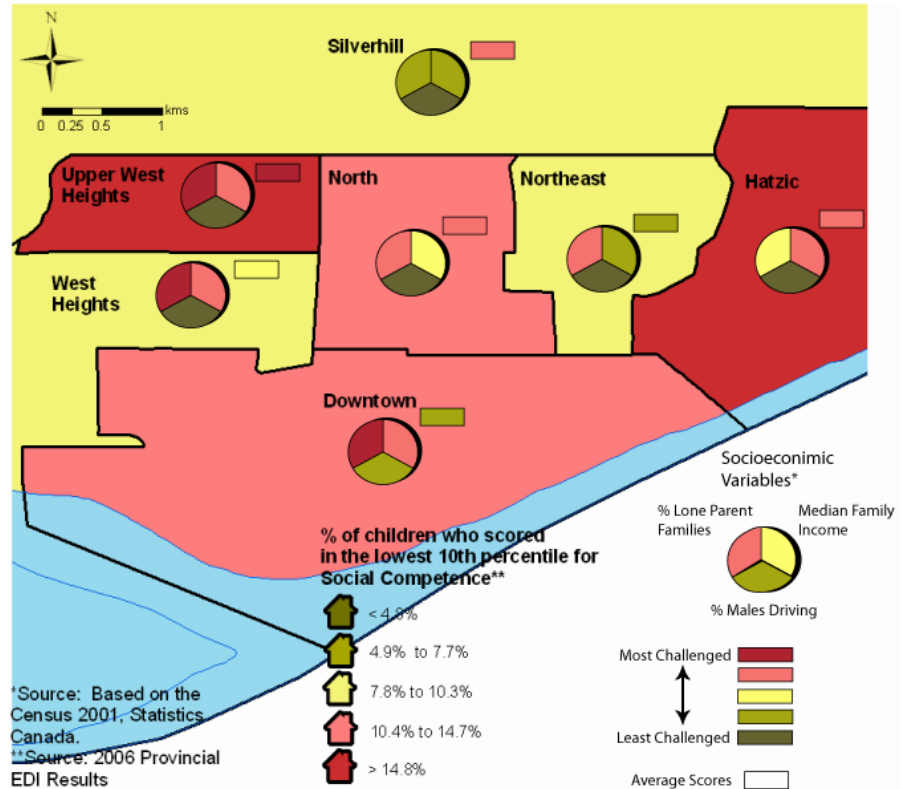


- North and Upper West Heights are buffered somewhat low challenge SES neighbourhoods.
- West Heights is a buffered mixed SES neighbourhood.
- All neighbourhoods, with the exception of West Heights have SES that compliments or enhances their classification. West Heights has mixed SES which suggests that other factors may be present that are buffering low scores and decreasing vulnerabilities.
- Increased emphasis for the buffered neighbourhoods, North, Upper West Heights and West Heights should be placed upon civil society and universal interventions that compliment this domain. For Downtown and Hatzic increased emphasis should be placed on civil society and universal interventions and special emphasis on targeted interventions because these neighbourhoods are high challenged.
- Civil society interventions that relate to this domain include issues such as: food security, safe affordable housing, public health services and programs, and low cost or free arts and recreation programs and services. Special care should be given to create awareness around issues that support physical health and well-being.
- Universal interventions have the ability to influence large numbers of children if they are available and accessible to the general public and are related to parks and playgrounds, free or low cost recreational amenities, food banks and public health.

- Targeted interventions relate to subsets of people and include parent education and support programs, food and clothing security and access to healthy outdoor experiences. Transportation issues and equal access to services should be considered for rural residents.

Social Competence

- Average scores are represented by the rectangles beside the upper right quadrant of the SES pie charts.
- SES is represented by the pie chart and the three most relevant variables for 'social competence' are % Lone Parent Families, Median Family Income and % Males Driving. Collectively these variables represent about 21% of the variation in variability between neighbourhoods.
- Upper West Heights is a high challenge chameleon neighbourhood.
- North and Hatzic are high challenge mixed SES neighbourhoods.



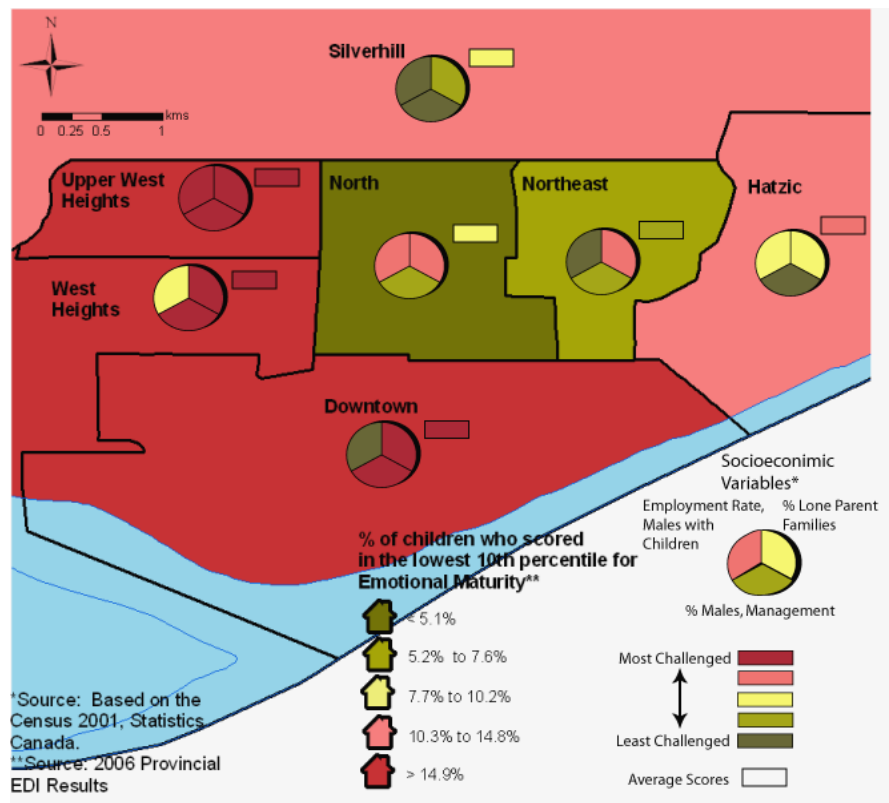
- West Heights is an average somewhat high challenge SES neighbourhood.
- Silverhill is buffered low challenge SES, Northeast is wide range somewhat low challenge SES and Downtown is wide range somewhat high challenge SES.
- Silverhill's SES may be buffering its vulnerability while Downtown, and to some extent Northeast, clearly are not being supported as extensively as they should be whether it be SES, supports or other critical factors. Upper West Heights and Hatzic are representative of poor/mixed SES not supporting this domain's outcomes – care should be given to other priority factors that influence this domain. West Heights poor SES is not reflective of its average classification, suggesting that other factors are supporting developmental outcomes. Hatzic shows a mixed bag of SES which suggests that its negative EDI outcomes need to be better supported in order to increase scores and decrease vulnerabilities.
- Increased emphasis for the high challenge and buffered neighbourhoods, North, Upper West Heights, Hatzic and Silverhill should be placed upon civil society and universal interventions and special emphasis on targeted interventions for all neighbourhoods except Silverhill. For Downtown and Northeast increased emphasis should be placed on targeted interventions and special emphasis on civil society interventions because these neighbourhoods are wide ranging. West Heights is an average neighbourhood that shows relatively poor SES and therefore should be categorized with high challenge neighbourhoods in order to decrease vulnerabilities.
- Civil society interventions that relate to this domain include issues such as safe, affordable and mixed housing in new residential developments, universal quality child care programs and

reductions in class, race and gender disparities. Special care should be given to create awareness around issues that support social competence.

- Universal interventions have the ability to influence large numbers of children if they are available and accessible to the general public and are related to family resource programs, community events with emphasis on cultural and social diversity, universal quality child care.
- Targeted interventions relate to subsets of people and include parent education and support programs, drop-in programs for families that are socially isolated and access to affordable quality child care. Transportation issues and equal access to services should be considered for rural residents.

Emotional Maturity

- Average scores are represented by the rectangles beside the upper right quadrant of the SES pie charts.
- SES is represented by the pie chart and the three most relevant variables for 'emotional maturity' are Employment Rate, Males with Children, % Lone Parent Families and % Males, Management. Collectively these variables represent about 23% of the variation in variability between neighbourhoods.
- Upper West Heights, West Heights and Downtown are typical high challenge chameleon neighbourhoods. Hatzic is a high challenge average neighbourhood.



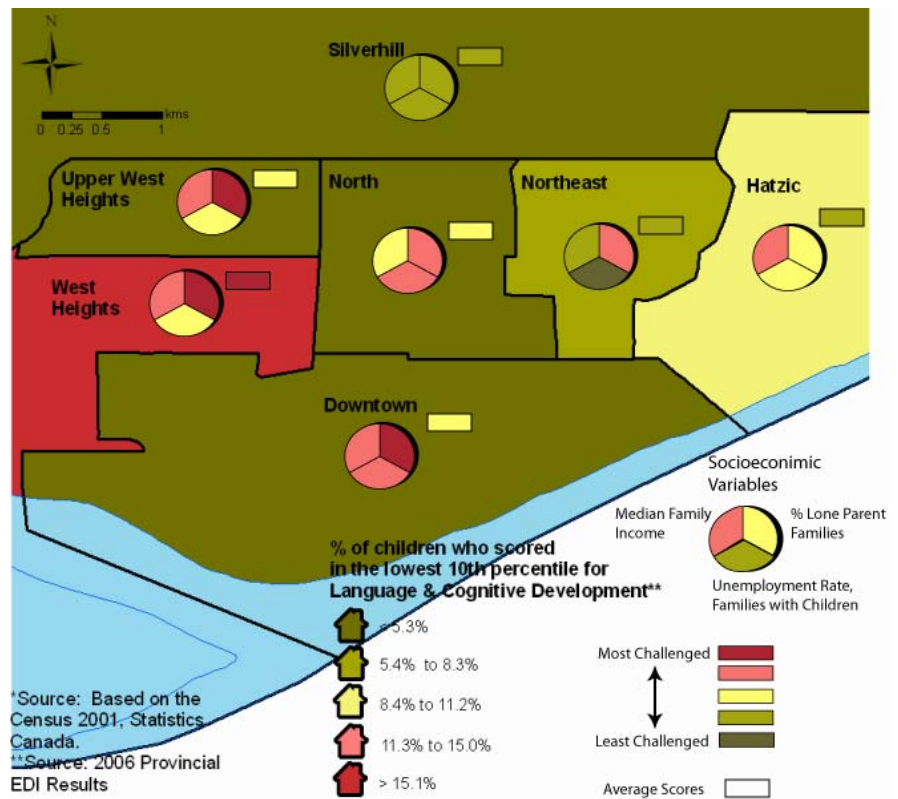
- Northeast is a low challenge chameleon SES neighbourhood.
- North is a buffered somewhat high challenge SES neighbourhood.
- Silverhill is a wide range low challenge SES neighbourhood.
- Silverhills' great SES is not affecting its high vulnerability rate which means that other factors are creating this disparity. Upper West Heights, West Heights, Downtown and Hatzic are in dire need of extra support that can impact their lack of good SES. Northeast's EDI outcomes are reflective of its SES while North's positive EDI outcomes are clearly not reflecting its SES – other factors may be supporting this domain in this neighbourhood.
- Increased emphasis for the high challenge neighbourhoods West Heights, Upper West Heights, Downtown and Hatzic should be placed upon civil society and universal interventions and special emphasis on targeted interventions. For Northeast and North increased emphasis should be placed on universal interventions and for North, increased emphasis should be placed on civil society interventions because these neighbourhoods are low challenged and buffered. Silverhill requires

special emphasis on civil society interventions and increased emphasis on targeted interventions because it is wide ranging.

- Civil society interventions that relate to this domain include issues such as safe, affordable and mixed housing in new residential developments, universal quality child care programs and reductions in class, race and gender disparities. Special care should be given to create awareness around issues that support emotional maturity.
- Universal interventions have the ability to influence large numbers of children if they are available and accessible to the general public and are related to family resource programs, community events with emphasis on cultural and social interaction and diversity and universal quality child care.
- Targeted interventions relate to subsets of people and include parent education and support programs, opportunities to mix with different cultures and access to rich oral language environments, drop-in programs for families that are culturally isolated and access to affordable quality child care. Transportation issues and equal access to services should be considered for rural residents.

Language & Cognitive Development

- Average scores are represented by the rectangles beside the upper right quadrant of the SES pie charts.
- SES is represented by the pie chart and the three most relevant variables for 'language and cognitive development' are Median Family Income, % Lone Parent Families and Unemployment Rate, Families with Children. Collectively these variables represent about 27% of the variation in variability between neighbourhoods.
- West Heights is a high challenge chameleon neighbourhood.

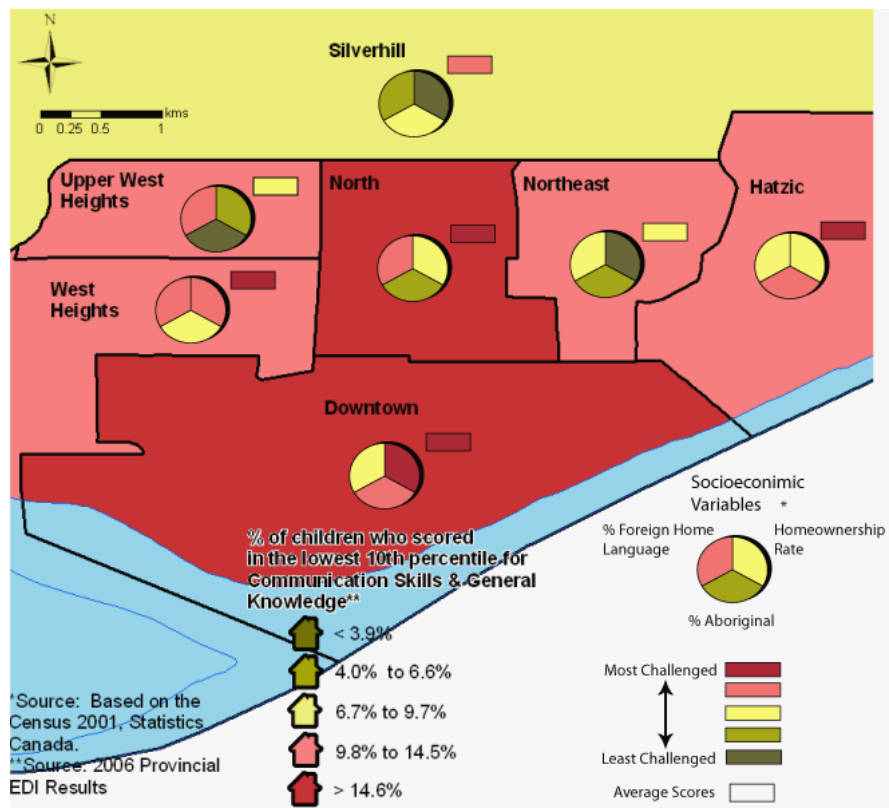


- Hatzic is a wide ranging somewhat average SES neighbourhood.
- Upper West Heights, North and Downtown are buffered high challenge SES neighbourhoods.
- Silverhill and Northeast are low challenge chameleon SES neighbourhoods.
- Silverhill and Northeast exhibit good SES reflecting their low vulnerability rates. Upper West Heights, North and Downtown are not reflective of their poor SES which suggests that other factors are supporting this domain well. West Heights EDI outcomes are reflective of its SES indicating that increased supports are needed in this neighbourhood. Hatzic requires extra supports to lower its vulnerability as its poor SES is not attributing any significant support.

- Increased emphasis for West Heights, the only high challenged neighbourhood, should be placed upon civil society and universal interventions and special emphasis on targeted interventions. For Upper West Heights, Northeast, Downtown, Silverhill and North increased emphasis should be placed on universal interventions and for Upper West Heights, North and Downtown increased emphasis on civil society interventions because these neighbourhoods are low challenged and buffered. Hatzic requires special emphasis on civil society interventions and increased emphasis on targeted interventions because it is wide ranging.
- Civil society interventions that relate to this domain include issues such as universal quality child care programs and reductions in class, race and gender disparities. Special care should be given to create awareness around issues that support language and cognitive development.
- Universal interventions have the ability to influence large numbers of children if they are available and accessible to the general public and are related to family resource programs and literacy and language programs embedded in early learning programs.
- Targeted interventions relate to subsets of people and include parent education and support programs, access to rich oral language environments, ESL learning opportunities for families, drop-in programs for families that include early literacy programs. Transportation issues and equal access to services should be considered for rural residents.

Communication Skills & General Knowledge

- Average scores are represented by the rectangles beside the upper right quadrant of the SES pie charts.
- SES is represented by the pie chart and the three most relevant variables for 'communication skills and general knowledge' are % Foreign Home Language, Homeownership Rate and % Aboriginal. Collectively these variables represent about 47% of the variation in variability between neighbourhoods.
- West Heights and Downtown are high challenge chameleon neighbourhoods while North is a high challenge mixed SES neighbourhood and Hatzic is a high challenge average SES neighbourhood.
- Upper West Heights and Northeast are wide ranging somewhat low challenge SES neighbourhoods.
- Silverhill is a buffered somewhat low challenge SES neighbourhood.
- Silverhill exhibits good SES reflecting its ability to lower its vulnerability rate. West Heights and Downtown are reflective of their poor SES which suggests that other factors are needed to support this domain well. North and Hatzic are high challenge mixed and average SES respectively

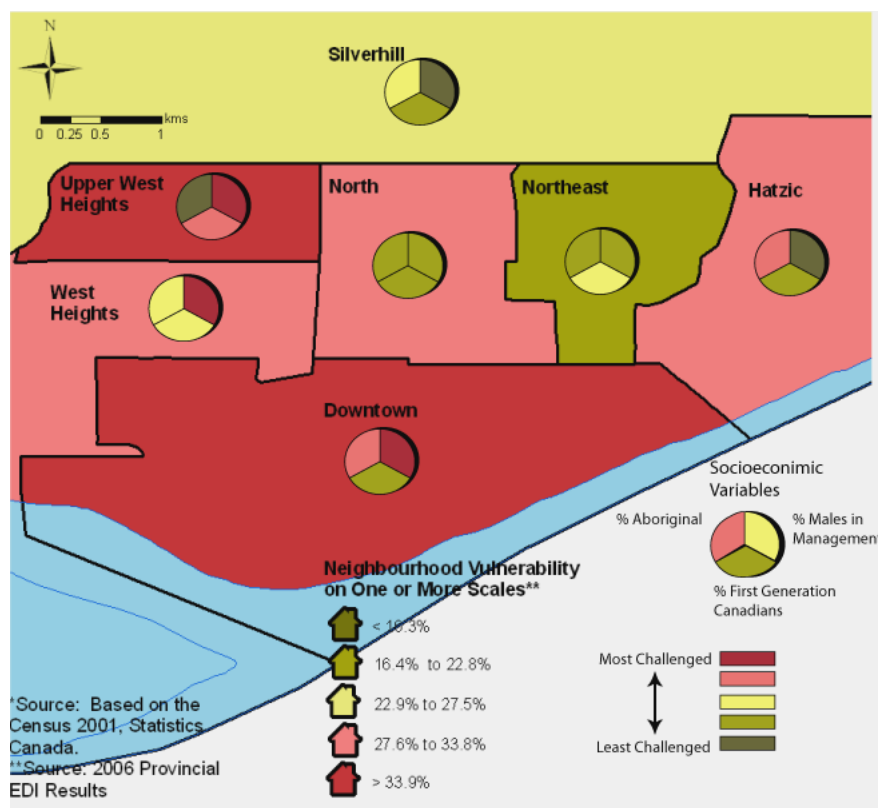


indicating that increased supports are required. Upper West Heights and Northeast are not reflective of its SES indicating that increased supports are needed in these neighbourhoods.

- Increased emphasis for West Heights, North, Downtown and Hatzic’s high challenged neighbourhoods should be placed upon civil society and universal interventions and special emphasis on targeted interventions. Silverhill requires increased emphasis on civil society and universal interventions because it is buffered. Upper West Heights and Northeast require special emphasis on civil society interventions and increased emphasis on targeted interventions because they are wide ranging.
- Civil society interventions that relate to this domain include issues such as, adequate transportation to services and programs, universal quality child care programs and reductions in class, race and gender disparities. Special care should be given to create awareness around issues that support communication skills and general knowledge.
- Universal interventions have the ability to influence large numbers of children if they are available and accessible to the general public and are related to family resource programs, community events with emphasis on cultural and social diversity, free or low arts and recreational services and programs and early learning programs with an emphasized cultural and literacy component.
- Targeted interventions relate to subsets of people and include parent education and support programs, access to rich oral language environments, ESL learning opportunities for families, drop-in programs for families that include early literacy programs. Transportation issues and equal access to services should be considered for rural residents.

Vulnerable on One or More Scales

- SES is represented by the pie chart and the three most relevant variables for ‘vulnerable on one or more scales’ are % Aboriginal, % Males in Management, % First Generation Canadians. Collectively these variables represent about 43% of the variation in variability between neighbourhoods.
- Although we cannot classify neighbourhoods by ‘vulnerable on one or more scales’ it is important to note how vulnerabilities are reflected by SES.
- The SES varies for each neighbourhood and is indicative of the diversity between neighbourhoods.
- This map shows that Upper West Heights has a very high proportion of children vulnerable in more than one domain, little Aboriginal representation, a small percentage of male caregivers in management and a high rate of first generation Canadians.



Conversely, Downtown also has a very high proportion of children

vulnerable on more than one domain, a high rate of % Aboriginal, a small percent of male caregivers and very few first generation Canadians.

- Hatzic, like Downtown, exhibits mostly the same attributes except a high proportion of males in management.
- Our ESL component resides mostly in Upper West Heights and our Aboriginal component resides mostly in Downtown and Hatzic.
- Northeast has a small percentage of its children experiencing vulnerability on one or more scales which is reflective of its SES, however rates of first generation Canadians are climbing.
- Silverhill rates average for % of children vulnerable on one or more scales even with average or low challenge SES.
- West Heights has a large rate of children vulnerable on one or more scales which is quite reflective of its average/poor SES.
- North shows a large percentage of its children are vulnerable on one or more scales despite being the least challenged SES out of all the Mission neighbourhoods.



Summary

Overall, Hatzic is the most vulnerable neighbourhood by definition, being the only neighbourhood to either be designated as high challenged or wide ranging out of all the neighbourhoods in all 5 domains. Its SES in most cases is average low, mixed or average high which suggests that more supports need to be instituted at all three levels of interventions. This neighbourhood is also impaired by inaccessible public transit opportunities and inaccessible services, supports and resources which are primarily located in the downtown core.

The second most vulnerable neighbourhood by definition is Downtown, with four domains being either high challenged or wide ranging. The SES supporting these four domains is primarily poor suggesting that accessibility barriers could be prevalent in existing services, supports and resources. Creating awareness and breaking down cultural and social barriers may be imperative to lowering vulnerabilities in these domains; in other words, availability of services, supports and resources may not be an issue but accessibility may. The only domain that showed positive outcomes is in the language and cognitive development domain which is buffered, not by SES but by other factors attributing to lowering vulnerabilities. The possibility that services, supports and resources for this domain are highly integrated in all aspects of early learning could be the buffering effect that is lowering vulnerabilities in this domain.

The third most vulnerable neighbourhoods are Upper West Heights and West Heights. Upper West Heights is high challenged in social competence and emotional maturity and wide ranging in communication skills and general knowledge. The high proportion of single parent families, low income, unemployment among males and ESL suggest that universal and accessible programs that will decrease vulnerabilities in these domains need to be instituted. West Heights is high challenged in emotional maturity, communication skills and general knowledge and the only neighbourhood that is high challenged in language and cognitive development. West Heights SES characteristics are very similar to Upper West Heights suggesting again that universal and accessible programs are required to decrease vulnerabilities.

It is interesting to note that three of the four most vulnerable neighbourhoods, the exception being Hatzic, are economically disadvantaged, and all have high proportions of ESL and/or Aboriginal residents and single parent families.

The most common buffered neighbourhood is North, which is an economically disadvantaged neighbourhood with higher proportions of ESL, unemployment and single parent families. Other important factors related to early childhood development are possibly buffering the effects of poor SES creating better outcomes for children.

Northeast is the neighbourhood with the second most positive SES indicators, three low challenge domains and two wide ranging domains. Silverhill had the most positive SES indicators, two low challenge domains, two buffered domains and one wide ranging domain. Both neighbourhoods indicate that SES and other factors are playing pivotal roles in supporting early childhood development.

West Heights, North, Downtown and Upper West Heights all exhibit poor SES and low vulnerability rates (buffered) for four out of five different domains of development. These neighbourhoods need to be inspected closely to understand what factors are helping to buffer poor SES while supporting domains of development in order to implement this phenomenon in other poor SES neighbourhoods with negative EDI outcomes. The only domain that does not have a neighbourhood that represents this effect is communication skills and general knowledge domain.

The three most vulnerable domains of early development in priority order are emotional maturity (13.5% of children vulnerable in this domain), communication skills and general knowledge (13.4% of children vulnerable in this domain) and social competence (13.4% of children vulnerable in this domain). District wide for all domains 33.3% of children are vulnerable on at least one domain. It is essential to refer to the best policy mix for each neighbourhood when referring to these domains yet still maintain our current efforts to support physical health and well-being and language and cognitive development.

A thorough understanding of our neighbourhoods is essential in order to provide a plan of action that will support our children through their crucial early stages in life. Each neighbourhood has strengths and weaknesses pertaining to socioeconomic and community factors that support children and their families. For some neighbourhoods it is evident that accessible transit to services could possibly be impairing children's development, for others it could be rapid residential development affecting neighbourhood stability and for others it could be as simple as acquiring the basic needs that we all require to survive – food, clothing, shelter, knowledge and relationships. The Mission Early Childhood Development Committee is now in a position to better understand its community by using this report as one tool to aide its membership with the most up to date community research to carry out its action plan.