



EDI

EDI WAVE 7 COMMUNITY PROFILE

OKANAGAN SIMILKAMEEN SCHOOL DISTRICT

HUMAN
EARLY LEARNING
PARTNERSHIP



ACKNOWLEDGEMENTS

We would like to acknowledge the exceptional support we have received since 2001 from the Ministries of Children and Family Development, Education, and Health. This investment has enabled the expansion of HELP's unique child development monitoring system that supports high quality, evidence-informed decisions on behalf of children and their families.

We are grateful to the teachers and education administrators who work directly with us to gather and use our reports. This includes a commitment to training and completing questionnaires, engaging with parents and caregivers, and using HELP's data and research in schools, districts and communities.

Our thanks also to early childhood and health professionals across the province who have played a substantial role in ensuring that our reports are circulated and used. They have raised awareness of the importance of the early years.

ABOUT THE HUMAN EARLY LEARNING PARTNERSHIP

The Human Early Learning Partnership (HELP) is an interdisciplinary research institute based at the School of Population and Public Health, Faculty of Medicine, at the University of British Columbia. The institute was founded by Drs. Clyde Hertzman and Hillel Goelman in 1999. Clyde's vision for HELP was to advance knowledge about child development and importantly, to apply this knowledge in communities.

HELP's unique partnership brings together researchers and practitioners from across BC, Canada and internationally to address complex child development issues. HELP's research projects explore how different environments and experiences contribute to health and social inequities in children's development over their life course. To learn more please visit our website at earlylearning.ubc.ca.

REMEMBERING DR. CLYDE HERTZMAN

This report, and the work of HELP over two decades, would not have been possible without the vision and passion of our Founding Director, Dr. Clyde Hertzman. We honour and remember a pioneer for children and families in BC and across Canada. We miss him!

SUGGESTED CITATION

Human Early Learning Partnership. Early Development Instrument [EDI] report. Wave 7 Community Profile, 2019. Okanagan Similkameen School District (SD53). Vancouver, BC: University of British Columbia, Faculty of Medicine, School of Population and Public Health; February 2020. Available from: http://earlylearning.ubc.ca/media/edi_w7_communityprofiles/edi_w7_communityprofile_sd_53.pdf

For more information please contact
HELP's EDI Team:
Email: edi@help.ubc.ca
Website: earlylearning.ubc.ca/edi

We express our deep gratitude to the xʷməØkʷəy̓əm (Musqueam) Nation for the privilege of working on their traditional, ancestral and unceded territory at the Point Grey Campus of the University of British Columbia.

HELP is committed to implementing the Calls to Action of the Truth and Reconciliation Commission. In this regard, we would like to acknowledge and thank the members of HELP’s Aboriginal Steering Committee. They guide us in:

- Developing culturally safe research practices, data collection protocols and reporting approaches;
- Implementing cultural safety and humility practices in our workplace;
- Building reciprocal relationships with First Nations, Inuit and Métis communities and organizations in BC.

We are grateful for their friendship and professionalism in guiding us along this path.



Photo: HELP's Aboriginal Steering Committee, April 2018

EDI WAVE 7 COMMUNITY PROFILE

INTRODUCTION.....	5
CHILD DEVELOPMENT MONITORING SYSTEM.....	7
IMPORTANT CONCEPTS IN UNDERSTANDING EDI DATA.....	8
INTRODUCTION TO THE EDI	9
EDI DATA & RESEARCH IN YOUR COMMUNITY.....	12
YOUR EDI DATA.....	15
YOUR COMMUNITY PROFILE	16
DEMOGRAPHICS & PARTICIPATION	17
PROVINCIAL EDI DATA	18
PROVINCIAL WAVE 7 EDI DATA	18
PROVINCIAL EDI TRENDS.....	19
SCHOOL DISTRICT EDI DATA.....	20
SCHOOL DISTRICT WAVE 7 EDI DATA	20
SCHOOL DISTRICT EDI TRENDS	21
DIFFERENCES ACROSS BC SCHOOL DISTRICTS.....	22
MULTIPLE VULNERABILITIES ON THE EDI.....	23
NEIGHBOURHOOD EDI DATA & MAPS	24
NEIGHBOURHOOD MAPS	25
CHANGES IN NEIGHBOURHOOD TRENDS OVER TIME.....	32
NEIGHBOURHOOD PROFILES.....	35
RESOURCES	
EDI RESOURCES	
ACCESSING ABORIGINAL EDI DATA	
APPENDICES	
REFERENCES	



INTRODUCTION

- CHILD DEVELOPMENT MONITORING SYSTEM
- IMPORTANT CONCEPTS IN UNDERSTANDING EDI DATA
- INTRODUCTION TO THE EARLY DEVELOPMENT INSTRUMENT(EDI)
- EDI DATA & RESEARCH IN YOUR COMMUNITY

“The quality of early childhood affects the quality of the future population and the prosperity of the society in which these children are raised.”

Dr. Fraser Mustard

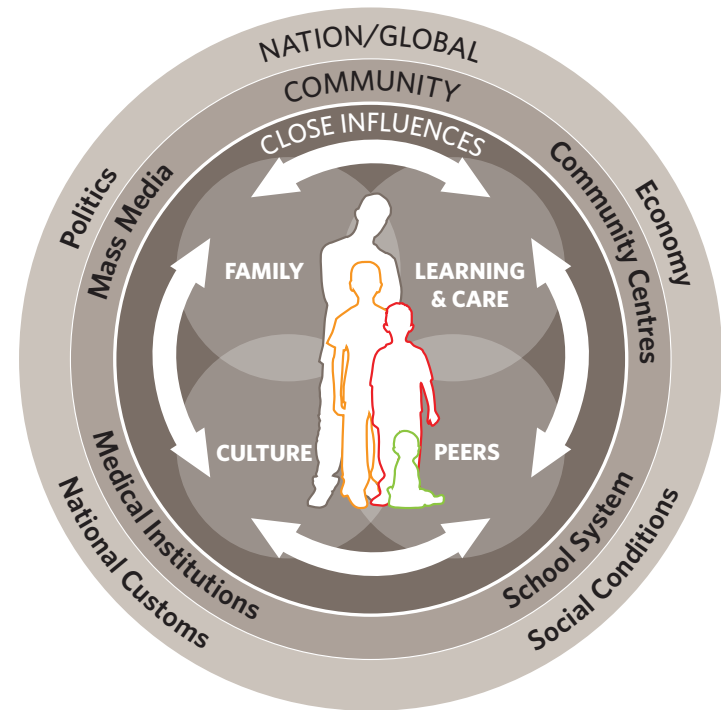
INTRODUCTION

The Human Early Learning Partnership (HELP) considers it a privilege to be able to gather and share important insights into the health and development of children in BC. We share a vision of “All Children Thriving in Healthy Societies” with many individuals, institutions and organizations across the province, and nationally. Our role in gathering valid and reliable data, reporting data in accessible and relevant ways, and working closely with partners to use the evidence toward this vision, is integral to the process of improving outcomes for all children and families in BC.

Children’s early development is profoundly important. The quality of children’s experiences and environments across every aspect of their lives influences their lifelong health and well-being. Decades of research reinforces the importance of investing more robustly in early development. Ensuring that we, as a society, provide the best possible start for all children is an issue of social justice and health equity. HELP’s adapted Total Environmental Assessment Model of Early Child Development (HELP’s TEAM ECD Model), in Figure 1, serves as a conceptual model to demonstrate how everything about children and their environments affects how they grow and develop.¹

HELP’s data provide insights into how the social, emotional, physical health and well-being, communication, language and cognitive development of children in BC is changing over time. These insights enable evidence-based decision-making to improve our investment in children and therefore improve early child development outcomes. This is necessary for improving the overall health and well-being of our society.

FIGURE 1. HELP’S TEAM ECD MODEL



* Adapted from HELP’s Total Environment Assessment (TEAM ECD) Model.

CHILD DEVELOPMENT MONITORING SYSTEM

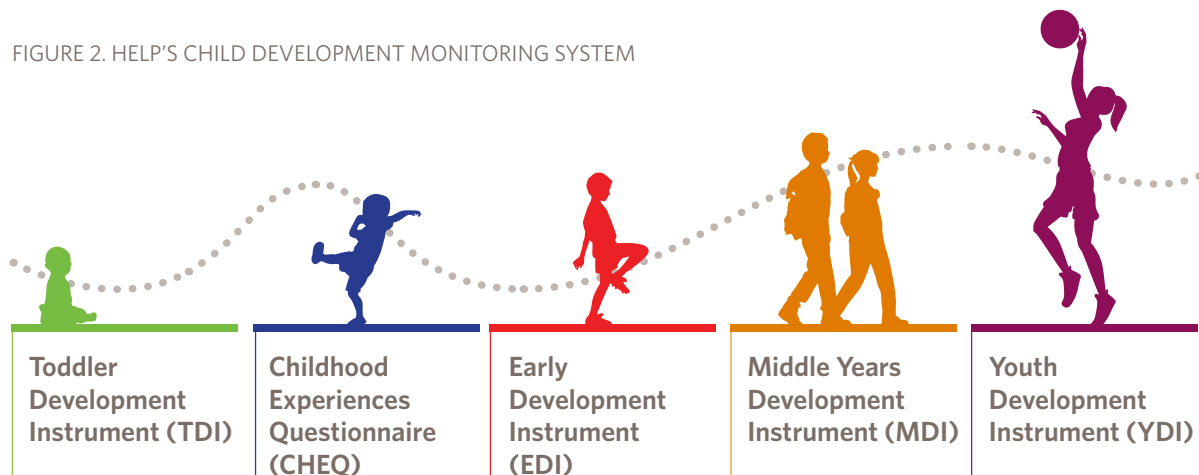
HELP has long envisioned a series of population-level tools that can be used to collect longitudinal data about child development and the contextual factors that influence development, capturing information at critical transitional points in the early lifespan. We are now closer to realizing this vision of a comprehensive child development monitoring system than ever before.

Along with the Early Development Instrument (EDI), additional questionnaires, including the Toddler Development Instrument (TDI), Childhood Experiences Questionnaire (CHEQ), and Middle Years Development Instrument (MDI), are part of HELP's child development monitoring system (Figure 2). Each of these questionnaires contribute uniquely to a deeper understanding of the contexts in which children are living, growing and learning in their early years and beyond.

While the EDI, completed by Kindergarten teachers, gathers data about children's competencies in five important developmental domains, the TDI and CHEQ, completed by parents and caregivers, collect information on contextual factors such as:

- Early social and emotional experiences;
- Daily physical activity, nutrition, screen time and sleep habits;
- Contact with the health care system;
- Child care arrangements, access and use of early learning and care programs; and
- Family demographics and supports.

FIGURE 2. HELP'S CHILD DEVELOPMENT MONITORING SYSTEM



The TDI and YDI are tools that are currently in development. For more information please visit:

TDI: earlylearning.ubc.ca/tdi

CHEQ: earlylearning.ubc.ca/cheq

MDI: earlylearning.ubc.ca/mdi

IMPORTANT CONCEPTS IN UNDERSTANDING EDI DATA

BIOLOGICAL EMBEDDING

Children's early experiences, including those before birth, can have lasting effects on their lifelong social, emotional and physical health and academic success.^{2,3,4} Advances in research on human development has shown that children's earliest experiences 'get under the skin' and can influence their gene expression.⁵ This process, called biological embedding, describes the process by which children's early experiences influence health and behaviour across their lifespan.⁶

EARLY CHILD DEVELOPMENT AS A SOCIAL DETERMINANT OF HEALTH

EDI data provide insights into the healthy development of children in BC across jurisdictions, and, over time. EDI data show that avoidable and persistent inequalities in children's developmental health and well-being exist in BC and have been sustained over time. Inequalities in children's well-being arise because of social inequity in the conditions in which people are born, grow, live, work and age.⁷ The link between social and economic factors – poverty, social exclusion, discrimination – and healthy development is clear from decades of research.^{8, 9, 10, 11}

UNDERSTANDING COMPLEXITY

Many of our children are falling behind in their earliest and most formative years. Improving outcomes will require a collective approach that recognizes complex challenges, reflects the diversity of experiences which exist throughout the province, and focuses on building from existing strengths. Ensuring that we, as a society, provide the best possible start for all children is an issue of social justice and health equity.

“What children experience during the early years sets a critical foundation for their entire lifecourse”

Early Child Development: A Powerful Equalizer¹²

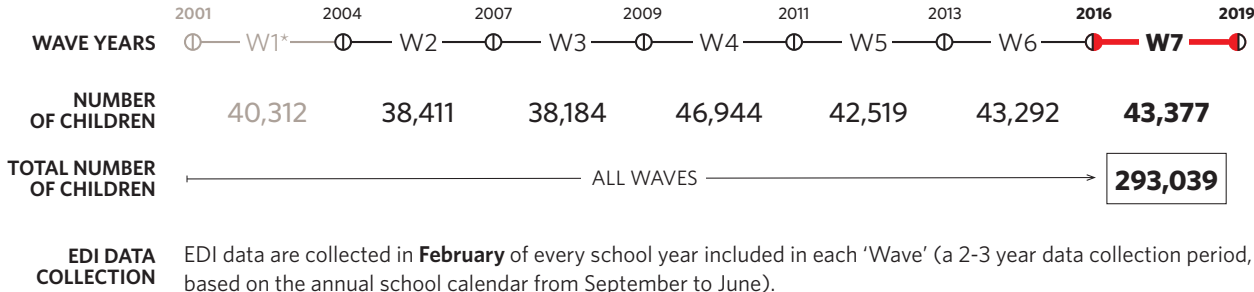
INTRODUCTION TO THE EARLY DEVELOPMENT INSTRUMENT

The EDI is a questionnaire developed by Dr. Dan Offord and Dr. Magdalena Janus at the Offord Centre for Child Studies at McMaster University in Hamilton, Ontario. It has been used across Canada, and internationally, to better understand the development of Kindergarten children. As of 2019, there are over 1.3 million EDI records for children in Canada.¹³ Increasingly, Canadian EDI data are providing a basis for understanding developmental differences and trends in different parts of the country.^{14, 15, 16}

In BC, the EDI questionnaire is used province-wide. HELP has been collecting EDI data since 2001 and over the course of this period we have collected data for 293,039 Kindergarten children in BC (Figure 3). This has created a unique and world-class data set that is not available in most other provinces or countries.

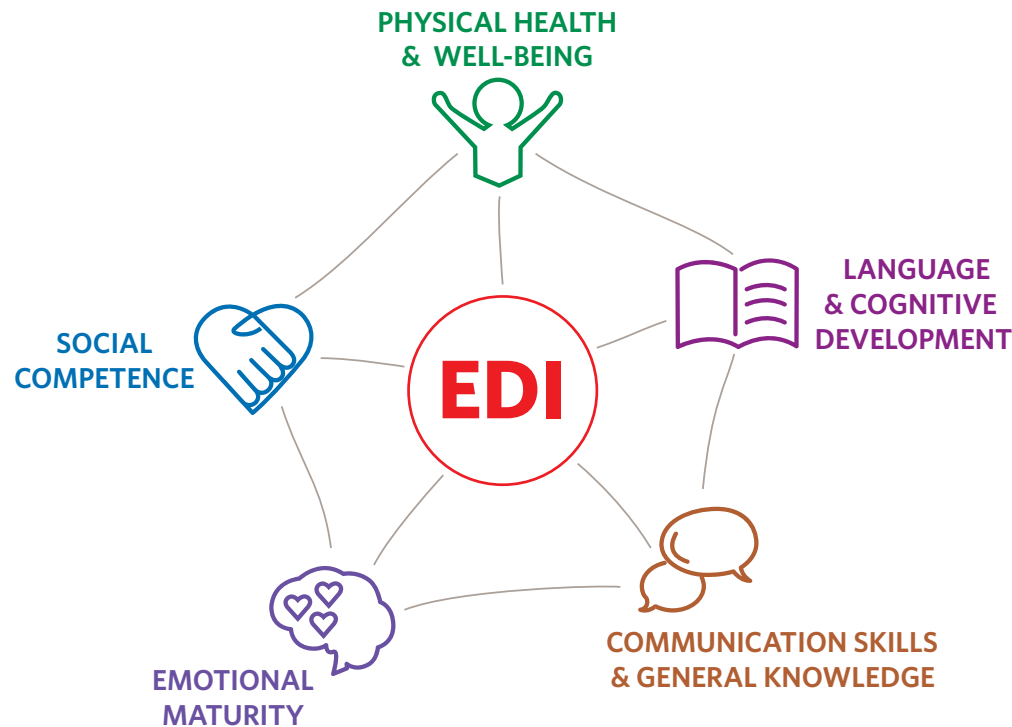
There is robust literature on the validity and reliability of the EDI: a detailed list of publications and studies can be found on the HELP website: earlylearning.ubc.ca/media/2019_09_edi_citations_help.pdf

FIGURE 3. EDI DATA COLLECTION HISTORY FROM 2001-2019



* Due to changes in the EDI questionnaire after Wave 1 data collection, Wave 2 is HELP's baseline and Wave 1 data are not publicly reported.

THE FIVE SCALES OF THE EDI



VULNERABLE ON ONE OR MORE SCALES

This is a summary measure that reports the percentage of children who are vulnerable on at least one or more of the five scales of the EDI. Children captured by this measure may be vulnerable on only one scale, or may be experiencing vulnerabilities on two, three, four or all five scales of the EDI.

More details for these scales can be found on the HELP website:

earlylearning.ubc.ca/edi

The EDI questionnaire is also available for download here:

earlylearning.ubc.ca/media/edi_survey_2019_20_bc.pdf

QUICK FACTS ABOUT THE EDI

- Completed on a three-year schedule called a "Wave" to capture sufficient data in all school districts in the province.
- Designed as a population-level monitoring questionnaire, not for screening or diagnosing individual children.
- The questionnaire includes 103 questions that gather data about five domains, also called scales, that are important to early child development and are good predictors of health, education and social outcomes in adolescence and adulthood.^{17, 18, 19, 20}
- EDI questionnaires are completed by Kindergarten teachers for students in their classroom in February of the school year.
- Participation in the EDI is voluntary. Parents and caregivers receive information about the project one month in advance and can withdraw their child, if they choose.
- Teachers participate in a standardized training session prior to completing the EDI questionnaires.

INTRODUCTION TO THE EDI

WHAT IS EDI CHILDHOOD VULNERABILITY?

Vulnerable children are those who, without additional support and care, are more likely to experience future challenges in their school years and beyond. Vulnerability is determined using a cut-off for each EDI scale. In order to avoid the use of individual children's EDI data for diagnostic or placement purposes, we only report vulnerability for groups of children.

Over a decade of research, conducted here in BC as well as across Canada and internationally, has demonstrated the predictive capability of EDI vulnerability on each of the scales.^{18, 19, 20} More generally, research has linked higher vulnerability rates at school entry with a range of later life challenges including school drop out, mental health issues and unemployment.^{21, 22, 23}

When considering vulnerability rates, it is important to note that some developmental vulnerability is to be expected in all populations of children. At birth, approximately 3-4% of children have congenital or diagnosable conditions that may limit their development.^{24, 25} In addition, in BC, 6.5% of babies are born with low birth weights which is a risk-factor for later developmental vulnerabilities.^{26, 27}

At HELP, we consider a rate of 10% to be a “reasonable” benchmark for child vulnerability.²⁸ This rate is based on the data mentioned above, along with vulnerability rates reported in the least vulnerable communities in BC and other jurisdictions over almost two decades of research. With this in mind, the current vulnerability rate of 33.4% is over three times higher than we would consider acceptable.

EDI data show trends in vulnerability over time. Through data analysis and mapping, we are also able to examine regional differences in child vulnerability at multiple geographical levels from a broad provincial snapshot, to community and neighbourhood analyses.

REPORTING ON EDI VULNERABILITY

Vulnerability on the Five EDI Scales

For each of the five scales of the EDI, the proportion of children vulnerable are reported as vulnerability rates.

Vulnerable on One or More Scales

Vulnerable on One or More Scales is a summary measure that reports the percentage of children who are vulnerable on at least one or more of the five scales of the EDI. Children included in this measure may be vulnerable on only one scale or may be experiencing vulnerabilities on two, three, four or all five scales of the EDI.

For more information about vulnerability on the EDI please see our Fact Sheet:
earlylearning.ubc.ca/media/factsheet_edi_vulnerability_20191028-web.pdf

EDI DATA & RESEARCH IN YOUR COMMUNITY



EDI data provide a mechanism for understanding trends and patterns of children’s development in communities across the province, and for inspiring action towards improving outcomes. The data do not point toward specific solutions, but rather serve as a common point for continuing collaboration and generative dialogue. EDI data represent the outcomes of the many systems that influence the quality of the lives of young children and families. To shift the kinds of EDI trends that we are currently seeing, we need to shift our attention in a substantial way toward the deeper structures and processes that created them.

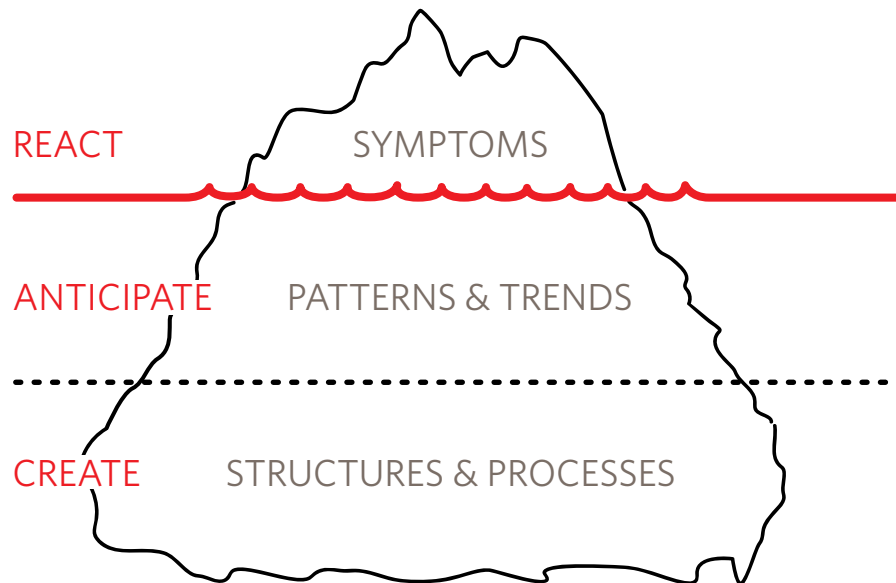
“Every system is perfectly designed to achieve the outcomes it gets.”

W. Edwards Deming

EDI DATA & RESEARCH IN YOUR COMMUNITY

A useful tool for guiding the use of a systems approach to understanding EDI data within a larger societal context is the "Systems Iceberg" metaphor.^{29, 30, 31} The iceberg provides us with a metaphor. The tip of the iceberg, what we see above the surface of the water, represents the child development problems and challenges (symptoms) that are very real in BC regions and communities. These problems and challenges are the result of the structure of the early child development system and the "processes" or ways of working that we habitually use. These remain hidden, well below the surface of the water. Data (patterns and trends) shine a light on symptoms and guide us in digging deeper into responses that do not simply address immediate problems through traditional programs and services, but also influence the structures and processes that caused them.

FIGURE 4. THE SYSTEMS ICEBERG



* Adapted from Edward T. Hall(29); Peter Senge (30) and Mette Boell (31).

Symptoms: These are the things we see in our world consistently: vulnerability, anxiety, waitlists, bullying. We tend to try to address these symptoms with new programs which, in many cases, do little to address underlying causes, and in the worst case can exacerbate the causes that created the symptom in the first place.

Patterns and Trends: As we dive under the surface of the water, identifying patterns and trends can provide an insight into how well our system has been working over time. Data trends can provide the impetus for deeper learning and inquiry and help us to anticipate what may happen next. EDI data, along with other data and research, provide important insight into the deeper causes of the symptoms that we are seeing.

Structures and Process: Symptoms and the patterns or trends are created by deeper systemic structures and processes. These include how we form our organizations, how we fund and invest, how programs are developed and delivered. They also include how we choose to work together and the underlying values and beliefs we bring to the work.

USING YOUR EDI DATA TO GUIDE A SYSTEMIC APPROACH

EDI data are a foundation for furthering understanding about children's development in our communities. While they do not point to specific solutions, these data provide a common starting point for new areas of inquiry and collaborative conversations across sectors. When data are used within planning and decision-making processes, new ideas for action and investments can emerge. The following section outlines suggested approaches for exploring and using EDI data in communities.

A FOCUS ON LOCAL

EDI data are useful for exploring early childhood outcomes at a neighbourhood-level while also placing these data within the larger regional and provincial contexts. Interpreting EDI data through a local lens can enhance the work of community, planners, coalitions and governments in decision-making and priority setting to improve early child development. Neighbourhood EDI profiles and maps can support this approach.

USING COMPLEMENTARY DATA

EDI data are particularly valuable when used alongside other data and information including census, administrative health and education data, community knowledge and expertise, and information on local services and programs. Listening to the experiences of parents and caregivers can also provide important context to guide conversations and planning efforts.

COLLABORATIVE, GENERATIVE CONVERSATIONS

EDI data can provide a catalyst for facilitating discussion and inquiry across sectors, organizations and communities. They are the foundation for a stronger focus on structures and processes that contribute to child vulnerability rates.

These kinds of conversations are critical to a sustained and comprehensive approach. Only when the perspectives and views of everyone in the community are shared do we start to understand and see the full system more clearly. And this is an essential foundation for more sustainable and effective action.

DECISION-MAKING AND ACTION

As a stronger and shared understanding emerges through conversation and inquiry in a community or region, it is possible to move toward a collective plan of action. This process might include the creation of a shared vision across organizations and sectors, collective strategic planning, partnership development, and finally the selection of new actions and initiatives.

For more information about HELP's emerging work in the area of Systems Leadership in the early years, see the Resources page at the end of this report.



YOUR EDI DATA

- YOUR COMMUNITY PROFILE
- DEMOGRAPHICS & PARTICIPATION
- PROVINCIAL WAVE 7 EDI DATA
- PROVINCIAL EDI TRENDS
- SCHOOL DISTRICT WAVE 7 EDI DATA
- SCHOOL DISTRICT EDI TRENDS
- MULTIPLE VULNERABILITIES ON THE EDI
- DIFFERENCES ACROSS BC SCHOOL DISTRICTS
- NEIGHBOURHOOD DATA & MAPS

YOUR COMMUNITY PROFILE

This Community Profile explores EDI data for Okanagan Similkameen School District and its neighbourhoods. These data are reported based on children's home postal codes and include all children who live within the school district boundaries. EDI data are collected from public schools and participating independent and First Nations schools. It provides an overview of the patterns and trends in EDI vulnerability rates for Wave 7 (2016–2019) and explores change over time from Wave 2 (2004–2007) through Wave 7, based on EDI data collected and analyzed for Kindergarten children between 2004 and 2019. This profile also provides information on provincial-level data, intended to help communities situate local data in the broader provincial context.

Please note: Data are **suppressed** for school districts and neighbourhoods with fewer than 35 Kindergarten children to protect children's privacy and to ensure the data displays a reliable and valid picture of child development in the area. The data in this report have been **rounded**.

INTERPRETING MAPS AND DATA

EDI data in this report are presented for each of the five scales of the EDI, and by the summary measure representing children who are vulnerable on one or more scales. Graphs, data tables and maps in this report use colours and shades to indicate rates of vulnerability. Darker colours always represent higher rates of vulnerability.



DEMOGRAPHICS & PARTICIPATION

SD53 ■ OKANAGAN SIMILKAMEEN

EDI PARTICIPATION BY SCHOOL YEAR

	SCHOOL YEAR	# OF TOTAL EDI	
		SD	BC
WAVE 2	2004/05	187	6,830
	2005/06	7	21,847
	2006/07	0	9,734
WAVE 3	2007/08	0	3,164
	2008/09	157	35,020
WAVE 4	2009/10	181	25,033
	2010/11	144	21,911
WAVE 5	2011/12	180	12,485
	2012/13	139	30,034
WAVE 6	2013/14	0	1,289
	2014/15	127	22,733
	2015/16	109	19,270
WAVE 7	2016/17	169	18,317
	2017/18	132	10,065
	2018/19	15	14,995

WAVE 7 DEMOGRAPHIC SUMMARY

	SD	BC
TOTAL EDI	316	43,377
STUDENT MEAN AGE	5.6	5.64
# MALES	161	22,260
# FEMALES	155	21,117
# ELL*	56	8,356
# SPECIAL NEEDS**	12	1,680

Please note the following:

Wave 7 Demographic Summary Table: Total EDI

Total EDI refers to the total number of children in the school district for whom an EDI questionnaire has been started. In a few school districts, for a small number of children, only demographic data is available. These data are considered invalid. This is most often due to a child transferring schools during the school year. Their demographic data is included, but they are not included in the vulnerability data in the report.

EDI Participation by School Year Table

EDI data are collected by schools within a district at specific times during each three-year wave cycle. The number of total EDIs indicated in the table varies across the different years within a wave depending on the number of schools collecting EDI data that year.

The public school district typically collects data in all of their schools in a given year or years, while Francophone, Indigenous, or independent schools may collect EDI data in a different year of a wave cycle. In addition, EDI data are aggregated by where children live using their home postal code. In some cases, a child may live within a school district boundary but not attend a school in that district.

As a result of the above, children may appear in the participation counts in years when the public school district did not participate.

*ELL: Designated English Language Learners by School District administrative data

**Special Needs: Designated Special Need by School District administrative data

***2005/06 data were collected as part of the Understanding the Early Years Initiative. The majority of these data are held by Employment and Social Development Canada (previously HRSDC).

PROVINCIAL WAVE 7 EDI DATA

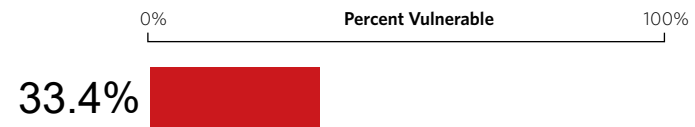
The current provincial vulnerability rate (Wave 7, collected between 2016–2019) for children Vulnerable on One or More Scales of the EDI is 33.4% (Figure 5). This means that 14,468 Kindergarten students in the province, start school with vulnerability in one or more areas of their development. These vulnerabilities may have an influence on their future success and well-being. Figure 6 shows the provincial vulnerability rates and the number of children vulnerable across each of the five scales of the EDI.

Total Number of Children
43,377

FIGURE 5. WAVE 7 VULNERABILITY ON ONE OR MORE SCALES FOR BC

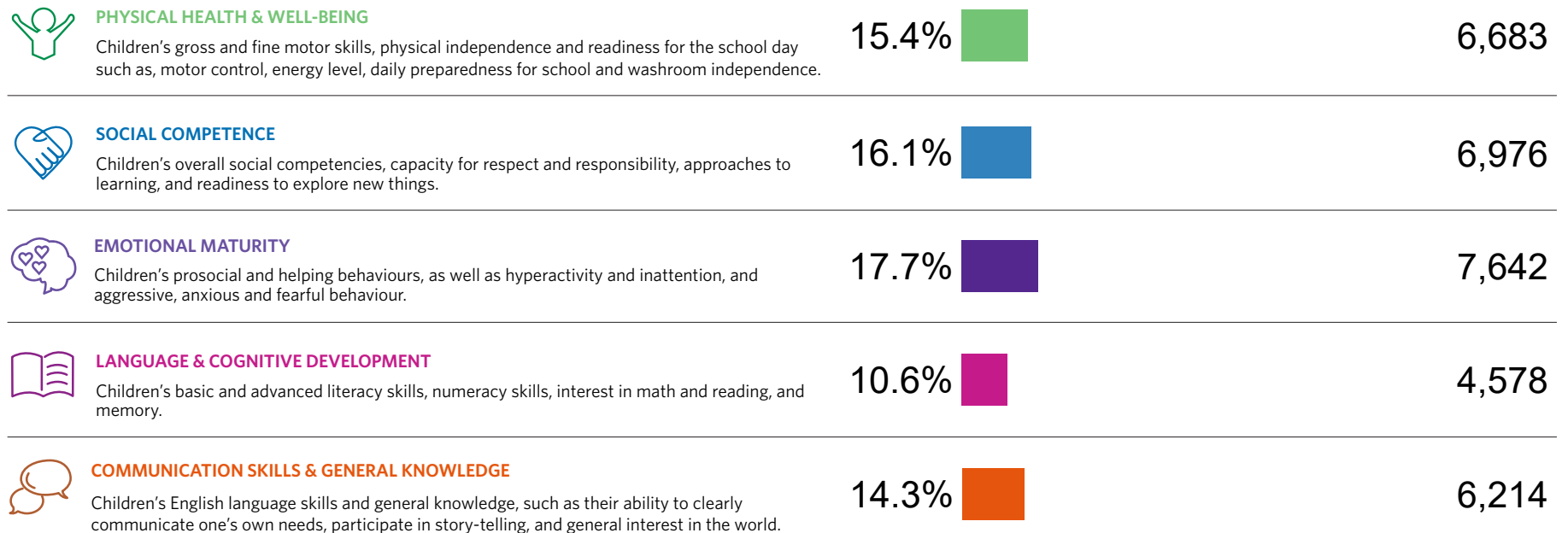
VULNERABLE ON ONE OR MORE SCALES

This is a summary measure that reports the percentage of children who are vulnerable on at least one or more of the five scales of the EDI. Children captured by this measure may be vulnerable on only one scale, or may be experiencing vulnerabilities on two, three, four or all five scales of the EDI.



Number of Children Vulnerable
14,468

FIGURE 6. WAVE 7 SCALE LEVEL VULNERABILITY FOR BC



PROVINCIAL EDI TRENDS

There has been a meaningful increase (i.e. worthy of attention) in the vulnerability rate for Vulnerable on One or More Scales of the EDI over the long-term (LT) from 29.9% in Wave 2 (2004–2007) to 33.4% in Wave 7 (2016–2019), and a smaller increase over the short-term (ST) between Wave 6 (2013–2016) and Wave 7 (Figure 7).

Figure 8 shows there has been a steady increase in the vulnerability rate for Emotional Maturity, from 11.9% in Wave 2 to 17.7% in Wave 7. The increase in vulnerability on this scale is the largest among all the EDI scales and constitutes a 49% increase since Wave 2. There has also been an increase from Wave 6 (16.1%) to Wave 7 (17.7%).

Language and Cognitive Development is the only EDI scale with a declining vulnerability rate – from 11.3% in Wave 2 to 10.6% in Wave 7. However, there was a small increase between Wave 6 (9.4%) and Wave 7 (10.6%).

FIGURE 7. WAVE 2-7 VULNERABILITY TRENDS FOR BC

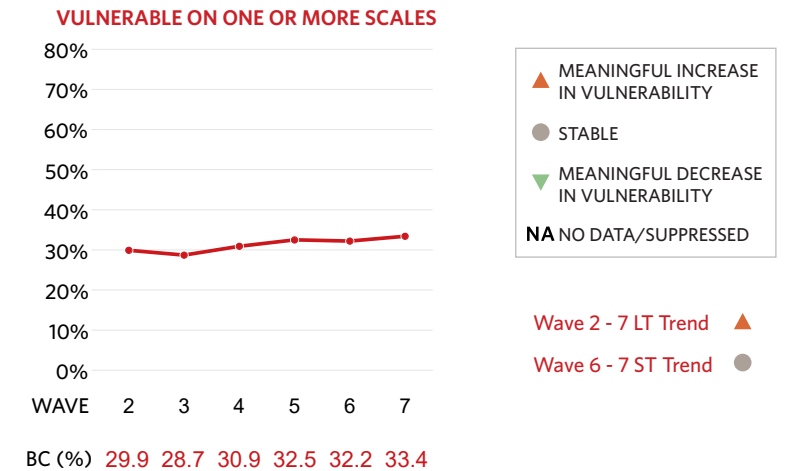
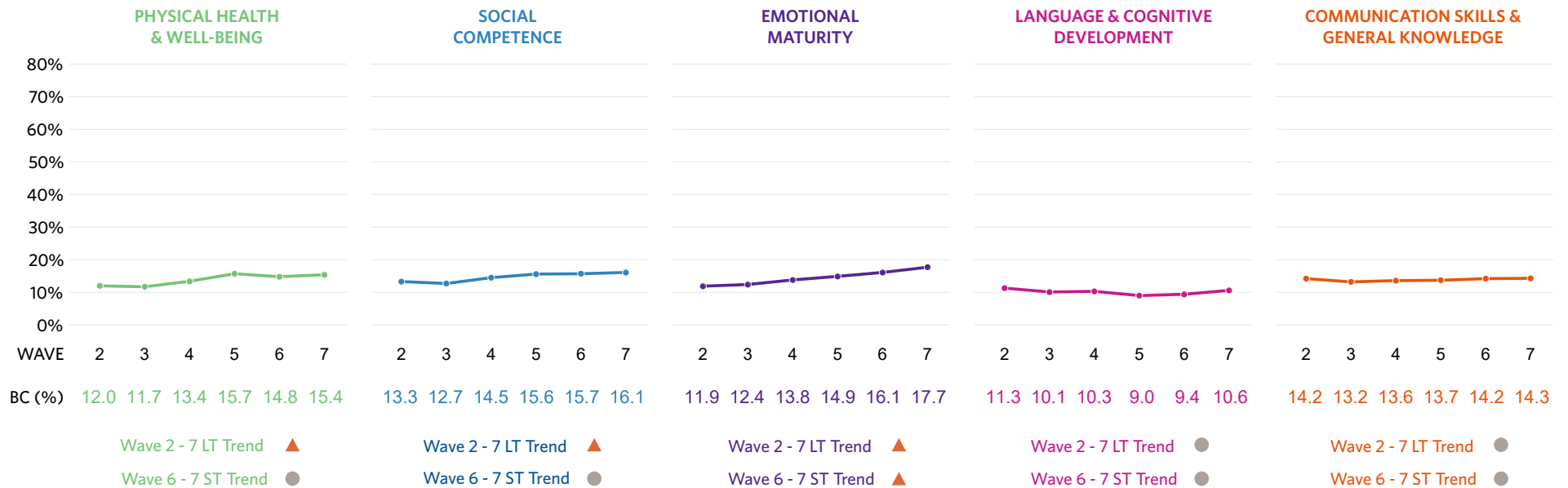


FIGURE 8. WAVE 2-7 SCALE LEVEL VULNERABILITY TRENDS FOR BC



SCHOOL DISTRICT WAVE 7 EDI DATA

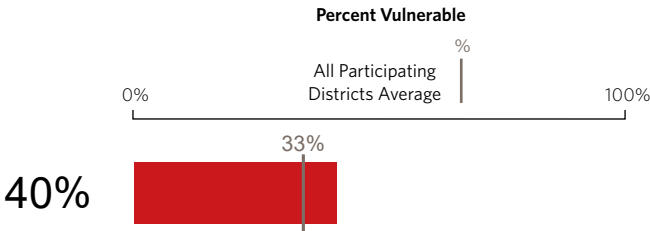
Figure 9 shows that in Okanagan Similkameen 40% or 127 children are vulnerable on at least one area of development as measured by the EDI in Wave 7 (2016-2019). Figure 10 explores vulnerability rates, and the corresponding number of children vulnerable, across each of the five scales of the EDI.

Total Number of Children
316

FIGURE 9. WAVE 7 VULNERABILITY ON ONE OR MORE SCALES FOR OKANAGAN SIMILKAMEEN

VULNERABLE ON ONE OR MORE SCALES

This is a summary measure that reports the percentage of children who are vulnerable on at least one or more of the five scales of the EDI. Children captured by this measure may be vulnerable on only one scale, or may be experiencing vulnerabilities on two, three, four or all five scales of the EDI.



Number of Children Vulnerable
127

FIGURE 10. WAVE 7 SCALE LEVEL VULNERABILITY FOR OKANAGAN SIMILKAMEEN

Scale	Description	Percent Vulnerable	Number of Children Vulnerable
PHYSICAL HEALTH & WELL-BEING	Children's gross and fine motor skills, physical independence and readiness for the school day such as, motor control, energy level, daily preparedness for school and washroom independence.	19%	61
SOCIAL COMPETENCE	Children's overall social competencies, capacity for respect and responsibility, approaches to learning, and readiness to explore new things.	21%	65
EMOTIONAL MATURITY	Children's prosocial and helping behaviours, as well as hyperactivity and inattention, and aggressive, anxious and fearful behaviour.	24%	75
LANGUAGE & COGNITIVE DEVELOPMENT	Children's basic and advanced literacy skills, numeracy skills, interest in math and reading, and memory.	15%	48
COMMUNICATION SKILLS & GENERAL KNOWLEDGE	Children's English language skills and general knowledge, such as their ability to clearly communicate one's own needs, participate in story-telling, and general interest in the world.	17%	55

SCHOOL DISTRICT EDI TRENDS

Collecting EDI data over multiple years allows for an improved understanding of trends in children’s development. Figure 11 shows that for the summary measure Vulnerable on One or More Scales, the vulnerability rate for Okanagan Similkameen was 40% in Wave 6 and 40% in Wave 7. There is no meaningful change in childhood developmental vulnerability for this time period.. The longer-term trend shows that 36% of children were vulnerable in Wave 2 and 40% were vulnerable in Wave 7. There is no meaningful change in childhood developmental vulnerability for this time period.

Figure 12 illustrates EDI vulnerability rates for each of the five scales across five points in time (Waves 2 through 7) for Okanagan Similkameen School District. These trend data help identify gradual changes in vulnerability across and between EDI scales over this period.

FIGURE 11. WAVE 2-7 VULNERABILITY TRENDS FOR OKANAGAN SIMILKAMEEN

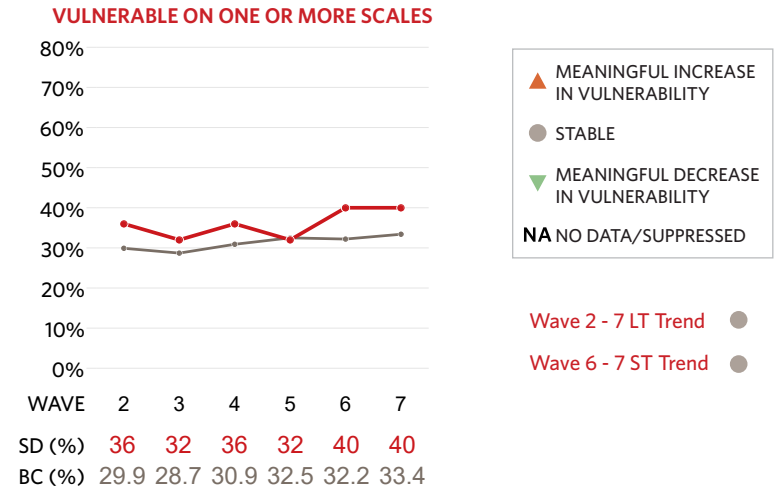
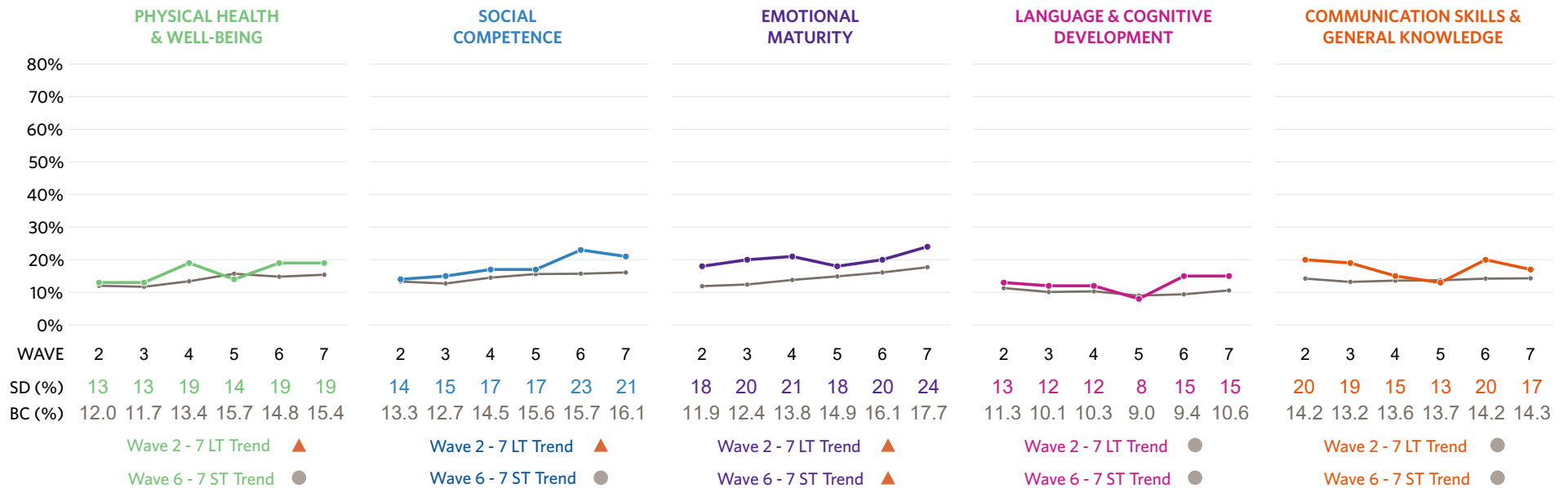


FIGURE 12. WAVE 2-7 SCALE LEVEL VULNERABILITY TRENDS FOR OKANAGAN SIMILKAMEEN



Note: Data are suppressed for waves when there are fewer than 35 Kindergarten children in the school district. See Appendices 1A and 1B for full tables of your school district’s EDI data.

DIFFERENCES ACROSS BC SCHOOL DISTRICTS

There is a wide range in vulnerability rates across all BC school districts in Wave 7. On the measure Vulnerable on One or More Scales, across **school districts** in BC, the lowest vulnerability rate is 13% while the highest is 54%.

For individual scales, the lowest vulnerability rate across school districts is found on the Communication Skills and General Knowledge Scale at 2%, as well as the highest, at 34%.

Figures 13 and 14 illustrate Okanagan Similkameen's vulnerability rates on One or More Scales of the EDI and each of the five scales, for Wave 7, in comparison to data from all other school districts in the province. Each coloured bar represents one school district's vulnerability rate, which are ordered from the lowest to highest vulnerability. The grey bar represents Okanagan Similkameen's vulnerability rates.

See Appendices 1A and 1B for a detailed comparison of EDI data for all school districts in the province.

FIGURE 13. WAVE 7 VULNERABILITY IN OKANAGAN SIMILKAMEEN WITHIN A PROVINCIAL CONTEXT

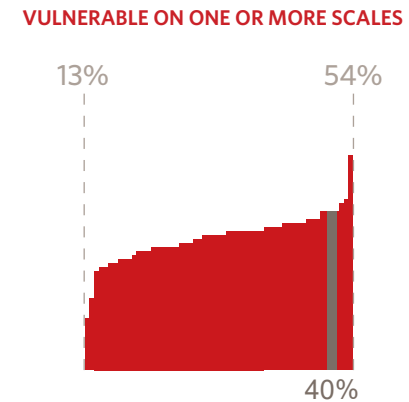
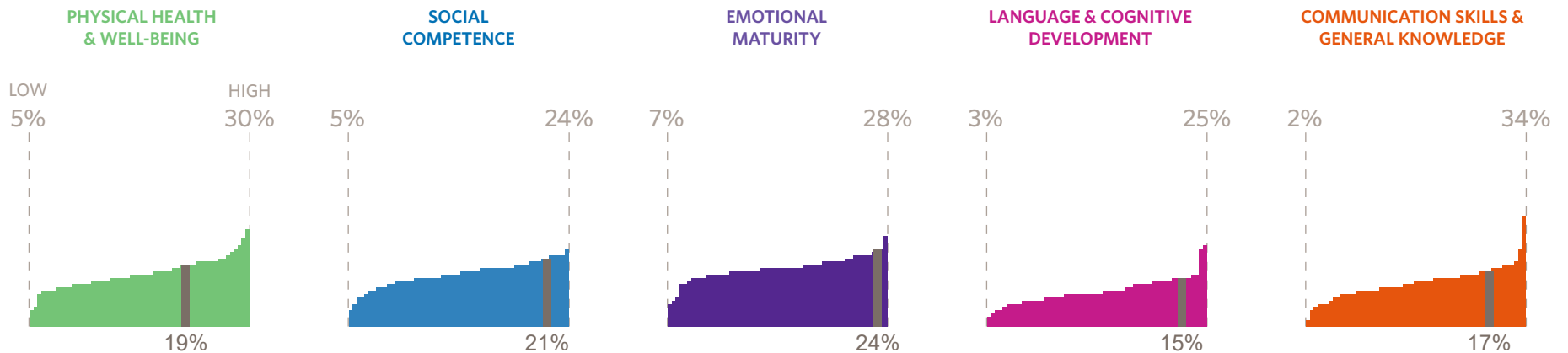


FIGURE 14. WAVE 7 SCALE-LEVEL VULNERABILITY IN OKANAGAN SIMILKAMEEN WITHIN A PROVINCIAL CONTEXT

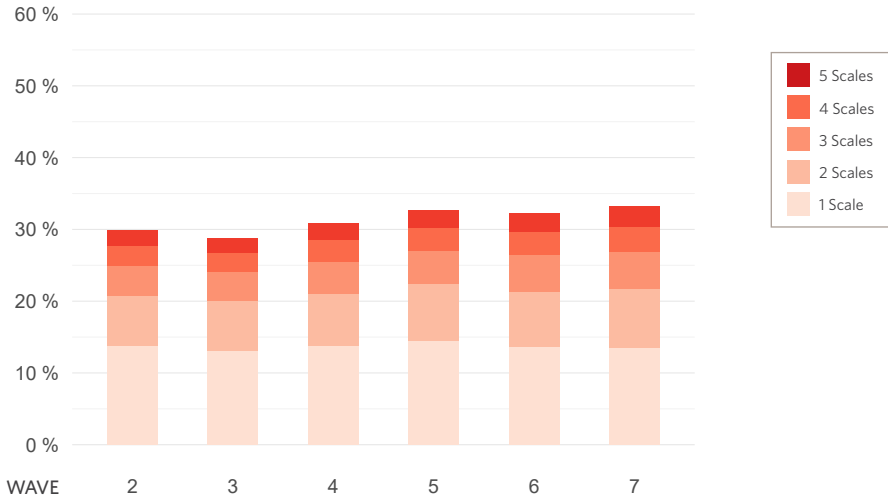


MULTIPLE VULNERABILITIES ON THE EDI

While many of the province’s children are vulnerable in a single area of development, some are vulnerable on two, three, four or all five scales of the EDI. Assessing the proportion of children who are vulnerable in multiple areas, especially over time, provides a more fine-grained perspective on vulnerability in BC.

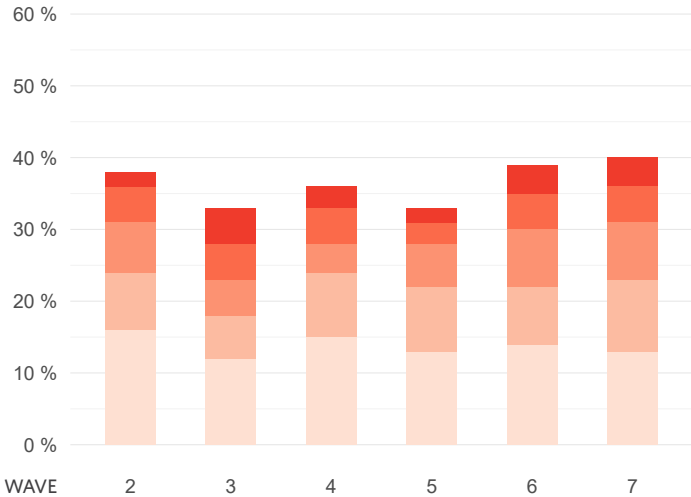
In addition to the increasing rates of vulnerability in the province, Figure 15 shows that the complexity of vulnerability patterns is also increasing. It appears that children and families are experiencing more complex challenges and vulnerable children are experiencing increased struggles across more areas of their lives.

FIGURE 15. NUMBER OF VULNERABILITIES ON THE EDI IN BC, BY WAVE, AS A PERCENTAGE OF THE TOTAL NUMBER OF CHILDREN



In Figure 15 above, EDI data from Wave 2 (2004-2007) to Wave 7 (2016-2019) record a small and consistent increase in the number of children who are vulnerable on multiple scales. The proportion of children with two vulnerabilities went from 7% to 8.1%; children with three vulnerabilities went from 4.1% to 5.2%; children with four vulnerabilities went from 2.9% to 3.4%; and children with five vulnerabilities went from 2.1% to 2.9%.

FIGURE 16. NUMBER OF VULNERABILITIES ON THE EDI IN OKANAGAN SIMILKAMEEN, BY WAVE, AS A PERCENTAGE OF THE TOTAL NUMBER OF



As shown in Figure 16, for Okanagan Similkameen, EDI data from Wave 2 (2004-2007) to Wave 7 (2016-2019) show the proportion of children with two vulnerabilities went from 8% to 10%; children with three vulnerabilities went from 7% to 8%; children with four vulnerabilities went from 5% to 5%; and children with five vulnerabilities went from 2% to 4%.

Note: Data is suppressed for waves when there are fewer than 35 Kindergarten children in the school district. These waves are represented by N/A in the text and an empty column in the bar chart.



NEIGHBOURHOOD EDI DATA & MAPS

Neighbourhoods - whether small or large, rural or remote, urban or suburban - have unique characteristics that provide important context for interpreting and applying EDI data. Reporting and mapping EDI data at the neighbourhood-level improves our understanding of the broader social and economic factors influencing children's development and health by highlighting geographic patterns and trends.

EDI data show that vulnerable children live in every neighbourhood in BC. Yet, these data reveal large differences in vulnerability rates between neighbourhoods, both within and across school districts. While some neighbourhoods sustain low vulnerability rates over time, others experience high and sustained rates. On the measure Vulnerable on One or More Scales, across **neighbourhoods** in BC, the lowest vulnerability rate is 13% while the highest is 68%.

The following section explores Wave 7 (2016-2019) EDI data for neighbourhoods in this school district, highlighting neighbourhood-level trends and patterns over time. HELP-designated neighbourhood boundaries were created using census, postal code and municipal planning boundaries and in consultation with those communities to maintain a threshold of 35 children in each of the 298 neighbourhoods.

In small, often rural school districts, the result is one HELP-designated neighbourhood with the same geographic boundaries as the school district as a whole. In these cases, the school district-level data is the same as the neighbourhood-level data. As a result, these school districts will have Neighbourhood profiles with the same data as the rest of the report. The Neighbourhood profiles showcase these data in a different way and therefore we still provide them in this report. For full tables of neighbourhood-level EDI data for this community, see Appendices 2A and 2B.

- NEIGHBOURHOOD MAPS
- CHANGES IN NEIGHBOURHOOD TRENDS OVER TIME
- NEIGHBOURHOOD PROFILES



NEIGHBOURHOOD MAPS

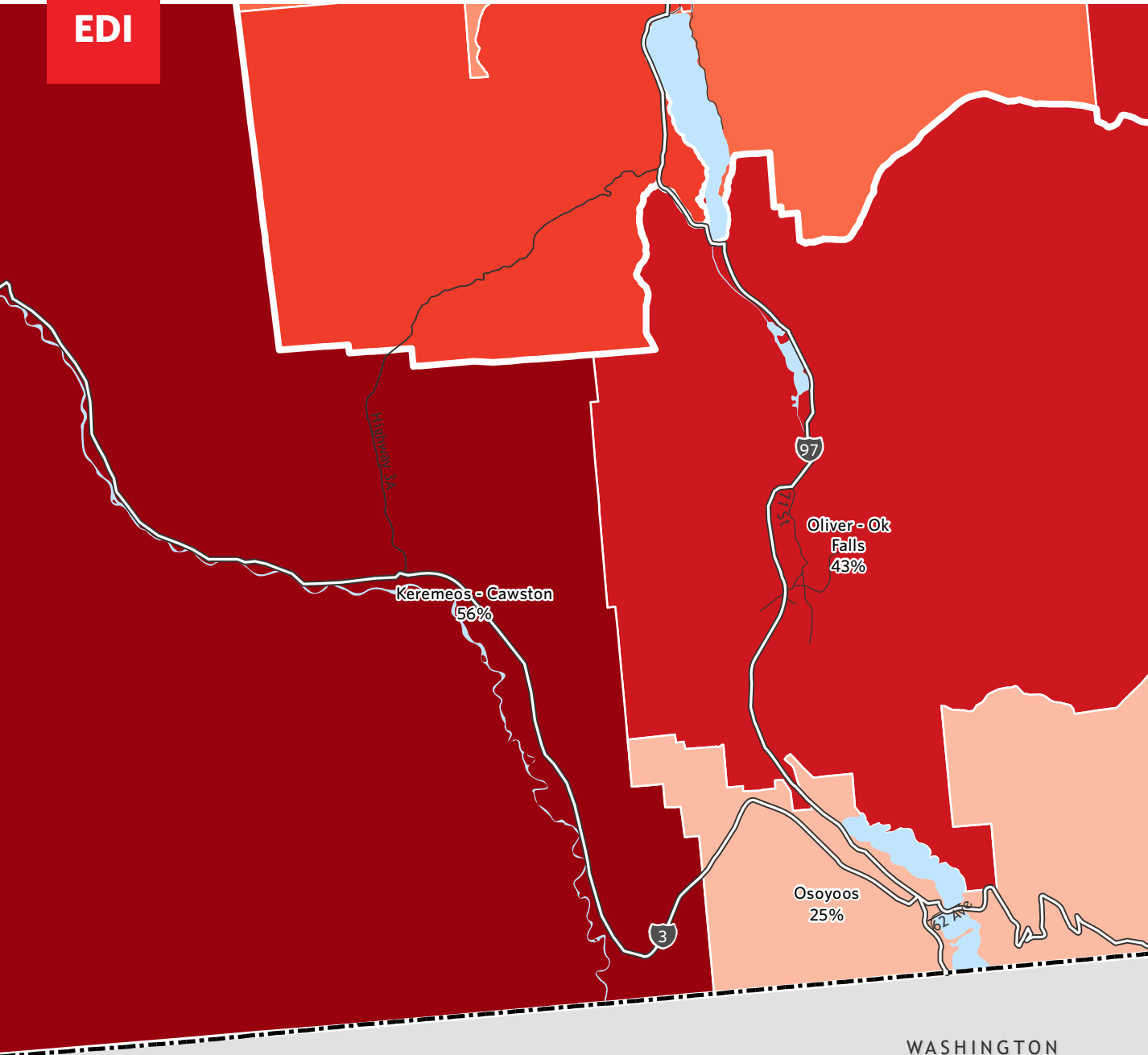
- VULNERABLE ON ONE OR MORE SCALES OF THE EDI
- PHYSICAL HEALTH & WELL-BEING
- SOCIAL COMPETENCE
- EMOTIONAL MATURITY
- LANGUAGE & COGNITIVE DEVELOPMENT
- COMMUNICATION SKILLS & GENERAL KNOWLEDGE

"...vulnerable children in BC are not spread evenly throughout the province. EDI research reveals a large 'geography of opportunity' where some children face steep difficulties and others do not..."

Dr. Clyde Hertzman

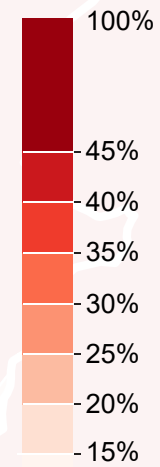
OKANAGAN SIMILKAMEEN (SD 53) WAVE 7

EDI



VULNERABLE ON ONE OR MORE SCALES

% VULNERABLE



SCHOOL DISTRICT AVERAGE

40%

PROVINCIAL AVERAGE

33.4%

0%
No Data/
Suppressed

For more information please visit:
earlylearning.ubc.ca/maps/edi

WASHINGTON
U.S.A

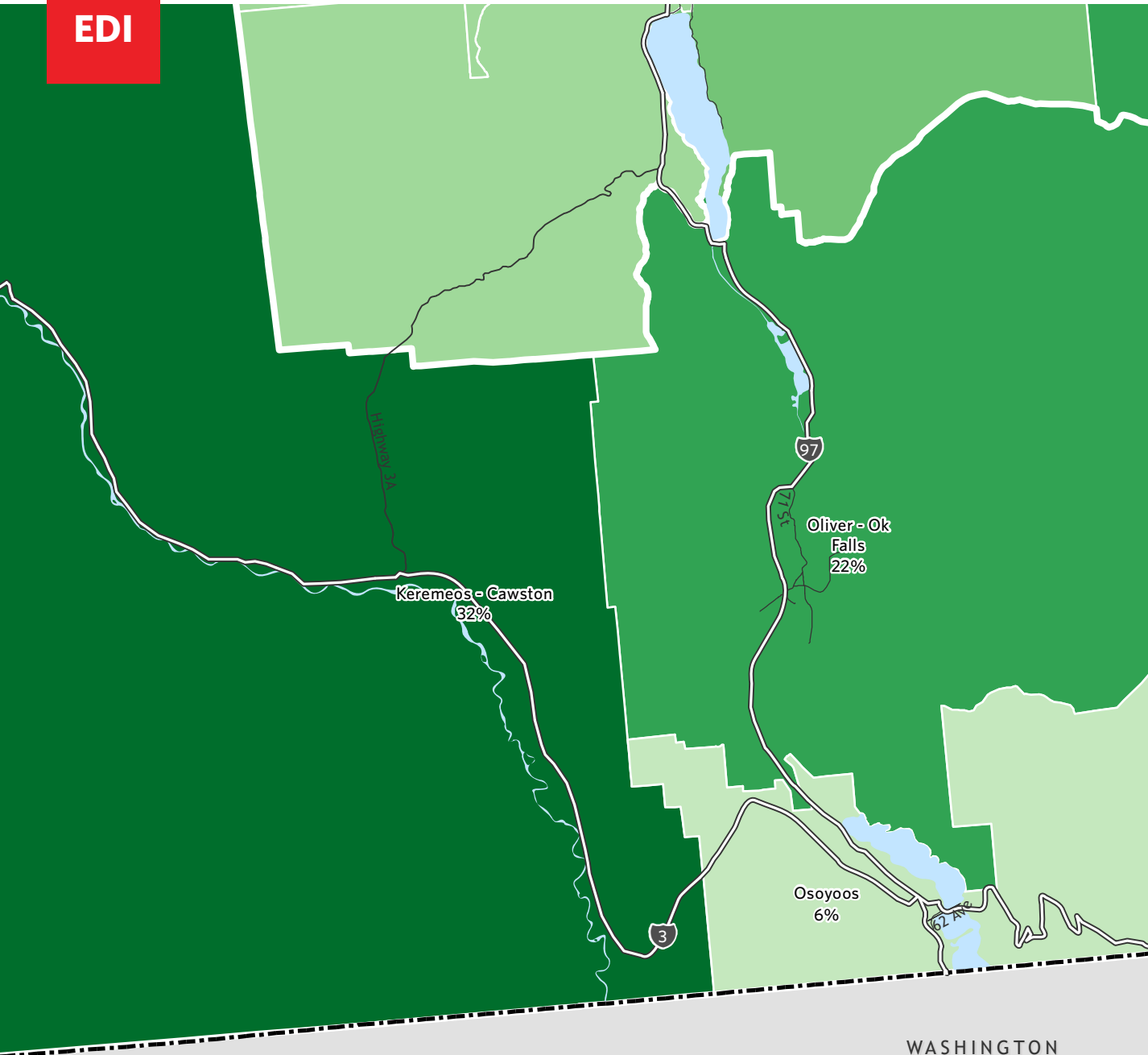
HUMAN
EARLY LEARNING
PARTNERSHIP



OKANAGAN SIMILKAMEEN (SD 53) WAVE 7

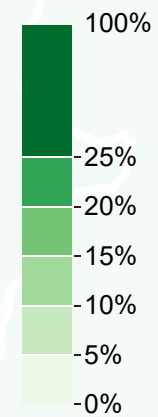


EDI



VULNERABILITY ON THE PHYSICAL HEALTH & WELL-BEING SCALE

% VULNERABLE



SCHOOL DISTRICT AVERAGE

19%

PROVINCIAL AVERAGE

15.4%

No Data/
Suppressed

For more information please visit:
earlylearning.ubc.ca/maps/edi

WASHINGTON
U.S.A

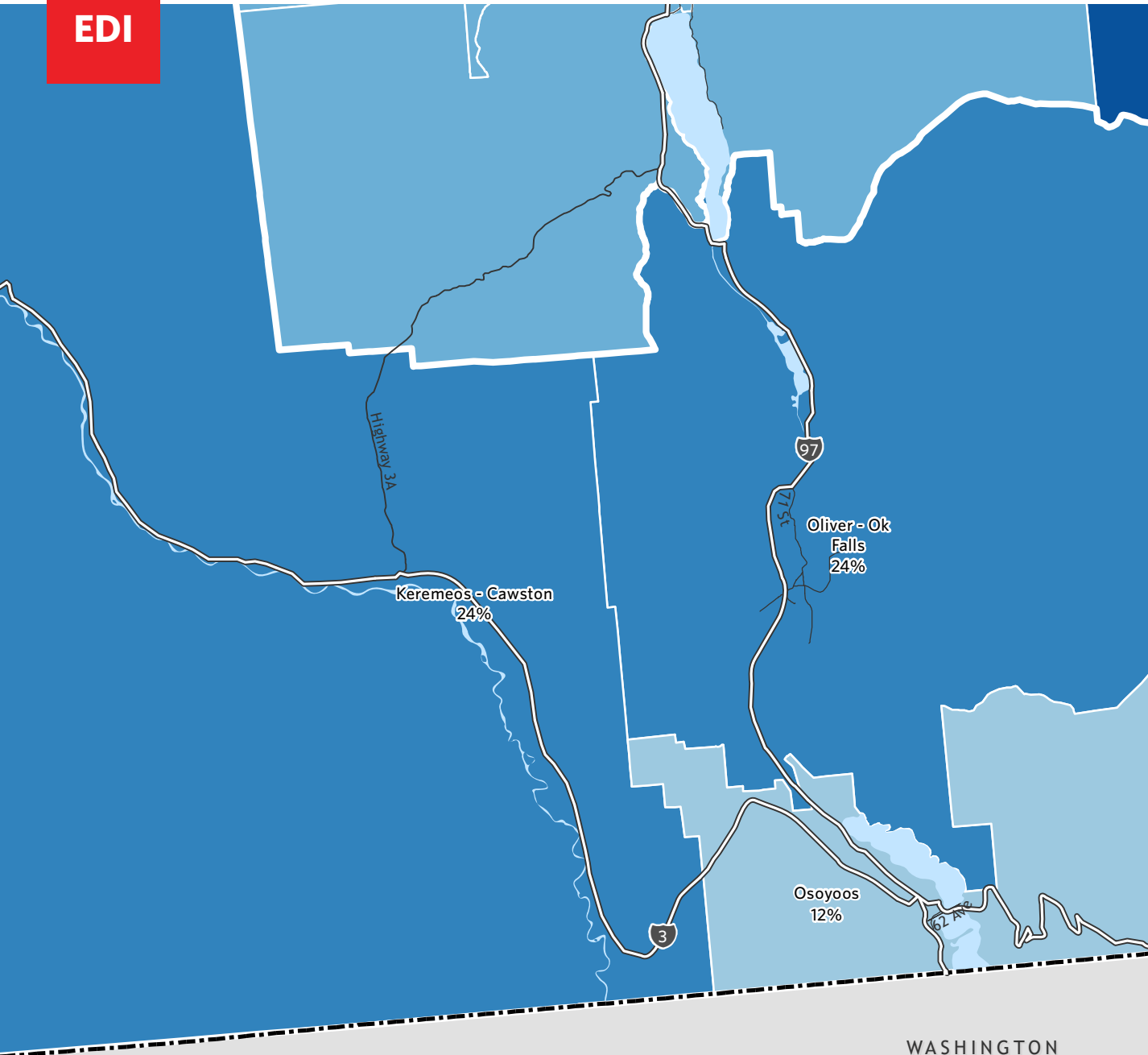
HUMAN
EARLY LEARNING
PARTNERSHIP



OKANAGAN SIMILKAMEEN (SD 53) WAVE 7

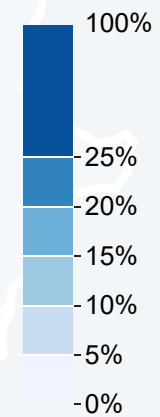


EDI



VULNERABILITY ON THE SOCIAL COMPETENCE SCALE

% VULNERABLE



SCHOOL DISTRICT AVERAGE

21%

PROVINCIAL AVERAGE

16.1%

No Data/
Suppressed

For more information please visit:
earlylearning.ubc.ca/maps/edi

WASHINGTON
U.S.A

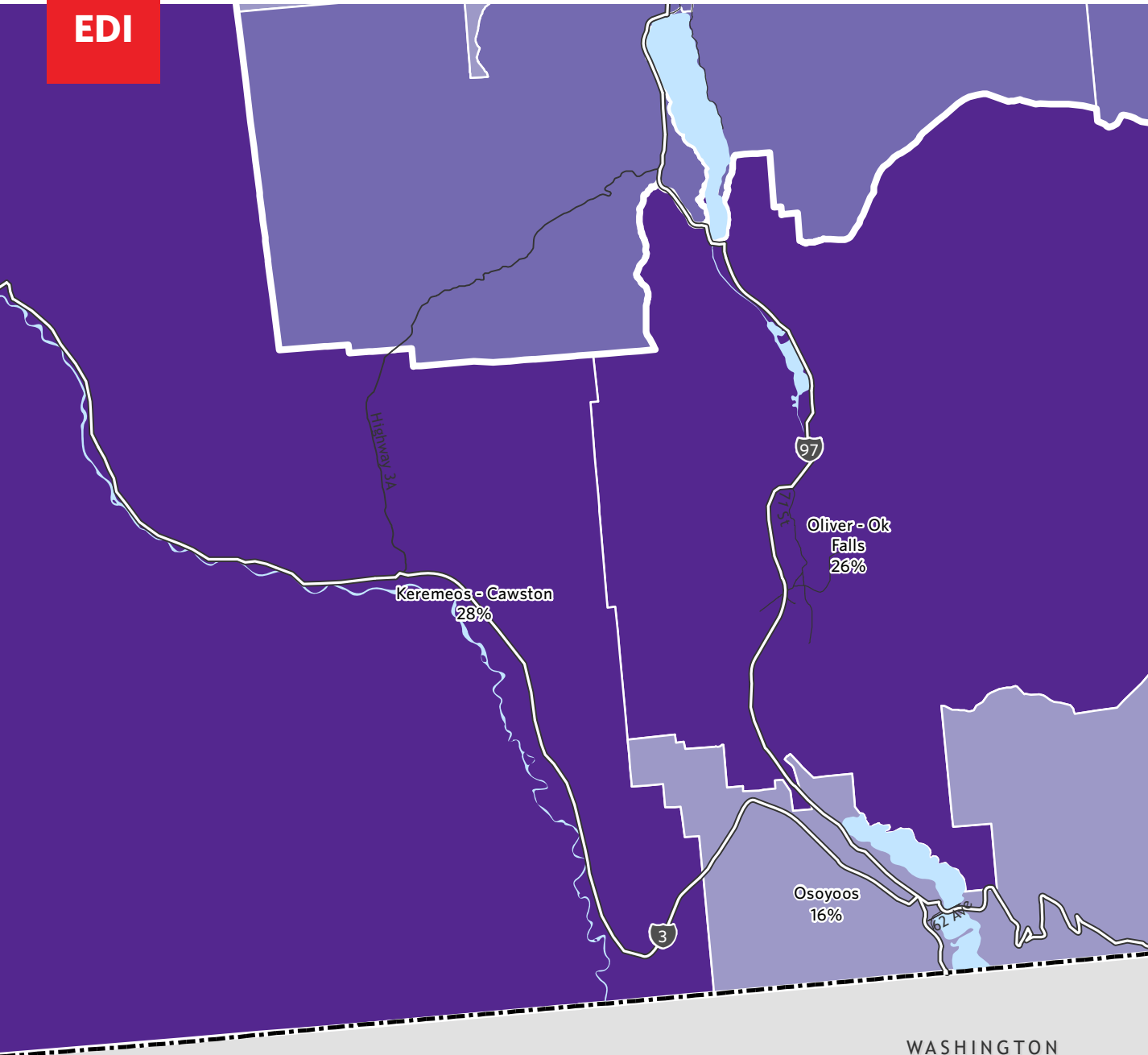
HUMAN
EARLY LEARNING
PARTNERSHIP



OKANAGAN SIMILKAMEEN (SD 53) WAVE 7

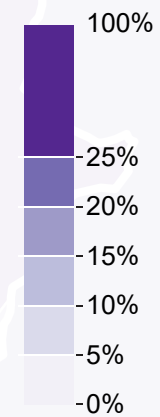


EDI



VULNERABILITY ON THE EMOTIONAL MATURITY SCALE

% VULNERABLE



SCHOOL DISTRICT AVERAGE
24%

PROVINCIAL AVERAGE
17.7%

No Data/
Suppressed

For more information please visit:
earlylearning.ubc.ca/maps/edi

WASHINGTON
U.S.A

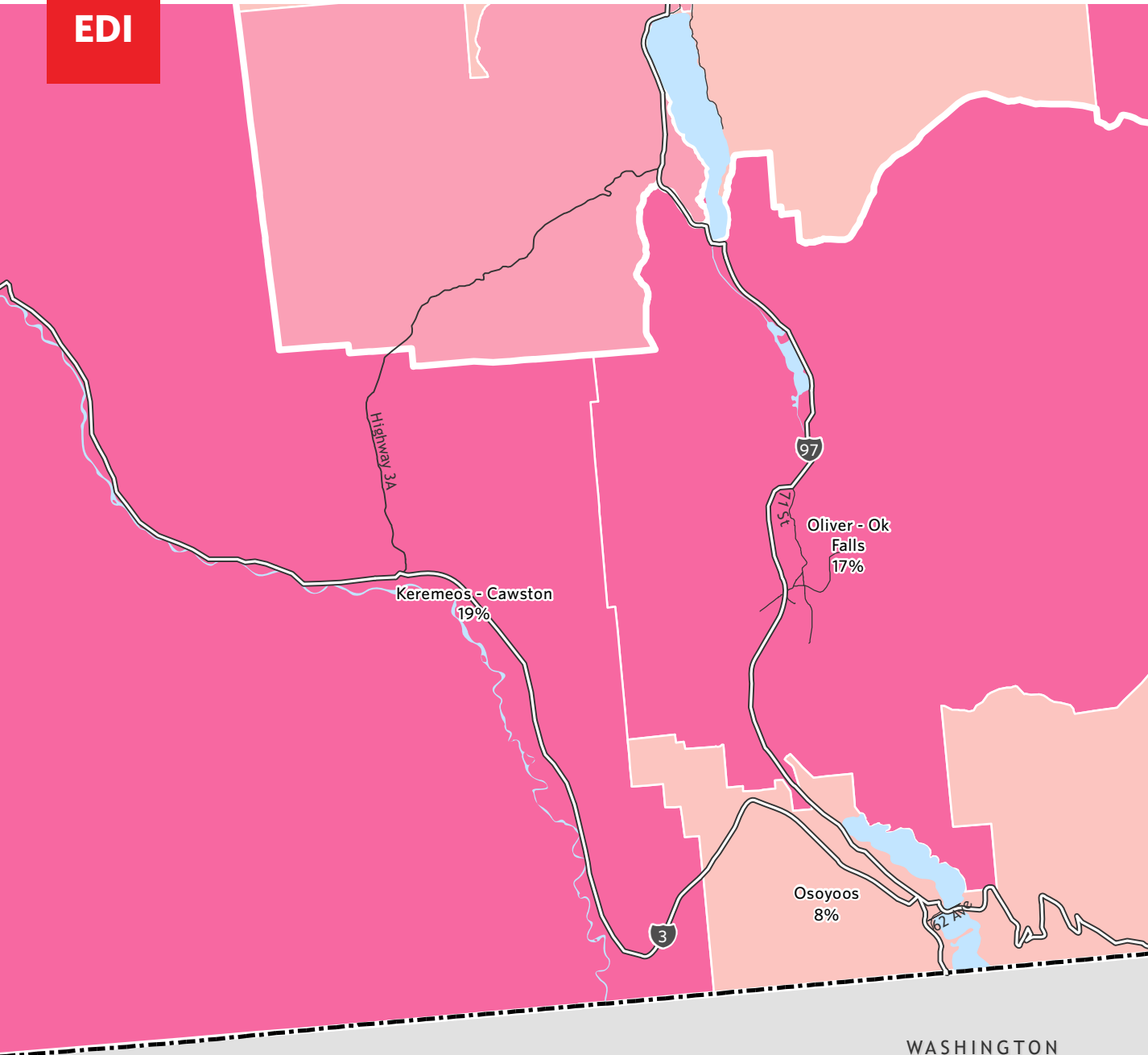
HUMAN
EARLY LEARNING
PARTNERSHIP



OKANAGAN SIMILKAMEEN (SD 53) WAVE 7

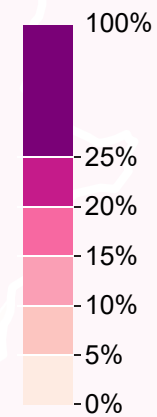


EDI



VULNERABILITY ON THE LANGUAGE & COGNITIVE DEVELOPMENT SCALE

% VULNERABLE



SCHOOL DISTRICT AVERAGE

15%

PROVINCIAL AVERAGE

10.6%

No Data/
Suppressed

For more information please visit:
earlylearning.ubc.ca/maps/edi

WASHINGTON
U.S.A

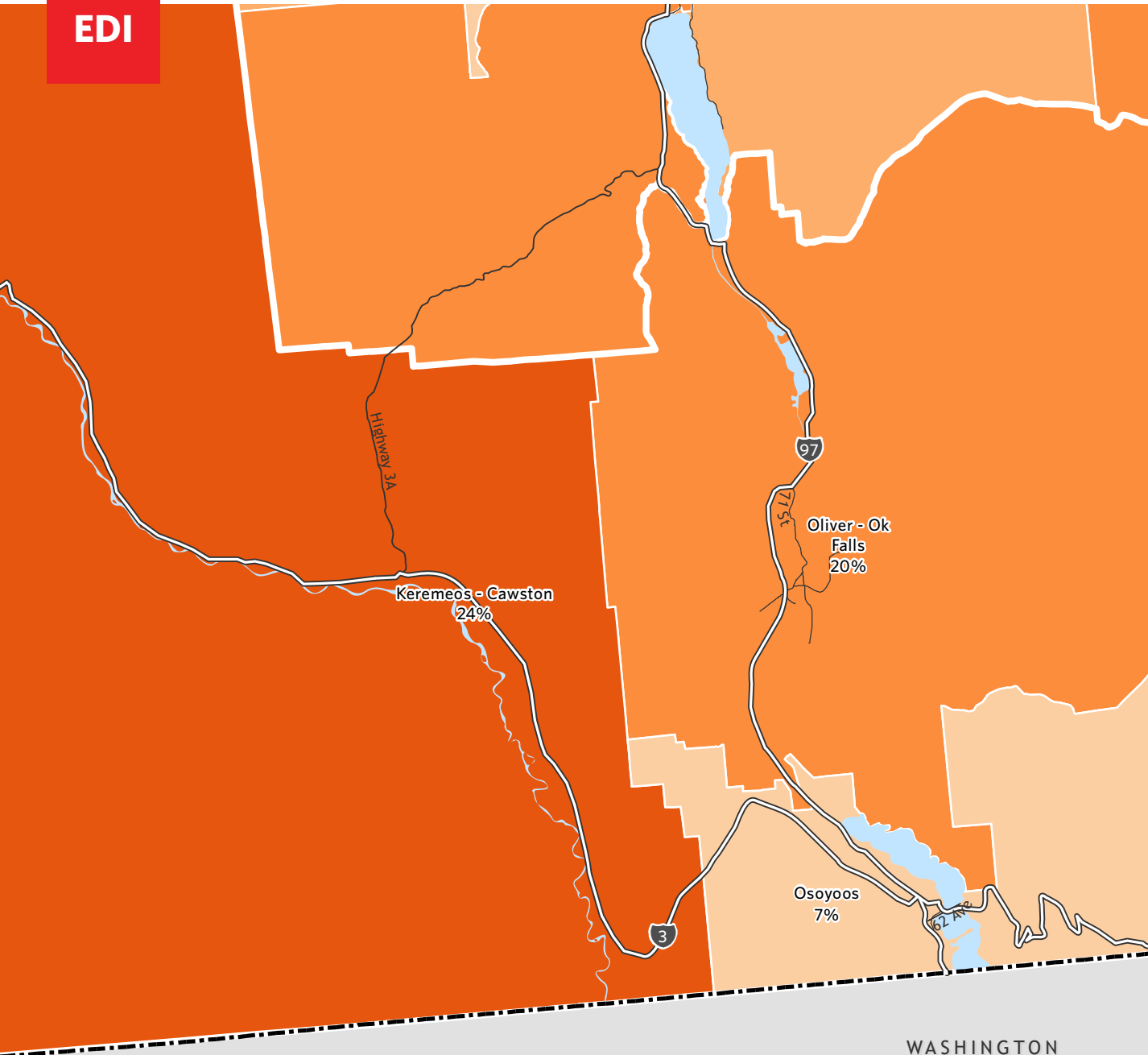
HUMAN
EARLY LEARNING
PARTNERSHIP



OKANAGAN SIMILKAMEEN (SD 53) WAVE 7

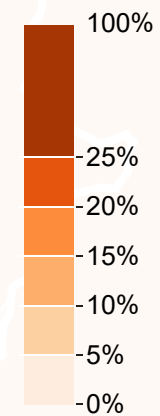


EDI



VULNERABILITY ON THE COMMUNICATION SKILLS & GENERAL KNOWLEDGE SCALE

% VULNERABLE



SCHOOL DISTRICT AVERAGE

17%

PROVINCIAL AVERAGE

14.3%

No Data/
Suppressed

For more information please visit:
earlylearning.ubc.ca/maps/edi

WASHINGTON
U.S.A

HUMAN
EARLY LEARNING
PARTNERSHIP





CHANGES IN NEIGHBOURHOOD TRENDS OVER TIME

Collecting EDI data over multiple waves allows us to explore trends in children’s development and to answer the broader question: “Are our Kindergarten-aged children doing better, worse or about the same as in the past?” With each new wave of EDI data, vulnerability rates change across the province. While some neighbourhoods see improvements over time, others see declines. When looking at all of these changes it is important to identify the amount of change that is meaningful – i.e. change that is worthy of further exploration and discussion.

WHAT IS MEANINGFUL CHANGE?

HELP’s definition of meaningful change is a combination of statistical significance and practical significance, and in all cases should be interpreted as a change that is “worthy of attention.” We use a method called Critical Difference which is the amount of change over two time points in an area’s EDI vulnerability rate that is large enough to be considered meaningful in the statistical sense. A meaningful change means that we are reasonably confident that the change in the vulnerability rate is meaningful, rather than a result of uncertainty due to measurement issues.

Figure 17 provides a summary of the number of neighbourhoods that have experienced each type of trend over the short-term and long-term time periods. The following maps illustrate the long-term (Wave 2 to 7) and short-term (Wave 6 to 7) trends in neighbourhood-level change in Okanagan Similkameen School District, highlighting neighbourhoods that have experienced:

- ▲ - A **meaningful increase** in vulnerability
- - **Stable** (no meaningful change in vulnerability)
- ▼ - A **meaningful decrease** in vulnerability

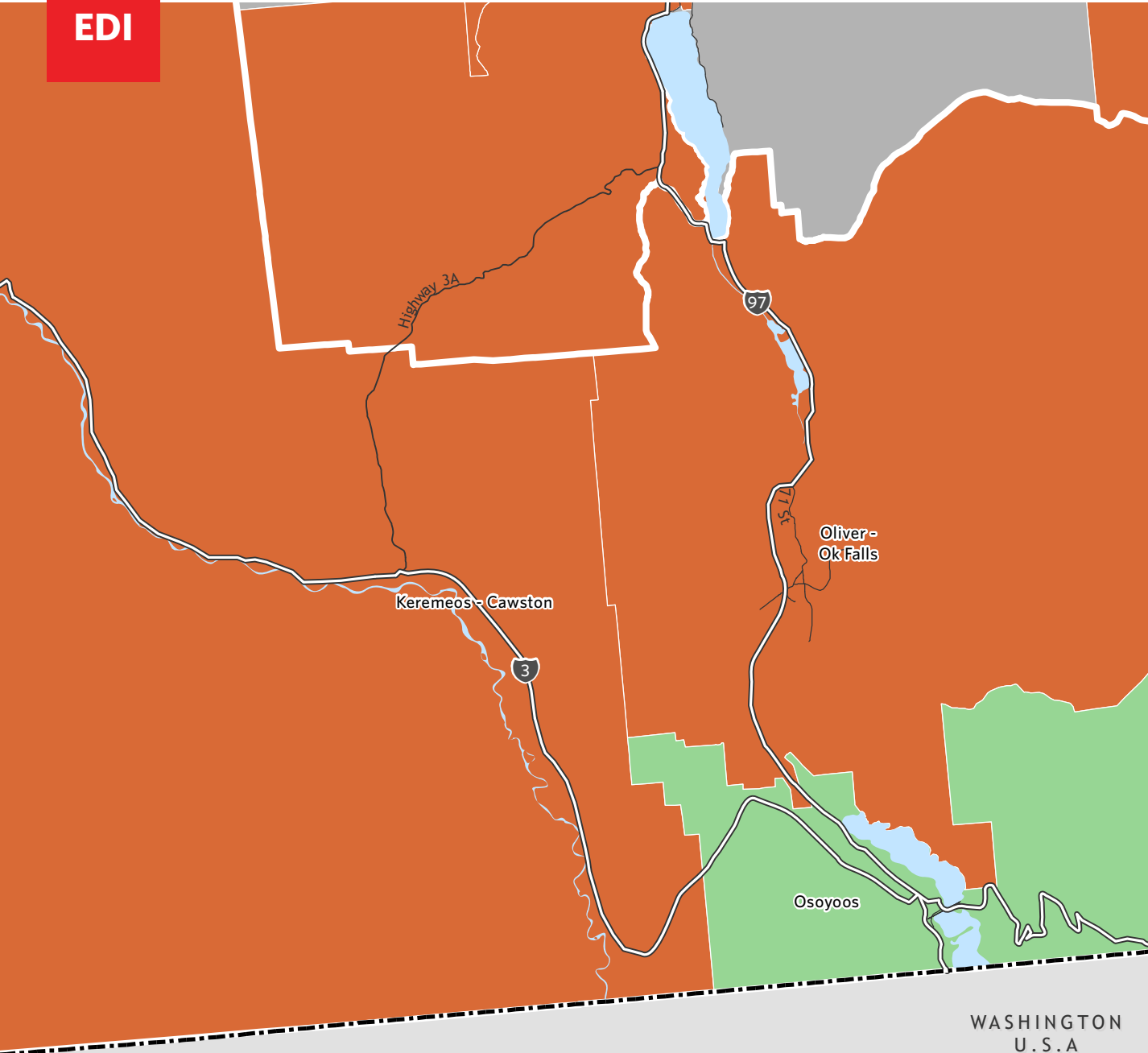
FIGURE 17. NUMBER OF NEIGHBOURHOODS IN OKANAGAN SIMILKAMEEN WITH MEANINGFUL CHANGES IN VULNERABILITY

	NUMBER OF NEIGHBOURHOODS			
	▲ MEANINGFUL INCREASE	● STABLE	▼ MEANINGFUL DECREASE	NA
LONG-TERM TREND WAVE 2-7	2	0	1	0
SHORT-TERM TREND WAVE 6-7	1	2	0	0

Please note: Neighbourhood trends are not available (NA) if there are fewer than 35 Kindergarten children in one or both waves. *2005/06 data were collected as part of the Understanding the Early Years Initiative. The majority of these data are held by Employment and Social Development Canada (previously HRSDC).

OKANAGAN SIMILKAMEEN (SD 53) WAVE 2 - 7

EDI



WAVE 2 - WAVE 7

MEANINGFUL CHANGE ON VULNERABLE ON ONE OR MORE SCALES

CHANGE IN EDI VULNERABILITY RATES	NUMBER OF NEIGHBOURHOODS
Meaningful Increase in Vulnerability	2
Stable	0
Meaningful Decrease in Vulnerability	1
No Data/Suppressed	0

*2005/06 data were collected as part of the Understanding the Early Years Initiative. The majority of these data are held by Employment and Social Development Canada (previously HRSDC).

For more information please visit:
earlylearning.ubc.ca/maps/edi

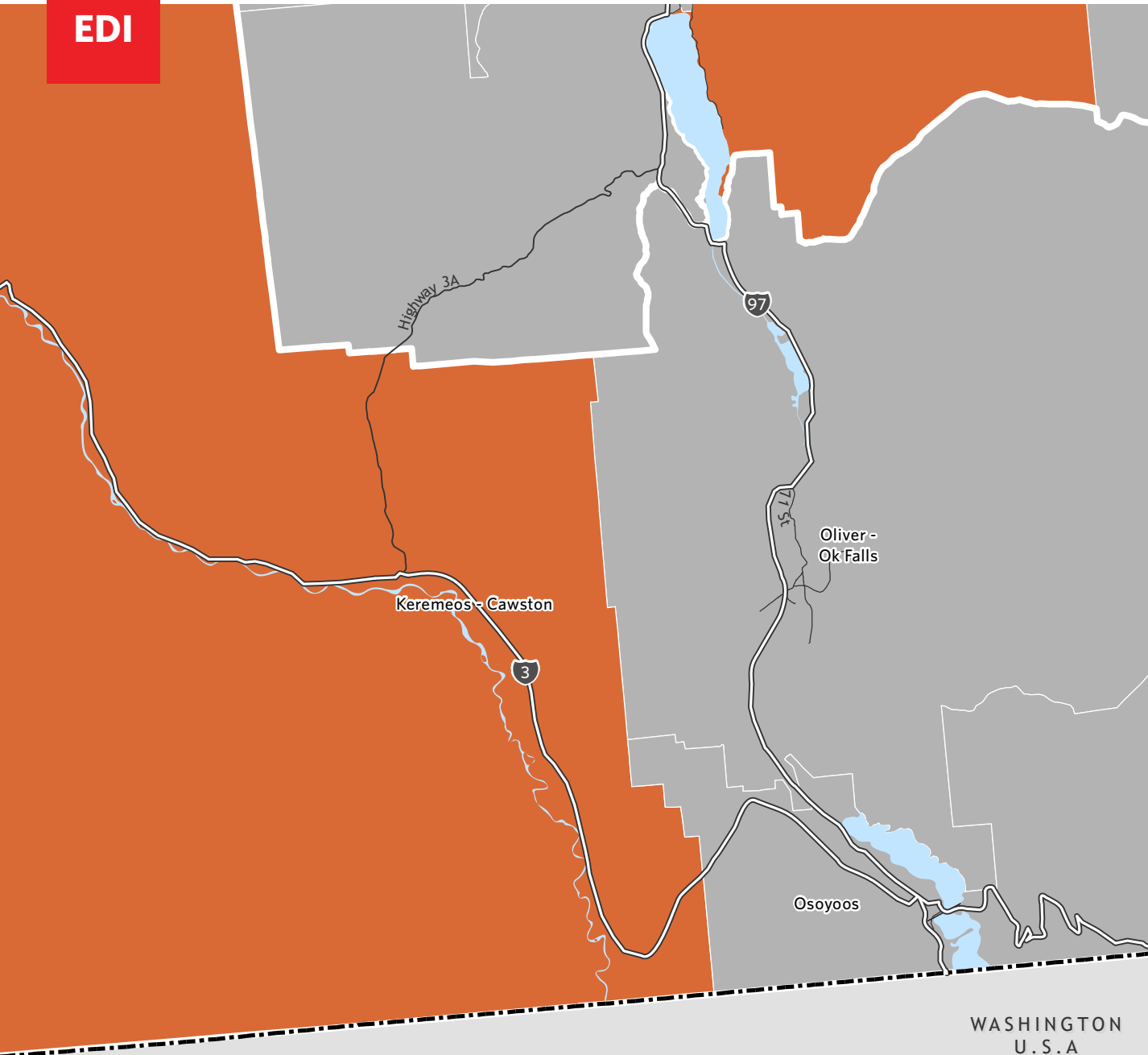
WASHINGTON
U.S.A

HUMAN
EARLY LEARNING
PARTNERSHIP







OKANAGAN SIMILKAMEEN (SD 53) WAVE 6 - 7

EDI



WAVE 6 - WAVE 7 MEANINGFUL CHANGE ON VULNERABLE ON ONE OR MORE SCALES

CHANGE IN EDI VULNERABILITY RATES	NUMBER OF NEIGHBOURHOODS
 Meaningful Increase in Vulnerability	1
 Stable	2
 Meaningful Decrease in Vulnerability	0
 No Data/ Suppressed	0

For more information please visit:
earlylearning.ubc.ca/maps/edi

WASHINGTON
U.S.A

HUMAN
EARLY LEARNING
PARTNERSHIP





NEIGHBOURHOOD PROFILES

The Neighbourhood Profiles (NH) show Wave 7 data and Wave 2-7 trends for every neighbourhood in your community. Data is shown at the neighbourhood level and compares it to your School District (SD) as a whole. These profiles provide a comprehensive but compact look at all of the EDI data for a neighbourhood and can be a helpful tool to share with colleagues, stakeholders, community partners, and others.

Some small, often rural school districts, have only one HELP-designated neighbourhood with the same geographic boundaries as the school district as a whole. In these cases, the school district-level data is the same as the neighbourhood-level data. We include the Neighbourhood Profile regardless as it showcases these data in a different way.

- NEIGHBOURHOOD & SCHOOL DISTRICT DEMOGRAPHICS
- WAVE 7 PERCENT & NUMBER OF CHILDREN VULNERABLE
- YOUR NEIGHBOURHOOD IN RELATION TO THE REST OF THE PROVINCE
- WAVE 2 - 7 TRENDS IN VULNERABILITY
- MEANINGFUL CHANGES OVER TIME IN VULNERABILITY

KEREMEOS - CAWSTON

 TOTAL NUMBER OF CHILDREN: 54

NEIGHBOURHOOD (NH) & SCHOOL DISTRICT (SD) DEMOGRAPHICS

	TOTAL EDI	STUDENT MEAN AGE	#MALE	# FEMALE	# OF ELL	# OF SPECIAL NEEDS
NH	54	5.56	28	26	6	9
SD	316	5.6	161	155	56	12

WAVE 7 VULNERABILITY ON ONE OR MORE SCALES

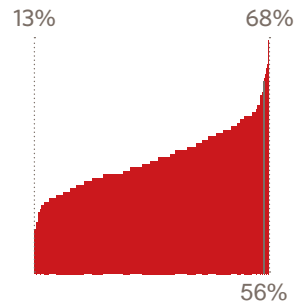
PERCENT OF CHILDREN VULNERABLE

56% NH
40% SD

NUMBER OF CHILDREN VULNERABLE

 **30** NH
 **127** SD

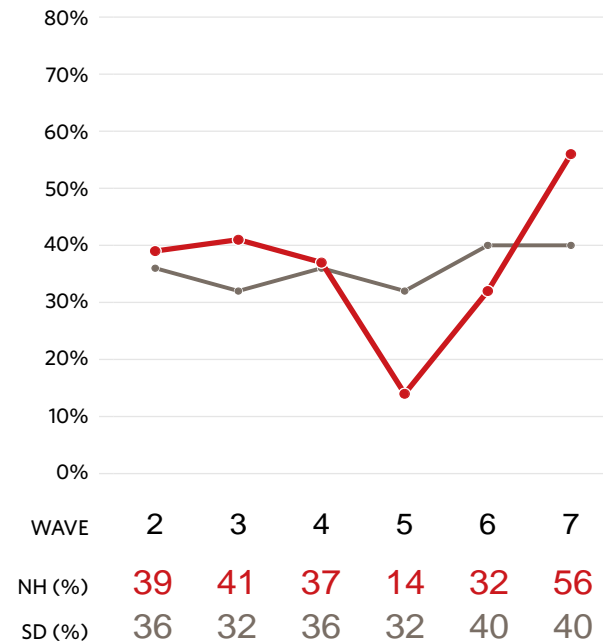
YOUR NEIGHBOURHOOD WITHIN A PROVINCIAL CONTEXT



Note: Each bar represents a single neighbourhood (NH) in the province.

WAVE 2-7 VULNERABILITY TRENDS ON ONE OR MORE SCALES

TRENDS IN PERCENT OF CHILDREN VULNERABLE



MEANINGFUL CHANGE OVER TIME IN VULNERABILITY

Wave 2 - 7 Long-Term (LT) Trend ▲

Wave 6 - 7 Short-Term (ST) Trend ▲

▲ MEANINGFUL INCREASE ▼ MEANINGFUL DECREASE ● STABLE NA NO DATA/SUPPRESSED

KEREMEOS - CAWSTON

PHYSICAL HEALTH & WELL-BEING

SOCIAL COMPETENCE

EMOTIONAL MATURITY

LANGUAGE & COGNITIVE DEVELOPMENT

COMMUNICATION SKILLS & GENERAL KNOWLEDGE

WAVE 7 SCALE LEVEL DATA

32%
NH
19%
SD

17 61

24%
NH
21%
SD

13 65

28%
NH
24%
SD

15 75

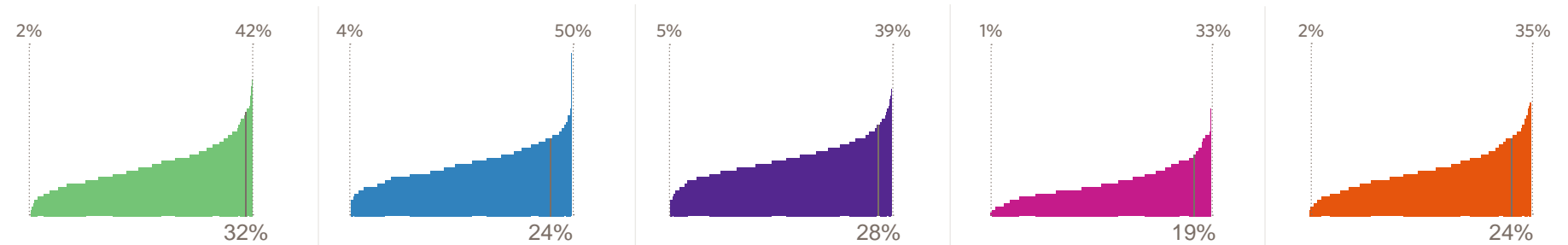
19%
NH
15%
SD

10 48

24%
NH
17%
SD

13 55

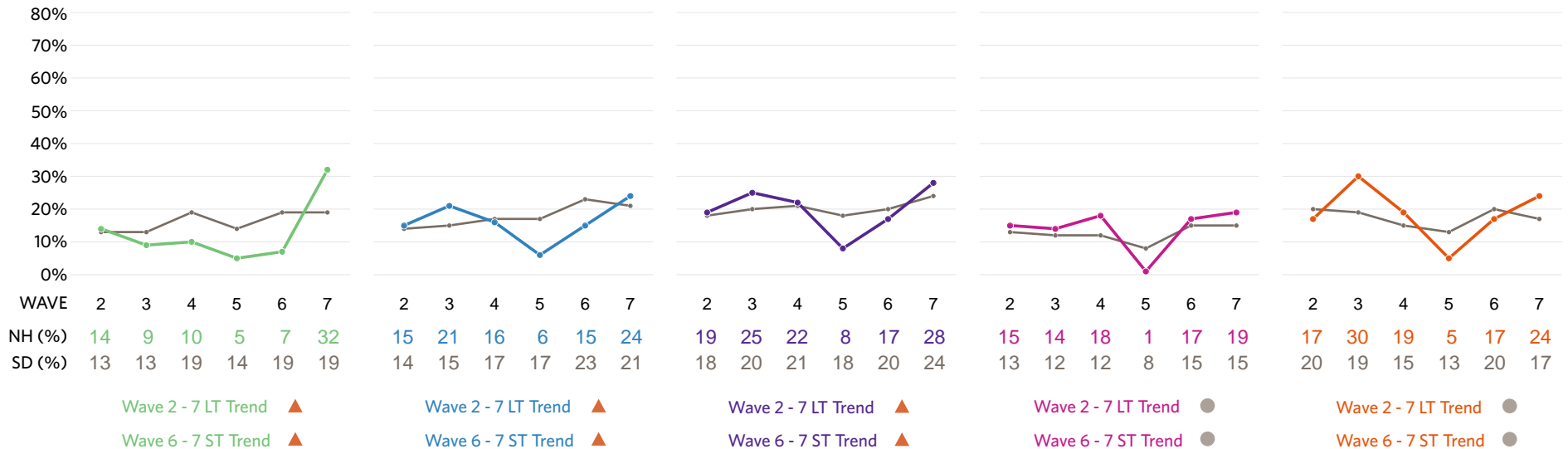
WAVE 7 VULNERABILITY IN YOUR NEIGHBOURHOOD WITHIN A PROVINCIAL CONTEXT



Note: Each bar represents a single neighbourhood (NH) in the province.

WAVE 2-7 SCALE LEVEL TRENDS

▲ MEANINGFUL INCREASE ▼ MEANINGFUL DECREASE ● STABLE NA NO DATA/SUPPRESSED



Note: Data is suppressed for waves when there are fewer than 35 Kindergarten children in the neighbourhood. For a complete table of school district and neighbourhood results, see the Appendices.

OLIVER - OK FALLS

 TOTAL NUMBER OF CHILDREN: 179

NEIGHBOURHOOD (NH) & SCHOOL DISTRICT (SD) DEMOGRAPHICS



	TOTAL EDI	STUDENT MEAN AGE	#MALE	# FEMALE	# OF ELL	# OF SPECIAL NEEDS
NH	179	5.62	90	89	40	Less than 5
SD	316	5.6	161	155	56	12

WAVE 7 VULNERABILITY ON ONE OR MORE SCALES

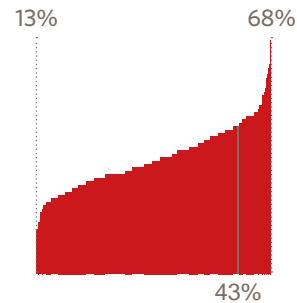
PERCENT OF CHILDREN VULNERABLE

43% NH
40% SD

NUMBER OF CHILDREN VULNERABLE

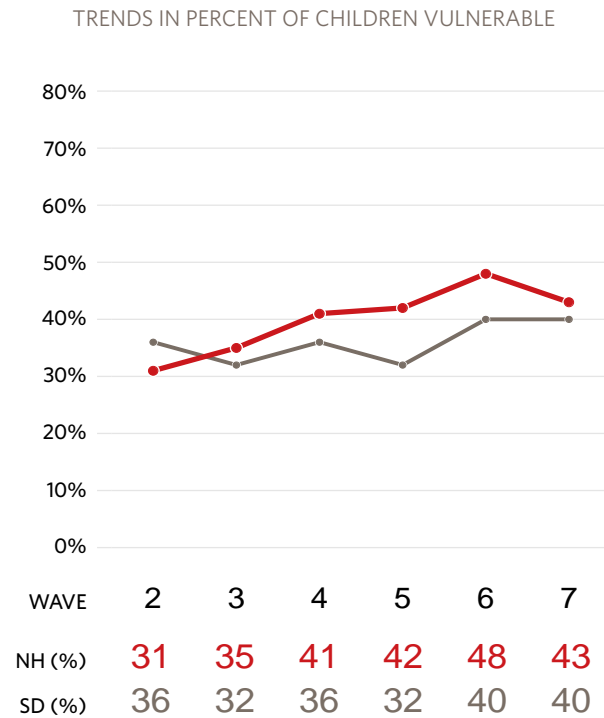
 **76** NH
 **127** SD

YOUR NEIGHBOURHOOD WITHIN A PROVINCIAL CONTEXT



Note: Each bar represents a single neighbourhood (NH) in the province.

WAVE 2-7 VULNERABILITY TRENDS ON ONE OR MORE SCALES



MEANINGFUL CHANGE OVER TIME IN VULNERABILITY

Wave 2 - 7 Long-Term (LT) Trend ▲

Wave 6 - 7 Short-Term (ST) Trend ●

▲ MEANINGFUL INCREASE ▼ MEANINGFUL DECREASE ● STABLE NA NO DATA/SUPPRESSED

OLIVER - OK FALLS

PHYSICAL HEALTH & WELL-BEING

SOCIAL COMPETENCE

EMOTIONAL MATURITY

LANGUAGE & COGNITIVE DEVELOPMENT

COMMUNICATION SKILLS & GENERAL KNOWLEDGE

WAVE 7 SCALE LEVEL DATA

22%
NH
19%
SD

39 61

24%
NH
21%
SD

42 65

26%
NH
24%
SD

47 75

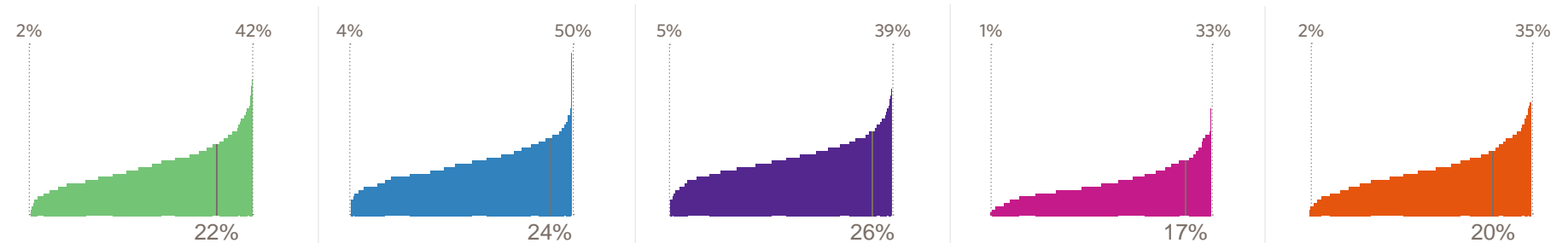
17%
NH
15%
SD

31 48

20%
NH
17%
SD

36 55

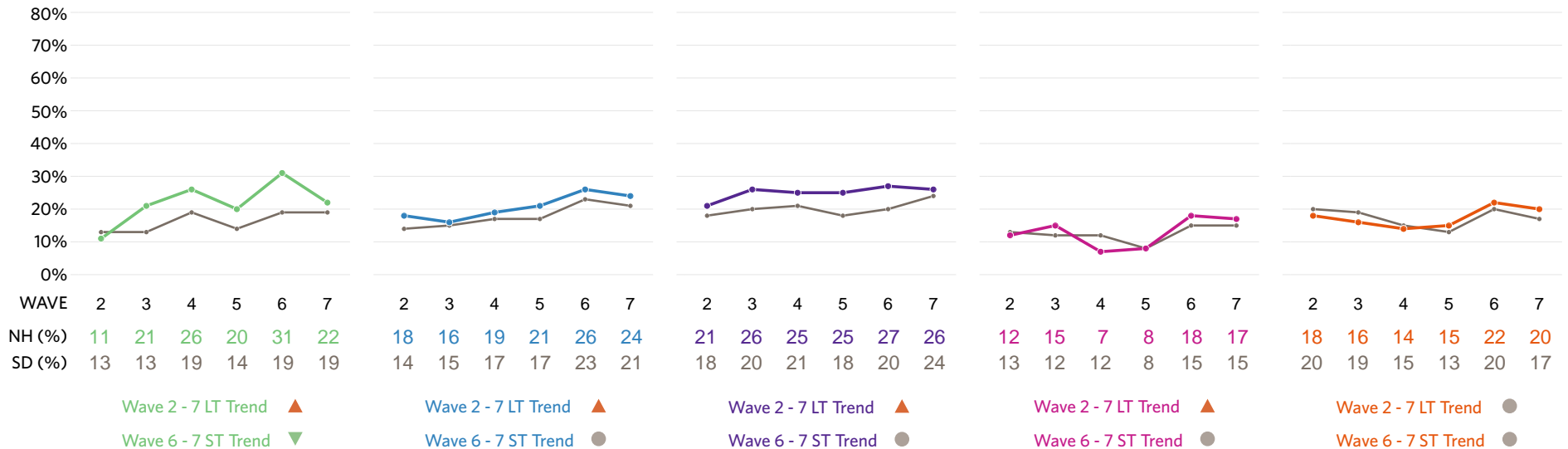
WAVE 7 VULNERABILITY IN YOUR NEIGHBOURHOOD WITHIN A PROVINCIAL CONTEXT



Note: Each bar represents a single neighbourhood (NH) in the province.

WAVE 2-7 SCALE LEVEL TRENDS

▲ MEANINGFUL INCREASE ▼ MEANINGFUL DECREASE ● STABLE ■ NA NO DATA/SUPPRESSED



Note: Data is suppressed for waves when there are fewer than 35 Kindergarten children in the neighbourhood. For a complete table of school district and neighbourhood results, see the Appendices.

OSOYOOS

 TOTAL NUMBER OF CHILDREN: 83

NEIGHBOURHOOD (NH) & SCHOOL DISTRICT (SD) DEMOGRAPHICS



	TOTAL EDI	STUDENT MEAN AGE	#MALE	# FEMALE	# OF ELL	# OF SPECIAL NEEDS
NH	83	5.6	43	40	10	Less than 5
SD	316	5.6	161	155	56	12

WAVE 7 VULNERABILITY ON ONE OR MORE SCALES

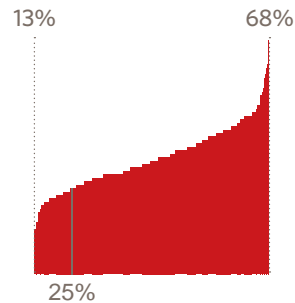
PERCENT OF CHILDREN VULNERABLE

25% NH
40% SD

NUMBER OF CHILDREN VULNERABLE

 **21** NH
 **127** SD

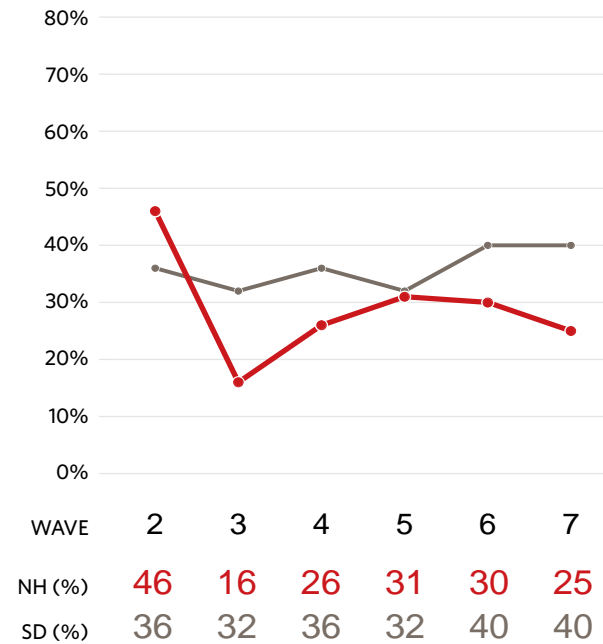
YOUR NEIGHBOURHOOD WITHIN A PROVINCIAL CONTEXT



Note: Each bar represents a single neighbourhood (NH) in the province.

WAVE 2-7 VULNERABILITY TRENDS ON ONE OR MORE SCALES

TRENDS IN PERCENT OF CHILDREN VULNERABLE



MEANINGFUL CHANGE OVER TIME IN VULNERABILITY

Wave 2 - 7 Long-Term (LT) Trend ▼

Wave 6 - 7 Short-Term (ST) Trend ●

▲ MEANINGFUL INCREASE ▼ MEANINGFUL DECREASE ● STABLE NA NO DATA/SUPPRESSED

OSOYOOS

PHYSICAL HEALTH & WELL-BEING

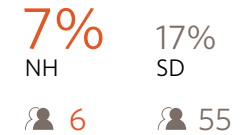
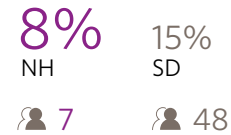
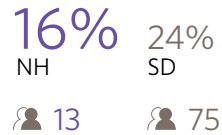
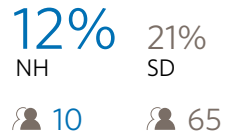
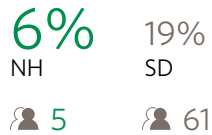
SOCIAL COMPETENCE

EMOTIONAL MATURITY

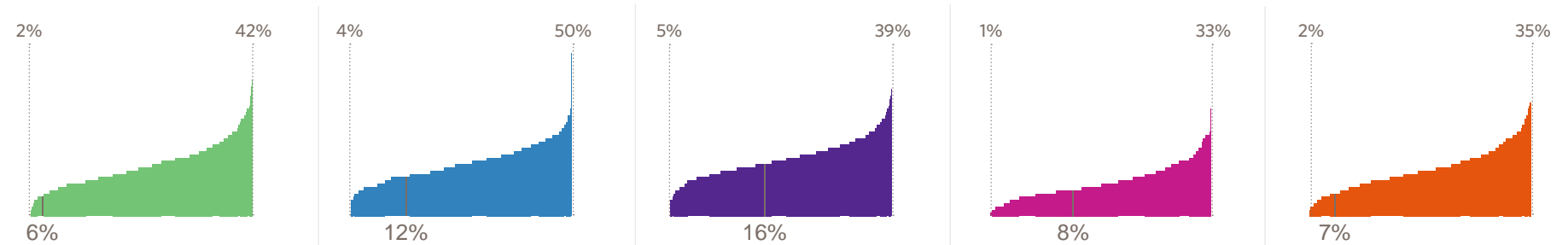
LANGUAGE & COGNITIVE DEVELOPMENT

COMMUNICATION SKILLS & GENERAL KNOWLEDGE

WAVE 7 SCALE LEVEL DATA

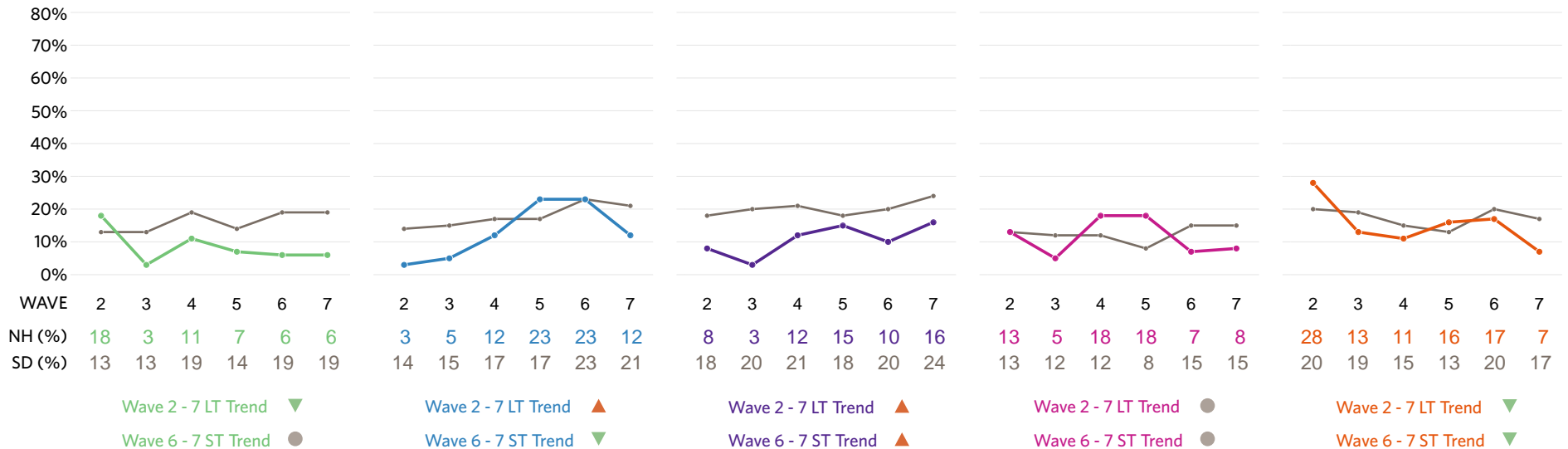


WAVE 7 VULNERABILITY IN YOUR NEIGHBOURHOOD WITHIN A PROVINCIAL CONTEXT



Note: Each bar represents a single neighbourhood (NH) in the province.

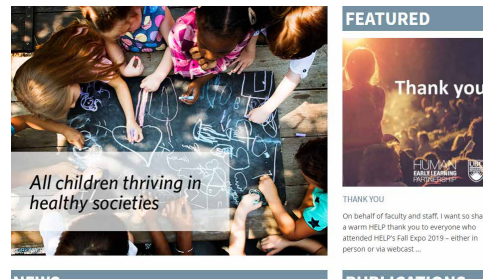
WAVE 2-7 SCALE LEVEL TRENDS



Note: Data is suppressed for waves when there are fewer than 35 Kindergarten children in the neighbourhood. For a complete table of school district and neighbourhood results, see the Appendices.



RESOURCES



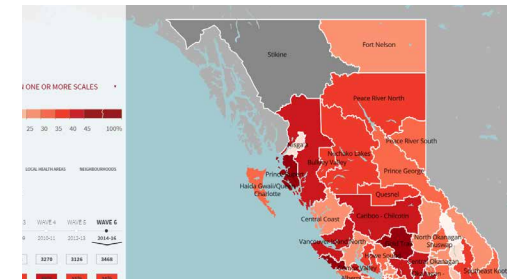
Visit HELP's website to access the Wave 7 Provincial Report and helpful factsheets, research briefs, and published articles related to the EDI:

earlylearning.ubc.ca/edi/edi-resources

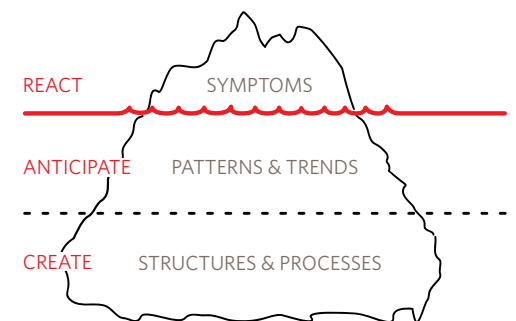


Visit the Offord Centre for Child Studies to learn more about the EDI:

edi.offordcentre.com



Explore EDI data across the province at the School District, Neighbourhood and Local Health Area level using our interactive EDI Map: earlylearning.ubc.ca/interactive-map



Learn more about systems approaches and tools:

earlylearning.ubc.ca/media/systems_toolkit_2019_final.pdf

ACCESSING ABORIGINAL EDI DATA

HELP is committed to working in partnership with First Nations, Métis and Inuit communities and organizations and to engage in research, data collection and reporting in a culturally-responsive and safe manner. To support this approach, HELP established an Aboriginal Steering Committee (ASC) in 2003. ASC members are leaders and experts, elders and community members from First Nations and Métis communities in BC and Canada.

HELP's goal is to ensure our tools and approaches are culturally safe and appropriate, embracing the Truth and Reconciliation Commission's Calls to Action Framework. As a result, HELP has clear guidelines for the release of data and reports that include First Nations, Métis or Inuit children. This ensures data are accessible to, and meet the needs of, various Indigenous governance groups and community organizations.

- HELP is committed to providing access to Aboriginal data to those who can use it to bring about positive changes for children. This includes:
- Chief & Councils
- Métis Nation British Columbia (MNBC)
- School District Aboriginal Education Committees
- Other organizations working specifically with Indigenous children and families

ABOUT EDI DATA

EDI data for Indigenous children may include those who identify as First Nations, Métis or Inuit, some who are connected with their cultural identity and language(s), as well as some who have not yet had this opportunity. These data include Indigenous children living in communities off-reserve, in urban cities and rural regions, and a small number of participating First Nations schools across the province. EDI data for First Nations, Métis or Inuit children are not publicly released and no comparisons are made between Indigenous and non-Indigenous children.

This information helps organizations, communities and governments in making informed decisions about programs and services for Indigenous children and families.

CONTACT US

If you have a specific data request or would like to receive data for First Nations, Métis or Inuit children in your school district, please contact us.

HELP staff will support groups and organizations to navigate the data request process and to provide them with ongoing support in using and understanding community data.

For more information, please contact HELP at edi@help.ubc.ca



APPENDICES

- **APPENDIX 1A**
EDI VULNERABLE ON ONE OR MORE SCALES DATA FOR BC SCHOOL DISTRICTS - WAVE 2-7
- **APPENDIX 1B**
EDI DATA FOR THE 5 SCALES OF THE EDI FOR BC SCHOOL DISTRICTS - WAVE 2-7
- **APPENDIX 2A**
EDI VULNERABLE ON ONE OR MORE SCALES DATA FOR NEIGHBOURHOODS IN OKANAGAN SIMILKAMEEN SCHOOL DISTRICT - WAVE 2-7
- **APPENDIX 2B**
EDI DATA FOR THE 5 SCALES OF THE EDI FOR NEIGHBOURHOODS IN OKANAGAN SIMILKAMEEN SCHOOL DISTRICT - WAVE 2-7

APPENDIX 1A - EDI VULNERABLE ON ONE OR MORE SCALES DATA FOR BC SCHOOL DISTRICTS - WAVE 2-7

Wave Number	# of Children						Vulnerable on One or More Scales of the EDI											
							Percent Vulnerable					# of Children Vulnerable						
	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
Abbotsford	2762	1421	28	1316	1396	1438	34	28		33	34	38	916	388		434	475	552
Alberni	550	205	530	544	549	448	30	26	30	30	32	38	160	52	158	163	178	168
Arrow Lakes	107	55	78	76	83	79	16	20	23	25	17	18	17	11	18	19	14	14
Boundary	296	191	204	177	215	244	19	27	30	28	33	36	57	51	61	49	71	88
Bulkley Valley	151	148	262	196	272	247	29	30	41	32	39	33	42	44	107	62	105	82
Burnaby	1538	1477	1583	1640	1694	1753	33	32	32	32	33	35	500	456	508	523	552	605
Campbell River	350	380	606	357	753	1184	31	28	31	32	28	35	107	106	185	114	208	412
Cariboo - Chilcotin	342	347	640	304	626	673	38	31	33	35	41	40	127	107	210	105	254	271
Central Coast	59	21	40	16	36	43	24		18		28	28	14		7		10	12
Central Okanagan	1381	1462	1428	1446	1447	1401	27	21	23	28	28	30	370	296	325	399	397	418
Chilliwack	782	1609	1707	954	888	878	36	33	34	39	34	34	276	519	572	368	300	301
Coast Mountains	331	291	632	528	517	480	34	34	40	37	42	42	108	95	249	196	216	201
Comox Valley	487	492	515	1006	477	583	34	35	37	38	40	36	163	169	188	381	191	210
Coquitlam	1948	1914	1880	1886	2101	2193	23	27	33	30	31	35	448	514	620	557	651	756
Cowichan Valley	604	550	1014	1172	575	592	26	23	29	34	35	34	157	124	290	393	200	199
Delta	995	985	1786	939	957	923	30	27	27	28	29	28	296	258	471	263	272	255
Fort Nelson	138	124	128	125	183	166	33	24	20	22	26	25	46	29	25	28	47	42
Fraser - Cascade	235	233	233	224	346	237	36	36	36	45	43	40	82	77	82	99	149	95
Gold Trail	103	176	184	160	144		54	46	44	52	50		54	80	81	82	72	
Greater Victoria		1268	1285	1334	1468	1397		25	30	28	28	30		309	383	373	413	416
Gulf Islands	163	81	140	174	270	168	20	26	26	24	30	35	33	20	35	41	79	59
Haida Gwaii	81	111	85	69	118	95	52	27	36	38	31	37	41	30	30	26	37	35
Kamloops - Thompson	872	928	1921	1042	1057	1037	23	28	29	31	28	31	193	257	557	327	299	317
Kootenay - Columbia	269	260	513	549	505	615	21	16	19	26	22	33	55	40	95	140	110	204
Kootenay Lake	892	546	299	277	314	277	23	26	25	28	35	28	204	136	73	77	109	78
Langley	1142	1312	1223	1117	1092	1403	23	25	29	31	28	31	259	317	347	347	300	432
Maple Ridge - Pitt Meadows	866	969	1007	986	1022	1017	25	25	25	32	31	31	210	243	253	315	313	313
Mission		463	428	412	437	476		35	36	38	31	34		163	152	154	136	162
Nanaimo - Ladysmith	2738	913	1771	994	1029	1053	29	28	34	35	34	37	796	242	601	348	348	385
Nechako Lakes	284	479	482	434	481	366	39	34	33	36	37	37	109	159	157	155	178	134
New Westminster	462	461	836	453	550	491	30	24	28	33	30	27	135	108	229	148	165	133
Nicola - Similkameen	136	143	281	255	289	280	33	41	35	35	40	29	44	58	98	89	116	80
Nisga'a	51	25	55	72	71	59	30		33	35	17	32	15		18	25	12	19
North Okanagan - Shuswap	422	408	827	803	410	441	33	23	31	34	30	36	137	91	254	275	123	160
North Vancouver		1077	1095	1098	1205	1197		23	21	29	25	26		241	229	315	296	307
Okanagan Similkameen	194	157	325	319	236	316	36	32	36	32	40	40	70	50	118	103	92	127

Please note: Data are suppressed where there are fewer than 35 Kindergarten children. A complete data file can be found on our website: earlylearning.ubc.ca/maps/data

APPENDIX 1A – CONTINUED

Wave Number	# of Children						Vulnerable on One or More Scales of the EDI													
							Percent Vulnerable							# of Children Vulnerable						
	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7		
Okanagan Skaha	771	367	663	702	710	702	29	31	30	34	33	34	220	114	194	236	230	236		
Peace River North	463	445	380	807	465	453	29	37	35	34	35	34	131	161	132	276	164	155		
Peace River South	307	524	544	282	503	547	36	34	38	32	34	36	109	176	205	91	171	195		
Powell River	139	121	272	278	265	235	28	28	31	34	36	37	38	33	83	93	95	88		
Prince George	1018	832	1898	1011	1071	965	28	27	32	34	30	37	285	216	595	346	322	359		
Prince Rupert	198	170	126	252	310	119	49	52	49	46	51	43	96	85	61	115	157	51		
Qualicum	262	291	523	510	197	551	32	25	29	35	37	31	84	70	151	180	72	173		
Quesnel	206	232	435	453	474	401	24	32	34	39	38	40	48	73	146	177	179	161		
Revelstoke	153	154	139	165	207	253	12	7	10	11	9	13	18	10	14	18	19	32		
Richmond	1362	1383	2737	1495	1435	1261	30	30	32	34	35	35	394	403	859	501	501	438		
Rocky Mountain	637	425	455	471	498	475	23	24	27	30	29	30	146	101	121	142	144	144		
Saanich	348	396	738	350	377	775	42	21	26	21	20	26	145	83	193	73	77	201		
Sea to Sky	297	285	599	667	784	795	28	30	26	32	31	31	80	84	155	210	246	243		
Sooke	535	595	685	725	825	838	28	23	23	31	27	27	146	134	159	224	226	227		
Southeast Kootenay	1165	785	792	873	944	847	32	28	28	24	30	31	368	219	221	207	282	265		
Stikine	70	31	29	29	11	1	29						20							
Sunshine Coast		170	374	399	440	466		42	30	38	36	38		70	111	149	157	178		
Surrey	4221	4513	4605	4978	5082	5105	30	28	32	34	34	35	1242	1240	1482	1695	1711	1773		
Vancouver	3446	3672	3283	3131	3483	3073	37	38	40	35	36	35	1253	1354	1301	1093	1247	1081		
Vancouver Island North	94	193	179	185	249	248	23	32	32	33	41	35	21	60	57	61	101	86		
Vancouver Island West	54	26	47	42	58	50	24		55	52	53	54	13		26	22	30	27		
Vernon	515	514	1053	933	585	543	24	21	26	33	26	32	122	107	275	305	150	176		
West Vancouver	308	378	337	327	506	424	17	22	18	23	29	32	52	81	60	73	144	137		
British Columbia	38,411	38,184	46,944	42,519	43,292	43,377	29.9	28.7	30.9	32.5	32.2	33.4	11,300	10,741	14,401	13,797	13,918	14,468		

Please note: Data are suppressed where there are fewer than 35 Kindergarten children. A complete data file can be found on our website: earlylearning.ubc.ca/maps/data

APPENDIX 1B - EDI DATA FOR THE 5 SCALES OF THE EDI FOR BC SCHOOL DISTRICTS - WAVE 2-7

Wave Number	# of Children						Percent Vulnerable																																		
							Physical Health & Well-being							Social Competence							Emotional Maturity							Language & Cognitive Skills							Communication Skills & General Knowledge						
	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7					
Abbotsford	2762	1421	28	1316	1396	1438	14	11	17	16	17	14	12	15	16	18	12	10	13	15	18	11	9	10	9	11	19	16	17	19	20										
Alberni	550	205	530	544	549	448	9	9	12	16	18	23	9	11	11	12	15	17	11	13	11	11	14	18	20	15	17	15	12	13	10	14	9	12	16	16					
Arrow Lakes	107	55	78	76	83	79	6	7	5	16	12	11	9	9	5	9	11	9	10	13	10	5	10	9	9	2	13	11	6	4	11	0	5	4	7	5					
Boundary	296	191	204	177	215	244	7	8	13	12	17	21	8	9	11	10	21	24	9	11	16	13	17	21	10	12	12	10	13	14	7	10	11	10	15	15					
Bulkley Valley	151	148	262	196	272	247	12	18	22	22	23	20	14	15	22	11	17	15	12	16	25	18	21	18	14	13	14	9	9	10	13	16	20	12	17	15					
Burnaby	1538	1477	1583	1640	1694	1753	10	10	11	13	12	14	14	13	16	15	17	17	11	11	15	12	14	17	15	13	11	8	9	9	21	18	17	17	19						
Campbell River	350	380	606	357	753	1184	15	13	16	21	14	18	14	12	13	12	12	15	14	14	14	12	15	14	19	11	12	12	12	9	16	14	13	11	10	8	12				
Cariboo - Chilcotin	342	347	640	304	626	673	16	13	19	23	22	22	20	13	13	14	21	18	18	13	15	18	23	22	20	14	14	14	15	14	15	11	15	12	16	17					
Central Coast	59	21	40	16	36	43	22	13	19	5	9	3	8	7	7	0	11	19	14	8	14	16	12	8	14	16	12	8	6	7											
Central Okanagan	1381	1462	1428	1446	1447	1401	13	9	10	14	11	13	13	8	11	12	14	14	14	10	10	13	16	17	7	7	7	6	8	9	11	9	9	10	10	12					
Chilliwack	782	1609	1707	954	888	878	17	15	16	20	17	19	20	15	16	20	17	16	18	17	18	21	19	18	17	11	9	12	11	12	15	13	14	16	13	15					
Coast Mountains	331	291	632	528	517	480	17	14	24	24	23	27	14	13	20	18	18	20	9	11	15	14	15	22	19	12	16	11	17	14	19	19	23	16	20	19					
Comox Valley	487	492	515	1006	477	583	15	16	17	20	21	19	20	17	21	22	22	18	16	18	18	19	23	22	14	14	16	10	11	13	14	13	18	15	17	13					
Coquitlam	1948	1914	1880	1886	2101	2193	7	10	12	12	12	12	8	13	16	16	14	17	8	11	13	13	17	18	7	8	12	8	8	10	13	13	14	14	14	15					
Cowichan Valley	604	550	1014	1172	575	592	12	10	15	19	19	20	12	10	13	15	18	16	12	9	14	15	18	18	15	8	8	11	14	13	12	10	14	15	17	15					
Delta	995	985	1786	939	957	923	11	11	12	12	12	14	15	13	11	14	13	12	12	13	12	13	16	15	11	11	9	7	8	8	15	11	10	11	11	12					
Fort Nelson	138	124	128	125	183	166	17	16	15	14	13	17	24	13	9	6	11	9	19	9	8	10	15	16	12	6	10	5	5	5	12	4	7	6	7	6					
Fraser - Cascade	235	233	233	224	346	237	15	15	22	26	29	24	22	22	17	24	20	18	10	14	13	15	15	16	14	9	8	8	13	15	16	17	15	16	18	18					
Gold Trail	103	176	184	160	144		27	28	25	38	32	37	19	14	19	23	18	10	17	15	16	19	19	15	18	20	23	18	27	25	28	31	22								
Greater Victoria	1268	1285	1334	1468	1397		12	13	15	14	13	11	15	15	13	15	15	11	13	13	15	16	16	7	9	7	6	8	11	13	11	11	14								
Gulf Islands	163	81	140	174	270	168	6	9	13	15	17	20	6	5	13	9	11	11	9	13	11	14	15	18	9	11	10	4	8	5	4	8	10	8	11	16					
Haida Gwaii	81	111	85	69	118	95	24	14	27	24	19	17	13	16	19	18	16	20	22	15	21	14	15	17	29	11	8	12	9	11	15	12	17	18	16	18					
Kamloops - Thompson	872	928	1921	1042	1057	1037	10	11	12	17	13	14	9	12	15	16	14	17	7	12	14	17	16	18	9	10	9	7	10	11	8	12	10	10	10	11					
Kootenay - Columbia	269	260	513	549	505	615	8	3	4	11	9	13	8	7	9	15	13	18	11	6	8	12	13	20	6	6	4	7	5	11	7	4	8	7	7	10					
Kootenay Lake	892	546	299	277	314	277	10	9	7	16	17	13	8	9	10	14	15	10	13	17	17	15	19	14	8	9	8	7	8	6	7	10	7	11	11	9					
Langley	1142	1312	1223	1117	1092	1403	8	10	11	14	12	12	10	11	14	17	14	15	9	11	14	16	15	16	9	8	9	7	7	10	10	11	12	13	12	14					
Maple Ridge - Pitt Meadows	866	969	1007	986	1022	1017	10	12	9	13	13	13	12	15	13	14	16	15	10	10	12	16	18	19	9	9	10	8	9	10	10	12	9	11	11	10					
Mission	463	428	412	437	476		11	16	17	12	15	16	16	16	19	19	19	19	19	16	17	20	20	12	15	11	9	11	15	15	15	12	12								
Nanaimo - Ladysmith	2738	913	1771	994	1029	1053	15	9	17	18	17	20	15	14	16	17	17	18	12	10	15	17	18	20	13	12	14	12	10	14	12	11	12	12	13	11					
Nechako Lakes	284	479	482	434	481	366	20	17	15	18	19	16	13	15	10	14	17	14	13	16	18	19	20	19	23	16	16	16	13	15	16	15	11	17	16	16					
New Westminster	462	461	836	453	550	491	9	7	11	15	10	11	14	8	12	16	12	12	13	7	11	13	13	13	10	9	8	10	7	7	16	11	15	14	15	13					
Nicola - Similkameen	136	143	281	255	289	280	19	15	22	25	24	16	10	15	14	16	21	13	14	20	15	15	22	16	9	16	13	11	14	10	15	14	14	12	17	9					
Nisga'a	51	25	55	72	71	59	10	10	13	13	6	10	2	13	24	10	22	12	12	13	18	6	7	14	15	8	4	10	12	11	14	14	4	7							
North Okanagan - Shuswap	422	408	827	803	410	441	17	11	16	18	15	19	19	11	17	19	17	20	16	12	15	15	16	22	14	6	8	7	13	10	15	8	11	10	12	12					
North Vancouver	1077	1095	1098	1205	1197		8	9	14	10	11	11	10	10	12	12	13	13	12	10	13	12	15	8	7	5	6	7	11	10	10	11	11								
Okanagan Similkameen	194	157	325	319	236	316	13	13	19	14	19	19	14	15	17	17	23	21	18	20	21	18	20	24	13	12	12	8	15	15	20	19	15	13	20	17					

Please note: Data are suppressed where there are fewer than 35 Kindergarten children. A complete data file can be found on our website: earlylearning.ubc.ca/maps/data

APPENDIX 1B – CONTINUED

Wave Number	# of Children						Percent Vulnerable																													
							Physical Health & Well-being						Social Competence						Emotional Maturity						Language & Cognitive Skills						Communication Skills & General Knowledge					
	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7
Okanagan Skaha	771	367	663	702	710	702	13	14	11	17	14	15	15	14	12	16	15	18	14	15	16	18	18	21	12	10	8	8	8	8	12	13	8	12	13	12
Peace River North	463	445	380	807	465	453	8	17	14	18	19	17	15	15	11	17	16	14	11	12	13	16	17	15	14	17	13	10	10	9	13	10	15	12	14	13
Peace River South	307	524	544	282	503	547	19	16	14	15	18	20	16	14	14	17	15	19	13	14	13	18	17	18	20	15	19	11	13	13	15	15	18	16	15	14
Powell River	139	121	272	278	265	235	11	7	10	21	20	18	11	16	16	15	18	22	16	18	21	19	18	22	14	15	11	9	13	15	11	7	7	8	17	15
Prince George	1018	832	1898	1011	1071	965	14	12	18	17	17	20	15	12	16	20	16	19	10	12	15	17	16	20	12	12	11	11	11	14	12	10	13	12	12	16
Prince Rupert	198	170	126	252	310	119	21	24	23	22	19	21	26	29	28	23	26	21	20	19	25	19	21	20	31	28	24	26	28	25	29	27	27	28	27	24
Qualicum	262	291	523	510	197	551	11	7	12	20	19	17	23	11	19	17	16	18	12	12	15	18	21	19	9	8	10	10	12	10	8	10	11	12	13	11
Quesnel	206	232	435	453	474	401	7	10	16	22	21	25	8	15	11	19	18	22	7	9	12	18	21	28	15	18	16	12	17	15	9	10	12	14	14	14
Revelstoke	153	154	139	165	207	253	4	3	2	5	5	6	5	3	4	2	3	5	4	3	3	4	6	8	4	3	7	2	3	3	4	3	2	4	2	2
Richmond	1362	1383	2737	1495	1435	1261	7	10	10	12	13	12	13	15	16	15	18	16	11	12	15	16	17	17	8	8	8	7	8	8	17	17	18	18	20	19
Rocky Mountain	637	425	455	471	498	475	11	9	15	15	16	16	10	11	12	18	16	11	11	14	13	17	17	15	9	7	7	10	8	9	8	9	8	11	8	8
Saanich	348	396	738	350	377	775	15	10	13	11	11	11	16	12	14	9	11	12	13	13	13	12	12	13	28	9	10	4	6	8	10	9	9	9	7	11
Sea to Sky	297	285	599	667	784	795	13	11	10	16	14	14	15	13	12	14	14	14	13	13	14	17	18	17	7	5	8	6	8	8	11	8	11	12	13	11
Sooke	535	595	685	725	825	838	13	10	8	13	14	12	12	9	11	14	13	14	12	10	13	18	15	16	12	10	8	7	7	9	9	8	6	9	10	10
Southeast Kootenay	1165	785	792	873	944	847	15	12	13	10	14	15	14	14	14	12	14	15	18	17	13	12	17	18	9	8	8	7	5	7	10	10	10	8	10	10
Stikine	70	31	29	29	11	1	18						15						12						15											
Sunshine Coast	170	374	399	440	466		26	17	22	20	16		14	13	21	14	19		14	16	17	17	23		19	8	7	5	10		16	13	11	14	16	
Surrey	4221	4513	4605	4978	5082	5105	11	12	14	14	15	15	13	12	15	17	17	16	11	11	12	14	16	17	12	11	10	10	11	13	16	14	16	17	17	18
Vancouver	3446	3672	3283	3131	3483	3073	14	15	15	16	14	15	16	16	19	16	17	18	14	16	15	14	15	17	10	11	12	9	9	10	23	22	24	19	20	17
Vancouver Island North	94	193	179	185	249	248	8	12	17	10	23	14	11	12	12	16	15	16	7	9	13	14	25	20	12	8	9	13	9	11	9	12	7	9	7	7
Vancouver Island West	54	26	47	42	58	50	13		26	21	32	30	7		51	19	26	22	9		32	17	26	24	7		15	19	23	24	11		23	29	26	34
Vernon	515	514	1053	933	585	543	11	10	13	18	14	16	13	6	13	14	11	17	7	8	13	15	13	18	9	7	11	11	10	12	10	10	12	13	9	14
West Vancouver	308	378	337	327	506	424	6	8	6	8	11	16	6	11	12	15	14	15	7	10	11	13	13	17	2	4	4	3	5	7	5	7	6	9	13	15
British Columbia	38,411	38,184	46,944	42,519	43,292	43,377	12.0	11.7	13.4	15.7	14.8	15.4	13.3	12.7	14.5	15.6	15.7	16.1	11.9	12.4	13.8	14.9	16.0	17.7	11.3	10.1	10.3	9.0	9.4	10.6	14.2	13.2	13.6	13.7	14.2	14.3

Please note: Data are suppressed where there are fewer than 35 Kindergarten children. A complete data file can be found on our website: earlylearning.ubc.ca/maps/data

APPENDIX 2A – EDI VULNERABLE ON ONE OR MORE SCALES DATA FOR NEIGHBOURHOODS IN OKANAGAN SIMILKAMEEN SCHOOL DISTRICT – WAVE 2-7

Wave Number	# of Children						Vulnerable on One or More Scales of the EDI													
							Percent Vulnerable							# of Children Vulnerable						
	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7		
Keremeos - Cawston	52	44	73	80	41	54	39	41	37	14	32	56	20	18	27	11	13	30		
Oliver - Ok Falls	103	74	177	173	123	179	31	35	41	42	48	43	32	26	72	72	58	76		
Osoyoos	39	39	75	62	72	83	46	16	26	31	30	25	18	6	19	19	21	21		
Okanagan Similkameen	194	157	325	319	236	316	36	32	36	32	40	40	70	50	118	103	92	127		

Please note: Data are suppressed where there are fewer than 35 Kindergarten children. A complete data file can be found on our website: earlylearning.ubc.ca/maps/data

APPENDIX 2B - EDI DATA FOR THE 5 SCALES OF THE EDI FOR NEIGHBOURHOODS IN OKANAGAN SIMILKAMEEN SCHOOL DISTRICT - WAVE 2-7

Wave Number	# of Children						Percent Vulnerable																													
							Physical Health & Well-being						Social Competence						Emotional Maturity					Language & Cognitive Skills					Communication Skills & General Knowledge							
	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7	2	3	4	5	6	7						
Keremeos - Cawston	52	44	73	80	41	54	14	9	10	5	7	32	15	21	16	6	15	24	19	25	22	8	17	28	15	14	18	1	17	19	17	30	19	5	17	24
Oliver - Ok Falls	103	74	177	173	123	179	11	21	26	20	31	22	18	16	19	21	26	24	21	26	25	25	27	26	12	15	7	8	18	17	18	16	14	15	22	20
Osoyoos	39	39	75	62	72	83	18	3	11	7	6	6	3	5	12	23	23	12	8	3	12	15	10	16	13	5	18	18	7	8	28	13	11	16	17	7
Okanagan Similkameen	194	157	325	319	236	316	13	13	19	14	19	19	14	15	17	17	23	21	18	20	21	18	20	24	13	12	12	8	15	15	20	19	15	13	20	17

Please note: Data are suppressed where there are fewer than 35 Kindergarten children. A complete data file can be found on our website: earlylearning.ubc.ca/maps/data



REFERENCES

- 1 Human Early Learning Partnership. What makes a difference for early child development? Team Environment Assessment Model for early child development (TEAM-ECD). Vancouver, BC: School of Population and Public Health, University of British Columbia; 2012 Nov. Available from: <http://earlylearning.ubc.ca/documents/304/>.
- 2 Glover V. The effects of prenatal stress on child behavioural and cognitive outcomes start at the beginning. Montreal, QC: Encyclopedia on Early Child Development; 2019 Apr. Available from: <http://www.child-encyclopedia.com/stress-and-pregnancy-prenatal-and-perinatal/according-experts/effects-prenatal-stress-child>.
- 3 Moore T, Arefadib N, Leone V, West S. The first thousand days - our greatest opportunity [policy brief]. Melbourne, Australia: Royal Children's Hospital, Murdoch Children's Research Institute, Centre for Community Child Health; 2018 Mar. Available from: <https://www.rch.org.au/uploadedFiles/Main/Content/ccchdev/1803-CCCH-Policy-Brief-28.pdf>.
- 4 Shonkoff J, Boyce WT, McEwen BC. Neuroscience, molecular biology, and the childhood roots of health disparities: building a new framework for health promotion and disease prevention. *JAMA*. 2009; 301(21):2252-9. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/19491187>.
- 5 Hertzman C. Commentary on the symposium: biological embedding, life course development, and the emergence of a new science. *Ann Rev Public Health*. 2013 Jan 4. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/23297665>.
- 6 Hertzman C, Boyce T. How experience gets under the skin to create gradients in developmental health. *Ann Rev Public Health*. 2010; 31:329-47. Available from: <https://doi.org/10.1146/annurev.publhealth.012809.103538>.
- 7 Irwin L, Siddiqi A, Hertzman C. Early childhood development: a powerful equalizer. Final report. World Health Organization, Commission on the Social Determinants of Health. 2018 Jun. Available from https://www.who.int/social_determinants/resources/ecc_kn_report_07_2007.pdf.
- 8 Marmot M, Bell R. Fair society, healthy lives (the Marmot Review). London, UK. Available from: <http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review>.
- 9 Brookings Working Group on Poverty and Opportunity. Opportunity, Responsibility, and Security. A consensus plan for reducing poverty and restoring the American dream. Brookings, NY: American Enterprise Institute for Public Policy Research and the Brookings Institution; 2015. Available from: <https://www.brookings.edu/wp-content/uploads/2016/07/Full-Report.pdf>.
- 10 Marmot M. The health gap: the challenge of an unequal world. *The Lancet*. 2015 Sep. Available from: <http://www.sciencedirect.com/science/article/pii/S0140673615001506>.
- 11 Wei L, Feeny D. The dynamics of the gradient between child's health and family income: evidence from Canada. *Soc Sci Med*. 2019; 226:182-9. Available from: <http://www.sciencedirect.com/science/article/pii/S0277953619301005>.
- 12 Guhn M, Emerson SD, Mahdavi D, Gadermann AM. Associations of birth factors and socio-economic status with indicators of early emotional development and mental health in childhood: a population-based linkage study. *Child Psychiatry Hum Dev*. 2019 Jul. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/31338644>.
- 13 Offord Centre for Child Studies. Early Development Instrument. McMaster, Hamilton, ON: Offord Centre for Child Studies, McMaster University; Available from: <https://edi.offordcentre.com>.
- 14 Canadian Institute for Health Information. Children vulnerable in areas of early development: a determinant of child health. Ottawa, ON: CIHI; 2014. Available from: https://secure.cihi.ca/free_products/Children_Vulnerable_in_Areas_of_Early_Development_EN.pdf.

REFERENCES

- 15 Guhn M, Janus M, Enns J, Brownell M, Forer B, Duku E, et al. Examining the social determinants of children's developmental health: protocol for building a pan-Canadian population-based monitoring system for early childhood development. *BMJ Open*. 2016 April 1, 2016;6(4). Available from: <http://bmjopen.bmj.com/content/6/4/e012020.abstract>.
- 16 Janus M, Brownell M, Reid-Westoby C, Bennett T, Birken C, Coplan R, et al. Establishing a protocol for building a pan Canadian population-based monitoring system for early childhood development for children with health disorders: Canadian Children's Health in Context Study (CCHICS). *BMJ Open*. 2018;8(5). Available from: <http://bmjopen.bmj.com/content/bmjopen/8/5/e023688.full.pdf>.
- 17 Janus M, Offord DR. Development and psychometric properties of the Early Development Instrument (EDI): a measure of children's school readiness. *Can J Behav Sci*. 2007;39(1):1-22. Available from: <https://psycnet.apa.org/record/2007-04967-001>.
- 18 Janus M, Brinkman S, Duku E. Validity and psychometric properties of the Early Development Instrument in Canada, Australia, United States, and Jamaica. *Soc Indicators Res*. 2011;103:283-297. Available from: <http://dx.doi.org/10.1007/s11205-011-9846-1>.
- 19 Forget-Dubois N, Lemelin J-P, Boivin M, Dionne G, Seguin JR, Vitaro F, et al. Predicting early school achievement with the EDI: a longitudinal population-based study. *Early Educ Dev*. 2007;18(3):405-26. Available from: <https://doi.org/10.1080/10409280701610796>.
- 20 Australian Early Development Instrument Census. The predictive validity of the AEDC: predicting later cognitive and behavioural outcomes. Melbourne, Vic: Centre for Community Child Health, Royal Children's Hospital, Melbourne, and the Telethon Kids Institute, Perth; 2014 Oct. Available from: <http://www.aedc.gov.au/resources/detail/the-predictive-validity-of-the-aedc-predicting-later-cognitive-and-behavioural-outcomes>.
- 21 Jones DE, Greenberg M, Crowley M. Early social-emotional functioning and public health: the relationship between kindergarten social competence and future wellness. *Am J Public Health*. 2015:e1-e8. Available from: <http://dx.doi.org/10.2105/AJPH.2015.302630>.
- 22 Thomson KC, Richardson CG, Gadermann AM, Emerson SD, Shoveller J, Guhn M. Association of childhood social-emotional functioning profiles at school entry with early-onset mental health conditions. *JAMA Network Open*. 2019;2(1):e186694. Available from: <http://dx.doi.org/10.1001/jamanetworkopen.2018.6694>.
- 23 Green MJ, Tzoumakis S, Laurens KR, Dean K, Kariuki M, Harris F, Brinkman SA, Carr VJ. Early developmental risk for subsequent childhood mental health disorders in an Australian population cohort. *Aust N Z J Psychiatry*. 2018 Dec 2; 53(4): 304-315. doi: 10.1177/0004867418814943. Retrieved from: <https://journals.sagepub.com/doi/full/10.1177/0004867418814943>.
- 24 Statistics Canada. Deaths from congenital anomalies in Canada, 1974-2012. Ottawa, ON: Government of Canada; 2016. Available from <https://www150.statcan.gc.ca/n1/en/daily-quotidien/160929/dq160929d-eng.pdf?st=M7tdedAy>.
- 25 Centres for Disease Control and Prevention. Data and statistics on birth defects. U.S. Department of Health and Human Services; 2018. Available from <https://www.cdc.gov/nccd/birthdefects/data.html>.
- 26 Statistics Canada. Low birth weight babies, by province and territory. Ottawa, ON: Government of Canada; 2019 Nov. Available from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310040401>.
- 27 Canadian Institute of Child Health. The health of Canada's children and youth: rates of low birth weight babies, implications; 2019 Nov. Available from: <https://cichprofile.ca/module/8/section/7/page/rate-of-low-birth-weight-babies-canada-and-the-provincesterritories-20102012/>.
- 28 Kershaw P, Anderson L, Warburton B, Hertzman C. 15 by 15: a comprehensive policy framework for early human capital investment in BC. Vancouver, BC: Business Council of British Columbia and the Human Early Learning Partnership, University of British Columbia; 2009. Available from: <http://earlylearning.ubc.ca/documents/27/>.
- 29 Hall ET. *Beyond culture*. New York, NY: Penguin Random House; 1976. Available from: <https://www.penguinrandomhouse.com/books/73813/beyond-culture-by-edward-t-hall/>.
- 30 Senge P. *The fifth discipline: The art and practice of learning organizations*. New York, NY: Doubleday; 1990.
- 31 Boell MM. Steps towards systemic change [iceberg sketch, p. 28]. Center for Systems Awareness; 2018 Dec. Available from: https://www.systemsawareness.org/wp-content/uploads/2019/05/SSEL_stories_StepsTowardsSystemicChange_Jan19_mail.pdf.