



**EDI**

HUMAN  
EARLY LEARNING  
PARTNERSHIP



SCHOOL DISTRICT 10 ■ **ARROW LAKES**

**WAVE 7**

EDI SUBSCALES COMMUNITY PROFILE



## ACKNOWLEDGEMENTS

We would like to acknowledge the exceptional support we have received since 2001 from British Columbia's provincial government, including 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 administrators, educators and staff working in BC school districts who work directly with us to gather and use EDI data and 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.

We would also like to thank the early childhood and health professionals across the province who have played a substantial role in ensuring that our reports are circulated and used. Their work has continued to raise 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.

## 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

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We express our deep gratitude to the xʷməŋkʷəy̓əm (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: Group drumming circle lead by Elder Fred John at an Aboriginal HELP Talk event hosted by HELP's Aboriginal Steering Committee at UBC's Longhouse, April 2017.

# WAVE 7 EDI SUBSCALES COMMUNITY PROFILE

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# ABOUT THIS REPORT



This Wave 7 EDI Subscale Community Profile is a supplementary report to the Wave 7 EDI Community Profiles available for BC's 59 school districts and their associated neighbourhoods. The EDI Community Profiles provide an overview of the patterns and trends in EDI vulnerability rates for Wave 7 (data collected 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. The data in both the EDI Community Profile and this Subscale Community Profile 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. We strongly encourage users of this report to review their related EDI Community Profile available on the HELP website: [earlylearning.ubc.ca/maps/edi](https://earlylearning.ubc.ca/maps/edi).

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 provides a reliable picture of child development in the area.



To view related EDI Reports, including the Wave 7 Provincial Report, please visit:

[earlylearning.ubc.ca/maps/edi](https://earlylearning.ubc.ca/maps/edi)

# INTRODUCTION TO EDI SUBSCALES



The Early Development Instrument (EDI) is a questionnaire that gathers data used to measure population-level patterns and trends in children's developmental health. The questionnaire, completed by teachers for their Kindergarten students, includes 103 questions organized into five scales that measure core areas of child development: **Physical Health and Well-Being, Social Competence, Emotional Maturity, Language and Cognitive Development, and Communication Skills and General Knowledge.**



To learn more about the Early Development Instrument (EDI), please visit:

[earlylearning.ubc.ca/edi](https://earlylearning.ubc.ca/edi)

## EDI SCALES AND SUBSCALES

Each EDI scale is made up of a set of subscales.\* There are 15 EDI subscales in total and each subscale measures a specific area of development contained within the larger scale (see Figure 1). While data for the EDI scales allow us to assess trends and patterns in children's vulnerability rates, subscale data allow us to refine our understanding of these population-level outcomes by providing information on the specific areas of development that are contributing to scale-level vulnerability. For example, for a particular school district or neighbourhood, increasing rates of vulnerability on the Emotional Maturity scale may be attributable to worsening trends on just one subscale (e.g., Aggressive), rather than similar trends on all four subscales. With this approach, subscale data allows for a more refined understanding of children's developmental health.

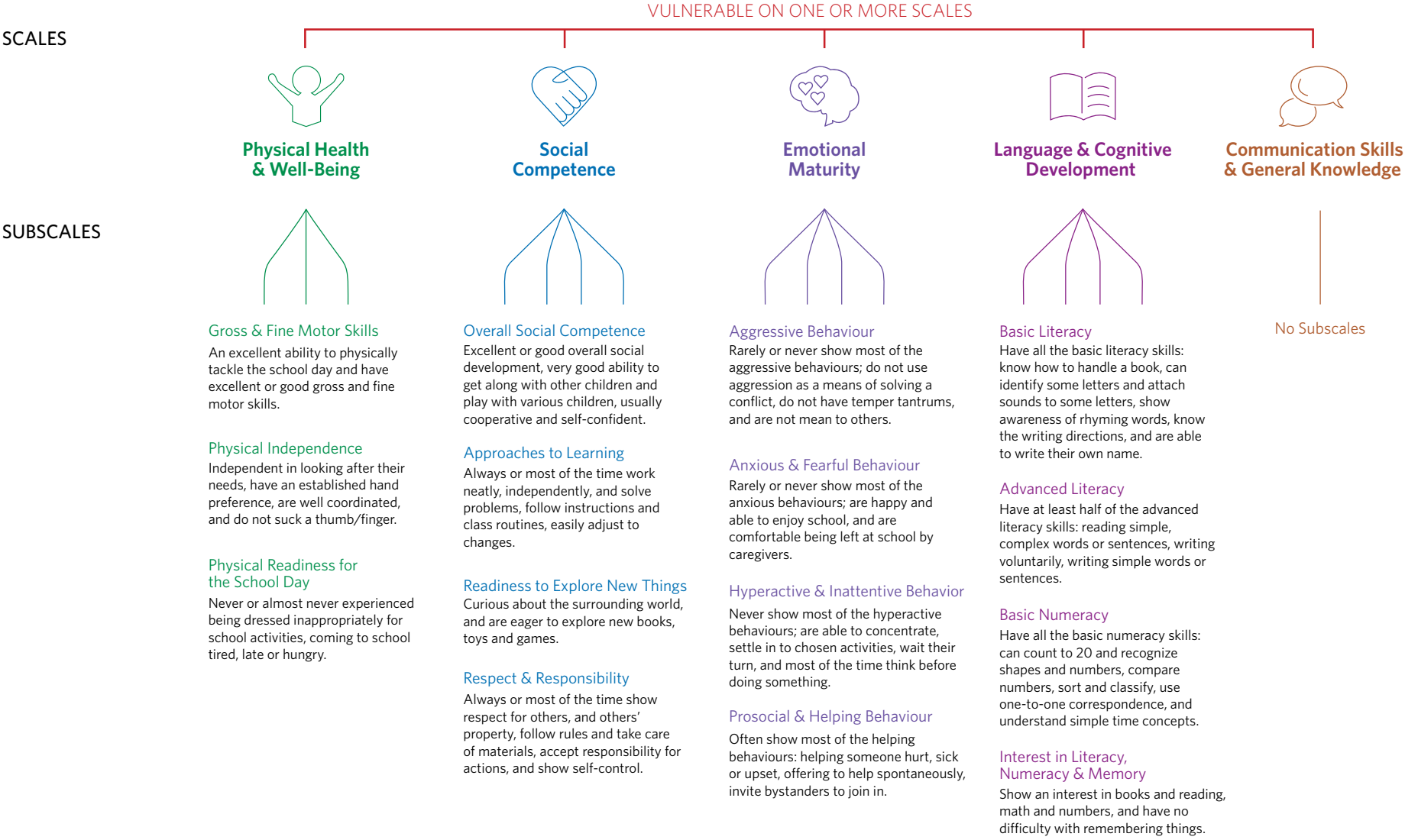
\* With the exception of Communication Skills and General Knowledge.



# INTRODUCTION TO EDI SUBSCALES

Figure 1 provides general descriptions, for each of the 15 EDI subscales, of children who are developmentally on track and ready for school in these particular areas of development.

**Figure 1: Relationship between EDI Scales and Subscales**



Subscale descriptions based on: **Early Development Instrument domains and subdomains**. Offord Centre for Child Studies. Hamilton, ON: McMaster University.

## INTRODUCTION TO EDI SUBSCALES

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### MEASURING CHILDHOOD OUTCOMES

HELP uses EDI data to report on population-level childhood developmental health outcomes at three levels:

#### VULNERABILITY ON EACH OF THE FIVE EDI SCALES (% vulnerable)

The percentage of children vulnerable on each of the five scales of the EDI are measured and reported as vulnerability rates. For each EDI scale, a child is designated as vulnerable if their score falls below a provincially-determined cut-off score. Without additional support and care, vulnerable children are more likely to experience challenges in their school years and beyond.

#### VULNERABLE ON ONE OR MORE SCALES (% vulnerable)

Vulnerable on One or More Scales is a summary measure that reports the percentage of children who are vulnerable on at least one of the five scales of the EDI. Children represented 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.

#### EDI SUBSCALES (standardized scores)

In contrast to the EDI scales, subscale data are reported as standardized versions of the raw scores. They **do not** measure vulnerability, which is based on fixed cut-off scores. EDI subscale scores are benchmarked to the results of the Wave 2 provincial data collection (2004–2007), which is the earliest wave\* that HELP reports on. By using this benchmark, the average provincial score for all subscales is set to zero. This allows us to both track trends over time in the subscale scores, and directly compare subscales with each other.



To learn more about how vulnerability is defined, vulnerability rates and long-term trends for your community, and related information, please visit:

[earlylearning.ubc.ca/maps/edi/#commProfiles](http://earlylearning.ubc.ca/maps/edi/#commProfiles)



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\* A 'Wave' is a 2–3 year data collection period, based on the annual school calendar (September–June).






### MEANINGFUL CHANGE

Collecting EDI data over multiple waves allows us to explore trends in children's development. With each new wave of EDI data, vulnerability rates and subscale scores change. While some places see improvements over time for particular aspects of children's developmental health, others see declines. When looking at these changes over time it is important to identify the amount of change that is meaningful, or change that is large enough to be worthy of further exploration and discussion.

When comparing scale and subscale data over time for a particular population, such as a neighbourhood or school district, it can be difficult to assess whether observed differences are large enough to be considered worthy of attention. HELP has developed a methodology of Critical Difference to answer this question. The Critical Difference methodology takes into account uncertainty due to sampling and measurement issues. Each EDI scale and subscale has its own level of uncertainty, some larger than others. In addition, for all scales and subscales, the amount of difference that is meaningful depends on the number of children represented, and the degree of change in the scale or subscale. As the number of children in a population gets smaller, the Critical Difference score required to be meaningful becomes larger.

### CHANGE OVER TIME

Critical Difference methodology is designed for making comparisons between two points in time. In this report, two trends are analyzed: the **Long-Term Trend** which compares the first full wave of data collection (Wave 2: 2004–2007) to the most recent wave (Wave 7: 2016–2019), and the **Short-Term Trend** which compares the two most recent waves (Wave 6: 2013–2016 to Wave 7: 2016–2019). To highlight potentially meaningful changes, long-term and short-term trends are classified and illustrated using the following symbols in the report:

-  **Getting Worse** Change in subscale score has gotten worse between waves.
-  **No Meaningful Change** There is no significant change in subscale scores between waves.
-  **Getting Better** Change in subscale scores has gotten better between waves.

### COMPARING BETWEEN PLACES

The same Critical Difference methodology can also be used to assess differences between one place and another (e.g. two neighbourhoods in the same school district), on subscale scores at one point in time (e.g. Physical Readiness for the School Day). This may be helpful for school district administrators, for example, in deciding where to focus future attention in their district.



For more information about Critical Difference, please visit:

[earlylearning.ubc.ca/  
supporting-research/  
critical-difference](https://earlylearning.ubc.ca/supporting-research/critical-difference)

EDI data are integral to the story of early childhood development in BC. However, EDI data are most valuable when used alongside other complementary data sources such as census information, health and education data, community knowledge and expertise, information on local services and programs and input from families themselves.

## INTRODUCTION TO EDI SUBSCALES

### UNDERSTANDING SCALE AND SUBSCALE TRENDS

#### HOW TO READ THE TREND GRAPHS

A **downward trend line**, either long-term (LT) or short-term (ST), indicates that **children are doing better than before**, and that the subscale is contributing to a decrease in the vulnerability rate.

An **upward trend line**, either long-term (LT) or short-term (ST), indicates that **children are doing worse than before**, and that the subscale is contributing to an increase in the vulnerability rate.

Please note the following:

#### Baseline

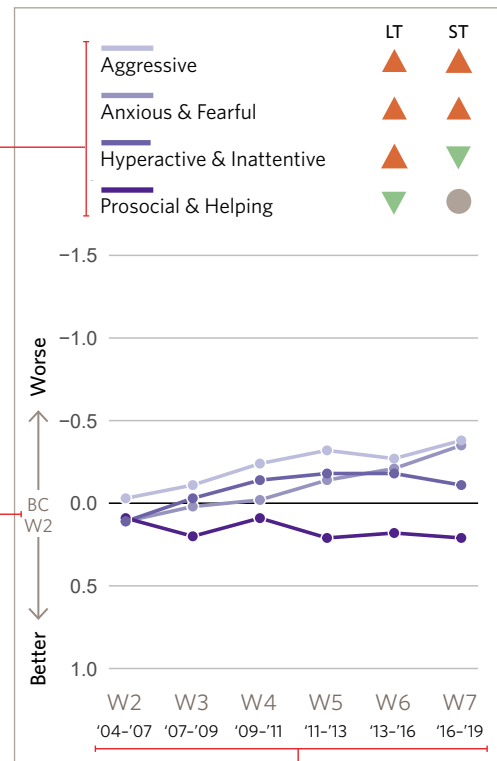
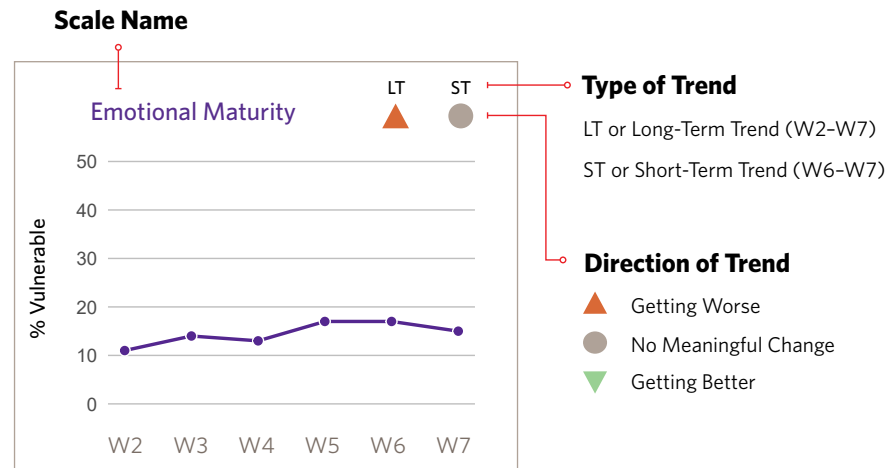
In order to track changes in subscales over time, subscale data are standardized to a baseline of Wave 2 data.

**\*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 are available. Their demographic data are included in the Total EDI count, but they are not included in the EDI scale or subscale data shown in the report. For full demographics and participation information, please see the EDI Wave 7 Community Profile for your district.

#### Subscale Legend

#### Baseline

Provincial average at Wave 2 (standardized score: 0\*)



#### Example Interpretation of Subscale Trend Lines

In this example, over the long-term, looking at the change between Wave 2 and Wave 7, the trend lines for Aggressive, Anxious & Fearful and Hyperactive & Inattentive subscales are showing an upward trend indicating that children are doing worse than before in these areas. The long-term Prosocial & Helping subscale trend line, however, is showing a downward trend indicating that children are doing better than before in this area.

Over the short-term (between Wave 6 and 7), the Hyperactive & Inattentive subscale is showing a downward trend indicating better outcomes and the Prosocial & Helping subscale has remained stable. Please reference the symbols in the legend to determine meaningful change.

#### Waves of Data

A 'Wave' is a 2-3 year data collection period, based on the annual school calendar (September-June)

# EDI SUBSCALE DATA



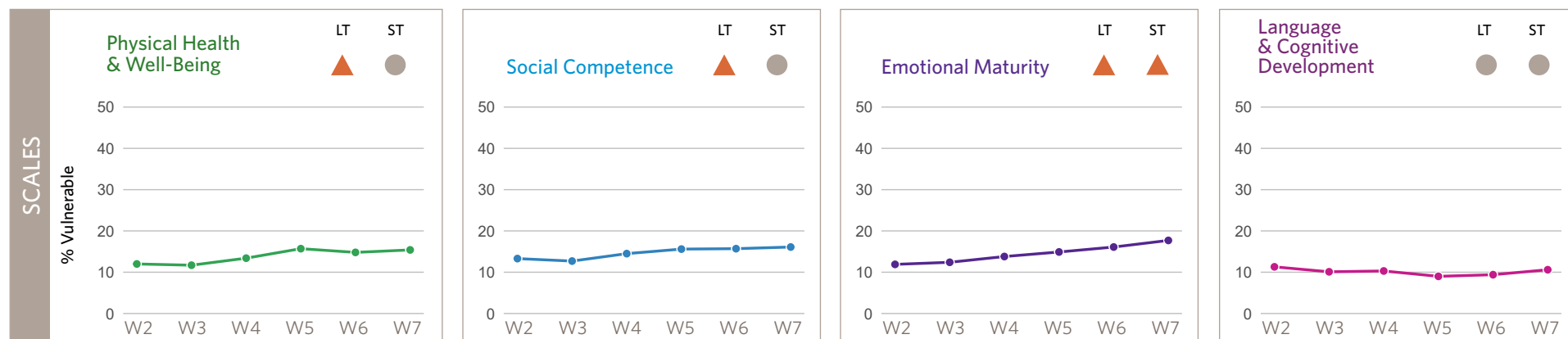
EDI subscale data can increase our understanding of the influences contributing to children’s developmental vulnerabilities. When interpreting EDI subscale data, it is important to consider the interconnected nature of development in the five areas measured by the EDI. Subscale data are most valuable when used alongside other complementary data sources such as census information, health and education data, community knowledge and expertise, information on local services and programs and input from families themselves. Using EDI data alongside these complementary data sources provides the breadth of perspectives needed for developing initiatives, planning investments, or targeted services.

When reviewing subscale data, consider the following questions for exploring subscale trends and comparisons in your school district and neighbourhoods:

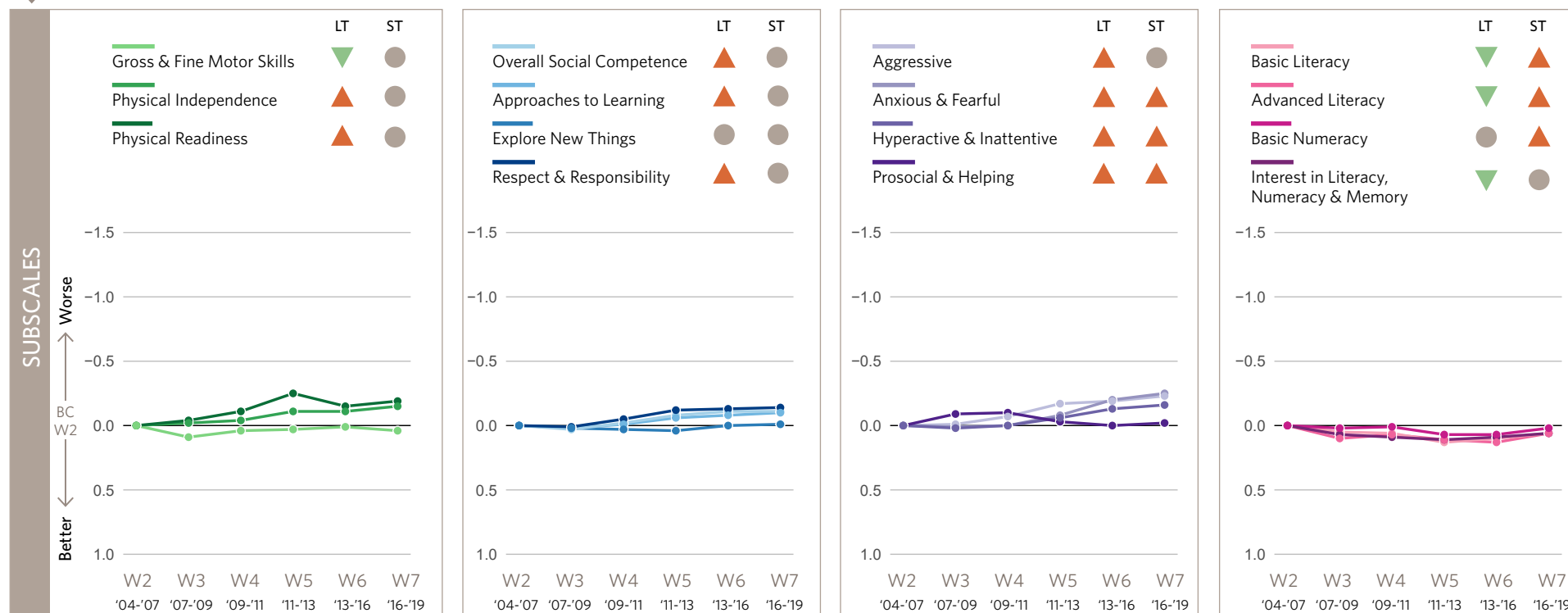
What are the subscale trends at the provincial level? Which ones are similar to, or different from, your district or neighbourhood trends?

Are there particular subscales where your district or neighbourhoods are relatively better or worse, or have a much different trend over time?

How do scale and subscale results compare to other districts or neighbourhoods, especially communities that are nearby or are similar?



As components of the EDI scales, EDI subscales provide more detailed information and can reveal which developmental areas are contributing to increases or decreases in scale-level vulnerability rates.



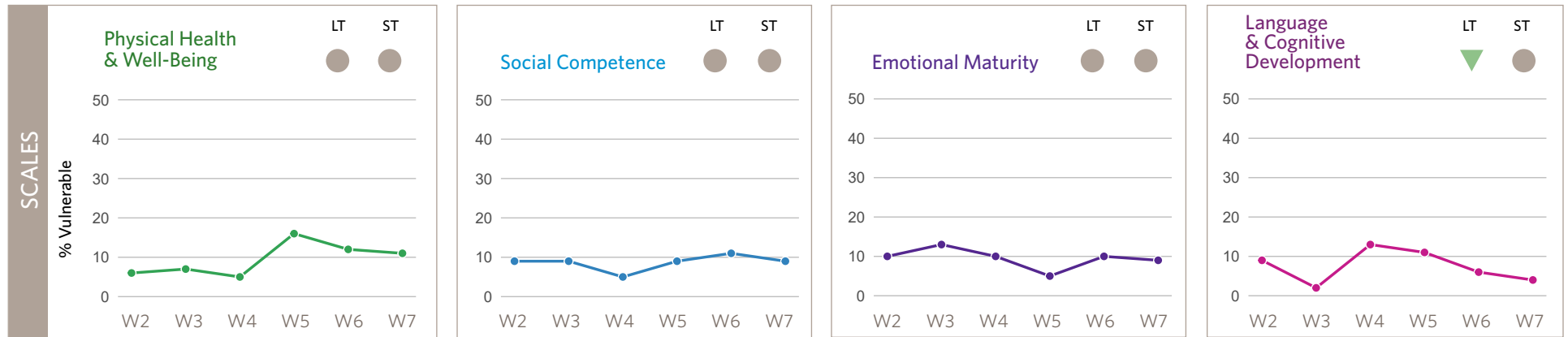
TYPE OF TREND LT or Long Term (W2-W7) ST or Short Term (W6-W7) DIRECTION OF TREND ▲ Getting Worse ● No Meaningful Change ▼ Getting Better

**Trend note:** The precise amount of change that is required to meet the threshold for being a meaningful trend ("getting better" or "getting worse") is unique for each EDI scale and subscale.

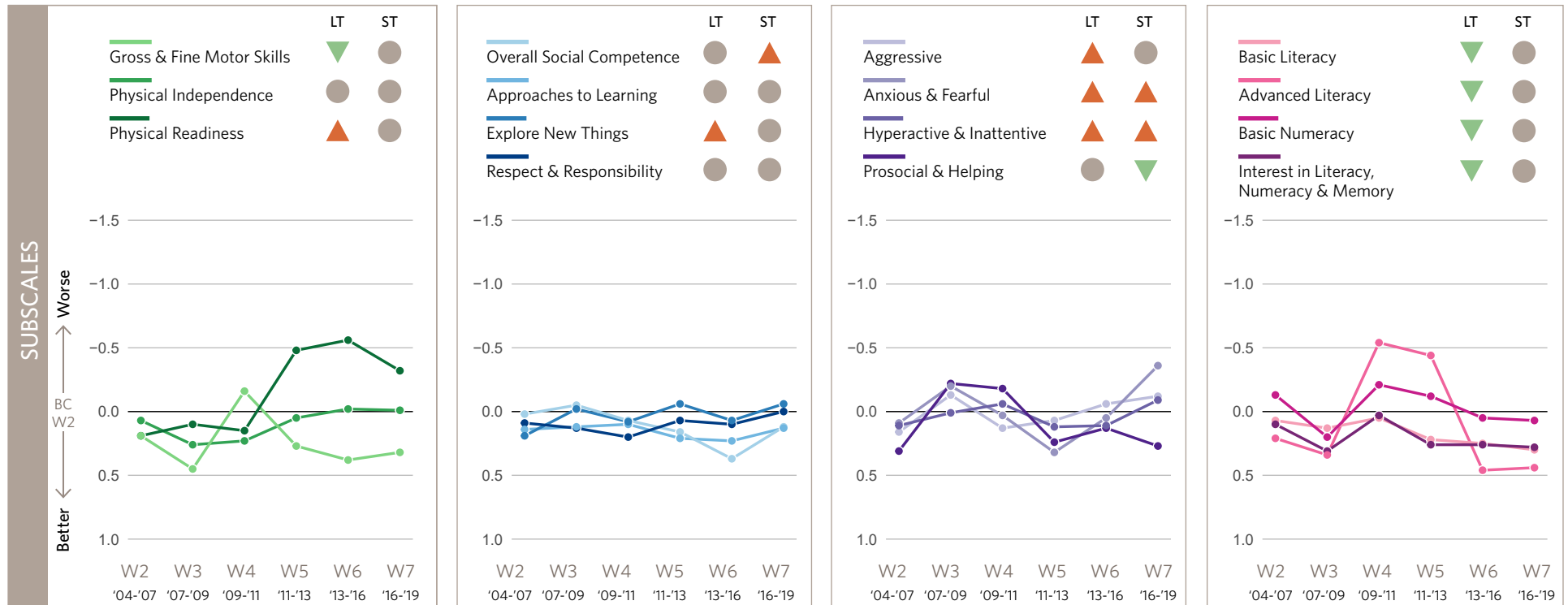
For further analysis of provincial subscale trends, please visit the 2019 EDI BC Provincial Report at [bit.ly/edibc2019](https://bit.ly/edibc2019). \*Total EDI, see definition on p. 10.

**Need help with your results?** See pages 9 and 10 for help with interpreting this data.





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Note: Data are suppressed when there are fewer than 35 children. \*Total EDI, see definition on p. 10.

**Need help with your results?** See pages 9 and 10 for help with interpreting this data.