Well-being & Healthy Habits of Early Adolescents: MDI Data Trends

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Our work takes place on the traditional, ancestral, unceded territory of the x̱w̉məθk̓ʷəy̓əm (Musqueam) people.
Child Development Monitoring System

- **TDi**: Toddler Development Instrument (1-2 years) - Parent & caregiver questionnaire
- **CHEQ**: Childhood Experiences Questionnaire (Start of kindergarten) - Parent & caregiver questionnaire
- **EDi**: Early Development Instrument (Mid-kindergarten) - Teacher questionnaire
- **MDi**: Middle Years Development Instrument (Grades 4-8) - Student questionnaire
- **YDi**: Youth Development Instrument (Grades 10-12) - Student questionnaire

**EARLY EXPERIENCES & CONTEXTS**

**SKILLS & COMPETENCES**

**WELL-BEING & ASSETS**

CHART LAB SFU
Outline

- Brief MDI Introduction
- MDI Data Trends Over Time
- Spotlight on Screen Time
- MDI Data Dashboard Updates demo
- Data in Action:
  Lianne Carley, VCH & BC Healthy Communities
  *Child & Youth Mental Well-being Resources*
Self-report survey for children in Grades 4 to 8
Multiple contexts:
Schools
Families
Neighbourhoods
Out of school time
Dimensions of the MDI
Helps us gain a deeper understanding of children’s social and emotional health, well-being and assets during middle childhood - from their own perspective.
### Participation 2009/2010 – 2023/2024

<table>
<thead>
<tr>
<th>Year</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Total Overall</th>
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<tr>
<td>2023/24</td>
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<td>34,430</td>
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**2023/24**
- Grade 4: 4,152
- Grade 5: 13,630
- Grade 6: 1,477
- Grade 7: 1,465
- Grade 8: 13,706

**Total overall (all years & grades):** 277,440
<table>
<thead>
<tr>
<th>SD #</th>
<th>SCHOOL DISTRICT</th>
<th>Grades</th>
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<td>Southeast Kootenay</td>
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<td>Coquitlam</td>
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<td>Powell River</td>
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<td>Haida Gwaii</td>
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<td>Boundary</td>
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<td>Okanagan Similkameen</td>
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<tr>
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<td>Peace River North</td>
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<tr>
<td>067</td>
<td>Okanagan Skaha</td>
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<tr>
<td>070</td>
<td>Pacific Rim</td>
<td>4,7,8</td>
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<tr>
<td>071</td>
<td>Comox Valley</td>
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<td>072</td>
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<td>075</td>
<td>Mission</td>
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<td>092</td>
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<td>8</td>
</tr>
<tr>
<td>093</td>
<td>Conseil scolaire francophone</td>
<td>6,8</td>
</tr>
</tbody>
</table>
Well-being Index
Well-being Index

Optimism
Self-Esteem
Happiness
Absence of Sadness
General Health

Medium to High Well-Being
Children who are reporting no negative responses, and fewer than 4 positive responses.

Low Well-Being
Children who are reporting negative responses on at least 1 measure of well-being.

High Well-Being (Thriving)
Children who are reporting positive responses on at least 4 of the 5 measures of well-being.
There was an overall decline in % of children thriving at each grade level from grades 4 to 8.
Research suggests a decline in well-being from middle childhood to adolescence is common. Children are facing new tasks and challenges as they grow older and experience heightened emotionality and rapid psychosocial changes.

Middle childhood is an ideal time for prevention and intervention!

Griffith et al., 2021, Journal of Youth and Adolescence
MDI Well-being Index, Percent Thriving, Grades 4-8, All BC Participating Districts

![Graph showing the percentage of students thriving in Grades 4-8 from 2015-16 to 2023-24 across all BC participating districts. The graph indicates a decrease in the percentage of students thriving over the years for each grade.]
Recent increases in wellbeing were consistent across all wellbeing component measures.
Well-being by Gender
MDI Well-being Index % *Thriving*, Grades 6-8
Sex at School Registration vs. Gender by Self-Report

Thriving Wellbeing by sex Grades 6/7/8

Thriving Wellbeing by Gender Grades 6/7/8
Recent preliminary findings in a population-based study showing improvements in mental health and wellbeing among trans and gender diverse youth in Finland.

Kiviruusu et al., 2024 (manuscript under review, Lancet)
How can schools support TGD students?

- Use chosen pronouns
- Allow students to join team sports based on preferred gender
- Code of conduct with no tolerance for discrimination
- Create safe ways for students to report bullying
- Gender-neutral washrooms, if possible
- Professional development for staff on inclusivity
- Hiring school staff of diverse gender identities
- **School-wide interventions**
MDi Assets Index
As the number of assets in children’s environments increase, so too does their well-being.
MDI Assets Indices, Grades 6-8, All BC Participating Districts

NOTE: Out-of-School Activities
Asset changed in 2022/23
Adult Relationships Asset, All BC Participating Districts

Grades 4&5

Grades 6-8

Adult Relationships Asset, All BC Participating Districts

Grades 4&5

Grades 6-8
Peer Relationships Asset, All BC Participating Districts

Grades 4&5

Peer Belonging
Friendship Intimacy

Grades 6-8

Peer Belonging
Friendship Intimacy

NOTE: Grades 5, 6 & 8 were available starting 2020/21
Healthy Habits

- Screen Time & Social Media
- Sleep
- Physical Activity
24 Hour Movement Guidelines

A healthy 24 hours includes:

**SWEAT**
Moderate to vigorous physical activity

An accumulation of at least 60 minutes per day of moderate to vigorous physical activity involving a variety of aerobic activities. Vigorous physical activities, and muscle and bone strengthening activities should each be incorporated at least 3 days per week;

**STEP**
Light physical activity

Several hours of a variety of structured and unstructured light physical activities;

**SLEEP**
Sleep

Uninterrupted 9 to 11 hours of sleep per night for those aged 5-13 years and 8 to 10 hours per night for those aged 14-17 years, with consistent bed and wake-up times;

**SEDENTARY BEHAVIOUR**

- No more than 2 hours per day of recreational screen time;
- Limited sitting for exercise periods.

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Canadian Society for Exercise Physiology: csepguidelines.ca
MDi Spotlight:
Screen Time & Social Media
Screen Time Amount by Screen Type

**Grades 4&5**
- **Video games**: 36.7% (50.2% + 13.1%)
- **Friend remote**: 23.6% (50.7% + 25.8%)
- **TV**: 44.5% (52.8% + 2.7%)

**Grades 6-8**
- **Video games**: 38.2% (53.4% + 19.7%)
- **Friend remote**: 33.4% (53.2% + 13.4%)
- **TV**: 44.3% (42.1% + 2.3%)
- **Social Media**: 36.5% (37.7% + 25.9%)

Legend:
- Never
- <2 hours
- 2+ hours
Well-Being Index % *Thriving*, Screen Type by # Hours, Grades 6-8
Well-Being Index % *Thriving*, Social Media by # Hours, Grades 6-8
Well-Being Index % *Thriving*, Social Media by Girls & Boys, Grades 6-8

![Graph showing the percentage of students thriving in social media by gender and time spent on social media. The x-axis represents time spent on social media (Never, Less than an hour, 1-2 hours, 2-3 hours, 3-4 hours, 4-5 hours, 5 hours or more), and the y-axis represents the percentage. The graph shows that boys spend more time on social media and have a lower percentage of those thriving compared to girls.](image-url)
All Types of Screen Time Use (Low, Medium, High) by Reading for Fun, Grades 6-8

Screen time may displace other activities
All Types of Screen Time Use (<2 hours, >=2 hours) by Structured Activities, Grades 6-8
Spotlight: Sleep
Sleep, Grades 6-8

No. Hours Sleep/Night

- <=9 hours: 39.8%
- 9+ hours: 60.2%

No. Hours Sleep/Night by Well-being

- Low: <=9 hours (50%), 9+ hours (40%)
- Medium: <=9 hours (20%), 9+ hours (30%)
- Thriving: <=9 hours (10%), 9+ hours (40%)
Screen Time Hours & Bedtime, Grades 6-8

- Before 9pm
- Between 9pm & 10pm
- Between 10pm & 11pm
- Between 11pm & midnight
- After 12am/midnight

- 0-2 hours
- 2-4 hours
- 4hours+
Screen Time Commentary

More Ontario school boards file suits against social media giants

Lawsuits allege social apps are negatively rewiring how students think and learn

Toronto

Five Ontario school boards and two private schools are launching new law suits against some of the world's largest social media companies. (Manan Vatsyayana/AFP/Getty Images)
Overall Healthy Habits
Healthy Habits, Grades 4&5

Sleep
- <9 hours: 19.4%
- 9+ hours: 80.6%

Physically Active
- Every day: 72.2%
- Not Every Day: 27.8%

Video Games
- >2 hours: 61.5%
- <=2 hours: 38.5%
MDI 2023/24, Grades 4&5, Healthy Habits:
9+hrs Sleep + Low Video Game Use + Daily Physical Activity

Number of Healthy Habits

Well-being by No. of Healthy Habits

0 1 2 3

Low Medium Thriving

27.30% 28.40% 37.60% 40.40%
Healthy Habits, Grades 6-8

Physically Active
- Active Every Day: 71.3%
- Not Active Every Day: 28.7%

Sleep
- <9 hours: 54%
- 9+ hours: 46%

Social Media Use
- < 2 hours: 60.7%
- 2+ hours: 39.3%

Active Every Day  Not Active Every Day
MDI 2023/24, Grades 6-8, Healthy Habits:
9+hrs Sleep + Low Social Media Use + Daily Physical Activity
24-Hour Movement Behaviours

Key Finding:
- 4% of children and youth (five to 17 years of age) met the combined 24-Hour Movement Guidelines.5,8,9
  - Among youth, adherence to the combined guidelines was twice as low among girls (4%) as among boys (8%).3

Recommendations:
- Teachers, health-care practitioners and researchers should educate students and parents on the importance of achieving appropriate levels of physical activity, sedentary behaviours and sleep for children and youth’s healthy growth and development.
- Research is needed to determine the impact of climate change (e.g., severe weather events, increasing heat, air quality) on the 24-hour movement behaviours of children and youth.

Community & Environment

Key Finding:
- In relation to physical activity for children, youth and families, the average score reported across the areas of policy, human resources, facilities and infrastructure, partnerships and programming was 70%.5,11

Recommendations:
- Communities should ensure that indoor recreational facilities have high-quality air filtration and purification systems and develop plans to open these facilities free or at reduced costs to the public during weather alerts.
- When revising or creating new municipal policies or by-laws, decision-makers must consider their potential to restrict physical activity or outdoor play for children and youth.
Spotlight: Citizenship & Responsibility
Citizenship & Responsibility, Grades 6-8

I believe I can make a difference in the world, “Agree”

NOTE: Grades 6 & 8 were available starting 2020/21
Discover MDI
A Field Guide to Well-Being in Middle Childhood
Guiding your journey to support children’s well-being using Middle Years Development Instrument data

Begin your Journey  View Top Resources
Exploring the data with others is an **ACTION**!

- School administrators, teachers, staff
- Youth
- Community partners & networks
- Health authority & government partners
- Parents & Caregivers

Promote **shared responsibility** for children and families across systems and sectors.
Children's Voices Matter

One of the core beliefs underlying the Middle Years Development Instrument (MDI) is that children's voices matter. Asking children for their input can be powerful because it provides rich data on child well-being that would not otherwise be accessible if we did not ask them – data that can be used to create environments and interactions which can promote children's well-being. It is also tells children that their thoughts and feelings are valued and provides them a say in how their schools and communities should support them.
Child and Youth Mental Well-Being Resources

Participation
When children are given opportunities to participate, they feel a sense of belonging and agency, and that they are part of something bigger than themselves. They also gain skills that allow for more meaningful contributions to society. Local governments can create welcoming and inclusive environments that include children and youth in planning, decision-making, and governance, offering volunteer and employment opportunities and ensuring that government communications engage all ages.

Play
Play is essential for child development. It promotes mental well-being through brain development, stress relief, physical activity, and time outdoors. Local governments can create and maintain spaces and provide opportunities for all kinds of play – and not just in typical designated play places and programs.

Safety
Safety includes both actual and perceived physical, psychological, and social safety experienced at home, school, and in community. Local governments can work towards creating public areas that are safe for children and youth while also implementing policies that respond to larger societal threats like racism, discrimination, poverty, inequality, and climate change.

Social connection and belonging
Relationships are one of the strongest predictors of children’s well-being throughout life. Studies have also found that a strong sense of belonging is associated with high self-rated mental health, even when controlling for geography and socio-economic status. Local governments can strengthen social connectedness and belonging for young people through initiatives that enable neighbourhood social cohesion, create social connections with adults in the community, socially sustainable urban design, and written and visual communications that represent and speak to all ages.
HELP Connect

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mdi@help.ubc.ca