Permanent Daylight Savings Time and the Health of Children and Youth

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10/26/2026 5:21 PM

Territory Acknowledgement

Vancouver Coastal Health is committed to delivering exceptional care to 1.25 million people, including the First Nations, Métis and Inuit, within the traditional territories of the Heiltsuk, Kitasoo-Xai'xais, Lil’wat, Musqueam, N'Quatqua, Nuxalk, Samahquam, shíshálh, Skatin, Squamish, Tla'amin, Tsleil-Waututh, Wuikinuxv, and Xa'xtsa.

We wish to acknowledge that the land on which we gather is the traditional and unceded territory of the Coast Salish Peoples, including the xʷməθkʷəy̓əm (Musqueam), Sḵwx̱wú7mesh (Squamish) and səlilwətaɬ (Tsleil-Waututh) Nations.

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Image of the Sea to Sky Corridor on the traditional and unceded territories of the Lil'wat, N'Quatqua, Samahquam, Skatin, Squamish and Xa'xtsa Nations.

Objectives

- Discuss the impact of permanent daylight saving time (DST)
- Share mitigation strategies and examples
- Discuss opportunities to support student health and well-being

School District Start Times with DST Adoption

School District	School Start Times	Approximate Period Where Sunrise Occurs After Earliest School Times (2026/2027) *
Richmond (SD38)	8:30am – 8:45am	Nov 20 – Feb 9
Vancouver (SD39)	8:35am – 9:00am	Nov 23 – Feb 6
North Vancouver (SD44)	8:30am – 8:50am	Nov 20 – Feb 9
West Vancouver (SD45)	8:30am – 8:50am	Nov 20 – Feb 9
Sunshine Coast (SD46)	8:20am – 9:00am	Nov 11 – Feb 17
qathet (SD47)	8:25am – 9:00am	Nov 12 – Feb 16
Sea to Sky (SD48)	8:30am – 9:00am	Nov 18 – Feb 11
Central Coast (SD49)	9:00am	Nov 22 – Feb 6

*Note: With permanent DST, sunrise will occur after the earliest school start times for **approximately 12 weeks** (including winter break) of the year across VCH region. Before DST adoption, there were **no periods** where sunrise occurred after the earliest school start times.

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Source: https://www.timeanddate.com/

Impact of Permanent Daylight Saving Time

Potential Positive Impact

- Additional daylight later in the day may create opportunities for
  - Recreation
  - Physical activity
  - Time outdoors
  - Social connection and participation

Potential Negative Impact

- Sleep and Circadian Health
  - Because of the importance of morning light for our circadian rhythms, permanent DST may contribute to sleep disruption, sleep loss and other sleep-related disorders
  - Potential impacts on children and youth readiness to learn and mental health [1,2,3,4]
- Mental Health and Well-being
  - Given the role of morning light on mood regulation and mental wellbeing, impacts on seasonal affective disorders, depression, concentration and emotional wellbeing are anticipated [7,8,9,10]
- Safe Travel to School and Injury Prevention
  - Low light conditions during the mornings may contribute to decreased visibility, increased safety concerns, and decreased active school travel.

Sleep and Circadian Health

- Morning light helps regulate circadian rhythms, sleep-wake cycles, alertness, learning, and overall health.[1]
- Permanent DST may increase circadian misalignment, sleep disruption, sleep loss, and sleep-related disorders.[2,3,4]
- Children and youth are particularly vulnerable due to their developmental need for adequate sleep.[6]
- Adolescents are especially at risk because their natural sleep patterns already favour later bedtimes and wake times.[6]



Mental Health and Well-Being



- Morning light exposure supports mood regulation and mental well-being, while later winter sunrises under permanent DST may reduce morning light exposure[4].
- Reduced morning light exposure is linked with higher rates of seasonal affective disorder, depressive symptoms, and difficulties with concentration and emotional well-being.[7,8,9,10]
- Children and youth experiencing mental health challenges may be particularly affected because sleep quality and circadian alignment are important contributors to mental well-being.[11]

Safe Travel to School

- Under permanent DST, many students would travel to school before sunrise during parts of the school year.*
- Darker morning conditions may reduce visibility and decrease safety during the morning commute, particularly for students walking, cycling, rolling, or waiting for transit.
- Impacts may be greatest for younger students, students with disabilities, and those using active transportation or public transit.

*See slide 4 for school district starts timetable



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Equity Considerations

Permanent DST may have disproportionate impacts on [5,6,11]

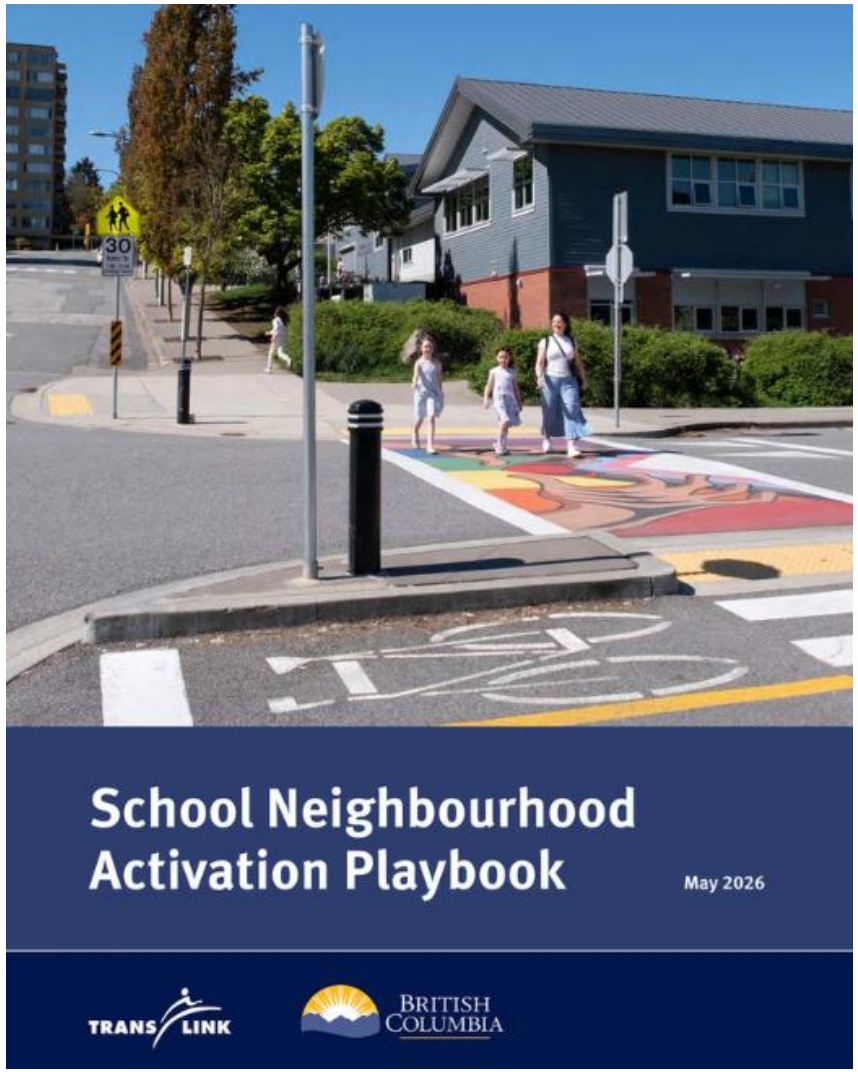
- Northern communities where daylight is already limited
- Children and youth due to their unique developmental needs
- Students who currently experience mental health and sleep challenges
- Students and families enrolled in before-school care
- Students who currently use active transportation and/or public transportation

Mitigation Strategies

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Mitigation Strategies

- Supporting Sleep and Circadian Health
  - Adjusting school scheduling e.g. later school start times [11,12]
  - Rescheduling extra-curricular activities to afterschool hours
- Supporting Mental Wellbeing
  - Accessing natural daylight in afternoon hours through outdoor learning and play
  - Strengthening the promotion of protective factors
    - Sleep hygiene, play, social connection and belonging, participation
- Supporting Safe School Travel
  - Explore collaboration opportunities to promote safe active school travel
  - Work with community partners to improve school travel infrastructure [13]
    - E.g. School Neighborhood Activation Playbook



Supporting Sleep and Circadian Health

School Scheduling Considerations

- Consider scheduling extracurricular activities after school to support daylight exposure and travel during daylight hours.
- Where operationally feasible, consider later school start times, particularly for adolescents.
- Later school start times can improve[11,12]:
  - Sleep duration
  - Alertness
  - Learning and academic performance
  - Overall well-being



Supporting Mental Health and Well-Being

School Environment Considerations

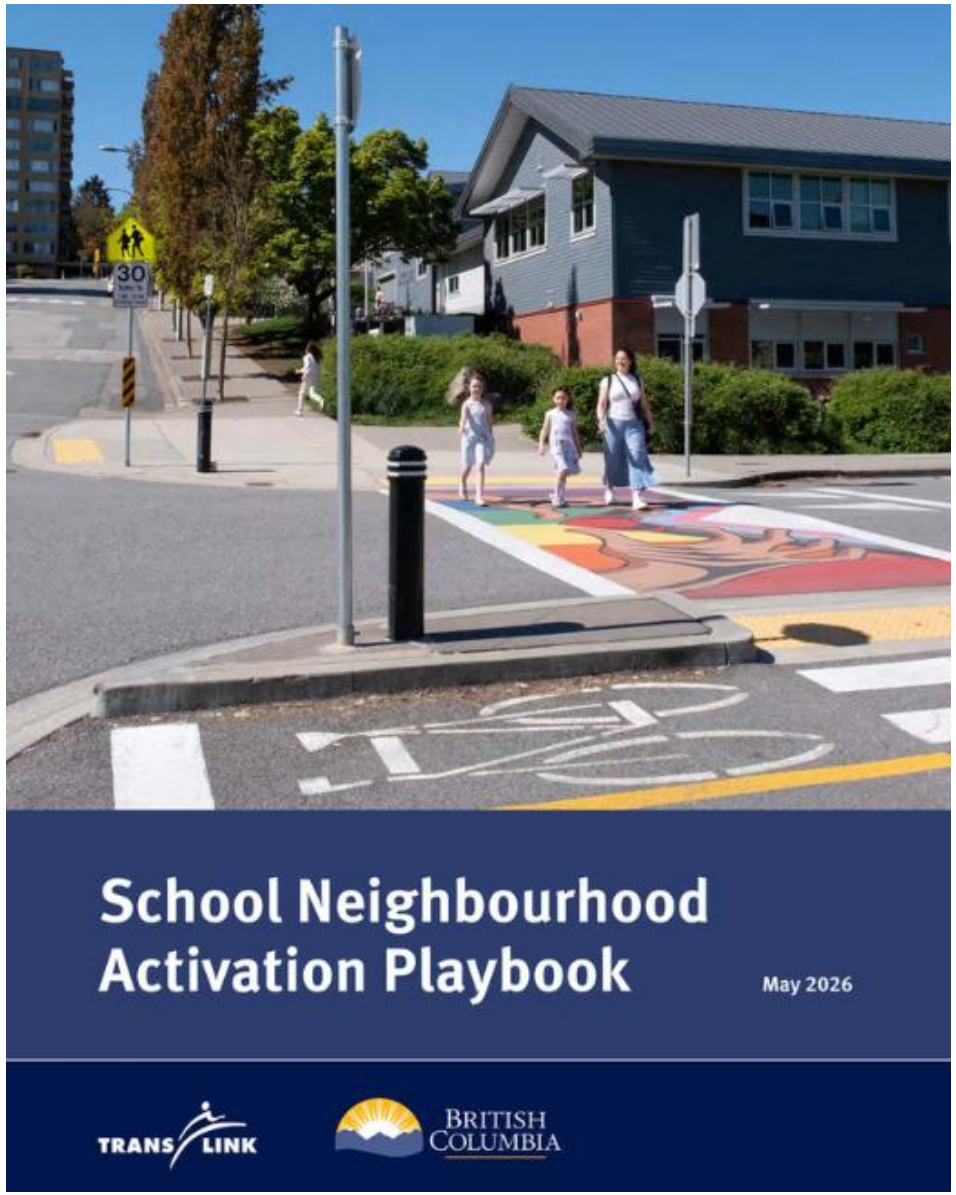
- Promote evidence-informed sleep hygiene practices across school communities.
- Increase opportunities for students to access morning and natural daylight throughout the school day.
- Use later afternoon daylight to support outdoor recreation and play.
- Continue fostering school environments that support healthy sleep and mental well-being.

Strengthening Protective Factors for Mental Well-Being

- Continue strengthening school-based approaches that support sleep, physical activity, play, social connection, belonging, and participation.
- Leverage School Health Promotion initiatives and other VCH services to support evidence-informed approaches to student well-being.

Supporting Safe Travel to School

- Continue supporting Safe Routes to School initiatives and other measures that improve safety during low-light travel conditions.
- Work collaboratively with municipalities, transportation partners, and school communities to improve visibility, accessibility, and safety around school neighborhoods.
  - E.g. Use tools such as TransLink's School Neighbourhood Activation Playbook to identify local improvement opportunities[13].
- Engage VCH Public Health teams to support safe active travel planning for school communities.



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Discussion

- What areas of concerns does the/your school district have related to the impact of permanent DST?
- How do you envision VCH Public Health supporting school district across these areas?

Thank You

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Appendix

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