

#### What the MDI Measures

General Health

**Eating Breakfast** 

Meals with Adults in Your Family

Frequency of Good Sleep

**Physical Activity** 

Wake-up Time & Bed Time

Food

Help-Seeking for Emotional Well-being

Transportation to and from School

## PHYSICAL HEALTH & WELL-BEING

The MDI asks children about a variety of health behaviours. Understanding children's uptake of these indicators is important as health behaviours interact to help children thrive at home, school and the community. Vigorous daily physical activity helps students have a good night's sleep and be alert and engaged in school (ParticiPACTION, 2020). As well, physical activity and sleep are linked to better selfesteem, self-concept, more resilience and overall well-being for children and adolescents (Sampasa-Kanyinga et al., 2020). Researchers also found that school-based physical activity is linked to flourishing in the middle years and less depressive and anxiety symptoms (Andermo et al., 2020). In short, children who feel better physically are more likely to feel better emotionally and have healthier relationships.

# research

# GENERAL RESEARCH ON PHYSICAL HEALTH & WELL-BEING

- Children need 60 minutes of energetic play each day, yet most young Candians are not getting this. Families, schools, and community all play crucial roles in helping young people stay physically active (CSEP, 2021; ParticipACTION, 2020).
- Regular physical activity is linked to better academic outcomes, higher self-esteem, well-being and selfconcept (Andermo et al., 2020).
- Eating breakfast improves children's concentration and memory (Zipp & Eissing, 2019).
- Frequently eating meals together as a family is related to increased self-esteem and school success, and decreased chances of developing eating disorders, substance abuse, violent behaviour, and symptoms of depression (Jones, 2018).
- Children ages 5-13 need between 9 and 11 hours of uninterrupted sleep a night (CSEP, 2021). Children who do not get enough sleep are more likely to have trouble at school, be involved in family disagreements, and are less able to regulate their emotions (Buxton et al., 2015; Matricciani et al., 2019, Sampasa-Kaniyinga et al., 2020.)

- Walking or wheeling to school is associated with better mental and physical health and an improved sense of connectivity in neighbourhoods (Buttazoni et al., 2019).
- Seeking help for emotional support can help prevent and address mental health issues (Rickwood et al., 2005; Xu et al., 2018).

# MDI FINDINGS ON PHYSICAL HEALTH & WELL-BEING

- MDI data from 2022/23 show that 80% of children in Grades 4 and 5 ate breakfast daily, while only 67% of children in Grades 6 to 8 did. 75% of children who completed the MDI ate meals with their family and met the Canadian movement guidelines three or more times per week.
- Engaging in an adequate level of physical activity regularly is important for promoting physical and mental health for children and youth (WHO, 2022), and families who enjoy meals together benefit from a greater sense of connection and better communication (Middleton et al., 2020).
- According to MDI data, about 55% of children reported having good quality sleep most nights. Children who were active and reported good sleep were more likely to also report higher well-being.

## PHYSICAL HEALTH & WELL-BEING

### AT HOME

- Encourage children to get involved in planning and preparing family meals. Children are more likely to eat healthy foods when they are involved in preparation, and helping in the kitchen can boost their mood and selfconfidence (Allirot et al., 2016). Mealtimes don't have to be long to reap the benefits, but make sure to turn off screens to make the most of family time (Jones, 2018).
- Make being active a family priority. Children are more active when their parents and caregivers are active (Garriguet et al., 2017). Connect as a family playing active games and doing fun things you enjoy.
- Getting to and from school can be an opportunity
  to increase daily exercise. If your family has a longer
  commute, consider getting off a few stops earlier if you
  take transit, or park the car further away from the school
  to enjoy some extra exercise and avoid the drop-off
  traffic jam.
- Create a set bedtime routine with a regular bed and wake time. Do quiet activities to prepare for sleep, like having a bath or listening to a story. Keep bedrooms quiet and dark. Avoid caffeine and screen use close to bedtime and remove screens and media devices from bedrooms (Buxton et al., 2015).

### IN COMMUNITY

- Many families cannot afford to meet guidelines for healthy eating (Mulik & Haynes-Maslow, 2017). Include your neighbourhood food security network in efforts to ensure families have awareness of and access to affordable healthy food options (Miewald et al., 2012).
- Promote active transportation to schools by identifying and addressing barriers. Walking School Bus programs, crossing guards, places to park bikes and scooters, and safety awareness campaigns can promote active transportation.
- Create community programs and initiatives that reduce mental health stigma and improve mental health literacy to promote help-seeking in young people (Nearchou et al., 2018).

### AT SCHOOL

- Try to limit the amount of time children stay sitting as much as possible. Have standing work spaces and offer movement breaks. Here are some classroom suitable <u>activities</u>.
- Team up with a community sponsor to host a breakfast club where kids can have a healthy meal before school starts. School breakfast programs have been shown to support students' concentration, memory, and academic performance, especially in undernourished children (Adolphus et al., 2016).

For more resources and ideas on how to use MDI data to catalyze action, visit discovermdi.ca.







# references

Adolphus, K., Lawton, C. L., Champ, C. L., & Dye, L. (2016). The effects of breakfast and breakfast composition on cognition in children and adolescents: A systematic review. *Advances in Nutrition*, 7(3), 590S–612S. <a href="https://doi.org/10.3945/an.115.010256">https://doi.org/10.3945/an.115.010256</a>

Allirot, X., da Quinta, N., Chokupermal, K., & Urdaneta, E. (2016). Involving children in cooking activities: A potential strategy for directing food choices toward novel foods containing vegetables. *Appetite*, 103, 275-285. <a href="http://dx.doi.org/10.1016/j.appet.2014.03.030">http://dx.doi.org/10.1016/j.appet.2014.03.030</a>

Andermo, S., Hallgren, M., Nguyen, T., Jonsson, S., Petersen, S., Friberg, M., Romqvist, A., Stubbs, B., & Elinder, L. S. (2020). School-related physical activity interventions and mental health among children: A systematic review and meta-analysis. *Sports Medicine - Open, 6*(1). https://doi.org/10.1186/s40798-020-00254-x

Buxton, O. M., Chang, A. M., Spilsbury, J. C., Bos, T., Emsellem, H., & Knutson, K. L. (2015). Sleep in the modern family: Protective family routines for child and adolescent sleep. *Sleep health*, 1(1), 15-27. <a href="http://dx.doi.org/10.1016/j.sleh.2014.12.002">http://dx.doi.org/10.1016/j.sleh.2014.12.002</a>

Buttazzoni, A. N., Van Kesteren, E. S., Shah, T. I., & Gilliland, J. A. (2019). Active school travel intervention methodologies in North America: A systematic review. *American Journal of Preventive Medicine*, 55(1), 115-124. <a href="https://doi.org/10.1016/j.jth.2019.01.007">https://doi.org/10.1016/j.jth.2019.01.007</a>

Canadian Society for Exercise Physiology (2021). Canadian 24-Hour Movement Guidelines for Children and Youth. <a href="https://csepguidelines.ca/">https://csepguidelines.ca/</a>

Garriguet D, Colley RC, & Bushnik T. (2017). Parent-child association in physical activity and sedentary behaviour. *Statistics Canada Health Reports*, 28(6), 3-11.

Jones, B. L. (2018). Making time for family meals: Parental influences, home eating environments, barriers and protective factors. *Physiology & behavior*, 193, 248-251. https://doi.org/10.1016/j.physbeh.2018.03.035

Matricciani, L., Paquet, C., Galland, B., Short, M., & Olds, T. (2019). Children's sleep and health: A meta-review. *Sleep Medicine Reviews*, 46, 136-150. <a href="https://doi.org/10.1016/j.smrv.2019.04.011">https://doi.org/10.1016/j.smrv.2019.04.011</a>

Middleton, G., Golley, R., Patterson, K., Le Moal, F., & Coveney, J. (2020). What can families gain from the family meal? A mixed-papers systematic review. *Appetite*, *153*, 1-10. <a href="https://doi.org/10.1016/j.appet.2020.104725">https://doi.org/10.1016/j.appet.2020.104725</a>

Miewald, C., Holben, D., and Hall, P. (2012). Role of a food box program in fruit and vegetable consumption and food security. Canadian *Journal of Dietetic Practice and Research*, 73(2), 59-65. <a href="https://doi.org/10.3148/73.2.2012.59">https://doi.org/10.3148/73.2.2012.59</a>

Mulik & Haynes-Maslow (2017). The affordability of MyPlate: An analysis of SNAP benefits and the actual cost of eating according to dietary guidelines. *Journal of Nutrition Education and Behavior*, 49(8), 623-631. <a href="http://dx.doi.org/10.1016/j.jneb.2017.06.005">http://dx.doi.org/10.1016/j.jneb.2017.06.005</a>





### **REFERENCES CONT'D**

ParticipACTION (2020). The role of the family in the physical activity, sedentary and sleep behaviours of children and youth. The 2020 ParticipACTION Report Card on Physical Activity for Children and Youth. <a href="https://www.participaction.com/en-ca/resources/children-and-youth-report-card">https://www.participaction.com/en-ca/resources/children-and-youth-report-card</a>

Nearchou, F. A., Bird, N., Costello, A., Duggan, S., Gilroy, J., Long, R., ... & Hennessy, E. (2018). Personal and perceived public mental-health stigma as predictors of help-seeking intentions in adolescents. *Journal of Adolescence*, 66, 83-90. https://doi.org/10.1016/j.adolescence.2018.05.003

Rickwood, D., Deane, F. P., Wilson, C. J., & Ciarrochi, J. (2005). Young people's help-seeking for mental health problems. *Australian e-Journal for the Advancement of Mental Health*, 4(3), 218-251. https://ro.uow.edu.au/hbspapers/2106

Sampasa-Kanyinga, H., Colman, I., Goldfield, G. S., Janssen, I., Wang, J., Podinic, I., Tremblay, M. S., Saunders, T. J., Sampson, M., & Chaput, J. (2020). Combinations of physical activity, sedentary time, and sleep duration and their associations with depressive symptoms and other mental health problems in children and adolescents: A systematic review. *The International Journal of Behavioral Nutrition and Physical Activity, 17*(1), 1-72. <a href="https://doi.org/10.1186/s12966-020-00976-x">https://doi.org/10.1186/s12966-020-00976-x</a>

World Health Organization. Benefits and risks of physical activity and sedentary behavior. (2022). <a href="https://www.who.int/news-room/fact-sheets/detail/physical-activity">https://www.who.int/news-room/fact-sheets/detail/physical-activity</a>

Xu, Z., Huang, F., Koesters, M., Staiger, T., Becker, T., Thornicroft, G., & Ruesch, N. (2018). Effectiveness of interventions to promote help-seeking for mental health problems: Systematic review and meta-analysis. *Psychological Medicine*, 48(16), 2658-2667. https://doi.org/10.1017/S0033291718001265

Zipp, A., & Eissing, G. (2018). Studies on the influence of breakfast on the mental performance of school children and adolescents. *Journal of Public Health*, 27(1), 103–110. <a href="https://doi.org/10.1007/s10389-018-0926-4">https://doi.org/10.1007/s10389-018-0926-4</a>

### **WEBSITE RESOURCES**

PHE Canada. Physical Education Activities. <a href="https://phecanada.ca/programs/phe-learning-centre/physical-education-activities">https://phecanada.ca/programs/phe-learning-centre/physical-education-activities</a>



