ARE WE HEALTHY?

Physical well-being

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Physical well-being

The UNCRC affirms every child's right to enjoy the best possible health (UNCRC Article 24).[1] This means having access to good-quality health education and healthcare services, clean water, nutritious food, and an environment free of pollution. Strong physical health in childhood is fundamental to establishing overall well-being.

Setting the stage for children and youth to develop healthy behaviours and lifelong physical health and health behaviours cannot be achieved if children and youth are not provided with optimal social conditions. For example, whether a baby is born into a family with sufficient income to afford basic nutritious foods directly influences a mother's ability to breastfeed and a child's body weight in later childhood and adolescence.[2]

Behaviours we know are important for health, like being physically active, getting enough sleep, and eating nutritiously are also a reflection of social conditions. The reality is that for many young people, the ability to engage in healthy behaviours is not only about choice. This is because the choices we make are shaped by the choices we have.[3] Not all children and youth have access to fresh fruits and vegetables, a quiet place to rest, or low-cost physical activities to optimize their physical health. Healthy public policy and equitable access to resources are needed to positively shape the physical health and well-being of children and youth.

Of concern, Canada ranks 30th out of 38 wealthy countries when it comes to childhood physical health.[4] Data from Nova Scotia also support the need to improve upon child and youth physical health outcomes. Enhancing access to opportunities for regular physical activity, affordable nutritious food, and safe and secure homes is essential for children and youth in the province to enjoy the best possible health.[3]

AT A GLANCE

Nova Scotia
Canada

Dimension	Indicator	Nova Scotia	Canada
Birth outcomes	**Infant mortality** Five-year average of infant deaths under one year of age *Statistics Canada, Infant deaths and mortality rates, by age group, 2015-2019 Table: 13-10-0713-01*	4.3 in 1,000	4.5 in 1,000
	Preterm birth Five-year average of live births before 37 weeks gestation *Statistics Canada/Vital Statistics, live births, by weeks of gestation 2016-2020 Table: 13-10-0425-01*	7.7%	7.9%
	Small size for gestational age Percentage of infants born with birthweight below the 10th percentile for gestation age and sex *Statistics Canada/Vital Statistics. Birth-related indicators 2015-2017*	9.2%	9.1%
Physical health status	**Positive self-rated physical health** Percentage of children aged 12 to 17 years that rated their health as very good or excellent *Statistics Canada, Canadian Community Health Survey, Annual Component, 2020 Table 13-10-0763-01*	77.6%	76.5%
	Overweight or obesity Percentage of children aged 12 to 17 years with overweight or obesity as measured by Body Mass Index *Statistics Canada, Canadian Community Health Survey, Annual Component, 2019 Table 13-10-0096-01*	36.7%	24.5%
	Injuries that required medical treatment Percentage of students in grades 6 to 10 that sustained an injury requiring medical treatment *Health Behaviour in School-aged Children survey, 2018/2019**	48-55%	46-52%
Healthy behaviors	**Sexually active** Percentage of students in grades 9 and 10 engaging in sexual intercourse *Health Behaviour in School-aged Children survey, 2018/2019**	25.6%	18.9%

* Indicates a custom data request from the data source indicated.

Nova Scotia

Canada

Dimension	Indicator	Nova Scotia	Canada
Healthy behaviors (cont'd)	**Safe sexual practices (oral contraceptive)** Percentage of students in grades 9 and 10 that reported they or their partner used an oral contraceptive the last time they had sex *Health Behaviour in School-aged Children survey, 2018/2019**	57.4%	50.0%
	Safe sexual practices (condom) Percentage of students in grades 9 and 10 that reported they or their partner used a condom the last time they had sex *Health Behaviour in School-aged Children survey, 2018/2019**	60.3%	62.4%
	Births to adolescents Fertility rate of adolescent women 15 to 19 years per 1,000 women *Statistics Canada: Fertility rates, women aged 15 to 19 years (per 1,000 women), 2020 Table 13-10-0418-02*	7.4 per 1,000	5.5 per 1,000
	Step guidelines Percentage of children aged 5 to 19 years taking at least 12,000 steps per day, 2014-2016 *ParticipACTION Report Card on Physical Activity for Children and Youth, 2020*	39%	41%
	Daily physical activity guidelines Percentage of students that reported being physically active each of the last 7 days for a minimum of 60 minutes per day *Health Behaviour in School-aged Children survey, 2018/2019**	27.9%	25.1%
	Sufficient sleep Percentage of students meeting the recommended sleep duration for their age group, 9 to 10 hours for 6 to 13 years, 8 to 10 hours for 14 to 17 years *Health Behaviour in School-aged Children survey, 2018/2019**	79.7%	80.7%
Nutrition and eating	**Breastfeeding** Percentage of mothers that breastfed or tried to breastfeed their last child or gave breastmilk to their last child even if only for a short time *Statistics Canada, Canadian Community Health Survey, Health characteristics, two-year period estimates, 2017/2018 Table: 13-10-0113-01*	88.6%	90.9%
	Nutritious foods Percentage of students that reported eating both fruits and vegetables at least once per day *Health Behaviour in School-aged Children survey, 2018/2019**	34.8%	42.0%
Public policies related to health and healthcare services	**Access to a regular healthcare provider** Percentage of students aged 12 to 17 years that have a regular healthcare provider, 2020 *Statistics Canada, Canadian Community Health Survey, Annual Component, 2020 Table 13-10-0096-01*	85.3%	85.3%

* Indicates a custom data request from the data source indicated.

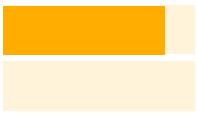
Nova Scotia
Canada

Dimension	Indicator		
Public policies related to health and healthcare services (cont'd)	**Vaccination by age 2**		
	Diphtheria, pertussis, and tetanus Percentage of children that received 3 or more doses of diphtheria, pertussis, and tetanus vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	73.8% 75.8%	
	Polio Percentage of children that received 3 or more doses of polio vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	93.5% 90.7%	
	Haemophilus influenzae type B (HIB) Percentage of children that received 4 or more doses of HIB vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	68.5% 73.4%	
	Measles Percentage of children that received 1 dose or more of measle vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	87.1% 90.2%	
	Mumps Percentage of children that received 1 dose or more of mumps vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	86.8% 89.9%	
	Rubella Percentage of children that received 1 dose or more of rubella vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	86.8% 90.0%	
	Varicella Percentage of children that received 1 dose or more of varicella vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	84.8% 82.9%	
	Meningococcal type C Percentage of children that received 1 dose or more of meningococcal-C vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	81.8% 87.6%	
	Pneumococcal Percentage of children that received 1 dose or more of pneumococcal vaccine by age 2 as recommended *Vaccine Coverage in Canadian Children, Public Health Agency of Canada, 2017*	80.4% 81.4%	

* Indicates a custom data request from the data source indicated.

Nova Scotia

Canada

Dimension	Indicator		
Public policies related to health and healthcare services (cont'd)	**Vaccination in early childhood**		
	Influenza Percentage of children aged 6 to 59 months that received the influenza vaccine *Influenza Immunization Report, Nova Scotia, 2019-2020*	50.4% N/A	
	Vaccination in adolescence		
	Tetanus, diphtheria, pertussis (TDAP) Percentage of youth that received the recommended doses of TDAP vaccine by Dec. 31st of grade 8 *Nova Scotia School-based Immunization Coverage Report for 2018-2019*	89.4% N/A	
	Human papillomavirus (HPV) Percentage of youth that received the recommended doses of HPV vaccine by Dec. 31st of grade 8 *Nova Scotia School-based Immunization Coverage Report for 2018-2019*	84.9% N/A	
	Meningococcal quadrivalent vaccination (Med-Quad) Percentage of youth that received the recommended doses of Men-Quad vaccine by Dec. 31st of grade 8 *Nova Scotia School-based Immunization Coverage Report for 2018-2019*	91.8% N/A	
	Hepatitis B Percentage of youth that received the recommended doses of Hepatitis B vaccine by Dec. 31st of grade 8 *Nova Scotia School-based Immunization Coverage Report for 2018-2019*	84.3% N/A	

* Indicates a custom data request from the data source indicated.

PHYSICAL HEALTH IN EARLY LIFE

The foundations for lifelong physical health are laid during pregnancy, birth, and early infancy.[2] Not only do these periods mark the start of a child's life, but they are also a time of significant change for families in terms of their economic situation and social relationships within and outside of the family. These milestones provide a window of opportunity to influence child health through a family's frequent contact with health services and the potential for increased receptivity to health promotion. In Nova Scotia, key indicators about pregnancy and early infancy are collected through the *Atlee Perinatal Database*, which was established in 1998 and is the longest-running database of its kind in Canada.[5] Information about pregnant mothers and babies either born after 20 weeks' gestation or who weigh more than 500g are included in the database. Data are derived from standardized prenatal, hospital, and delivery forms used across the province (and that include ethnicity).[5]

Weight at birth, prematurity, and perinatal mortality

A child's weight at birth and whether they are born preterm are widely accepted as important indicators for their mortality, growth, development, and physical health status in childhood and beyond.[2] On average, 8,276 babies were born per year in Nova Scotia from 2015 to 2019.[5] The rate of infant mortality during this period was 4.3 in 1,000 births, very similar to the national average of 4.5 in 1,000 births in 2019.[6] This rate is on par with the United Nations' Sustainable Development Goal of 5 in 1,000 births but higher than several other rich nations with resources similar to Nova Scotia and Canada.[4]

Of babies born in Nova Scotia from 2016 to 2020, 7.7 percent were delivered preterm (before 37 weeks' gestation), similar to the national average of 7.9 percent.[5] During this same period, 9.2 percent of infants were born with a birth weight below the 10th percentile of expected weight for their gestational age and sex[5] based on a Canadian reference population, the same as in Canada (9.1%).[7]

Several complex and interrelated factors contribute to infant mortality, prematurity and low birth weight, all with downstream impacts on lifelong health and well-being.[2] Some of these factors can be modified by the actions of decision-makers working at the policy level, such as income. For example, data point to a corelation between income and babies born with low weight for their gestation in Nova Scotia.[8] Based on postal code income estimates, the rate of babies born with a weight under the 10th percentile for their gestation who come from neighbourhoods with the lowest income was 10.4 percent compared to 7.6 percent from highest-income neighbourhoods.[5]

Breastfeeding

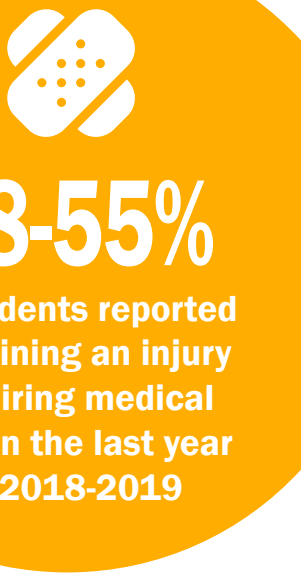
Breastfeeding is also considered an important indicator of the physical health of children and exclusively breastfeeding infants until six months of age is recommended globally.[9] In Nova Scotia between 2015 and 2019, breastfeeding had been initiated when the family left the hospital for 86 percent of babies based on data recorded in the *Atlee Perinatal Database*.[5] Based on a *Statistics Canada* survey of mothers, 88.6 percent self-reported breastfeeding, trying to breastfeed, or having given breastmilk to their last born child even if only for a short time versus 90.9 percent nationally.[10] More robust data on breastfeeding are lacking in the province. Parents who breastfeed need a host of positive social conditions to be successful – from food security to safe and nurturing relationships.

GROWING UP HEALTHY

For children and youth to enjoy physical health as they grow up, healthy behaviours must be promoted and harms to physical health prevented where possible. When sickness or chronic medical needs arise, children and youth must receive the support they require. In 2020, just over three-quarters of Nova Scotia's youth aged 12 to 17 years rated their own health as very good or excellent (77.6 percent) similar to the Canadian average of 76.5 percent.[11] Improving how children and youth view their own physical health is important and additional data about health outcomes, threats to physical health, health behaviours, and the quality of health services help paint a more detailed picture of the physical health status of children and youth in Nova Scotia beyond infancy.

Injuries

Injuries represent a critical threat to child and youth physical health and well-being.[12] Across Canada, injury is the leading cause of death and a major cause of hospitalization for children. Children and youth are particularly vulnerable to unintentional injuries, which can have lifelong health and social impacts.[13] Additionally, many social determinants of health, such as low socioeconomic status, correlate with higher injury rates. The last major review of unintentional injuries in Nova Scotia assessed the period between 2004 to 2013.[13]



The most recent available data specific to Nova Scotia suggest that injuries continue to be a threat to child and youth well-being. In 2019, 21 percent of all emergency department visits to the IWK Health Centre, the region's tertiary care children's hospital, were related to unintentional injuries.[14] The largest proportion of children and youth seen for such injuries were between the ages of 2 and 14 years old.

Further information about the prevalence of injury can be gleaned from students in grades 6 to 10 who responded to the 2018-2019 *Health Behaviour in School-aged Children survey* in Nova Scotia.[15] Youth were asked whether they had sustained an injury requiring medical treatment in the past year. Based on grade and self-reported gender, between 48 to 55 percent of students had experienced such an injury.[15] Overall, grade 9 to 10 students were more likely than grade 6 to 8 students to report sustaining injuries requiring care overall. Boys in grades 6 to 8 and girls in grades 9 to 10 were the most likely to report sustaining an injury requiring medical treatment (55 percent and 54 percent, respectively).[15] This is higher than their peers in other provinces and territories who reported such injuries at rates of 52 percent and 46 percent, respectively.[15]

The Atlantic Collaborative on Injury Prevention is currently developing a report that will determine the cost of intentional and unintentional injuries. That report, due in 2022, will increase understanding about the impacts of injury on Nova Scotia's young people and the broader society. Further work is required to assess the nature and rate of injury in children and youth in the province compared to the rest of Canada for more recent years.

Sexual and reproductive health

Youth must be supported in making healthy choices about their sexual and reproductive health as a contributor to their overall physical health and well-being.[16] Sexual health is defined as the ability to embrace and enjoy our sexuality throughout our lives. The definition also acknowledges the sexual rights of individuals. Positive outcomes include: respect for self and others, self-esteem, non-exploitive sexual relations, and making informed reproductive choices.[17,18] To understand sexual health, we must think about it positively, as an important part of life, and an integral aspect of physical and emotional well-being.

Systematically collected data on youth sexual health in Nova Scotia is limited and sparse. From the 2018-2019 *Health Behaviour in School-aged Children survey*, the most recent known source of population-level information for youth sexual activity, Nova Scotia students were more likely than students in the rest of Canada to report that they had sexual intercourse: 25.6 percent versus 18.9 percent for boys, respectively.[15]

Fewer than two-thirds of grade 9 and 10 students reported using condoms the last time they had sex (60.3 percent). This was slightly lower than the Canadian average (62.4 percent). A higher percentage of grade 9 and 10 students reported using an oral contraceptive pill the last time they had sex than the national average (57.4 percent versus 50.0 percent).[15]

An unintended pregnancy in adolescence represents a challenge with far-reaching impacts for both youth and their babies. Decreased educational attainment, lower socioeconomic status, and greater rates of mental illness, substance use, and domestic violence have all been recorded among adolescent parents.[19,20] Furthermore, infants born to younger females may also face greater risk of some adverse outcomes in the perinatal period, such as preterm birth and having low weight for gestational age, and the impact of the social determinants of health.[19]

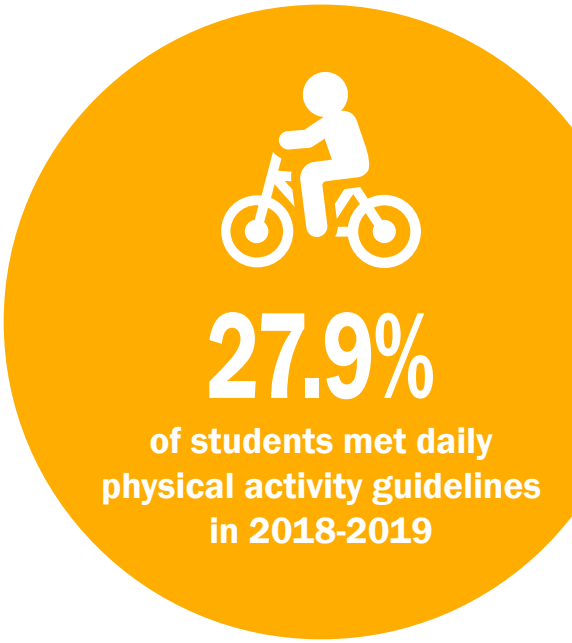
The age-specific fertility rate for females aged 15 to 19 years in 2020 was 7.4 births per 1000 females of this age group in Nova Scotia, compared to 5.5 per 1000 in Canada overall. These rates have decreased annually since 2015. This is consistent with data available from the *Atlee Perinatal Database*, which showed that deliveries to women under 20 years represented 3.3 percent of all deliveries in Nova Scotia between 2015 and 2019, down from 6.2 percent in 2009.[5] One in four deliveries in this group were to women under 18 years of age, accounting for more than 300 births. There were approximately 1,000 births to women aged 18 to 19 years during this period.[5]

The key to reducing the incidence of pregnancy in adolescence and the adverse outcomes that may follow is low-barrier access to contraception.

The Canadian Paediatric Society has called for all contraceptives, including condoms, to be covered under provincial/territorial or federal health plans at no cost until age 25 and readily available in places where youth spend their time.[22]

Physical activity

To grow up healthy, it is important for children and youth to engage in physical activity to achieve important health benefits such as the prevention of chronic diseases. Many factors beyond individual choice influence a young person's ability to be sufficiently active such as the quality of the built environment and social determinants of health like income. A 2020 report by ParticipACTION on physical activity among Canadian children and youth paints a depressing



picture.[23] Canada was given an overall physical activity grade of D+ for the second consecutive year.[23] Provincial estimates paint a similarly dismal picture.

Taking at least 12,000 steps per day on average is an objective benchmark to approximate whether children and youth are meeting the *Canadian 24-Hour Movement Guidelines for Children and Youth*. The guidelines recommend 60 minutes of moderate-to-vigorous physical activity (MVPA) per day. Only 39 percent of Nova Scotian children aged 5 to 19 years were taking at least 12,000 steps daily on average from 2014 to 2016, slightly less than the national average of 41 percent, a figure that has barely changed in over a decade.[23] Student respondents to the 2018-2019 *Health Behaviour in School-aged Children survey* in 2018-19 echoed this lack of physical activity by self-report.[15] Just 27.9 percent of students in grades 6 to 10 reported meeting suggested physical activity guidelines of a minimum of 60 minutes per day, in the 7 days leading up to the survey. This was slightly higher than the national average of 25.1 percent. Concerningly, girls in grades 9 to 10 were least likely to meet this guidelines with just 16 percent reporting physical activity for a minimum of 60 minutes over the preceding seven days.[15]

Because children and youth spend a considerable amount of time in school, it is important that health and well-being are supported in this setting.

From the 2018-19 *Health Behaviour in School-aged Children survey* it appears there is room to increase opportunities for physical activity in schools. Between 17 to 32 percent of Nova Scotian students in grades 6 to 10 spent four or more hours a week participating in physical activity during class time. This was slightly lower than students in the rest of Canada.[15]

Sleep

Adequate sleep is not only critical for the physical health and well-being of young people, but also for other facets of their lives, such as the ability to learn.[24] The Canadian Paediatric Society recommends 9 to 12 hours of sleep for children 6 to 12 years old, and 8 to 10 hours of sleep for youth 13 to 18 years based on guidelines from the American Academy of Sleep Medicine.[24,25]

In the 2018-2019 *Health Behaviour in School-aged Children survey,* child and youth responses about sleep were measured against sleep duration recommendations of the National Sleep Foundation in the U.S., which are 9 to 11 hours of sleep per night for children 6 to 13 years of age, and 8 to 10 hours for young people 14 to 17 years of age.[26] Approximately three-quarters of Nova Scotian students in grades 9 and 10 reported meeting these recommendations, similar to the national average. More children in grades 6 to 8 reported meeting recommendations (88 percent of boys and 86 percent of girls).[15]

Healthy eating

Consumption of vegetables and fruits is a marker for healthy eating, which, in turn, impacts overall physical health. Data indicate that fewer than half of Nova Scotian children in grades 6 to 8 eat fruits and vegetables at least once a day or more, less than their counterparts across Canada.[15] Nova Scotian students are also more likely than students in the rest of the country to engage in unhealthy eating behaviours, like skipping breakfast and eating fast food.[15]

Public policy that impacts the marketing and availability of unhealthy food is a key contributor to young people's ability to engage in healthy eating.

The proximity of food outlets with nutritious food and the affordability of nutritious food are undeniably linked to the ability to engage in healthy eating.[27]

Body weight

Weight status is typically used as a proxy measure of health behaviours, mostly in conjunction with height to calculate body mass index (BMI).[28] BMI, although widely used, is an imperfect measure that does not reflect all populations.[28] Even though weight status and/or BMI are frequently used as measures of individual behaviours, they are more valuable indicators for reflecting the quality of public policy, especially policy that supports healthy food systems and supportive environments that are designed to prevent chronic disease.

Based on data from the *Canadian Community Health Survey, 2019*, 36.7 percent of Nova Scotian children and youth aged 12 to 17 years live with overweight or obesity compared to a Canadian average of 24.5 percent.[11] BMI data collected through the 2018-19 *Health Behaviour in School-aged Children survey* for students in grades 6 to 10 are consistent with the Canadian average for girls, but show a sex difference for boys, who reported a higher BMI than the national average.[15]

PASS THE MIC

> "We need to recruit enough medical professionals and make sure kids are taken care of. We also need access to information about how to get mental health and dental care"
>
> *- Youth participant*

Access to healthcare

Healthcare consumes government dollars and frequently generates public debate. Canadians are indeed fortunate to benefit from universal public healthcare that is the envy of nations worldwide. For children and youth, access to quality healthcare that places an emphasis on preventive care is critical to well-being. Young children and families benefit from developmental assessments, vaccinations, and anticipatory guidance from their primary healthcare providers.

Primary care providers also have a major role to play in the diagnosis and management of physical and mental health conditions. In 2020, 85.3 percent of youth aged 12 to 17 years reported having a regular healthcare provider in Nova Scotia, which is the same as the national average.[11] Given that these are reported estimates, the actual number of children and youth without access to a regular healthcare provider and the frequency of contact with this provider is unknown. Furthermore, these estimates exclude important groups of children and youth, such as those living on reserve and those living in foster care.[11]

Healthcare plays a small part in what makes and keeps children and youth healthy and well. The social determinants of health play the greatest role in determining health status. As such, any effort to improve the healthcare system must consider the upstream effects of prevention and healthy public policy that serve to bolster key social determinants such as income, housing, education, and the quality of built and natural environments.

Immunizations

Immunizing children against vaccine-preventable diseases is one of society's best tools to ensure physical health. Canadian children benefit from universal public healthcare, which ensures vaccines are available to all.[29] Concerningly, increasing vaccine hesitancy across Canada represents a significant threat to the widespread uptake of vaccines in childhood.[30] Due to the historic lack of a centralized registry and variability in vaccine schedules across Canada, it is difficult to estimate the proportion of children that are vaccinated both provincially and nationally. Efforts are currently under way to correct this, and Nova Scotia is expected to participate in a national vaccine registry in the coming years.

The most recent estimates of vaccine coverage in young children come from the *Childhood National Immunization Coverage Survey*, which collects caregiver reports of immunization status. As of 2017, the most recent year for which there are public data, Nova Scotia lags behind the national average when it comes to vaccine coverage at the time of a child's second birthday for most routine childhood vaccines. Pertussis (whooping cough) and varicella (chicken pox) vaccines were the exceptions.[31] For example, 73.8 percent of children in Nova Scotia versus 75.8 percent of children in Canada had received four or more doses of diphtheria, pertussis, and tetanus vaccines by age two. Both figures are well below the target set by the World Health Organization for pertussis vaccination: 95 percent coverage.[31]

A national target of 90 percent vaccination coverage by 17 years has been set for youth to receive a meningococcal vaccine, an additional Hepatitis B and tetanus, diphtheria, and acellular pertussis vaccine.[29] More recently, the human papillomavirus vaccine was added to this target group.[29]

In Nova Scotia, these vaccines are delivered to children in grade 7. Encouragingly, the provincial coverage rates of school-based immunizations in these students were above 80 percent for all provincial health zones in the 2018-2019 school year.[29] However, the province has yet to reach the target of 90 percent for three of the four vaccines related to this national target. Of note, home-schooled students in Nova Scotia, representing 1.1 percent of the grade 7 student population in the year assessed, have significantly lower provincial coverage rates

Healthcare plays a small part in what makes and keeps children and youth healthy and well. The social determinants of health play the greatest role in determining health status.

across all vaccines.[32] These rates ranged from 24.3 percent to 34 percent and highlight the need for targeted vaccination efforts for these children.[32] It should be noted that school closures during the COVID-19 pandemic may have impacted immunizations given in schools in the 2020-2021 school years. This may be a particular issue for the 14.4 percent of youth who reported they don't have access to a regular healthcare provider.[11]

In Nova Scotia, children aged six to 59 months are a priority population for immunization against influenza as part of a universal publicly funded influenza vaccine program for all individuals six months of age or older that was established in 2010.[33] In the 2019-2020 influenza season, the most recent year for which there are data, the coverage rate for children aged six to 59 months was 50.4 percent, with a low of 33.1 percent in the Western Zone to a high of 60 percent in the Central Zone.[33]

EMERGING ISSUE

MENSTRUAL POVERTY

Researchers at the IWK Health Centre have developed a questionnaire to estimate the impact of menstrual poverty (i.e., the inability to afford menstrual products) on adolescents in Nova Scotia.[34] Out of 420 respondents, 65 percent didn't always have enough money to buy menstrual products. This has led to unsafe menstrual hygiene practices, including using alternatives for menstrual products (e.g., rags), washing disposable menstrual products, and wearing products for longer than intended. Up to 40 percent of respondents reported affordability of menstrual products as a cause of school absenteeism and lack of participation in sport or social activities. Although having menstrual products available in schools in Nova Scotia has improved access, 70 percent of respondents still felt embarrassed to ask for them. Almost all respondents supported the idea of freely available menstrual products in public washrooms.

THE BOTTOM LINE

Every child has the right to the best possible health but too many children and youth in Nova Scotia face threats to their physical health like poverty, food insecurity, and a lack of access to safe places to move and play. Settings like schools should be optimized to provide the conditions necessary for children to learn about and practice positive health behaviours. Strong public policies are needed to support the conditions for physical health ranging from urban design and transportation to sound economic, food, and housing policies.

With almost half of the provincial budget being spent on delivering care for sickness, we must support our children and youth to achieve their full health potential long before illness or disease arises. Investing preventatively in the physical health and well-being of young people and their families makes good economic sense; data suggest that comprehensive health promotion programs in schools could have a return on investment of $13 for every dollar invested in future healthcare cost savings.[35] Ensuring access to preventive health services and responsive healthcare when disease or illness arises is also critical to supporting lifelong physical health and well-being in childhood.

SOURCES FOR THIS SECTION

1. United Nations (1990). Convention on the Rights of the Child: General Assembly Resolution 44/25 of 20.
2. Suzuki, K (2018). The developing world of DOHaD. Journal of Developmental Origins of Health and Disease, 9: 266–269.
3. Province of Nova Scotia (2012). Thrive! Plan for a Healthier Nova Scotia (press release). Available from: https://novascotia.ca/news/smr/2012-06-07-Thrive-Plan/. Accessed October 6, 2021
4. UNICEF Canada (2020). Worlds Apart: Canadian Companion to UNICEF Report Card 16. Available from: https://oneyouth.unicef.ca/sites/default/files/2020-09/UNICEF%20RC16%20Canadian%20Companion%20EN_Web.pdf. Accessed October 5, 2021.
5. Reproductive Care Program of Nova Scotia (n.d.). The Nova Scotia Atlee Perinatal Database. Available from: http://rcp.nshealth.ca/atlee-database. Accessed June 13, 2020.
6. Statistics Canada (2020). Infant deaths and mortality rates, by age group. Available from: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310071301 (2020). Accessed October 6, 2021.
7. Kramer MS, et al (2001). Fetal/Infant Health Study Group of the Canadian Perinatal Surveillance System. A new and improved population-based Canadian reference for birth weight for gestational age. Pediatrics 108: E35.
8. Joseph KS, et al (2007). Socioeconomic status and perinatal outcomes in a setting with universal access to essential health care services. *CMAJ* 177: 583–590.
9. Kramer MS, Kakuma R. (2012). Optimal duration of exclusive breastfeeding. Cochrane database of systematic reviews, CD003517.
10. Statistics Canada (2019). Health characteristics, two-year period estimates: Breast milk feeding initiation, 2017/2018. Available from: https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1310011301. Accessed October 6, 2021.
11. Statistics Canada (2020). Health Characteristics: Annual Estimates. Available from: https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1310009601. Accessed October 6, 2021.
12. Canadian Pediatric Society (2012). Child and Youth Injury Prevention: A Public Health Approach (Position Statement). Paediatr Child Health 17: 511.
13. Atlantic Collaborative on Injury Prevention & Child Safety Link (2018). Atlantic Canada Child & Youth Unintentional Injury Hospitalizations: 10 Years in Review (2004-2013). Available from: https://childsafetylink.ca/wp-content/uploads/2018/03/Atlantic-Hospitalization-Report-2018_en-Revised-March-2018.pdf. Accessed october 6, 2021.
14. Government of Canada (n.d.). Canadian Hospitals Injury Reporting and Prevention Program. Available from: https://www.canada.ca/en/public-health/services/injury-prevention/canadian-hospitals-injury-reporting-prevention-program.html#a3. Accessed october 6, 2021.
15. Craig W, et al (2020). Health and Health-Related Behaviours among Young People: Nova Scotia Report.
16. American Sexual Health Association (n.d.). Understanding Sexual Health. Available from: http://www.ashasexualhealth.org/sexual-health/. Accessed October 6, 2021.
17. Public Health Agency of Canada (2011). The Chief Public Health Officer's Report on the State of Public Health in Canada (2011). Youth and Young Adults — Life in Transition. Available from: http://www.phac-aspc.gc.ca/cphorsphc-respcacsp/2011/index-eng.php#toc. Accessed October 6, 2021.
18. Public Health Agency of Canada (2008). Canadian Guidelines for Sexual Health Education. Available from: http://www.phac-aspc.gc.ca/publicat/cgshe-ldnemss/pdf/guidelines-eng.pdf. Accessed October 6, 2021.
19. Thompson G (2016). Meeting the needs of adolescent parents and their children. Available from: https://www.cps.ca/en/documents/position/adolescent-parents. Accessed october 6, 2021.

20. Jain LH, Van Eyk N, Woolcott C, Kuhle S (2018). Characteristics and Outcomes of Adolescent Births in Nova Scotia: A Retrospective Cohort Study. J Obstet Gynaecol Can, 40: 1459–1465.

21. Statistics Canada (2021). Fertility rates, women aged 15 to 19 years (per 1,000 women). Available from: https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1310041802. Accessed October 6, 2021.

22. Di Meglio G, Yorke E (2019). Universal access to no-cost contraception for youth in Canada. Available from: https://cps.ca/en/documents/position/universal-access-to-no-cost-contraception-for-youth-in-canada. Accessed October 6, 2021.

23. ParticipACTION (2020). The 2020 ParticipACTION Report Card for Children and Youth. Available from: https://www.participaction.com/en-ca/resources/children-and-youth-report-card. Accessed October 6, 2021.

24. Canadian Paediatric Society (2017). Healthy sleep for your baby and child. Available from: https://caringforkids.cps.ca/handouts/pregnancy-and-babies/healthy_sleep_for_your_baby_and_child. Accessed October 6, 2021.

25. Paruthi S, et al (2016). Recommended amount of sleep for pediatric populations: a consensus statement of the American Academy of Sleep Medicine. J Clin Sleep Med, 12: 785–786.

26. Hirshkowitz M, et al (2015). National Sleep Foundation's updated sleep duration recommendations: final report. Sleep Health, 1: 233–243.

27. Ziauddeen N, et al (2018). Eating at food outlets and leisure places and "on the go" is associated with less-healthy food choices than eating at home and in school in children: cross-sectional data from the UK National Diet and Nutrition Survey Rolling Program (2008–2014). *The American Journal of Clinical Nutrition,* 107:992–1003.

28. Must A, Anderson S (2006). Body mass index in children and adolescents: considerations for population-based applications. Int J Obes, 30: 590–594.

29. Government of Canada (2017). National Immunization Strategy. Available from: https://www.canada.ca/en/public-health/services/immunization-vaccine-priorities/national-immunization-strategy/vaccination-coverage-goals-vaccine-preventable-diseases-reduction-targets-2025.html. Accessed October 6, 2021.

30. Dubé E, et al (2016). Understanding Vaccine Hesitancy in Canada: Results of a Consultation Study by the Canadian Immunization Research Network. PLoS One, 11: e0156118.

31. Public Health Agency of Canada (2019). Vaccine coverage in Canadian children: Results from the 2017 childhood National Immunization Coverage Survey (cNICS). Available from: https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/healthy-living/2017-vaccine-uptake-canadian-children-survey/2017-vaccine-uptake-canadian-children-survey-eng.pdf. Accessed October 6, 2021.

32. Nova Scotia Health (2020). Nova Scotia School-Based Immunization Coverage Report for 2018-2019. Available from: https://www.nshealth.ca/sites/nshealth.ca/files/20201026_2018-2019_school-based_immunization_coverage_report.pdf. Accessed October 6, 2021.

33. Department of Health and Wellness (2020). Influenza Immunization Report 2019-2020 Influenza Season. Available from: https://novascotia.ca/dhw/populationhealth/documents/Influenza_Immunization_Report_2019-2020.pdf. Accessed October 6, 2021.

34. D'Entremont Y (2021). IWK study collecting data on period poverty to advocate for free menstrual products in public washrooms. Halifax Examiner. Available from: https://www.halifaxexaminer.ca/featured/iwk-study-collecting-data-on-period-poverty-to-advocate-for-free-menstrual-products-in-public-washrooms/. Accessed December 12, 2021.

35. APPLE Schools (2015). Healthy Kids in Healthy Schools. Available from: http://www.appleschools.ca/files/StoryCatchersV3-ROI-web.pdf. Accessed October 6, 2021.