Measuring the Health of Infants, Children and Youth for Public Health in Ontario:

Indicators, Gaps and Recommendations for Moving Forward

APPENDICES

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Public Health Ontario

480 University Avenue, Suite 300, Toronto, Ontario M5G 1V2

Telephone: 647.260.7100

www.oahpp.ca

PROJECT TEAM:

Karin Hohenadel
Ruth Sanderson
Carly Heung
Mary Fodor O'Brien
Helen Cerigo
Heather Manson
Brenda Mitchell

Public Health Ontario thanks the following for their contribution to this report:

STAKEHOLDER ADVISORY COMMITTEE:

Mary Fodor O'Brien (co-chair), Public Health Ontario
Anne-Marie Holt (co-chair), Haliburton, Kawartha, Pine Ridge District Health Unit
Laura Belfie, Ministry of Health and Long-Term Care
Christine Bushey, Simcoe Muskoka District Health Unit
Sarah Collier, Toronto Public Health
Jennifer Munro-Galloway, Ministry of Education
Sheree Davis, Ministry of Health and Long-Term Care
Andrea Feller, Niagara Public Health
Shanna Hoetmer, The Regional Municipality of York (from project initiation to August, 2012)
Philippa Holowaty, Halton Region Health Department
Chaya Kulkarni, The Hospital for Sick Children
Na-Koshie Lamptey, Sudbury & District Health Unit
Susan Makin, Toronto Public Health
Patricia Parkin, The Hospital for Sick Children
Mary-Anne Pietrusiak, Durham Region Health Department (starting in August, 2012)
Christine Preece, Middlesex London Health Unit
Kimberley Ross, Registered Nurses Association of Ontario
Michelle Schurter, Ministry of Children and Youth Services
Stacey Weber, Ministry of Children and Youth Services

SCIENTIFIC REVIEW PANEL:

Ken Allison (co-chair), Public Health Ontario
Stephen Manske (co-chair), Propel Centre for Population Health Impact
Ed Adlaf, Centre for Addiction and Mental Health
Susan Bondy, University of Toronto
John Freeman, Queens University
Astrid Guttmann, Institute for Clinical Evaluative Sciences
Magdalena Janus, Offord Centre for Child Studies
Jonathon Maguire, St. Michael's Hospital
Janis Randall Simpson, University of Guelph
Ann Sprague, Better Outcomes Registry & Network Ontario
Naira Yeritsyan, Health Quality Ontario

ADDITIONAL CONTRIBUTORS:

Sarah Collier
Natalie Greenidge
Aaron Furfaro
Jeremy Herring
Steven Janovsky
Allison McArthur and the Library Services team
Bessie Ng
Michelle Policarpio
Naomi Schwartz
Ingrid Tyler

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Appendix A: Detailed methods and timeline

Methods and external engagement

Project team and external committees

This report was created by the Knowledge Services and Health Promotion, Chronic Disease and Injury Prevention departments at Public Health Ontario (PHO). The project team worked closely with two external committees: the Stakeholder Advisory Committee (SAC) and Scientific Review Panel (SRP). In addition, two working groups consisting of members from the SAC and SRP – the Data Sources Working Group and Selection Criteria Working Group – were struck to focus on specific aspects of the project (Figure 1).

Stakeholder Advisory Committee

The role of the SAC was to:

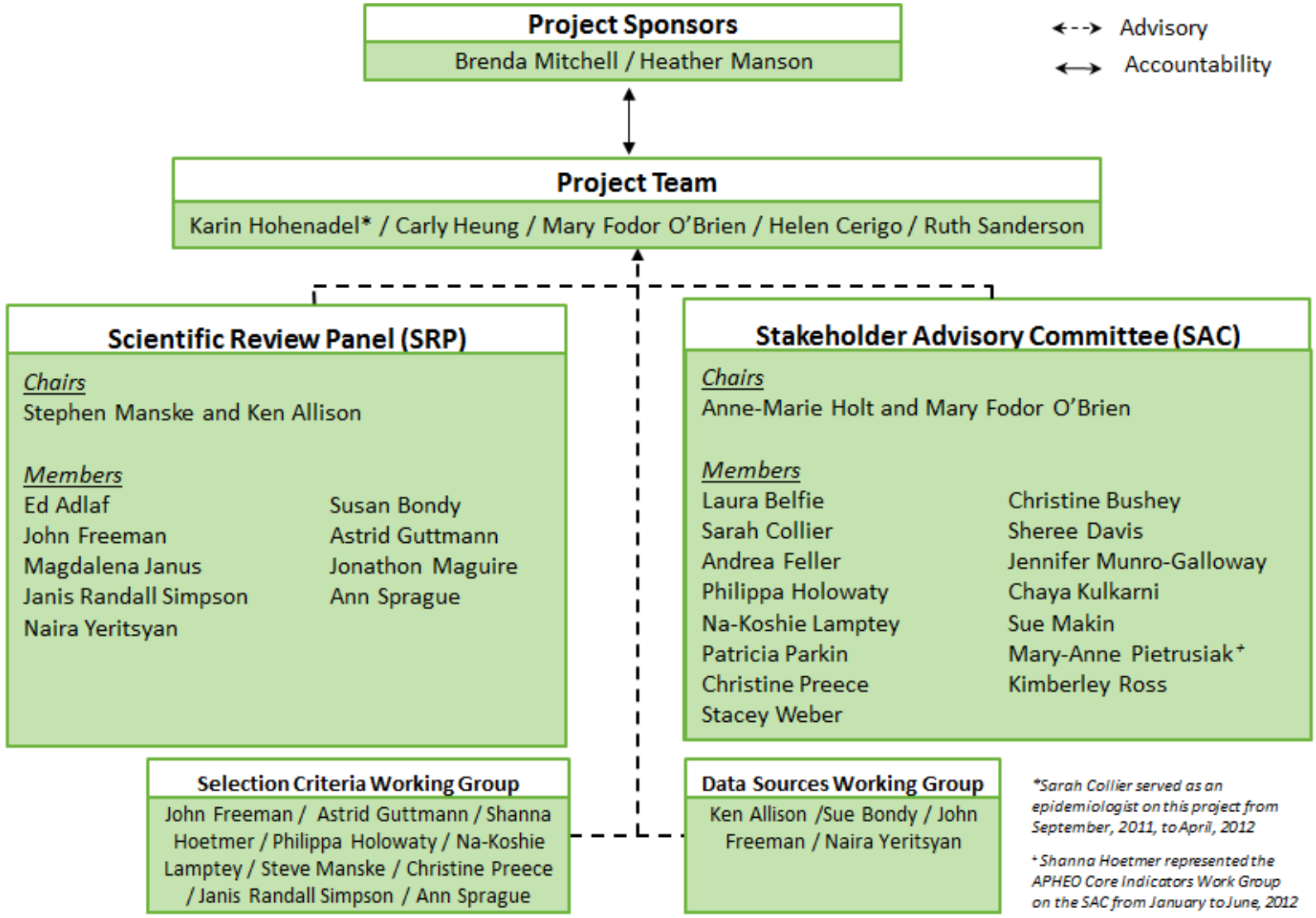
- Advise project team on report and project direction to ensure the end product meets the informational needs of the field.
- Provide advice by responding to specific queries by PHO and by reviewing reports on data sources and indicators.
- Identify priorities and provide recommendations to PHO on data sources and indicators for child and youth population health assessment and surveillance, including recommendations for operationalizing a provincewide system.

Scientific Review Panel

The role of the SRP was to:

- Ensure project deliverables are supported by the best available scientific evidence.
- Provide scientific and technical advice by responding to specific queries from project team.
- Review tables of current data sources and indicators, identify gaps and potential indicators to fill the gaps.
- Identify priorities and provide recommendations to PHO on data sources and indicators for child and youth population health assessment and surveillance, including recommendations for operationalizing a province-wide system.

Figure A1: Structure of the project team and advisory committees



Objectives and scope

The objectives and scope – including the decision to focus on the measurement requirements put forward in the Ontario Public Health Standards (OPHS) – were decided upon by the project team, project sponsors and co-chairs of the SAC and SRP. These decisions were made following extensive discussions and reviews of international initiatives that examine child health indicators and frameworks for conceptualizing child health. The decision to focus on Association of Public Health Epidemiologists in Ontario (APHEO) Core Indicators was also made by the project team, project sponsors and co-chairs of the SAC and SRP.

Methods by section

Relevant public health content areas for child health

In order to determine which OPHS assessment and surveillance requirement areas are relevant to child health, a small committee of Public Health Ontario staff was convened (three epidemiologists and two health promoters with experience in child health and indicator development). The relevance of each area for child health was determined based on the following criteria:

- the topic area represents a phenomenon that is disproportionately common in children and youth, or
- the topic area represents a phenomenon that has disproportionately serious consequences when it occurs in children and youth.

The intention was to exclude areas that do not apply to infants, children or youth and areas that are more suited to measurement in the general population. The results were validated by three SAC members and they were sent to all SAC and SRP members.

Availability of Core Indicators for child health

APHEO Core Indicators were matched to the OPHS assessment and surveillance requirements and Population Health Assessment and Surveillance protocol by the project team using the "Alignment of the APHEO Core Indicators with the Ontario Public Health Standards" document as a guide.[1] Core Indicators were also matched to a socio-ecological framework, adapted from Rigby et al.,[2] by the project team to provide a sample of how this could be done comprehensively in the future. Once indicators were matched to the OPHS, priority areas were determined. A priority area was defined as an area that has fewer than two (i.e., zero or one) APHEO Core Indicators. Areas with two or more Core Indicators were considered to be at least somewhat developed.

In order to assess the relevance of Core Indicators that were matched to the OPHS, a small committee of Public Health Ontario staff was convened (three epidemiologists and two health promoters with experience in child health and indicator development). The relevance of each indicator title to child health was determined based on the following criteria:

- the indicator represents a phenomenon that is disproportionately common in children and youth, or
- the indicator represents a phenomenon that has disproportionately serious consequences when it occurs in children and youth.

Again, the intention was to exclude indicators that do not apply to infants, children or youth and indicators that are more suited to measurement in the general population. The results were validated by three SAC members and they were sent to all SAC and SRP members.

In addition to APHEO Core Indicators, a list of suggested "new" indicator titles was created by the SAC and SRP during an in-person meeting. Three breakout discussion groups were formed to brainstorm indicators topics and titles based on the OPHS assessment and surveillance area. All comments and input from these discussion groups were compiled, and duplicates were removed. Further input on additional suggested indicator title and topics was subsequently gathered through SAC member networks, including local public health units through the Ontario Chronic Disease Prevention Management in Public Health and the Ontario Healthy Schools Coalition.

Status of available Core Indicators for child health

For each indicator determined to be relevant to child health based on its title, the definition provided on the Core Indicators website[3] was assessed in terms of its relevance to each age group (infants: zero to one years of age; children: two-11 years of age; youth: 12-19 years of age). Indicators were also assessed for available data. The availability of data was determined based on a scan of data sources available to public health, according to the following criteria:

- the data are available at the provincial level, or
- the data are available to four or more public health units.

The intention was to exclude small, local surveys (e.g., surveys conducted by a single public health unit). The characteristics of each data source were compiled by the project team, in conjunction with the Data Sources Working Group.

Availability of stratifiers for considering health disparities and inequities

A brief literature review was conducted to compile a list of suitable indicators for measuring health disparities and inequities in children. Four sample indicators were selected. Every data source used in the project was scanned for the availability of data on these indicators.

Toward filling indicator gaps in priority areas

For each priority area, potential new indicator titles were suggested by members of the SAC and SRP at an in-person meeting in February, 2012. From these suggested indicator titles, up to five were determined to be most important for measurement in children by self-selected participants at a 90-minute workshop which took place at The Ontario Public Health Convention (TOPHC) in April, 2012.

Once up to five most important indicators were selected, they were populated with data sources and definitions. As there were limited or no APHEO Core Indicator definitions available for the priority area indicator titles, a scan of public health reports was used to find current and recently used definitions. A web search was conducted to find a comprehensive list of grey literature reports produced by public health at the regional, provincial and federal levels across Canada. Google custom search engines for each province and territory in Canada were created by Public Health Ontario's Library Services team using websites for both provincial and regional health authorities. Yukon, Prince Edward Island and Nunavut do not have regional health authorities, and so these jurisdictions were searched through Google's site search feature. Library Services also developed search strings to be used in Google for each priority area and one for general health status reports (Table 1). Given Google's 32-word query limit, some priority areas had multiple search strings (healthy eating and healthy weights had three strings, and healthy family dynamics and positive parenting had two strings). Search string was individually run in each custom search engine or site. The first 100 results of every search were reviewed for relevance and inclusion criteria. To be included the report had to: (1) be published between 2005 and 2012; (2) be produced by public health (units or agencies); (3) focus on infant, children, youth, parenting or families (reports on the general population were excluded); and (4) report on populations in Canada (national, provincial or local).

A total of 41 reports were included. Each report was scanned for any indicators that fall within the identified priority areas, and definitions for each relevant indicator were extracted. A new definition was captured for each indicator title any time there was a difference in age, duration, frequency or population and for each new data source. The following fields were extracted for each definition: report name, data source, denominator data source, reported age range, unit of measure (i.e., number, per cent, rate, average, etc.), alternate data sources, socioeconomic stratifiers used in the report that may be relevant to an equity analysis, and notes on calculations used to derive indicators and any questionnaire questions used. All data sources used in the project were scanned for available data.

Table A1: Search strings used for public health report scan

Priority area	Search string(s)
Child health (general)	▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring)
Breastfeeding	▪ (breastfeeding OR breast-feeding OR infant-feeding OR breastfed OR breast-fed OR breast-milk OR human-milk OR infant-formula) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring)
Exposure to ultraviolet radiation	▪ (sun-exposure OR ultraviolet-exposure OR UV-exposure OR sun-protection OR sun-safety OR tanning OR suntan OR sunbed OR sunburn OR sunlight OR sunscreen OR sunglasses OR melanoma) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring)
Growth and development	▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (development OR emotional-health OR growth OR language-skills OR literacy OR motor-skills OR numeracy OR school-completion OR school-enrollment OR verbal-skills) (health-status OR indicator OR measure OR surveillance OR monitoring)
Healthy eating	▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (carbohydrate OR diet OR dietary-fat OR dietary-sodium OR dietary-sugar OR eating OR energy-balance OR fast-food) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring) ▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (food-choice OR food-habit OR food-intake OR food-preference OR food-security OR fruit OR healthy-eating OR healthy-food) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring) ▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (malnutrition OR nutrition OR over-nutrition OR soda OR sugar-sweetened OR unhealthy-eating OR unhealthy-food OR vegetable) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring)
Healthy family dynamics	▪ (child-abuse OR child-maltreatment OR child-neglect OR child-relationship OR domestic-abuse OR domestic-violence OR family-cohesion OR family-functioning OR family-health OR family-structure) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring) ▪ (family-support OR family-crisis OR family-environment OR family-dynamic OR family-violence OR parent-relationship OR spousal-abuse OR spousal-violence foster-care OR divorce OR domestic-relations) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring)

Priority area	Search string(s)
Healthy weights	▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (active-living OR active-transportation OR adipose OR BMI OR body-fat OR body-mass OR body-weight OR exercise) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring) ▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (fitness OR healthy-weight OR inactivity OR obesity OR over nutrition OR overweight OR physical-activity OR physical-education) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring) ▪ (child OR youth OR adolescent OR juvenile OR teen OR infant OR pediatric OR family) (screen-time OR sedentary OR unhealthy-weight OR waist-circumference OR waist-hip-ratio OR weight-loss OR weight-status) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring)
Positive parenting	▪ (child-praise OR effective-parenting OR family-strengths OR father-involvement OR nurturing OR parent-affection OR parent-attention OR parent-child-play OR parent-closeness OR parent-communication) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring) ▪ (parent-education OR parent-employment OR parent-health OR parent-income OR parenting OR parent-interaction OR parent-reading OR parent-support OR parent-training OR quality-time OR trust-caregiver) (health-status OR health-indicator OR health-measure OR health-surveillance OR health-monitoring)

Once the indicators were populated with data sources and definitions, two to three experts were identified by the SAC and SRP for each priority area (table 2). These experts were consulted by the project team to comment on:

- their agreement with the selection of the most important indicators made by the TOPHC workshop participants, and
- the validity and reliability of data sources and definitions for each new priority indicator.

In addition, experts were asked to express critical concerns on the ethics of data collection and acceptability by the target population. These dimensions – validity, reliability, and ethics/acceptability – were chosen by the Selection Criteria Working Group.

Table A2: List of consulted experts, by priority area

Priority area	Expert	Affiliation
Breastfeeding	Dr. Cindy-Lee Dennis	University of Toronto
	Dr. Jack Newman	Breastfeeding Inc.
	Dr. Sandy Dunn	BORN Ontario
UV exposure	Dr. Loraine Marrett	Cancer Care Ontario
	Kaylene McKinnon	Middlesex-London Health Unit
Healthy eating	Dr. Rhona Hanning	University of Waterloo
	Joanne Beyers	Sudbury and District Health Unit
	Dr. Janis Randall Simpson	University of Guelph
Healthy family dynamics	Dr. Susan Jack	Offord Centre for Child Studies, McMaster University
	Dr. John Cairney	McMaster University
Healthy weights	Joanne Beyers	Sudbury and District Health Unit
	Dr. Ian Janssen	Queen's University
Growth and development	Dr. Magdalena Janus	Offord Centre for Child Studies, McMaster University
	Dr. John Cairney	McMaster University
	Dr. Jean Clinton	Offord Centre for Child Studies, McMaster University
Positive parenting	Jim Madden	Middlesex-London Health Unit
	Dr. Jean Clinton	Offord Centre for Child Studies, McMaster University
	James Macintosh and Jeff Biletchi	Niagara Regional Public Health

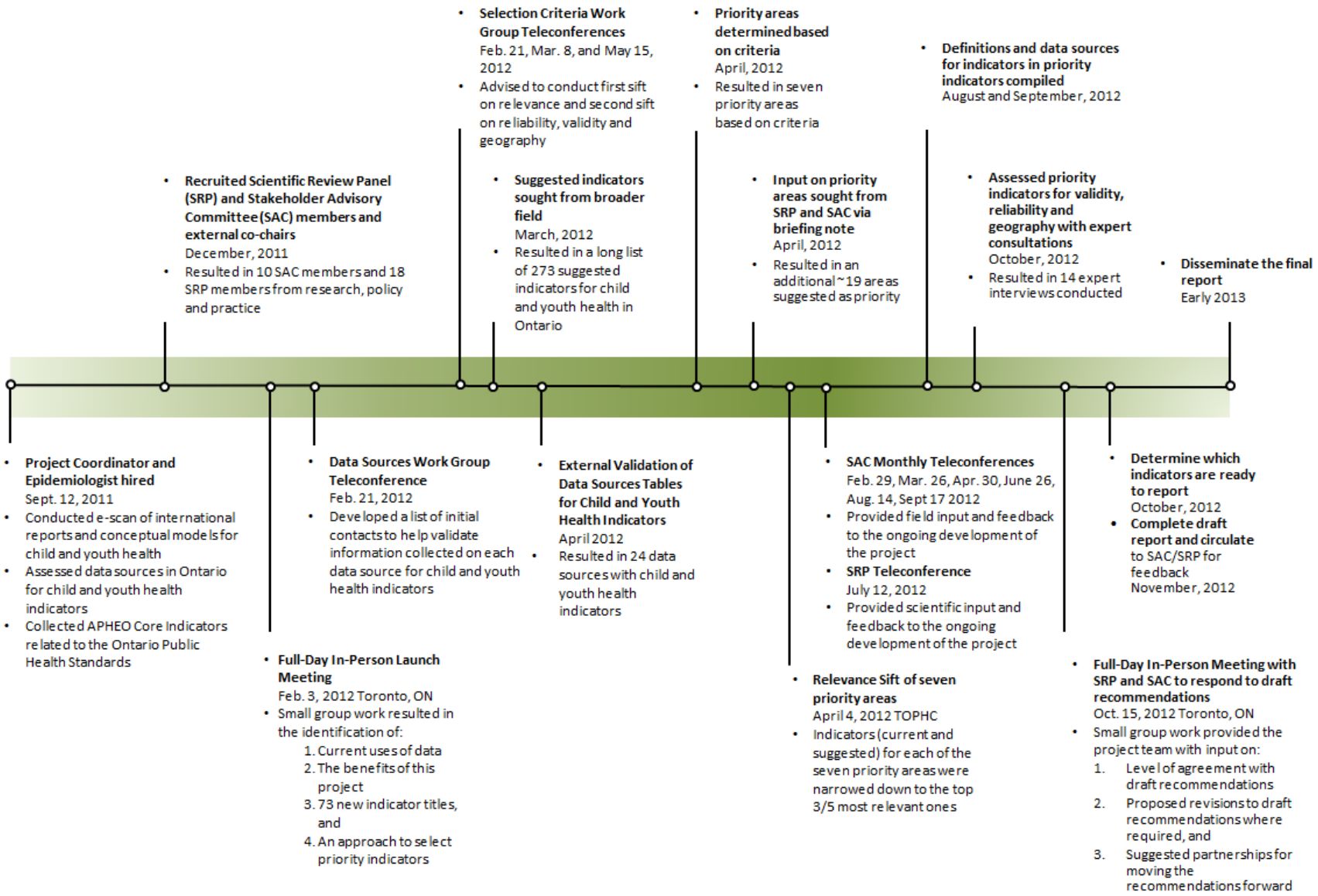
Recommendations

The recommendations for moving forward were drafted by the project team. Feedback and revisions were suggested by SAC and SRP members during an in-person meeting in October, 2012. Organizations that should partner to move these recommendations forward were also suggested on that day.

Timeline

In generating this report, stakeholder engagement was as important as scientific methods.Figure 2 below illustrates the timeline for the activities and consultative processes that have taken place in order to develop this report.

Figure A2: High-level project timeline



Appendix B: Socio-ecological model

Figure B1: Diagram* linking a socio-ecological model for healthy child development with APHEO Core Indicators

Indicator with available APHEO definition and data source

Indicator with either an available APHEO definition or available data source

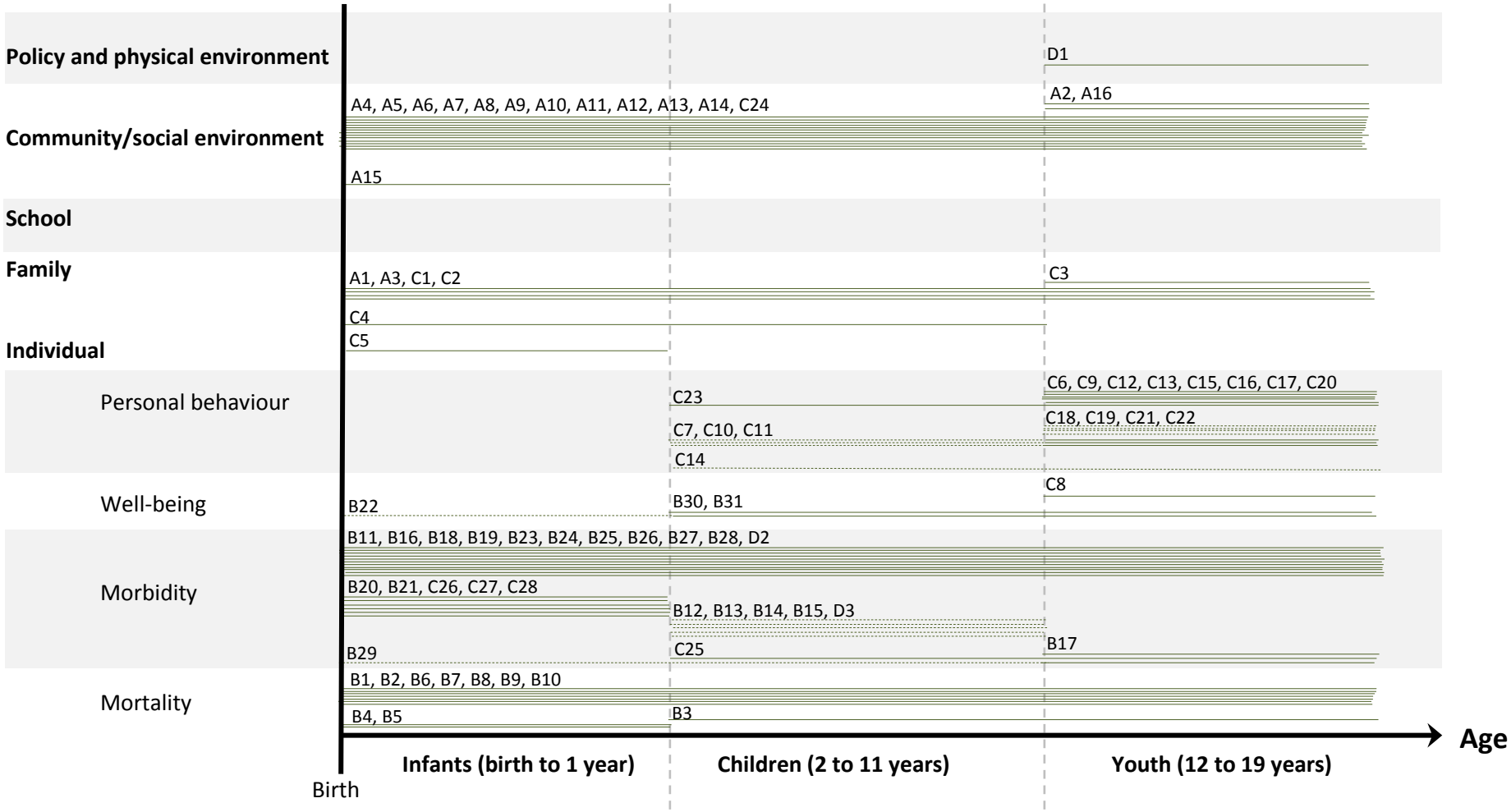


*diagram adapted from Rigby et al (2002)[2]

A. Demographic and socio-economic determinants of infant/child/youth health

A1. Food insecurity
A2. Fertility rates
A3. Single parent family
A4. Population by age and sex
A5. Population growth
A6. Projected population growth
A7. Dependency ratios
A8. Urban and rural population
A9. Aboriginal population
A10. Immigrant population
A11. Ethnic/cultural origin
A12. Mother tongue
A13. Home language
A14. Per cent who cannot speak English or French
A15. Crude birthrate
A16. Pregnancy rate

B. Health status and well-being

Infant/Child/Youth Mortality

B1. Falls-related mortality
B2. Injury-related mortality
B3. Suicide mortality
B4. Perinatal mortality and stillbirths
B5. Neonatal and infant mortality
B6. Infectious disease mortality
B7. All-cause mortality
B8. Child and adolescent mortality
B9. Chronic disease mortality
B10. Cancer mortality

Infant/child/youth morbidity

B11. All-cause hospitalization
B12. Caries-free children
B13. Deft/DMFT index
B14. Early-childhood tooth decay
B15. Fluorosis index
B16. Infectious disease incidence
B17. Pelvic inflammatory disease morbidity
B18. Cancer incidence
B19. Chronic disease hospitalization
B20. Congenital anomalies
B21. Congenital infections
B22. Self-rated health

Injuries to infants/children/youth

B23. Neurotrauma-related hospitalization
B24. Fall-related emergency department visits
B25. Fall-related hospitalizations
B26. Injury-related hospitalization
B27. Injury-related emergency department visits
B28. Motor vehicle traffic collision injuries
B29. Self-reported injury

Mental health of infants/children/youth

B30. Intentional self-harm-related hospitalization
B31. Suicidal thoughts and attempts

C. Health determinants, risk and protective factors

Place-based determinants

C1. Non-smoker second-hand smoke exposure
C2. Smoke-free homes

Parental lifestyle determinants

C3. Age of parents at infant's birth
C4. Car seat and booster seat safety
C5. Breastfeeding initiation and duration

Infant/child/youth lifestyle determinants

C6. Smoking during pregnancy
C7. Vegetable and fruit consumption
C8. Smoking status
C9. Smoking cessation
C10. Leisure-time physical activity
C11. Screen time
C12. Underage alcohol drinking
C13. Heavy drinking episodes
C14. Ultraviolet radiation exposure
C15. Drinking and driving prevalence
C16. Illicit drug use
C17. Cellphone use while driving
C18. Frequency of condom use among those at risk for STDs
C19. Condom use the last time among those at risk of STDs
C20. Youth sexual activity
C21. Age of sexual debut
C22. Number of sexual partners
C23. Seatbelt use

Other factors

C24. Childhood vaccination coverage
C25. Adolescent body mass index
C26. Preterm births
C27. Multiple births
C28. Birth weight

D. Health systems & policy

Infant/Child/Youth Health and Safety Policy

D1. Minors' access to tobacco

Infant/child/youth health system quality

D2. Adverse events following immunization
D3. Children with dental treatment needs

Appendix C: Suggested indicators

Table C1: Suggested indicator titles by OPHS assessment and surveillance requirement area

OPHS program area	OPHS assessment and surveillance requirement area *	Suggested indicator titles/topics
Chronic disease prevention	Healthy eating	▪ Food in group homes, cafeteria, daycare/child care, school and other environments ▪ Certified food handlers ▪ Nutrients ▪ Food and fluid intake (from NutriSTEP) ▪ Food intake according to the Canada Food Guide and consumption of "eat less/sometimes food" ▪ Consumption of sweetened drinks ▪ Factors affecting food intake--i.e. food security, psycho-social feeding environment ▪ Food security ▪ Food skills (can be represented by various more specific indicators, such as healthy food preparation, food storage techniques, food selection) ▪ Food label reading ▪ Eating breakfast daily ▪ Family meals ▪ Eating in front of the TV ▪ Eating out ▪ Skipping meals ▪ Eating prepared foods from grocery stores ▪ Feeding ▪ Parental perception that his/her preschool child is at risk for nutrition-related problems ▪ Toddler and preschool nutrition-related problems (i.e., red flags for obesity and poor nutrition, sedentary behaviour etc.)
	Healthy weights	▪ Weight/shape/food preoccupation indices as it related to overall health (i.e. not relying on BMI to tell us children are healthy) ▪ Healthy weights for children less than 12 years old ▪ Physical growth & development/weight concerns (from NutriSTEP) ▪ Psychosocial factors (includes weight-based teasing, family meals, parental concern for weight and shape)

Table C1: Suggested indicator titles by OPHS assessment and surveillance requirement area

OPHS program area	OPHS assessment and surveillance requirement area *	Suggested indicator titles/topics
Chronic disease prevention (*continued)*	Comprehensive tobacco control	▪ Risk of tobacco use ▪ Smokeless tobacco use ▪ Age of tobacco use initiation ▪ Prevalence measure for the use of alternative tobacco products (cigarillos, snuff, water pipe tobacco (shisha, hookah), chew, etc) ▪ Tobacco use among children less than 12 years old
	Physical activity	▪ Incidental physical activity ▪ Physical literacy ▪ Neighbourhood safety ▪ Active transport to and from school and work among youth ▪ Bike share availability ▪ Sedentary time ▪ Time spent in active play ▪ Free play ▪ Physical activity among children less than 12 years old ▪ Age that television is introduced ▪ Everyday access to safe, stimulating and social places to play ▪ Well-maintained sidewalks (these help enable active transport to schools or leisure-time physical activity) ▪ percentage of communities with presence of separate bike lanes ▪ Free or low-cost recreational centres ▪ percentage of children who live within a five- to 10-minute walking distance from schools, playgrounds and community centres ▪ number of communities incorporating physical literacy ▪ Resting heart rate
	Alcohol use	▪ Drinking above the National Low Risk Drinking Guidelines (NLRDG) ▪ Heavy drinking episodes ▪ Binge drinking episodes ▪ Alcohol outlet density ▪ Age of onset of use of alcohol
	Exposure to UV radiation	▪ Engage in artificial tanning ▪ Use of sunscreen (SPF 30 when outdoors) ▪ Use of indoor tanning

Table C1: Suggested indicator titles by OPHS assessment and surveillance requirement area

OPHS program area	OPHS assessment and surveillance requirement area *	Suggested indicator titles/topics
Chronic disease prevention (*continued)*	Exposure to UV radiation *(continued)*	▪ Tanning ▪ Seeking shade between 11 a.m. to 4 p.m./avoidance of sun during peak times ▪ Sports activities scheduled before 11 a.m. and after 4 p.m. ▪ Skin with no tan or burns from the sun or indoor tanning ▪ Knowledge of sun-safe behaviours plus reflective nature of water and snow ▪ Awareness of UV radiation index ▪ Knowledge about sun and heat stroke prevention ▪ Sunburn past 12 months ▪ Use of sunscreen ▪ Use of sunglasses ▪ Use of hat ▪ Use of protective clothing (long-sleeve shirt and hat) ▪ Parental awareness of UV exposure ▪ Safety of screen use for young children
Prevention of injury and substance misuse	Alcohol and other substances	▪ Alcohol-related injuries (other than those related to motor vehicle accidents) ▪ Gaming/Internet addiction ▪ Use of other substances such as cocaine, oxycontin, ecstasy ▪ Drinking above the National Low Risk Drinking Guidelines (NLRDG) ▪ Marijuana use while driving ▪ Mental health ▪ Resiliency and strength based assets ▪ Number of sexual assaults ▪ Number of violent incidents related to alcohol use (police reports)
	Falls across lifespan	▪ Sports related injuries in children ▪ Falls related to playground settings/activities
	Road and off-road safety	▪ Morbidity and mortality due to ATV injuries ▪ Helmet use when biking
	Other areas of public health importance for injuries	▪ Head injuries, including concussions ▪ Concussion training by teachers, coaches and parents ▪ Cutting and self-abuse behaviour reports in schools ▪ Fractures

Table C1: Suggested indicator titles by OPHS assessment and surveillance requirement area

OPHS program area	OPHS assessment and surveillance requirement area *	Suggested indicator titles/topics
Prevention of injury and substance misuse (*continued)*	Other areas of public health importance for injuries *(continued)*	▪ Sport- and recreation-related Injuries, ER visits and hospitalizations ▪ Traffic-calming measures near schools ▪ Ability to swim ▪ Safe-swim practices including: supervision ratios of parents to children; lifejacket practices (knowing what swim abilities, or lack thereof, require lifejackets in children); children and teens' knowledge of swimming safely (when and where it is safe to swim)
Reproductive health	Reproductive health outcomes	▪ Fetal alcohol syndrome ▪ Number of infants kept in hospital for withdrawal from either alcohol or substances ▪ Teen pregnancy rate ▪ Fecundity rate ▪ HIV-positive baby ▪ Birth control after baby ▪ Number of teens who have a second child ▪ Access to credible information ▪ Premature Births: Late Preterm 34-37 weeks, Very Preterm <32 weeks, Extremely Preterm <25 weeks ▪ Medical interventions during birth: Induction, Augmentation, Assisted Delivery, Caesarian Birth, ▪ Sudden Infant Death Syndrome (SIDS) or Sudden Unexpected Death in Infancy (SUDI)
Child health	Positive parenting	▪ Maternal attachment ▪ Parental mental health issue (e.g., maternal depression, perinatal mood disorder) ▪ Parental addictions (alcohol/substance abuse) ▪ Parenting style – including discipline (suggest use of parenting experiences and attitudes as measured by the International Parenting Survey for sensitivity, interaction, style and activities because it also asks about the parent's perception of the child's behaviours) ▪ Parenting sensitivity ▪ Parenting consistency ▪ Child neglect ▪ Over-involved parents ▪ Reading to child ▪ Playing with child ▪ Interaction ▪ Engaged parents in school settings ▪ Parenting confidence/efficacy

Table C1: Suggested indicator titles by OPHS assessment and surveillance requirement area

OPHS program area	OPHS assessment and surveillance requirement area *	Suggested indicator titles/topics
Child health *(continued)*	Positive parenting *(continued)*	▪ Maternal/paternal prenatal education ▪ Awareness and prior use of parenting programs ▪ Social norms regarding the seeking of parenting support ▪ Outcomes from parenting education programs
	Breastfeeding	▪ Baby-friendly initiative (BFI) ▪ Bottle feeding ▪ Intention rate ▪ Duration ▪ Exclusivity ▪ Initiation ▪ Attitudes toward breastfeeding
	Healthy family dynamics	▪ Family violence/domestic violence (sexual and physical) ▪ Incidence of intentional injury in Emergency Room visits ▪ Adverse experiences in childhood ▪ Household tensions ▪ Non-accidental mortality and morbidity ▪ Families involved with Children's Aid Society ▪ Families on Children's Aid Society case load that use temporary housing (staying on friends' couches etc.) ▪ Number of children in foster care ▪ Number of active child protection cases ▪ Pregnant women and/or families using emergency shelters either for housing or to escape abuse ▪ Teens living in emergency shelters ▪ Families on wait lists for subsidized housing ▪ Number of new subsidized housing created that is designated for families and has more than one bedroom ▪ Number of subsidized child care spots available ▪ Number of families waiting for subsidized child care spots ▪ Family meals ▪ Secure housing ▪ Parental insurance coverage ▪ Parental state of employment ▪ Engagement in schools ▪ Attachment to parents

Table C1: Suggested indicator titles by OPHS assessment and surveillance requirement area

OPHS program area	OPHS assessment and surveillance requirement area *	Suggested indicator titles/topics
Child health *(continued)*	Healthy family dynamics *(continued)*	▪ Household decision-making ▪ Safety ▪ Parental awareness of impact on family/children
	Growth and development	▪ 18-month Well Baby Visit ▪ Outcomes as related to public health screening tools (i.e. Nipissing, Rourke) ▪ Access to child care (formal and informal caregivers) ▪ Access to physician ▪ Access to counsellors ▪ Play ▪ Physical literacy ▪ Developmental assets ▪ Growth patterns (achievement of developmental milestones) ▪ Academic achievement ▪ School readiness (EDI results – physical health and well-being sub-scales) ▪ Infant/child self-regulation – coping/interaction, e.g., EDI ▪ Population level developmental screening results at six months, one year, 18 months, two years, three years (BMI, change across percentiles WHO growth charts, reported delays in gross motor skills) ▪ School suspensions ▪ Available resources in the community ▪ School climate (healthy school environment might fit here) ▪ Transition into school ▪ Transition out of school ▪ Number of families utilizing tax credits for sports and arts ▪ Number using drop-in centres ▪ Rate of utilization of community-care access centres – children's services ▪ Number of families using Jumpstart programs to access sports ▪ Attachment
	Oral health	▪ Parental insurance coverage ▪ Parental support for water fluoridation

Table C1: Suggested indicator titles by OPHS assessment and surveillance requirement area

OPHS program area	OPHS assessment and surveillance requirement area *	Suggested indicator titles/topics
Sexual health, STIs, Blood-borne infections	Sexually transmitted infections	▪ Screening and treatments of STIs before pregnancy and between new partners
	Blood-borne infections	
	Risk behaviour	▪ Number of sexual partners ▪ Number of positive factors in communities (to measure resiliency) ▪ IV drug use ▪ Needle exchange
Vaccine-preventable diseases	Immunization status of children	▪ Immunization coverage for non-mandatory vaccines
	Vaccine-preventable diseases	▪ Influenza immunization for younger children (zero to three) ▪ Immunization coverage for children not in licensed daycare facilities
Infectious Diseases Prevention and Control	Infectious disease of public health importance	▪ Outbreaks in child care centres (specifically enteric and respiratory illnesses)
	Associated risk factors	▪ Hand-washing practices
	Infection prevention and control practices of inspected premises	▪ Certified food handlers
Tuberculosis prevention and control	Tuberculosis	
Food safety	Food-borne illnesses and associated risk factors	▪ Availability of safe food ▪ Safe food handling training

Appendix D: Indicator definitions

(NOTE: The following APHEO Core Indicator Definitions were current as of October, 2012. Because the Core Indicators are regularly revised, this table may become outdated quickly. For the most up-to-date Core Indicators, visit the APHEO website at http://www.apheo.ca[3])

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Aboriginal population	Per cent of population who identify with at least one Aboriginal group.	▪ Aboriginal Peoples Survey (APS) ▪ Canadian Community Health Survey (CCHS) ▪ Canadian Tobacco Use Monitoring Survey (CTUMS) ▪ General Social Survey (GSS) ▪ National Population Health Survey (NPHS) ▪ Survey of Young Canadians (SYC)
Adolescent body mass index	Proportion of adolescents, aged 12 to 17, that is "overweight or obese" according to the age-and-sex-specific BMI cut-off points as defined by Cole et al. using self-reported height and weight. Note: this indicator excludes female respondents aged 15 to 17 who were pregnant or did not answer the pregnancy question, and lactating women.	▪ APS ▪ CCHS ▪ Health Behaviour in School-aged Children (HBSC) ▪ NPHS ▪ Ontario Student Drug Use and Health Survey (OSDUHS) ▪ SYC
Adverse events following immunization	Number of adverse events following immunization (AEFI) in a specified time period.	▪ Integrated Public Health Information System (iPHIS)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Age of parent at infant's birth	Age of parent as of the date of birth of their infant 1. Average age of mother 2. Average age of mother at birth of first infant 3. Average age of father 4. Median age of mother 5. Median age of mother at birth of first infant 6. Median age of father 7. Proportion of births by age of mother 8. Proportion of births of first infant by age of mother 9. Proportion of births by age of father	▪ Better Outcomes Registry and Network (BORN) ▪ Discharge Abstract Database (DAD) ▪ Healthy Babies Healthy Children – Integrated Services for Children Information System (HBHC-ISCIS) ▪ Vital statistics (live birth data) ▪ *Similar information:* ▪ SYC
Age of sexual debut	Proportion of population aged 15 to 59 years who reported having first had sexual intercourse before age 20.	▪ CCHS ▪ HBSC
All-cause hospitalization	The crude hospitalization rate is the total number of hospital separations (discharges, transfers and deaths) during a given year (fiscal or calendar) per total population (per 100,000).	▪ DAD
	Age-specific hospitalization rate for a selected cause is the number of hospitalizations in a given age group from a selected cause per 100,000 population in that age group over a specified period of time.	▪ DAD
	Age-standardized hospitalization rate (SRATE): the number of hospital separations for a given population that would occur if the population had the same age distribution as the 1991 Canadian population (per 100,000).	▪ DAD
	Standardized morbidity ratio (SMR): the ratio of observed hospital separations to the number expected if the population had the same age-specific hospitalization rates as Ontario.	▪ DAD

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
All-cause mortality	The crude mortality rate is the total number of deaths in a given year relative to the total population for that year (per 100,000).	▪ DAD ▪ Vital statistics (mortality data)
	Age-specific mortality rate is the number of deaths in a given age group per 100,000 population in that age group over a specified period of time.	▪ DAD ▪ Vital statistics (mortality data)
	Age-standardized mortality rate (SRATE): the number of deaths that would occur for a given population if that population had the same age distribution as the 1991 Canadian population (per 100,000).	▪ DAD ▪ Vital statistics (mortality data)
	Standardized mortality ratio (SMR): the ratio of observed deaths to the number expected if the population had the same age-specific death rates as Ontario.	▪ DAD ▪ Vital statistics (mortality data)
Birth weights	The ratio of live births in a specified weight range at the time of delivery per total live births. 1. Low birth weight rate for live births: proportion of live births weighing <2,500 grams per total live births. 2. Very low birth weight rate for live births: proportion of live births weighing <1,500 grams per total live births. 3. Extremely low birth weight rate for live births: proportion of live births weighing <1,000 grams per total live births.	▪ BORN ▪ DAD ▪ HBHC-ISCIS ▪ SYC ▪ Vital statistics
	Weight in relation to gestational age, reported using a reference population and specific percentile cutoffs. 1. Low birth weight rate for singleton live births: proportion of singleton live births, 37+ weeks gestation, weighing <2,500 grams per total singleton live births 37+ weeks gestation. 2. Small for gestational age: proportion of singleton live births with weights below the 10th percentile of birth weights for their gestational age per total live births. 3. Large for gestational age: proportion of singleton live births with weights above the 90th percentile of birth weights for their gestational age per total live births.	▪ BORN ▪ DAD ▪ HBHC-ISCIS ▪ SYC ▪ Vital statistics

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources	
Breastfeeding initiation and duration	Initiation: Proportion of mothers aged 15 to 49 years who breastfed their last baby (born within last five years).	▪ CCHS ▪ HBHC-ISCIS ▪ RRFSS ▪ SYC	▪ *Similar information:* ▪ BORN ▪ DAD
	Duration: Proportion of mothers aged 15 to 49 years who breastfed their last baby (born within last five years) by duration 1. Breastfeeding duration of four months or more 2. Exclusive breastfeeding duration of four months or more 3. Breastfeeding duration of six months or more 4. Exclusive breastfeeding duration of six months or more 5. Breastfeeding duration at twelve months	▪ CCHS ▪ RRFSS ▪ SYC	
Cancer incidence	The total cancer incidence rate (crude rate) is the total number of new cases of selected malignant cancers relative to the total population (per 100,000) over a specified period of time.	▪ Ontario Cancer Registry (OCR)	
	Age-specific cancer incidence rate is the number of new cases of selected cancers in a given age group per 100,000 population in that age group over a specified period of time.	▪ OCR	
	Age-standardized incidence rate (SRATE) for selected cancer is the number of new cases of selected cancers that would occur in the population if it had the same age distribution as the 1991 Canadian standard population (per 10,000 or 100,000) over a specified period of time.	▪ OCR	
	Standardized incidence ratio (SIR) for a selected cancer is the ratio of observed new cancer cases to the number expected if the population had the same age-specific incidence rates as Ontario.	▪ OCR	

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Cancer mortality	The total mortality rate (crude rate) is the total number of deaths from selected malignant cancers relative to the total population (per 100,000) over a specified period of time.	▪ Vital statistics (mortality data)
	Age-specific mortality rate for a selected cancer is the annual number of deaths in a given age group from a selected cancer per 100,000 population in that age group over a specified period of time.	▪ Vital statistics (mortality data)
	Age-standardized mortality rate (SRATE) for selected cancer is the number of deaths from a selected cancer that would occur if the population had the same age distribution as the 1991 Canadian population (per 10,000 or 100,000) over a specified period of time.	▪ Vital statistics (mortality data)
	Standardized mortality ratio (SMR) for a selected cancer is the ratio of observed deaths to the number expected if the population had the same age-specific death rates as Ontario.	▪ Vital statistics (mortality data)
Car seat and booster seat safety	Use of car seats and/or restraint for children aged less than one year: proportion of parents whose children less than one year travel in the back seat of the car in a rear-facing car seat "all of the time."	▪ RRFSS
	Use of car seats and/or restraint for children aged one to three years: proportion of parents whose children (one to three years) travel in the back seat of the car in a forward-facing car seat "all of the time."	▪ RRFSS
	Use of car seats and/or restraint for children aged four to seven years: proportion of parents whose children (four to seven years) travel in a booster seat in the back seat "all of the time."	▪ RRFSS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Caries-free children	The percentage of the children at school entry who have never had any cavities.	▪ Oral health Information Support System (OHISS) ▪ RRFSS
Cellphone use while driving	Prevalence of cellphone use among motor vehicle drivers, 16+ years (CCHS): proportion of motor vehicle drivers, 16+ years, who "often/sometimes" use a cellphone while driving, in the past 12 months (CCHS).	▪ CCHS
	Prevalence of hands-free cellphone use among motor vehicle drivers, 16+ years (CCHS): proportion of motor vehicle drivers, 16+ years, who "often/sometimes" or "often/sometimes/rarely" use hands-free cellphone while driving, in the past 12 months (CCHS).	▪ CCHS
	Prevalence of cellphone use among motor vehicle drivers, 18+ years (RRFSS): proportion of motor vehicle drivers, 18+ years, who use a cellphone or other mobile device "every time/most times/sometimes" while driving, in the past 12 months.	▪ RRFSS
	Prevalence of hands-free use among motor vehicle drivers, 18+ years, who use a cellphone when they drive: proportion of motor vehicle drivers, 18+ years, who use hands-free mode "every time/most times/sometimes" when talking on the cellphone while driving, in the past 12 months (RRFSS).	▪ RRFSS
	Prevalence of text messaging while driving among motor vehicle drivers, 18+ years (RRFSS): proportion of motor vehicle drivers, 18+ years, who send or read text messages "every time/most times/sometimes" while driving, in the past 12 months.	▪ RRFSS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Child and adolescent mortality	Age-specific mortality rates for all causes are the annual number of deaths in a given age group per the population in that age group (usually expressed per 100,000).	▪ DAD ▪ Vital statistics (mortality data)
	Age-specific mortality rates for selected causes are the annual number of deaths in a given age group from selected causes per the population in that age group (usually expressed per 100,000). 1. Injury and poisoning death rate for children and adolescents 2. Childhood cancer rate 3. Respiratory disease death rate for children and adolescents 4. Congenital anomaly death rate 5. Infectious disease death rate for children and adolescents 6. Sudden infant death syndrome rate 7. Homicide rate for children and adolescents	▪ DAD ▪ Vital statistics (mortality data)
Childhood vaccination coverage	Proportion of children aged two years in licensed child care facilities who are known to be complete for age for vaccination against diphtheria, tetanus and polio; measles, mumps and rubella; Haemophilus influenzae type B; pertussis; invasive pneumococcal disease; invasive meningococcal disease; or varicella (chickenpox).	▪ None
	Proportion of schoolchildren aged seven years who are known to be complete for age for vaccination against diphtheria, tetanus and polio or measles, mumps and rubella.	▪ IRIS (part)
	Proportion of high school students aged 17 years who are known by the health unit to have completed vaccination against diphtheria, tetanus and polio or measles, mumps and rubella.	▪ IRIS (part)
	Proportion of grade 7 students who have completed vaccination against hepatitis B or invasive meningococcal disease by the end of grade 7.	▪ None

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Childhood vaccination coverage *(continued)*	Proportion of grade 8 females who have completed vaccination against human papillomavirus.	▪ IRIS
	Proportion of infants born to mothers who are hepatitis B carriers who have completed vaccination against hepatitis B per the recommended schedule.	▪ IRIS
Children with dental treatment needs	The proportion of children with dental treatment needs. 1. Per cent of children with urgent dental needs 2. Per cent of children with decay and urgent dental needs 3. Per cent of children eligible for CINOT 4. Per cent of children eligible for topical fluorides 5. Per cent of children eligible for fissure sealants	▪ Oral health Information Support System (OHISS)
Chronic disease hospitalization	The total hospitalization rate for a selected chronic disease is the total number of inpatient discharge for the selected disease per total population (usually expressed per 100,000) over a specified period of time. ▪ Cardiovascular disease ▪ Ischemic heart disease ▪ Cerebrovascular disease ▪ Stroke ▪ Hypertensive disease ▪ Respiratory disease ▪ Chronic obstructive pulmonary disease (COPD) ▪ Bronchitis/emphysema/asthma ▪ Asthma ▪ Diabetes	▪ DAD
	Age-specific hospitalization rate is the number of inpatient discharge for the selected disease per 100,000 population in that age group over a specified period of time.	▪ DAD

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Chronic disease hospitalization *(continued)*	Age-standardized hospitalization rate (SRATE) for a selected chronic disease is the number of inpatient discharge from the selected disease that would occur if the population had the same age distribution as the 1991 Canadian population (per 100,000) over a specified period of time.	▪ DAD
	Standardized morbidity ratio (SMR) for a selected chronic disease is the ratio of observed inpatient discharge by specific disease to the number expected if the population had the same age-specific hospitalization rates as Ontario over a specified period of time.	▪ DAD
Chronic disease mortality	The total mortality rate (crude rate) is the total number of deaths from the selected disease relative to the total population (per 100,000) over a specified period of time. ▪ Cardiovascular disease ▪ Ischemic heart disease ▪ Cerebrovascular disease ▪ Stroke ▪ Respiratory disease ▪ Chronic obstructive pulmonary disease (COPD) ▪ Bronchitis/emphysema/asthma ▪ Asthma ▪ Diabetes	▪ Vital statistics (mortality data)
	Age-specific mortality rate for a selected chronic disease is the number of deaths in a given age group from the selected disease per 100,000 population in that age group over a specified period of time.	▪ Vital statistics (mortality data)
	Age-standardized mortality rate (SRATE) for a selected chronic disease is the number of deaths from the selected disease that would occur if the population had the same age distribution as the 1991 Canadian population (per 10,000 or 100,000) over a specified period of time.	▪ Vital statistics (mortality data)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Chronic disease mortality *(continued)*	Standardized mortality ratio (SMR) for a selected chronic disease is the ratio of observed deaths to the number expected if the population had the same age-specific death rates as Ontario over a specified period of time.	▪ Vital statistics (mortality data)
Condom use the last time among those at risk of STDs	Proportion of population aged 15 to 59 having two or more sexual partners in the past 12 months while in relationships that lasted less than a year, by whether they used a condom the last time they had sex.	▪ CCHS ▪ *Similar information:* ▪ HBSC
Congenital anomalies	The rate of congenital anomalies is the number of births (live births and stillbirths) identified as having a given congenital anomaly, expressed as a percentage of the total number of births (live births and stillbirths). 1. Rate of congenital anomalies (CAs) 2. Rate of neural tube defects (NTDs) 3. Rate of Down syndrome (DS) 4. Rate of congenital heart defects (CHDs) 5. Rate of orofacial clefts (OFCs) 6. Rate of musculoskeletal anomalies (MSKs)	▪ BORN ▪ DAD
Congenital infections	The proportion of new live-born infants identified as being infected in utero or during delivery by any specific viral or bacterial agent known to have the potential to cause morbidity or mortality in a fetus or infant per 10,000 live births. 1. Incidence of rubella, congenital syndrome 2. Incidence of cytomegalovirus (CMV) infection, congenital 3. Incidence of herpes, neonatal 4. Incidence of Group B Streptococcal disease, neonatal 5. Incidence of ophthalmia neonatorum (gonorrhea and chlamydia) 6. Incidence of congenital gonorrhea (other than conjunctivitis) 7. Incidence of congenital chlamydia (other than conjunctivitis) 8. Incidence of congenital syphilis	▪ iPHIS ▪ BORN ▪ DAD ▪ Vital statistics (live birth data)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Congenital infections *(continued)*	9. Incidence of congenital Human Immunodeficiency Virus (HIV) infection 10. Incidence of congenital Acquired Immunodeficiency Syndrome (AIDS) 11. Incidence of congenital chickenpox (varicella) 12. Incidence of reportable congenital infections, total	
Crude birth rate	Total number of live births per 1,000 population	▪ BORN ▪ Vital statistics (live birth data) ▪ DAD
Deft/DMFT index	The proportion of the number of teeth decayed, missing/extracted or filled because of decay to the total number of teeth examined among children at school entry (kindergarten).	▪ OHISS
Dependency ratios	Youth dependency ratio – number of youth aged zero to 19 years relative to the total number of people aged 20 to 64 years.	▪ Population estimates
	Total dependency ratio –number of youth zero to 19 years and people aged 65 years and older relative to the total number of people aged 20 to 64 years.	▪ Population estimates
Drinking and driving prevalence	Proportion of drivers, 16 years and over, that drove a motor vehicle after having two or more drinks in the hour before they drove in the past 12 months. 1. Prevalence of drinking and driving a motor vehicle among motor vehicle drivers: proportion of the population aged 16 and over who drove a motor vehicle one or more times in the past 12 months after having two or more drinks in the hour before they drove.	▪ CCHS ▪ RRFSS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Drinking and driving prevalence *(continued)*	Proportion of population, 12 years and over, that drove a recreational vehicle after having two or more drinks in the hour before they drove in the past 12 months. 1. Prevalence of drinking and driving a recreational vehicle among total population: proportion of the population aged 12 and over who drove a recreational vehicle one or more times in the past 12 months after having two or more drinks in the hour before they drove.	▪ CCHS ▪ *Similar information:* ▪ HBSC
Early-childhood tooth decay	The proportion of children at school entry (kindergarten) who have decayed, missing/extracted or filled teeth consistent with the pattern of ECTD to the total number of teeth examined among children.	▪ None
Ethnic/cultural origin	The proportion of the population that reports origins from a given ethnic or cultural group 1. Single response ethnic/cultural origin 2. Total ethnic/cultural origin	▪ CCHS ▪ GSS ▪ HBSC ▪ National Household Survey (NHS) ▪ RRFSS ▪ SYC ▪ YSS
Fall-related emergency department visits	Crude ED visits rate - the total number of emergency department (ED) visits (not scheduled) for unintentional fall-related injury relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS ▪ *Similar information:* ▪ CCHS
	Age-specific ED visit rates - the total number of emergency department visits for unintentional fall-related injury in a given age group per population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Fall-related emergency department visits *(continued)*	Age-standardized ED visit rate (SRATE) - the number of emergency department visits for unintentional fall-related injury per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ NACRS
	Standardized morbidity ratio (SMR) - the ratio of observed emergency department visits for unintentional fall-related injury to the number expected if the population had the same age-specific emergency department visits for unintentional fall-related injury rates as Ontario.	▪ NACRS
Fall-related hospitalizations	Crude hospitalization rate - the number of hospital admissions for unintentional fall-related injury relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-specific hospitalization rates - the number of hospital admissions for unintentional fall-related injury in a given age group per population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-standardized hospitalization rate (SRATE) - the number of hospitalizations for unintentional fall-related injury per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ NACRS
	Standardized morbidity ratio (SMR) - the ratio of observed hospitalizations for unintentional fall-related injury to the number expected if the population had the same age-specific hospitalization rates for unintentional falls as Ontario.	▪ NACRS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Fall-related mortality	Crude mortality rate - the total number of unintentional fall-related deaths relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-specific mortality rates - the total number of unintentional fall-related deaths in a given age group per population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-standardized mortality rate (SRATE) for unintentional fall-related injury - the number of unintentional fall-related deaths per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ Vital statistics (mortality)
	Standardized mortality ratio (SMR) - the ratio of observed unintentional fall-related deaths to the number expected if the population had the same age-specific mortality rates for unintentional falls as Ontario.	▪ Vital statistics (mortality)
Fertility rates	General fertility rate (GFR) - the ratio of the number of live births during a given period to the female population aged 15 to 49.	▪ BORN ▪ DAD ▪ Vital statistics (live birth data)
	Age-specific fertility rate - the ratio of the number of live births to females in a given age group during a given period relative to the female population in that age group. 1. Adolescent fertility rate or teen fertility rate: 15 to 19 2. Age-specific fertility rate: 10 to 14, 15 to 19, 20 to 24, 25 to 29, 30 to 34, 35 to 39, 40 to 44, 45 to 49, 50 to 55 (or 45+)	▪ BORN ▪ DAD ▪ Vital statistics (live birth data)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Fluorosis index	The percentage of the children at school entry who have dental fluorosis.	▪ OHISS
Frequency of condom use among those at risk for STDs	Proportion of population aged 15 to 59 having two or more sexual partners in the past 12 months while in relationships that lasted less than a year, by frequency of condom use (always, usually, occasionally, never).	▪ CCHS
Heavy drinking episodes	Proportion of the population with a heavy drinking episode on at least one occasion per month.	▪ APS ▪ Canadian Alcohol and Drug Use Monitoring Survey (CADUMS) ▪ CCHS ▪ HBSC ▪ National Population Health Survey (NPHS) ▪ OSDUHS
Home language	Per cent of the population that reports speaking a given language at home. 1. Single-response home language 2. English home language 3. French home language	▪ Census ▪ CCHS ▪ Canadian Tobacco Use Monitoring Survey (CTUMS) ▪ NHS ▪ RRFSS ▪ SYC

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Illicit drug use	The proportion of the population that used an illicit drug 1. Proportion of the population that have ever used or tried an illicit drug, including one-time use of cannabis 2. Proportion of the population that have ever used or tried an illicit drug, excluding one-time use of cannabis 3. Proportion of the population that have used an illicit drug in the past 12 months, including one-time use of cannabis 4. Proportion of the population that have used an illicit drug in the past 12 months, excluding one-time use of cannabis 5. Proportion of the population that have used or tried cannabis in the past 12 months, excluding one-time use 6. Proportion of the population that have used or tried cannabis in the past 12 months, including one-time use 7. Proportion of the population that have ever used or tried an illicit drug by (drug type): (cannabis [marijuana, hashish]; cocaine or crack, speed [amphetamines]; ecstasy [MDMA] or other similar drugs; hallucinogens [PCP or LSD (acid)]; heroin; steroids [e.g. testosterone, dianabol or growth hormones]; inhalants [e.g., sniffing or huffing of glue, gasoline, acetone or other solvents])	▪ CADUMS ▪ CCHS ▪ CTUMS ▪ HBSC
Immigrant population	The per cent of landed immigrants relative to the total non-institutional population. Recent immigrants are landed immigrants who have come to Canada in the last five, 10 or 15 years relative to the total non-institutional population. 1. Immigrant population 2. Recent immigrant population (five, 10 or 15 years)	▪ CCHS ▪ GSS ▪ HBSC ▪ NPHS
Infectious disease incidence	The incidence rate is the total number of new cases of infectious diseases relative to the total population (per 100,000) in a specified time period.	▪ iPHIS
	Age-specific incidence rates are the annual number of new cases of infectious diseases in a given age group per 100,000 population in that age group in a specified time period.	▪ iPHIS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Infectious disease incidence *(continued)*	Age-standardized incidence rate (SRATE): the number of new cases of infectious diseases that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ iPHIS
	Standardized incidence ratio (SIR): the ratio of observed new cases of infectious diseases to the number expected if the population had the same age-specific incidence rates as Ontario.	▪ iPHIS
Infectious disease mortality	The crude mortality rate is the total number of deaths each from infectious diseases relative to the total population (per 100,000) in a specified time period.	▪ iPHIS, Vital statistics (mortality data)
	Age-specific mortality rates for infectious diseases are the number of deaths in a given age group from infectious diseases per 100,000 population in that age group in a specified time period.	▪ iPHIS, Vital statistics (mortality data)
	Age-standardized mortality rates (SRATEs) for infectious diseases: the number of deaths from infectious diseases per the population that would occur if the population had the same age distribution as the 1991 adjusted Canadian population.	▪ iPHIS, Vital statistics (mortality data)
	Standardized mortality ratios (SMRs) for infectious diseases: the ratio of observed deaths of infectious diseases to the number expected if the population had the same age-specific death rates as Ontario.	▪ iPHIS, Vital statistics (mortality data)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Injury-related emergency department visits	Crude emergency department visits rate - the total number of emergency department visits (not scheduled) for selected causes of injury relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-specific emergency department visits rates - the total number of number of emergency department visits for selected causes of injury in a given age group per population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-standardized emergency department visits rate (SRATE) - the number of emergency department visits for injury per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ NACRS
	Standardized morbidity ratio (SMR) - the ratio of observed emergency department visits for injury to the number expected if the population had the same age-specific emergency department visit rates as Ontario.	▪ NACRS
Injury-related hospitalization	Crude hospitalization rate for injury - the number of hospitalizations for selected causes of injury relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS ▪ HBSC
	Age-specific hospitalization rates for injury - the number of hospitalizations for selected causes of injury in a given age group per population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-standardized hospitalization rate (SRATE) for injury - the number of hospitalizations for selected causes of injury per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ NACRS
	Standardized morbidity ratio (SMR) for injury - the ratio of observed hospitalizations for selected causes of injury to the number expected if the population had the same age-specific hospitalization rates as Ontario.	▪ NACRS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Injury-related mortality	Crude death rate for injury - the total number of deaths from selected causes of injury relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-specific mortality rates for injury - the annual number of deaths in a given age group from selected causes of injury per the population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-standardized mortality rates (SRATEs) for injury - the number of deaths from selected causes of injury per 100,000 population that would occur if the population had the same age distribution as the 1991 Canadian population.	▪ Vital statistics (mortality)
	Standardized mortality ratio (SMRs) for injury - the ratios of observed deaths for selected injuries to the number expected if the population had the same age-specific death rates as Ontario.	▪ Vital statistics (mortality)
Intentional self-harm-related hospitalization	The crude hospitalization rate - the total number of hospitalizations for intentional self-harm relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-specific hospitalization rates - the total number of hospitalizations for intentional self-harm in a given age group per population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	The age-standardized hospitalization rate (SRATE) - the number of hospitalizations for intentional self-harm per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ NACRS
	The standardized hospitalization ratio is the ratio of observed hospitalizations for intentional self-harm to the number expected if the population had the same age-specific hospitalization rates as Ontario.	▪ NACRS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Leisure-time physical activity	Proportion of the population, aged 12 and over, by level of energy expenditure during leisure-time physical activity. 1. Proportion of the population aged 12 and over who were active during leisure time 2. Proportion of the population aged 12 and over who were moderately active during leisure time 3. Proportion of the population aged 12 and over who were inactive during leisure time 4. Proportion of the population aged 12 and over who were active or moderately active during leisure time	▪ CCHS ▪ OSDUHS ▪ NPHS ▪ *Similar information:* ▪ HBSC
Minors' access to tobacco	Proportion of vendors willing to sell tobacco to minors during vendor compliance and enforcement checks. 1. Proportion of vendor compliance and enforcement checks that resulted in a sale of tobacco to a minor	▪ Tobacco vendor compliance ▪ *Similar information:* ▪ CCHS ▪ CTUMS ▪ YSS
Mother tongue	Per cent of the population that reports learning a given first language in childhood and still understands it at the time of the Census. 1. Single-response mother tongue 2. English mother tongue 3. French mother tongue (Francophone)	▪ Census ▪ HBHC-ISCIS ▪ NHS ▪ NPHS ▪ RRFSS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Motor vehicle traffic collision injuries	The rate of injuries resulting from motor vehicle collisions 1. Rate of minimal, major and fatal injuries: (total number of minimal, major or fatal injuries from MVTC/total population in community in which collisions occurred) x1,000 2. Rate of major injuries: (total number of minimal, major or fatal injuries from MVTC/total population in community in which collisions occurred) x1,000 3. Rate of fatal injuries: (total number of minimal, major or fatal injuries from MVTC/total population in community in which collisions occurred) x1,000	▪ Ministry of transportation collision database ▪ *Similar information:* ▪ OSDUHS ▪ CCHS
Multiple birthrate	Proportion of births following a multiple gestation pregnancy 1. Rate of multiple births 2. Rate of multiple live births	▪ DAD ▪ BORN ▪ HBHC-ISCIS ▪ SYC ▪ Vital statistics (live birth data)
Neonatal and infant mortality rate	The ratio of the number of deaths of live born infants during a calendar year per 1,000 live births in the same calendar year. 1. Neonatal mortality rate – ratio of number of deaths for live born infants 27 days or younger per 1,000 live births 2. Post-neonatal mortality rate – ratio of number of deaths for live born infants 28 – 364 days per 1,000 live births 3. Infant mortality rate (IMR) – ratio of number of deaths for live born infants 364 days or younger per 1,000 live births	▪ Vital statistics (mortality data)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Neurotrauma-related hospitalization	Crude hospitalization rate - the total number of hospital separations from neurotrauma relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-specific hospitalization rates - the total number of number of hospital separations from neurotrauma in a given age group per population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ NACRS
	Age-standardized hospitalization rate (SRATE) - the number of hospitalizations per 100,000 population that would occur in the population if it had the same age distribution as the 1991 Canadian population.	▪ NACRS
	Standardized morbidity ratio (SMR) - the ratio of observed hospitalizations from neurotrauma to the number expected if the population had the same age-specific hospitalization rates as Ontario.	▪ NACRS
Non-smoker second-hand smoke exposure	Proportion of non-smokers aged 12 years and over who were regularly exposed to tobacco smoke in their home, vehicle or in public places. 1. Proportion of non-smokers aged 12+ whereby someone smokes inside their home every day or almost every day 2. Proportion of non-smokers aged 12+ who were exposed to second-hand smoke in a car or other private vehicle every day or almost every day 3. Proportion of non-smokers aged 12+ who were exposed to second-hand smoke in public places every day or almost every day	▪ CCHS ▪ CTUMS ▪ NPHS ▪ RRFSS ▪ YSS
Number of sexual partners	Proportion of population aged 15 to 59 years according to the number of sexual partners they reported having in the past 12 months.	▪ CCHS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Pelvic inflammatory disease morbidity	The inpatient discharges rate for pelvic inflammatory disease (PID) is the total number of inpatient discharges from PID per 100,000 population of females >=15 years in a given time frame.	▪ DAD ▪ NACRS
	The PID day procedure rate is the total number of PID day procedures per 100,000 population of females >= 15 years in a given time frame.	▪ DAD ▪ NACRS
	The PID emergency department visit rate is the total number of PID emergency department visits per 100,000 population of females >= 15 years in a given time frame.	▪ DAD ▪ NACRS
	The PID medical services rate is the total number of PID medical services per 100,000 population of females >= 15 years in a given time frame.	▪ DAD ▪ NACRS
	Age-specific hospitalization rates are the number of 1. inpatient discharges 2. day procedures or 3. emergency department visits from PID in a given age group per 100,000 population of females in that age group in a given time frame.	▪ DAD ▪ NACRS
	Age-standardized hospitalization rates (SRATEs): the number of 1. inpatient discharges 2. day procedures or 3. emergency department visits from PID per 100,000 population that would occur if the population had the same age distribution as the 1991 Canadian population.	▪ DAD ▪ NACRS
	Standardized morbidity ratio (SMRs): the ratio of observed 1. inpatient discharges 2. day procedures or 3. emergency department visits from PID to the number expected if the population had the same age-specific hospitalization rates as Ontario.	▪ DAD ▪ NACRS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources	
Per cent who cannot speak English or French	Per cent of population who cannot speak English or French.	▪ Census ▪ CCHS	▪ SYC ▪ NHS
Perinatal mortality and stillbirths	Perinatal mortality: the total number of deaths of a fetus or infant between the end of the 20th week gestation and the end of the sixth day of life in a calendar year per 1,000 total births (live births and stillbirths) in the same calendar year.	▪ BORN ▪ DAD	▪ Vital statistics (mortality/live/still birth data)
	Crude stillbirth rate: the total number of stillbirths per 1,000 total births.	▪ BORN ▪ DAD	▪ Vital statistics (mortality/live/still birth data)
	Stillbirth rate ≥ 500 g: the total number of stillbirths ≥500 g per 1,000 total births.	▪ BORN ▪ DAD	▪ Vital statistics (mortality/live/still birth data)
Population by age and sex	Percentage of people in the population in a given age group and sex in a given year.	▪ All	
Population growth	Ratio of the difference between the population at the end of the period and the population at the beginning of the period relative to the population at the beginning of the period.	▪ Population estimates	
Pregnancy rate	The number of pregnancies per 1,000 females of reproductive age (15 to 49 years of age) or age-specific pregnancy rate by five-year age group. Pregnancies include live births, stillbirths (or deliveries) and therapeutic abortions. 1. Total pregnancy rate 2. Age-specific pregnancy rate: 10 to 14, 15 to 19, 20 to 24, 25 to 29, 30 to 34, 35 to 39, 40 to 44, 45 to 49, 50 to 55 3. Teen pregnancy rate or adolescent pregnancy rate: 15 to 19	▪ BORN ▪ DAD	▪ Vital statistics (mortality/live/still birth data)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Preterm birthrate	Proportion of live births with a gestational age at birth of less than 37 completed weeks.	▪ BORN ▪ DAD ▪ HBHC-ISCIS ▪ SYC ▪ Vital statistics (live birth data)
Projected population growth	Ratio of the difference between the projected population at the end of the period and the population at the beginning of the period relative to the population at the beginning of the period. Use for predicted future population growth.	▪ Population projections, Ontario Ministry of Finance
Screen time	Proportion of population, aged 12 and over, who are frequent television or video viewers during their leisure time 1. Prevalence of frequent leisure-time television or video viewing: proportion of the population aged 12+ that spend 15 or more hours per week watching television or videos during leisure time.	▪ CCHS ▪ OSDUHS ▪ SYC
	Proportion of population, aged 12 and over, who are frequent computer users during their leisure time. 1. Prevalence of frequent leisure-time computer use: proportion of the population aged 12+ that spend 11 or more hours per week on a computer during leisure time.	▪ CCHS ▪ HBSC ▪ OSDUHS ▪ SYC
	Proportion of population, aged 12 and over, who are frequent television or video viewers, computer users and video-game players during their leisure time. 1. Prevalence of frequent leisure-time television or video viewing, computer use and/or video-games playing: proportion of the population aged 12+ that spend 15 or more hours per week watching television or videos, using a computer and playing video games during leisure time.	▪ CCHS ▪ HBSC ▪ OSDUHS ▪ SYC

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Seatbelt use	Prevalence of seatbelt use among motor vehicle drivers: proportion of motor vehicle drivers, 16+ years, who "always" wear a seat belt when driving in the past 12 months.	▪ CCHS ▪ RRFSS ▪ *Similar information* ▪ NACRS
	Prevalence of seatbelt use among motor vehicle passengers: proportion of respondents who "always" wear a seatbelt when driven in a motor vehicle.	▪ CCHS ▪ RRFSS
Self-rated health	Proportion of the population that rate their own health as either excellent, very good, good, fair or poor. The scale is often dichotomized at the “good” level, with the indicator becoming the proportion of the population who either rate their health as “good or better” or as “fair or poor.” 1. Prevalence of good self-rated health (self-rated health = "Good," "Very Good" or "Excellent"). 2. Prevalence of fair or poor self-rated health (self-rated health = "Fair" or "Poor").	▪ CCHS ▪ GSS ▪ HBSC ▪ SYC
Self-reported injury	Proportion of the population (12+) that reported an injury in the past 12 months. In the past 12 months: 1. Proportion of the population that reported an injury. 2. Proportion of the population that reported an injury which required attention from a health professional. 3. Proportion of injuries that resulted in hospitalization. 4. Proportion of the population that reported a non-activity-limiting injury which required attention from a health professional. 5. Proportion of the population that reported any injury (activity-limiting or non-activity-limiting). 6. Proportion of self-reported injuries that resulted in an emergency department (ED) visit.	▪ CCHS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Self-reported injury *(continued)*	7. Proportion of self-reported injuries that resulted in hospitalization. 8. Proportion of injury-related ED visits that were due to fall-related injury. 9. Proportion of fall-related injuries that resulted in an ED visit. 10. Proportion of injury-related hospitalizations that were due to falls. 11. Proportion of fall-related injuries that resulted in hospitalization.	
Single-parent families	Proportion of Census families made up of one parent and one or more never-married sons and/or daughters relative to the total Census families with never-married sons and daughters living in the same dwelling. 1. Single-parent families with children 2. Male single-parent families with children 3. Female single-parent families with children	▪ APS ▪ Census ▪ HBHC-ISCIS ▪ Vital statistics (live birth data)
Smoke-free homes	Proportion of people aged 12 and over who resided in households where smokers were asked to refrain from smoking in the house. 1. Population residing in smoke-free homes: proportion of people aged 12+ living in households where smokers are asked to refrain from smoking in the house. 2. Population with children in their household residing in smoke-free homes: proportion of people aged 12+ living in households with children where smokers are asked to refrain from smoking in the house.	▪ CCHS ▪ CTUMS ▪ NPHS ▪ RRFSS ▪ YSS
	Proportion of households where smokers were asked to refrain from smoking in the house. 1. Smoke-free households: proportion of households where smokers are asked to refrain from smoking in the house 2. Smoke-free households with children: proportion of households with children where smokers are asked to refrain from smoking in the house.	▪ CCHS ▪ CTUMS ▪ NPHS ▪ RRFSS ▪ YSS

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources	
Smoking cessation	Proportion of current, daily or occasional smokers who plan on quitting in the next six months 1. Quit Intention: proportion of current, daily or occasional smokers aged 12 + who are seriously thinking of quitting smoking in the next six months.	▪ CCHS ▪ RRFSS	▪ *Similar information:* ▪ CTUMS
	Proportion of current, daily or occasional smokers who have tried to quit for at least 24 hours in the last 12 months 1. Quit attempts: proportion of current, daily or occasional smokers aged 12 + who have tried to quit for at least 24 hours in the last 12 months.	▪ *Similar information:* ▪ CCHS	▪ CTUMS ▪ RRFSS
Smoking during pregnancy	Proportion of pregnant women that smoked cigarettes during pregnancy. 1. The number of females who smoked cigarettes during pregnancy as a percentage of the total number of females who gave birth (live birth or stillbirth) in a given place and time.	▪ BORN ▪ CCHS ▪ CTUMS	
Smoking status	Proportion of people aged 12 to 19 (teen smoking rate) and aged 20 and older (adult smoking rate) that are current cigarette smokers. 1. Adult current smoking rate: proportion of people aged 20+ who are current (daily + occasional) cigarette smokers. 2. Teen smoking rate: proportion of people aged 12 to 19 who are currently (daily + occasional) cigarette smokers.	▪ APS ▪ CCHS ▪ CTUMS ▪ HBSC	▪ NPHS ▪ OSDUHS ▪ RRFSS ▪ YSS
	Proportion of adults that are daily cigarette smokers. 1. Adult daily smoking rate: proportion of people aged 20+ who are current daily cigarette smokers.	▪ N/A	
	Proportion of adults that are non-smokers but did smoke at one time (former smokers). 1. Proportion of people aged 20+ who smoked before but currently do not smoke.	▪ N/A	

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Smoking status *(continued)*	Proportion of people aged 12 to 19 (teens) and aged 20 and older (adults) that have completely abstained from smoking cigarettes in their lifetime. 1. Teen smoking abstinence rate: proportion of people aged 12 to 19 who have never smoked a whole cigarette in their life	▪ *Similar information* ▪ APS ▪ CCHS ▪ CTUMS ▪ HBSC ▪ NPHS ▪ OSDUHS ▪ RRFSS ▪ YSS
Suicide mortality	Crude death rate - the total number of deaths each from suicide relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-specific mortality rates - the annual number of deaths in a given age group from suicide per the population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-standardized mortality rates (SRATEs) - the number of deaths from suicide per 100,000 population that would occur if the population had the same age distribution as the 1991 Canadian population.	▪ Vital statistics (mortality)
	Standardized mortality ratios (SMRs) - the ratio of observed deaths from suicide to the number expected if the population had the same age-specific death rates as Ontario.	▪ Vital statistics (mortality)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Suicidal thoughts and attempts	Proportion of the population aged 15 and over that have seriously considered committing suicide or that have ever attempted to commit suicide 1. Proportion of the population (15+) that have ever considered committing suicide. 2. Proportion of the population (15+) that have considered committing suicide in past 12 months. 3. Proportion of the population (15+) that have ever attempted to commit suicide. 4. Proportion of the population (15+) that have attempted to commit suicide in the past 12 months	▪ CCHS ▪ OSDUHS
Suicide mortality	Crude death rate - the total number of deaths each from suicide relative to the total population during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-specific mortality rates - the annual number of deaths in a given age group from suicide per the population in that age group during a given year (fiscal or calendar) (usually expressed per 100,000).	▪ Vital statistics (mortality)
	Age-standardized mortality rates (SRATEs) - the number of deaths from suicide per 100,000 population that would occur if the population had the same age distribution as the 1991 Canadian population.	▪ Vital statistics (mortality)
	Standardized mortality ratios (SMRs) - the ratio of observed deaths for suicide to the number expected if the population had the same age-specific death rates as Ontario.	▪ Vital statistics (mortality)

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Ultraviolet radiation exposure	Proportion of population aged 18 years and over that report having sunburn in the past 12 months.	▪ RRFSS ▪ NPHS
	Proportion of population aged 18 years and over that practice sun safety. 1. Proportion of population avoiding sun during peak times: proportion of adults (18+) who always or often avoid the sun. 2. Proportion of population wearing sunglasses: proportion of adults (18+) who always or often wear sunglasses. 3. Proportion of population wearing protective clothing against the sun: proportion of adults (18+) who always or often wear protective clothing in the sun. 4. Proportion of population using sunscreen: proportion of adults (18+) who always or often report using sunscreen	▪ RRFSS
Underage alcohol drinking	Proportion of adolescents (age 12 to 18) that have consumed alcohol in the past 12 months.	▪ CCHS ▪ HBSC ▪ NPHS ▪ OSDUHS ▪ RRFSS
Urban and rural population	Urban population: per cent of population living in urban areas. An urban area is defined as having a minimum population of 1,000 and a population density of 400 people per square kilometre.	▪ Census
	Rural population: per cent of population living in rural areas. All territory outside urban areas is considered rural.	▪ Census

Table D1: APHEO Core Indicator definitions and (APHEO recommended and non-APHEO recommended) data sources for indicators relevant to child health in Ontario

Indicator title	APHEO Core Indicator definition(s)[3]	APHEO recommended and non-APHEO recommended data sources
Vegetable and fruit consumption	Proportion of the population, aged 12 and over, that have consumed vegetables and fruits five or more times daily.	▪ CCHS ▪ RRFSS ▪ *Similar information:* ▪ HBSC ▪ YSS
Youth sexual activity	Proportion of population aged 15 to 19 years who report ever having had sexual intercourse.	▪ CCHS ▪ HBSC

N/A = not applicable

Appendix E: Data source details

Table E1: Data sources used in this report: details and characteristics

Data source	Administrator	Focus	Target Population	Year(s) Conducted	Data Availability	Geographic availability	
						ON	PHU
Aboriginal Peoples Survey (APS)	Statistics Canada	Social and economic conditions of Aboriginal people in Canada	Age 6+, Aboriginal Population	1991, 2001, 2006, 2012 (every 5 years)	2006: aggregated available online, Public Use Microdata File (PUMF) available through Statistics Canada	Yes	Yes
Accident Data System (ADS)	Ontario Ministry of Transportation	Database of all reportable motor vehicle collisions	All ages	Continuous data from 1988	Aggregate data available online; raw data requests can be made through Ministry of Transportation	Yes	Yes
Better Outcomes Registry & Network (BORN) Ontario	BORN Ontario	Maternal-child health registry (integrates data from hospitals, labs, midwifery practice groups and clinical programs)	All births	Continuous data from mid-1990s	Data request can be made through website	Yes	Yes
Canadian Alcohol and Drug Use Monitoring Survey (CADUMS)	Health Canada	Data on the use of alcohol, drugs and other substances among Canadians	Age 15+, by gender	Annually since 2008	Aggregate data available online; PUMF is available through data license agreement	Yes	No

Table E1: Data sources used in this report: details and characteristics

Data source	Administrator	Focus	Target Population	Year(s) Conducted	Data Availability	Geographic availability	
						ON	PHU
Canadian Community Health Survey (CCHS) - Annual component	Statistics Canada	Cross-sectional data on health status, health care utilization and health determinants for the Canadian population	Age 12+, by gender	2001/02 to 2011 (yearly releases since 2007, every two years previous to that)	Share file available at PHO; aggregate available online; PUMF available through Statistics Canada	Yes	Yes
Canadian Tobacco Use Monitoring Survey (CTUMS)	Statistics Canada on behalf of Health Canada	Data on tobacco use and related issues with the primary objective of tracking changes in smoking patterns	Age 15+, by gender	Annually since 1999	Aggregate data available online; more details analysis provided by Tobacco Informatics Monitoring System (TIMS) (tims.otru.org); PUMF available through Statistics Canada	Yes	No
Census of Canada and National Household Survey (NHS)	Statistics Canada	Census enumerates the population and collects basic demographic characteristics; NHS captures social and economic information	All ages, by gender, ethnic groups, etc.	Every five years since 1971; most recent was 2011	Aggregate and some detailed data available online (NHS detailed data available in 2013); some data available through Intellihealth Ontario portal	Yes	Yes
Discharge Abstract Database (DAD)	Canadian Institute for Health Information (CIHI)	National database on all separations from acute care institutions (administrative, clinical and demographic information)	All ages, by gender	Annually since 1994, published every fiscal year	Available through Intellihealth Ontario portal (from 1996 on); data also available through CIHI by request	Yes	Yes

Table E1: Data sources used in this report: details and characteristics

Data source	Administrator	Focus	Target Population	Year(s) Conducted	Data Availability	Geographic availability	
						ON	PHU
Early Development Instrument (EDI)	Offord Centre for Child Studies	Population-based measure of early childhood development, specifically, readiness to learn in the school environment	All senior kindergarten students, by gender	2000 to current (ongoing)	Some aggregate data available online; data requests can be made through the Offord Centre	Yes	Yes
General Social Survey (GSS)	Statistics Canada	Cross-sectional data on social trends; active core topics are family, time use, personal risk/victimization caregiving and care receiving, and social identity	Ages 15+, by gender	Annually, since 1985 (2012: Caregiving and Care Receiving); survey cycle for each topic is generally five years	Aggregate data available online; PUMF available for all released cycles through Statistics Canada	Yes	No
Health Behaviour of School-Aged Children (HBSC)	Public Health Agency of Canada	School-based cross-national survey on health, well-being and health behaviours of young people; conducted in collaboration with the World Health Organization (WHO)	Ages 11, 13 and 15, by gender	1989 to 2010 (every four years)	Aggregate data available online; access through data request applications and agreements submitted to HBSC	Yes	No

Table E1: Data sources used in this report: details and characteristics

Data source	Administrator	Focus	Target Population	Year(s) Conducted	Data Availability	Geographic availability	
						ON	PHU
Immunization Records Information System (IRIS)	PHUs in Ontario	Immunization coverage for the following six diseases (diphtheria, tetanus, polio, measles, mumps and rubella) for which immunization is required, in addition to vaccines that are publicly funded	Limited ages, by gender	Continuous collection since 1982	PHUs have access to their own data	Yes	Yes
Integrated Public Health Information System (iPHIS)	Public Health Ontario (PHO)	Case information on all reportable communicable diseases for provincial and national surveillance, as well as adverse events following immunization, as described in the Health Protection and Promotion Act (HPPA)	All ages, by gender	Continuous collection since 2005 (with data from 1989)	Data available at PHO; also available through Intellihealth Ontario portal	Yes	Yes
Integrated Services for Children Information System (ISCIS) - Healthy Babies Healthy Children (HBHC)	Public Health Units, funding through Ontario Ministry of Child and Youth Services	Data collection, service co-ordination, monitoring and evaluation for HBHC program	All pregnant women, children aged zero to six and their families	Continuous collection since 1999	PHUs have access to only their own data; data-sharing agreements need to be arranged with individual PHUs	Yes	Yes

Table E1: Data sources used in this report: details and characteristics

Data source	Administrator	Focus	Target Population	Year(s) Conducted	Data Availability	Geographic availability	
						ON	PHU
National Ambulatory Care Reporting System (NACRS)	Canadian Institute for Health Information (CIHI)	National database on all hospital-based and community-based emergency and ambulatory care, including administrative, clinical, financial and demographic information	All ages, by gender	Annually, every fiscal year since 2001/02 (2011-12 most recent), (complete data starts in 2004/05)	Available through Intellihealth Ontario portal; data available through CIHI by request	Yes	Yes
Ontario Cancer Registry (OCR)	Cancer Care Ontario	Administrative, clinical and demographic information on all Ontario residents who have been newly diagnosed with cancer or who have died from cancer	All ages, by gender	1964 to 2012 (continuous collection)	Aggregate data available online. Requests for data may be made through Cancer Care Ontario	Yes	Yes
Ontario Student Drug Use and Health Survey (OSDUHS)	Centre for Addiction and Mental Health	School-based population survey of Ontario students to collect information on student drug use, mental health, physical activity and risk behaviour, as well as identifying risk and protective factors	Grades 7 to 12, by gender	1977 to 2011 (every two years)	Aggregate data available online; public health units can purchase oversamples of students to assess student health in their region	Yes	Yes*

Table E1: Data sources used in this report: details and characteristics

Data source	Administrator	Focus	Target Population	Year(s) Conducted	Data Availability	Geographic availability	
						ON	PHU
Oral Health Information Support System (OHISS)	PHUs in Ontario	Captures oral health assessment, treatment and surveillance practices as specified in the Ontario Public Health Standards (includes Children in Need of Treatment (CINOT), Healthy Smiles and Screening module)	17 years and under (screening targeting students junior kindergarten (JK) to grade 8)	Continuous collection since 2008	Access limited to public health units	Yes	Yes
Population Estimates	Statistics Canada, Ontario Ministry of Finance	Ontario population estimates by single year based on Census counts	All ages, by gender	Annually since 1986	Available through Intellihealth Ontario portal and Ministry of Finance website	Yes	Yes
Population Projections	Ontario Ministry of Finance	Projections of the Ontario population as of July 1 for each year, based on latest population estimates and are projected for 30 years	All ages, by gender	Projections done after each Census and then updated annually	Available through Intellihealth Ontario portal and Ministry of Finance website	Yes	No
Rapid Risk Factor Surveillance System (RRFSS)	PHUs that participate, Institute for Social Research (ISR) at York University	Ongoing telephone survey for the collection of surveillance data and information on emerging issues of importance to public health in Ontario	Age 18+, by gender	Ongoing since 1999	PHUs make their own data available; access to data through external data requests/sharing agreements	Yes	Yes*

Table E1: Data sources used in this report: details and characteristics

Data source	Administrator	Focus	Target Population	Year(s) Conducted	Data Availability	Geographic availability	
						ON	PHU
Survey of Young Canadians (SYC)	Statistics Canada	Nationally representative data on child development (prevalence of risk and protective factors, cognitive, emotional and behavioural development, and the child's growth environment)	Age one to nine, by gender	Occasionally, 2010-2011 (first survey)	Available by custom tabulations on a cost recovery basis through Statistics Canada	Yes‡	No
Vital Statistics	Statistics Canada	Registry of all births (live births and stillbirths) and deaths of individuals within Canada	All ages, by gender	Annually since 1986 (data are usually two or three years behind the current year)	Aggregate data available online; available through Intellihealth Ontario portal	Yes	Yes
Youth Smoking Survey (YSS)	Propel Centre for Population Health Impact	School-based survey on student's tobacco, alcohol and drug use, including prevalence, student's perceptions and related health behaviours	Grades 6 to 12, by gender	Since 1994, conducted every two years since 2002 (2010-11 most recent)	Aggregate data available online; more details analysis provided by TIMS (tims.otru.org); PUMF available through Statistics Canada for 2002	Yes	No
Tobacco Vendor Compliance Data/Tobacco Inspection system	Public Health Units, Ministry of Health and Long-Term Care (MOHLTC)	Record of every tobacco vendor inspection	Not applicable	2007 to 2012	PHUs and MOHLTC have access to this data	Yes	Yes

NOTE: PHU=public health unit *not all PHUs, only those participating

‡only available for part of the sample (data on one- to five-years-olds is available at the Ontario level, but six- to nine-year-olds is only available nationally)

Appendix F: Expert consultations

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Breastfeeding			
Intention rate	Proportion of mothers who express an intent to breastfeed their infant.	None found	Some experts feel that this indicator is not as important as other concepts, in part because intention and initiation are highly linked.
Initiation	Proportion of mothers [age] who breastfed their last baby (born within the last five years).*	Canadian Community Health Survey (CCHS), Rapid Risk Factor Surveillance System (RRFSS)	Most experts agree that this definition would benefit from a clearer conceptualization of what counts as initiation. Several organizations have been working on this. ▪ One alternative is to measure breastfeeding at hospital discharge (this is currently available from BORN).
Duration	Proportion of mothers [age] who breastfed their last baby (born within the last five years) for a duration of four/six/12 months or more.*	CCHS, RRFSS, Survey of Young Canadians	Experts agree that this is an important indicator, but there is a lack of consensus from experts on the idea cut points. Suggestions include: ▪ four months, six months, 12 months ▪ four weeks, three months, six months ▪ four weeks, three months, six months, 12 months Those that suggest four weeks feel that it is important for capturing early weaning and supply-related issues.

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Exclusivity	Proportion of mothers [age] who exclusively breastfed their last baby (born within the last five years) for a duration of four/six months or more.*	CCHS, RRFSS, SYC	Experts agree that this is an important indicator for measuring breastfeeding; in fact, several experts expressed that this is most important. Some experts feel that a clearer definition of exclusivity is needed (e.g., what is the impact of water supplementation?). Again, there is a lack of consensus on ideal cut points.
Attitudes	Per cent of adults [age] who think it is acceptable for a mother to breastfeed her baby while in a restaurant/ shopping mall.	RRFSS	Some experts feel this was among the most important concepts for measuring breastfeeding; others feel it is less important. Some experts suggest looking specifically at expectant mothers' or physicians' attitudes instead of the general population.
Exposure to ultraviolet radiation			
Engagement in artificial tanning	Proportion reporting they use a tanning bed: Several times per week Once a week At least once a week Never	Slight varied cut points available from RRFSS	Some experts feel that this should be a top priority for youth, but it is not clear whether it has been tested specifically in youth. Anecdotally: ▪ It has good face validity, although it would be better to specify "indoor tanning equipment" instead of tanning beds, since there are different types of indoor tanning equipment (e.g., tanning booths). ▪ The cut point is probably not best for youth; it would probably be better to ask how many times in a specified period.

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Exposure to UV radiation	Proportion: Who have had a sunburn in the past 12 months Avoiding sun during peak times (11 a.m.-4 p.m.) Wearing sunglasses Wearing protective clothing against the sun Using sunscreen*	RRFSS	Again, experts were unsure of whether this indicator has been tested specifically in children and youth. ▪ One expert was concerned about whether people, in particular children and parents, can provide an accurate description of how much time they spent in the sun during a particular time of day (time of year – i.e., summer – is also important). ▪ Another expert suggested that the standard definition of "peak times" may change as it is being assessed in the field.
Use of sunscreen	Proportion of population using sunscreen*	RRFSS	Experts agree that this is important. The definition should specify sun protection factor (SPF).
Sunburn in the past 12 months	Proportion of population that report having sunburn in the past 12 months*	RRFSS, National Population Health Survey (NPHS)	Experts agree that this is important. The definition should include a standard definition of sunburn (e.g., redness that lasts at least 24 hours).
Growth and development			
Access to a physician	Proportion of the population who report they have a regular medical doctor*	CCHS	Experts feel that this indicator is reliable and easy to collect, but it is sensitive to many things without being specific to anything. At a minimum, in addition to knowing if they have a doctor, it is important to know if they have *seen* their doctor.
Achievement of developmental milestones	Proportion of children who were: developmentally delayed, cognitively delayed	No data source found	Some experts feel that the definition listed here is insufficient; an ideal definition would capture milestone broadly across four domains: ▪ Cognitive (thinking, reasoning, problem solving)

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Achievement of developmental milestones *(continued)*	Proportion of children who were: developmentally delayed, cognitively delayed *(continued)*		▪ Language (acquisition in early years, problems in later years) ▪ Motor (gross and fine) ▪ Socio-emotional (interaction with parents, peers, ability to soothe, acting out, etc.)
Well-baby visit (18 months)	No definition found	No data source found	This is an emerging indicator that is still being validated. One expert feels that a binary indicator would be a bare minimum; the assessment of developmental milestones would be valuable if it could be accessed.
Physical literacy	No definition found	No data source found	Some experts feel that this is not a well-known indicator. A clear definition is necessary to ensure everyone understands.
School readiness	Proportion of children at risk for readiness to learn for school in the following domains: Physical health and well-being Social competence Emotional maturity Language and cognitive development Communication skills and general knowledge	Early Development Index (EDI)	This was described as a highly valid and reliable indicator by the consulted experts. They also feel it is highly relevant because it provides a good summary of growth and development in the early years.

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Healthy eating			
Family meals	Proportion of students who report that their family sits down to dinner together five or more times per week.	HBSC, SYC	Experts believe that consensus has not yet been reached regarding the validity and reliability of this indicator in the field. In particular, optimal cut points have not been established. ▪ It may be better to measure any family meal instead of dinner ▪ "Family" should be defined more clearly ▪ Should consider other behaviours occurring during family meals (e.g., watching TV)
Food label reading	No definition found	No data source found	Some experts question whether this indicator is among the most important for measuring healthy eating in children. It is unlikely to apply to infants or children.
Food (in)security	Proportion of households that were food insecure in the past 12 months due to lack of money.*	APS, CCHS, NPHS, RRFSS	Most experts agree that this measure is valid and reliable. It is commonly used. However, one expert pointed out that food insecurity may be less relevant to children than adults because parents often absorb the burden. Also, it is important to look specifically at food insecurity in families with children.

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Food skills	No definition found	No data source found	Experts disagree on whether this is among the most important indicators for measuring healthy eating in children. In particular, some experts wonder if food skills are important in infants and children.
Vegetable and fruit consumption	Proportion of the population that have consumed vegetables and fruits five or more times daily.*	CCHS, RRFSS	Although it is commonly used, there was disagreement on whether this definition is valid and reliable for children. ▪ Some believe it is the best indicator among those that are commonly available. ▪ Others feel it is used a default indicator even though it has not been adequately assessed in this age group. There was also disagreement on the optimal cut point. ▪ Some feel that "times per day" is the preferable measure; others feel "servings per day" is better. ▪ Most experts feel that using "five" as a cut point is not perfect but it is okay.
Healthy family dynamics			
Attachment to parents	No definition found.	No data source found	Experts suggest that there are various attachment scales available, but there is disagreement in the field about which one is best.

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Child and parent engagement in schools	Per cent responding "agree" or "strongly agree' to the following statements: I feel close to people at my school I feel I am part of my school I am happy to be at my school I feel the teachers at my school treat me fairly I feel safe in my school	YSS, HBSC (partial)	Experts agree that this is an important indicator for child and youth health, but some felt that this was not necessarily an important concept for measuring healthy family dynamics. If it is included, the concept and definition should be refined. ▪ In particular, it should be clearer whether feeling close to "people" at school is referring to teachers, peers or others.
Family violence	Proportion of children who had witnessed some type of physical violence in the home	SYC	Experts feel that this definition is insufficient. An ideal definition should include physical abuse, emotional abuse, sexual abuse neglect and witnessing intimate partner violence.
Involvement with the Children's Aid Society/foster care	Proportion who reported that they or their family had ever been involved with any Children's Aid Society as clients.	OSDUHS	Some feel that this definition should be expanded to include the type of care (e.g., kinship care, foster care) and the duration (e.g., permanent, temporary).
Parental employment/ housing	Proportion whose mother/father is unemployed.	APS, SYC (partial)	Experts acknowledged that indicators of socioeconomic status are important, but they were unsure of whether it belongs in healthy family dynamics in particular. Socioeconomic status cuts across aspects of child health. An indicator that captures some aspect of income should be prioritized over employment or housing.

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Healthy weights			
Body mass index for age	Proportion "overweight or obese" according to the age-and-sex-specific body mass index (BMI) cutoff points as defined by [Cole et al. or WHO Growth Standards] using self-reported height and weight.*	APS, CCHS, HBSC, NPHS, OSDUHS, RRFSS, SYC	Experts expressed concerns about the validity and reliability of this indicator. They felt that self- or parent-reported height and weight led to inaccurate estimates of overweight and obesity in the population. The experts agree that objective measures are preferable, but there may be unintended negative consequences. ▪ Some feel these unintended consequences cannot be mitigated, at least not in a school setting. ▪ Others feel these consequences can be mitigated with sensitive, private measurement. ▪ Most experts suggested that gaining access to weight and height information collected by health care practitioners during routine physical exams would be an ideal solution. Other comments were made related to this indicator: ▪ One expert felt that BMI measures should be tied to an indicator of how kids are feeling and behaving (see weight concern indicator). ▪ One expert suggested that other indicators such as waist circumference should be considered. ▪ All experts agreed that the World Health Organization cut points should be used (others being phased out).

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Weight concern	Proportion of students who felt they were: too thin, too fat, about the right size.	HBSC, OSDUHS	Most experts feel that this is a reasonable indicator. One expert suggested that it is most relevant when paired with BMI to see if they are concordant.
Birth weight	Low birth weight rate (LBW): proportion of live births that are less than 2500 g.*	BORN, DAD, HBHC-ISCIS, SYC	Experts agree that this is a valid and reliable measure, both when objectively measured and parent-/self-reported. But, experts do not agree on whether it is among the most important indicators for measuring healthy weights in children.
Psychosocial factors, including weight-based teasing	None found	None found	Experts could not comment on this indicator because it is not clear what it is trying to measure.
Positive parenting			
Interaction	Proportion of parents who report positive parent-child interactions at least once daily: Laugh with child Praise child Talk to/play with child Do something special with child Play sports/hobbies/games with child	RRFSS	Most experts feel this definition has good face validity. However, they noted that there are several well-tested scales to measure this concept that should be explored.

Table F1: Summary of expert consultation interviews in priority areas

Indicator title	Sample definition used in existing population health status reports	Sample data sources	Expert comments
Parental alcohol or drug addiction	Proportion reporting that one of their parents drank or used drugs so often that it caused problems for the family	CCHS	Some experts were concerned about the inclusion of this indicator. They felt that, although parental addiction is a barrier to positive parenting, this indicator does not deal with the concept of parenting directly.
Parental mental health	Proportion of parents who report mental illness (schizophrenia, bipolar disorder, postpartum mood disorder, psychosis, mentally challenged).	HBHC-ISCIS	Some experts were also concerned about the inclusion of this indicator. Again, they felt that this indicator does not deal with the concept of parenting directly. The inclusion of this indicator could increase stigma.
Positive family dynamics	Proportion who report having a happy home life.	HBSC	Experts feel that this definition is too vague to assess. There may be tested scales available to measure this concept.
Reading to child	Proportion of children who had an adult read to them or an adult listened to the child read daily.	SYC	This is an important indicator; reading habits are a good proxy for healthy development and other concepts. There was agreement that this definition is reasonably valid and reliable.

*APHEO Core Indicator

List of acronyms

ADS - Accident Data System
AEFI - Adverse Events Following Immunization
AIDS - Acquired Immunodeficiency Syndrome
APHEO - Association of Public Health Epidemiologists in Ontario
APS - Aboriginal Peoples Survey
BBI - Blood-Borne Infections
BMI - Body Mass Index
BORN - Better Outcomes Registry & Network
CA - Congenital Anomalies
CAMH - Centre for Addiction and Mental Health
CADUMS - Canadian Alcohol and Drug Use Monitoring Survey
CCHS - Canadian Community Health Survey
CHD - Congenital Heart Defects
CHILD - Child Health Indicators of Life and Development
CIHI - Canadian Institute for Health Information
CINOT - Children in Need of Treatment
CLASP - Coalitions Linking Action & Science for Prevention
COPD - Chronic Obstructive Pulmonary Disease
CTUMS - Canadian Tobacco Use Monitoring Survey
CMV - Cytomegalovirus
DAD - Discharge Abstract Database
DMFT - Decayed, Missing and Filled Teeth
DS - Down Syndrome
ED - Emergency Department
EDI - Early Development Instrument
EQAO - Education Quality and Accountability Office
GFR - General Fertility Rate
GSS - General Social Survey
HBHC - Healthy Babies Healthy Children
HBHC-ISCIS - Healthy Babies Healthy Children-Integrated Services for Children Information System
HBSC - Health Behaviour of School-Aged Children
HIV - Human Immunodeficiency Virus
HPPA - Health Protection and Promotion Act
IMR - Infant Mortality Rate
iPHIS - Integrated Public Health Information System
IRIS - Immunization Records Information System
ISR - Institute for Social Research
JK - Junior Kindergarten
LBW - Low Birth Weight Rate
LSD - Lysergic Acid Diethylamide
MCYS - Ministry of Children and Youth Services
MDMA - 3,4-Methylenedioxymethamphetamine (Ecstasy)
MOHLTC - Ministry of Health & Long-Term Care
MSKs - Musculoskeletal Anomalies
MVTC - Motor Vehicle Traffic Collisions
NACRS - National Ambulatory Care Reporting System
NHS - National Household Survey
NPHS - National Population Health Survey
NTDs - Neural Tube Defects
OFCs - Orofacial Clefts
OCR - Ontario Cancer Registry

List of acronyms continued

OHISS - Oral Health Information Support System
OPHS - Ontario Public Health Standards
OPHEA - Ontario Physical and Health Education Association
OSDUHS - Ontario Student Drug Use and Health Survey
PCP - Phencyclidine
PHO - Public Health Ontario
PHUs - Public Health Units
PUMF - Public Use Microdata File
RRFSS - Rapid Risk Factor Surveillance System
SAC - Stakeholder Advisory Committee
SHAPES - The School Health Action, Planning and Evaluation System
SIR - Standardized Incidence Ratio
SMR - Standardized Mortality/Morbidity Ratio
SRATE - Age-Standardized Rate (i.e., ED Visit, Mortality, Hospitalization, Incidence)
SPF - Sun Protection Factor
SRP - Scientific Review Panel
STDs - Sexually Transmitted Diseases
STI - Sexually Transmitted Infection
SYC - Survey of Young Canadians
TARGet Kids! - Toronto Area Research Group for Kids
TB - Tuberculosis
TIMS - Tobacco Information Monitoring System
TOPHC - The Ontario Public Health Convention
UV - Ultraviolet
VPD - Vaccine-Preventable Diseases
WHO - World Health Organization
YSS - Youth Smoking Survey

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