

Health

► Children born healthy

8. Healthy birth weight

The singleton Low Birth Weight (LBW) rate refers to the percentage of births weighing less than 2,500 grams among singleton live births. The total Low Birth Weight rate refers to the percentage of births weighing less than 2,500 grams among total live births. The total LBW rate includes multiple births.

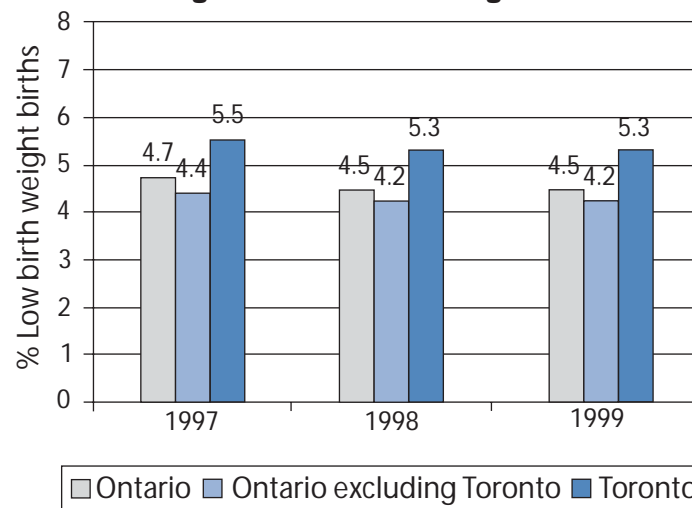
Importance

Low birth weight (LBW) babies, i.e., babies with a birth weight less than 2,500 grams, are more likely to die in infancy, experience health or developmental problems, and require a disproportionate amount of health care and other services.

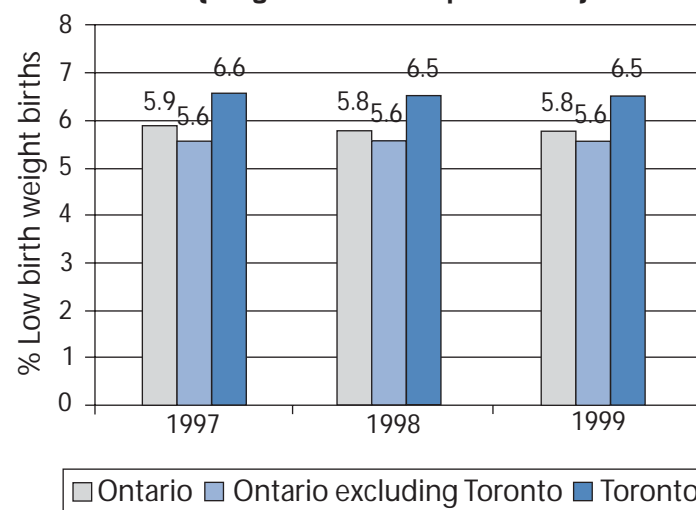
Status/trends

From 1997-1999, the rate of LBW among total live births and singleton live births was consistently higher in Toronto than the rest of Ontario. Multiple births account for approximately 20% of LBW births in Toronto. The singleton LBW rate in Toronto is higher in the lowest-income areas compared to the highest-income areas. The singleton LBW rates in Toronto are highest at the extremes of maternal age. In 1999, Toronto adolescents aged 19 and under had the highest rate of singleton LBW (7.7%) babies when compared to women in other age groups. The singleton LBW rate in Toronto, from 1997-1999 combined, varied according to mother's place of birth. Further study is required to understand this variation.

Singleton low birth weight rates



Total low birth weight rates (Singleton & multiple births)



Data Source: Vital Statistics Data, Ontario Live Birth Database, HELPS, Public Health Branch, Ontario MOHLTC. Prepared by Health Information and Planning, Toronto Public Health.

Data limitations

1999 data is the most recent available for the time of data analysis. Live birth, fertility, teen birth and LBW counts and rates are likely to be underestimated for Toronto and Ontario resulting from the exclusion of unregistered births from the Ontario live birth data. The underestimate is greater in 1997 when the proportion of unregistered births increased to 3.2% in Toronto. In 1997, the percentage of unregistered births in Toronto was higher among teen mothers (9.7%) and LBW births (4.8%). The proportion of unregistered births in Toronto in 1998 and 1999 has not been reported.

Key issues

There are many inter-related factors related to LBW (e.g., genetic factors, previous history of a preterm or LBW birth, maternal age, low socioeconomic status, maternal malnutrition, chronic stress, and tobacco use/environmental tobacco smoke exposure). Some factors are modifiable (e.g., smoking) and some are non-modifiable (e.g., genetic), thus LBW is not entirely preventable. However, even a small reduction in the rate of LBW can result in significant health benefits at the population level and significant savings to the health care system.



Services, supports and initiatives

In addressing the complex issue of LBW, strategies, approaches and interventions are needed to reach the general population of people of reproductive age who may become pregnant in the future, all pregnant women, as well as groups of women with high rates of LBW.

Toronto Public Health (TPH) in collaboration with others, provides programming directed towards the entire community regarding healthy lifestyle behaviours.

Toronto Public Health has also identified four priority risk populations: adolescents, women of low socio-economic status (SES) who may be experiencing chronic stress, smokers, and women who are undernourished. TPH offers a range of services for at-risk women in geographic areas with high rates of LBW and its contributing factors.

The Canada Prenatal Nutrition Program (CPNP)

CPNP is a comprehensive community-based program that supports pregnant women who face conditions of risk that threaten their health and the development of their babies. Through CPNP, TPH works collaboratively with over 50 community agencies and Health Canada to provide ongoing weekly prenatal and early parenting support programming, which includes food and nutritional supplementation, education, counselling and other supports to at-risk pregnant women. In 2002, programs were provided in 38 sites, reaching 5,641 women.

Healthiest Babies Possible (HBP)

The HBP program provides one-to-one nutrition education and counselling, prenatal vitamins, and food coupons to pregnant women at community sites across the city. The program is delivered by TPH dietitians, in cooperation with Public Health Nurses and Family Home Visitors from the Healthy Babies, Healthy Children Program.

Support for At-Risk Homeless Pregnant & Parenting Women Project

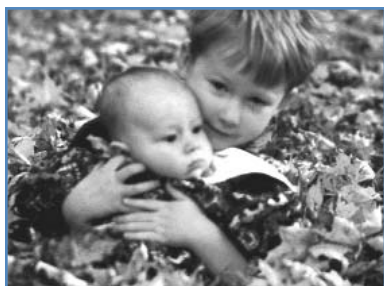
An Ontario Early Child Development grant has provided some funding for this project, which provides support to homeless pregnant and parenting youth. In collaboration with shelters and youth-serving agencies, two public health nurses provide intensive one-to-one services, sustained outreach and service co-ordination to homeless young women who are pregnant. Development of a specialized network of service providers and partner agencies has supported fast tracking of high-risk pregnant women to obstetrical, mental health and medical services. Another project initiative focuses on enhancing food security for the youth through activities that increase their access to food and support the development of food preparation skills. As of October 2003, approximately 120 homeless pregnant women had been reached through this project.

Future plans

TPH is developing a plan for early case finding as well as one-to-one services for adolescents who are not homeless and underhoused. As well, TPH is planning to collaborate with other partners to develop an effective smoking cessation and relapse prevention program for pregnant women, their partners and families. It is hoped that a training component for health professionals will be included in this initiative.

Objectives/benchmarks

The provincial objective is to reduce the LBW rate to 4% of all births by the year 2010.

► **Children stay healthy****9. Healthy eating and nutrition**

The lack of population level data regarding healthy eating and food security, for children from birth to six years of age and their families, is a data gap. However, children, aged 2-5 years should consume the recommended number of servings from the four food groups and select a variety of foods from each food group every day as recommended by Health Canada.

In addition, families with children, from birth to six years of age should have access to affordable, acceptable, nutritious, safe, and culturally appropriate food on a regular basis.

Importance

Nutrition is an important factor for growth and development of children. Research provides compelling evidence that under-nutrition during any period of childhood can have detrimental effects on cognitive and behavioural development in children, and can decrease their productivity in later life. Resulting impairments could have life-long effects that restrict educational and employment opportunities in the future. Other consequences of under-nutrition are poor weight gain, anorexia, mal-absorption and irritability.

Two of the most common nutrition-related problems in children, especially from low-income families, are iron deficiency and childhood obesity.

Iron deficiency anemia is a leading cause of developmental delays in young children. Both the severity and length of iron deficiency anemia appear to determine whether these delays are reversible or not.

The prevalence of childhood obesity is increasing in Canadian children. Childhood obesity can cause emotional distress and subsequent loss of self-esteem that may lead to poor self-image and delayed psychosocial development. Childhood obesity is a significant public health problem and may lead to adult obesity and other health consequences, including diabetes, heart disease and cancer. The Ontario Nutrition and Cancer Prevention Survey (2003) reported that 48% of Ontario adults were above a healthy body weight and that weight increases with age.

Status/trends

Population level data on the nutritional status of children, from birth to six years of age, is not available. As well, population level Toronto data on household food security for families with children, from birth to six years of age, is not available.

Key issues

Environmental issues such as immigration, change in lifestyle, poverty, access to culturally appropriate food, food purchasing and preparation skills also influence the child's nutrition.

Parents face many challenges in feeding their families. These include:

- lack of adequate information about traditional and cultural foods, healthy eating habits and good nutrition practices
- limited skill in navigating through large supermarkets, understanding labels and selecting foods that contribute to a healthy diet
- lack of support in the transition to solid foods, and skill in preparing appropriate food for toddlers and preschoolers
- insufficient income to purchase nutritious food, and lack of information and support in budgeting and preparing affordable food.

Services, supports and initiatives

Peer Nutrition is a Toronto Public Health program offered to parents and caregivers of young children with a focus on diverse ethnic/cultural communities that are often missed by traditional nutrition programs. The goal of the program is to enhance the nutritional status of children aged six months to six years. This hands-on program provides parents with information in 27 different languages on the importance of child and family nutrition for healthy growth and development. It teaches a number of skills including budgeting, meal planning, nutritious food selection and food preparation. Parents are encouraged to participate in self-help food security initiatives such as community gardening. In 2001, 21% of the participants attending the Peer Nutrition program reported that they sometimes go without food.

Free child care and snacks are provided at all Peer Nutrition program sites, and child care workers are trained to prepare healthy snacks and to facilitate age-appropriate nutrition activities for children aged 2-5 years.



The Toronto Public Health Early Child Development (ECD) Nutrition Project has played a key role in planning, developing and implementing activities that respond to some of the current nutrition issues faced by children (birth to six years) and their parents/caregivers. Collaboration with a number of community partners has supported the project activities which include:

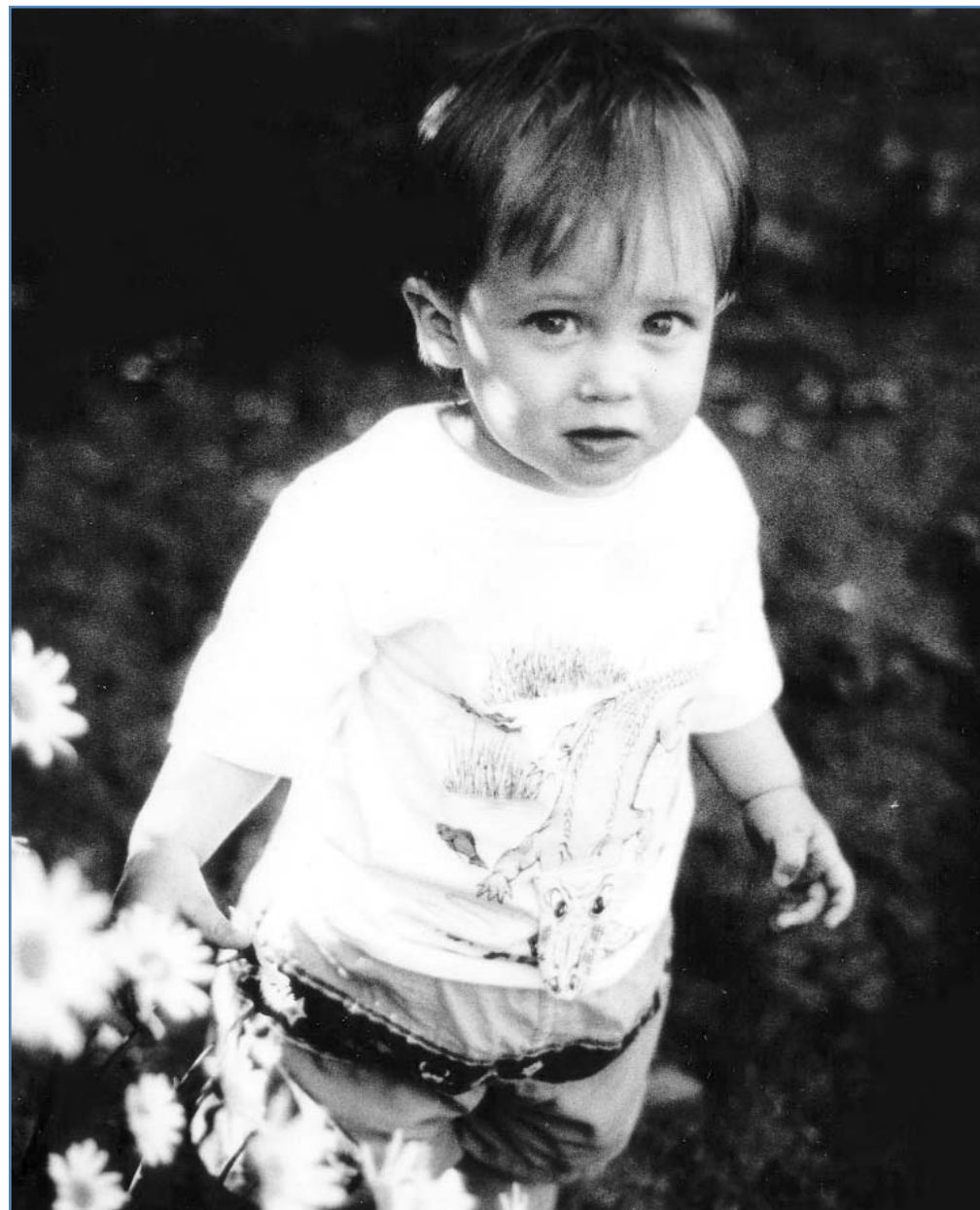
- support to service providers and parents/caregivers in promoting healthy eating for children – a healthy eating tool kit for use in children’s gardens was developed and a feeding relationship print resource is currently being written
- childhood obesity prevention is integrated into a health communication campaign as well as an educational component for health and social service providers. Iron deficiency and early childhood tooth decay will be additional topics of education
- to enhance food security, linkages were established with the Peer Nutrition Program, to provide additional vegetables and fruit for participants of a drop-in program, and the ECD At-Risk Pregnancy Project, to support skill development and increased access to food for homeless pregnant and parenting women.

10. Dental and oral health

- it is estimated that 9.6% of children five years old have early childhood tooth decay (ECTD)
- it is estimated that 10.8% of children five years old have two or more untreated cavities.

For children five years and younger, having two or more cavities means that they fit the case definition for ECTD. Therefore, there is some overlap in these two indicators for these children.

Source: Clinical surveys of children in preschool and kindergarten (latest data from the 2000 sample survey of school children- Leake, Goettler, Stahl-Quinlan, Stewart)



Importance

Early childhood tooth decay is a severe form of dental caries affecting children five years and younger. The teeth that are mostly affected are the front teeth. It is associated with the following risk factors:

- exposure of the child's teeth to sugars - determined by the:
 - 1) amount of sugar per exposure
 - 2) number of exposures per day
 - 3) length of time that the child's teeth are exposed.

If not treated, the disease dissolves the enamel or outer layer of the tooth resulting in a cavity on the tooth. This then leads to infection of the nerve of the tooth. Once the nerve of the tooth is infected there is the danger that the bone, the tissues around the tooth and the facial tissues could become infected. Infections of the bone and tissues can be life-threatening.

If not treated in the early stages of the disease, ECTD becomes painful for the child. This causes difficulty in eating, problems in sleeping and socializing leading to failure to thrive and difficulty learning.



To restore these children to health requires dental treatment. Very young children with many teeth affected by ECTD require hospitalization for treatment under general anaesthesia by a dental specialist. This is very costly both in terms of the health of the child and to the health care system.

Children with two or more untreated decayed teeth represent those with a combination of both susceptibility to dental decay and a lack of timely care. While other indicators can provide more precise measures this indicator shows both disease levels and the effectiveness of the care delivery system.

Status/trends

The findings of the 2000 Leake et al. study are shown below:

Percent distribution of ECTD* among five-year-old participants in the Toronto DIS 2000 survey by Region-weighted results

	Region				Total
	North	South	East	West	
(n)	(674)	(644)	(933)	(934)	(3,185)
*Percent with one or more teeth affected	9.1%	11.5%	10.7%	7.5%	9.6%

The above sample of five-year-old children indicates that 9.6% had one or more teeth affected by ECTD. ECTD is known to increase in prevalence with increasing age. This is because the severity of ECTD is influenced by the length of time a child is exposed to the various risk factors. The rate of ECTD among preschoolers is thought to be approximately 6-8% or about 9,200 children.

From the Toronto District Health Council (2002), Toronto Local Health System Monitoring Report, the prevalence of children with two or more untreated cavities is:

	1994	2000
Age 5	10.5%	10.8%
Age 7	11.6%	7.0%
Age 13	4.5%	2.0%

Overall, these figures show a slight trend in improvement, especially among the older children.

Key issues

Early childhood tooth decay is the result of many factors, including:

- inappropriate parenting practices such as comforting children with:
 - sweetened pacifiers
 - putting child to sleep with a bottle containing milk or sweetened liquids
 - frequent through-the-night feeding
- feeding practices:
 - fruit juices, powdered drinks or pop instead of water given in a bottle or sip-cup throughout the day
 - frequent sugared candies, cookies or other baked goods
- lack of tooth-cleaning:
 - parents should assist preschool children with tooth cleaning.

In the larger context, family stress and living circumstances also cause ECTD:

- families living under stress from work, unemployment, divorce, illness, poverty and violence cross all educational and racial strata and are prone to health problems. If these families have very young children, ECTD may just be an additional manifestation of these problems

- families not properly informed of appropriate/effective parenting techniques and families not having access to appropriate information on the prevention of oral diseases or access to care.

Strategies to assist families to change diets, improve parenting skills and the provision of early preventive oral health care and information have not been tested but are part of the common risk factor approach to improving child health.

The trend to improvement in the older children occurs in parallel to the screening, education and treatment programs operated by Toronto Public Health. The finding that the dental health of younger children is not improving suggests that resources to screen and refer younger children need to be found and evaluated.

Services, supports and initiatives

Toronto Public Health is leading a process to investigate the factors and issues determining the condition and to raise care providers' awareness of the issue. Home visitors and public health nurses working in the Healthy Babies, Healthy Children program and other child health programs are to include appropriate information on preventing ECTD, and resources available for treating the condition, for families.

Toronto Public Health has instituted a more comprehensive screening protocol to ensure the oral health problems of the youngest school-aged children are identified and promptly referred for care. The revised protocol will allow better monitoring of all oral health conditions and provide better information on the regions of the city that have higher prevalence.

Objectives/benchmarks

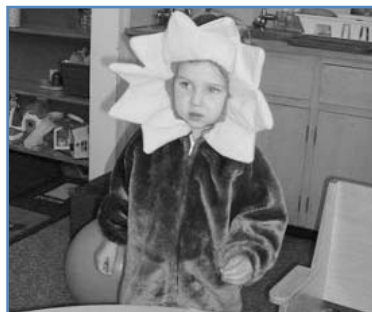
- to reduce the prevalence of ECTD among preschool children to 5% or less over the next five years
- to reduce the prevalence of children with two or more untreated, decayed teeth, among five-year-olds to 7.5% over the next five years.

11. Children's mental health

There is no standard agreed-upon definition of children's mental health. Specific indicators for ongoing monitoring of children's mental health at the population level have not yet been identified.

A recent Children's Mental Health Needs Assessment conducted for Toronto Public Health by the Centre for Studies of Children at Risk at McMaster University suggested that positive mental health in children refers to freedom from serious developmental disorders such as autism as well as emerging competence in the regulation of thoughts, feelings and behaviours. The report also identified that the most common approach to measuring emotional-behavioural problems in children makes use of assessments provided by parents, teachers of children in school and other adults who know the child and are in a position to observe his/her behaviour over time.

Children who exhibit numerous and/or serious mental health problems may be classified with a psychiatric disorder. In addition to abnormal behaviour, these children must show signs of personal suffering, delayed development, impaired social relations, or school achievement below their potential.



Psychiatric disorders in children are determined by the nature of the symptoms and their impact on the child. The more common psychiatric disorders of childhood such as, attention-deficit hyperactivity disorder, tend to be grouped into two major areas: emotional and behavioural.

Emotional includes symptoms or problems of emotional regulation expressed in feelings such as depressed mood and anxiety. Behavioural includes symptoms or problems of behavioural regulation expressed in actions such as aggression, restlessness and rule violations.

Importance

The Children's Mental Health Needs Assessment suggested that child mental health problems are common and have negative consequences for children, families and society. Mental health problems in children tend to spill over into other areas of their health and functioning. Emotional and behavioural regulation in children is an important element in getting along with others and in developing enduring, supportive friendships. The ability to attend to and follow instructions is part of the behavioural repertoire that contributes to school readiness. Social relationships, academic performance and physical functioning are correlated positively with each other suggesting that good health and functioning tend to go together.

Child-related factors (e.g., difficult temperament, inability to get along with family members and friends, poor academic performance and poor physical health), parental/family-related factors (e.g., coercive parenting practices, maternal depressed mood, and poor family functioning) and neighbourhood factors (e.g., higher concentrations of poverty, lone-parent families, and rental housing) substantially increase children's risk of mental health problems. In the absence of early intervention, such problems may lead to long-term consequences such as academic underachievement, depression and alienation from societal goals and values.

Key issues

Using provincial and national data, the Children's Mental Health Needs Assessment compared levels of mental health among different groups of children. The report suggested that to improve children's mental health overall, it is necessary to reduce the type and number of mental health problems among specific groups of children (i.e., those children who exhibit above-average levels of emotional-behavioural problems). The report identified that there is a need to alter the broader social context of children's lives and direct resources to the 20-25% of children whose family and neighbourhood circumstances are associated with higher levels of emotional-behavioural problems.

The report suggested that community-based intervention programs, particularly intensive home visiting by professionals, parenting group programs and intensive multifaceted Early Childhood Education and Care programs, delivered over a two-to-four-year period, can have a positive impact on these children's developmental outcomes.

These programs can also help to offset the growing inequities between children living and not living in difficult circumstances. In terms of program delivery, the report suggested that these programs should be directed to all children living in areas of the city with higher concentrations of poverty, lone-parent families and rental accommodation.

Status/trends

The needs assessment highlighted that there are no general population studies of children in Toronto with sufficient scope and depth to produce a mental health needs assessment. The only population level data on mental health in children comes from the Ontario Child Health Study (1983, 1987) and the National Longitudinal Survey of Children and Youth (1994, 1996, 1998) which included representative samples of children identified in families living in communities across Ontario and Canada.

The findings from these studies apply to all children in the general population, not just the small number of children who may be receiving help from professionals who specialize in the mental health of children.

In 1983, the OCHS estimated that about 16.5% of children aged 4-11 years met symptom criteria for psychiatric disorder. Young boys were particularly at risk. OCHS (1983) data and NLSCY (1994 - 1998) data suggest that levels of emotional and behavioural problems among Ontario children increased from 1983 to 1998.

Services, supports and initiatives

In response to the report, Toronto Public Health has begun to collaborate with the Children's Services Division, Community and Neighbourhood Services Department, and other relevant City services to review the recommendations in relation to programming that could have an impact on the mental health of children in Toronto. An implementation plan that identifies necessary resources and community partners, sets priorities, and establishes success indicators is being prepared.



12. Immunization

In 2002, Toronto Public Health assessed the immunization status of 346,000 students and the immunization coverage rate achieved was 86%.

Importance

Without the protection received through immunization, children would be susceptible to contracting serious diseases including diphtheria, tetanus, polio, pertussis (whooping cough), Haemophilus influenzae type b, measles, mumps and rubella. In the recent past, thousands of Canadians suffered and died from such childhood diseases as measles, diphtheria, whooping cough and polio. Contracting these diseases can lead to pneumonia (a lung infection), meningitis (a brain infection) and even death.

When immunization rates drop, diseases that had previously been eliminated from our community can return. Although most vaccine-preventable diseases are rare in Canada due to high levels of immunization, they are common in other parts of the world. Travellers can carry them from country to country and if people are not protected by vaccination, these diseases will spread quickly.

Status/trends

Year	Students assessed	Coverage rate
2000	230,000	60%
2001	330,000	84%
2002	346,000	86%

Key issues

Before children start school they should be immunized against eight diseases: diphtheria, tetanus, polio, pertussis, Haemophilus influenzae type b, measles, mumps and rubella.

The government pays for these vaccines, as well as the hepatitis B vaccine for grade 7 students. In addition, children can receive the influenza vaccination free of charge.

It is the parent's/guardian's responsibility to provide immunization records for their school-aged children to Toronto Public Health. Children can be suspended from school if Toronto Public Health does not have current immunization information or a valid exemption for them. A parent/guardian may decide because of medical, religious or philosophical reasons not to immunize their child. If the disease appears in the child's school or day nursery, and that child has not been immunized, they may have to stay out of school until the disease is gone.

New vaccines are now available to provide protection against illnesses such as varicella (chickenpox), meningococcal and pneumococcal disease. These new vaccines are very expensive. In Ontario, the cost of the pneumococcal vaccine is about \$370 per child. Children with special health needs may be able to receive these new vaccines free of charge, but children from low-income families and from families without insurance coverage may not be able to afford these vaccines.

Services, supports and initiatives

One of the responsibilities of Toronto Public Health is to prevent the spread of diseases through immunization. Toronto Public Health collects information on school children to ensure a high immunization level is maintained, and to prevent the reintroduction of these serious diseases into our community.

Objective

In 2004, Toronto Public Health hopes to assess the records of 380,000 children to ensure that they have received the appropriate vaccinations.

13. Physical activity

- In 2000, Canadian children aged 1-4 spent an average of 29 hours in physically active play per week and 14 hours in sedentary activities per week.
- Also in 2000, 44% of Canadian girls aged 5-12 were on average active enough (i.e. an average daily expenditure of at least eight kilocalories/kilogram of body weight/day) and 56% of Canadian boys aged 5-12 were on average physically active enough.

Source: Canadian Fitness and Lifestyle Research Institute's Physical Activity Monitor (CFLRI), 2000

The survey cycle is every two years. Factors that may affect levels of physical activity include income levels and parental education. These factors have also been identified in the adult population. Limitations include lack of Toronto or Ontario level data for young children.

Importance

Physical activity is a fundamental requirement for healthy growth and development. Physical activity helps children develop coordination, build and maintain healthy bones, muscles and joints; control body weight and reduce fat; and develop efficient functioning of the heart and lungs. It also gives an opportunity for self-expression, building self-confidence, feelings of achievement, social interaction and integration. It helps prevent and control feelings of anxiety and depression (World Health Organization, 2003). Ensuring that children develop foundational skills and habits for lifelong physical activity is a primary strategy in chronic disease prevention and in preventing and reducing excess weight and obesity among adults.



Status/trends

There has been an increase in the level of physical activity among children aged 1-4 years (21.9 hours in 1995).

Key issues

There is evidence of a clear differential in physical activity participation by children and youth living in poverty. The statistics Canada "National Longitudinal Survey of Children and Youth" showed that children in the lowest-income families were more than 30% less likely to participate in sports with a coach or ballet/dance than children from the highest-income families (Canadian Council on Social Development, 2001). A CFLRI (2002) report indicates that barriers to participating in physical activity are much more significant for families living on low-incomes. These barriers include such things as convenient public transportation; affordable coaching, instruction and classes; availability of outdoor spaces for activity; access to safe streets and public places; and access to facilities, services and programs at school as well as outside school.

Services, supports and initiatives

In June 2003, the Medical Officer of Health issued a Physical Activity and Public Health Report declaring physical activity a priority public health issue for Toronto and issuing "A Call to Action" to achieve concerted, timely and effective change on this issue. The Medical Officer of Health has convened an inter-sectoral Leadership Group with the capacity to influence policy and practices in the systems that affect physical activity participation, and to draw public attention and support to the issue. The initial phase of the strategy will focus on children, youth and their families to maximize opportunities and reduce barriers across service delivery systems, to enable a more physically active population.

Other Toronto Public Health programs supporting physical activity in young children include Rainbow Fun, an adult-led physical activity program for children aged 3-7.

The resource includes activities and exercises that provide a complete physical activity workout for children in 20 minutes. Training is provided for child care staff and teachers to equip them with the tools to motivate and lead the children in structured physical activity 3-5 times per week. Rainbow Fun is also being integrated in to the curriculum of community college early childhood education programs.

The Daycare Resource Box is a toolbox resource that contains heart health promotion materials, activities and newsletters to use in programming with 3-12 year olds. The resource is distributed at train-the-trainer sessions. The Family Fit Kit is distributed to parents and caregivers through Parks and Recreation. It is designed for parents to increase family physical activity. In partnership with Parks and Recreation, the resource is being modified so that it is appropriate for ethnic-rationally diverse and low-income communities.

Objectives/benchmarks

Children and youth meet the Health Canada guidelines of 90 minutes of daily physical activity through a combination of 60 minutes of moderate intensity activity (e.g., brisk walking, bicycling) and 30 minutes of vigorous intensity activity (running, soccer, basketball).

Safety

► Free of violence, abuse, neglect

14. Child protection caseloads

Children's Aid Societies (CASs) in Ontario are not-for-profit, incorporated private agencies governed by a volunteer board of directors and funded by the Province. A primary mandate of CASs is to protect children from harm and to investigate allegations of abuse and neglect.

Apr. 2002 - Mar. 2003	
Children served in the community/homes	51,661
Children served in CAS care	5,553
Children served total	57,214

Source: The data is compiled from the three Children's Aid Societies that currently serve Toronto. The Children's Aid Society of Toronto (CAST) accounts for about 57% of Toronto's child welfare cases; the Catholic Children's Aid Society of Toronto (CCAS) serves about 40% of the families involved with child welfare; Jewish Family & Child Service (JFCS) provides service to around 2% of the cases. As of Spring 2004, Native Child and Family Services (NCFS) is set to formally receive its child welfare mandate, and estimates are it will serve about 1-2% of the Toronto child protection cases.

Status/trends

Over the past decade, the child welfare sector has continued to experience significant changes. The number of children (children aged 0-16) and families served by the Toronto child welfare services continues to rise. In 1998, 28,070 children were served in their community/home by the Toronto CASs. By 2003, that figure has almost doubled, to 51,661 (see the following table). While the number of children served by child protection services in their homes increases, the number of children admitted to care has remained relatively stable over time and has actually decreased over the last three years. This reflects CASs primary service philosophy: to ensure that the safety of the child is paramount, while improving the home situation and strengthening families wherever possible.