



# PLANNING TRANSPORTATION FOR AND WITH CHILDREN

*Good news for pedestrians and cyclists*

BY CATHERINE O'BRIEN, Ph.D.

During the spring of 2003, The Centre for Sustainable Transportation completed a project called *Kids on the Move in Halton and Peel*<sup>1</sup>. Our aim was to learn about the barriers to sustainable transportation in these two regions just outside of Toronto, Canada as well as the opportunities for improvement. Our focus was very specific. We wanted to understand the barriers to children's active transportation and the opportunities for reducing the harmful impact on children of motorized transport.

We consulted with more than three hundred people — transportation planners, urban planners, community services, educators, transit agencies, politicians, traffic safety committees, children's services, environmental groups, public health representatives, youth and children. One of the themes that emerged was the sentiment that land developers are primarily responsible for the automobile dependent communities that characterize the cities and towns in Halton and Peel.

*We wanted to understand the barriers to children's active transportation and the opportunities for reducing the harmful impact on children of motorized transport.*

*Photo: John Williams.*

Many of the adults pointed their fingers directly at developers, who were depicted as all powerful, heartless and selfish moneygrabbers. It seemed fitting to interview one of these 'diabolical' characters and learn first-hand whether children's mobility and transportation-related health impacts had ever figured into their planning. And if it hadn't, would they care to institute planning measures that would be more beneficial for children? We were in for an interesting surprise.

The developer we met with offered a fresh perspective. He sees the planning process as one that is collaborative. In that collaborative planning group, he asked, who is representing children's interests? Is it the school board, he wondered?

We responded that school boards are focused on situating school locations, they are not charged with the task of considering all the other trips that children make and school trips generally account for about 25% of children's travel. The developer reminded us that the fire chief is part of the planning process and ensures that there is adequate access for emergency vehicles. What municipalities need, he suggested, is someone who views community plans with the knowledge of how they will impact on children's transportation and health.

We took this suggestion back to regional planners and public health representatives and they embraced the idea quite warmly. The concept was enhanced and we emerged with the notion of creating child-friendly planning guidelines to assist planners, developers, and health departments to evaluate development plans with children in mind. Prior to creating the guidelines, we began a search for any existing work in this area. We were in for more delightful surprises. Our Canadian developer had actually described a process that fits into the burgeoning international trend called child friendly cities.



*What cities need, the developer suggested, is someone who views community plans with the knowledge of how they will impact on children's transportation and health.*

*Photo: Dan Burden*

UNICEF's Child Friendly Cities initiative<sup>2</sup> is at the forefront of efforts to consider children's needs and aspirations in an urban environment. It is responding to the global trend towards urbanization, the recognition that children constitute between 20-50% of many populations, and the commitment of the United Nations Conventions on the Rights of the Child.<sup>3</sup>

*"The concept of a child friendly city is not based on an ideal end state or a standard model. It is a framework to assist any city to become more child friendly in all aspects of its environment, governance and services. UNICEF set up the Child Friendly Cities Secretariat at its Innocenti Research Centre in Florence in September 2000, to support city authorities in developing such frameworks and to support the many people working in different cities to change practices unfriendly to children into systems where children matter."*<sup>4</sup>

### **Figure 1: Child Friendly Cities – Why and What?**

*(from CFC web site, [www.childfriendlycities.org](http://www.childfriendlycities.org))*

#### **Why 'Child Friendly' Cities?**

Our planet is increasingly urban. More than three billion people – half the world's population – now live in cities. Urban growth is most rapid in developing countries and, by the year 2025, six out of every ten children in the developing world will live in cities. Half of these children will be poor. At the same time, a global process of decentralization is taking place, as local governments assume responsibilities for social sector services that were once provided by national governments.

Children living in the slums or on the streets of developing countries are vulnerable to abandonment, gang life, drug addiction and to

every form of exploitation, including child labour, prostitution and abuse. And in the cities of the industrialised world children may be threatened by traffic, pollution, and a shortage of green and open spaces in which to play. In both rich and poor countries, urban children and adolescents may feel imprisoned and isolated.

The City Summit in Istanbul in 1996 stressed that the best indicator of a healthy city is the well-being of its children. A Child Friendly City is a people friendly city, encouraging the participation of citizens – young and old – in its services and its planning.

#### **What is a Child Friendly City (CFC)?**

A Child Friendly City guarantees the RIGHT of every young citizen to:

- influence decisions about their city;
- express their opinion on the city they want;
- participate in family, community and social life;
- receive basic services such as health care and education;
- drink safe water and have access to proper sanitation;
- be protected from exploitation, violence and abuse;
- walk safely in the streets on their own;
- meet friends and play;
- have green spaces for plants and animals;
- live in an unpolluted environment;
- participate in cultural and social events;
- be an equal citizen of their city with access to every service, regardless of ethnic origin, religion, income, gender or disability.

The Secretariat is documenting and publicizing successful child friendly city initiatives and supporting national and international networks that are working in this area. Though they use the word "child," their work also addresses the needs of youth up to 18 years of age.

In addition, Alex van Loon<sup>5</sup>, from the Netherlands Ministry of Transportation has made specific recommendations for improving the safety of neighbourhoods for child pedestrians and cyclists. Also a Dutch institute has published *Handboek Ontwerpen voor kinderen - Aanbevelingen voor een kindvriendelijke inrichting van de verblijfs- en verkeersruimte* (Design Manual for Children - Recommendations for childfriendly design of residential areas and streets)<sup>6</sup>. There is presently only a Dutch version of this manual.

*Though the Child Friendly Cities Secretariat uses the word "child," their work also addresses the needs of youth up to 18 years of age.*

Photo: Dan Burden



**Figure 2: Safer Road Conditions for Children**  
From van Loon, A. "Road Safety for Children: An Accident Analysis for Better Road Conditions for Children in the Netherlands"<sup>5</sup>

### **Recommendations**

- *The speed limit in residential zones must be set at 30 km/h along with traffic calming measures. Residential streets with speed limits of 30 km/h including traffic calming are 2-3 times safer than the same streets with a speed limits of 50 km/h and no traffic calming. This is due to a shorter brake distance, a wider visual scope of the driver and a minor injury rate in 30 km/h residential zones;*
- *In residential areas where children tend to cross over, no sight restraint is allowed. At busy parked streets, special locations to cross with enough sight must be made. High objects along roads must be avoided;*
- *Crossings on collector roads must be safer by slowing down traffic speed and making better sight conditions;*
- *A homogenous speed pattern must be obtained by adequately designed traffic calming measures at regular distances;*
- *Rows of parked cars must be regularly interrupted by an open space where children can cross the street safely;*
- *One-way streets must be avoided, but when this can't be avoided, traffic calming measures are needed;*
- *Collectors and arterials should be provided by bicycle lanes;*
- *Areas or roads near or around playgrounds, playfields, schools and shops must be designed as 30 km/h streets or zones,*
- *Sight obstruction must be avoided.*



*Special efforts to meet the needs of children will benefit the community as a whole.*

*Photo: John Williams*

In the United States, the Community-Based Education Resource (CUBE)<sup>7</sup> is championing child-oriented communities. They have developed an educational resource for teachers to work on planning with children, stating that a community designed for young people will work for everyone.

Documents dealing with child friendly cities and communities present the case that communities which make special efforts to meet the needs of children will benefit the community as a whole. This is good news for advocates of bicycling and walking because many of the efforts to improve children's mobility involve creating more opportunities for active transportation, making neighbourhoods safer for cycling and walking, and designing communities so that most destinations involve short trips that may be made by walking, cycling, skateboarding, and so on.

### **Children's Participation in Planning**

The UN's Child Friendly Cities program is promoting the need to include children's needs in urban planning but also to involve children (including youth) in the planning process. They state that it is mutually beneficial for children, youth and planners to engage in a participatory planning process. Also, UNESCO's *Growing Up in Cities Project* adopts the same perspective and has sponsored two books on the subject. *Creating Better Cities with Children and Youth*<sup>8</sup> is a manual for municipal staff who wish to involve children. *Growing Up in An Urbanizing World*<sup>9</sup> provides international case studies of urban projects that have engaged children in planning.

The overarching rationale for children's participation in planning is that they have fresh perspectives on the local environment as it pertains to their needs. Their input can be invaluable for contributing to a more socially inclusive community, one that recognizes the limited mobility of children, the locations where they generally travel and the specific hindrances they may encounter.

### **Figure 3: Implications of Child and Youth Participation**

(From Chawla L, *Insight, creativity and thoughts on the environment: integrating children and youth into human settlement development*<sup>22</sup>)

The Habitat Agenda from the Second United Nations Conference on Human Settlements in 1996 recognized in its preamble that "The needs of children and youth, particularly with regard to their living environment, have to be taken fully into account" (paragraph 13). In the same paragraph, the preamble stated that: "Special attention needs to be paid to participatory processes dealing with the shaping of cities, towns and neighbourhoods; this is in order to secure the living conditions of children and youth and to make use of their insight, creativity and thoughts on the environment."

- Planning teams need to include a representative for children, and whenever possible, children need to have a voice of their own when development decisions are made;
- A focus on children draws attention to their special vulnerability to disease, pollution and other environmental hazards;
- Because children have the longest future of any group in society, they direct policy making toward long-term planning; the same orientation that sustainable development requires;
- At the same time as they represent the future, children's rapidly developing bodies and minds must be nourished and protected in the immediate present, or a failure to meet their needs will have long-term consequences;
- Attention to children emphasizes the importance of a human development focus in planning;
- Given their relative lack of mobility and their dependence on immediately accessible resources, children draw attention to development at the community level. Small changes in the local environment may have a big impact on children's lives.

Three main reasons for encouraging children's participation in development:

- Children will learn formal skills of democratic citizenship in this way;
- They are the best experts on local environment conditions related to their own needs; and
- They acquire a foundation for lifelong habits of environmental interest, concern and care.

The following examples from around the world, provide a glimpse of initiatives that involve children in the planning process. The Centre for Sustainable Transportation's *Kids on the Move* project engaged 140 elementary students in a discussion of their neighbourhood, where they like to travel, how they usually travel, and what kind of neighbourhood they would create. Children as young as eight years-old were able to respond to these questions with considerable clarity.

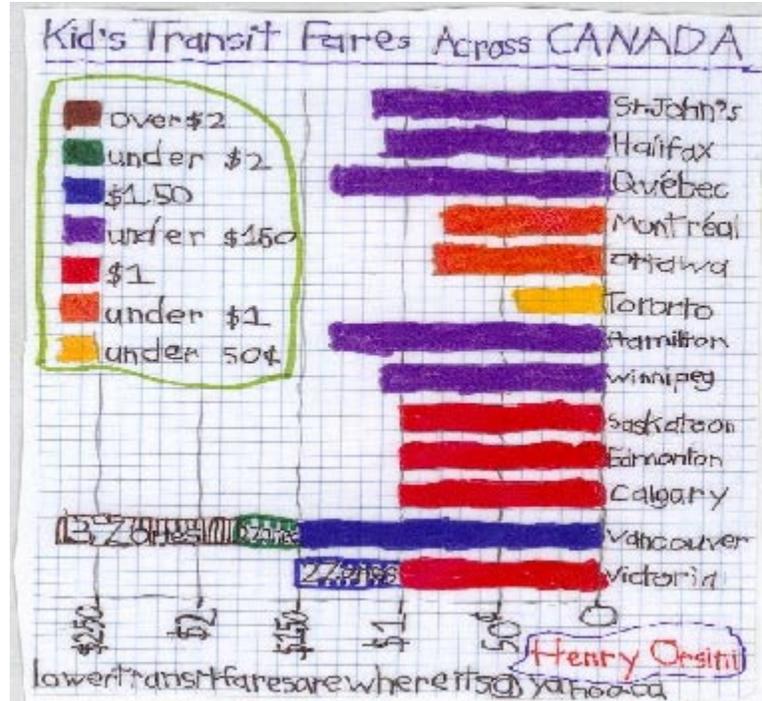
The Norwegian Children's Tracks project involves children in tracking their own mobility patterns, which are compiled in the country's Arealis GIS project.<sup>10</sup> In Canada, the Ontario Walkability Study<sup>11</sup> contributed to our understanding of children's experiences and aspirations by surveying more than 6,000 elementary school children on Walk to School Day (2000). Of course, worldwide, Safe Routes to School programs have been leaders in engaging children in efforts to plan and use safer routes to school.

More recently, a nine year-old Canadian boy, Henry Orsini, decided not to wait for transportation planners to ask his views. Henry wants transportation to change now. He lives in Vancouver and believes that transit fares for children are too high, in fact, the highest in Canada amongst those he investigated, and he has created a bar chart to demonstrate this. Through meetings with Translink (the regional transit authority) executives he hopes to make the case that lower fees for children are needed to convince adults that transit is a cheaper option than driving.

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For more on Henry's work, go to:  
<http://lowertransitfares.wera.bc.ca/>

Graph: Henry Orsini



At this time, he argues, parents can drive a family of four and pay for parking for less than the transit fare. Henry's long range goal is to have children's transit fares across Canada reduced to fifty cents. Children and adults may contact him at the e-mail address indicated on his chart: <lowertransitfaresarewhereits@yahoo.ca>.

Canadian architect, Stanley King, has developed design workshops with children and youth that have been implemented in Western Canadian communities. He heads the Co-Design Group<sup>12</sup> in Vancouver.

*"Children aged 9 to 13 respond well. Newly aware of the environment beyond the home, they perceive the streets, the parks, with fresh eyes and acute senses. The answers they produce are often not those that would occur to adults. For example, awareness of risk from traffic, from dangerous people or from design situations that pose a threat is more acute in children than adults."<sup>13</sup>*

Researchers who have engaged children and youth in participatory urban planning have discovered that new research methods and modes of transportation may be needed – sometimes this involves more active research! Karen Malone and Lindsay Hasluck have worked with Australian youth. They write:

*"For planners, planning with young people means changing the types of community consultation processes they have become accustomed to conducting. Young people like to be pragmatic, mobile and stimulated by their involvement. Following on foot a group of young people on bicycles during a neighbourhood guided tour while taking notes and photographs has been the most successful research method we used."<sup>14</sup>*



*“Following on foot a group of young people on bicycles during a neighbourhood guided tour while taking notes and photographs has been the most successful research method we used.”*

*–Karen Malone and Lindsay Hasluck*

*Photo: Dan Burden*

Planning with youth is also contributing to a greater understanding of the social impacts and benefits of transportation. For example, in one community, once youth became involved in planning, adults realized that community design, transportation issues, and lack of attention to youth needs are important factors in making youth feel marginalized or included. With few places to travel, or few options for independent travel, youth described feeling bored, being harassed for “hanging out” on the streets, and the feeling that they are invisible, or worse unwanted.

*“Adults may know how to create community environments that promote health and safety, but children and youth are the experts on what fosters or fractures their personal sense of well-being.”<sup>15</sup>*

### **Creating Policies and Guidelines around Children**

There is a growing movement to recognize that cities need to be more responsive to children. This may involve the creation of new policies, new practices which engage children and new forms of collaboration amongst various levels of government and amongst municipal departments. In May of 2002 at the UN Special Session on Children a document was endorsed, *A World Fit for Children*, committing member nations to:

*“develop child friendly communities and cities, and to involve mayors and municipal authorities as primary partners in achieving the new goals set for children. Children are recognized as citizens who have a right to express their opinions and have their views given due consideration. This requires most cities to make institutional, legal and budgetary reforms and to develop a strategy to transform the living environments of children at the family, neighbourhood and city levels.”<sup>16</sup>*

Norway has proven to be a leader in this area. The Norwegian government appointed the world's first Commissioner for Children in 1981 and they have taken a number of measures to strengthen perspectives on children regarding land use planning. In 1989 their *National Policy Guidelines* stated:

*"The municipality shall organize the planning process to make sure that the points of view concerning children as the affected party are brought to light and that different groups of children and young people are given an opportunity to participate themselves."*<sup>17</sup>

We may also look to Italy for examples of child friendly laws and initiatives. The Italian government's *Plan of Action for Children and Adolescents* (1997) made a formal commitment to meet the objectives of the Convention on the *Rights of the Child* (CRC). A national fund was created to be used for financing local projects, inter-ministerial cooperation and the development of new laws. In addition, the Ministry of the Environment established a project called *Città Sostenibili delle Bambine e dei Bambini* (Sustainable Cities for Girls and Boys). The project promotes new initiatives, opportunities and structures for children but also aims to encourage a new culture of government of cities and city planning based on the premise that a city suitable for children is more suitable for everyone.<sup>18</sup>

The main objectives of the project are:

- *To establish a yearly recognition award for cities that respond to a series of parameters and indicators of "child-urban sustainability";*
- *To create a clearing house to disseminate information, experiences and best practices taking place in Italian cities, and*
- *To organize a yearly international forum, Towards Child Friendly Cities, bringing together representatives of cities from Italy and abroad to exchange experiences and discuss issues and lessons learned.*<sup>19</sup>

The 1998 yearly recognition award contest involved more than 80 cities in its first year. Marco Corsi, who works for UNICEF at their Innocenti Research Centre in Florence has written about the Italian efforts to create Child Friendly Cities. He emphasizes the importance of institutionalizing the concept of child friendly cities in all levels of government and creating mechanisms for inter-departmental cooperation at the municipal level.

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He also highlights the need for public awareness to publicize initiatives and build community participation and support. Corsi describes the indicators that have been developed to evaluate the progress cities are making. One indicator deals with promoting children's mobility. Improvements in this area have involved:

*measures to reduce speeds; the creation of highly recognizable road signs (sometimes using symbols chosen and designed by children); the widening and protection of sidewalks, and the creation of pedestrian areas and residential streets (also involving children.) There has also been a considerable expansion of the cycle track network but this has been largely in the city centres rather than in suburban areas.<sup>20</sup>*

Also, minimum-impact public vehicles are coming into use which have the added benefit of reducing air pollution.

Riggio<sup>21</sup> writes that a child friendly city "needs to move beyond municipal officials and experts and be progressively reflected in academic curricula and addressed by research". Postgraduate courses are now being developed to train architects, planners, environmental psychologists and social science students in the principals of child friendly planning.

### **Concluding Thoughts**

In our efforts to investigate child-friendly transportation planning guidelines we have discovered the very rich context of child friendly cities which encompasses all aspects of children's welfare. It has been encouraging to learn of European efforts in this area. The Canadian land developer who envisioned a planning process that includes a children's advocate was unwittingly in sync with the child friendly cities movement.

Traditionally, children have not been given specific consideration as transportation and land use plans are being drafted, apart from situating schools. However, as awareness grows in transportation circles that children's mobility needs are not being met and that conventional transportation planning has been overly focused on automobile use, planners may require new guidelines to develop and gage the impact of their plans on children's lives. For example, guidelines will help them view questions such as the following: are there sidewalks leading to destinations that children regularly travel? Are there walls or other sight obstructions along the routes that children frequent? Are traffic lights timed to permit child pedestrians sufficient time to cross? How are parking regulations affecting children's safe travel in their neighbourhood?



It appears that the original assumption that 'a city fit for adults is fit for children' is being turned around. The new perspective is that a 'city designed with children in mind will be more inclusive, and more readily meet the needs of all members of society'.

#### ABOUT THE AUTHOR

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#### Endnotes

- 1 The 38-page report on the project *Kids on the Move in Halton and Peel* is available at The Centre's Web site at the URL below.  
<http://www.cstctd.org> Accessed February 25, 2004.
- 2 Information about the Child Friendly Cities initiative is at the URL below.  
<http://www.childfriendlycities.org> Accessed February 25, 2004.
- 3 The text of the Convention is available at the Web site identified in Note 2. Canada and at least 190 other countries have ratified the Convention.
- 4 Riggio, E (2002). Child friendly cities: good governance in the best interests of the child. *Environment & urbanization* Vol 14 No 2 October, p. 45.
- 5 Van Loon, A (2001). "Road Safety for Children: An Accident Analysis for Better Road Conditions for Children in the Netherlands", Proceedings of the Canadian Multidisciplinary Road Safety Conference XII, June 10-13, London, Ontario.
- 6 Handboek Ontwerpen voor kinderen - Aanbevelingen voor een kindvriendelijke inrichting van de verblijfs- en verkeersruimte, Publicatie 153, CROW november 2000.
- 7 Available at the following URL: [www.cubekc.org](http://www.cubekc.org). Accessed February 23, 2004
- 8 Driskell, D (2002). *Creating Better Cities with Children and Youth – A Manual for Participation*. UNESCO/Earthscan Publications, London.

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- 11 O'Brien, C. (2001) Ontario Walkability Study, Trip to School: Children's Experiences and Aspirations, report. Available at the URL below:  
<http://www.saferoutestoschool.ca/index.php?page=relatedresearch>. Accessed September 28, 2004.
- 12 Information about the Co-Design Group can be found at the URL below:  
<http://www.co-designgroup.com/group/group1.html>. Accessed February 26, 2004.
- 13 King, S (1995). Fresh Eyes, *Planning Commissioners Journal*, Number 19. Summer.
- 14 Malone, K and Hasluck, L (2002). "Aliens in a Suburban Environment" in Chawla, L (2002) Growing Up in an Urbanising World. UNESCO/Earthscan Publications, London, p. 107.
- 15 See the source cited in Note 9, p. 221.
- 16 See the source cited in Note 4, p. 45.
- 17 Ministry of the Environment (1994, p. 5) in Chawla, L (Ed) (2002) Growing Up in an Urbanising World, Wilhelm, H, "Large but Not Unlimited Freedom in a Nordic City" UNESCO/Earthscan Publications, London, p. 162.
- 18 Corsi, M (2002). The child friendly cities initiative in Italy. *Environment & Urbanization*, Vol 14, No 2, October, p. 170.
- 19 See the source cited in Note 18, p. 170.
- 20 See the source cited in Note 18, p. 176.
- 21 Chawla L (2001), Insight, creativity and thoughts on the environment: integrating children and youth into human settlement development, *Environment & Urbanization*, Vol 14(2), October, pp.13-14.

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