

# *SYMPOSIUM ON SCHOOL-BASED INJURY PREVENTION PROGRAMS*

*Held in conjunction with*

**CANADIAN INJURY PREVENTION AND SAFETY PROMOTION  
CONFERENCE**

*Halifax, Nova Scotia, Nov. 6, 2005*

## **SUMMARY OF PRESENTATIONS**

*Prepared by*

**Charles H. Tator**

**President, ThinkFirst, Canada**

## **Introductory Remarks: The Importance of School Based Injury Prevention Programs as Part of a National Injury Prevention Strategy**

*Charles Tator and Simon Walling*

Agencies involved in injury prevention employ a variety of methods to deliver effective injury prevention programs to Canadian children and youth. School based programs are an essential component of an overall successful injury prevention framework. Other essential ingredients include community-based programs, the media, and programs targeted towards specific activities such as sports and recreation. Schools represent a major opportunity to instill knowledge about personal safety, and to nurture healthy behaviors to avoid injury. Increasingly, it is recognized that safety messages must be delivered at a very early age beginning in kindergarten, and that the messages must be individualized for specific audiences. Specificity is necessary for urban versus rural audiences, eastern versus western and northern versus southern geography and specific for various cultures. Also, the safety messages must be based on sound principles of health promotion with full implementation of the determinants of health in terms of socio-economic factors, language and culture.

Canada is at the forefront in developing and delivering targeted school-based injury prevention programs, and there has been considerable success. However, in many locations, programs have been difficult to implement, and schools are often asked to teach a variety of “non-academic” health oriented and social programs such as nutrition, AIDS, drugs and alcohol abuse, and sex education. Thus, there is great demand on classroom time and teacher attention. Therefore, it is essential that school-based injury prevention programs are delivered as efficiently as possible in terms of classroom time, teacher preparation time, and integration with curriculum requirements. Ideally, the programs should have proven effectiveness based on evaluation in terms of knowledge transfer, promotion of healthy behaviour and reduction of injury incidence, although these goals are difficult to achieve.

In addition to The ThinkFirst school-based injury prevention programs there are several other non-governmental and governmental resources that are being distributed to schools for purposes of teaching injury prevention to students. Some coordination of efforts would be highly desirable, although it is unlikely that a single resource will ever be developed to comprehensively cover all aspects of school-based injury prevention. Therefore, we suggest that schools utilize at least two of the available resources.

The purpose of this Symposium was to bring together the experts in this field to examine the current status of school-based injury prevention programs in order to enhance the quality and penetration of future programs. This Symposium was aimed at enhancing the effectiveness and delivery of school-based injury prevention programs in terms of the goal of bringing proven programs to all children and youth in Canadian elementary and high schools.

Each presenter verified the accuracy of the following summaries of their presentations. A biographical sketch of each presenter is given at the end.

## **Injury Prevention as a Health Promotion Initiative and Its Role in Schools. Defining The Problem: Current Themes In Injury Prevention And Emerging Issues For School Based Injury Prevention**

*Julian Young*

A very good definition of health promotion is contained in the Ottawa Charter, and the ThinkFirst Give-A-Kid-A-Helmet project is a good example of an injury prevention program that is based on the determinants of health promotion. Another good example is the current initiative in prevention of falls in seniors.

ThinkFirst does good work in school-based injury prevention because it gets health care practitioners involved. Health practitioners should not just work in their offices, but must play an active role in injury prevention. In general, injury prevention does well within the model of health promotion. The four E's of injury prevention are education, enforcement of policy, engineering, and economic incentives/disincentives.

It is logical to have a school-based component of health promotion because health promotion must be part of everyday life and should be delivered to students in the setting of everyday life, and this includes schools. Using this "settings approach" suggests that strategies for prevention of ATV injuries have to be in the community, as well as in the schools. Indeed, injury prevention should permeate the schools, and this is part of health promotion. Tobacco is also a good example, and we need to be more active. Kids need to feel that there are comprehensive and integrated injury prevention programs-i.e. a holistic approach. Kids who are healthier do better in school. One-off strategies are less effective, than strategies which are integrated and sustained.

However, for children and youth, injury prevention in schools alone is not enough. Rather, school-based injury prevention has to be part of an overall injury prevention strategy. Thus, an effective injury prevention curriculum should have a link between the school and the community. Kids learn how to decrease the risks. The program in Annapolis Valley is a good example of a program that arose from the parents. Thus, there is a need to work together within an overall health promotion approach rather than one-off efforts such as mascots, posters, etc. We need to re-shape the school-based injury prevention programs and infiltrate the schools with them.

## Program Design and Implementation Of Injury Prevention Programs In Schools

*Morris Green*

Currently, a new version of the PARTY program is being piloted in several sites across the province of Nova scotia, and this project can be considered a health promotion initiative for schools. He emphasized the importance of working with the schools and cited the failure of a previous AIDS program that he conducted many years ago because there was not a proper introduction and presentation to the schools. Indeed, he felt challenged because of the “logistical nightmare” of introducing a new program into the schools.

What is the way to introduce an injury prevention program to the Department of Education? It is essential for injury prevention workers to say to the schools “We want to play by your rules”, and then the Department of Education will help. Thus, the first step in developing a new program is to discuss it with the schools.

Many individuals helped to create the new version of the PARTY program including Joanne Banfield from the original PARTY program at Sunnybrook in Toronto. The ingredients of the new pilot includes the following: good music, an engaging commentator, and use of language to get the students’ attention. Graphic language about body functions was approved by the Department of Education for grades 10 and 11. The presentation includes a testimonial from a patient who became quadriplegic after diving into 3 feet of water. It is often very difficult to get injured patients to be available for the program, but now with a DVD the injured person’s perspective can be presented without the necessity of the injured person being present.

## **Navigating School Boards: Ensuring School Based Injury Prevention Programs Are Relevant To Provincial Curriculum Requirements**

*Nancy Schad*

Breaking into the world of education can be a daunting task! How can organizations get their important messages into the classrooms of our nation? This presentation will describe the distinguishing characteristics of good curriculum resources and the important steps to consider in the development of these resources. The value of the establishment of partnerships for the creation and promotion of educational resources will be explored and useful tips about the promotion of the resources to school boards will be outlined.

Numerous people and organizations want to bring their messages and materials into the education system, however the curriculum is already full. Thus, injury prevention programs must align their resources with the existing grade-specific curriculum expectations or outcomes, and these vary between provinces. The resources must be: age-appropriate for the abilities, interests and attention span of the intended student audience; incorporate grade-appropriate teaching/learning strategies; and be easy to use and affordable for schools and school boards. Don't ask it to be done as an add-on. If the subject area has a recommended curriculum resource such as the *Ontario Health and Physical Education (OPHEA) Curriculum* resource documents in Ontario, organizations should develop support materials/lessons to complement the recommended resources.

Contact the subject-specific person for that part of the curriculum at the individual board or provincial level for advice on curriculum content. The time required for the delivery of the injury prevention resource should be realistic based on the time that the teacher has available to address this topic in the curriculum. Injury prevention programs based on current information and which include innovative strategies are very appealing to teachers who are for the most part life-long learners, and are therefore supportive.

Once developed, it is suggested that the resource be piloted with a broad culturally and economically diverse sample of students. Board approval must be obtained for any research component required by the resource.

Organizations that want all schools to use their resource must realize that the resources probably have to be free or at least relatively inexpensive for the schools. To be successful, it is also recommended that some inservice/training should be provided for the teachers at the beginning, and then again later for new teachers.

Injury prevention organizations should consider establishing partnerships to avoid the creation of similar materials, e.g., ThinkFirst and Risk Watch. It would be advantageous if teachers knew that several agencies supported the resources, and that teachers did not have to choose. The establishment of an in-kind partnership to develop a specific additional curriculum is often successful, such as occurred in the Toronto District School Board with the Metropolitan Toronto Police.

“Selling” the resource to teachers at the elementary level requires different strategies than at the secondary level. At the elementary level, a resource that is aligned with Ministry or school board learning expectations of more than one subject area is a bonus – and a great selling point because teachers can effectively kill 2

birds with one stone. At the secondary level however, the subject areas for the most part are not integrated, and therefore, the resource should be very subject-specific. In most Boards, it is necessary to contact a specific person, such as the subject coordinator or consultant to facilitate the introduction and review of new resources.

## Evaluation and Outcomes of TD ThinkFirst for Kids, A School Based Injury Prevention Program

*Michael Cusimano*

Injuries are very complex in nature, and evaluating whether we have made a difference is also very complex. The key questions regarding the evaluation of programs are: does the safety knowledge that we give kids get used? Does the community have existing capacity to use and build upon the knowledge?

A review of evaluation studies that have been published has shown that ThinkFirst was a “Best Practice” Injury Prevention Program (R. Volpe). Also, several studies included in the following table have shown that ThinkFirst’s school-based programs have been effective.

### Review of Results of Evaluation Studies of ThinkFirst Programs

Study	Sample	Controls	Knowledge Change	Behavioral Change	Reduction in Injury
Gresham 2001	700	Y	Y	Y	-
Barnett 2002	1,400	Y	Y	Y	-
Zirkle 2004	8,000	Y	Y	Y	-
Wehner 2005	6,700	Y	Y	Y	?
Cusimano (ONF)	50,000	Y	Y	Y	?

The Ontario Neurotrauma Foundation (ONF) funded a very large evaluation study of ThinkFirst’s TD ThinkFirst For Kids (TFFK) program for elementary schools. The ONF evaluation project was a systematic implementation and evaluation of the Grades 1,2, and 3 TFFK programs across the province of Ontario. The study involved more than 50,000 children from 23 school boards, and more than 350 schools and 2,000 teachers participated. The outcome measures included the following: increase in safety knowledge; change in safety behaviour; and injury outcomes in children.

The preliminary results (based on an analysis of individual students) showed the following: safety knowledge was increased; the safety knowledge gained was retained over time; the behavioural intentions toward safe decisions increased in the TFFK program schools compared to the comparison group. In summary, the TFFK Curriculum was effective in increasing safety knowledge; changes in students’ daily safety behaviour were more common in TFFK Curriculum Schools compared to non-TFFK Curriculum schools; safety concern was a major factor behind children’s safe decisions; and habit was a major factor behind unsafe decisions.

Future work on the ONF evaluation study will examine longitudinally whether children who participated in this study had reduced injury rates. And there will also be a cost-benefit analysis. The implications to date on school-based injury prevention are that TFFK at an early age has positive effects on learning, TFFK curricula have impact far beyond the class, TFFK is evidence-based and represents “Best practice”, and that educational strategies are essential within a multifaceted approach to injury prevention. Cooperation is a key factor in optimum delivery and effectiveness of injury prevention programs.

## What Works Well For Teachers? What Teachers Need to Do to Implement a School-Based Injury Prevention Program.

*Jodi Dusik-Sharpe*

The catch phrase of the past decade appears to be “do more with less”. Educators are not immune to this phenomenon and continue to be pulled in many directions. Revised curriculum, budget constraints, larger classrooms and less teaching school days throughout the year, challenges even the hardest of teachers... **Why** would they entertain the concept of teaching a new program? **What** is it and **who** will implement it? **When** and **where** and **how** will it be taught? This presentation reviews the 5W’s to implementing a school-based injury prevention program. It addresses the global needs of a school division to the specific needs of one educator in one classroom. While most people endorse the concept of injury prevention, bringing it to fruition can be met with many hurdles. Providing the educator with the tools they need to deliver the program will benefit the very children that we are trying to protect and educate.

The mechanisms she has used for getting injury prevention programs into schools were outlined. The problems faced by schools include less overall teaching days, and larger classroom size. There were several important ingredients for gaining acceptance by the schools. The program has to be free. Testimonials, from parents are helpful. Injury prevention program organizers do not have to be “ambulance chasers”, but the face in the media is important for awareness of injury prevention programs. If an unfortunate event occurs in the community, injury prevention programs should take the opportunity to remind the public about facts related to injuries and strategies for prevention. With respect to identifying the most appropriate teachers to present the program, individual classroom teachers can teach some of the components, while other teachers such as physical and health education or science teachers would be ideal for teaching other components.

Flexibility is required with respect to content and format of delivery of the injury prevention program. For example, Hutterites don’t bike and need more farm safety programs, whereas urban schools need more programs about gang violence. Options, flexibility, and relevance to a given community are important. Partnerships with other injury prevention programs represent important opportunities, for example participation in Safe Kids Week.

There are roadblocks to implementation, even for programs that are given to the schools at no charge such as TD ThinkFirst For Kids. For example, photocopying some of the lesson plans in the TD ThinkFirst For Kids Curriculum has been a problem in some schools. The organization presenting the program such as ThinkFirst may have to do the photocopying if the school cannot because of budget constraints or will not because of time constraints. Agency staff may have to do the photocopying, when the school did not have the funds. Enlisting older kids to teach the program to younger kids is another strategy that has been helpful for implementation of elementary school programs. Similarly, opportunities should be sought to partner with police, fire and paramedic programs. Letters to the editors, picnics, and other events are helpful for increasing the awareness of parents and teachers about the availability of injury prevention programs. In-service conferences where teachers can be introduced to the program is an excellent way to make teachers comfortable with teaching a program.

## **The National Injury Prevention Strategy - Future Implications For School Based Injury Prevention Programs**

*Sally Lockhart*

Injury prevention programs have historically resided with agencies involved in transportation and workplace safety, but now it is also considered part of health promotion and public health, and this is new. Previous attempts to organize a national strategy date back to the early 1990s. At the time the federal government was not prepared to commit funds to a national strategy. Since then, the momentum for a national strategy has built as indicated by the following developments: the Canadian Collaborative Centers Group was established; and the Injury Research Network (CIRNet) was established to increase funding for research in injury prevention through CIHR. Also, more national NGO's have been established since then with a role in injury prevention, such as ThinkFirst, which was one of the first of the national NGOs in this field.

Nova Scotia was the first province with a provincial strategy for injury prevention, and several other provinces are planning strategies. Now there is a National Strategy with key recommendations under 6 pillars which is being recommended by a coalition of injury prevention programs, including ThinkFirst.

There are a number of school-based injury prevention programs including TFFK, Risk Watch, other regional community resources such as Planet Safe, and some Provincial curricula, often developed from a workplace safety perspective. The challenges that lie ahead include the fact that education is mostly a provincial jurisdiction, and provinces often prefer to develop their own programs rather than use what another province has developed, leading to variation in content of curricula. We should work in concert to ensure that the national strategy is adopted.

We should work to ensure that injury prevention is part of the school curriculum. We should gather partners and work collectively to ensure that we offer programs that meet the required curriculum outcomes. As well, we should evaluate programs thoroughly and work with other groups that have similar interests to create healthy schools and healthy living.

## **Discussion and Suggestions from the Audience**

A national strategy for injury prevention should embody school-based injury prevention programs. There is much that we can do to make this happen, such as bringing the politicians to the schools to see our programs first-hand. Think of schools as the workplace for kids.

Each participant should examine his/her own setting, and work to ensure that injury prevention curriculums are embedded in the schools and that the programs should start at an early age. Parents groups need to be informed and involved. The media need to be mobilized, especially, the medical writers. Each school should have a “safety committee.”

It is a strong selling point for individual schools, school boards and Ministries of Education to have injury prevention programs that have been evaluated scientifically, as is the case with TD ThinkFirst for Kids.

## **Summary of Questionnaires Completed by the Attendees**

Approximately 20 of the 90 attendees completed the Evaluation Questionnaires and most were highly complimentary about the content and delivery of the presentations. Most respondents commented on the usefulness of the information for their own environments. Many indicated that they became aware of programs that they could implement in their own schools. Of special importance was the information on the timing and methodology for introducing new injury prevention curricula to individual schools, school boards, and Ministries of Education. Many were pleased to learn about the availability of specific injury prevention material for various age groups. There were positive comments about the practical advice for implementation of programs that were transmitted by the presenters who had experience in implementation.

## **Acknowledgements**

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## Biographical Notes on Speakers

### **Charles H. Tator, CM, MD, PhD, FRCSC FACS**

Charles Tator is a Toronto neurosurgeon who has treated many patients with catastrophic brain and spinal cord injuries and also does basic and clinical research in neurotrauma. He is a Professor of Neurosurgery at the University of Toronto, and Toronto Western Hospital. He is also President of Think First, Canada, and has been appointed a Member of the Order of Canada.

### **Simon Walling, MBChB, FRCSC**

Simon Walling is a neurosurgeon and faculty member of Dalhousie University with a major interest in traumatic brain injuries. He is a member of the Trauma Association of Canada, The Nova Scotia Trauma Advisory Council and Think First Canada. He has a special interest in sports related concussion and has counseled many patients, athletes, parents and coaches on the effects of concussions. He is committed to many community based injury prevention initiatives.

### **Julian B. Young, BA CRIM MPA**

Julian Young is the Coordinator of Injury Prevention for Nova Scotia Health Promotion, the provincial government agency tasked with improving the health of Nova Scotians. Julian has a BA in Sociology and Criminology from Saint Mary's University, and Masters of Public Administration from Dalhousie University. Julian is currently a sessional instructor with Dalhousie University School of Health Promotion.

### **Morris Green, B.P.E., M.S.**

Morris Green is a former journalist and public relations person who became involved in injury prevention several years ago - first from the communications end, and more recently in the area of program development. This year he'll be leading the pilot phase of a hybrid Prevent Alcohol and Risk-Related Trauma in Youth resource across Atlantic Canada.

### **Nancy Schad B.A., B.P.H.E., B.Ed.**

Nancy Schad has been an Instructional Leader for Health and Physical Education in the TDSB since 1999. Her responsibilities in her present position include support for the elementary schools and secondary schools on all topics dealing with safety and excursions. She also provides physical education curriculum support for secondary schools. Nancy has been a leader in curriculum resource development and teacher training at the secondary level. Her position allows her to work in partnerships with several "outside organizations" including the fire, police departments and the City of Toronto Public Health department. Nancy is currently co-president of OASPHE and is a member of Ophea's Safety Advisory and Technical Committees.

### **Michael Cusimano, MD, PhD, FRCSC, FACS**

Dr. Cusimano received his degree in medicine from the University of Toronto. He has also received a masters degree in Health Professions Education from the University of Illinois at Chicago and a PhD in Educational Measurement and Evaluation from the University of Toronto. He is a neurosurgeon and Director of the Injury Prevention Research Office at St. Michael's Hospital, a regional trauma centre, in Toronto. He is also a Professor in the Departments of Surgery, Public Health, and Education at the University of Toronto. He is the national Research Director of ThinkFirst Foundation of Canada.

### **Jodi Dusik-Sharpe, RN BN CNNC**

Jodi is a graduate of St Boniface Hospital School of Nursing in Winnipeg and holds a Bachelor of Nursing degree from the University of Manitoba. She is also a Certified Neuroscience Nurse of Canada and a longstanding member of the Canadian Association of Neuroscience Nurses (CANN). Jodi has held both provincial and national positions with CANN and is presently the CANN representative on the Board of Directors of the Think First Foundation of Canada. In keeping with her dedication to injury prevention, Jodi has been the Program Coordinator for Think First Manitoba since 2000.

### **Sally Lockhart, MSW**

Sally's background is Sociology and Social Work. She began her career in rehabilitation but shifted to include injury prevention in the mid-eighties. She worked for Health Canada in Ottawa in the area of child injury prevention from 92-99 where she helped develop national networks in injury prevention as well as managed the development of a number of national educational materials on the subject. Since returning to PEI in 1999, she created a consulting business in injury prevention. Her national projects include work on seniors' falls, children's transportation-related injuries as well as stakeholder consultations across Canada on the development of an Integrated Canadian Injury Prevention Strategy. She serves as the secretariat for the Atlantic Network for Injury Prevention and has helped the Island Network for Injury Prevention (INIP) to develop and implement across PEI a comprehensive bike helmet module for the Kindergarten curriculum of TD Think First for Kids. Sally is the Coordinator of the PEI chapter of ThinkFirst.