

**THE EVALUATION OF THE  
CANADIAN HOSPITALS INJURY REPORTING AND  
PREVENTION PROGRAM  
(CHIRPP)**

**Report of the Evaluation Team**

**Michael Hayes, Projects Director ,Child Accident Prevention Trust  
(United Kingdom)**

**Yvette Holder, Director, International Biostatistics and Information Services  
(St. Lucia, former PAHO/WHO Biostatistician)**

**William Pickett, Associate Professor, Community Health & Epidemiology and  
Assistant Professor, Emergency Medicine, Queen's University  
(Canada)**

**September 2001**

## **EXECUTIVE SUMMARY**

CHIRPP is an emergency department-based injury surveillance system that uses data from 15 Canadian hospitals . It has operated since 1990, at which time it only operated at paediatric hospitals. CHIRPP was subsequently extended to five general hospitals. This evaluation was undertaken partially in response to a report from the Office of the Auditor General of Canada that recommended that all such surveillance systems should be the subject of regular review.

The Evaluation Team was provided with extensive documentation before spending five days in Ottawa. While in Ottawa, in-depth discussions were held with those managing and operating the system, both at Health Canada and at a selection of the participating hospitals. In addition, data users were interviewed. Those chosen for interview represented a cross-section of user-groups and areas of expertise.

In general, we found CHIRPP to be a well-run program operated by a competent and committed team. The program is less effective than it could be due to the lack of policy on injury prevention at the federal level. CHIRPP can play a role in redressing this, and the Evaluation Team urges that this happens.

We strongly recommend that CHIRPP continue to be operated as a surveillance system as it has the capacity and design to make a contribution to the reduction in death and injury to Canadians. It would benefit from a greater emphasis being placed, both locally and nationally, on the active use/application of the information that the program generates. This will be especially important with regard to the shaping of public policy on injury prevention. Experience has shown that this can best be achieved through close collaboration with the many stakeholders in the injury field. These stakeholders should also be invited to contribute to the development and maintenance of a new CHIRPP strategic plan. The Evaluation Team recommends that the latter be developed to cover a period of up to five years.

There are a number of areas where the operation of the system could be improved, notably through the more systematic documentation of operating and training procedures, and the development and implementation of “performance standards” for the participating hospitals. Hospitals that cannot meet these standards on an ongoing basis should be assisted during a

probationary period, after which time, if they still cannot meet the standards, they should be dropped from the program to protect the integrity of the surveillance system. Revisions to the existing funding structure for the participating hospitals should also be examined, and the current approach to funding of small research projects should be reconsidered.

In contradiction to the advice provided in the Auditor General's report, we do not support the expansion of the program to additional hospitals at this time. We believe that the primary emphasis of CHIRPP should be on the quality and consistency of the data, rather than on the quantity or representativeness of the data registry. Even if further hospitals were added to the program, we feel that the database would be unlikely to be truly representative of the full spectrum of injuries and their patterns experienced by Canadians.

Recommendations for revisions to the program's objectives reflect the sentiments expressed here. A summary of the recommendations is shown below: (The recommendations have been prioritised with the highest being labelled "A" and the lowest "C").

## RECOMMENDATIONS

---

	<b>Priority</b>
<b>Strategic issues</b>	
1. CHIRPP stakeholders should revisit the program's objectives, modifying them to make them more relevant to present conditions, and placing a greater emphasis on the application of the information generated to injury prevention efforts.	A
2. The CHIRPP Office at Health Canada in Ottawa (CHIRPP Central) should work closely with its stakeholders through a revived Advisory Group to: a) develop and maintain a new strategic plan for CHIRPP b) identify short and medium term priorities, for all aspects of surveillance from the collection of injury data through to the implementation of prevention programs c) in particular, actively assist in the development of public health policy with respect to injury prevention.	B
3. A dissemination strategy for CHIRPP should be developed, covering federal and local levels, placing particular emphasis on informing public policy through its stakeholders.	B
4. More centres should be funded to enable their Coordinators and Medical Directors to play a pro-active role in promoting and supporting local action.	A
5. CHIRPP Central should work closely with other branches in Health Canada as well as other federal agencies that have an opportunity to effect reductions in injuries.	B
6. At this time, the number of hospitals involved in CHIRPP should not be expanded. The emphasis should be on the quality and consistency of the data, rather than the quantity and "representativeness" of the information collected.	C

## RECOMMENDATIONS

---

	<b>Priority</b>
<b>Resources</b>	
7. The funding formula used to calculate the amounts of money received by each CHIRPP site should be revisited so that at least its rationale and derivation are clear and transparent.	A
<b>Operational issues</b>	
8. Standardized training should be provided to all CHIRPP staff, both at CHIRPP Central and each of the participating hospitals. The content and scope of this training need to be documented in a simple series of manuals. The development of these manuals could be informed by a small group of experienced CHIRPP coordinators, with input and coordination from CHIRPP Central.	A
9. CHIRPP staff and other stakeholders should continue to be involved in efforts to develop a minimal administrative dataset for injuries in Canada (such as that proposed via the NACRS initiative) as well as a national coronial database that includes injuries.	C
<b>Quality assurance</b>	
10. The operational procedures employed at each CHIRPP site should be documented. The effects of the different procedures used on the quality and completeness of the data should be evaluated objectively.	A
11. A protocol for routine and structured site reviews should be established. These reviews require well-defined, objective performance standards that measure the performance of the system, i.e. the efficiency of data collection, the quality and utility of the data itself, and the application of the data to prevention efforts. A protocol for the support of sites failing to meet the performance standards should be developed. The latter protocol should include criteria that state when a site will be dropped from the program due to poor performance, in order to protect the integrity of the injury surveillance system.	A
12. Performance standards for the data handling processing at CHIRPP Central should be developed and implemented.	B
13. The method of completion of the "follow-up box" (for patient consent) on the CHIRPP questionnaire needs to be verified and standardised.	C
<b>Data processing</b>	

## RECOMMENDATIONS

---

		Priority
14.	A computerized method for double-entering a random sample of records for quality assurance and training purposes is developed and should be periodically implemented at CHIRPP Central on random samples of records as part of a routine verification process.	A
15.	A procedure for managing erroneous records, including a tracking system for records that have been returned to hospitals for correction, is needed.	C

### Dissemination

16.	A brief annual report that provides an overview of CHIRPP, with examples of CHIRPP's public health function, operation and "successes" should be prepared by the Communication and Liaison Officer. This non-technical report should be used to increase the visibility of the program.	A
17.	The use of CHIRPP data in prevention and research should be tracked. A catalogue of these efforts should be maintained centrally, and made available to all stakeholders associated with CHIRPP.	C

### Research

18.	The availability of the \$4,000 local research contracts should be reviewed with consideration being given to competitively awarding fewer, larger contracts to projects with the potential for greater impact.	C
19.	Guidelines for the use of CHIRPP data for trend analysis should be developed.	C

---