

Hazard (Edition No. 10) March 1992

Victorian Injury Surveillance System

Monash University Accident Research Centre

Royal Children's Hospital Parkville, Victoria Australia 3052

This edition of Hazard describes the dimensions and nature of the problem of injuries occurring in schools and makes recommendations for design and organizational measures for prevention. It also provides up-date information on the effectiveness of bicycle helmet legislation, and the prevention of ingestions of dishwasher machine detergent. Progress on the collection of adult injury data is also described.

School Injuries

Stephen Goss

Introduction

Injuries are a significant cause of absences from school among the school age population and so impinge upon the learning opportunities of a large number of students. In fact, school injuries constitute 14% of all injuries among the under 15 year age group. If injuries per exposure hour are considered (number of injuries divided by hours of exposure), assuming children spend 7 hours at school and an average of 9.5 waking hours at home (including weekends), children are equally likely to be injured at school as at home. This report outlines some of the factors inherent in injuries in schools. The data pertains to children under 15 years (N=6162) who presented with injuries at the emergency departments of VISS participating hospitals (Royal Children's Hospital, Western Hospital Footscray, Preston and Northcote Community Hospital and the Western Hospital Sunshine) during the period 1989 to 1991 inclusive. The analysis has been divided into several categories. These are playground and non-playground school injuries as well as primary (5-11 years inclusive) and junior secondary (12-14 years inclusive). School (not playground) refers to a location which is indoors at school whereas school (playground) refers to a location which is outdoors at school, including areas such as ovals, basketball courts, stairs and paths.

Note: Stephen Goss is a post primary school teacher who is spending 39 weeks with VISS as part of the Teacher Release to Industry Program conducted by the Ministry of Education and Training and Deakin University.

VICTORIAN INJURY SURVEILLANCE SYSTEM













HAZARD 10



page 1

Playground injuries differ in nature to non-playground injuries due to the different environment and types of activities involved. As well, older children tend to engage in different types of activities both in and out of the classroom when compared to younger children. Therefore, the above categories have been chosen so that a suitable basis for the most appropriate countermeasures can be identified.

All injuries incurred at schools are covered including those which happen outside school hours (e.g. on a school oval at weekends). Of total injuries, 86% occurred in school hours and 14% outside of school hours.

As previous editions of Hazard (viz. Hazards 3, 8 & 9) have covered playground equipment and sports in detail, this edition will focus on other causes of injury at school.

Injury patterns have been analysed according to the following criteria:

- 1) The proportion of injuries occurring in different age groups.
- 2) The time of day, week and year when injuries seem to peak.
- 3) The locations where injuries occur.
- 4) How injuries were caused.
- 5) The object or activity associated with the what went wrong (breakdown factor).
- 6) The object or activity causing the injury.
- 7) The body part actually injured.

By addressing the above questions the nature of injuries occurring at schools can be more fully understood and injury prevention strategies can be developed.

Age Distribution

Outdoor injury cases represent 90010 of all injury cases among the primary age group and 70% among junior secondary students. The latter group have a higher incidence of indoor injury cases when compared to the primary age group. (see Fig. 1).



Figure 1



Gender Breakdown

Males have a higher incidence of injury at both primary and junior secondary levels, particularly the latter (see Figs. 2 & 3). This is no different to the pattern for non-school injury cases where males make up 60% of injury cases and females constitute 40% of injury cases (N=37,375). The sex ratio for all school injury cases is 1.7 to 1.0 (male:female).







Female 50% Not Playground (N=369)

Viss School Injuries + 15 yrs 89-91 inc.

VICTORIAN INJURY SURVEILLANCE SYSTEM















Time of Day - Not in playground



Weekly Pattern - N=6162



Seasonal Distribution - N=6162



M

VISS School Injuries < 15 yrs 89-91 inc.

VICTORIAN INJURY SURVEILLANCE SYSTEM











HAZARD 10 page 3



Time of Day

Figure 4

Figure 5

Figure 6

Figure 7

As expected, outdoor injury cases peak during the lunchtime period whilst indoor cases are spread almost evenly over the period 10 a.m. to 3 p.m. (see Figs. 4 & 5)

Weekly Pattern

All days of the week (excluding weekends) have approximately the same number of injury cases. (see Fig. 6)

Seasonal Distribution

Sports injury cases tend to exhibit a seasonal pattern (see Hazard 9 for a fuller discussion). Similarly, in schools, sports injury cases peak in May at the beginning of the winter sporting season for football and soccer and again in August towards the end of the football season. Non-sporting injury cases are more widely distributed. (see Fig. 7)

Hazards At School

When the outdoor environment is considered, sport is the main activity and playground equipment and fences/ logs/poles are the main objects associated with injury cases (see Table 1). If the outdoor environment is further analysed by age levels, it becomes apparent that playground equipment is the object most frequently associated with injury cases at the primary level (36%) whilst sport is the activity most frequently associated with injury cases at the junior secondary level (66%).

At the primary level 74% of injury cases occur during informal play activities, whilst at the junior secondary level only 40% of cases occur during informal play activities and 49% occur during sports activities. Football is a significant contributor to sports injury cases constituting 24% of all factors associated with "what went wrong".

Playground Equipment

Falls are the main mechanism of injury associated with playground equipment at both primary (81%) and junior secondary (80%) and not surprisingly the major type of injury is a fracture, both at primary (62%) and junior secondary (43%). At the primary level, boys have a slightly higher incidence of injury (54%) when compared to girls (46%), whilst at junior secondary level boys account for 68% of play equipment injury cases and girls 32% of such injury cases.

Monkey bars and other climbing apparatus feature as a prominent piece of playground equipment associated with falls and 74% of falls are from monkey bars greater than one metre high. The frequency of injury cases involving monkey bars has remained relatively stable over the past 3 years. In 1989 there were 187 injury cases in which monkey bars were a factor, in 1990 there were 207 cases and in 1991 there were 165 cases. A reduction in this type of injury would be expected with the gradual replacement of older style climbing apparatus with playground equipment designed in accordance with the forthcoming Standards Australia standard.

Breakdown Factors (in playground)		Table 1
Factor	Ν	%
Sports (ns & nec)	630	17
Monkey Bars/climbing equipment	554	15
Football	333	9
Soccer	239	6
Playground Equipment (ns & nec)	228	6
Basketball	211	6
Fences, logs, poles	142	4
Slides	119	3
Physical Education (schools)	116	3
Stairs & Steps	104	3
Cricket	102	3
Small rocks & stones	78	2
Sticks, branches, trees	70	2
Benches & chairs	61	2
Ground & other natural surfaces	60	2
Bikes & accessories	41	1
Concrete & other manmade surfaces	39	1
Doors & Gates	37	1
Personal use items, e.g. coins, jewellery, pens	32	1
Animals	29	1
Swings	27	l
Wood Items	20	0.5
Ceilings & walls	20	0.5
Other	376	10
Total	3668	100

VISS School Injuries Under 15 1989-1991 inc.

NOTE: Up to 2 Breakdown Factors can be recorded per case ns = Not Specified nec = Not Elsewhere classified Persons accounted for an additional 3032 breakdown factors

Fences Logs and Poles

Out of 322 injury cases involving fences, logs and poles, 184 cases were associated with poles. A child running in the playground and colliding with a pole accounted for 55 (30%) of pole injury cases. Some schools have taken the initiative of marking poles with stripes or painting them with fluorescent yellow paint so as to make them more visible to students in the playground.

Sport

Hazard 9 noted the high proportion of sports injury cases among the 10 to 14 year age group (currently representing 40% of all injury cases in this age group) and that Australian Rules Football accounted for 40% of males injured (N=343) with 38% of such injury cases occurring in schools. A similar situation exists with soccer in that 39% of injury cases occurred in schools, whilst with cricket 34% of bat injury cases and 31% of ball injury cases occurred in schools. Basketball played in school is associated with a high incidence of finger injury cases.

VICTORIAN INJURY SURVEILLANCE SYSTEM















Stairs and Steps

The majority of injury cases associated with stairs and steps (N=209) resulted from play activities (34%) followed by falls and trips (28%) and slipping (19%). Deliberate pushing accounted for 7% of injury cases incurred whilst falls from railings resulted in another 5% of cases.

A typical example of "what happened" in such cases is "*Playing. Slipped down a staircase and twisted ankle*" or "*Jumping down stairs. Fell over on the stairs*". The percentage of injury cases associated with stairs and steps varies little between primary and junior secondary levels (4% and 5% respectively).

Doors

Door injuries accounted for 9% of all indoor injury cases at schools. The majority of cases examined (N= 104) suggest a lack of care by school children when closing doors so that when one child closed a door another child's fingers were jammed (55%). A typical example of "what happened" in such cases is: "Door slammed closed, fingers caught in door" or "Playing and door slammed on finger by another child". A few cases of door related injuries involved children running into glass doors (8%) or falling over and hitting a door (9%).

Doors featured more prominently as an object involved with injury cases among primary school aged children (14%) than among junior secondary ages (5%).

Furniture

Furniture related injury cases constituted 12% of all indoor school injury cases.

A quite common occurrence involving furniture injury cases (N=72) is falling off chairs (25%) or tripping and then falling onto a piece of furniture (14%). A typical example of "what happened" in such cases is: "*Fell backwards off chair onto floor*" or "*Walking and tripped over girl's leg. Fell on side of desk*".

The most common part of the body injured was the face and scalp (14% of injuries). Furniture was an object associated with "what went wrong" in an equal number of injury cases at both primary and junior secondary levels.

VICTORIAN INJURY SURVEILLANCE SYSTEM













Gymnastics

Gymnastics constitutes 11% of factors associated with injury among both primary and junior secondary age groups (see Table 2).

It emerges that 86% of all gymnastics injury cases occurred during organised sports competition and practice and a significant proportion of injury cases in gymnastics are due to either overexertion or over-reaching (55%) and then landing awkwardly after performing an exercise, or falling (38%) from a piece of equipment such as a vaulting horse. A typical example of "what happened" in such cases is: "Practising jumps on a beam. Fell off and landed awkwardly" or "In a gym competition. Fell off high bars and landed on gym mats".

Collisions

At school, a large number of children are brought together in a comparatively small area, especially at peak times such as recess or lunch. Collisions between children (both moving), of which 85 cases were recorded, occurred more commonly outdoors, especially whilst playing sport (42% of cases). The most common type of injury sustained were head and facial injuries constituting 63% of such injuries. A typical example of "what happened" in such cases is: "Playing football. Ran into another player" or "Playing chasey. Victim collided with a friend".

Another type of collision occurs when a child is propelled to collide with an object or surface. Pushing or tripping of one student by another accounted for 24% of injury cases indoors involving collisions of this type (N=319). Cuts, lacerations and bruising to the face, were the most common type of injuries sustained (17%) followed by fractures to the arm (10%). A typical example of "what happened" in such cases is: "Standing up and was pushed by other child to floor" or "Tripped in the corridor at school. Put arm out to break fall".

Breakdown Factors (not in playground)		Table 2	
Factor	N	%	
Steps & Stairs	77	12	
Gymnastics .	69	11	
Doors	58	9	
Other Sport & recreation	54	8	
Chairs	35	6	
Physical Education	32	5	
Basketball	26	4	
Floors & flooring material	22	3	
Tables	16	3	
Knives	13	2	
Ball Sports (ns & nec)	13	2	
Dancing	12	2	
Pens & Pencils	11	2	
Trampolines	10	2	
Desks, chests, bureaus, buffets	9	1	
Desk supplies (exc. pens & pencils)	9	1	
Other	176	27	
Total	642	100	

VISS School Injuries Under 15 1989-1991 inc.

NOTE: Up to 2 Breakdown Factors can be recorded per case ns = Not Specified nec = Not Elsewhere classified Persons accounted for an additional 428 factors

Other Objects or Activities

Finally, it should be noted that objects or activities that one might expect to be associated with school injuries do not feature prominently. Workshop tools and appliances constituted 0.6% of such objects or activities for all school injury cases, chemicals and compounds 0.1% and craft equipment 0.4% respectively. Knives were involved in 0.2% of all school injury cases and the injury was invariably caused by a slip of the knife while cutting some type of object. Animals or insects made up 0.6% of all school injury cases, with 85% of such cases occurring outdoors. The most common causes of injury (N=34) were bees and wasps (32%), dogs (16%) and spiders (11%).

Outcomes

Body Parts Injured

For both groups of students (i.e. primary and secondary) most outdoor injuries (see Fig. 8) occur to the upper extremity of the body (52%) in the form of fractures especially to the radius/ulna (24%), wrist (7%), fingers (6%), humerus (5%) and elbow (5%). The second most commonly occurring injury site is the lower extremity (21910) which is predominated by ankle sprains (21%). Next comes injuries to the head (22%) which consist mainly of cuts and lacerations, abrasions and bruises to the face or scalp (38%).

Indoor injuries (see Fig. 9) follow a similar pattern. Again, upper extremity injuries predominate (44%) with injury cases to the fingers constituting 40% of such injuries. This highlights the significance of doors as a factor

associated with indoor injuries. Lower extremity injuries make up 23% of indoor injuries with ankle sprains constituting 24% of this group. Head and facial injuries constitute 23% of indoor injuries with cuts and lacerations, abrasions and bruising to the face and scalp amounting to 37% of this group.



Nature of Injury (Table 3)

Fractures constitute a relatively high proportion of outdoor injuries (35%) whilst the nature of indoor injuries is more widely distributed (fractures make up 21% of injuries). When one looks at injuries involving playground equipment, fractures, especially to the arm are prominent. For instance, out of 1043 play equipment injuries sustained throughout the 3 year period 639 involved fractures (61%) with 190 cases occurring in 1989,235 in 1990 and 214 in 1991. However, the incidence of fractures among school injuries as a whole (18%) is similar to the incidence of fractures among non-school injuries (16%).

Injury Severity

The admissions rate for school injury cases (N=6162) is less at 13% compared to the admissions rate for non-school injury cases (N=37375) which is 18%. Significant treatment, but not admission, was required in 2701 school injury cases (44%). This fact should be considered in light of the relatively high proportion of fractures amongst school injury cases, as typically, a fracture of the radius/ulna takes about six weeks to heal. The more severe the injury, the greater are the underlying costs such as lost time from school and ongoing incapacity, as well as health care costs.

Recommendations

- 1. Given that most injury cases occur outdoors, consideration should be given to improved supervision whilst children are outdoors, especially at the primary level.
- 2. Given that playground equipment injury cases make up 25% of all outdoor injury cases amongst the primary (5-11 years) group, attention should be given to the design and maintenance of playground equipment particularly the fall heights from equipment such as monkey bars and other climbing structures and to providing and maintaining an appropriate undersurface for the purpose of impact absorption.

Injuries by Nature of Injury

	In Pla	yground	Not Ple	ayground
Nature of Injury	Ν	%	N	%
Fractures	1971	35	191	21
Haematoma	1005	18	169	18
Sprains, strains	942	17	160	17
Cuts, Lacerations	476	8	140	15
Inflammation, swelling	382	7	62	7
Systemic	290	5	38	5
Other	587	10	158	17
Total	5653	100	918	100
VISS School Injuries < 15 years 1989-1991 inc.				

NOTE: Up to 3 injuries can be recorded per case

As a new Standards Australia (S.A.) standard on playground equipment is to be released, design of school playground equipment should be based on this standard. One specification contained in the draft standard is that a compacted depth of 250 mm of mulch/bark is the minimum required for untested materials in public playgrounds and schools.

It has also been suggested (Cass 1991) that injury cases from falls can be reduced in severity by teaching children necessary skills in falling.

3. As sports are a significant factor in junior secondary injury cases the recommendations contained in Hazard editions 8 and 9 are salient.

Some possible strategies which have been pointed out include:

- a) modified rules
- b) protective gear
- c) fitness programs
- d) emphasis on skills training
- e) removal of hazards from areas where sports are played
- f) ensuring sports are played on appropriate surfaces (e.g. grass instead of asphalt)
- g) allocation of funds by school councils to implement safety measures.

- 4. Design and location of furniture could be examined particularly its stability and height in relation to the child.
- 5. The surface of stairways and steps should be non-slip, handrails adequate and the use of stairs and steps should be monitored, especially at peak times (e.g. recess, lunchtime).
- 6. Doors present a particular danger to fingers. Attention should be given to the type of door suitable for a particular location (in some cases sliding doors may be a safer option to hinged doors) and to alerting students to the dangers of slamming or shutting doors inadvertently. Door closers and/or wedges to keep the door open could prevent continual slamming of doors and hinge side protectors could prevent the more serious finger injury cases.
- 7. Collation and dissemination of statistics derived from accident report forms filled in at schools would be extremely useful in gaining a broader insight into school injury cases.
- 8. Schools should review their own data on injuries so as to be able to identify local specific hazards and thereby implement prevention strategies.

VICTORIAN INJURY SURVEILLANCE SYSTEM











HAZARD10 page 7



Table 3

Current Initiatives in School Safety

Shire of Bulla

The Shire of Bulla has initiated a Safe Living Program and as part of this program certain schools within the Shire have been formally audited by the Playground and Recreation Association of Victoria with a view to identifying hazards and unsafe actions so as to develop appropriate countermeasures. It was found from VISS data that 10% of injury cases (N=955) occurring to children within the Shire of Bulla during the period 1988 to 1990 occurred in the school playground. Hence, a number of steps have been proposed, particularly in relation to playground equipment. These include:

- a) Separating areas containing playground equipment from areas used for sport.
- b) Establishing different play areas for older and younger children.
- c) Promoting safe ways of playing.
- d) Developing different safety guidelines for different schools, given that each situation is unique.

NOTE: For further information on the Shire of Bulla Safe Living Program contact Mark Hennessy on 744 9111.

Child Accident Prevention Foundation of Australia

Under the School Safe Project, the Child Accident Prevention Foundation of Australia (Victorian Division) has established a program involving six pilot primary schools in the Dandenong/ Springvale area of metropolitan Melbourne. Each school has a School Safe working party which attempts to identify hazards in the school and then implement strategies to prevent injuries and reduce their severity. The schools then come together at Reference Group meetings to share ideas and action plans.

NOTE: For further information on the School Safe Project contact Cathy Nolan on 663 7379.

Australian Standard

A draft Australian Standard (AS2155) on playground equipment has been formulated by Standards Australia, which "specifies the requirements of and makes recommendations for the structural design, construction, installation, labelling and maintenance of playground equipment, movable play equipment and exercise equipment to minimize potential hazards". The Standard is applicable to playground equipment located in schools.

NOTE: For further information on the draft Australian standard on playground equipment contact Gerrard Leeds of the Playground and Recreation Association of Victoria on 388 7066.

Ministry of Education and Training

Included in the Ministry of Education and Training Personal Development Frameworks Document P-10 is a Year 8 unit of work based on a practical decision-making approach entitled "Our Safety", which aims to involve students in developing strategies to reduce the causes of injuries at their particular school.

Child Safety Centre

The Child Safety Centre at the Royal Children's Hospital has a range of resources and readings on injury patterns in schools and injury prevention strategies. School groups are welcome to visit the centre.

NOTE: The Centre can be contacted on 345 5085.

Playground and Recreation Association of Victoria

A report by the Playground and Recreation Association of Victoria using VISS data and sponsored by the Victorian Health Promotion Foundation dealing with children's playground equipment and related injury cases is currently being prepared. The study has found that the piece of equipment frequently associated with the term "monkey bar" i.e. the horizontal ladder, is not as significant as timber rung type climbers as a factor in playground injury cases.

Conclusion

Children spend a considerable amount of time in school and so the scope for injury is potentially very high, particularly in light of their relative lack of experience and inclination to engage in boisterous activities. Although the experience of a minor injury can be beneficial in the sense that it teaches the child about his surroundings and what objects or activities to avoid, continuing efforts like the initiatives outlined above need to be made both in the areas of gathering data on school injury cases and then designing and implementing appropriate prevention strategies.

References

Cass D, Injury Prevention Medical Observer May 1991

Hazard Editions June 1989. October 1991, December 1991

Ozanne-Smith J and Vulcan P. Injury Control in McNeil et. al. *A Textbook of Preventative Medicine* Edward Arnold 1990

Schelp. L. et. al. School Accidents During a Three School Years Period in a Swedish Municipality *Public Health* 1991

Acknowledgements

Cathy Nolan/Lyndall Horton-James (Child Accident Prevention Foundation of Victoria)

Mark Hennessy (Shire of Bulla)

Child Safety Centre (Royal Children's Hospital)

Gerrard Leeds/Diane Pain (Playground and Recreation Association of Victoria)

VICTORIAN INJURY SURVEILLANCE SYSTEM















VISS Updates

Head Injuries to Bicyclists

Figure 7 is an update from previous editions of *Hazard*, showing the effects of compulsory bicycle helmet legislation on head injuries to bicyclists under 15 years of age who presented to 3 VISS hospitals in the 18 month post-legislation period commencing July 1 1990.

The figure shows that if like half year periods are compared the numbers of both head and other cycling injury cases have been reducing and now appear to be levelling out.

The reductions coincided initially with pre-legislation education and later with the post-legislation mandatory wearing of helmets.

Greater enforcement of helmet wearing and/or additional promotional measures may be required if head and other injuries are to continue to decline.

Dishwasher Detergent

Prevention of Dishwasher Machine Detergent Poisonings

A total of 119 cases of dishwasher machine detergent exposures requiring hospital assessment were reported from the National Injury Surveillance Unit database to July 1991. Almost all of the exposures occurred to children less than 3 years of age. Of the 58 cases where the source was indicated, 81% of exposures were to detergent from the dishwasher machine itself.

Because of the lack of progress to resolution of this problem, representatives of the recently established Victorian Committee on Poisoning Prevention met in September 1991 with representatives of the dishwasher machine manufacturers, detergent, and packaging industries to develop a strategy to prevent poisoning of young children by dishwasher machine detergents.

An action plan was developed as the result of this workshop, and some progress has already been made:

1. Child resistant packs of powder Generic "house brand" dishwasher machine detergent powders formerly

Child bicyclist presentations to VISS hospitals (Melbourne): Before (Jan 1989 - Jun 1990) v. After (Jul 1990 - Dec 1991)



packed in unreclosable cardboard boxes will be replaced with packs fitted with child resistant closures. This has now been done, and all generic brands are packaged in child resistant containers.

2. Modified dishwasher design

Suppliers of machines will to be asked to:

- include a warning about the hazard, as a conspicuous label on the machine, and in the operating instructions.
- redesign the detergent dispenser since this is where most toddlers gain access to the poison. Redesign might involve placing a mesh over the dispenser cup, which will prevent access to powder or residue.

The Vulcan/Dishlex representative undertook to organise this approach to industry. Industry has since been approached and two local manufacturers (who together have about 70% of the market) are keen to address this problem through redesigning their product.

3. Parental Awareness

A leaflet will be produced for parents of toddlers, as well as a magnetic warning and instruction label to be distributed to parents owning machines. The Australian Chemical Speciality Manufacturers Association undertook to organise this together with the Child Accident Prevention Foundation of Australia.

4. Standards for caking of dishwasher machine detergents

Some of the cheaper brands tend to cake and adhere to the dispenser during machine operation, and this is a major cause of exposure to children. A Benckiser Australia Pty Ltd representative undertook to develop an industry standard to prevent caking, and the Standards Association of Australia will be asked to develop an Australian Standard.

5. Reduced alkaline content of dishwasher machine detergents

Industry groups represented will examine the possibility of research and development on low/non alkali detergents in Australia.

The Victorian Committee on Poisoning Prevention will monitor the progress of the action plan, and this will be reported in Hazard.

HAZARD 10

VICTORIAN INJURY SURVEILLANCE SYSTEM















page 9

Reference

Dr Malcolm Dobbin, editor, Report of the Prevention of Dishwasher Detergent Poisoning Workshop. Health Department Victoria. March 1992. Copies of this report are available on request. Please contact Dr Dobbin on (03) 616 7709 or by FAX on (03) 616 7347.

VISS Progress

Two additional data collections have recently been added to the Victorian Injury Surveillance System. The existing collection at the Preston & Northcote Community Hospital (PANCH) has been extended to include all ages and a VISS unit has been started at the Royal Melbourne Hospital (RMH). These two sites will provide detailed information on injury patterns in adults and adolescents and their causes.

Data collection commenced at RMH on 1 February 1992. At PANCH data has been collected on injured children (aged under 16 years) since November 1988. On 1 March 1992 this was extended to include people of all ages. This marks the end of the recent expansion phase of VISS data collection activities. It is anticipated that VISS in its present form including the Victorian Coronial data plus the two additional hospitals, will collect data on approximately 50,000 to 60,000 injured persons per year.

Latrobe Regional Hospital

VISS data collection began at the Latrobe Regional Hospital (Traralgon and Moo

campuses) on 1 July 1991. This collection was officially launched at the hospital by Dr. Peter Vulcan, Director of the Monash University Accident Research Centre in early April 1992.

A separate VISS publication Injury Surveillance in the Latrobe Valley (March 1992) was produced to coincide with the launch. It provides an overview of injuries to people of all ages who presented to the Latrobe Regional Hospital in the period July to December 1991 and is available on request from VISS.

Western Hospital Footscray

The first full year of data has now been analyzed and a report is available from VISS.

VISS Staff	Director: Co-ordinators:	Dr Joan Ozanne-Smith		
		Marga Penny		
		Virginia Routley		
	Data Processors	5:		
		Christine Chesterman	Royal Children's Hospital	
		Julia Coffey	Royal Children's Hospital	
		Bea Giemsa	Royal Children's Hospital	
		Janice Grothe	Western Hospital (Sunshine)	
		Wendy Murgia	Preston & Northcote Community Hosp.	
		Julia Palmer	Latrobe Regional Hospital	
		Julie Valuri	Royal Melbourne Hospital	
		Grace Volpe	Western Hospital (Footscray)	
		Suzie Vukic	Preston & Northcote Community Hosp.	
	Coronial data:			
		Barbara Fox		
		Diane Holst		
		Wendy O'Malley		
	Teacher on Rele	ase to Industry:		
		Stephen Goss		
	Computer Support:			
		Greg Wadley		
	Research Assist	ant:		
		Chris Hawkins		
	Associate Direct	or:		
	(Child Injuries)	Dr Terry Nolan		

How to Access VISS Data:

VISS collects and tabulates information on injury problems in order to lead to the development of prevention strategies and their implementation. VISS analyses are publicly available for teaching, research and prevention purposes. Requests for information should be directed to the VISS Co-ordinator or the Director by contacting them at the VISS office.

VICTORIAN INJURY SURVEILLANCE SYSTEM















General Acknowledgements

Participating Hospitals

Royal Children's Hospital Western Hospital (Footscray and Sunshine) Preston and Northcote Community Hospital Royal Victorian Eye and Ear Hospital Latrobe Regional Hospital (Traralgon and Moe) Royal Melbourne Hospital

The contributions to the collection of VISS data by the directors and staff of the Emergency Departments of these hospitals, other participating clinicians, Medical Records Departments, and ward staff are all gratefully acknowledged. The surveillance system could not exist without their help and co-operation.

Coronial Services

Access to coronial data and links with the development of the Coronial Service's statistical database are valued by VISS.

Melbourne University Department of Paediatrics & Royal Children's Hospital

Office facilities, secretarial and infrastructure support.

National Injury Surveillance Unit

The advice and technical back-up provided by NISU is of fundamental importance to VISS.

Hewlett-Packard

Hewlett-Packard Australia have continued to support us and we wish to thank them for their prompt service.

Business Model Systems

Mark Jarzebowski (Southern Regional Manager of BMS) has provided valuable technical assistance for the programming of PARADOX (relational database program).

Latrobe Regional Commission

For provision of data, information and background literature on the Latrobe Vallev.

Health Department Victoria, **Gippsland Regional Office**

For provision of data on utilization of health services and a demographic profile of the Latrobe Valley.



VISS is located at:

Building 70 Accident Research Centre Monash University Wellington Road Clayton, Victoria, 3168

Phone:

Reception	(03) 9905 1808
Co-ordinator	(03) 9905 1805
Director	(03) 9905 1810
Fax	(03) 9905 1809

Email: Karen.Ashby@general.monash.edu.au Virginia.Routley@general.monash.edu.au

VICTORIAN INJURY SURVEILLANCE SYSTEM













Hazard Directory

Hazard	Edition	Page No.
Bicycle Related Injuries	6	
Cyclist Head Injury Study		2
Cyclist Head Injury Update	7	
Cyclist Head Injury Update		
Dishwasher Detergent Update	6	9
Dogs		5
Drug Safety and Poisons Control		1
Drownings & Near-Drownings Home	5	1
Exercise Bikes		6
Exercise Bikes Update	9	
Domestic Architectural Glass	7	9
Horse Related Injuries	7	1
Immersion		
Injuries in the First Year of Life	7	
Latrobe Valley - First Three Months	9	9
Kambrook Urns		5
Petrochemical Experiments		
Playground Equipment		7
Playground Injuries		
Pool Fencing Legislation		
Pool Fencing Legislation Update	7	7
Scalds		1
Skateboards Injuries		
Sport Related Injuries - An Overview	8	
Sport Related Injuries - 5 Major Sports	9	1
VISS - How it Works		1
Wood Heaters		

Note major articles in **bold** print.

Other VISS Publications

Injury Surveillance in the Latrobe Valley - an Overview Injury Patterns for Children Aged Under 15 Years 1989-91 Injury Patterns Under 5 Years 1989-90 Western Hospital Footscray: Injuries to Adults 1991 Burns 1989-90 Under 15 years Injuries In and Around the Home Under 15 Years 1989-91 Summer Injuries December 1989- February 1990

This .pdf issue of Hazard reconstructed by Glenda Cairns

VICTORIAN INJURY SURVEILLANCE SYSTEM













