



INJURY BULLETIN

QUEENSLAND INJURY
SURVEILLANCE & PREVENTION
PROJECT

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Toddler Pool Drowning & Pool Fencing

Toddler pool drowning has become the most common discrete cause of injury death under five years of age in Australia. Drowning in swimming pools is now responsible for over half these deaths with 90% of these occurring in domestic pools^{2,3}

The epidemiology of toddler pool drowning is now well defined³. Swimming pool fencing can prevent much toddler drowning. Universal implementation of swimming pool fencing requires compulsion and this has proved difficult to achieve. A significant secondary problem is maintaining gate function according to the Australian Standard once the fence has been installed.

Swimming pool fencing opponents use the documented ability of young children to climb approved fences to place blame on the victim. However, ninety per cent of domestic pool immersions victims are less than three years of age and these toddlers are too young to climb fences and too young for swimming lessons³.

The proposition that only families with young

children should be required to fence is implausible because forty percent of immersions occur in a relative's or friend's pool while the toddler is visiting³. In any case, houses and backyards are inevitably recycled often to families with young children.

Ninety-five per cent of toddler victims are on the property with permission and they are often in the house prior to their deaths. The barrier is required between the house and the pool. The access point is the weakness in the fencing concept and the major problem is adult compliance with gate closure.

The Australian Health Ministers Conference in March, 1991 recommended that "isolation fencing be adopted in each state in its entirety as the fencing standard for new pools" and "that existing pools are satisfactorily fenced". From early 1995, the Australian Standards strongly recommended a fence between the house and the pool for all pools.

The Queensland experience is positive with an impressive initial reduction in toddler pool drowning (Figure 1). However, there have been no random pool inspections and little public enforcement and 14 of the 15 drownings since the legislation have occurred in pools that did not comply with the pool fencing legislation. It appears that the publicity associated with the introduction of swimming pool fencing contributed to the initial reduction. The lack of publicity since early 1992, accompanied by lack of

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Rural Injury: Central West Data

During the 12 months, 1-7-93 to 30-6-94, injury data was collected in the Central West Region from six hospitals and 12 general practices.

1185 cases of injury were captured providing a reliable baseline of incidence and patterns of injury as a basis for planning and intervention.

Sample

The male, female ratio in the sample was close to 3:1. While Australian Bureau of Statistics (1991 Census) figures show the population in the Central West to be 53.4% males and 46.6% females.

Young men 15-25 were identified as a high risk group. They represented 22% of the entire sample, while constituting only 8.9% of the population (ABS 1991 Census).

Location

The most common locations for injuries were farms (16.4%), home garden, garage or yard (15.7%), field or paddock (9.1%), sports arena, oval or court (8.9%) and public road (8.3%).

Injury Context

Most injuries occurred in the context of the following categories: leisure (35%), occupational (27%), transportation (12%) and sport (9%).

● Leisure

Half of all leisure injuries occurred in the home while 22% occurred as a result of a fall. Horse-related injuries accounted for 9% of all leisure injuries while knives were a factor in 5.5% of leisure injuries.

Children under 10 represented the largest age group, with 80 cases and 13 admissions for children 0-4 years and 72 cases and 10 admissions for those aged 5-9 years.

A dog was the mechanism factor in 17 cases, probably indicating a dog bite.

● Occupational

The occupational injuries usually occurred when the injured person was hit by something and were most often caused by moving into a dangerous position or losing control of an object or movement.

Fracture of the lower leg was the most common cause of hospital admission. Lacerations to the

finger or hand were the most common injuries.

There were more injuries in the 15-24 and 50-59 years age groups and less in the 25-39 years.

Animals

9.3% of injuries were associated with animals. Of these 5% were horse related, 2% cow related and 1.5% sheep related. Up to 65% of all horse related injuries were sustained while horseback riding. The most common injuries were cuts/lacerations and haematoma/bruising. 11 admissions resulted from fractures.

More injuries occurred in a work context than a recreational context.

Football

Football injuries accounted for 6% of the total sample and two-thirds of all sports injuries. Injuries were most commonly to the upper extremities with the highest proportion being sprains/strains or dislocation of the shoulder. There were five cases of concussion, four of which required hospital admission.

Knives

6% of all injuries were associated with knives. 41% of these occurred in the home while 36% occurred in an occupational context. 46% of all knife injuries involved killing or skinning animals. Three of the five cases requiring admission to hospital resulted from a cut to the upper leg. Only two of the knife injuries were due to aggression or selfharm.

Motorcycles

There were 59 injuries associated with motorcycles (5% of all injuries). The 10-19 years age-group accounted for 39% of the cases and 21% of the admissions.

46% of the injuries occurred in a work context. Only 13% of the injuries occurred on a public road while almost two thirds occurred in a farm, field or paddock.

22% reported wearing a helmet.

Grinding/Welding Injuries

Welding and grinding injuries accounted for 2.7% of all injuries with 54% of these occurring at work and 31% occurring in a do-it-yourself context.

In over two-thirds of the cases no safety equipment was used.

Data was collected from Alpha, Aramac, Barcardine, Blackall, Longreach and Winton Hospitals and General Practices in Birdsville, Blackall, Boulia, Isisford, Jundah, Longreach, Muttaborra, Tambo, Windorah and Winton.

festive
season
watch

Toys

The most recent QISPP data on injuries caused by toys shows children under five to be the most at risk. They represented 59% of the 71 injuries to children (0-15) in the 12 months from October 1 1994 to September 30 1995.

The injuries included 18 foreign bodies (9 in the nose), 11 fractures and 18 lacerations or cuts. Injuries to the face and head were the most common - 46%, followed by injuries to the upper limbs - 40%, of which three quarters were to the forearm, elbow or wrist.

When selecting toys for young children, the Office of Consumer Affairs advise, as a general rule: the smaller the child, the bigger the toy. Toys smaller than a ping pong ball or small enough to fit in a 35mm film cannister would choke a child if inhaled or swallowed.

Toy surfaces and packaging should also be checked for sharp points, rough edges and splinters as well as making sure all paints and glazes are non-toxic.

Cords or strings more than 300mm should be removed, especially playthings for cots. Loose bits of string or even fluffy tails could choke or strangle a small child.

Fire Safety - Candles

Candles have been implicated in nearly 100 home fires in Queensland in the last 12 months, according to the Office of Consumer Affairs.

The renewed popularity of candles and the plethora of types available is of concern to the Queensland Fire Service and Consumer Affairs who are investigating the safety of all candles on the market.

Of particular concern are light weight candles made of aerated material and those with additives such as fragrant oils which may burn hotter, faster or more erratically than the traditional paraffin or solid beeswax candles.

The potential fire hazard candles pose reinforces the need not only for responsible use and product safety but for smoke alarms in all homes.

Rollerblading

From January to June this year QISPP recorded 59 rollerblading injuries. Distribution over the six months shows peaks in January and April coinciding with Christmas and Easter holidays (see graph).

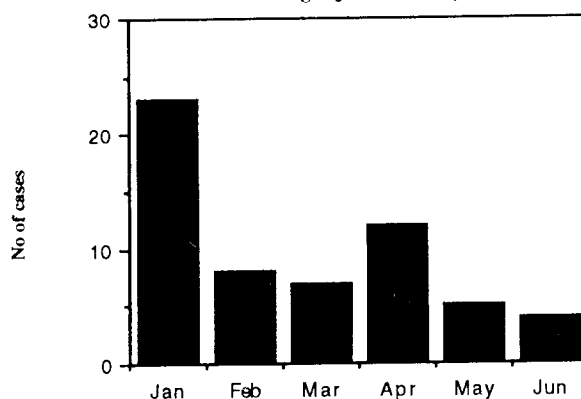
83% of the cases were less than 15 years of age. There were no injuries recorded for the 0-5 or over 35 age groups.

Injuries occurred most frequently at home, including the driveway (32%), followed by 30% on the street including footpaths and 20% in recreational areas including parks and bikeways.

Parts of the body most frequently injured were upper limbs (81%), of which 50% were to the forearm and 29% to the wrist.

There were 35 fractures and 9 sprains or strains. The admission rate of 20% reflects the serious nature of injuries sustained.

Rollerblading Injuries 1995 by Month



Public Playgrounds

- fractures and head injuries

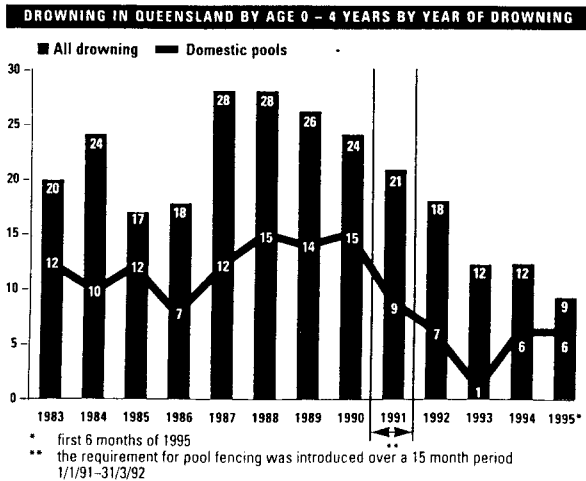
QISPP has recorded 241 fractures and head injuries from public playgrounds in the seven years, 1988 - 1994. This figure represents only 12% of the 1978 fractures and head injuries associated with ALL playground equipment.

There were 30 head injuries in public playgrounds of which 41% required hospital admission. In 81% of the head injuries the mechanism of injury was the undersurfacing and resulted from a fall from the play equipment.

Similarly, 92% of the 211 fractures resulted from impact with undersurfacing. In a further 7% of cases the mechanism of injury was the actual playground equipment. 44% of the fractures required admission.

enforcement means that some current parents of the peak risk group (two year olds) have not been exposed to the issue since they became parents and may explain the increase in pool drowning in 1994/95.

Figure 1



Both fencing advocates and opponents must realise that occasionally toddlers will climb a pool fence and drown in a pool complying with the Australian Standard for pool fencing, but based on detailed and accurate data, this will only happen once or twice a year in Australia. About two in three toddlers drown in pre-legislation pools. These older pools present the greatest danger to toddlers because they are not required to have a pool fence between the house and the pool and the access point to the pool from the house is often poorly protected. Most of the remaining toddlers access the pool through a defective or inactivated pool gate.

Swimming pool fencing is only one part of the comprehensive package necessary to deal with toddler pool drowning. Parental awareness must be maintained through health promotion and injury surveillance data dissemination. Local government must take responsibility for active enforcement. A pool fence is only as effective as the gate closing and latching mechanism and the pool access point is the main potential weakness. Manufacturers and installers must be made accountable for the long term performance of their products especially with respect to gate closing and latching.

1 National Injury Surveillance Unit. Injury Mortality Australia 1992. Adelaide; April 1994.

2 Government Statisticians Office. Childhood drowning deaths Queensland 1983-1987 (unpublished portion of the data). Brisbane; May 1990.

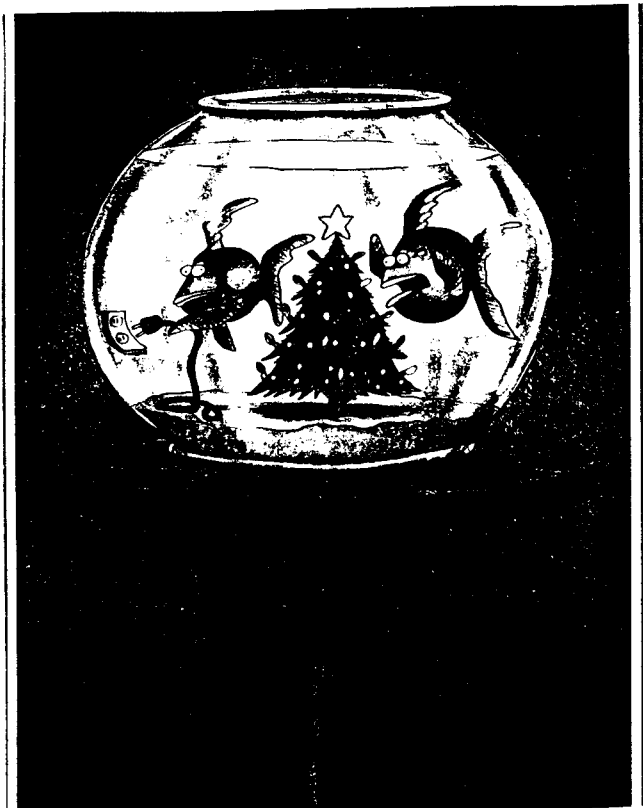
3 Pitt w, Balanda K. Childhood drowning and near drowning deaths in Brisbane: the contribution of domestic pools. MJA 1991 *Emergency Paediatric Review*, Vol2, No 5 Nov 1995

Dr Rob Pitt
 Director, QISPP

From the QISPP Co-ordinator...

In April this year QISPP's future was somewhat uncertain. Around this time, Denise Jones, QISPP's Co-ordinator for the last four years, was successful in obtaining a position in the Safety Division of Queensland Rail. It is good to know her expertise will still be applied to safety issues, and wish her all the best. Following Denise's departure, I took over the Co-ordinator's role. Having worked with the project during the pilot phase, it was good to return and see how much progress had been made, particularly with the development of the InjurEZ program, which supports the electronic downloading and validation of injury surveillance data, and provides a number of report options. Yet again, QISPP has been given a last minute reprieve and funding has been provided for the current financial year. The year will be a time for reviewing the project's approach to injury surveillance, and we will be focussing on capturing quality data. In the New Year we will also try and catch up for lost time with the Bulletins in circulating some additional fact sheets as inserts. I would like to take this opportunity to wish you all a Merry Christmas, and an injury free New Year.

Meg Lewis-Driver



"Bob! You fool. ... Don't plug that thing in!"

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