

Half the Age—Twice the Risk Occupational Injury in School Age Children

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Summary

- ⊕ More than 1000 school age children were treated for occupational injury between 1998 and 2003
- ⊕ School age children are twice as likely to be injured in the workplace as other workers
- ⊕ Young people are generally uninformed about their rights and entitlements, lack necessary skills to exercise these rights, are very inexperienced with working life, and are understandably concerned about the security of their job if they were to exercise their rights.

Introduction

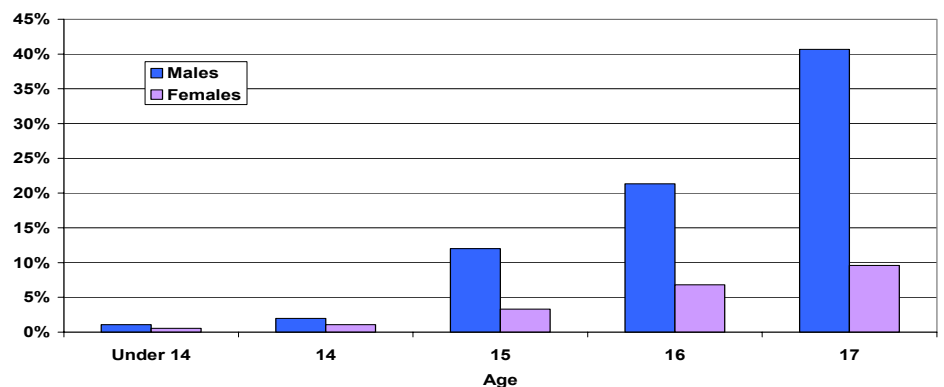
A recent discussion paper released by the Queensland Commission for Children and Young People and Child Guardian (CCYPCG) addresses the issue of child labour in Queensland. The review highlights the fact that increasing numbers of Queensland school aged children are employed in the workforce. Australian Bureau of Statistics labour force data indicate that 150,300 young people aged 15 to 19 years (an estimated 57% of the state's 15 to 19 year old population) were employed in Queensland in 2004¹. From the same survey, 47,300 Queensland school students were engaged in part-time employment. This represents approximately 48% of the estimated student population, an increase of close to 15% over the past 15 years. Two hundred school students also identified that they were in full time employment.¹ These data are consistent with other Australian statistics. A National Centre for Vocational Education Research (NCVER) survey of 1451

students estimated in 2001 that 60% of students in years 10 to 12 (aged between 15 and 19 years) were in formal part-time employment. Twenty-four percent of students surveyed were engaged in unpaid work in the family business². The discussion paper points to an increasing trend of part-time employment for school students in Queensland. Queensland youth are frequently employed as casual workers in the retail and hospitality industries¹.

Methods

Emergency department injury presentations to QISU participating hospitals from 1998 to 2003 were searched to identify patients aged less than 18 years who had an activity of *working for income*. These data were further analysed according to age, sex, nature of injury, injury mechanism and industry. These data do not include information on fatal injuries in Queensland.

Figure 1: Age and gender, workers aged 10-17 years, QISU ED presentations 1998-2003



Results

Between 1998 and 2003 a total of 1098 children between the ages of 10 and 17 presented to participating emergency departments for treatment of work related injury. This constitutes 3.6% of all work place injuries presenting to participating emergency departments.

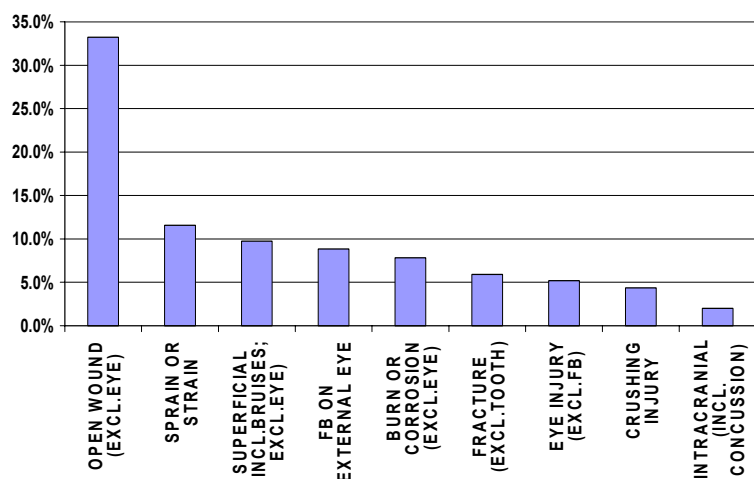
Age and Gender

Of the injury presentations 78% were male and 51% were 17 years of age. Less than 5% were aged 10 to 14 years. The youngest child (10 years) worked

Studies in Canada, USA and Europe have shown that work-related injury is a significant public health problem for adolescent workers. Emergency Department data from the US has shown that adolescent and young adult workers had the highest rates of work injuries per 100 full time equivalents. Male adolescents were 1.5 to 4.0 times more likely to be injured than males over 25 years of age³. In a survey conducted by the CCYPCG, 25% of workers under the age of 18 reported being injured at work¹. This issue of the bulletin reviews work related injuries in Queensland for children aged between 10 and 17 years.



Figure 2: Nature of injury, workers aged 10-17 years, QISU ED presentations 1998-2003



in food retailing. Figure 1 shows injury presentations according to age and gender.

External Cause

The most frequent cause of injury amongst young workers was cutting piercing object (23%). Machinery related injury accounted for 19% of the injuries. Struck by or collision with object accounted for 15% followed by falls which accounted for 10% of injuries.

Nature of Injury

The majority of injuries were an open wound (33%) followed by eye injuries (14%) and sprain or strain (12%). There were 86 (8%) burns and 48 (4%) crush injuries. Seventy-seven children (7%) sustained a fracture or dislocation. There were 5 children who suffered a traumatic amputation; all of these were hand injuries. (Figure 2)

Body region injured

Hands were the most frequent body part injured representing 39% of all injury presentations in this age group. Eye injury made up 14% of all injuries followed by the head and face (8%) and the forearm (4.6%). Six children sustained neck injuries. There were 20 children who presented with injuries to more than 1 body region.

Severity

There were 2 children who required resuscitation on presentation to the emergency department and 26% had a triage category of urgent or above (required to be treated within ½ hour of arriving in the Emergency Department). Ten percent of children required admission to hospital.

Major Injury Factor

The most common object to cause injury to children in the workplace was a knife (9%). Seven percent of injuries were caused by metal: "sheet, part, piece". Angle grinders caused 6% of the injuries and horses were identified in 3% of injuries. Eighty-five (8%) injuries were due to machinery or plant of some nature. (eg: tractor, welder, press, forklift)

Intent

There were 12 identified instances of intentional injury in the data. By far the largest group were workers in the retail industry, although only 1 child was assaulted by a customer. One child under 16 years of age was hit with a kitchen utensil during an argument in a family restaurant.

Industry

The industry with the largest number of work related injuries for this age group was food retailing with 19% of the presentations coming from this industry. The next biggest group was construction and services to construction with 18% followed by accommodation, cafes and restaurants with 13% and agriculture (10%).

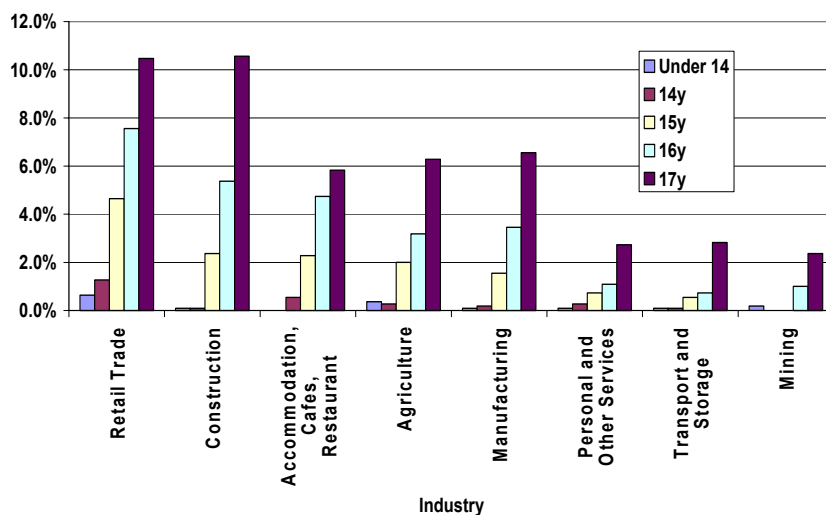
Trainees/ apprentices

Ninety two (9%) of the injuries were identified as involving trainees or apprentices, of these, 88% were male. The majority of these (34%) were in construction and services to construction and the next largest group were in accommodation, cafes and restaurants (13%).

Children under 15 years of age

Children under 15 who were injured were most likely to be working in food retailing (33%), agriculture (14%) and accommodation, cafes and restaurants (12%). The most common injury was open wounds (40%), sprains/ strains and burns (12%). This is different to the overall pattern of injury as these children showed fewer eye injuries and more burns. This may be reflective of the type of industry where they were working.

Figure 3: Industry by age, workers aged 10-17 years, QISU ED presentations 1998-2003



Injury patterns for different industry groups

Among the retail and accommodation, café, restaurant group the most common cause of injury was cutting piercing object (35%), followed by falls (14%), exposure to hot liquids or objects (14%) and struck by or collision with object (11%).

In agriculture 21% of all injuries were horse related, 14% other animal related (not including dog) and 11% due to machinery. Motor cycles, falls and struck by or collision with object each accounted for 10% of injury presentations.

Machinery was responsible for 35% of the injuries in the construction industry. This was followed by struck by or collision with object (21%) and cutting piercing object (17%).

In the manufacturing industry machinery was the cause of 38% of all the injuries. This was followed by 18% for each of cutting piercing object and struck by or collision with object.



Discussion

Children age 15 to 17 years make up 3.8% of the Queensland workforce but contribute only 1.8% of the hours worked by the total workforce⁴. However, they account for 3.6% of workplace injuries. That is, they are **twice** as likely to be injured in the work place as other workers. Males are more likely to be injured and this may reflect the fact that they are also more likely to be engaged in higher risk occupations, in particular construction and manufacturing industries.

Safety Limits for Child Labour

In Queensland, unlike in other Australian states and in the USA, there is no minimum age for child employment or limits on the maximum number of hours children work.¹ Many jurisdictions restrict the times children can be required to work on school days⁵. In Queensland, children under 15 can only be employed during school hours with special dispensation from the Chief Executive of the Department of Education [Education (General Provisions) Act 1989].

Tasks children can undertake at work are also restricted in many jurisdictions. For example in the USA children can not run a post-hole digger, run a food slicer or dough or batter mixer. They are not permitted to handle agricultural chemicals if classified as poison or toxic⁵. There are no such restrictions on the tasks children perform in Queensland however employers have a duty of care to provide a safe work environment.

Trainees and Apprentices

The current Queensland Review of Child Labour does not address apprentices and trainees in their analysis¹. QISU data shows that 9% of children presenting with injuries identified themselves as either apprentices or trainees. These were almost exclusively employed in manufacturing, hospitality and construction industries. These industries are known to be higher risk for all occupational injuries. There may be an assumption that apprentices and trainees receive high levels of supervision and safety training on the job. This may not always be the case and whilst it is recognised as important, it is difficult to standardise this across different employers and industries. This has the potential to leave groups of young apprentices more vulnerable than others according to their employer's financial priorities and commitment to safety in the workplace. In an American survey of 14 to 16 year old youth who were injured at work it was determined that

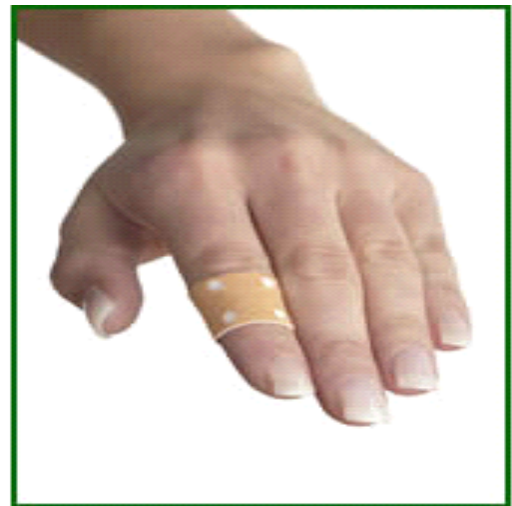
more than half the workers reported not having received any training on how to avoid injury⁶.

In the push to encourage Vocational Education Training (VET) it is vital that a component of this is the incorporation of a culture of safety into structured teaching as young workers are introduced into the workforce.

Empowerment Issues

Young people are unlikely to question a task even if they may consider it unsafe. They may lack the physical and emotional maturity needed for certain tasks. They are generally uninformed about their rights and entitlements, lack necessary skills to exercise these rights, are very inexperienced with working life, and are understandably concerned about the security of their job if they were to exercise their rights. The 2004 Job Watch survey noted that 46% of young workers said that they had suffered an injury or illness at work and 24% of these did not report this to anyone in the workplace. The same survey noted that 35% of young workers had experienced workplace bullying or violence and 68% of these had not reported it⁷.

In Queensland the Young Workers Advisory Service (YWAS) works to ensure safe workplaces for youth. Tom Barton, Minister for Employment, Training & Industrial Relations said in a recent media release "Whilst the bulk of enquiries to YWAS relate to employment conditions or dismissal, the service also receives a significant number of calls regarding workplace bullying," he added. "Young people can find it particularly difficult to speak out about bullying because their work is often casual and more insecure. They are not as experienced in dealing with other employees or employers as older workers"⁸.



Solutions

The CCYPCG child labour discussion paper notes that:

- *one reason young workers are injured is that they are not made aware of their rights to be properly trained;*
- *the need for improved education for young people about their rights in the workplace;*
- *broad based minimum standards for all age groups;*
- *specific training for agencies with responsibility for the safety of children; and*
- *community education and information*¹.

The common thread is improving young worker's awareness of workplace hazards and their rights in relation to dealing with these hazards. Responsibility for addressing these knowledge issues lies not with any one group or organisation, but the community as a whole. The employee, employer, parent, workforce advocates and education system need to be aware of the need to provide basic safety information which will save lives.

A number of web based interactive programs have been developed with the express purpose of educating young workers. A good example is Canada's Passport to Safety Program which provides readily accessible information to this age group. The program could be taken on an individual basis or as part of a coordinated approach through a range of avenues such as schools, TAFE training facilities, companies and corporations. The program highlights the individuals' rights and responsibilities regarding safety in the workplace, a method by which to address these issues, identification of hazardous situations, and generic handling and ergonomic requirements. Once the course has been passed a certificate of competency is forwarded to the individual. A company, and indeed a community, can sup-

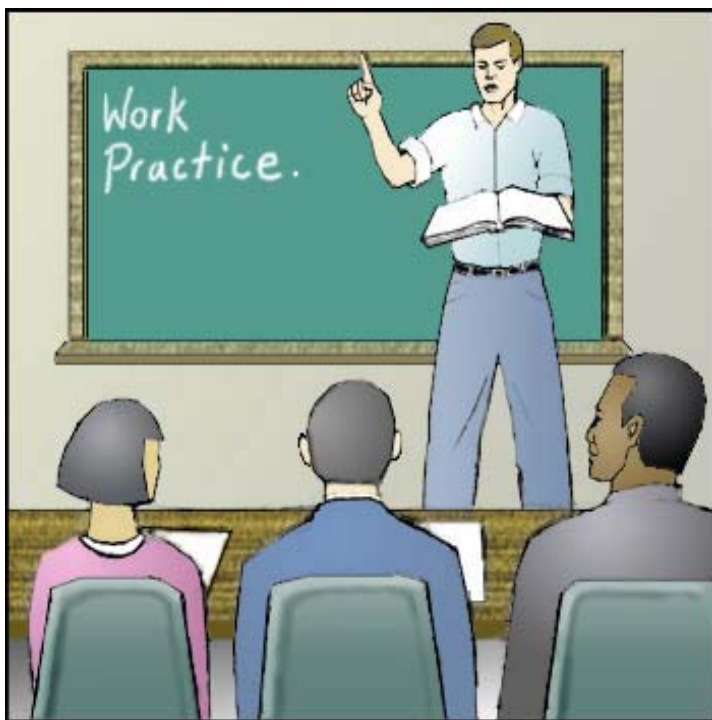
port this culture of safety by encouraging employees to have this baseline training before acquiring a position. In Canada, this web based training has been incorporated into high school education and over 200,000 young Canadians have participated.⁹

Summary

Injury prevention is about a cultural shift in ideas and practices. To achieve this change a range of strategies and environments must be addressed. Shifting the culture of safety includes both an understanding of the incidence and relevance of injury, plus the ability to do something to assist change. Opportunities exist to prevent occupational injuries by using the worksite as a platform to reach those at risk, whilst incorporating educators, employees and parents as significant change agents in this cultural change.

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QISU collects and analyses data from emergency department injury presentations. Participating hospitals represent three distinct areas of Queensland. QISU publications and data are available on request for research, prevention and education activities.

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