CHAPTER 1

INTRODUCTION

1.1 Introduction to the Project

In September, 2000, ACC called for a Request for Proposals from existing organisations "to prevent injuries and promote safety within their communities." The ACC Community Injury Prevention and Safety Promotion programme focussed on population-based strategies at the community level. The first phase of these new community-based projects was to be a one-year planning Needs Assessment Phase, "designed to gather information and provide opportunities for communities to establish needs and linkages within their communities" (ACC information, 24 September, 2000). The first phase was to be followed by the opportunity to implement a "comprehensive, community-based injury prevention and safety promotion project", over a three to five year period. ACC also provided workshops for interested groups who were considering putting in a proposal for these projects.

Following attendance by Clara Narbey (a member of the Project team) at an ACC workshop a proposal was submitted from the Donald Beasley Institute (see Appendix 1), titled "Safe Lives for People with Intellectual Disabilities".

This proposal provided evidence that people with intellectual disabilities are at increased risk for both unintentional and intentional injuries, with an estimated rate of twice as many medically-attended injuries as comparable age groups in the general population. Other justifications for a focus on people with intellectual disabilities were:

- ★ this group of people is seriously disadvantaged in many ways but is largely invisible in the population, and in general public health policies and initiatives;

- ★ there are no New Zealand or international data available that describe the number, characteristics, and contexts of injuries to this population group;

- ★ this group's safety from harm is largely dependent on other people's actions, due to their powerlessness and other disadvantages associated with their disability, and how they are perceived in society;

- ★ the characteristics of the intellectual disability services in which the majority of people with intellectual disabilities live and work are similar throughout New Zealand, thus increasing the generalization of any injury prevention programmes developed through the Project; and

★ because of this similarity of living and working contexts of people with intellectual disabilities, targeted injury prevention programmes can be implemented more easily, than for dispersed individuals in communities.

The Donald Beasley Institute

The Donald Beasley Institute is a national research and educational organization located in Dunedin, which is committed to promoting health, wellbeing, and quality of life for people with intellectual disabilities. It is governed by a Trust Board of seven trustees from throughout New Zealand, chaired by Mr Peter Cartwright. Most of the Institute's projects involve a participatory, action-based approach, including a number of research projects funded by the Health Research Council and the Foundation for Research, Science and Technology. The Institute has received a Commonwealth Award for Excellence for one participatory research project which involved a group of women with intellectual disabilities.

The Donald Beasley Institute represents a vulnerable and often invisible group of people in the community, whose risk of all sorts of injury is high, and for whom no accessible community injury prevention programmes exist. It is an organization which is experienced and respected within the community, both locally and nationally, and has strong networks and links with people with intellectual disabilities, their family/whanau, service providers, policymakers and funders.

As an independent organization it cannot be "captured" by any one group or stakeholder and it has valuable experience in coordinating and leading project teams. Also, as an "umbrella" organization outside of direct service provision, we are in the position of being able to bring a number of different providers and groups together in a cooperative rather than competitive approach.

The Donald Beasley Institute's interest in injury prevention has arisen primarily out of two of its research projects in the area of the health of people with intellectual disabilities. In one study (Bray, Ross, et al, 2000) it was found that some participants reported multiple injury incidents, sometimes of a severe nature. Reports of intentional injuries (experienced and observed) were also frequent. In another Institute study (Mirfin-Veitch, Bray et al, 2000) the extent of physical and sexual abuse experienced by women with intellectual disabilities was brought home to us. Once again the need for multiple prevention and safety promotion programmes was apparent.

The Project team and Project focus

The multidisciplinary Project Team included members with expertise in injury prevention from the University of Otago, two senior staff from Intellectual Disability service providers, Institute staff, and the appointed

Cultural Adviser to the Donald Beasley Institute, by the local Kai Tahu runanga.

The community group which was the focus of this Project were **adults with intellectual disabilities in Otago and Southland who used residential and/or vocational services.** The **estimated** numbers of adults involved (from figures provided to us at this beginning stage), were: 391 adults using residential services, and 602 adults using vocational services. However, due to the overlaps between these two figures (i.e. some adults used both types of service, and some adults used more than one vocational service), it was not possible to obtain the total number of individual adults included in this population group. Our initial estimated number was about 600 individuals. As noted in the next chapter, the total population is actually higher, probably closer to 700+ individuals.

1.2 Background information and literature review

The Project team brought together a wealth of experience and information in two different fields – intellectual disability and disability services, and injury prevention. The following sections provide a brief overview of specific information which brings these two fields of knowledge together, as a critical background to this project.

Characteristics of people with intellectual disabilities and intellectual disability services

Intellectual disability is often poorly identified, defined, and understood in the general population. Some common misconceptions about intellectual disability are set out below:

Myth: Intellectual disability is a form of, or the same as, mental illness.
Fact: Intellectual disability refers to a difficulty in learning, and is a different condition to mental illness.

Myth: People with intellectual disabilities need to live in institutions.
Fact: Most people with intellectual disabilities live in the community, including those with severe disabilities.

Myth: Doctors and nurses need to care for people with intellectual disabilities, and are the "experts" in this area.
Fact: Health professionals have minimal training in this area and should not be assumed to be "experts". The issues of concern are seldom health issues.

Myth: Community integration is a plot by the government to save money.
Fact: The support of people with intellectual disabilities in family and community settings is a well-established practice with over 20 years of research to support it as beneficial.

Myth: People with intellectual disabilities cannot learn.
Fact: People with intellectual disabilities can learn and develop, with appropriate education and support.

The term "intellectual disability" is simply a way of identifying one aspect of individual difference, or a means of distinguishing one group of people from what is perceived to be "normal".

> *Mental retardation (intellectual disability) does not denote a single disease or entity with a single cause, mechanism, natural course, or prognosis. It refers to a heterogenous behavioural syndrome, characterized by impairments in a person's current level of intellectual and adaptive skills.* ***MR is not necessarily lifelong****. Persons who carry this diagnosis present with a wide spectrum of abilities, disabilities, and clinical and behavioural patterns. (Journal of the American Academy of Child and Adolescent Psychiatry, 1999, 38: 12, 55, p 9S/10S) (Emphasis added).*

People with intellectual disabilities vary widely in their abilities and personal characteristics. Prevalence estimates vary, due to difficulties in

definitions and ascertainment, but usually vary between 7.0 to 12.6 per 1000, with the most recent studies yielding estimates at the upper end (Bray, 2001). People with intellectual disabilities often have additional physical, sensory, or neurological problems, particularly those with more severe intellectual disabilities. These individual characteristics can contribute to their risk for injuries.

In the past many people with intellectual disabilities spent their lives in large institutions, isolated from their families and local communities. In New Zealand, the last of these institutions are now in the process of closure. Children with intellectual disabilities now go to school, and live with their families. As adults, those who need ongoing support may live in staffed "group homes" in the community, and attend community-based vocational and day services. In line with contemporary "best practice", some New Zealand services are beginning to provide more individualised and flexible support for both living and "real" jobs, but these recent developments have only reached a small number of individuals to date. Most adults with intellectual disabilities who require ongoing support still live with groups of unrelated adults (usually not of their choice), and spend their days in similar groups of adults in sheltered workshops and day services. A recent government strategy "Pathways to Inclusion" (2002) has signalled significant changes to the provision of vocational services, with a move to more paid work and community participation over the next five years. The statutory changes will have implications for ACC and OSH, with increasing numbers of adults with intellectual disabilities becoming paid employees, rather than clients of services.

There is a widespread policy and practice vacuum in broad-based public health approaches to issues affecting people with intellectual disabilities, who are seen as the responsibility of "special" sections of government departments, (such as the Disability Issues Directorate in the Ministry of Health). Thus injury prevention has never been seen as an area of relevance for this group. However, the New Zealand Disability Strategy emphasizes an intersectoral approach, and a new unit responsible for ensuring this attention and coordination occurs, has recently been set up in the Ministry of Social Development.

In planning and implementing this community intervention and safety promotion project, a search of the literature revealed a paucity of research. The following literature review covers the relevant material that has been obtained to date.

Injuries Among Children and Young People with Intellectual Disabilities

An Australian study assessed potential behavioural risk factors for injury among 571 children and adolescents with intellectual disability (Sherrard, Tonge, & Einfeld, 1997). The study used a retrospective analysis to compare behaviours reported by carers of children with and without intellectual disabilities, as part of an Australian longitudinal study. Carers' reports were obtained from the Developmental Behaviour Checklist (Einfeld & Tonge, 1995). Children and adolescents with intellectual

disability showed a higher prevalence of behaviours posing injury risks (e.g. deliberately runs away) than did the comparison group. Unlike the general community, however, there were few gender differences. As expected, due to their delayed development, children and adolescents with intellectual disability showed a pattern of risk behaviours characteristic of younger age groups. The authors also note that children with intellectual disability are more likely to engage in self-injurious behaviour **and** to be abused. This study highlights the need to consider two aspects of an injury incident: exposure to a hazard **and** the ability to cope with the hazard (p. 46). Intellectual disability is likely to impair both the recognition of a hazard and the ability to take appropriate action, resulting in their increased injury risk.

In a further publication from this research group (Sherrard, Tonge, & Ozanne-Smith, 2001a), a descriptive epidemiology of injuries in children and young people is provided. The rate for injury hospitalisations was twice that of the general population, and there were no significant sex differences. Falls were more common, while transport and intentional injuries were less common causes of injuries than the general population. As previously noted, the pattern of injuries and their contexts in this group of children with intellectual disabilities were similar to those of younger children without disabilities. In summary, this group had an eight times excess injury mortality and double the injury morbidity of their peers in the general population. The mortality causes were primarily asphyxia and drowning, while the increased morbidity risk was associated with aspiration and falls hospitalisations.

An American comparative study confirms these higher injury rates in a study of 1060 children and adolescents with developmental disabilities (Dunne, Asher, and Rivara, 1993). ("Developmental disabilities" includes intellectual disability, as well as some other conditions). Comparisons were made with a control group of children without disabilities and also with a group of children with chronic illness, using data from the 1988 National Health Interview Survey. The data consisted of parental reports of medically-attended injuries in the previous 12 months. Preschool children with developmental disabilities had significantly higher rates of injury than controls, but these differences did not reach statistical significance in the older age groups. There were no significant sex differences in injury rates for children with disabilities but males had twice the rate of injury as females in the (non-disabled) control group. The rates of injury for children with chronic illness were similar to the control group although somewhat lower in the preschool age group. Injury rates for all children increased with age.

Parental reports of injury in children may, however, suffer from recall bias and thus underestimate injury rates. Sherrard, Tonge, and Ozanne-Smith (2001b) specifically examined parental recall bias by comparing parental recall to medical record injury data for 185 children with intellectual disability, aged 4 to 18 years. Significant recall problems were found, with the sensitivity of parental recall of injury compared to any level of medical attention in the previous year being only 57.4%. Specificity was at least

98%. The study found that parental recall bias reduced the estimated annual injury incidence by 50% (from 55.6/100 to 27.5/100). These results also indicated that children and young people with intellectual disability have a risk for injury that is approximately twice that of the general population (p. 88).

Sherrard et al. also make the following important points:

> *Definitions of injury used in studies are generally medically-oriented. Consequently, many studies overlook the contribution of numerous injuries which do not present for medical attention, but which nevertheless pose a cost and caring burden for individuals and their families. Despite medically attended injury being accepted as an objective criterion for injury occurrence, it is possible that experienced parents are less likely to seek such attention for injuries than those with less experience. Further, parents may tend to overlook injuries which are accepted as 'normal' for the child with ID. Thus estimates of medically attended injury based on parent report may vary depending on both parental perception of severity as well as period of recall (p. 88).*

In their most recent report, Sherrard, Tonge, and Ozane-Smith (2002) provide further information on injury risk in young people with intellectual disabilities. This analysis looked at the contribution of a variety of biopsychosocial factors (relating to the young person and the family) to injury risk. The results of multiple logistic regression analysis showed that the presence of epilepsy, having clinically significant levels of behavioural and emotional problems, and having an "overly sociable temperament" were all major independent risk factors for injury in young people with intellectual disabilities. Age, sex, and IQ were **not** significant risk factors, in contrast to the general population. The authors suggest that "interventions to reduce psychopathology and improve control of epilepsy are likely to contribute to a reduction in injury risk for those with intellectual disability" (p. 14).

Injuries among adults with intellectual disabilities

Individuals with intellectual disabilities are at least as likely to die from unintentional injuries as the general population (Horwitz, Kerker, Owens, & Zigler, 2000), although the available data are limited. Janicki, Dalton, Henderson & Davidson (1999), in a study of 2752 adults with intellectual disability over 40 years of age, found that only 2% died from injuries, compared to 3% in the general population.

Injuries requiring hospitalisation were found to show similar proportions to the general population, (about 11-12%) for people with intellectual disabilities in a study of hospital admissions and emergency room (ER) visits in South Carolina (Wang, McDermott, & Sease, 2002). People with intellectual disabilities had a lower proportion of ER visits related to injury and were less likely to have multiple ER visits for injuries. However, there

were differences in the types of injuries and hospital usage patterns. The average cost of hospital treatment was lower for people with intellectual disabilities, but the cost of emergency room treatment was higher than for other people. External cause of injury data for head and spinal cord injuries were missing for 41% of individuals with intellectual disabilities. People with intellectual disabilities were more likely to use hospital facilities for injuries due to falls and poisoning, and less likely to have injuries due to motor vehicle crashes. As a relevant ICD-9 code for intellectual disability was not always assigned, this study represents an **under** count of people with intellectual disabilities.

These different patterns call for specific prevention strategies, and Wang et al. (2002), strongly recommend that further prospective research is needed.

Some attempts have been made to identify risk factors for injuries among adults with intellectual disabilities. Hsieh, Heller, and Miller (2001) examined a set of potential risk factors in a sample of 268 adults of 30 years of age and older. The variables included: age, gender, level of intellectual disability, health, seizures, ambulatory status, adaptive and maladaptive behaviours, use of antipsychotic drugs, and type of residential setting. The majority of individuals in this study lived in large nursing homes (institutions), and their ages ranged from 31 to 88 years, with a mean of 49.5 years. Data on medically attended injuries in the previous year were gathered from staff interviews and client records. Injuries were categorised as falls or non-falls.

Thirty clients (11%) had injuries, with more than 50% of these being due to falls. Of the non-fall related injuries, 23% were intentional injuries (assaults) from other residents with intellectual disabilities.

Those people who had injuries were more likely to be ambulatory, to use anti-psychotic drugs, and to have higher levels of adaptive behaviour. Those who had fall-related injuries were more likely to be older, to be ambulatory, and to have higher levels of adaptive behaviour. Adults with non-fall related injuries tended to use more antipsychotic drugs and to have higher adaptive behaviour than adults without injuries.

Adults with the highest overall risk of injury were those who had seizures on a monthly basis, had more destructive behaviour and used antipsychotic drugs. Those with the highest risk of **falls-related** injury were those who were 70 years and older, were ambulatory and had seizures on a monthly basis. Within the group of 268 adults, those with high adaptive behaviour, high destructive behaviour, and good physical health had the highest risk for non-fall related injury.

The authors suggest that falls prevention strategies for the elderly would need to be modified for adults with intellectual disabilities. They emphasize the need for further multidisciplinary research which examines a greater range of the potentially contributing factors to fall-related injuries.

Janicki et al (1999) predict that "the life expectancy of successive generations of adults with ID, not otherwise compromised, will soon approach that of the general population" (p. 290). The importance of developing effective falls prevention for adults with intellectual disabilities is apparent. These authors stress the need for "preventive health management" in general, for this increasingly aging population of adults with intellectual disabilities.

A one year study by Konarski, Sutton, and Huffman (1997) of 412 adults with severe intellectual disabilities in one institution examined the relationship between personal characteristics and 268 injury incidents. This study confirmed the contributions of antipsychotics, higher maladaptive behaviour and higher levels of adaptive behaviour to higher injury rates. The results also showed that 62% of these adults did not experience any injury and 22% experienced only one. Sixteen percent of the group experienced 67% of all injuries, showing the need for some individual targeting of injury prevention strategies. The authors also note the importance of a clear definition of an "injury episode" in research, as only 268 of the 4231 "accident reports" filed met the definition of an injury that would apply to the general population.

The specific risk of fractures over a 10-month period among 553 individuals with intellectual disabilities was examined by Tannenbaum, Lipworth and Baker (1989). The group were studied prospectively, and all lived in one institutional facility. The rate of fractures was markedly higher than the general population, with the difference being greatest in the 45 to 64 year age group, and was also marked among elderly residents.

Seizures tended to cause fractures in the younger adults as compared to those who were older, and use of anticonvulsant medication was higher among adults experiencing fractures. However, it is important to note that only 8 fractures were caused by seizures, and that 98% of this particular group of adults had a history of seizure disorders.

There is, however, very limited research on preventive approaches for adults with intellectual disabilities. A recent review of the literature (Frey, Szalda-Petree, Traci, & Seekins, 2001) on the prevention of secondary health conditions in adults with developmental disabilities, did not identify any research on the primary prevention of secondary conditions, and a small number which addressed secondary or tertiary prevention. Only 25 relevant peer-reviewed articles were found. The only studies related to injury prevention focussed on self-injury, and were mostly studies with "small n" designs. This review illustrates the lack of published research on injury prevention for adults with intellectual disabilities. However, there have been continued calls in the literature for effective injury prevention. Based on their significant research with children and young people with intellectual disabilities, Sherrard and her colleagues call for the development and evaluation of targeting and multifaceted injury prevention programmes which are appropriate for children with a poor understanding of consequences **and** greater size and weight than children

at the same level of development. They also stress the need to provide education for parents, health professionals, and any other groups involved in caring for these children (Sherrard et al, 2001a).

Forjuoh and Guyer (2001) emphasize the importance of minimising known risks without inappropriately restricting the activities of people with disabilities, in comment on the death by drowning of a child with epilepsy. They state:

> *Though we need to assess and minimise risk, at the same time every effort should be made to integrate individuals with special healthcare needs into society… But practical precautions can and ought to be taken to minimise their risk of injury or death until research brings forth provided preventive strategies (p. 941).*

There is some evidence that simply changing the situation in which people with intellectual disabilities live can reduce injuries. Konarski, Riddle, and Walker (1994) compared the frequency and severity of injuries in a group of adults living in an institution, for one year before and after the number of people in their living unit was reduced from 28 to 19. The study found a significant decrease from 23.3 to 13.3 injuries per person for those men who remained in the unit. The largest change was a decrease in medically-attended injuries. In terms of injuries from different causes, significant decreases were seen in ''intentional'' injuries and those due to unknown causes. This study confirms the negative effect of ''crowding'', i.e. too many people living in too little space, particularly those who are ambulatory and display problem behaviour. A recent review of research on aggressive behaviour among people with intellectual disabilities (Allen, 2000) cited crowding as an environmental setting condition for aggressive behaviour.

The issue of intentional injuries among adults with intellectual disabilities has received attention from two perspectives. Firstly, injuries to **staff** have had considerable attention as a matter of concern (e.g. Menckel, Carter, and Viitasara, 2000). An early study into staff injuries in a New Zealand psychiatric hospital (Robinson, 1972) used ''accident/incident'' reports as a data source. In the New Zealand context, there has been some public attention to this issue, and it is also relevant to note that this has been of concern to OSH and ACC.

The second perspective relates to the research and professional attention given to the **perpetrators** of intentional injuries. There is a very large research literature on intervention to reduce aggressive behaviours or ''manage'' people with intellectual disabilities who have ''challenging behaviours''. There is minimal attention paid to the people with intellectual disabilities who are often the **victims** of these behaviours of their peers, from an injury prevention perspective. While the higher risk of abuse of people with intellectual disabilities is well known (e.g. Sobsey, 1994), most of the focus in the literature has been on protective educational intervention around sexual abuse and safety in the community (e.g. Mazzucchelli, 2001). Issues of physical abuse have typically been related

to familial or caregiver abuse. However, the issue of peer harassment or bullying has recently been considered by Marini, Fairbairn, and Zuber (2001). Previous studies of bullying have typically focussed on bullying among children at school.

1.3 Summary and implications

This review of the limited amount of published research on injuries to people with intellectual disabilities confirms the significance of the issue **and** how little we know about it. Studies of children and young people with intellectual disabilities have found higher rates and increased risk of injury. The research shows a higher rate of falls and severe injuries (requiring hospitalisation) among children and young people with intellectual disabilities. Studies have also noted a lack of significant sex differences, a different pattern to other children. This body of research has also suggested some explanatory reasons for these findings and theorised about the possible contribution of intellectual disability and its behavioural expressions to higher risk for injury.

Research on injuries to adults with intellectual disabilities also show different patterns of injuries to the general population. Falls continue to be a major cause of injuries in adulthood. Intentional injuries have also been found to constitute a significant proportion of injuries. A limitation of some of these studies is their restricted and small sample size of people living in a specific institution. With the majority of people with intellectual disabilities now living and working in community-based services, the findings of these studies may not be generalizable.

There is some evidence that some of the established risk factors for falls in elderly people are also risk factors for falls in people with intellectual disabilities e.g. psychotropic medication.

Research evidence on effective injury prevention appears to be almost non-existent, and all authors call for more research on both the epidemiology of injuries and effective injury prevention for people with intellectual disabilities.

The reviewed research had a number of implications for this Project:

- ★ the need to collect injury information from the context of community services;
- ★ the importance of greater detail in the descriptions and coding of injury incidents;
- ★ the value of widening the collection of information to include **all** injuries, not merely those which received medical attention;
- ★ the feasibility of collecting information on injuries from incident reports kept within disability services;

★ the need to include both non-intentional **and** intentional injuries in the data collected.

1.4 The Project proposal

The initial Phase 1 Project was focussed on establishing community support and gathering and analysing information on injuries to adults with intellectual disabilities. The focus group was adults with intellectual disabilities who use residential and/or vocational services in Otago and Southland, approximately 600-700 people.

The goals of the Project were (Appendix 2):

(i) To obtain support for the project and approval from all stakeholder community groups in Otago and Southland.

(ii) To analyse the range and comprehensiveness of available injury information (for the previous 12 months) and develop appropriate data analysis procedures.

(iii) To analyse available data on injuries experienced by people with intellectual disabilities.

(iv) To identify implications of findings for injury prevention.

(v) To complete a proposal for an injury prevention and safety promotion programme for implementation in Phase 2.

Chapters 2 and 3 describe the procedures followed for Goals (i) through (iii). Chapters 4 to 7 describe the findings and outline implications for injury prevention i.e. Goals (iii) and (iv). The final goal was revised due to ACC's decision not to proceed with Phase 2 of the community injury prevention projects, but rather to incorporate implementation into its own Thinksafe programme. However, ACC provided funding for a limited second phase for this Project. The proposal for this injury prevention phase is outlined at the beginning of Chapter 7: Injury Prevention Activities, as it is important to consider the findings of Phase 1 which led to the second Phase of the Project.

CHAPTER 2

COMMUNITY CONSULTATION AND PREPARATION

2.1 Background and Outline of Processes

The first goal of the Project was **to obtain support for the Project and approval from all stakeholder community groups in Otago and Southland.** These stakeholders included two distinct groups of people: people who provide residential and vocational services for adults with intellectual disabilities, and those adults themselves who used these services. The processes used to involve these two groups had to be adapted to the characteristics of the groups, in terms of contacting groups, seeking involvement, providing information, and interacting with the groups.

A further need was to collect detailed information of how services collected and stored injury data, and a detailed questionnaire was needed to gather this information from each organisation providing services.

Finally, because the Project involved accessing and using personal and confidential information about individuals with intellectual disabilities, the project needed to obtain ethical approval from the relevant accredited Ethics Committees in Otago and Southland.

This chapter describes these three stages undertaken to achieve the first goal.

2.2 Meeting with stakeholders

All residential and vocational providers of disability support services in the Otago and Southland areas were sent a letter inviting them to attend meetings to explain the "Safe Lives" Project. A total of 88 letters of invitation and information were sent – 28 to vocational service providers, 38 to residential service providers and 22 to services that included both. For most agencies information was sent to each separate service facility, as most agencies provided a number of different residential homes and vocational centres.

Service providers

Five meetings with providers of services for people with intellectual disability were held to discuss the "Safe Lives" project, gauge interest and invite services to participate. The meetings were held in Dunedin (12 Participants), Balclutha (1 participant – we offered to go back) Gore (5 participants), Invercargill (7 participants), and Oamaru (14 participants). A total of 39 service providers attended the information sharing sessions.

Information included:

- what we mean by "injuries" (in terms of ACC definitions);
- myths about injuries;
- injuries are not accidents;
- two classes of injuries – unintentional and intentional;
- injuries are preventable;
- injuries are due to an identifiable sequence of events;
- injuries are due to a variety of factors;
- what we know about injuries in New Zealand - injuries affect all sectors of society;
- common injuries to non-earners and earners in the general population;
- efforts to prevent injury need to be targeted to specific circumstances and risk factors;
- the whole community needs injury prevention, certain groups even more; and
- how service providers could participate in the project if they wished.

In addition very useful information was exchanged about injuries, and valuable suggestions came from these meetings including:

- general information on injury recording systems;
- examples of specific instances of concern;
- suggestion to include special recreation providers such as the Special Olympics, and Riding for the Disabled; and
- examples of safety promotion and injury prevention activities.

2.3 Focus Groups with People with Intellectual Disabilities

For initial meetings with the second major group of stakeholders, a "focus group" method was used (Blumer, 1969; Dawson, Manderson & Tallo, 1993; Hawe, Degeling & Hall, 1990).

In brief, focus groups are about:

- Qualitative interviewing – listening and noting what people say;
- A homogeneous group of people;
- Participants reflecting on questions posed by facilitator;

- Participants hearing each other's responses and making additional comments, beyond their own original comments, as they hear what people say;
- People not having to agree or disagree with each other – not necessary for consensus to be reached;
- Getting high quality data in a social context where people can consider their own views in the context of the views of others.

Focus groups for people with intellectual disabilities were set up to gather a wide range of information about injuries in services from a service user point of view. The project was explained in terms of "why do **accidents** happen to people with intellectual disabilities?" "Accidents", was a word that was more easily understood by people with intellectual disability than the word "injuries", so it was used in the place of injury. A decision was made not to try and explain, or ask about intentional injuries, because of the sensitivity of the issue and the likelihood that people who did intentionally hurt others may be in the focus group alongside their victims. Therefore there is little or no information about intentional injuries from these focus groups.

Five focus groups for people with intellectual disabilities were facilitated. A total of 103 people attended, plus six support staff and five parents.

The following questions were facilitated with all the groups;

* What are accidents?
* What happens if you are hurt at home?
* What happens if you are hurt at work?
* How can you be safe – not have accidents - at home?
* How can you be safe – not have accidents – at work?
* Why do some people have more accidents than others?

The following outline provides a summary of the Focus groups' discussions:

People with intellectual disabilities tended to regard an accident as a very serious hurt and the most frequently mentioned "accidents" were road accidents, falling over and burns. The next most frequently mentioned "accidents" were banging into things, cutting yourself, going to hospital, hurting your head and sports injuries.

The second discussion point also raised the more serious side of being hurt. When asked about what happened when they were hurt at home, the

most frequent answer was "call the ambulance" followed by, "tell a support person".

When asked what happened at work when they were hurt, "report it straight away", "tell the Boss", or "go to the hospital" were the main responses.

The question "How can you be safe at home?" (that is, not have an accident) drew responses such as, "be careful using hot water", "keep cords out of the way", "run cold water over a burn", "put pot handles to the wall", "put a guard around the fire/stove", "don't leave things on the floor", and "lock pills away". It is interesting to note here that people with intellectual disabilities had been taught some basic environmental safety strategies and appeared able to apply them appropriately.

A similar question about work and keeping safe drew responses such as, "keeping everything in the right place", "watch what you are doing", "mop up water to stop slipping", "be careful around sharp things", "shift things away", "turn off switches at the wall/machinery", and be careful of touching lawn mowers/machinery." Once again common environmental hazards and risks were something with which people with intellectual disabilities were very familiar.

The final discussion point was about why some people have more accidents than others. Responses included, "not looking where you are going", and "not concentrating on being careful".

Additional Analysis (in column down the left hand side of the script…..)

- All groups were aware of the word **accident**, & what it meant in very broad terms.

- There appeared to be more focus on **serious** accidents, as evidenced by references to ambulances, hospitals and dialing 111.

- All groups were very aware of **burns** & how to prevent them.

- Not all groups were aware of how to prevent **falls**. But more than half of them knew the value of keeping things in the right place.

2.4 Interviews with Service Providers

In order to consider possible ethical issues and to plan the data gathering phase, it was necessary to obtain detailed information from each organisation on how it recorded and used information on client injuries. To further understanding and links with these organisations it was decided to use face-to-face interviews, rather than postal questionnaires.

Individual interviews were held with 21 individual managers of disability services in Otago and Southland, using the questionnaire in Appendix 3 (Service Providers' Questionnaire). The questionnaire was designed from initial information from service provider groups and the expertise of the project team. These completed questionnaires provided detailed information on each agency's injury recording system.

The following is a brief summary of the information obtained from the 21 interviews, using the questionnaire:

Person interviewed

Most of the service providers interviewed held managerial positions (17). A Principal, Social Worker, Teacher and Supervisor made up the remaining interviewees (4).

Years in current position

The range of time in current position ranged from 1.5 to 17 years with the mean being 6.23 years.

Number of clients

Accurate female/male breakdowns were not available at the time of completing the questionnaires. However it was clear that there were more male clients for both residential and vocational services.

The residential services total was 546, the original estimates being 391. The vocational services total was 968, with the original estimates being 602. It is important to note here that the two totals cannot be combined, as most residential clients are also vocational clients in agencies that provide both types of services.

Recording of client injuries

All 21 services had a systematic method of recording client injuries. These were recorded variously on incident forms, health and safety systems (to meet OSH requirements), and accident books/registers. Some agencies recorded in notebooks.

Most agencies recorded any injury incident, but six did not record incidents with no visible sign of injury e.g. fall, or minor injuries. "Near misses" (i.e. incidents in which potential injury was narrowly averted)

were recorded by 12 agencies only. One agency stated they only recorded "near misses" for the less able clients. One agency responded "it depends", and one agency recorded "near misses" but not on their usual incident forms.

At least three agencies had generic staff and client incident recording systems. Three agencies noted unexplained injuries, e.g. bruises. Two agencies noted they would not have a record of injury incidents that occurred outside their own service.

When **specific** questions were asked about whether they recorded injuries of unknown causes, 17 agencies said "yes" and 4 agencies said "no".

Recording of "self injury" was also variable. Two agencies said they did not record self injury. Six agencies said "sometimes" and 11 agencies said "always". Two agencies stated that no clients engaged in self injury. Agencies, who replied "sometimes" to the recording of self injury, stated that they did so if the pattern of self injury was not the usual pattern, if harm resulted, or it depended on the person filling out the form.

All except two agencies recorded injuries that occurred "off site".

All except two agencies recorded intentional and unintentional injuries using the same recording form.

What is actually recorded?

At least 89% of agencies (17 out of 19) used a generic agency incident form on which they recorded name of client, name of staff member completing incident form, time and date of incident, location where injury occurred, site and type of injury, immediate prior events, details of actual incident, actions following incident, probable cause of incident and details of first aid or medical aid sought.

One agency appeared to have no incident form, while another agency (a sheltered workshop) used a recording system required by OSH for accidents to employees.

At least 74 (14 – 16 out of 19) recorded names of staff present, names of other clients present and who was notified.

Where more information was recorded by agencies this included follow-up action regarding injury (68%), follow-up action to prevent re-occurrence of incident (68%), monitoring of follow-up actions (42%) and classification of incidents into categories (16.3%). Few agencies included this level of detail.

Is the information summarized or analysed?

Ten agencies stated they summarized and /or analyzed their information on incidents. Eleven agencies did not. The agencies that did do some analysis tended mostly to look for patterns involving individual clients, including clients who inflicted injuries on othes. Analyses were typically at intervals of three or six months.

How is the information filed and stored?

Fourteen agencies filed incident reports in the individual client's file. Many agencies also sent copies to key people, such as the Manager, Residential or Vocational services, ACC (if relevant), Behaviour Support (if relevant) and Training Development Officer.

Six agencies kept records in a "book". Two agencies had a central "accident" or "Health and Safety" folder. One agency entered records on a data base.

Who has access to the information?

In the majority of agencies, managers and senior staff had access, and in 15 agencies, **all** staff had access, if they "needed to know".

Seven agencies mentioned that the "family of the client" had access to the information on incidents, while four noted the client's right of access to his/her own file.

Other people with access included, OSH, ACC, Principal and Teachers, Health and Safety Officer, Behaviour Support Staff, Doctors and Advocates.

In two agencies, Trustees on the organisation's governing board, and night shift staff who entered the information onto a database, also had access to injury incident information.

Injury prevention and safety promotion programmes

Seventeen agencies had provided injury prevention/safety promotion programmes in the previous three years. Four agencies said "No" to providing safety programmes, but then some described providing such programmes!

The majority of the programmes were focused on the staff rather than clients. They consisted of basic Health and Safety Training (14), First Aid (4), fire evacuation practices (4), prevention of back injuries (5), and restraint (5). Some training focused on individual situations e.g. safe feeding. The few programmes that focused on clients were: first aid, fire drills, "Keeping Ourselves Safe", safety when cooking, safety with power tools.

The outcomes of the programmes noted were very variable. They included: improved staff knowledge and systems e.g. Health and Safety three monthly audits; team follow-up; ACC recognition; Employees Assistance Programmes; and modified equipment. Some agencies also noted specific outcomes such as fewer staff with back injuries, fewer incidents of challenging behaviour and fewer injury incidents in residential homes.

Who should be written to for consent to gather data from Client Incident Forms?

Fourteen agencies nominated the Manager/CEO of the agency as the person who should be written to for gathering data. Five agencies nominated a Regional Manager. Two educational agencies nominated the Principal or Teacher in charge and one agency noted that all clients had already signed consent forms allowing access to their personal information

Facilities available to collect the data

All agencies responded positively to a question about facilities available for collecting data, with eleven offering space and ten offering staff assistance. Three agencies had written protocols to follow in accessing such information.

Protecting client confidentiality

The majority of agencies (16) insisted on the protection of client confidentiality through no personal identification. General approval was given for the use of numerical identifiers. Three agencies noted that clients had already agreed to share personal information. One agency noted their information was already processed to remove personal identification. Only one agency would seek consent from individual clients.

Issues re: access to information on Maori clients

Only one agency noted the need to consult their Cultural Adviser (in Wellington) with regard to privacy issues, relating to accessing information on Maori clients.

Ethnicity data

All but three agencies recorded ethnicity data. These data are commonly collected on referral, from the family member of the client.

Of those three agencies that did not collect ethnicity data, all replied it was 'not relevant' and one also agreed with the other options, ('difficult to ask' and 'never thought of it').

The responsibility for collecting the information typically rests with the person accepting the referral or on admission to the service.

Training in cultural issues

Five agencies noted that the staff had received no specific training in cultural issues at all. The five areas of training identified for the other 16 agencies were: Treaty of Waitangi (17), specific issues of cultural safety (9), Maori language and pronunciation (6) and how to interact with whanau, hapu, and iwi (5).

Some agencies noted that many staff had no training at all in this area. Those agencies whose staff undertook the National Certificate in Human Services noted that this course included some relevant training. Two agencies mentioned having their own Maori advisers, or relationships with local iwi who provided some training. One agency claimed that "staff were aware of all issues".

There is clearly a need for a more consistent approach to gathering information on the ethnicity of clients in intellectual disability services. In terms of service planning and meeting Treaty obligations, the responses to these sections of the questionnaire do raise some concerns. Some of the responsibility for addressing these issues appear to lie with the funders, through their contract specifications and monitoring. Also, agencies themselves need further direction and assistance in some areas, including staff training.

2.5 Obtaining Ethical Approval for the Project

The Project Leader communicated with the Chairperson of the Otago Ethics Committee (Professor Donald Evans) for advice about seeking approval for a "non-research" project. He advised that that the Project should be submitted to the scrutiny of an Ethics Committee, because it would involve accessing and analysing personal information.

An Ethics Application (Appendix 4) was completed and submitted to the Southland and Otago Ethics Committees as the Project was being carried out in both these areas. Also, Dr Bray attended both committee meetings to answer any questions about the Project. Both Ethics Committees gave approval for the project and expressed support and considerable interest.

All the service providers who completed the questionnaire were sent a letter (Appendix 5) with an information form (Appendix 6) and a consent form (Appendix 7) inviting them to participate in the data collecting phase of the Project. It was made clear that the Project Team could only move on to the data collection phase when signed informed consent had been obtained from each agency manager, or person authorised to give consent.

If the agency did not wish to be involved in this phase a request was made to the agency to contact the project team, and inform them. The team did not need their reasons for non-involvement. If the agency wanted to be kept informed of other parts of the project they were asked to indicate that.

Agencies who wished to be involved signed the consent form and returned it to the project team. A total of thirteen agencies signed the consent form and agreed to have a member of the team come into their service and collect client injury data.

CHAPTER 3

DATA COLLECTION AND ANALYSIS

3.1 Data Collection

A data collection form and procedures for data collection and entry were developed based on common categories used in data gathering and research relating to injuries.

The Data Collection Form (Appendix 8) included Unique Identifier Record Sheets for both clients and staff (Appendix 9) and Data Collection Instructions (Appendix 10).

The aim was to obtain a description of the numbers and types of injuries in both residential and vocational services. Each client and staff person were given their own unique code number. Personal information about the clients' degree of disability/disabilities, health status, medication regimes, ability to interact with others and in various environments and family history was **not** collected, due to the time limitations of the Project, and the privacy intrusions this would have entailed. This limited the investigation of the injury incident records to the following categories:

1. Organisation
2. Individual
3. Gender
4. Age
5. Ethnicity and who determined ethnicity
6. Date of incident
7. Time of incident
8. Type of injury
9. Site of injury
10. External cause/mechanism
11. What caused the injury (Object/substance/agency)
12. Where event occurred
13. Location
14. Activity when injured
15. Event description
16. Treatment for injury
17. Subsequent injury
18. ACC form filled in
19. Free text

Procedure for data collection

The procedure of data collection was piloted within an agency that was not part of the project. The pilot data obtained (only 3 months) showed that it was possible to collect very detailed and significant information. We had no reason to believe that the pilot data was unusual. It appeared from the

pilot study that a possible major focus would be on the prevention of intentional injuries in the home.

Each agency that consented to be part of the project was visited separately and data collected from their previous 12 months of incident reports. This entailed identifying where the records were kept, manual recording on to a prepared spread sheet and re-entered onto the computer excel database.

3.2 Field Notes on Data collection

Field notes were kept during the data collection phase. Some of these are presented to illustrate some of the challenges in gathering this information. These notes were also useful when considering possible injury prevention strategies.

- *Some injury incident forms are really hard to decipher ……. handwriting is awful!*

- *It is really hard to locate incident information on individual files, especially when the file material is out of chronological order!*

- *This agency had incident information in about six different places, an Accident Register, an incident report form for only a few incidents, and small notebooks for each of the four units for noting accidents on the job. These notebooks have very sparse information in them… in fact one unit couldn't find their notebook and another unit only had a staff injury noted.*

- *This agency has a really excellent Incident Report Form… but they rarely use it? Why? Maybe training is needed?*

- *Literacy levels of some staff very poor…. clearly some staff need assistance at filling in incident forms*

- *Many staff need training in filling in forms with the FACTS! A lot of subjective information about why an injury may have happened. Usually blame for the incident is given to the client, when facts are not in evidence.*

- *Four clients in one service have a very high incidence of self harming behaviour and aggressive behaviour towards staff.*

- *Staff uses restraint – each client requiring restraint has an individual restraint protocol – so all incidents requiring restraint are not noted, because the restraint protocol just takes over in the situation*

- *One client restrained on a daily basis because of aggressive behaviour towards staff and clients – a written protocol is in place for restraining the client…so incidents are not always recorded. This client manages to*

avoid too much injury to herself – staff sustain more injuries than the client!

- *Incident form doesn't have any heading for injuries….clearly not intended for noting accidents and injuries.*

- *I have to read through all the Incident Forms to determine whether an injury has occurred…….these forms record a variety of information other than injury information. Maybe there should be a separate injury form?*

- *A number of Incident forms reported incidents where it was obvious that someone would have been hurt but there's nothing about injury or treatment noted.*

- *Incidents at this agency report about the perpetrators of injuries, but there are no reports on the victim who sustained injuries!*

- *It appears that clients report their own injuries. Some clients fill out their own forms and others have the Training and Development Officer fill them out.*

- *Sometimes other clients witness an incident, report it and complete the Incident Report Form.*

- *It is interesting that the Manager and Department Heads stated they did not have accidents in their service, yet I noted a large number in their system.*

- *Very informal record keeping. I had difficulty locating the information – it was in a number of places.*

- *Advice from OSH was on the wall over the "dangerous machinery", but it was complex written information – was it for the supervisors/ staff only? It would have been far more useful to have the information represented pictorially for the clients.*

3.3 Analysis of data

All the data were analysed to provide descriptive information on frequencies and percentages for the total data and for specific categories. The "free text" information was also critical in contextualising the information and providing additional detail.

Analyses were completed for:

- The individual agencies
- Gender
- Overall frequencies and percentages in each category and code
- Medically attended injuries
- Falls

- Intentional injuries (client to client)
- Injuries to head, face, eye and ear
- Home
- Vocational services
- Day services

In each category there were codes such as, ''other'', ''unknown'', ''not applicable'' and ''blank''. It must be noted that as there were three researchers involved in data collection there was some variability about how these codes were used, particularly ''unknown'' and ''blank''. One researcher used ''unknown'' when the information was not obvious and not available on the incident form, whereas another researcher used the code ''blank''. ''Not applicable'' was used when the category did not have any bearing on the incident. ''Other'' refers to information that could not be fitted into the codes provided in each category.

Qualitative Data

As previously noted while the quantitative analyses were essential, the qualitative information recorded was also illuminating. The following examples illustrate the value of collecting this information too.

- 517 wrote his own incident report
- Another client witnessed the event and completed the report
- 539 not following safety procedures… been reminded to put on gloves before accident
- 541 did own first aid
- don't know what happened at A&E
- not aware of injury or outcome!
- This incident was reported the following day by the client
- Fell and banged his head – staff had lots of laughs
- Stitched, but no after effects
- Because of very unsettled behaviour, client sent home
- Tambourine disinfected … first aid to fingers
- Client frightened and crying … rooster had neck wrung
- Accident did not cause serious harm
- Left too long in the sun, no shade
- Home notified and the ''biter'' sent home
- Calmed down after 2nd restraint
- 2x restraints, 2x redirections, 2x panadol offered, but rejected
- the bruises looked malicious
- it appears that 607 loses balance a lot!
- Tripped on worn carpet – to be replaced next week
- Was throwing self against the roughcast wall an hour before
- Found in bedroom with blood on forehead and hands – presume fall
- Staff report, ''unhurt but flustered (not as much as me!!)

CHAPTER 4

OVERALL FINDINGS

4.1 Introduction

Over a retrospective period of 12 months a total of 594 injury incidents were recorded in the 13 intellectual disability services in the project. For some of these incidents, some categories were left blank, resulting in the totals of some tables showing less than 594 incidents. The total number of individuals who experienced at least one injury during this period, was approximately 255 out of an **estimated** group of 700+ adults with intellectual disabilities. Unfortunately it was not possible to obtain an exact number of the adults using different services or experiencing injuries, as some residents used both residential and vocational services provided by the same agency, some used one or more vocational services for different days during the week, and some of those who used vocational services did not use residential services. These differing patterns of service usage also result in problems in estimating exposure in different locations. In the planned prospective study of injuries, demographic and service usage data will be obtained on all service users for each organisation (see Chapter 8).

4.2 Analysis of gender patterns

There were more injury incidents recorded for males (403), than there were for females (189). In terms of the estimated female:male ratios of clients in the actual services, (i.e. 39:61), these ratios of 32:68 suggest a slightly higher rate of male injury. However, one male client who had a large number of self-injury incidents has inflated the male number. Removing this specific client's injuries changes the ratio of female: male injuries to 35:65, only a slightly higher male rate than expected.

There were some differences in the **pattern** of injury characteristics experienced by women and men.

Type of injury: Females were more likely to have bruise/crush injuries (38% of their injuries) than men (25% of their injuries). Males were more likely to have lacerations (35% vs 24%). For both sexes, the most common types of injuries were: bruise/crush, lacerations, and grazes. For these three types of injury combined, the proportions were: (78% for females and 77% for males).

Where event occurred: For both sexes, the highest proportion of injuries were in the home (55% and 46%). Females were more likely to be injured at home (55% vs 46%) and males were more likely to be injured in the workplace (32% vs 15%).

Specific location in/around building: A similar female/male pattern can be seen in the location of injury, with females more likely to be

injured in the kitchen (11% vs 55%) and males on the workshop floor (23% vs 10%). The living area was a common location for both sexes (13% and 14%), and there was a significant proportion of "unknown" locations for both females and males(13% and 11%).

Activity when injured: The most common activities prior to injury for both sexes were "walking/running" and "resting/watching TV" (combined proportion for females was 43% and 31% for males). Females were more likely to be injured while resting/watching TV (18% vs 9%). Females were more likely than males to be injured while preparing food (4% vs 1%), whereas males were more likely to be injured while operating machinery (6% vs 2%). However, these proportions refer to relatively small numbers of injuries. There was also a high proportion of "unknown" activities for both sexes (17% and 21%).

Site of injury: The pattern of injuries for both sexes revealed a high proportion of injuries in the face/ear/eye/head area (females 30%, males 43%). Injuries to the hand were also common for both sexes (both 21%).

Object/substance/agency causing injury: Intentional injuries were a significant cause of injury for both sexes, but for females, the proportion was almost twice as high as for males (32% vs 17%). Self-injury was a higher category for males (20% vs 6%) but this is largely due to one male client with a very high rate of self-injury.

External cause/mechanism: Falls and "struck by/against" were the most common external causes for both sexes (76% for females and 74% for males).

Treatment for injuries: The pattern of findings was similar for both sexes, with 8% of female injury incidents requiring medical attention and 12% of male injury incidents. Furthermore, when medically-attended injuries are analysed, the gender imbalance is more marked, with 77% of these injuries occurring to males, and 23% occurring to females. The pattern of findings for subsequent treatment was the same, with 5% of incidents requiring follow-up treatment for both sexes. There are only records of ACC notification in 2-2.5% of incidents.

4.3 Type of injury

The most common type of injury was laceration (32%), followed by bruise/crush (29%), and graze (17%). For 6% of the incidents, the type of injury was unknown. Table 1 sets out the numbers and percentages for all types of injury.

Table 1: Type of injury

	n	%
Laceration	188	31.8
Bruise/crush	172	29.0
Graze	99	16.7
Burn/scald	15	2.5
Sprain/strain	15	2.5
Bite	10	1.7
Foreign body	10	1.7
Fracture	8	1.3
Concussion	4	0.7
Internal injury	1	0.2
Unknown	37	6.3
Other	27	4.6
N/A	6	1.0
	592	**100.0**

In the **type of injuries** category 4.6% of total injuries were "other". If this project is to be replicated or expanded then the category of type of injury needs extending to cover more codes.

"Unknown" in **Type of injuries** registered 6.3% of total injuries. It was concerning to note that several incidents in this category including clients slipping on floors and falling on backs, but there was no investigation on where the clients may have hurt themselves.

4.4 Site of injury

A large proportion of the injuries were to the face and head region (39%) (Table 2). The large number of hand injuries (21%) occurred primarily in sheltered workshop settings.

Table 2: Site of injury

	n	%
Head	91	15.4
Face	114	19.3
Ear	9	1.5
Eye	16	2.7
Neck	3	0.5
	233	**39.4**
Shoulder	11	1.9
Arm	43	7.3
Hand	124	21.0
	178	**30.2**
Chest	8	1.3
Back	21	3.5
Abdomen	4	0.7
Hip	7	1.2
	40	**6.7**
Upper leg	10	1.7
Knee	20	3.4
Lower leg	22	3.7
Ankle	9	1.5
Foot	16	2.7
	77	**13.0**
Multiple sites	21	3.6
Not applicable	3	0.5
Other	6	1.0
Unknown	33	5.6
Total	**591**	**100.0**

The possibilities for brain, facial, and dental injuries is of significant concern, even though the actual "diagnosis" of concussion was only applied to four of these injuries. There was no information identifying any facial fractures or dental injuries receiving any treatment. An examination of the descriptions of some of these injuries suggests that they should have at least been referred for medical examination.

4.5 External cause/mechanism of injury

The two most common external causes were struck by/against (44%) and falls (31%). The most common cause of "struck by" injuries were intentional injuries by other clients (46%). Unfortunately, information on the external cause was unknown for 9% of the injury incidents (Table 3). Some incidents causes recorded as "unknown" were quite serious injuries. Injuries caused by fire/burns were rare (1%).

Table 3: External cause/mechanism of injury

	n	%
Struck by/against	260	43.9
Fall	182	30.7
Cut/pierce	33	5.6
Machinery	26	4.4
Fire/burn	9	1.5
Transport	4	0.7
Natural environment	3	0.5
Over exertion	3	0.5
Suffocation	1	0.2
Other	15	2.5
Unknown	56	9.5
	592	**100.0**

4.6 Object/substance/agency causing injury

The most common agency for injuries were other clients, with 22% of injuries classified as intentional i.e. assaults. The 92 injuries caused by self cannot be seen as an accurate result, as recording of self injuries was extremely variable, and 57 of these incidents referred to one individual. Even for this individual, staff noted that this total would be an underestimation. Some organisations did not record self-injury as an "injury incident" at all.

The floor and ground or path caused 15% of injuries, with 22% due to falls. Seizures were implicated in only 5% of all injuries, but were involved in 11% of falls, and they may also form part of the 10% of unknown causes (Table 4). It is also important to note that including seizures in this category is problematic, as the coding categories are not mutually exclusive in reality e.g. the floor, door, steps etc. could also be mechanisms of injury. This issue will be reconsidered in any future research.

Table 4: Object/substance/agency causing injury

	n	%
Person-intentional	128	21.6
Self	92	15.5
Floor	46	7.8
Ground or path	45	7.6
Seizure	27	4.6
Machinery	22	3.7
Tools	22	3.7
Furniture	21	3.5
Person-unintentional	17	2.9
Door	16	2.7
Appliance	14	2.4
Steps/stairs	11	1.8
Vehicle	10	1.7
Glass	7	1.2
Liquids	7	1.2
Natural environment	5	0.8
Animal	4	0.7
Box	4	0.7
Sport/recreational equipment	3	0.5
Other	32	5.4
Unknown	59	10.0
	592	**100.0**

In **Object/substance/agency causing injury** 5.4% of what caused the injury was "other", once again illustrating the need to expand the codes in this category.

4.7 Where event occurred

As with the general group of non earners (ACC Injury Statistics, 1999), the most common injury site was the person's home (49%), and if all residential/living sites are combined (i.e. (group) home, community boarding house, and residential institution), this rises to 50% (Table 5). The sheltered workshop was the site of 27% of all injury incidents. This category of "workshop/workplace" may include a few instances of injury in other work settings, such as a supported job in an open employment setting, but these were likely to be rare, as the majority of clients in intellectual disability services still spend their days in sheltered workshops or day services. A small proportion of injuries occurred outside of the actual intellectual disability service (9%). The two injury incidents at school reflect the fact that students with intellectual disability can stay at school until they are 21 years old. For 7% of the injury incidents, where they occurred was unknown.

Table 5: Where event occurred

	n	%
Home	289	49.2
Workshop/workplace	158	26.9
Day service-non work	32	5.4
Public area	17	2.9
Footpath/walkway	10	1.7
Recreational area	10	1.7
Street or highway	9	1.5
Trade or service area	4	0.7
Community boarding house	3	0.5
Sports or athletic area	2	0.3
School	2	0.3
Residential institution	1	0.2
Hospital/health service	1	0.2
Not applicable	1	0.2
Other	10	1.7
Unknown	39	6.6
	588	**100.0**

4.8 Location in/around building where event occurred

For 56 of injury incidents (9%) this category was inapplicable, therefore the analysis in Table 6 applies only to the 536 injury incidents which did occur in/around a building.

The most common locations for injuries were the workshop floor in sheltered workshops (20%) and the living area of their home or residential service (15%). Both of these locations are areas in which **groups** of adults with intellectual disabilities are most likely to spend time together. However, it is of concern to note that for 13% of injuries, the specific location was unknown. Also, the 8% of injuries occurring in the driveways of buildings is of concern, and primarily reflects injuries incurred getting in and out of vans being used to transport adults with intellectual disabilities to and from their residential and vocational services.

Table 6: Location in/around building where event occurred

	n	%
Workshop floor	112	20.5
Living area	80	14.7
Driveway	42	7.7
Kitchen	41	7.5
Dining area	35	6.5
Bedroom	30	5.5
Bathroom	28	5.1
Hallway	28	5.1
Garden	20	3.7
Stairs/steps	12	2.2
Toilet	11	2.0
Laundry	6	1.1
Office	4	0.7
Other	17	3.1
Unknown	70	12.8
	536	**100.0**

As a number of residential services include toilets in bathrooms, it may be useful to consider the locations of bathroom and toilet together (7%), as involving ablutions, when considering injury prevention. An analysis of activities when injured (Table 7) confirms this, as 7% of injuries (primarily falls) took place during ablutions.

4.9 Activity when injured

This category was the most poorly recorded in injury incident records, with the activity being unknown for 117 (20%) of injury incidents (Table 7). There will certainly be some types of injuries noted by staff during care (e.g. bruises), for which the adult with intellectual disabilities may not be able to identify the causal event, due to memory and/or communication difficulties. Unlike the general population, staff working in intellectual disability services are placed in a formal "duty of care" position in which identification and explanation of injuries, including those that are not medically attended, is important, due to the vulnerability of their client population to injuries and abuse. There are also a large number of incidents (63) for which there was no relevant category. In the planned prospective study, these incidents will be examined in order to create additional coding categories.

Table 7: Activity when injured

	n	%
Walking/running	133	22.5
Resting, watching TV	71	12.0
Ablutions	41	6.9
Working-other	29	4.9
Eating/drinking	28	4.7
Operating machinery	28	4.7
Travelling as a passenger	21	3.5
Lifting/lowering/loading	14	2.4
Recreation or sport	14	2.4
Preparing food	13	2.2
Fighting	7	1.2
Driving/riding	5	0.8
Carrying	4	0.7
Adjusting machinery	3	0.5
Not applicable	1	0.2
Other	63	10.6
Unknown	117	19.8
	592	**100.0**

The predominance of injuries occurring during walking/running (23) are similar to those in the "non-earners" account (ACC Statistics) but the apparent "dangerousness" of resting/watching TV is likely to be different. In this group, this reflects the high levels of apparently unprovoked intentional injuries.

4.10 Treatment following injuries

The majority of injuries received first aid treatment by staff in intellectual disability services (46%), and 27% of injuries did not require any treatment, according to the judgment of staff at the time. However, 6% of injuries required urgent medical treatment, and a further 5% required non-urgent medical treatment, giving a total of 11% of injuries requiring medical treatment (Table 8). Given the high number of face and head injuries noted, this proportion of injuries which received medical attention is judged to be too low, suggesting a lower level than ideal, particularly for this particular group who may not always be able to describe and localise on-going symptoms of injury. It is also concerning that information about treatment was unknown for 16% of injuries.

Table 8: Immediate treatment for injury

	n	%
First aid only	269	45.9
No treatment required	150	25.6
Urgent medical treatment	38	6.5
Non-urgent medical treatment	27	4.6
Other	9	1.5
Unknown	93	15.9
	586	**100.0**

Out of 65 medically-attended injuries, only 13 resulted in an ACC form being filled out, according to the information available. Subsequent treatment was noted for 29 of these injury incidents, including 2 hospital admissions (Table 9). However, for 102 of the injury incidents, subsequent treatment was unknown, and there were also 10 incident records with no information entered.

Table 9 Subsequent treatment:

	n	%
None	446	76.4
GP Follow up	15	2.5
Hospital outpatient	7	1.2
Referral to treatment provider	4	0.7
Hospital admission	2	0.3
Referral to medical specialist	1	0.2
Not applicable	6	1.0
Other	1	0.2
Unknown	102	17.5
	584	**100.0**

4.11 Medically-attended injuries

Sixty-five injuries received urgent or non-urgent medical treatment. As these are the type of injuries typically covered in research and injury data, a separate analysis of these was undertaken. In this report, we have defined these medically-attended injures as "serious".

Men were more likely to incur serious injuries than women, 77% of these injuries happening to males.

Type of injury

The most common types of serious injury were lacerations (43%), bruise/crush injuries (19%), and fractures (12%) (Table 10).

Table 10: Types of serious injuries

	n	%
Laceration	28	43.1
Bruise/crush	12	18.5
Fracture	8	12.3
Sprain/strain	5	7.7
Graze	3	4.6
Burn/scald	2	3.1
Concussion	2	3.1
Foreign body	1	1.5
Other	3	4.6
Unknown	1	1.5
	65	**100.0**

Site of Injury

The most common sites of serious injury were the head (25%), the hand (18%), and the face (11%), with the head/face region being the most common site for serious as well as for all injuries (39%) (Table 11).

Table 11: Site of serious injuries

	n	%
Head	16	24.6
Face	7	10.8
Eye	2	3.1
	25	**38.5**
Chest	2	3.1
Abdomen	1	1.5
Back	1	1.5
	4	**6.1**
Shoulder	1	1.5
Arm	4	6.2
Hand	12	18.5
	17	**26.2**
Upper leg	2	3.1
Knee	2	3.1
Lower leg	3	4.6
Ankle	4	6.2
Foot	4	6.1
	15	**23.1**
Multiple sites	2	3.1
Not applicable	1	1.5
Unknown	1	1.5
Total	**65**	**100.0**

External cause/mechanism of serious injuries

Falls were the most common cause of serious injury (45%), followed by struck by/against (23%) (Table 12).

Table 12: External cause/mechanism of serious injuries

	n	%
Fall	29	44.6
Struck by/against	15	23.0
Machinery	4	6.2
Cut/pierce	4	6.2
Fire/burn	2	3.1
Transport	2	3.1
Suffocation	1	1.5
Other	2	3.1
Unknown	6	9.2
	65	**100.0**

Object/substance/agency causing serious injuries

There was no single agent that caused a large number of serious injuries, but floor (11%) and ground or path (14%), were clearly related to injuries from falls (Table 13). Seizures were the agent for 12% of serious injuries, probably also primarily related to falls, as 12% of falls were caused by seizures. Only four of the serious injuries were the result of intentional injury.

Table 13: Object/substance/agency causing serious injuries

	n	%
Ground or path	9	13.8
Seizure	8	12.3
Floor	7	10.8
Machinery	5	7.7
Self	5	7.7
Person intentional	4	6.2
Furniture	3	4.6
Door	3	4.6
Glass	2	3.1
Tools	2	3.1
Vehicle	2	3.1
Box	1	1.5
Steps/stairs	1	1.5
Liquids	1	1.5
Other	7	10.8
Unknown	5	7.7
	65	**100.0**

Where serious injuries occurred

Most serious injuries occurred in homes (46%) and in sheltered workshops (11%) (Table 14).

Table 14: Where serious injuries occurred

	n	%
Home	30	46.1
Workshop/workplace	17	26.2
Public area	3	4.6
Day service	2	3.1
Recreational area	2	3.1
Footpath/walkway	1	1.5
Trade or service area	1	1.5
Other	2	3.1
Unknown	7	10.8
	65	**100.0**

Location in/around building where serious injuries occurred

The most frequent locations for serious injuries were the workshop floor in sheltered workshops (14%), followed by bedroom (12% or 8), possibly due to the 14 falls which occurred in the bedroom. The driveway (9%) and hallway (9%) were also the sites for 12 serious injuries (Table 15).

Table 15: Location of serious injuries

	n	%
Workshop floor	9	13.9
Bedroom	8	12.3
Driveway	6	9.2
Hallway	6	9.2
Bathroom	4	6.2
Dining area	3	4.6
Kitchen	3	4.6
Stairs/steps	2	3.1
Living area	1	1.5
Toilet	1	1.5
Not applicable	7	10.8
Other	2	3.1
Unknown	13	20.0
	65	**100.0**

Activity when seriously injured

The most common activities preceding serious injuries were walking/running (29%), followed by resting/watching TV (9%) (Table 16).

Table 16: Activities preceding serious injuries

	n	%
Walking/running	19	29.2
Resting, watching TV	6	9.2
Operating machinery	4	6.2
Ablutions	3	4.6
Eating/drinking	3	4.6
Adjusting machinery	2	3.1
Lifting/lowering/loading	2	3.1
Recreation or sport	2	3.1
Working - other	2	3.1
Driving/riding	1	1.5
Fighting	1	1.5
Preparing food	1	1.5
Travelling as a passenger	1	1.5
Not applicable	1	1.5
Other	7	10.8
Unknown	10	15.5
	65	**100.0**

The considerable amount of information missing (unknown) in the records of serious injuries is of concern. Information was unknown in the following categories:

- ★ type of injury (1)
- ★ site of injury (1)
- ★ external cause/mechanism (6)
- ★ object/substance/agency (5)
- ★ where injury occurred (7)
- ★ location in/around building (13)
- ★ activity when injured (10)

The most likely explanation for these gaps in information is poor recording practices, rather than genuine gaps in knowledge of providers. It is conceivable that incident reports on serious injuries were completed some time **after** the injured person had been taken to the GP or hospital, leading to poorer recall in staff and lack of detail in the report.

4.12 Summary and Implications

The overall findings identify similar patterns to some of the reviewed research, with significant proportions of injuries being due to falls and intentional injuries. The percentage of injuries that were fall-related (31%) is less than the 50% of medically-attended falls found by Hsieh et al (2001) but the current project included all injuries, not just those that were medically attended. However, when **only** medically-attended injuries in this data were examined, 45% of these were due to falls, very close to Hsieh et al's findings. The proportion of intentional injuries (22%) is almost

identical (23%), and the percentage of injuries that were medically-attended (11%) is the same as the proportion of **clients** in the Hsieh et al study who had incurred medically-attended injuries.

The injury data had significant gaps under some categories, in terms of "unknown" information particularly in the areas of "specific location", "activity when injured" and "treatment for injury".

There was only a slightly higher rate of injuries to men than expected, but more of the injuries to men were **serious** (i.e. medically attended) and some differences in the types and contexts of injuries. While the overall proportion of intentional injuries (22%) is worrying, it is very concerning that women were more likely to be intentionally injured than men.

The predominance of injuries to the head/face region (39%) has not been identified in previous research, and is primarily due to the type of injuries being sustained in falls, and to assaults to this area of the body. Of further concern is the lack of medical attention sought for most of these injuries. Consultation was undertaken with experts in the Dental School about the possibility of untreated facial and dental injuries in these head/face injury incidents confirmed these concerns. The percentage of medically-attended injuries in the head/face region was also 39%.

While the majority of injury incidents were not serious, the potential for serious injury was present in many incidents. Most injuries were incurred in the course of very ordinary daily activities, i.e. walking/running, and resting/watching TV – not usually perceived as hazardous activities. For the incidents involving intentional injuries, the picture of "bullying" and "low-level" violence which emerged suggests that the experience of ongoing psychological trauma and anxiety is common for many adults with intellectual disabilities – at home and work. These effects would not be limited to the victims of these injuries, but also to those who witness the violence.

The Project Team therefore identified the following three areas for more detailed analysis and for an injury prevention focus:

★ falls

★ intentional injuries

★ injuries to the head/face region.

The next chapter outlines the analyses of data relating to each of these three areas.

CHAPTER 5

FOCUS AREAS FOR INJURY PREVENTION

5.1 Introduction

The data analyses of the total 594 injury incidents provided an overall picture of injuries over a twelve-month period to a group of 700+ (estimated) adults with intellectual disabilities. From this picture, three areas were identified by the Project Team as requiring further analyses and as a focus for general awareness raising as a part of injury prevention. These areas were:

★ falls;

★ intentional injuries;

★ injuries to the head and face region.

This chapter will provide analyses of each of these areas and note some of the implications identified for injury prevention.

5.2 Falls

Falls constituted the external cause or mechanism for 31% of all injury incidents and 45% of all medically-attended injuries. The 182 falls related to 100 individuals. Within this group, 69 individuals fell once over the 12 month period, while 31 individuals fell between two and 11 times. The man who fell 11 times, did so over a period of only six months, as outlined in the following case-study.

Peter

★ Peter is 36 years old and in a period of six months fell 11 times.

★ Eight of his falls occurred in the morning and three in the early afternoon.

★ 63% of Peter's injuries were to the head and face. The other injuries were to his shoulder, arm, hand and ankle.

★ Many of his visible injuries were grazes and cuts to his face and chin. He sprained his ankle and shoulder on two different occasions – although neither of these injuries appeared to have been assessed by anyone in the health profession.

★ All of Peter's falls, except two, occurred while he was **walking.**

★ On one occasion he fell on some steps in a public place and a tooth was knocked out. An ambulance was called by a member of the public, but there was no evidence on the incident form that Peter received any medical treatment or ACC benefits.

★ From reading the incident form it appears that Peter did not fall because of any environmental factors… … so why did he fall frequently?

★ Peter's head was frequently hit when he fell – what would be the likelihood for head injuries, facial fractures, dental injuries at the time and at a later date?

Gender

There was no strong evidence that women and men differed in terms of falls, with 38% of falls incidents experienced by women and 62% by men, compared to the estimated client population ratios of 40:60.

Age

The age of people with intellectual disabilities in residential services has increased over recent years, probably due to the deinstitutionalization of many older adults and the tendency for young adults to continue to live at home or choose more independent living options. For example, the

average age of individuals in IHC residential services is now 50 years (Vautier, personal communication). Increasing age among adults in residential services may make falls more likely.

In terms of falls, the relationships with age is shown in Table 17.

Table 17: Ages of clients who were injured in falls

Age in years	No. of individuals injured due to falls	%
16-30	19	19
31-50	44	44
51-70	26	26
71+	3	3
Unknown	8	8
	100	**100**

Unfortunately we do not have information on the age distribution of all clients in these services. Further research is needed to analyse the contribution of increased age to falls, by considering this information in the context of the age distribution of all clients in services.

Type of injury

The most common types of injuries sustained in falls were grazes (33%) and bruise/crush (28%), followed by lacerations (21%) (Table 18).

Table 18: Type of injury caused by falls

	n	%
Graze	60	33.0
Bruise/crush	50	27.5
Laceration	38	20.9
Sprain/strain	13	7.1
Fracture	5	2.8
Concussion	2	1.1
Unknown	7	3.8
Other	6	3.3
N/A	1	0.5
	182	**100**

Site of injury

The most common injury sites resulting from falls were the head and face, with 44% of all falls causing injuries to this region (Table 19).

Table 19: Site of falls injuries

	n	%
Face	28	15.4
Eye	1	0.6
Ear	4	2.2
Head	47	25.8
	80	**44.0**
Shoulder	2	1.1
Arm	9	4.9
Hand	9	5.0
	20	**11.0**
Chest	2	1.1
Back	13	7.1
Abdomen	1	0.6
Hip	7	3.8
	23	**12.6**
Upper leg	3	1.6
Knee	19	10.4
Lower leg	5	2.8
Ankle	6	3.3
Foot	5	2.7
	38	**20.8**
Multiple sites	9	5.0
Unknown	8	4.4
Other	3	1.7
N/A	1	0.5
Total	**182**	**100.0**

The most surprising and concerning finding in these results is the lack of any records of dental injuries being diagnosed and receiving treatment, given the high numbers of face and head injuries. Even though "Peter" had one record of a tooth being knocked out in a fall, there was no record of subsequent dental treatment.

The **pattern** of injuries appears to be different to that experienced by elderly people, who tend to have more "crumple" falls with injuries to the lower body (Robertson, personal communication). Further research into why people with intellectual disabilities show a pattern of falling straight forward or backwards appears warranted. It is relevant to note that only 11.5 of these falls are related to seizures. People with intellectual disabilities often have additional sensory and/or physical disabilities which may be additional risk factors for falling. Estimates of the percentages of people with intellectual disabilities who have sensory impairments range from 10-34%, while those for physical disabilities range from 20-30% (Bray, 2001).

Object/substance/agency causing injury in falls

The pattern of falling is also shown in the high proportion of injuries caused by falling to the floor, ground or path (47%) (Table 20).

Table 20: Object/substance/agency causing injury

	n	%
Floor	45	24.7
Ground or path	40	22.0
Seizure	21	11.5
Furniture	12	6.6
Steps/stairs	11	6.0
Self	7	3.9
Person-unintentional	5	2.7
Appliance	5	2.7
Door	4	2.2
Natural environment	4	2.2
Person-intentional	3	1.7
Vehicle	2	1.1
Box	2	1.1
Sport/rec. equipment	1	0.5
Liquids	1	0.6
Animal	1	0.6
Unknown	11	6.0
Other	7	3.9
	182	**100.0**

Where falls occurred

As expected, the majority of the falls occurred at home (59%), with the next most common locations being the sheltered workshops (14%) or day services (5%) attended by the people with intellectual disabilities during the day (Table 21).

Table 21: Where falls occurred

	n	%
Home	108	59.3
Workshop/workplace	26	14.3
Day service-non work	9	4.9
Recreational area	8	4.4
Footpath/walkway	7	3.9
Public area	6	3.3
Street or highway	3	1.7
Trade or service area	3	1.7
Blank	2	1.1
Community boarding house	1	0.5
Sports or athletic area	1	0.5
Other	1	0.6
Unknown	7	3.8
	182	**100.0**

The relatively few falls occurring outside these locations (21%) reflects the lack of exposure of people with intellectual disabilities to community experiences such as recreation and sport.

Location in/around building where falls occurred

A wide range of locations in/around buildings was noted as the place in which the 156 falls occurred. Another 26 injuries occurred away from a building and its immediate environs. The most common locations for falls were the bathroom (12%), the driveway (11%), and hallway (10%) (Table 22).

Table 22: Location in/around building where falls occurred

	n	%
Bathroom	19	12.2
Driveway	17	10.9
Hallway	16	10.2
Bedroom	14	9.0
Kitchen	13	8.3
Living area	12	7.7
Stairs/steps	10	6.4
Garden	10	6.4
Toilet	9	5.8
Dining area	9	5.8
Workshop floor	9	5.8
Laundry	2	.3
Unknown	13	8.3
Other	3	1.9
	156*	**100.0**

* **Note:** 26 injury incidents (14%) occurred in areas away from a building and its immediate environs.

Falls in the bathroom and toilet were often associated with seizures (9), or slipping on a wet floor (10). The latter hazard could well be considered for targeted falls prevention, with non-slip flooring and use of hand-rails in showers and toilets.

Falls in the driveway often occurred when getting in and out of vans (7), an obvious target for injury prevention.

Falls in the hallway were sometimes associated with trips over items left in the hallway (3), and seizures (2), but for most falls, no environmental hazards were noted.

In the bedroom, individuals sometimes fell when getting into or out of bed (3), but, once again, most falls were not associated with identifiable hazards, as recorded by staff.

Activity when injured from falls

The majority of falls (50%) occurred when the individual was walking or running. The next most common activity prior to a fall was ablutions (15%). Unfortunately a significant proportion of prior activities could not be categorised (9%) or were unknown (9%) (Table 23).

Table 23: Activity when injured in falls

	n	%
Walking/running	90	49.5
Ablutions	27	14.8
Resting, watching TV	11	6.0
Recreation or sport	6	3.3
Preparing food	4	2.2
Fighting	3	1.6
Eating/drinking	2	1.1
Lifting/lowering/loading	2	1.1
Travelling as passenger	1	0.6
Driving/riding	1	0.6
Carrying	1	0.6
Working-other	1	0.5
Other	17	9.3
Unknown	16	8.8
	182	**100.0**

When the details of the falls occurring during ablutions were examined, as noted previously, seizures and slipping on wet floors, were noted as associated with 19 falls.

Treatment for falls-related injuries

The most common treatment for injuries sustained in falls was first-aid (50%), but 29 injuries from falls (16%) required medical treatment (Table 24). However, a record of an ACC form being filled in was only found for 5 of these 29 medically-attended injuries.

Follow-up treatment was recorded for 13 of the 29 medically-attended injuries (Table 25).

Table 24: Treatment for falls-related injuries

	n	%
First aid only	90	49.5
No treatment required	34	18.7
Urgent medical treatment	16	8.8
Non-urgent med. treatment	13	7.1
Unknown	23	12.6
Other	4	2.2
Blank	2	1.1
	182	**100.0**

Table 25 Subsequent treatment for falls-related injuries

	n	%
None	146	80.2
GP Follow up	6	3.3
Referral to treatment provider	3	1.7
Hospital outpatient	3	1.7
Referral to medical specialist	1	0.5
Unknown	15	8.2
N/A	4	2.2
Blank	3	1.7
Other	1	0.5
	182	**100**

Summary and Implications for Injury Prevention

The data from this Project confirm the findings in the literature that falls are a significant cause of injury among adults with intellectual disabilities. Using the estimated figure of 700 individuals in this Project group, approximately 14% of these individuals fell and injured themselves at least once over this twelve-month period.

In this Project, the lack of detailed information about individuals and the amount of missing or unknown information in some of the injury incident

records, means that the contribution of **specific** individual risk factors for falls cannot be determined.

While it appears that many of these falls had no long term serious consequences, five falls resulted in fractures. Of those falls that did receive medical attention, 44% needed subsequent treatment. Even so, it was rare to find any evidence of ACC notification of these injuries. Of concern is the significant proportion of injuries to the head/face region (44%), suggesting these adults may show a different pattern of falls to that among elderly people.

The initial primary focus identified for injury prevention was to raise awareness among service providers of the number of falls, particularly repeated falls happening in their services, and the importance of ensuring systematic follow-up. There were no common environmental hazards associated with most falls, although falls in bathrooms/toilets and getting in and out of vans provide a clear focus for falls prevention in some services.

With the frequency of epilepsy and other disabilities among adults with intellectual disabilities, further research is necessary to evaluate the contribution of these individual risk factors. In the meantime, referring "repeat fallers" for a "falls risk assessment", as recommended in the ACC Thinksafe programme relating to elderly people, may be a practical first step for residential service providers to take. It is relevant to point out that some of the risk factors for falls identified in elderly people, are also relatively common characteristics among adults with intellectual disabilities e.g. poor vision; psychotropic medication; four or more medications; poor strength and balance. Those adults who have seizures, or those who have been on seizure medication for a long time, should also have regular medication reviews, both to ensure optimal seizure control and to reduce the use of unnecessary anticonvulsant medications.

There may also be a need for staff training in the area of falls, particularly in identifying **when** medical attention should be sought. Most residential and vocational services do not employ a trained health professional on site, and staff with only first-aid training may not have sufficient background knowledge related to falls and falls injuries. In particular, they need to be aware of the possibility of head, facial, and dental injuries in adults with intellectual disabilities. In this Project, as noted, there were no records of people being referred for dental treatment.

The importance of staff training was vividly illustrated in one service. While collecting injury data, a member of the Project Team observed an adult with intellectual disability fall heavily. The **only** action of the staff member who was present was to comment to the injured client, "Oh, have a nice trip?"

5.3 Intentional Injuries

Intentional injuries constituted 22% of all injury incidents, in terms of the object, substance, or agency causing the injuries. These 128 injury incidents affected 82 individuals. Unfortunately, many incident reports did not identify the person inflicting the injury, so it was not possible to count the number of individuals involved. In other words, approximately 12% of this group of people with intellectual disabilities were assaulted at least once in a period of 12 months.

The following case study of two individuals provides a typical picture of these intentional injuries.

Murray and Rosalyn

- ★ Both Murray (59 years old) and Rosalyn (46 years old) are living in the same residential service.
- ★ Both were being intentionally injured by the same service user in their home.
- ★ Murray's injuries included scratches to the face and hands, either while he was walking about his home, or sitting in a chair in the lounge, resting.
- ★ Rosalyn's injuries included hits to the face, scratches on the face and arm and bruising to her foot, while she was sitting in the dining room or lounge.
- ★ Rosalyn's and Murray's injuries were always attended to with First Aid.
- ★ Half of the incidents occurred in a cluster over a period of a month, and the rest were spread throughout the calendar year.
- ★ This level of intentional injury is likely to cause ongoing psychological injury to the victims, as well as physical injury.

Gender

Women experienced almost twice the proportion of intentional injuries experienced by males (32% vs 17% of total injury incidents). Unfortunately, it was not possible to identify the gender of the perpetrators. The actual number of intentional injury incidents was 60 (47%) for women, and 68 (53%) for men, even though only approximately 40% of service users were women.

This picture of female vulnerability to assault reflects the general picture of family violence in our society. According to the National Strategic Plan for Vote Health Funding for Injury Prevention (2000), assault is the eighth leading cause of hospitalisation from injury and the fifth leading cause of death from injury for women.

Age

The age groupings of those individuals experiencing intentional injuries is set out in Table 26.

Table 26: Age of individuals experiencing intentional injuries.

Age in years	No. of individuals with intentional injuries	%
16-30	16	19.5
31-50	43	52.5
51-70	22	26.8
71+	1	1.2

Type of intentional injuries

The most common types of intentional injuries were bruise/crush and lacerations. Unfortunately there was a significant proportion of incidents (11%) in which the type of injury was unknown (Table 27).

Table 27: Type of intentional injuries

	n	%
Bruise/crush	57	44.5
Laceration	33	25.8
Bite	9	7.0
Graze	8	6.3
Other	3	2,3
Foreign body	1	0.8
Fracture	1	0.8
Not applicable	1	0.8
Unknown	14	10.9
Blank	1	0.8
	128	**100.0**

Site of intentional injuries

As with falls, the most common site of intentional injuries were injuries to the face and head region (37%), followed by injuries to the arm and hand (27%) (Table 28).

Table 28: Site of intentional injuries

	n	%
Face	26	20.3
Eye	3	2.3
Ear	2	1.6
Head	16	12.5
	47	**36.7**
Neck	2	1.5
Shoulder	5	3.9
Arm	17	13.3
Hand	18	14.1
	42	**32.8**
Chest	2	1.6
Back	5	3.9
Abdomen	2	1.5
	9	**7.0**
Upper leg	3	2.3
Lower leg	10	7.8
Foot	1	0.8
	14	**11.0**
Multiple sites	2	1.6
Unknown	12	9.4
Other	1	0.8
Blank	1	0.7
Total	**128**	**100.0**

External cause or mechanism causing injury in intentional injuries

As expected, the majority of intentional injuries involved the body being struck by or against (94%), usually by part of the perpetrator's body, or occasionally by an object being thrown at or used to strike the individual.

Table 29: External cause/mechanism in intentional injuries

	n	%
Struck by/against	120	93.8
Fall	3	2.3
Other	3	2.3
Unknown	2	1.6
	128	**100.0**

The lack of the use of objects as weapons in these assaults is fortunate, given the frequency of assaults and the most common site of injury being the face. This may also reflect a lower level of planning or predetermination in these intentional injuries on the part of people with intellectual disabilities.

Where intentional injuries occurred

The majority of intentional injuries occurred in homes (52%) and sheltered workshops (20%). Only nine (7%) occurred in public areas of the community (Table 30), dispelling the myth that people with intellectual disabilities are likely to be assaulted in the community. In fact, the most dangerous locations for them appear to be their residential and vocational services. The incidents in public places also included some which involved intentional injury from another service user who was present.

Table 30: Where intentional injuries occurred

	n	%
Home	67	52.3
Workshop/workplace	25	19.6
Day service-non work	13	10.2
Public area	3	2.3
Street or highway	3	2.3
Footpath/walkway	3	2.3
Residential institution	1	0.8
Trade or service area	1	0.8
Blank	1	0.8
Other	3	2.3
Unknown	8	6.3
	128	**100.0**

Location in/around building where intentional injuries occurred

Of those intentional injuries that occurred in/around a building (113), the majority occurred in the living and dining areas (33%) and on the workshop floor (12%), areas in which numbers of people with intellectual disabilities are most likely to be congregated (Table 31).

Table 31: Location in/around building where intentional injuries occurred

	n	%
Living area	27	23.9
Dining area	15	13.3
Workshop floor	15	13.3
Driveway	11	9.7
Kitchen	11	9.7
Hallway	8	7.1
Office	3	2.6
Laundry	2	1.8
Garden	1	0.9
Toilet	1	0.9
Stairs/steps	1	0.9
Other	2	1.8
Unknown	16	14.1
	113	**100.0**

The large proportion of unknown locations (14%) for intentional injuries is of concern.

Activity when intentionally injured

The most common activities preceding an intentional injury or assault were resting, watching TV (29%) and walking/running (15%) whereas only 3% of intentional injuries were sustained during a fight between individuals. Once again, a significant proportion of activities were unknown (14%).

Table 32: Activity when intentionally injured

	n	%
Resting/watching TV etc	37	28.9
Walking/running	19	14.9
Working – other	11	8.6
Travelling as a passenger	9	7.1
Eating/Drinking	9	7.0
Fighting	4	3.1
Preparing food	4	3.1
Recreation or sport	3	2.3
Driving/riding	3	2.3
Ablutions	2	1.6
Other	9	7.0
Unknown	18	14.1
	128	**100.0**

The general picture of the context of intentional injuries is one of unprovoked attack by another person when the victim is simply going about their daily activities.

Treatment for intentional injuries

While the majority of injuries required no treatment (39%) or first aid only (35%), there is still a lack of information for 20% of the injury incidents (Table 33). Four incidents were noted as receiving medical treatment. Only one incident was recorded as requiring follow-up treatment (Table 34).

Table 33: Treatment for intentional injuries.

	n	%
No treatment required	50	39.0
First aid only	45	35.1
Non urgent medical treatment	2	1.6
Urgent medical treatment	2	1.6
Other	1	0.8
Unknown	26	20.3
Blank	2	1.6
	128	**100.0**

Table 34 Subsequent treatment for intentional injuries:

	n	%
None	109	85.1
GP Follow up	1	0.8
Not applicable	1	0.8
Unknown	15	11.7
Blank	2	1.6
	128	**100.0**

There was no record of any ACC forms being completed for the four instances of medically attended injuries.

Summary and Implications

All forms of violence, whether perpetrated in the public or private sphere, are a violation of human rights, yet intentional injuries by other adults with intellectual disabilities were the most common category of the agent of injury. It is possible they were even more common, as for 59 of the injury incidents in this category (object/substance/agency causing injury), the information was missing or unknown.

Women were more likely to experience this type of injury than men, but men still experienced 68 assaults and women experienced 60.

These assaults seldom led to serious injuries, with only four of the 128 injuries receiving medical attention, and only one receiving follow-up treatment. Staff intervention probably avoids more serious injuries, as the majority of adults in this study were in staffed homes and day settings. There was no record of any ACC registration of these four injuries.

Why is this an area for significant concern if the physical injury outcomes were apparently minimal? The major concerns relate to the long-term effects of violence in both the victims and the witnesses of violence. The picture which emerged in this Project was of a pervasive, low-level culture of violence, in which many vulnerable individuals were subjected to bullying. This violence occurred both in people's homes and in their workplaces and day services. For some individuals, it is likely that they had no safe environment in their daily lives. Adults with intellectual disabilities are unlikely to have any access to the normal protective measures, such as obtaining a protection order against a perpetrator of assault. Many of them probably do not know that what they are experiencing is a criminal offence on the part of the other person.

Why has this issue of intentional injury not received attention before? Intentional injuries inflicted on staff by their clients has certainly received attention, under the Health and Safety in Employment Act 1992. If staff are being injured, it seems logical to assume that other clients are also likely to

be experiencing assaults – but there does not appear to have been such recognition.

In the field of intellectual disability, a sustained focus of behavioural research has been on how to change "challenging behaviours" and how to reduce or prevent their occurrence. There are a number of specialised services in New Zealand to provide "behavioural support" to service providers with difficult clients. Thus the focus has been on intentional injuries as a **behaviour,** and efforts have gone into the "perpetrator", while the "victim", the injured person, appears to have often been forgotten. For many of these incidents, the record was in the perpetrator's file, but there was no record in the injured person's file.

A recent review of research on physical aggression in people with intellectual disability (Allen, 2000) supports this emphasis on aggression as a problem for carers but fails to note the fact that other disabled people are also likely to be affected. Allen notes: the prevalence of aggression in people with intellectual disabilities as ranging from 2 to 20%; a higher rate among men; higher rates in institutional settings; in 17-29% of aggressive incidents, weapons may be used. The two major intervention approaches have been behavioural and/or medication. Allen points out that the **least** effective intervention, medication alone, also appears to be the **most common** approach. This common use of psychotropic medication is also likely to increase the risk of falls among adults with intellectual disabilities, as it is a known risk factor for falls in elderly people (Campbell, Robertson, Gardner, Norton and Buchner, 1999). Allen (2000) also notes the role of environmental contributory factors to aggressive behaviour, such as excessive heat, noise, and overcrowding.

There is a large volume of research into the high rates of abuse (physical and sexual) experienced by people with intellectual disabilities, particularly in large institutions, often by staff. However, little attention has been paid to client-to-client abuse in this literature.

While this Project did not collect data on destructive behaviour towards property by adults with intellectual disabilities, these behaviours also occur within services, and would add to the psychological trauma of clients who witnessed such behaviour.

How can the issue of intentional injuries be addressed without demonising or criminalizing numbers of adults with intellectual disabilities? A Bill is currently before Parliament which focuses specifically on adults with intellectual disabilities who commit imprisonable offences and are a danger to themselves and others (The Intellectual Disability Compulsory Care Bill). This Bill has been highly controversial, particularly in its initial form which included **non**-offenders with intellectual disabilities. If it does pass into law, it is unlikely to solve the problems identified in this Project. The general picture of unprovoked, "low level" bullying which emerged from the data may be more appropriately approached through adaptation of some of the effective anti-bullying approaches used in schools. This type

of multi-level approach is also likely to reduce intentional injuries experienced by staff.

It is important to note that there were gaps in much of this data relating to intentional injuries, as follows:

★ the identity of the perpetrator was not always recorded;

★ type of injury (14 incidents);

★ site of injury (12 incidents);

★ where incident occurred (8 incidents);

★ location of injury incident (16 incidents);

★ preceding activity (18 incidents);

★ treatment (26 incidents);

★ subsequent treatment (15 incidents).

The initial injury prevention approach must be one of widespread awareness raising at all levels. The congregation of adults with intellectual disabilities in group homes and other services which is the context for these injuries, needs examination at the level of policy and funding. Service providers themselves may have become desensitised to what is occurring, and the level of intentional injuries and their effects, need to be brought to their attention. People with intellectual disabilities themselves need to be informed about their basic rights not to be assaulted, and empowered to know what to do if assaults occur.

The considerable body of anti-bullying research (Rigby, 1996; Sullivan, 2000) and family violence prevention needs to be reviewed and its applicability to these findings deserves careful attention.

I believe that schools and other institutions, where they stand in the place of parents of young people, do have a positive duty to be vigilant, to put in place programmes to guard against bullying, whether it is physical or emotional, and to deal firmly with it and stamp it out if it occurs.
(Coroner's report on the death of Matt Ruddenklau, Dominion, 30 August, 1997).

5.4 Injuries to the Head, Face, Eye, and Ear

The third major area of concern raised by the findings is the large proportion of injuries to the face/head region (39%). Many of these injuries are caused by falls or assaults, although this area can also be a common site for severe self injurious behaviour, as illustrated in the following case study. This example illustrates our concern with the lack of medical attention to many of these face and head injuries. The possibility of brain injury to some of these adults with intellectual disability further limiting their functioning, cannot be discounted.

JAMES

★ 57 incidents of self injury in one calendar year – only 1 self injury incident received medical treatment.

★ After speaking with staff there is reason to believe that **not all self injury incidents were recorded.**

★ James hit his face frequently with his right forearm or two fists.

★ 75% of all injuries were to the forehead and/or cheek area of his face.

★ A split lip made up 14% of his injuries, reopening scabs on his nose, black eyes and injuries to his legs made up the remaining 11% of all injuries. In some incidents there were multiple injuries.

★ When possible James was restrained to prevent further harm to himself. A restraint protocol was in place for him.

★ Staff noticed he was often distressed and would self injury when there was loud noise, staff he didn't know, residents he didn't get on with and changes in routine.

★ Staff knew James well, but did not make any attempts to address his injuries internal or external other than the occasional band aid.

★ Comments made by staff on incident forms included:

"James will probably have a sore face"
"possibly a sore face… looks as though his right eye needs to be looked at by a Dr… maybe his vision is impaired… consulted the Dr… he said keep an eye on him."
"might be sore in the mouth"
"perhaps sore legs and bruising, because they were held during dressing"
"James will have a bloody sore head".

When considering the overall findings, it is relevant to note that this single individual influences the results, particularly the totals for self-injury and injuries to the face/head. However, it was not feasible to remove the data pertaining to this individual from all analyses, by the time his individual data were noticed. Where it is possible, results are presented with and without this individual's data included.

There were 228 injuries to the face/head region, 112 face injuries, 91 head injuries, 16 eye injuries, and 9 injuries to the ear. In terms of individuals affected, 66 individuals had head injuries, 56 had face injuries, 15 had eye injuries, and 9 had ear injuries. Twenty-five of these individuals had repeated injuries, and 21 had injuries to a range of sites in the head/face region.

Gender

Men were more likely to incur injuries to the face/head region than women (82% vs 18%). With the removal of the data pertaining to "James", there is still a significant difference between men and women, with ratios of 76:24, compared to 60:40 in the actual group of adults (Table 35).

Table 35: Injuries to the face/head region experienced by men and Women

	%
Head Injuries	
Male	74.7
Female	25.3
Face Injuries	
Male	73.0
Female	27.0
Eye Injuries	
Male	81.0
Female	19.0
Ear Injuries	
Male	100.0
Female	0.0
Overall ratio of clients in services	
Male	60.0
Female	40.0
Mean ratio of face/eye/ear/head injuries	
Male	82.0
Female	18.0

Type of injury to the head, face, eye, and eye

Lacerations were the most common type of injury (38%), followed by bruise/crush injuries (27%), and grazes (14%). The type of injury was

unknown for 15 injury incidents (7%). (Table 36). Half of the eye injuries involved a foreign body in the eye.

Table 36: Type of injuries to the head, face, eye, and ear

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
Laceration	30	50	2	4	86	37.7
Bruise/crush	27	28	4	2	61	26.8
Graze	14	16	-	2	32	14.0
Foreign Body	-	-	8	-	8	3.5
Concussion	4	-	-	-	4	1.7
Burn/scald	-	1	1	-	2	0.9
Bite	-	1	-	1	2	0.9
Fracture	-	1	-	-	1	0.4
Unknown	10	5	-	-	15	6.6
Other	6	10	1	-	17	7.5
Total	**91**	**112**	**16**	**9**	**228**	**100.0**

External cause/mechanism of injuries to the head, face, eye and ear

The most common external cause was struck by/against (52%), followed by falls (35%). (Only three falls were caused by intentional injuries). If James' data is removed, falls account for almost half of external causes (46%). The external cause was unknown for only 4% of the injury incidents (Table 37).

Table 37: External cause/mechanism for injuries to the head, face, eye and ear

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
Struck by/against	38	69	7	4	118	51.8
Fall	47	28	1	4	80	35.1
Machinery	1	-	2	-	3	1.3
Cut/pierce	1	1	-	1	3	1.3
Natural environment	-	-	1	-	1	0.5
Suffocation	1	-	-	-	1	0.4
Transport	1	-	-	-	1	0.4
Fire/burn	-	1	-	-	1	0.4
Unknown	1	8	1	-	10	4.4
Other	1	5	4	-	10	4.4
Total	**91**	**112**	**16**	**9**	**228**	**100.0**

Object/substance/agency causing injury to the head, face, eye and ear

The most common agent of injuries are due to self-injury (24%) and assaults (20%). However, when the self-injury data are removed, assaults account for 26% of injuries to the face/head region. Seizures were the

agent in 16 incidents, and the floor and ground/path caused injury in 34 incidents which resulted in face/head region injuries (Table 38).

Table 38: Object/substance/agency causing injuries to the head, face, eye, and ear

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
Self	9	40	3	2	54	23.7
Person-intentional	16	24	3	2	45	19.7
Floor	14	7	-	-	21	9.2
Seizure	10	6	-	-	16	7.0
Furniture	5	7	-	2	14	6.2
Ground or path	7	5	-	1	13	5.7
Door	7	1	2	-	10	4.4
Person-unintentional	6	1	-	2	9	3.9
Appliance	4	1	-	-	5	2.2
Tools	-	4	-	-	4	1.8
Vehicle	2	1	-	-	3	1.3
Animal	1	1	-	-	2	0.9
Machinery	1	-	1	-	2	0.9
Steps/stairs	-	2	-	-	2	0.9
Box	1	-	-	-	1	0.4
Natural environment	1	-	-	-	1	0.4
Liquids	-	-	1	-	1	0.4
Unknown	3	10	2	-	15	6.6
Other	4	2	4	-	10	4.4
	91	**112**	**16**	**9**	**228**	**100.0**

Where injuries to the head/face region occurred

The majority of these injuries occurred at home (55%), followed by sheltered workshops (20%) and day services (7%). For 5% of these injuries, it was not known where the injury had occurred (Table 39). Half of the eye injuries occurred in sheltered workshops.

Table 39: Where head, face, eye, and ear injuries occurred

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
Home	49	67	6	3	125	54.8
Workshop/workplace	17	19	8	1	45	19.7
Day service-non work	10	3	1	2	16	7.0
Public area	-	4	1	-	5	2.2
Street or highway	2	1	-	1	4	1.8
Footpath/walkway	1	3	-	-	4	1.7
Community/boarding house	2	-	-	1	3	1.3
Recreational area	1	2	-	-	3	1.3
Hospital/health service	1	1	-	-	2	0.9
School	1	1	-	-	2	0.9
Trade or service area	-	2	-	-	2	0.9
Unknown	5	6	-	1	12	5.3
Other	2	3	-	-	5	2.2
	91	**112**	**16**	**9**	**228**	**100.0**

Location in/around building where injuries to the head/face region occurred

The most common location for these injuries was the living area of the home (18%), followed by the workshop floor in vocational services (12%), the dining area (9%), and the kitchen (8%) (Table 40). For 17 (7%) of these injuries, the specific location was unknown.

Table 40: Specific location where head, face, eye, and ear injuries Occurred

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
Living area	9	29	2	1	41	18.0
Workshop floor	9	11	6	1	27	11.8
Dining area	7	12	-	1	20	8.8
Kitchen	10	6	1	1	18	7.9
Bedroom	6	7	3	1	17	7.5
Bathroom	6	6	-	1	13	5.7
Driveway	7	4	1	-	12	5.3
Hallway	10	1	-	-	11	4.8
Garden	4	4	-	2	10	4.4
Stairs/steps	3	3	-	-	6	2.6
Toilet	3	-	-	-	3	1.3
Laundry	1	1	1	-	3	1.3
Not applicable	6	12	1	1	20	8.8
Unknown	8	9	-	-	17	7.5
Other	2	7	1	-	10	4.3
	91	**112**	**16**	**9**	**228**	**100.0**

Activity when injured to the head/face region

The most common activities preceding these injuries were walking/ running (28%) and resting/watching TV (15%). However, the activity preceding injury was unknown for 41 of these injuries (18%) (Table 41). The proportions of missing information were most marked for face injuries (22%), and eye injuries (37%). Eating/drinking and ablutions also each preceded 7% of injuries to the head/face region.

Table 41: Activities preceding injuries to the head, face, eye and ear

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
Walking/running	30	31	2	-	63	27.6
Resting/watching TV	12	18	1	4	35	15.4
Eating/drinking	6	9	-	1	16	7.0
Ablutions	8	5	1	1	15	6.6
Working - other	3	4	1	1	9	3.9
Travelling as passenger	3	3	1	1	8	3.5
Operating machinery	-	3	1	-	4	1.8
Preparing food	3	-	1	-	4	1.8
Driving/riding	3	-	-	-	3	1.3
Fighting	2	1	-	-	3	1.3
Recreation or sport	2	1	-	-	3	1.3
Lifting/lowering/loading	2	-	-	-	2	0.9
Carrying	1	-	-	-	1	0.4
Adjusting machinery	1	-	-	-	1	0.4
Unknown	9	25	6	1	41	18.0
Other	6	12	2	-	20	8.8
	91	**112**	**16**	**9**	**228**	**100.0**

Treatment following injury to the head/face region

Forty-two percent of injuries to the head/face region were followed by first aid, and 11% required medical treatment. However, treatment information was missing for 40 injury incidents (17%). Head injuries were more likely to receive medical treatment (18%), while facial injuries were least likely (12%), apart from the 9 ear injuries, none of which required medical treatment (Table 42).

Only 11 injuries received follow up treatment (5%), although, once again, information was not available for 47 of the injury incidents (21%) (Table 36).

There were only 6 records of an ACC form being filled in for the 25 medically attended injuries to the head, face, eye, and ear.

Table 42: Immediate treatment for injuries to the head, face, eye and ear

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
First Aid only	35	41	11	8	95	41.7
No treatment required	30	33	2	1	66	29.0
Urgent medical treatment	13	6	-	-	19	8.3
Non-urgent medical treatment	3	1	2	-	6	2.6
Unknown	9	30	1	-	40	17.5
Other	1	1	-	-	2	0.9
	91	**112**	**16**	**9**	**228**	**100.0**

Table 43: Subsequent treatment for injuries to the head, face, eye and ear

	Head:n	Face:n	Eye:n	Ear:n	Total:n	%
None	73	76	9	9	167	73.3
GP follow up	2	3	1	-	6	2.6
Referral to specialist/ provider	1	2	-	-	3	1.3
Hospital outpatients	2	-	-	-	2	0.9
Unknown	10	31	6	-	47	20.6
Not applicable	2	-	-	-	2	0.9
Blank	1	-	-	-	1	0.4
	91	**112**	**16**	**9**	**228**	**100.0**

Summary and implications

In this group of 700+ adults with intellectual disabilities, the most common area of the body to be injured was the head/face region, with 228 injury incidents or 39% of all injury incidents. This part of the body was also the most common area for "serious" or medically-attended injuries, accounting for 39% of all serious injuries, although there were only six ACC records for these 25 medically-attended injuries.

Head injuries affected 66 individuals, and facial injuries affected 56 individuals. Twenty-five individuals experienced repeated injuries, and 21 were injured in more than one site in the head/face region. Men were more likely to be injured in the head/face region than women.

In terms of injury prevention, reducing falls and intentional injuries would also reduce injuries to the head/face region, as these two factors were implicated in 55% of these injuries. The significance and potential seriousness of head/face injuries also gives an added impetus to an injury prevention focus on falls and intentional injuries.

A further focus for injury prevention is raising awareness of the potential seriousness of facial injuries and the possibility of accompanying dental

injuries. This need was brought home to the Project Team through consultation with Professor Jules Kieser and Associate Professor Murray Thomson of the Dental School, University of Otago, who examined the anonymised raw data on these injuries.

The significant gaps in the injury incident records pertaining to head/face region injuries are also of concern, as follows:

★ type of injury (15 incidents);

★ external cause of injury (10 incidents);

★ object/substance/agency causing injury (15 incidents);

★ where injury occurred (12 incidents);

★ location of injury event (17 incidents);

★ activity preceding injury (41 incidents, including 25 facial injuries and 6 out of 16 eye injuries);

★ treatment following injury (40 incidents);

★ follow-up treatment (47 incidents).

Without better injury incident information, particularly as to preceding activity, injury prevention efforts within intellectual disability services will be unnecessarily limited.

The initial injury prevention focuses identified in this area were primarily raising awareness about the frequency and potential seriousness of injuries to the head/face region and encouraging referral to a medical practitioner for more of the face and head injury incidents. The importance of detailed and consistent record keeping also needs attention.

CHAPTER 6

INJURIES IN THE HOME

6.1 Introduction

The home was the most common location for injuries, with almost half of all injury incidents (48%) occurring in or around the person's place of residence. The distribution of injuries for women and men (36:64) in the home reflected approximately the percentage of women and men in the residential services included in this project (40:60). The number of adults with intellectual disabilities in Otago and Southland who live in residential services was 391 as at October, 2000 according to the then Health Funding Authority. This figure cannot be used for this project, however, as there were a few small providers who did not take part in this project, and some providers who did take part also provide support for more independent living. The closest estimate we can provide, from figures supplied to us from the providers themselves is 481.

There were 287 injury incidents which occurred at home, and these affected 118 individuals with intellectual disabilities. Using the service providers' estimate of 481 adults living in the residential services in this project 25% of these clients experienced at least one injury incident at home in the previous 12 months. Clearly, a number of clients experienced more than one injury during the year.

These adults with intellectual disabilities ranged in age from late adolescence to over 76 years, with 48% of injuries occurring to people aged 36 to 50 years (Table 37). While we do not have age information on all adults in residential services, anecdotal information suggests that this distribution reflects that of the actual service users.

With adults with intellectual disabilities now aging in residential services, and with their increasing life expectancy (Janicki et al, 1999) this older group is likely to need more focussed injury prevention. In this project, 8% of all injuries occurred to older people aged 65+ years. One particular organization in this project with older clients, also showed a higher rate of injuries from falls than other organisations.

Table 44: Injuries at Home: Age of Client

Adults' ages in Years	No. of Injuries	%
16-20	11	3.8
21-25	23	8.0
26-30	19	6.6
31-35	10	3.6
36-40	40	13.9
41-45	68	23.7
46-50	31	10.8
51-55	27	9.4
56-60	23	8.0
61-65	18	6.3
66-70	6	2.1
71-75	4	1.4
76+	2	0.7
Unknown	5	1.7
	287	**100.0**

6.2 Analyses of injuries at home

Type of injuries occurring at home

The most common injuries at home were lacerations (35%), bruise/crush injuries (30%), and grazes (14%). The type of injury was unknown for 6% of the incidents (Table 45).

Table 45: Type of injuries at home

	n	%
Laceration	99	34.5
Bruise/crush	87	30.3
Graze	41	14.3
Burn/scald	8	2.8
Sprain/strain	7	2.4
Fracture	4	1.4
Bite	3	1.1
Concussion	2	0.7
Internal injury	1	0.4
Not applicable	1	0.3
Other	16	5.6
Unknown	17	5.9
Blank	1	0.3
	287	**100.0**

Site of injuries occurring at home

As in the overall data, the most common site of injuries was the face/head region (43%). Injuries to the arm and hand were also common (24%). The site of injury was unknown for 5 of injury incidents in the home (Table 39).

Table 46: Site of injuries at home

	n	%
Head	49	17.1
Face	67	23.3
Ear	3	1.1
Eye	5	1.7
	124	**43.2**
Shoulder	3	1.0
Arm	24	8.4
Hand	45	15.7
	72	**25.1**
Back	15	5.2
Chest	4	1.4
Abdomen	3	1.1
Hip	4	1.4
	26	**9.1**
Upper leg	5	1.7
Lower leg	6	2.1
Knee	10	3.5
Ankle	3	1.1
Foot	7	2.4
	31	**10.8**
Multiple sites	**11**	**3.8**
Not applicable	2	0.7
Other	6	2.1
Unknown	14	4.9
(Blank)	1	0.3
Total	**287**	**100.0**

External cause/mechanism of injuries at home

The majority of injuries resulted from striking/by or against an object or person (50%), followed by falls (37%). Fifty of these injury incidents related to self-injury by one client. If these incidents are removed, the percentage of injuries from striking/by or against would reduce to 39%, and falls would increase to 45%, to become the major external cause of injuries. However, as this "outlier" has not been excluded from other data analyses, Table 47 still includes this data. The external cause was unknown for 5 of injury incidents.

Table 47: External cause/mechanism of injuries at home

	n	%
Struck by/against	142	49.5
Fall	107	37.3
Cut/pierce	9	3.1
Fire/burn	6	2.1
Machinery	3	1.1
Natural environment	1	0.3
Suffocation	1	0.3
Other	4	1.4
Unknown	14	4.9
	287	**100.0**

The majority of struck by/against injuries in the overall project were due to intentional injuries (46%), and this is reflected in the home injury data. Furthermore, if the 50 self-injury incidents for the one client are discounted from the overall data, this percentage rises to 57%.

Object/substance/agency causing injuries at home

Intentional injuries from other adults with intellectual disabilities were the most common agency causing home injuries (23%) (Table 48). Self injury was also common (23%), but this is inflated from the one person with 50 injury incidents from self-injury. If this data is discounted, the percentage of assaults rises to 28%. The floor (11%) and ground or path (7%) were also common contributors to injuries, related to the high number of falls (107).

Table 48: Object/substance/agency causing injuries at home

	n	%
Person-intentional	67	23.3
Self	66	23.0
Floor	30	10.5
Ground or path	21	7.3
Seizure	16	5.6
Furniture	13	4.5
Appliance	10	3.5
Door	9	3.1
Steps/stairs	7	2.4
Glass	5	1.7
Liquids	4	1.4
Person-unintentional	4	1.4
Tools	3	1.1
Vehicle	2	0.7
Animal	1	0.4
Natural environment	1	0.3
Other	14	4.9
Unknown	14	4.9
	287	**100.0**

Location in/around home where injuries occurred

The most common place in the home where injuries occurred was in the living area (26%) where people are most likely to congregate, followed by the kitchen (12%), an area that is often open to the living area in residential homes. Ten percent of injuries occurred in the bathroom/toilet areas. For 7 of injury incidents at home, the location was unknown (Table 49).

Table 49: Location in/around home where injuries occurred

	n	%
Living area	74	25.8
Kitchen	33	11.5
Bedroom	26	9.1
Dining area	25	8.7
Hallway	23	8.0
Bathroom	20	7.0
Driveway	19	6.6
Garden	13	4.5
Stairs/steps	10	3.5
Toilet	9	3.1
Laundry	5	1.8
Office	1	0.3
Other	10	3.5
Unknown	19	6.6
	287	**100.0**

Activity when injured at home

The most common activities when injured at home were walking/running (27%) and resting/watching TV (22%). (Table 50). However, there were a significant number of incidents in which the activity could not be coded (14%) or was unknown (12%).

Table 50: Activity when injured at home

	n	%
Walking/running	76	26.5
Resting, watching TV	62	21.6
Ablutions	31	10.8
Eating/drinking	18	6.3
Preparing food	9	3.1
Fighting	4	1.4
Working - other	4	1.4
Recreation or sport	3	1.1
Lifting/lowering/loading	2	0.7
Travelling as a passenger	2	0.7
Operating machinery	1	0.3
Carrying	1	0.3
Other	40	14.0
Unknown	34	11.8
	287	**100.0**

Injuries during ablutions (31) almost equate to the number of injuries in the bathroom and toilet (29), and are primarily due to falls. Given the number of intentional injuries in the home (67), it is important to note that only 4% injury incidents are categorised as "fighting".

The time of day for home injuries

Injury incidents in the home were analysed to determine whether they were more likely to occur at specific times of the day. While injury incidents occurred throughout the 24 hours, the most common times appeared to be when clients were in a transition from one place or activity to another, such as getting ready to leave home in the morning, and after dinner at night/getting ready for bed (Table 51).

Table 51: Time of day for injury incidents at home

Time of day	n	%
Midnight–6.00 a.m.	**7**	**2.4**
6.00-7.00 a.m.	4	1.4
7.00-8.00	12	4.2
8.00-9.00	31	10.8
9.00-10.00	20	6.9
10.00-11.00	15	5.2
11.00-midday	17	5.9
Morning Total (6.00 a.m.-midday)	**99**	**34.4**
Midday-1.00 p.m.	13	4.5
1.00-2.00	9	3.1
2.00-3.00	19	6.6
3.00-4.00	18	6.3
4.00-5.00	20	7.0
5.00-6.00	18	6.2
Afternoon Total (Midday-6.00 p.m.)	**97**	**33.7**
6.00-7.00 p.m.	20	6.9
7.00-8.00	23	8.0
8.00-9.00	2	0.7
9.00-10.00	2	0.7
10.00-11.00	19	6.6
11.00-12.00 midnight	8	2.8
Evening Total (6.00 p.m.-midnight)	**74**	**25.7**
Missing data	10	3.8
TOTAL	**287**	**100.0**

For injury prevention targeted at individuals, an examination of time of day may be useful, as suggested in the previous case study presented in the analysis of falls.

Treatment following injuries

Most of the injuries incurred at home received first aid by staff in the home (39%) while 34% of injuries were not deemed to require any treatment. However, 30 injuries required medical treatment, with 21 of these requiring urgent treatment. There was no information on immediate treatment for 39 (14%) of the injury incidents (Table 52).

Table 52: Immediate treatment following home injuries

	n	%
First aid only	113	39.4
No treatment required	99	34.5
Urgent medical treatment	21	7.3
Non-urgent medical treatment	9	3.1
Other	3	1.1
Unknown	39	13.6
(Blank)	3	1.0
	287	**100.0**

Subsequent or follow-up treatment was provided for 15 injuries, but once again there were significant gaps in the information, with subsequent treatment unknown for 35 of the injury incidents (Table 53).

Table 53 Subsequent/follow-up treatment for home injuries

No treatment required	231	80.5
GP Follow up	7	2.4
Hospital outpatient	4	1.4
Referral to treatment provider	3	1.1
Referral to medical specialist	1	0.4
Not applicable	1	0.3
Other	1	0.3
Unknown	35	12.2
(Blank)	4	1.4
	287	**100.0**

6.3 Summary and implications

The home was the most common place where injuries occurred (48%), in line with findings for other people in the "non-earners' account" (ACC Injury Statistics, 1999, p. 95). The 287 home injuries in this Project affected 118 individuals with intellectual disabilities. The two primary areas of concern (falls and intentional injuries) also featured prominently in home injuries. The home was also the place for 46% of all serious injuries. Of these 30 injuries which received medical treatment, 21 of them were deemed as requiring **urgent** medical treatment. Fifteen of these injuries also required follow-up treatment.

The prevalent "group home" model of residential services for adults with intellectual disabilities must be re-examined, when considering these findings. This model does not represent "best practice" as outlined in international research (MacArthur, 2002) and is likely to be a contributing factor in the high number of intentional injuries found in homes in this Project. There was some suggestion in this Project that intentional injuries

tended to be higher in homes with more residents, but this data on individual agencies is not reported here due to confidentiality requirements. Also, the analysis of time of day supports the relevance of ''crowding'' or ''congregation'' as a factor in home injuries.

Group homes typically include groups of unrelated adults, who have not chosen their home or living companions, having to live together. It is also difficult to move adults from one residence to another, or into a new living arrangement, because of funding inflexibility and resourcing implications for providers. Therefore, for those individuals in this Project who were being assaulted by others in their home, they usually had no way of escaping from this situation. They could not be assured of their basic right to bodily integrity i.e. not to be hurt, in their home.

The implications of these findings for injury prevention therefore apply to every level of influence, including government, policy, and funding organisations. As outlined when discussing falls and intentional injuries, injury prevention implications in those areas pertain particularly to residential service providers. With an aging population of adults with intellectual disabilities now in residential services, the urgency for targeted injury prevention is heightened.

Injury reporting systems also need attention in residential services. Information was either not recorded or unknown in all major categories, particularly preceding activity and treatment following injury. The numbers of incidents with missing information about injuries in the home were:

★ type of injury (17 incidents);

★ site of injury (14 incidents);

★ external cause (14 incidents);

★ object/substance/agency causing injury (14 incidents);

★ location of injury event (19 incidents);

★ preceding activity (34 incidents);

★ treatment following injury (39 incidents);

★ follow-up treatment (35 incidents).

CHAPTER 7

INJURIES IN VOCATIONAL AND DAY SERVICES

7.1 Introduction

All adults with intellectual disabilities who live in residential services attend sheltered workshops or day services for part or all of the time, Monday through Friday. These services typically operate for a shortened day, such as 9.00 to 4.00 p.m. However, some vocational and day services also cater for adults with intellectual disabilities who live independently or with their families.

In this project, the category "workplace" almost always referred to a sheltered workshop involving "real work" tasks (e.g. woodworking, packaging), while "day services" referred to the provision of educational, social or craft activities, often for adults with more severe disabilities. Sometimes clients attended more than one service during the week.

Injuries in sheltered workshops and day services have been analysed separately, and the differing pattern of injuries found justifies this separation.

7.2 Injuries in sheltered workshops

There were 157 injury incidents in sheltered workshop settings, 26 of all injury incidents. These incidents were experienced by 108 individuals. There was a marked gender difference, with 82 of these injuries experienced by males. The actual numbers of men and women attending the sheltered workshops included in this project was estimated to be 601. (Unfortunately those agencies who provided both residential and vocational services have not been able to provide us with separate figures for sheltered workshops and day services). An estimated percentage of 18% of individuals were injured at least once during these twelve months. These results probably also reflect the stereotyped pattern of male "jobs" in these settings which involved machinery and tools.

Types of injuries in sheltered workshops

The most common types of injuries occurring in sheltered workshops were lacerations (38%), bruise/crush injuries (20%) and grazes (16%), a similar pattern to home injuries. The type of injury was unknown for 7% of injury incidents (Table 54).

Table 54: Type of injuries in sheltered workshops

	n	%
Laceration	59	37.6
Bruise/Crush	31	19.7
Graze	26	16.5
Foreign body	9	5.7
Sprain/strain	4	2.6
Fracture	2	1.3
Bite	2	1.3
Burn/scald	1	0.6
Unknown	11	7.0
Other	7	4.5
N/A	5	3.2
	157	**100.0**

Site of injuries in sheltered workshops

The pattern of injuries differs from those incurred at home, with the most common site being the hand (35%), followed by the face (13%). The site of injuries was unknown for 7% of injury incidents (Table 55).

Table 55: Site of injuries in sheltered workshop

	n	%
Face	20	12.7
Eye	8	5.1
Ear	1	0.7
Head	17	10.8
Neck	1	0.6
	47	**29.9**
Chest	1	0.6
Back	1	0.6
Abdomen	1	0.7
Hip	1	0.7
	4	**2.6**
Shoulder	2	1.3
Arm	12	7.6
Hand	55	35.0
	69	**43.9**
Upper leg	3	1.9
Knee	1	0.7
Lower leg	11	7.0
Ankle	2	1.3
Foot	5	3.2
	22	**14.1**
Multiple sites	3	1.9
Unknown	11	7.0
N/A	1	0.6
Total	**157**	**100.0**

External cause/mechanism for injuries in sheltered workshops

The most common external causes were struck by/against (36%), falls (17%), machinery (14%), and cut/pierce (12%). The external cause was unknown for 12% of injury incidents (Table 56).

Table 56: External cause/mechanism for injuries in sheltered Workshops

	n	%
Struck by/against	56	35.7
Fall	26	16.6
Machinery	22	14.0
Cut/pierce	19	12.1
Transport	3	1.9
Over-exertion	3	1.9
Fire/burn	1	0.6
Natural environment	1	0.6
Unknown	19	12.1
Other	7	4.5
	157	**100.0**

Object/substance/agency causing injuries in sheltered workshops

The most common agencies causing injuries were intentional injuries i.e. assaults by other clients (15%), machinery (15%), and tools (14%) (Table 57). However, the causal agent was unknown for 15% of injuries – of significant concern for accident investigations under OSH requirements, and for targeting injury prevention.

Table 57: Object/substance/agency causing injuries in sheltered workshops

	n	%
Person-intentional	24	15.3
Machinery	22	14.0
Tools	18	11.5
Self	12	7.6
Person-unintentional	9	5.7
Floor	5	3.2
Vehicle	5	3.2
Furniture	4	2.5
Ground or path	3	1.9
Box	3	1.9
Seizure	3	1.9
Animal	2	1.3
Steps/stairs	2	1.3
Appliance	2	1.3
Natural environment	2	1.3
Sports/rec. equipment	1	0.6
Glass	1	0.6
Unknown	24	15.3
Other	15	9.6
	157	**100.0**

Location in/around building where workshop injuries occurred

As would be expected, the majority of injuries (69%) occurred on the workshop floor where people spent most of their time. There were also injuries in driveways (10%), and 10 injury incidents for which the location was unknown (Table 58).

Table 58: Location in/around workshop where injuries occurred

	n	%
Workshop floor	108	68.8
Driveway	15	9.6
Dining area	5	3.2
Kitchen	3	1.9
Bathroom	3	1.9
Hallway	3	1.9
Living area	2	1.3
Office	2	1.3
Garden	1	0.6
Laundry	1	0.6
Stairs/steps	1	0.6
N/A	1	0.6
Unknown	10	6.4
Other	2	1.3
	157	**100.0**

Activity when injured

The most common activity preceding injuries in sheltered workshops was operating machinery (17%), followed by working (other activity) (13%), and walking/running (12%) (Table 59). As was found with injuries at home, for a large number of injuries the activity was unknown (27%). The lack of information suggests either poor recording and/or lack of supervision of clients, and would make it difficult to investigate accidents adequately, as required by the Health and Safety in Employment Act 1922. In terms of targeted injury prevention, a lack of information about what the injured person was doing at the time would seriously limit any preventive approaches.

Table 59: Activity when injured in sheltered workshops

	n	%
Operating machinery	26	16.6
Working-other	21	13.4
Walking/running	19	12.1
Lifting/lowering/ loading	11	7.0
Eating/drinking	4	2.6
Travelling as passenger	4	2.5
Carrying	3	1.9
Adjusting machinery	3	1.9
Fighting	3	1.9
Recreation or sport	2	1.3
Ablutions	2	1.3
Driving/riding	1	0.6
Preparing food	1	0.6
Unknown	43	27.4
Other	14	8.9
	157	**100.0**

Treatment following injuries

The majority of injuries were treated with first aid (57%), while 12 of injuries did not require any treatment. The proportion of injuries requiring medical treatment was the same (11%) as for injuries at home, with a slightly higher proportion requiring urgent medical treatment (8% vs 6%). Overall, a higher proportion of injuries in sheltered workshops required some treatment, than the injuries at home (68% vs 33%). Once again, there was a lack of information about treatment for a large proportion of injury incidents (19%) (Table 60).

Table 60: Immediate treatment for injuries in sheltered workshops

	n	%
No treatment required	19	12.1
First aid only	89	56.7
Non-urgent medical treatment	5	3.2
Urgent medical treatment	12	7.6
Unknown	29	18.5
Other	1	0.6
Blank	2	1.3
	157	**100.0**

Subsequent treatment was noted for 8 injury incidents (5%), however, once again information was missing for a large proportion of incidents (27%) (Table 61). Out of the 17 medically-attended injuries, there were only five records of ACC forms being filled out.

Table 61: Subsequent treatment for injuries in sheltered workshops

	n	%
None	103	65.6
GP follow up	4	2.5
Hospital admission	2	1.3
Referral to treatment provider	1	0.6
Hospital outpatients	1	0.6
N/A	1	0.7
Unknown	43	27.4
Blank	2	1.3
	157	**100.0**

7.3 Injuries in day services

There were 32 injuries in day services, affecting 29 individuals, 56% to males and 44% to females. The total numbers of individuals in these services is estimated to be 100. (Unfortunately it was not possible to obtain accurate numbers from one agency). This results in an estimated percentage of 29% of clients in day services being injured at least once in the 12 month period. The major findings are set out, rather than tables of every category. Most categories included significant missing (unknown) information.

Type of injury: The major types of injuries were bruise/crush (38%), lacerations (19%) and graze (13%).

Site of injury: The most common site injury was the face/head region (40%).

External cause/mechanism: The most frequent external causes/mechanisms were struck by/against (56%), and falls (28%).

Object/substance/agency causing injury: The most common agency of injury was assaults by other clients i.e. intentional injuries (41%), and furniture (9%).

Location in/around building: Injuries were most likely to happen in the main activity room of the day service (13%), in the dining area (9%), or in the driveway (9%).

Activity when injured: Most injuries occurred when the individual was walking/running (16%), "working" (13%), resting/watching TV (9%), driving/riding (9%) or eating/drinking (9%).

Treatment for injury: Only two injuries required non-urgent medical treatment, while 19 received first aid from staff. There were no records of follow up treatment or of ACC forms being filled in.

7.4 Summary and implications

There were 189 injuries in vocational services, affecting 137 individuals. Sheltered workshops typically include a range of potentially hazardous types of work involving machinery and tools, while day services involve small groups of people in social, educational and craft-type activities. The different pattern of injuries in the two types of services reflects these service differences, with a high proportion of hand injuries in sheltered workshops and the involvement of machinery and tools as contributing factors. Also, men were more likely to be injured than females in sheltered workshops. As with home injuries, almost half of those requiring medical attention also required follow up. There were only 5 records of ACC registration for the 17 medically-attended injuries.

In day services, as in home injuries, the most common injuries were falls and intentional injuries, and the most common site was the head/face region (40%). There were no sex differences apparent, and no records of ACC registration for the two medically-attended injuries.

The injuries in sheltered workshops that were related to the specific jobs performed by clients imply the need for more extensive monitoring and advice by OSH. While the clients in these services are not seen by OSH as meeting the definition of employees (although this was disputed by a senior employee in WINZ), there are still OSH requirements to record and investigate all accidents (Personal communication, OSH employee). Ensuring the safety of clients would also include adequate training and supervision in all work tasks. Given that many clients in sheltered workshops are performing exactly the same work tasks as some staff tasks, the apparent lack of OSH attention to many of the "work" injuries of clients is unfortunate. The data in this Project also suggest that clients may not receive the same level of medical attention and rehabilitation as staff, because of their "non-employee" status. The changes forecast in the

Government's strategy for vocational services ("Pathways to Inclusion") herald significant changes for clients in vocational services, particularly those who will be paid for their work and receive the same protection and rights as other employees. These proposed changes will need to be accompanied by widespread education and increased resourcing for organisations such as ACC and OSH. (The OSH employee consulted had never heard of "Pathways to Inclusion").

Falls and intentional injuries should be targeted in vocational services, as well as in residential services, but an added emphasis on job-task related injuries is also needed.

Injury prevention in vocational services will also require more detailed record-keeping and analysis of this information. Information was unknown or not recorded in many of the injury categories, particularly for preceding activity:

★ type of injury (11 incidents);

★ site of injury (11 incidents);

★ external cause (19 incidents);

★ object/substance/agency causing injury (24 incidents);

★ location of injury event (10 incidents);

★ activity preceding injury (43 incidents);

★ treatment following injury (29 incidents);

★ follow up treatment (43 incidents).

CHAPTER 8

INJURY PREVENTION ACTIVITIES

8.1 Introduction

The compressed injury prevention phase of this community injury prevention project took place over a six and a half month period with most of the major national activities occurring in the final three months.

The findings of the Project were seen as having national relevance, due to the similarities of residential and vocational services for adults with intellectual disabilities throughout New Zealand, and the similar ages and characteristics of these adults who use these services. Therefore, both local and national injury prevention strategies will be outlined and discussed under the following framework:

★ influencing policy and legislation;

★ changing organisational practice;

★ fostering coalitions and networks;

★ educating providers;

★ promoting community education;

★ strengthening individual knowledge and skills.

8.2 Influencing policy and legislation

The major policy and legislative implications arising from the Needs Assessment Phase of the Project were identified as:

★ the need to examine the current service model of group homes, in light of the level of intentional injuries experienced by residents in these homes;

★ the lack of any clear policy at government and service provider levels to address the issue of client-to-client assaults in residential and vocational services;

★ the lack of a public health, injury prevention approach towards and within intellectual disability services;

★ the need to consider the implications of the government strategy for vocational services ("Pathways to Inclusion") for legislation and involvement of statutory bodies such as OSH and ACC, with regard to injuries to adults with intellectual disabilities;

★ the lack of any current system for auditing or monitoring of services which ensures that injuries are adequately recorded, analysed, and reported, and that injury prevention strategies are put in place.

Injury prevention strategies focussed on influencing policy and legislation will be a continuing part of the Donald Beasley Institute's work arising from this project. The following activities have been undertaken to date.

(i) A summary report was provided and face-to-face meetings were held with Hon Ruth Dyson, **Minister for Disability Issues,** and with Ms Carole Searle, **Deputy Director General, Disability Issues Directorate, Ministry of health.** A particular focus in these discussions was the issue of intentional injuries, and the potential danger of damaging media portrayals of these findings. The group home model and its possible contributions to the level of intentional injuries was also discussed.

(ii) A one-hour presentation on the Project findings was made to the **National Health Committee** and its Secretariat. This important Advisory Committee is in the final phase of a major project on services for adults with intellectual disabilities. The Donald Beasley Institute provided nine literature reviews for this Project, including the two areas of services to support living needs and work needs. The Secretariat staff had been notified earlier of the initial findings and the relevance of these to their work.

This presentation (and a copy of the final report) will ensure that the Project's findings form part of the National Health Committee's advice to the Minister of Health on the needs of adults with intellectual disabilities.

(iii) A one-hour presentation on the Project was made to **Ministry of Health staff.** Staff from the Public Health and audit/monitoring sections were invited as well as staff from the Disability issues Directorate. Unfortunately no staff outside of the Disability Issues Directorate attended the presentation, illustrating the lack of attention within "mainstream" policy staff to the needs of this population group.

(iv) Recently released **Standards for Hospitals and Residential Services**, **Draft Standards for Vocational Services** and **new audit procedures** were examined. (A Team member attended a workshop on the new auditing system and procedures). There are no specific requirements regarding injury recording and analysis and injury prevention. These issues will continue to receive attention as part of the planned ongoing activities arising from this Project.

(v) A meeting was held with the Information Officer of the local **OSH Office** to discuss the role of OSH in sheltered workshops and the current statutory requirements. This staff member did not know of the new Government strategy "Pathways to Inclusion" and its

implications for the future, particularly for OSH resources. She was not aware that Government had signalled its intention to repeal the Disabled Persons Employment Promotion Act which currently allows sheltered workshops to be exempt from a number of requirements which do not currently apply to the disabled people in their services.

There is clearly a need for intersectoral planning and education among all government ministries and allied organisations regarding the new strategy for vocational services.

It also became apparent in this discussion that the requirements of the Health and Safety in Employment Act which **do** currently cover **client** injuries (i.e. accident recording and investigation) are not consistently monitored by OSH in vocational services, with regards to clients in those services.

Discussion with a senior staff member in the **Ministry of Social Development** (with major responsibility for vocational services developments) confused the issue even more, as he insisted that current clients in vocational services **do** meet the definition of "employees". There is clearly some policy confusion or misunderstanding in this area. These issues will be pursued with the new Director of the Disability Unit in the Ministry of Social Development (Dr Jan Scown), after she has been sent a copy of this final report.

(vi) Continuous contact with Dr Brian Adams, **ACC,** has been maintained throughout the Project. ACC staff from the Thinksafe programme were invited to the seminars held for service providers throughout New Zealand. Andy Redfearn, ACC, Dunedin joined the Project Team during Phase 2. A presentation is planned to ACC's General Manager, Injury Prevention and Client Services, and invited ACC staff.

Conclusions: There will be a continuing need to address the policy and legislative issues arising from this project. The Donald Beasley Institute and members of the project team will continue to work in this area.

8.3 Changing organisational practice

The major activities in this area consisted of feedback to those Otago/Southland organisations involved in the Project, and a series of two-hour seminars to other providers throughout the country.

(i) ***Feedback to local service providers***

Each of the 12 service providers in this Project received a detailed written report on the findings in their own agency, along with a print-out of all their raw data on each injury incident (Appendix 11 for a template used for these written reports). Comparisons with the overall data were included in these reports. For the one organisation

in which five separate branches took part, comparison data for the totals in other branches were also provided.

Face-to-face feedback and discussion sessions were also held with each service provider, involving one or two members of the project Team. These meetings took from one to three hours. Very positive verbal feedback on the value of the Project was made by staff at these meetings.

The common issue discussed in all of these meetings with providers was their system for recording and analysing information on client injuries. All providers recognised opportunities for improvement, and advice and feedback from Project Team members has continued with some of these organisations who are undertaking major changes in this area. The five major information recording needs identified were:

★ the need for objective and full details of all injuries and their context;

★ the need to record immediate and follow-up treatment for all injuries;

★ ensuring an injury incident record for all **victims** of intentional injuries was provided (in many services there was only a report in the perpetrator's file);

★ ensuring **injury** incidents could be easily distinguished from all other incidents reported on the same general form;

★ clear policy, procedures, and training on injury recording.

Some providers identified difficulties with the level of literacy in some staff, who therefore had great difficulties in documentation. Strategies to overcome these problems were discussed. The value of asking other clients for details of unwitnessed injuries was also noted.

A number of providers commented on the need for strong advocacy on behalf of their clients with some professionals in areas such as: blaming an injury on another condition; refusing to fill out ACC forms; hospital services needing staff from disability services to provide care for clients when in hospital; problems with ACC staff in obtaining compensation for adults with intellectual disabilities who work part-time in paid jobs; a casual or trivialising approach by some doctors to client injuries; the issue of client poverty and the difficulties faced by them in meeting treatment costs e.g. GP visits, for the portion charged above ACC subsidies.

In feedback meetings with service providers, the Project team members also stressed that the Project was **not** an audit or

evaluation, but was about injury prevention. Within each organisation, specific areas of frequent injuries were highlighted and possible injury prevention strategies discussed. It was agreed that the issue of intentional injuries in services was complex and a difficult one to address, but all providers acknowledged that it did occur, although some were surprised at its frequency in their service. One provider noted that a clear policy and procedures had been developed about intentional injuries, and suggested that too many clients, particularly males, working in close proximity to each other, was a contributing factor in intentional injuries. There were no challenges to the validity of the data presented. It was stressed that the information was from their own staff – all the Project Team did was to categorize and count the original information. All providers acknowledged how useful this was for an injury prevention focus in their service.

(ii) ***Seminars with providers throughout New Zealand***

Thirteen two-hour seminars describing the "Safe Lives" Project – the process, findings, and implications – were provided throughout New Zealand in the following centres:

- ★ Christchurch (2 seminars);
- ★ Nelson;
- ★ Wellington (2 seminars);
- ★ New Plymouth;
- ★ Gisborne;
- ★ Napier;
- ★ Hamilton;
- ★ Auckland (4 seminars).

Invitations to the seminars were sent to intellectual disability service providers in each region, to providers of staff training for disability services staff, to the local ACC Thinksafe representative, and to other key people in the disability sector suggested by local contacts in each region (see Appendix 12 for example of Seminar notice). Attendance at the seminars ranged from four to 40, with an average attendance of approximately 20 people, giving an approximate total of 260 people attending these presentations on the project.

Discussion and feedback at these seminars was very positive as to the value of the Project. Service providers confirmed the face validity of the findings and the relevance to their own service. Some innovative injury prevention strategies were described by participants. In two examples, these were to prevent injuries caused by seizure-related falls, by ensuring the individual could not fall during a seizure but could still do his/her normal, preferred job. Injury prevention strategies tended to be more familiar to vocational staff than to residential staff.

Some of these seminars were also attended by parents, and/or adults with intellectual disabilities. It was noted that parents of adults with intellectual disabilities were unlikely to be aware of the level of injuries in services, particularly intentional injuries.

Instances of concern over interactions with ACC were noted by some participants, including refusal to accept referrals if the person has an intellectual disability. The need for training of ACC staff in the area of intellectual disability was emphasized. A contribution at one seminar from an ACC staff member reinforced these perceptions, when this person claimed that it as a known fact that people with intellectual disabilities did not feel pain!

Among providers of staff training and behavioural support there were concerns about how the issue of intentional injuries was to be addressed. There was specific concern about "blaming the perpetrator" when that person was probably not able to control his/her own "intolerable" circumstances. It was suggested that many of these intentional injuries must have been "provoked", even though the incident reports seldom provided this information. The major concern appeared that these findings would receive a "knee-jerk" reaction which simply blamed/punished the perpetrator, and this could possibly lead to segregation and isolation of adults with intellectual disabilities who injured other clients.

Concerns were raised at two seminars about the adequacy of "expert" advice on difficult behaviours, for example, the overuse of "PRN" and restraint strategies in some services. This raises the issue of the appropriateness and legality of some practices of behaviour support and/or residential service providers. Resource issues may also be involved in these difficult areas. Questions about service quality and the adequacy of monitoring safety and quality were also raised.

Participants also mentioned the failure of ACC to adequately address the needs of victims of abuse who have intellectual disabilities. Issues raised were: the cost of counselling above ACC subsidies; the need for highly trained counsellors; the need for longer-term and/or adapted counselling/rehabilitation strategies for people with intellectual disabilities.

There were also some positive examples provided of ACC staff involvement with service providers and adults with intellectual disabilities.

Staff who attended the seminars often suggested that **all** staff from their organisations should hear about the "Safe Lives" Project, noting a general lack of awareness about the issue of client injuries in services. Participants also asked to receive a copy of the Executive Summary of the final report, or any other reports prepared.

One participant gave an example of inappropriate OSH leniency regarding asbestos in a workplace for clients with intellectual disabilities.

The importance of considering injury reporting and injury prevention as quality issues rather than judgments about individual staff or services was also stressed. One participant believed strongly that staff under-reported injuries, although it was stressed that the Project found no evidence of deliberate under-reporting.

One participant summed up the challenges for a balanced approach to injury prevention for people with intellectual disabilities, "It's about treating people as adults but also providing appropriate care which takes account of their impairments".

Unfortunately it was not feasible to obtain full records of the rich discussion involved in these seminars. Nine of the seminars involved a single presenter, and in the other four seminars, two people shared the presentation. While some notes were made during or after each seminar, these cannot provide a full picture of the feedback and comments received.

8.4 Fostering coalitions and networks

The Project Team and individual members of the Team continue to use and extend their own networks to promote injury prevention for adults with intellectual disabilities. These activities have focussed primarily on two general areas: public health and injury prevention and networks in the disability sector.

(i) ***Public health and injury prevention***

The Project Leader has joined the local and national Injury prevention networks. More recently, she has also joined a local/regional Falls Prevention Group. Presentations on the Project have been made at the national conferences of the Public Health Association and the Injury Prevention Network in 2002.

A presentation was made on the Project as part of the Injury Prevention Research Unit's local seminars.

Following individual meetings with each individual "expert", a Falls Advisory Group to the Project was set up to provide expert comment and suggestions for falls prevention. This group included expertise from:

★ public health: injury prevention, particularly falls prevention;

★ an eminent researcher in falls prevention among the elderly;

★ ACC Thinksafe representative; with experience in disability services;

★ physiotherapy;

★ occupational therapy.

The group met three times. Team members studied the raw data and analyses of data on injuries from falls.

The following points arose from these discussions:

★ the importance of involving GPs in assessment of falls risk, possibly as part of regular wellness checks; and also as an integral aspect of assessment following a fall;

★ the responsibility of vocational services meeting their responsibilities under the Health and Safety legislation for **all** people on site, not just paid staff;

★ the need for professional assessment of people's falls and falls risks;

★ the possibility of a pilot project involving physiotherapy students in assessing people with intellectual disabilities for their risk of falling;

★ the danger of simply increasing physical activity, as it can lead to more falls;

★ the individuality of risk factors and the need for a falls prevention programme to be individually designed;

★ the possibility of adding a Falls Risk Assessment to the Cardiff Annual Health promoted to GPs for all IHC clients;

★ a caution expressed about training carers to assess people's risk of falls;

★ the possible value of students in both physiotherapy and occupational therapy undertaking placements together to look at falls prevention among people with intellectual disability;

★ the need to train staff in how to assist people when they are falling – to prevent injuries to themselves and to the person;

★ tailoring first aid training for staff to their specific needs relevant to their clients and the service they work in;

★ the fact that GPs may fill out a form for "medical fees only" and not return any documentation to the injured person; and they may also not bother to fill in an ACC form as they will get the same reimbursement through the person's Community Service card (these factors may explain some of the missing ACC forms in the data).

Arising out of the suggestions from this Advisory Group, a pilot project on falls risk assessment for people with intellectual disabilities was undertaken with Dr Leigh Hale, Lecturer, School of Physiotherapy, University of Otago. This pilot project involved the following steps:

★ applying to the University of Otago's Ethics Committee for ethical approval;

★ inviting a small group of people with intellectual disabilities (identified as "fallers" in the Project) to take part (see Appendix 13 for Information Sheet and Consent Form);

★ devising an assignment for a group of 21 third year physiotherapy students on balance and people with intellectual disability (Appendix 14);

★ providing a one-hour lecture to these 21 students on people with intellectual disabilities and the findings of the Project;

★ organizing for six people with intellectual disabilities (who had given consent) to attend a two-hour assessment session (with a break midway for afternoon tea);

★ supervising the assessment session (two people);

★ marking students' assignments.

This Pilot Project was useful as a training opportunity for the students, a trial of various assessments, and as the basis for further collaborative work on falls prevention for people with intellectual disabilities. All of the students involved (in groups of three or four) came up with suggestions for "treatment" programmes to enhance balance and strength and reduce falls, even for those clients with physical disabilities. The Pilot also confirmed the importance of individual, professional assessments as a basis for falls prevention.

A presentation on the project is also to be made to the Community Physiotherapy Conference.

(ii) ***Networks in the disability sector***

In addition to the national seminars undertaken, and the networks extended through these, other activities have contributed to this goal. These include:

★ attendance at the Vocational and Support Services Association Conference and presentation on the Project's findings in vocational services (200-250 attended);

★ meeting with the local Victim Support staff to discuss the issues of intentional injuries and the needs of victims;

★ ongoing communication with the research group in Melbourne (Sherrard et al);

★ a presentation to IHC's Advocacy Team and Board;

★ presentation at an international conference on intellectual disability (November).

8.5 Educating providers

In addition to the local and national activities described under "Changing organisational practices", every opportunity to educate health professionals has been used. In addition to the involvement with the School of Physiotherapy, the following activities have occurred:

★ describing some of the findings and seeking feedback from a group of general practitioners undergoing their Vocational Training (during a lecture on adults with intellectual disabilities);

★ a seminar to the School of Occupational Therapy, Otago Polytechnic, to staff, students, and some staff from allied schools and departments.

8.6 Promoting community education

The Project Team has not **deliberately** sought public exposure of the findings fo this Project, due to the sensitivity of the issue of intentional injuries. However, one newspaper report was published, from attendance at the Injury Prevention seminar (Appendix 15).

Further publicity will be provided through the Donald Beasley Institute Newsletter (circulation 300+) and a planned Dunedin seminar on the Project in December. Articles on the findings will also be submitted to relevant national and international journals.

8.7 Strengthening individual knowledge and skills

The planned feedback through focus groups with people with intellectual disabilities has not occurred as originally planned. This was due to the unexpected sensitivity of the results regarding intentional injuries.

Based on extensive experiences with people with intellectual disabilities, including discussing abuse issues, the Project Team decided that this feedback must be undertaken carefully in very small groups, with the need to ensure that appropriate support for individuals would be available following the discussion. In a previous project involving women with intellectual abuse, the whole area of abuse was a very sensitive and difficult one for the women involved, due to their own experiences of abuse. One outcome of that discussion was a recognition in some women that they themselves had also engaged in abusive, bullying behaviour (Mirfin-Veitch, personal communication).

Some of the issues that will need to be covered in these focus groups will be:

★ What is "intentional injury"?

★ The right not to be hurt.

★ What people can do if they are threatened or hurt.

★ What people can do if they are upset over past abuse/intentional injuries.

The Institute staff in the Project Team are currently planning how and when these focus groups of people with intellectual disabilities can be held.

One feedback session has been held already in a vocational service with 40-50 clients attending. This was a very structured session which presented the main findings of the study pertaining to that particular service. The focus was on **unintentional** injuries. The presentation explained how the data were gathered and the findings in that particular service only, with regard to:

★ men and women being injured;
★ types of injuries
★ site of injury;
★ activities when injured;
★ treatment following injuries.

The responses and questions from the group demonstrated an understanding of hazards and hazardous activities. They also gave examples and demonstrations of injury prevention strategies such as: how to lift properly; looking where you're walking; being careful with machinery and tools. Some participants noted that sometimes accidents were due to seizures. Discussion ensued on how to reduce injuries from seizures.

This particular service had a "Health and Safety" system, which clients knew about. Clients were also included on a "Health and Safety Committee".

The prize for the day must go to the participant who described an X-ray for a hand injury – "it looked like a piranha got it!"

Conclusions

The multiple activities undertaken during this condensed injury prevention phase have moved significant numbers of individuals and organizations through at least some of the "stages of change" (Prochaska & Clemente, 1983).

The Project findings have been disseminated to over 600 people in face-to-face presentations, involving discussion and interaction with participants. In addition to simply moving from "Precontemplation" to an **awareness** of the issue of injuries to people with intellectual disabilities, some people and organizations have made a commitment to "Preparation" and "Action".

The challenge now is to extend these developments and to maintain the momentum of change. The "Safe Lives" Project has been a catalyst for change, but much more research and development needs to take place to ensure continuing action and maintenance of change.

CHAPTER 9

CONCLUSIONS AND FUTURE PLANS

9.1 Introduction

The goals set out for this Community Prevention and Safety Promotion Project have been more than achieved. The Project Team set out to identify the frequency and characteristics and intentional and unintentional injuries in a group of approximately 700 adults with intellectual disabilities. With the collaboration and cooperation of 13 intellectual disability service organisations, this was achieved. The 594 injury incidents identified three areas of primary focus for initial injury prevention strategies.

The second injury prevention phase undertook activities at all levels of injury prevention. Both local and national activities focussed strongly on raising awareness about injuries among adults with intellectual disabilities and developing a safety culture in disability services.

For the Donald Beasley Institute, this Project is only seen as a beginning, in making the invisible, visible. The Project, despite its limitations, has made a significant contribution to knowledge about injuries in this small, but high risk population group.

This chapter sets out our plans for continuing work in this area, and relates these to the draft New Zealand Injury prevention Strategy (2002) and the New Zealand Disability Strategy. Further injury prevention activities are described, and finally, some implications for ACC are identified.

9.2 Plans for future research

The New Zealand Injury Prevention Strategy includes **Objective 4: Advance injury prevention knowledge and information.** It notes the need for "better and more accessible data to support injury prevention activity" (p. 1).

The importance of evidence-based injury prevention activities is stressed (p.3) along with the principle of equity or reducing inequalities in injury outcomes. These two principles also reinforce the importance of future research.

The New Zealand Disability Strategy also emphasizes the need for research on disabled people, in its **Objective 10: Collect and use relevant information about disabled people and disability issues.** Both strategies emphasize the importance of an intersectoral and collaborative approach.

The gaps and limitations of the data gathered during the Needs Assessment Phase have been acknowledged in this Report. However, this initial Project has been essential in informing the design of research, in focussing attention on injury prevention for people with intellectual disabilities, and in identifying priority areas for further work.

The four priority areas identified for continued research and development are:

★ a national, prospective epidemiological study of injuries to adults with intellectual disabilities;

★ a carefully designed and evaluated pilot study of falls prevention for adults with intellectual disability;

★ an action research project involving the adaptation of school anti-bullying strategies to an intellectual disability service.

(i) ***National prospective study***

The planning for this proposed research is well advanced and involves a multidisciplinary team from the Donald Beasley Institute and the University of Otago. During the seminars through New Zealand, considerable interest in taking part was forthcoming from a number of large and small intellectual disability providers (see letter of support from a participant in the "Safe Lives" Project: Appendix 16). Funding for the research will be sought in 2003.

The following Abstract and Aims describe the proposed research:

(a) ***Abstract***

This research involves a national, prospective study of injuries among adults with intellectual disabilities. Previous international research has suggested that this group has a higher injury rate than other adults. A pilot study in Otago and Southland has confirmed these concerns, and noted a significant proportion of head and face injuries, and injuries due to falls or assaults. This research proposes to provide a detailed evidence base from a larger, national population group on which to base future injury prevention programmes. Data will be collected over a period of 12 months, as injuries occur, using injury incident reports filled out by staff in intellectual disability services. All data will be anonymised before ti is transferred to the researchers. The research team is multidisciplinary to enable an informed analysis and interpretation of the data, and involves direct collaboration with intellectual disability services. Comparisons of Maori and non-Maori data will also be undertaken. The proposed study will, for the first time, address a significant gap in both national and international research for a population group which experiences substantial inequalities in a large range of health outcomes.

(b) ***Aims:***

To estimate the incidence, nature, extent and associations of injuries to adults with intellectual disabilities.

To identify specific areas of frequent and/or serious injuries for future, targeted injury prevention programmes.

(ii) ***Falls prevention pilot study***

This proposal is still at the formative stage and has arisen from discussion with the Falls Advisory Group set up for the "Safe Lives" Project.

Focussing on individuals identified in the Project who had more than one fall during 12 months, a small, controlled study will be undertaken. This will be based on individual physiotherapy and medical assessment, and will probably use individually designed balance and strength training programmes through the School of Physiotherapy's Balance Clinic. This study would require an additional physiotherapist to supervise the senior students involved. It would also contribute towards professional training for the students.

This project addresses a number of Objectives in the New Zealand Injury Prevention Strategy, including:

★ Raise awareness and commitment to injury prevention;

★ Strengthen injury prevention capacity and capability;

★ Develop and implement effective injury interventions.

It also contributes to the national priority area of falls prevention, and is based on the findings of previous research and the "Safe Lives" Project which identified falls as a significant area of concern among adults with intellectual disabilities.

Funding for this research will probably be sought later in 2003.

(iii) ***Intentional injury prevention action research***

The ideas for this proposed research have come together from a range of sources. The current Project showed a picture of pervasive, "low level" violence in residential and vocational services for adults with intellectual disabilities. This priority is also in line with the priority area of assaults identified in the 2002 New Zealand Injury Prevention Strategy (p. 17).

While behavioural support services focus on individuals with complex behavioural challenges, this clearly does not address all of the perpetrators of intentional injuries found in the current Project.

From the Institute's own knowledge and research on bullying in schools (e.g. MacArthur and Gaffney, 2001), and from discussion with Victim Support, the idea of adapting this knowledge became stronger. What is envisaged is taking an injury prevention, "whole service" (like whole-school) approach to the issue of bullying in one particular, local service organisation, or section of services.

An action research approach appears the most relevant method to use in a project which requires involving and working strongly with all stakeholders.

This proposal is in the early stages of development. Funding may be sought in late 2003/early 2004.

(iv) ***Research on the closure of Kimberley Centre***

The Donald Beasley Institute has been contracted to undertake research on the effects of the closure of Kimberley on residents, families, and staff. One aspect of this research is to examine the injuries among residents prior to and after resettlement in community services. This part of the proposed research is a direct outcome of the "Safe Lives" Project.

9.3 Continuation of injury prevention activities

(i) ***Staff training***

From the close interactions with local service providers in this Project, and from previous research and educational activities, two needs for staff training have been identified. The Donald Beasley Institute has also been recently requested to organise training for local providers in the area of "challenging behaviour".

In 2003, the Institute hopes to develop, implement, and evaluate the following two training courses for local intellectual disability support staff:

- ★ "Promoting health and injury prevention for adults with intellectual disabilities"
- ★ "Supporting clients with challenging behaviour in intellectual disability services"

(ii) ***Legal and policy issues***

The "Safe Lives" Project identified a number of policy issues which need continued attention. The Donald Beasley Institute will continue to provide input in the following areas:

- ★ policy developments around the implementation of "Pathways to Inclusion", signalling major legislative and policy changes affecting vocational services, OSH, and ACC;
- ★ policy implementation of new Standards and audit procedures affecting residential services;
- ★ the Government's response to the future advice from the National Health Committee on supporting adults with intellectual disabilities in all aspects of their lives;
- ★ any future policy changes affecting the resourcing and organisation of residential services.

9.4 Implications for ACC

This Project has provided ACC with information which was not previously available from any other source. Although adults with intellectual disability constitute a small population group, most of whom come into the Non-Earners Account, they also show a rate and pattern of injuries which deserve attention.

During this Project it became apparent that many adults with intellectual disabilities may not always be receiving their entitlements from ACC, both with coverage of the costs of health professional treatment and also in accessing the further treatment and rehabilitation that other people would be likely to receive for similar injuries. It was not possible to identify the reasons for these apparent problems, but they probably include:

- ★ lack of knowledge and/or commitment from some health professionals;
- ★ a discriminatory attitude in some ACC staff members, and in some health professionals;
- ★ lack of knowledge by disability support staff of ACC coverage and procedures;
- ★ poor record keeping and/or filing of information in disability services.

There was also some confusion about ACC coverage for some injuries, such as injuries incurred from a seizure-related injury, and self-injury.

There are significant implications for ACC arising from the "Pathways to Inclusion" strategy. Many more adults with intellectual disabilities will become paid employees and move out of the Non Earners' Account.

On the basis of the Project's findings the following suggestions are offered to ACC for actions:

★ Implement staff training throughout the organisation on people with intellectual disabilities – their rights, circumstances, and how to interact appropriately with them, their families, and carers or advocates.

★ Provide a clear information sheet for health professionals, disability service providers, and people with intellectual disabilities, setting out their rights under ACC and clarifying areas of current confusion.

★ Entering immediate discussions with the Ministry of Social Development Disability Unit to plan for the effects of the "Pathways to Inclusion" Strategy. Ensure OSH is also part of this intersectoral development. This action is in line with the Principle in the New Zealand Injury Prevention Strategy: Anticipate and respond to change.

★ Investigate the feasibility of the future collection and analysis of injuries to people with intellectual disabilities.

★ Promote the inclusion of people with intellectual disabilities in the development and implementation of all injury prevention activities. (The current draft New Zealand Injury Prevention Strategy makes no mention of people with (pre-existing) disabilities).

★ Provide resources for further developments in targeted injury prevention for people with intellectual disabilities to ensure there is equity in injury prevention policies and procedures.

Finally, the possibilities for intersectoral collaboration in the implementation of the New Zealand Injury Prevention Strategy and the New Zealand Disabilities Strategy can only be enhanced by the fact that both are the responsibility of the same Minister, Hon Ruth Dyson, Minister for ACC and Minister for Disability Issues.

References for ACC Report

Allen, D. (2000). Recent research on physical aggression in persons with intellectual disability: An overview. *Journal of Intellectual & Developmental Disability, 25* (1), 41-57.

American Academy of Child and Adolescent Psychiatry. (1999). Practice parameters for the assessment and treatment of children, adolescents, and adults with mental retardation and comorbid mental disorders. *Journal of the American Academy of Child and Adolescent Psychiatry, 38* (12), 55.

Blumer, H. (1969). *Symbolic interactionism: Perspective and method.* Englewood Cliffs, NJ: Prentice Hall.

Bray, A. (2001). *Demographics and Characteristics of people with intellectual disabilities. Review of the literature. Report prepared for the National Health Committee.* Dunedin, New Zealand: Donald Beasley Institute.

Bray, A., Ross, N., Gates, S., MacArthur, J., Conder, J., & Gaffney, M. (2000). *Understanding barriers to good health for people with intellectual disabilities.* Paper presented at 11th Conference of the International Association for the Scientific Study of Intellectual Disability. (IASSID). Seattle, USA, August 2000.

Campbell, A.J., Robertson, M.C., Gardner, M.M., Norton, R.N. & Buchner, D.M. (1999). Psychotropic medication withdrawal and a home-based exercise program to prevent falls: A randomized controlled trial. *JAGS, 47,* 850-853.

Coggan, C., Langley, J. & Dawe, M. et al. (2000). *A Proposed Strategy for Vote Health Funding for Injury Prevention. Funding advice commissioned by the Health Funding Authority.* New Zealand: Injury Prevention Research Centre.

Dawson, S., Manderson, L. & Tallow, V. Deciding to use focus group training. Section 1. In *A manual for the use of focus groups.* INFDC 1992, 7-11.1993.

Department of Labour. (2001). *Pathways to inclusion. Improving vocational services for people with disabilities. Nga ara whakauru ke to iwiw whanau.* New Zealand: Department of Labour.

Dunne, R., Asher, K. & Rivara, F. (1993). Injuries in young people with developmental disabilities: Comparative investigation from the 1988 National Health Survey. *Mental Retardation, 32*(2), 83-88.

Dyson, R. (2002). *New Zealand Injury Prevention Strategy. Rautaki ari whara o Aotearoa.* Accident Compensation Corporation, New Zealand.

Einfeld, S. & Tonge, B. (1995). The Developmental Behaviour Checklist: the development and validation of an instrument to assess behavioural and emotional disturbances in children and adolescents with mental retardation. *Journal of Autism and Developmental Disorders, 25,* 81-104.

Frey, L., Szalda-Petree, A., Traci, M.A. & Seekins, T. (2001). Prevention of secondary health conditions in adults with developmental disabilities: a review of the literature. *Disability & Rehabilitation, 23* (9), 361-369.

Forjuoh, S.N. & Guyer, B. (2001). Injury prevention in people with disabilities. Risks can be minimised without unduly restricting activities. *British Medical Journal, 322,* 940-941.

Hawe, P., Degeling, D. & Hall, J. (1990). Chapter 9: How to run a focus group. In *Evaluating health promotion. A health worker's guide.* Sydney, Australia: MacLennan & Petty.

Horwitz, S.M., Kerker, B.D., Owens, P.L. & Zigler, E. (2000). *The health status and needs of individuals with mental retardation.* (pp40-44). New Haven, CT., USA: Yale University School of Medicine.

Hsieh, K., Heller, T. & Miller, A.B. (2001). Risk factors for injuries and falls among adults with developmental disabilities. *Journal of Intellectual Disability Research, 45* (1), 76-82.

Janicki, M.P., Dalton, A.J., Henderson, C.M. & Davidson, P.W. (1999). Mortality and morbidity among older adults with intellectual disability: health services considerations. *Disability & Rehabilitation, 21* (5/6), 284-294.

Konarski, E., Riddle, J. & Walker, M. (1994). Case study of the relation between census reduction and injuries to residents in an ICF/MR. *Mental Retardation, 32* (2), 132-135.

Konarski Jr, E.A., Sutton, K. & Huffman, A. (1997). Personal characteristics associated with episodes of injury in a residential facility. *American Journal on Mental Retardation, 102* (1), 37-44.

MacArthur, J. & Gaffney, M. (2001). *Bullied and teased or just another kid? The social experiences of students with disabilities at school.* New Zealand: NZCER.

Marini, Z., Fairbairn, L. & Zuber, R. (2001). Peer harassment in individuals with developmental disabilities: Towards the development of a multi-dimensional bullying identification model. *Developmental Disabilities Bulletin, 29* (2), 170-195.

Mazzucchelli, T.G. (2001). Feel Safe: a pilot study of a protective behaviours programme for people with intellectual disability. *Journal of Intellectual & Developmental Disability, 26* (2), 115-126.

Menckel, E., Carter, N. & Viitasara, E. (2000). Violence towards caregivers of persons with developmental disabilities. Developing a system for recording challenging behavior. *Work, 15* (1), 3-8.

Minister of Disability Issues. (2001). *The New Zealand Disability Strategy. Making a world of difference. Whakanui Oranga.* Ministry of Health.

Ministry of Health and Standards New Zealand (2001). *The Health and Disability Sector Standards Te Awarua o te Hauora*. Ministry of Health.

Mirfin-Veitch, B. Bray, A. , Moore, T., Walker, F. & Ross, N. (2000). *Promoting awareness of women's health: Health education with women with intellectual disabilities.* Paper presented at 11th Conference of the International Association for the Scientific Study of Intellectual Disability. (IASSID). Seattle, USA, August 2000.

Prochaska, J. A., & Clemente, C.C. (1983). Stages and processes of Change in Smoking: Towards an integrative model of change. *Journal of Consulting and Clinical Psychology*, 51, 390-395.

Robinson, I.D. (1972). Accidents to nursing staff in a psychiatric hospital. *New Zealand Medical Journal, 75*, 347-350.

Sherrard, J., Tonge, B.J. & Einfeld, S.L. (1997). Behaviours in young people with intellectual disability: Preliminary findings and implications for injury. *Journal of Intellectual Disability, 22* (1), 39-48.

Sherrard, J., Tonge, B.J. & Ozanne-Smith, J. (2001a). Injury risk in young people with intellectual disability: descriptive epidemiology. *Injury Prevention, 7* (1), 56-66.

Sherrard, J., Tonge, B.J. & Ozanne-Smith, J. (2001b). Recall bias in injury studies of young people with intellectual disability. *Injury Control and Safety Promotion, 8* (2), 83-89.

Sherrard, J., Tonge, B.J. & Ozanne-Smith, J. (2002). Injury risk in young people with intellectual disability. *Journal of Intellectual Disability Research, 46* (1), 6-16.

Sobsey, D. (1994). *Violence and abuse in the lives of people with disabilities. The end of silent acceptance?*Maryland, USA: Paul H Brookes Publishing.

Tannenbaum, T.N., Lipworth, L. & Baker, S. (1989). Risk of fractures in an intermediate care facility for persons with mental retardation. *American Journal on Mental Retardation, 93* (4), 444-451.

Wang, D., McDermott, S. & Sease, T. (2002). Analysis of hospital use for injury among individuals with mental retardation. *Injury Control and Safety Promotion, 9* (2), 107-111.