

# Alcohol Related Harm in Ireland

A Health Service Executive Report



Feidhmeannacht na Seirbhíse Sláinte  
Health Service Executive

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## 1.0 International Evidence

Alcohol is the third highest risk factor for premature death and ill-health in the European Union. Alcohol consumption is linked to more than 60 diseases and conditions, affecting nearly every organ in the human body. Alcohol-related harm is not confined to the negative consequences experienced by the drinker but extends to harm experienced by people other than the drinker (harm to others). The harm from alcohol is linked to a range of health and social problems such as accidents, injuries, chronic ill-health, premature death, public safety, violence, child neglect, marital problems and lost productivity. This report summarises alcohol harm in Ireland.

### 1.1 Alcohol harm to the drinker

There are some diseases wholly caused by alcohol such as alcoholic liver disease, alcohol dependency or alcohol poisoning (Appendix 1, T1). However, there are many more conditions where alcohol is a contributory factor. Table 1 summarizes the relationship between alcohol consumption and the risk of ill health for some important conditions. A dose response relationship is evident between alcohol consumption and risk of harm. In other words, the risk of harm increases with the amount of alcohol consumed. The strength of association between a risk factor and a disease is a measure known as relative risk (RR). When the relative risk is large a causative association is more likely. For many conditions and diseases, the relative risk increases with an increase in the volume of alcohol consumed. For example, there is a 13-fold increased risk of liver cirrhosis for women who drink 40 grams or more, or for men who drink 60 grams or more per day (Table 1). For ischemic stroke (which follows a blockage of the artery supplying blood to the brain), low level alcohol consumption offers some protection for men and women but high levels of alcohol consumption increase risk. However, even at low levels of consumption (< 20 grams/day for women and <40 grams/day for men), the relative risk of several cancers, hypertension and other cardiovascular disorders such as cardiac arrhythmias and heart failure increase. There is an increased risk of haemorrhagic stroke in men (which follows bleeding from a blood vessel within the brain) even at low levels of consumption.

Alcohol related harm from a single drinking event (drinking to excess or drinking in unsafe situations) can result in accidents, injuries, unsafe sex, relationship problems, reduced ability to do work, more vulnerability to harms from others, attempted suicide or alcohol poisoning. Many of these acute harms are caused by light or moderate drinkers who drink too much from time to time<sup>1</sup>. Conditions where alcohol plays an important role in acute deaths include road accidents, accidental falls, accidental drowning and suicide (Appendix 1, T2).

Research studies over the last decade have shown that alcohol affects an adolescent brain differently from an adult brain<sup>2</sup>. The brain goes through rapid development and ‘wiring’ changes during adolescence and alcohol use can cause alternations in the structure and function of the developing brain. Alcohol can damage two key areas of the brain, the prefrontal cortex responsible for self-regulation, judgement, reasoning, problem solving and impulse control and the hippocampus which is involved in learning and memory. Damage from alcohol use during adolescence can be long term and irreversible. Therefore, it is critically important to delay the age of onset of drinking by young people, as recommended by the World Health Organisation<sup>3</sup>.

*Table 1: Alcohol consumption and relative risks for some major conditions*

	Women			Men		
	Alcohol consumption, grams/day*					
	0-19g	20-39g	40g+	0-39g	40-59g	60g+
<b>Neuro-psychiatric conditions</b>						
Epilepsy	1.3	7.2	7.5	1.2	7.5	6.8
<b>Gastrointestinal conditions</b>						
Cirrhosis of the liver	1.3	9.5	13.0	1.3	9.1	13.0
Oesophageal varices <sup>a</sup>	1.3	9.5	9.5	1.3	9.5	9.5
Acute and chronic pancreatitis	1.3	1.8	1.8	1.3	1.8	3.2
<b>Malignant neoplasms</b>						
Mouth and oropharynx cancers	1.5	2.0	5.4	1.5	1.9	5.4
Oesophageal cancer	1.8	2.4	4.4	1.8	2.4	4.4
Laryngeal cancer	1.8	3.9	4.9	1.8	3.9	4.9
Liver cancer	1.5	3.0	3.6	1.5	3.0	3.6
Breast cancer	1.1	1.4	1.6			
Other neoplasms	1.1	1.3	1.7	1.1	1.3	1.7
<b>Cardiovascular (CVD) diseases</b>						
Hypertensive disease	1.4	2.0	2.0	1.4	2.0	4.1
Coronary heart disease	0.8	0.8	1.1	0.8	0.8	1.0
Ischemic stroke	0.5	0.6	1.1	0.9	1.3	1.7
Haemorrhagic stroke	0.6	0.7	8.0	1.3	2.2	2.4
Cardiac arrhythmias	1.5	2.2	2.2	1.5	2.2	2.2
<b>Conditions arising during the perinatal period</b>						
Spontaneous abortion	1.2	1.8	1.8			
Low birth weight <sup>b</sup>	1.0	1.4	1.4	1.0	1.4	1.4
Prematurity <sup>2</sup>	0.9	1.4	1.4	0.9	1.4	1.4
Intrauterine growth retardation <sup>b</sup>	1.0	1.7	1.7	1.0	1.7	1.7

<sup>a</sup>Alcohol-related oesophageal variances only occur in the presence of liver cirrhosis

<sup>b</sup>Relative risk refers to drinking of mother.

Source: WHO Global Status Report on Alcohol, 2004<sup>4</sup>; Anderson & Baumberg, 2006<sup>5</sup>

\*A pint of beer contains about 20 grams of pure alcohol, a bottle of wine (75cl) contains about 75 grams of pure alcohol and a single measure of spirits contains about 10 grams of pure alcohol.

**The risk of alcohol harm increases with the amount of alcohol consumed**

*“Alcohol consumption has the potential to trigger long-term biological changes that may have detrimental effects on the developing adolescent brain, including neuro-cognitive impairment”*

*US Surgeon General, 2007*

## **1.2 Alcohol harm to other people**

The negative effects of drinking are often felt by those around the drinker such as children, family and friends. For example, children who are deprived of basic daily needs due to the high family income spend on alcohol or the family member who experiences fear, threats or abuse as a result of an intoxicated parent or sibling. Driving a car while under the influence of alcohol can cause injury and death to innocent road users. Many people are victims of fights, brawls and violent attacks where the perpetrator of the attack is intoxicated. Alcohol is also associated with homicides.

Alcohol harm to others beside the drinker is a contributory factor in assaults, domestic violence, road crashes, marital separation and divorce, child neglect, poverty and abuse, in foetal alcohol spectrum disorder and in foetal alcohol syndrome. The impact of alcohol harm in the workplace can result in lower productivity, higher absenteeism and work related accidents.

Many times the negative effects of drinking are experienced by those around the drinker

## **2.0 Alcohol related harm in Ireland**

The burden of alcohol related harm is widespread in Ireland and includes harms experienced by the drinker but also harms experienced by people other than the drinker (harm to others). The purpose of this report is to present the many health and social harm indicators that highlight the extent of alcohol related problems in Ireland and to assess the recent trends in alcohol related harm.



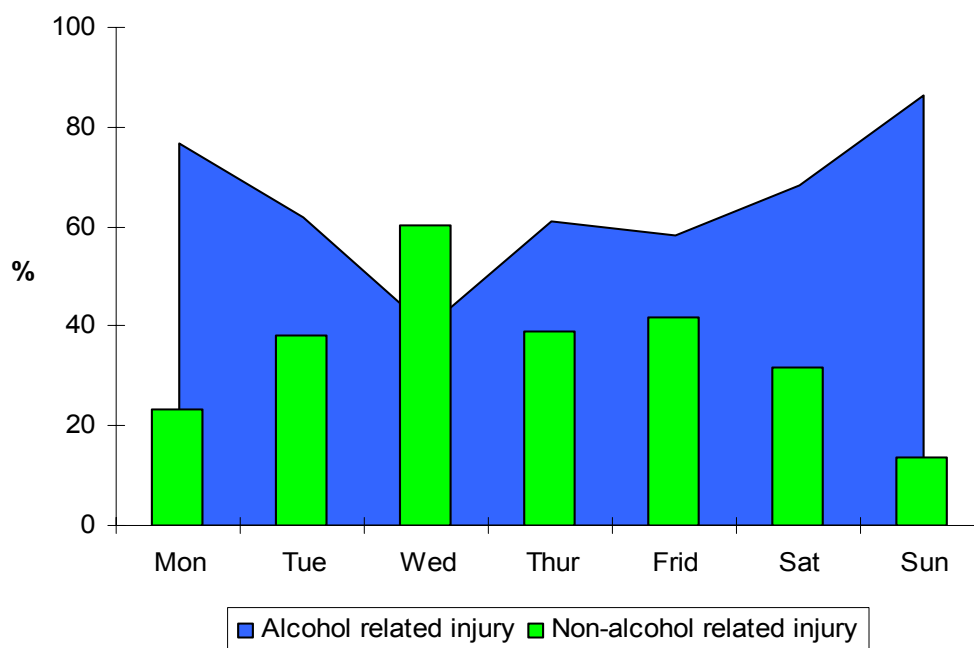
### 3.0 Burden of alcohol harm to the drinker in Ireland

The burden of alcohol harm to the drinker can be seen in hospitals, on the streets, on the roads, in families and in lost and damaged lives in every community. Alcohol related harms are evident in persons presenting with injuries, among patients in hospital, in treatment services and in alcohol related mortality. Drunkenness and public disorder, alcohol related road accidents and self reported negative consequences experienced by drinkers are all indicators of alcohol related harm.

#### 3.1 Alcohol related injuries

A national study involving 2,500 patients in six major acute hospitals across the country, found that **over one in four** (28%) of all injury attendances in the accident and emergency departments were alcohol related<sup>6</sup>. The highest proportion of alcohol related injury patients presented between midnight and 6am every night of the week except Wednesdays (Figure 1). The patient profile showed that three-quarters of those in attendance with alcohol related injuries were male and almost half were in the 18-29 age group.

**Figure 1: Injury attendance in A & E, between midnight and 6am by day of week**



Source: Hope et al (2005). *Alcohol and Injuries in the Accident and Emergency Department: A National perspective*. HPU, Department of Health and Children.

Of all those in attendance for alcohol related injuries, 13% were alcohol dependent. However, almost two-thirds (64%) of those who attended with alcohol related injuries reported that the accident/injury would not have happened if they had not been drinking. In other words, the injury was due to a drinking event on that specific occasion. The majority of cases were for unintentional injuries.

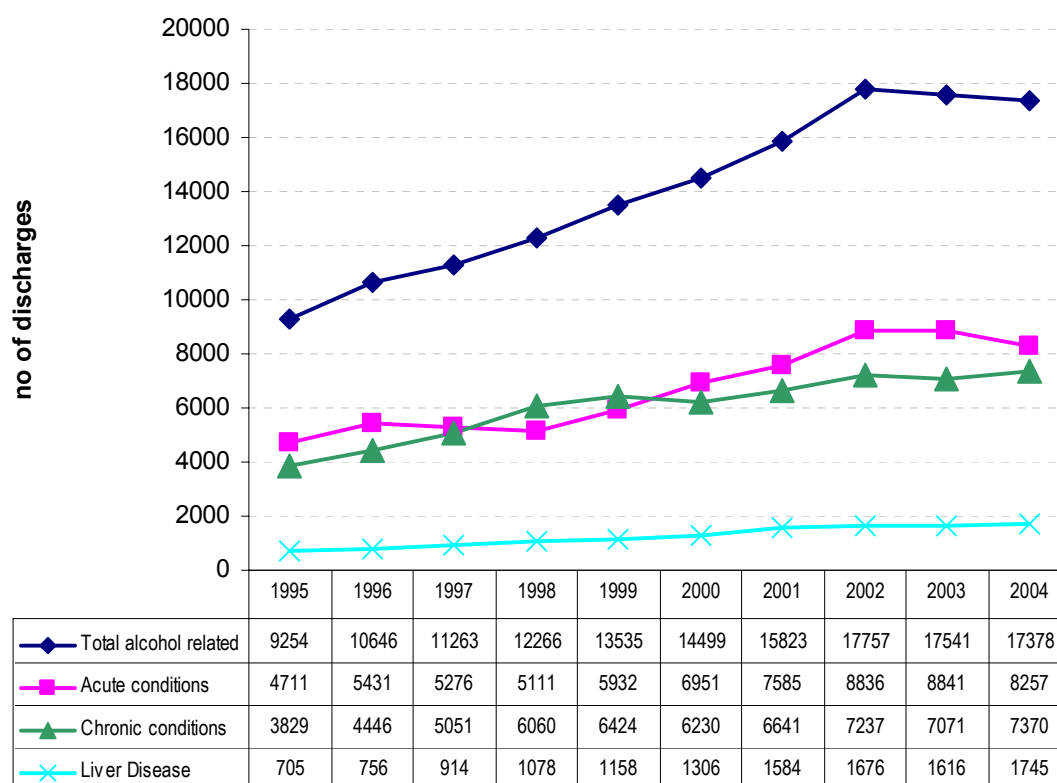
The Health Research Board reported that between 1995 and 2004, there were 11,745 hospital discharges for alcohol related intentional injuries, as measured by the

Hospital In-Patient Enquiry scheme (HIPE)<sup>7</sup>. The majority of these cases (70%) were in the 15-34 age group and were similar for males and females. Between 1995 and 2003, there was an **increase of 85% in the number of alcohol-related intentional injuries discharges**, followed by a decrease in 2004.

### 3.2 Alcohol related hospital admissions

Alcohol related morbidity in Ireland has significantly increased over the last decade. An examination of the HIPE data by the Health Research Board showed that **alcohol related hospital discharges increased by 92%** between 1995 and 2002 (Figure 2). However, liver disease increased by 148% during the ten year period. In 2000, alcohol acute conditions overtook chronic conditions as the leading diagnosis for alcohol related hospital discharges and that trend continues<sup>7</sup>. Alcohol chronic conditions and liver disease declined in 2003 but increased again in 2004, while alcohol acute conditions decreased (7%) in 2004.

**Figure 2: Number of alcohol related hospital discharges 1995-2004**



Source: Mongan et al (2007). Overview: Health-related consequences of problem alcohol use. HRB

In 2004 alcohol related discharges accounted for 2.9% of all bed days that year. During the ten year period, 133,962 alcohol-related hospital discharges were recorded accounting for **841,161 bed days**. While alcohol related morbidity was much greater among men, the increase in morbidity was most pronounced among young women. Acute conditions were substantially higher among those under 30 years (Appendix 2, F1). However, what was both surprising and disturbing, as noted by the authors, was the large number of young people (under 30) with chronic alcohol conditions.

Alcohol is one of the main causes of acute pancreatitis. A recent Irish study reported that hospital admissions for acute pancreatitis, as measured by HIPE data, increased

by 54% between 1997 and 2004<sup>8</sup>. However, the proportion of admissions that were alcohol related rose more markedly than those with biliary tract-related acute pancreatitis or other causes. Age standardised rates for alcohol related admissions increased from 2.5 per 100,000 population in 1997 to 5.4 per 100,000 population in 2004, **more than a two-fold increase**. Admission rates for alcohol related acute pancreatitis were highest in the young to middle age group (30-49 years) for both men and women, in comparison to total acute pancreatitis where the highest rates were in those aged 70 or older. From 2002 to 2004, alcohol related admissions rates rose rapidly for females in the 20-29 age group. The study also recorded a median length of stay in hospital of 7 days with an estimated 10% of these beds in ICU, a significant burden on the health care system.

In one major acute hospital in Ireland, the prevalence of problematic drinking behaviour (hazardous alcohol abuse and dependency) among in-patients was reported at 28%<sup>9</sup>. Men had significantly higher rates than women, where 30% of male in-patients and 8% of female in-patients were diagnosed with alcohol abuse or dependency. The prevalence of hazardous drinking was highest in men under 30 years of age where 85% screened positive, although 41% of women in the same age group also screened positive. In one health board region, an examination of all acute alcohol intoxication in-patient admissions, over a five year period, **showed an 80% increase**<sup>10</sup>. The age standardised rate of acute alcohol admissions increased from 144.3 in 1997 to 238.3 per 100,000 of the population in 2001. The majority of patients were male (72%), with 41% under 30 years.

### 3.3 Alcohol treatment

Traditionally, admissions to psychiatric hospitals for alcohol related disorders was the main indicator for estimating the number of patients presenting with alcohol related problems. However, these admissions have decreased in actual numbers, reflecting a policy change to out-patient services, but proportionally continue to represent one-third of all admissions to psychiatric hospitals<sup>7</sup>. In recent years, the National Drug Treatment Reporting System (NDTRS) has included the number of patients receiving treatment for problem alcohol use in their database, although full coverage of alcohol treatment services has yet to be achieved. The Health Research Board reported that half of all people recorded by the NDTRS in 2004 and 2005 reported alcohol as their main problem drug. The majority were male, half were under 39 years of age and 3% were 18 years of age or under<sup>7</sup>. Many were new cases with over half having never previously been treated for problem alcohol use. The main settings for treatment were outpatient (52%) and in-patient centres (48%).

### 3.4 Alcohol related cancers

In 2007, the International Agency for Research on Cancer (IARC) reassessed the carcinogenicity of alcoholic beverages and concluded that alcohol beverages are “carcinogenic to humans” (Group 1) and that the occurrence of malignant tumours of the oral cavity, pharynx, larynx, oesophagus, liver, colorectum and female breast is causally related to alcohol consumption<sup>11</sup>. In Ireland, trends in age standardised incidence rates for cancers between 1994 and 2003, reported by the National Cancer Registry, showed that **cancer of the liver had the highest increase** in cancer rates with a 10.7% increase for females and 7.4% for males, in comparison to all cancers which increased by 1.1% for females and 1.2% for males<sup>12</sup>. However, it should be

noted that the other alcohol related cancers (female breast, colon, rectum, oesophagus, head and neck) are more common than liver cancer. The average annual number of new cancer cases in the period 1998-2002, for the combined alcohol related cancers, was 2,953 female cases and 1,445 male cases.

The projected estimated number of new cancer cases for the 2005-2020 period, taking into consideration both demographic changes and changes in cancer rates, was reported by the National Cancer Registry and shows that overall cancer cases will increase (83% for females and 97% for males) up to 2020<sup>12</sup>. However, the projected number of new alcohol related cancers is estimated to more than double for females (from 2,953 to 6,445 new cases) and increase by 81% for males (from 1,445 to 2,613 cases) up to 2020, with the exception of cancer of the head and neck for males which is estimated to decrease. While the majority of the increase in all new cancer cases is attributable to demographic changes, namely an increase in the population over 65 years, this is not the case for liver cancer or for female breast cancer. For females, only 19% of the increase in cancer of the liver case numbers by 2020 will be due to demographic changes and for males 26%. The projected number of new cases for female breast cancer by 2020, is 4,734 cases, a 146% increase, with 40% due to demographic changes.

### 3.5 Alcohol and unsafe sex

A number of studies in Ireland have reported a clear link between alcohol use and unprotected sexual behaviour, which is particularly prevalent among younger adults. Unsafe sex practices increase the risk of crisis pregnancy and sexually transmitted infections. In a national study of young adults (18-45 age group) on Irish contraception and crisis pregnancy (ICCP), almost half of the men (45%) and a quarter of the women (26%) agreed that drinking alcohol had contributed to them having sex without using contraception<sup>13</sup>. The two main reasons given for non-use of contraception during the last year, by those who did not want to become pregnant, were that sex was not planned/they were not prepared (48%) and/or they were drinking alcohol or taking drugs (21%). Significantly more 18-25 year olds (33%) in comparison to 26-35 year olds (17%) or 36-45 year olds (8%) said that drinking alcohol or taking drugs was a reason for non-use of contraception. In relation to crisis pregnancy, 41% of women and 55% of men reported alcohol or drug use at the time of conception of the crisis pregnancy. Of those who had not used contraception, 17% of women and 26% of men said that alcohol or drug use resulted in the non-use of contraception at the time of conception of the crisis pregnancy. In a more recent national survey on sexual health and relationships (ISSHR), based on a representative sample of the adult population (18-64 years), drinking alcohol or taking drugs was one of the main reasons given for not using contraception and condoms<sup>14</sup>. Alcohol and drug use was cited as a reason for not using contraception at first sexual intercourse by 3% of all respondents but about 12% of respondents currently under 30 years. In relation to the most recent occasion of sexual intercourse, alcohol and drug use was cited as the most common reason (20%) among younger adults (18-24 age group) for not using contraception.

A national study of college students, reported that impaired judgement due to alcohol was cited as a reason for non-use of condoms for males (11%) and females (9%) who were sexually active<sup>15</sup>. Students who were regular binge drinkers were two to three times more likely to engage in unintended sex (21% vs 8%) and in unprotected sex

(19% vs 6%) than other drinkers. Almost half of female students who engaged in regular heavy drinking had sought emergency contraception in comparison to just over one-third of lighter drinkers. A study, exploring alcohol use among a sample of women requesting emergency contraception in a Well Women Centre, reported a higher proportion (42%) of women who had used alcohol and did not use contraception in comparison to women (28%) who had not used alcohol or contraception on this occasion<sup>16</sup>. While causality cannot be concluded, the evidence would suggest that alcohol use was a factor, along with other factors, for the non-use of contraception.

One of the potential consequences of unprotected sex is a crisis pregnancy. The ISSHR survey reported that 21% of women who have been pregnant experienced a 'crisis' pregnancy, defined as a pregnancy that is unplanned and occurs at a time when circumstances are considered unsuitable<sup>14</sup>. A larger proportion (56%) of young women (under 25 years) experienced their pregnancy as a crisis in comparison to older women. Women who were sexually active (had sexual intercourse) at an earlier age were more likely to experience a crisis pregnancy. Most women (75%) who experienced a crisis pregnancy became a parent.

A second potential negative consequence of unprotected sex is the risk of sexually transmitted infections (STIs). While there are several factors that contribute to STIs, alcohol is one factor that can lower inhibitions, impair judgement and result in the non-use of condoms, thus increasing the risk of STIs. As reported by the Health Promotion Surveillance Centre, between 1995 and 2004, based on the current notifiable list, **sexually transmitted infections increased by 217%** from an incidence rate of 92.8 per 100,000 population in 1995 to 273.0 in 2004<sup>17</sup>. However, in 2005 the total number of STIs recorded declined by 5.2%, which was attributed to a drop in the number of notifications in a number of health board regions. During 2005, three infectious diseases accounted for the vast majority (88%) of all notifiable STIs in Ireland. These were ano-genital warts (34%, n=3,456); Chlamydia trachomatis (33%, n=3,353) and non-specific urethritis (21%, n=2,106). Young adults aged 20-29 years accounted for almost 64% of all STI notifications in 2005. As the authors of the report concluded, all STIs are preventable and the data suggests significant risk taking behaviour in the form of unprotected sexual intercourse. The ISSHR survey, reported a STI prevalence of 3% for men and 2% for women, with the highest rate among men and women aged 25-34 years<sup>14</sup>.

Excessive alcohol use can also compound an already traumatic event such as a sexual assault. The Sexual Assault Treatment Unit (SATU) in the Rotunda Hospital reported that 60% of the female clients seen at the SATU had ingested alcohol<sup>18</sup>. The median number of drinks consumed and remembered by clients was 8 drinks, but 20% of the clients in the last number of years recalled drinking 12-22 drinks. Between 1998 and 2002, there was an increase from 6% to 27% in the number of cases where SATU was asked to evaluate the possibility of a sexual crime because of memory loss. The possibility of 'spiked drinks' was investigated, however the toxicology results showed no other drug was present except alcohol. As noted by the director of the SATU, the loss of memory for victims of rape hampers the psychological recovery.

### 3.6 Alcohol related mortality

The connection between changes in population drinking and mortality rate was examined as part of the European Comparative Alcohol Study (ECAS) for the period 1950 to 1995, involving Ireland and 13 other European countries. The time series analysis examined the relationship between yearly changes in consumption and harm and estimated the relative change in mortality for a change in per capita consumption of one litre of pure alcohol. The results showed that a one litre increase in alcohol consumption leads to a significant increase in male mortality for cirrhosis (6.7%), accidents (7.5%) and homicide (20.6%) in Ireland. For females, accident mortality was significant (7.6%) with a one-litre increase in alcohol consumption<sup>19</sup>.

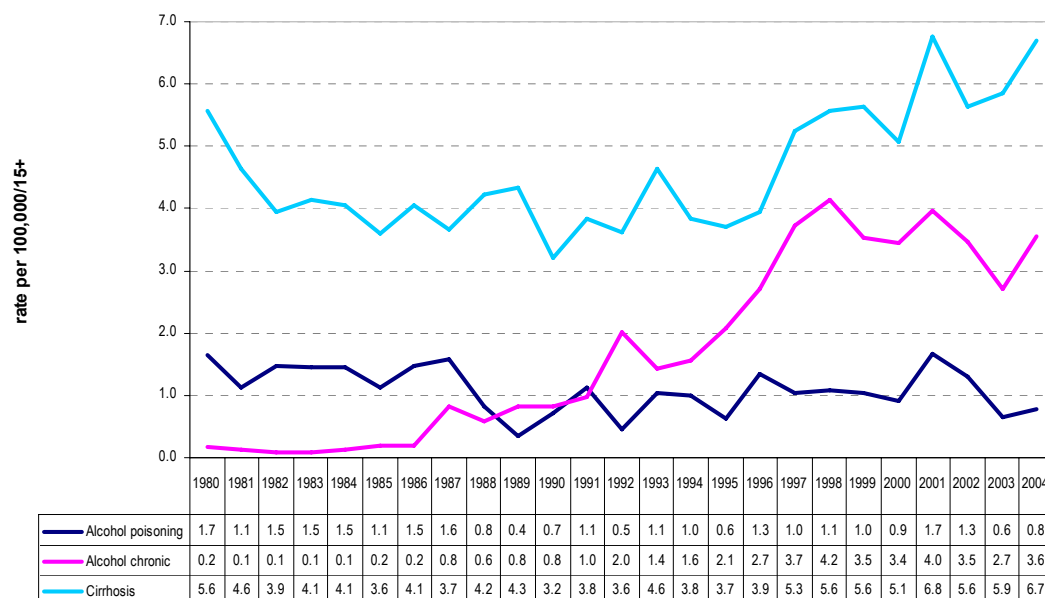
Irish trends in alcohol related mortality for the twenty five year period, 1980 to 2004, were examined (Figure 3). Deaths from cirrhosis of the liver (ICD9–571), alcohol chronic diseases including abuse and dependency (ICD9-291,303,305) and alcohol poisoning (ICD9 980,E860) are conditions used to monitor alcohol related harm.

**Cirrhosis** mortality rates fluctuated during the period 1981 to 1995, then **significantly increased from 1996 onwards** with the highest rate in 2001 (6.8 deaths per 100,000 adults), followed by a drop in 2002 and a rise again in 2003 and 2004.

**Alcohol chronic mortality** increased over the twenty five year period with the **steepest rise from 1993 to 1998**, from a rate of 1.4 deaths per 100,000 adults in 1993 to 4.2 deaths per 100,000 adults in 1998, almost a three fold increase. Alcohol chronic mortality declined in 2002 (13%) and 2003 (22%) but increased again in 2004 to a rate of 3.6 deaths per 100,000 adults.

Alcohol poisoning mortality, is in effect an alcohol overdose resulting from a very heavy episode of drinking, unlike cirrhosis and alcohol chronic conditions which are linked to regular heavy drinking over an extended period of years. The fluctuation in alcohol poisoning rates reflects this acute condition. **Alcohol poisoning mortality** moved from a higher rate in the 1980s to a lower rate from the late 1980s to the mid 1990s then rose again and **peaked in 2001**, followed by a drop in subsequent years (2002 -22%, 2003 -50%) but increased again in 2004 (22%). During the twenty five year period, alcohol related mortality rates suggest an upward trend for cirrhosis and alcohol chronic conditions from the 1990s onwards with some fluctuation, but a less clear picture for alcohol poisoning. Although alcohol related mortality rates differed in terms of magnitude for the three conditions, a significant increase occurred between 2000 and 2001 in all three conditions.

**Figure 3: Alcohol related specific mortality, 1980-2004**



Source: Annual Reports on Vital Statistics, CSO

Trends in four of the alcohol related mortality cancers, mouth (ICD9:140-149) oesophagus (ICD-150), liver (ICD-155) and larynx (ICD9-161), are presented in Appendix 3, F2. Between 1980 and 2004, cancer of the liver increased with some fluctuation, from a rate of 3.1 deaths per 100,000 adults in 1981 to 5.4 deaths per 100,000 adults in 2004. **Since 1996**, in particular, **a steady increase** is evident in **cancer of the liver**. Cancer of the oesophagus increased up to the mid 1990s with a peak of 12.0 in 1994 and has since declined to a rate of 10.2 deaths rate per 100,000 adults in 2004. Cancer of the larynx has gradually decreased over the twenty five year period from a high of 3.2 deaths per 100,000 adults in 1981 to 1.5 deaths per 100,000 adults in 2004. Cancer of the mouth (lip, oral cavity, pharynx) decreased from the mid 1990s to a rate of 3.9 deaths per 100,000 adults in 2004. An explanation for different trends is that while alcohol is a causal factor in these cancers, there are also other causal factors and the proportion of deaths attributed to alcohol varies from condition to condition. In addition, the strength of alcohol as a contributory factor is linked to the volume of alcohol consumed (Table 1). For example, the relative risk of oesophageal cancer in males is 1.8 (RR) at a daily alcohol consumption of less than 40 grams, but increases to 2.4 (RR) for daily consumption of between 40 to 59 grams and is highest (4.4 RR) for daily consumption of 60+grams of alcohol.

There are also many other diseases and conditions where alcohol is an important contributory factor, as illustrated in Table 1. Three such examples are haemorrhagic stroke, hypertensive disease and suicide. The risk of death from haemorrhagic stroke and hypertensive disease is greatly increased with increased alcohol consumption. Women who drink 40 grams or more of alcohol a day have an eight fold increased risk of haemorrhagic stroke. Men who drink 60 grams or more of alcohol a day have a four fold increased risk of hypertensive disease. Alcohol can facilitate suicide by increasing impulsivity, changing mood and deepening depression. In Ireland, the blood alcohol level in persons who died by suicide was examined in three counties and showed that alcohol was detected in over half of the cases<sup>20</sup>.

During the twenty five year period under review, suicide mortality increased from 9.0 deaths per 100,000 adults in 1980 to a high of 17.9 deaths per 100,000 adults in 1998 (Appendix 3, F3). A high rate of suicide mortality was also recorded in 2001 (17.1 deaths per 100,000 adults) followed by a decline in subsequent years. Haemorrhagic stroke mortality significantly fell between 1980 and 1990 and since then a more gradual decline has occurred. In 2005, the mortality rate for haemorrhagic stroke was at 11.9 deaths per 100,000 adults. Hypertensive disease mortality showed a gradual decline up to 1993 (6.7 deaths per 100,000 adults), but has tended to increase since and in 2004 was 9.9 deaths per 100,000 adults. The reduction in haemorrhagic stroke and hypertensive disease is most likely due to expanded and improved treatment.

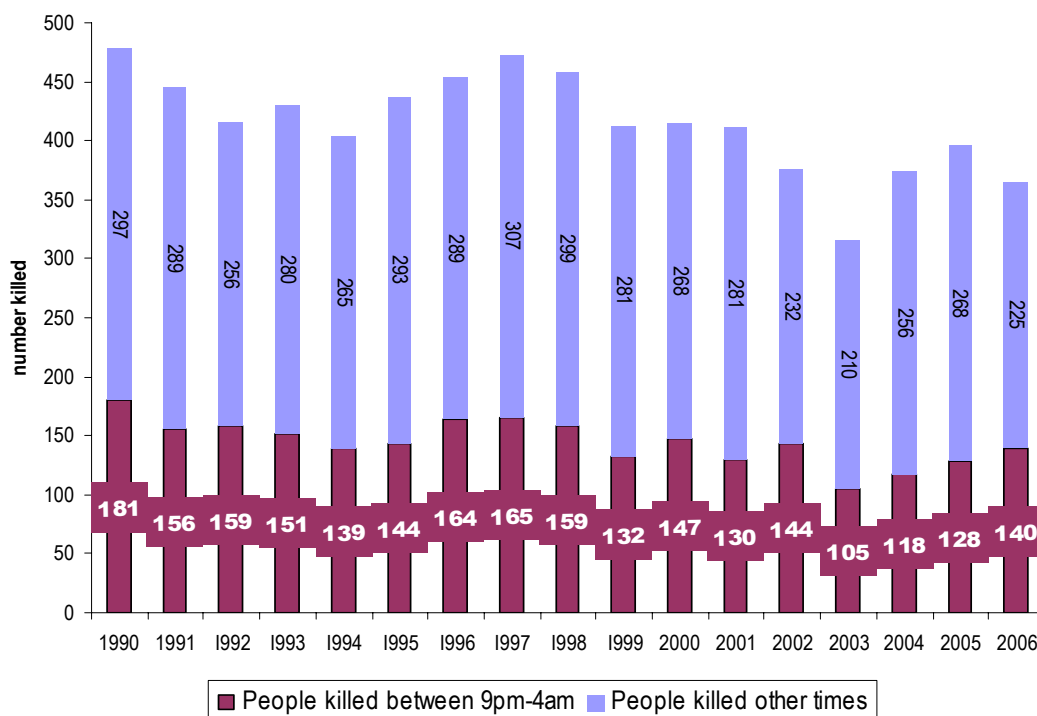
The World Health Organisation identified other negative health effects where alcohol is a contributory factor, which is relevant for Ireland, both in terms of mortality and morbidity, such as road traffic accidents, accidental falls, accidental drowning, and arson injuries. In Ireland, alcohol has been identified as a contributory factor in house fires<sup>20</sup>, in accidental drowning<sup>21</sup> and in road crashes<sup>22</sup>.

### 3.7 Alcohol related driving

The indicators used to monitor the extent of driving while under the influence of alcohol are: the number of road fatalities during the time most associated with drunk driving, and the number of drink driving offences recorded by the Garda Síochána each year. The number of people killed during the time most associated with drunk driving (9pm to 4am) is used as an indicator (proxy measure) for alcohol related road deaths. **Between 1990 and 2006** there were a total of 7,078 people killed on the roads of which **2,462 were alcohol related**. The number of fatal crashes is lower than the number of people killed due to the fact that many crashes result in more than one death (Appendix 4, T3). During the seventeen year period, 2003 was the year with the lowest number of road deaths and alcohol related deaths, due mainly to the introduction of the penalty point system (Figure 4). This was also the year (2003) that alcohol consumption decreased by 6%, the first time in sixteen years<sup>23</sup>. In 1994, the year BAC level was reduced to 0.80mg, a reduction in road deaths and alcohol related road deaths were also recorded. The number of road deaths most associated with drunk driving was highest in 1990 and lowest in 2003.



**Figure 4: Alcohol related road deaths 1990-2006**



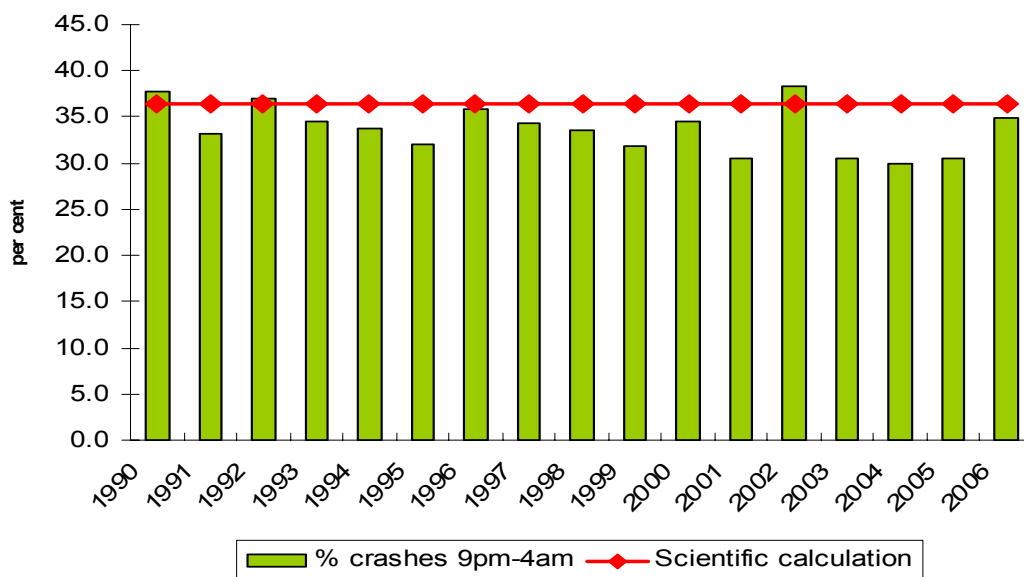
Source: Annual Reports, National Roads Authority & Road Safety Agency

In 2003, the first national scientific examination, using the National Traffic Bureau files, of all fatal road crashes was undertaken. The study established that alcohol was a contributory factor in 36.5% of all fatal crashes<sup>22</sup>. The study also yielded other important information.

- Alcohol related crashes were more likely among male drivers.
- Alcohol related fatal crashes were three times more likely to occur on Saturday, Sunday and Monday.
- Alcohol related crashes were more common late at night and early in the morning.
- 40% of drivers killed were positive for alcohol.
- The rate of alcohol related driver deaths was highest for those aged 19 to 34 years and lowest for 60 to 69 years.
- Pedestrian alcohol was a contributory factor in 38% of fatal pedestrian road crashes and were more likely to occur among older males and between 8pm and 8am.
- Male passengers were significantly more likely to be killed than female passengers in a crash where driver alcohol was a factor.

The proxy measure for alcohol related crashes (crashes between 9pm-4am) is set against the calculated scientific evidence (36.5%) and shows that for all but two of the sixteen years (1990 and 2002), alcohol related crashes were underestimated (Figure 5). The years with the greatest deviation and underestimation from the scientific calculation were four of the last six years. This may be partly linked to the longer opening hours in pubs and clubs since 2000 where people stay out later drinking. This explanation is also supported by the finding that alcohol related crashes are more common at night and early in the morning.

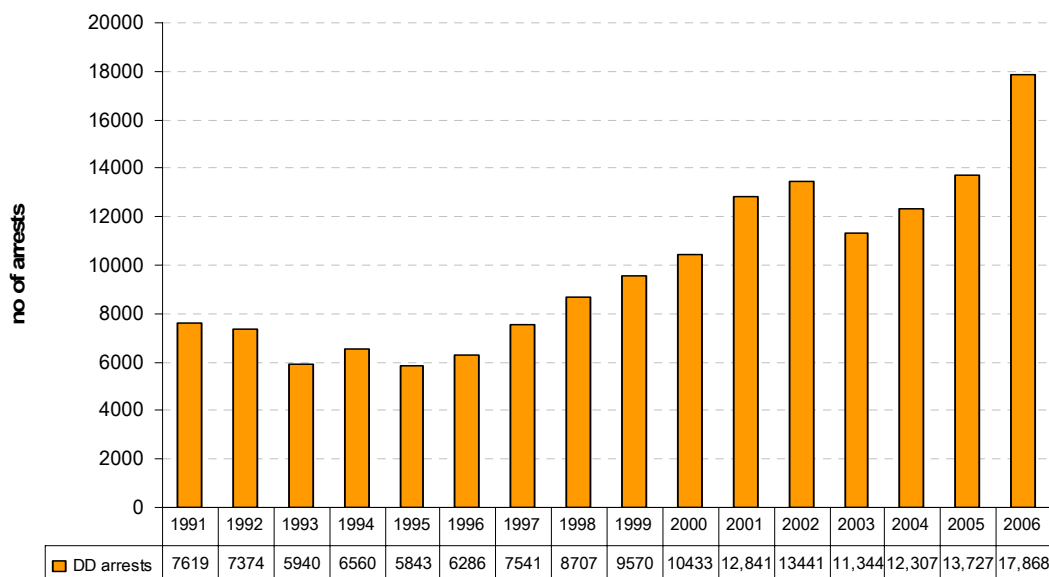
**Figure 5: Alcohol related fatal crashes, proxy measure (9pm-4am) versus scientific calculation**



Source: Bedford et al 2006 & Annual Accident Facts, NRA.

The number of **drunk driving (d/d) arrests** for the period 1991 to 2006 are presented in Figure 6. From a low of 5,843 drunk driving arrests in 1995, there was a year on year increase up to 2002, **representing a 130% increase**. Between 2002 and 2003, there was a significant drop (16%) in the number of drunk driving arrests and then a year on year increase up to the present. The highest year on year increases were between 2005 and 2006 (30%) and between 2000 and 2001 (23%). The penalty point system which was introduced in 2003, may partly explain the significant drop in d/d arrests in 2003. The large increase in d/d arrests in 2006 is most likely associated with the introduction of mandatory alcohol testing in July 2006.

**Figure 6: Drunk Driving arrests 1991 -2006**



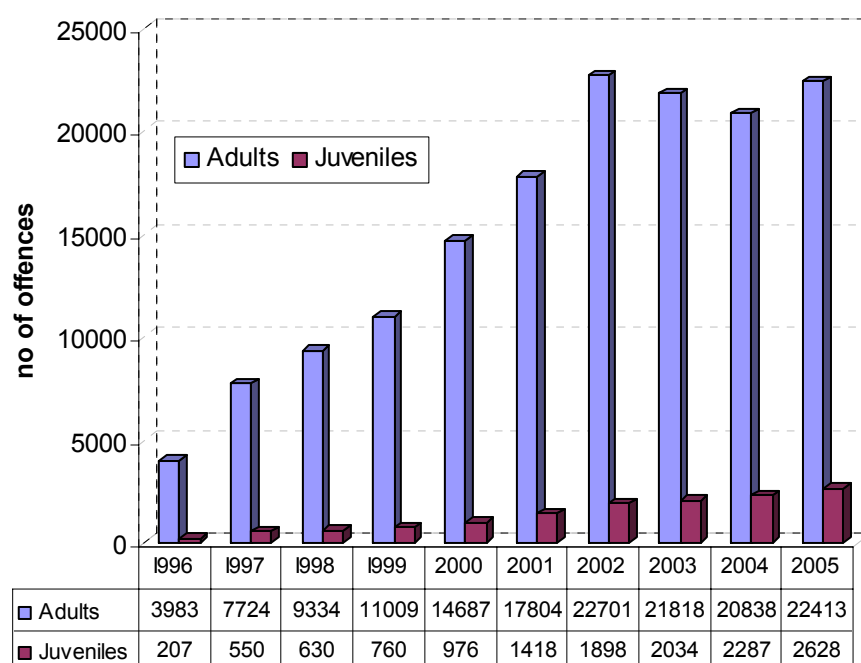
Source: An Garda Síochána, Annual Reports

### 3.8 Drunkenness and public disorder

An indicator of alcohol-related social harm is the level of drunkenness and disorder in public places which undermines confidence in public safety. Alcohol has been identified as a contributory factor in 97% of public order offences as recorded under the PULSE system<sup>24</sup>. However, an observational study, limited to two sites in Dublin, suggested a lower estimate of just over half being alcohol related. The National Crime Council study on public order offences examined the period before and after the introduction of the Criminal Justice (Public Order) Act in 2004 (CJPOA). The specific subsections of the earlier legislation compatible with the new legislation are listed in Appendix 5, T4. Prior to the new act (CJPOA), public order offences increased between 1988 and 1993 by 45%. The recorded public order offence declined in 1994 as transfer was made to the new act which was not fully operational until 1996 (Appendix 5, T5). Under the new CJPOA, **public order offences** substantially increased **between 1996 and 2002**, from 16,384 offences where proceedings were taken in 1996 to a peak of 56,822 offences in 2002, representing a **247% increase** over the seven year period. Public order offences decreased by 6% in 2003 and by a further 5% in 2004 but increased again in 2005 (7%). Between 1996 and 2005, alcohol related offences among juveniles increased from 784 in 1996 to 4,217 offences in 2005, a 438% increase.

Taking the single subcategory (Section 4) of *intoxication in a public place*, **drunkenness** increased dramatically for adults between 1996 and 2002, representing a **470% increase** (Figure 7). The increase in adult offences peaked in 2002, declined in the following two years (2003 4% and 2004 5%) but increased again in 2005 (8%). The juvenile offence of intoxication in a public place has continued to rise unabated over the same ten year period from 207 in 1996 to 2,628 offences in 2005, over a 12 fold increase.

**Figure 7: Intoxication in public places 1996-2005**



Source: An Garda Síochána, Annual Reports

### 3.9 Individual and Interpersonal problems

Adverse consequences experienced by the drinker as a result of their own alcohol use have been reported in the general population, among college students and adolescents in Ireland. The national drinking survey reported the harm experienced by the drinker had personal (regrets, fights, accidents), economic (work) and social (friendship and home-life) consequences across the population and was more prevalent in men than in women<sup>25</sup>. Problems relating to home life and marriage were more common in middle age years for both men and women (Table 2). However, more young Irish men (18-29 age group) reported harms in terms of regrets, work and fights than any other group in the population. Younger women (18-29 age group) experienced higher rates in almost all the harms when compared to other women, excluding harm to home life /marriage.

*Table 2: Experiences of adverse consequences of alcohol use during the last 12 months among men and women in Ireland by age*

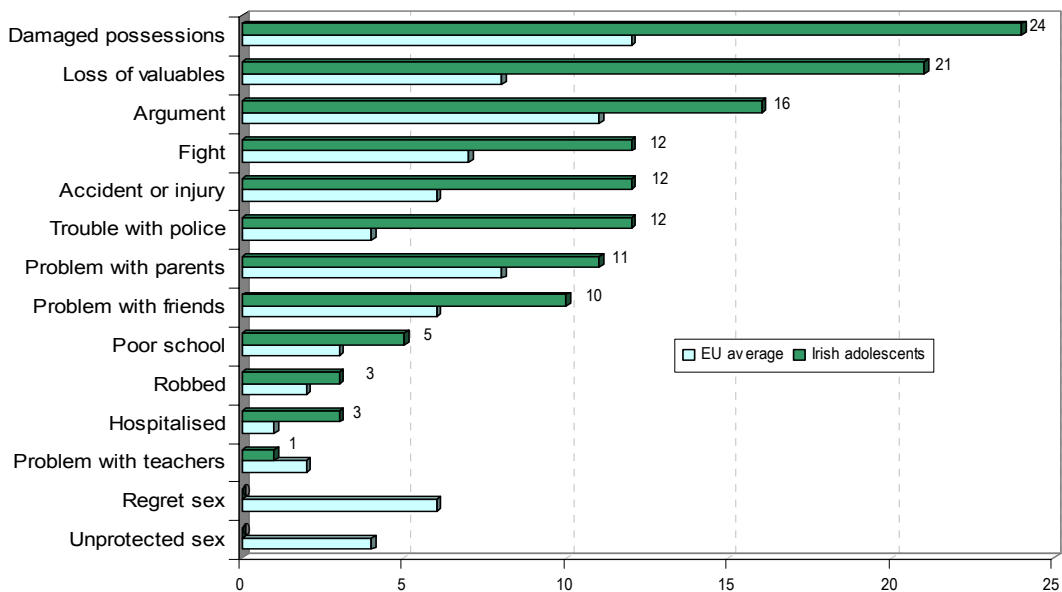
	1 + harms	Should Cut down	Health	Regret	Fight	Accident	Work/ studies	Home life/ marriage	Friends
	%	%	%	%	%	%	%	%	%
<b>MEN</b>									
18-29	43.4	27.3	10.6	42.0	16.1	7.4	19.5	6.8	13.0
30-49	33.5	22.0	14.1	34.1	13.6	6.7	15.9	11.1	13.3
50-64	27.2	24.3	20.2	33.7	11.2	8.6	8.9	12.8	7.9
65+	15.4	10.9	7.3	12.7	7.0	5.2	5.3	5.4	5.4
<b>WOMEN</b>									
18-29	23.3	11.1	6.7	27.7	6.7	4.3	9.8	1.2	9.0
30-49	19.4	5.7	4.5	22.5	1.8	2.9	1.0	2.2	3.4
50-64	13.7	9.5	5.8	19.6	1.1	2.3	1.2	3.6	4.7
65+	8.7	6.9	0.0	11.8	0.0	0.0	0.0	0.0	0.0

*Source: Ramstedt & Hope. (2005). Journal of Substance Use, 10(5), 273-283.*

Among college students, the likelihood of experiencing problems and harm increased with an increase in the frequency of heavy drinking, sometimes called ‘binge drinking’. Students were twice as likely to miss college and reported their studies were harmed as a result of their regular heavy drinking. Money problems, fights, unprotected sex and accidents were three times more likely to occur among students who engaged in regular heavy drinking<sup>15</sup>. In addition, those who were engaged in regular heavy drinking were less likely to use positive coping strategies when dealing with anxiety and depression.

The link between alcohol and poor school performance, relationship difficulties and delinquency was reported among 16 year olds in European countries<sup>26</sup>. A greater number of Irish adolescents reported experiencing a range of problems as a result of their own alcohol use in comparison to the European average (Figure 8). No information was obtained from Irish adolescents in relation to sexual problems.

**Figure 8: Alcohol harm in adolescents 15/16 years of age**



Source: Hibell et al, (2004) ESPAD

**Box 1: Alcohol related harm to the drinker in Ireland – Summary**

<b>Alcohol harm indicator</b>	<b>Summary of Findings</b>
1. Injuries	<ul style="list-style-type: none"> <li>• Over one in four (28%) of all injury attendances in the accident and emergency department in acute hospitals were alcohol related.</li> <li>• There was an increase of 85% in the number of alcohol related intentional injuries between 1995-2003, followed by a decrease in 2004, as measured by hospital discharges.</li> </ul>
2. Hospital admissions	<ul style="list-style-type: none"> <li>• 133,962 alcohol related hospital discharges were recorded, between 1995 and 2004.</li> <li>• Alcohol related hospital discharges increased by 92%, between 1995 and 2002.</li> <li>• Alcohol chronic and liver conditions declined in 2003 but increased again in 2004.</li> <li>• Alcohol acute conditions decreased (7%) in 2004.</li> <li>• In 2000, alcohol acute conditions overtook chronic conditions as the leading diagnosis for alcohol related hospital discharges and are more common in those under 30 years.</li> <li>• Alcohol related acute pancreatitis hospital admissions rose more markedly than other acute pancreatitis conditions between 1997 and 2004. Alcohol related acute pancreatitis increased from 2.5 per 100,000 population to 5.4 per 100,000 population, more than a two fold increase.</li> <li>• Acute alcohol intoxication in-patient admissions increased by 80% between 1997 and 2001. The majority of patients were male, with 41% under 30 years.</li> <li>• In a large acute hospital, 30% of male in-patients and 8% of female in-patients were diagnosed with alcohol abuse or dependency.</li> <li>• The prevalence of hazardous drinking among hospital in-patients was highest among those under 30 years.</li> </ul>
3. Alcohol treatment	<ul style="list-style-type: none"> <li>• Half of all people recorded by the NDTRS in 2004 and 2005 reported alcohol as their main problem drug. The majority were male and half were under 39 years of age.</li> </ul>
4. Cancers	<ul style="list-style-type: none"> <li>• Alcohol consumption is causally related to cancers of the liver, head and neck, oesophagus, colon, rectum and females breast.</li> <li>• Cancer of the liver had the highest increase in cancer incidence rates in comparison to all cancers between 1994-2003.</li> </ul>

	<ul style="list-style-type: none"> <li>• Projected number of new cases in alcohol related cancers is estimated to more than double for women and increase by 81% for men up to 2020.</li> </ul>
5. Unsafe sex	<ul style="list-style-type: none"> <li>• Almost half of men (45%) and a quarter of women (26%), in a national survey of young adults(18-45 age group) agreed that drinking alcohol had contributed to them having sex without contraception.</li> <li>• Alcohol and drug use was cited as the most common reason (20%) among younger adults (18-24 age group) for not using contraception, in a national survey of the adult population (18-64 age group).</li> <li>• College students who were regular heavy drinkers were two to three times more likely to engage in unintended sex and in unprotected sex than other drinkers.</li> <li>• Between 1995 and 2004, STIs increased by 217%.</li> </ul>
6. Alcohol related mortality	<ul style="list-style-type: none"> <li>• Cirrhosis of the liver mortality increased from 1996 onwards with the highest rate in 2001, followed by a drop in 2002 and a rise again in 2003 and 2004.</li> <li>• Between 1980-2004, alcohol chronic mortality increased with the steepest rise, almost a three fold increase, from 1993 to 1998. Alcohol chronic mortality declined in 2002 (13%) and 2003 (22%) but increased again in 2004 (32%).</li> <li>• From the mid 1990s alcohol poisoning mortality increased and peaked in 2001, followed by a drop in 2002 (22%) and 2003 (50%), but increased again in 2004 (22%).</li> <li>• Between 1980 and 2004, deaths from cancer of the liver increased from a rate of 3.1 deaths per 100,000 adults in 1981 to 5.4 deaths per 100,000 adults in 2004.</li> <li>• Suicide mortality increased from 9 deaths per 100,000 adults in 1980 to a high of 17.9 deaths per 100,000 in 1998, followed by a decline in 1999 and a rise again in 2000 and 2001 with a further decline in subsequent years.</li> </ul>
7. Alcohol related driving	<ul style="list-style-type: none"> <li>• Alcohol is a contributory factor in 36.5% of all fatal crashes.</li> <li>• Between 1990 and 2006, 2,462 people were killed on the roads between 9pm-4am, the time most associated with alcohol related driving.</li> <li>• The year 2003 recorded the lowest number of road deaths and alcohol related road deaths.</li> <li>• Between 1995 and 2002, drunk driving arrests</li> </ul>

	<p>increased by 130%, followed by a decline (16%) in 2003 and an increase since then.</p>
<p>8. Drunkenness and public disorder</p>	<ul style="list-style-type: none"> <li>• Alcohol has been identified as a contributory factor in 97% of public order offences.</li> <li>• Between 1996 and 2002, public order adult offences increased by 247% (from 16,384 to 56,822) followed by a decrease in 2003 and 2004 but increased again in 2005.</li> <li>• Drunkenness increased by 470% between 1996-2002, declined the following two years but increased again in 2005.</li> <li>• The juvenile offence of intoxication in a public place showed a 12 fold increase, between 1996 and 2005 (207 in 1996 to 2,628 in 2005).</li> </ul>
<p>9. Interpersonal Problems</p>	<ul style="list-style-type: none"> <li>• In a national survey, alcohol problems relating to home life and marriage were more common in middle aged men and women.</li> <li>• More young men (18-29 years) reported alcohol related harms in terms of regrets, work and fights than other group in the population. More young women reported higher rates of harm in comparison to older women, excluding home life and marriage.</li> <li>• College students were twice as likely to miss college and reported their studies were harmed as a result of heavy drinking.</li> <li>• A greater number of Irish adolescents reported experiencing a range of problems as a result of their own alcohol use in comparison to the European average.</li> </ul>



## 4.0 Burden of alcohol harm to other people

The burden of alcohol related harm is often experienced by those around the drinker or by the innocent ‘bystander’. The use and abuse of alcohol can undermine family well-being by contributing to relationship difficulties which in turn can affect the well-being of children. Alcohol harm to others is experienced in every community, from the public nuisance factor, the verbal abuse of the intoxicated person on the street, damage to property, the brawl among drinkers, to the violent attack by an intoxicated drinker inflicted on a friend or bystander. Alcohol harm to others undermines public safety in a community and increases crime and public disorder as well as increasing accidents and injuries, many of which are seen in the hospital emergency room. Driving a car while under the influence of alcohol can contribute to road injuries, disabilities and death of other road users.

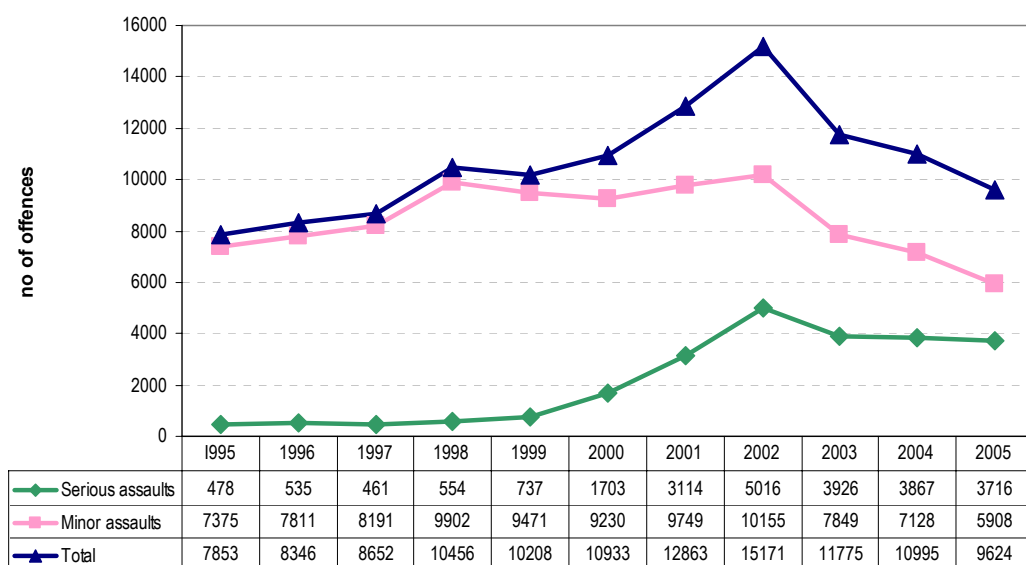
### 4.1 Alcohol related street violence

While alcohol is not involved in all physical assaults, it is considered internationally a valid proxy for alcohol related violence<sup>1</sup>. There are several indicators which suggest that alcohol related violence is a problem in Ireland. A national household survey on crime and victimisation reported that the rate of **physical assaults** (excluding domestic violence or sexual assault) had **increased by 71% between 1998 and 2003**, from 0.7% to 1.2% and was 1.1% in 2006<sup>27</sup>. This translates to 37,100 adults who experienced a physical assault in 2006. Young males (18-24) were the group most at risk of physical assaults, with 3.9% reporting that they had been assaulted in 2006, down from 5.5% in 2003 but higher than the rate of 1998 (2.6%). Young females also had a higher risk of physical assaults in comparison to older females. Students were much more likely to experience physical assaults in comparison to those at work (3.4% vs 1.2%), with a similar rate for 2003 and 2006. The location where assaults occurred, as reported in 2006, has moved away from around pubs and clubs which featured in the 1998 and 2003 surveys. However, the two top locations where physical assaults take place continue to be at/near the workplace and in other public places (excluding pubs and clubs). Many of the physical assaults result in injuries which need medical attention. In 2006, an estimated 15,600 persons were injured as a result of a physical assault, of which 40% required medical attention but not a hospital stay and a further 15% required a hospital stay. The national study on alcohol and injuries in the emergency department of Acute Hospitals reported that, of those presenting with alcohol related injuries, over one-third were injuries inflicted intentionally by someone else. Three-quarters of the perpetrators were under the influence of alcohol<sup>16</sup>.

Not all assaults are reported to the Gardaí, as borne out by the household survey on crime and victimisation which reported that almost a half (47%) of those who experienced a physical assault did not report the assault to the Gardaí, for a variety of reasons<sup>27</sup>. Therefore, the number of assaults recorded by the Gardaí can be regarded as an underestimation of the true level of violence. Given that an assault is inflicted on another person then these figures also represent victims. Between 1995 and 2005, there were **116,876 recorded assault offences**, where proceedings were taken, among adults, including serious (indictable) and minor (non-indictable). The number of **adult assault offences increased by 93% between 1995 and 2002**, from a rate of 2.9 assaults per 1,000 adults in 1995 to 4.9 per 1,000 adults in 2002. While minor assaults make up the highest proportion of total assaults, serious assaults showed the greatest increase, from 737 assaults in 1999 to 5,016 in 2002, almost a seven fold increase. Between 2002 and 2003, there was a significant reduction (-22%) in assaults and that

decline has continued, in particular for minor assault (Figure 9). Between 1995 and 2005, there were 13,411 recorded assault offences among juveniles. This represents a 1:10 ratio for juvenile to adults, in other words, for every one juvenile assault there are ten adult assaults recorded. Between 1995 to 2005, the overall trend in juvenile assault offences shows an increase with some fluctuation (Appendix 6, F4). The highest year on year increase occurred between 2000 and 2001, for both minor (66%) and serious (42%) juvenile assaults, followed by a decrease in 2002 and 2003. The rapid increase in juvenile assaults in 2001 may be partly explained by the increase in longer opening hours on Thursday, Friday and Saturday nights. However, the number of assaults among juveniles peaked in 2004 when 1,621 were recorded. Between 2004 and 2005, there was a decrease (-11%) in juvenile assaults.

**Figure 9: Adult Assault Offences in Ireland, 1995-2005**



Source: An Garda Síochána Annual reports

## 4.2 Homicide

The ECAS study, as outlined previously, estimated that a one-litre increase in per capita alcohol consumption in Ireland leads to a significant increase of 21% in homicide rates for men in Ireland<sup>19</sup>. The link between alcohol and homicide was also supported in a detailed examination of the crime files of all homicide cases over a twenty year period, which showed that almost **half (46%) of the perpetrators of homicide were intoxicated** when the crime was committed. Somewhat fewer (42%) of the victims were intoxicated<sup>28</sup>. During the twenty five year period (1982-2006), **homicide mortality rates generally increased**, with some fluctuation (Appendix 6, F5). The highest recorded homicide rate was in 1998 (1.4 deaths per 100,000 adults). A significant decline was recorded between 2003 and 2005, however a steep increase was observed in 2006.

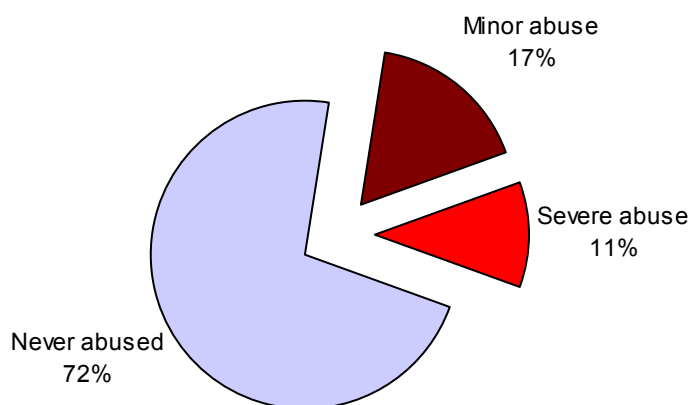
## 4.3 Domestic violence

Intimate partner violence is a serious problem and many factors contribute to it. The research evidence suggests strong links between domestic violence and heavy

drinking, although causality is more difficult to establish<sup>29</sup>. It is known that domestic violence can occur independently of alcohol, that is domestic violence occurs without alcohol involvement. It is also known that heavy drinking contributes to violence in some people under some circumstances. What is well documented is that heavy drinking can involve more acts of violence and more severe violence.

The extent of the problem of domestic violence in Ireland was reported in the national study on domestic abuse<sup>30</sup>. There were three dimensions examined – physical, emotional and sexual abuse. The prevalence study indicated that 72% of the population had never experienced any of the incidents examined, while 17% experienced minor incidents but with no severe impact on them (Figure 10). However, 11% of the population experienced severe abuse described as “a pattern of behaviour that had an actual or potential severe impact on their lives”. Among those who experienced severe domestic abuse, the potential triggers for abuse were explored. Two issues came to the fore. In 36% of cases the abusive behaviour had no specific trigger or was triggered by minor incidents. In one-third (34%) of cases, alcohol was identified as a potential trigger for abusive behaviour. In **one-quarter of severe abuse cases, alcohol was always involved**. As noted by the authors, ‘alcohol use may be more likely to lead to injury, so its role in triggering domestic abuse needs to be taken seriously’.

**Figure 10: Prevalence of Domestic Abuse in Ireland**



Source: Watson & Parsons (2005). *Domestic Abuse of Women and Men in Ireland*.

#### **4.4 Alcohol related road injuries**

Alcohol related road crashes not only result in death and injury to the driver who was under the influence of alcohol, but to other drivers and passengers and other road users. Serious road related injuries can result in lifelong disability with an enormous personal cost and costs to society. The Road Safety Authority estimates that for every one road fatality, eight serious injuries occur. Between 1990 and 2006, 179,264

people were injured as a result of road accidents of which **40,851 injuries** occurred during the time (9pm-4am) most associated with **alcohol related accidents**. The years with the highest recorded number of persons with injuries were 1996 and 1997, 13,319 and 13,115 respectively (Appendix 7, T6). The year with the lowest recorded injuries was 2004. Road injuries most associated with drunk driving (9pm-4am) had the highest recorded numbers in 1997 (3,155) and this followed a decline in the number of alcohol related injuries to a low in 2003 and a rise again in 2004-2005.

#### **4.5 Harm to others - interpersonal**

In a general population survey, over half of all respondents (57%) reported that they were concerned about someone else's alcohol use. In addition, four out of every ten (44%) people had experienced harm (injury, harassment or intimidation) by their own or someone else's use of alcohol<sup>31</sup>. In the national lifestyle survey of college students (CLAN), harm to others besides the drinker was reported by many students. Almost two-thirds of male students and over half of female students reported that they had experienced at least one harm as a consequence of someone else's alcohol use (Table 3). The negative consequences experienced included social, physical and economic harm. Looking at the specific harms, the most common negative consequences were verbal abuse (29%), arguments with friends and family about alcohol (20%) and passenger with a drunk driver (18%)<sup>15</sup>. A greater number of male students in comparison to female students were likely to experience a range of negative consequences from someone else's alcohol use, with two exceptions - relationship problems and sexual assault.

*Table 3: Experiences of adverse consequences as a result of someone else's drinking, among college students*

<b>Harms</b>	<b>Males(N=1223)</b>	<b>Females(N=2023)</b>	<b>Total(N=3259)</b>
	%	%	%
1+ harm from others drinking	64.7	55.3	56.3
<b>Social harm</b>			
Verbally abused	37.3	24.7	29.4
Passenger with drunk driver	21.6	15.2	17.6
Arguments w friends/family	19.6	20.8	20.4
Relationship problems	12.6	15.9	14.7
Unprotected sex	8.9	4.4	6.1
Unintended sex	8.3	4.4	5.8
<b>Physical harm</b>			
Physically abused	17.5	5.8	10.2
Car accident	1.8	1.2	1.4
Sexual assault	0.8	1.3	1.1
<b>Economic harm</b>			
Property vandalized	18.7	8.4	12.3
Financial problems	8.5	5.8	6.8

*Source: Hope et al (2005) CLAN*

The Family Support Agency identified the use and abuse of alcohol and drugs as a cross cutting theme in a number of research studies on the family<sup>32</sup>. In a study on unhappy marriages, a significant minority of participants (38% of men and 21% of women) drank too much, sometimes or often<sup>33</sup> while a second study, by the same author, found that about one third of both men and women sometimes or often drank too much. A study using a large database (2,000 cases) of people who had accessed marital counselling services, accumulated over an eight year period, reported that 21% of men and 4% of women identified alcohol abuse as a problem in marriage/partner

relationships. The impact of alcohol abuse is not only felt by the spouse/partner relationship but can have a devastating effect on the children in such families. The report noted that many of the adult clients availing of the counselling services were ‘adult children of alcoholics’. The conclusion was that problem alcohol use can undermine the well-being of families<sup>34</sup>.

#### 4.6 Harm to children

Before the child is born, there is the potential to experience alcohol harm. Exposure of the foetus to alcohol during pregnancy increases the risk of damage to the baby, which can have long-term negative consequences. The research evidence suggests that no amount of alcohol can be considered safe. The Coombe Women’s Hospital study found that 63% of women reported alcohol use during pregnancy, of which 7% drank 6 or more drinks per week<sup>35</sup>. The potential for increased risk is evident in Ireland, given the substantial number of women (1.1 million) of child bearing years (15-49 years) in the population and the number of births in Ireland each year, 64,237 births in 2006<sup>36</sup>. Taking the number of births each year and the proportion of women drinking at high risk (Coombe figure of 7%), these figures would suggest that almost 4,500 children each year are at increased risk of harm from maternal alcohol use.

The impact on children from parental problem drinking has been highlighted by the agency Barnardos who are well placed, given their work, to observe some of the realities in Irish society. Barnardos reported that children in alcohol problem families can suffer from material deprivation such as lack of proper diet, lack of school books, clothes and toys due to the high family spend on alcohol<sup>37</sup>. Children can be both witnesses and victims of conflict, parental separation, assaults and domestic violence. Butler suggests that the impact of parental problem drinking on children can manifest itself in broader social and psychological disorders such as withdrawal and shyness, acting out in more aggressive ways, to under-performing at school or regressing back to earlier behaviours such as bed-wetting<sup>38</sup>. The impact can also be seen in child neglect often dealt with by child welfare professionals or the Gardaí who work with juvenile offenders or those working to keep children in school. However, individual vulnerability varies, as noted by Butler, where some children show great resilience and when aided by wider social networks help to mediate difficult circumstances. However, the two parallel service systems of addiction services, focused on the drinking parent, and child care specialists, focused on the child, can result in children within these families not getting the integrated service their require.

A report to the European Union on alcohol problems in the family, estimated the number of children aged under 15 years who are living with problem drinking parents, using a Danish medical survey as the lower estimate and a Finnish study as the upper estimate, for each Member State. The report estimated that between 61,000 and 104,600 children in Ireland are living in families adversely affected by alcohol<sup>39</sup>.

#### 4.7 Alcohol and the workplace

Alcohol use and abuse can impact on the workplace, in particular on absenteeism and its related costs. A survey undertaken in Ireland by IBEC (representing business and employer organisations) estimated that absence from work costs Irish businesses about €1.5 billion a year<sup>40</sup>. However, absence from work is not just an economic cost

but also a serious social issue, as noted by IBEC. The survey found that the average absence rate was 3.4% which was higher in manufacturing than in the service sector and highest in large companies in comparison to medium or small companies. Short-term absence from work was more common than long-term absence. The main cause of short-term absence, for both males and females, was minor illness. Alcohol and alcohol related illness was cited by 12% of companies as a cause of short-term absence for males and 4% for females. Some 40% of short-term absence occurred around the weekend. The main cause of long term absence was recurring health problems. Alcohol and alcohol related problems were perceived by 4% of companies as a cause of long-term absence for males and 2% for females. As concluded by IBEC, *“it is not unreasonable to suggest that alcohol and related problems are likely to be a significant cost to business”*.

**Box 2: Alcohol related harm to others in Ireland – Summary**

<b>Alcohol harm indicator</b>	<b>Summary of Findings</b>
Alcohol related street violence	<ul style="list-style-type: none"> <li>• The national household survey on crime and victimisation reported that the rate of physical assaults (excluding domestic violence or sexual assault) increased by 71% between 1998 and 2003.</li> <li>• In 2006, the CSO estimated that 37,100 adults experienced a physical assault, of which 15,600 were injured.</li> <li>• Of those injured 40% required medical attention but not a hospital stay and a further 14.5% required a hospital stay.</li> <li>• Young men (18-24) were the group most at risk.</li> <li>• Between 1995 and 2005, there were 116,876 recorded assault offences among adults where proceedings were taken.</li> <li>• Number of adult assaults increased by 93% between 1995 and 2002. In 2003 assaults offences decreased by 22% and a more modest decline continued to 2005.</li> <li>• Between 1995 and 2005, there were 13,411 recorded assault offences among juveniles (a 1:10 ratio for juvenile to adults).</li> <li>• Juvenile assault offences peaked in 2004 and declined in 2005.</li> </ul>
Homicide	<ul style="list-style-type: none"> <li>• A detailed examination of crime files showed that almost half (46%) of the perpetrators of homicide were intoxicated.</li> <li>• During the twenty five year period (1982-2006) homicide mortality rates generally increased over the period and peaked in 1998 followed by a decline for three years, but a steep increase was observed in 2006.</li> </ul>
Domestic violence	<ul style="list-style-type: none"> <li>• A national study on domestic violence reported that 11% of the population experienced severe abuse.</li> <li>• Two main triggers were identified, minor incidents/no specific trigger in 36% of cases and alcohol in 34% of cases. In one-quarter of severe abuse cases, alcohol was always involved.</li> </ul>
Alcohol related road injuries	<ul style="list-style-type: none"> <li>• Between 1990 and 2006, 40,851 people were injured during the time (9pm-4am) most associated with alcohol related accidents.</li> </ul>

	<ul style="list-style-type: none"> <li>• 1997 recorded the highest number of alcohol related injuries followed by a decline to a low in 2003 but a rise again in subsequent years.</li> </ul>
Harm to others – interpersonal	<ul style="list-style-type: none"> <li>• In a national survey, almost half (44%) of all respondents had experienced harm by their own or someone else’s use of alcohol.</li> <li>• Almost two-thirds of male college students and over half (55%) of females students reported that they had experienced at least one harm as a consequences of someone else’s alcohol use during the last year.</li> <li>• The Family Support Agency, identify the use and abuse of alcohol and drugs as a cross-cutting theme in a number of research reports on the family.</li> </ul>
Harm to children	<ul style="list-style-type: none"> <li>• The Coombe Women’s Hospital study found that 63% of women reported alcohol use during pregnancy, of which 7% drank 6 or more drinks per week.</li> <li>• Taking the number of births each year and those engaged in high risk drinking, these figures would suggest that at least 4,500 children each year are at increased risk of harm from maternal alcohol use.</li> <li>• A report to the European Union, estimated that between 61,000 and 104,600 children in Ireland are living in families adversely affected by alcohol.</li> </ul>
Alcohol and the workplace	<ul style="list-style-type: none"> <li>• A survey by IBEC reported that alcohol and alcohol related illness was cited by 12% of companies as a cause of short-term absence from work for males and 4% for females.</li> </ul>



## 5.0 Summary and Conclusions

Since the early 1990s, there has been a dramatic increase in alcohol related harm in Ireland, with the increase most pronounced in the period 1995 to 2002. The vast majority of alcohol harm to the drinker is experienced by the adult population in Ireland. However, alcohol harms experienced by people other than the drinker are important social problems and affect family wellbeing and public safety. The increase in alcohol related harm was observed across a range of health and social harm indicators, sixty indicators were examined for this report.

### 5.1 Alcohol related harm

The health affects of alcohol harm were evident in the increasing number of people treated in hospitals for acute and chronic alcohol conditions. While acute alcohol problems are more prevalent in young adults, chronic alcohol conditions have also increased among young adults and more women than before are now affected by alcohol. The projected increase in new cases of alcohol related cancers up to 2020, is worrying because much of the increase will come from young and middle aged drinkers and to a lesser extent from the expected ageing population change, as will be the case with most other cancers. Treatment centres recorded many new cases and young faces requesting treatment, who had never previously been treated for problem alcohol use. Alcohol related mortality showed increases. A number of Irish survey studies reported a clear link between alcohol use and unprotected sexual behaviour, which is particularly prevalent among younger adults. Unsafe sex increases the risk of crisis pregnancy and sexually transmitted infections. Survey reports also documented the negative personal and social consequences experienced by the drinker as a result of their own drinking. The harms were more prevalent among males than females and among younger adults, students and adolescents, with some exceptions. The dramatic increase in health harms were also observed in social harms such as drunkenness in public, public disorder and drunk driving for the same period, mid 1990s to 2002.

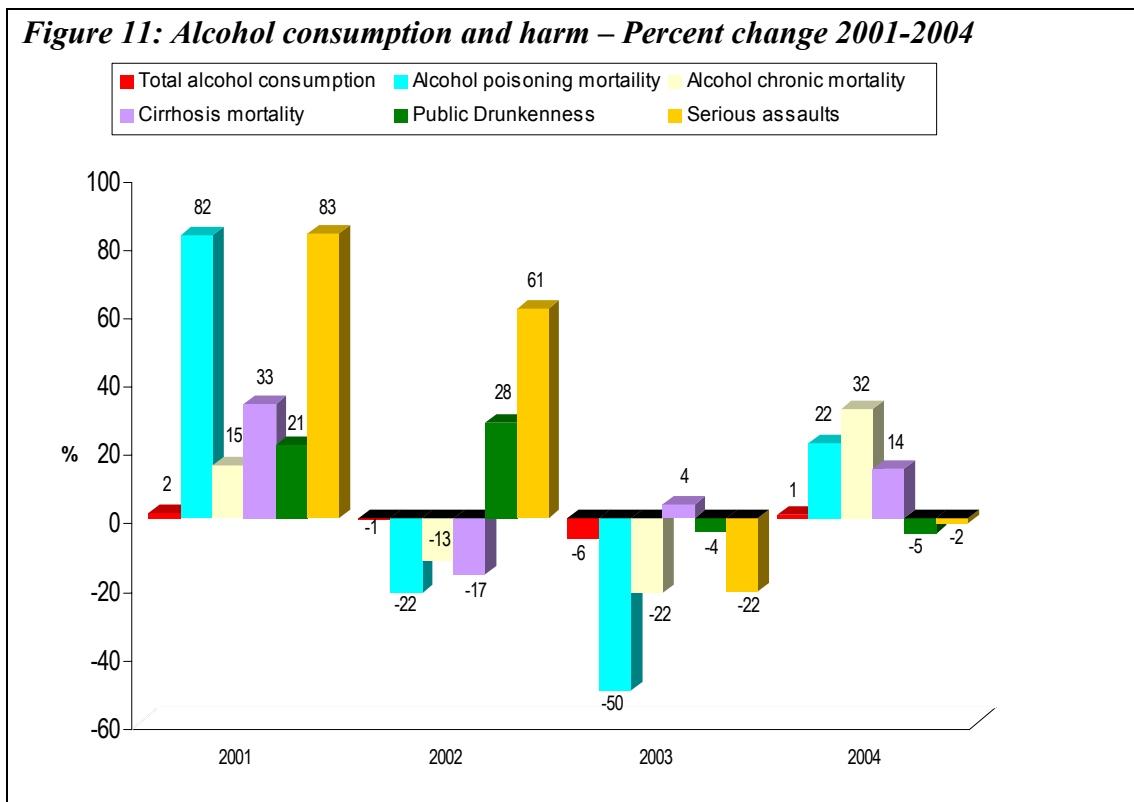
Alcohol harm is not confined to the drinker but extends to the family, community and wider society. Harm to others in Ireland is demonstrated in a number of key areas. Public violence in the form of increases in physical assaults, homicide and alcohol related road injuries were recorded. The negative role of alcohol in family well-being was documented in a number of Irish studies, where alcohol has the potential to contribute to domestic violence, relationship and marriage problems and impact on the most vulnerable, children. The risk of harm to the baby from maternal drinking has increased given the levels of risky drinking in Ireland.

### 5.2 The relationship between alcohol consumption and harm

There is evidence to suggest that alcohol harm responds to changes in alcohol consumption (Figure 11). In 2001, alcohol consumption increased as did alcohol mortality and social harm indicators, a relationship observed since the mid 1990s. Following an increase in excise duty on cider in 2002, overall consumption marginally decreased reflecting its small market share. However, in 2003 spirits consumption dropped significantly, due to a substantial increase in excise duty, resulting in a six percent decrease in overall alcohol consumption. Alcohol poisoning and alcohol chronic mortality decreased in 2002 and 2003, but increased again in 2004. Drunkenness, public disorder and assaults declined in 2003 and 2004. However,

the trend for social harm indicators in 2005 is upwards and data for the health indicators are not yet available for 2005.

**Figure 11: Alcohol consumption and harm – Percent change 2001-2004**



### 5.3 Implications for policy makers

This report paints a grim picture of the increasingly negative role played by alcohol in Irish society. This has major implications for policy makers, especially in the areas of health, justice and social policy. The dramatic increase in alcohol related harm does not bode well for the future health and well-being of the population in Ireland. Ireland is moving in the wrong direction, alcohol harm must be significantly reduced to, at a minimum, the pre 1995 levels. The Strategic Task Force on Alcohol (STFA) provided the template for reducing alcohol related harm in Ireland based on the scientific evidence. The HSE has endorsed the public health approach and recommendations of the STFA. However, there is no national structure in place to implement the Strategic Task Force on Alcohol recommendations, unlike drugs and tobacco. There is no implementation plan with measurable targets and time-lines. Alcohol related harm is complex and multifaceted. Alcohol related harm will not be reduced unless action is taken. Delaying the necessary action increases the growing burden of harm for everyone in society. The following actions are urgently required.

1. Effective Policy - A set of integrated policies, based on effectiveness and cost effectiveness in reducing alcohol related harm.
2. National Structure - an agency or body taking responsibility for alcohol policy implementation, such as happens with drugs and tobacco.
3. Quality data systems – effective monitoring of alcohol related harm needs quality data gathering across a range of alcohol harm indicators and many gaps still exist.

## 6.0 Appendices

### Appendix 1

#### *T1: Alcohol related health effects - Wholly alcohol attributable diseases*

Condition	ICD-9	Attributable fraction
Alcoholic psychosis	291	1.0
Alcohol dependency syndrome	303	1.0
Alcohol abuse	305	1.0
Alcoholic polyneuropathy	357.5	1.0
Alcoholic cardiomyopathy	425.5	1.0
Alcoholic gastritis	535.3	1.0
Alcoholic liver cirrhosis	571.0-571.3	1.0
Excess blood alcohol	790.3	1.0
Ethanol and methanol toxicity (acute)	980.0-980.1	1.0
Accidental alcohol poisoning (acute)	E860	1.0

Source: Rehm, *Global Status Report on Alcohol 2004*, WHO

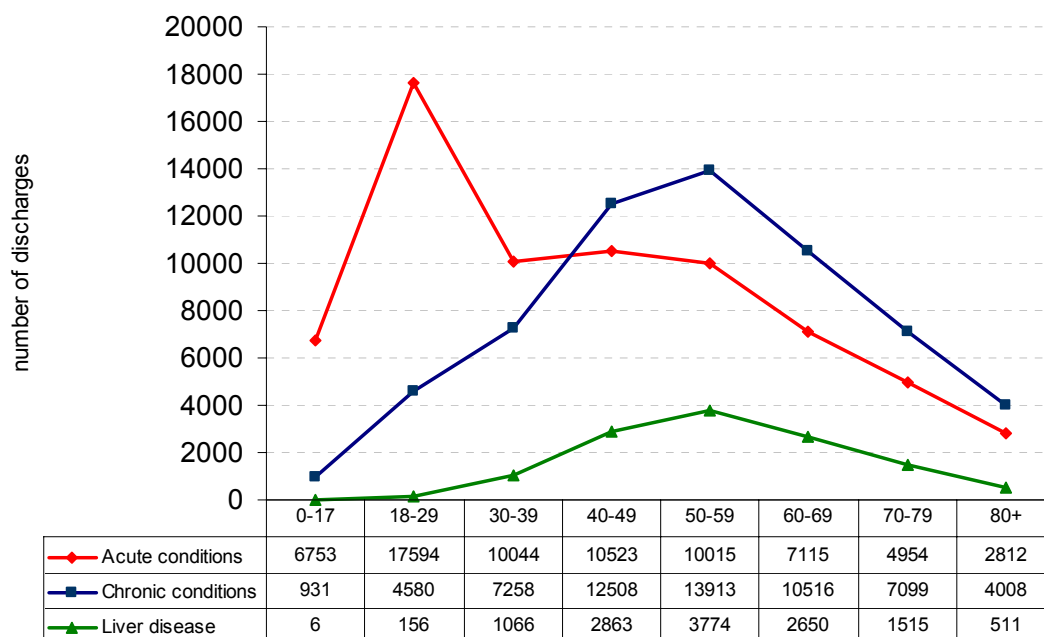
#### *T2: Alcohol related health effects with attributable fractions of $\geq 0.25$*

Injury	ICD-9	Attributable fraction
Motor vehicle traffic accidents	E810-E819	0.42
Motor vehicle non-traffic accidents	E820-E825	0.42
Accidental fall injuries	E880-E888	0.35
Arson injuries	E890-E899	0.38- 0.45
Accidental excessive cold	E901	0.25
Accidental drowning	E910	0.34
Accidental aspiration	E911	0.25
Suicide, self inflicted injuries	E950-E959	0.28
Victim, fight, brawl, rape	E960	0.27 – 0.47
Victim assault firearms	E965	0.27 – 0.47
Victim assault cutting instrument	E966	0.27 – 0.47
Victim assault other	E968	0.27 - 0.47
Late effects of injury by another	E969	0.27 - 0.47

Source: *Global Status Report on Alcohol 2004*, WHO

**Appendix 2**

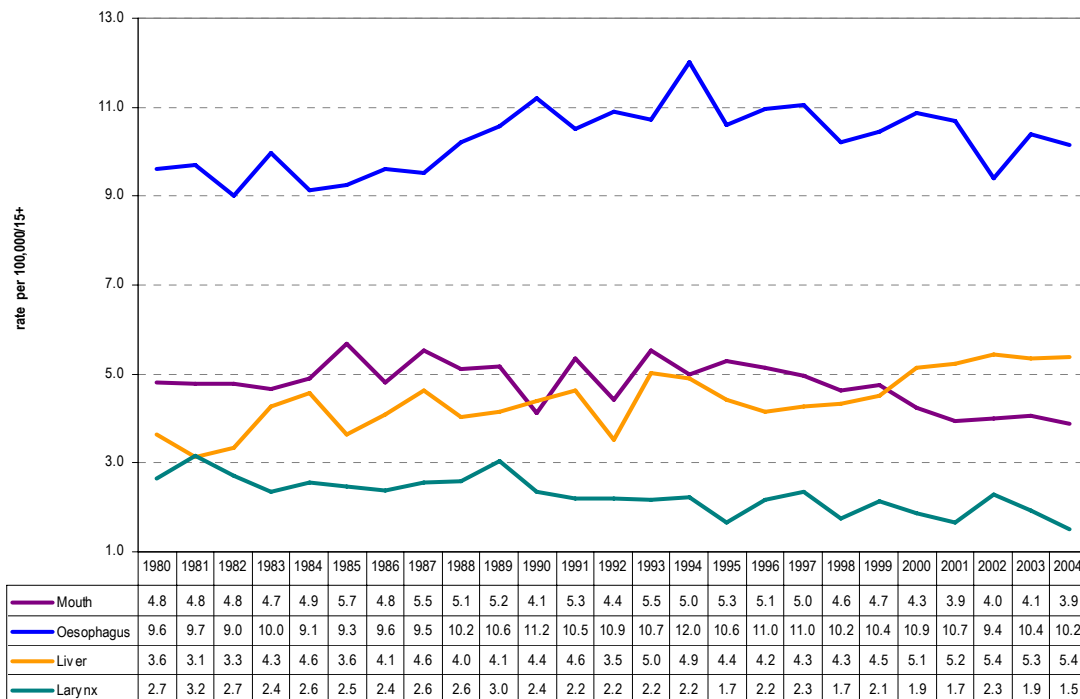
**F1: Hospital Discharges by type of alcohol-related condition and age**



Source: Mongan et al (2007). Overview: Health-related consequences of problem alcohol use. HRB

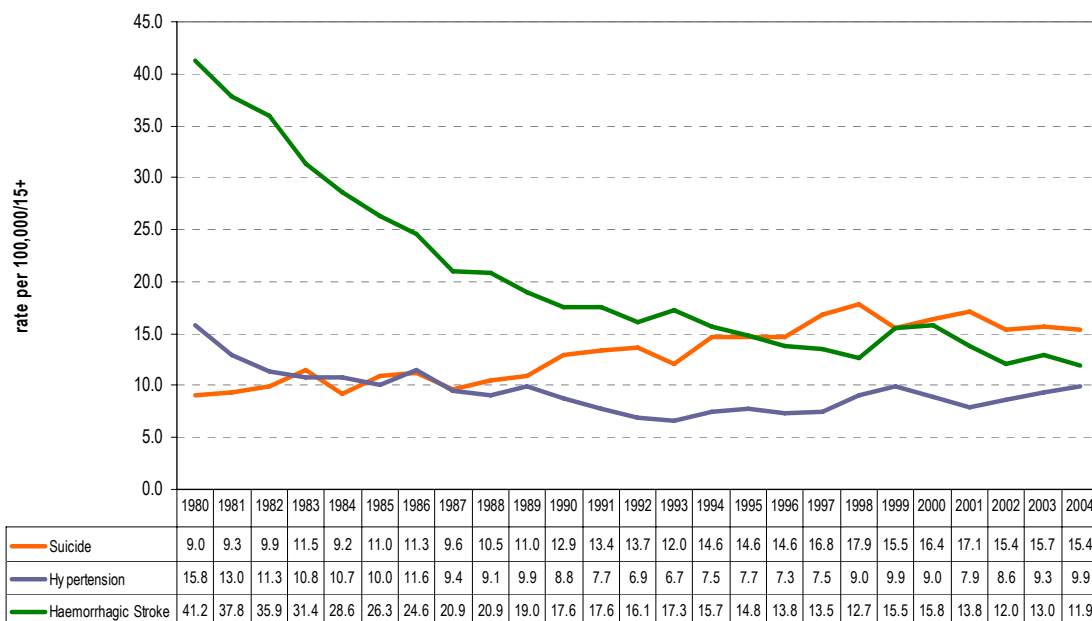
**Appendix 3**

**F2: Alcohol related Cancer Mortality, 1980-2004**



Source: Annual Reports on Vital Statistics, CSO

**F3: Mortality associated with alcohol, 1980-2004**



Source: Annual Reports on Vital Statistics, CSO

**Appendix 4**

***T3: Alcohol related road deaths***

Year	Total persons killed	<b>Killed 9pm-4am</b>	% of all those killed	Total no of fatal crashes	<b>No of fatal crashes 9pm-4am</b>	% of all fatal crashes
1990	478	<b>181</b>	37.9	432	<b>163</b>	37.7
1991	445	<b>156</b>	35.1	402	<b>133</b>	33.1
1992	415	<b>159</b>	38.3	384	<b>142</b>	37.0
1993	431	<b>151</b>	35.0	394	<b>136</b>	34.5
1994	404	<b>139</b>	34.4	371	<b>125</b>	33.7
1995	437	<b>144</b>	33.0	405	<b>130</b>	32.1
1996	453	<b>164</b>	36.2	415	<b>149</b>	35.9
1997	472	<b>165</b>	35.0	424	<b>146</b>	34.4
1998	458	<b>159</b>	34.7	408	<b>137</b>	33.6
1999	413	<b>132</b>	32.0	374	<b>119</b>	31.8
2000	415	<b>147</b>	35.4	362	<b>125</b>	34.5
2001	411	<b>130</b>	31.6	360	<b>110</b>	30.6
2002	376	<b>144</b>	38.3	346	<b>133</b>	38.4
2003	335	<b>105</b>	31.3	301	<b>92</b>	30.6
2004	374	<b>118</b>	31.6	334	<b>100</b>	29.9
2005	396	<b>128</b>	32.3	360	<b>110</b>	30.6
2006	368	<b>140</b>	38.4	321	<b>112</b>	34.9

*Source: Annual Reports, National Road Authority and Road Safety Agency*

Appendix 5

**T4: List of Public Order Offences**

Prior to CJPOA Offences	Criminal Justice Public Order Act 2004 offences
Drunkenness simple	Intoxication in public place (section 4)
Drunkenness aggravated	Disorderly conduct in public (Section 5)
Dublin Police Acts	Threatening, abusive behaviour etc (section 6)
Summary Jurisdiction (Ireland) Act 1851	Failure to comply with Garda direction (Section 8)
	Entering building with intent (section 11)
	Control of access to special events
	Surrender/seizure of alcohol (section 22)
	Other offences
	<i>By far the two largest categories are section 4 and section 6</i>

**T5: Total Public order offences 1988 – 2005**

Year	Pre Criminal Justice Public Order Act 2004*	Post Criminal Justice Public Order Act 2004**
1988	7598	
1989	8639	
1990	8529	
1991	8,783	
1992	9,040	
1993	11,011	
1994	8,153	
1995	3,916	10,209
1996	2,718	16,384
1997	2,660	25,755
1998	2,512	27,945
1999	2,484	30,993
2000	2,323	37,749
2001	1,480	42,754
2002		56,822
2003		53,488
2004		51,099
2005		54,565

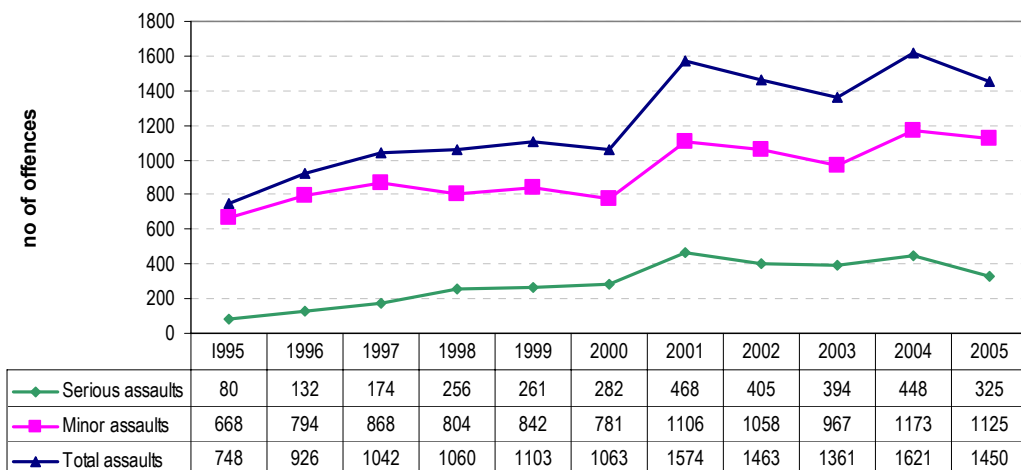
\* National Crime Council Report (2003). Public Order Offences in Ireland

\*\* An Garda Síochána Annual Reports



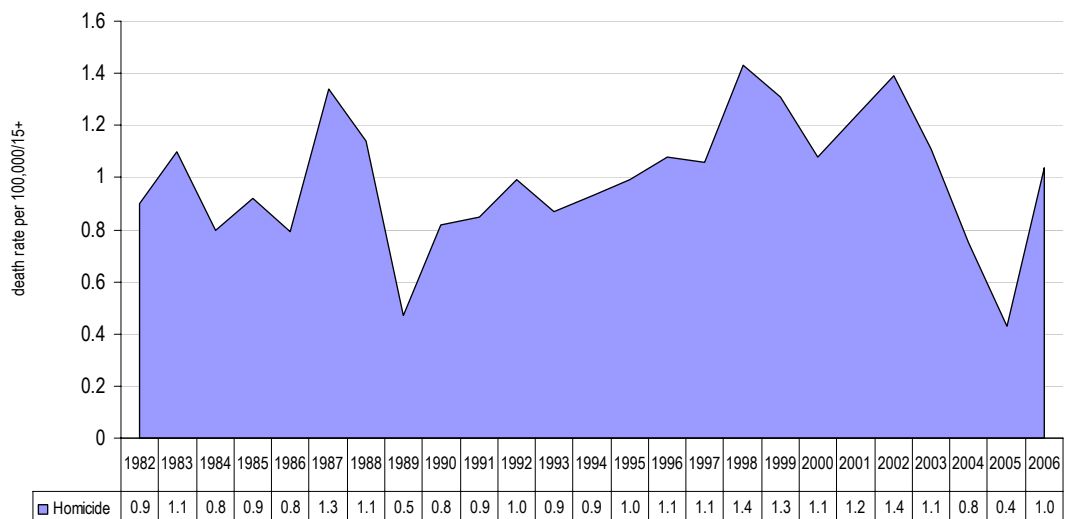
**Appendix 6**

**F4: Juvenile Assault Offences in Ireland 1995-2005**



Source: An Garda Síochána Annual Reports

**F5: Homicide mortality in Ireland, 1982-2006**



Source: CSO, Vital statistics Annual Reports

**Appendix 7**

***T 6: Alcohol related road injuries***

Year	Total no of persons injured	Persons Injured 9pm-4am	% of all persons injured
1990	9,429	2554	27.1
1991	9,874	1492	25.2
1992	10,188	2447	24.0
1993	9,831	2287	23.3
1994	10,229	2306	22.5
1995	12,673	2869	22.6
1996	13,319	2984	22.4
1997	13,115	3155	24.1
1998	12,773	2908	22.8
1999	12,340	2625	21.3
2000	12,043	2554	21.2
2001	10,222	2179	21.3
2002	9,206	2026	22.0
2003	8,262	1716	20.8
2004	7,867	1721	21.9
2005	9,318	2163	23.2
2006	8575	1865	21.7

*Source: Annual Reports, National Road Authority*

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