Abstract

Aim

The aim of these studies was to identify common contributory factors to injury and poisoning mortality among young men.

Hypotheses

Phase I

There are common contributory factors to accidents and suicide among young men aged 15 to 39 in Merseyside and Cheshire.

Phase II

Young men who die through accidents and suicide in Liverpool, follow a common pathway of risk taking and self-destructive behaviour which is related to the ways in which they construct their masculinities.

Methods

Phase I

Phase I examined Coroners' inquest notes, General Practitioner (GP) records and hospital records of 268 men aged 15 to 39 years who died from violent death in Merseyside and Cheshire during 1995. Data were then analysed to identify common contributory factors and factors discriminating between these different causes of death.

Phase II

The life histories of 24 young men aged 15 to 39 years who died of accidents and suicide in Liverpool during 1995 were collated through interviews with relatives and friends of the deceased and added to the data collected for these individuals during Phase I. Data were then analysed to examine any common pathways to death in relation to the ways these men constructed their masculinities.

Results

Phase I

Common predisposing factors to accidents and suicide included drug and alcohol use, unemployment, risk taking and self-destructive behaviour. Factors distinguishing suicide verdicts included active method of death, expressed intent, uncharacteristic change in behaviour, deliberate self-harm and previous suicide attempt. Risk taking was significantly associated with an accident verdict.

Phase II

The narratives suggested that the cases fell into three main groups or clusters. The first cluster included drug users who exhibited protest masculinity and whose behaviour was so self-destructive that it led to death, but showed no evidence of intention; the second cluster included suicidal men who perceived themselves as failing in the most fundamental areas of complicit hegemony, such as the workplace and relationships with women; and the final cluster included two cases in which there was no reported pathway of risk taking or self-destructive behaviour.

Conclusion

There are both common and distinguishing factors to accidents and suicide among young men. Many of these factors may be amenable to prevention. Risk taking and self-destructive behaviour are important pre-disposing factors and appear to be related to the ways in which young men, particularly those who are marginalised, construct their masculinities. Changes to health promotion and public health policies are needed which take into account the impact of gender and social inequalities on the health behaviours of young men.

Deaths from suicide and self-destructive behaviour among young men

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor of Philosophy by Deborah Lynn Stanistreet

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Liverpool:
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But mostly;
I wish to remember the young men whose abbreviated lives this thesis represents. All were sons, many were fathers, brothers, uncles, and friends. Each young life tells a different story, but for those closest to them, each shortened life was a devastating and irreplaceable loss.

To Jamie

For teaching me the fragility and preciousness of human life.
I am privileged to have you as my son.

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Executive summary

Introduction

While death rates for both sexes have fallen over the last 150 years, male mortality rates have exceeded female rates at all times. Despite this, men's health as an area of public health concern has until recently, received little attention. Investigations into mortality trends among men and women in England and Wales during the 1980's have shown that, whereas trends for women aged 15 to 39 demonstrated a slight decline, trends among males aged 15 to 39 showed an upturn in death rates from the mid-'eighties onwards. Whilst there were clear and consistent decreases in cancer, heart disease, cerebrovascular disease and accidents, these were more than cancelled out by increases in suicides, open verdicts, and other causes of death (Dunnell 1991).

The fact that accident and suicide trends have moved in opposite directions over the past twenty years, implies that the predisposing factors for suicide and accidental death are unrelated. However, a closer examination of the literature suggests there may be common contributory factors relating to risk taking and self-destructive behaviour in accidents and suicide among young men. A more detailed analysis of death trends from injury and poisoning[1], in conjunction with an examination of the way in which Coroners define suicide and accidental death, suggests that the relationship between these deaths may indeed be more complex than the current practice of defining cause of death implies. Also, some authors suggest that the damaging impact of masculinities may be the reason for the sex differences in health (Harrison 1978, Harrison, et al. 1995) and that male socialisation into aggressive behavioural patterns is related to the higher death rate among men from external causes (Waldron 1976). This thesis examines mortality trends among young men. In particular, it aims to identify common contributory factors to injury and poisoning mortality among young men in Merseyside and Cheshire in order to contribute to the development of strategies aimed at reducing their risk taking and self-destructive behaviour.

Methods

The studies in this thesis are divided into three parts, - Preliminary studies, Phase I and Phase II.

Preliminary studies
Preliminary investigations were carried out to examine the differences in mortality trends between men and women and also recent trends due to suicide and accidents among young men in England and Wales.

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[1] Injury and poisoning deaths are also referred to as violent deaths. They include accidents, suicides, homicides and those deaths where the cause is undetermined.

Phase I
Phase I was a quantitative investigation to identify common contributory factors and factors discriminating between deaths among 15 to 39 year old men dying from accidents and suicide in Merseyside and Cheshire during 1995 (n = 268). Data sources included Coroners' inquest notes, General Practitioner (GP) records and hospital records. It aimed to test the following hypothesis;

There are common contributory factors to injury and poisoning mortality and in particular, accidents and suicides, among young men aged 15 to 39 in Merseyside and Cheshire.

Phase II
Phase II was a qualitative study that examined the concept of risk-taking and self-destructive behaviour focusing on the life histories of young men aged 15 – 39 years who died of accidents and suicide in Liverpool during 1995. The principal technique used to collect data was psychological autopsy, a method of collecting information on someone who has died using available documents and information provided through interviews with relatives and friends of the deceased. In particular, it examined the way in which these young men constructed their masculinities, to identify if this contributed to their demise by testing the following hypothesis:

Young men who die through accident and suicide in Liverpool, follow a common pathway of risk taking and self-destructive behaviour which is related to the ways in which they construct their masculinities.

Results

Preliminary studies
Preliminary studies demonstrated that the mortality ratio for male and female deaths between the ages of 15 and 39 years has increased significantly over the past one hundred and fifty years. More recent mortality data showed an increase nationally in suicides and undetermined deaths among men aged 15 to 39 years since 1975 but a significant decrease in accidental death rates. Among young men in Merseyside and Cheshire, there was an increase in suicide rates among the younger age groups (15 to 35 years) but a decrease in accidental death rates except for 25 to 34 year olds.

Phase I
Common contributory factors and also distinguishing factors were identified among accidental deaths and suicides. Common factors included drug and alcohol use, risk taking and self-destructive behaviour, and unemployment. Factors distinguishing suicide verdicts included active method of death, expressed intent, uncharacteristic change in behaviour, deliberate self-harm and previous suicide attempt. Risk taking was significantly associated with an accident verdict. Also among the drug users, those using more harmful substances such as opiates and methadone were more likely to receive an accident verdict.

Phase II

The narratives suggest that the cases fell into three main groups or clusters. Two of these clusters constructed pathways relating to risk taking and self-destructive behaviour that led to their deaths. The first cluster included drug users who exhibited protest masculinity and whose behaviour was so self-destructive that it led to death, but showed no evidence of intention; the second cluster, included suicidal men who perceived themselves as failing in the most fundamental areas of complicit hegemony, such as the workplace and relationships with women. The final cluster included two cases in which there was no reported pathway of risk taking or self-destruction.

Conclusion

This research has highlighted the growing problem of violent death among young men and has identified both common and distinguishing factors to accidents and suicide, many of which may be amenable to prevention. In particular, risk taking and self-destructive behaviour especially among marginalised young men are important contributory factors, and appear to be related to the ways in which young men construct their masculinities.

More research is needed to identify how these findings can inform policy development to promote the health of young men both in Merseyside and further afield. Specifically, evidence based health promotion and health service policies are needed which moderate the influence of risk taking and self-destructive behaviours. These policies need to take into account the impact of gender and social inequalities on health behaviours, if they are to successfully promote the health of young men. In particular, it is recommended that the policies address the health needs of those young men who are marginalised and at highest risk of violent death.

Chapter 1 Background

1.1 Mortality of men and women 1841 - 1990

As a result of enormous improvements in public health, preventive medicine, and medical advances, crude death rates[2] in England and Wales have fallen steadily since the mid-nineteenth century, from 23.3 per thousand population in 1846 to 1850, to 11.4 per thousand in 1986 to 1990 (OPCS 1993). Over the same period, Standardised Mortality Ratios[3], which take into account differences in age distribution, (based on 1951 to 1955 as 100) have fallen from 369 (1846 to 1850) to 70 (1986 to 1990). Nevertheless, whilst death rates for both sexes have decreased, male mortality rates have always exceeded female mortality rates.

1.2 Men's health

Despite higher male mortality rates, men's health as an area of public health concern has, until recently, received little attention. However during the 'nineties, there has been a growing interest in this area. In 1992, the Chief Medical Officer devoted an entire chapter of his report to highlighting the potential for improving the health of men (Calman 1992). Encouraged by the commitment of some of the more visionary public health leaders in the United Kingdom (UK), academic, media and public interest has since grown considerably. In his 1994 West Midlands Regional Health Authority Public Health Annual Report (Griffiths 1994), Professor Rod Griffiths maintained that many men were dying unnecessarily and summarised this by stating;

> 'The most important new conclusion that we have reached is that something needs to be done about the health of men.'

Griffiths, R. 1994, Agenda for Health. Report of the Regional Director of Public Health. West Midlands Regional Health Authority.

In addition, The Regional Director of Public Health for Mersey, Professor John Ashton, in his 1994 report (Ashton 1994), highlighted the need to identify the causes of premature death in young men as a priority action area. Consequently, funding was made available to investigate mortality among young men in Merseyside and Cheshire, and these studies were undertaken following this initial investigation.

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[2] Crude death rates express the number of deaths as a proportion of the population in question.

[3] Crude death rates do not take account of differences in age distribution. A Standardised Mortality Ratio (SMR) is a summary measure of mortality that allows comparison of death rates by taking into account the differences in the age distribution of different populations. The SMR is expressed as a ratio of the standard death rate.

1.3 Recent mortality trends among young men

Dunnell (1991) analysed mortality trends among men and women in England and Wales during the 1980's and found that death rates declined throughout this period for most age and sex groups. However, for both men and women aged 15 to 44, the decline in crude death rates during the early 1980's ceased in 1985 and rates rose in subsequent years.

When death rates were standardised to take into account changes in the population structure, Dunnell found that, whereas trends for women aged 15 to 39 demonstrated a slight decline during the 'eighties, trends among men aged 15 to 39 showed an upturn in death rates from the mid-'eighties onwards. In contrast, death rates for the 40 to 44 year age group had in fact declined. This is illustrated in Figure 1.1 (Death rates were combined for three year periods to overcome fluctuations resulting from small numbers of deaths. These rates were then expressed as a percentage change from the 1978 - 1980 baseline, showing an increase in death rates among 15 to 39 year old men and a decline in death rates among 40 to 44 year old males).

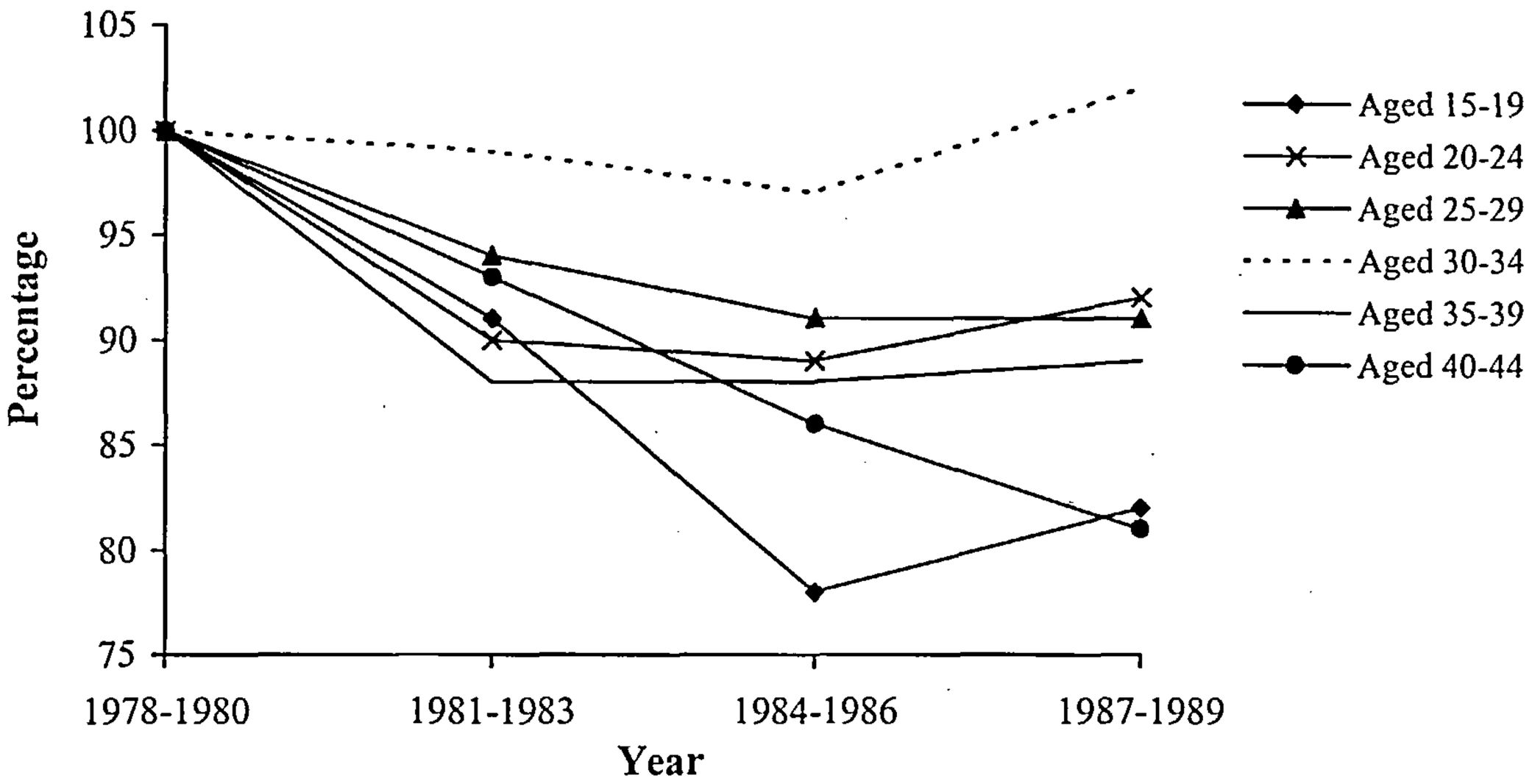

Figure 1-1: Percentage change in age specific death rates among men over the age range 15 to 44, 1978 to 1989, England and Wales

Source: Dunnell K. (1991) Deaths among 15 - 44 year olds. Population Trends. Summer.

These findings are also supported by Tickle (1996) who found that between 1982 and 1992 male mortality among young adults increased, whereas all other mortality rates declined.

While Dunnell showed an overall national increase in mortality among 15 to 39 year old men during the 'eighties, examining data by region demonstrated considerable geographical variation in this trend. Percentage change in death rates between 1984 to 1986 and 1987 to 1989 for men aged 15 to 39 by region is shown in Figure 1.2 below.

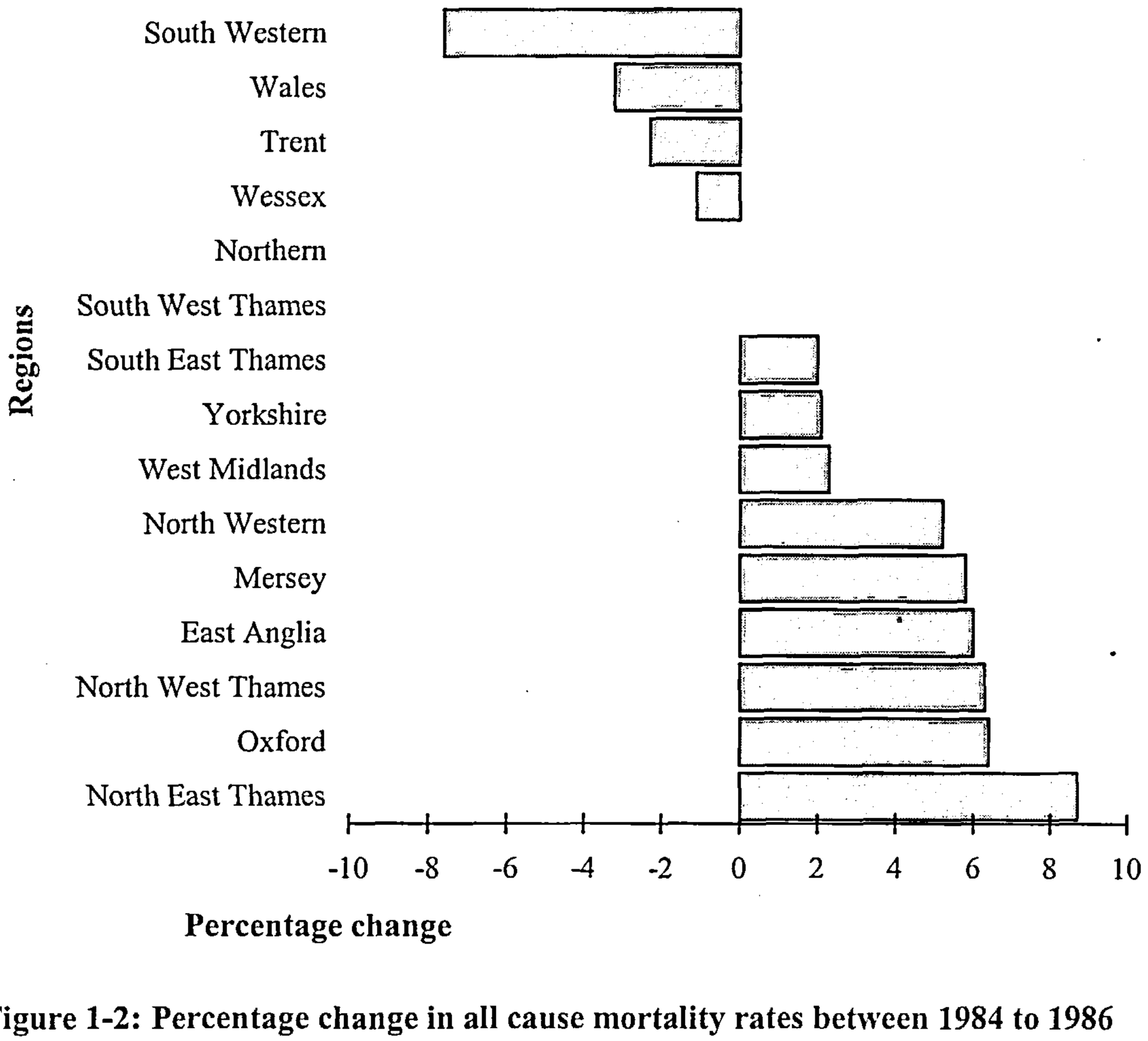

Figure 1-2: Percentage change in all cause mortality rates between 1984 to 1986 and 1987 to 1989 among men aged 15 to 39 years

Source: Dunnell K. (1991) Deaths among 15 - 44 year olds. Population Trends. Summer.

North East Thames had the highest percentage increase in mortality among the regions in England. It is likely that this can largely be attributed to an increase in the number of AIDS related deaths in this area (McCormick 1989). Five further regions

had an increase of greater than 5% in death rates. Of these regions, North West Thames and North Western region can also be largely attributed to the increase in AIDS related deaths. However, Oxford, East Anglia and Mersey Region have low levels of HIV prevalence, and there is no evidence of an increase in AIDS related deaths among young men in these regions. Dunnell suggests that these increases were due to a rise in suicides and deaths from undetermined causes, whereas deaths from accidents were reported to have decreased during the same time period.

1.4 Causes of mortality among young men in England and Wales

Fig 1.3 shows the main causes of death from all causes for men aged 15 to 39 in England and Wales during 1995 according to the Ninth Revision of the International Classification of Diseases (ICD). ICD codes are given in brackets.

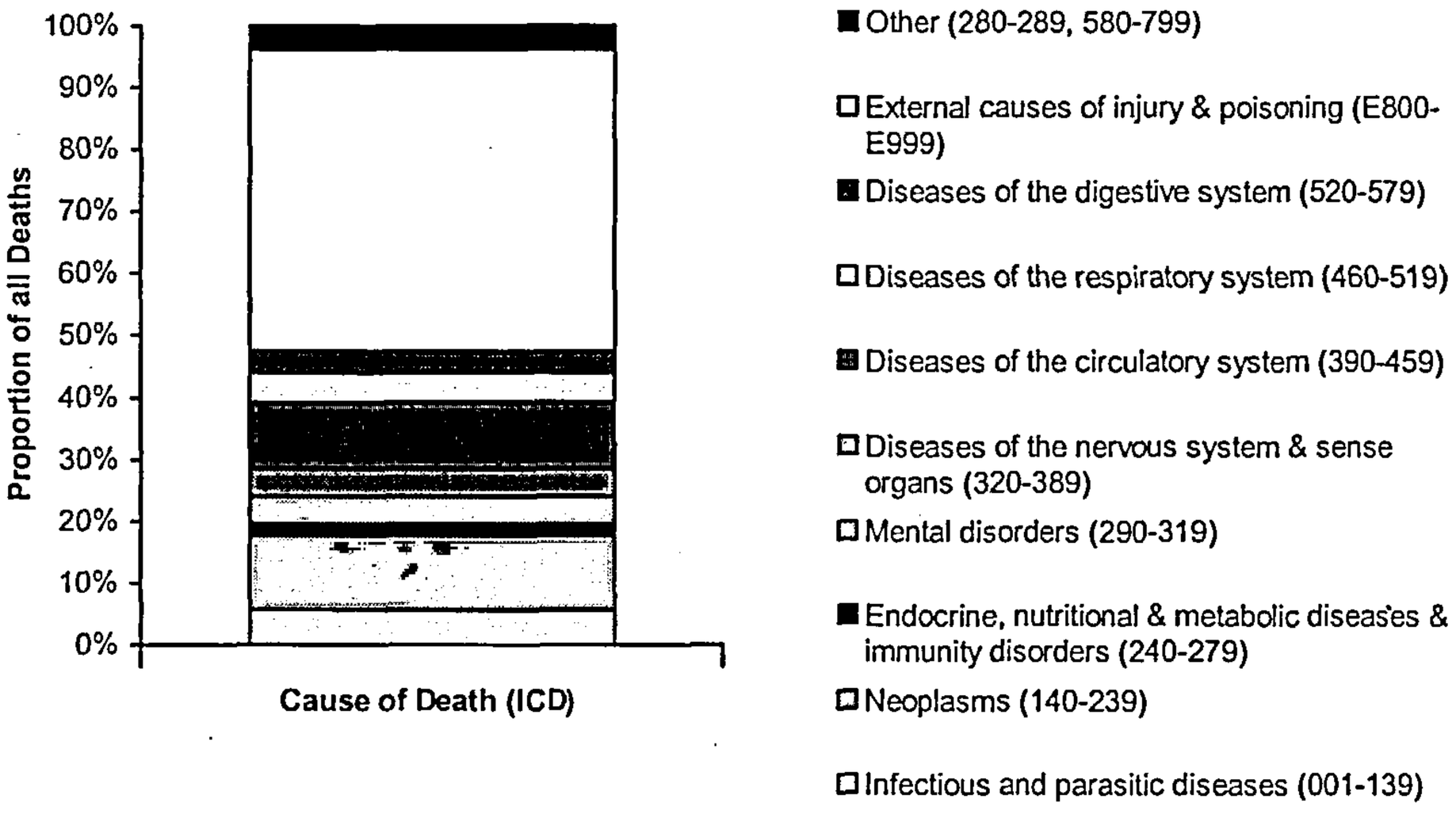

Figure 1-3 Causes of mortality among men aged 15 to 39 years, in England & Wales, during 1995

Source: OPCS. DH2 Mortality Statistics. Cause. 1995.

The major cause of death among 15 to 39 year old men in England and Wales is injury and poisoning. Deaths due to injury and poisoning can be broken down into subsets of Accidents and Adverse Effects, Suicides, Homicides and those deaths where the cause is undetermined. All other deaths are termed natural deaths, that is, due to natural causes or resulting from disease processes. Injury and poisoning deaths accounted for nearly half (48%) of all deaths that occurred among young men in England and Wales in 1995, followed by neoplasms (12%) and diseases of the circulatory system (11%).

The most common cause of death among men aged 15 to 39 in England and Wales from external causes is accidents (50.6%), followed by suicides (30.8%), deaths due to undetermined causes (15.5%) and homicides (3%).

Fig 1.4 shows accidents, suicides, undetermined deaths and homicides as a proportion of all injury and poisoning deaths among men aged 15 to 39, in England and Wales in 1995.

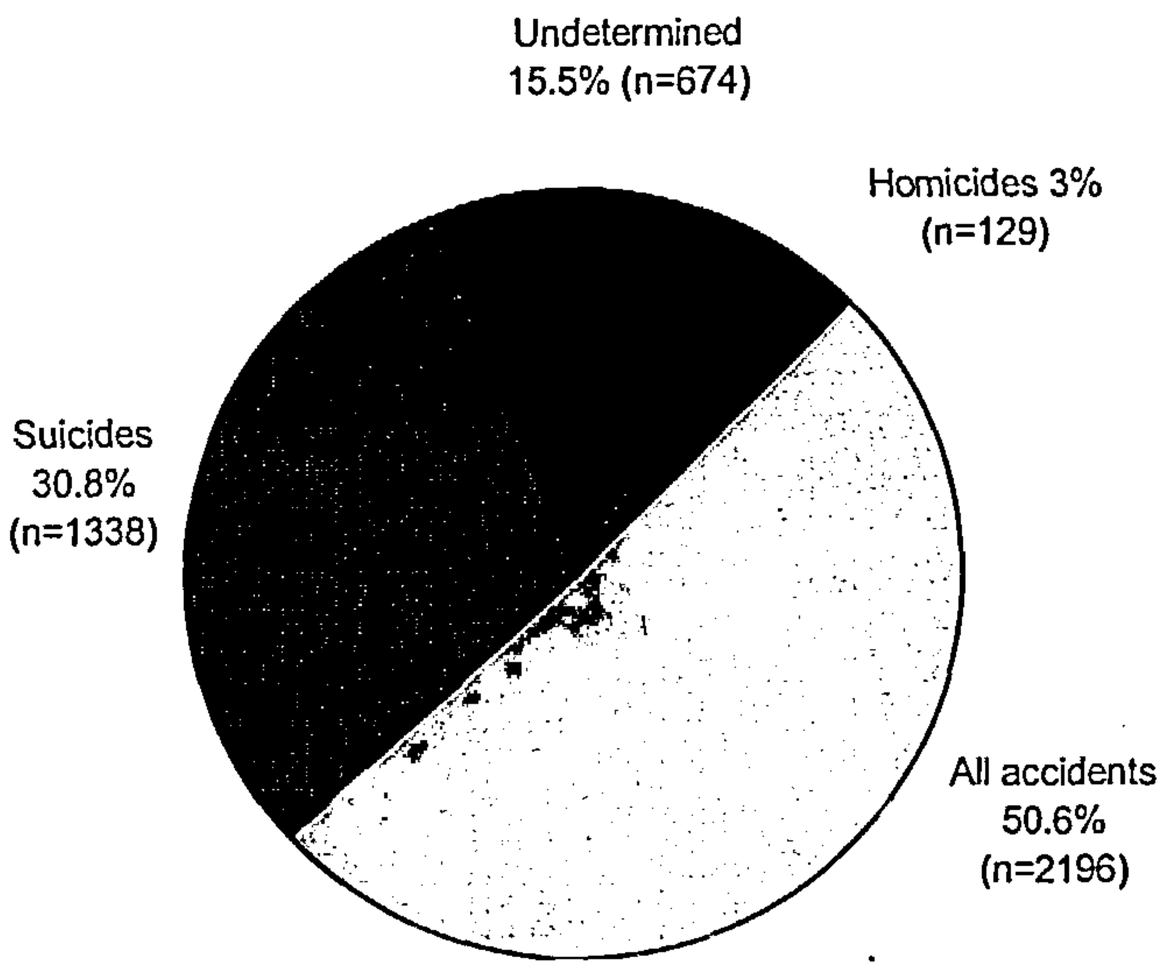

Figure 1-4 Accidents, suicides, homicides and undetermined deaths as a percentage of all injury and poisoning deaths among men aged 15 to 39 in England & Wales, 1995.
Source: OPCS. 1995 Mortality Statistics: Cause. Series DH2.

1.5 The relationship between accidents and suicides

The fact that accident and suicide trends have moved in opposite directions over the past twenty years, implies that the predisposing factors for suicide and accidental death are unrelated. However, a closer examination of the literature identified a number of studies that suggested a relationship between suicide and accidental death. Some studies also challenge the concept that self-destructive behaviour could be categorised as being either intentional or unintentional, suggesting rather that there are degrees of intention and non-intention. The authors suggest that self-destructive behaviour would be more appropriately viewed on a continuum (Selzer and Payne 1962, McDonald 1964, Pokorny et al 1972, Schmidt et al 1977, Holinger 1981). Therefore, the practice of categorising deaths as either suicides or accidents could be misleading, since the differentiation between the two types of death could be difficult to apply in practice. In addition, there is also a small literature which examines men's health in a broader context. This literature suggests that the

damaging impact of masculinities may be the reason for the sex differences in health (Harrison 1993, Harrison, et al. 1995) and that male socialisation into aggressive behavioural patterns is related to the higher death rate among men from external causes (Waldron 1976).

The following studies were therefore established to investigate the relationship between suicide and accidental death among young men. This research combined both quantitative and qualitative methods to bridge the macro (population based) and micro (individual accounts) aspects of violent death among young men in Merseyside and Cheshire. The principal aim of phase I was to investigate common contributory factors among 15 to 39 year old men dying from accidents and suicide in Merseyside and Cheshire during 1995. The literature suggests that there may be common contributory factors relating to risk taking and self-destructive behaviour in deaths from accidents and suicide among young men. However, the precise nature of these factors has not previously been identified, since studies carried out to date have generally treated these causes of death as being separate and unrelated. By examining Coroners' inquest notes, General Practitioner (GP) records and hospital records, it is possible to identify those factors which are common to both types of death and those factors which are most likely to discriminate between the categories of suicide, accident or undetermined death.

A qualitative study was included in the research (Phase II), to examine the impact of masculinities on suicide and accidental deaths. This study explored the concept of risk-taking and self-destructive behaviour focusing on the life histories of young men who died of accidents and suicide in Liverpool during 1995. The principal technique used to collect data was that of psychological autopsy, incorporating both structured and semi-structured interview techniques with relatives and friends of the deceased.

Chapter 2 Suicide and accident trends in England and Wales

2.1 Suicide

Although suicide accounts for only 2% of all male deaths and 1% of all female deaths, it is a common cause of death among young people. As a result, it accounts for 8.5% and 3.8% of years of life lost before age 65 among males and females respectively (Charlton et al. 1992). During 1995, 2363 deaths in England and Wales were registered due to suicide and undetermined causes[4], 1459 males and 904 females (OPCS 1997). An analysis of suicide trends has been published in the OPCS series 'Population Trends' describing trends in suicide deaths in England and Wales (Charlton et al. 1992). The findings of this paper are summarised below.

Rates of suicide among males in England and Wales have always been considerably higher than rates of suicide among females. But until recently, male and female trends have tended to move in the same direction. From the beginning of the twentieth century, rates were relatively stable until the First World War (1914-1918) when there was a reduction in the number of suicides among both males and females. During the inter-war depression years there was a striking increase, peaking during the early thirties. Suicides fell again during the second world war (1939-1945), but following this period, death rates due to suicide rose to a peak for both males and females until the early sixties when they again began to decline until the early 'seventies. Since this time, the female suicide rate has continued to fall, whereas the male suicide rate has steadily increased. This is the first time since 1911 that male and female trends have moved in opposite directions (Charlton et al. 1992).

Recent trends in suicide deaths in England and Wales among young men have received considerable attention. Figure 2.1 demonstrates trends in suicide and undetermined mortality rates among young men in England and Wales. Charlton et al. (1992) analysed age specific trends in suicide based on data to 1990. He found that rates among young men began to rise in the early 'seventies, and continued to rise to the extent that by 1990, they exceeded the older age groups, with the exception of men aged 75 and over who still had the highest rates. It is common for suicide trends to be examined by combining figures for deaths due to suicide and undetermined causes.

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[4] Two different definitions of suicide are available when investigating suicide trends:
1. Recorded suicides. E950 to E959 in the ninth edition of the ICD.
2. Suicides and undetermined deaths. E950 to E959, plus E980 to E989 excluding E988.8 after 1978.
Trends in suicide are more commonly described using the latter definition (excluding long term time trends since the category 'undetermined' did not exist before 1968)[4].

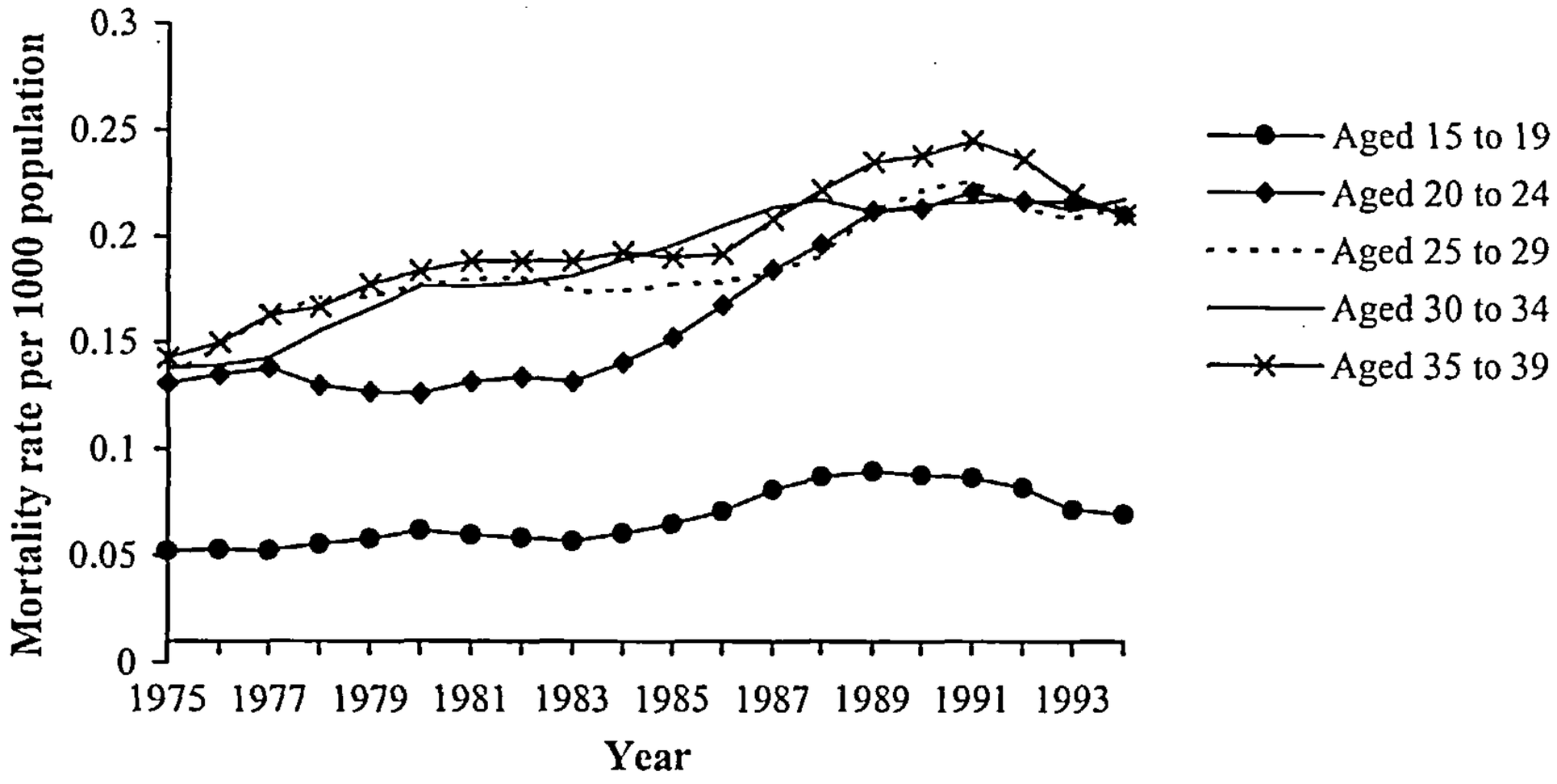

Figure 2-1: Suicide and undetermined mortality rates (excluding E988.8[5]) among young men aged 15 to 39 in England and Wales 1974 to 1995, based on three year rolling averages.

Source: OPCS. DH2. Mortality Statistics. 1974 to 1995.

Rolling averages have been calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages are not weighted and have been calculated over three year periods.

2.2 Accidents

The Chief Medical Officer's 1994 report states that deaths from accidents are an important cause of years of 'working life' lost[6] accounting for 13% of all deaths among young men and 9% among women. Road traffic accidents account for 7% of the male years of 'working life' lost and 3% of the female years of 'working life' lost in the United Kingdom. As with suicide, accident morbidity and mortality is more common among men than women. Road traffic accidents are also more likely to involve young men even where data are adjusted for exposure (amount of driving) (Peltz and Schumann 1971). Nearly half of all accidental deaths among men are due to road traffic accidents (OPCS 1992). In the 15 to 39 year age group, deaths due to all accidents and adverse effects are decreasing, with the rate of death among the younger age groups (15 to 24 years) decreasing at a faster rate than the older age groups (25 to 39 years). Figure 2.2 shows deaths due to accidents among men aged 15 to 39 years since 1975. All five year age bands have shown a decline over this period.

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[5] Since 1979, this code has been used to accelerate death registration in cases where a Coroner adjourns an inquest. Nearly all of these cases that are resolved turn out to be homicide (Bunting and Kelly 1998).

[6] Years of 'working life lost' are those years that the individual would have been able to work i.e. to the age of retirement, had they not died prematurely.

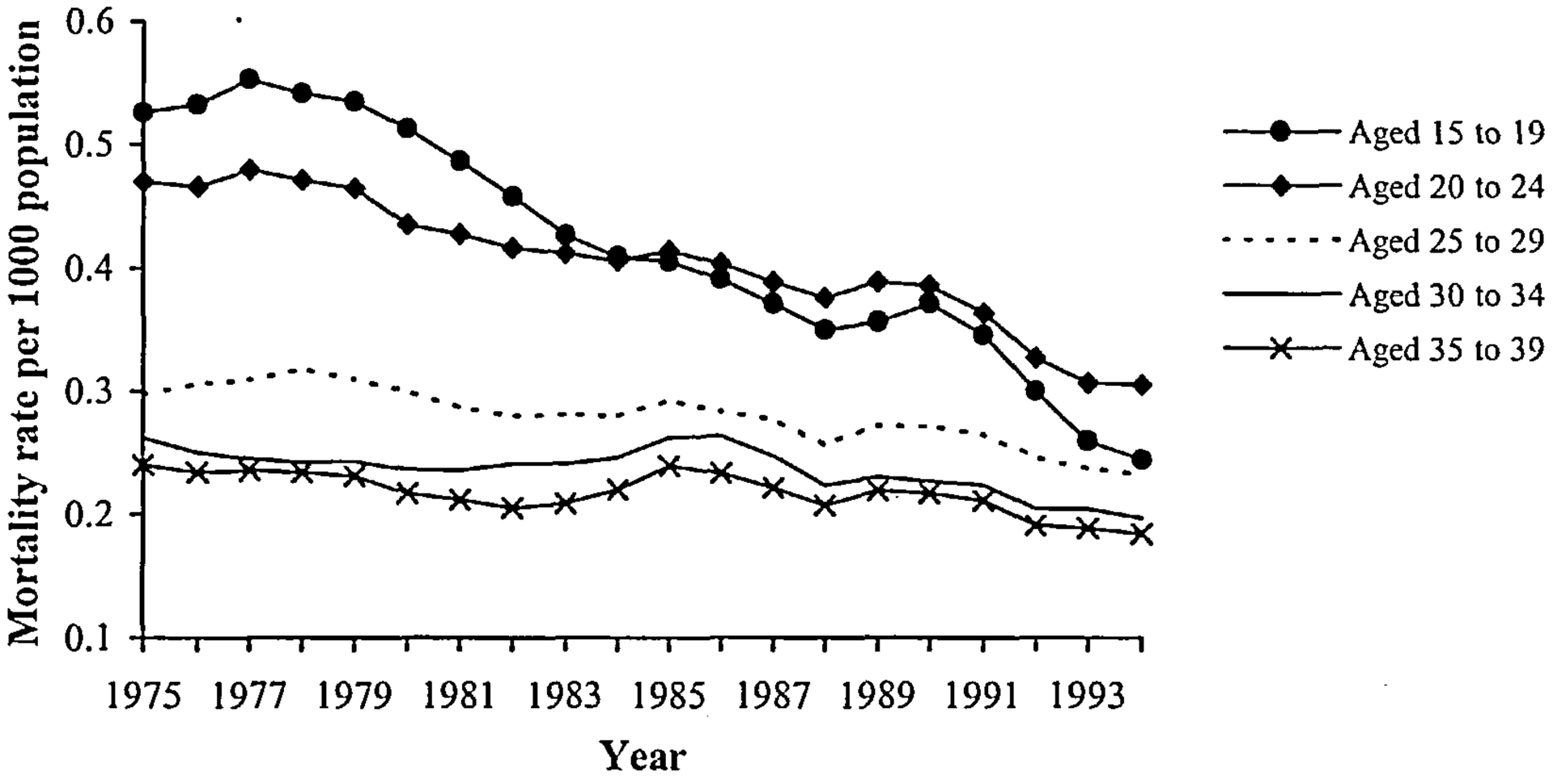

Figure 2-2: Mortality rates from accidents among young men aged 15 to 39 in England and Wales, 1974 to 1995, based on three year rolling averages.

Source: *OPCS. DH2. Mortality Statistics, 1974 to 1995.*
Rolling averages have been calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages are not weighted and have been calculated over three year periods.

2.3 Undetermined deaths

Undetermined deaths are deaths where the Coroner has not been able to determine whether the death was an accident or a suicide. In general, undetermined deaths are analysed in conjunction with deaths due to suicide. However, analysis of undetermined deaths alone, highlights the growing trends in specific methods of death among this group. Fig 2.3 shows in particular, the increase in death rates due to poisoning, hanging, gases and other means, which have sharply increased since the beginning of the 'eighties.

Those deaths attributed to E988.8, the majority of which will be accelerated registrations for homicide deaths, have also increased since the data first became available in 1980. Death due to submersion is the only method of undetermined death, which has decreased over the last twenty years, although falls have steadily decreased since the late 1980's. Methods such as firearms and cutting have remained constant.

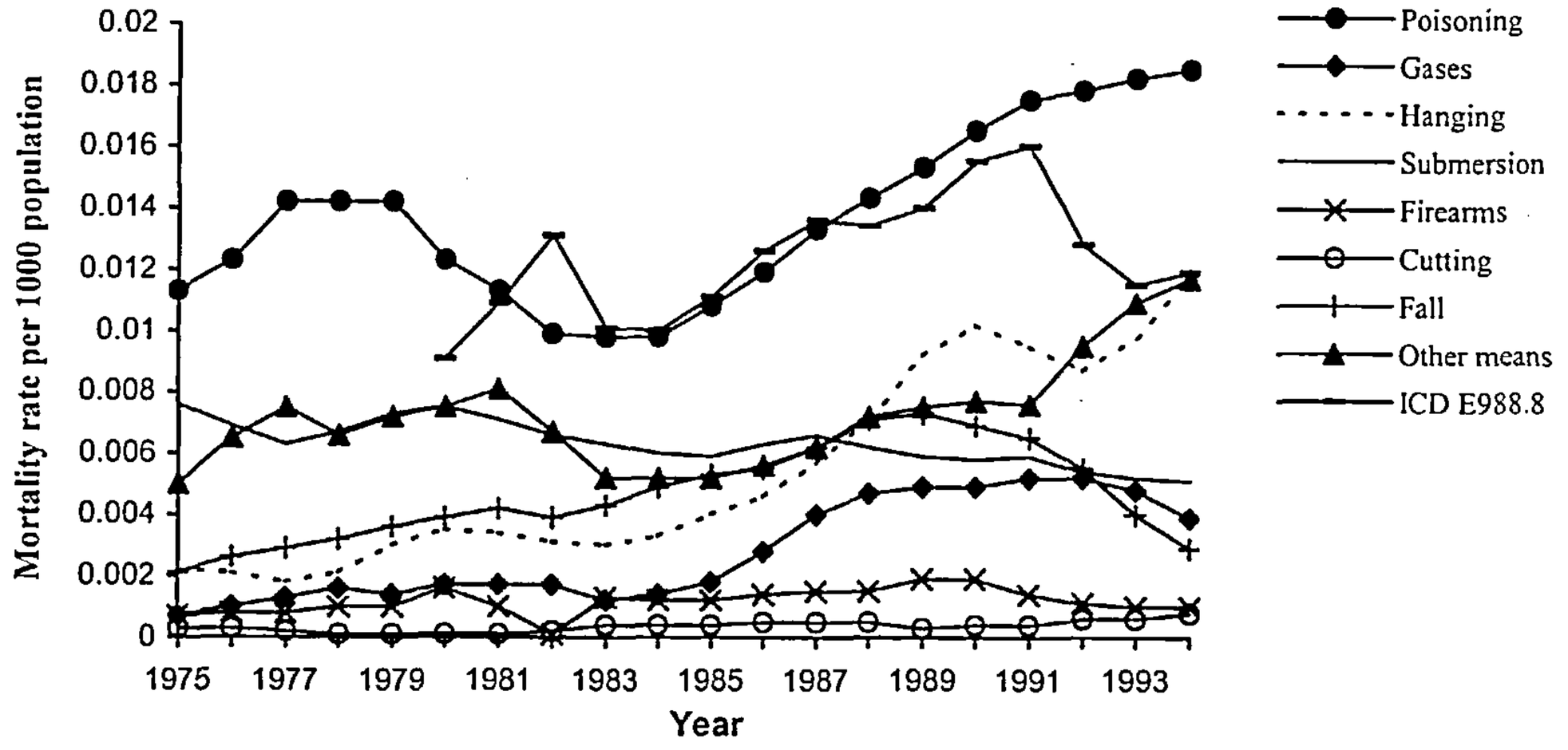

Figure 2-3 Undetermined deaths among young men aged 15 to 39 in England & Wales, by method of death, based on three year rolling averages.

Source: OPCS. Series DH2. Mortality Statistics, 1974 to 1995
Rolling averages have been calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages are not weighted and have been calculated over three year periods.

The following two chapters examine the Coroner's perspective and the philosophical perspective on suicides and accidents before exploring the literature on suicides and accidental death in greater detail.

Chapter 3 Suicide and accidental death; a Coroner's perspective

3.1 The procedure for defining suicide and other forms of violent death

After a death has occurred, a medical doctor will certify death by completing the death certificate, which is then taken to the local registrar of births and deaths. In some circumstances, the certifying doctor cannot be certain of the cause of death, and under these circumstances the doctor or the Registrar may report the death to the Coroner. Section 8 (1) of the Coroner's Act (1988) stipulates the circumstances under which the Coroner should be informed of a death in the district as follows:
a) died a violent or unnatural death
b) died a sudden death of which the cause is unknown
c) died in prison or in such circumstances as to require an inquest under any other act.

In addition, the Registrar may refer matters to the Coroner under certain circumstances as stipulated in regulation 41 of the registration of Births and Deaths regulations 1987 (See Fig 3.1).

Where the relevant Registrar is informed of the death of any person, he shall, subject to para (2), report the death to the Coroner on an approved form if the death is one;
in respect of which the deceased was not attended during his last illness by a registered medical practitioner; or
in respect of which the Registrar has been unable to obtain a duly completed certificate of cause of death; or
has received such a certificate with respect of which it appears to him from the particulars contained in the certificate or otherwise, that the deceased was not seen by the certifying medical practitioner either after death or within 14 days of the death; or
the cause of which appears to be unknown; or
which the Registrar has reason to believe to have been unnatural or to have been caused by violence or neglect or by abortion or to have been attended by suspicious circumstances; or
which appears to the Registrar to have occurred during an operation or before recovery from the effect of general anaesthetic; or
which appears to the Registrar from the contents of any medical certificate of cause of death to have been due to industrial disease or industrial poisoning.

Figure 3-1: Regulation 41 of the registration of Births and Deaths regulations 1987

Source : *Matthews, P., Foreman, J. 1986, Jervis on the offices and duties of Coroners with forms and precedents. (11th Ed.) London, Sweet and Maxwell.*

If the Coroner decides to take no further action, the Registrar is informed, who then registers the death. However, if the cause of death is unknown, a post mortem is necessary to ascertain cause of death. Following the post mortem, if the Coroner is satisfied that the cause of death is due to natural causes, the death can then be

registered. However, if the death is a violent or unnatural death, a death in prison or police custody, or a death where it is not possible to ascertain the cause, an inquest will be opened.

3.2 The Coroner's inquest into violent or unnatural deaths

There is no legal definition of what constitutes a violent or unnatural death. The Coroner is given the following guidelines in 'Jervis on Coroners' (Matthews and Foreman 1986).

> 'The distinction between a violent or unnatural death is one of the most difficult to draw. For present purposes..... a violent death is one due to violence and involves an injury of some sort. The commonest example is of a person killing himself or being killed by another, but if accidental occurrences such as a fall or minor ones such as a cut finger lead directly to death (e.g. through septicaemia) that death too will be violent or unnatural. Further, the concept of violent death would also include deaths from violence without human intervention such as a person being struck by lightning or being killed by a wild animal.'

Matthews, P., Foreman, J. 1986, Jervis on the offices and duties of Coroners with forms and precedents. (11th Ed.) London, Sweet and Maxwell.

The purpose of the inquest is set out in Rule 36 of the Coroner's Rules 1984 and it is to ascertain:

- who the deceased was,
- how, when and where he came to his death,
- the particulars for the time being required by the Registrations Act to be registered concerning the death.

The inquest is opened immediately and adjourned until further information has been collected by the Coroners officers, on the circumstances surrounding the death. Statements are collected from:

- the police who attended the scene,
- family and friends who knew the deceased well or saw the deceased shortly before death,
- any witnesses who saw the incident that caused the death,
- any witnesses involved in the events leading up to the death.

These individuals may or may not be called by the Coroner to give evidence at the inquest.

Following the inquest, the Coroner of the district in which an individual died will give a verdict on the cause of death. Where the death does not result from natural causes, one of the following verdicts will apply:

- suicide
- accident / misadventure
- undetermined verdict
- unlawful killing
- dependence on drugs
- non dependent abuse of drugs
- sentence of death
- want of attention at birth
- stillbirth
- attempted/self induced abortion

In the United Kingdom, death sentences no longer apply and the final three verdicts apply only to women. Therefore, for men in the United Kingdom who die from unnatural causes, the Coroner's verdict is likely to be one of the first six categories, namely suicide, accidental, undetermined (open)[7], unlawful killing (otherwise known as homicide), dependence on drugs or non-dependent abuse of drugs.

3.3 Suicides

Although Jervis does not strictly define the terms suicide, accident, or undetermined, guidance is provided on what constitutes each of these verdicts. The guidance on what constitutes suicide is as follows:

> 'Suicide should never be presumed, but must always be based upon some evidence that the deceased intended to take his own life. On the other hand, once there is sufficient evidence it is a matter for the Coroner as to whether or not it was a suicide .... The test of sufficient evidence has been stated to be 'whether other possible explanations were totally ruled out'.

Matthews, P., Foreman, J. 1986, Jervis on the offices and duties of Coroners with forms and precedents. (11th Ed.) London, Sweet and Maxwell.

Since 1986 it has been held that the standard of proof in suicide cases should be the same as in criminal prosecutions, that is, beyond all reasonable doubt. In practice, this means that suicide verdicts are also dependent on the weight of evidence available and the view of the individual Coroner.

3.4 Accidents

The guidance on accident verdicts is as follows;

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[7] The term 'open verdict' is used interchangeably with the term 'undetermined verdict'.

'No distinction is drawn between accident and misadventure. It is sometimes suggested that 'accident' connotes something over which there is no human control, or an unintended act, while 'misadventure' indicates some deliberate (but lawful) human act, which has unexpectedly taken a turn, which leads to death. Even if this distinction exists in logic, it is clear that Coroners have not observed it in practice, and accordingly for statistical purposes these conclusions are treated as being the same.'

Matthews, P., Foreman, J. 1986, Jervis on the offices and duties of Coroners with forms and precedents. (11th Ed.) London, Sweet and Maxwell.

3.5 *Undetermined verdicts*

If there is insufficient evidence to record any of the other suggested conclusions, an undetermined verdict may be recorded. This includes cases where there is evidence but it fails to reach the required standard of proof. An open verdict is only to be used as a last resort if there is insufficient evidence to enable the Coroner to reach one of the other conclusions.

3.6 *Homicide*

The term homicide collectively includes murder, manslaughter and infanticide. The ICD codes used for identifying deaths due to homicide are E960 to E969. However it is also important to include accelerated registrations, E988.8, in these figures as the majority of these deaths are cases of homicide pending a verdict from crown court and therefore should be added to the numbers in E960 to E969 to give a more accurate picture of homicidal deaths.

When a person has been killed through the actions of another person or persons, and if a defendant is to be prosecuted, the case goes to Crown Court. The Coroner then has no further active involvement in the case. If that person is found guilty, the inquest does not receive a verdict from the Coroner but bears the verdict given by the Crown Court. The death is classified as a homicide and one of the following three verdicts will be given: Trial: person found guilty of causing death by dangerous driving; Trial: person found guilty of manslaughter; Trial: person found guilty of murder.

Deaths categorised as homicide are relatively straightforward, since the definition of homicide is dependent on a third party contributing directly to the death of an individual. By virtue of this distinction it is different from other forms of unnatural death.

3.7 Dependence on drugs and non dependent abuse of drugs

A verdict of dependence on drugs is stated in Jervis (Matthews and Foreman 1986) to be appropriate in unusual cases where the death of a confirmed drug addict results from the poisoning effects of drugs. Alternatively if the death results from an exceptional excess of drugs where the deceased was known to be not dependent on the drug, a non-dependent abuse of drugs verdict is appropriate.

3.7.1 Problems with defining drug related deaths

It is likely that the official data on drug related deaths under-report the true extent of mortality associated with a drug using lifestyle and there is often considerable uncertainty as to what constitutes a drug related death (ACMD 1998). Further, when a death is drug related, it is often difficult to distinguish whether it was an accident or a suicide as circumstantial information may be ambiguous and intent unclear (Cantor et al. 2001). For this reason, Cantor suggests that nations witnessing rising death rates due to drug use need to monitor undetermined and accident death rates as well as suicides in order to identify deaths due to drug use.

Methadone is the most widely prescribed drug in the treatment of opiate dependence. Its goal is to improve the health status and psychological and social wellbeing of the opiate dependent person (Ward et al. 1999). In England and Wales in 1995, about 30,000 people were estimated to be receiving methadone treatment of one type or another from community pharmacies (Advisory Council for the Misuse of Drugs (ACMD) 2000). Methadone maintenance treatment has been shown to improve survival among heroin addicts (Gronbladh et al. 1990). Methadone however, is not innocuous. The number of self-poisonings involving methadone and / or heroin increased by 900% between 1974 and 1992 (Neeleman and Farrell 1997). Marks (1994) argues that methadone is more dangerous than heroin and that methadone causes more deaths than heroin, but this view is not widely held. Neeleman and Farrell's study of time trends of fatal methadone and heroin deaths in England and Wales found that the proportion of poisoning deaths involving methadone rose by 80% per three year period and the proportion of poisoning deaths involving heroin rose by 76%. They concluded that the mortality rise in England and Wales up until 1992 was not faster for methadone than heroin deaths. A further study that compared two groups of opiate addicts one receiving methadone and one receiving no treatment, found that there was a large reduction in overdose related deaths among the group receiving methadone maintenance (Caplehorn et al. 1996).

Deaths due to methadone may occur in three ways: during introduction of methadone maintenance when tolerance is incorrectly assessed, during maintenance when several daily doses are combined, or by accidental ingestion (Harding-Pink 1993). However it is not always straightforward to ascribe the cause of death to opiate poisoning for a number of reasons. There are major difficulties in interpreting fatal methadone (or other opiate) concentrations after death with any kind of predetermined criterion. This is because it is also related to individual tolerance

(Benbow et al. 1997). There is an overlap in the quoted therapeutic concentrations and methadone concentrations seen in fatalities. Pathologists and toxicologists have been criticised for over-diagnosing methadone related deaths on the basis that concentrations recommended for maintenance treatment are above those at which death will be ascribed to methadone poisoning (Milroy and Forrest 2000). A normal day's maintenance dose in a tolerant user can cause life threatening poisoning in a non-tolerant adult (Harding-Pink 1993).

Multi-site sampling for methadone concentration confuses the issue further due to post mortem redistribution. Post-mortem elevations in blood concentration among lipohilic drugs and redistribution between tissues is a problem (Gerostamoulos and Drummer 2000). Values of methadone as well as other drugs can vary by over 100% between different sites in the same body (Milroy and Forrest 2000). Interpretation is further complicated by increasing evidence that post-mortem drug levels may not be similar to those in healthy subjects. There is evidence that in such cases, it is combinations of drugs, including alcohol and benzodiazepines that combine with opiates and other illicit drugs to result in toxicity. The problem is deciding which, if any, drugs should be attributed as the cause of death in such circumstances.

Also, for those victims engaged in poly drug use, the methadone itself may not be enough to cause death. Nevertheless, the use of other drugs, particularly respiratory depressants, will have an additive effect and increase the risk of death and it is difficult to determine what proportion any individual drug plays in a death. Thus, even very low blood concentrations of methadone can be associated with prolonged periods of unconsciousness, that then leads to inhalation pneumonia. This is a common finding in methadone related deaths (Milroy and Forrest 2000).

3.8 ICD coding by The Office of National Statistics

Unfortunately, the above categories are not necessarily mutually exclusive and as a result, many deaths which could be categorised as non-dependent / dependent abuse of drugs, alternatively could receive a verdict of accident or undetermined according to the preference of the Coroner. This has implications for the way that annual mortality statistics are coded according to the International Classification of Disease.

After the inquest, the details are certified to the Registrar who will then register the death according to the cause stated on the death certificate by the Coroner. The Registrar is then responsible for informing The Office of National Statistics (ONS, known as OPCS prior to April 1996). ONS subsequently collate this information and publish it in the form of annual mortality statistics for England and Wales. The Coroner also submits a detailed annual report to the Home Office, and the information provided is used in conjunction with the information from the Registrar to produce mortality data. Figure 3.2 is a flow diagram of the death registration procedure for unnatural or violent deaths as described above.

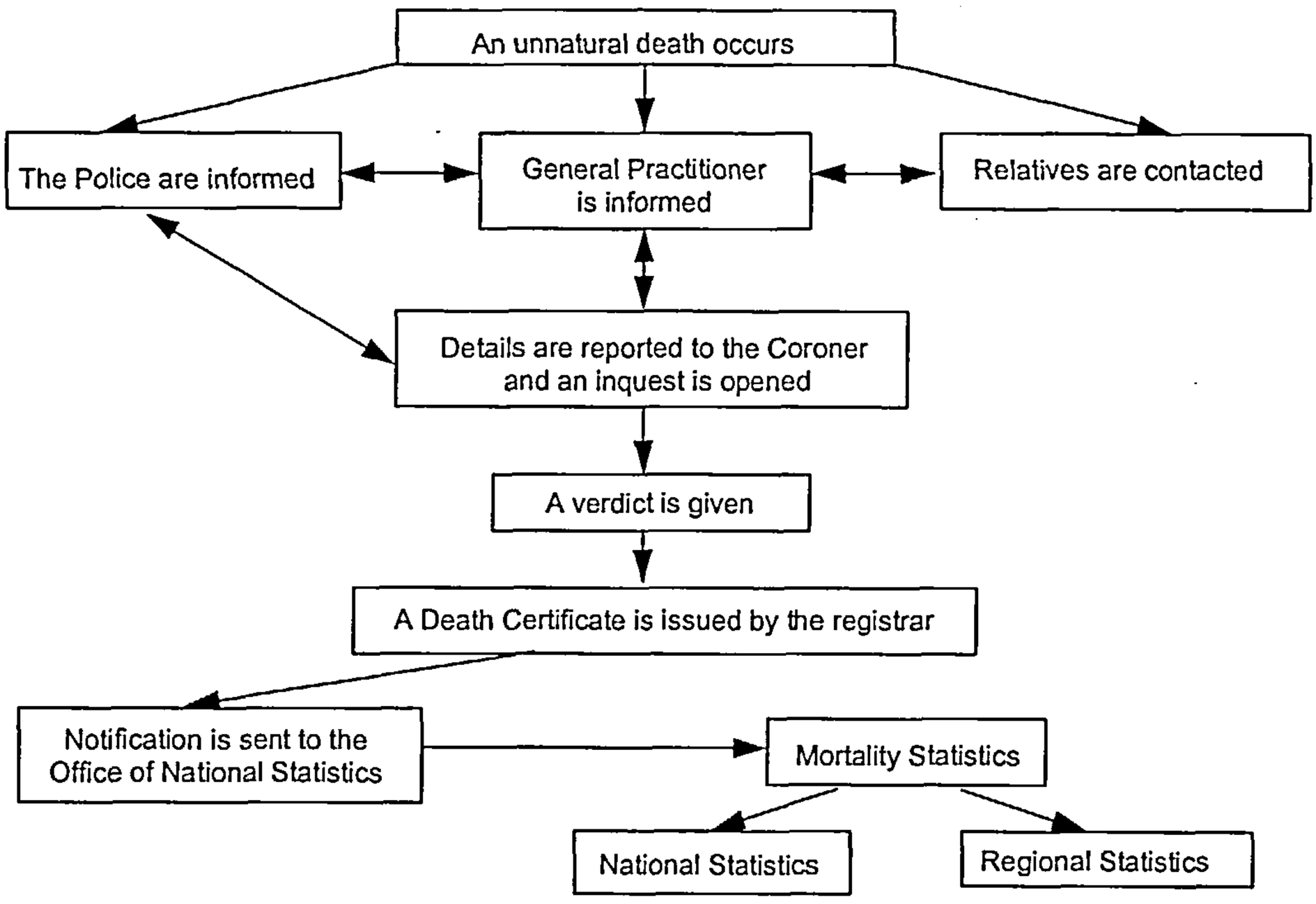

Figure 3-2: Simple flow diagram showing death notification procedure

ONS is responsible for coding each death certificate in accordance with the International Classification of Disease[8] (ICD). Death certificates make provision for the causes leading directly to death and causes antecedent to it to be given in Part 1 of the death certificate. Other contributory causes may be entered into Part 2 of the death certificate. From the cause or causes mentioned, the selection is made of underlying cause of death. However, ONS code their published mortality data by underlying cause only, Part 1 of the death certificate. In addition, ONS coding is dependent entirely on the information supplied on the death certificate. The inquest evidence or post mortem report is not made available.

Deaths resulting from unnatural or violent causes are classified under Chapter XVII of the ICD. This chapter is entitled 'Injury and Poisoning.' Each death resulting from an external (or unnatural cause) is assigned an external or 'EICD' code in addition to the ICD code. The ICD code refers to the nature of injury that caused the death whereas the EICD accords to the Coroner's verdict. So for example, a

[8] The 'certificate of cause of death' used in England and Wales is used in accordance with the recommendations given by the World Health Organisation in their 'Manual of the International Statistical Classification of Diseases, Ninth Revision, 1977' (Volume 1, Geneva, WHO, 1977) and is more commonly referred to as the Ninth Revision of the International Classification of Diseases or 'ICD 9'.

death of a pedal cyclist who received an accidental verdict could be coded under transport accidents (E800 to E848), sub group E813.6, 'pedal cyclist in collision with a motor cycle', and ICD code 929 'crushing injury of multiple and unspecified sites'.

However there is an exception to this rule. Verdicts where the Coroner has stated on the death certificate that the underlying cause of death is dependent or non dependent abuse of drugs receive a code of 304 (drug dependence) or 305 (non dependent abuse of drugs) respectively and are recorded under Chapter V of the ICD (Mental Disorders). These deaths are not given a code for external causes and are not recorded in Chapter XVII.

In addition, some accidental or undetermined deaths where death is directly attributable to dependent or non-dependent abuse of drugs may also be re-coded to 304 or 305 according to the following criteria:

If a verdict of accidental or undetermined death is given and the terms 'dependence' or 'abuse' are stated on the death certificate, the death will be assigned to codes 304 or 305 as appropriate and the death will not be coded to an external cause. However, if an accidental or undetermined verdict is given and the death is directly attributable to drugs, but the terms 'dependence' or 'abuse' are not stated on the death certificate, the death will be assigned to Chapter XVII and will be coded as an accident or an undetermined death, thereby receiving an external cause (EICD) code.

Deaths that receive a suicide or homicide verdict will be coded as suicide or homicide regardless of whether the terms 'dependence' or 'abuse' are mentioned on the death certificate.

The following table shows the Coroner's verdict and the corresponding relevant EICD code according to cause of death.

Table 3-1: Coroner's verdict and corresponding EICD code according to cause of death

Coroner's Verdict	ICD Code	External Cause of death
Dependence on drugs	304	Not coded as external causes
Non dependent abuse of drugs	305	Not coded as external causes
Suicide	E950 to E959	Suicide and self-inflicted injury
Accident / Misadventure	E800 to E848	Transport accidents
	E850 to E869	Accidental poisoning
	E870 to E878	Effects of and misadventures during medical care
	E880 to E888	Accidental falls
	E890 to E899	Accidents caused by fire and flame
	E900 to E909	Accidents due to natural and environmental factors
	E910 to E915	Accidents caused by submersion, suffocation or foreign bodies
	E916 to E928	Other Accidents
	E930 to E949	Drugs causing adverse effects in therapeutic use
Open/ Undetermined	E980 to E989	Injury undetermined whether accidentally or purposefully inflicted
Other specified means	E988.8	Accelerated registration, Injury undetermined whether accidentally or purposefully inflicted[9].
Unlawful killing	E960 to E969	Homicide and injury purposefully inflicted by other persons
	E970 to E978	Injury due to legal intervention by firearms
	E990 to E999	Injury resulting from operations of war

Source: OPCS Series DH2. No 22 1995

[9] In some circumstances the conditions described on the death certificate, may be subject to change at a later date. Examples are when the Coroner has had to adjourn an inquest, to await further information surrounding the circumstances of the death, or if any court proceedings surrounding the death are unknown. In these cases it is not possible to assign an ICD code. As it is important that a death be included in national statistics, these deaths are assigned to code E988.8, 'accelerated registrations', until sufficient data becomes available to assign a more precise code. This code E988.8 is grouped under the codes E980 to E989 for injuries undetermined whether accidentally or purposely inflicted. As the majority of deaths assigned to this code are deaths that usually result with a homicide verdict they should not be included in suicide statistics, therefore when looking at suicide trends the ICD codes commonly used are: E950 to E959, and E980 to E989, excluding E988.8.

Therefore, for deaths that are finally categorised under Chapter XVII of The International Classification of Diseases, or categorised under coding 304 or 305, an inquest must always have been held to ascertain the cause of death. It is clear from the definitions provided in Jervis (Matthews and Foreman 1986), however, that the categories for coding these deaths are not mutually exclusive and are dependent to a large part on the practice of the individual Coroner.

3.9 Suicide or undetermined death?

Two different definitions of suicide are available:

1) Recorded suicides. E950 to E959 in the ninth edition of the ICD.
2) Suicides and undetermined deaths. E950 to E959, plus E980 to E989 excluding E988.8 after 1978.

Trends in suicide are more commonly described using the latter definition (excluding long term time trends since the category undetermined did not exist before 1968). Charlton et al. (1992) compared trends in suicides and trends in suicide and undetermined deaths for men and females and found that the trends for the two definitions followed the same pattern over time. In justifying the use of the latter definition, Charlton explains that,

> 'If there is any doubt about the intentions of the deceased (to kill themselves) either an accidental or open verdict should be recorded. Thus there is some under-recording of suicide deaths in the recorded suicide figures and it is likely that most open verdicts among adults are cases where suicide occurred but was not proven.'

Charlton J, Kelly S, Dunnell K, Evans B, Jenkins R, Wallis R. 1992 Trends in suicide deaths in England and Wales. Population trends. 69: 10-16.

It is common therefore, for suicide trends to be examined by combining figures for deaths due to suicide and undetermined causes. The assumption is, of course, that suicide and undetermined mortality trends follow a similar pattern over time and a similar rate of rise and decline among differing age and sex groups. However, such an assumption is based on the belief that most undetermined deaths are suicides whereas the guidance to Coroners provided by Jervis (Matthews and Foreman 1986) does not necessarily support such an assumption. It states:

'If there is insufficient evidence to record any of the other suggested conclusions, an 'open verdict' may be recorded. This includes the case where there is evidence, but it fails to reach the required standard of proof. Thus an open verdict is only to be used in the last resort if there is insufficient evidence to enable the Coroner to reach one of the other conclusions'.

Matthews, P., Foreman, J. 1986, Jervis on the offices and duties of Coroners with forms and precedents. (11th Ed.) London, Sweet and Maxwell.

Thus, undetermined deaths by definition are those where there is insufficient evidence to record either an accident or suicide verdict or, in other words, insufficient evidence to measure intention on behalf of the deceased. Methods of death are known however, to vary by age and sex and to vary over time. So the types of deaths classed as undetermined may vary by age and sex. This is supported by Salib (1996) who found in his study of North Cheshire Coroners that intimation of intent, method and alcohol problem were the most powerful predictors of a suicide verdict.

Taylor (1982) suggests that the manner in which an individual dies is the most significant means of defining intent. Platt et al. (1988) studied 1,077 deaths in Edinburgh and found that method of death was the most significant predictor of a suicide verdict, 88% of active deaths (n=236) receiving a suicide verdict. According to Taylor, other factors thought to be indicators of suicide are the presence of a suicide note and a previous history of mental illness. However, there is no published research examining the factors differentiating suicide from accidental death and it is unknown whether method of death is a significant discriminator between these verdicts. Moreover, changing trends in manner of death could also influence the factors used by Coroners in differentiating suicide from accidental death. For example, since the 'eighties, there has been a sharp increase in the number of drug related deaths among young men, which may or may not be due to suicide. Age standardised mortality rates among men aged 15–44 years for 1992-96 compared to 1982-86 show a 92% increase nationally (Christopherson et al. 1998).

The literature suggests that drug users who die of drug overdoses would be unlikely to receive a suicide verdict, despite evidence that drug users often have a history of psychiatric illness and suicidal intent (Khantzian and Treece 1985). However, it is possible that Coroners use other factors to discriminate between accidents and suicides, particularly among young men in areas where there is a high incidence of drug related deaths. In cases where there is uncertainty about the victim's intention to kill themselves, the verdict may also ultimately be influenced by the amount of evidence provided about the nature of intent, the method of death and factors which influence an individual's choice to discuss intention with another person prior to the act. In other words, a subjective distinction has to be made about how much an individual's behaviour can be directly attributed to their intent to die. It is clear then, that the definition of suicides, accidents and undetermined verdicts is a complex one. The following chapter reviews the definition of suicides and accidents from a

philosophical perspective and considers the concept of intent in relation to deaths from these causes.

Chapter 4 Suicide and accidental death; a philosophical perspective

4.1 Suicide

The endeavour to define and understand suicide stretches far back into history. Even today, there is little agreement on the defining attributes of a suicide. There are three main types of definition of suicide. The first definition relies almost entirely on the premise of intention (Beauchamp and Perlin 1978):

> 'Suicide occurs if (and only if) there is intention to take one's life.'

Beauchamp TL, Perlin S. 1978. Ethical Issues In Death and Dying. Englewood Cliffs: Prentice- Hall.

The contemporary proponents of this definition include philosophers such as Brandt and Eike-Henner Kluge. It presupposes that intent is always conscious. The second type of definition does not rely on intention as a defining factor, the best known being the seminal work of Durkheim (Durkheim and Simpson (Ed) 1963).

> 'The term suicide is applied to all cases of death resulting directly or indirectly from a positive or negative act of the victim himself which he knows will produce this result.'

Durkheim E, Simpson G (Ed.).1963 Suicide. A study in sociology. London: Routledge and Kegan Paul.

The third definition is rather broad, Maris (1981) having referred to it as the 'omnibus' definition. It includes various forms of self-destruction, such as risk taking behaviour and many so called 'accidents':

> 'Suicide occurs when an individual engages in a lifestyle that he knows might kill him, and it does.'

Maris RW. 1981. Pathways to suicide: A survey of self-destructive behaviours. The Johns Hopkins University Press: Baltimore and London.

Commonly speaking then, intention is the defining attribute of a suicide (Matthews and Foreman 1986).

4.2 Accidents

The definition of an accident generally relies on the premise of unintention;

'An unpremeditated event that results in recognisable damage.'

World Health Organisation Advisory Group. 1957, World Health Organisation Report on Accidents. WHO, Geneva.

The word 'unpremeditated' suggests absence of intent on the part of the individual concerned. In fact, the use of the term accident rather than injury for example, reinforces the view that accidents are largely inevitable and are random events beyond human control. According to this definition then, the basic difference between an accident and a suicide is intention. However, there is evidence to suggest that accidents are predictable and subject to the same rules of inquiry as any other scientific discipline. Haddon (1980) states,

> 'Widely believed folklore notwithstanding, injury distributions are highly non-random in time, place and person, just as one would expect from the non-randomness of their causes.'

Haddon, W. 1980, Advances in the epidemiology of injuries as a basis for public policy. Public Health Report, vol. 95, no.5, pp. 411-21.

4.3 Defining intent

Given that accidents are in fact non-random in time, place and person, it could be argued that the defining factor of accidents, as opposed to suicides, is not intent but lack of acknowledgement of responsibility for self-destruction. Thus the Coroner, when defining a death as either a suicide or an accident, has to try and ascertain retrospectively whether the individual was taking responsibility for his self-destruction. Nevertheless, whether the Coroner uses intent, or acknowledgement of responsibility for actions, there is an underlying assumption that these concepts are categorical and also that an individual is able to recognise and articulate either intent or acknowledgement of responsibility. However, Freud (1960, 2nd ed.) suggests that intention may not necessarily be conscious, and therefore using it as a means of defining suicide is problematic. He states that;

> 'Anyone who believes in the occurrence of half intentioned self injuries will be prepared also to understand that in addition to consciously intentional suicide, there is such a thing as half intentional self-destruction (self-destruction with an unconscious intention) capable of making skilful use of a threat to life and of disguising it as a chance mishap.'

Freud S. 1960. The psychopathology of everyday life. Standard edition of complete psychological works. (2nd Ed.) London, Benn.

Freud's statement highlights the point that the common factor leading to death is that of self-destructive behaviour, regardless of the motive for the action. In fact Menninger (1938) takes this further, suggesting that it is not only suicides or

accidents that result from self-destructive behaviour but that all death results from some form of self-destructive behaviour regardless of cause. He states that in the end, each man kills himself in his own selected way, fast or slow, soon or late.

Menninger identified four types of self-destruction. The first group accepts responsibility for suicide and defends their actions with logical reasoning. The second group only accepts responsibility unwillingly and makes no attempt to explain it, so that the act seems purposeless. Examples of this type of self-destructive behaviour would be that of habitual drug users or alcoholics. A third group accept no responsibility for their self-destruction, seeing it as fate or circumstance, such as occurs with fatal accidents which are unconsciously intentional. The final group accepts no responsibility at all for their self-destruction, as may be represented by certain physical diseases for which there is no acknowledgement of individual contributory factors in causation.

A similar view is held by Farberow (1979), who defines the association between self-destructive behaviour and intention by introducing two terms to describe conscious and unconscious intent. He labels these behaviours as direct and indirect self-destructive behaviours.

Direct self-destructive behaviour
This includes overt suicidal acts.

Indirect self-destructive behaviour
This includes a constellation of behaviours such as self-mutilation, self-harm, mismanagement of some physical illnesses, participation in risky sports, car accidents, gambling, alcoholism, drug abuse, cigarette smoking, obesity, overeating, anorexia and bulimia, overwork, sexual promiscuity and many more.

Both Menninger and Farberow see death as a result of some form of self-destructive behaviour and suggest that the motive for this behaviour is more overt in some than in others. Those deaths where individuals acknowledge responsibility for self-destructive actions are termed suicide. Nevertheless, they suggest that other forms of death are also the result of self-destructive behaviour, and that these deaths differ from suicides only in terms of the amount of responsibility acknowledged by the individual for their self-destructive actions. If it is accepted that intent is not an absolute or categorical value, if there are degrees of intent, by implication, there are also degrees of accidental or suicidal death. This brings into question the utility of using two mutually exclusive definitions of self injury; suicide (intentional injury) and accident (unintentional injury). While one may wish to make a distinction between intentional and unintentional events, the difficulty of carrying out the task may mean that the results are of doubtful validity (Langley 1988).

So what is the relationship between risk taking and self-destructive behaviour? Risk taking in itself is not necessarily self-destructive. It could be argued that depending on the degree of risk being taken, risk taking behaviour can be seen as essential and

indeed, health promoting. Berardo (1985) highlights the importance of risk taking as an element of achieving personal fulfilment. He states that;

> 'The point is that no one can expect to exist totally without risk; nor would any sane person want to. To live at all is to live a little dangerously; to live in the fullest sense of the word is to balance personal fulfilment against risk.'

Berardo FM.1985. Individual lifestyles and survivorship: the role of habits, attitudes and nutrition. Death Studies. 9: 5-22

The level of risk individuals are willing to take, of course varies from person to person. Some individuals may be willing to risk death in order to intensify or enhance the quality of their lives, without explicitly wanting to die. The individual may merely wish to live life to the fullest even though their actions may kill them or reduce their normal life expectancy. Baechler (1979) terms these deaths 'ludic suicides'.

However, in this instance, the risk taker described above inevitably has a sense of control over the risks that they take and in addition, they are striving for personal fulfilment. If risks are taken because an individual is indifferent about whether they live or die, it is a different matter. If their life satisfaction is poor and they feel hopeless about the future, the risks may indeed be a statement of the low value they place on their survival. This type of risk taking is clearly self-destructive. Berardo (1985) states that the reasonably prudent person always seeks to distinguish between the risks that are realistic and those that are reckless. The hopeless person however, does not care.

4.4 Conclusion

In conclusion, suicides and accidents arise out of self-destructive behaviour. However the difference between a suicide and an accident is that with an accident, there is no acknowledgement of responsibility for self-destruction. Conversely, some researchers suggest, that there is a continuum of self-destructive behaviour, and that to attempt to define and separate suicide from other self-destructive behaviours may be limiting our understanding of the constellation of self-destructive behaviours which lead to death.

Chapter 5 Suicide and accident mortality: a literature review

5.1 Introduction

This chapter reviews the literature on suicides and accidents to examine common factors in these causes of death. To identify relevant literature pertaining to risk factors associated with suicide and accidental death, searches were carried out using standard electronic reference databases including Medline, Sociofile, Psychlit, Bath Information and Data Service and CINAHL. A number of different search strings were employed including 'accident', 'suicide', and 'self-destructive behaviour'. Strings were narrowed down using the search terms 'men', 'pre-disposing factors' 'risk factors' and 'prevention'. Abstracts for each study identified were then examined to determine their relevance. Where risk factors or preventive factors were identified, further searches were carried out incorporating the factor identified within the string, for example primary care, suicide, young men. In addition, the search strings defined above were entered into a number of World Wide Web search engines to identify any literature that was not included in the databases searched.

Relevant grey literature was also identified through personal correspondence including public health reports that focused on mental health and suicide among young men as a public health issue. Finally, references (and references of references) cited in primary sources were also followed up. As a number of different sources were used, the literature identified comprised a variety of perspectives. For example, the medical literature tended to address suicide in relation to known psychiatric risk factors, whereas the social science literature often took a broader view in defining suicide. This was in contrast to the Coroner's definition of suicide that, as explained earlier, tends to rely on method of death as a means of defining intention. It is also worth noting that virtually all the literature pertaining to accidents among men relates to road traffic accidents. Therefore it is not possible to assess from the literature available whether factors identified in road traffic accidents could be generalised to other types of accidental death among young men.

In exploring links between suicide, accidents and other risk factors, it is important to remember that any association is not indicative of the direction of causation. In addition, although identifying risk factors may be useful from an epidemiological perspective, it is not very useful in terms of predicting self-destructive behaviour at an individual level. This is because mortality arising from self-destructive behaviour is relatively rare and because risk factors are still not specific enough to avoid the identification of far too many false positives (Garland and Ziegler 1993).

5.1.1 Risk taking and self-destructive behaviour

Considerable effort has been made both in the United Kingdom and further afield to understand a variety of aspects of self-destructive behaviours incorporating both suicide and accidental death in the study population (Selzer and Payne 1962, McDonald 1964, Pokorny et al. 1972, Schmidt et al. 1977, Holinger 1981, Phillips and Ruth 1993). Holinger suggests that deaths due to suicide and accidents result from elements of self-destructive behaviour and that they are likely to be related, since accidents may result from excessive self-destructive risk taking, reflecting depression and suicidal tendencies. He asserts that in any comprehensive attempt to understand the epidemiology of self-destructiveness, other forms of injuries should be considered in addition to suicide. Charlton et al. (1992) support this view and have emphasised the importance of including open and accidental verdicts when studying suicides. By concentrating effort on suicide only, there is little attention given to those forms of self-destructive behaviour that are less overt and may be partially responsible for the rise in deaths among young men in the United Kingdom over the past twenty years.

Within public health in the United Kingdom, the importance of self-destructive behaviour and its consequences for health are only now beginning to be recognised (Griffiths 1994). However the relationship between self-destructive behaviour and injury and poisoning mortality has already been explored to some degree in the United States amid a culture that has recognised the public health importance of injury and poisoning deaths for some time. It is now over twenty years since Holinger (1981) asserted that self imposed risks and self-destructiveness appear to be major factors underlying many violent deaths. He suggested that unless self imposed risks were reduced, and strategies for understanding and curbing self destructiveness established, the mortality rates and years of expected life lost due to violent deaths would not be significantly improved.

Self-destructive behaviour does not happen in a vacuum, but is a response or an adaptation to an external influence. Thus, both social structure and environment can either enhance or reduce risk (Giesbrecht and Dick 1993). The pathway to suicide or self-destruction may be a gradual one, as a result of interaction between an individual and their environment rather than one that is dependent on a single event. Pokorny et al's. study (1972) of 28 car crash fatalities investigating personality, social factors, evidence concerning emotional state, autopsy, reviews by traffic specialists, complete body x-rays, and engineering and car inspections identified 25% of these deaths as suicides and 50% of the sample received a diagnosis of depression immediately prior to the fatality. The study revealed a pattern of alcoholism, depression, impulsiveness, and acute emotional upheavals in the drivers and concluded that undoubtedly some car accidents are in fact conscious goal directed suicides and others probably represent the end result of self-destructive behaviour, even though suicide was not a conscious goal.

Ohberg et al. (1997) investigated all motor vehicle driver fatalities in Finland between 1987 and 1991. They estimated that 5.9% of these were in fact suicides, and fifty percent of these suicides involved young men aged 15 – 34 years. Similar studies of suicide and fatal accidents have emphasised the common factors among these deaths. Selzer and Payne's study (1962) investigating car accidents, suicide and unconscious motivation, compared a group of 30 alcoholic and 30 non-alcoholic male psychiatric patients. Of the 60 patients, 33 claimed to have seriously considered committing suicide or had made at least one suicidal attempt and 27 disclaimed a history of either. Over twice as many accidents were observed among the suicidal compared to the non-suicidal. Their conclusion asserts that the automobile constitutes an ideal self injurious or self-destructive instrument because it is easily available, frequently used, there are inherent hazards of driving and it offers the driver an opportunity to imperil or end his life without conscious awareness of suicidal intent. A more recent study by Peck (1995) investigated case studies of single vehicle crashes and concluded that there was evidence of a relationship between single vehicle fatalities and the intent to suicide.

In relation to road traffic accidents among the young, there have been several hypotheses put forward to explain their increased risk of accidents. Jessor (1984) suggests that driving risk may be just one aspect of general risk taking behaviour among youth. He states that the tendency for risk taking behaviour to co-occur within the same adolescent suggests an organised constellation of behaviour rather than a collection of independent, discrete activities.

Jonah (1986) suggests that the reason for increased relative risk of death from road traffic accidents among the young is related to an increased tendency among this group to take risks for two reasons. Firstly, the risk tolerance of an individual may be greater (that is they may be more willing to take risks) and secondly, an individual may perceive a risk as being lower than it actually is. He reminds us that risks can be taken while driving with or without awareness of what one is doing. There is a difference between poor risk perception and risk acceptance. Likewise, the perception of accident risk while driving is subjective in that one person's perception of danger is another's perception of caution. One risk taking behaviour examined by Jonah is the action of refusal to wear a seat belt. This increases the risk of serious injury when one becomes involved in an accident. It is interesting to note that a report highlighted by Jonah demonstrates that drivers who do not wear seat belts have more accidents and violations than seat belt wearers. Therefore, non-users of seat belts appear to be greater risk takers generally whilst driving than seat belt users. This suggests that the same people who perform one risky driving behaviour also perform other risky behaviours and that this risk propensity is related to accident involvement. Dejoy (1992) supports this view, claiming that the skills of younger drivers are likely to be less well developed than those of older drivers. Peltz and Schuman (1971) also concluded from their studies that, the length of driving experience measured from the time when a young man said he learned how to drive, did not appear so important as age itself in accounting for infractions.

Hogdon (1981) has put the reasons for increased risk taking in young people down to the need for an outlet for stress and aggression, as an expression of independence, a means of increasing arousal, as a way of impressing others, and finally as a means to an end (for example, speeding to avoid being late).

Jessor (1984) on the other hand, sees the purpose of risk taking in the young being, to serve to take control over their own lives by acting independently, to express opposition to adult authority and conventional society, to cope with anxiety or frustration, to cope with the fear of failure of school, to gain acceptance in a peer group, to show one is 'cool', or to demonstrate to others that one has matured and can now engage in adult behaviours. Jessor and Jessor (1975) tried to explain the problem behaviours that seem prevalent in adolescents (i.e. smoking, heavy alcohol consumption, non-use of seat belts). They contended that the overall development trend during adolescence is away from conventionality and parental authority and toward independence. Jessor proposes three major systems that influence problem behaviour. They are as follows:

The personality system: including values and expectations vis-à-vis achievement and independence.
The perceived environment system: including perceived approval of the problem behaviour (i.e. drinking) by family and friends.
The behavioural system: including problem behaviours other than the criterion problem behaviours as well as conventional behaviour.

Jessor and Jessor (1975) suggest there is a dynamic state called proneness, that summarises the likelihood of occurrence of problem behaviour. Thus, it is theoretically possible to speak of personality proneness, environmental proneness, and behavioural proneness, and their combination as psychological proneness toward problem behaviour.

It appears from the epidemiological data that the greatest risks appear to be taken by young men rather than young women. Dejoy (1992) believes this is because young men, relative to their female counterparts, possess an exaggerated sense of their own driving competency and perceive less risk in a variety of dangerous driving behaviours. He asserts that the problem is not that young men do not recognise the dangers of driving, it is that they do not think these dangers apply to them personally. This supports Tabachnik's view (1973) who suggests that one of the reasons for exhibiting self-destructive behaviour is the need for mastery or competence over the environment. He believes that the automobile is a useful instrument for conquering space and time and for enhancing one's power through driving and it is possible that young men have a greater need to demonstrate mastery over their environment than do young women.

Certain positive feelings are obtained from risk taking which explains partly why individuals are willing to take risks. These feelings may be accentuated by the disinhibition caused by certain drugs like alcohol, for example, which encourages

individuals to take risks they would not normally have taken were they not under the influence. Zuckerman (1979) and Farley (1984) both believe that some people physiologically desire high stimulation and arousal and find that taking risks heightens sensation. All these factors may contribute to why people take risks, but to measure these factors and to prove their contribution is less straightforward.

5.2 Social class

It is widely accepted that social factors influence health related behaviours, and evidence of an inverse relationship between social class and mortality is undisputed (Davey-Smith 1996, Judge 1996). That there is a correlation between unemployment or social circumstances and suicide is now also widely accepted, although of course, this does not indicate a causal relationship between the two. Nevertheless, the relationship between social class and suicide is complex. Using data on occupation from death registration, Charlton et al. (1993) calculated Standardised Mortality Ratios (SMR's) by social class for deaths among men resulting from suicide according to occupational classification in 1971 (Table 5.1). It can be seen that men in social classes II and III have below average SMR's, while men in social class I have slightly higher than average SMR's. For men in social class V it is higher still. However, the highest suicide rates are found among those with inadequately described occupations and those who are unoccupied respectively.

Table 5-1: SMR for suicide among men aged 15 – 64 by social class

Social Class	**Longitudinal study. Men aged 15 to 64 at entry. Deaths 1971 to 1985**	
	SMR	Observed deaths
I	110	1319
II	88	5202
IIIN	99	3083
IIIM	82	9004
IV	102	5649
V	127	3582
Armed forces		311
Inad. Described	304	504
Unoccupied	168	3885

Source: *Charlton J, Kelly S, Dunnell K, Evans B, Jenkins R. Suicide deaths in England and Wales: trends in factors associated with suicide deaths. Population Trends 1993; 71: 34-42*

Among social class I, there is a clear relationship between type of occupation and suicide. Occupations with the highest suicide rates include vets, pharmacists, dental practitioners, farmers and general practitioners (Charlton et al. 1993). It is likely that in these cases, access to means of suicide is an important factor. In addition, the fact

that social class V, inadequately described and unoccupied, had the highest standardised mortality ratios, suggests a possible inverse relationship between suicide and social status among the lower social classes. However, the picture may be more complex still. Kreitman et al. (1991) studied the association between age, social class and suicide among men in Great Britain, and found that the relationship between suicide and social class among men may in fact vary by age. They found that, when suicide rates for 1979–1980 and 1982-1983 were examined by age (in 10 year age bands) and social class, the peak in suicide rates among social class V became more evident among the middle age groups (25 –34 years, 35 – 44 years, and 45 – 54 years). Kreitman et al. suggest that this may be due to social drift associated with chronic mental illness, or the impact of unemployment, especially the effect of long term unemployment on men in the middle age groups.

5.3 Unemployment

Platt (1984) demonstrated in his review of the literature on unemployment and suicide that unemployment and job instability were significantly more common among suicides compared with non-suicides. This is supported by Fox (1988) who found that men who were unemployed and seeking work at the time of the census were at a two to three times greater risk of dying from suicide than the working population. However, it is unclear whether those who suicide are less likely to be successful at gaining and retaining employment or whether unemployment or job instability leads individuals to suicide. More recently, Gunnell et al. (1999) examined ecological associations between unemployment and suicide in 15 – 44 year old men between 1921 and 1995. They found significant associations between unemployment and suicide and found that associations were generally stronger at younger ages. This suggests that the effects of unemployment on younger men may be particularly devastating. However, a recent study (Kposowa 2001) has suggested that unemployment increases the risk for suicide among women as well, and that this risk persists regardless of the number of follow up years whereas among men, the risk is higher at earlier years of follow up.

Platt's review (1984) also examined individual case histories from studies carried out in various countries across the world, and found that these histories lent support to the proposition that unemployment in suicide victims is, to a large extent, a consequence or reflection of an underlying psychiatric disorder. Rather than unemployment being the cause of a psychiatric illness and suicide, it is more likely that the risks of both unemployment and suicide are elevated by the presence of a major psychiatric illness (in particular depression). This conclusion is in line with Shepherd and Barraclough's speculation (1980) that the high prevalence of psychiatric ill health among their sample of suicides contributed to their employment status. They state that,

> `. ... It is more likely that psychiatric morbidity interfered with capacity for work, resulting in work loss with it's attendant disadvantages, so that

> mental illness at once stimulated suicidal thinking and at the same time took away an effective protection against suicidal behaviour.'

Shepherd, D.M., Barraclough, B.M. 1980, Work and suicide: an empirical investigation. British Journal of Psychiatry, no. 136, pp. 469-78.

Unemployment also inevitably influences an individual's lifestyle, since choices of lifestyle and behaviours are very much dependent on income. For instance, the unemployed are more likely to be socially isolated and to concentrate leisure activities within the home (Christofferson 1994), which inevitably leads to less opportunity to form supportive social relationships. In addition, there is evidence that social support from family, friends and community diminishes the negative effects of unemployment, especially among men (Hammarstrom 1994).

From a broader perspective, Platt (1984) suggests that macro-economic conditions, although not directly influencing the suicide rate, may nevertheless constitute an important antecedent variable in the causal chain leading to self-harmful behaviour. Crawford and Prince (1999) carried out an ecological analysis comparing changes in the age adjusted suicide rates of men aged 15 to 44 years, with changes in aggregate levels of unemployment, poverty, marriage and proportion of adults living alone in 364 county districts in England. Areas experiencing the lowest increase in rates of suicide were areas that experienced the smallest rise in the proportion of people living alone, whereas the greatest increase was in areas of high unemployment with the highest levels of deprivation. This study lends weight to the view that social context is relevant to increasing suicide rates.

The relationship between accident mortality and socio-economic status is less well understood, except in the incidence of childhood accidents. Researchers have actively sought a link between social circumstances and accidents in children, but not adults. This is perhaps because the link between environment and accidents in childhood is acknowledged more readily than the same link among adults; and also because the accident literature is biased towards identifying external factors relating to road traffic accidents. Sharple et al.'s study (1990) supports the evidence of a relationship between accidents and social deprivation. They examined fatal accidents involving head injuries among children and reported a significant relationship between mortality and social deprivation. There was a 15 fold decrease in mortality recorded between the local authority wards that ranked the highest on the overall deprivation index and those that ranked the lowest (14 per 100 000 v 0.9 per 100 000 respectively). In their conclusion, Sharples et al. acknowledge that most of the fatal accidents involving head injury involved children from deprived areas who were playing unsupervised close to home. They suggest that there is an urgent need for safe and stimulating play areas close to home in overcrowded and deprived areas.

5.4 Social support

Much research into suicide has concentrated on individual psychopathology. Thus the influence of social support has been given only passing consideration. However, a few sociological studies have attempted to define the relationship between social support and suicide. Lester carried out several population based studies, examining the relationship between suicide rates and a number of predictors of social support. He hypothesised that smaller nations would have higher levels of social integration than larger nations and compared suicide rates among 16 Caribbean islands (Lester 1991). The study found that suicide rates among the more populous islands were higher, (Pearson $r = 0.79$, two tailed $p = <0.001$) which Lester believes confirms the Durkheimian prediction that suicides would be more common in societies with low social integration.

Maris (1992) makes the distinction between positive and negative social support and states that social involvement of all sorts reduces suicide potential, as long as the social interaction is not negative. It is also likely that social support is a buffer for the impact of negative life events on an individual's mental health. Further, life events may be more stressful for those individuals who do not have a supportive social framework. It must also be remembered that certain life events will alter the structure and function of social support mechanisms in terms of size, interaction and stability. There is also some evidence of a relationship between social support and drug use. Young people who do not have access to a supportive social network may also be likely to turn to other perceived forms of support such as drugs or alcohol (Kandel et al. 1991), which in turn are related to high risk of death from suicides and accidents.

Risk factors affecting adolescent suicidal behaviour were studied in Christofferson's follow up study (1994) of the long-term effects of unemployment on children whom he interviewed during childhood and subsequently followed up at the age of 25. Results showed that having a partner seemed to shield against suicidal thoughts. It was found that physical or sexual abuse during childhood led to self-destructive ideas and victimisation in school was directly connected to suicide consideration or attempts. Adolescents who had suicidal ideas also had more difficulty in concentrating at school. Furthermore, the study found evidence that stealing, shoplifting etc. were directly associated with self-destructive thoughts. Although the results found evidence that suicide attempts or ideation were linked with parental unemployment, more of the risk group studied had seriously thought of committing suicide at some time during their lives than the adolescents in the control group. But this statistical connection to parental unemployment could be an indirect effect of other factors which themselves were strongly connected to unemployment. For example, economic hardship affects adolescents' self esteem indirectly by decreasing parental support and involvement. Christofferson concluded that family and social peers who constitute the nearest social network, undermined, in these cases, the child's identity and personal integrity. Thus unsatisfactory relationships with parents and peers had a negative effect on psychological wellbeing. It is also

possible that "developmental stress" in adolescence makes youngsters especially vulnerable to environmental stress and increasing social pressures. Psychological and social development, including increasing self-consciousness and the drive for 'individuation', may weaken support from the family, school, and other support systems (Aro et al.1993).

Heikkinen et al. (1994) investigated the relationship between recent life events, social support and suicide among a nationwide population in Finland (n = 1067). They used the following variables as measures of social support: marriage, living alone, interaction between family members, recent moves, number of close friends and other variables relating to social integration. Sex differences were found in the amount and type of social support among suicides. Men were less likely to be living alone than females, (26% vs. 33%) more likely to have no children, (46% vs. 31%) more likely to have no companion (30% vs. 24%), but women were more likely to have no friends sharing common interests (40% vs. 52%). In addition, Heikkinen observed that employment and financial status influenced social support patterns strongly, and male suicides who lived alone were more likely than other men to have experienced separation, financial trouble and unemployment in the preceding three months.

These differences between patterns of social support among male and female suicides imply that the social support offered between men through friendships may be of a different quality than that for women. For instance, the friendships were more likely to be orientated around a common interest, such as sport, and the relationships were less likely to be close. Thus while some social support was evident, the quality of that support may not have provided opportunities to share confidences or seek advice and support from their peers.

In addition, the Finnish study demonstrated that male suicides were less likely to live alone than female suicides. However, the study included all suicides and due to the greater longevity of women, they are more likely to be living alone among the older age groups. In fact the male suicides in the study were more likely to have experienced the break up of a relationship both within a week of the suicide (10% vs. 4%, $p < 0.001$) and also within three months of the suicide (15% vs. 10%, $p < 0.01$). Thus, the recent termination of a sexual relationship appeared to be a more important trigger factor for male rather than female suicides.

Among young men in the United Kingdom, the extent to which the increase in the divorce rate may have affected the rate of suicide has been studied. Divorced and widowed men have higher suicide rates (usually by about three times) than men who are married or single. Nevertheless, at certain ages single men have suicide rates almost as high as those for divorced men. It is not clear however, whether men who are more prone to suicide are more likely to be single or to become divorced. Charlton et al. (1992) analysed the changes in suicide rates between 1972 to 1974 and 1987 to 1989, controlling for changes in marital status distribution among the population. They estimated that approximately one half of the increase in rates

among young men may be due to the smaller proportions who are married, although this takes no account of the increase in cohabitation over this period. Further, there is some evidence that being the parent of a child under two years may be protective for women but not for men (Qin et al. 2000), which may be related to the fact that following separation and divorce children most commonly remain with their mother.

It is important to remember that social support, even where it should be constructive and positive, will often create extra pressures such as expectation and disappointment. As Peck (1983) wrote,

> 'achievement rests on successful role performance and the approval of others as a reflection of that performance. Failure either real or imagined, may be of no consequence. Rather, the actor's definition of the situation is the most important factor. Whether this condition engenders deviant acts such as suicides depends in part, on the individual's ability to establish other commitments, seek alternative success routes, or exercise control over the social environment through other means'.

Peck DL. 1983. The last moments of life: learning to cope. Deviant Behaviour 4: 313-332.

5.5 Education

A number of studies have suggested that a relationship exists between level of educational attainment and accident risk. O'Toole (1990) examined risk factors for mortality from motor vehicle accidents among Australian National Service conscripts and found that risk of mortality was higher for men with lower scores on the army intelligence test, with poorer education, and with lower pre-enlistment occupational status. Another Australian study (Ryan et al. 1992) examined 79 vehicle crashes in rural Australia and found that persons of low educational attainment were over-represented among the active participants. 82.2% had no post-secondary educational qualifications compared to 63% of the equivalent age group of the index population. These studies suggest that individuals with a lower educational attainment may have poorer ability to assess risks while driving, and therefore may take risks that a more educated person would avoid. For example, O'Toole found a significant positive association between low intelligence test scores and incidence of intersection accidents and that 'low intelligence' subjects received a disproportionate number of speeding charges. No published studies examining the relationship between education and suicide were identified.

5.6 Alcohol and drug use

Alcohol consumption and patterns of drug use differ according to the age of the population under observation. Drug use is predominantly a problem of the young, whereas alcohol abuse patterns are more evenly distributed throughout all age groups. In addition, type of abuse may vary by age, in that it may be acute or

chronic and this may be important in terms of the ways in which alcohol or drug abuse may contribute to morbidity or mortality. Similarly, patterns of use during the last twenty years may have altered disproportionately among certain age groups of the population. For instance, there has been a significant increase in illicit drug use, particularly among young men (Christopherson et al. 1998). Also studies on attempted and completed suicides indicate that a significant proportion of those who complete suicide have a history of drug misuse or alcohol use compared to the general population (Barraclough et al. 1974, Chynoweth et al. 1980, Rich et al. 1986 Brent et al. 1993, Isometsa et al. 1995).

5.6.1 Alcohol use and suicide

There is evidence that alcohol concentrations among young suicides increased between 1968 and 1983. Brent et al. (1987) examined records of adolescent suicides from 1960 to 1983 in Pennsylvania USA and found that serum alcohol levels had increased significantly, from 12.9% in 1968 when concentrations were first recorded, to 46% in 1983 ($p = 0.0006$). Brent also suggested that there was a close relationship between alcohol intoxication and increased use of firearms. However the reasons for this are not clear. It is possible that victims decide to drink in order to 'brace' themselves for the suicidal act, but there is evidence that victims do not engage in suicidal behaviour until several hours after drinking rather than immediately after intake. This indicates that alcohol predisposes an individual to suicidal behaviour rather than the converse.

Likewise, chronic alcohol abusers have high rates of attempted and completed suicides, but there may be certain factors that distinguish those alcoholics who attempt suicide and those who do not. In Agarwal and Gaskell's study (1996) of 74 alcoholic in-patients, suicide attempters were significantly more likely to be younger, separated and long-term unemployed. They were also more likely to have begun drinking earlier, to be more dependent and to have a co-morbid psychiatric disorder. Of course it is unclear from this evidence whether alcohol abuse resulted in failed relationships or unemployment, or whether failed relationships and unemployment were contributory factors to excessive drinking behaviour.

In addition, older alcohol abusers may have developed better problem solving skills than those who are younger, or it could be that the implications of not having a partner and being unemployed have greater impact on younger alcohol abusers than those who are older. In short, it is evident that alcohol abusers experience a constellation of situations, some of which may arise as a direct result of their alcohol abuse and some of which do not. The impact of these different situations is not fully understood, particularly at different stages of the life cycle. In terms of understanding suicide among young men, it is safe to say that alcohol abuse is a predisposing factor, but the relationship between alcohol and other factors in suicide is poorly understood. Interestingly, a Finnish study of attempted suicides in adolescence (Kotila 1992) found that those adolescents who had drunk alcohol before attempting suicide and reported suicidal thoughts after ingestion of alcohol

were at increased risk of subsequent violent death other than suicide. This implies that the self-destructive behaviours were played out in a mode other than overt suicide even though the end result was the same.

5.6.2 Alcohol use and accidents

Drinking, especially drinking to the point of drunkenness, is significantly associated with fatal accidents. Traffic fatalities are the most obvious case in point, but alcohol is also a contributing factor in other kinds of accidental deaths such as falls and drownings. Although alcohol is not entirely a male prerogative, there is a persistent double standard that defines drinking, especially heavy drinking, as more appropriate for men than women. One factor which contributes to high sex mortality ratios among teenagers and adults is that men are more likely to drink, and likely to drink more than women (Harrison 1978, Waldron 1976).

Giesbrecht and Dick (1993) explored the associations between aggregate rates of alcohol consumption and certain alcohol related complications in six countries, Canada, Finland, France, the Netherlands, Switzerland and the US between 1965 and 1987. Accidental deaths, poisoning and violent incidents were not seen as having as strong an association with societal drinking patterns as liver cirrhosis mortality. They believe this to be due to the fact that situational, environmental and interactional features contributing to the incident were likely to play a stronger role relative to the volume of alcohol consumed. It is also true that liver cirrhosis is an indicator of lifetime patterns of drinking whereas alcohol consumption and violent deaths are far more likely to affect a specific age group, that is young males, and result from 'acute' as well as chronic alcohol abuse.

Giesbrecht and Dick tried to interpret the relationship between alcohol and fatalities. They concluded that increased consumption may increase sense of invulnerability and risk taking, reduce the perceived importance of social norms, curtail awareness of the risks related to drinking-related behaviour, as well as confound ability to make decisions about how to handle interpersonal situations or the interaction of environment and individual.

Alcohol is known to play a significant part in road traffic accident deaths. Binns et al. (1987), believe it to be probably the most important single factor in the causation of serious road accidents. The role of other drugs in road traffic accidents is now beginning to receive more attention. Skegg et al. (1978) investigated the role of legally prescribed drugs in 57 fatal traffic accidents and 1425 controls matched for age and sex. Persons using tranquillisers were nearly five times more likely to be involved in serious road accidents compared to those who were not. Similar studies have been carried out examining the role of marijuana in road traffic accidents and there is considerable evidence to suggest that in many fatal road traffic accidents, the driver is under the influence of marijuana and other drugs (Budd et al. 1989). Budd et al. investigated 600 fatally injured drivers in Los Angeles County and found that 41.5% of drivers had been drinking alcohol, 19% using marijuana, 8% using

cocaine and there was also evidence of low levels of barbiturate usage. Similarly in Europe, there is evidence of a relationship between both alcohol and drug use and fatal accidents. Gjerde et al. (1993), in their analysis of blood samples from 159 fatally injured drivers in Norway during 1989 and 1990, found that 28.3% of the sample tested positively for alcohol and 6.4% for drugs. However it should be noted that some substances are detectable in the urine long after ingestion. Therefore presence of the substance does not necessarily imply that an individual is still under the influence of the drug.

Jonah (1986) reports that although 21% of licensed drivers in Canada are 16 to 24 years of age, this group constitute 49% of the fatally injured impaired drivers who are legally impaired (i.e. blood alcohol concentration greater than 80mg per 100ml). The results of Peltz and Schuman's study (1973) found that the accidents and violations per 100 young drivers increased as a function of drinking frequency but only among those young men who scored high on a measure of hostility. One interpretation of this data is that alcohol consumption disinhibited the aggressive tendencies among the hostile young drivers and this lead to risk-taking, which in turn resulted in an increased likelihood of accident and violation involvement. In addition, Rosenberg et al. (1974) found that 24% of drivers aged 16 to 19, and 54% of drivers aged 20 to 24 had been over the legal driving limit of alcohol consumption. They suggest that young drivers may be especially susceptible to traffic accidents because they lack experience both with driving and with alcohol.

Clayton et al. (1980) carried out a case control study investigating the characteristics of male drivers who were involved in drink driving offences. The offender group were found to have substantially higher weekly alcohol intake than the control group. In this study, those men who had a high alcohol intake continued to drive even when their intake was over the legal blood alcohol limit, thereby increasing the risk of accident and injury. The evidence suggested that the drinking behaviour was part of a regular pattern rather than a 'one off' event. In addition, the characteristics of the offender population differed from the control group in that they were more likely to be younger, single, separated or divorced ($p=<0.001$) and more likely to be semi-skilled, unskilled or unemployed ($p=<0.001$). It seems that impaired driving is only one of the many risks taken by young drivers and indeed driver risk taking may be merely part of a general lifestyle characterised by risk taking.

There are no published studies that attempt to identify all types of accidental death where drug use or alcohol use may have been a factor. In a review of the English language literature on alcohol and unintentional injury, 21 studies on falls, 36 studies on drowning and 32 studies on burns were identified from 1947 to 1986. (Hingson and Howland 1993). The proportion of fatal and non-fatal fall victims who had been drinking ranged from 21% to 77%, and 18% to 53% respectively. It is possible that the presence of alcohol is an important factor in whether an injury is fatal or non-fatal. Cherpitel's study (1994) compared all injuries presenting to an A & E Department during a one year period (n=1124), with all fatalities reported to a Coroner (n=304) within the same county. She found that violence related fatalities

were more likely to involve alcohol (47%) than non-fatal injuries (19%). Interestingly, the fatal sample were also more likely to be male, younger and white, the implication being that when injuries do occur, those which occur among young white men are more likely to be fatal than those that involve women, older people, or non-white people.

5.6.3 Drug use and suicide

A number of studies have demonstrated a link between drug use and suicide (Pierce-James 1967, Charlton et al. 1993, Oyefeso et al. 1999, Rossow and Lauritzen 1999). Oyefeso et al. found that although there had been a decrease in suicides due to barbiturate poisoning, the converse was true for deaths resulting from antidepressant overdose, whose implication in suicide increased from 0% in 1968-1972 to 23.5% of all implicated drugs in 1988-1992. Rossow and Lauritzen (1999) reported that the substantial co-variation between suicide and drug overdose suggests some common underlying causal factors particularly heavy drug use and poor social integration.

However, there is still little known about the relationship between drug use and suicide, particularly outside of a psychiatric model. For example, little is known about the nature of suicidal ideation among young drug users who have not earned a psychiatric illness diagnosis. Kandel et al. (1991) believe that the relationship between drug use and suicide is a neglected area of research, particularly as an increase in the use of drugs has taken place in parallel with the dramatic increase in rates of suicide observed since the beginning of the sixties. Of course during this time, there has been enormous social change, of which an increasing suicide rate and increasing drug use may be a symptom. For instance, disruption of social relationships may increase the likelihood of chronic alcohol and drug abuse thereby engendering hopelessness and social isolation, which could potentially increase suicide risk.

5.6.4 Drug use and accidents

It can be difficult to retrospectively assess motive in overdose deaths where individuals are known substance abusers. One such study in Norway (Kjelsberg et al. 1995) attempted to assess whether deaths resulting from drug overdose among a cohort of young, previous psychiatric inpatients were accidents or suicides. The study concludes that the majority of overdose deaths in young drug addicts are accidental poisonings and not misclassified suicides. However, the study only included addicts, omitting other drug users. It is possible that addicts are more likely to accidentally die during drug use since by definition they use more regularly and are therefore exposed to the risk more often. Also, the majority of these deaths were opiate based. With opiate based drugs it is more likely that an overdose can occur accidentally since they are more toxic whereas, with substances that are less life threatening, it is more likely that death is a result of intention rather than accident.

Violent deaths among drug addicts have been the subject of some investigation. Tunving (1988) compared data on hospitalised drug addicts and found that those who died violent deaths other than suicides (mainly overdoses) used opiates more often and injected intravenously compared to surviving drug addicts. On the other hand, those who died of suicide more often had mental disorders in parents or siblings, periods of heavy alcohol abuse and prison sentences prior to hospital admission.

Another problem that may be encountered is that of lost tolerance. This is particularly recognised when prisoners are released from prison where tolerance to opiates is lost by enforced partial or total abstinence (Seaman et al. 1998, Cooper et al. 1999).

5.7 Life stress and life events

Extensive empirical evidence on life stress, life events and illness has demonstrated that there is a relationship between life events and both physical and mental health (Masuda and Holmes 1967). It has been established that life events result in the need for ongoing life adjustment, and the much publicised work of Holmes and Rahe (1967) is based on the premise that life events result in the need for an individual to adjust in order to accommodate the resulting change. Of course, the more common life events that occur throughout the population, for example, problems at work, are likely to be of little significance on their own. Nevertheless, an accumulation of several life events over a period of time may result in as much, if not more, disruption than one single major life event alone.

There are only a handful of studies comparing life events among suicide completers with general population controls. These studies reveal that risk of suicide increases following death of a parent or spouse and that completed suicides had experienced more changes in living conditions, work problems and object losses than living controls (Macmahon and Pugh 1965, Bunch et al. 1971, Hagnell and Rorsman 1980). As already mentioned, divorce is known to be positively correlated with suicide and is obviously a major life event. Dorpat and Ripley (1960), in their study of 114 suicides found that 39% of females and 21% of men had lost a family member by death, separation or divorce in the year preceding suicide. Nevertheless, divorce also has a confounding effect on other social variables for a variety of reasons. For example, divorce or separation from a partner may also result in the loss of mutual friends and social support.

However, life events do not occur in a vacuum, but rather within a person's social framework. This is important because there is evidence that social support is a protective factor in reducing the risk of suicide and it is likely that life events may be more stressful for those individuals who do not have a supportive social framework. It must also be remembered that certain life events will alter the structure and function of social support mechanisms in terms of size, interaction and stability. For example, the loss of employment may result in the loss of social

support provided in the work environment and may also prevent an individual pursuing previous social activities as a result of financial loss.

In short, the most important factor in terms of life events appears to be the way in which an individual copes with these events, particularly at crucial periods during the life cycle. The lack of the capacity to cope and to adapt can create doubt as to whether life is really worthwhile or even possible (Yufit and Bongar 1981). Rudd's study (1990) suggests that social support acts as the moderator between life stresses and suicidal ideation. That is, when under high life stress, individuals with weak social support were more likely to experience high levels of suicide ideation.

A few studies have attempted to define the relationship between life events and accidents. Selzer et al. (1968), found that social stress in the previous twelve months was significantly greater in 96 drivers involved in fatal accidents than in a control group (32% compared to 8%) for personal conflict stress. Also, 20% of the 'fatal accident' drivers were known to have had acutely disturbing experiences (usually quarrels) within 6 hours of the accident. In a follow up study, Brenner and Selzer (1969) found that the risk of fatal accidents for persons who had recently experienced social stress was five times as high as for those who had not. Isherwood et al. (1982) investigated the relationship between life events, accident morbidity and suicide attempts, and found them only to be associated with suicide attempters and not with motor vehicle accident morbidity.

5.8 Mental illness and psychological factors

There is extensive literature offering evidence of a relationship between mental illness and suicide. Retrospective studies by Dorpat and Ripley (1960), and Barraclough et al. (1974), show that over 90% of suicide victims were suffering from a major psychiatric illness, frequently depression but often alcoholism. In his review of the evidence concerning conditions predisposing to suicide, Miles (1977) concludes that virtually all the suicides in the United States can be attributed to depressive illness, alcoholism, schizophrenia, neurosis, personality disorders and drug addiction.

Shaffer et al. (1988) reported that suicide is more likely to be found with depression or transient situational problems in females, whereas in men it is more likely to be associated with a pattern of aggressive behaviour often coupled with substance abuse or alcoholism. There is also some evidence that long standing psychiatric illness is a predictor of all cause premature mortality, and in particular, violent death. Bayard-Burfield et al. (1998) in a Swedish study of 39,155 individuals, found a relative risk of violent death 3.51 times higher among men with a history of long standing mental illness, lending support to the hypothesis that there may be common risk factors for suicides and accidental death.

The psychiatric paradigm of mental illness is the most common paradigm of suicide research. Nevertheless, in terms of understanding a multi-factoral problem such as

that of suicide, it is largely restrictive. The specific pathology leading to suicide explains little about the environmental or cultural influences that conspire to cause illness in certain individuals. For instance, some studies measuring the prevalence of mental illness among completed suicides define drug dependence as a psychiatric disorder, whereas others studies, which are not wholly concerned with measuring mental illness, may not see drug use as a psychiatric disorder but rather a response to social disorganisation. As a result, there is a distinct lack of consensus on the weight and significance to be ascribed to various causative or associated factors in the current literature.

While the medical model has provided some useful insights, there is an important caveat for its use. It tells us little about the social context in which accidents or suicides arise, thereby emphasising the individual nature of illness and withdrawing attention from a social approach to understanding suicide. If the major factors leading to suicide were cultural for example, the relationship between culture or society and suicide is already removed one step by imposing a pathology as the focus of treatment. Further, if these factors lead the Coroner to believe the death was a suicide, then the death will receive a suicide rather than an accident label.

In contrast, Kotila (1992) identified a risk group among young adolescent attempters as those who have lifestyle or social problems rather than signs of treatable mental disorders. These young people may abuse alcohol and have other adaptation problems such as difficulties in finding work or being interested in their studies, yet because they are not diagnosed as suffering a mental illness, they fail to access appropriate services for help.

The field of social psychology has produced some interesting challenges to a medical understanding of suicide. A common hypothesis in this field is that repeated exposure to stress and a failure to cope with stress over time leads an individual to develop an increasing sense of hopelessness which can then lead to more overt forms of suicidal or self-destructive behaviour (Rich and Bonner 1989). Indeed, Beck et al. (1974) argues that hopelessness is a more reliable indicator of suicide than psychiatric illness.

The first systematic study of the psychology of drivers involved in traffic accidents was carried out as early as 1949 by Tillman and Hobbs. The study found that drivers with higher numbers of accidents had more family disruption (both currently and in childhood), uneven unemployment records, fewer hobbies, friends' histories of irresponsibility and sexual promiscuity, and were more often rated as emotionally immature and aggressive. Likewise Tsuang-Ming (1985) reviewed the literature pertaining to the psychopathology and personality variables in traffic accidents and also found evidence of common personality characteristics such as low tension tolerance and immaturity, and also evidence of psychiatric problems including personality disorder and paranoid conditions.

A few studies have attempted to distinguish gender differences in psychology among people involved in fatal accidents. Shaffer et al.'s work (1974) investigated men and women involved in fatal accidents and found that male drivers who were involved in fatal accidents were more likely to be belligerent, negative, socially expansive, and display more psychopathology than men not involved in accidents. However they did not find the same was true for women. The personality characteristics of women involved in accidents were similar to those of women who had not been involved in accidents. It is possible that the differential accident fatality among men and women may be related to specific male behaviours whereas accidents among women may arise more commonly as a result of physical or environmental factors or indeed largely at random among the female population.

Phillips (1979) investigated the role of imitation and suggestion on suicide and vehicle fatalities. He found that three days after a publicised suicide, vehicle fatalities increase by 31% and the more the suicide is publicised, the more the vehicle fatalities increase. Phillips believes that the concepts of suggestion and imitation have been neglected in modern sociology.

Psychiatric illness and psychological factors are evidently important factors in suicide then, but they should be seen as part of a constellation of contributory factors that finally lead to the act. In addition, that there is evidence of these same factors among suicide and accident mortality lends support to the relationship between accidents and suicide as a cause of death.

5.9 Health service interventions

5.9.1 Primary Care

It is generally agreed that about two thirds of those who commit suicide have seen a GP in the previous month (Gray 1994). Where young men are concerned, the figure is likely to be considerably lower (Strodl 1994, Vassilas and Gunnell 1994). There is also evidence to suggest that the under 35's are less likely to have had contact with primary care prior to suicide than the over 35's (Vassilas and Gunnell 1994). In addition those with a history of psychiatric illness were more likely to have contacted their GP prior to suicide. A study of 149 completed suicides in North Cheshire (Squires 1995) explored patterns of attendance at the GP, comparing attendance of the under 35's with attendance of the over 35's. The mean number of attendances for the under 35's was significantly less in the year prior to suicide than the mean number of attendances for the over 35's, (4.22 compared with 7.52 respectively. $p = <0.02$). Moreover, the under 35's were less likely to consult their GP within 4 weeks of suicide than the over 35's ($p = 0.001$) indicating that primary care offers less opportunity for crisis intervention among younger patients.

There is also evidence that primary care is limited in its potential role to reduce suicide rates since many people who complete suicide do not necessarily express suicidal ideation at the final consultation even if they attend shortly before the act of

suicide. Matthews et al.(1994) examined the primary care records of all adults dying by suicide in 1988 to 1989 and found that 38% of suicides were preceded by contact with primary care or hospital based physicians. In the week preceding the suicide 15.8% had seen a GP. However the authors state that the overwhelming majority of patients did not express overt thoughts of self-harm at the final consultation and believe that the findings cast doubt on the likelihood of implementing effective suicide strategies either in primary care or within mental health services.

Nevertheless, there have been studies supporting the hypothesis that primary care contact is an important means of reducing suicide. The Gotland Study (Rihmer et al. 1995) assessed the effectiveness of educating GPs in the diagnosis and treatment of depression on the Swedish island of Gotland and subsequently ran a two day educational programme which was attended by most of the island's GPs. In the two years following the programme, the frequency of suicide and inpatient care for depression decreased significantly and the authors state that this provides evidence for the view that early recognition and treatment for depression is one essential method for suicide prevention. However, further work (Rutz et al. 1992) revealed that the effects were strictly related to the educational programmes and would need to be repeated every two years if long terms effects were to be expected. In addition, an Australian study found that educating GP's to enhance detection rates of psychological stress did not necessarily improve patient management strategies (Pfaff et al. 2001). Thus, improvement in detection of suicidality and psychological distress may not significantly reduce suicide rates unless it is accompanied by good patient management.

There is also some evidence that poor prescribing habits in primary care may influence suicide rates. A Swedish study investigating 3400 suicides concluded that under prescribing and therapeutic failure may actually be a greater problem than the toxicity of antidepressant drugs (Isacsson et al. 1995). Nevertheless, there is still an issue regarding the toxicity of antidepressant drugs in primary care and it has been suggested that where drugs have equal effectiveness clinically, GPs should consider describing antidepressants with lower fatal toxicity (Henry et al. 1995).

A study into adolescent suicide attempters by Slap et al. in 1992, concluded that suicide attempts are common among adolescent clinic patients, that physicians may not recognise attempters, and that attempters remain distressed and in need of care. Slap et al. suggest that physicians who see adolescents for routine medical problems should consider the potential for self-destructive behaviour, regardless of the presenting complaint. However, given the short consulting times in primary care in the UK, such an approach would be difficult to achieve in practice.

5.9.2 Secondary Care

People who contact health services as a result of suicidal ideation usually either present to an Accident and Emergency Department or access secondary services through their GP. It is likely however that young men are currently the group with

whom the health service has least contact and least information to explain the rise in suicide among their number (Gunnell and Frankel 1994). Men are significantly less likely to access healthcare, except perhaps when their condition is serious (Courtenay 2000a). In relation to depression, men are less likely than women to seek mental health services, and are more likely to withdraw from others and to try to manage their depression on their own (Courtenay 1998). The factors that inhibit men from seeking help require further examination.

One of the current areas of interest emerging in relation to secondary care and suicide prevention is that of risk assessment. Risk assessment involves the process of matching an individual with a set of previously recognised risk factors for suicide (Morgan 1994). One of the major problems with this is that the risk factors are neither sensitive nor specific. However, this does not imply that secondary care provision has no role to play in reducing suicides. Indeed more recently, the proliferation of local suicide audit has begun to uncover areas where practice can improved (Lelliot and Lambourn 1994). Burgess et al. (2000) found that the key factors associated with preventability included poor staff-patient relationships, incomplete assessments, poor assessment and treatment of depression and psychological problems, and poor continuity of care. In the UK the National Confidential Inquiry into Suicides and Homicides investigates all suicides and homicides that were in touch with psychiatric services during the twelve months preceding their death. The inquiry has made a number of recommendations to secondary services in order to reduce the suicide rates of those in contact with services. These recommendations include:

- improved staff training of assessment of management of risk
- a simplified universal documentation system
- changes in drug prescribing policies
- better transfer of information between services
- allocation to care under the care programme approach according to evidence of risk
- a comprehensive social and care plan for those who disengage in services and points of access for families for the mentally ill
- closer monitoring and observation of at risk patients
- follow up within 48 hours for all at risk patients who are discharged
- multidisciplinary review of any suicide (or homicide) cases (Department of Health 1999a).

Therefore, areas have been clearly identified where practice could be improved in relation to caring for suicidal patients.

The literature on the role of health services in accident mortality has concentrated on health service interventions investigating the effects of physical trauma (Gilroy 1985, Sevitt 1973). Researchers have attempted to evaluate the impact of emergency services and health service treatment on the outcome of trauma fatalities and to define the number of deaths that may have been preventable in terms of clinical intervention. These studies have generally concentrated on the mechanism of

physiological injury and how death could have been avoided by appropriate treatment (Gilroy 1985, McCoy et al 1989).

5.10 Prevention in suicide and accidents

Suicide prevention can be divided into three parts: primary, secondary and tertiary. Primary prevention focuses on preventing suicidal ideation and tendencies through a variety of means. This is approached through population measures such as providing high quality mental health promotion measures for example. Secondary prevention concentrates on developing strategies for early intervention with individuals who have developed suicidal ideation. Tertiary prevention is the prevention of the recurrence of suicidal behaviour in those who have already attempted suicide.

5.10.1 Primary prevention programmes

Primary prevention programmes are aimed at dealing with major social issues that are known to be related to a higher risk for suicide such as delinquency or substance abuse. Prevention efforts aimed at the constructs underlying those risk factors, such as depression, social support, poor problem solving skills and hopelessness could offer an effective means of suicide prevention. Garland and Zigler (1993) suggest that school primary prevention programmes and family support programmes would provide a general system of support as opposed to an isolated and narrow approach to specified problems.

Since the 'eighties there has been an upsurge in curriculum based suicide prevention programmes in the United States (Underwood and Dunne-Maxim 1992). These programmes generally involve secondary school students, their parents and school staff and are intended to raise awareness regarding suicide, to train people to identify adolescents at risk, and to educate participants about community mental health resources. The programmes have had little evaluation to date and the evaluation that has taken place points towards limited effectiveness in imparting knowledge and ineffectiveness in changing attitudes towards suicide.

The Center for Disease Control (1992) recommends that persons who may be at high risk following a suicide in a school should be screened by a trained counsellor and offered appropriate treatment as required. In the United States, the Centre for Disease Control has developed a community plan for containing clusters of suicides that may occur following a suicide in a community (Blumenthal and Kupfer 1990). Much emphasis has been put on schools and other educational institutions, as potential communities that could benefit from such a plan. However, it is very difficult to assess the effectiveness of these programmes since suicide is such a rare event and it is difficult to accurately measure how many suicides may have been averted.

5.10.2 Secondary prevention

Gunnell and Frankel (1994) suggest that restricting access to means of suicide may have the greatest potential for reducing suicide rates. The most famous example of the effectiveness of restricting means of suicide is the example of British Domestic Gas. Carbon monoxide poisoning was previously a common means of suicide until 1963 when there was a great reduction in carbon monoxide residue in domestic gas. Subsequently there was a reduction in the suicide rate until 1971 and it is suggested that this was as a result of the coincident detoxification of domestic gas (Kreitman and Platt 1984). More recent work also suggests that the steadily growing numbers of cars with catalytic convertors may go some way to explain the decreasing suicide rates from 'other' gas poisoning (Kelly and Bunting 1998).

Other methods of limiting availability include improved prescribing, limiting the quantity of paracetamol available at a single purchase, adding methothionine to paracetamol to limit its toxicity in overdose and environmental safety measures. These measures work on the premise that limiting accessibility would give potentially suicidal thoughts enough time to subside. There is however, a contrary school of thought, which hypothesises that whilst restricted availability may reduce suicides from a certain cause, suicides as a result of other methods will increase (Rich et al. 1990).

5.11 Conclusion

This review has identified a number of factors associated with suicide and accident mortality. The literature suggests that the common thread that defines this group of deaths may be self-destructive behaviour. In relation to the contrasting definitions of accidents and suicide, as Menninger (1938) points out, the term purposive accident may seem at first to be a contradiction in terms to the academic. To the lay person however, it is a well known phenomenon referred to in every day speech as 'accidentally on purpose' suggesting intentional or partly-intentional self-destruction on the part of the individual involved.

Factors which the literature suggest are common to both suicide and accident mortality include risk taking and self-destructive behaviour, social class, drug and alcohol use, life events and mental illness. However, literature on accidental death has not always examined the same risk factors as those identified for suicide, often concentrating on external environmental risk factors. Little is also known about the role of health services in the prevention of suicide and accidents. The study of accidents has largely included trauma studies and there is no known single intervention that has been shown in a well-conducted randomised trial to reduce suicide (Gunnell and Frankel 1994).

Further, the study of suicide and accidents has, in the past, been dominated by a medical model. In relation to suicide, research has been dominated by psychiatry with considerable emphasis on mental illness and clinical intervention and the study

of accidents has largely consisted of trauma based studies. The majority of research published within the field of psychiatry has concentrated exclusively on individual psychopathology. In relation to accidental death, much of the research has focused on the medical interventions required following accidents in order to preserve life. The main focus of public health as opposed to medical practice, however, is its emphasis on population based primary prevention of disease. From a public health perspective, it is therefore vital to develop and evaluate effective suicide and accident prevention initiatives if the suicide and accident rate is to be reduced among young men.

Biro (1987) suggests that aetiological considerations about self-destructive behaviour should include many different factors and encompass knowledge from different scientific fields.

From the literature then, it is evident that few major theoretical or methodological breakthroughs have been made in the study of suicide and self-destructive behaviours. The literature suggests that there may be common contributory factors relating to risk taking and self-destructive behaviour in deaths from accidents and suicide among young men. However, the precise nature of these factors has not previously been identified, since studies carried out to date, have generally treated these causes of death as being separate and unrelated. Also, the factors identified to date are neither sensitive nor specific and therefore offer little in terms of developing policies for prevention. A new perspective is required if the factors leading to suicide and mortality from less overt forms of self-destructive behaviour are to be fully understood. This study proposes a population approach to studying mortality from suicides and accidents, and will attempt to identify common factors associated with these two modes of death.

Chapter 6 Theories of masculinities

6.1 Introduction

As discussed in Chapter 1, male mortality is higher than female mortality at all ages and has been since mortality records began. Waldron (1976) estimates that 75% of the sex difference in life expectancy can be accounted for by men being involved in high health risk behaviours including smoking, alcohol abuse, and a propensity towards violent or hazardous activities. In fact, male socialisation into aggressive behavioural patterns seems to be clearly related to their higher death rate from external causes (Harrison 1978, Harrison et al 1995). However, although injury and death due to recreation, risk taking and violence are associated with being male, epidemiological data are consistently presented as if gender were of no particular relevance (Courtenay 1999).

Courtenay's review of the literature (2000a) identified a number of different factors that contribute to poorer health among men. These include under utilisation of health care facilities, poor diet, increasing obesity, sedentary lifestyle, greater substance use, more frequent and higher alcohol intake, higher incidence of risk taking and participation in dangerous activities, higher risk sexual activity, and less social support than women. His findings provide compelling evidence that men's greatest health risks are preventable and indicate that poor health behaviours frequently co-occur among men. Few health scientists have attempted to identify what it is about men, that leads them to engage in these behaviours which seriously threaten their health. Courtenay suggests that factors that undermine men's health are often signifiers of masculinity and instruments that men use in the pursuit of social power and status. He also states that like crime, health behaviour may be 'invoked as a practice through which masculinities (and men and women) are differentiated from one another' (Courtenay 2000a). In fact, health seems to be one of the most clear cut areas in which the damaging impacts of traditional masculinity are evident (Sabo and Gordon 1995).

Despite this, and while there has been prolific development of theory relating to gender and health until recently, men, or at least men and masculinity, remained relatively invisible as an explicit focus in research and sociological theory (Hearn and Morgan 1990).

6.2 Theories of gender

6.2.1 Essentialist theory

Early theories of gender could be described as essentialist. Essentialists claimed that gender differences were innately given. In terms of health, there is some evidence of links to genetic factors that may partly justify higher male mortality (Tricomi et al.

1960). However, even if one ascribes to the belief that aggression is solely determined biologically, the fact that men are nearly three times more likely than females to die in road traffic accidents or to commit suicide is difficult to ascribe to genetic differences alone (Eisler and Blalock 1991). In addition, Connell (1999) believes these essentialist approaches to gender ignore the social structural conditions that produced them. Further, he claims that if we spoke only of differences between men as a bloc and women as a bloc, we would not need the terms 'masculine' and 'feminine.' The terms 'masculine' and 'feminine' point beyond categorical sex differences to the ways men differ among themselves and women differ among themselves in matters of gender. As theory has developed, it has generally been accepted that gender can only be explained by acknowledging it as a complex interplay between biological and socio-cultural processes (Sabo and Gordon 1995).

6.2.2 Sex role theory

Sex role theory emerged from the work of Talcott Parsons in the 1940's. These early approaches to studying gender saw male and female as synonymous with masculinity and femininity, termed sex role theory. Sex role theory is based on the idea that biological males and biological females are socialised into pre-existing male and female roles in a particular culture (Harrison et al. 1995). The work of sex role theorists suggested that there were certain types of behaviour related to the male role. It was subsequently heavily criticised for this since it treated masculinity as a social norm for the behaviour of men (Connell 1999, Harrison et al. 1995), and did not address the significance of power in gender relations. Furthermore, conceptualising gender as a role reduces its explanatory usefulness in discussions of power and inequality. As theory development has become more sophisticated, the paradigm of sex roles has been seen as rather reductionist. Its conceptualisation of social structure is essentially static and accommodates departures from normative standards only in a framework of social deviance (Connell 1987). Further, the model says nothing about the political nature of relationships between men and women, and nothing about the important dimension of power in these relationships. It is now accepted that men are not passive victims within socially prescribed roles. They are active participants in sustaining and reproducing a variety of male roles.

However, it was not until the after the emergence of sex role theory, that the idea of the dimension of power in gender relations was introduced by Simone de Beauvoir in her work entitled 'The second sex' (1997, originally published in 1953). From this point, a wider academic interest in gender was kindled.

6.2.3 Feminist theory

The study of gender as an academic discipline did not become mainstream until it was taken on by the feminist movement in the late 1960's. Feminist theory is a generalised wide ranging system of ideas about social life and human experience developed from a woman centred perspective (Ritzer 1996). In general terms, it is

concerned with understanding and explaining the subordinate position of women in society, specifically in terms of a theory of patriarchy (Abercrombie et al. 2000). Initially, feminist theory focused on issues relating to gender and health. As a result, a feminist critique of the patriarchal nature of medicine emerged which highlighted the male dominated nature of the medical profession and led to women aspiring to redefine health on their own terms (Ehrenreich and English 1979, Doyal 1983, Roberts 1982, Oakley 1984, Foster 1989, Annandale and Hunt 1990).

Inevitably feminist theory has more to say about gender than any other sociological theory, and thus is also a useful starting point when studying gender from a male perspective. Moreover, the major areas of study in feminist theory are not exclusively about women, they are about the nature of relationships between women and men, for example, rape and domestic violence. They have therefore been useful in their contribution to some of the early thinking about the nature of masculinity.

During the 'seventies and 'eighties, academic researchers developed more comprehensive theoretical approaches to understanding the links between gender and health. Most of these advances in theory and research were still fostered by the women's health movement and the growth of feminist scholarship that led to gender being firmly placed in the centre of discourse on social organisation (Sabo and Gordon 1995). Despite the prolific development of theory relating to gender and health however, where health disadvantage was linked to gender, the focus typically remained on women rather than men (Arber 1990).

It was not until the 'seventies that gender and health theories began to inform research on men's as well as women's health behaviour and a number of theorists began to attempt to address the influence of gender on men's health (David and Brannon 1976, Nathanson 1977, Pleck 1981). These new developments were based on a social constructionist paradigm of health.

6.2.4 Social constructionist theory

Although relatively recent, this approach has been employed by a variety of social scientists (Courtenay 1999). It is a perspective that focuses on the ways in which human beings individually and collectively interpret or construct the social and psychological world in specific linguistic, social and historical contexts (Schwandt 1997). It emphasises the actor's definition of the situation, and seeks to understand how social actors recognise, produce and reproduce social actions and how they come to share an inter-subjective understanding of specific life circumstances. People are regarded as competent and communicative agents who actively create or construct their social world. Social constructionist theory sees gender not as something we are, but as something we do in our interactions (Moynihan 1998). From a social constructionist perspective, women and men act as they do, not because of role identities, or psychological traits, but because of concepts about femininity and masculinity that they adopt from their culture (Kimmel 1987). Social

constructionism argues that many basic gender distinctions fervently believed to be timeless, are now thought to result from shifting social constructions (Stearns 1990).

Health related attitudes can similarly be understood as a means of constructing or demonstrating gender. Like crime, health behaviour may be a practice through which masculinities (and men and women) are differentiated from one another (Messerschmidt 1993). Thus, the patterns of gender and sex are not just an important feature of human life, they are specifically social: inequalities of income, the distribution of power, the division of labour and other social facts. (Connell 1987). Connell is the most developed of the theorists in relation to masculinities. His theory is particularly appropriate to a population perspective since it attempts to locate masculinities within the larger social framework in which they are constructed (Connell 1999).

6.2.5 Connell's theory of masculinity

Connell's theory (1987, 1999) is based on a social constructionist approach. Connell argues that masculinity is socially constructed, and has suggested a pluralising of the terminology to masculinities. The implication is that there is not one, but many masculinities which are constructed according to the relationship between men and the society in which they live. His theory is based on the premise that gender is a way in which social practice is ordered. In other words, gender grows out of social practices in specific social structural settings and serves to inform such practices in reciprocal isolation (Messerschmidt 2000). Masculinity is not an isolated object, rather it is an aspect of a larger structure of gender. Also masculinity is relational; it does not exist except in relation to femininity.

Constructionist theory takes the view that gender inequalities are the consequence of human intention and that the structures created confer people with opportunities and limitations of various kinds. As individuals respond to these limitations and opportunities, they recreate the structure. Therefore, gender differences and inequalities are socially constructed rather than natural or biological, because that which is social is held to be able to be reconstructed.

Connell (1999) states that rather than define masculinity as an object (a natural character type, a behavioural average, a norm), we need to focus on the processes and relationships through which men and women conduct their gendered lives. Thus he defines masculinity and femininity as simultaneously, a place in gender relations, the practice through which men and women engage that place in gender, and the effects of these practices in bodily experience, personality and culture. His model of gender is three fold, distinguishing relations of power, production and cathexis (emotional attachment). The main axis of power is the overall domination of women by men; production relations are characterised by the gendered allocation of tasks, and cathexis focuses on the practices of sexual relationships and the influence of gendered order on these. Connell claims that masculinity is not just an idea 'in the

head'. Definitions of masculinity are deeply enmeshed in the history of institutions and of economic structures.

Connell defines four aspects of relations among masculinities: hegemony, subordination, complicity and marginalisation. Hegemony refers to the cultural dynamic by which a group (in this case, men) sustains a leading position in social life. Within this framework there are specific relations of dominance and subordination between groups of men. Complicity refers to the way in which the majority of men gain from hegemonic masculinity since they benefit from the patriarchal dividend, or in other words, the advantage men in general gain from the overall subordination of women. Marginalisation refers to the masculinities in dominant and subordinated groups. It is always relative to the authorisation of the hegemonic masculinity of the dominant group. Therefore, certain groups of men, such as gay men, and ethnic minorities, may also experience subordinations, stigmatisations and marginalisation. The interplay between hegemonic and subordinate masculinities is a complex one but underlines the fact that the experience of being a man is not uniform. Thus Connell believes that male gender identity derives from and revolves around status and power differences between the sexes and among men.

Connell describes the relationship between biology and gender in the following way, -

> 'Gender exists precisely to the extent that biology does not determine the social. It marks one of those points of transition where historical process supersedes biological evolution as the form of change'.

Connell R. 1999 Masculinities. Cambridge: Polity Press.

This model of masculinity does not refute biological evolution. It recognises however, that evolution is a process that takes many thousands of years to respond to the need to change. Gender, on the other hand, as a social practice, shapes the way that men and women behave through a constant process of interaction with each other and within the environment in which they live. It would seem reasonable to assert then, that the biological predisposition that males have to certain types of behaviour is a constant. However, the interpretations of these behaviours are dependent on the social environment, its specific cultural attributes and the position of that male within the hierarchy. Over the last hundred years changes within society have strongly influenced the gendered practices of men and women.

Kimmel (1987) describes these social changes thus:

> 'Social changes, such as the changes in the organisation of work, the shifting of the geographical frontier, and demographic shifts, create the structural parameters for changes in family structure and the relationships of family to economy and society. For example, during

the last 100 years, structural changes led to changes in fertility and morality, to increased participation by women in the labour force and in the public sphere in general. These changes in family organisation in turn structure changes in gender relations, as women begin to move from domestic to public sphere and define an ideology that justifies such movement. In a sense, then feminist women, ought to redefine femininity to include active public participation, including (although not limited to) education, religious institutions and social reforms'.

Kimmel MS. 1987. Changing Men. New directions in research on men and masculinity. London: Sage Publications.

Since masculinity is relational to femininity, the growth of the women's movement and the massive social change that this has brought about has meant the need to reposition masculinities throughout the hierarchy. Connell attempts to locate these masculinities within the larger social framework in which they are constructed.

6.2.6 Connell's theory and the public health perspective

As explained in section 6.2, early sociological explanations of gender presupposed a belief in individual difference and personal agency (Connell 1999), whereas Connell describes gender as a way in which social practice is ordered. This mirrors the way in which ideas about promoting health have developed during the 'nineties. In the early 'nineties, the first strategy for improving the health of the population in the UK (Department of Health 1992) was criticised for having an overemphasis on individual lifestyles, minimalising discussion of socio-economic and political influences on health (Public Health Alliance and Radical Statistics of Health Group 1992). In contrast, more recent developments in the field recognise that creating environments that enable people to live healthier lives is a central concern of health promotion (Katz and Peberdy 1997). Public health ideology recognises that the main factors affecting health, such as poverty and disempowerment, are socially constructed and are also amenable to prevention. In tandem, this implies that the solution to such a problem cannot be found at an individual level alone. This is also the view expressed by Brooks and Silverstein (1987) who argue that while individual men must be held accountable for their behaviour, they believe that the solution to dark side behaviour (which includes violence, self-destructive behaviour and substance abuse) must be found at a societal level as well as an individual one. Thus, the model enables the user to consider the possibilities of developing population based, rather than individual solutions.

The model has not yet been widely used, although it has been employed successfully to analyse the relationship between masculinities, crime and violence through the work of Messerschmidt (2000). It provides a means of analysing masculinities by considering men's behaviour in relation to the society in which they live.

It also emphasises the importance of gender as another axis of inequality, which impacts on the health of men (as well as women). According to Connell (1999), hegemony is the cultural dynamic by which a group claims a leading position in social life. By definition, this group maintains all the power and by implication, health advantages, whereas those with the lowest positions have the greatest health disadvantages. Public health research has also found such a correlation between position in the hierarchy and mortality risk in the Whitehall Study (Marmot and Shipley 1996), which provides longitudinal and quantitative evidence of such a relationship.

Chapter 7 Aim and objectives of the study

7.1 Aim

The aim of these studies was to identify common contributory factors to injury and poisoning mortality among young men.

7.2 Objectives

To compare trends in mortality among males and females in the United Kingdom since mortality records began in 1841.

To examine recent trends due to suicide and accidents among males aged 15 to 39 in England and Wales.

To analyse mortality trends among young men in Merseyside and Cheshire between 1985 and 1995 and in particular to examine trends due to accidents and suicide.

To examine data for a cohort of men aged 15 to 39 who died a violent death during 1995 in Merseyside and Cheshire, to identify common contributory factors in these deaths, and to identify factors that distinguish deaths due to suicide from those due to accidents.

To examine the life stories of those injury and poisoning deaths (excluding homicides) which occurred in Liverpool, using data collected through interviews with the family and friends of the deceased; and to analyse these qualitatively using Connell's theory to identify the role played by risk taking and self-destructive behaviour, to examine the way in which these young men constructed their masculinities.

7.3 Hypotheses

Phase I
There are common contributory factors to injury and poisoning mortality and in particular, accidents and suicides, among young men aged 15 to 39 in Merseyside and Cheshire.

Phase II
Young men who die through accidents and suicide in Liverpool do so as a result of following a common pathway of risk taking and self-destructive behaviour, which is related to the ways in which they construct their masculinities.

Chapter 8 Introduction to Methods

8.1 Quantitative and qualitative methods in public health research

Traditionally, a gulf has always existed between the practice of qualitative and quantitative research, each belonging to two distinctive paradigms or theories (Layder 1988). The basic paradigm of quantitative research is that of positivism, a belief that the world is made up of certain structured truths. Conversely, qualitative methods are based on a constructivist philosophy that there is no one single truth, rather truth is constructed through the behaviour of the actors involved. At first glance these two different paradigms appear to be diametrically opposed, but it has been suggested that the difference between qualitative and quantitative theory may not lie within the paradigm itself, but in the level at which the theory is applied (Fielding 1988). That is, descriptive accounts of large scale social phenomena should be grounded in statements about actual social behaviour in concrete situations, as exemplified by quantitative research. In contrast, research which analyses social behaviour at an individual level is not looking for evidence of shared social behaviour and a qualitative approach allows the researcher to explore an individual's unique response to varying social stimuli. Giele and Elder (1998) suggest that qualitative data redirect our attention to how individual lives, macro-level events and life course transitions intersect and shape life course trajectories. Quantitative data on the other hand, will only allow the researcher to identify the value of individual variables.

Of course, the process of research is not as neat as this interpretation presupposes. In quantitative methodology it is impossible for the researcher to avoid observing that generality prevents a deeper level of analysis, particularly at the micro level. Indeed it could be argued that quantitative research pushes the researcher into oversimplification of the important research questions by reducing them to variables that can be quantified. Conversely, it is unrealistic to assume that the qualitative researcher can be value or theory free during the collection of data. However, combining methods allows the researcher to analyse both macro structures using quantitative analysis and micro structures using qualitative analysis. The two methods provide a complementary approach to understanding social behaviour at two different levels allowing different aspects of the same problem to be studied. Of those who choose to combine methods, there is disagreement about the most appropriate theoretical approach to take. Some methodologists acknowledge the advantages of a combined or integrated use of quantitative and qualitative methods in a single study but support the paradigmatic distinction (Bogdon and Biklen 1982) whereas others find the paradigmatic distinction irrelevant (Goodwin and Goodwin 1984, Hammersley 1992).

Sechrest and Sudan (1995) maintain that the problems perceived to exist between quantitative and qualitative research, mainly stem from misunderstandings. They argue that quantitative research in practice is rarely able to follow the rational explication of the methodology of a field as if it were an ideal, and on the other hand, qualitative researchers have generally not been as careless and cavalier about issues of objectivity and truth as some of their critics allege. Thus the perceived differences between the two approaches are not as great as they at first appear.

The studies reported in this thesis have been carried out, acknowledging that two distinctly different paradigmatic frameworks have been employed to investigate the same problem from two different perspectives. Goodwin and Goodwin (1984) suggest that there are two major advantages to this type of approach. The first is that it can achieve a comprehensiveness that neither approach, if used alone could, especially if a study attempts to answer several different questions. This is particularly relevant to an exploratory study. In this study, the quantitative phase examines factors contributing to injury and poisoning deaths among young men, while the qualitative phase allows a deeper level of analysis of specific cases using a case study approach. Yin (1993) asserts that the case study approach is considered to be most appropriate when investigators wish to rely on multiple and not singular sources of evidence. This methodological approach recognises the multiplicity of factors involved in pathways to violent death, and the importance of analysing these in the context of the environment in which the factors have occurred. This is useful when either the context is hypothesised to contain important explanatory variables or when the boundaries between phenomenon and context are unclear.

The second advantage cited by Goodwin and Goodwin (1984), is that using both methods can allow cross validation of the findings. Careful choice of a combination of qualitative and quantitative measurement strategies can increase the information yield and strengthen the external validity of the results. Carr (1994) suggests that combining the strengths of the methods in triangulation[10] results in the creation of even richer and deeper research findings. This concept of triangulation is based on the assumption that any bias inherent in particular data sources, investigator and method would be neutralised when used in conjunction with other data sources, investigators and methods. Using mixed methods then, can allow comparison of findings from the two different studies carried out. In the investigation of injury and poisoning mortality among young males, quantitative methods can provide objective statistical explanations of patterns of variables, while qualitative methods can centre on the construction and definition of the experiences of individuals to identify the processes that may have lead to their death. Employing both methods therefore provides a means of bridging the macro and micro aspects of the same problem.

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[10] A procedure used to establish the fact that the criterion of validity has been met. It is a means of checking the integrity of the inferences one draws. It can involve multiple data sources, multiple investigators, multiple theoretical perspectives, multiple methods or all of these. The central point of the procedure is to study a single social phenomenon from more than one vantage point (Schwandt 1997).

Creswell (1994) has identified three models of quantitative and qualitative analysis: the two phase design, the dominant / less dominant design and the mixed methodology design. This study has used the two phase design. Two parallel studies have been carried out, each with its own methods.

8.2 Retrospective mortality studies

Retrospective mortality studies generally rely on mortality data and Coroners' reports as primary data sources. Mortality data offer a unique source of readily available detailed information for clinical, epidemiological and health policy purposes (Kleinmann 1982). Although it has been argued that under-reporting and misclassification can affect the reliability of mortality data, all violent deaths are investigated by both a post mortem and usually, a Coroner's inquest in the United Kingdom. Therefore it is a relatively reliable framework for investigating violent death among the young.

Many mortality studies rely on information supplied to the Coroner to investigate certain aspects of violent death since it is generally easily available and provides useful comparative data (e.g. Sharples et al. 1990, Armstrong and Robson 1992). Also Coroners' data offer a rich source of information. However these types of study acknowledge that they are limited by the nature of the data that are available. In particular, there is often not enough detail reported to analyse predisposing factors the researcher has identified as being of relevance to the subject under investigation. Bruce (1992) in his study of suicides in Bloomsbury, Hampstead and Islington Health Authorities used Coroners' inquests as a data source and found that information on social and other precipitating circumstances from Coroners' inquests was difficult to obtain. In fact, in approximately 60% of the suicides investigated, no specific information was given as to any precipitating cause. The author suggested that GP records could be helpful in this respect.

Some studies have utilised additional information sources, especially health service information, to increase the quality of the data available. Morgan and Priest (1991) collected information from both hospital records and Coroners' inquests on suicide and unexpected deaths among psychiatric inpatients in the form of a confidential inquiry. They concluded that procedures such as these are useful in identifying important issues concerning assessment and management of suicide and unexpected deaths that need to be confronted if these deaths are to be avoided. However studies that have used health service data as a primary data source report a number of problems. These include inadequate recording of clinical details, illegible writing, lack of copy letters, sudden deaths not recorded, drug treatment not recorded and poor communication between hospital and general practice (Ashton et al. 1976). Despite this, there are some important aspects of the suicidal process that can be investigated using Coroners' inquest notes supplemented by medical records (Hawton et al. 1999).

Methods of eliciting data retrospectively following death are obviously limited since the individuals themselves are not able to take part in the study. Nevertheless, while Coroners' inquest and GP data may offer a relatively cheap and accessible data source, a further data source is required if a study wishes to examine social and environmental factors that contribute to the cause of death. In order to supplement Coroners' data in retrospective mortality studies, researchers have developed a technique known as psychological autopsy.

8.2.1 Psychological autopsy

Psychological autopsy originated from the USA in the late sixties as a method of augmenting Coroners' investigations but more recently has been utilised to investigate the increasing number of suicides in the young (Rich et al. 1986, Shaffer 1988, Brent et al. 1993). Psychological autopsy is an intensive interview with family and friends of a deceased person, designed to reconstruct the social and psychological circumstances surrounding their death (Schneidman and Farberow 1961). It has, to date, shown high compliance and remarkable consistency of results across a wide range of diverse geographic samples.

The timing of the interview needs to provide a balance between interviewing too soon after the death in the acute stages of grief and interviewing too long after the death when recall of events may be unreliable. It has been suggested that if the interviews are carried out between two and six months after the death there is no consistent difference in the quality or quantity of data obtained (Brent et al. 1988c).

Ethical considerations

Beskow et al. (1990a) suggest that two aspects of psychological autopsy deserve ethical consideration.

i) The integrity of the victim

It is important to maintain the integrity of the deceased. Confidentiality must be maintained and facts that the deceased has chosen not to disclose to his family must be respected. Further, it is vital to maintain confidentiality in the final report by ensuring that individuals cannot be recognised when results are disseminated.

ii) The integrity and health of the interviewees

They also state that psychological autopsy has a positive and therapeutic effect on the family of the deceased. Previous studies indicate that a researcher who is responsive to the needs of the interviewee can offer a chance to communicate, a chance to talk about the guilt, the shame, the anger and a chance for catharsis (Sanborn and Sanborn 1976). In fact in Runeson and Beskow's study of youth suicide (1991), not less than 97% of interviewees reported the interview as an overall positive experience.

To promote a positive approach Shafii et al. (1984) suggest the following guidelines:

Family members will not be considered as patients and therefore the model of the clinician-patient relationship will not be used.
The purpose of the study will be to learn from the family and therefore the family's lead will be followed.
There will be no judgement either verbally or non verbally.
There will be no confrontation, interpretation or asking questions, directly or indirectly, that would imply blame or guilt for them or anyone else.
False reassurance, false promises and platitudes will be avoided.
A flexible approach should be taken to the length of interview and the nature of questioning.

Litman (1987) reported that their interviews nearly always reduced guilt in survivors and made it easier for them to accept the death of the victim. In addition, the respondents often stated the need for practical information regarding social security, insurance policies, wills, etc. and the interviewer was in a key position to give such information. In fact Curphey (1968) noted that the Los Angeles Coroner's office had, in a few cases even referred distraught survivors to members of the team for supportive interviews even when the specific mode of death was not in doubt. Thus interviews gave respondents the opportunity to discuss many unresolved and contradictory feelings such as guilt, anger and relief with an individual outside the immediate family and respondents found this experience beneficial. In addition, there was a chance for the respondents to receive information about support services that they may not have otherwise received.

Reliability and Validity

To date, the psychological autopsy has been employed within a quantitative paradigm, mainly to retrospectively diagnose psychiatric disorder after an individual has died, usually though suicide. This study will be employing psychological autopsy within a qualitative paradigm and therefore the issues of reliability and validity are examined within the context of a qualitative study design. This is discussed in detail in Chapter 10, section 10.7, reliability and validity pp79-81.

Choice of informants

Many studies rely on spouses or first degree relatives as informants (e.g. Biro 1987, Shafii et al. 1985). However, one of the earliest psychological autopsy studies found other useful informants included physicians, close friends and bartenders, pathologists, pharmacists and social workers (Barraclough et al 1974). In addition, where young people are involved, similar age informants (peers) have been found to be particularly useful (Brent et al. 1993). Most commonly, informers are identified initially through Coroners' inquest data.

With regard to the choice of informant, findings do not appear to be affected by the interviewee's relationship to the individual (Beskow et al. 1990b). The number of informants varies greatly both within and between studies, and is obviously dependent on the number of people who knew an individual well and their willingness to comply with such a study. In many instances, the number of informants is not stated in the methodology of the paper.

Response

Most psychological autopsy studies have reported good response, generally over 80%. Various methods of approaching potential informants have been used, from unannounced home visits to telephone or letter as first contact. The following table summarises the manner of approach and the resulting response where studies have provided this data.

Table 8-1: Manner of approach to informants where stated in previous studies

Method of contact	Study Authors	Year of study	Time since death	Response
Home visit unannounced	Barraclough et al.	1974	not stated	100%
Telephone call	Shafii et al. Asgard Beskow Runeson and Beskow	1985 1990 1979 1991	immediately 6 mths 9 mths 4 mths	83% 89% 95% 100%
Letter	Brent et al. Brent et al. a, b and c Phillimore	1993 1988 1989	3 mths 6-12 weeks as soon as possible	73.6% 77% 80%

Nature of assessment instrument

Structured and semi-structured interviews have to date been the chosen method of all psychological autopsies reviewed. Since these studies have been aimed at investigating suicides, they have tended to focus on diagnosis of psychiatric disorder. Standard diagnostic frameworks have thus been popular as an aid to diagnosis of psychiatric symptomology.

In a study employing psychological autopsy methodology, it is likely that there will be some variability among informants but it must also be considered that information given, while at first appearing contradictory, may in fact characterise

the differing responses that an individual exhibits in differing circumstances. That is, there may be no single, objective, measurable, truth. If this is the case, there may be benefit in employing a less structured approach to the interview since this yields richer data as it is less likely to limit the informants' response. This kind of approach lends itself well to a qualitative paradigm.

In summary, retrospective mortality studies conventionally rely on Coroners' records and health service records as primary data sources. However, where a researcher wishes to examine individual deaths in more detail, psychological autopsy is a validated method of obtaining further information on the circumstances surrounding individual deaths, in order to supplement that collected by the Coroner and the health services.

Chapter 9 Phase I methods

9.1 Preliminary studies

9.1.1 Trends in mortality among males and females in the UK 1850-1990

Mortality data was obtained from OPCS Series DH1 No. 25 (1993) and crude death rates were plotted graphically for years 1841 to 1990. Data were then analysed further in ten year age bands (or five year age bands where available) to observe the patterns of decline by age group (for 15 – 44 year olds) from 1841 to 1990. A log scale was used to enable the difference in male: female mortality trends to be more clearly distinguished.

9.1.2 Male female mortality ratios 1841-1990

To examine the relationship between male and female mortality rates in more detail, the male: female mortality ratio was calculated by dividing the age specific male mortality rate by the age specific female mortality rate for each group identified above. These rates were then plotted graphically to illustrate changes in mortality ratios over time. A male: female mortality ratio of 1 would indicate that the male mortality rate and the female mortality rate were the same.

To assess whether the increase in male: female mortality ratio was a significant one, a bi-variate correlation and a linear regression were carried out between male: female mortality ratio and year, from 1841 to 1990. In addition, to assess whether there was a significant increase in male/female mortality ratio, before and after 1951, a bi-variate correlation and linear regression was also carried out analysing the period 1841 to 1950 and the period 1950 onwards independently.

9.1.3 Recent trends in suicides, accidents and undetermined deaths among young men in England and Wales

Mortality data were obtained from OPCS Series DH2 No. 25 (1993) and death rates were plotted graphically for accidents, suicide and undetermined deaths among young men aged 15 – 39 years in England and Wales. Rolling averages were calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages were not weighted and were calculated over a three year period. Percentages changes in mortality rate were also calculated by each of the three causes with 95% confidence intervals.

9.1.4 Recent trends in suicide and accidental death among young men aged 15 to 39 in Merseyside and Cheshire

Mortality data for years before 1983 were not available by five year age band. Hence mortality data 1982 to 1985 were plotted graphically by five year age groups, for the following causes of death: accidental, suicide and undetermined causes, and homicide. Again, rolling averages were calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages were not weighted and were calculated over three year periods.

9.2 Phase I study design

Phase I was a retrospective epidemiological survey of all violent deaths that occurred among young men aged 15 to 39 years during 1995 in Merseyside and Cheshire. All men aged between 15 and 39 years inclusive identified to those Coroners whose jurisdiction covers Merseyside and Cheshire, who died from external causes during 1995, were included in the survey.

9.2.1 Data collection

The following sources of information were used for data collection:
Coroners' inquests
General Practitioners' records
Hospital records

Coroners' inquests

At approximately three monthly intervals the researcher visited the Coroners' offices covering Merseyside and Cheshire, and examined all inquest records for deaths occurring during 1995 to identify those men aged between 15 and 39 years inclusive, who had died from an unnatural death during this period. Where cases were identified for inclusion in the study, data were subsequently collected from the relevant inquests. Data collected included post mortem information, verdict, place of fatal act, place of death, evidence of intention to die, previous suicide attempts, history of alcohol and drug use, use of statutory and non-statutory services, statements of witnesses, and where available, social circumstances of the deceased.

General Practitioner (GP) records

On notification of the death of one of their patients via the National Health Service (NHS) Central Register, the General Practitioner forwards the relevant patient's records to the health authority that has jurisdiction over that patient's place of residence. For Merseyside, the GP records are sent to Liverpool Health Authorities, at Hamilton House, Pall Mall, Liverpool. For Cheshire, records are sent to the Cheshire Health Agency, at the Countess of Chester Health Park, Chester.

Health authorities compile databases of death notifications of all residents within their districts. Permission was gained for the relevant health authorities to send lists of these deaths, for men aged between 15 and 39, to the researcher. These were sent on a regular basis and provided details of the name, age, GP and NHS number of all the deaths that had occurred in 1995. The researcher then matched the injury and poisoning deaths in the study by providing the patient's name, date of birth, name of GP and NHS number with those on the lists provided by the health authority. Once a match had been made, the deceased's NHS number was entered onto the database and the NHS numbers were then forwarded to Liverpool Health Authorities and Cheshire Health Agency who traced the GP records. Once these had been traced the researcher was notified and data was collected and entered onto the database. GP records also contain details of treatments the patient received at hospital. The treatment data were entered onto the database.

Hospital records

If a person dies in hospital as a result of an external cause, the Coroner's inquest and the GP records provide brief details. More detailed information, however, can be gained from clinical records available from the hospital where the person died. NHS numbers are required to trace these records. Relevant hospitals were visited by the researcher to collect information on the treatment administered to each case on their arrival at the hospital.

9.2.2 Ethical approval

Ethical approval was obtained from the ethics committees in Merseyside and Cheshire to use Coroner's inquests, GP Records and hospital records for data collection. All data were treated as confidential in compliance with the Data Protection Act (1995).

9.2.3 Data recording

Due to the use of different primary sources to collect data for this study it was agreed that a database would be loaded onto a notebook computer and this computer would then be taken to the data source enabling efficient and reliable transfer of data. The data collected were both qualitative and quantitative, and were gathered from many different sites. To prevent entering data inconsistently, it was necessary for a programme to be written that would prevent information from being entered into an incorrect field. A 'user friendly' Windows based computer programme was written specifically for the study by Riversdale Technology Ltd. This computer programme enabled the visual format of the database to be presented in such a way that each computer screen would resemble the different primary sources. The programme also ensured that important data could not be omitted, thereby forcing the user to enter all the required data into the main categories.

The following flowchart briefly demonstrates the data collection procedure.

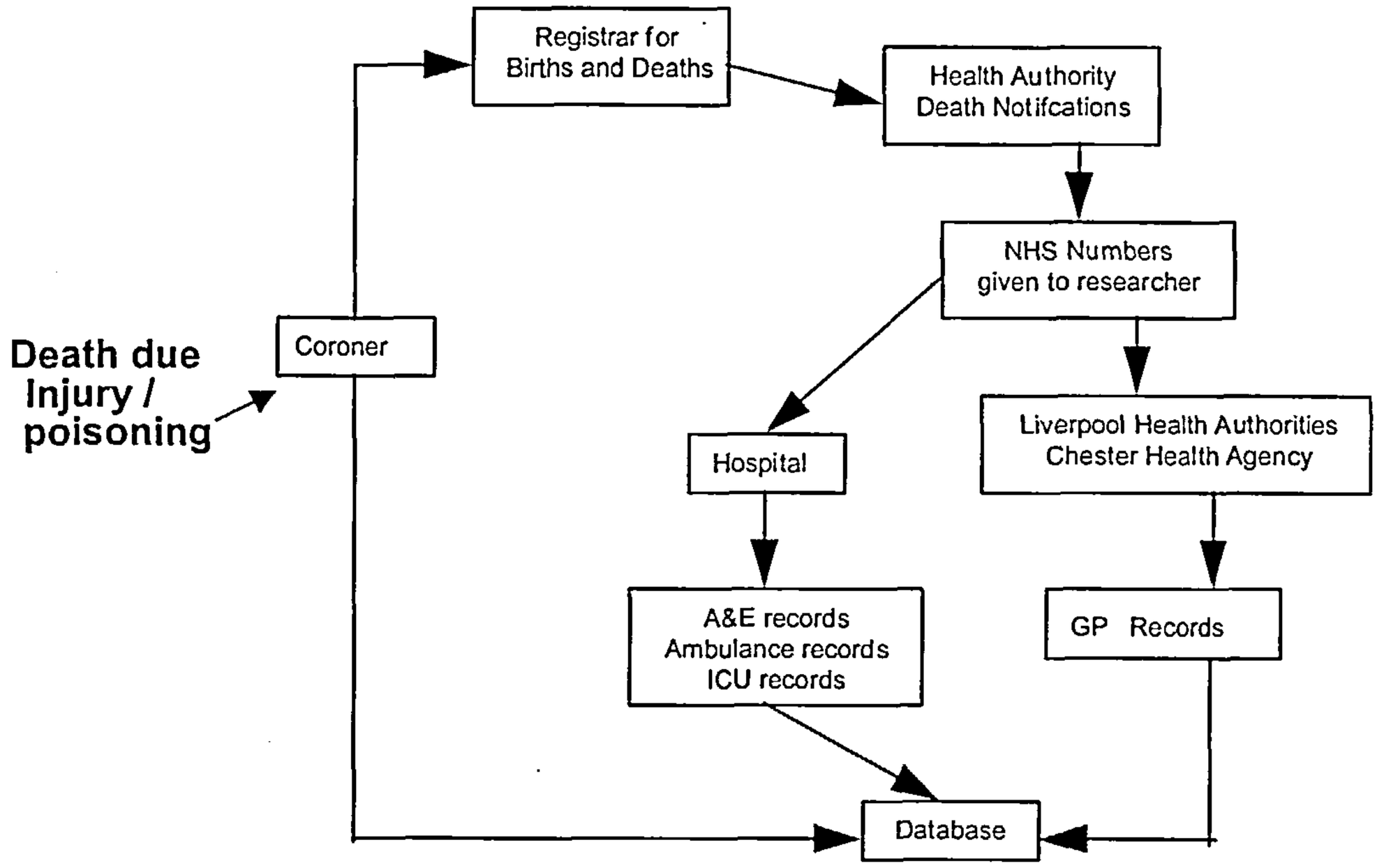

Figure 9-1 : Simple flowchart of the data sources and data collection procedure

9.2.4 Database variables

Demographic, socio-economic, health service and lifestyle data were collected for each death occurring among men aged 15 to 39 due to injury and poisoning in Merseyside and Cheshire during 1995. The following section specifies those variables for which data were collected.

Coroners Inquest data

Data collected from the Coroner's Inquest included the following variables;

Name and address
Date of birth
Method of death
Ethnic group
Domicile
NHS number
Occupation
Verdict
Evidence of intention to die
Previous suicide attempts
Use of statutory and non-statutory services
Place of death
Date of death
Marital status
Social class
GP
ICD code
Job description
Place of fatal act
Social circumstances
History of alcohol and drug use
Statements of witnesses

Occupation

Occupations were grouped as outlined by the Employment Department Group and OPCS *[The Standard Occupation Classification, (SOC) Vol 1, 1992]* to ensure consistency of grouping. The classifications used were the major groups consisting of;

- Managers and Administrators
- Professional Occupations
- Associate Professional and Technical Occupations
- Clerical and Secretarial Occupations
- Personal and Protective Service Occupations
- Sales Occupations
- Plant and Machine Operatives

Detailed descriptions of the criteria for the inclusion of individual job descriptions into the major groups can be found in Volume 1 of the SOC. Individual job descriptions are identified in SOC Volume 3, Table A1, which consistently determines the major grouping for that type of employment.

Social Class

Social class is based on occupation. The categories for social class are

I	Professional occupations
II	Managerial and technical occupations
III	Skilled occupations
	(N) non-manual
	(M) manual
IV	Partly skilled occupations
V	Unskilled occupations

To determine a person's social class according to their occupation Table A1, in SOC Volume 3 is used. Individual job descriptions are identified in the table and assigned the relevant social class.

Road Traffic Accidents

For deaths due to road traffic accidents, data were taken of the circumstances surrounding the accident given as evidence at the Coroner's inquest. Information such as whether a seat belt had been worn and the speed at which a car was travelling, was taken from data collected by the police at the scene of an accident, and recorded on a 'Stats 19' form, which is routine police evidence submitted at inquest. Data collected included the following variables;

Driver / passenger	Serum alcohol level
Driver's occupation	Place of accident

Road surface
Visibility
Speed limit
Seat belt
Involvement of stolen vehicle
Weather
Streetlights
Speed of vehicle
Involvement of other vehicles

Hospital Treatment

If the deceased had been taken to hospital, as a result of the action that eventually led to death, data were collected of the care received from hospital records. Hospital records were traced by the patient's NHS number taken from their GP records. The following variables were collected.

Case note number
Date of arrival
Diagnosis on admission
Treatment on admission
Hospital
Admitted to ward
Prior medical conditions
Days in hospital

Post Mortem Findings

Data concerning the post mortem were provided by the report of the pathologist carrying out the post mortem in each case. Information is taken on the cause of death as determined by the pathologist. Variables included the following;

Cause of death - 1a, Ib, Ic, and II
Disease pathology
Toxicology
Pathologist's notes

Healthcare Treatment (in any service)

GP records were examined for any medical treatment administered to cases throughout their life in any hospital department or clinic, such as A & E or psychiatric care. Data were recorded as follows;

Date of records, From, To,
Date of visits
Treatment administered
Diagnosis given
Reason for visit
Source of information

GP Records

GP records were examined, and all visits, excluding visits for common childhood illnesses, were recorded for all cases who were registered with a GP. The date of the visit, the reason for attending and the treatment administered by the GP was recorded.

Drug History (legal and illegal)

Any information about an individual's drug history was taken from the coroner's inquest and GP records. For the majority of cases, information regarding illegal drug use was provided by statements submitted to the Coroner from friends and family of the deceased. History of prescribed drug use was recorded from GP records. The following data were collected;

Drug prescribed
Prescribed by
Quantity
Source of Information
Dosage
Date
Regularity

Comments

This section of the database was included to provide the opportunity to quote other relevant information submitted during the Coroner's inquest which may have a direct bearing on the death, but for which there was no specific variable.

9.3 Analysis

All data were imported into SPSS v 9 for Windows prior to analysis. In the first stage of the analysis, data were analysed descriptively and the frequency of study variables recorded. Data were then analysed by verdict and Chi^2 tests were used to establish if there was an association between the factors identified and the Coroner's verdict.

In the second stage of the analysis, factors were constructed from the data for deaths due to accidents and suicide. Factors were constructed based on the data available from the Coroner's inquest data. The factors fell in to two main categories, behavioural abuse factors and substance abuse factors. The proportion of suicide verdicts associated with each factor were then tested for association with the Coroner's decision using the Chi^2 statistic. To determine the multiple effect of individual factors, logistic regression was carried out on those factors that were significant predictors of a suicide verdict assuming a significance level of $= < 0.1$. Models were fitted using stepwise selection procedures, and using asymptotic Chi^2 statistics to determine which factors had significant explanatory power.

Finally data on drug use and health service use were analysed to examine whether there was a significant difference between type of drug taken and Coroner's verdict, and to test for an association between Coroner's verdict and health service use decision respectively using the Chi^2 statistic.

Chapter 10 Phase II Methods

10.1 Introduction

'Qualitative analysis, in fact all analysis, is the search for patterns in data and for ideas that help explain the existence of those patterns.'

Bernard, H.R. 1994, Research Methods in Anthropology. Qualitative and Quantitative Approaches. 2nd. Ed. London, Sage publications.

Whilst there is much literature on gender and masculinity, there are few published studies that have examined masculinity in relation to health; and no published studies investigating the relationship of masculinity to violent death. The following study of interviews with relatives and friends of 24 Liverpool men who died from injury and poisoning during 1995, uses Connell's theory of masculinities to explain the influences that led to their premature deaths. The analysis attempts to identify themes raised by the respondents associated with these deaths, and in particular, tests a hypothesis that accidental death and suicide result from a common pathway of risk taking and self-destructive behaviour, which is related to the ways in which these young men constructed their masculinities.

The model used in this study could be described as constructionist. Social constructionism has great affinity with theories of symbolic interactionism and ethnomethodology which emphasise the actor's definition of the situation; seek to understand how social actors recognise, produce and reproduce social actions and how they come to share an intersubjective understanding of specific life circumstances (Schwandt 1997). Constructivists hold that knowledge of the world is not a simple reflection of what there is, but a reflection of what we make of what is there. Using this kind of perspective means that all the data collected are considered to be a form of reality. As William Whyte observed,

> In dealing with subjective material, the interviewer is, of course, not trying to discover the true attitude or sentiment of the informant. He should recognise that ambivalence is a fairly common condition of man – that men can and do hold conflicting sentiments at any given time. Furthermore, men hold varying sentiments according to the situation in which they find themselves.

Whyte W. (1980) Interviewing in field research. In Burgess R. (Ed.) Field Research. A source book and field manual. London. Allen and Unwin.

Thus the aim of research from a social constructivist perspective is seen as representing reality rather than reproducing reality, with the understanding that

reality can be represented from multiple perspectives. In a social constructionist model, this means that the researcher will choose methods and data that give an account of how particular social phenomena are put together through particular interactions. For example, Connell's model, as discussed in Chapter 6, is based on the premise that gender is a way in which social practice is ordered and that gender grows out of social practices in specific structural settings (Messerschmidt 2000).

10.2 Method of inquiry

Data were collected from family and friends of the deceased using structured and semi-structured interview techniques. In this study, inevitably it was not possible to interview the subjects themselves. This means that it was therefore necessary to rely on third party informants when collecting data. Nevertheless there is an advantage to such an approach since several perspectives may be gained on an individual, which may perhaps be richer, and more enlightening than if just the individual themselves had been interviewed. However it does mean that it may not be possible to elicit how these young men constructed their experiences and their realities, only how their relatives and friends perceived that they did.

Some researchers have criticised structured interviews on the grounds that they maintain a hierarchical relationship between the interviewer and the respondent. Stanley and Wise (1983) point out that any hierarchical relationship between the interviewer and the respondent may limit the amount and type of information given. Equally, it has also been argued that open-ended interviewing is also a form of social control that shapes what people say (Hammersely and Atkinson 1983). In this study, it is important to be aware that the issues being dealt with are sensitive and very close to the respondent. As mentioned in the previous chapter, the chance to talk has, in the past, been reported as a cathartic experience (Sanborn and Sanborn 1976). Thus, an alternative view would be that rather than controlling the respondent, the interviewer and the respondent construct a setting in which the respondent can express themselves freely through the use of a semi-structured interview format. The advantages of the semi-structured section, compared to the more structured section are that more complex issues can be probed, answers can be clarified and it is possible to obtain information on more sensitive issues.

10.3 Identifying cases

The rationale for sampling in quantitative research is based on the assumption that it is important to be able to generalise the findings to a larger population. It is therefore necessary to employ specific methods of selection in order to recruit cases that reflect the same characteristics of the parent population. In qualitative research, generalising to a parent population is not the important issue, rather it is the testing of theory (Yin 1993). In other words, the task is to establish a theoretical link within each case; or as Bowling (1997) states, to increase our insight into social phenomena rather than to assume representativeness.

For the purposes of Phase I of the studies, injury and poisoning deaths among young men in Liverpool District aged 15 – 39 were identified through the local Coroner and the Health Authority returns as described in Chapter 9. The cases included in Phase II of the study were sampled through those cases identified in Phase I and were defined as follows:

'Any death due to injury and poisoning occurring in men aged between 15 and 39 in Liverpool District during 1995 excluding deaths due to homicide.' (Injury and poisoning deaths are those classified as Chapter 17 of the International Classification of Diseases [ninth revision] codes E800 to E899).

10.4 Data collection

Data were collected from Coroners' inquest records, GP records and hospital records as described in Chapter nine. In addition, more detailed information was collected using a technique known as psychological autopsy. This technique involves a retrospective interview, with family and friends of a deceased person, designed to reconstruct the social and psychological circumstances associated with the manner of death and is described in detail in Chapter eight.

Names and addresses of relatives or other contacts, were obtained from the Coroners' records. The timing of access to the inquest data was dependent on the manner of death. If there was considered to be any suspicious circumstances surrounding the death, names and addresses were not made available until the inquest had been closed, whereas if the cause of death was considered to be uncomplicated, names and addresses were released immediately after the inquest was opened. In practice, timing of the interview was therefore dependent on external circumstances but was usually within 2 – 6 months of a death. This was in order to provide a balance between interviewing too soon after the death in the acute stages of grief and interviewing too long after when recall of events may be unreliable (Brent et al. 1988c). However, if the circumstances of the death were considered to be suspicious, the interview could be delayed for several months longer than this at the Coroner's discretion.

On receipt of the names and addresses of relatives or other contacts, a letter was sent to the individuals concerned explaining the nature of the study and inviting the individual to take part (See Appendix 2). The letter informed the respondent that the researcher would call to see them within a few days and provided a telephone number if the respondent wished to telephone or had any queries. When the researcher called some days later, the nature of the study was explained and they were invited to take part. It was also explained that the interview would be treated in the strictest of confidence and that certain identifying details would be changed so that an individual could not be recognised in the final report. If the respondent gave their consent, an appointment time was arranged for the researcher to return and interview the respondent at their convenience. If the respondent did not consent to take part in the study, the researcher provided information on available bereavement

services in the area and either another contact was sought or if no other contact was available, the case was excluded from the study. In some instances there was only one contact name and address provided in the inquest notes, whereas in others, there were up to three listed. Where only one contact name was supplied, the informant was asked to furnish the names and addresses of other relatives or friends who could be contacted.

The majority of interviews took place in the respondent's own home although in two cases, the respondent requested to be interviewed at the university due to lack of privacy at home. The interview took approximately one hour and on completion the respondent was provided with information on available bereavement services in the area. Interviews were taped and transcribed for the purposes of analysis.

10.5 Ethical considerations

10.5.1 Consent

Each respondent in the study was given an opportunity to exercise their right of informed consent, following both a letter explaining the purpose of the study and an opportunity to ask the researcher further questions prior to signing a consent form (see Appendix 2).

10.5.2 Confidentiality

Each subject was given a code to be used throughout the analysis and reporting of study results. Completed interview data were kept in a locked cupboard within the Department of Public Health at the University of Liverpool or on a computer in accordance with the Data Protection Act (1995). Any facts uncovered by the researcher, that the deceased had chosen not to disclose to his family, were respected.

10.5.3 Interviewer experience and training

The interviewer was clinically experienced in dealing with bereaved relatives and in addition, attended a counselling course prior to commencing the fieldwork for the study. Counselling was made available on a regular basis to the researcher to provide psychological support for the duration of the study.

10.5.4 Information on bereavement services

Each respondent was offered a bereavement pack that had been developed for the purposes of this study in conjunction with the national bereavement organisation, Cruse. The pack included advice and information about where further support and counselling could be obtained.

10.6 Content of the questionnaire

The first part of the interview was structured, and sought responses to specific questions. The second part was semi-structured allowing the researcher to act as a prompt encouraging exploration of a number of areas of interest. The variables examined in the structured part of the questionnaire included socio-demographic information and factors associated with suicide and self-destructive behaviour identified from the literature. These are listed below;

Place of birth
Education
Employment history
Highest educational qualification,
Income
Personal history of illness
Patterns of alcohol use
Contact with drug services
Housing
Previous homes,
Living arrangements
Other achievements
Children
Weekly alcohol intake
Drug use habits
Evidence of risk taking and self-destructive behaviour

The semi-structured section of the interview allowed the respondent to expand on the subject topics, to identify additional factors pertinent to the death of the individual in question and to explore the interrelationships between identified factors. A copy of the interview schedule is included in Appendix 3.

10.7 Reliability and validity

There is no agreement among qualitative researchers about how reliability and validity should be measured in qualitative research. Some researchers, such as Kirk and Miller (1986) and Silverman (2001) argue that the same criteria (generally some version of validity and reliability) should be used as would be used with quantitative research. Others argue that qualitative and quantitative research belong to two different paradigms, and therefore require application of different criteria. There is also a school of thought that suggests that the idea of applying any criteria to evaluating qualitative research is inappropriate. For example, Smith (1984) argues that people construct their realities in their own different ways, in their own times and places. Thus, he reasons that it is nonsense to identify some versions of reality as trustworthy and others as not. However Silverman (2001) argues that such a position would rule out any systematic research since it implies that we cannot assume any stable properties in the social world.

This study will take the view that measures of reliability and validity should be applied in qualitative as well as quantitative research. For the purposes of this study, the author has drawn on the work of Silverman. While Silverman recognises that qualitative and quantitative research occupy distinctly different paradigms, he believes that the issues of reliability and validity can be addressed in qualitative research albeit by different measures.

10.7.1 Reliability

Reliability can be described as repeatability. In quantitative research involving interviews, reliability is mainly addressed through careful design of the interview schedule. Silverman (2001) outlines how quantitative researchers attempt to achieve this through practices such as pre-testing of schedules, interviewer training, and fixed choice answers. However, this type of approach implies that the researcher is treating the interview as if it were a simple report of reality rather than as if reality is being constructed during the process of the interview. In contrast, in qualitative research the descriptions represent the reality rather than reproduce it, as they are bound to a particular perspective (Hammersely 1992). Silverman argues that reliability in qualitative research which uses interview techniques can be addressed through measures such as:

- tape recording all face to face interviews. In this study, all interview data were recorded. In relation to this, care was taken to ensure that technical quality of recordings was good. and microphones were located close to the respondent during recording.
- careful transcription. In this study, the content of transcripts was agreed upon by two researchers prior to beginning the analysis.
- presenting extracts of data in the final report so that the reader can see the context and ensuring the reader has access to the interview questions. The results section presents enough text so that the reader can understand the context in which a reply is given. The interview schedule is provided in Appendix 3.

10.7.2 Generalisability

In qualitative research, as opposed to quantitative research, cases are unlikely to have been selected on a random basis. In addition, the sample size is often necessarily relatively small to allow intense analysis of the data collected raising the question of how generalisable the findings of a qualitative study are. Lincoln and Guba (1985) suggest that rather than assuming the findings of research in one setting should be directly applicable to parallel settings, researchers should aim for transferability. This means that while it is recognised that direct comparability between settings is impossible, some similarities do exist between different settings and that it is possible to develop working hypotheses that have some potential for transfer between settings. This allows the researcher to acknowledge that exact replication of a research situation is impossible as it is not possible to reconstruct a phenomena precisely.

This study aims to explore the constructions of masculinities among a specific group of the population and it is likely that the constructions of masculinities found among this group will not be generalisable to other men among the population. Thus the study aims to inform the development of theories relating to masculinities rather than to generalise the findings to all young men in Liverpool. As Bryman (1988) argues,

'The issue should be couched in terms of generalisability of cases to theoretical propositions rather than to populations or to universes.

Bryman A, 1988. Quantity and Quality in Social Research. London. Unwin Hyman.

10.7.3 Validity

As discussed earlier, in quantitative research, there is an underlying assumption that the observations stand for, or represent a particular reality, which is not the case in qualitative research. Thus, given that there is no specific truth to establish, many researchers argue that it is inappropriate to apply rigid rules to the testing of validity (Lincoln and Guba 1985, Smith 1984). However this does not mean that a researcher does not need to stipulate the methods used. In fact, it is important that the researcher is transparent about the methods used so that they are public and reproducible (Dingwall 1992) allowing the reader to assess the quality of the research undertaken and to employ comparable methods in a further study if required. Silverman (2001) suggests analytic induction, comprehensive data treatment and appropriate tabulation are needed to ensure validity of qualitative studies.

Analytic induction

Analytic induction is equivalent to the statistical testing of quantitative associations to see if the associations are stronger than might be expected if they had occurred at random. Analytic induction involves two strands: the constant comparative method and deviant case analysis. These methods are discussed in more detail in section 10.8 data analysis.

Comprehensive data treatment

Anecdotalism is a charge often levelled at qualitative research, and is related to the fact that the reader cannot be sure whether only certain parts of the data have been used in the analysis. This complaint can be addressed by the use of comprehensive data treatment, which is related to deviant case analysis. It means that all parts of the data should be incorporated into the analysis, which goes beyond what is normally demanded in many quantitative methods.

Appropriate tabulations

Silverman argues that simple counting techniques can offer a means to survey the whole corpus of data ordinarily lost in intensive qualitative research. That is, instead of taking the researchers word for it, the reader has a chance to gain a sense of the flavour of the data as a whole.

This study has therefore endeavoured to analyse and present the data collected using these methods in order to increase the validity of the research findings. The method of data analysis is described below.

10.8 Data analysis

Data were analysed and interpreted using an analytic inductive approach. Analytic induction is the standard method of testing a hypothesis in field research and involves two techniques;

- use of the constant comparative method, which involves attempts to find another case through which to test out a provisional hypothesis
- the search for deviant cases. This means that the researcher is not satisfied by explanations that appear to explain nearly all the variance. Instead every piece of data has to be used until all data are accounted for (Silverman 2000).

The researcher begins by defining a phenomenon and generating a hypothesis. Then a small body of data is taken (a case) and it is examined to see whether the hypothesis relates to it. If not, the hypothesis is reformulated (or the phenomenon redefined to exclude the case). While a small number of cases support practical certainty, negative cases disprove the explanation, which is then reformulated. Examination of cases, re-definition of the phenomenon and reformulation of the hypotheses is repeated until a universal relationship is shown (Fielding 1988).

The analysis examined the following hypothesis;

Young men who die through accident and suicide in Liverpool do so as a result of following a common pathway of risk taking and self-destructive behaviour, which is related to the ways in which they construct their masculinities.

In addition, themes emerging from the data associated with the deaths were identified. The analysis incorporated the following stages:

1) Each interview was treated as a narrative. The narratives in conjunction with the data obtained from the Coroners' inquests and GP records were used to produce a history based on the multiple realities obtained from the different data sources. Each case was taken in turn and all the information relating to that case was collated and an individual descriptive account was produced (these accounts have not been included in the final report for reasons of confidentiality).

2) Each case was then examined in relation to the hypothesis and also to identify themes emerging from the data. Data were coded according to the themes identified. Based on Fielding's work, (1993) codes were chosen to represent the theory and data coded to fit categories.

3) A cross case analysis was then carried out to identify any common themes and also to identify differences between cases allowing clusters to emerge from the

data (Miles and Huberman 1995). In particular, the role of risk taking and self-destructive behaviour was examined in order to test the hypothesis. When cases were compared, the researcher looked for evidence of any variance between the case being compared and the data already analysed. Items were coded to more than one category where appropriate. The qualitative software programme 'Nudist' was used for storing data, for categorisation of themes and for cross-referencing data. Cases that did not fit (termed deviant cases) were used to redefine the hypothesis.

Chapter 11 Results of preliminary studies

11.1 Results of preliminary investigations into the trends in mortality among males and females in the UK 1850 – 1990

Figure 11.1 shows trends in crude male and female mortality rates in England and Wales from 1841 to 1990. While the pattern of decline has generally been similar for both males and females (except for an increase in male mortality during the First and Second World Wars, with no similar increase being observed in female mortality rates), the excess in male mortality has remained higher throughout the period in question.

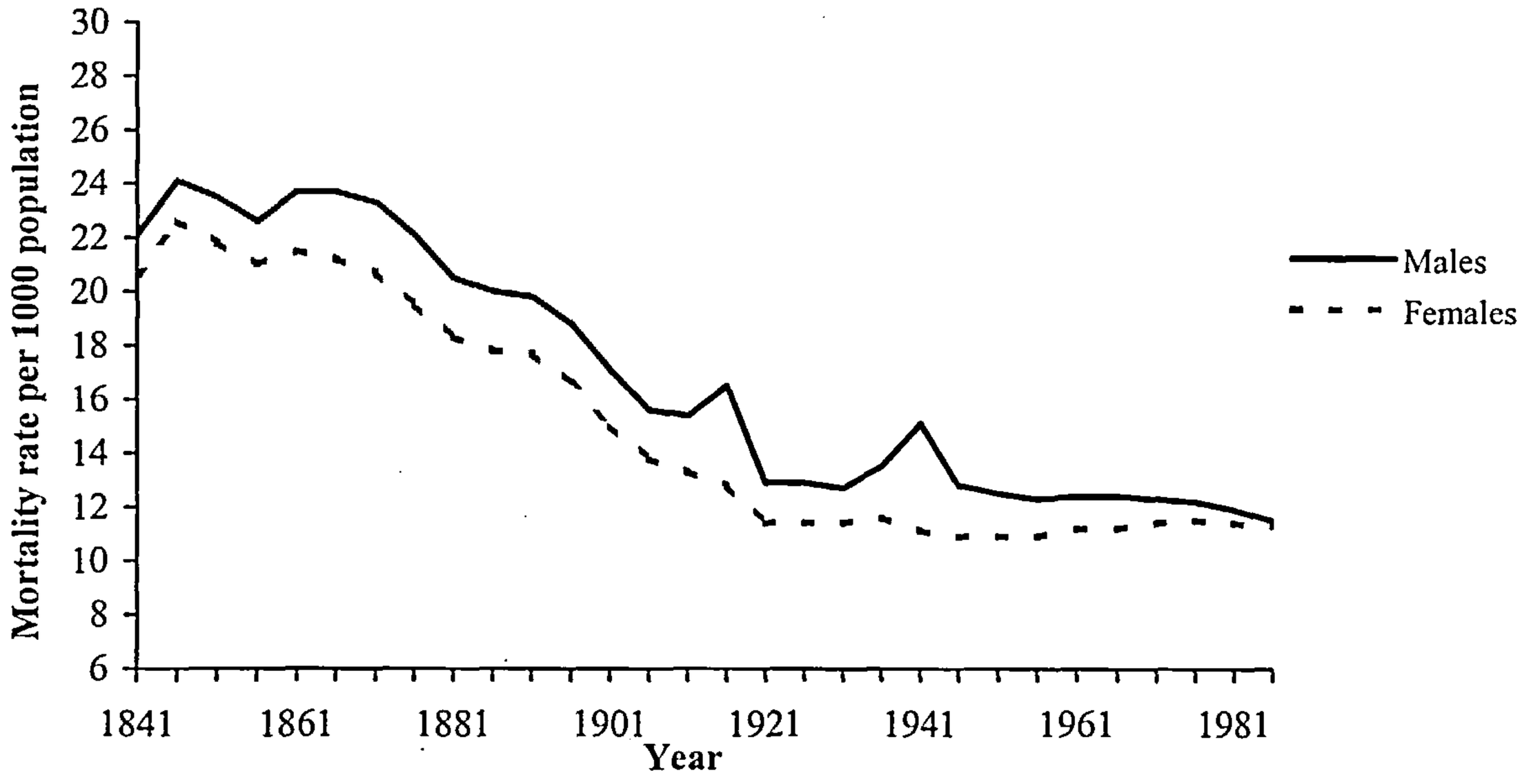

Figure 11-1: Crude death rates for men and women 1841 to 1990

Source: OPCS 1993. Series DH1 No 25.

Figure 11.1 also shows that during the past 50 years, the *difference* between male and female mortality rates has decreased. However, if the data are analysed further in ten year age bands (or five year age bands where available), among the younger age groups (15 to 44 years) the difference between male and female mortality rates has in fact increased since the beginning of the 1950's. Figures 11.2 – 11.5 show mortality rates from 1841 to 1990 by five and ten year age bands for 15 to 44 year olds. The steep decline in mortality rates since 1841 results in trends in the latter years being difficult to determine on a normal scale. A log scale has therefore been

used on figures 11.2 to 11.5 to enable the difference in male / female mortality trends to be more clearly distinguished.

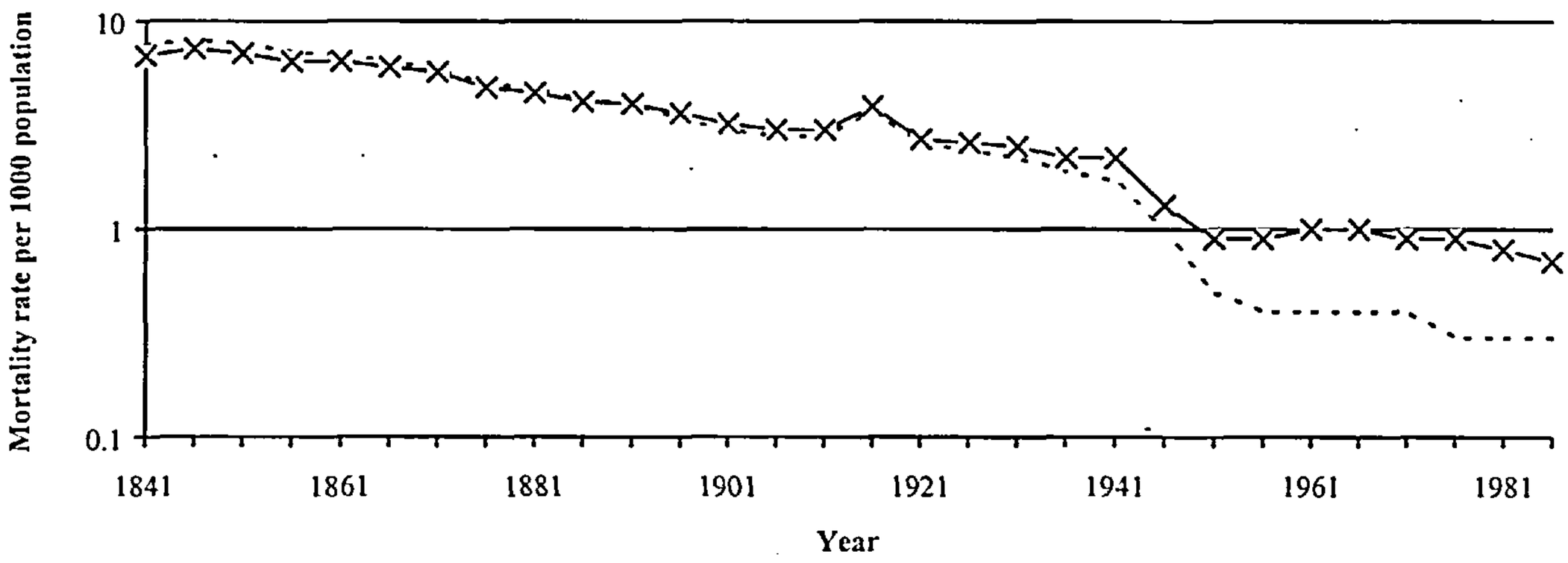

Figure 11-2: Age and sex specific death rates for men and women aged 15 to 19 1841 to 1990 (Log scale).

Source: OPCS Series DH1 No 25.

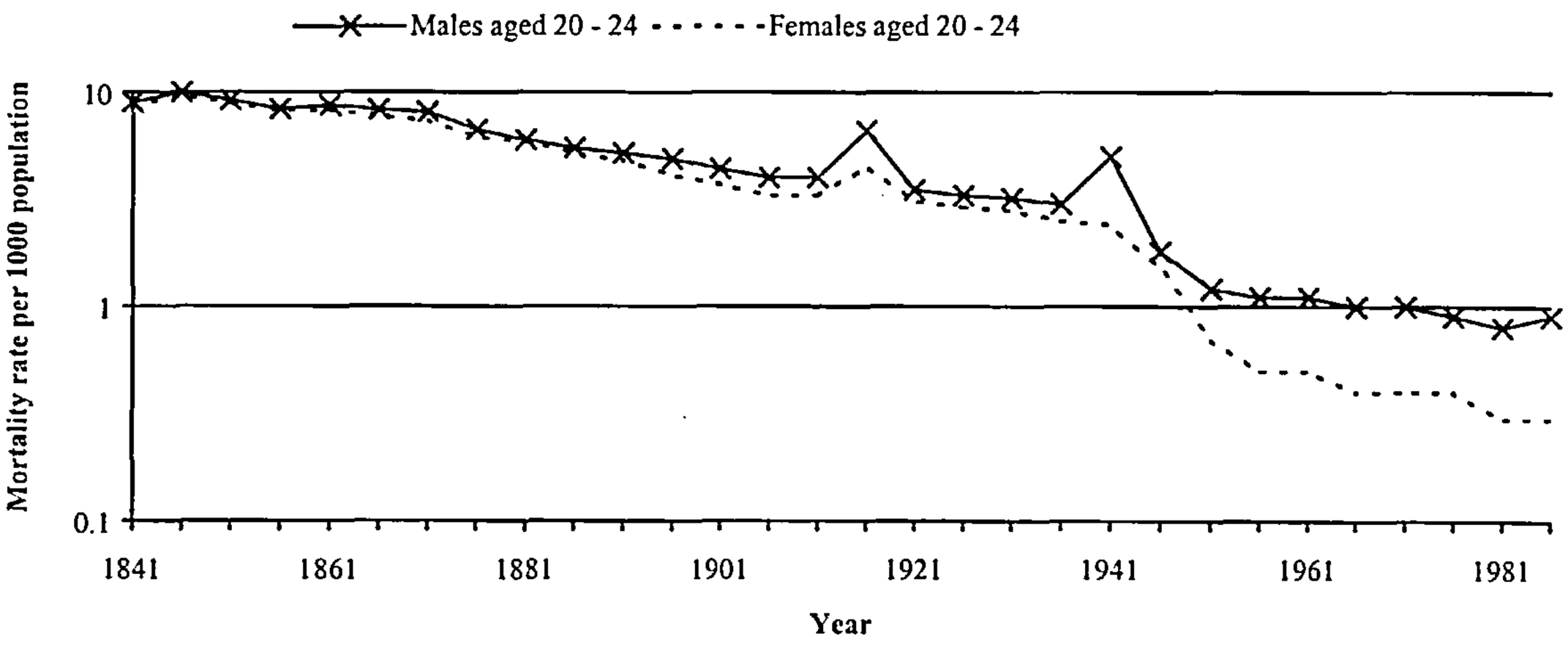

Figure 11-3: Age and sex specific death rates for men and women aged 20 to 24 1841 to 1990 (Log scale).

Source: OPCS 1993. Series DH1 No 25

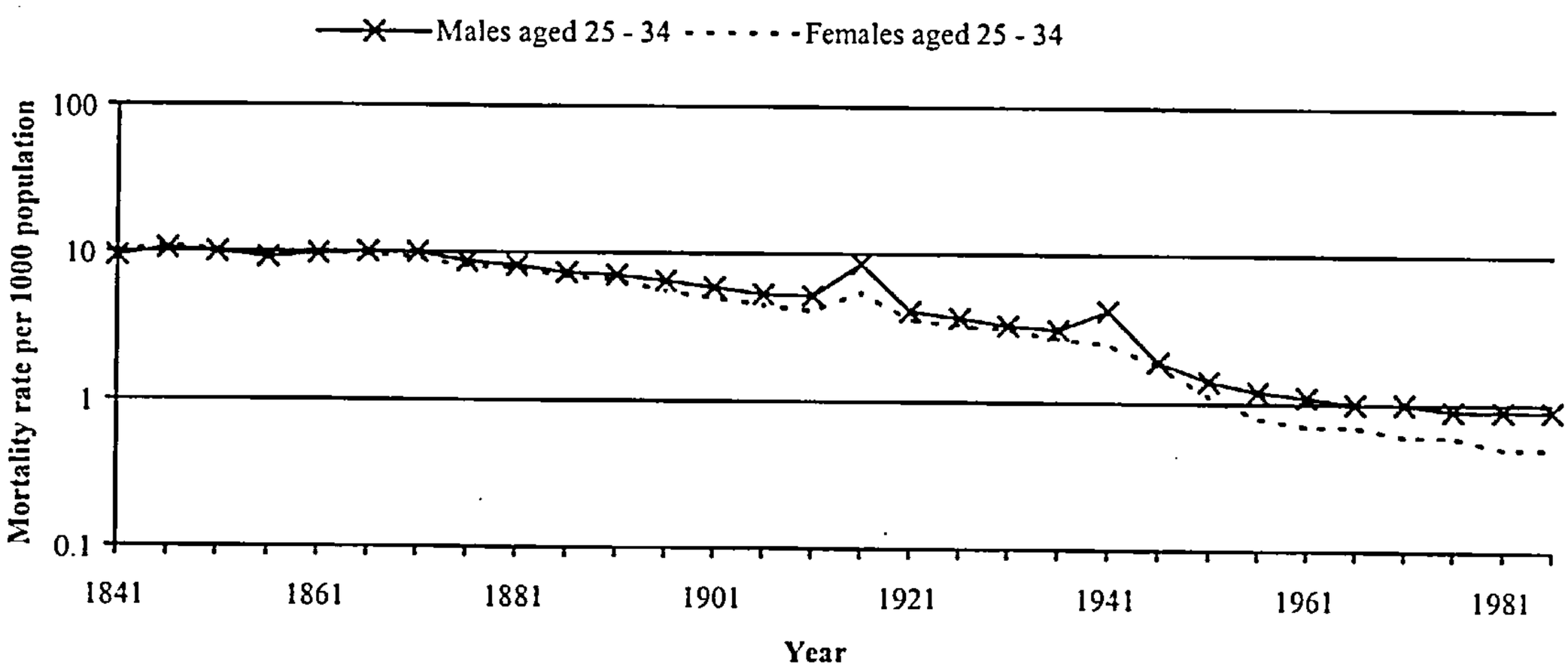

Figure 11-4: Age and sex specific death rates for men and women aged 25 to 34 1841 to 1990 (Log scale).

Source: OPCS 1993. Series DH1 No 25.

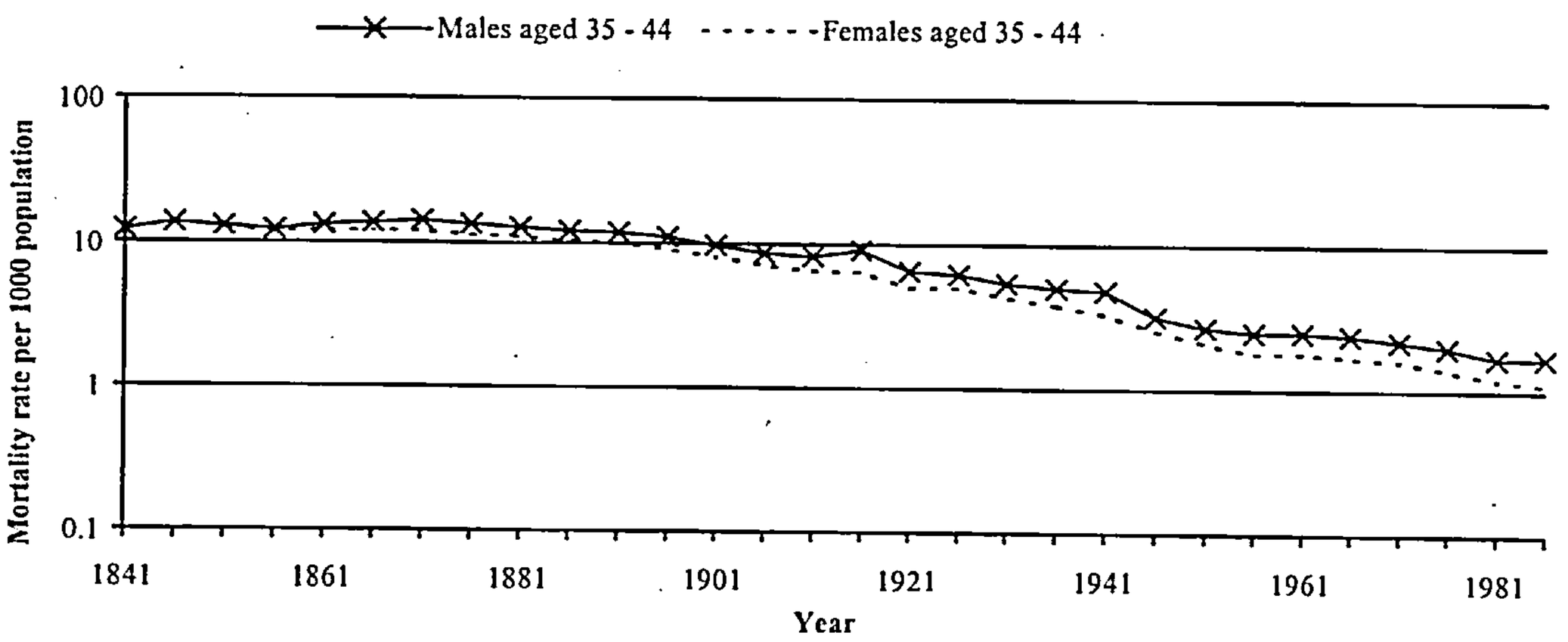

Figure 11-5: Age and sex specific death rates for men and women aged 35 to 44 from 1841 to 1990 (Log scale).

Source: OPCS Series DH1 No 25.

Figures 11.2 – 11.5 demonstrate that, while the difference in male and female mortality rates during the middle to late nineteenth century is negligible, the male and female rates begin to diverge from the early twentieth century onwards. In particular, there appears to be a steep divergence in male and female rates during 1951 to 1955, after which time both male and female rates continue to decline. This is not apparent in age groups up to 15 years or in age groups above 44 years. The following section analyses these trends in more detail.

11.1.1 Male female mortality ratios 1841-1990

To examine the relationship between male and female mortality rates in more detail, the male: female mortality ratio was calculated by dividing the age specific male mortality rate by the age specific female mortality rate for each age group identified above. These rates were then plotted graphically to illustrate changes in mortality ratios over time. A male / female mortality ratio of 1 indicates that the male mortality rate and the female mortality rate are the same. As the ratio increases above 1, the proportion of male deaths to female deaths increases.

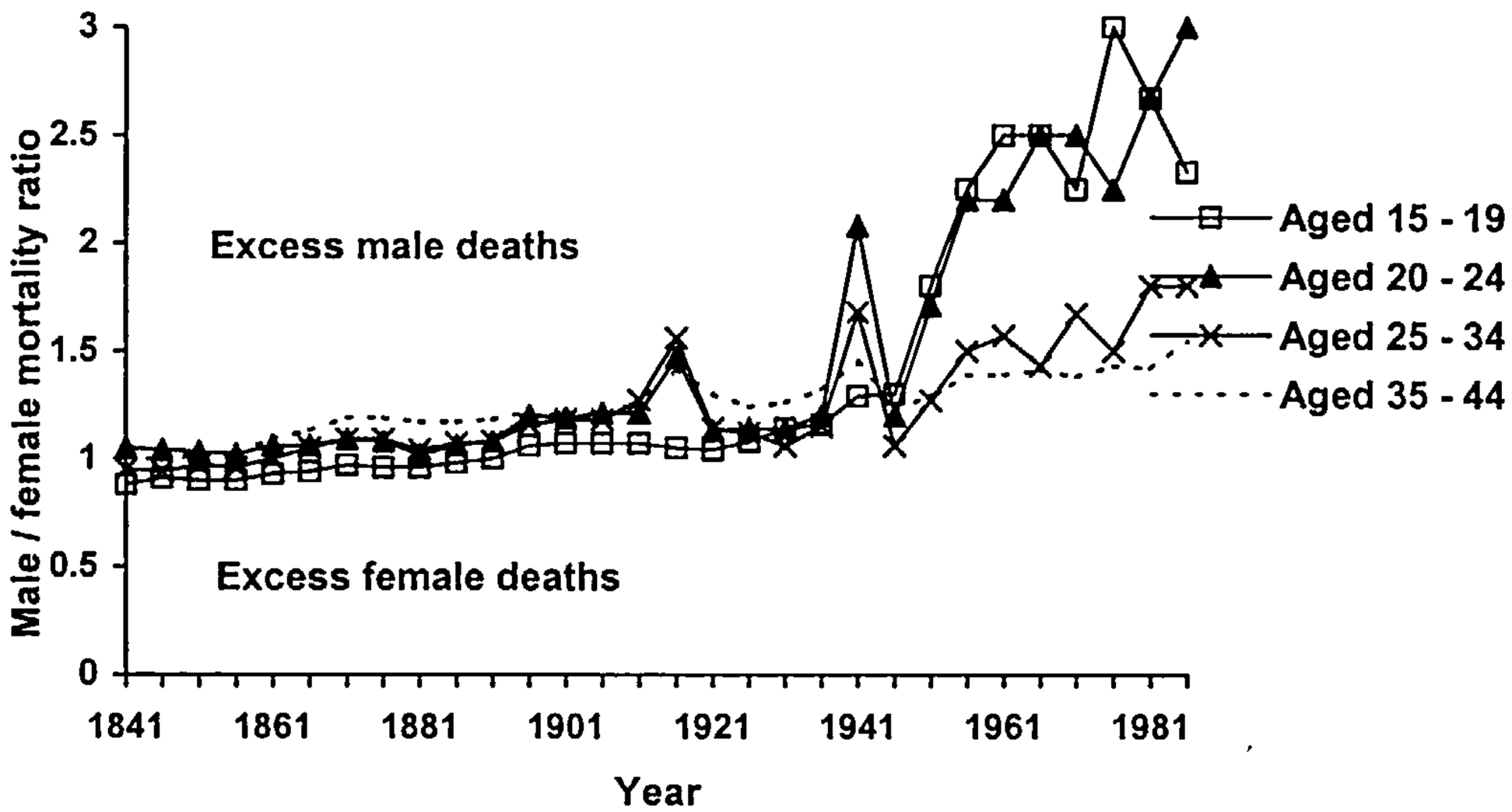

Figure 11-6: Male / female mortality ratio by age group for 15 to 44 year olds from 1841 to 1990

Source: OPCS 1993. Series DH1 No 25.

The ratio of male to female mortality rates is approximately 1:1 during the second half of the 19th century and the beginning of the twentieth century. At the beginning of the First World War (5 year period beginning 1911 to 1915) there was a small increase in the male: female mortality ratio to approximately 1.5:1. After the First World War, it returned to levels similar to those during the 19th century until the time of the Second World War (1939 - 1945). In the five year period commencing in 1941, there was again an increase in the male: female mortality ratio, in the 15 to 44 age group, and particularly among 20 to 24 year olds. Again, immediately following the Second World War, the male: female mortality ratio decreased. However, in the five year period from 1951 to 1955, the male: female mortality ratio increased among all four age groups and has continued to rise. It is now higher than at any other time over the past 150 years. The ratio of male: female deaths now exceeds even that during World War II. Specifically, the greatest ratio increase is observed among the youngest age groups, 15 to 24.

To assess whether the increase in male: female mortality ratio was significant, a bi-variate correlation and linear regression were carried out between male: female mortality ratio and year, from 1841 to 1990. In addition, to assess whether there was a significant increase in male: female mortality ratio, before and after 1951, a bi-variate correlation and linear regression were also carried out analysing the period 1841 to 1950 and the period 1950 onwards independently. The results are displayed in Table 11.1.

All age groups demonstrate a strong positive correlation between increasing mortality ratio and year for the period 1841 to 1990, significant at the 0.0001 level as shown in Table 11.1. When the periods 1841 to 1950 and the period 1951 onwards are examined independently, male: female mortality ratio and year again correlate significantly, indicating a trend towards excess male mortality during both time periods.

Table 11-1: Bi-variate correlation of male / female mortality ratio with year, 1846 to 1990

Age group (years)	Time period	r value	p value	Regression line	z test
15 - 19	1841 - 1990	0.8398	p = <0.0001	0.0125	<0.0001
20 - 24	1841 - 1990	0.8370	p = <0.0001	0.0115	<0.0001
25 - 34	1841 - 1990	0.8289	p = <0.0001	0.005	<0.0001
35 - 44	1841 - 1990	0.91899	p = <0.0001	0.03	<0.0001
15 - 19	1841 - 1950	0.9286	p = <0.0001	0.003	<0.0001
20 - 24	1841 - 1950	0.5663	p = <0.006	0.004	0.006
25 - 34	1841 - 1950	0.6090	p = <0.003	0.003	0.003
35 - 44	1841 - 1950	0.8664	p = <0.0001	0.003	<0.0001
15 - 19	1951-1990	0.5881	p = 0.024	0.017	0.13
20 - 24	1951 - 1990	0.8771	p = 0.001	0.027	0.042
25 - 34	1951 - 1990	0.8330	p = 0.002	0.012	0.01
35 - 44	1951 - 1990	0.8280	p = 0.002	0.049	0.01

From 1841 - 1990, the slope of the fitted regression line is significant at the <0.00001 level among all age groups in question. When the periods, 1846 - 1950 and 1951 - 1990 are observed separately, the slope of the line is greatest from 1951 onwards among all age groups observed. In addition, it is significant among all age groups observed except for 15 - 19 year olds from 1951 onwards. That is, the male / female mortality ratio increased significantly among 20 - 44 year olds since 1951 when compared to the 100 years previously. For 15 - 19 year olds, although there was an increase in the slope of the line after 1951, the regression co-efficient for the slope of the line from 1951 was not significant at the 0.05 level. Nevertheless, the

rate of increase in male / female mortality ratios has been greatest since 1951 in comparison with the rate of increase from 1841 - 1950.

Figure 11.7 displays male: female mortality ratio by age group 0 - 44 years through time. This figure shows data for the years 1941-1945, 1951-1955, 1961-1965, 1971-1975, 1981-1985, and 1986 – 1990.

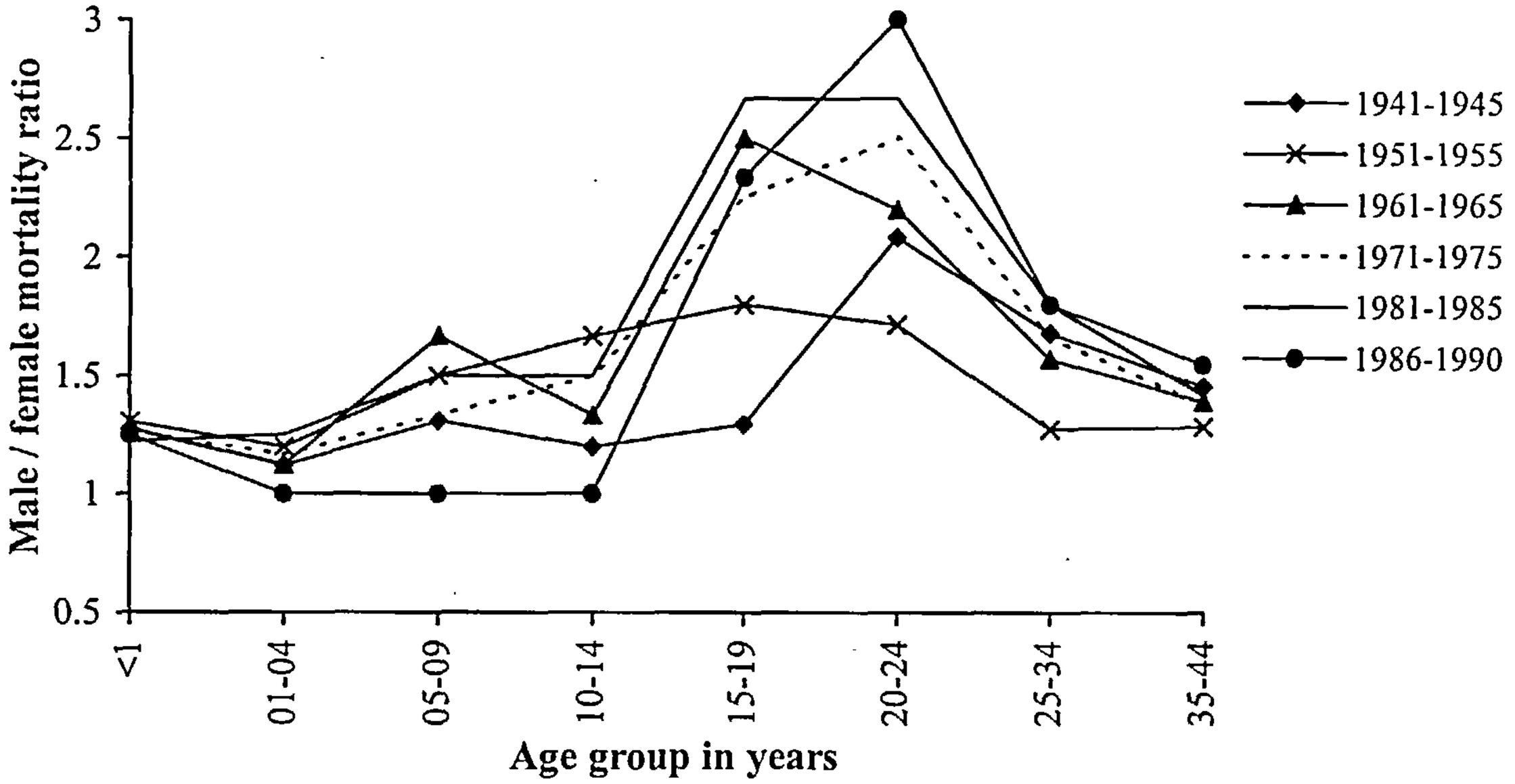

Figure 11-7: Male / female mortality ratios, England and Wales, ages 0 to 44 years, 1941 to 1990

Source: OPCS 1993. Series DH1 No 25.

The highest mortality ratios are evident in the younger age groups 15 to 34 years, peaking during the ages of 20 to 24 years. Comparing trends over the past 50 years, there is no increasing ratio over time among the 0 to 14 age group, but the trend among the 15 to 34 year age group shows a gradual increase with the most recent years showing a male: female mortality ratio of 3:1 in the 20 to 24 year age group, (with the exception of the war years 1941 - 1945). In addition, since the period 1951 to 1955, the peaks in mortality ratio among the young adults have become taller and broader, indicating that excess mortality among young men has increased and spread across a wider age range.

The following section examines recent trends in suicides accidents and undetermined deaths among young men aged 15 – 39 in England and Wales and subsequently analyses trends in Merseyside and Cheshire, a region Dunnell (1991) identified as having an increase in mortality among young men.

11.2 Recent trends in suicides, accidents and undetermined deaths among young men in England and Wales

Figure 11.8 demonstrates trends in mortality (three year rolling averages) from 1974 to 1995 due to suicide, accidental and undetermined deaths among young men aged 15 to 39 in England and Wales. The accidental death rate has fallen since the mid-'seventies, whereas the suicide and undetermined death rates have risen.

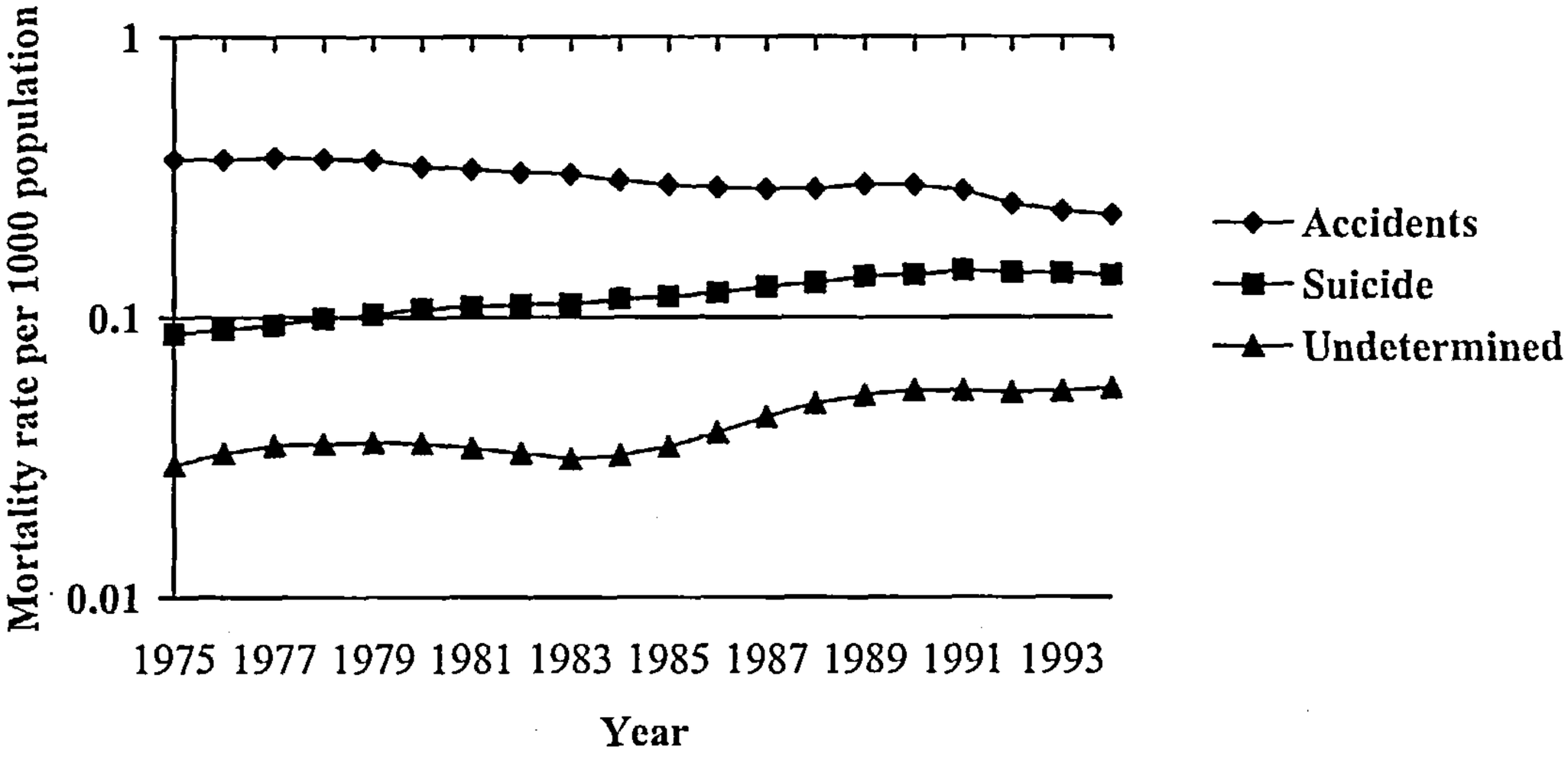

Figure 11-8: Mortality rates from accidents, suicides and undetermined causes (excluding E988.8) among men aged 15 to 39 in England and Wales, based on three year rolling averages.

Source: OPCS. DH2. Mortality Statistics, 1974 to 1995.
Rolling averages have been calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages are not weighted and have been calculated over three year periods.

From the above data percentage change in mortality rates and difference in mortality rates between 1974 and 1995 were calculated by cause. The results are shown in table 11.2.

Table 11-2: Percentage change and confidence intervals for the difference in mortality rates from suicide, accidents and undetermined death between 1974 and 1995, men aged 15 to 39 in England and Wales.

	Rates* 1974	Rates* 1995	Difference in rate (and 95% CI's)	Relative increase in rates (and 95% CI's)
Undetermined	0.0297	0.0559	0.0262 (0.0201 to 0.0302)	+87%, (n=+273) (66% to102%)
Suicide	0.0875	0.1412	.0537 (0.0438 to 0.0635)	+61%, (n= +587) (50% to 72 %)
Accidents	0.3664	0.2320	-0.134 (0.118 to 0.151)	- 36% (n = - 924) (-41% to -33%)

* Mortality rates per 1000 population.

While mortality due to accidental death has decreased significantly since 1974 (95% CI –41% to –33%), there has been a significant increase in death rates for suicide (95% CI 50% to 72%) and undetermined causes (95% CI 66% to 102%). In addition, undetermined deaths have increased at a greater rate than deaths due to suicide, although the rate of increase is not significant at the 5% level.

11.3 Recent trends in suicide and accidental death among men aged 15 to 39 years in Merseyside and Cheshire

11.3.1 Accidental death

Accidental deaths are included under the ICD codes E800 to E949 and are deaths that have been given a verdict of accidental death or death by misadventure at inquest. These ICD codes include deaths due to all transport accidents, accidental poisonings, misadventures during medical care or procedures, accidental falls, accidents caused by fire and accidents caused by submersion or suffocation.

Data for the years before 1983 are not available for Merseyside and Cheshire for all accidents and adverse effects. The following Figure shows trends in deaths due to accidents and adverse effects in men aged 15 to 39 in Merseyside and Cheshire from 1983 onwards.

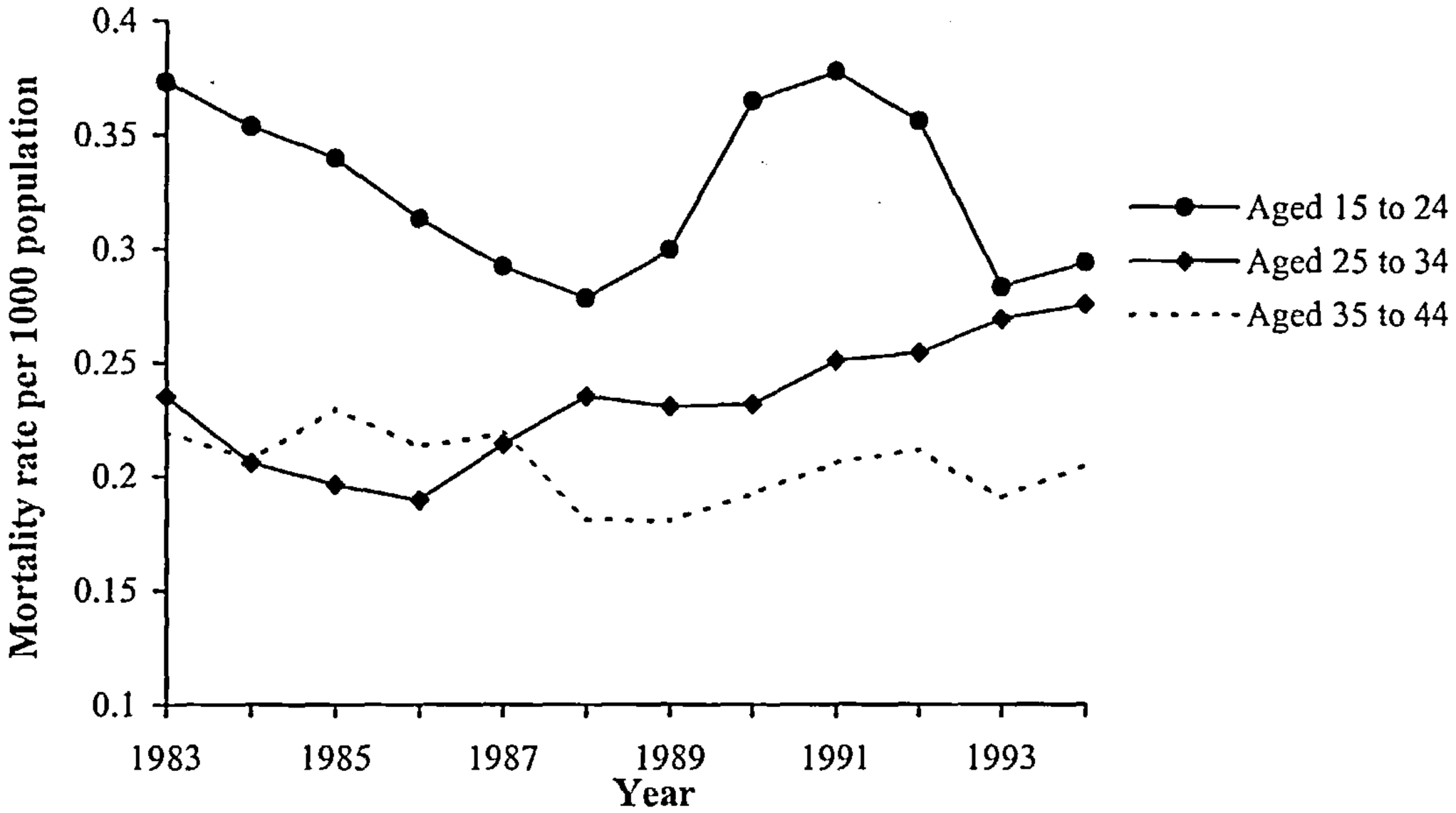

Figure 11-9: All accidents and adverse effects (E800 to E949), Merseyside and Cheshire, ten year age groups, young men, 1982 to 1995, three year rolling averages.

Source: OPCS 1995. DH2, No.22, Mortality Statistics.

Rolling averages have been calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages are not weighted and have been calculated over three year periods.

The greatest increase in accident mortality during the period in question has been among men aged 25 to 34. However accident mortality among 15 to 24 years olds increased sharply between 1988 and 1991 but then returned to 1988 levels. Mortality rates for the 35 to 44 year age group have remained relatively more stable, although a small decrease can be observed during the late 'eighties, followed by a slight increase since 1989, so that overall rates for 1994 are similar to those of 1983.

11.3.2 Suicide and undetermined causes

Data for suicide deaths are found under ICD codes E950 to E959. These are deaths that have been given a verdict of suicide at inquest. The Coroner gives a verdict of suicide at inquest if there is evidence to show that the deceased intended to take his or her own life, for example in the form of a suicide note. It is common to combine suicide deaths with those deaths receiving a verdict of open or undetermined (EICD codes E980 to E989, excluding E988.8), when examining suicide trends (Charlton et al. 1992).

The following Figure demonstrates trends in deaths among young men who died from suicide and undetermined causes in Merseyside and Cheshire, between 1982 and 1995.

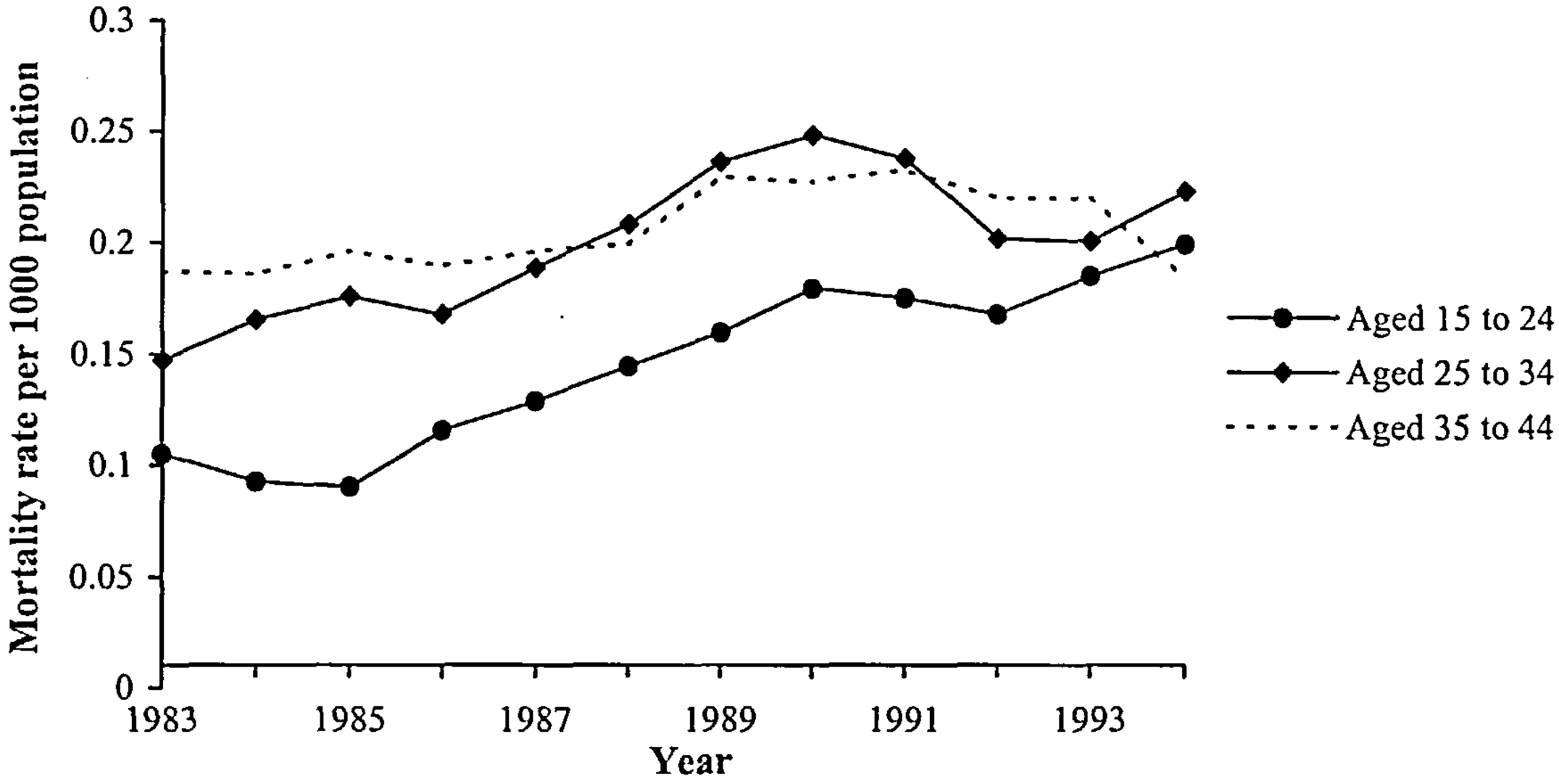

Figure 11-10: Suicide and undetermined deaths among young men in Merseyside and Cheshire, 1982 to 1995, ten year age bands, three year rolling averages

Source: OPCS 1995. DH2, No.22, Mortality Statistics

Rolling averages have been calculated to minimise the effect of random variation due to the small number of deaths occurring. Averages are not weighted and have been calculated over three year periods.

Trends in suicide and undetermined deaths show that mortality rates have increased steadily since 1983 among 15 to 24 and thc 25 to 34 year age groups. For 35 to 44 year olds, there was an increase until 1991, since which time the rate has fallen. The largest increase occurred among 15 to 24 year olds.

11.3.3 Homicide

The term homicide collectively includes murder, manslaughter and infanticide. The ICD codes used for identifying deaths due to homicide are E960 to E969. However it is important to include accelerated registrations, E988.8, in these figures as the majority of these deaths are cases of homicide pending a verdict from Crown Court and therefore should be added to the numbers in E960 to E969 to give a more accurate picture of homicidal deaths. Unfortunately, accelerated registrations have only been assigned to the E988.8. code since 1979. Therefore comparison of trends prior to this date is unreliable. In addition, data for E988.8 for regions is not

included in OPCS / ONS publications, therefore data on homicide deaths have not been examined.

Chapter 12 Results of Phase I

12.1 Verdict

A total of 268 injury and poisoning deaths among men aged 15 to 39 were reported to the Coroners of Merseyside and Cheshire during 1995. Of these deaths, 48.5% (n = 130) received a verdict of accident and misadventure, 22.4% (n = 60) a verdict of suicide, 14.2% (n = 38) an open or undetermined verdict, 8.6% (n = 23) a verdict of homicide, and 3.7% (n = 10) a verdict of dependent or non-dependent drug abuse. In seven cases, no verdict had been given at the time of the analysis.

The following table compares Coroners' data (compiled according to place of death), with OPCS data (compiled by district of residence). The majority of cases (88.4%, n = 237) resided within the boundaries of Merseyside and Cheshire. A further 29 cases lived elsewhere in the United Kingdom (or in one case abroad) but the death took place in the Merseyside and Cheshire region and therefore these cases were investigated within the local districts. Two cases were thought to be homeless.

Table 12-1 Comparison of injury and poisoning death data on men aged 15 to 39 during 1995 supplied by the district Coroners' for Merseyside & Cheshire with nationally compiled data from OPCS.

	Number of deaths (Coroners' data)	Number of deaths (OPCS data)
Suicides	60	61
Accidents	130	125
Homicides	23	9
Open / undetermined	38	31
Drug abuse	10	26
Verdict not available / E988.8	7	11
Total	268	263

The two data sources show a similar number of deaths from suicide and accidents. However there is a discrepancy in the number of deaths due to homicide and deaths due to drug use, which is unsurprising given OPCS methods of classification of injury and poisoning deaths as discussed in Chapter three. Figure 12.1 shows the proportion of deaths based on Coroners' data by cause of death.

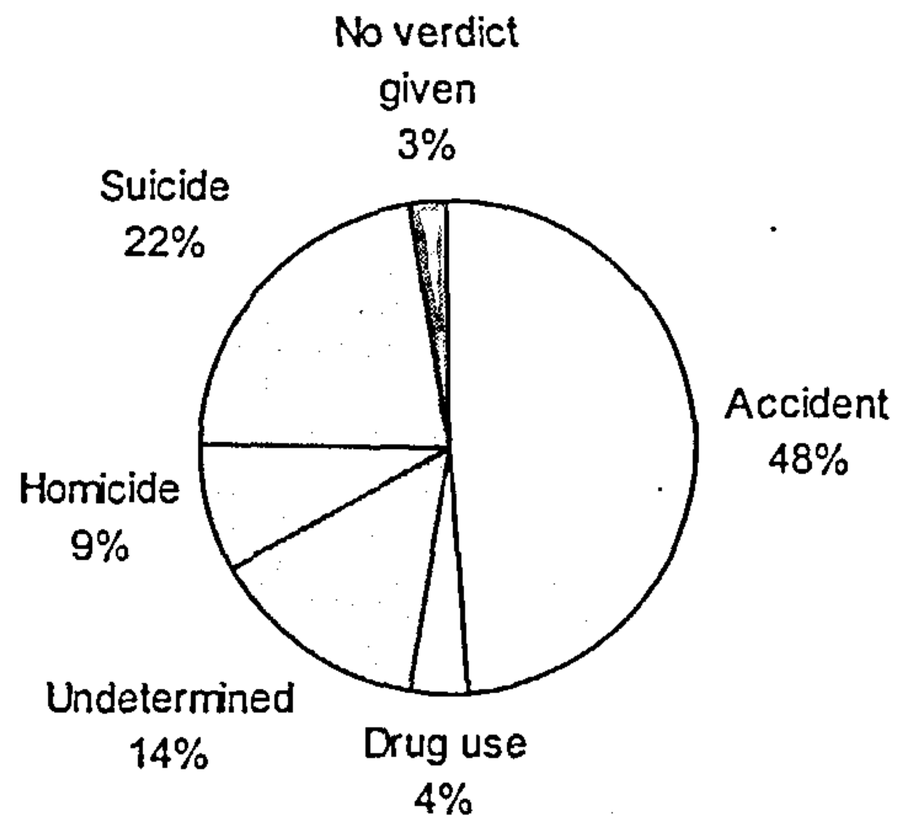

Figure 12-1: Deaths among 15 to 39 year old men reported to Merseyside and Cheshire Coroners during 1995

The mean age at death was 27.7 years. Table 12.2 shows the mean ages by verdict. In 7 cases, no Coroner's verdict had yet been given and in 1 case, the age of the individual was unknown.

Table 12.2 Mean age and standard deviation of the study population at the time of death.

	Mean age	**SD**
All cases	27.65 years	6.22
Accident, n = 130	27.2 years	6.51
Suicide, n = 60	28.9 years	4.36
Homicide, n = 23	28 years	7.05
Open, n= 38	27.4 years	7.29
Drug deaths n = 10	27.6 years	6.48

12.2 Cause of death

In addition to the verdict given by the Coroner, deaths can be classified according to the cause of death. The following table shows the method of death for the 268 cases in this study.

Table 12.3: Cause of death among young men aged 15 to 39 who died in Merseyside and Cheshire during 1995

Cause of death	No. of deaths	Percentage of all deaths
Poisoning (alcohol/drugs)	78	29.1%
Road traffic accident	62	23.1%
Hanging	33	12.3%
Carbon Monoxide	20	7.5%
Fall	14	5.2%
Drowning	10	3.7%
Cause unknown	9	3.4%
Assault	8	3%
House fire	6	2.2%
Train	6	2.2%
Shooting	6	2.2%
Stabbing	5	1.9%
Choking	4	1.5%
Surgical complications	3	1.1%
Fire to self	2	0.7%
Electrocution	2	0.7%
Total	**268**	**100%**

The most common cause of death was poisoning, as a result of alcohol or drugs (29.1%, n = 78). If carbon monoxide poisonings were to be included in this group, the proportion of deaths due to poisoning rises to 36.5% (n = 98). The second most common cause of death was road traffic accidents (23.1%, n = 62).

12.3 District of death

Merseyside and Cheshire is divided into four Coroner's districts: Liverpool; St Helens, Knowsley and Sefton; Cheshire and Wirral. The district in which the death occurs becomes the responsibility of the Coroner within that district.

The number of cases identified in each district is shown below:

Cheshire	40.7%	(n = 109)
Liverpool	27.2 %	(n = 73)
St Helens, Knowsley and Sefton	19%	(n = 51)
Wirral	13.1%	(n = 35)

12.4 Marital status

The majority of men who died were single (70.1%, n = 188). If single, separated and divorced categories are combined, the proportion rises to 83.2% (n = 224), with only 14.2% (n = 38) being married or living in a cohabiting relationship. In five cases, marital status was unknown so these data were not included in the table. Table 12.4 compares the marital status of the general population of men aged 15 to 39 in Merseyside and Cheshire based on 1991 Census of Population Local Base Statistics, to the study population. The 1991 Census of Population Local Base Statistics (OPCS 1992) for the general population includes the separated category with the married category, unless officially divorced, and includes the cohabiting category with the category of single. Categories have been similarly combined for the study data to allow comparison of the study population with the general population.

Table 12-2 Marital status of study population compared with the general population of men aged 15 to 39 in Merseyside & Cheshire

	Injury and poisoning deaths men aged 15 to 39, Merseyside & Cheshire	General population, men aged 15 to 39, Merseyside & Cheshire
Single / cohabiting	74.2%, n = 199	55.5%, n = 93303
Married / separated	14.5%, n = 39	40.5% , n = 68200
Divorced	8.9%, n = 24	3.9%, n = 6587
Widowed	0.4%, n = 1	0.1%, n = 165

Source: 1991 Census of Population Local Base Statistics

Total Chi^2 = 83.02, 3 degrees of freedom, p = <0.0001

In comparison with the general population, being single is a significant predictor of violent death among young males, regardless of cause.

12.5 Ethnic Group

Ethnic group was recorded in only 58.9% (n=158) of cases at post mortem examination. Of these, 3% were not Caucasian. However, it is possible that the pathologist would be more likely to record ethnicity in non-Caucasian cases, thus

the data are not considered to be reliable and have not been used subsequently in the analysis.

12.6 Domicile at time of death

For the majority of cases, home address was the place of residence at the time of death (95.9%, n = 257). In three cases, no place of residence was known, and in five further cases, place of residence was reported as a hostel, so it is likely that 8 cases were homeless at the time of death. Two further cases were long term resident in hospital and one individual was unidentified and therefore domicile could not be ascertained.

12.7 Employment and social class

Social class was recorded as shown in Table 12.5. The largest group fell in to the category of 'other.' The majority of individuals in this group were unemployed (n = 106, 39.4%).

Table 12-3 Social class of study population

Social Class	**Study Population Men aged 15 to 39**
I – Professional	3.7% (n = 10)
II – Managerial and Technical	7.1% (n =19)
IIIN - Skilled non-manual	8.2% (n = 22)
IIIM - Skilled Manual	20.1% (n = 54)
IV – Partly skilled	9% (n = 24)
V – Unskilled	5.6% (n = 15)
Other – unemployed , armed forces, etc	44.4 % (n =119)
Not known	1.9% (n = 5)
Total	**100% (n = 268)**

12.8 Place of incident

In 47.4% (n = 127) of the cases, the incident leading to death took place in the individual's own home or a family or friend's home. The same number occurred in a public place; 11 (4.1%) of these in a night-club or a public house, two in the workplace and 77 (28.7%) on the road or in the street. In 5 cases (1.9%) the incident leading to death occurred in prison or police cells, and for 4 (1.5%) individuals, the cause of death arose during their hospital stay. Of the 5 cases who died in police custody or in prison cells, 4 died as a result of hanging and one from a drug overdose. Two of these deaths received an accident verdict and three, a suicide verdict. Of these, two cases had a positive drug toxicity at the time of death.

12.9 Alcohol

In 24 cases, death occurred some time after the incident that led to death (for example, individuals who were admitted to hospital for a number of days prior to death). In these cases, serum alcohol levels at the time of the incident leading to death were unknown. 16.8% (n = 45) of the total sample were reported to have a known current or previous alcohol problem and 105 cases (39%) had a positive serum alcohol at the time of death. The distribution of serum alcohol levels is positively skewed with 139 subjects showing no evidence of having used alcohol and 17 subjects having serum alcohol levels of 200mg/100mls or more. Table 12.6 gives the distribution across categories of alcohol level.

Table 12-4: Serum alcohol levels (mg / 100ml) of study subjects at time of incident leading to death

Level of alcohol	n	%	Cum.%
0	139	51.9	51.9
1 to 80	49	18.3	70.2
81 to 200	39	14.6	84.8
> 200	17	6.3	91.1
Missing	24	9.0	100

12.10 Drug use

27.2% (n = 73) of the sample were known to have a past or current drug use problem according to the information sources used by the Coroner. The proportion rose slightly when all sources of information (including information from GP records, and hospital records which was not considered by the Coroner during the inquest), were used to identify individuals with known current or past drug problems (29.1%, n = 78). Only 26% (n = 19) of drug users also had a known alcohol problem. In 28.4% (n = 76) of cases, the cause of death was toxicity due to drug use, 40.7% (n = 109) having a positive toxicity at the time of death. Morphine was the most commonly used drug, 20.9% (n = 56) testing positive for morphine at post mortem. Methadone was the second most commonly used drug, 11.6% (n = 31) testing positive for methadone at post mortem. Table 12.7 shows the number and proportion of cases with a positive toxicity by the type of drug (individuals may have taken more than one drug).

Table 12-5: Drug toxicity at time of death

Name of drug	Number of cases	Percentage
Antipsychotic drugs	n = 1	0.4%
Amphetamines	n = 8	3.0%
Antidepressants	n = 12	4.4%
Benzodiazepines	n = 20	7.5%
Cannabis	n = 11	4.1%
Cocaine	n = 6	2.2%
Dextropropylene	n = 8	3%
Dihydrocodeine	n = 4	1.5%
Dipheniramine	n = 1	0.4%
Morphine / heroin	n = 56	20.9%
MDMA (Ecstasy)	n = 4	1.5%
Methadone	n = 31	11.6%
Paracetamol	n = 14	5.2%
Pentazocine	n = 1	0.4%
Propanolol	n = 2	0.7%

12.11 Social problems

The Coroner's inquest provided evidence of social problems immediately prior to death, in just over a quarter the sample (25.7%, n = 69). (For the purposes of this analysis, depression has been defined as a medical problem and has therefore not been included). Social problems included circumstances such as bereavement, redundancy, being in debt, the end of a close relationship and having a dispute with relevant others. In 65.7% of cases (n = 176) there was no evidence that the inquest had sought information regarding social problems. Where evidence was sought, relationship difficulties with a partner was the most common problem, with 16.7% experiencing some sort of relationship problem with a partner prior to death. In those cases where social problems had been recorded, the Coroner was more likely to give a verdict of suicide. However, evidence of social problems was not always sought. For example, this information was sought in only 26 of the 130 cases that received an accidental verdict. In 25 of these 26 cases, evidence of social problems was found immediately prior to death.

Table 12-6: Social problems prior to death recorded from inquest data

Type of problem	No. of cases* reported as having problem
Argument with partner, marital difficulties or end of a relationship	n = 45, 16.7%
Other problems (including problems with parents, learning difficulties, dispute with others)	n = 13, 4.85%
Money difficulties	n = 9, 3.4%
Problems at work, loss of job or end of employment	n = 6, 2.2%
Bereavement	n = 5, 1.86%

* Some individuals had more than one social problem.

12.12 Accidental deaths

130 (48.5%) of the injury and poisoning deaths occurring in the Merseyside and Cheshire study population received a Coroner's verdict of accident or misadventure. Jervis (Matthews and Foreman 1986) states that even though a distinction exists in logic between accident and misadventure, Coroners do not observe it in practice and therefore for statistical purposes the two categories are treated as being the same.

Table 12.9 shows the cause of death by Coroner's verdict among accident and misadventure verdicts. Where the Coroner's verdict was accident or misadventure, the mode of death was generally passive[11], 96.7% (n = 127) dying from passive means (in two cases, cause of death was hanging and in one case cause of death was unknown). The main causes of death among accidental and misadventure verdicts were road traffic accidents (40%, n = 52) and drug overdoses (31.5%, n = 41). However, the most common cause of death among accidental verdicts was road traffic accidents (51%, n = 52), whereas the majority of misadventure verdicts (71.4%, n = 20) were due to poisoning.

[11] Method of death may be classed as active, i.e. hanging, shooting, falling, stabbing, or passive i.e. choking, poisoning, drowning and electrocution

Table 12-7: Cause of death by Coroner's verdict among accident and misadventure verdicts for young men aged 15 - 39 in Merseyside and Cheshire during 1995

Cause of death	Accident	Misadventure
Cause unknown	2 (2.0%)	0 (0%)
Road traffic accident	52 (51%)	1 (3.6%)
Poisoning	26 (25.5%)	20 (71.4%)
Hanging	0 (0%)	2 (7.1%)
Drowning	4 (3.9%)	1 (3.6%)
Fall	6 (5.9%)	2 (7.1%)
Electrocution	2 (2.0%)	0 (0%)
Surgical complications	2 (2.0%)	1 (3.6%)
Fire	6 (5.9%)	0 (0%)
Choking / suffocation	2 (2.0%)	1 (3.6%)
Total	**102 (100%)**	**28 (100%)**

12.12.1 Road traffic accidents

In total, 62 deaths resulted from road traffic accidents. 52 of these deaths received an accident verdict, 3 received an open verdict, 6 a verdict of death due to dangerous driving, and in one case the verdict had not been given at the time of the analysis. Where young men were killed in road traffic accidents, they were most commonly a car driver (45.2%, n = 28).

Table 12-8: Deaths due to road traffic accidents in Merseyside & Cheshire during 1995

	Number of cases	Percentage
Driver	28	45.2%
Passenger	9	14.5%
Pedestrian	11	17.7%
Motorbike driver	11	17.7%
Pedal cyclist	3	4.8%
Total	**62**	**100%**

Approximately a quarter of the accidents took place at a road junction (24.2%, n = 15). Where another vehicle was involved it was usually a car (37.1%, n = 23). The majority (61.3%, n = 38) of the accidents occurred when road conditions were dry and weather was recorded as fine. In 41.5% (n = 22) of cases where the information was recorded, the accident took place in daylight. Only three accidents took place on an unlit road, during hours of darkness. Visibility was known to be poor in only two cases. Seatbelt use was recorded or known in 51 of the cases. Of these 51 cases, 23 (38%) were not wearing a seatbelt and 14 cases (22.6%) were wearing a seatbelt at

the time of the accident. Where speed at the time of the accident was known, 47.5 % of vehicles (n = 29) were known to be speeding and 44.3% (n = 27) were not speeding. Four (6.5%) of the accidents involved a stolen vehicle.

Serum alcohol at the time of the accident was unavailable for 11 of these cases. Of the remaining 51 cases, 20 cases had a positive serum alcohol level, 13 being above the legal driving limit of 80mg/100ml.

12.13 Suicide

Just under a quarter (22.4%, n = 60) of the deaths received a Coroner's verdict of suicide. In contrast to accidental deaths, only six deaths (10%) resulted from a drug overdose in this group. The most common method of death among the suicides was hanging (40%, n = 24) followed by car exhaust fumes (33.3%, n = 20). The mode of death was generally active with 78.3% (n = 47) of the deaths being the result of active means.

Table 12-9: Deaths among 15 - 39 year old men in Merseyside and Cheshire bearing a Coroner's verdict of suicide during 1995

Cause of death	Number of deaths
Poisoning	6 (10%)
Hanging	24 (40%)
Drowning	1 (1.7%)
Shooting	1 (1.7%)
Fall	1 (1.7%)
Exhaust fumes	20 (33.3%)
Stabbing	2 (3.3%)
Choking / suffocation	1 (1.7%)
Multiple trauma	4 (6.7%)
Total	**60 (100%)**

12.14 Undetermined deaths

Thirty eight deaths received an open or undetermined verdict. The most common cause of death among the undetermined group was that of drug overdose. In seven cases it was not possible to discern cause of death, either because no evidence of cause was found at post mortem or because the body was not discovered until it was badly decomposed. In a further seven cases (18.4%) the cause of death was hanging. Other causes of death included road traffic accidents, drownings, falls, fires, and collisions with a train. Where the cause of death was known, 23.7% of these deaths resulted from an active cause of death.

Table 12-10: Deaths among 15 - 39 year old men in Merseyside and Cheshire bearing a Coroner's verdict of undetermined during 1995

Cause of death	Number of deaths
Cause unknown	n = 7 (18.4%)
Multiple trauma	n = 4 (10.5%)
Poisoning	n = 13 (34.2%)
Hanging	n = 7 (18.4%)
Drowning	n = 2 (5.3%)
Fall	n = 3 (7.9%)
Fire	n = 2 (5.3%)
Total	**n = 38 (100%)**

12.15 Homicides

Twenty three homicides were recorded in the sample. Of these deaths, nine received a Coroner's verdict of murder, eight received a verdict of unlawfully killed, and six a Coroner's verdict of death caused by dangerous driving.

The cause of death was road traffic accident in six cases, shooting in five cases, stabbing in three cases, one death resulted from a drug overdose and the remaining eight were due to physical assault. Nearly all (22 out of 23) of the homicides involved Merseyside and Cheshire residents, and the majority occurred in a public place (73.9%, n = 17). Seven of the homicides occurred on the premises of a night-club or a public house.

There was no recorded evidence from any information source that any of these cases were drug users, and only one homicide was known to have an alcohol abuse problem. Of those tested, one had a positive toxicity (in this case, overdose was the cause of death). Three had a positive serum alcohol at the time of death, the highest being 124mg/100ml. The majority of cases were single, separated or divorced (78.3%, n = 18).

12.16 Identifying common and distinguishing factors between accidents, suicides and undetermined deaths

A number of significance tests were carried out on the data to test for association between factors and Coroner's verdicts. The following table (12.11) shows factors associated with verdict of death.

Table 12-11: Common and distinguishing factors between suicide, undetermined and accident verdicts

	Suicide	Undetermined	Accident	Chi^2 p value
Active method of death	78.3% n = 47	23.7% n = 9	1.5% n = 2	127.7 p = <0.0001
Intent**	61.7% n = 37	21.1% n = 8	3.1% n = 4	83.528 p = <0.0001
Social problems*	76.7% n = 46	52.6% n = 20	19.2% n = 25	59.5 p = <0.0001
Behaviour change	35% n = 21	39.5% n = 15	2.3% n = 3	47.035 p = <0.0001
Previous suicide attempt	45% n = 27	23.7% n = 9	6.9% n = 9	38.021 p = <0.0001
History of Deliberate self-harm	20% n = 12	10.5% n = 4	2.3% n = 3	17.1 p = 0.0001
Morphine toxicity	5% n = 3	18.4% n = 7	22% n = 34	11.8 p = 0.003
Methadone toxicity	5% n = 3	6.1% n = 2	17.8% n = 21	7.448 p = 0.024
Psychiatric contact	21.7% n = 13	26.3% n = 10	11.5% n = 15	6.09 p = 0.048
Drug problem	21.7% n = 13	18.4% n = 7	33.1% n = 43	4.6 p = 0.1
Cases with +ve toxicity	50% n = 30	39.5% n = 15	41.1% n = 53	7.6 p = 0.106
Risk taking behaviour	6.7% n = 4	10.5% n = 4	16.2% n = 21	3.526 p = 0.172
Unemployed	35% n = 21	34.2% n = 13	43.8% n = 57	5.792 p = 0.215
History of alcohol abuse	20% n = 12	23.7% n = 9	17.7% n = 23	0.704 p = 0.703

* Absence of evidence of social problems within the inquest notes, does not necessarily imply that they did not exist. Just over a third of the sample (34%, n = 91) were reported as having some kind of social problem at the inquest.

** in the form of suicide notes and victim telling someone of their intent to die.

From the table it can be seen that suicide deaths were significantly more likely to have reported social problems (p = <0.0001), to have used an active method of death (p = < 0.0001), to have shown evidence of intent (p = <0.0001), to have previously attempted suicide (p = <0.0001) to have demonstrated a behaviour change immediately before death (p = <0.0001), to have had a history of deliberate self-harm (p = 0.0001), and to have had a history of psychiatric contact (p = 0.048). Although suicide verdicts were significantly more likely to have social problems recorded in the inquest notes, it is unclear whether this was because cases who received a Coroner's verdict of suicide were more likely to have social problems, or whether for deaths suspected to be suicide, Coroners' officers were more likely to record evidence of social problems. Accidental death was significantly more likely to have resulted from morphine toxicity (p = 0.003) and methadone toxicity (p = 0.024). All other factors were not significant at the 5% level.

It is worth noting however, that as significance was set at p =< 0.05, these results should be interpreted with caution due to the danger of multiple significance testing on one set of data. One possible solution to this problem is to allow for this effect by reducing the level at which significance is set. In this instance, setting significance at the 0.01% level, would still have demonstrated that six of the factors (namely social problems, active method of death, evidence of intent, previous suicide attempt, behaviour change and history of deliberate self-harm) remained significant. However, previous psychiatric contact, and the two factors associated with accidental death, namely morphine and methadone toxicity should be interpreted with caution.

12.17 Factors defining suicides and accidental deaths

In order to investigate further the relationship between accidents and suicides, the undetermined deaths were excluded from the next stage of analysis leaving 130 accident verdicts and 60 suicide verdicts. The first stage of analysis was to construct factor categories from the data. The factors were generated according to the available data from the Coroners' inquests, and categorised into two sets, factors that related to behaviour and factors that related to substance abuse. The factors belonging to each category are listed below.

Behavioural factors
Mode of death: active vs. passive
Expressed intent to die, verbally or through leaving a note.
Reported uncharacteristic change in behaviour
Previous suicide attempt
History of deliberate self-harm
Evidence of psychiatric contact
Evidence of risk taking behaviour at time of death[12]

[12] Any evidence from the data that risk-taking behaviour being taken by the deceased ultimately contributed to their death such as driving at speeds excessively fast for road conditions for example.

Substance abuse factors:
Death resulting from drugs
Morphine / methadone toxicity
Current or previous drug use
Evidence of drug use or drug related death
Evidence of alcohol use or alcohol problem

The proportion of suicide verdicts associated with each factor were tested for association with Coroner's decision using the Chi^2 statistic (Table 12.12). There were 5 behavioural factors that were implicated in a majority of suicide verdicts. These were also significantly associated ($p < 0.001$ for all 5 factors) with suicide rather than accidents. The factors were: *'active method of death'*, *'intent expressed'*, *'uncharacteristic change in behaviour'*, *'deliberate self-harm'*, *'previous suicide attempt'*. Two factors, *'evidence of psychiatric contact'* and *'risk taking'* were associated with a minority of suicide verdicts, and but not significantly so ($p > 0.05$).

Two of the substance abuse factors were significantly associated with a minority of suicide verdicts ($p < 0.001$): 'd*eath resulting from drugs' and 'morphine / methadone toxicity'*.

Table 12-12: Percentage of suicide verdicts associated with each factor (univariate analysis)

Factors	% of deaths due to suicide	95% C.I.	p- value
Behavioural factors:			
Active method of death	95.9	86.0-99.5	0.000
Intent expressed	90.2	76.9-97.3	0.000
Uncharacteristic change in behaviour	87.5	67.6-97.3	0.000
Deliberate self-harm	80.0	51.9-95.7	0.000
Previous suicide attempt	75.0	57.8-87.9	0.000
Evidence of psychiatric contact	46.4	27.5-66.1	0.067
Risk taking behaviour	16.0	4.5-36.1	0.072
Substance abuse factors:			
Evidence of drug use or drug related death	35.0	25.7-45.2	0.285
Evidence of alcohol or alcohol problem	33.7	24.3-44.1	0.532
Current or previous drug use	23.2	13.0-36.4	0.109
Death resulting from drugs	13.7	5.7-26.3	0.001
Morphine / methadone toxicity	7.6	2.1-18.2	0.000

To determine the multiple effect of individual factors, logistic regression was carried out on those behavioural factors that were predictors of a suicide verdict, where significance was < = 0.1. Models were fitted using stepwise selection procedures, using asymptotic Chi^2 statistics to determine which factors had significant explanatory power. Only main effects were investigated, the data being too sparse to build interaction terms into the models. Logistic regression was carried out using the LOGISTIC procedure in SPSS (v9). This process calculates the significance of individual factors while controlling for the effects of the others. A significant effect is determined by Wald Chi^2 statistics.

The results of the regression analysis are shown in table 12.13. Five factors were significantly associated with a suicide verdict within the model. These were *active method of death,* (p = <0.0001) *intent expressed,* (p = <0.0001) *evidence of psychiatric contact,* (p = 0.017) *deliberate self-harm,* (p = 0.026) and *uncharacteristic change in behaviour* (p = 0.058). (The p values indicate the significance of the factor's influence on the fit of the regression model, active method of death and expressed intent being the most significant).

Table 12-13: Predictors of Coroners' decision - regression analysis

	B	S. E.	Wald Chi^2	P value	Exp (B) (O.R.)	95% CI	
						Lower	Upper
Active method of death	6.617	1.352	23.971	<0.0001	747.732	52.9	10571.9
Intent expressed	5.045	1.315	14.727	<0.0001	155.301	11.8	2042
Evidence of psychiatric contact	3.099	1.296	5.720	0.017	22.179	1.8	281.2
Deliberate self-harm	3.391	1.527	4.93	0.026	29.689	1.49	592.2
Uncharacteristic change in behaviour	2.235	1.178	3.597	0.058	9.343	0.9	94.1

Variables entered on step 1: Active method of death
Variables entered on step 2: Intent expressed
Variables entered on step 3: Evidence of psychiatric contact
Variables entered on step 4: Deliberate self-harm
Variables entered on step 5: Uncharacteristic change in behaviour

The relationship between behavioural characteristics associated with a suicide verdict, and substance abuse was also investigated by calculating Chi^2 tests of association between the substance abuse factor *'death resulting from drugs'* and the behavioural factors. Only *'evidence of psychiatric contact'* was strongly associated with substance abuse factors, though it fell short of formal statistical significance (p=0.06). The implication is that subjects who abuse drugs do not display the

behavioural patterns associated with a suicide verdict. These cases are more likely to receive an accident verdict.

12.18 Drug use

Factors relating to drug use for cases who received a verdict of accident, undetermined death or suicide, were examined in more depth. According to the evidence referred to by coroners, 73 cases (27.2%) were known to have a current or previous drug use problem. Record searches uncovered evidence of current or past drug problems in five more cases (29 %). Among those individuals who had a drug use problem, 26% (n = 19), also had evidence of an alcohol problem. Of the 31 individuals with positive toxicity from methadone, 14 were receiving methadone on prescription.

Where death is due to drugs, a verdict of suicide is much less likely than for a non-drug related death, but in both cases, accident is the majority verdict (Table 12.14).

Table 12-14 Drug deaths and Coroner verdict

Coroner verdict:	**Non-drug death**		**Drug death**		Total:
	n	%	*n*	%	
Accident / Misadventure	86	53	44	59	130
Suicide	53	32	7	9	60
Open	25	15	13	18	38
Drug abuse	0	0	10	14	10
Total	**164**	**100**	**74**	**100**	**238**

Drugs were often taken in combination, making it difficult to compare Coroner's verdict with the types of drug used. The Misuse of Drugs Act broadly grades drugs according to the harmfulness attributed to them when misused (British Medical Association 1999). Drugs are categorised as belonging to one of three classes: A, including methadone, morphine and cocaine; B, amphetamines and cannabis; and C benzodiazepines. Toxicology findings were categorised according to this classification, to study the relationship between this factor and verdict.

Of the 106 subjects with positive drug toxicity, 83 (78%) were using a class A drug, 7 (7%) a class B, 3 (3%) a class C and 13 (12%) a prescribed drug as highest class drug taken (prescribed drugs included antidepressants and antipsychotics). Among the 74 subjects whose death was attributed to drugs, 61 (82%) were using a class A drug, 4 (5%) a class B, 3 (4%) a class C and 6 (8%) a prescribed drug as the most harmful drug taken. Table 12.15 gives the association between drug class and

Coroner's verdict for those subjects with a positive toxicity. Because of the small numbers, classes B and C have been combined.

Table 12-15: Drug class and Coroner verdict

Coroner verdict:	**Class A**		**Class B / C**		**Prescribed**		
	n	*col%*	*N*	*col%*	*n*	*col%*	Total
Accident / Misadventure	51	61	5	50	4	31	60
Suicide	6	7	3	30	7	54	16
Open	17	21	1	10	2	15	20
Drug abuse	9	11	1	10	0	0	10
Total	**83**	**100**	**10**	**100**	**13**	**100**	**106**

Among the drug users, those using the more harmful substances, such as opiates and methadone, are more likely to receive an accident verdict and much less likely to be regarded as a suicide.

12.19 Health service use

12.19.1 Contact with primary care

Of the 267 identified cases in the study, 11.6% (n = 31) were, according to health authority returns, not registered with a General Practitioner (GP). The health authority identified GP records for 177 of the remaining cases. Thus there were 59 cases who were registered with a General Practitioner but the records could not be found by the health authority (Fig 12.2).

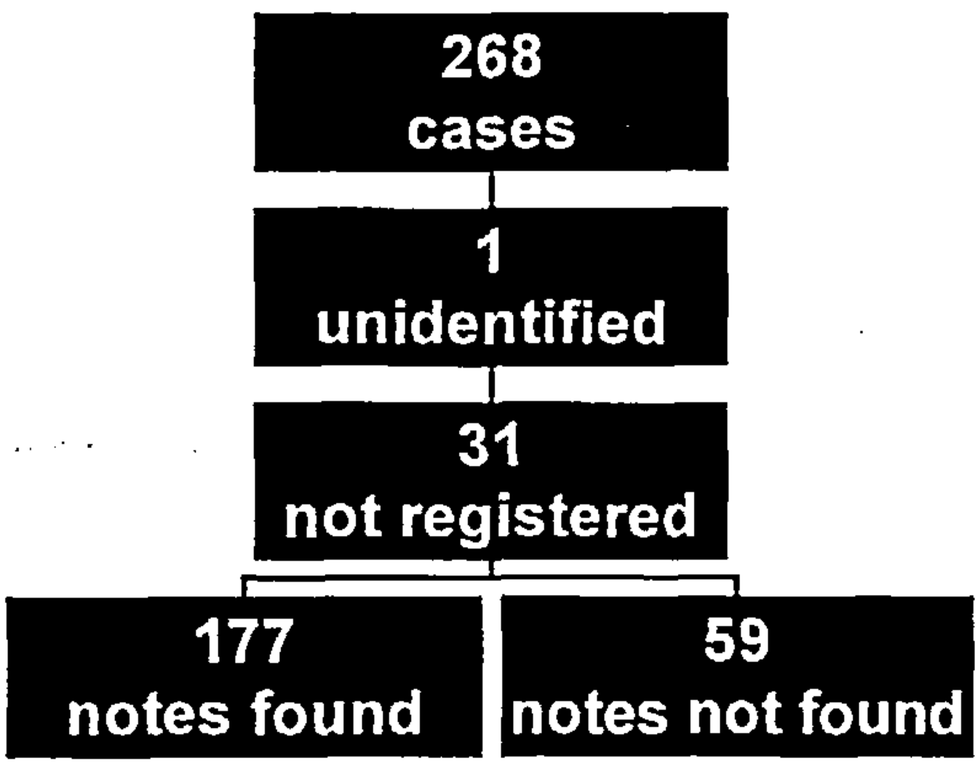

Figure 12-2 Availability of GP records for study population

12.19.2 Date of last visit to General Practitioner before death

Among the 177 cases for whom records were available, data were categorised according to whether an individual had seen a GP within one month, between one and three months or more than three months preceding their death. A more accurate picture of the extent of GP contact can be obtained by including those individuals not registered with a GP (since it is known they did not have contact with primary care), but excluding those individuals who were known to be registered but for whom records could not be found, and excluding one individual who was not identified. This leaves a total of 208 cases. In six cases, the GP data on the date of last visit was recorded incorrectly. That is, for six cases the date of last visit written in the GP records came after the date on which the individual had died.

Almost half of the sample (44.7% of cases, n = 93) saw their GP within three months of death. The General Household Survey (ONS, 1998) reports that men aged between 16 and 44 years visit their GP an average of three times a year. Based on these data it could be expected that only 25% of the sample (n =52) would have seen their GP in the three months before death. Therefore among this cohort there was more contact with the GP in the three months preceding death than would be expected among the general population. Almost a third (30.8%, n = 64) saw their GP within a month of their death (see table 12.16).

Table 12-16 Date lasted visited the GP

Date last visited GP prior to death	Number of cases	% of sample
< 1 month	64	30.8%
1 to 3 months	29	13.9%
> 3 months	78	37.5%
No GP visits known	31	14.9%
GP data incorrect	6	2.9%
Total	**208**	**100%**

All recorded visits to the GP by the study population during their lifetime, excluding visits made for common childhood illnesses, were categorised according to reason for visit. The reason for the visits, and the number of visits made are displayed in Table 12.17.

Table 12-17 Reasons for visits to GP

Reason for visit	Number of visits	Percentage of all visits
Physical problem	1779	39.3%
Psychological problem	1293	28.6%
Drug use	601	13.4%
Other	844	18.7%
Total	**4517**	**100%**

The greatest number of consultations (n = 1779, 39.3%) were recorded as being due to physical problems, but over a quarter of all visits (n = 1293, 28.6%) were recorded as being related to psychological problems.

12.19.3 Contact with secondary care

70 (26.1%) of the 268 cases were admitted to hospital in the immediate period prior to death. Of these 70 cases, 41 (58.6% of those admitted) died on the day that they were admitted. The remaining 29 cases were in hospital for between two and 30 days before death.

Forty cases (57.1%) had previously been in contact with psychiatric services at some point in their lives and 19.7% (n = 53) were recorded as having had contact with 'other related services' including counselling, social services, and drug and alcohol clinics, according to data obtained from the Coroner and GP records. However, it is likely that in many cases contact with other services was not considered relevant to the Coroner's verdict and therefore the information was not recorded. (Information on contact with services outside of the NHS is not routinely recorded in GP records). The majority of recorded contacts with 'other related services' (60.3%, n = 32) were contacts with drug services.

12.19.4 Contact with psychiatric services

14.9% (n = 40) of cases had contact with psychiatric services at some time in their lives and 40% of these (n = 16) had contact within three months of death. The following table gives numbers of deaths associated with various factors for those in contact with psychiatric services and those who are not. For each factor, the table also contains results of Chi^2 tests for differences of proportions between those in contact and those not in contact.

Table 12-18 Association of factors with psychiatric service contact

Factor	In contact	Not in contact (no.)	% in contact	Chi^2 P value
Method of death:				
Active	12	62	16	0.13
Passive	28	166	14	0.71
Expressed intent :				
Yes	10	39	20	1.42
No	30	189	14	0.23
Alcohol / drugs Problem:				
Yes	24	75	24	10.73
No	16	153	9	0.001
Positive serum alcohol:				
Yes	20	85	19	2.31
No	20	143	12	0.13
Marital status:*				
Single	34	190	15	0.15
Not single	5	34	13	0.70
Employed:				
Yes	16	130	11	6.28
No	24	82	23	0.01
History of DSH:				
Yes	4	18	18	0.20
No	36	210	15	0.66
Registered with GP:				
Yes	40	196	17	6.18
No	0	31	0	0.01
Saw GP within three Months of death:**				
Yes	24	73	23	0.51
No	15	65	19	0.48

* 1 case unknown ** 3 cases in psychiatric contact, data recorded incorrectly in 1 case

Those in contact with services were significantly more likely to have had an alcohol or drug problem ($p = 0.001$), to be unemployed ($p = 0.01$) and to be registered with a GP ($p = 0.01$). All cases who had previously been in contact with psychiatric services were also registered with a General Practitioner, and 60% ($n = 24$) had seen their GP within three months of their death.

12.19.5 Health service use by verdict

Analysis of last date of contact demonstrates a significant difference in the proportion of individuals who saw their GP within three months of death by verdict

(see table 12.19). A greater proportion of individuals who died from undetermined causes saw their GP within three months of death (57.6%, n = 19), followed by suicides (50%, n = 26) and accidents (40.9%, n = 38) (p = 0.049).

Table 12-19 GP contact by Coroner's verdict for three main verdicts

	Suicide	**Undetermined**	**Accident**
Saw GP in 3 months prior to death	50.% (n = 26)	57.6% (n = 19)	40.9% (n = 38)
Did not see GP within 3 months of death	46.2% (n = 24)	33.3% (n = 11)	58.1% (n = 54)
GP data incorrect*	3.8% (n = 2)	9.1% (n = 3)	1.1% (n = 1)
Total	**100% (n = 52)**	**100% (n =33)**	**100% (n = 93)**

$\chi^2 = 9.52$, p = 0.049, degrees of freedom = 4, n = 178.
* These cases were excluded from the significance test.

However, there was no significant difference in GP contact within a month of death between accidents, suicides and undetermined deaths (p = 0.72).

Table 12-20 GP contact in the last month before death

Last date of GP contact	**Suicide**	**Undetermined**	**Accident**
< 1 month	36.5% (n = 19)	33.3% (n = 11)	30.1% (n = 28)

$\chi^2 = 0.638$, p = 0.72, degrees of freedom = 2, n = 178.

Table 12.21 shows the proportion of cases by Coroner's verdict who ever visited the GP for physical problems, psychological problems and for problems relating to drug use. There is no difference in the proportion of suicides, accidents and undetermined deaths who ever visited their GP for physical, psychological or drug use problems.

Table 12-21 Ever visited GP for different type of problems by Coroner's verdict

Ever visited GP for:	Suicide	Undetermined	Accident	χ^2 value *P value*
Physical problem	78.8% (n = 41)	87.9% (n = 29)	81.7% (n = 76)	1.13 *0.75*
Psychological problem	61.5% (n = 32)	66.7% (n = 22)	47.3% (n = 44)	4.9 *0.08*
Visit related to drug use	15.4% (n = 8)	6.1% (n = 2)	22.6% (n = 21)	5.04 *0.08*

Finally, a significantly greater proportion of suicide verdicts had a history of previous contact with health services for psychiatric care. Thus, young men who had been in contact with services were, not surprisingly, more likely to receive a suicide or open verdict, and less likely to receive a Coroner's verdict of accident or misadventure. Nevertheless, of individuals who had been in contact with psychiatric services, a greater number died of accidents or misadventure than they did of suicide or open verdicts (Table 12.22). Therefore, suicides were more likely to have been in contact with psychiatric services but, overall, individuals in contact with psychiatric services who died violently were more likely to receive an accidental death verdict.

Table 12-22 Previous psychiatric history by verdict*

	Suicide	Undetermined	Accident	χ^2 value *p value*
Previous Psychiatric history	21.7% (n = 13)	26.3% (n = 10)	11.6% (n = 15)	6.09 *0.05*

*1 case received a verdict of homicide and 1 received a verdict of drug abuse

Again it is worth noting that that as significance was set at p =< 0.05, these results should be interpreted with caution due to the danger of multiple significance testing on one set of data.

Chapter 13 Results of Phase II

13.1 Introduction

Of the forty six men aged 15 to 39 years who were resident in Liverpool and died of causes related to injury and poisoning during 1995, 24 cases were finally included in the qualitative element of the study. Reasons for exclusion were as follows: in 2 cases, cause of death was unknown: in 15 cases, it was not possible to trace relatives; and in 5 cases, relatives and friends declined to take part. The verdicts given to those included in the study broadly reflect the verdicts of the total number of eligible cases for the study as shown below.

Table 13-1: Verdicts of cases included in the qualitative study

Coroner's verdict	Eligible cases No (% of total)	Cases included in study No (% of total)
Accident	26 (59%)	13 (54%)
Suicide	8 (18.%)	4 (16%)
Misadventure	1 (2.3%)	1 (4%)
Open	7 (15.9%)	5 (21%)
Dependency on drugs	1 (2.3%)	1 (4%)
Verdict not known	1 (2.3%)	0
Total no. of deaths	44	24

In order to carry out the first stage of the analysis, all the available information for each individual was compiled into an individual narrative. Events were placed in chronological order from early childhood through to the time of death producing a descriptive account of the individual's life. The narrative was then examined for any evidence to support or refute the hypothesis of risk taking and self destructive behaviour. This first stage of the analysis demonstrated that the cases fell into three categories (or clusters) in relation to the hypothesis; the case appeared to have constructed a pathway of risk taking behaviour but there was no evidence of intention; the case had constructed a pathway of deliberate self-destructiveness in order to end their life; or there was no evidence of a pathway of risk taking or self destructive behaviour in the narrative.

In addition to examining the narratives for evidence of risk taking and self-destructive behaviour, the data were further coded according to emerging themes. A cross case analysis was then carried out to identify any common themes and also any differences between the cases and also to identify how these themes related to constructions of masculinities. A number of themes were identified which were common to the majority of cases (such as employment issues for example). However cross cases analysis identified that the nature of the themes differed

according to the categories (or clusters) identified in relation to risk taking and self destructive behaviour. Thus, the clusters were significantly different, not only in terms of risk taking and self-destructive behaviour, but also in relation to how the themes identified related to constructions of masculinities.

All but one of the cases fell into the three clusters. Cluster one included 11 cases, cluster two included 10 cases and cluster three, two cases. The following section analyses data for each of the clusters reflecting on Connell's theory of masculinity, and identifies how aspects of masculinity contributed to the deaths of the young men concerned.

13.2 Cluster one

This cluster was characterised by their virtually complete separation from conventional societal roles. All members of the cluster were regular drug users, and all had been in conflict with the law. Connell (1999) describes marginalised groups of young men as 'outside of the respectable working class'. The majority of them had no skills or qualifications and consequently, no status or power in terms of hegemonic masculinity. Their lives had been characterised by conflict with all forms of school authority throughout their educational years and with state authority as adults. These biographies illustrate the structural exclusion experienced by these young men from an early stage of their lives. Exclusion from school, the labour market and eventually the family can be seen among these life experiences. Their approach to life could be described as antagonistic, chaotic and frenzied and they could be described as living on 'the outside edge' of society.

Courtenay (1999) suggests that when men are denied access to the resources necessary for constructing hegemonic masculinity they must seek other accessible resources such as traditional masculine beliefs or health risk behaviours in order to validate their masculinity. Messerchmidt (2000) describes this type of masculinity as 'oppositional masculinity' that is extrinsic to and represents significant breaks from hegemonic masculinity. The concept of hegemony refers to the cultural dynamic by which a group sustains a leading position in social life. Masculine practices have to be contextually appropriate and it is significant therefore that these young men chose to do this through the medium of drug use.

Eleven cases were assigned to this cluster and these are illustrated in the table below.

Table 13-2 : Description of cases assigned to Cluster one

Case	Cause of death	Age	Verdict	Informants
1	Overdose of morphine	35	Accident	Sister Friend
2	Overdose of morphine / temazepam	26	Accident	Aunt (and foster parent) Cousin
3	Overdose of morphine	35	Accident	Father
4	Overdose of morphine	26	Open	Father Mother
5	Overdose of morphine / cocaine	24	Misadventure	Mother Sister Girlfriend
6	Road traffic accident / +ve for morphine	29	Accident	Mother
7	Overdose of morphine / temazepam	27	Accident	Brother Friend
8	Overdose of methadone / temazepam	36	Accident	Sister Brother Counsellor
9	Overdose of cocaine	24	Accident	Sister
10	Overdose of morphine	26	Accident	Brother Counsellor
11	Overdose of methadone / temazepam	34	Drug dependency	Father

Among this group, the Coroner's verdict was predominantly given as accidental (9 out of 11 cases). In addition, there was one open verdict and one verdict of drug dependency given. The verdict that was open was given in the case of a death where the body had not been found for more than three weeks after the death, and there were no witnesses to the death itself. The verdict of drug dependency could equally have been applied to a number of the other cases. That is, several of the cases fulfilled the criteria for receiving this verdict (See Chapter Three pp.18-19). It should be noted that the findings among this group are not necessarily representative of the vast majority of the drug using population, since the cases in this study included only drug users who had died. However, they may be generalisable to those drug users who are most at risk of death.

13.2.1 Early influences

For many of these cases, the childhood picture is mostly one of instability, and often the chaotic nature of their lives began during childhood. Eight of the cases did not

live with both parents throughout their childhood. In five cases, this was as a result of divorce and in three cases, through the death of their fathers. Often, there was no male role model in the home and in some instances, relatives directly attributed later behaviours and experiences to childhood instability, particularly where it was extreme due to the loss of both parents. For example, X was the youngest of three children whose parents split up when he was two years old. His mother subsequently had a nervous breakdown and he went into local authority care where he stayed until he was 13, at which time he went to live with his aunt. His father was on the run from the police and had no further contact with the children. He would see his mother on occasion on the bus, but she did not acknowledge him.

Maybe it was because he was in homes all the time he never really had anyone apart from my mum and dad, (his aunt and uncle) he never really had a father figure. He knew that because he was in a home, the people who work there, their relationships only go a certain way. He knew that basically he was on his own and could do what he liked. (Case 2, cousin[13])

The lack of a stable parent figure, and in this case the respondent identifies the lack of a male parent figure as being particularly influential, meant that there was no-one to set boundaries. Therefore the only boundaries he had, appeared to be those he set himself. Sampson and Laub's work (1993) suggests that lack of parental attachment, supervision and discipline are the most important family correlates of serious persistent delinquency.

For most of the cases in the study, the instability was not as extreme as the case described above. There was at least a modicum of stability during childhood in that the individual usually remained with the mother following separation or divorce. In only two cases, the individual was put into local authority care following his parent's separation.

While it is not possible to attribute later problems directly and exclusively to specific childhood events, the absence of a father was common in this group. In addition one respondent acknowledged that, even though her son had grown up with his father, an unsatisfactory relationship obviously had a strong influence.

They weren't close but I think his dad was important to him. I think he always regretted that he wasn't with his dad when he died but at the time, he was too much into drugs to bother. (Case 6, mother)

In one case, the respondent did not attribute his brother's problems to the death of his father. There were other men within the family who provided boundaries but he believed that his brother's self-destructive behaviour was not a product of this. Rather, he attributed it to sibling rivalry.

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[13] Brackets after quotations indicate the case to whom the quotation refers and the respondent responsible for the statement.

If my old fella hadn't have died, he would have still been like this. I don't think it was a matter of if he had had a stronger hand in the home because he did have a stronger hand, my grandad and my uncle.....He always had a chip on his shoulder about me. If I went to A he would have to go B to just to prove a point and that's one of the reasons why he did the heroin, because it made him look big. (Case 7, brother)

It was apparent that by the time these young men reached school leaving age, they were already marginalised in terms of employment opportunities. Only three of the twelve cases in this cluster left school with any CSE or GCSE qualifications. Employment patterns are explored later in section 13.2.4 Employment and Housing.

It was common for respondents to cite examples of unusual behaviour during childhood such as truanting at a very young age. Non-conformity and rebellion against authority were common features. In two cases, the individuals were taken out of mainstream school and attended specialist schools, but these experiences did not appear to be positive in any way for the individuals concerned. Connell suggests that state power seems repeatedly to provide an object against which a violent, resistant masculinity can be defined. This happens in relation to state power as realised in the school, as much as it does in relation to the police (Connell 1993).

He used to go walkabout from the age of two or three and we would have to go looking for him. He was a pain as a child, .always fighting, always skiving off school. (Case 1, sister)

He started truanting from the age of 7 or 8 . I think it was because of the company he was keeping. (Case 2, aunt)

From the age of 14, he just stopped going to school, refused to go outright and my mother couldn't do nothing with him. The guy used to come from the education department and say that she (my mother) had to go to court but he just refused to go outright. (Case7, brother)

Well he used to live in Speke, and he used go with _____, they started sagging school, so what they done they put him in Crooky Hall, you know, with his other brother. Well at least when he was at Crooky hall, you knew like where he was, and they used to turn them out all weekends and they'd have a bus laid on to fetch him down, with the other children and they'd take him back again on a Sunday. (Case 4, mother)

Among these cases, truanting offered an important means of negotiating masculinity. Connell suggests that school does not merely adapt to the masculinity among boys. Rather, it constructs various forms of masculinity and negotiates relations among them (Connell 1987).

13.2.2 Emotional expression

Among the 'outside edge' group, there was clear evidence of a commitment to emotional inexpression. In fact, there was an additional dimension to their emotional inexpressiveness. None of the cases discussed their drug use with family and friends, yet it is evident that using drugs was a major part of their lives, which had far reaching effects. Therefore, not discussing their drug use inevitably meant not being able to discuss many important issues with friends and family. One respondent even identified the fact that an individual did not want to talk about his drug use as his main problem, and believed that, had they been able to discuss it, it may have made a difference. In practice, this often meant that, when they were using heavily, they would have no contact with the people who were closest to them, only other drug users. However, it is possible that they did discuss their drug use with other users as their family became more remote and their own peer group more and more influential. This would have served to perpetuate their heavy drug use and meant that family and non drug using friends were prevented from supporting the individual. It is not possible to surmise, however, whether men with an inability to talk about their difficulties would be more likely to develop problematic drug use or whether the drug use, by its nature, involved them being secretive, resulting in them hidings things from others.

He had problems with drugs and with his health. The problems with his health came from the drugs so he didn't want to distinguish one from the other so he wouldn't tell you about either. (Case 1, friend)

You know drug addicts, they never really tell you very much about themselves. He never used to tell you about it even though it was an obsession. (Case 11, father)

He never moaned and was always happy. He always kept his problems to himself. (Case 2, cousin)

He never let me get close to him and I was beginning to get a bit fed up with the way he was treating me. (Case 5, girlfriend)

The concept of hegemony assumes that the group with the greatest power has specific knowledge, and thus in order to defend its position, and retain this knowledge it is important not to divulge information. In addition, asking for advice and sharing weaknesses inevitably places a male lower in the hierarchical order than the person whom they are asking. Hence, it is never appropriate to share problems. Among these cases, to ask for advice would have been to devalue themselves further, as they were already subordinated by nature of their poverty and lack of education.

Emotional inexpressiveness also prevents men from dealing effectively with problems in their lives. The effects of such emotional distancing on an individual's health can be far reaching. Firstly, it is not possible to access any advice or support

from family and friends, and secondly, it is inevitably a barrier to intimacy in personal relationships. This was clearly an issue when collecting this information retrospectively from third party sources, in that this group was unlikely to have spoken in any depth about the issues most important to them. Often the respondents could only guess at what had troubled an individual most, although it was evident that drug use was a big factor in general life dissatisfaction. The drug users themselves knew that they had no future if they continued using, which no doubt contributed to their feelings of hopelessness.

So basically he wasn't happy and he wasn't sad. I think he was just cheesed off with taking these drugs, and there was no way he could get out of it. .... I don't think he ever felt he would get off them, you know... I think what he wanted was to try and just get off drugs. (Case 8, brother)

There was nothing else for him basically. That was why he tried to commit suicide, - a plea for help. He was going nowhere. He was lost. (Case 9, sister)

I don't think he was happy with his life the way it was, I think more so with the drugs and everything, and he was bothered about not being with the baby. (Case 1, friend)

He didn't know what he was doing for the future. He didn't know where he was going for the future. But you wouldn't say he was unhappy because he had money he was doing things, you wouldn't like say he was like, depressed. (Case 5, sister)

It was also interesting that some interpreted a drug user's lifestyle as one which was carefree and without responsibility or consequence, as if the individual was able to do exactly what they wanted with their lives. This illustrates the way that drug use was elevated to a position of status and privilege among peers. To some it was an example of independent and exciting living.

The amount of people who said, ' Oh he did what he wanted and went where he wanted, done everything he wanted and had a good time'. It was just rubbish. He never had a good life and he couldn't do what he wanted. That's the kind of thing people work hard for all their life. To get that chance to be what they want. But you don't do what you want when you're addicted to drugs. He was stuck and he knew it. (Case 8, brother)

Some of the respondents commented on the attitude of an individual towards the future.

He didn't know where he was going for the future. (Case 11, father)

It was evident that drug use was a big factor in life dissatisfaction. The drug users themselves knew that they had no future if they continued using, which no doubt contributed to their feelings of hopelessness.

Emotional well being is also affected by events in individuals' lives. Inevitably, drug use deeply affects all areas of a person's life, and many of the events that occurred as a result in these men's lives often emphasise the themes of protest masculinity. Broadly this cluster had a number of major life events which were directly related to their drug use. Most went to prison on at least one occasion, many had relationship problems and had separated from partners and children. Conflict also appeared to be a frequent theme. A number of cases had illnesses relating to their drug use, such as hepatitis B and thrombosis, and two individuals had health problems unrelated to their drug use. In addition, most respondents stated that individuals had financial problems of an ongoing nature due to their drug using habit. Thus, the drug use led to many major life events that had a knock on effect on all areas of their lives. In particular these events seemed to affect some of the major areas of masculine identification such as income, fatherhood and sexual relationships. These themes are explored later in sections 13.2.6 Sexual relationships and 13.2.7 Fatherhood and family life.

Connell (1999) describes the masculinity of marginalised young men as 'protest masculinity' which has much in common with Adler's concept of masculine protest (1956). Protest masculinity is a marginalised masculinity that picks up themes in hegemonic masculinity and reworks them in poverty. That is, the most powerful men within the marginalised group dominate over the less powerful and do so by overemphasising masculine behaviours such as risk taking for example. It arises from the childhood experience of powerlessness and results in an exaggerated claim to the potency of masculinity. It is certainly an active response and builds on the working class masculine ethos of solidarity. Adler sees protest masculinity as an overcompensation in the direction of aggression and restless striving for triumphs. One of the ways in which this was expressed among the group was through restlessness and impulsiveness, that is continual dissatisfaction and searching for something more and also a tendency to act without appearing to weigh up the long term consequences of actions.

He always seemed to want to be somewhere else. He always seemed to want to go some place else, even in his own flat at times. (Case 3, father)

He was very impatient. If he wanted to do something, he would always go straight out and do it. (Case 2, aunt)

X was one of those people, no matter what he had, he always had to have that bit more. Even when he was younger if there was a new shirt out and everyone was wearing it he wouldn't be happy with one, he'd have to have two or three. It didn't matter what it was, he always wanted more. (Case 8, sister)

He was restless. He wasn't happy. He had to be out doing something like he was searching for something. It was as if he hadn't got that much time left. He was just spending every hour for today. (Case 9, sister)

He had loads of jobs. He'd have money and then he didn't have money. One week you would see him for a while and the next you wouldn't. (Case 5, mother)

There is a sense of agitation in the descriptions above. This sense of frustration may have been a product of marginalisation and can be understood in relation to how this group were perceived in the hierarchy of hegemonic masculinity. These men could be described as one of the most marginalised and subordinate groups in society. As a result, they often exhibited frustration with their position and possibly recognition that they were disempowered. The final quote also demonstrates how those who did have occasional employment found it to be unreliable, adding to the sense of discontinuity in their lives. The other element apparent in these quotes is a philosophy of being concerned only for the moment rather than behaving in a way that optimises opportunity in the future. This attitude may have stemmed from the belief that these men did not have the resources[14] to compete with those higher than them in the hierarchy. In this situation, deferred gratification offers no rewards. This was possibly a factor in these men being prone to becoming involved in heavy drug use. In addition, Collison (1996) suggests that this type of lifestyle offers a level of trust and security which obviates some of the uncertainities and insecurities of being a male on the margins of civil society.

A good example of the effects of the feeling of being unable to compete included an individual who had been forced out of employment as a result of sudden disability. He then expressed an inability to compete any longer in conventional masculine employment roles and therefore had a complete change of attitude towards life.

In fact there was a change of attitude towards life. You know he would have sort of thought 'Oh I've got some money I'll put it in the bank', but no, if he wanted anything he had to have it at that moment. Everything for today..... He never sort of looked to the future. Everything was for today. He just tried to spend his way and enjoy himself. (Case 9, sister)

Among the drug users, a further form of emotional expression was aggression, which seems to have been an important means of expressing masculinity. Messerchmidt's work on masculinities and crime (Messerchmidt 2000) suggests that aggression is an important and destructive working out of masculinities especially among marginalised groups. Some of the cases in the study had reputations for being involved in physical violence and, inevitably, those individuals with a reputation for violence also attracted violence. Connell (1999) states that violence is a means of drawing boundaries and making exclusions. It is likely that physical violence was an important way of maintaining one's position in the hierarchy. Violence is most evident when the legitimacy of one's position in the hierarchy is questionable. Tomsen (1997) found that displays of masculine toughness in response to challenge were often factors in patterns of male violence. Violence becomes a means of increasing status and position. Fasteau (1995) points out that

[14] Messerchmidt describes these resources as masculine resources which can be drawn upon so that men and boys can demonstrate to others that they are manly.

violence can be thought of as the crucible of masculinity, the acid test of masculinity. This is a useful metaphor since the implication is that if you fail to express your masculinities in more conventional ways then violence is a reliable means of displaying masculine behaviour.

He'd come home and start getting aggressive and throwing his weight around. If he couldn't get his own way, if he wanted money and we didn't have it he'd smash windows and throw cups at her (his mother). (case 4, father)

And like if someone was getting bullied then he'd go over and have the fight for them, do anything for anyone. He did have a bad temper, and fly off the handle. He'd always go and knock someone about for someone. He got hidings himself loads of times. He was the one the bouncers jumped on and that type of thing. (Case 1, friend)

He was really angry all the time and thought everyone was talking about him. Then he became quite violent and his girlfriend had a terrible time with him. (Case 6, mother)

Every time I've known he's been on drugs, there's always been a fight or an argument, and he was always taking it out on my mother. (Case 10, brother)

13.2.3 Help seeking behaviour

Emotional inexpression also played a part in the help seeking behaviour of these men in relation to their health. Courtenay (2000) suggests that hegemonic masculinity is probably implicated in the familiar problem of men's pattern of contact with health services. Seven of the eleven cases in this cluster were in contact with health services to obtain treatment for their drug use problem. For the seven users in the study who were receiving support for their drug habit, intervention was not able to make the difference between life and death. However, at least if users are in contact with services, there is the opportunity for clean needles, advice about hepatitis B and C, prescription methadone, counselling and other health promoting issues.

Accepting the principle that these men felt unable to ask for advice, it is possible that it would be more acceptable to do so if the individual was perceived by his peers as trying to 'buck' the system. Indeed some of the respondents suggested that this was how they saw health service interventions for drug users.

Instead of saying 'okay we'll give you this but it means every week or every two weeks we're going to do a check on you', every couple of months they give them a test to see what else was in the system to see how high or low the doses were in them. His was always high and he'd go in and say 'oh it isn't enough' and they'd put it up. He'd get even more off them and he used to get quite a big bottle of liquid, methadone, and about X .... and he'd get about X a day, which was loads and he

was still getting the street stuff. So I don't understand how it was supposed to be doing him any good 'cos he seemed to go more down the nick when he joined the drug clinic. It would just be drugs for all. (Case 8, brother)

And then somebody put him wise to the trick of going to the doctors and saying he was an addict. He already had holes in his arms obviously and he just went on and said he had a £50 a day addiction and the doctor prescribed methadone and I think it was as easy as that. He ended up getting prescribed methadone and he would take that and the heroin and that's basically all he done from the age of about 20. (Case 7, brother)

Ward et al. (1999) found evidence that most users in methadone maintenance decrease their illicit drug use. Significantly, this man's death may reflect his 'bucking the trend'. Conversely there were 5 individuals who were using drugs but there was no opportunity for health services to intervene and offer support. In general these users were less heavy users than the other users in the study. If they had contacted services, treatment may have made the difference between life and death.

13.2.4 Employment and housing

The men in this cluster were predominantly unqualified with no specific skills to offer to an already oversaturated Merseyside employment market. Without exception, all members of this cluster were either unemployed or claiming long term sickness benefit. It was as if they knew that they could not compete for employment so generally they did not try. More recent studies of unemployment show that it takes place as part of a process of accumulation of disadvantage that may begin in childhood (Bartley et al. 1999) and the subjects in this study provide further evidence for such a view. Presumably drug use initially gave them status in terms of the risks that they were taking, and in addition it was possible to obtain resources through means other than employment. As a result there was evidence of a substantial amount of criminal activity to support their drug habit. Criminal activities mainly included breaking and entering, male prostitution, drug running and car theft. Often criminal activity was interspersed with periods in prison and consequently temporary living arrangements in rented accommodation funded by the Department of Social Security.

In western culture, masculinities are commonly defined by the ability to provide. However, in Liverpool, a generation of youth has grown up without any expectation of stable employment around which familiar models of working class masculinity have been organised. The men in this cluster had no or few saleable skills, no qualifications, no positional power and no leverage within the labour market. Willis (1977) in his study 'Learning to labour' states,

> The lads come to school armed with traditional notions of white working class masculinity: the idea that 'real men' choose manual

> not mental labour. Because of this gendered strategy, school is deemed irrelevant to their working class future and emasculating to their conception of masculinity.

Willis, P.E. 1977, Learning to Labour, Farnborough, Saxon House.

During the lives of the young men in this study, traditional manual labour in Liverpool has all but disappeared. Unfortunately, the North West, of all the regions in England has had particular difficulty in adjusting to the decline in the traditional manufacturing industry (Hutton 1995). In addition to high levels of unemployment, particularly in poorer parts of the city, much of the work opportunities that are available would be described as feminised labour, such as clerical work, and part time positions. For those living in an area of high unemployment, who left school without qualifications, it would seem pragmatic to look for alternative avenues for status and success. Drug use and drug dealing provide an income to support a family and a drug habit, as well as providing risk and adventure. Collison (1996) states that groups such as this one, having been excluded, or by excluding themselves, lead an itinerant lifestyle in the spaces between family and state, periodically interrupted by intervention of the latter.

All of these men had either never worked or had only worked for a very short time after leaving school. For some, there had been an opportunity to work early on in their drug careers. Other cases had been quite passive in their approach to finding work but others had actively turned down opportunities for hedonistic reasons. For these young men a 'live for today' philosophy prevailed early on in their drug taking careers. Nevertheless, they had few skills to offer the job market. For those who did find work or opportunities for training, the experience was often short lived. Connell, in describing this type of situation, draws a parallel with Marx's description of abstract labour.

> 'His labour becomes a labour which any one can perform. Hence competitors crowd him on all sides.'

Marx, K. 1978, In Tucker, R. The Marx-Engels Reader, pp. 146-200, New York, Monthly Review Press. Cited in, Connell, R. 1999, Masculinities. Cambridge, Polity Press.

My mother paid for him to go on a course to Newcastle for the oil rigs. He passed the test and that but there was no work and after that he just lost interest. (Case 10)

X left school with no qualifications and began work as a plasterer but only as casual labour for a short time. His friend believes that this was a significant factor.

The work was really the turning point for him. I mean he had nothing to do all day and started hanging around the drug scene. Lots of people have phases (with drugs) but some continue. He carried on because of unemployment and depression..... He never had much luck with work either. I mean he wasn't well enough educated to go out there and find work. (Case 1, sister)

It is unclear what the cause of the depression was, but it seems that the unemployment compounded the depression, which in turn, prevented him from actively seeking out work. His friend believed that poor education also meant that he did not have the resources to compete with other men seeking work. Unemployment led to two main issues. Firstly, it was necessary to find other ways of making money and secondly, it removed the individual from social contact through employment. As a result, the individual became more and more marginalised.

In one case it was circumstance that led the individual into criminal activities and drug use.

He was working on the YTS as a labourer then when he was 17 he got meningitis and that left him blind in one eye and epileptic. That changed everything for him and he never worked again.....Then these lads would come round because he could spell and write properly and say fiddle these forms for us and we'll get over to Germany for nothing, and he'd order all the tickets for them. It was only as it went along. He must have got led into it slowly but surely . Gradually from there he went on to the cheque cards. ... Once he got into that lifestyle, you know easy money just sitting about and the money he used to get. (Case 9, sister)

As a result of not working, he became involved in petty criminal activities to make money but eventually progressed into more serious crime including drug running, which inevitably involved destructive drug use as well.

Some narratives give a picture of a young man who had regular work and was a drug user but was able to control his drug use and continue to work. Inevitably as the addiction grew and other pressures began to take their toll, they would not be able to hold on to their employment.

Well, it was the normal thing. He got into drugs through smoking cannabis which he enjoyed, that he could still carry on his gardening work with. But he met this one lad and funnily enough this one single fella..... He was known as X and he introduced everyone to it by doing the same thing, by making the joint cannabis and putting heroin into it so that everyone would get the taste. (Case 8, brother)

For these individuals then there were potential opportunities which they did not exploit, or perhaps did not have the opportunity to exploit. It is possible that missed opportunities add to the sense of personal failure more so than if an individual had never had any opportunities in the first place.

In other cases, mitigating circumstances and the fact that most were already using regularly meant that employment was an unpopular option. One of the other contributory factors was that often they were successful in making money through criminal activities and therefore were not motivated to seek conventional work.

Messerchmidt (2000) suggests that crime is a resource that may be summoned when men lack other resources to accomplish gender. In fact it could be argued that these young men worked hard to obtain money by illegitimate means to fund their drug habit while at the same time reconstructing their own form of 'poor man's hegemonic masculinity' through taking part in criminal activities.

X always made plenty of money so work never bothered him. (Case 1, friend)

I don't think work ever came into his mind. (Case 4, father)

He got this part time job in a Chinese restaurant washing dishes. He packed it in because he didn't need it because he was selling drugs. He used to moan when he had to go to work because it was costing him money to go to work. (Case 10, brother)

He had pure heroin and pure cocaine, the pharmaceutical stuff in vials and he'd keep that for himself and sell everything else and even at them times I never saw him off his head, stoned out of his mind. I'd seen him more stoned off his head with stuff from the clinic then the stuff he took from the chemist. When I went round to his house it was just a chemists. We were all spraying perfume on each other, nuts. (Case 8, brother)

For some it was the material gains from the drug scene that were the initial seducing factor. For these individuals, they became heavy users through being involved in running and selling. This lifestyle was completely removed from the world of work. This was true of the majority of drug users and their peers.

For the majority, pragmatic realism meant that these men believed that criminal activity was the only way to provide the resources to fund their habit but in addition, it allowed them to increase their drug use. Connell suggests an additional dimension to crime. He suggests that it is something that has to be made and criminal behaviour is one of the means for its making. A great deal of crime makes sense only when it is seen as a resource for the making of gender and in most cases that means it is a strategy for masculinity (Connell 1993).

They never worked. They were all selling drugs and had beautiful cars and their own homes. Our X wanted to make money in the same way. (Case 5, mother)

At the same time he was taking the glue and everything but he really liked it (the army) . He was supposed to go on the train on the Sunday and he just didn't turn up. He met some bird and ended up living with her.... After that, he didn't like the idea of working and that and it was too easy to get into drugs. (Case 7, friend)

A similar incident happened two years later when he was 18. He had been offered work in Jersey.

When he got to Lime Street this girl was there and she said, X I don't want you to go. So he didn't go. And the rest is history, as they say. (Case 7, friend)

Work, it seemed, was an unnecessary nuisance, particularly when it was easy to make money through other means. Crime quickly became a type of work and the state took over as the authority against which these men defined their masculinity. This seemed to be the philosophy during the honeymoon period of drug use. However, later on in their drug careers, the story changes. Poor health, prison sentences and desperation for money to fund this young man's habit eventually led him into male prostitution to supplement his other forms of income. At this point, drug use no longer acts as an outlet for risk taking behaviour, but becomes a debilitating self-destructive habit.

The other factor about making more money than usual was that it did allow a user to indulge more recklessly than at other times. In the following narrative this ended up in death for the individual concerned.

He was just still himself up to the point where he started selling The Big Issue which was just too much money. He was getting money in off that, he had free drugs from the clinic and he had the drugs he was still getting off the street, and extra money to buy even more and that was his downfall. Loads of money and a drug habit. They are not going to spend the money on anything else, just gear. (Case 8, sister)

13.2.5 Housing

Housing issues were often compounded by other problems in these young men's lives. It seems that one problem inevitably caused a knock on effect. For many, the fact that they did not work meant that they were dependent on state benefits for housing and tended to live in poor quality temporary accommodation, which contributed to their isolation.

Everyone else had moved out. He was on his own there for six months at least. I think they were just using him as a caretaker because of the vandals, the kids would have got in and set fire to it. When he went into a coma we don't know how long it was before anyone actually found him. It could have been hours it could have been days. If people had been living there someone might have found him. (Case 11, father)

I had to chuck him out and then he lived in a squat for about 6 months maybe more. Just one squat then he got a flat and ended up being evicted from there because his place was so bad you know. Then he got this other flat, the boy who lived with him he's also got hepatitis C. He's really bad, I don't think he's got much chance. (Case 8, sister)

There were several cases where the families were unable to cope with them living at home, so for many this option had been removed, and along with it, important

family support. This was particularly common among the drug users who tended to behave destructively within the family household.

He came back and stopped with us for a couple of months but he kicked off again so we had to tell him to get out. The police came and removed him and we had to get a solicitor to get an injunction on him. (Case 4, mother)

Then I came home one day when he was 16 and found him and a friend using heroin in my front room so I threw him out of the house. (Case 6, mother)

However, problems for the family did not necessarily result in them withdrawing their support. This case was still living with his mother when he died.

And his house got raided with his mum in it. She didn't like it at all. They'd come in the middle of the night and knock my mum up and she'd be on her own. They'd tear the house to pieces. After that he didn't put anything there. I mean he wasn't known to the police as a hard one. It was just a gradual thing, from fiddling football tickets and doing little things like that for the lads to get a few bob to moving right up (to more serious crime). And he must have reliable to have been running, say 60, 80, 90, 000 pounds a go. (Case 9, sister)

There were a number of cases where the individual had moved out of his home because of the end of a relationship, and had then lived in a series of temporary accommodation. This had generally happened several years before: in the later years of drug use, none of the cases were able to maintain a cohabiting relationship.

It ended up that I had to throw him out because he was using drugs and he was leaving syringes in his jeans pockets and leaving his jeans in the living room and my son would be coming down and the syringes would be there to see. (Case 8, sister)

The ending of a relationship, for whatever reason, seems to be an important turning point in many of these cases. In this case, the family lost their home because of the escalating drug use of both parents.

Because they were both using, they got chucked out of the house and social services came in and put their son into care. They asked could they come to us instead. Once X came to live with us, the couple fell apart. They had no reason to keep up a pretence for other people. I think his drug abuse got worse after that. He was taking from family, from anyone really. Then he got put into jail and split up from his girlfriend. (Case 8, sister)

This illustrates well the way in which drug use had a knock on effect in every area of these young men's lives. It was the drug use that initially cost X his son and their home, but once he was not responsible for maintaining their home and family, X slipped into a spiral of heavier and heavier drug use.

13.2.6 Sexual relationships

Failure of sexual relationships or lack of sexual relationships was also a prominent factor in poor life satisfaction among this group. Problems with previous relationships and children were a significant part of the distress suffered by these young men. Inevitably there were other issues that contributed to the problems experienced in relationships, but the end result was always a situation that caused a great deal of distress. Among this group, these individuals generally failed to maintain their sexual relationships as their drug use increased.

One father remarked,

It was just the done thing when I was young, if you got a family you got married. He was courting with this particular girl for about two years if not more. He's had girlfriends on and off. After that he never bothered with any other girls. Now and again he would take a girl back to his flat or whatever, but I suppose the state of the flat, she most probably took off. He never had any responsibilities. He wasn't that type of a lad. He wasn't really worried in the respect of houses and things like that. (Case 11, father)

Some of the cases had previously had cohabiting relationships, but inevitably, the drug use put an intolerable burden on these relationships. Seven of the cases had never had a cohabiting relationship and only three had girlfriends at the time of their death. Two of these had a casual relationship, which had started relatively recently. In both cases, the girlfriend was also a registered drug user. The other case appeared to be on the edge between drug use for recreation and drug use becoming a bigger part of his life. At the time of his death he had two girlfriends, one in Liverpool and another in a town in the North of England. It appeared that he used to regularly go away with his friends to visit the second girlfriend and he would book into a bed and breakfast using a pseudonym. While he was away he would use heavily and it was on one of these trips that he was found dead in his hotel room after overdosing on cocaine and morphine. It seems neither relationship was very satisfactory. His girlfriend who lived in Liverpool stated that,

He wouldn't tell me why he was going to X or where he was staying. The trips were very frequent and I never knew when he was coming back. He never let me get close to him and I was beginning to get a bit fed up with the way he was treating me. (Case 5, girlfriend)

This case differed from the other drug users in that he did not appear to be addicted at the time of his death. This was probably an important factor in him being able to negotiate an ongoing relationship.

One respondent suggested that an earlier relationship may have made a difference to the life path of one young man.

He wouldn't get into trouble when he was with her. I think she had an abortion. I think he would have seen things differently with her.....She used to talk to him a lot. (Case 1, friend)

Connell sees cathexis (emotional attachment) as an important aspect of the structure of the social practice of gender. Failure in emotional relationships is a further dimension in the failure of structuring masculinity. As drug use increased, it ceased to be an empowering act of risk taking and quickly destroyed personal relationships in these men's lives.

13.2.7 Fatherhood and family life

Four of the members of this cluster had children with a partner. Only one of these never saw his child and did not have contact. In the other three cases, the fathers did have contact with their children and the anxiety about their relationship with their children, particularly the fact that they were living apart from them, caused them a great deal of distress. The views of the respondents suggest that, rather than being uncaring fathers, problems with access or the impact that the end of a relationship had on their contact with their children, was a major source of ongoing concern to them. It is possible that this contributed to an increase in their drug habit.

I don't think he was bothered at splitting up with his girlfriend, but bothered about not being with the baby. Although he always had the baby a lot, you know he always had her. I think he would have wanted things differently. (Case 1, sister)

The kids loved him when he came round, they were all over him because he was never really down, apart from when he talked about his son and his ex-girlfriend, because they'd split up. That was the only thing that really got him down. He always had it in his head that he was going to get his son back.....the inevitable that never happened. (Case 8, brother)

Drug use placed an intolerable burden, not only on his relationships with his partner, but also on the general living conditions of the family.

.....because they were both drug abusers they got chucked out of the house and Social Services came in and put their son into care..... The last twelve months he was with his mum and dad he hardly ever had any food. He was four when he came to live with us. They kept everything together before then and it was only when she started abusing that things got out of hand. (Case 8, sister)

However, the drug use inevitably did affect the quality of relationship that he was able to have with his son and dictated the extent to which he could function as a care giver.

He'd take S out for the day and he must have shot up somewhere and S used to say "I hate waiting at the bus stop with my dad when we go out because he starts to

howl". S was embarrassed. He thought it was because he was drunk, he'd had a can of lager or something. (Case 8, brother)

In another case, the individual split up with his girlfriend 3 months before he died when his daughter was 6 months old. There was a lot of conflict when they split up and he was terrified of losing contact with his daughter. His mother described the fear of losing contact with his daughter as the issue that distressed him above all others.

They had only been together a couple of years and X's family hated him, but they ended up having a baby together. He made a bit of a nuisance of himself after they split up. I think she was quite relieved that he died to be honest. (Case 6, mother).

In only one case was there never any contact between father and child.

We used to knock around Bedford Street and there was this bird. It turned out she was a prostitute and he would be walking back from town after a bevvie and all the prostitutes would be shouting 'Hey lad'. That girl lived with him in a flat for a while and had a baby to him and it went into care. She was a prostitute for him and she ended up addicted to cocaine. (Case 7, friend)

Having someone who cared about their drug use was an important motivating factor in trying to curtail it, but not sufficient to bring that drug use under control. In most cases, these young men lost contact with their families as a result of their drug use.

Another example was a young drug user who alienated his family from a very young age and subsequently was living alone with no support from his parents or his siblings.

The solicitor got us this house up here because he didn't want X to find out we were living up here. If he'd come up here he'd want to break the door open and smash all the windows and all that....After that, he started going through his brothers, X you know, who has a son, starts worrying him and all that. (Case 4, father)

When he did find out where his parents were living he began breaking into the house again.

We went out and locked all up and when we came back he'd smashed the panelled back door that comes into the kitchen and we had a big leg of lamb and he ate all that and left the bone. (Case 4, mother)

X hadn't seen his parents for six years but he got back in touch with them a month before he died. However, he did have regular contact with his brother who lived quite close to him, but his brother's girlfriend was not happy about this and would throw him out of the house if he called round. His brother died of liver failure within weeks of X's death.

In another case, the individual felt ashamed of his drug use and at how difficult it was for his mother to deal with, particularly when his brother had died as a result of drug use. His relationship with his mother was important enough to him to influence his attitude towards drug use and to prompt him to seek help, but unfortunately, not important enough to stop him using.

I suppose it was when my brother died, I think it was seeing my mother so upset, that made him think I better not take it no more, and he went to the doctors to see about coming off. (Case 1, sister)

Another case, who eventually had very little contact with his family, had a lot of family support as a teenager. This also included practical support from his older brother to try to encourage him to find other ways of spending his time but he was not successful.

I tried to get him to drink with me instead of having the glue, but he'd go for the drink and still have the glue as well. (Case 7, brother)

His brother felt that one of the problems was that, in the early days of his drug use, the family actually gave him support and did too much for him, allowing him to concentrate on drug using. Also he pointed out how much more acceptable drug use had become, that it was actually the norm in this particular area of Liverpool.

Well they leave home and come back and leave home and come back and they leave a trail of kids here and there and they can go and get their methadone and they can go and screw houses and the mothers are too willing to look after them. My ma would say, I'm not giving you money for drugs, but here's tobacco and here's food and here's your washing. So out of everything he had to worry about that day, the heroin was the only worry he had after he had seen my mother. ... All the mothers are like that. I've seen them. In the old days, they would kick out about it, but now it's 'Oh our little Johny, he's on heroin'. My sister is a shoplifter who lives we don't know where. She went out one day and didn't come back and left her little lad behind. Now my ma is the legal custodian. She's definitely on heroin and I think she shoots. (Case 7, brother)

13.2.8 Social support

It is striking how many of the drug users had little or no contact with close friends. It appears, as with other areas of a drug user's life, the drug use ruled everything. This meant that these individuals tended to have contact with other drug users but not close or supportive relationships. Among the drug users, relationships with peers were often the reason given for drug users to continue using, and obviously the respondents saw this kind of peer support as a negative influence.

He had mates like that when he was a teenager, I think they all started using at the same time. All his mates were Hells Angels, sort of hippy type. They've always been like that that really got him into that scene. He would have found it very difficult to get out of anything like that. (Case 11, father)

He used to go to school in Croxteth and it was dead easy to get involved in it. He was a bit of a sheep really. He always looked up to the wrong people. (Case 10, brother)

I left the city. You've got to get away from the circle of people and kill them off. It doesn't matter stopping taking the drug, it's stopping seeing the people, that's the main one. That's the killer. If you can get rid of them you're okay. It's like having someone on your back all the time, the minute you say you're packing in anything, it's like smoking. The minute you say you're packing it in, everyone is offering them to you. It's amazing how much free stuff comes out. (Case 8, brother)

It seemed necessary to try to avoid contact with peers if there was going to be any hope of reducing drug use. However, Connell (1999) describes protest masculinity as being built on the principle of working class solidarity. Drug use provides a perfect medium for creating solidarity among a marginalised group of young men. Inevitably this also means that losing the sense of masculine identity an individual shares with his peers would be extremely hard to do where there was no other obvious means of masculine identity in an individual's life. Also drug use is an unacceptable practice among many societal groups. This means that as an individual's drug use increases, he becomes more and more marginalised by his behaviour. One respondent stated that he could not refer to his brother's peers as friends since they offered him no emotional or practical support. The only thing providing a bond between them all was the drug use.

The month before he died, a lot of his acquaintances had come round who he did his drugs with and he kind of wouldn't answer the door to them anymore for a bit. Then he was just all cleaned up and his flat was cleaned up. He seemed a lot happier (Case 8, brother).

One case did have a close friendship despite his drug use. This seemed to be more due to his friend's tireless support rather than any effort to maintain the relationship on the part of the drug user.

He left me up the wall, and dropped me in trouble with the police through him, he got me, he used my name to get him off. He like, he produces a card, he uses my name cos' I'm green and I've never been in trouble with the law, and stuff. He was just a very dear, close friend to me, more so than, now since he's gone, I realise it now cos' he, I remember one time he knocked my door at two o'clock in the morning because he had no cab money to get to his mates from his mum's. Cos' he was overdrawn, and cos' my light was on and I was up and everything and I'm glad he did. I'm glad he did knock rather than walk. (Case 1, friend)

Where the drug use was still under control, it was possible to maintain relationships with non drug users although the relationships were not described as close, but this created a situation where it was necessary to live two different lifestyles.

X had two groups of friends that he kept completely separate from each other, those who he went to the football with and those who were involved in drug dealing. His drug dealing friends were obviously an intrinsic part of his lifestyle. The friends that he went to the match with didn't know what he was doing. (Case 9, sister)

13.2.9 Risk taking and self-destructive behaviour

There is evidence that men engage in risk taking behaviours more often than women and also take preventive health measure less frequently (Nathanson 1977). Peterson et al. (1993) have shown that, while adolescent girls are likely to internalise distress through depression, adolescent men externalise stress through a wide range of acting out behaviours. Risk taking, then, is a behaviour that is associated with the male role. Men construct masculinities by embracing risk (Courtenay and Keeling 2000) and the dominance of masculinity is dependent on men being able to weigh up risk and to successfully take risks to reach goals. Risk taking is a means by which men express their masculinity. Where status and power are not available as a means of defining masculinities, the solidarity of protest masculinity provides a suitable medium for young men to collectively take risks as a means of cementing group identity, but also as a means of determining hierarchical order. Messerchmidt (2000) describes this kind of lifestyle as a collective practice that typically includes shared consumption of alcohol and other drugs through which young men can celebrate and affirm their independence, a much admired attribute in hegemonic masculinity, thereby promoting avoidance of routine work, freedom from being under someone's thumb and freedom to avoid or escape from restrictive routines.

In several cases, it was mentioned that risk-taking behaviour was evident from a young age.

He always wanted you know adventure and things like that. He'd be the first there to do something whatever it was. He was always the first to try new and dangerous adventures, there was no adult to provide boundaries for him. (Case 2, cousin)

He regularly took physical risks as a child, more so than his brothers did. He was always boisterous when he was young, he had no fear about anything. Completely different from his brother, he was. (Case 8, sister)

He was always taking risks, even as a kid. He had five car accidents in all, and one of these was when he got the serious injury to his head. There was someone else driving, mind. The other driver was killed and X's friend got a prison sentence. He just got the bad head injury and his behaviour changed a lot, completely actually. (Case 6, mother)

Oh yes, he liked to take risks. He was banned from driving once, that was for a hit and run offence. (Case 3, father).

He was a risk taker in every sense. Everything he did seemed to be about taking risks. He always had to go to extremes and there was always something else. (Case 5, mother)

He's always had, wacky baccy, we always used to call it, and that. I think he used to do it for the fun for the devilment of it, you know, just something to do. (Case 1, friend)

It seems that risk taking behaviour leads to more risk taking behaviour. Once drug use became a habit, risky behaviour became a way of life.

He made a living out of stealing cars, and he was always writing them off. He'd been banned from driving as well. Quite often he would go down on to the railway lines at night as well, to steal and things. (Case 1, friend)

I found him on the second floor from the top and there were ten lads all lying there just passing one needle around and when they weren't injecting they were smoking cannabis. One of them opened the window and started hanging out. I had to leave him there. I just couldn't drag him out. He wouldn't come. (Case 7, brother)

To the sheltered academic researcher and to other members of the users' families, there was an inevitability about such destructive drug use, but this was not always obvious to the user.

If he didn't have AIDS he was going to get it. He already had hepatitis B. The Coroner said his liver was fucked. He was going to die of AIDS or get killed. (Case 7, friend)

Even the bad junkies said, when it comes to X, he's got a habit. They felt healthy after they'd been with X. His drug intake was phenomenal. (Case 8, brother)

They never ever think they're going to die. One thing I have noticed is if somebody dies through a drug overdose then everyone gets worse over the next month. They take more and they go a bit nuts with it and then they calm down. (Case 8, brother)

It is possible that the need to 'prove' their own immortality becomes greater when someone close has died as a result of drug use and the most effective way of doing this is to increase their risk taking by increasing their consumption and yet still survive.

The majority of these young men began their drug use at an early age. For most it was a gradual process, starting off with softer drugs, and ultimately leading to injecting heroin.

He started young really. First he was taking E's and spent a lot of time on the rave scene, but then he started using harder drugs.....and then it was coke and then it was heroin. He was supposed to be testing it for someone, like you've got to test it, and he was the one doing that, so that's how he got onto heroin. (Case 5, sister)

He started using when he was fourteen. He started off smoking heroin but soon got into injecting and he used to inject cocaine as well. He knew he would die if he carried on the way he was. (Case 2, cousin)

Then he started on the magic mushrooms, that's when he first started and then he was smoking hash and his girlfriend worked for a company somewhere in Liverpool. They packed drugs there, and she started getting speed, sleeping tablets it was actually and they started taking that .....He was on speed and smoking hash, but once she started experimenting, then he started on the hard stuff. (Case 8, sister)

Sometimes the respondent pinpointed a specific issue that had contributed to increasing drug use, such as the example above, where ease of access through his partner's employment was an important factor. In another case, the respondent pointed out that the lack of structure in the day and depression contributed to his drug use. It seemed that the kind of lifestyle he began to follow also cut him off from others who were not using since he began to keep different hours.

Because of the unemployment and the depression. What did he have to get up for? His days seemed to start later and finish later. It's a bit stupid really. You'd think he would know better at his age, but it was only the last five years of his life really that he was taking heroin. (Case 1, friend)

What was unusual in this case is that this person kept his drug use reasonably well under control until he was in his thirties when unemployment became an issue. For a man who has always worked to earn a living, unemployment appears to have been particularly devastating.

Another factor among this cluster was the absolute control the drug had over the user. This differed from users of other drugs who were able to have some amount of normality in their lives.

We all went through a drug phase, but he carried on, maybe because he started on heroin. And maybe that's the drug because I don't believe any other drug takes over like that. (Case 1, friend)

He was just a total addict and he would do anything. He screwed my mother's house three times and X's (his friends) where he lived. I heard he would do anything for money, you know absolutely anything. (Case 7, brother)

This individual was a heterosexual who was funding his drug use by prostitution among other things. Protest masculinity holds strong cultural norms of heterosexuality. The decision for a heterosexual male to prostitute himself demonstrates the sheer controlling nature of addiction and the manner in which heroin can lead to an individual behaving in a way that contradicts the strong cultural norms associated with masculinity. The nature of addiction is such that in the later stages of drug use, the user uses because he has to, not because he enjoys it.

It was rare that he got any enjoyment out of it. Most of the time it was just mechanical. He had to do it for his own reasons, which were just to stay normal and look normal. (Case 10, counsellor)

At this stage, the individual becomes a slave to his addiction. The benefits of risk taking and solidarity among the drug using group seem to have been overtaken by poor health and no sense of direction, apart from where the next fix was coming from.

Prison played an important part in the habits of drug users, only one member having never been imprisoned. The respondents commented that being in prison was the only time their drug use was under control. Prison is a male dominated institution, which confirms marginalised modes of protest masculinity, such as violence. In this sense it appears to confirm status among the group and allow the drug user to recover somewhat from his self-abuse.

A couple of times he went into prison and he came out looking a different lad altogether, because he wouldn't have been able to get whatever he had. For about three months he'd look great and then he'd go back into his old way of his face being all drawn. (Case 11, father)

He never used to mind half the time going to jail because it would get him off drugs. (Case 1, sister)

Nevertheless it also put the individual more at risk on release. Often the user forgets that he has not been using for some time, and often they lose contact with their dealer during their time inside, so that they must find a new dealer on release. Three of the cases in the study died within a few days of their release.

If you have been in prison, for a while, and you come back, you've got to be very very careful because you can overdose easily, because your body won't tolerate what you were doing before you went inside. (Case 7, friend)

Illicit drug use is largely a male dominated behaviour. The Home Office Research Development and Statistics Directorate (2000) reported that men accounted for 89% of drug offenders in 1998. As Connors (1992) notes, both addiction and the illegal nature of intravenous drug use requires members of this subculture to take an inordinate amount of risks in order to maintain their drug habit. On a daily basis, they generally risk arrest, overdose, and becoming victims of theft, violence and illnesses related to drug use. Drug use, and its associated behaviours, such as crime, could be described as risk taking behaviour in itself. It appears that as risk takers, these individuals were vulnerable to drug use, rather than the fact that drug use prompted them to undertake risky behaviour.

While there were cases who had previously attempted suicide, there was no evidence of intention at the time of their deaths. All of the respondents were convinced that the individual did not intend to kill themselves.

The night he died, that was the night before he was meant to go out with us, and that was why he took the drugs to get his head down, because we were going to a club on Friday night and I think he took a couple too many than he was meant to. (Case 2, cousin)

I don't think he intended to kill himself, but it seems strange that he'd had a drink as well. Five levels of spirit, or five bottles of beer, because he wasn't a drinker. But he must have got it wrong, because the first thing I thought was, well, he would know what he was doing by now. (Case 1, sister)

It was just that he didn't knowingly take his own life. He was too full of life for it. It would be the last thing on his mind to kill himself. (Case 3, father)

I think all it was, was that he had been out of prison for a month...and he just wasn't used to it after being away from it for so long, so he had taken a bit too much. (Case 10, counsellor)

I think what it was really was that he accidentally took too much of it and his body couldn't cope with it. (Case 5, sister)

He just injected himself. It was only £10 worth. It doesn't sound like a great deal for him, but he's done it and its just been an accident and he's died. It could have been dodgy gear. I think that they're pushed these days with that many people doing it. Its just the turnover now. Its just yeah yeah roll her out. (Case 7, brother)

A number of the drug user's families stated that they felt the individual was just beginning to get his life together at the time of their death and that this was evidence of non-intention. One respondent said of his friend who had just come out of prison,

I firmly believe that he never intended to kill himself. From what I can gather, he was going to inject himself, get his head together and then go out. He was going to

see his mother and his sister's little lad. He had it all planned out. He was quite optimistic about what he was going to do. (Case 7, friend).

Another similar case, where the family believes the individual was getting his life together also received an accidental verdict. In this case, he had begun to make some progress at the drug clinic to control a very heavy drug problem.

It was like he was getting his act together and was planning to hire a caravan with his son in the summer and that was the first time we'd ever heard him say anything like that for ages. He suddenly switched to being more positive and everyone's hopes were up then. .....It was one thing he would never think of, doing himself in. I think there's definitely no chance that he killed himself, it was definitely an accident, a bad mixture of drugs. (Case 8, sister)

13.3 Case with some properties of Cluster one

Miles and Huberman (1995) state that clusters are not always mutually exclusive and may overlap. The following case has properties of cluster one, but differs from the cases in this cluster in a number of ways. The nature of his addiction and the extent to which the addiction dictated the chaos of his life has similarities with the cases in cluster 1. However, he was not a drug user but an alcoholic. He also differed from the cases in cluster one in that he had a number of responsible jobs prior to his death. X died at the age of 34, and was given a verdict of accidental death. The cause of death was recorded as smoke inhalation following a chip pan fire in his flat. All the following quotes are taken from an interview with X's father.

X was born in Liverpool and was the eldest of four children. He had a younger brother and two younger sisters. His mother was an alcoholic and his parents separated when he was 14. X stayed with his mother, as did all of the children although he stayed in contact with his father who subsequently married again. Drinking excessively was always a problem for X. From the time he began drinking, his father says that there was never a time when he didn't abuse alcohol. X's father thought that one of the main reasons for this was the fact that he had seen his mother's relationship with alcohol.

It started when he was at school really. Just like any other kid at the time, it seemed like a good idea to have a drink. .....I remember having to go to school when they got hold of some drink when they were only about 14 or 15. ....To a certain extent he was always an alcoholic. I think his mother was not a good role model from that point of view. She could drink pretty well, could give people a run for their money. And X, seeing that kind of thing, thought if this is OK for Mum, it's OK for me.

There appeared to be two influences encouraging drinking behaviour. The first was that X's mother provided an acceptable role model for excessive drinking and the second was that excessive alcohol consumption was a legitimate means of

socialisation among his peers. In the way that drug use provided an identity for the first group, among these young men, alcohol provided the same. It has already been suggested that alcohol may serve as a manifestation of manliness (Eisler and Blalock 1991) and also it provides group identity among young men.

When X left school, he took some temporary jobs. During this time there were some incidents at home relating to his drinking, but nothing serious, Then, at the age of 17, he left home and began living and working in a very male dominated environment. His father believes that this was one of the contributory factors to his increasing drink problems.

It was .....probably a main factor, all the boys together, good wages and he got caught up in that and then kicked out. And then he had the stigma attached to him of being an alcoholic.

Again X found himself in a male dominated culture where drinking was a legitimate means of expression of masculinity and as a result, he was unable to continue in his work. However, he had a second opportunity to try and develop a career in a different field. Unfortunately, the problems with his drinking continued, and at one point he stopped training and spent time as an inpatient in an alcohol clinic. Eventually he qualified in his chosen career, but his drinking remained a problem, and he subsequently lost his job. X's father felt he had regularly supported X, but that X had not responded positively to it and he therefore felt that he could do no more. His father inevitably felt that X was not taking responsibility for himself and that he then needed to protect himself from his son.

I've had to bail him out so many times and it cost me hundreds of pounds. There comes a time when you can only do so much.... Inevitably he blew it every time to the extent where you have to then say well he's chosen his lifestyle. You can only go so far with anybody. You have to draw the line at some stage and say, 'you might want to live out that lifestyle and lose your own quality of life but you're not going to take mine with it.'

This kind of protection was similar to that of the drug users' families, who felt that, unless the individual was going to take responsibility for themselves, they had to take actions to protect the rest of the family. He also received help from health services. X had seen his GP on many occasions with drink related problems, the first time being as early as 1987. At one stage his mother had gone to see the GP to say that she felt something really needed to be done about his drinking. In addition, he was also seen five times in A and E with drink related problems and injuries. On one of these occasions he had stabbed himself and overdosed on temazepam and taken himself to Accident and Emergency. He was also an inpatient on one occasion to receive treatment for his alcoholism and continued to return on a regular basis for counselling. During this time, he was regularly seen by the psychiatrist. In 1994, about 6 months before he died, he attended an anxiety management course.

X's family did not describe him as a risk taker, his hobbies included football and snooker. However, his drinking was extremely self-destructive. He would drink every day and consume about 140 units a week. He occasionally used barbiturates and cannabis and was also a heavy smoker. X's family believed that his behaviour was so self-destructive that eventually he would die.

I think that the actual dying was something we had always expected. At some stage something was going to go wrong and he would say enough is enough and take his own life or his behaviour would be such that he would end up dead even if it wasn't what he intended.....We thought at some stage he would either have too much to drink and he would fall or he would inhale his own vomit. Or he would be so drunk that he would get robbed or beaten or whatever at some time. There was also the possibility that he might realise that his life style was of such a poor quality that it would lead to him taking his own life.

X died in a fire in his flat, that had been caused by a chip pan that was left on. His death received an accidental verdict from the coroner.

Whilst X was not included in Cluster one, because he did not have an addiction to opiates, the pattern of his self-destructive behaviour, and its effect on all areas of his life, mirrors that of the drug users. His father described his drinking behaviour as extremely self-destructive and believed that it was only a matter of time before he died. This is similar to the descriptions given of the drug users' behaviours. In addition, the chaos within the family and his eventual lack of contact also mirrors the relationships that the drug users had with their families. Also, there was no evidence to suggest that his death was intentional.

The next section discusses the second cluster identified in the study.

13.4 Cluster two

Ten cases fell into this group, the single main factor linking these cases being intention. In terms of intention, it is, of course, impossible to define categorically the motive of an individual after their death has occurred, and this is the dilemma that faces the Coroner when investigating these deaths. Nevertheless, all of the cases assigned to this cluster can be said to have taken deliberate actions that led to their deaths.

Table 13-3: Description of cases assigned to Cluster two

Case	Cause of death	Age	Verdict	Informants
12	Road traffic accident /schizophrenia	39	Accident	Mother Care worker
13	Carbon monoxide poisoning	39	Suicide	Wife Friend 1 Friend 2
14	Hanging	28	Open	Sister Brother
15	Self-stabbing	29	Suicide	Father Sister in law Friend
16	Overdose of analgesics	29	Open	Brother
17	Hit by train	26	Suicide	Mother Friend
18	Self-stabbing	24	Suicide	Father
19	Overdose of antidepressants	37	Open	Mother G.P.
20	Overdose of propanolol	34	Accident	Father
21	Overdose of analgesics	39	Open	Partner Sister

Inevitably there are differences in the methods chosen. Five of the cases chose active methods of death, while five cases chose more passive methods. White and Stillion (1988) claim that there is evidence for the fact that surviving a suicidal act is viewed as unmasculine, and that it is men who are most critical of other men who survive a suicidal act. This may be an argument for men using more violent means than women, as they cannot afford to fail. Four took overdoses of medication that had been prescribed to them, two stabbed themselves to death, one died of carbon monoxide poisoning, one threw himself under a train, one threw himself under a lorry and one hung himself.

Among this group, four cases received a verdict of suicide, four cases received an open verdict and two cases received a verdict of accidental death. None of the deaths as a result of overdose received a suicide verdict, even in one case where a suicide note had been left. One of the cases that received an accidental verdict had attempted suicide before on more than one occasion and had also told his father that his main ambition was to have a successful overdose. The second accidental verdict was given to a young man who was suffering from psychotic mental illness who threw himself under a lorry. In cases of psychotic mental illness, the Coroner is likely to find the individual not of sound mind and therefore not able to make a rational decision about taking their life, hence the accident verdict. Although all the cases in this cluster showed evidence of intention, the Coroner has to have evidence beyond all reasonable doubt that the victim intended to kill himself. Therefore he is likely to be more reluctant to give a suicide verdict.

Two of the cases in this cluster were alcoholics and may have shared some similarities with the addictive behaviours displayed by cluster 1. Lemle and Mishkind (1989) suggest that alcoholics are men who over rely on alcohol to compensate for unconscious feelings of male inadequacy and, since alcohol is an acceptable drug in Western society, alcohol abusers follow a different path to drug users since addiction does not necessarily mean that the individual is removed from the normative culture. Eisler and Blalock (1991) further state that heavy alcohol consumption may serve as a manifestation of masculine toughness and as a way to reduce stress without violating male norms.

Two cases were suffering from diagnosed depression, one from a psychosis for which he was hospitalised, and a further four cases where the family believed they were suffering from undiagnosed depression. There are some threads that draw these cases together, as is evident in the following analysis, but also it is clear that this cluster is not as homogenous as the 'outside edge' group. There are also no easily identifiable signs that distinguish these men from many men who have similar life experiences, but who do not die from violent causes.

Most of the cases in this cluster were characterised by a desperate need to prove to themselves that they were adequate. Many of them were described as regularly experiencing feelings of inadequacy and worthlessness. This group, in comparison to cluster 1, were conformers in many senses of the word. In particular, they strived to achieve in conventional masculine arenas such as employment, achievement and sexual relationships and appeared to suffer from perceptions of failure, particularly in these areas.

13.4.1 Early experiences

As with the other group, several of the cases in this cluster experienced separation of their parents during childhood, and 4 out of the 10 no longer lived with both parents by the time they were 16. Where families did remain together, the childhood experience was generally not a happy one.

His father drank heavily and regularly beat his mother, I would say he had a very unhappy childhood..... You know his mother really loved him but there was a lacking somewhere. His father wasn't involved and that. He didn't get a look in. She had a husband who didn't give two monkeys. He had money that he spent on the beer, not to get her out of debt or to clothe X better. (Case 21, sister)

When he was two, my mother had triplets and X was devastated. He never really got over it. ..... And I think, that at home with my dad in particular getting on to him, the atmosphere was quite miserable there. I think that really got him down. (Case 14, sister)

In another case, the mother left the family. The son did not continue any contact with his mother and became extremely close to his sister. He went on to develop a particularly close relationship with his father and the two of them were still living together at the time that he died.

His mother left when he was 12 and he wouldn't have anything to do with her after that. He felt that she had chosen to leave her children when they were only 12 and 14. He ignored her if he ever saw her. That was the way he coped with it. (Case 18, father)

The relationship with at least one parent was often reported as being a negative one, even if both parents remained in contact with the child. In only one case, did a respondent report a happy childhood.

In some ways the conditions of his life had broadly been excellent. He'd been brought up in a very nice family, he seemed to have had a very happy childhood. (Case 17, friend)

13.4.2 Emotional expression

A familiar theme in patriarchal ideology is that men are rational while women are emotional. Hegemonic masculinity claims to embody the power of reason and thus represent the interests of all society. For men who assume complicity with hegemonic masculinity, it would be difficult to express irrationality, and it would be expected that the presence of irrational thoughts would lead to feelings of inadequacy. It would be seen as increasing vulnerability to openly discuss these issues. Seidler (1992) explored the repressed aspect of men's emotional involvement with themselves and others. He states that this narrow view of hegemonic masculinity leaves men emotionally crippled. Other studies have also found evidence that depressed men have been more likely than depressed women not to seek help (Chino and Funabiki 1984, O'Neill et al. 1985). Thus men, particularly those suffering from depression, are unlikely to express their feelings of inadequacy to others, and there was certainly evidence to support such a hypothesis among these cases. It would seem logical to deny depression in order not to subordinate oneself in the eyes of other men.

As with the first group, the individuals in this cluster had a marked tendency to avoid discussion of their problems, even with the people they were closest to. As a result it was common for respondents to remark that they had not realised the extent of an individual's depression. In the following case, the deceased's wife says that she didn't realise the extent of his depression but she did try to get her husband to talk, not only to her but also to the family doctor, without success.

I said, 'Will you stop thumping away at that word processor and just talk, and he said say what?' And I said, 'Just talk because talking you know, you come up with answers'. And he said, 'Well Cracker's on in 10 minutes and I want a shower'.

There were quite a few incidents like that. He just didn't want to talk. ...He told me to send for details (of Relate) which I did. A brochure came and I gave it to him to read but it actually went to the bottom of the pile and he never took it out of the envelope. (Case 13, wife)

This also meant that the couple could not access other avenues of help that would have been open to them. The problem was not limited to his relationship with his wife. His friend also had the same problem trying to get him to discuss issues.

I know X. You couldn't approach the subject anyway. You know we just didn't talk about things like that. I suppose if I had to reach a conclusion I would say that was his problem. (Case 13, friend 1)

In another case, the individual involved was a cocaine user although the family would not describe him as an addict. At the age of seven he had been forced to eat dog faeces by some older boys and this had haunted him all his life. He had told his girlfriend but had never mentioned it to his family, although he subsequently mentioned it in his suicide note 22 years later. His brother gave two reasons why he may not have discussed it with the family.

We would have been able to talk to him but maybe he thought it wasn't manly to talk to us. He might have thought he was putting his problems on to us. (Case 16, brother)

The respondent was referring to a culture within the family where the boys were treated very differently from the girls, and the boys were expected to maintain traditional masculine roles at all times. There were a number of problems within the family at the time and it was mentioned by other respondents that X seemed to be worrying about the other family members, so he did not feel that asking for support from the family was an option.

In the following case, his brother felt that he suffered from a general negative outlook on life but that there was no particular trigger for his death.

He tended to keep things to himself. I think he might have talked to my eldest brother but when he went there you would never know what he (the brother) had taken. There was nothing specific about why it would have been then and no other time but I think he had a really negative outlook. (Case 14, brother)

This family felt that he was suffering from undiagnosed anxiety and depression. His mother visited the GP about him some years before he died and the GP subsequently saw the young man, but stated that there was no evidence of mental illness at the time. Three years later he hung himself. Even suspecting that he was suffering from anxiety and depression, his brother still did not feel it was appropriate to ask if he needed help. In a further case, the father of a young man of 24 who died through

suicide commented that he believed that his son was unable to talk to those closest to him about important issues.

He wasn't one to talk about things that were getting him down and, while we were very close, he didn't really discuss his worries with me. In fact, he loved me so much, he didn't really want to cause me any extra worry. (Case 18, father)

Again the implication is that it is inappropriate for men to share problems with other men, even their fathers. Another individual stated about her boyfriend, an alcoholic who died of an overdose of analgesics aged 39 years,

If he talked to his friends or went out for a drink or whatever, he would talk about stupid things like the racing or last nights grandprix or something, but he would never get down to talking about his problems. (Case 21, partner)

One friend of a 28 year old who hung himself said,

X said he'd had a bad week and felt depressed but in a way it appeared like he was just down. Nothing that you would think you couldn't get over. It must have been something we didn't know about that was more than he allowed people to know. (Case 14, brother)

Another family remarked that they were unaware of the scale of their brother's depression. From their perspective, he had a girlfriend and a car, and therefore little to worry about.

We thought, what could he be worried about, he's got no kids, he's got a car, he goes out with his girl. But it proves we were all wrong at the end of the day. He must have been depressed over something badly and wrecking his head to call us all a shower of bastards. (Case 16, brother)

They also stated that, in retrospect, the evidence was there, although they didn't recognise it at the time.

He was walking the floors all the night in the last couple of weeks before he died and he was sleeping all the day. When I think about it, that to me is depression. (Case 16, brother)

Also, in some cases, the family commented that it had been completely out of the blue.

He was a very social person, the absolute opposite of someone who you would expect to commit suicide. He had a positive mental attitude about everything. (Case 18, father)

I don't think either of us was aware. Well he might have been but I wasn't aware. I thought he was just low. (Case 13, wife)

The closest friend of one case said,

And then we were just chattering about what he'd been doing, he'd been to a wedding. Somebody came in on our conversation, so no, that wasn't, I don't think that was any, that was just a social sort of involvement..... I shook hands with him, wished him all the best and that was that, you know, because I thought he was going down to Leatherhead. And then the next thing I heard was he'd died and it was suicide. (Case 17, friend)

However, there was one exception in the study. The following excerpt is from an interview with the best friend of a 29 year old man who stabbed himself to death.

He talked to me, oh he would cry talking. I was with him all the time, keeping him from the edge and if he got into a flap I would try and calm him down..... He couldn't make sense of anything. I think he had too many people trying to tell him what to do. (Case 15, friend)

His sister in law said, *'Yes he would talk, then he would go to one of his mates and talk, but nothing ever got settled if you know what I mean'. (Case 15 sister in law)*

It appears that in this instance, despite the emotional support from a number of committed friends and members of his family, and the ability to share his problems, the nature of his problems were such that he felt he could not live with them. They were particularly complex and included loss of his wife to alcoholism, and his children to foster care, problems with a current partner who had alcohol problems and also loss of employment. He was particularly depressed about problems concerning access to his children who were living with foster carers. He was extremely frustrated and felt that he was not being assisted by social services. He effectively had lost every aspect of his life, his role as a partner and father, his role as provider within the family, and also his home. The psychiatrist who assessed him after his first suicide attempt diagnosed him as having an acute stress reaction with self-harm in response to psychosocial problems. He was not suffering from mental illness.

In this group of men, there also seemed to be a dissonance between the way they saw themselves and the way they thought others saw them in terms of their male roles. The respondents believed that living up to the pressure of conforming to an image was a factor in their depression.

I think that if you are of a sensitive disposition then your going to take to heart things that might pass over the heads of others.....He needed to come to terms with who he was and sort of have to value himself in a way more than perhaps he did....

He had thoughts that he was a failure and everything he had done was a waste of time. (Case 17, friend)

He was expressing fears that he might harm someone and that's been the sort of thing all along. The only person he's done any harm to is himself. (Case 19, GP)

He always seemed to be so in control and everything was so easy for him. I mean, I always knew that there was like this hard image he gave out. He was a marshmallow, he was. (Case 13, friend 2)

The dissonance between the hard image and the soft centre dictated the way that X behaved in company. Also his wife drew a parallel with his size and the fact that this affected people's expectations of his strength.

X wanted to be a tough guy and would give out that he was a tough guy. He used to talk quite loud. Everyone could hear him when he spoke and I think that was the front that he liked to put up. But we knew different. My husband was a big man. People would expect him to be strong whereas he wasn't. He was strong in that he had a loud mouth and could get aggressive but not strong coping. (Case 13, wife)

Another young man in the study, who also died of suicide, struggled with the expectations he felt that were on him in terms of his masculinity.

We all have to be the Mr Darcy's these days and I think that is a pressure on us all. We've got to look right. We've got to be, you know, real men or whatever and X really felt that pressure. (Case 17, friend)

This also translated into a tendency for them to expect too much from themselves and a consequent feeling of failure to live up to the standards they have set themselves. These individuals were more introspective than those in cluster one and their restlessness seemed more related to a dissatisfaction in personal achievement rather than a search for hedonism as in the first group.

One father described his son as,

He liked to be best at everything and loved being a showman. Everything he ever did, he had to be at the top. It made him dissatisfied with his life in general because he wanted to be a star. The downside was that he always felt he under achieved, and that was what he found most distressing. (Case 18, father)

In one case, because of a mental illness, a psychosis, the perception of this man's self was completely detached from reality.

But from what we noticed, his delusions and auditory hallucinations did result in marked changes in his behaviour. He had been very aggressive, threatening staff and other residents, and accusing them, and his ideas about drug trafficking caused

him to constantly search the building for the presence of drugs and he also made emergency phone calls to the police and even visits to the police to give himself up because he thought he had been drug trafficking. He threw away most of his belongings including recently purchased items of clothing. (Case 12, care worker)

In another, it was less dramatic, but nevertheless there were changes in how the individual saw himself in relation to others.

I think he was suffering from undiagnosed anxiety and depression. He also lacked confidence, which contributed to the whole problem. For the last 2-3 days he was frightened of being alone and didn't even want to go into the hotel. Even when he was alone he was talking as though there were people around him and he was frightened of meeting new people. He was always a normal person until the last few days when he was in such a state that he was frightened of himself and he was talking to himself. (Case 15, friend)

It was also common for the family to suggest that they didn't know why the person had killed himself at that particular time.

I'm sure he hit rock bottom a lot more times than this once when he committed suicide. (Case 21, sister)

In a couple of cases, there was some evidence of anger, but not to the extent of the drug users. However, the clusters differed in that the aggression displayed by the first group was generally directed outwards, whereas, in this group, the aggression was generally directed inwards.

He was strong in that he had a loud mouth and could get aggressive but not strong coping. (Case 13, wife)

The pain in his back contributed to the feelings of anger that he had. He knew he was an irritable person and full of anger but the pain just made him more angry. He was expressing fears that he might harm someone and that's been the sort of thing all along. The only person he's done anything to is himself. (Case 19, GP)

Emotional inexpression also affected the help seeking behaviour of this group. Of this group, six attended health services with a problem related to their cause of death. One case was an inpatient at the time of his death, suffering from schizophrenia, four had seen their GP's within a few days of their death with a related problem, and one was seeing a psychiatrist as an outpatient following a previous suicide attempt. In these six cases, it could be argued that potentially there was an opportunity for intervention, but the GP did not identify any suicide risk at the time of the consultation. In two cases the mother had visited the GP on behalf of her son to try to elicit help either for a mental health problem or a drinking problem. This was not an effective strategy on either occasion. In the first case, one mother went to see the GP because she was worried that her son was depressed.

He was sleeping all the time and we were really worried. I think it was interfering with his work a bit. He was just looking permanently miserable really. (Case 14, sister)

The GP records show that his mother attended for a chat in November 1991, and that the GP saw her son four weeks later. The GP stated that there was no evidence of mental illness and prescribed antibiotics, although it is not clear why from the medical records.

In the second instance, the case had previously benefited from seeing a psychiatrist for depression but, despite this, when the depression returned he was unable to actively seek help for himself. His mother, however, was very keen to see the GP on his behalf, which may, in effect, have removed any control he had over the health service contact.

I insisted on going in alone initially to sketch out past history and say why X was in this distressing state again. (Case 17, mother)

When he saw the GP, it seems that the GP interpreted the depression on the basis of his impression of the importance of recent changes in his employment in relation to his mental health. He appeared to see the prospective new post as a factor that would relieve his depression. In addition, the subject's description of the problem may have been unclear.

He was only in there a couple of minutes and when he came out I asked him how he had got on. He said the GP had prescribed him some tablets and told him to start his new job in a couple of weeks. (Case 17, mother)

This contact with his GP took place two days before he killed himself and was the final opportunity for any intervention on behalf of the health services, which was not recognised. There were a number of possible reasons for this. Firstly, the case was unwilling to begin the process himself and this meant that he may not have felt in control of the consultation. Secondly, when he did speak to the GP, he may not have communicated to him the extent of his depression. This was partly due to the nature of the consultation. He told his mother that he would have liked to talk but this was not possible in a five minute consultation.

13.4.3 Education and employment

Stress relating to either employment or unemployment was a significant issue among this group. The members of this group were on the whole better educated than those in the first cluster and were more likely to have a history of employment. At the time of their deaths, six of the 10 cases were employed. Of the other four cases, three were claiming sickness benefit and one was claiming unemployment benefit. Unsurprisingly, there is evidence that employment is associated with good

health, and also employment differentials for men are greater than they are for women (Verbrugge 1983). That is, unemployed men are much less healthy than employed ones, while the difference is more modest among women. It appears, then, that unemployment may be particularly damaging for men's health.

Some respondents stated that the individual had great talent in a specific area which they had not exploited.

X could have made something of his life because he was a brilliant artist, really superb, but then he wasn't encouraged to take it up. You needed some money to set you off, even going to art college and his father wasn't prepared to pay. (Case 21, sister)

He got really good grades but he didn't go to university. His sister did and she wasn't as bright as him. I think that bothered him because on the night before he died he was talking about applying to universities. (Case 18, father)

All deaths that received a verdict of suicide form the Coroner were in employment at the time of death. The individuals tended to feel an enormous responsibility towards their work and their families and often problems at work became triggers for the depression. X was a self-employed plumbing and heating engineer. On several occasions the family had gone into debt because of problems he was having with the business.

I had bailed him out a number of times. It was always me who took the initiative to do something about our financial state. We got into terrible debt at times and he was a bit of an ostrich. .....I said to him I am not prepared to go down that road again, I would sooner go it alone than go through all this again. So I think that would be a contributory factor. (Case 13, wife)

In this case, the inability to provide for his family contributed greatly to his depression, particularly as it was his wife who tended to resolve the problems that arose. He felt that he was failing his family by being unable to provide an adequate income and it was probably extremely humiliating that his wife had to deal with the problem when he had failed. In another case, where the Coroner gave a verdict of suicide, the young man involved had worked for many years as a porter at a hospital, which he had really enjoyed. At the time of his death, he had been working as a door to door salesman. Work had obviously always been important to him and his lack of success in finding a job was a significant disappointment.

The happiest time of his life was when he was working 16 hours a day, seven days a week. He had money and he had dignity (Case 15, father)

For another case, the loss of work fed into the increasing drink problem.

When he finished working at Dunlop's there was no work around for him. It was the early part of the Thatcher years and it was really bad. X was made redundant and the money didn't last long. The drink ruled his life really. He spent his dole on drink. (Case 21, sister)

The loss of employment seemed to lead to a loss of self-respect which, when compounded by other major problems, led these individuals to believe that they had failed. Production relations is one of the main axes of Connell's model of masculinity (Connell 1999). When employment was removed, in this case, it seems that alcohol was a way of expressing masculinity. Connell states that the dividend accruing to most men is greater than that for women, in relation to production relations. That is, employment generally offers greater benefits to men than it does to women.

A further example of this is the case of a 26 year old who died through suicide. In his career, he had overcome a number of obstacles to get to the position where he was able to pursue what he had wanted. However, his interpretation was different. He felt that he still wasn't good enough because the obstacles had been there in the first place and he saw all this as failure and underachievement. At the time of his death he was working as a voluntary carer, which brought a number of large stresses to bear on him.

He was working far too hard and the job didn't sympathise with the sort of hours he was doing and the stress that was putting on him. Leading up to his death he worked ridiculously hard looking after A on his own in the house and then he was physically exhausted, which I think interfered with his ability to deal rationally with the problems he encountered. (Case 17, mother)

In one case, there were specific problems at work contributing to one young man's feelings of failure.

There was one woman in the office who was the same level as him but seemed to be trying to retain power and he felt that she wasn't giving him enough support.... He told me that work was getting him down and that he couldn't handle what they were giving him to do. I told him that it wasn't that he couldn't cope, it was just that his standards were far too high. (Case 18, father)

Another individual, who was an alcoholic, had a lot of support from his father and from his employer and managed with difficulty to remain in work until his death. Partly this was because he was working for a big company with his father and his father was able to support him in maintaining his employment.

So I went to see the foreman. We had to go and see the works doctor. She arranged for him to go to the Windsor clinic and he went in for treatment.(Case 20, father)

These narratives support the theory that traditional concepts of masculinity are defined and reinforced through the world of work (Kilmartin 1994). Thus problems at work seem to have had a significant influence on overall quality of life.

In only one case the individual had never worked when he died at the age of 29. He was a recreational cocaine user and spent every day in the gym. He had experienced a number of health problems as a result of injecting steroids over the years. This case showed characteristics of both clusters and his attitude towards working was more reflective of the first cluster than the second.

He didn't really want a job. He spent a lot of time going to the gym and going to clubs and things and then he ended up getting into trouble because of his drug taking. (Case 16, brother)

This group, because they were more likely to be in employment, were generally able to afford better quality housing. Five were living with one or both parents, one owned his own home where he lived with his wife and family, three lived in rented accommodation and one, who had serious mental illness, lived in an NHS hostel. Changes in relationships inevitably lead to changes in living arrangements and financial status and this was significant for two cases. In one case, the end of a relationship meant that one man was forced to move back in with his father in difficult circumstances, which in itself created a lot of pressure.

So he was picking the kids up and bringing them back here for a couple of hours. He was in my way all the time. He felt like, what do you call it, interloping into my domain. Eventually I was going out five nights a week instead of three just to keep out of his way. (Case 15, father)

Only one of the cases in this cluster lived in poor quality housing, similar to that of cluster 1. Perhaps it is prudent to point out that this individual was also addicted, but in this case the addiction was alcohol.

It was all boarded up. The state of it. I wouldn't have put a pig in there. We found out later that he wasn't squatting, there was rent getting paid. I couldn't believe half the stuff. (Case 21, sister)

However, in this instance the change in living accommodation occurred because he decided to move in with his girlfriend six weeks before he died. His sister believes that this may have been an important contributory factor to him taking an overdose.

When he lost his flat it was as though he thought 'Oh I've got nothing now.' The other flat was in her name you see, so it was like this is the end of the line now. (Case 21, sister)

In two cases then, the loss of a home and also independence was a significant issue.

13.4.4 Sexual relationships

As with the first group, these narratives illustrate how a constellation of factors impacted on the lives of these young men. However, among this group, it was depression, rather than drug use, that influenced all areas of their lives, including their relationships with others. Among this group, one case was living with his wife and children, one had moved in with his girlfriend six weeks before, two had non-cohabiting relationships and six were not in a relationship. Six of the cases had been married or cohabiting at some point in their lives, five of whom had children. There were a number of problems for these individuals as a result of previous relationships and these are discussed further below.

Canetto's literature review (1995) asserts that there is a prevalent theory that men become suicidal due to impersonal reasons such as health and work problems. She concluded that this was because available research tended to focus on impersonal factors. Insufficient information was then mistaken for traditional assumptions about men and suicidal behaviour. It is interesting therefore that of the four in relationships, problems within sexual relationships seemed to be a powerful contributory factor. In addition, the lack of a girlfriend among those who were single seemed to be a particular problem.

The only case to be living with his partner and children at the time of death was having problems within his marriage that his wife believes was a major contributory factor in his suicide.

X had no sex drive as a result of his depression. The last few years he had no sexual appetite at all and I though that was a reflection on me. But on reflection I think it was all part and parcel of the depression..... (Case 13, wife)

One case was that of a cocaine user who had been seeing his girlfriend for some time and, according to his girlfriend, they were due to be married 10 days after he took an overdose. His family believed that this may have been a contributory factor in his decision to take his own life.

They really loved each other but I think he was a bit scared to make a commitment to this girl. I think he wanted to pack it in being honest, but he committed himself over the years. Because she's such a weak girl I think he felt as if she'd do something to herself. I don't think he knew how to explain to her and say that it's finished. We all had our expectations of him, he's gonna settle down and one thing and another, but I don't think that's really what he wanted. (Case 16, brother)

There seemed to be a dissonance between what he wanted from life and the expectations of others, which he was unable to resolve. A third case had split up from his wife but had begun a relationship with another woman, which appeared to be very destructive.

I think the girl he met made him do it. Because she never had no kids, and she used to say, "Shove your kids. They're your kids" (Case 15, sister in law)

In the end it was his girlfriend who appeared to drive him to kill himself.

X never done nothing about it. In the end they were arguing, and D picked a knife up and said, "Here you are get it over with". And X, with temper, took the knife and instead of hurting her .... And then he stabbed himself. My sister she was trying to grab the, hold the blood, and in the end she just stood there. (Case 15, sister in law)

The other case who had just moved in with his girlfriend took an overdose after they had had an argument one night. Both were known to have severe drinking problems.

I hit him, all at once on that particular night after so many drinks and an argument and all these tablets sitting next to him and I think he just went too far. (Case 21, partner)

There were also some young men who did not and had never had a serious relationship and this was a significant problem to them, contributing towards their feelings of worthlessness.

But I think the depressing things when he was younger were things like not being in with the group, having .....I think with girls I think he was quite shy as well, I think when he was seeing his friends with girlfriends and getting married. I think that made him feel upset. I think the thing that bothered him most was not having a girlfriend. (Case 14, sister)

Another young man of 26 killed himself on a railway line after suffering from serious depression. His closest friend said,

He never had a girlfriend, not that it was something we really discussed openly...there is pressure on young men these days to be successful, to be good looking, to be going out, another thing is you've got to have a girlfriend and stuff like that, and whereas that it's something that might not have bothered him, I'm fairly sure it did. (Case 17, friend)

Among this cluster, then, all had some form of problem with sexual relationships, although for different reasons than the first group. This cluster were more likely to be in serious cohabiting relationships but to feel that they were failing in some way, or to have problems from previous relationships which they felt unable to deal with.

13.4.5 Fatherhood and family life

Only one case lived with his partner and children at the time of his death. His wife was unhappy with his approach towards fatherhood and at one time had asked some

friends if they could intervene. However, the friends felt that he was a good father to the children and that they communicated well with each other.

Going back 5 or 6 years ago she said, X doesn't seem to have a clue with the kids, can you teach him ? Well that must have been a side of him I never saw. It was always, 'Dad can you show us this and that' and yet X asked me to try and teach him how to play with the kids. (Case 13, friend 1)

Partners were not always a positive influence in relationships with children, particularly where the lifestyle was already chaotic.

His ex-wife said that he did have contact up to a point. I don't know whether he was making a nuisance of himself or what but he called to the house one day and they had a bit of an argument and he said, 'That's it, I'm totally disowning the children'. ...His ex wife said he was dead upset, because she (his current girlfriend) wouldn't let him see them (his children). He was drinking, he was living with her, and I don't think she was right in the head from what I have seen of her, and the debt he was in. (Case 21, sister)

She was an alcoholic as well..... She never had no kids and she used to say shove your kids, they're your kids. She used to phone him in the early hours of the morning when they had split and she was drunk and she would say, 'I'm going to kill yer and I want to kill yer kids'. (Case 15, sister in law)

In this case, the individual's partner became an alcoholic after her mother was killed in a car accident and the relationship deteriorated very quickly.

He tried to savour the life as along as he could. He wanted to marry her and everything. In the end he left her but he kept in contact with the kids. (Case 15, friend)

In this particular case, it was worry over the children that drove this man to suicide. The four children were fostered out over the city and he was desperately trying to get them back. He had applied for housing but was put on a waiting list. Finally, he attempted suicide and was then deemed too unstable to manage the children on his own. Eventually he killed himself.

They had to take the kids off her because she was an unfit mother. And you know that it doesn't matter if the girl is a prostitute or a drug addict, they will try and keep the kids with their mother and all that stuff. They said he would have to go on a waiting list and they would have to video him in Seamore House to see how he was with the kids, like four kids is a lot to get, you know. (Case 15, sister in law)

Everything was in the hands of social services. He felt he had no control over the events that were taking place.

Yeah, he wanted the kids with him. Well, he was trying all the time but after he stabbed himself, for nine months, you can understand why the social workers wouldn't give him the kids, like, you know what I mean. They were holding back, you know. I suppose he was getting agitated, he wanted the children. (Case 15, father)

As stated earlier, five of these cases were living with their parents, one with his wife and children, three in rented accommodation and one in an NHS hostel. There was not the evidence of chaos described by the respondents of the cases in the first group. Of those living with parents, the relationship seemed to be positive and supportive. Only one of these cases had any element of chaos in his family life and interestingly he was a cocaine user. The individual's sister had recently accused the older brother of abusing her when younger, which he hotly denied, and there was generally a lot of stress within the family.

There's a lot gone on in the family the last couple of years. It seems the family's fell apart.....He must have felt as if he'd have to cope with it all on his own I suppose he felt I can't put on me other 3 brothers, they've got wives and children to look after.....I feel as if I wasn't there for him. At the time I was bleeding for myself with the things my sister accused me of. .....We never seen his problems and that's why the family is tearing itself apart now because we all feel guilty to a certain extent that we weren't there for him. (case 16, brother)

Sexual relationships and fatherhood are important defining attributes of masculinities. The end of these relationships inevitably contributed to feelings of worthlessness among these cases.

13.4.6 Risk taking behaviour and self-destructive behaviour

There is considerable difference between the 'outside edge' group and the second group in terms of how respondents rated them as risk takers. Among the 'outside edge' group 10 out of 12 were described as often taking risks for fun, whereas only one out of 10 of Cluster two was described as often taking risks for fun. There was also a difference in attempted suicide between the two groups, - five out of ten of Cluster two had previously attempted suicide, whereas only 2 out of 11 of the drug users had attempted suicide. Thus, this cluster were more likely to have been intentionally self-destructive but were less likely to have been willing to take risks in other ways.

It was clear in the cases assigned to this group, that they had intentionally taken actions which were likely to have ended their lives. This did not necessarily mean that their actions were premeditated. Indeed, the reason a Coroner often gives an open verdict in the case of an overdose is that they believe that the individual was trying to make a statement rather than trying to end their own lives.

There was nothing you would have picked up at the time without hindsight, but now they seemed like little signals, little beacons.... He left a note for us asking if we could forgive him. (Case 13, wife)

He left a note and told us about the dog faeces. Then he told his girl and me mam not to follow him, so that's a man in my eyes that knows what he was doing at the time. It was two years to the day since his best mate had been killed. (Case 16, brother)

He was running deliberately at the cars as though to attack them. I saw him run off the verge into the path of an HGV. He seemed to jump at the vehicle. The driver had no chance of avoiding collision. (Case 12, inquest statement from witness)

Those last few days, he was very quiet and withdrawn, completely despairing really. He kept asking for jobs to take his mind off things. On Thursday afternoon he said he was popping over to a friends. Instead, he went to the railway line and killed himself. (Case 17, mother)

The next thing I knew he was running at me with a knife in his hand. I have no idea what caused him to do it. There was a lot of aggression in his face, - a look I hadn't seen before. (Case 15, inquest statement from ex-wife)

However, there appeared to be nothing specific in any of the cases, which could have identified them from many other men living with similar life experiences. This is one of the major problems of research in the field of suicide, - there is still no reliable means of predicting those who are most at risk of suicide which is sensitive or specific enough to identify those individuals and to prevent these deaths from occurring. Only one respondent felt that the suicide could have been predicted.

As I say I'm very close to X. It's very upsetting and all that and stressful. I told the social workers three times. I said you've got to do something about X otherwise something is going to happen. But, you know, I think it was predictable, you know predictable like. The pressure was building up all the time. (Case 15, sister in law)

13.5 Deviant cases

Two cases could be described as deviant as they did not fit into the clusters described above.

13.5.1 Case one

X was born in Liverpool, the second of three children. His father died of pneumonia when X was a baby and X's mother remarried some years later. X moved out of home about a year before he died and was living alone in a rented flat but had regular contact with his family and often went home for family mealtimes. At the time of his death, he was claiming unemployment benefit but also doing occasional

DJ work in Liverpool. On the day that he died he went to his parents for dinner and then went out with a friend. He died later that evening in a nightclub. The post mortem showed that he had died of an amphetamine overdose and also showed traces of ecstasy and cannabis. X was 21 when he died and his death received a verdict of accident. His mother and sister were subsequently interviewed for the purposes of this study.

13.5.2 Case two

X was born in Liverpool, an only child. He spent his childhood living with both parents and went to senior school in South Liverpool leaving with CSE's. He worked most of his life as a plasterer and married and had two children but subsequently split up from his wife ten months before he died. On the night of his death, he went for a couple of pints with a friend and decided to call and see his wife. He climbed over the back wall to enter the property and fell, sustaining a serious head injury. His wife thought he was drunk and put him on the couch with a blanket over him. The following morning he was unconscious so she asked a friend to have a look at him. The friend phoned an ambulance immediately but he was dead before the ambulance arrived. X was 30 when he died. The cause of death was given as accidental. His mother and father were subsequently interviewed for the study.

Green (1997) suggests that, in terms of the Coroner's classification, accidental deaths are produced by the gaps left by other categories in the classification system. She suggests that their assignation is in a sense always provisional, pending potentially endless moral enquiry. Thus, as in these two cases there does not seem to be a predictable pathway to death. Rather, their deaths resulted from what appeared to be an isolated incident in each case.

Further, the question of whether or not each individual contributed to their own death by taking risks is quite subjective. It could be argued that both these individuals did so, the first by using ecstasy and amphetamines and the second by climbing an eight foot wall. However, what is clear is that with these individuals there was no obvious pathway leading to their death, no indication of self-destructive behaviour in other areas of their lives and also no suggestion that they were suffering from depression or had any history of depression. In this sense, then, their deaths resulted from an isolated incident, to which, it could be argued, they contributed, by taking risks.

Beck (1992) suggests that in a risk society in which we are constantly engaged in assessing and managing risks in all areas of our lives, the accident is still the ultimate indicator that risk assessment has gone wrong. Inevitably, a small proportion of these individuals will not assess risk adequately and this will lead to death. As Berardo stated (1985),

"The point is that no one can expect to exist totally without risk; nor would any sane person want to. To live at all is to live a little dangerously; to live in the fullest sense of the word is to balance personal fulfilment against risk."

Berardo, F.M.1985, Individual lifestyles and survivorship: the role of habits, attitudes and nutrition. Death Studies, vol.9, pp. 5-22.

Thus, these two cases do not refute the hypothesis. Rather they demonstrate that, whilst most of the young men in this study appeared to have constructed a pathway of risk taking and / or self- destructive behaviour, a small proportion of the men had not. This type of death may indeed be the most difficult to prevent, since there is no common pathway and the event of the death itself results from the individual concerned taking a (relatively) small risk which in the majority of circumstances would not have ended in death.

In summary, the narratives suggest that rather than all these young men following a common pathway of risk taking and self-destructive behaviour, the majority of cases constructed one of two main pathways relating to risk taking and self-destructive behaviour, with two exceptions. The cases therefore fell into three main clusters. The first cluster included drug users who exhibited protest masculinity and whose behaviour was so self-destructive that it led to death, but showed no evidence of intention; the second cluster, included suicidal men who perceived themselves as failing in the most fundamental areas of complicit hegemony, such as the workplace and relationships with women; and the final cluster in which there was no reported pathway of risk taking or self-destruction.

Chapter 14 Discussion of Phase I

14.1 Trends in mortality among men and females in the United Kingdom since mortality records began in 1841.

The first objective of these studies was to compare trends in mortality among males and females in the UK since mortality records began in 1841. Analysis of male and female mortality rates from 1841 to 1990 demonstrated an increase in male: female death ratios among young adults over the past 150 years, particularly in the post World War II Years. Further, with the exception of the two war periods, mortality ratios among 15 to 44 year olds began to increase in the five year period between 1951 and 1955. This increase from 1951 onwards was shown to be significant among all age groups observed except for 15 to 19 year olds. That is, the ratio increased significantly among 20 to 44 year olds since 1951 when compared to the 100 years previously. It appears that the factors that were contributing to this increase became more influential from 1951 onwards. However, it is not possible to make assumptions about the reason for the increasing male: female mortality ratios, since if female mortality decreased and male mortality rates remained the same, there would still be an increase in the male: female mortality ratio. It was outside of the scope of this study to examine these mortality trends in greater detail. However, other studies have compared mortality rates over a similar time period.

Craig (1995) compared mortality data between 1909 to 1911 and 1989 to 1991 and found that while mortality rates between 1909 and 1911 were much higher, the ratio between male and female death rates was much less than in 1989 to 1991. He states that this smaller difference was due to a higher proportion of deaths in 1909 to 1911 being due to infections. Consequently, the sex differentials were not so great as they are for today's major causes (heart disease, cancers, and respiratory diseases). The implication is that the main causes of mortality today are related to certain health behaviours and that poor health behaviours are relatively more common among men, whereas men may not have been more at risk of death due to infections than women. Craig suggests, then, that higher mortality among men compared to women, such as smoking or heavy drinking, is due to certain health related behaviours being more common among men and there are a number of other studies to support this supposition (Gee and Veevers 1983, Lopez 1983, Waldron 1995).

It is also likely that there are a number of other factors that have influenced the male: female mortality ratio. Waldron (2000) investigated trends in sex mortality ratios by cause of death in the United States and found that trends by cause have been highly variable over the last 50 years, reflecting the effect of multiple and diverse contributory factors. She suggests that these factors include health behaviours, changes in gender roles, marital status, education, and access to medical care. Further research is needed to identify the influence of these different factors on trends in mortality rates among men and women.

Since this analysis was undertaken, Charlton and Murphy have published a report entitled 'The Health of Adult Britain' (Charlton and Murphy 1997) which investigates male: female mortality ratios since 1841 for all age groups. They report that, generally, declines in mortality began earlier for females than males. Further, male: female differences were relatively modest in 1841 to 1843, and were no greater than 20%. Subsequently, peaks developed around ages 18 and also ages 60 to 70. The excess at older ages is now reducing but the excess at younger ages continues to increase so that men aged 18 are now three times more likely to die than women of the same age. This illustrates that, among all age and sex groups, mortality rates among young men are a particular cause of concern.

14.2 Recent trends due to suicides and accidents among men aged 15 – 39 years in England and Wales

The second objective was to examine recent trends in suicides and accidents among young men aged 15 to 39 years in England and Wales. This study examined suicide and undetermined death rates among men aged 15 to 39 years and found a significant increase in suicide rates among this age group between 1975 and 1995. Conversely accidents among young men aged 15 to 39 showed a significant decrease over the same time period.

14.2.1 Mortality rates

Charlton's work on the epidemiology of suicide and undetermined deaths in England and Wales (Charlton et al. 1992, Charlton et al. 1993, Charlton 1995) showed that since the early 1970's the rates for men aged 45 and over have fallen, while the rates for men under 45 have risen to such an extent that they currently exceed the rates for older groups (Charlton et al. 1992). He reports that changes in suicide rates are related to a complex set of social, economic and other changes and it is extremely difficult to pinpoint clear relationships (Charlton et al. 1993), as evidenced by the literature review in Chapter five.

In relation to accidents, Nicholl and Coleman (1997) analysed accident mortality rates from 1901 to 1990. They found that a decline in the number and rates of deaths from accidents actually began as far back as the 1930's and a consistent decline has been observed since this time. However, they observed little change in accident mortality rates among young persons aged 15 to 24 of either sex, suggesting that young people have been more resistant to accident prevention activities than the rest of the adult population.

As discussed in Chapter three, there are a number of different types of death that comprise accidental death, including drug overdose, road traffic accidents, falls and accidental injuries, and this study did not analyse data for these different types of accident over the last twenty years. However, there is evidence that the direction of trends differ, for different causes of accidental death. Road traffic accidents have decreased considerably since the early seventies among all age and sex groups (Christopherson et al. 1999). The reasons for this include seatbelt legislation, safer

road marking, and safer vehicles (Thomas 1990). Conversely, drug related deaths among men have been increasing since the mid-1980's (Christopherson et al. 1998).

14.2.2 Explaining the trends

In Chapter five, it was suggested that there may be common predisposing risk factors between suicide and accidental deaths. How would the diverging trends in suicide, undetermined and accidental death rates be explained if this were the case? There are a number of possible reasons why suicide and undetermined deaths have increased whereas accidental deaths have decreased. If, as suggested by Charlton et al. (1992), undetermined deaths are unproven suicides, it would be expected that the undetermined death rate would increase at the same rate as the suicide rate, assuming there was no change in circumstances surrounding these deaths which could be making it more difficult to ascertain intent. Alternatively, the rate of undetermined deaths would increase at a higher rate if suicides were increasing but were becoming more difficult to prove due to the circumstances of the death (e.g. more passive methods of death being chosen).

Equally, the rise in undetermined deaths could be the result of an increase in deaths where it has become more difficult to be certain that an individual did not intend to die. Thus, the accident mortality rate would decrease, but the rate of undetermined deaths would rise. For example, a general increase in self-destructive behaviour among the population in question could result in the definition of an accident becoming more difficult to apply and consequently there would be a corresponding increase in the death rates from open or undetermined verdicts. Thus, a fall in the accident rate could, in effect, occur because deaths, previously defined as accidents, were now being defined as open or undetermined deaths due to an increase in more overt self-destructive behaviour among young men. It is necessary to examine specifically trends in methods of suicide, undetermined deaths and accidents among young men since 1975 to examine whether passive methods have increased overall, relative to active methods.

In addition, the relationship becomes more complex since there are a number of other factors that are likely to independently influence accident rates, such as vehicular safety, or trends in the incidence of drink driving, for example. It is also possible that the rise in suicide rates among young men may actually result from a general increase in self-destructive behaviour among the 'at risk' population. A general increase among the population in non-specific self-destructive behaviours would result in a greater number of deaths but also a greater degree of difficulty in determining whether or not a death was the result of an accident or a suicide. As a result, the recorded decrease in accidents could be the result of 'accidents' being more likely to be classified as open or undetermined deaths. These deaths would then subsequently be analysed with suicide data.

No studies have been identified that specifically examine the relationship between these three causes of death. However some studies have examined the factors that

predict a verdict of suicide as opposed to a verdict of undetermined or accidental death. As discussed in Chapter 3, section 3.9, Platt et al. (1988) found methods to be the most significant predictor of a suicide verdict. It follows then that changes in methods over a period of time could result in a change in the proportion of deaths receiving suicide verdicts. A number of other authors have also found that method of death is an important predictor of suicide (Cooper and Milroy 1995, Salib 1996). As Platt et al. point out, the distinction between a suicide and an undetermined death hinges upon legal criteria of inference concerning intent. This could, in effect, result in a distortion of suicide statistics if trends in methods change. It is also possible that the decrease in accidents has resulted from difficulties in ascribing lack of intention to certain types of death, which subsequently receive a verdict of suicide.

Neeleman and Wessley (1997) found that the ratio between open and suicide verdicts increased by a factor of 1.21 among male deaths between 1974 and 1991. This is a reversal of the trend that occurred between 1901 and 1968 (Barraclough et al. 1972). Neeleman and Wessley suggest that this increase could have arisen if soft methods had become more popular; that is, the use of more passive methods, resulting in difficulty in defining an individual's intent to die. In addition, Cooper and Milroy (1995) suggest that there may be a sex difference in patterns of defining intent to die. Their work showed that misclassification of suicide deaths is more a problem for female suicides, since men tend to use more active methods of death that are more likely to receive a suicide verdict.

Other researchers, however, have suggested that this is not the case. The work of Allebeck et al. (1991) shows that, in most cases of injury related death among the young, cause of death is recorded with accuracy. Further, Lester (1992) argues that it does not appear that some countries have lower suicide rates because their suicides are hidden as undetermined or accidental deaths. He also found that adding the undetermined death rate and a proportion of the accidental death rate to the suicide rate did not greatly change the relative rankings of national suicide rates, indicating that if suicides were being misclassified, all countries under investigation were misclassifying to the same extent.

Trends in suicide, undetermined and accident death rates need to be investigated in more detail, in order to be able to explain the relationship between these three modes of death more clearly. Kelleher et al. (1996) suggest that national suicide prevention strategies cannot be properly audited unless improved procedures are put in place to increase the validity and reliability of the official suicide figures. Ultimately, these caveats bring into question the validity of epidemiological studies where mortality data for suicide and undetermined deaths are assumed to reflect suicide rates and accident death data are assumed to reflect accident rates regardless of changes in the undetermined death rate. It may therefore be inadvisable to use official suicide data to test scientific hypotheses about suicide unless the effects of underreporting are estimated, and if necessary, corrected for (Phillips and Ruth 1993).

14.3 Recent trends due to accidents and suicide, among young men in Merseyside and Cheshire.

The third objective was to analyse mortality trends among young men in Merseyside and Cheshire and in particular death trends due to accidents and suicide. These data demonstrated an increase in suicide rates among the younger age groups (15 to 35 years) but a decrease in accidental death rates except for 25 to 34 year olds, between 1983 and 1995.

Mortality rates by age group in Merseyside and Cheshire during this period were higher than those for England and Wales, but only significantly so among the 30 to 34 year age range. Similarly, standardised mortality ratios by cause of death were only significantly above 100 for deaths caused by accident and misadventure. This should be borne in mind when considering the generalisability of the study findings, that deaths among 30 to 34 year olds, and deaths due to accidents may be over-represented in relation to the UK perspective.

14.4 Advantages and limitations of the methodology

14.4.1 Sampling considerations

The aim of this study was to identify common contributory factors to injury and poisoning mortality among young men in Merseyside and Cheshire. The subjects included in this study were not injury and poisoning deaths drawn from a sample of men aged 15 to 39 years within Merseyside and Cheshire, but rather included all such deaths that occurred during 1995. Therefore, it was not necessary to ensure that a random sample was identified from the study population. However, it may not be appropriate to generalise the results beyond the space and time confines of the study, because of the potential for bias. For instance, local Coroners' decisions may not be representative of coroners' decisions nationally, and 1995 may not have been a 'typical' year.

There is not a complete match between data collected for this study and equivalent data collected by ONS for Merseyside and Cheshire. ONS data are collected by district of death, unlike the study data, which were collated by Coroner's district in which the individual died. Nevertheless a comparison of ONS and the study data shows similar numbers of deaths for each verdict, except for drug abuse and homicide. The discrepancy in the number of homicides recorded is probably due to ONS data being collated on an annual basis. Homicide deaths where the verdict was not available at the time of publication will have received an accelerated registration E988.8 code. Comparison of drug abuse data is more complex. The ONS data suggest more deaths from drug abuse among Merseyside and Cheshire residents than the Coroners' data. However, it should be noted that where accidental and undetermined deaths occur, and the words 'dependence' or 'abuse' are stated on the death certificate, OPCS re-code deaths to a drug abuse category of ICD 304 or 305. Conversely, if a death has received a verdict of homicide or suicide, the death will

be coded according to the Coroner's verdict, regardless of whether the words 'dependence' or 'abuse' appear on the death certificate. This causes difficulties when analysing national mortality trends since, as pointed out in the Advisory Council for the Misuse of Drugs (ACMD) report 'Reducing drug related deaths' (2000), the drug abuse categories 304 and 305 are not logical alternatives to accident, suicide, undetermined or homicide verdicts. Rather, they are complementary. Epidemiologists using OPCS / ONS data to analyse mortality trends from external causes should take into account the discrepancies introduced by this practice.

A further sampling consideration arising from using retrospective mortality data, is that of underreporting. However, for a study of violent death among young men, it is very unlikely that a death would not have been reported due to the completeness of the death registration system in the UK. In addition, the fact that all violent deaths were investigated, meant that the problem of missing cases due to misclassification by cause of death was overcome.

14.4.2 Retrospective studies

The data sources for these studies included Coroner's inquests, GP and hospital records, and interviews with family and friends of the deceased. Studies such as this one are unable to employ the primary data source (the individuals who have died) and therefore have to rely on second hand data sources. Certainly, an ethnographic study, employing the 'underclass approach' long used in ethnographic research on male deviant groups (Taylor 1993), would have been preferable, if it were possible to identify the cases before they had died. However, for this subject matter, such an approach would have been impossible. Whilst it is acknowledged that second-hand data sources offer only a limited perspective, the findings of these studies demonstrate that, in the absence of first hand data, they can provide a rich source of data through triangulation of the different information sources. Integration of data obtained through this method has been shown to increase the reliability of the data further (Wolford and Reihman 1991). Also, Brent et al. (1988c) demonstrated that as a result, data collected through this method is both valid and reliable since validity and reliability can be assessed by comparing data collected from different data sources to ascertain if the information is consistent between them. There was almost complete consistency between the data sources in this study, the only discrepancies arising from sources not being party to certain information. For example, some GP's were not aware that their patients were heroin users. This, of course, does not imply that there was no possibility of error. However, as Young (1992) stated, medical autopsies are at times flawed by omissions and errors, and are occasionally influenced by political pressures, but this does not negate their scientific potential and a similar statement can be made about psychological autopsies.

Despite these caveats, this type of study design has been shown to provide important data when investigating causes of death (Hawton et al. 1999). Further, in this study,

Phase II overcame these limitations to some extent, since further data were collected from relatives and friends to complement the data already collected. The extent to which these studies provided complementary data is discussed in Chapter sixteen.

A further unexpected problem arose in relation to the completeness of primary care data. Many GP records could not be located, which meant that it was not possible to gain any information about contact with primary care for 77 of the subjects in the study. Reliability of data sources is also affected by the quality of recorded data. Illegibility of GP records was a serious problem during data collection. The reason for consultation could not be ascertained in 844 (18.7%) of the 4517 consultations. Increasing use of computerised records since 1995 will help overcome this, and it should not continue to be a problem in future research.

Further, the retrospective nature of the data means that it was not possible to identify causative factors since the temporal relationship between potentially causative and contributory factors is often unknown. Nevertheless, the logic of elucidating a potential cause from observing an effect is an approach used often in everyday life (Hennekens and Buring 1987) and it is a useful way of identifying associations between different factors. However, it should be noted that the absence of a control group means that it is not possible to make inferences between the factors identified in this study and the prevalence of those factors among the general population. In addition, it would have been impractical to investigate such a rare cause of death using a prospective design in terms of the time and cost that would be involved. A retrospective study design can provide useful insight into violent deaths among young men provided it is able to recognise the inherent limitations and minimise possible bias or error during the design stage. This study minimised the possibility of selection bias, by investigating all such cases of external causes of death among young men in the region. The risk of information bias was also minimised as much as possible by triangulation of data sources.

Another limitation of secondary data sources is that, since data has been collected prior to the study commencing, the researcher cannot collect information on any variable that was not previously identified. This study was therefore restricted to analysing the factors that were routinely reported in the Coroner's inquest, the GP records and the hospital data. This led to difficulties in the interpretation of some results. For example, evidence of social problems was an unreliable source of data since this information was rarely sought if the Coroner suspected that the death resulted from an accident. Also, as the Coroner does not routinely collect information about the use of services, these data were often not available, particularly use of non-statutory services. Routine data collection on non-statutory service use would have been useful in informing the Coroner's final verdict, but, in practice, Coroners tended to only collect certain information in order to confirm their suspicions of the mode of death. For example, where a death was a traffic fatality, an underlying assumption was often made that there was no need to examine intent, even when witnesses stated that the fatality appeared to be intentional. This is probably a reflection of the way that Coroners rely on the

method of death when reaching their verdict, as discussed earlier in section 14.2. Since mortality trends are currently being used to monitor the progress of national public health policy (Department of Health 1999c), it is important to be aware of the factors that influence the verdict of the Coroner. Further work is needed to understand the implications of these findings and one useful way of doing this would be to examine with Coroners the manner in which they interpret available evidence. Further, clearer guidelines for Coroners regarding the interpretation of evidence and classification of suicides, open / undetermined, accident and drug use verdicts, would facilitate the reduction of variations between Coroner's districts in death classification.

14.5 Epidemiology of injury and poisoning deaths among young men in Merseyside and Cheshire during 1995

14.5.1 Coroner's verdict

As stated above, Coroners' guidelines are not clear on the interpretation of evidence and classification of suicides, open / undetermined, accident and drug use verdicts. This means that there may be variations between Coroner's districts in death classification. In this study, all violent deaths were investigated, but in terms of analysing suicide and accident mortality data on a national scale, this has a potential for introducing considerable bias into a study that defines suicides on the basis of Coroners' classification.

Accidental deaths

The main causes of accidental death among the cases in this study were road traffic accidents and drug overdoses. Accidental deaths include both accident and misadventure verdicts. Jervis states that even though a distinction exists in logic between accident and misadventure, Coroners do not observe such a distinction in practice (Matthews and Foreman 1986). However, the evidence from this study suggests that Coroners do differentiate between these two modes of death. There was a significant difference in the types of deaths that are ascribed to these verdicts, the major cause of death for accidental verdicts being predominantly road traffic accidents and the most common cause of death among misadventure verdicts being poisoning. Thus it appears that differentiation is by mode of death rather than based on evidence that the behaviour of the individual concerned contributed to the death. This is perhaps related to the fact that driving is considered a culturally acceptable social behaviour, even when it is reckless. In contrast, drug use implies a degree of unacceptable risk and therefore the individual's behaviour is deemed to have contributed to their demise and can be ascribed to a misadventure verdict. In terms of risk taking behaviour, then, it is possible that societal norms deem that certain types of risk are acceptable, and even necessary, to everyday life.

It was disappointing that serum alcohol levels at the time of the road accident were not routinely recorded at the Coroners' inquests. This was generally because individuals had died in hospital, sometimes many days after the accident had taken

place and serum alcohol levels, which may have been recorded at the hospital, were not made available to the Coroner. As a result they were unknown in 18% (n =11) of the cases who died of a road traffic accident.

Suicides

Suicide verdicts were most commonly the result of an active method of death, hanging being the predominant mode. This corresponds with the findings of Platt et al. (1988) who found that active methods of death were significantly more likely to receive a verdict of suicide, as discussed in section 14.2.

Undetermined deaths

Undetermined deaths were most likely to be a result of drug overdose, otherwise known as a passive method of death, as suggested by the literature (Platt et al. 1988, Cooper and Milroy 1995, Salib 1996). This may be because, where individuals have died of a drug overdose, it is particularly difficult to assess intent, especially among regular drug users. There is perhaps also an assumption that overdose occurs among individuals who are para-suicidal rather than suicidal, and are indirectly trying to access help.

Homicides

Homicide deaths tended to occur in public places and did not involve assailants who were related to the victims. This is consistent with findings of previous studies of violence and homicide among young men, which suggest that men are more likely to encounter violence in public places rather than in their homes (Home Office 1992).

14.5.2 Demographic and social circumstances

Age

The results indicate that the number of violent deaths occurring among 15 to 39 year olds in Merseyside during 1995 began to increase from the age of 15 onwards, reaching a peak in the late twenties, and gradually declining back to the levels observed before puberty by middle age. This trend can also be seen among young men for deaths from all causes and Calman (1992) demonstrated that the peak in deaths during the mid twenties became taller and broader between 1972 and 1992. Thus, these deaths are an increasing problem among this age group.

Marital status

The fact that the subjects in the study were significantly more likely to be single suggests that being in a relationship may be a protective factor against death. The reasons for this are not entirely clear. A number of studies have investigated the relationship between marriage and mortality and have demonstrated health advantages for married men and women (Johnson et al. 2000, Van Poppel and Joung 2001). In addition, some studies suggest that it is not only single men who are at risk, but also widowed, divorced and separated men (Ben-Shlomo et al.1993).

Some studies have found that marital status is specifically associated with suicide among men (Charlton et al.1993, Kposowa 2000). In relation to suicide, Charlton et al. (1993) demonstrated that, apart from the 15-24 year age group, single, widowed and divorced men had suicide rates three times higher than those who were married. Given that there have been changes in marriage and divorce patterns, Charlton et al. calculated that one half of the increase in suicide rates among young men may be explained by the falling proportion of married men.

No studies investigating marital status as a contributory factor in accident mortality among men have been identified, but it is possible that single men take more risks and exhibit more self-destructive behaviour. Fu and Goldman (2000) looked at the link between risk taking behaviour and divorce. Risk taking behaviours were strongly related to higher risk of divorce in both sexes. Thus, it is not clear whether risk taking behaviour is more likely to result in divorce or whether those at risk of divorce are more likely to become involved in risk taking behaviour. It is recognised that risk taking behaviour is more common among young men than older men (Jessor 1984), and it is possible that marriage either effectively decreases risk taking behaviour or that risk-taking behaviour is associated with securing a partner. Therefore it would be expected that men who have partners would engage in less risk taking than men who do not. Murray (2000) suggests that there is evidence for both selection into marriage and protective effects of marriage. However, more research is needed to understand the relationship between risk taking and these potentially protective factors.

Ethnic group

It has not been possible from this study to ascertain the ethnic mix of the cases in the study. Ethnic monitoring is necessary if mortality trends among ethnic groups are to be analysed reliably and usefully, so it is surprising that ethnic group of the subject was only recorded in 58.9% (n = 158) of cases.

Domicile

The majority of subjects were registered as living at a home address. These data were generally given to the Coroner by the families of the deceased. From later qualitative work, it appears that, in a proportion of cases, individuals had been living away from home for considerable periods of time prior to their death and the home

address supplied was not actually the main domicile before death. In 9 (3.3%) cases, residence was unknown or given as a hostel, so it is likely that these individuals were homeless at the time of death. Unfortunately, there is no general population data available on the proportion of the population who are homeless, by age and sex, to enable comparisons to be made, although it is known that homelessness is associated with poor health in general (Power et al, 1999). There is also evidence of homelessness being associated with increased risk of mortality (Hibbs et al. 1994, Barrow et al. 1999, Hwang 2000) and high levels of suicide (Keyes and Kennedy 1992).

Employment and social class

The literature shows that evidence of an inverse relationship between social class and mortality is undisputed (Wilkinson 1987, Feinstein 1993, Davey-Smith 1996, Judge 1996). Unemployment or job instability is known to be associated with increased risk of suicide (Platt 1984, Crawford and Prince 1999). Only 3.7% (n = 10) of the cases in this study were assigned to social class I, whereas 106 cases (39.4%) were unemployed at the time of their death. These findings reflect this well researched association between unemployment and mortality.

Place of incident leading to death

Almost half of the deaths occurred in a place of residence, which is probably associated with the number of deaths due to drug use; almost two thirds of these deaths involved illegal drug use. In five cases, deaths occurred in prison or police custody. In these cases, it appears that, although risk factors were present, either risk assessment was inadequate or insufficient steps were taken to put preventive measures in place to reduce the risk of death. Since 1995, HM Prison Service have published a guide to policy and procedures entitled 'Caring for the Suicidal in Custody' (HM Prison Service 1997). The policy is based on a suicide prevention model that promotes an integrated approach, where it is the responsibility of the whole prison community for the care of those in distress. The document states that prisons need to develop a strategy of care for prisoners at risk. Walton prison has taken specific action to reduce the number of suicides in line with the recommendations in this report (Walton prison 1998). In addition, the prison has recently appointed a full time suicide prevention co-ordinator, who is based in the prison and is currently working on the development of a suicide prevention policy (Jones 2001).

Risk taking

The definition of what is acceptable risk probably differs among groups in society and it is probable that young men have their own definition of what constitutes acceptable risk. It is likely that what young men define as acceptable risk includes behaviours that other groups in society would deem unacceptably dangerous, and this may be one of the factors which leads to such high accidental death rates among

this group. Jessor (1984) describes this ideology of risk taking among the young as serving a number of purposes including; to take control of their lives, to express opposition to authority, to cope with anxiety and frustration and to gain acceptance in a peer group. In particular, Dejoy (1992) believes that young men possess an exaggerated view of their driving competency, which would explain why they are prepared to take more risks than other groups in society.

Among the road traffic accident deaths in this study, there was evidence of risk taking behaviour on the part of the subjects, rather than accidents occurring due to the risk taking actions of other drivers. For example, where speed was recorded, 47.5% (n = 29) of the cases were speeding at the time of the accident; and where seat belt use was recorded, 38%, (n=23) were not wearing one at the time of the accident. In addition, among the cases where serum alcohol levels were recorded, 65%, (n=13) were above the legal limit. Conversely, environmental risk factors such as adverse weather conditions or poorly lit roads did not seem to be important contributory factors. This suggests that contributory factors in accidents were more often than not related to the risk taking behaviours of the individuals involved rather than environmental factors which are generally deemed the most amenable to prevention. This finding is borne out by Crilly's study of road traffic accidents in Liverpool (1998) where alcohol consumption and unsafe driving were common contributory factors to deaths among the young. Further, Zador et al. (2000) showed that younger drivers had a higher risk of being fatally injured in an accident after drinking, and men had a higher risk than women in the same age range. Alcohol can contribute to road traffic accidents in a number of ways: by increasing sense of invulnerability; reducing the perceived importance of social norms; curtailing awareness of the risks; and confounding ability to make decisions about how to handle interpersonal situations, thereby increasing risk taking behaviour (Giesbrecht and Dick 1993). Thus it appears that alcohol interacts with and increases risk taking behaviour, particularly among the young.

Alcohol and drug use

In addition to classification by Coroner's verdict, deaths were classified by cause of death. The major cause of death among the cases in this study was poisoning with alcohol and drugs, followed by road traffic accidents. Alcohol and drug use is more prevalent among young men than any other group. Trends in the proportion of deaths from alcohol and drug use are difficult to assess from ICD classification because these deaths may be assigned to a number of different categories (ACMD 2000). However it is known that deaths caused by drugs and alcohol, have increased substantially over the past twenty years. Age standardised mortality rates due to drug use among men aged 15 to 44 years for 1992 to 1996 compared to 1982 to 1986 show a 92% increase nationally (Christopherson et al. 1998). The ACMD report estimates that the number of deaths among men where the underlying cause was drug use was 170 in 1985, 309 in 1990 and 646 in 1995. In Merseyside and Cheshire the prevalence of illicit drug use is particularly high. In 1996, Merseyside

had 1675 notified addicts per million population. This is more than any other area in England and Scotland (Corkery 1997).

Further, in this study, it was fairly common for drug users to have an accompanying alcohol problem, with more than a quarter having evidence from the Coroner's inquest and / or GP data of such a combined addiction. This has implications for service use and referral since it may be preferable for drug and alcohol services to share information rather than to offer separate services to drug and alcohol abusers; and there is evidence that better partnership between these services may offer more integrated clinical care (Sitharthan et al. 1999).

In relation to alcohol use, the literature strongly suggests that there is a relationship between alcohol, suicide and accidents. The extent to which alcohol contributes however, is less easy to clarify. It is also probable that the role of alcohol varies considerably by cause of death. There are difficulties in reliably measuring post mortem alcohol concentrations, as there are with post mortem drug levels. There is also potential for variation in the post mortem measurement of blood alcohol within each subject (Sylvester 1998). Therefore these results should be interpreted with caution.

In this study, a total of 105 cases (43% of those tested) had a positive serum alcohol at the time of death. In 16.8% (n = 45) of cases, the individual had a current or previous problem with alcohol abuse. In these cases, the problem of chronic alcohol abuse may be an indicator of the individual's propensity for self-destructive behaviour; that is, chronic alcohol abuse may have been part of a constellation of self-destructive behaviours that led to death. In 18 cases, serum alcohol levels were over 200mg/ml or the equivalent of five pints of beer. For these individuals, alcohol intake would most certainly have influenced behaviour and decision making immediately prior to their death. However, although 105 (43% of those tested) cases were known to have a positive serum alcohol content, only 50.4% of these (n = 53) had a serum alcohol level which was above the standard drink / drive limit of 80mg/ml. For the other 52 cases with a positive serum alcohol, according to UK legislation they would have been considered to be within the legal alcohol limit for driving. The literature suggests that relative risk of death is directly related to the amount of alcohol consumed and, in terms of road traffic accidents, accidents are more likely to occur after consuming alcohol, even if the individual still has serum alcohol levels below the drink drive limit (Binns et al. 1987).

Alcohol often interacted with other predisposing factors in different ways depending on the amount of alcohol consumed and the mode of death in each case. It appears that low levels of alcohol among young men, who are either inexperienced drivers or who are inexperienced alcohol consumers, may be particularly dangerous. Dunbar et al. (1987) suggest that the legal limit should be reduced from 80mg/dl to 50mg/dl and random breath testing be introduced. In addition, they propose a zero limit for learner and first year drivers who are likely to have accidents even with low concentrations of alcohol in their blood. There is also evidence from a comparative

study in the United States that reduction in legal alcohol limits leads to a significant decline in single vehicle fatal crashes (Hingson et al. 1994). In relation to road traffic accidents, from the evidence of this research and also from previous studies, there is therefore evidence to support a change in legislation to reduce legal alcohol limits in order to reduce road traffic accident death rates among this group.

There were insufficient data on the use of alcohol services in this study. Therefore the relationship between the use of alcohol services and psychiatric services is unclear. The ACMD report (2000) calls for greater liaison between drug and alcohol misuse services to facilitate appropriate interventions and prevention strategies and the evidence from this study would support this. A more seamless provision of mental health care, drug services and alcohol services could contribute to increasing the quality of care offered by all three.

In relation to drug use, the results of this study demonstrate the limitations inherent in the current system of classifying drug related deaths, which relies upon information supplied by the Coroner on the death certificate. The main reason for this is that the criteria used when a Coroner decides whether to include the words 'drug abuse' or 'drug dependence' on the death certificate varies considerably. Many deaths that can be directly attributed to drugs may receive an external cause code and be classified as an accident.

The ACMD Report (2000) states that drug deaths will be underestimated if conventional classifications of deaths are used to determine inclusive groups and this study supports such an assertion. In this study, it was possible to return to the post mortem data rather than to rely only on ONS information to calculate the proportion of deaths related to drug use and this information would not normally be available if ONS mortality data were used. Jonasson et al. (1999) suggest that in order to guarantee valid death statistics in self-poisonings, the information base leading to the classification of the manner of death needs to be enlarged, as was effectively done in this study. They suggest a standard structure including a set of explicit criteria. This would clearly identify those deaths which should be classified as drug related. Furthermore, local audit of drug related deaths as a sub group may be more valuable than auditing according to conventional ICD classifications in terms of making recommendations to improve available services and reduce mortality. The ACMD report (2000) recommends that the Coroner's certificate should include a section for the recording of any information on the causal involvement of substance misuse in death. This would certainly improve the validity and reliability of statistics concerning drug related deaths, and minimise the potential causes of variability highlighted in this research.

In 1995, the Merseyside and Cheshire Database had 1916 registered male drug users from a total population of 424451, based on the OPCS 1995 mid year estimate (Birtles and Bellis 1997). This is 0.45% of the population of men aged 15 to 39. In this study, the proportion of deaths occurring which were related to drug use (that is, deaths where drugs were either the sole cause of death or a contributory factor) was

considerably higher than the proportion of users among the general population (28.4%, n = 76), indicating unsurprisingly, that mortality among drug users is high. This is in keeping with national data, which has demonstrated a rise in drug related deaths, particularly deaths due to accidental poisoning (Christopherson et al. 1998).

The ACMD report also recommends a low threshold for toxicological examination (ACMD 2000). All but one of the cases in this study had a toxicological examination performed at post mortem. However, even when toxicological data were almost universally available, as in this study, the quality and interpretation of the post mortem information was inconsistent. The specific drug used was not always ascertained at post mortem and differing sampling and recording practices by pathologists and, in some cases, a delay between the time of death and the post mortem investigation made it problematic to ascertain levels at time of death. Therefore, it was not always possible to be sure whether drug use was the cause of death or only a contributing factor.

In addition, there are major difficulties in interpreting opiate concentrations after death. This is because it is also related to individual tolerance (Benbow et al. 1997), post-mortem elevations in blood concentration among lipohilic drugs and redistribution between tissues (Gerostamoulos and Drummer 2000). Interpretation is further complicated by increasing evidence that post mortem drug levels may not be similar to those in healthy subjects (Milroy and Forrest 2000). There is evidence that, in such cases, it is combinations of drugs, including alcohol and benzodiazepines, that combine with opiates and other illicit drugs to result in toxicity. The problem is deciding which, if any, drugs should be attributed as the cause of death in such circumstances. This was the situation with many cases in this study. Despite toxicology data being available on almost every subject, this cohort illustrates the considerable range of factors that may influence the interpretations by pathologists and Coroners. Further research is needed to identify the effect of these factors on the final verdict recorded.

In relation to methadone use in this study, 14 out of 31 individuals with positive toxicity due to methadone were registered drug users who were receiving methadone on prescription. "Leakage" of street methadone, therefore, appears to have been a major factor. This is in common with the evidence of Cairns et al. that suggests that diversion accounted for 35% (n = 32) of deaths from methadone in Manchester between 1985 and 1994 (Cairns et al. 1997). However this study examined all methadone deaths (including children) and therefore was not examining a directly comparable population.

There has been considerable concern expressed about fatalities resulting from illicit methadone use (e.g. Cairns 1997, ACMD 2000) with consequent demands for widespread witnessed consumption of methadone. The Department of Health Guidelines on Clinical Management of Drug Misuse (Department of Health, 1999b), specifically recommend supervised consumption of methadone for this reason.

Social factors

The literature reviewed in Chapter five suggests that lack of social support is a risk factor for suicide (Maris 1981, Christofferson 1994). The work of Charlton et al. (1993) states that the increasing numbers of men remaining single or becoming divorced may explain up to one half of the increase in suicides between the early 'seventies and the late 'eighties. In this study, relationship problems were recorded as the major cause of social difficulties among these young men, 16.7% (n = 45) having had some kind of argument with a partner or the ending of a sexual relationship immediately prior to their death. It may also be significant that only five of these cases were known to have been in contact with services in relation to their problems (three received counselling, one individual had assistance from social services and a further individual attended an alcohol clinic). There is evidence from the literature that men are less likely than women to seek help from services for health or social problems (Strodl 1994, Courtenay 2000a) and this appears to be true for the majority of cases in this study. But it is also possible that the type of services offered are not provided in the most appropriate way for young men, and no published research could be identified addressing this issue. This is clearly an area where research is needed to identify the type of services that men, and in particular young men, would be prepared to use.

Surprisingly, few problems are stated to have been related to money, although in Liverpool, living in poverty may not be considered a money problem, since in some areas, employed individuals are in a minority. However, a large proportion (n= 119, 44%) of the men in this study were long term unemployed, which was another factor previously identified in the literature review as being associated with suicide (Platt 1984, Fox 1988, Gunnell et al. 1999).

In the majority of cases, (65.7%, n = 176) information on social problems was not sought by the Coroner. For these individuals it is therefore unknown whether they had social problems at the time of their death. It is also not clear whether social problems among individual cases had a direct or indirect bearing on the death of the individual involved. In addition, it is likely that if the Coroner suspected intent to die, evidence of possible social problems would have been sought in order to support such a verdict. Conversely, where it was suspected that death had occurred as the result of an accident, such evidence was not collected. Of the 130 accident verdicts among the study population, evidence on social problems was only sought for 26 of the cases. In 25 of these cases evidence was found. Accidental death may therefore be more strongly associated with social problems than previously assumed. More research is needed examining a broader number of social factors and their relationship to accidental death.

14.5.3 Common factors relating to deaths due to accidents, suicides, and undetermined means

The null hypothesis for this section of the results was that there are no common contributory factors to accident and suicide mortality among 15 to 39 year old men in Merseyside and Cheshire.

As mentioned previously, unemployment was a common factor among all men in the study, regardless of Coroner's verdict. In addition, history of drug and alcohol abuse were common to deaths receiving both accident and suicide verdicts. As discussed in Chapter five, the relationship between drug and alcohol abuse and suicide and also between drug and alcohol consumption and accidents is well documented, so this is not surprising. In other words, there is evidence that drug and alcohol abusers are at higher risk of all types of violent death.

It seems to be difficult to distinguish intent in a drug or alcohol abuser who has died a violent death. Thus, to a certain extent, whether a suicide or accident verdict is given will depend on the amount of information available to the Coroner regarding the circumstances of the death.

From this study, it seems that unemployment or poor socio-economic status was a risk factor for all causes of violent death. Although there is a considerable literature demonstrating an association between unemployment and mortality (Moser et al. 1984, Stefansson 1991, Morris et al. 1994, Drever and Whitehead 1997), there are no published studies examining the association between unemployment and causes of violent death other than suicide. Phase II of this study has examined the relationship between unemployment and violent death on an individual level and has explored this relationship further.

14.5.4 Distinguishing factors relating to deaths due to accident and suicide verdicts

The data showed that there were also distinguishing factors between these two types of death. As stated in Chapter three, according to Jervis' Handbook for Coroners (Matthews and Foreman 1986), the defining factor between suicides and accidents is considered to be that of intention. In practice, it appears that it is not intent, but evidence of intent, that allows the Coroner to make this decision. That is, the Coroner can only surmise individual intent by making assumptions about the actions and behaviours of an individual. In terms of factors that distinguished between suicide and accidental verdicts in this study, the results show that an active mode of death is by far the strongest predictor of a suicide, although it is not clear whether active method of death is a valid predictor of cause of death. This raises the question of whether intention to die can be accurately assessed retrospectively, since where it is not possible to assess intention to die, the cause of death may become the major factor in discriminating between verdicts. In this respect, assessing intent among drug users appears to be particularly problematic. Further, evidence left by drug

users who kill themselves may differ from that left by non-drug users and may need to be sought in less conventional ways.

It is likely that the other factors identified as distinguishing between a suicide and an accident verdict were proxies for intention, namely: active method of death, intent expressed, evidence of psychiatric contact, deliberate self-harm, and uncharacteristic change in behaviour. More research is needed into the ways in which Coroners gather, use and interpret evidence made available to them so that more can be understood about the subjective differentiation between suicide, undetermined and accident verdicts and also the extent of variation between different Coroners.

In contrast, the literature demonstrates a strong relationship between mental illness and suicide, retrospective studies (Dorpat and Ripley 1960, Barraclough et al. 1974) showing that over 90% of suicide victims are suffering from a major psychiatric illness at the time of death. This may be a reflection of the specific age and sex group used in this study as previous studies included all age and sex groups. However, it may also be a reflection of the differing methodologies, as previous studies retrospectively diagnosed mental illness among cases, whereas the Coroner relies only on GP or in-patient records when recording a history of mental illness. Thus, these young men would only have received a diagnosis of mental illness if they had been in contact with health services.

Nevertheless, deliberate self-harm and previous contact with psychiatric services are factors used by health professionals to measure suicidal intent (Hawton et al 1997), whereas Coroners do not appear to use these factors as indicators of current or previous history of mental illness. There may therefore be a discrepancy between those factors deemed important by health professionals as indicators of suicide, such as deliberate self-harm, and those given most weight by the Coroner, such as method. Further research is required investigating a cohort of deaths among drug users to look for other available evidence regarding suicidal intent and to compare this evidence with that utilised by the Coroner.

Further, with the rise in drug related deaths, the validity of using method of death as an indicator of intent may be questionable, particularly among a cohort of young male deaths. Of the 60 known drug users in this study, 41 individuals (68%) died of overdose and 75% (n = 45) received an accidental verdict. Opiate users were significantly more likely to receive an accidental verdict; only 18 % (n = 13) of drug users received suicide verdicts. In contrast, the literature suggests that suicides among drug addicts are significantly higher than among the general population (Pierce-James 1967, Charlton et al. 1993, Oyefeso et al. 1999, Rossow and Lauritzen 1999).

14.5.5 Health service intervention

In terms of primary prevention, it is important to note that 88.7% (n = 227) of the sample did not have contact with psychiatric services at any time. In addition, more than half (51.4%, n = 107) of the sample for whom data was available did not have contact with GP or psychiatric services in the three months prior to death. For these individuals only community level interventions would have been effective. Community level interventions accompanied by policies that increase levels of service contact would therefore be the most sensible approach to take.

Primary care

As mentioned earlier in this chapter, a proportion of GP records for the study population could not be located (59 out of 236 patients who were registered with a GP). It was therefore not possible to audit care received by these individuals prior to death. The system in place for storing GP records on patients who have died requires the GP practice to return records to the health authority (formerly the FHSA at the time the study was carried out). However, where records could not be traced by the FHSA, the FHSA was unable to state the reason for this. In addition, in 6 cases, data were recorded incorrectly in the GP records, which raises the question of the validity of GP records.

More than 10% of the cases in the study were not registered with a GP (11.6%, n = 31). Since the GP is often the first point of contact and "gatekeeper" to most health services, this would have restricted their access to specialist care as well. It is not possible to ascertain why the individuals in this study were not registered, but the literature suggests that men are less likely to be in contact with health services (Courtenay 2000a). Young men are considered to be a particularly mobile group geographically, since they often move in order to obtain employment or promotion, and the most mobile often do not register with a GP. However, this is unlikely to be the reason for non-registration among the cases in this study since such a large proportion was unemployed.

The predominant reason for GP consultations was physical problems (1779 consultations, 39.3% of all consultations) but it is possible that distressed young men visiting the GP may have found it easier to express physical as opposed to psychological needs. Even so, a considerable proportion of the consultations were due to psychological stress (1293 consultations, 28.6%). In total, 96 of the 268 cases did make contact with primary care to seek help for psychological problems at some point in their lives. However, it should be noted that many of these contacts involved drug users who had regular GP contact for methadone maintenance therapy. In addition, for those who were registered, almost half had contact with their GP within three months of death, suggesting the possibility for intervention at primary care level. The results from other studies support this finding. Appleby et al. (1996) have suggested that there may be a crescendo of contacts with GP's shortly before suicide among the young, providing opportunity for intervention.

Other studies suggest that GPs may not carry out risk assessment as often as they should do on suicidal patients (Milton et al 1999). Further, GP's may be specifically underdiagnosing and untreating men at risk of suicide (Haste et al. 1998), suggesting potential opportunities were present for health service intervention which have not been utilised as well as they could have been. In practice, factors affecting opportunities for intervention are more complex. It is not possible, from the GP records examined in this study, to assess among depressed patients for example, whether the GP carried out any kind of risk assessment, however crude, before considering clinical management. It is also difficult to imagine what action a GP could take with a patient who visits and expresses some level of psychological distress, as opposed to depression, and who is taking risks, which may or may not be endangering their lives. In these circumstances, a 5 - 10 minute consultation with a GP is clearly not sufficient to allow the GP to assess potential future risk to health or indeed to take an action that would reduce risk taking behaviour. Nevertheless Appleby et al. (1996) advocate that there remains a potential role for GPs in preventing suicides and that future training of GPs in this area should focus on risk assessment. In this study, it should also be noted that drug use was the main reason for 13.4% (n = 601) of GP consultations and these consultations were mostly script related. Hence the high proportion of consultations may be 'falsely' high.

In this study, 31 (11.6%) cases were not registered with a GP. Currently there is a financial incentive for GP's to ensure that the population whom they serve is registered, since they receive payments per patient registered with them. However, they do not receive additional payments for resource intensive patients. In addition, more recently, budgeting restraints, the rise of an individual accountability culture and perhaps also changes in the behaviour of 'difficult to place' clients has compounded the problem of some young men being excluded from services. The threat of individual accountability within services militates against working effectively with the most difficult, hard to reach client groups. This needs to be addressed if those young men who are at highest risk are to maintain contact with the services offered by primary care. In particular, among opiate dependent drug users, there is evidence of major health and social benefits for those who are in regular contact with primary care through GP methadone programmes (Hutchinson et al. 2000). It is important that agencies review their exclusion policies and consider ways in which they can re-visit the 'making and maintaining contact' policy of the 'eighties within the context of their own service provision. In practice the health service would also need to consider how they would resource an increased demand for service use, before such a policy could be put in place.

Secondary care

Only 26.1% (n = 70) of cases were admitted to hospital in the period after the incident which eventually led to their death. The majority of these cases died on the day of their admission as a result of their injuries or poisoning. Obviously in this study, the cases were confined to those admissions where there was a 0% success rate. In order to assess the preventive role of secondary services, it would be useful

to examine all major trauma and poisoning admitted to secondary services, so that factors could be identified that distinguished those who died from those who survived.

Psychiatric services

Altogether, a total of 40 cases had contact with psychiatric services at some point in their lives, 24 of these within three months of death. However, it is not known how many individuals who were in touch with services did not die during the same time period. Therefore it is not possible to assess the impact of psychiatric services in preventing violent deaths, but it does suggest that those individuals who are in contact with psychiatric services offer at least some scope for prevention. The Confidential Inquiry into Homicides and Suicides (Department of Health 1999a) has made recommendations for how to reduce the number of suicides among those in contact with services, as discussed in Chapter five. These recommendations include improved staff training of assessment of management of risk, better transfer of information between services, and a comprehensive social and care plan for those who disengage in services, all of which have been identified in this study as ways of improving the care of suicidal patients.

Those in contact with psychiatric services were also significantly more likely to be registered with a GP. In fact all those who had been in contact were registered with a GP, which is not surprising since GP referral is the most common means of accessing psychiatric services. This suggests that those individuals who gained access to care were subsequently more likely to use all types of care than those who did not. This could be as a result of primary care follow up subsequent to psychiatric care or because individuals who are prepared to access services see it as a positive and useful benefit and therefore choose to use services more often.

Examining all violent deaths is an area of research in which little has been published. This study examined all violent deaths among young men aged 15 to 39 in Merseyside and Cheshire during 1995 and both common and differing contributory factors to accidental death and suicide were found. Many of the findings are shared with other similar studies, but equally because of the paucity of data examining violent death, this study has raised a number of important issues and suggestions have been made based on the findings of these studies for further research in the future.

Chapter 15 Discussion Phase II

15.1 Advantages and limitations of the methodology

15.1.1 Qualitative and quantitative approaches

Combining a qualitative with a quantitative approach has enabled the same issue to be investigated from two theoretical stances, providing a complementary approach to examining accidents and suicides among young men. As suggested by Fielding (1988), descriptive accounts of large scale social phenomena can be grounded in statements about actual social behaviour in concrete situations. This describes the quantitative phase of the study. In contrast, analysing social behaviour at an individual level allows the researcher to explore an individual's unique response to varying social stimuli, as exemplified in the case studies of the subjects in Phase II of the study. Thus both methodologies were appropriate to the level at which the analysis was carried out. Combined methods are also useful for different stages in a project, to compensate for the shortcoming of individual methods, and for triangulation (Barbour 1999). These benefits in relation to the studies described in this thesis are discussed below.

One of the biggest criticisms of qualitative research is the suggestion that the process is under-standardised and relies on the insights and the abilities of the researcher, making the assessment of reliability difficult (Duffy 1985). This problem is confounded by the fact that no researcher can be theory or value free in their approach to their analysis. Inevitably in this research, the researcher carried out the qualitative analysis with 'hunches' influenced by the findings of the quantitative study. However, whilst it is recognised that the analysis was not value free, the examination of a large data set of subjects, prior to embarking on the qualitative analysis, provided the researcher with useful additional insights into the possible pathways leading to death in a subset of these individuals.

In contrast, quantitative research has been criticised for stripping data from its natural context (Corner 1991). In these studies, it was evident during the analysis of Phase I that reducing all the available data into categories that could be quantified often led to an oversimplification of the data. For example, the category of drug user does not distinguish persons who occasionally smoke marijuana from injecting heroin addicts. Further, when data are reduced to individual variables, it is not possible to see how a number of interacting events contributed to an individual's death. This was a distinct advantage of the qualitative phase of the study. As suggested by Goodwin and Goodwin (1984), it added value to the interpretation and context of the quantitative data, and, in particular, it allowed the multiplicity of factors involved in the pathway to violent death to be examined in the context of the environment in which they occurred.

Carrying out a qualitative phase in addition to the quantitative study also provided some triangulation or cross validation of the findings. This kind of triangulation allows the findings of one study to be checked against the findings of the other. For example, the findings of Phase I indicated that drug use was an important factor in many of these deaths, and Phase II confirmed this, demonstrating how different aspects of an individual's drug use contributed to their demise. Thus, each study informed the other and contributed to identifying areas for future research to improve the health experience of young men in Merseyside and further afield. However, it should be noted that, due to the small sample size recruited in to Phase II, it can not be assumed that the risk factors identified are generalisable to all violent deaths among young men in Merseyside.

Advantages and disadvantages of methodology

In order to examine pathways leading to death in a group of individuals it is necessary to collect data retrospectively. In this study, as a result of collecting data through interviews, it was possible to access data that would otherwise have been unavailable through the data available from Coroner's inquest records and health service records. It was also possible to triangulate between the different sources of evidence. For example, respondents' reports of contact with the GP were verified by the GP records.

In relation to the interviews, Brent et al. (1988c) suggested that interviewing between two and six months after the death would result in no consistent difference in the quantity or quality of results obtained. While the researcher endeavoured to interview between two and six months after the death, in practice circumstances sometimes dictated otherwise. Problems included delays in obtaining data from the Coroner, and difficulties in tracing and contacting respondents. It is not possible to estimate directly whether this factor influenced the reliability or the validity of the data in this study. However, triangulation of the data would suggest that the information obtained was reliable.

Further it should be anticipated that there would be some variability in the responses provided by different informants. From a constructionist perspective, it is accepted that there is not one, but rather multiple realities and this may in fact characterise the differing responses that an individual exhibits in differing circumstances. For example, a friend of the deceased would tend to know a lot more about certain aspects of his friend's social life or drug habits than a parent. Thus, while all accounts of an individual may have been accurate from the perspective of the respondent, others may have responded to the same prompt from a different perspective. Therefore, there may be no single objective measurable truth and, despite Beskow et al.'s assertion otherwise (1990b), the relationship of the respondent to the subject did appear to influence the nature of the data acquired. In addition, respondents may potentially have withheld information. For example, problems arising from a subject's relationship with his parents may not necessarily have been alluded to by the parent themselves. Parents would be unlikely to divulge

incidents of child abuse during the subject's childhood. Further, the process of grieving could have influenced disclosure about other factors relating to the death.

There were also differences between cases in the number of respondents that could be traced and interviewed. For a number of subjects, friends and family had often moved on from the addresses given. As a result, some interviews offered a richer data source than others, with regard to certain aspects of an individual's life. That is, some respondents knew the subject very intimately whereas some family members may not have had close contact in the months preceding death. It is possible that those with relatives and friends that could be traced may have been less chaotic in their lifestyle than those whose friends and relatives could not be found creating a potential bias in the study findings.

Further, it is possible that the researcher would have gained richer data if rapport with the interviewee had been built up over time. Using only in depth interviews is seen by ethnographers as being methodologically flawed in that data are too heavily retrospective and importantly, because you cannot supplement it with, or interpret it in the light of, your own observation of the (individual's) natural behaviour in his natural environment (Taylor 1993). This is a valid criticism of such an approach and can only be defended because, in this case, it was not possible to observe the individual concerned. Given this dilemma, to increase the reliability of the study, it would have been useful to have had two researchers analysing the data so that the findings of the study could be compared. Since this was not possible, it is recommended that similar studies be repeated to see if the same results are obtained.

Another factor influencing the quality of the data was related to the finding that these men were unwilling or unable to share their problems with others. Individuals often did not talk to those closest to them about the issues that troubled them most and respondents could at times only guess at what was worrying an individual. However, this may be an issue when carrying out any research involving men as a number of studies have highlighted that men appear to be less willing than women to share confidences (Courtenay 2000a). Furthermore, there is nothing to suggest that even, if the individuals themselves had been interviewed prior to the death, they would have been any more likely to disclose their problems to the researcher. Finally, in this study, because of the chaotic nature of the drug users lives, it wasn't possible to be confident that the researcher was interviewing a subject's closest friends, since it was more common for non-drug users to be available and willing to be interviewed.

15.2 Study findings in relation to risk taking and self-destructive behaviour

While risk taking and self-destructive behaviour is associated with the behaviour of young men in general, it is only a minority whose risk taking and self-destructive behaviour leads to death. From this viewpoint then, these men may offer the extreme in terms of masculine risk taking and self-destructive behaviours. This makes them a useful group to examine in the study of masculinities. This study

tested the hypothesis that young men who die due to accidents and suicides in Liverpool do so as a result of following a common pathway of risk taking and self-destructive behaviours, which is related to the ways in which they construct their masculinities.

In addition, themes associated with these deaths were identified from the data. The Phase II narratives suggest that the majority of cases constructed one of two main pathways relating to risk taking and self-destructive behaviour, with two exceptions. The cases therefore fell into three main clusters. The first cluster included drug users who exhibited protest masculinity and whose behaviour was so self-destructive that it led to death, but showed no evidence of intention; the second cluster, included suicidal men who perceived themselves as failing in the most fundamental areas of complicit hegemony, such as the workplace and relationships with women; and the final cluster in which there was no reported pathway of risk taking or self-destruction.

Courtenay (2000) suggests that many working class masculinities require the dismissal of fear and feats of physical endurance and strength that often put these men at risk of injury and death. Men with their masculine identity and self esteem undermined by their subordinated position in relation to higher status males, have the greatest need to use other resources including risking injury and death, in a variety of ways. Messerschmidt (2000) refers to this as a display of oppositional masculinities, which is a way of attempting to break away from hegemonic forms of masculinities and many of the first cluster had demonstrated this type of masculinity by the time they had reached their teenage years.

A further pattern emerged from the qualitative data of specific aspects of behaviour that contributed to the poor life choices and eventual death of these young men. Among the first cluster, drug abuse appeared to become a means of masculine group identification and to provide a purpose in a purposeless existence; and recent theory development would support such a view (Anderson 1998). In contrast, the young men among Cluster two were unable to constructively deal with their feelings of failure and inferiority. Thus, there were a range of masculinities that were constructed by the men in this study, which were contextually appropriate to an individual's position, resources and environment.

Whilst Holinger is probably correct in asserting that deaths due to suicide and accidents result from elements of self-destructive behaviour, it appears from this study that the cluster of deaths due to risk taking and the cluster of deaths resulting from suicidal tendencies, appear to differ by intention, which is commonly considered to be the difference between suicide and accidental death. Cluster one was self-destructive because they took large risks, whereas Cluster two was self-destructive because they wanted to end their lives. It is possible then, that there is not a continuum of self-destructive behaviour, as suggested in previous studies (Selzer and Payne 1962, McDonald 1964, Pokorny et al 1972, Schmidt et al 1977, Holinger 1981).

However, there is another possible explanation for the findings. Freud (1960, 2nd Ed.) suggested that there was such a thing as half-intentional self-destruction, which he defined as self-destruction with an unconscious intention. There were cases among Cluster one, who had previously attempted suicide, although there was no evidence of intention at the time of their deaths. Thus, whilst informants and other data did not suggest that the cases in Cluster one had any unconscious intention to die, it is not possible to be completely confident of an individual's motives retrospectively, and there is some evidence that there is, in fact, a high suicide risk among drug users (Rossow and Lauritzens 1999). It could be suggested then, that the clusters only differed in terms of the amount of responsibility acknowledged by an individual for their self-destruction, as suggested by Menninger (1938) and Farberow (1979).

Drug use, and its associated behaviours, such as crime, could be described as a risk taking behaviour in itself. As Connors (1992) notes, both addiction and the illegal nature of intravenous drug use requires members of this subculture to take an inordinate amount of risks in order to maintain their drug habit. On a daily basis, they generally risk arrest, overdose, and becoming victims of theft, violence and illnesses related to drug use. It certainly appears, as Jessor and Jessor (1975) suggested, that risk taking generally forms part of a constellation of risk taking behaviours. This was reflected among the individuals in Cluster one. It appears also that, as risk takers, these individuals were vulnerable to drug use, rather than that drug use prompted their risky behaviour, since many of them had been described as risk takers prior to them embarking on their drug using careers. Another possibility is that antecedents to risk taking, such as poverty and unemployment, for example, are also antecedents to drug use.

The findings of this study suggest that further research is needed to examine why some men are prepared to go to extremes of risking injury and death, in the construction of their masculinities. A qualitative study which examined the risk behaviours of marginalised men would provide more insight into the motivations behind these risk-taking behaviours and inform policy development to minimise the health consequences of risk behaviour among young men.

15.3 Connell's theory

Connell attempts to locate masculinities within the larger social framework in which they are constructed (Connell 1987,1999). This study offers a representation of the ways that a particular group of young men constructed their masculinities and how this influenced their health behaviours. It is therefore a useful starting point for developing population based policies aimed at improving health among men. In particular, it has highlighted the need for policies that reduce inequalities among men; and also the need to reduce inequalities in society in general. One of the main axes of public health practice is the reduction of inequalities to improve health. This is already part of our national strategy to improve the health of the population

(Department of Health 1999c), although it is not explicitly related to violent death among young men.

In addition, the concept of social exclusion, which is common to much public health policy, resonates strongly with Connell's notion of marginalisation. Social exclusion refers not only to the economic hardship of relative economic poverty, but also incorporates the notion of the *process* of marginalisation, that is, how individuals come, through their lives, to be excluded and marginalised from various aspects of social and community life (Shaw 1999). Connell's theory provides a useful framework for understanding such a process.

These accounts also illustrate that there is not one type of masculinity, rather there is a range of possible masculinities (Jefferson 1994). Despite this fact, it appears that in general, the possible constructions of those masculinities are fairly limited. This is not to suggest there are fixed masculinities, rather that the behaviours open to these men followed a rigid code, and the (social) penalty for stepping outside that code would have been considerable. This may be one reason why some men perceive themselves as failing because they feel they are unable to live up to what they feel is appropriate masculine behaviour. For these men, they could either use self-destructive behaviour to play out their masculinities or they could use it to escape from perceived failure and inadequacy as a man.

Further, the Phase II data suggest that the absence of help seeking behaviour was an important factor in the demise of these young men; and that close relatives and friends were often not aware of the extent of an individual's problems. These findings reflect the few published studies that have examined help seeking behaviour among young men. Corney (1990) found, in a study of attendance in general practice, that although the presence of physical symptoms was predictive of more frequent consultation in both men and women, the presence of psychosocial problems or distress was predictive of consultation behaviour in women but not men. Women also had more confidantes and divulged more personal information than men. Moller-Leimkuhler (2000) argues that it is the social norms of traditional masculinity that make this help seeking more difficult for men, and indeed there is evidence of an association between rigid traditional masculine role identity and men's experience of depression (Heifner 1997). If men are unlikely to engage in help seeking behaviour, it is possible that services may need to be more imaginative about the range of ways that men are able to access health care.

It is suggested that a review of related research, that examines the effectiveness of services that have been tailored to specific client groups may provide some useful suggestions for tailoring services to meet the needs of distressed young men. Clearly more research is needed in order to examine this important issue further, in a broader context than can be provided by the studies reported in this thesis.

15.4 The Coroners' verdicts

In Cluster one, nine cases had accident verdicts, one case had an open verdict and one had a verdict of drug dependence. As was explained earlier in Chapter thirteen, the open verdict was given because the body had been found in an advanced, decomposed state, so therefore it was not possible to accurately ascertain the cause of death. The Coroner has no official guidelines on what constitutes an accidental death (Matthews and Foreman 1986). Hence, Coroners have been responsible for categorising deaths according to their own subjective view of what constitutes an accident. The verdict of drug dependence, however, could have been applied to at least a further six cases in this cluster, as there was clear evidence of drug dependency. This illustrates the arbitrary nature in which the verdict of drug dependency is used.

Among Cluster two, there was clear evidence of intention among the cases, but less homogeneity among the verdicts. Four cases received a verdict of suicide, four cases received an open verdict and two received a verdict of accidental death. Open verdicts were common among the deaths that resulted from an overdose. This is unsurprising since the literature and also Phase I of this study suggest that the method of death is an important influence on the Coroner's choice of verdict and that active methods of death are more likely to receive a verdict of suicide (Platt et al. 1988, Cooper and Milroy 1995, Salib 1996). Whilst it is understood that the Coroner cannot give a verdict of suicide unless the evidence shows that the death was intentional beyond all reasonable doubt, the two cases of accidental death were confusing. In one case, an in-patient suffering with schizophrenia, was witnessed deliberately running in front of an HGV vehicle. It is possible that there is an assumption that individuals with depression (neurosis) can be responsible for their actions whereas individuals with other types of mental illness (psychosis) often cannot. The other case was an alcoholic who took an overdose. He had made several previous suicide attempts and told his father that it was his ambition to have a successful overdose, so there seemed to be strong evidence that the overdose was not an accident. This supports the hypothesis that suicide and self-destructive behaviour is not limited to suicide and open verdicts alone. Rather, a study incorporating accidents as well as suicide and open verdicts is necessary to identify all deaths where an individual deliberately took their own life. As has been suggested, national suicide prevention strategies cannot be properly audited unless improved procedures are put in place to increase the validity and reliability of the official suicide figures (Kelleher et al. 1996).

Chapter 16 Conclusion

16.1 Methodology

The advantages and disadvantages of the methods employed in these studies have been discussed at length in the previous two chapters. Examining a cause of death that is relatively rare, such as accidents and suicides among young men, is most pragmatically carried out using retrospective methods. The methodologies in these studies offered a rich data source with which to examine factors relating to these deaths. Nevertheless, there were also limitations, the greatest being that it was not possible to obtain primary data from the subjects themselves. Therefore, the studies were restricted to examining data that was available from secondary sources. Despite these limitations, the studies have led to the discovery of new research findings in relation to suicide and accidental death among young men, and have also informed recommendations for future research.

Further, the methodology employed two study designs that were clearly complementary to each other. Whilst Phase I identified common and distinguishing factors in relation to suicide and accidents among a cohort of deaths, the methods employed did not allow examination of these associations in more depth. In contrast, although Phase II examined only a small sample of these deaths, it enabled the researcher to describe the context of these factors and to demonstrate how they interacted, to contribute to a downward spiral of risk taking and self-destructive behaviour.

16.2 Implications for primary prevention

During the period of time that this research has been undertaken, there has been an increasing awareness of men's health issues and also a growing recognition in the academic literature (see Chapter six) that the construction of gender is an important influence, not only on the health of women, but also on the health of men.

It is twenty years since Holinger (1981) stated that we would not begin to develop effective strategies capable of improving men's health until we began to understand the reasons for men's self-destructive behaviour. Finally, it seems that national policy makers may now be cognisant of the need to do so. In March 2001, in response to the recent increases in suicide rates among young men, the Government announced a new all party Men's Health Committee to examine recent trends in the health of young men (Men's Health Forum 2001). The remit of the committee is, as yet unclear, but at the least it should offer a channel through which to advance the development of national policies aimed at promoting the health of young men.

The findings of these studies suggest that risk taking and self-destructive behaviour and in particular, drug and alcohol use, are important predisposing factors to violent

death. Also, Phase II suggests that there are two different approaches to self-destructive behaviour among young men and that the motivation behind these two behaviours is not necessarily the same. Risk taking and self-destructiveness, motivated by protest masculinity, will only be reduced if young men, particularly those among marginalised groups, are given other 'safer' options for risk taking. In contrast, self-destructiveness arising from depression and perceptions of failure may only be reduced if young men can be encouraged to accept both formal and informal support, in order to deal appropriately with suicidal feelings.

However, despite the recent advances in evidence based health promotion, still very little is known about how to effectively promote health among young men. More research is needed to investigate the motivations behind these behaviours. This will inform the development of effective health promotion interventions that facilitate ways in which young men can moderate the risks that they take, and encourage young men to seek help before they begin to behave in ways that are destructive. A greater understanding is also needed of the ways in which young men make decisions about the risks they take in relation to any kind of potentially lethal activity, such as reckless driving and drug use. In relation to masculinities, more research is needed to explore their impact on men's health in more depth, and in particular, a more detailed examination is needed of the ways in which differing constructions of masculinities generate distinctly different health behaviours.

Unemployment and marginalisation also appear to be important predisposing factors in these deaths. In addition to supporting policies that reduce social inequalities, a better understanding of the risk factors for violent death, which are linked with poverty and those protective factors associated with higher socio-economic status, would be useful in developing more effective health promotion strategies. Reducing inequalities is already part of the National Public Health Strategy 'Our Healthier Nation' (Department of Health 1999c), but inequalities may be particularly pertinent as a contributory factor to violent death among young men and this is not specifically addressed in the strategy. The reduction of inequalities between men may be the most effective way of improving the health of the poorest and most marginalised males.

From both Phase I and Phase II of the study, there is also evidence to support the hypothesis that many violent deaths result, not from isolated episodes of risk behaviours, but from a constellation of risk behaviours, as predicted by Jessor (1984). This suggests that there may be a small group of young men at high risk and lends support for targeted health promotion interventions aimed at marginalised groups of young men. The Independent Inquiry into Inequalities in Health (Acheson 1998) supports such a view and suggests that policies which decrease socio-economic inequalities will have a differential effect by decreasing mortality, particularly among disadvantaged men. The report recommends that policies are developed which increase opportunities for employment, improve housing and access to health care, and address alcohol related ill health, accidents and violence.

Further, given that there is already a large literature on health inequalities (Marmot and Wilkinson 1999), it would be useful to examine how current knowledge relating to other marginalised groups could be adapted to inform policies to reduce the social inequalities experienced by marginalised young men. Much of the literature suggests broad policy measures, such as the pursuit of economic policies that lead to greater economic equality and a redistribution of wealth to improve the health of those who are worst off (Wilkinson 1996). In addition, more focused local measures, such as increased access to educational, training and employment packages; removal of barriers to access services; adequate follow up for those leaving institutional care; housing policies that provide enough affordable housing of a reasonable standard; and employment policies that aim to preserve and create jobs (Shaw 1999), would go along way to address many of the issues raised in these studies.

16.3 Implications for secondary prevention

16.3.1 Primary Care

These studies support the hypothesis suggested in previous research, that many young men are reluctant to use health services (Courtenay 2000a). To date, there has been little literature published on needs assessment for young men in relation to the provision of primary care services. Whilst any group who are not regular service users present challenges to needs assessment, methodologies for assessing need in primary care among hard to reach groups are available (Gabbay and Gabbay 1997). Although there are no methodologies as yet, which are specific to young men, current methods could easily be adapted for this purpose.

Tudiver and Talbot (1999) suggest that an in depth understanding of the patterns of men's use of primary care services is needed before we can determine if changing provision of primary care services would have a positive impact on men's health. However, the paucity of research in this area means that little is known about how effective different policies would be at increasing men's engagement in health services or, indeed, whether health services could offer effective treatment and support if these men could be encouraged to engage with services. Cognitive therapy is known to be effective in some patients with depression and such non-pharmacological interventions should always be considered (Effective Health Care 1993). However, few psychosocial techniques are available for health professionals who work with men in health care settings (Courtenay 1998a). More recently, consideration has been given to practices appropriate to counselling men in the United States (Brooks and Good 2001), but more work is needed to build on these early developments. Counselling services tailored specifically towards the needs of young men are still needed in the UK and, in addition, techniques being developed for use with men need to be evaluated to assess their effectiveness.

In addition, training for primary care staff on young men's health issues, risk assessment, available health resources for young men and appropriate referral would

contribute to improving the nature and accessibility of services from the perspective of young men themselves. Young men should also be made aware of existing services, what these services offer, and how they can be accessed.

In relation to suicide prevention, a number of studies have made recommendations to improve primary care services for the suicidal. Research to date suggests improved risk assessment (Appleby et al. 1996), active engagement of GP's in suicide prevention strategies (Milton et al.1999), improved training for primary care professionals (Rutz et al. 1992, Rihmer et al. 1995, Pfaff et al. 2001) and improved diagnosis and treatment of mental illness among young men (Haste et al. 1998). GP practices are also well placed to assess those who are at high risk of mortality through drug use, since primary care may have specific knowledge of family and domestic circumstances, and may regularly assess drug users' health and behaviour. The Advisory Council for the Misuse of Drugs (ACMD) report (2000) suggests that where there is an indication of chaotic drug use, or repeated presentation without resolution of the problem, there are several ways primary care could respond. This could include, assessing if the prescribed level of drug is appropriate, looking for the presence of additional diagnoses such as depression which might require specialist referral, and being alert to the possibility of an individual using additional street drugs for example.

Routine review of opiate related deaths at district level would also assist in highlighting any potential preventive local factors, both within specialised drug dependency units and within primary care. Currently, shared care services are being established in Liverpool, which should contribute to ensuring increased resources and support for treating habitual drug users in primary care settings.

16.3.2 Implications for secondary care

Accident and Emergency (A and E) departments are also well placed to offer a preventive role in relation to risk taking, deliberate self-harm and violent death among young men. Many of the young men in this study had attended A and E, often with mental health problems. Effective forms of health promotion could be initiated by identifying high risk individuals who have contact with A and E. Those having accidents arising from insidious self-destructive behaviour or suffering from depression may benefit from referral to other services, such as drug and alcohol clinics and psychiatric care. In this situation, A and E are well placed to refer on, where appropriate, to inform the GP of the incident, and to provide information to drug users on local contact information to obtain help for drug use problems (ACMD 2000).

16.4 The Coroner and the death registration process

More detailed guidelines on the recording of data at both post mortem and inquest are needed to encourage more consistent practice and to provide better quality data for research and audit. GP records should be consulted routinely during the inquest to ensure that important information is not overlooked when establishing a verdict. In addition, guidelines on the recording of ethnicity at post mortem would enable monitoring of ethnicity of individuals.

Further, guidelines on the use of accident and misadventure verdicts need to be revised, and either there should be a clear and distinct definition for these two different verdicts, which should not be dependent only on cause of death, but also on evidence that the individual concerned contributed to their own demise, or the distinction should not be made at all. As it currently stands, a difference that is stated 'not to exist in practice' (Matthews and Foreman 1986) creates contradictory practices between different Coroners.

These studies have also highlighted the difficulties inherent in identifying drug related deaths. The ACMD report (ACMD 2000) suggests that an additional section is added to the current death certificate inviting recording of any relevant information on causal involvement of substance misuse in the death. This would enable drug related deaths to be identified more accurately from the data supplied to The Office of National Statistics, and would contribute to the development of a more consistent method of recording deaths where drug use was known to have been a contributory factor.

In summary, this research has highlighted the growing problem of violent death among young men and has identified both common and distinguishing factors to accidents and suicide, many of which may be amenable to prevention. In particular, risk taking and self-destructive behaviour, especially among marginalised young men, are important contributory factors and appear to be related to the ways in which young men construct their masculinities. More research is needed to identify how these findings can inform policy development to promote the health of young men, both in Merseyside and further afield. Specifically, evidence based health promotion and health service policies are needed which moderate the influence of risk taking and self-destructive behaviours. These policies need to take into account the impact of gender and social inequalities on health behaviours if they are to successfully promote the health of young men. In particular, it is recommended that the policies address the health needs of those young men who are marginalised and at highest risk of violent death.

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Appendix 1 – Letter to relatives

Debbie Stanistreet
0151-794-5583

Dear ,

I am writing to ask you if you would feel able to help us in an important study that the Regional Health Authority is undertaking in conjunction with Liverpool University, The Injury and Poisoning Study, to try to learn more about the reasons why young men in the area are dying.

Part of this study involves recruiting the relatives of a number of young men, in order to act as a comparison group within the research. We would be most grateful if you felt able to take part in this study by spending some time talking to us about your relative_____.

This is important, for the more people that do take part, the more accurate the study will be, and the more we may be able to reduce the risk of young men dying in this area.

One question people ask when asked to take part in a study like this is whether their privacy will be respected. We can assure you that everything you tell us will be completely confidential.

The questions we wish to ask will cover details about health in the recent and more distant past. But as health is influenced by many sides of our lives - our work, our housing and our style of living, we shall also ask about these topics too.

There is no need to answer this letter. Over the next few days, we will call on you and try to arrange a convenient time for interview. We hope you will feel able to help us, however, should you feel you would rather not take part, please phone the number at the top of this letter to let us know and we will not contact you any further.

Yours sincerely,

Debbie Stanistreet
(Research Associate)

Appendix 2 – Consent form

Injury and Poisoning Study[15]

Consent form

I .....

Of

.....

.....

.....

.....

have had the above study, being carried out by the Department of Public Health at the University of Liverpool explained to me, and I agree to be interviewed as part of the study. I understand that the interview will be treated in the strictest confidence and that no individuals will be named in any report produced as a result of the study.

Signature of respondent .....

Signature of interviewer .....

[15] Title given to the study during data collection

Appendix 3 –Outline of interview schedule

Structured interview section.

1) Where was X born?
2) Can you tell me about the different homes he lived in up until the time he died?
(Record type of house / area / whether owned or rented and by whom/ how long deceased lived in each house).
3) Where did X go to school?
4) What qualifications did he attain at school?
5) Did he take any other exams and courses after he finished school?
6) If yes, what? (state any qualifications received)
7) How much money did X have to live on at the time of his death?
8) How did he obtain this money?
9) Did he receive any state benefits at all?
10) If yes, what benefits did he receive?
11) Can you tell me about the different jobs that x had in his lifetime?
(Record job title / salary / length of time employed/ reason for leaving).
12) Can you tell me who X was living with at the time of his death?
13) Who else did he live with during his lifetime? (State relationship)
14) Did X have any children?
15) How often would he have seen his children?
16) Did X suffer any illnesses during his lifetime?
17) If yes, did he receive any treatment for them?
State service used and treatment given
18) How much would X normally drink during a week? (units)
19) How many days a week would he drink? (state pattern)
20) Did X use drugs at all?
21) If yes, what drugs would he use and how often?
22) If yes was he in contact with drug services?
23) If yes which services did he use?
Was X ever in trouble with the police?
24) If yes, can you tell me about that?
(Record crime committed / penalty given / any time spent in prison)

Semi-structured interview section

This section used the following questions as initial prompts, and also explored in more detail any information given in the structured section of the interview.

Can you tell me about X's childhood?

Did X ever do anything that you would consider dangerous?
If yes, what kind of things did he do?

Would you describe X as a risk taker?
Why would you describe / not describe him as a risk taker?
Can you give some examples?

Would you describe him as self-destructive?
If yes, can you give some examples?

What were the important relationships in X's life?
Can you tell me about them?
Can you tell me about X's relationship with his children (if appropriate)?

What kind of things do you think were important to X?
What would X say were the most important events in his life?
What event would you say caused him the most distress? Can you tell me about this?
Do you think X was satisfied with his life? Why?

Can you tell me about the events leading up to his death?
Can you tell me about how X started using / drugs / drinking excessively?

What things do you think contributed to X dying?
Is there anything anyone could have done that might have prevented him from dying?
Can you tell me about that?

Is there anything else that you feel is important that you would like to tell me?

Appendix 4 – Letters of ethical approval

P.O. Box 41
1829 Building
Countess of Chester Hospital
Liverpool Road
Chester CH2 1DT
Tel: Chester (0244) 365000 (Switchboard)
Fax: Chester (0244) 364430
BT Gold Mailbox No. 75: NHS 2750

If telephoning please call (direct dial)

Miss A Casey - 364419

Chester Health Authority

Our Ref: EAC/E3

Your Ref:

Date: 22 June 1993

Dr J Ashton
Head of Department of Public Health
The University of Liverpool
Whelan Building
PO Box 147
LIVERPOOL L69 3BX

Dear Dr Ashton

PREMATURE DEATH IN THE MERSEY REGION IN MALES AGE 15-39

I refer to my letter dated 17 May 1993.

The District Research and Ethics Committee considered your protocol at its meeting held on 15 June 1993, and confirmed my Chairman's approval.

As the Committee has a role to play in monitoring the progress of applications, I should be grateful to receive a report or copy of any published paper in due course.

May I wish you every success with the study.

Yours sincerely

Dr N V Fergusson

Dr N V Fergusson
Chairman
Research and Ethics Committee

EAST CHESHIRE NHS TRUST

Trust HQ, Macclesfield District General Hospital, Victoria Road, Macclesfield, SK10 3BL
Telephone (0625) 421000 Facsimile: (0625) 661644
If Telephoning or Calling please ask for:

Mrs T A Foye Ext: 1940

Ms Janet Ubido
Research Worker
Public Health Observatory
University of Liverpool
PO Box 147
LIVERPOOL L39 6BX

14 January 1994

Dear Ms Ubido

PREMATURE DEATH IN THE MERSEY REGION IN MALES AGED 15-39

I am pleased to inform you that at its meeting held on the 13 January 1993 the East Cheshire NHS Trust Research Ethics Committee approved the above research protocol.

I should be grateful to receive some feedback on the results of the research.

Yours sincerely

Stanley J Blenkinsop
Chairman

HALTON
GENERAL·HOSPITAL
NHS TRUST

Hospital Way
Runcorn
Cheshire
WA7 2DA
Tel: Runcorn
(0928) 714567

Our Ref:
Your Ref: GA/MC
Please ask for

1 June 1993

Dr John Ashton
The University of Liverpool
Department of Public Health
Whelan Building
P.O.Box 147
Liverpool L69 3BX

Dear Dr Ashton

PREMATURE DEATH IN THE MERSEY REGION IN MALES AGED 15 - 39

Thank you for your application to the Ethical Committee to carry out the above study. I am pleased to be able to tell you that at the meeting on the 24 May 1993 ethical approval was given for the study to proceed.

Yours sincerely

G. Archer

MRS G ARCHER
CHAIRMAN
HALTON LOCAL RESEARCH ETHICAL COMMITTEE

THOMAS DRIVE
LIVERPOOL
L14 3LB

Tel: 0151 228 4878
Fax: 0151 254 2070

9th February 1995

Our Ref: AMF/JE/C8/30

Ext 3375

Miss D Stanistreet
RGN DPSN BA (Hons) MPH
Research Associate
Dept of Public Health
University of Liverpool
PO Box 147
LIVERPOOL L69 3BX

Dear Miss Stanistreet

RE: A CASE CONTROL STUDY INVESTIGATING INJURY AND POISONING DEATHS AMONG YOUNG MEN AGED 15-39 YEARS IN MERSEY REGION

Your submission for Ethical approval was considered in detail at the meeting of Broadgreen Research Ethics Committee on Tuesday 17th January 1995. I am writing to inform you that it was approved without amendment.

On behalf of the Research Ethics Committee I wish you every success with this project and hope that you will keep us informed of its progress as we are required to present an Annual Report of our activities to the Health Authority.

Yours sincerely

Anne M Florence

DR A M FLORENCE
CHAIRMAN
RESEARCH ETHICS COMMITTEE

cc Professor J Ashton, Regional Director of Public Health, North West Regional Health Authority

Royal Liverpool University Hospital

PRESCOT STREET LIVERPOOL L7 8XP TEL: 051-706 2000 FAX: 051-706 5806

Your Ref:

Our Ref: GMB/ARM/93/6

If telephoning please ask for: 3158

Please quote our reference

28th April 1993

Dr. J. Ashton, Mrs. J. Ubido,
Department of Public Health,
University of Liverpool,
Whelan Building,
P.O. Box 147,
Liverpool,
L69 3BX.

Dear Dr. Ashton and Mrs. Ubido,

PREMATURE DEATH IN THE MERSEY REGION IN MALES AGED 15-39

Thank you for your letter of 21st April 1993. The Ethics Committee formally approves the abovementioned protocol.

Yours sincerely,

G. M. Bell,
Chairman, Ethics Committee

Mid Cheshire Hospitals

Leighton Hospital
Middlewich Road
Crewe
Cheshire
CW1 4QJ

Tel: (0270) 255141
Fax: (0270) 587696

Our Ref: APJT/VJL

26th January 1995

Ms Debbie Stanistreet
Research Associate
Department of Public Health
Whelan Building
PO Box 147
Liverpool L69 3BX

Dear Ms Stanistreet

RE: **A case control study investigating injury and poisoning deaths among young men aged 15 - 39 years in Mersey Region**

As you are aware the above protocol was submitted to the Local Research Ethics Committee on 18th January. The following were requested before further consideration can be given:

i. Letter to relatives - delete part of sentence stating 'and no names etc';

ii. Letter to controls required requesting consent for relatives to be interviewed and for controls to be made aware that their GP notes will be perused;

iii. Letter to relatives of control;

iv. Assurances that letters will be personalised;

v. Second graph - amend first age group to read 15 - 24.

Yours sincerely

DR ALISTAIR THOMSON
Chairman
Local Research Ethics Committee

Fazakerley Hospital,
Lower Lane,
Liverpool, L9 7AL.
Tel. 051 525 5980
Fax. 051 529 3239

Aintree Hospitals

:e quote our reference in reply)

Ref. LA/EC.136.93

When telephoning or calling please ask for

.....

Ref.

16th December 1993

Prof.John Ashton,
Regional Director of Public Health,
Public Health Observatory,
University of Liverpool,
Whelan Building, P.O.Box147,
Liverpool L69 3BX

Dear Professor Ashton,

EC.136.93] PREMATURE DEATH IN THE MERSEY REGION

Thank you for your letter of 30th November 1993 together with details of your nteresting research protocol which was discussed at the meeting of our Ethics Committee last night. I am sorry that your original submission did not reach me but I am now pleased to tell you that the project has been APPROVED, with a proviso that you will comply with the requirements of the Data Protection Act and ensure that your data is kept strictly anonymous.

Approval is granted for a period of eighteen months, at which time it can be renewed upon application to the Committee. In the meantime, if there are any changes or deviations from the documents approved by the Committee, please let me know.

The Committee wishes you success with your study and has requested sight of your final report, in due course.

Yours sincerely,

Dr.F.J.Nye
Chairman
South Sefton Research Ethics Committee

St H&K HOSPITALS

St Helens and Knowsley Hospitals

A National Health Service Trust
Whiston Hospital
Prescot
Merseyside L35 5DR
Tel: 051 426 1600

Our Ref: NEW/AP

When telephoning please ask for: MRS A POWELL - EXT. 1592

Your Ref:

7 June, 1993

Dr J Ashton, Mrs J Ubido
Department of Public Health
The University of Liverpool
Whelan Building
P.O. Box 147
LIVERPOOL L69 3BX

Dear Dr Aston and Mrs Ubido

PREMATURE DEATH IN THE MERSEY REGION IN MALES AGED 15-39

Thank you for submitting the above protocol to the St Helens and Knowsley Local Research Committee. This protocol was thoroughly discussed at the meeting held on the 27 May, 1993 and as no ethical objections were found full approval was granted.

Please find enclosed a list of the LREC Members for you information.

The Committee wish you well with this study and will be interested to hear your results in due course.

Yours sincerely

N E WILLIAMS
Chairman
Local Research Ethical Committee

Enc

—NHS—

HOSPITAL
—TRUST—

Our Ref: NBK/AF/125

4 June 1993

Dr J Ashton/Mrs J Ubido
Department of Public Health
Whelan Building
P O Box 147
LIVERPOOL
L69 3BX

Dear Dr Ashton and Mrs Ubido

RESEARCH PROTOCOL 125 PREMATURE DEATH IN THE MERSEY REGION IN MALES AGED 15-39

The Local Research Ethics Committee has had time to consider your protocol for your study and no objections have been raised. I have pleasure in granting you permission to proceed.

Yours sincerely

N B KIRKLAND
Chairman
Local Research Ethics Committee

SOUTHPORT AND FORMBY NATIONAL HEALTH SERVICE TRUST
DISTRICT GENERAL HOSPITAL, TOWN LANE, KEW, SOUTHPORT, MERSEYSIDE PR8 6NJ
TEL: (0704) 547471 FAX: (0704) 548229

Warrington Health Authority

Chairman: D. Hannah B.Eng

CHIEF EXECUTIVE: G.A. GREENWOOD, IPFA, MHSM, MBIM

If telephoning or calling please ask for:-

Mrs. G. R. Neill, Ext 3009

Winwick Hospital,
Winwick,
WARRINGTON
WA2 8RR

Tel. Warrington 55221

Our ref. GRN/LAL

Your ref:

13th July, 1993

Dr. J. Ashton,
Head of Department of Public Health,
The University of Liverpool,
Whelan Building,
PO Box 147,
LIVERPOOL. L69 3BX

Dear Dr. Ashton,

I write in reply to your letter of 10th May 1993 enclosing the protocol of a research proposal on premature death in the Mersey Region of men aged 15-39 and confirm that I am happy to take Chairman's action and approve the study to go ahead.

Yours sincerely,

D. PEARSON.
Chairman -
District Ethics Committee.

DISTRICT HEADQUARTERS

When telephoning or calling please ask for

Clatterbridge Hospital
Clatterbridge Road
Bebington, Wirral
Merseyside L63 4JY
Telephone: 051-334-0181

WIRRAL
HEALTH
AUTHORITY

Please quote our reference in reply

Our ref

Your ref

DISTRICT ETHICS COMMITTEE

ETHICAL APPROVAL

On behalf of the Wirral District Ethics Committee, I certify that the Protocol for the undermentioned study has been revised and approved for Dr J Ashton, Department of Public Health, University of Liverpool.

Protocol No.45/93 : Premature Death in The Mersey Region in Males aged 15 - 39 : Submitted by Dr J Ashton and Mrs J Ubido, Public Health Department, University of Liverpool.

Signed.....
Chairman, District Ethics Committee

Date.....9 June 1993.....

DEC2