CHAPTER THREE

THE EXTENT AND NATURE OF SUICIDE

3.1 DATA COLLECTION - SUICIDE AND ATTEMPTED SUICIDE

The submission from the New South Wales Health Department advises that death data generally, are derived from the Form of Information of Death and the medical certificate. The cause of death is certified by a registered medical practitioner or the Coroner (Submission, 42). Crowe (1994:2) states that

> *statistics on deaths from suicide have been compiled by the Australian Bureau of Statistics (ABS) for many years as part of its Cause of Death collection. The source of data are deaths registered by the Registrar of Births, Deaths and Marriages in each of the States/Territories. The ABS is the agency responsible for coding the causes of death for each of the States/Territories and releasing both State specific and national data mortality from this data source.*

However, because society's understanding of suicide is incomplete, an expert witness has indicated to the Committee that

> *we need a better database and better information about what is going on... there is no centralised database for suicide collection in Australia and the National Medical Research Council working party on suicide has been at pains to emphasise that we need such a centralised data collection process* (Dudley Evidence, 10 February, 1994).

Further evidence and submissions to the Committee have supported this view.

In his address to the National Conference on Suicide Prevention in February 1994, Associate Professor Pierre Baume indicated that specific data collection at a national level for both suicide and attempted suicide is critical to the effectiveness of a national policy on suicide prevention.

The Committee's investigations have revealed that it is very difficult to calculate rates of attempted suicides. According to Baume (1994:6),

> *metaphorically, completed suicides are just the tip of the self-destructive iceberg, we need also to consider attempted suicide... Although various attempts have been made to define accurately the incidence of suicide in Australia, the same cannot be said about*

> *attempted suicide. There is a paucity of data on the rate of attempted suicide in Australia, not only because distinguishing intentional from unintentional death is inordinately difficult, but also because no register exists at this time to provide accurate data.*

For New South Wales specifically, the NSW Department of Health has acknowledged that the extent to which people attempt suicide is less discernible than those who complete (1993a:2). The Department estimate that generally "between 20 and 100 attempts are made for each completed suicide" (1993a:2).

Burnley (1994:303) further observes that the rate of attempted suicide in New South Wales,

> ***especially (among) women** is much higher [than completed suicide], and one factor in the large sex difference may be that women and men use different means of attempting suicide, with women having more chance of recovery* (emphasis added).

The Committee's investigations show that this is largely the case for both rural and urban areas.

The Committee understands that there are a number of reasons why attempted suicides may be under-recorded and why hospital data may vary from estimates. These are that:

- *patients do not always disclose that injuries were intended;*
- *many attempts do not result in injuries which require in-patient medical and nursing care;*
- *many presentations are to out-patient mental health services and some of the latter presentations may be some time after the actual suicide attempt; [and]*
- *some attempted suicides never come to the attention of health authorities* (NSW Health, 1993a:2)

It appears that compounding the problem of effective data collection is that "suicide and attempted suicide are reported on a less formal basis in a number of areas" (NSW Health, Submission 42).

In an effort to address the problems associated with the collection of attempted suicide statistics, the Committee has been informed that within 18 months (from April 1994) a standardised Accident and Emergency dataset will be introduced into

hospitals in New South Wales. The dataset will also include a code for suicide ideation and an injury surveillance dataset for injury, poisoning and trauma presentations with an intent field in the coding (NSW Health Department, Submission 42). The Committee hopes that the implementation of this dataset will significantly improve the collection of attempted suicide information and go some way to assist in an understanding of the causes of this event. The National Injury Surveillance Unit in Adelaide also incorporates data from those hospitals that collect data on injury presentations at their Emergency Departments, offering a further information base.

The Department of Health has further reported that submissions are being considered to pilot attempted suicide surveillance in at least one rural region of New South Wales (Submission 42).

Given that one of the major identifiable risk factors to a completed suicide is a previous attempt, the Committee considers that any person presenting to a hospital or other health facility with self-inflicted injuries must be properly assessed and referred as soon as possible to appropriate treatment and counselling. There should also be follow-up. This naturally raises the issue of hospital and other relevant health personnel being appropriately trained in suicide risk identification and intervention. These issues are addressed in Chapter Five.

Whilst supporting the Department of Health initiatives to improve attempted suicide data collection, the Committee also considers, and will highlight further in Chapter Four, that attempted and completed suicide are such serious events of themselves, that they require both national and state attention. As such, it considers that there is a need for a specific data and research facility at the national level that would work collaboratively with states in the collation and analysis of suicide and attempted suicide statistics.

Accordingly, it supports the proposal put forward in the Outline of the National Health and Medical Research Council Draft National Strategy for the Prevention of Suicide (1994:2) for the development of

> *a national data base concerning the patterns and prevalence of suicidal behaviours, [including the establishment] of state based suicide registers which report to a central data collection.*

This issue is addressed further in Section 4.5 of the report.

3.2 THE EXTENT OF SUICIDE

3.2.1 Overseas

The Committee notes that international comparisons on suicide rates can be complex because of different recording practices and methods of data collection. Nevertheless there appears to be a great deal of evidence to suggest that rises in suicide among young people, especially young men, are becoming a growing and tragic trend in many overseas nations. It appears that youth suicide is more common in those countries that are otherwise relatively stable and free from overall turmoil and unrest. Recent World Health Organisation figures show that, as well as Australia, the other high ranking countries for youth suicide include New Zealand, Norway, Canada and Finland. It is reported that, among young people aged 15-24 years, suicide has risen in 11 out of 14 industrialised countries over the last 20 years - more than doubling in Spain and Norway (UNICEF, 1993:45). Recent reports from the United Kingdom indicate that suicides among young men, particularly those in the 15-24 year age group have increased by more than 80% in ten years (Guardian Weekly, November 14, 1993).

Cantor and Coory (1993) observe that, in recent times, rises in suicides in *rural* areas have been reported not only in parts of Australia, but in overseas countries as well. A study by Crombie (1991) has found that between 1974 and 1986 the remote northern highlands of Scotland had a greater suicide rate than other areas of Scotland (Cited in Cantor and Coory, 1993:382). It has also been reported that higher rates of suicide are present in rural parts of south-western Greece, Sweden and Manitoba, Canada, where the focus of the study was on childhood and adolescent suicides (Cantor and Coory 1993:382). The Committee was also advised in one submission that "in some part of the United States, rural suicide rates among young people are 3 per 100 per month" (Submission 1).

It has been reported that in the United Kingdom,

> *farmers are nearly twice as likely to kill themselves as the average person, and their suicide rate is fourth highest behind vets, dentists and pharmacists* (Guardian Weekly, March 27, 1994).

It is further noted that, in the United Kingdom, the Department of Health has recently funded psychiatrists to investigate the high level of suicides among farmers and others living in rural areas.

In the United States, a study of Kentucky farmers between 1979 and 1985 found higher rates of suicides in farmers among older age groups, especially in the over 65 age group (Cantor and Coory, 1993:382).

3.2.2 Australia

Experts and community representatives alike consider suicide to be a major public health and community problem confronting Australia today. It is now well documented that Australia has one of the highest *youth* suicide rates in the industrialised world and suicide is a leading cause of death among young males (Baume, 1994:2).

However, the Committee has heard that, since 1904, the percentage of suicide as a proportion of all deaths has remained relatively constant (Baume, 1994:2). The difference now, compared with earlier decades, is that there has been a shift in the overall rate so that now suicide is particularly high among young people. This issue is examined further in the discussion in this section on age.

Looking at trends over the last 10 years, Australian Bureau of Statistics data indicate that, generally, there has been some upward trend in the national suicide rate since 1982. The Bureau reports that, as a percentage of total deaths, suicides increased from 1.5% in that year to 1.9% in 1992. The Bureau (1994a:1) explains that

> *on an age standardised basis... the increase over the decade 1982 - 1992 was 7.5 per cent, indicating that a change in age composition explains some of the upward trend.*

There have been 22,372 deaths by suicide over the past 11 years (ABS, 1994a:1). Male suicides contributed to 78% of all suicide deaths for that period and the number of male suicides in all age groups has been consistently higher than females. (ABS, 1994a:3).

■ Age

Research, as well as evidence presented to the Committee, indicates that the rates of suicide among certain groups have shifted within the overall rate. Whereas in previous decades suicide risk tended to increase with age, that risk appears to have increased among the young, in particular, and among the very old. As the Report will subsequently indicate, the suicide rate among people aged between 35 and 60 years has shown a marked decline (Hassan, 1992:2). Baume (1994:4) further notes that

> *the decreasing rate [of suicide] in the elderly has been at the expense of youth.*

The Australian Bureau of Statistics identifies an increasing trend in suicide in the 15-24 year age group, particularly among males, Australia wide. Crowe (1994:4) notes that,

> *the male rate has increased from 19 deaths per 100,000 of the male population in that age group in 1982 to 27 deaths (per 100,000) in 1992. This compares to 3 female deaths (per 100,000) in the same group in 1982 increasing to 6 deaths (per 100,000) in 1992.*

- **Urban/Rural**

The Australian Bureau of Statistics further reports that suicide rates for men of *all* ages and for women differ little between rural and urban locations. However, for young men in rural areas the suicide rate is considerably higher (ABS, 1994b:58).

Information from Crowe (1994:4) indicates that

> *at the total level there is not a large variation between the rate of suicide in urban and rural areas. However, when looking at the age specific suicide rate there are significant differences for males in the 15-24 year age group. The highest rate for male suicides in this age group was 38 deaths per 100,000 of population in rural areas and 27 deaths in urban areas in 1988. After showing a decline in 1989 both rates have resumed these levels in subsequent years.*

The most notable increases have occurred in the smaller rural towns with populations of less than 4,000 (Dudley *et al.*, 1994).

Silburn and Zubrick's (1994:5) observations would tend to support these findings. They maintain that, relative to metropolitan areas, higher rates of suicide among the young occur in the rural regions of Australia. In their 1991 study of youth suicide specifically in Western Australia, Silburn and Zubrick found that the highest rates, particularly among males, occurred in the more remote and isolated areas of the state.

More recent research has suggested that the suicide rate in rural Western Australia has "tripled during the period 1986 to 1991 from 10.8 per 100,000 in 1986 to 28.1 per 100,000 in 1991" (Suicide Prevention Australia, 1994:2). Suicide Prevention Australia (1994:2) further reports that

> *the rate for the 20 to 24 year olds doubled from 1987 to 1992 (24.6 per 100,000).*

However, Cantor and Coory (1991) observed in their study of suicide rates in Queensland, that the rise in suicides in rural areas is not entirely the case for all Australian states. In that study the authors did not find a statistically significant excess specifically of rural youth suicides in Queensland. They concluded that rural populations in Queensland have suicide mortality rates similar to metropolitan and provincial areas. Referring to the study undertaken by Dudley *et al.* which found striking increases in the youth suicide rate in rural municipalities and shires in New South Wales the authors observed:

> *why in the young age groups our findings are not consistent with the New South Wales study is unclear. It is possible that the insidious rise in male youth suicide clearly detected in New South Wales may have been masked by the cross-sectional design of our study* (Cantor and Coory, 1991:384).

Consequently, the authors call for further studies of this nature, including data from other states.

Recently Dudley, Waters and Kelk have released some of their findings in relation to an Australia-wide study entitled Suicide Among Young Australians: 1964-1991: Urban-Rural Trends (1994, unpublished). This study represents a follow-up of their earlier research which examined suicide trends among young people in urban and rural areas of New South Wales.

Whilst conceding that data collection and analysis for the state of Queensland is still in progress the authors (1994:4) argue that

> *the suicide rate in males 15-19 and 20-24 years has significantly risen in Queensland from 1964 to 1991, from 5.9 to 23.0 and from 16.6 to 37.3 respectively. Considering the 15-24 year combined male group, there is an approximately threefold increase in Brisbane (9.5 to 26.9), and high rates with substantial numbers of suicides are recorded on the Gold and Sunshine Coasts (ranging from 30.2 to 53.1 per 100,000). Provincial city (greater than 25,000) and large town (greater than 4,000) rates are generally not higher than the rates of these first two groups, and it is unclear whether there has been an increase over the twenty-five years in these settings. This is not so, however, for towns and locations less than 4,000 where there has been a steady increase throughout the whole period, from 2.4 to a final high figure of 82.8 in 1991, with substantial numbers to support this trend.*

In relation to Victoria, Dudley *et al.* (1994) observe that, whilst female rates have not significantly changed, the suicide rate in males 15-19 and 20-24 years has

risen markedly over the period, from 3.7 to 16.0 and from 8.8 to 28.5 (1994:3). Among this group there is a

> *significant trend among those in rural areas... though not always in a linear fashion. In the cities greater than 25,000 the rate went up from 4.5 to 20.4, with a decrease in the last three year epoch; in towns greater than 4,000 from 6.5 to 30.4; and in locations less than 4,000 people from 4.4 to 34.1 in 1984-1988 and 119.0 in 1989-1991... Also of note is the fourfold rise in Melbourne from 5.9 to 19.4, and a fivefold rise in Geelong (though suicide and population numbers in the latter are smaller)* (Dudley *et al.*, 1994:4).

According to the authors, smaller states such as South Australia have "also followed suit in young male trends"(Dudley, *et al.* 1994:4).

3.2.3 New South Wales

The NSW Department of Health (1993a:1) has reported that

> *in the last two years [from 1993] suicide has become the leading cause of injury related death in NSW - overtaking road trauma, which for many decades had claimed more lives in NSW than any other cause of injury.*

The Department further observes that the number of suicide deaths in this state fell from 767 deaths in 1991 to 732 deaths in 1992 (1993a:1). Although the Committee is encouraged by this drop, it nevertheless considers that suicide rates in New South Wales remain at unacceptable levels.

Based upon evidence received by the Committee, as well as other research, the Committee's investigations indicate that most completed suicides are committed by males. The research also indicates that, in recent times, suicide rates for certain groups of rural people, most notably young men, appear to have increased at higher rates than that of their urban counterparts. Morrell explained in his evidence to the Committee that

> *the number of actual suicides in women per year is about the order of 30... these are very small numbers, [and] you get big kinds of variations in the rates... so it... reflects the statistical instability... [However], since the mid-1980s male suicide rates across all ages have been increasing. In rural areas they have been increasing at a much greater rate than the urban rates have been increasing so*

that overall... you are looking at about 20 events per one hundred thousand.

The following discussion will examine suicide rates in New South Wales, with particular emphasis on rural areas. Much of the statistical information presented below has been provided to the Committee by Mr Stephen Morrell of the Department of Public Health, University of Sydney. The Committee is extremely grateful to him for allowing his data to be utilised in this Report.

Other data referred to below have been prepared for the Committee by the Australian Bureau of Statistics (ABS). Relevant sections of that data refer to the categories of "urban", "major rural" and "other rural". According to the ABS' definition, "urban" refers to the statistical divisions of Sydney, Wollongong and Newcastle and "major rural" refers to the statistical local areas of Albury, Armidale, Bathurst, Broken Hill, Casino, Coffs Harbour, Deniliquin, Dubbo, Glen Innes, Goulburn, Grafton, Greater Lithgow, Greater Taree, Griffith, Hastings, Lismore, Orange, Queanbeyan, Shoalhaven, Tamworth and Wagga Wagga. "Other rural" refers to the remainder of the state and therefore includes "non-major" centres, including the smaller and remote areas of New South Wales. When citing figures from the ABS that deal with these areas, the Report will refer to them as "smaller rural areas".

The Committee will also present information provided by Dr Michael Dudley, Professor Brent Waters and Mr Norman Kelk, that deals specifically with young people. The Committee is most appreciative to the authors for these data being made available to it.

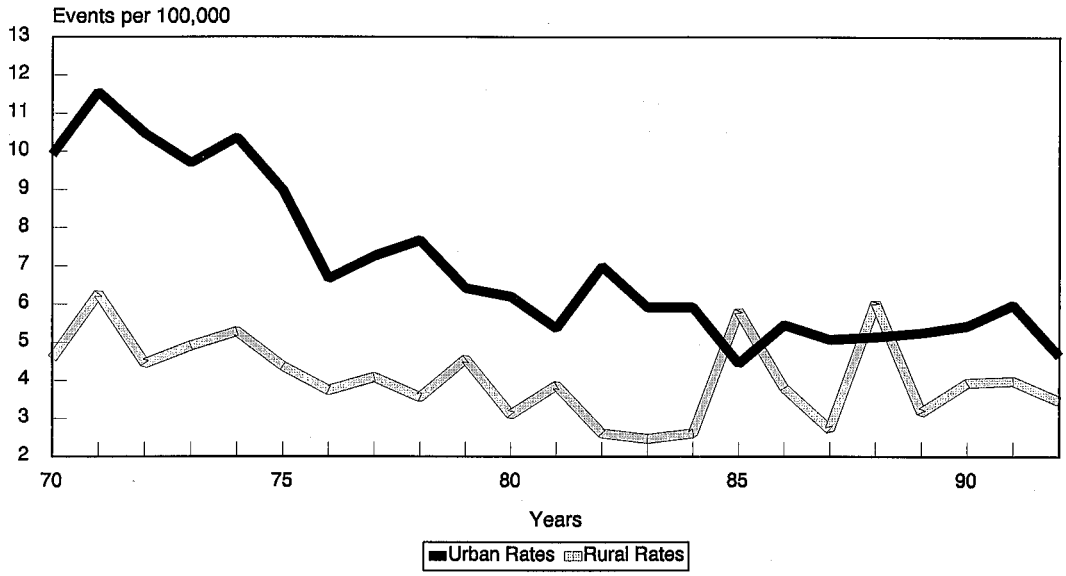
- **Females: Age Adjusted (15 to 64 year range)**

The Committee's investigations have shown that, whilst the rate of suicide among females is lower than males, their attempt rate is greater. This issue is discussed further throughout the Report.

For New South Wales, the overall suicide rate among women in rural areas from 1970 to 1992 has remained relatively low, dropping marginally from 4.58 per 100,000 population to 3.46 per 100,000 population over this time period. The suicide rate for women in urban areas has shown a more marked overall decline from 9.92 per 100,000 population in 1970 to 4.65 per 100,000 population in 1992. Figure 1 indicates these trends. As the most notable suicide trends, particularly in rural areas, are occurring among men and as much of the Committee's evidence has concerned suicide deaths in relation to this group, the following discussion will concentrate essentially on suicide mortality of males. Age related graphs regarding suicide rates among women are reproduced in Appendix Three.

Figure 1

NSW Suicide Deaths - Female - 1970 to 1992
Age Adjusted (range 15 to 64 years)



Source: Morrell, 1994 (unpublished)

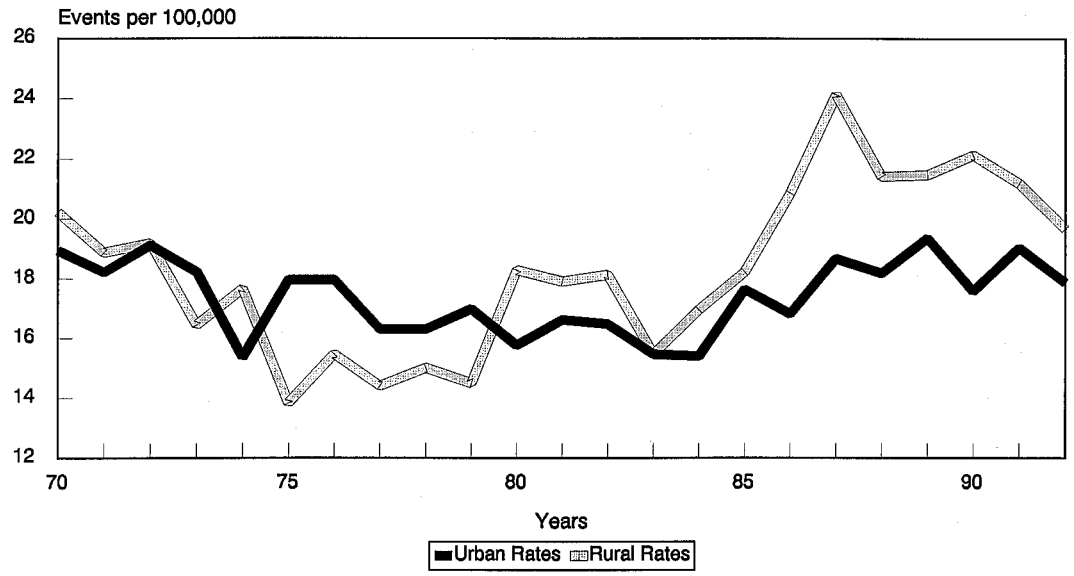
■ Males: Age Adjusted (15 to 64 year range)

In contrast to the suicide rates for women, Morrell's age adjusted suicide rates for men are at higher levels both in urban and rural areas. In relation to male suicides for urban areas, the rate has remained fairly stable from 1970, when it was 18.95 per 100,000, declining to 17.87 per 100,000 in 1992. Throughout the two decades analysed the rate peaked in 1989 at 19.36 per 100,000 population.

The information for the rate of suicides among men in rural areas, appears to paint a more complex picture. In 1970 the rate was 20.23 per 100,000 population, higher than the rate for urban males in that period. However, from 1975 the rate dropped below the urban rate, to 13.83, and remained under the urban rate until 1980 when it showed a marked rise to 18.29 per 100,000 population. This rise continued to 24.13 per 100,000 population in 1987. Although since that time the rate has declined slightly (in 1992, for example, it was 19.68 per 100,000 population), it still remains above the suicide rate for urban males. Figure 2 indicates the trends for age adjusted suicide deaths for urban and rural males.

Figure 2

NSW Suicide Deaths - Male - 1970 to 1992
Age Adjusted (range 15 to 64 years)



Source: Morrell, 1994 (unpublished)

■ Males: 45 to 64 years

Figure 3 refers to suicide deaths among males in New South Wales between the ages of 45 and 64 years. The information provided by Morrell shows that among men in this age group living in urban areas, the suicide rate has shown a steady decline since 1970 when the rate was 30.69 per 100,000, dropping to 20.21 per 100,000 population in 1992.

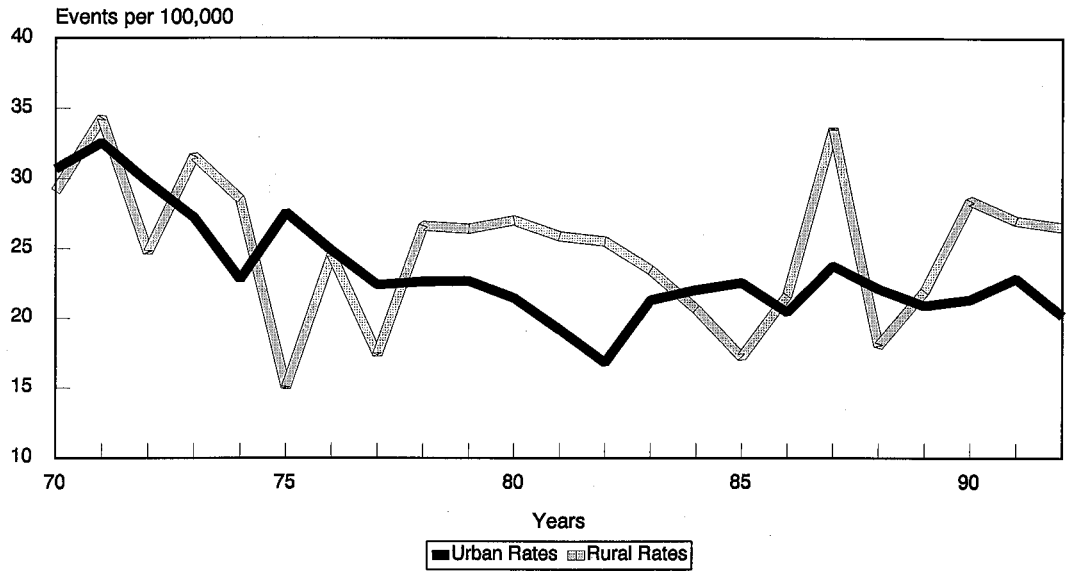
As with the information presented in Figure 2, rates of suicide deaths among rural males between the ages of 45-64 years would appear to be more complex and indicate more dramatic peaks and troughs than the rates for their urban counterparts.

Following a drop in the rate in 1977 to 17.37 per 100,000, the suicide rate rose and remained consistently above urban levels until 1984. The rate peaked in 1987 at 33.56 per 100,000, and dropped again in 1988 to 18.03 per 100,000 per

population. Of concern however, is the steady rise since 1989 with the suicide rate rising from 21.94 per 100,000 in that year to 26.51 in 1992.

Figure 3

NSW Suicide Deaths - Male - 1970 to 1992
45 to 64 years



Source: Morrell, 1994 (unpublished)

- **Males: 25 to 44 years**

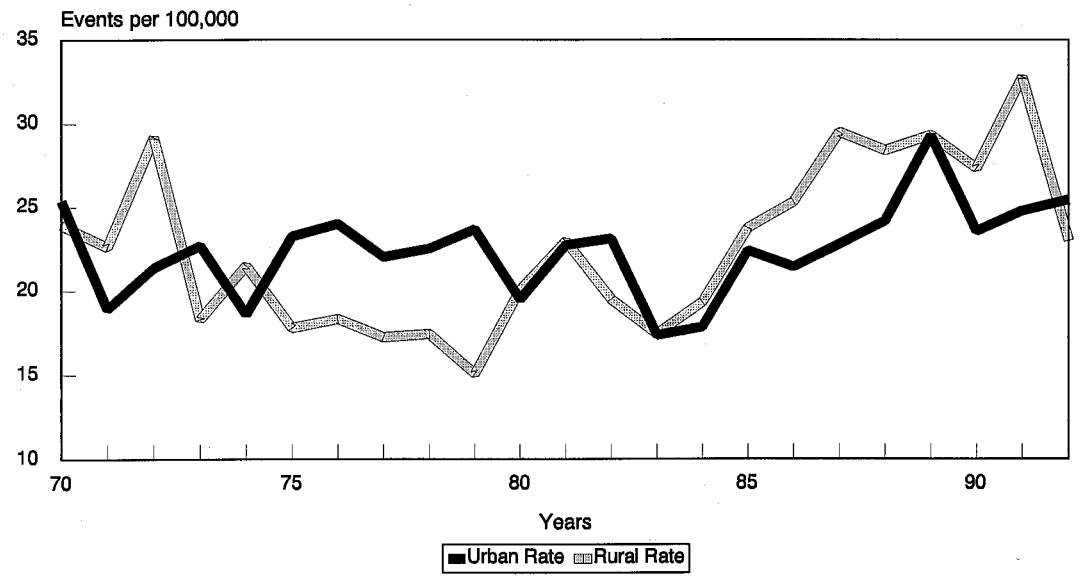
For the rural male population in the 25-44 year age group, the increase in suicides occurring over the 20 year period has been in a linear fashion. As Morrell observed in evidence before the Committee,

> *25 to 44 year old males have increased not so much more dramatically than urban rates, but they are still higher, around about 30 to 35 events per hundred thousand.*

As Figure 4 shows there was a decline in deaths in 1992. Data for 1993 and 1994 are unavailable at this stage therefore conclusions as to trends cannot as yet be made.

Figure 4

NSW Suicide Deaths - Male - 1970 to 1992
25 to 44 years



Source: Morrell, 1994 (unpublished)

In his recent study Differential and Spatial Aspects of Suicide Mortality in New South Wales and Sydney, 1980 to 1991, Dr Burnley of the University of New South Wales examined, among other issues, suicide mortality trends in New South Wales among males by major occupation groups for the periods, 1980 to 1985 and 1986 to 1989.

His findings for the 25 to 39 year age group were that

> *mortality in the professional and related workers category was significantly low in the age range 25-39, but was significantly high among farmers and related workers, transport workers and tradesmen, production process workers and labourers in the second period [1986-1989]* (Burnley, 1994:296).

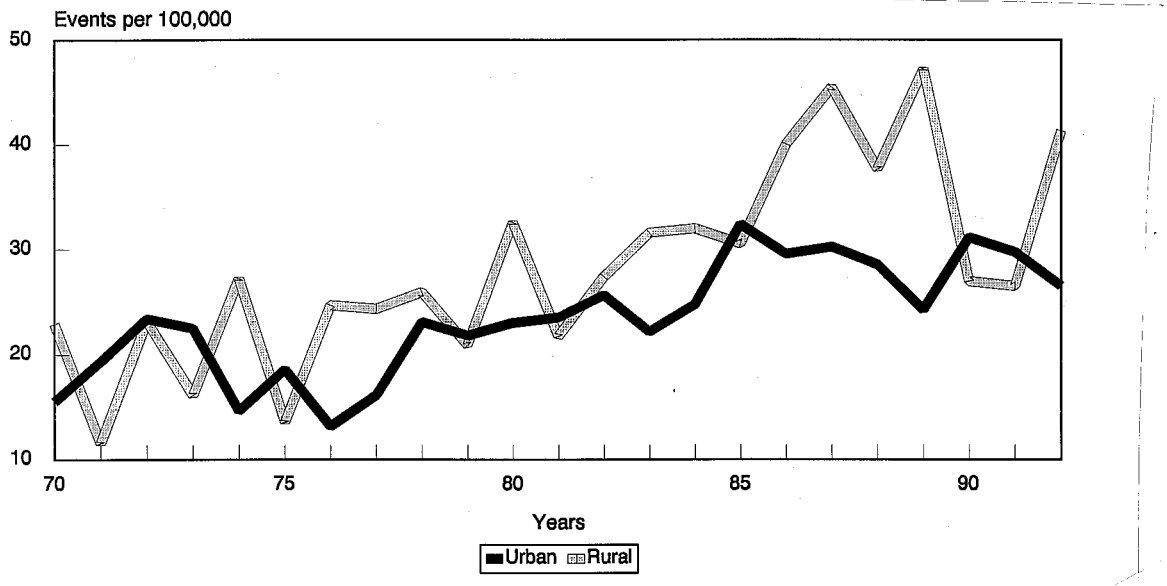
Burnley notes that suicide deaths among farmers and related workers in the 40 to 64 year age group for the periods 1980 to 1985 and 1986 to 1989 were also "significantly high" (Burnley, 1994:297).

■ Males: 20 to 24 years

The Committee's investigations indicate that suicide rates would appear to be of particular concern among 20 to 24 year old males. As information provided by Morrell shows, reproduced at Figure 5, suicide rates for this cohort in both urban and rural areas indicate an overall increase in the twenty year period. For rural areas in particular, the rise appears to have commenced in 1982 when the rate was 27.41 per 100,000 population, peaking in 1989 at 47.23 per 100,000 population. As the figure shows, there was a decline in the rate in 1990 to 26.98 per 100,000 population, but the rate has since risen again to 41.30 per 100,000 population in 1992. In contrast, the suicide rate among the 20 to 24 year urban cohort for the year 1992 was 26.56 per 100,000 population.

Figure 5

NSW Suicide Deaths - Male - 1970 to 1992
20 to 24 years



Source: Morrell, 1994 (unpublished)

More detailed information on suicides for this age cohort living in rural areas other than major rural cities and municipalities has been reproduced in Figure 6 from information prepared for the Committee by the Australian Bureau of Statistics. This graph shows that, in the smaller rural centres and regions of New South Wales, there is a discernible increase in the suicide rate for the male 20-24 year age group with the rate increasing from 14.2 per 100,000 (resident) population in 1971 to

59.9 per 100,000 population in 1992. In contrast, the ABS urban suicide rates for this age group increased from 19.9 to 25.9 per 100,000 population during the same time period.

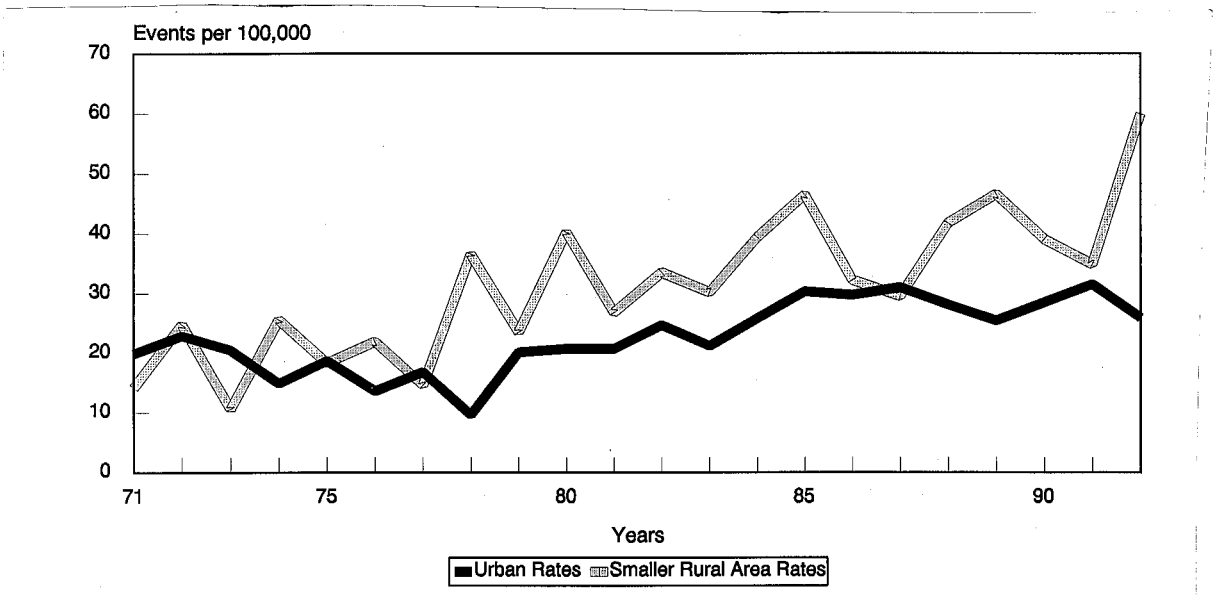
Recent research undertaken by Dudley *et al.* (1994:3) shows that the rates among 20 to 24 year old males

> *in smaller rural settings in New South Wales, have... substantially risen (though not always in a linear fashion) over the 28 [year reference period, 1964-1991] from 18.6 to 43.3 per 100,000 in towns with populations between 4,000 and 25,000 and from 5.2 to 40.7 in towns less than 4,000.*

Figure 6

NSW Suicide Deaths - Male - Urban and Smaller Rural Areas
1971 to 1992

20 to 24 years



Source: Australian Bureau of Statistics, 1994c (unpublished)

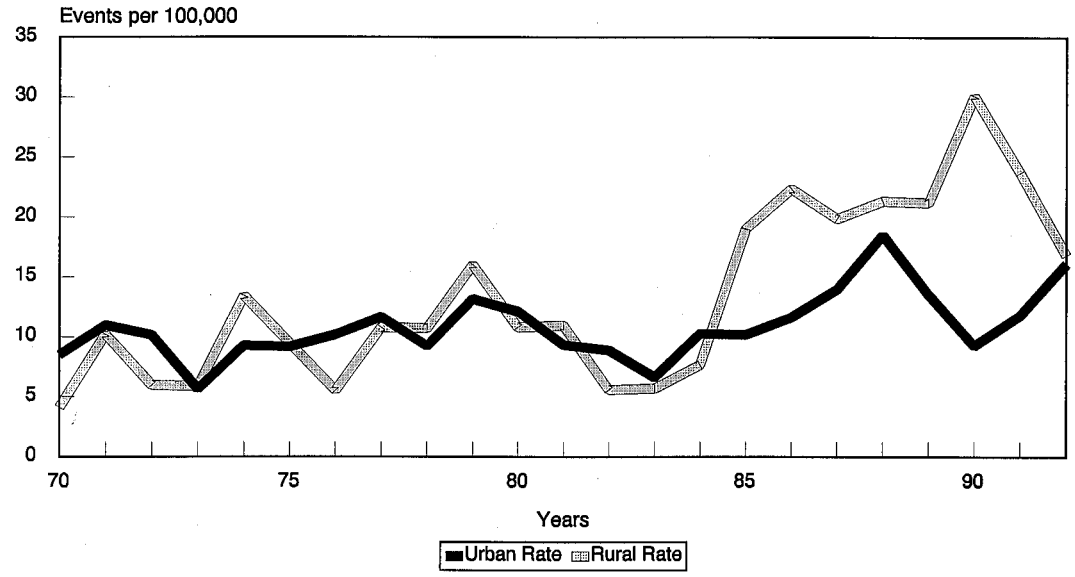
■ Males: 15 to 19 years

Information supplied by Morrell for rural regions generally and reproduced in Figure 7 shows that suicide rates for rural males between 15-19 years have been consistently higher than their urban counterparts since 1985, peaking in 1990 at

30.09 per 100,000. Since 1992, however, the rate appears to have declined but nevertheless remains substantially higher than previous years. As the discussion of the 25-44 age cohort proposed, lack of 1993 and 1994 data suggests that it is too early to predict if this decline is the beginning of a downward trend.

Figure 7

NSW Suicide Deaths - Male - 1970 to 1992
15 to 19 years



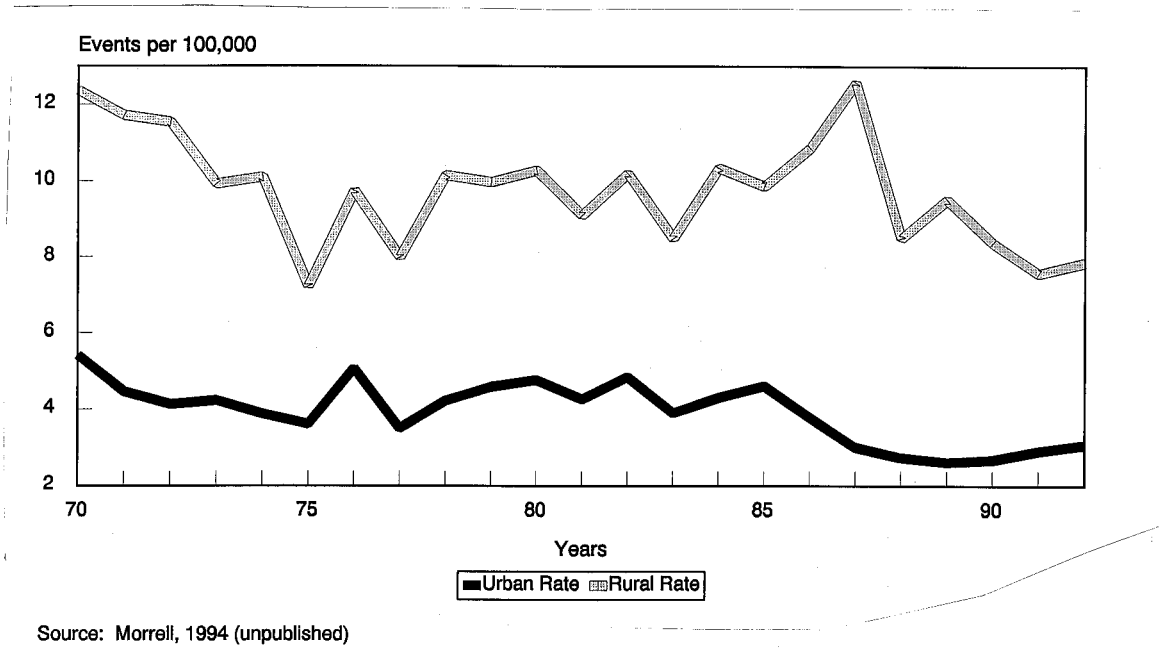
Source: Morrell, 1994 (unpublished)

Other information provided by the ABS shows that throughout the 1980s there has been a steady increase in suicide deaths among 15-19 year old males in "other rural" areas. However, the information supplied suggests that the rate has declined in 1991 and 1992. Suicide deaths however, for this group in "major rural" areas show an increase.

In 1992 Dr Michael Dudley *et al.* presented their findings in relation to an extensive and detailed study, Youth Suicide in New South Wales: Urban-Rural Trends. Examining data from 1964 to 1988, the authors found that the rate of suicide among 15-19 year old males in rural cities had more than doubled, from 5.1 to 12.5 per 100,000 per year and, in rural municipalities and shires, the rate increased fivefold, from 3.9 to 20.7 per 100,000. As Dudley *et al.* observe there was "no significant change" in the suicide rates of 15-19 year old or 10-14 year old females. For Sydney, the suicide rate of 15-19 year old males showed an increase

Figure 8

NSW Suicide Deaths - Male - Firearms - 1970 to 1992
Age Adjusted (range 15 to 64 years)



Source: Morrell, 1994 (unpublished)

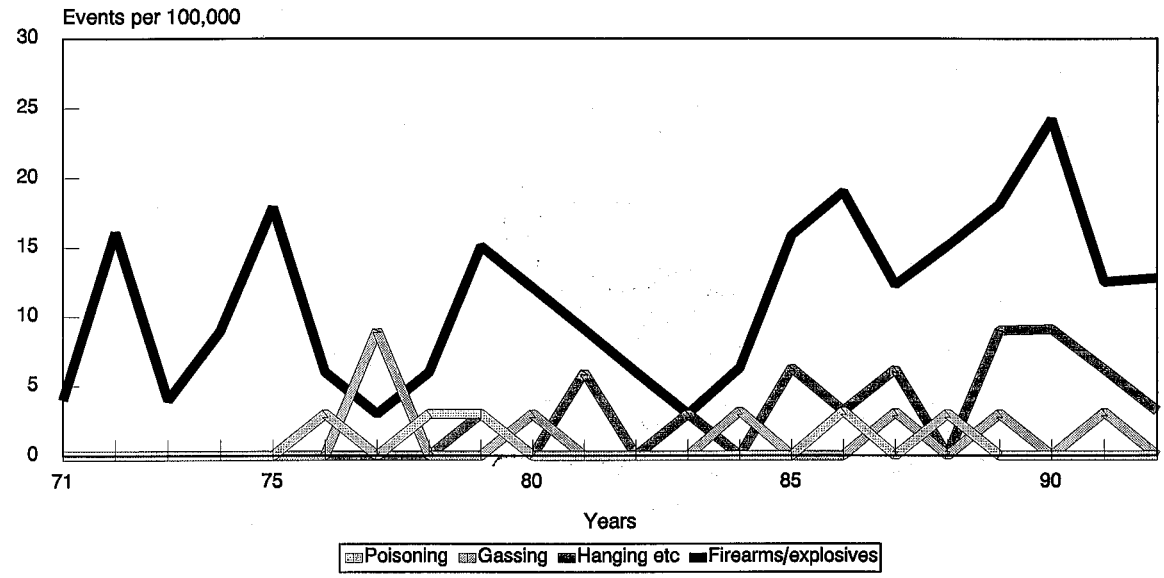
For the overall ages of 10 to 80 years and over, ABS data indicate that firearm suicides in other rural areas of New South Wales (that is, the smaller regions) have remained fairly constant, with a rate of 13.8 per 100,000 in 1971 increasing slightly to 14.1 per 100,000 in 1992. Firearm suicide rates overall, for males living in major rural areas have shown some decline from 12.1 per 100,000 in 1971 to 5.4 per 100,000 in 1992.

Among certain age groups in rural communities however, firearm suicides tend to be high, particularly in comparison to such suicides in urban areas and in comparison to certain other methods used in the rural environment.

ABS data indicate that among the **15 to 19 year age** group living in the smaller rural areas suicide by "firearms and explosives" has, since 1985 especially, remained consistently higher than other methods used, including hanging, gassing, poisoning and drowning. Figure 9 shows this trend. For major rural areas, ABS data suggest that firearm and explosives suicides for this age group show no discernible trend for the twenty year period. However, during this period it did remain above the comparable rates for males in urban regions.

Figure 9

NSW Method of Suicide - Male - Smaller Rural Areas
1971 to 1992
15 - 19 Years



Source: Australian Bureau of Statistics, 1994c (unpublished)

Dudley *et al.'s* research (1992:83) for the period 1964 to 1988 found that suicide by firearms has risen most substantially, from 3.4 to 5.6 per 100,000 per year for 15-19 year old males. The authors (1992:84) further note that

> *the rate of suicide by firearms has not risen significantly in rural cities* ***but in rural municipalities and shires the rates have risen fivefold from 2.8 to 14.8*** (emphasis added).

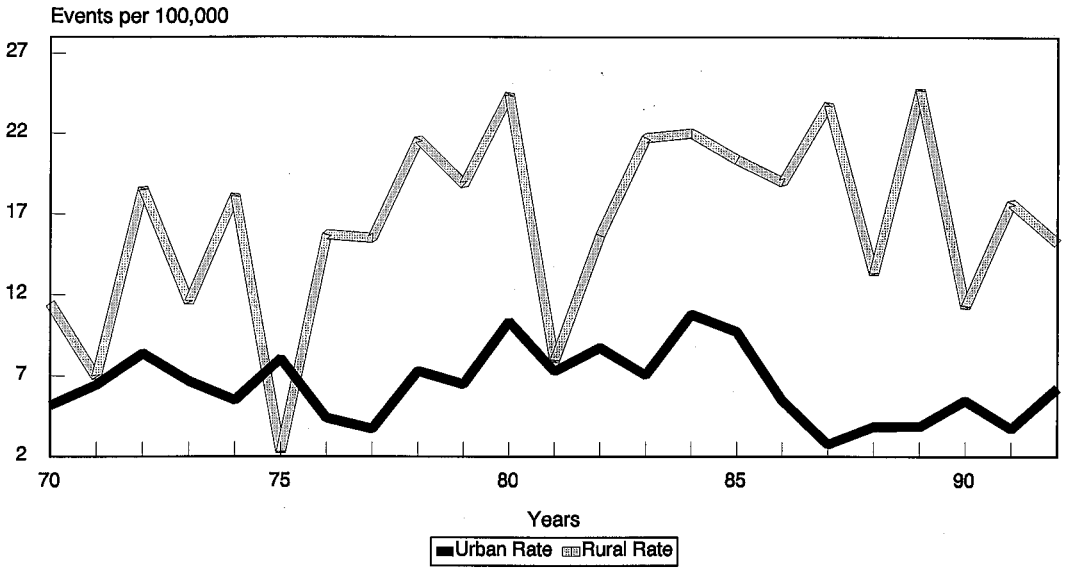
The authors further note that female numbers among this age group and in rural municipalities and shires are "too small to draw conclusions" (Dudley *et al.*, 1992:86).

For the **20 to 24 year** male age group, Morrell's data indicate a consistently higher rate of firearm suicide among the rural cohort than the urban cohort. However, as Morrell (Evidence, 9 May, 1994:57) himself explained in his evidence,

> *the 20 to 24 year old firearm suicide rates... are about three or four times higher than the city rates, but [they are] showing no real increases [for] the whole period.*

Figure 10

NSW Suicide Deaths - Male - Firearms - 1970 to 1992
20 to 24 years



Source: Morrell, 1994 (unpublished)

Figure 10 reproduces Morrell's information for this age group.

ABS data for this male age group dealing specifically with those from the smaller rural communities demonstrate a particularly high "firearm and explosive" suicide rate compared to both major rural areas and urban areas. In 1992 the rate of firearm suicides for this cohort in "other rural" or smaller areas was 18.7 per 100,000 of estimated resident population; in "major rural" areas it was 16.6 estimated resident population and in "urban" areas it was 6.4 per 100,000.

Evidence to the Committee notes that, for the **15 to 24 year** rural male age group collectively, the use of firearm suicides has in fact declined slightly as a percentage of suicide deaths since 1980 (Dr George Rubin, Evidence, 26 July, 1994). Nevertheless as Dr Rubin told the Committee,

> *[use of firearms] is still by far the most common method used in rural areas.*

Dr Burnley's research further shows that in the inland regions of New South Wales, guns were used to suicide by over 50% of the male 15 to 24 year age group compared to only 18 per cent in Sydney (1994:297).

In relation to the male group **25 to 64 years** Dr Rubin (Evidence, 26 July 1994) further explained to the Committee that

> *firearms, again, are the most common [suicide method] but it is declining and equalising with the other methods.*

He also noted in his evidence (26 July, 1994) that

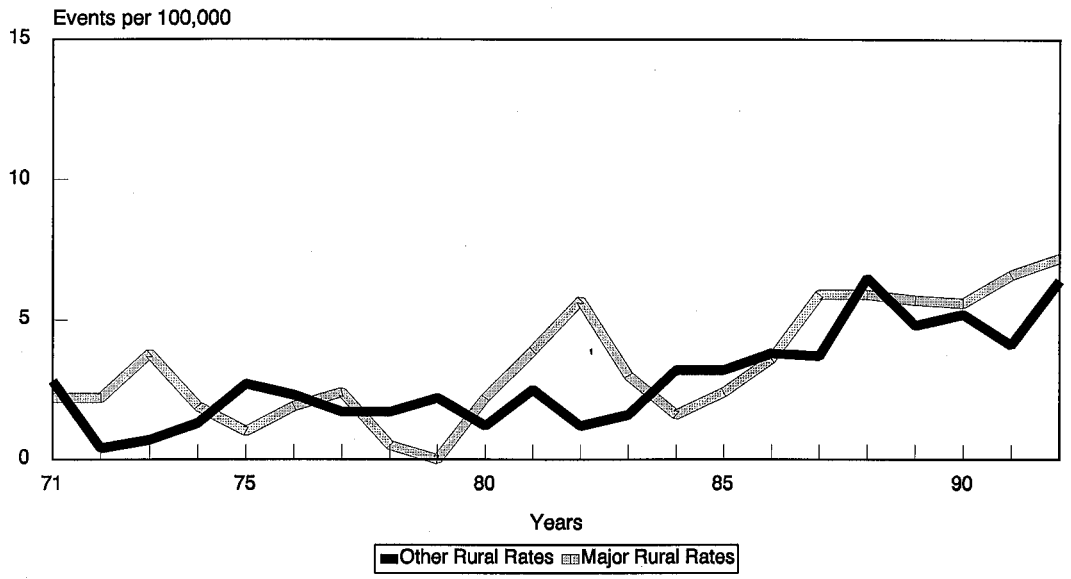
> *for males in the 65-plus age group again firearms [are] the most common cause but it is declining and again becoming very close to the other methods in males...* ***but it seems for rural males aged 15 to 24 that there is still a preponderance of use of firearms as the method of suicide and that is different to the pattern*** (emphasis added).

3.3.2 Hanging

The Committee's investigations indicate that hanging has increasingly become a relatively common method of suicide among people in rural areas. Morrell's data show that, since the 1980s and as a proportion of the total suicide rate, there has been an upward trend in this method of suicide among **rural males.** Data from the ABS, shown in Figure Eleven, demonstrate that hanging suicides among males in major rural areas have risen from 2.2 per 100,000 resident population in 1971 to 7.2 per 100,000 in 1992. For the "other rural" or smaller areas the rate for hanging suicides among males was 2.8 per 100,000 in 1971 rising to 6.4 per 100,000 in 1992.

Figure 11

NSW Suicide Deaths - Male - Hanging - 1971 to 1992
10 to 80+ years



Source: Australian Bureau of Statistics, 1994c (unpublished)

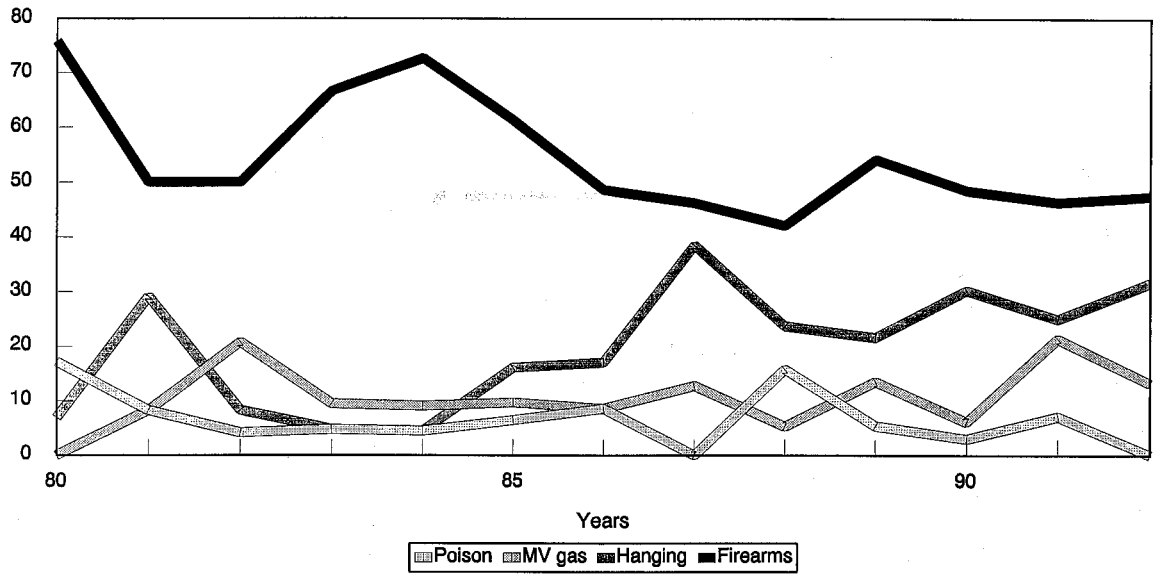
The Committee has been told that among the 15 to 24 year old male rural population hanging is the second major cause of suicide death, behind firearms and, since 1980, there is a discernible increase in its use as a suicide method (Dr George Rubin, Evidence, 26 July, 1994).

A graph depicting this trend, tabled in evidence by Dr George Rubin, is reproduced at Figure 12.

Figure 12

NSW Method of Suicide - Male, Rural Residents - 1980 to 1992

15 - 24 Year Olds: % using each method



Source: NSW Department of Health, 1994 (unpublished)

Dudley *et al.* (1992:85) further note that, from 1964 to 1988, among the 15 to 19 year old rural male group specifically,

> *there has... been a substantial increase in male hanging suicides.*

According to Morrell's evidence to the Committee (Evidence, 9 May, 1994)

> *hanging is becoming an increasingly important means of committing suicide in both rural and urban areas in males. This is all ages.*

3.3.3 Poisoning

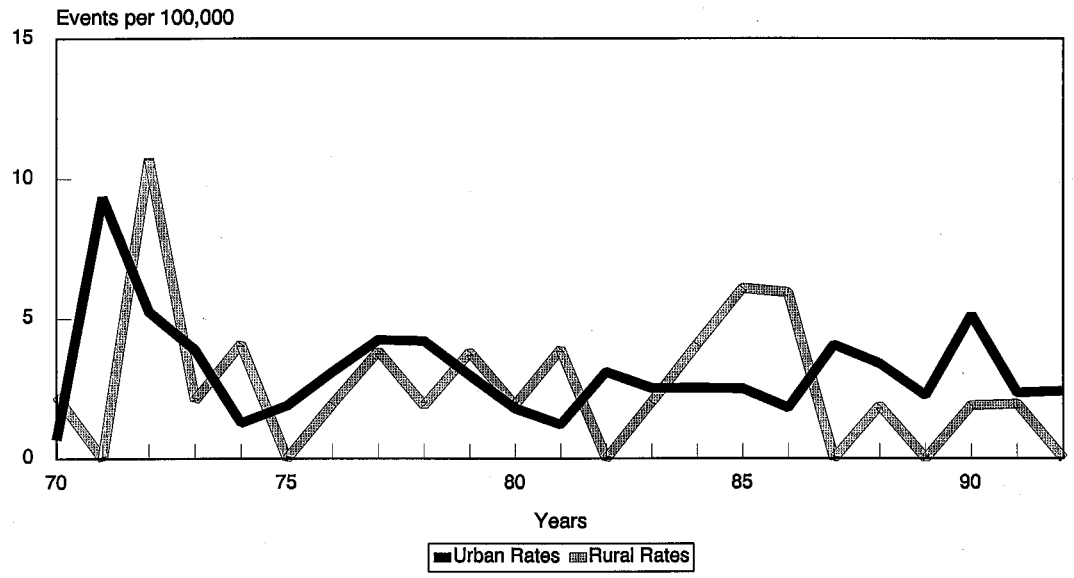
The Committee has heard that poisoning is the most common method of suicide among women in both urban and rural settings. Crowe (1994:5) observes, in relation to Australia generally, that

APPENDIX THREE

GRAPHS ON FEMALE SUICIDE

Figure 13

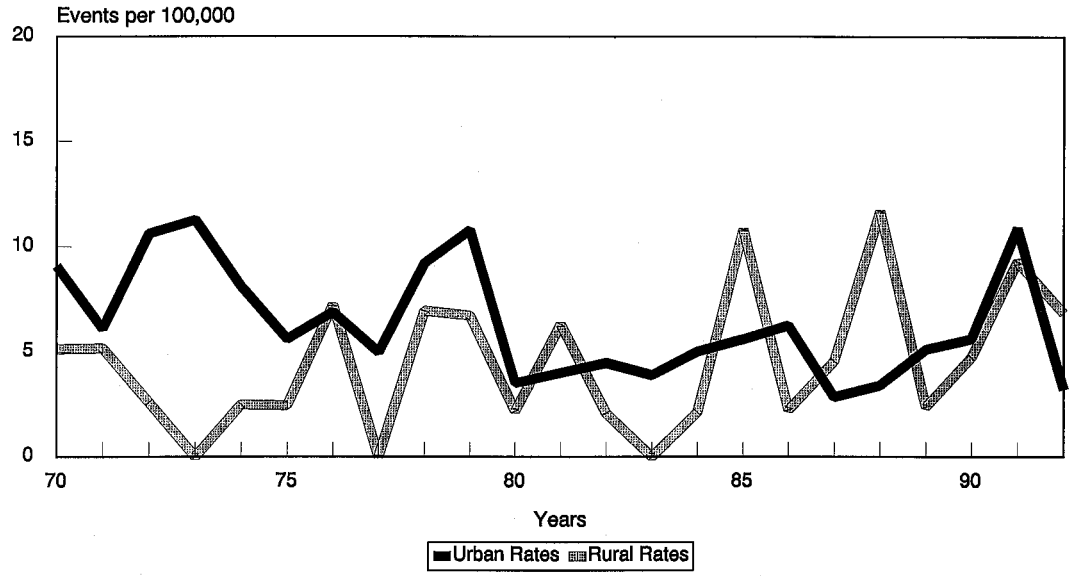
NSW Suicide Deaths - Female - 1970 to 1992
15 to 19 years



Source: Morrell, 1994 (unpublished)

Figure 14

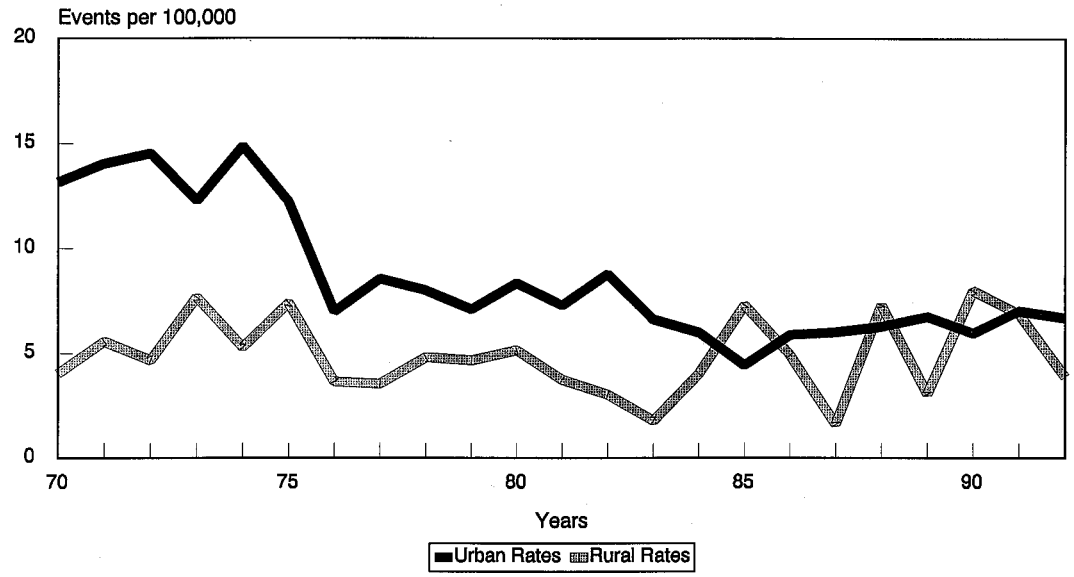
NSW Suicide Deaths - Female - 1970 to 1992
20 to 24 years



Source: Morrell, 1994 (unpublished)

Figure 15

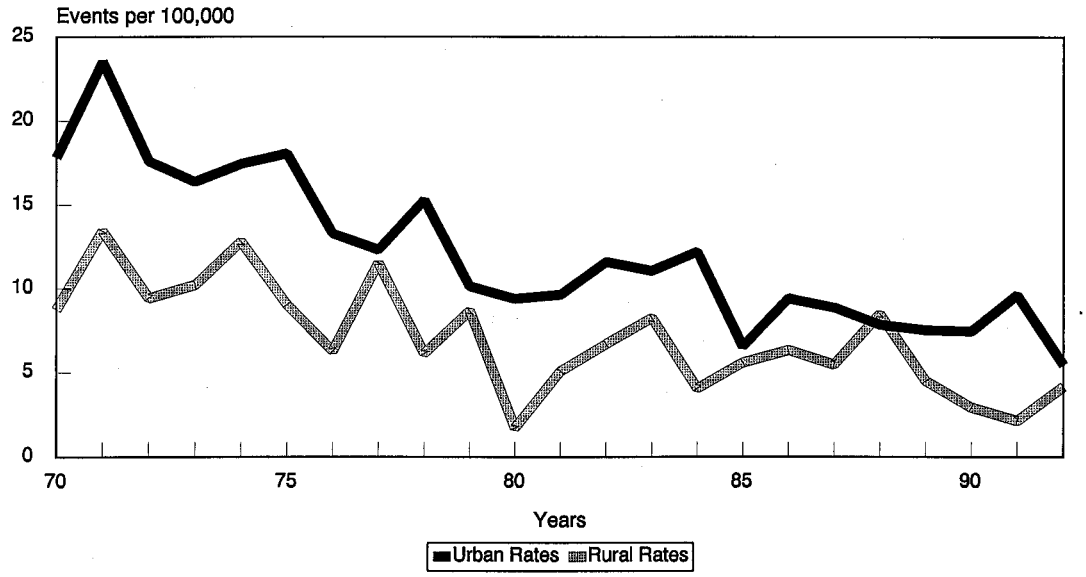
NSW Suicide Deaths - Female - 1970 to 1992
25 to 44 years



Source: Morrell, 1994 (unpublished)

Figure 16

NSW Suicide Deaths - Female - 1970 to 1992
45 to 64 years



Source: Morrell, 1994 (unpublished)

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which they considered to be "modest" and there was no change in Newcastle or Wollongong (Dudley *et al.*, 1992:83).

Dudley, Waters and Kelk's (1994:3) most recent research however, indicates that

> *male 15 to 19 year rates in smaller rural settings in New South Wales have continued to rise over the three years 1989-1991, reaching a peak of 41.9 per 100,000* ***in towns less than 4,000*** (emphasis added).

The authors further maintain that an examination of the differences in suicide rates between coastal and inland rates in New South Wales

> *shows no significant trends for female rates, but higher increases in rates for males aged 15-24 living inland (15 to 19 years, 5.6 to 26.6; 20 to 24 years, 11.4 to 32.1), than for males living in coastal areas, though this latter group have also suffered increases (15 to 19 years, 7.6 to 12.7; 20 to 24 years, 18.3 to 28.5)* (Dudley *et al.*, 1994:6).

In their 1994 study, which is Australia-wide, Dudley *et al.* (1994:7) note the significance of declining populations of young people and the stable or rising numbers of youth suicide rates in smaller rural areas throughout all of Australia. The authors state that

> *this leads to the calculation of higher rates in these areas; it also leads to greater instability in the rates in these areas from one five year period to another. However, we believe the figures bear witness to the untold final stories of young people and their families in declining or disintegrating rural communities. In New South Wales, there has been a pronounced move from the inland areas to the coast in recent years, the latter areas being relatively resource-rich. An initial investigation in New South Wales shows that young people in inland areas have had greater increases of rates than those in coastal areas, thus supporting the hypothesis that social disadvantage may be of particular importance in contributing to suicide among young males* (Dudley *et al.*, 1994:7).

In examining the age **15 to 24 year male** age group collectively, Burnley (1994:297) observes that

> *mortality rates of males in the 15-24 age group were significantly high in all the inland statistical divisions in the state, with the exception of the Central Western division... Mortality rates were*

particularly high in the Far Western Division which includes Broken Hill.

- **The Elderly**

Suicide among the elderly population of New South Wales, particularly among males, has traditionally been high in comparison to other age groups.

The NSW Health Department has observed that

> *a study of the relationship between suicide and old age from 1961 to 1985 shows that older men over 85 years had the highest rate and that the highest rates for women were recorded between age 55 and 79 years* (NSW Health, 1993a:2, citing Hassan and Carr, 1987).

Nevertheless the Health Department also observes that the relationship between suicide and old age is ever changing with the ageing population.

Whilst the Committee was provided with some evidence of elderly suicides in certain areas of rural New South Wales (including five geriatric male suicides on the lower north coast), it has been unable to discern any overall trends for the state. This should not, however, preclude further investigation and research in the area of suicide among the elderly in rural New South Wales.

3.3 METHODS OF SUICIDE

3.3.1 Firearms

As noted both in the research and the evidence received by the Committee, suicide by way of firearms is essentially a male phenomenon. Whilst some women certainly do commit suicide by this method, the numbers are comparatively small. The following discussion will therefore concentrate primarily on male firearm suicides.

Morrell's data presented in Figure Eight show that firearm suicides among rural males (**age adjusted, 15-64 years range**) have been consistently higher than such suicides committed by urban males during the period 1970 to 1992. Since 1988 rates of firearm suicides among rural males overall have shown a relative decline; in 1992 they represented 7.86 per 100,000 suicide deaths among this group. For urban males in 1992 this rate was 3.07 per 100,000.

> *the predominant method of suicide for females continues to be poisoning by solid or liquid substances but this has decreased from 47% of total female suicides in 1982 to 39% in 1992.*

Dudley *et al.'s* (1992:85) research regarding suicide among young people between the years 1964 and 1998 found that for New South Wales,

> *poisoning is the only method in which the number of female suicides exceeds that of male suicides.*

Oral testimony has been received by the Committee which suggests that certain poisoning suicides, for both males and females, in rural areas, may have been as a result of the ingestion of farming chemicals.

3.3.4 Other Methods

The Australian Bureau of Statistics categorises other methods of suicide as including suicide by inhaling gases, drowning, cutting and piercing instruments, jumping from a high place and suicide by other and unspecified means. Of those, suicide by inhaling gases for males in "major rural" areas would appear to be increasing: in 1971 suicide by this method was 2.2 per 100,000 resident population, rising to 4.4 per 100,000 in 1981 and increasing further to 6.5 per 100,000 in 1992. For "other rural" areas the rate also indicates some rise from 2.8 per 100,000 population in 1971 to 4.8 per 100,000 in 1992.

For women in rural areas the numbers are too small to detect any real discernible trend for these other methods of suicide.

Whilst not always appearing in official statistics, the Committee has received some testimony to suggest that certain events such as single vehicle motor accidents, particularly those on country roads, and where the driver has collided with a tree or even a truck, may in fact be suicides. In the absence of a suicide note or some other overwhelming evidence, it is often the case that such events are recorded as "accidents".

3.4 SUICIDE AMONG ABORIGINES

The Committee's investigations have shown that until very recently official data concerning suicide mortality among Aborigines essentially underestimate the problem and are therefore unreliable. This is especially so for Aborigines in rural communities.

The Royal Commission into Aboriginal Deaths in Custody found that many incarcerated Aborigines had died as a result of self-inflicted harm. This was often brought about because of a lack of proper care on the part of the police and prison officers or relevant medical services, intoxication by the Aboriginal inmate and an enormous level of despair and profound depression. Although this Inquiry will be examining suicides essentially from a non-custodial perspective, reference will be made in the Report to some of the findings of the Royal Commission into Aboriginal Deaths in Custody.

ABS data show that from 1981 to 1992 the number of male Aboriginal suicides in major rural areas of New South Wales was seven. Recorded suicide deaths among Aboriginal males in "other rural" areas for that same period totalled 17. The number of suicide deaths for Aboriginal women between 1981 and 1992 is recorded as one; for Aboriginal women in "other rural" areas the number of suicide deaths for this period was four. In actual numbers the most common method of suicide for both males and females appears to be within the category of "hanging, strangulation and suffocation". The rates of these suicides are unavailable, making it very difficult to compare these figures with suicide deaths for the non-Aboriginal population adequately.

Nevertheless indirect evidence suggests that there is an increasing incidence of suicide and suicide attempts among Aborigines, including in rural and remote regions (Baume, 1994:7). This has been clearly borne out in both submissions and oral testimony received by the Committee as well as in a number of studies (see for example, Hunter, 1988). The issue of Aboriginal suicides, especially among the rural population, will be discussed in further detail throughout the Report.

3.5 SUICIDE AMONG PEOPLE BORN OUTSIDE AUSTRALIA

Crowe (1994:5) observes that

> *the age standardised death rate from suicide for persons born overseas and Australian born persons is very similar and has shown little variability over the reference period [1982 to 1992].*

In relation to New South Wales specifically, Burnley (1994:302) notes that

> *mortality of the overseas-born and Australian-born did not differ significantly, in contrast to mortality from other causes, which is lower. However, this does not exclude the possibility that high suicide rates may exist for particular countries of birth. A more detailed analysis of suicide by country of birth is required, because of the large variations in cultures among the overseas-born.*

Data on levels of suicide among overseas born people living in rural communities are limited. Further, little information has been received by the Committee dealing with this issue. In relation to people from non-English speaking backgrounds (NESB) specifically, it has been suggested that because of the low number of NESBs in rural areas it may be difficult to obtain reliable rural figures (Personal Communication, 30 August, 1994).

3.6 CONCLUSION

As the following discussion has demonstrated, rates of completed suicide in New South Wales are of concern, most notably among young males. In recent times young rural males especially have become a significant at risk group and rates of suicide among this group in the smaller and more remote regions of the state have shown greater increases than those in urban centres. Although accurate data on attempted suicide are limited, the evidence received by the Committee indicates that females tend to make more attempts on their lives than males. Males, however, have higher rates of completed suicide. For rural males, firearms remain the most common method used to suicide but this has shown some decline among some groups over time while rates of suicide by hanging are increasing.

The following section will examine some of the factors associated with suicide and suicidal behaviour as provided both in evidence to the Committee and in documented research.