



## Suicide

**T**HERE WERE 668 SUICIDES recorded in NSW in 1988.<sup>1</sup> This represents a suicide rate of 11.7 per 100,000 of the estimated residential population.<sup>2</sup> That is, approximately one in 8,500 people committed suicide in NSW in 1988. The risk of suicide in NSW is thus approximately six times that of being murdered,<sup>3</sup> but is only one third that of being killed in some kind of accident.<sup>4</sup>

The suicide rate in NSW has been increasing since the mid 1980s, after a period of decline since the late 1960s (see Figure 1).<sup>5</sup> Figures from the Australian Bureau of Statistics (ABS) indicate that Australia's suicide rate has varied around 11 - 12 per 100,000 for the last 100 years, but there have been some significant cycles of suicidal activity in this time. In the years since the depression, where the suicide rate reached a peak, suicides declined during World War 2, increased through the 1950s and 1960s and have declined from the early 1970s till a new upward trend commenced in the mid 1980s.<sup>6</sup> Until the upward trend of the late 1950s and 1960s, these variations in the suicide rate were almost entirely due to change in the male suicide rate.

Although the incidence of suicide in NSW is comparatively low compared with accidental deaths and comparatively high compared with murder, this risk is not evenly distributed among the various groups in society. The following sections discuss the incidence of suicide among groups of people of different age, marital status, birthplace and sex. The 668 suicides recorded in 1988 comprised 10.8 per cent of all coronial cases completed in NSW. Since the introduction of the Coroners Act, 1980 it is no longer necessary for an inquest to be held in all cases of suicide and in 1988 inquests were not held in 81.1 per cent (542) of cases. Where the inquest is dispensed with the death is classified by the court staff who examine the evidence and decide

whether the death is a suicide or some other category of death, such as accidental death.<sup>7</sup> In some cases it may be difficult to distinguish a suicide from, say, an accidental drug death or a motor-vehicle accident, and it is thus possible that the number of suicides reported here understates the true number of suicides.<sup>8</sup>

### DEMOGRAPHIC CHARACTERISTICS

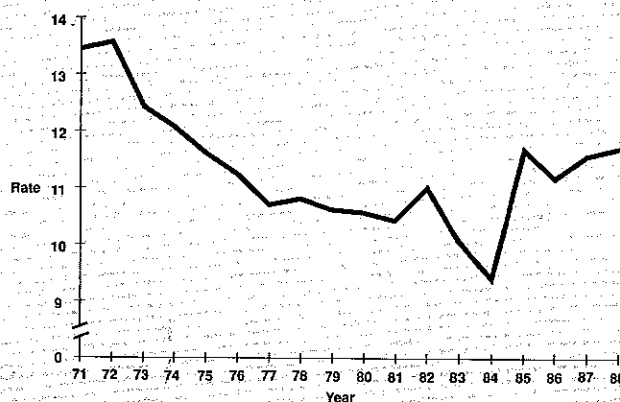
The most striking aspect of the demographics of suicide is the discrepancy between the suicide rates of males and females. In 1988 males committed suicide five times more frequently than females. Of the 668 suicides recorded in 1988 only 139 (20.8%) were female. This is illustrated by Figure 2 which shows the number of suicides for each 5 year age group in NSW in 1988. It is the large peak in suicides among the 15 to 39 year old males that is the most apparent feature of this figure. Whereas 55.8 per cent of male suicides were aged less than 40, only 45.0 per cent of female suicides were aged less than 40.

The predominance of young males in

suicide statistics is not a phenomenon confined to NSW or Australia. Data from many countries have indicated that young males have high suicide rates.<sup>9</sup> There is also some evidence that the rate of suicide among young men has been increasing. Kosky found that the suicide rate of young men aged 15 to 19 years in Australia has appeared to double since 1965, but part of this rise could be attributed to a trend for Coroners to reach a verdict of suicide more frequently.<sup>10</sup> Nevertheless, similar or even larger increases in suicides among young men have been observed in the United Kingdom, Ireland, the Netherlands, Norway, the United States, France and Switzerland.<sup>11</sup>

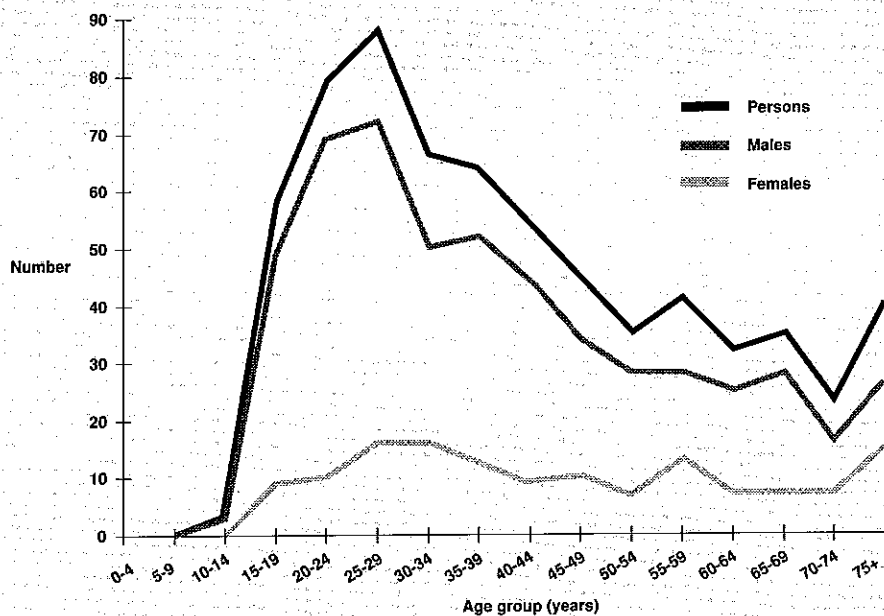
When the age and sex specific rates (number of suicides per 100,000 in each age group for each sex) are calculated for NSW (see Figure 3), the peak of suicides in the 15-29 age group is still prominent, but loses much of the dramatic impact evident in Figure 2. At least part of the reason for the larger number of suicides in the 15-29 age groups is due to the larger number of people in this age group. In contrast, when suicide rates rather than numbers are graphed (see Figure 3)

Figure 1  
Suicide rate per 100,000 population, 1971-1988:  
NSW



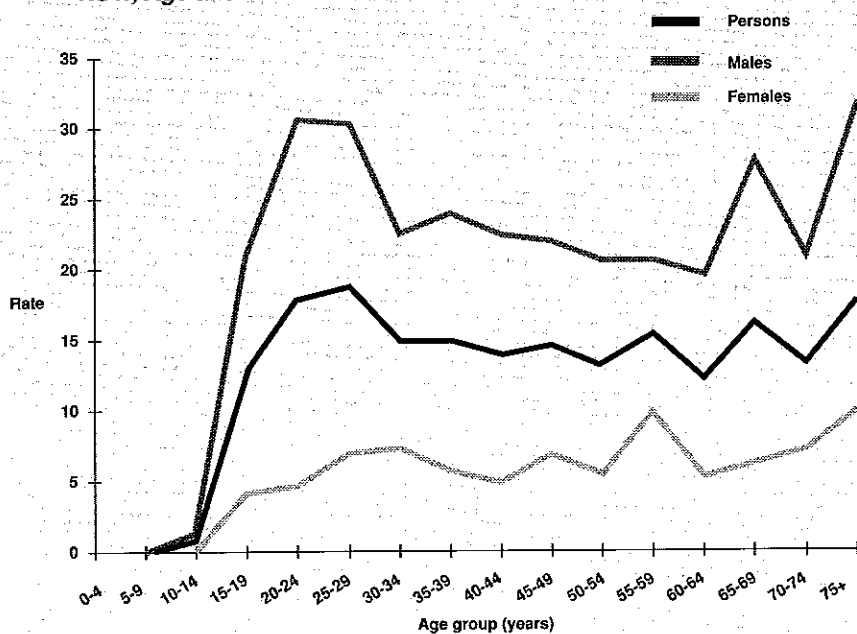
Sources: ABS (1989) *Causes of Death NSW 1971-1987* Canberra: ABS.  
NSW Bureau of Crime Statistics and Research (1989)  
*Coroners Court Statistics 1988*, Sydney: BCSR

Figure 2  
Suicides, 1988: NSW, Age and sex



Source: Population data from ABS (1988), 1986 Census of Population and Housing Canberra: ABS

Figure 3  
Suicide rate per 100,000 population, 1988:  
NSW, Age and sex



Source: Population data from ABS 1986 census of population and housing

another peak in the suicide rate emerges for people in the older age groups. Even though there are smaller numbers of suicides in this age group, there are also fewer people, so the rate of suicide in these age groups is consequently high. The peak rate for younger male suicides is in the 20-24 age group (30.6 suicides per 100,000). This rate is exceeded by that of the 75+ group (31.8 per 100,000).

A similar pattern is evident for female suicides. In the 30-34 age group the suicide rate for females was 7.2 per 100,000 with other peaks in the 55-59 (9.8 per 100,000), and 75+ (9.9 per 100,000) groups.<sup>12</sup> The suicide rate for all males was 19.7 per 100,000 and for females it was 5.1 per 100,000.

The discrepancy between male and female suicide rates Australia wide is

evident in time series data available from the ABS.<sup>13</sup> Whereas male suicide rates peaked during the depression and were very low during World War 2, the female suicide rate did not show any marked change during this period. Interestingly, both male and female suicide rates peaked during the late 1960s and then declined until the early 1980s. In the 100 years or so of suicide data available in Australia, this is the first time that the female suicide rate showed the major cycles of growth and decline evident in the male suicide rate over time.

## MARITAL STATUS

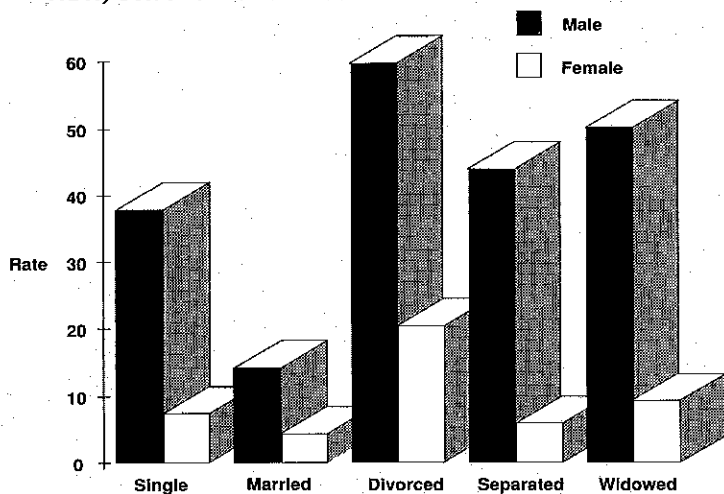
The suicide rates for persons of different marital status are shown in Figure 4. For each marital status males had a higher risk than their female counterparts. For both sexes married people had the lowest risk of suicide and divorced people had the greatest risk. Single, separated or widowed men had risks of suicide 2.7, 3.1 and 3.5 times that of married men. Single, separated or widowed women had risks of suicide 1.7, 1.5 and 2.1 times that of married women. Divorced men had a risk of suicide 4.2 times that of married men and divorced women committed suicide 4.7 times more often than married women.

We should be wary of making simple causal connections between separation, divorce, or the death of a spouse, and suicide, even though it is obvious that such events can lead to the introduction of severe stress into the lives of those who suffer them. These events generally occur at different stages in the life-cycle along with many other changes in economic and social status and health and well-being, all of which in combination may contribute to any one person's risk of suicide. For example, we have observed previously that the suicide rate of those aged 65+ is high. This is the stage of the life-cycle when the death of a spouse is more likely to occur. But it is also an age when many other, possibly related, changes can occur in one's economic and social status and health. It is difficult to isolate the effects of individual risk factors in such circumstances.

## COUNTRY OF BIRTH

The incidence of suicide also varies according to place of birth, as shown in Figure 5. Overall, overseas born people

**Figure 4**  
**Suicide rate per 100,000 population, 1988:**  
**NSW, Sex and marital status**



Source: Population data from ABS 1986 census of population and housing

had a slightly higher incidence of suicide (12.2 per 100,000) than people born in Australia (11.4 per 100,000), but people born in some countries have considerably higher rates.<sup>14</sup> People born in Germany (22.6 per 100,000), the Netherlands (24.6 per 100,000) and Vietnam (20.6 per 100,000) had suicide rates around double that of the Australian born. The highest suicide rate for any birthplace group was 44.1 per 100,000 for those born in Yugoslavia.<sup>15</sup> In all, 40 different countries of birth, including Australia, were recorded in the 1988 Coroners Court statistics for suicide. Most of these birthplace groups, however, were recorded in numbers too low to permit reliable calculation of rates.

We cannot assume that it is the ethnic background of these people that places them at risk. Many other relevant factors are associated with ethnicity. For example, the average age among more established immigrant groups is likely to be greater than that among the more recently established groups, and similar variation can be expected in marital, employment and economic status. The conditions prevailing in the country of origin may also be of importance. Research has identified significant suicide risk among Eastern European refugees with severe war experiences.<sup>16</sup> It is interesting to note that the Vietnamese, who are refugees with a similar exposure to the disruption of war, had a significantly higher risk of suicide than the community in general in 1988. It is possible that varying cultural attitudes towards death are of importance in determining the

tendency of the members of certain groups to commit suicide. It is likely, however, that variation in cultural attitudes towards death between members of different ethnic groups on this score are no more pronounced than the general variation in these attitudes in the community.

**EMPLOYMENT**

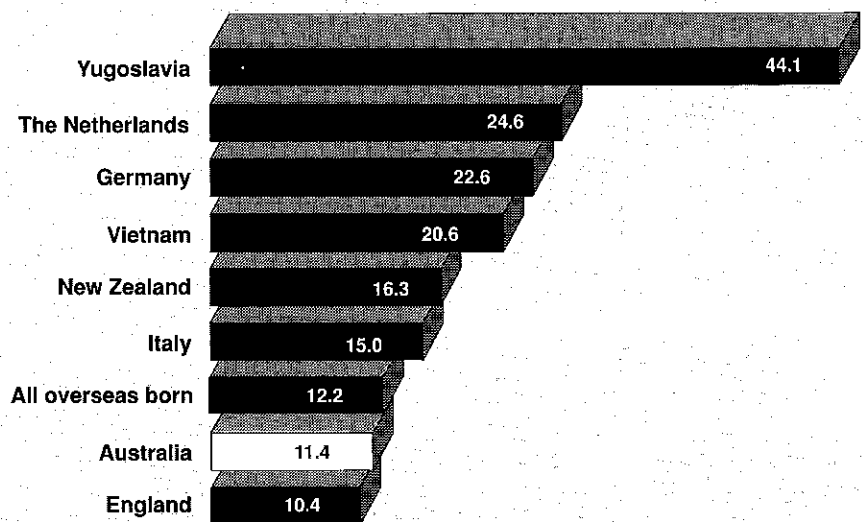
As indicated in Figure 6, unemployment is associated with a higher incidence of suicide. The suicide rate for employed persons was 10.8 per 100,000 while for unemployed persons the rate was 63.0

per 100,000. The risk of suicide for unemployed persons was therefore 5.8 times that for employed persons. For males the risk of suicide was increased 5.9 times by unemployment (16.1 per 100,000 for employed males and 95.1 per 100,000 for unemployed males) and for females unemployment increased the risk of suicide 6.6 times over employed females (2.9 per 100,000 for employed females and 19.1 per 100,000 for unemployed females). However, it is possible that some people who were unemployed but not looking for work (and therefore should not be considered part of the workforce by ABS criteria) are counted as genuinely unemployed in these statistics. Also, female suicides may be coded as "domestic duties" when in fact they are genuinely unemployed.

**METHOD USED TO EFFECT DEATH**

The observation that males generally prefer the more violent methods while females most commonly suicide through drug overdoses<sup>17</sup> has been commonly made in Australian studies of suicide. This observation is confirmed by the 1988 Coroners Court statistics. The most common method for men was hanging (24.0%), closely followed by shooting (21.1%) and carbon monoxide poisoning from vehicle exhausts (18.2%). These three methods accounted for 63.3 per cent of male suicides in 1988. For females, the preferred method was drug

**Figure 5**  
**NSW Suicide rate per 100,000 population, 1988:**  
**Place of birth**



Source: Place of birth data from ABS 1986 census of population and housing

overdose (25.9%), followed by hanging (14.4%) and carbon monoxide poisoning from vehicle exhausts (12.2%). These methods accounted for 52.5 per cent of female suicides. If the categories of drug overdose and drug and alcohol overdose are combined they account for 36.0 per cent of female deaths but only 13.4 per cent of male deaths.

Research on the relationship between the availability of drugs and suicide<sup>18</sup> has traced a steady increase in the number of female suicides in Australia since the early 1950s. According to these authors this rise was almost entirely due to a rise in self poisonings and has been attributed to the greater availability of sedatives and drugs since that time.

### ALCOHOL AND DRUGS INVOLVED IN SUICIDE

A distinction should be made between those cases where death was the result of the effects of drugs, or drugs and alcohol, and those cases where drugs and alcohol were found to be present, but were not found to be the cause of death.

When all suicides are considered together in about 25 per cent of cases no blood alcohol test was taken prior to

sons detected most often in 1988 are shown in Figure 7.<sup>19</sup> The most common substance found was carbon monoxide (81 cases), followed by Diazepam (30 cases), Morphine (29 cases)<sup>20</sup>, and Oxazepam (21 cases). Excluding carbon monoxide, which is associated with motor vehicle exhaust gassings, this list of most common substances is dominated by anti-anxiety agents (Diazepam or Valium and Oxazepam, 51 cases), antidepressants (Doxepin, Nortriptyline and Amitriptyline, 50 cases), and drugs not separately coded (41 cases).<sup>21</sup>

Where the manner of death was determined as drugs or drugs and alcohol the most common drugs found are indicated in Figure 8. Comparison of Figures 7 and 8 shows a similar distribution of drug types. The most common category was drugs not separately coded (29 cases)<sup>22</sup> followed by Morphine (21 cases), Diazepam (19 cases), and Amitriptyline (15 cases). As was the case for all suicides, the drugs associated with suicides by drugs or drugs and alcohol overdose were dominated by the categories of anti-anxiety agents and anti-depressants.

Even where the manner of death is through drug overdose, it is not possible to identify from the Coroners Court statis-

### SUICIDES IN CUSTODY

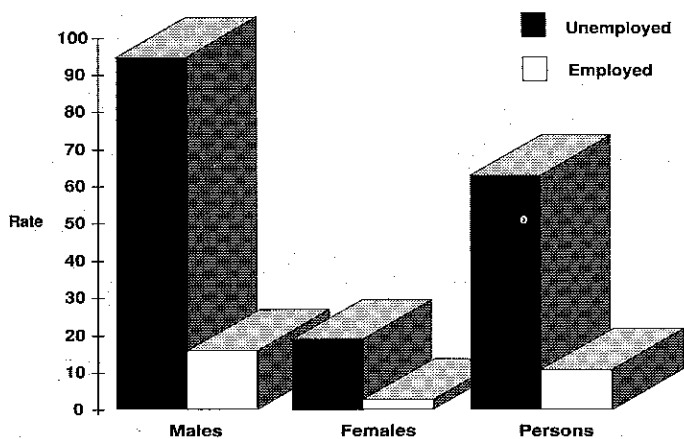
The 1988 Coroners Court statistics indicate that in NSW four people committed suicide while in police custody and nine committed suicide while in prison. All of these suicides employed hanging as the method of effecting death and in all cases an inquest was held. There were two suicides in police custody where Morphine (Heroin) was found to be present, and in both of these cases Methadone was also detected. In one of those cases Phenobarbitone was also present. Morphine (Heroin) was detected in one case of suicide in prison. Alcohol was detected in one case of prison suicide (0.05 g/100mL) and three cases of suicide in police custody (0.18, 0.11, 0.01 g/100mL). No information on aboriginality is available from the coding forms used to collect these data.

### WHY DO PEOPLE COMMIT SUICIDE?

The reasons why people commit suicide have proved remarkably difficult to determine. Even if we observe higher suicide rates among the unemployed or the divorced, we cannot then say that unemployment or divorce are causes of suicide. Many people experience unemployment or divorce but do not commit suicide, and on the other hand some people who are not members of these risk groups do commit suicide. The purpose of showing the suicide risk among different community groups is simply to display the wide variation in that risk.

It is impossible to interview successful suicides, so much of the information we have on the psychology of suicide comes from interviews conducted with people who have apparently attempted suicide. However, we cannot be certain that people who apparently attempt suicide are representative of those who are successful. Follow-up studies of people who attempt suicide indicate that only a small proportion eventually make a successful attempt.<sup>23</sup> Indeed, research on suicide and attempted suicide indicates that although men have a higher rate of successful suicide than women, women have a higher rate of attempts. This may have to do with the fact that men resort to more violent methods of effecting death. Women favour drug overdoses and may thus be more likely to be saved by successful medical intervention. Alterna-

Figure 6  
Suicides, 1988:  
NSW, Sex and employment status, rate per 100,000 population



Source: Employment data from ABS Labour Force Statistics NSW June 1988

coronial hearings. In total, 32.5 per cent of male and 18.0 per cent of female suicides were found to have alcohol in their blood.

As was the case with alcohol, drug tests were not taken in all cases. Where drug tests were taken combinations of up to six different drugs or poisons were detected in bodies of suicides. The drugs and poi-

tics which drugs were the fatal agents. Many cases involved a number of different drugs, or one or more drugs and alcohol. Some drugs detected are not fatal, even when taken in large quantities (e.g. Oxazepam), so their presence in these graphs should not be taken as implying that they were the agents responsible for death.

tively, there may be a gender difference in the psychology and sociology of suicide which underlies the gender differentiation of successful suicides and attempts.<sup>24</sup>

Sociological studies have tended to investigate the general social conditions that can explain variations in the suicide rate. The basis for such studies is Emile Durkheim's seminal work on suicide

times of both economic boom and depression.

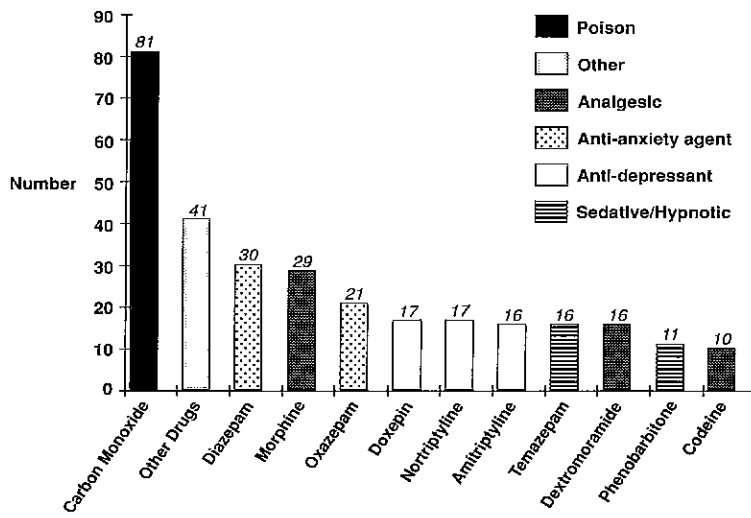
Obviously, these two sorts of social forces do not act in isolation. Take, for example, the factors that we have observed are associated with suicide in NSW. Unemployment creates a situation where expectations of a certain lifestyle can become unobtainable due to a lack of

social interaction provided in the work-place. Similarly, separation, divorce or becoming widowed can create a situation where individuals feel that they are not able to fulfil social expectations and goals concerning a successful family life and lifestyle. Also, people who suffer these events can become socially isolated as it may be difficult for them to enter into new sets of social relationships. Similarly, migration can lead to an increase in social isolation through separation from family and community and linguistic difficulties. Also, many migrants may be forced to find employment in relatively unskilled and poorly paid jobs, leading to feelings of frustration and failure.

These sociological explanations would predict that suicide will become more common when levels of social isolation increase and when social, technological and economic change are most rapid. It has been argued by Eckersley, in a report prepared for the Commission for the Future<sup>27</sup>, that these sorts of changes have been associated with a growth in youth suicide in Australia.

Nevertheless, by themselves sociological explanations cannot provide a complete explanation of suicide since many people are affected by unemployment, divorce, the death of a spouse, and rapid social and economic change, and do not commit suicide. The individual response of people to these risk factors varies widely. It is likely, for example, that the psychological stresses generated by becoming unemployed will be different for

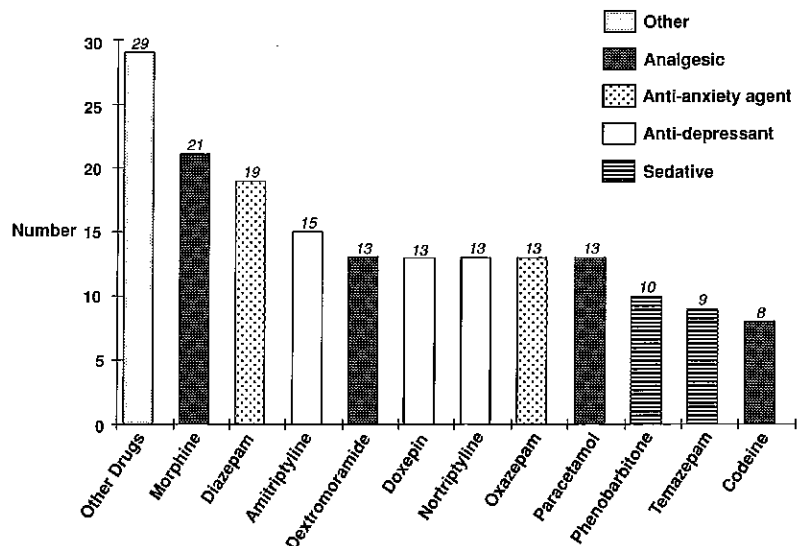
Figure 7  
Suicides, 1988:  
Drugs found all suicides, NSW



(1897) which began to have an influence in the English speaking world after its publication in translation in 1951.<sup>25</sup> According to Durkheim there are two general sorts of social forces which can lead to an increase in suicide. The first of these is manifested in the level of individualism in society. Put simply, a person who is isolated from the social interactions provided by family and friends and in the work-place is more likely to commit suicide. This factor is associated with feelings of isolation and possibly rejection. The second general social force is one associated with economic factors. This factor exerts its influence through the disjuncture between reality and the culturally defined goals and norms that provide the link between individuals and meaningful social life.<sup>26</sup> That is, people who find that they cannot fulfil the goals and norms that they feel are demanded of them are more likely to commit suicide. This factor is associated with feelings of failure. Such situations may occur during periods of economic and social change when goals and norms, and the means of achieving them, are changing rapidly. This type of change may be manifested in

financial means. Individuals may feel that they have failed to live up to socially defined norms that they are expected to strive for. Unemployment, however, can also lead to an individual becoming isolated through separation from the

Figure 8  
Suicides, 1988: NSW,  
Drugs found where manner of death was drugs



young than for old people, or for people with varying conceptions of social and economic success. In the case of old people who decide to commit suicide because they are tired of life, or because they suffer from a painful or chronic disease, the decision to commit suicide might be regarded as a rational one. Although it has been observed that depression of some kind is almost universally associated with suicide<sup>28</sup>, there are many different states that could be described as depressive, and people deal with depression with varying success. Indeed, most people who suffer from depression do not end up committing suicide and suicidal behaviour may be associated with degrees of depression ranging from isolated depressive moods to extreme states of depressive disorder.<sup>29</sup>

## SUMMARY

A number of groups in the community can be identified as having greater than average risk of suicide. Males are more likely to commit suicide than females. The very old and those aged in their late teens to late twenties have a higher incidence of suicide. People who are separated, widowed or divorced are more likely to commit suicide than are married people. Unemployment also appears to increase the risk of suicide and people born in some overseas countries have a higher risk of suicide than those who are Australian born. Some of these factors are related to the introduction of stress and disruption into peoples lives, and may be associated with broader social and economic changes.

## REFERENCES

- These data are compiled from coroners court statistics by the Bureau of Crime Statistics and Research. The criterion for a suicide to be recorded in statistics for 1988 is that the Coroner's determination, not the date of death, was in 1988. See NSW Bureau of Crime Statistics and Research (1989) *New South Wales Coroners Courts Statistics 1988*. Sydney: NSW Bureau of Crime Statistics and Research. In contrast, the Australian Bureau of Statistics collects data on deaths by the year of registration.
- Australian Bureau of Statistics (1989) *Estimated Resident Population of Statistical Local Areas New South Wales, At 30 June, 1987 Final and 1988 Preliminary*, Sydney: ABS. On ABS figures, there were 730 suicides in NSW in 1988, a rate of 12.8 per 100,000 population. This discrepancy is due to the different criteria for counting deaths mentioned in the previous footnote.
- There are approximately 100 murders in NSW per annum, a rate in 1986 of 1.7 per 100,000. See Bonney, R. (1987) *Homicide 2*, Sydney: NSW Bureau of Crime Statistics and Research.
- Approximately 1,900 persons per annum die in NSW as a result of accidents, a rate of 35 per 100,000. See Australian Bureau of Statistics (1988) *Causes of Death, NSW, 1986*, Sydney: ABS.
- In 1984 there were significant delays in the registration of deaths in NSW. This led to an under counting of deaths in ABS statistics in 1984 and an over count in 1985. See ABS (1988) *op. cit.* p. 8.
- Australian Bureau of Statistics (1983) *Suicides, Australia, 1961-1981 (Including Historical Series 1881-1981)*, Canberra: ABS.
- See the Bureau's earlier set of Coroners Court Statistics for a more complete discussion of the implications of cases where inquests are dispensed with, Zavesky, L. (1988) *Sydney Coroners Courts*. Sydney: NSW Bureau of Crime Statistics and Research, p.45.
- Interestingly, a similar problem with suicide statistics was noted by Durkheim in 1897 in his classic study of suicide. He observed that "What are called statistics of the motives of suicides are actually statistics of the opinions concerning such motives of officials, often of lower officials, in charge of this information service", Durkheim, E. (1951) *Suicide*, translated by J. Spalding and G. Simpson, London: Routledge and Kegan Paul, p. 148.
- McClure, C. M. (1986) "Recent Changes in Suicide Among Adolescents in England and Wales", *Journal of Adolescence*, 9: 135-143.
- Kosky, R. (1987) "Is Suicidal Behaviour Increasing Among Australian Youth?" *The Medical Journal of Australia*, 147: 164-166.
- McClure, C. M. (1986) *op. cit.*
- Some aspects of suicide in older people in the United States are discussed by Manton, K., Blazer, D. and Woodbury, M. (1987) "Suicide in Middle Age and Later Life: Sex and Race Specific Lifetable and Cohort Analysis", *Journal of Gerontology*, 42: 219-227.
- Australian Bureau of Statistics (1983) *op. cit.*
- Rates are calculated per NSW residents with the same country of birth.
- That is, Yugoslavians had the highest suicide rate among those birthplace groups that appeared in the statistics frequently enough to permit reliable calculation of rates. Some birthplace groups are so small that their suicide rates can vary enormously when there are a few more or less suicides in that group in any one year.
- Krupinsky, J. (1976) "Confronting Theory with Data: The Case of Suicide, Drug-Abuse and Mental Illness in Australia", *Australian and New Zealand Journal of Sociology*, 12: 91-100.
- Whitlock, F. (1975) "Suicide in Brisbane, 1956 to 1973: the Drug Death Epidemic", *The Medical Journal of Australia*, 1: 737-743.
- Whitlock, F. (1975) *op. cit.*, Krupinsky, J. (1976) *op. cit.*
- Figures 7 and 8 list only the most commonly occurring substances. A large number of other substances were found but occurred in only small numbers of cases. A table of the frequency of occurrence of various categories of drugs can be found in the Bureau's Coroners Court Statistics for 1988, *op. cit.*
- It should be noted that it is impossible to distinguish Morphine and Heroin *in vivo*. It is probable that in most cases where Morphine was identified in post-mortem analysis of blood and tissue the original substance was Heroin.
- That is, drugs that are not classified as Antidepressants, Sedative/Hypnotics, Antianxiety Agents, Analgesics, Anti-convulsants, Antipsychotics, Illegal Drugs or Poisons.
- See note 19.
- Giddens, A. (1971) "A Typology of Suicide", in A. Giddens (ed) *The Sociology of Suicide*, London: Frank Cass and Co., p. 115.
- Ibid.*
- Durkheim, E. (1951) *op. cit.*
- See Giddens, A. (1971) *op. cit.* for a full and more technical discussion of these social forces, called egoism and anomie respectively.
- Eckersley, R. (1988) *Casualties of Change: The Predicament of Youth in Australia*, Canberra: Commission for the Future.
- Giddens, A. (1971) *op. cit.* p. 112.
- Ibid.* p. 101.