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Changing patterns in suicide behaviour

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INTRODUCTION

At the invitation of the Government of Greece, the WHO Regional Office for Europe convened a Working Group on Changing Patterns in Suicide Behaviour, which was held in Athens from 29 September to 2 October 1981.

The meeting was attended by 10 participants from 9 European countries and 2 observers from Greece, and the International Association for Suicide Prevention, the International Federation of Telephonic Emergency Services, the World Federation for Mental Health and the World Psychiatric Association were represented. Professor S.A. Doxiadis, Minister of Health of Greece, welcomed the participants. He expressed his personal interest in the subject of the meeting and wished all participants success in their work.

Professor C. Stefanis was elected Chairman, Dr P. Kennedy Rapporteur and Dr J.H. Henderson Secretary.

Suicide still ranks among the top 5–10 causes of death in Europe. "Psychological autopsies" have indicated that most of those who killed themselves were suffering from mental illness that could have been cured.

Since the early 1960s European countries have been reporting steadily increasing rates of suicide. Exceptions are England & Wales and Greece, where rates have fallen substantially. Study of the conditions that might explain rises and falls in suicide rates could have important implications for prevention. However, a previous WHO report (*1*) raised serious doubts about the reliability of official suicide statistics.

The last 20 years have also seen a massive rise in rates of attempted suicide in nearly all European countries, including England & Wales and Greece. This has become one of the commonest reasons for hospital admission. The demographic, social and clinical characteristics of attempted suicides are so different from actual suicides that causes and prevention strategies need to be considered separately. The intention to die is weak or absent in so many cases that alternative terms such as "parasuicide" have been suggested. The term "attempted suicide" will be retained here, emphasizing the relationship of this behaviour to suicide but

including *all* non-fatal intentional acts of self-injury or self-poisoning, which in the case of drug poisoning means that the recommended dose has been deliberately exceeded. Most authorities now use this working definition.

Besides analysing modern trends, looking for new clues to causation and for new ideas in the prevention of both suicide and attempted suicide, the Working Group also studied previous attempts at prevention that had proved unsuccessful. The reasons for failure need to be understood in order to avoid wasteful use of resources in the future.

CHANGING PATTERNS OF SUICIDE AND ATTEMPTED SUICIDE

Suicide trends

Suicide is always underestimated. However, it is not the ascertainment of absolute rates that is so important, it is whether *relative* differences are due to systematic bias in reporting, or can be taken to mean real differences in the propensity to suicide of the different populations. The main trends in official rates will first be described before the issue of reliability is examined.

Throughout all European countries suicide is more common in the older age groups and more common in males than in females. These differences can be so great that trends in crude rates are not informative unless sex-specific and age-specific rates can be studied in parallel.

Table 1 gives the latest available information for those countries of the WHO European Region that provide suicide data. There are large national differences, which have persisted throughout this century with few changes in the rank order of countries from highest to lowest. Changes in the male and female rates between 1901 and 1977 are shown in Tables 2 and 3. Males rates show no consistent trend, whereas the female rates show a significant tendency to increase throughout this century.

The trends in age-specific rates between 1901 and 1954 have been described in detail by Dreyer (*2*), who found a slight fall in rates for young adults in most countries. Among the middle-aged (over 40 years) there was a fall in rates for males, but not for females, in the majority of countries. Among the elderly (over 60 years), who account for most suicides in any country, the female rates increased in nearly all European countries, whereas the male rates showed no consistent trend.

There has been a striking reversal in some of these trends during the last two decades, as shown in Table 4 and Fig. 1 and 2. Since 1960 the suicide

Table 1. Deaths from suicide in the European Region of the World Health Organization (latest year available)

Country	Year	Males		Females		Total	
		No.	Rate per 100 000 population	No.	Rate per 100 000 population	No.	Rate per 100 000 population
Austria	1980	1342	37.8	590	14.9	1932	25.7
Belgium	1977	1201	25.0	673	13.4	1874	19.1
Bulgaria	1980	842	19.1	364	8.2	1206	13.6
Czechoslovakia	1975	2345	32.5	896	11.8	3241	21.9
Denmark	1980	1039	41.1	579	22.3	1618	31.6
Finland	1978	963	41.9	237	9.7	1200	25.2
France	1978	6447	24.7	2711	10.0	9158	17.2
Germany, Fed. Rep. of	1980	8332	28.3	4536	14.1	12868	20.9
Greece	1979	186	4.0	91	1.9	277	2.9
Hungary	1980	3344	64.5	1465	26.5	4809	44.9
Iceland	1980	14	12.2	10	8.8	24	10.5
Ireland	1978	106	6.4	57	3.5	163	4.9
Italy	1978	2563	9.3	1092	3.8	3657	6.4
Luxembourg	1980	35	19.7	12	6.5	47	12.9
Malta	1977	0	—	—	—	0	—
Netherlands	1980	901	12.8	529	7.4	1430	10.1
Norway	1980	370	18.3	137	6.6	507	12.4
Poland	1979	3766	21.8	732	4.0	4498	12.7
Portugal	1979	701	15.0	251	4.8	952	9.7
Spain	1978	1094	6.1	413	2.2	1507	4.1
Sweden	1980	1137	27.6	473	11.3	1610	19.4
Switzerland	1980	1128	36.7	493	15.2	1621	25.7
United Kingdom							
England & Wales	1980	2629	11.0	1692	6.7	4321	8.8
Northern Ireland	1978	38	5.0	32	4.1	70	4.5
Scotland	1981	339	13.6	177	6.6	516	10.0

Source: WHO data bank.

Table 2. Changes in male suicide rates for the period 1901–1977 (suicides per 100 000 population — all ages)

Country	1901–1903	1910–1912	1920–1921	1952–1954	1955–1959	1970–1973	1975–1977
Austria			31	32	34	33	35
Belgium	21	22	19	20	20	21	23
Denmark			20	32	30	30	30
Finland	9	15	18	30	34	36	42
France				24	25	23	23
Germany	34	34	29	26[a]	26[a]	27[a]	29[a]
Ireland	5	5	4	3	4	4	7
Italy	10	12	11	9	9	8	8
Luxembourg				15		21	
Netherlands	10	9	10	8	8	10	11
Norway	9	9	8	11	12	13	16
Portugal	7[b]	9[c]	9		15	14	14
Spain	3	7	8	9[d]		7	6
Sweden	23	30	24	27	29	30	28
Switzerland	38	39	36	33	31	27	33
United Kingdom							
England & Wales	15	15	14	14	15	9	10
Northern Ireland				5	5	4	5
Scotland	9	9	8	8	11	9	10

Increases	7	3	7	8	6	11
Decreases	1	9	5	2	8	2
No change	5	1	2	5	2	4
P	n.s.	n.s.	n.s.	n.s.	n.s.	<0.02

Increases	4	9
Decreases	8	5
No change	0	2
P	n.s.	n.s.

[a] Federal Republic of Germany only.

[b] 1902–1903 only.

[c] 1910.

[d] 1952–1953 only.

n.s.: not significant.

Table 3. Changes in female suicide rates for the period 1901-1977 (suicides per 100 000 population — all ages)

Country	1901-1903	1910-1912	1920-1921	1952-1954	1955-1959	1970-1973	1975-1977
Austria			13	15	15	14	14
Belgium	4	6	7	7	8	10	12
Denmark			7	15	14	17	18
Finland	2	4	4	7	9	10	10
France				7	9	9	9
Germany	9	10	14	12[a]	13[a]	15[a]	15[a]
Ireland	1	2	1	1	1	1	3
Italy	2	4	4	4	4	4	4
Luxembourg				5		8	
Netherlands	3	3	4	4	5	7	7
Norway	2	2	2	3	4	5	6
Portugal	2[b]	3[c]	4		4	4	4
Spain	1	2	2	3[d]		2	2
Sweden	5	7	6	8	9	12	11
Switzerland	8	8	10	11	11	11	13
United Kingdom							
England & Wales	5	5	5	5	9	6	6
Northern Ireland				2	2	3	3
Scotland	3	3	3	4	6	6	7

Increases	8	5	8	9	8	6
Decreases	0	2	1	1	2	1
No change	5	6	5	5	6	10
P	0.01	n.s.	0.05	0.02	0.10	n.s.

Increases	10	13
Decreases	0	2
No change	2	1
P	<0.01	<0.01

[a] Federal Republic of Germany only.

[b] 1902-1903 only.

[c] 1910.

[d] 1952-1953 only.

n.s.: not significant.

rate for young adults has increased in both sexes in more countries than it has decreased. Among the elderly, male rates have now started to rise along with the continuing rise in female rates.

There is no shortage of plausible hypotheses for these trends. For instance, changing female roles during this century may explain the rise in the female suicide rate. Young adults may be affected more than others by the radical changes in attitudes and values of the last 20 years. The demographic structure of populations has altered to bring about a "geriatric problem" in most European countries during this period.

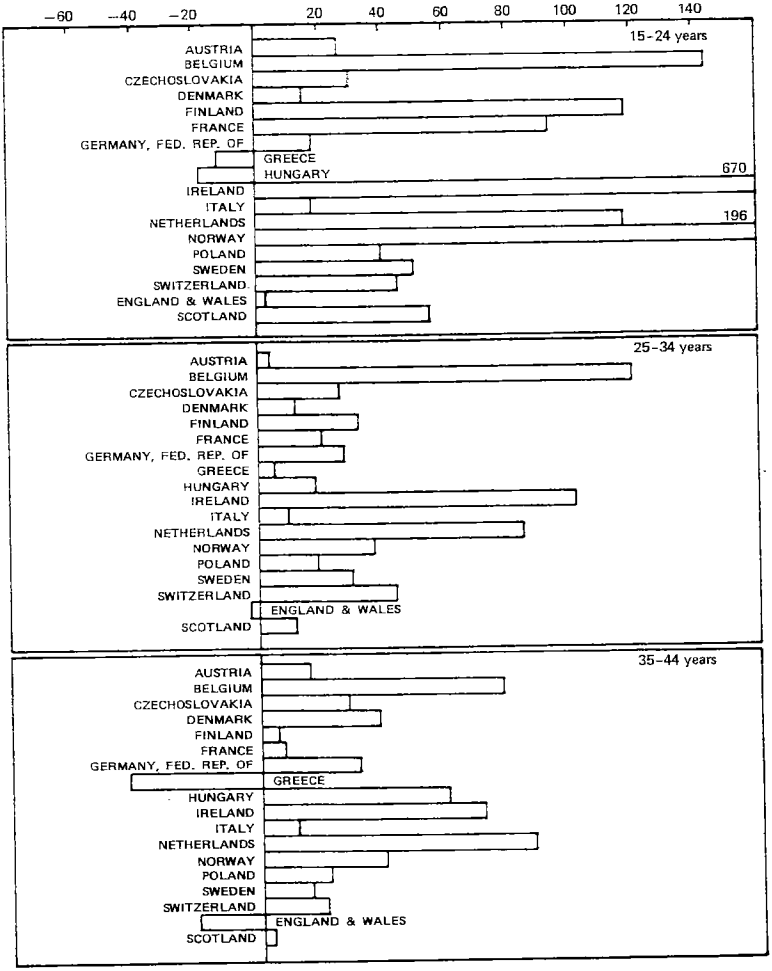
Durkheim's (*3*) theories of the social causes of suicide have certainly received support from reported trends in Europe during the two World Wars and in the intervening economic recession of the 1930s. Table 5 shows how the rates fell during wartime. Durkheim suggests that the common threat of war produces greater cohesion in a community, reducing the likelihood of individual isolation and alienation. As Fig. 3 shows for England & Wales, the elderly non-combatant groups were most affected. Table 6 shows how much the suicide rates rose in the depths of the economic depression compared with 1921–1923, a time of relative economic stability. Durkheim might have predicted the highest rise in rates among the middle-aged and elderly, as Fig. 3 shows, for they are less competitive in the struggle for jobs and economic security.

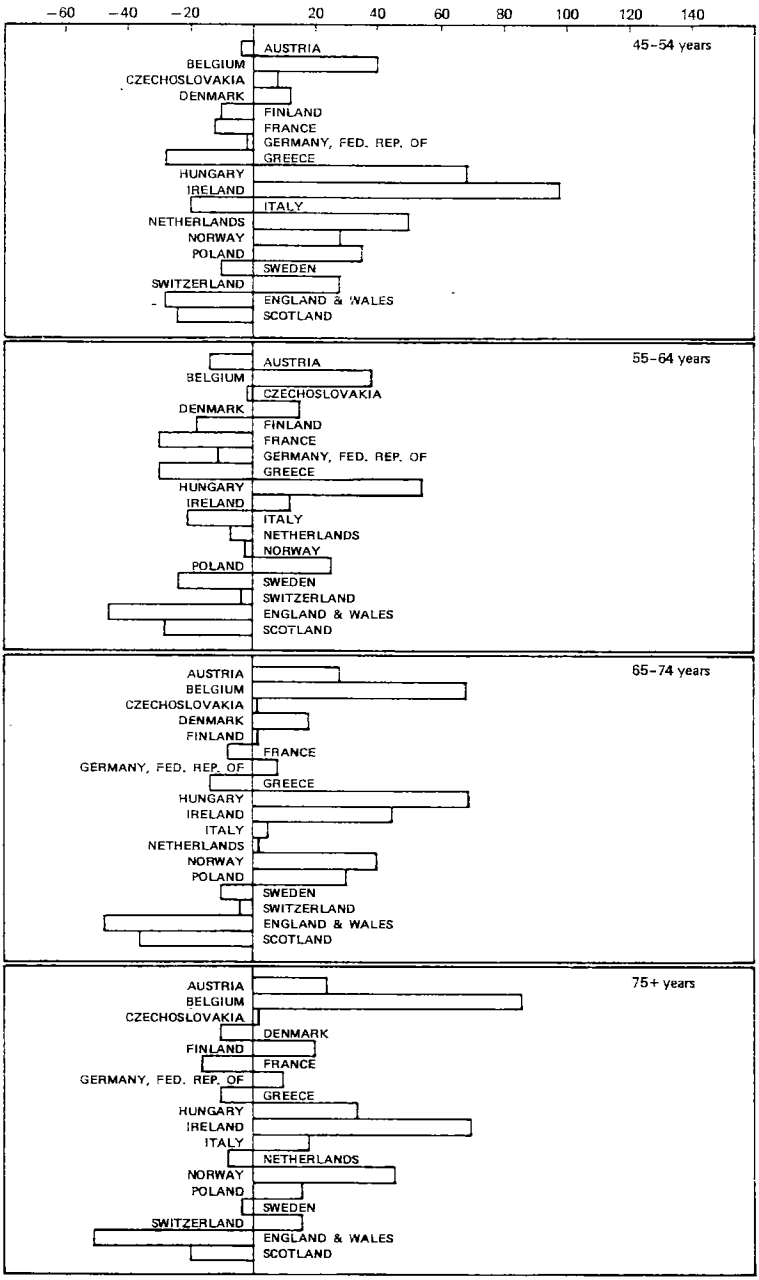
The Working Group identified some more recent trends in suicide rates, so striking in their magnitude that they seem especially to merit research interest. The decline in rates for England & Wales is a reported 34% (2000 lives per year) between 1961 and 1974. The elderly are most affected, whereas everywhere else in Europe, except in Greece, their rates have risen steeply. The countries in which rates have increased in proportion to the decrease in England & Wales and Greece are: Hungary (49%), Ireland (38%), Denmark (34%), Netherlands (34%) and Poland (34%).

Hungary's increase towards reaching and maintaining the highest suicide rate in Europe began from an already high level four or five decades ago. The Group was informed of previously unreported statistics showing rates as high as Hungary's in the northern industrialized and wealthier parts of Yugoslavia. Particularly high rates are recorded among the elderly in rural areas from which many of the young have migrated into the industrial cities. In contrast, some of the lowest rates in Europe are recorded in rural areas of southern Yugoslavia such as Macedonia.

Norway has for many years recorded rates half as high as in neighbouring countries — Denmark, Finland and Sweden. It was suggested that this might be due to the greater family integration in Norway; studies were currently being carried out to investigate this and other possible explanations.

Fig. 1. Percentage change in male suicide rates from 1960–1964 to 1975–1977 by different age groups in 18 European countries




−60
−40
−20
20
40
60
80
100
120
140
45–54 years
AUSTRIA
BELGIUM
CZECHOSLOVAKIA
DENMARK
FINLAND
FRANCE
GERMANY, FED. REP. OF
GREECE
HUNGARY
IRELAND
ITALY
NETHERLANDS
NORWAY
POLAND
SWEDEN
SWITZERLAND
ENGLAND & WALES
SCOTLAND
55–64 years
AUSTRIA
BELGIUM
CZECHOSLOVAKIA
DENMARK
FINLAND
FRANCE
GERMANY, FED. REP. OF
GREECE
HUNGARY
IRELAND
ITALY
NETHERLANDS
NORWAY
POLAND
SWEDEN
SWITZERLAND
ENGLAND & WALES
SCOTLAND
65–74 years
AUSTRIA
BELGIUM
CZECHOSLOVAKIA
DENMARK
FINLAND
FRANCE
GERMANY, FED. REP. OF
GREECE
HUNGARY
IRELAND
ITALY
NETHERLANDS
NORWAY
POLAND
SWEDEN
SWITZERLAND
ENGLAND & WALES
SCOTLAND
75+ years
AUSTRIA
BELGIUM
CZECHOSLOVAKIA
DENMARK
FINLAND
FRANCE
GERMANY, FED. REP. OF
GREECE
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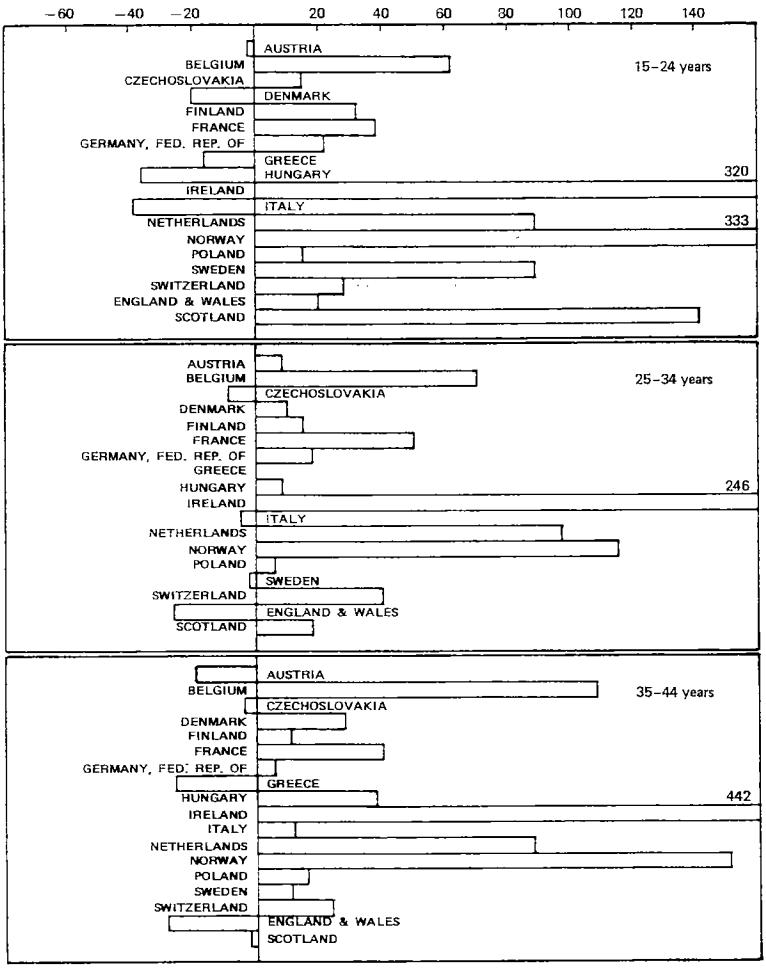
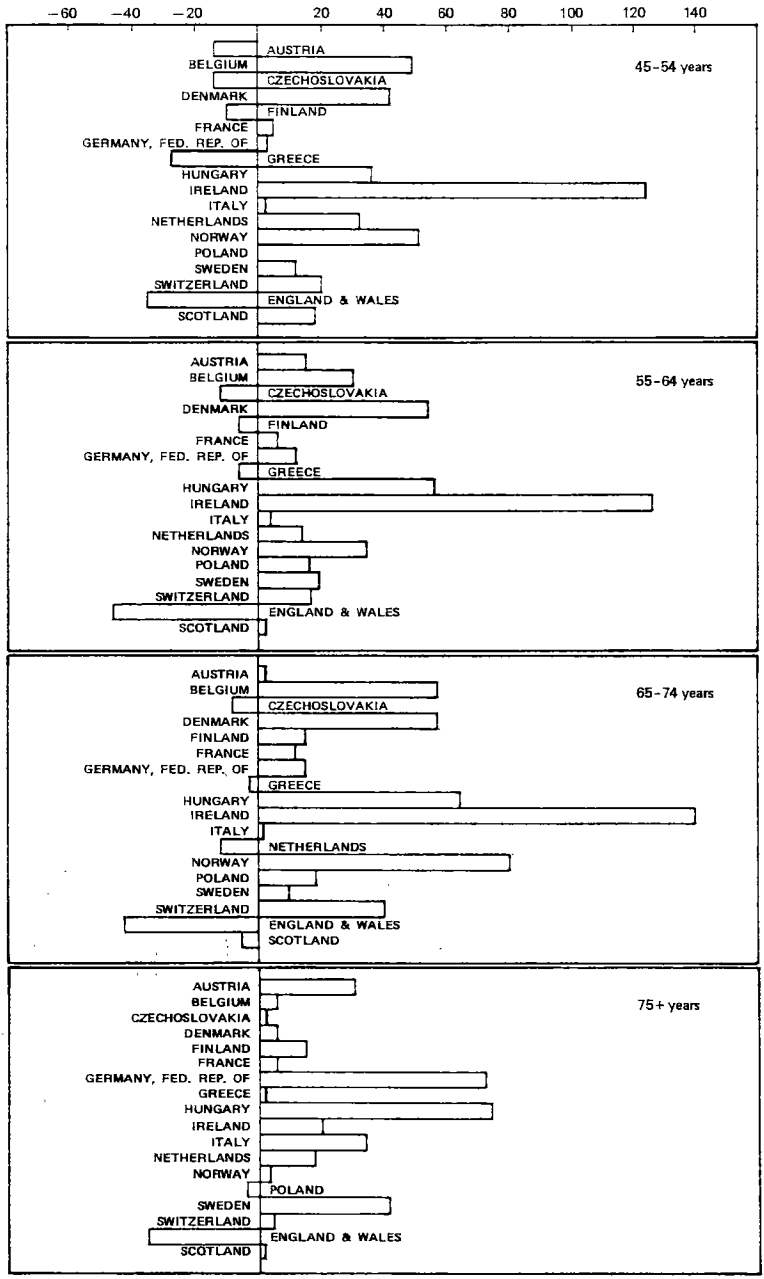
SWITZERLAND
ENGLAND & WALES
SCOTLAND

Fig. 2. Percentage change in female suicide rates from 1960–1964 to 1975–1977 by different age groups in 18 European countries




−60
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45–54 years
AUSTRIA
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SCOTLAND
55–64 years
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SWEDEN
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ENGLAND & WALES
SCOTLAND
65–74 years
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ENGLAND & WALES
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75+ years
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HUNGARY
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NETHERLANDS
NORWAY
POLAND
SWEDEN
SWITZERLAND
ENGLAND & WALES
SCOTLAND

Table 5. Effect of war on suicide rates by sex in belligerent and neutral countries (Suicides per 100 000 population aged 15 years and over)

Country	Male			Female		
	1938	1944	Percentage difference	1938	1944	Percentage difference
Belligerent countries						
Australia	16.4	9.9	−40	5.0	4.9	− 2
Austria[a]	60.7	28.1	−54	28.6	13.8	−52
Belgium	27.6	18.1	−34	8.6	6.5	−24
Canada	13.1	8.9	−32	3.7	3.2	−14
Denmark	28.9	24.0	−17	12.9	20.5	+59
Finland	32.8	27.7	−16	7.3	5.3	−27
France	31.0	18.2	−41	8.9	6.1	−31
Italy	11.0	6.0	−45	3.6	2.0	−44
Japan[b,c]	21.0	18.7	−11	12.9	12.9	0
Netherlands	11.6	7.4	−36	5.4	5.6	+ 4
New Zealand	19.5	14.6	−25	5.1	5.7	+12
Norway	10.7	8.2	−23	5.3	9.8	+85
Union of South Africa	15.5	10.7	−31	5.0	3.4	−32
United Kingdom						
England & Wales	18.0	13.5	−25	8.2	5.8	−29
Northern Ireland	6.9	5.6	−19	6.9	5.6	−19
Scotland	12.3	9.1	−26	6.3	4.5	−29
United States	23.5	14.9	−37	6.9	5.4	−22
Neutral countries						
Chile	6.8	6.5	− 4	2.5	2.3	− 8
Ireland	4.7	4.6	− 2	1.8	0.6	−67
Portugal	16.6	13.9	−16	5.0	4.8	− 4
Spain[d]	6.9	8.8	+28	2.3	2.6	+13
Sweden	25.0	20.6	−18	6.8	5.7	−16
Switzerland	38.4	37.2	− 3	11.6	14.7	+27

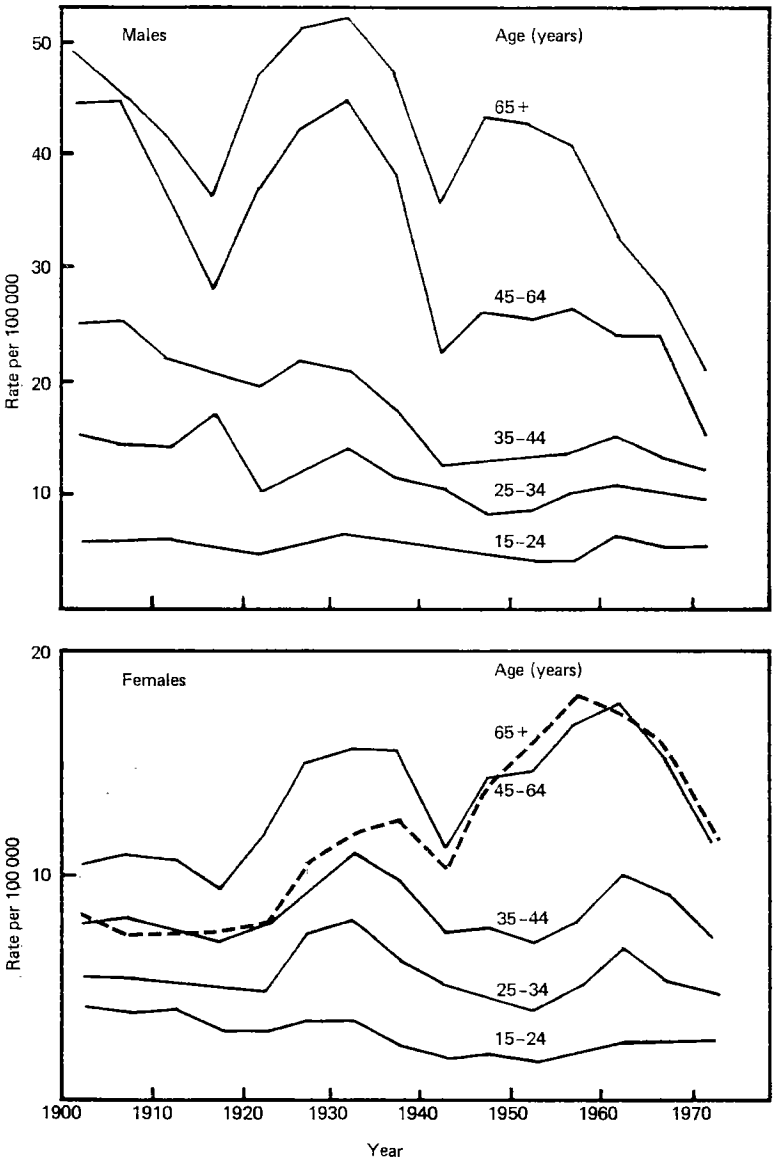
[a] Nearest figures available for Austria were for 1946 (1938 "Anschluss").

[b] Japan was also at war in 1938.

[c] Nearest figures available for Japan were for 1947.

[d] Civil war in Spain in 1938.

Fig. 3. Suicide rates in England & Wales, 1900–1974 by age and sex



Source: Registrar General's statistical reviews.

Table 6. Changes in the incidence of suicide by sex and age in selected countries between 1921–1922 and 1931–1932 (economic depression)[a]

Country	Males			Females		
	20–39 years	40–49 years	>60 years	20–39 years	40–49 years	>60 years
Australia	+ 25	+ 10	0	0	+ 17	− 7
Belgium	+ 29	+ 19	+19	− 6	+ 18	+ 2
Canada	+ 29	+ 48	+33	+ 32	+ 15	+23
Chile	+ 96	+150	+41	+ 90	+200	n.k.[b]
Denmark	+ 13	+ 22	− 9	+ 88	+ 6	+ 5
Finland	+108	+ 58	+68	+ 39	+ 42	+13
France	+ 8	+ 3	0	− 5	+ 5	− 5
Germany	− 3	+ 17	+ 1	+ 13	+ 28	+15
Italy	+ 5	+ 76	+55	− 4	+ 47	+52
Netherlands	− 14	+ 11	− 1	+ 15	+ 54	+38
New Zealand	− 10	+ 26	+19	− 5	+ 28	+47
Norway	+ 22	+ 35	+49	+ 63	+ 18	−24
Portugal	+ 14	+ 61	+54	− 10	+ 5	+46
Spain	− 5	+ 36	+23	+ 14	+ 26	+33
Sweden	− 9	+ 8	− 2	+ 3	− 2	−15
Switzerland	+ 13	+ 5	+ 5	− 4	+ 13	− 9
Union of South Africa	+ 10	− 4	+17	+ 63	+104	+35
United Kingdom						
England & Wales	+ 41	+ 20	+16	+ 42	+ 32	+45
Scotland	+ 56	+ 77	+76	+128	+ 91	+68
United States	+ 6	+ 28	+36	+ 19	+ 21	+20
Number which increased	15	19	15	13	19	14
Number which decreased	5	1	3	6	1	5
No change, or number not known	0	0	2	1	0	1
Sign test two tailed *P*	0.042	<0.001	0.008	0.168	<0.001	0.064
Number of times age group had:						
greatest increase	6	11	3	5	10	5
greatest decrease	5	1	1	4	0	4

[a] Percentage change; mortality around 1920–1921 = 100.

[b] n.k. = not known.

Validity and reliability of suicide statistics

The salient question is whether errors in identifying suicides vary so much among different populations that they may account for the differences in rates. Douglas (*4*) and others have argued that cultural attitudes to suicide so affect definition that official suicide statistics are valueless. The differences among European countries in procedures for defining suicide are well documented in a WHO report (*1*). This report includes the results of a study comparing verdicts reached by English coroners and their Danish counterparts in 40 cases, selected because they were equivocal. Because agreement was scant and the Danes decided that a greater proportion were suicides, the inference was that such observer differences could account for the national differences in official statistics and, therefore, that official rates were of very limited value.

Mindful of these fundamental criticisms, the Working Group took as its main task an examination of whether further study of official statistics is likely to be fruitful. The evidence considered was as follows.

1. Ross & Kreitman (*5*) compared the effect on suicide statistics of two markedly different procedures: those followed in Scotland and those used in England & Wales. Their study was far better designed to demonstrate whether or not national differences are due to identifying procedures. The cases examined involved males aged 25–44 and 65–84 years, because the difference between the two areas is greatest for these demographic groups; the cases were consecutive and therefore unselected, and the numbers were sufficient. The authors found that officials in the two areas agreed closely on verdicts, and concluded that the ascertainment process did not explain the difference in suicide rates.

2. Sainsbury & Barraclough (*6*) compared the rank order of the suicide rates of immigrants to the United States from 11 different countries with those reported by their countries of origin (Table 7). Cases of suicide in the various immigrant groups were all identified by United States procedure, whereas suicides in their home countries were defined by the particular methods of each country. The rank order of the two sets was nearly identical ($r = 0.90$). National suicide rates, therefore, must differ independently of the ways in which a suicide is defined and reported. Table 8 shows that, when an identical exercise was carried out on Australian immigrants, the same conclusion was reached by Sainsbury (*7*) that national suicide statistics are reliable enough to be used in comparative epidemiological studies.

3. The tendency to classify deaths as accidental or of undetermined cause, rather than suicide, varies among countries. Barraclough (*8*) compared the rank order of the officially reported suicide rates of 22 countries

Table 7. Suicide rates for 1959 per 100 000 among immigrants to the USA from 11 countries

Country	A Suicide rate/ 100 000 of foreign-born in USA	B Suicide rate/ 100 000 of country of origin	Rank order of A	Rank order of B
Austria	32.5	24.8	2	2
Canada	17.5	7.4	9	8
Czechoslovakia	31.5	24.9	3	1
England & Wales	19.2	11.5	7	5
Germany, Fed. Rep. of	25.7	18.7	4	3
Ireland	9.8	2.5	10	10
Italy	18.2	6.2	8	9
Mexico	7.9	2.1	11	11
Norway	23.7	7.8	6	7
Poland	25.2	8.0	5	6
Sweden	34.2	18.1	1	4
USA	10.4			
$r = 0.90$, $P < 0.01$				

Source: Sainsbury & Barraclough (*6*).

and the rank order of rates derived by combining their suicide and undetermined death rates. He obtained a correlation of 0.89 ($P < 0.001$), which he took as further confirmation that the differences are valid and override those arising from discrepancies in the definition and registration of cases. Using the same technique, Sainsbury & Barraclough have recently shown that adding accidental poisoning deaths as well as undetermined ones does not materially affect the rank order of suicide rates of 19 European countries. As can be seen from Table 9, the correlation between the nations' suicide rates and the estimated suicide rates is 0.96. If many single-car, single-occupant road deaths are suicides, as is often claimed, the epidemiological implications might be serious because most of these deaths are recorded as accidents. Sainsbury (*9*) showed that if all such deaths in the United Kingdom were supposed suicides the rate would be increased by only 7%. Neither did these deaths have the same seasonal variations and age distribution as suicides, but were related to poor road conditions, as would be expected with accidental deaths. He came to the same conclusion as Schmidt et al. (*10*) reached after extensive case studies in the United States, i.e. that suicidal car deaths are rare.

Table 8. Suicide rates per 100 000:
Australian immigrants and countries of birth, by sex

Country	Male suicide rates				Female suicide rates			
	A Immigrants	B Country of birth	Rank order A	Rank order B	A Immigrants	B Country of birth	Rank order A	Rank order B
Austria	33.0	32.4	6	2	44.6	13.9	2	2
Czechoslovakia	38.5	30.4	4	3	45.7	12.3	1	4
Germany	32.8	26.7	7	4	14.5	13.6	9	3
Greece	6.8	4.7	16	15	3.0	2.2	15	15
Hungary	57.7	40.3	1	1	34.6	17.3	3	1
Ireland	30.5	5.3	8	14	10.8	2.3	11	14
Italy	10.4	7.6	15	12	3.4	3.2	14	12
Malta	10.7	1.4	14	16	1.4	0.2	16	16
Netherlands	12.7	8.2	13	11	6.8	4.9	13	10
New Zealand	33.1	11.4	5	9	19.0	6.4	5	8
Poland	56.6	14.3	2	7	28.8	3.3	4	11
Spain	15.9	7.6	12	12	7.1	2.5	12	13
United Kingdom								
England & Wales	25.3	13.7	11	8	15.3	9.6	8	5
Scotland	30.3	10.0	9	10	17.7	6.6	6	7
United States	29.5	16.3	10	6	13.8	5.8	10	9
Yugoslavia	38.6	17.8	3	5	16.2	7.7	7	6
Australia	16.1		$r = 0.78$		10.0		$r = 0.79$	

4. Idiosyncrasies of coroners in England had little practical effect on reported differences between districts. Sainsbury & Barraclough (*6*) found that in districts where the coroner changed, the correlation between rates reported during two different periods was the same as for those where no change had occurred. Brugha & Walsh (*11*) showed that under-reporting of suicides in Ireland had such temporal constancy that it was the same in Dublin in 1900–1904 as in 1964–1968. It has also been shown that the English Suicide Act of 1961, whereby attempting or committing suicide ceased to be a criminal offence, did not make coroners more ready to bring in a verdict of suicide. Nor did the revision of the International Classification of Diseases in 1967 — allowing open verdicts to be classified as "undetermined" — lead coroners to return fewer suicide verdicts.

Table 9. Comparison of the rank orders of suicide rates and suicide. Undetermined and accidental poisoning death rates in 19 countries, in 1970–1973

Country	Suicide and self-inflicted injury	Rank	Suicide and self-inflicted injury, and injury undetermined (whether purposely or accidentally inflicted) and accidental poisoning	Rank
Austria	30.4	4	33.0	6
Bulgaria	15.1	11	19.0	11
Czechoslovakia	31.0	2	39.8	3
Denmark	30.6	3	36.4	4
Finland	29.7	5	40.8	2
France	20.4	9	25.1	9
Germany, Fed. Rep. of	26.8	6	29.6	7
Greece	4.1	19	7.1	18
Hungary	45.2	1	48.5	1
Italy	7.6	16	9.2	17
Netherlands	11.3	13	12.9	15
Norway	11.4	12	14.2	14
Poland	15.5	10	23.1	10
Spain	5.9	17	6.8	19
Switzerland	24.6	8	17.2	8
United Kingdom				
England & Wales	10.3	15	15.5	13
Northern Ireland	5.4	18	11.0	16
Scotland	10.6	14	17.6	12
Sweden	26.4	7	36.0	5

Spearman's rank correlation = 0.9596, n = 19, $P<0.001$.

5. The conclusions inferred from official statistics have been tested in controlled case studies. A survey in which suicide rates were related to socioeconomic conditions in London illustrates this. The survey showed that the rates in the different London boroughs correlate with their social and economic structure. The more affluent districts, for example, have higher suicide rates, as do those with a high proportion of immigrants. The statistical associations were then confirmed by comparing the economic status and duration of residence of consecutive cases of suicide with that of controls drawn from the general population. It was seen that people who had committed suicide had been more prosperous and had moved house more recently than the controls. In many other instances, causal hypotheses first suggested by official statistics have been supported by case studies (*7,12*).

The Working Group expressed confidence in the use of official suicide statistics from European countries for trend analysis after considering the above evidence. No change in the International Classification of Diseases categories relating to suicide was proposed, nor any alteration in the traditional ascertainment procedures of European countries. It was agreed that there would be no advantage in attempting to estimate supposedly "true" suicide rates by adding accidental or undetermined deaths, or indeed deaths from alcoholism, which are sometimes referred to as "slow suicides". The continued collation of official suicide data and study of the relative differences between official rates is considered well worth while. For each comparison likely sources of bias must first be considered and, when necessary, checked by analytical methods exemplified above.

Consistent differences in rates between national, demographic and social groups have been recorded over very long periods, differences which persist despite political changes that in many countries have altered the ascertainment procedure. To ignore the implications of such conspicuous regularities as the higher suicide rates of males, of the elderly, the divorced and so on, and to dismiss them as errors, is surely a failure of vision.

Explanations of trends in suicide

Dr Baert and Dr Sainsbury presented data from their special studies. Besides artefact, the following possible explanations were considered for divergence of the English suicide rate from that of most other European nations:

(*a*) reduced availability of lethal poisons;

(*b*) better health and social services; and

(*c*) socioeconomic changes.

The decline in the English rate has coincided closely with the reduction of carbon monoxide content in domestic gas. Fig. 4 shows that suicide by gas poisoning declined from being the most common method of suicide in 1960 to zero after 1970, and the reduction in coal gas deaths was equal in magnitude to the overall reduction in the suicide rate. However, Fig. 5 shows that in the Netherlands, where gas poisoning was also a common method of suicide in 1960, suicides from this method have also declined in parallel with the reduction of carbon monoxide in domestic gas, but the overall suicide rate has increased. In the Netherlands, drug poisoning, hanging and drowning have become more common as gassing has become less common. It was also found that towns in England and in the Netherlands that had not converted to North Sea gas until relatively late in their national programmes showed the same suicide trends as were occurring nationally. It was concluded that removing an easy and favoured method of suicide was not likely to affect substantially the overall suicide rate because other methods would be chosen.

The growth of the telephone Samaritan service has also coincided with the decline in the English suicide rate. An early study by Bagley (*13*) showed a significantly greater fall in the suicide rate in towns where this service was available than in matched controls. However, the choice of control towns was later criticized by Jennings et al. (*14*) who repeated the study, this time matching towns on the premise that the suicide rate of a town is the best predictor of its future suicide rate. Fig. 6 shows that towns that had no Samaritans fared no better or worse than towns that had. There has been a rapid growth of telephone answering services for the suicidal and despairing in many European countries where the suicide rate is rising. It was concluded that the confident claim of the British Samaritans to have reduced the suicide rate was at best based on equivocal evidence.

Under the British National Health Service nearly everyone is registered with a general practitioner. It is known that a high proportion of those who commit suicide in England visit their general practitioner in the month before death, and they often give overt warnings of their intentions. The majority of suicide victims have an unequivocal mental illness; in the majority this is a treatable depressive state, with alcoholism the next most common disorder. General practitioners in 1967 were found not to be recognizing these conditions or giving appropriate treatment. Tranquillizers and hypnotics were much more often prescribed than antidepressants. There is evidence that general practitioners are now recognizing depression much more often and prescribing antidepressants more appropriately. Whilst the increase in antidepressant prescribing and the decrease in suicide rates can no more be assumed to be causal than the correlation with the carbon monoxide content of gas, the Working Group considered there was a need for more research into primary care because of its great potential in suicide prevention.

Fig. 4. Suicide rates per 100 000, by method and percentage concentration of carbon monoxide (CO) in domestic gas, England & Wales, 1960–1973

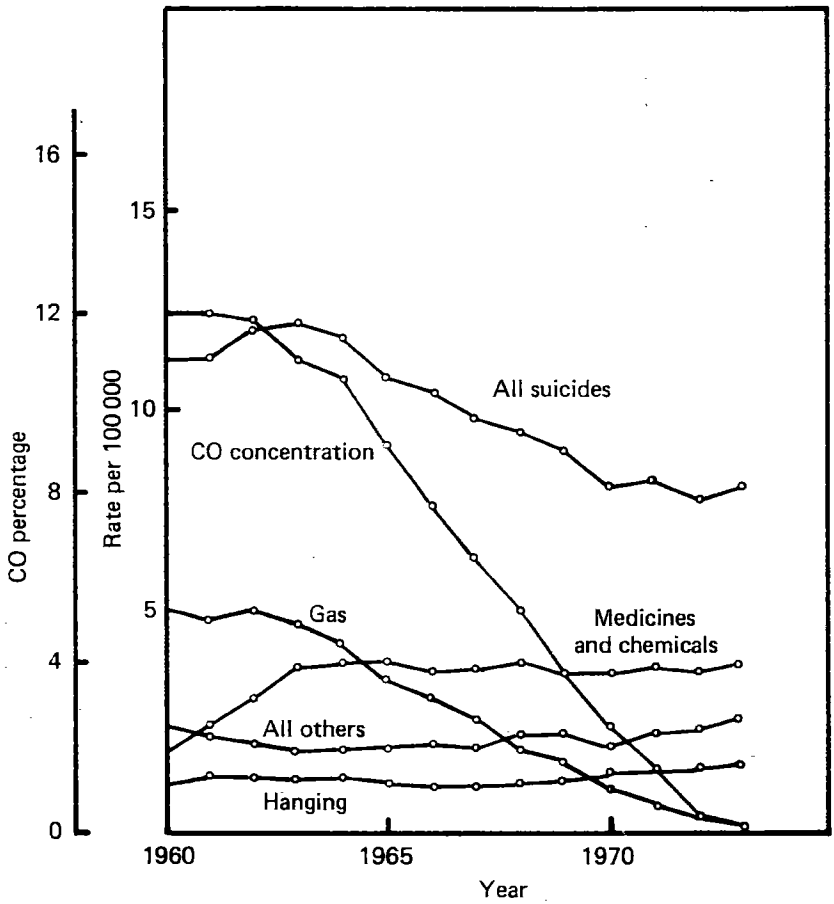
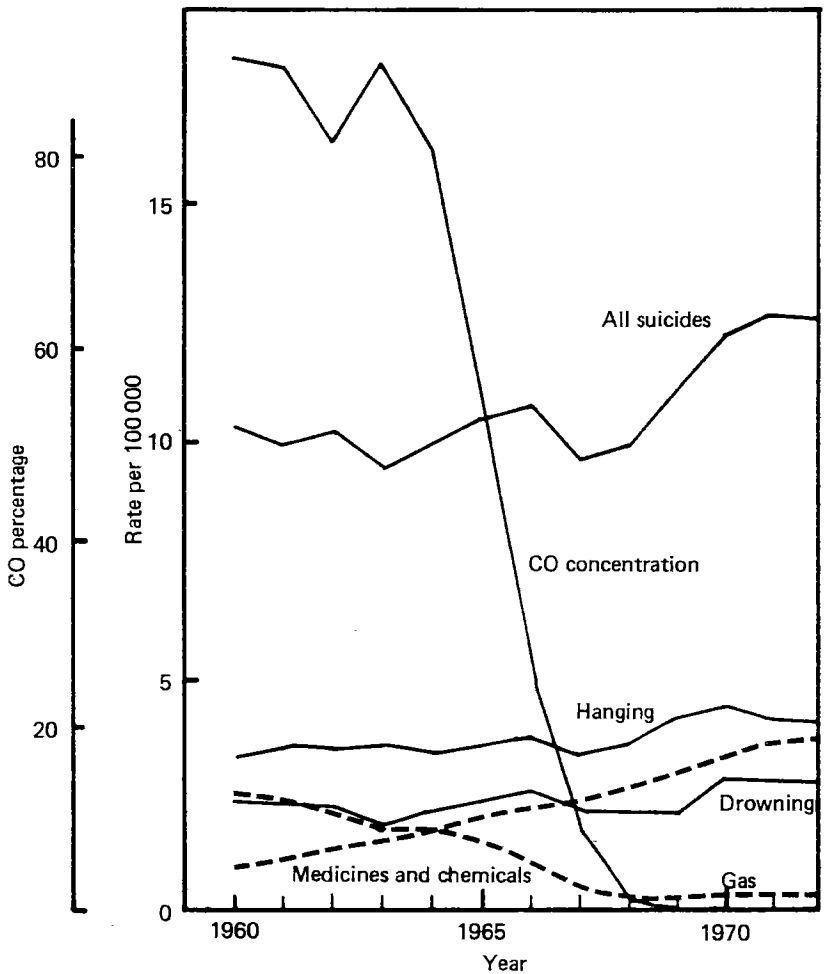
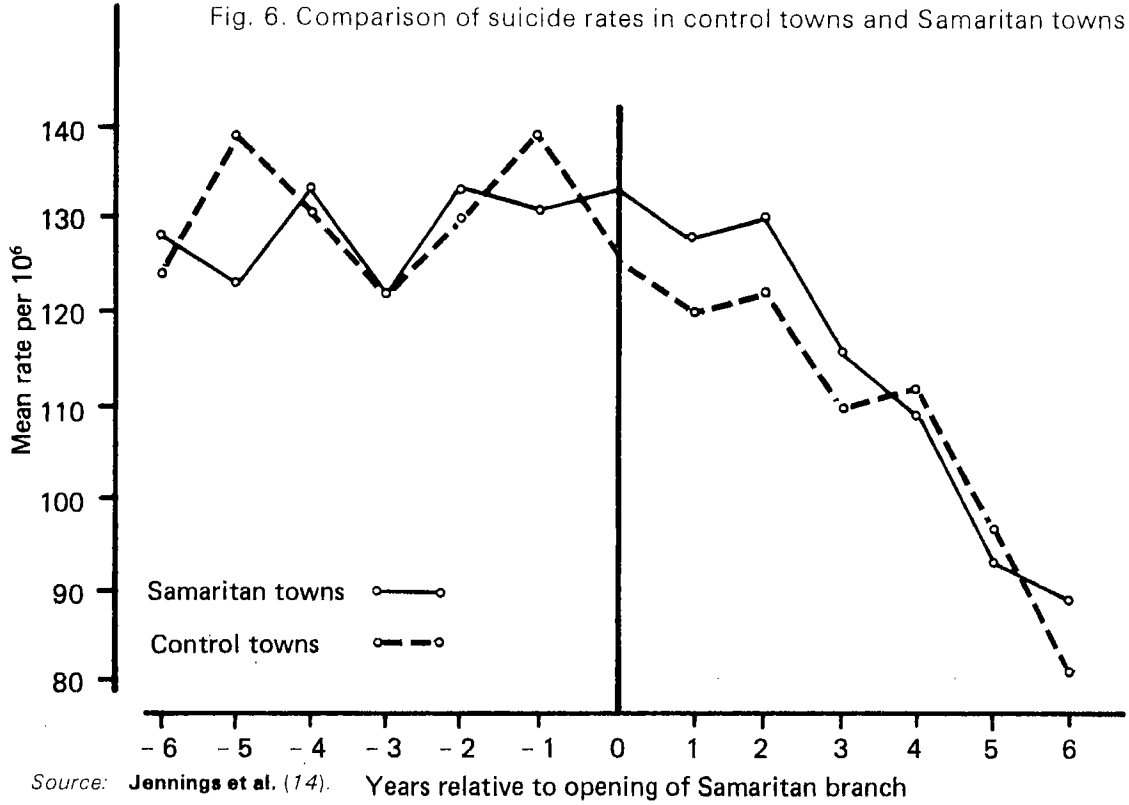


Fig. 5. Suicide rates in the Netherlands per 100 000, aged 15 years and over, by method and percentage concentration of carbon monoxide (CO) in domestic gas, 1960–1972



Source: Inspectorate for Mental Health, Leidschendam and Central Bureau of Statistics, Department of Health Statistics, Voorburg, The Netherlands.

Fig. 6. Comparison of suicide rates in control towns and Samaritan towns



Source: **Jennings et al.** (*14*).

The specialist psychiatric services have undergone a major change of emphasis from hospital to community care in the last two decades. Two studies in England have suggested that high-risk elderly patients are being referred for psychiatric treatment more often (*15*) and that suicide rates fell when a community care service was introduced (*16*). The high proportion of suicides that have an unequivocal affective illness is a crucial clinical observation as regards the feasibility of prevention (*17*). Follow-up studies of manic depressives and recurrent depressives after leaving hospital agree that 15% will die by suicide. As the prophylactic value of antidepressants and lithium has become established, their use as maintenance treatments has increased considerably in the last 20 years. The Working Group agreed that developments in community psychiatric care in suicide prevention were encouraging, though no firm claim could be made that the British psychiatric services were responsible for the fall in the suicide rate.

The new role of the mental hospital presents a different and unexpected picture. Hospital mortality statistics from England, the Netherlands and Norway show a recent increase in suicide among resident patients. As Table 10 shows, relaxation of restrictions in English mental hospitals between 1940 and 1960 was accompanied by a decrease in suicide. However, the greater freedom of a liberal therapeutic community hospital milieu may be placing patients at higher risk. As Table 11 shows, the increased suicide rate of mental hospital patients in the Netherlands might to some extent account for the rise in the national rate. Even if these increases cannot be blamed on the hospital but rather result from admitting more seriously ill patients, here is a prime target group for prevention right under the noses of the experts who should be able to help most.

A study by Sainsbury et al.[a] was reported, which related social conditions of countries to the changes in their suicide rates after 1960. The social characteristics of countries in 1961–1963 that predicted a subsequent increase in their rates of suicide were: (*a*) a high divorce rate, which may be interpreted as an indicator of the level of alienation prevailing in a society; (*b*) a low percentage of the population under the age of 15 years, which may be interpreted as an indicator of the extent to which people are not living in family groups; (*c*) a high unemployment rate which, together with (*d*) a high murder rate, has collectively been interpreted as measuring "anomie" — the state of normlessness in a society that Durkheim (*3*) suggested would lead to more suicides. Finally (*e*) a high proportion of women in employment may reflect the status of women in a society and is of particular interest in view of the nearly universally rising incidence of female suicide rates.

[a] Unpublished data.

Table 10. Relationship between relaxation of restrictions in English mental hospitals and suicide rates, 1940–1960

Period	Mean annual no. of patients in hospitals	Mean annual no. of suicides	Annual suicide rate per 100 000	Type of psychiatric care
1920–21[a]	101 438[b]	48.7	48.0	Custodial pre-1930 Act
1945–47[a]	133 428[b]	68.7	51.5	Custodial but post-1930 Act
1954–56	146 847[b]	55.0	37.5	Open hospitals, more liberal policies
1964–66	128 726[c]	76.7	59.6	Community care, more patients in general hospitals' psychiatric beds
1972–73	111 601	93.8	84.0	

[a] The 1920–21 and 1945–47 figures are adapted from **Stengel, E.**, *Attempted suicide*. London, Chapman and Hall, 1958 (Maudsley Monographs, No. 4)

[b] Patients resident in mental hospital.

[c] Patients in any psychiatric bed, including general hospitals.

A different analysis to identify changes in social conditions after 1960, which were associated with changes in national suicide rates, emphasized similar but not identical factors. Increased suicide rates were associated with: (*f*) a reduction in the population aged 15 and under, but also (*g*) an increase in the percentage of the population aged 65 and over, with all the implications this may have for a society's ability to support old people; and (*h*) an increase in "females in tertiary education" — another indicator of the changing status of women. The extent to which these factors accurately predicted changes in national suicide rates can be seen in Fig. 7. The Working Group concluded that social conditions have a decisive influence on national suicide rates.

Trends in attempted suicide

Throughout the so-called "western world" very large increases in the numbers of hospital referred cases of poisoning in adults have been reported during the last two decades. Accidental poisoning is consistently found to account for only a very small proportion of adult cases of poisoning; the vast majority are attempted suicide. The routinely collated

Table 11. Extent to which increased mental hospital suicides are contributing to increase in the general rate in the Netherlands

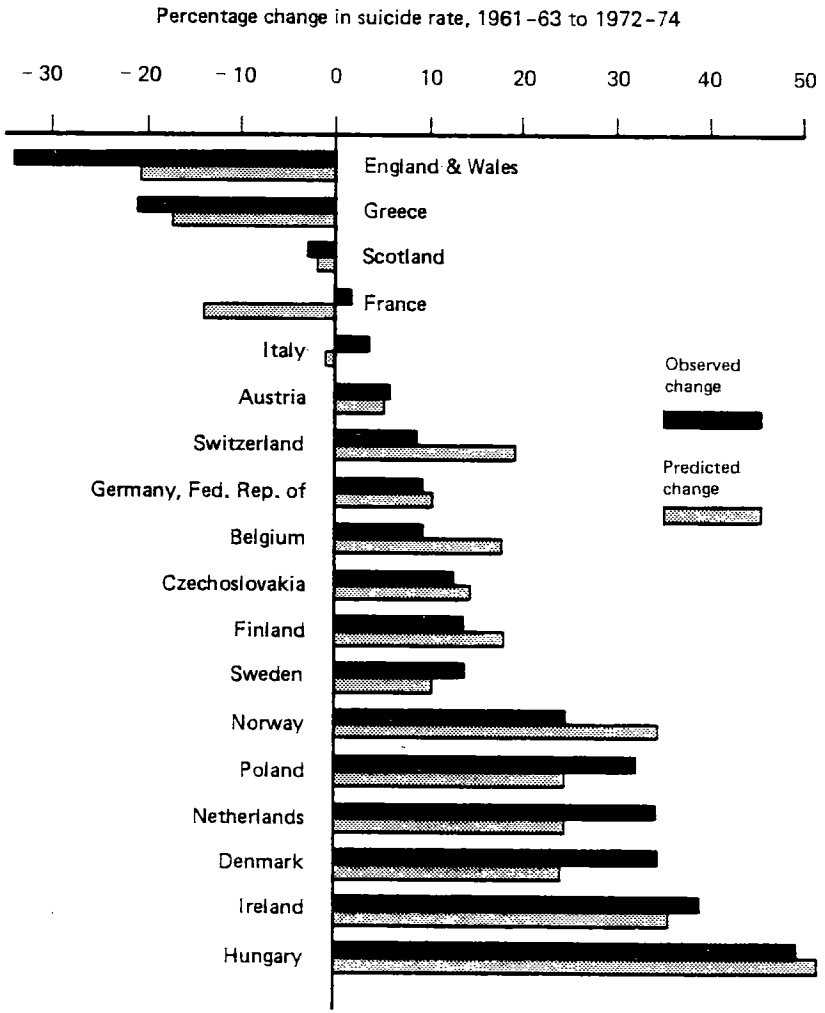
Year	Mental hospitals		Netherlands	
	No. of suicides	Rate	No. of suicides	Rate
1970	66	169.6	1 158	12.2
1974	101	240.1	1 360	13.5

hospital data shown in Table 12 illustrate the 10% per annum rise in Britain. Age-specific and sex-specific rates based on the same data are shown in Fig. 8 and 9, giving broadly the same picture as that described in other European countries (*1, 18*) and in North America (*19*).

Variations in the rates of attempted suicide across major demographic and social groups show remarkably consistent patterns, changing little over the years or from one country to another. As Fig. 8 and 9 show, females outnumber males in all age groups. The overall ratio of females to males is about 1.4 : 1. It is among teenagers and young adults that the rise in rates has been most marked, reaching levels that are now many times higher than among the middle-aged and elderly. There is a steep gradient of increasing rates with lower social class. The unskilled lowest social class male group has more than eight times the rate of attempted suicide as the professional highest social class male group. Divorcees have substantially higher rates than the single, married or widowed. A large proportion of patients in most series have alcohol problems, criminal, unemployment and debt records, and a history of family violence. Half of those who attempt suicide have done so before, and one fifth will attempt it again within 12 months. Again, these figures for repetition are remarkably consistent from year to year and in different centres, as is the frequency with which suicide follows attempted suicide — 1% per annum according to many follow-up studies.

In searching for clues towards understanding the cause of the epidemic, many have argued that it is essential to calculate rates separately for: (*a*) *admissions* or episodes, irrespective of whether the same person is involved more than once in a given year; (*b*) *patients*, counting a given person once only, however many episodes there were that year; and (*c*) *first ever* attempts. There are two separate questions: why people first adopt this behaviour, and why those who have already attempted suicide

Fig. 7. Observed and predicted changes in suicide rates in 18 European countries, 1961–1963 to 1972–1974[a]



[a] Results of multiple regression analysis, using percentage changes in social variables. Variables included: percentage of the population under 15 and over 65 years of age; room occupancy; women in tertiary education. Multiple R = 0.92.

Table 12. Estimated total discharges and deaths due to the adverse effects of medicinal agents and chiefly non-medicinal substances, England & Wales (1961–1977)

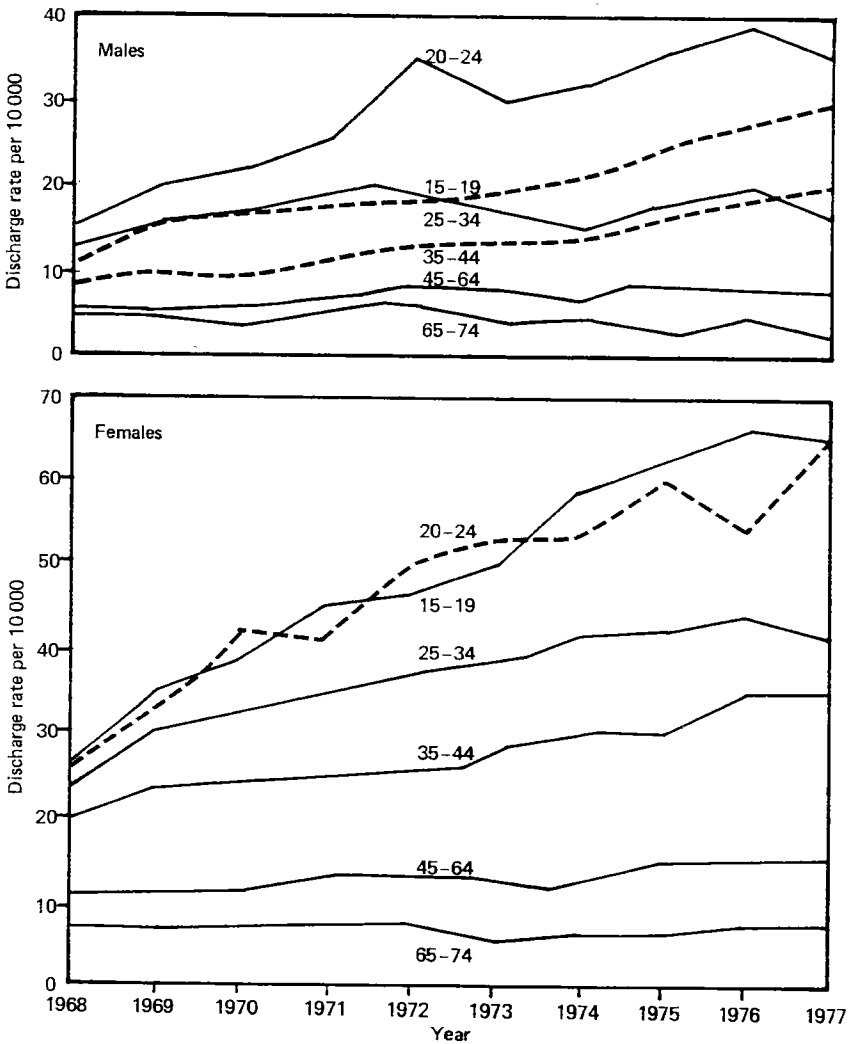
Year	Adverse effects of medicinal agents	Adverse effects of substances chiefly non-medicinal	Total
1961	23 900	4 500	28 400
1962	28 700	5 400	34 100
1963	39 000	7 400	46 400
1964	42 900	8 100	51 000
1965	45 600	8 600	54 200
1966	50 300	9 500	59 800
1967	57 200	10 800	68 000
1968	62 320	12 130	74 450
1969	75 550	14 570	90 120
1970	79 160	14 020	93 180
1971	85 370	14 510	99 880
1972	91 440	14 280	105 720
1973	92 970	14 200	107 170
1974	98 290	14 870	113 160
1975	105 290	15 080	120 370
1976	108 210	17 030	125 240
1977	106 710	14 740	121 450

are so willing to resort to it again. Fig. 10 shows from Edinburgh data that the rise in rates of first attempts is usually less dramatic than the overall rise in rates, which is substantially affected by repeaters. As in Edinburgh, so other centres are reporting a levelling off or even a decline in the rates of first attempted suicides since about 1976, but it is too early to say whether this is an established trend.

Validity and reliability of attempted suicide statistics

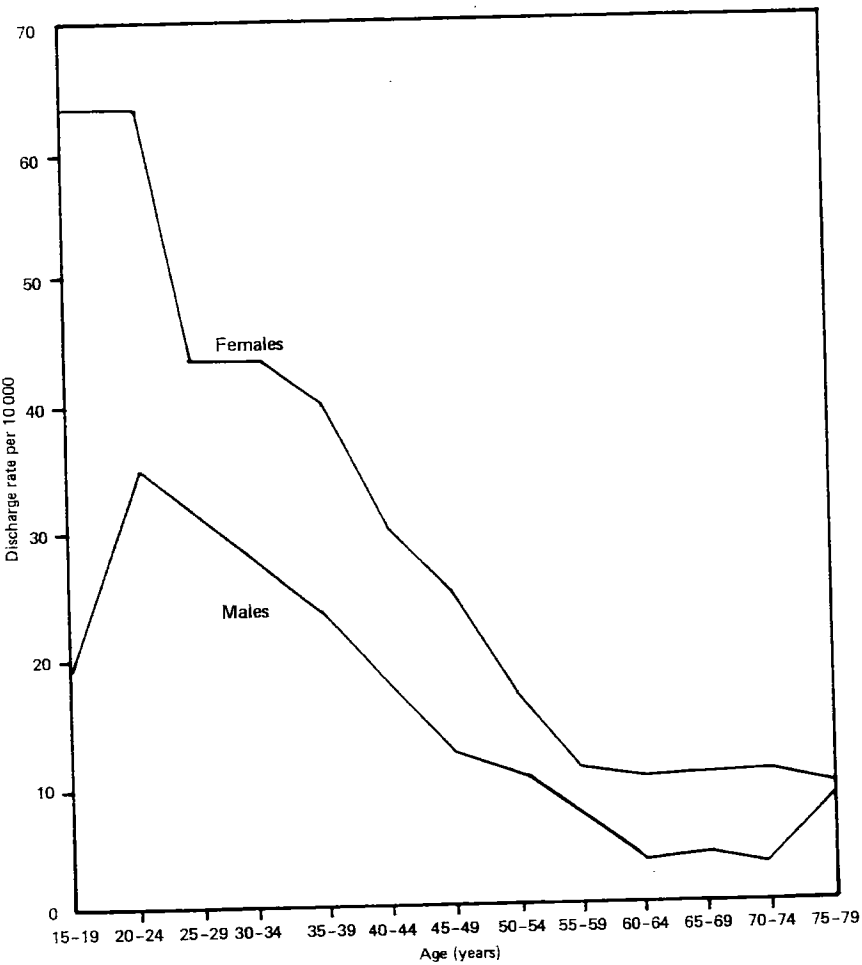
Underestimation of suicide attempts is likely to be much greater than for suicides. Surveys in general practice in Scotland and the Netherlands (*20,21*) showed that hospital admissions underestimated the number of cases known to general practitioners by 30%. Field studies, in which everyone in a population sample was screened, suggested that 50–60% of

Fig. 8. Age-specific hospital discharge rates after poisoning by medicinal agents, England & Wales, 1968–1977



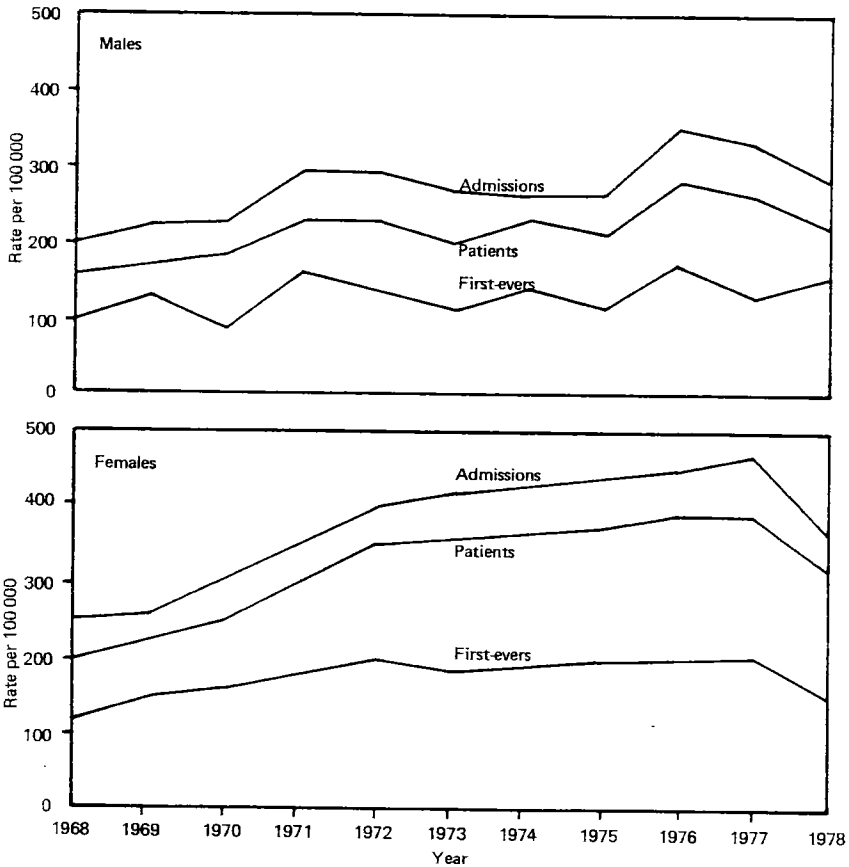
Source: Hospital inpatient enquiry.

Fig. 9. Discharge rate per 10 000 population after poisoning by medicinal agents, by age and sex, England & Wales, 1977



Source: Hospital inpatient enquiry.

Fig. 10. Attempted suicide rates per 10 000 population, Edinburgh, 1968–1978



Source: Annual reports of the Edinburgh RPTC.

those who admitted to suicide attempts during the previous year had not reported the fact to a doctor (*21,22*). In countries where primary medical care and hospital provision is less available for these cases, the errors will be even greater. However, data gained from hospital studies should not be dismissed as valueless. The Edinburgh study showed that hospital cases were representative of all those known to general practitioners. At least their demographic, social and clinical characteristics were the same, except that admitted cases were more medically serious than the non-admitted cases. The little we know about those who do not declare their attempted suicide to a doctor suggests that they contain relatively more self-injurers, more men, and more middle-aged and older people.

Whilst sampling errors are always likely to be large, the main conclusion drawn from hospital data — that there has been a massive rise in rates all over Europe, particularly affecting the young — seems valid and reliable enough. That those who never report to a doctor may include many persons with characteristics close to those of successful suicides may be important for suicide prevention.

Explanations of trends in attempted suicide

None of the many theories to explain the spectacular rise in rates has found general acceptance, nor led to successful experiments in primary prevention. Currently there is some consensus for the view that attempted suicide is usually an impulsive response to an intolerable social situation. However, there are no indications that social problems and distress levels have increased to the same extent, though some would argue that levels of tolerance to distress have fallen markedly. Although the increase in self-poisoning has coincided with a large increase in medical prescribing, there may be no simple causal relationship. Kreitman (*23*) observes from Edinburgh data (Fig. 11) that overdoses of aspirin have increased absolutely to maintain a constant proportion of all overdoses, though the availability of the drug has not changed. Aspirin has always been obtainable without prescription, in contrast to the psychotropic drugs whose availability is largely controlled by doctors. The implication is that, even if doctors were able to drastically reduce prescribing, non-prescribed drugs are so available that they would be taken instead. Doctors' prescribing practices certainly influence the types of psychotropic drug taken in overdose. A wholly desirable drop in barbiturate overdose has occurred following preference for the far less toxic diazepines, so that the proportion of patients arriving at hospital in coma and the proportion of patients requiring intensive care has fallen in most hospitals.

The Working Group concluded that the increase in medical prescribing does not seem to explain the rise in rates of deliberate self-poisoning.

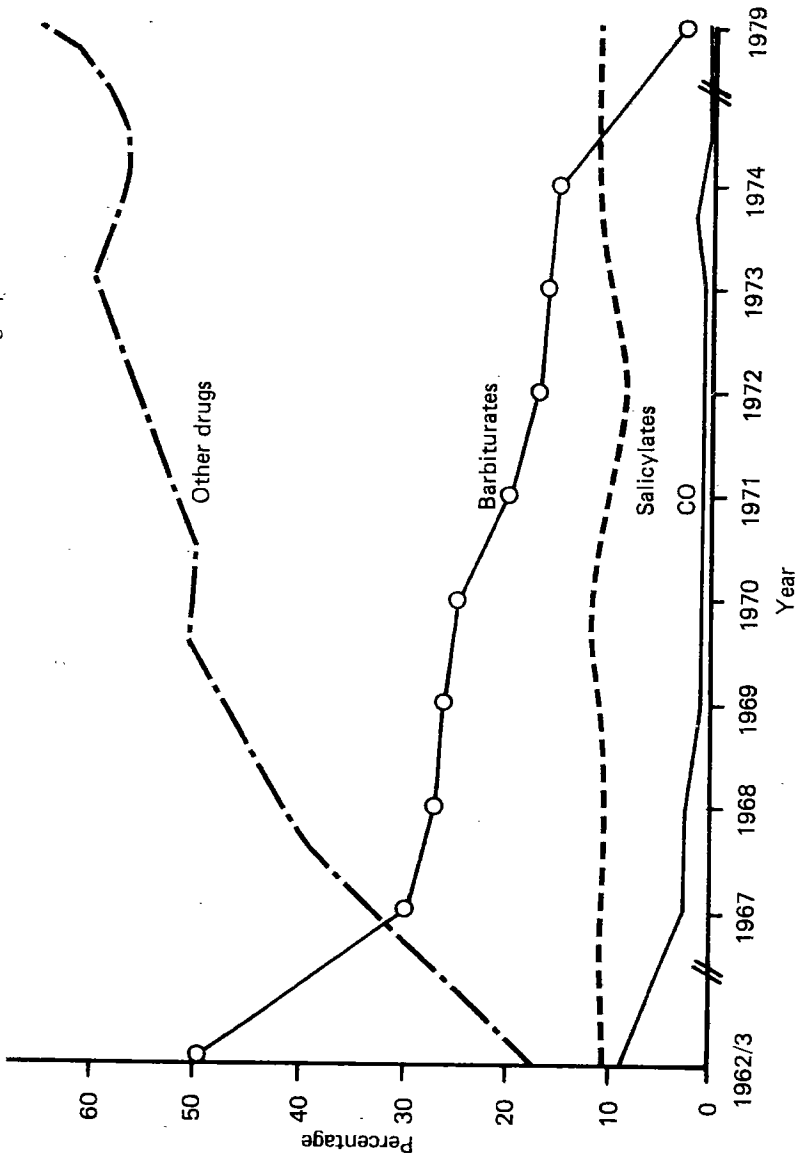


Fig. 11. Method of attempted suicide, Edinburgh patients

Prescribing relatively non-toxic anxiety-relieving drugs may avoid the use of aspirin and other more poisonous compounds.

Most experiments in primary and secondary prevention make the assumption that if those at risk are offered appropriate accessible help towards finding rational solutions to their problems, they will choose this alternative rather than resort to taking an overdose. The uniformly disappointing results of these experiments now casts doubt on this assumption.

Kreitman (*23*) found that the epidemiological characteristics of those who consulted the British "Samaritans" were different in some important respects from the characteristics of the attempted suicide population. Those who had attempted suicide mostly knew of the existence and purpose of the Samaritans. During a television series advertising the work of the Samaritans the numbers referring themselves increased considerably, but during the same period rates of attempted suicide were unaffected.

Hawton et al. (*24*) reviewed a number of after-care programmes offered to those at high risk of repeating attempted suicide. Whilst social workers, doctors or nurses were often successful in improving the social conditions in which their patients lived, and these patients did seek emergency help at times, unfortunately they continued to attempt suicide with the same frequency as those who had no such special after-care.

An implication is that, in certain distressing situations, taking a drug overdose and seeking help are not alternatives. The individual may not see the one as substituting for the other. For instance, attempted suicide is often provoked by a family quarrel, and the overdose serves as a dramatic expression of feelings. Perhaps it is the attitudes in society which condone this fashionable way of expressing distress that need to be better understood. Cigarette smoking is declining not because smokers have found other methods of tension relief or been provided with safer substitutes, but because attitudes to smoking itself have changed.

The problem-solving counselling approach may be more successful before crisis is reached. It is well known that a third to a half of those who attempt suicide consulted their doctors within a few weeks before the attempt. When overdose patients were asked what had happened at the medical consultation, many said that they had been unable to explain what was wrong. The Working Group noted that many doctors and other professionals are not trained to understand or to deal with the family relationship problems of young working-class adults.

POSSIBILITIES AND STRATEGIES IN SUICIDE PREVENTION

A good deal is now known about who is likely to commit suicide and when. The Working Group considered that dissemination of this knowledge

within health education programmes holds the prospect of reducing the number of suicides. It is not only that greater public awareness may lead to identification of more of those at risk, so that they can be encouraged to seek professional help; it is also because social isolation of individuals, which is an important cause of suicide, is something that relatives and neighbours can do more about than can the professional services. Community leaders and politicians need to be more aware that town planning developments and other social changes can affect the suicide rate if they strengthen or weaken social networks in society. During periods of socio-economic change, measures to reduce, as much as possible, the isolation of the elderly from family and neighbourhood ties could be particularly important in reducing the suicide rate.

Even these simple facts about suicide may not be well known, and there may be many mistaken ideas carried over from centuries of prejudice and moral censure. Knowing that it is the aging, lonely, bereaved and mentally ill who are most often involved may lead to more compassionate responses from the general public. The myth that those who frequently threaten or attempt suicide rarely actually kill themselves needs to be dispelled, for these are strongest predictors of an imminent suicide.

Professor Diekstra presented to the Working Group a detailed review of studies on the psychopathological states in which people kill themselves. It was concluded that there is no definable suicide-prone personality type. The majority of those who killed themselves had undergone a change some time before death. They were depressed, alcoholic or both, and this was frequently evident to their relatives and their doctors.

Professor Ringel reported to the Working Group the features of a "pre-suicidal syndrome" which he believed could be recognized in most people in imminent danger of suicide. It has three main components: (*a*) narrowing down or closing in of the personality, (*b*) aggression directed at oneself, and (*c*) increasing suicidal fantasies. Sensitive exploration of psychological experiences would suggest great danger if these included loss of values, restriction of interests and lowering of self-esteem, with the inability to let time pass before making a decision. Unlike the majority of attempted suicides, which are impulsive, the majority of suicides follow a fairly prolonged period of depression with increasing suicidal ideation. For that reason prospects for the prevention of suicide are relatively better, especially because many of the depressed states in which it occurs are amenable to ready relief through social measures and medical treatment.

Professor Poeldinger proposed that education regarding the detection and care of those at risk of suicide should be focused on policemen, prison officers, fire brigades, clergymen and teachers, who are likely to have contact with those at risk but not likely to have the skills needed to deal with them.

Both representatives of the International Association for Suicide Prevention emphasized that the suicidal individual would often not reveal his intentions in response to standardized questions, or in questionnaires and inventories. It needed a close personal dialogue of the kind that many physicians, as well as others, were too inhibited to carry out. Embarrassment, lack of education in psychological processes, and impatience are common problems to be overcome by educators.

The Working Group agreed that detection, assessment, treatment and after-care of those at risk of suicide cannot be left to psychiatrists alone. General practitioners have a particular part to play since many of those who attempt or succeed with suicide are known to have consulted their doctors shortly before. The community as a whole should take responsibility for identifying and supporting those at risk and making sure they get professional help. It was also agreed that no health service or other suicide prevention scheme has produced evidence of superior efficacy. There is plenty of scope for limited experiments in new models of care but, until their evaluation shows a viable and better model than the existing services, the emphasis should be on improving the skills of those operating the existing services.

There was unanimous concern among members of the Working Group about the hostile attitudes of medical, nursing and other health service personnel towards those who threaten suicide or have attempted suicide. Because of such attitudes among senior staff in general hospitals, many of these institutions have no coherent policy or plans for the assessment, treatment and care of the many potential suicide victims who are referred. Such attitudes could only be changed by improved education. It was noted that most training programmes for general hospital professionals contained little or nothing about suicidal behaviour. The Working Group identified the following four groups as meriting particular attention for the improvement or development of methods of care to prevent suicide.

1. Persons known to be subject to *depressive illness*. Follow-up studies suggest that about one in six will kill themselves. There are effective treatments well within the capacity of general practitioners.

2. *Psychiatric hospital inpatients.* The number of suicide deaths is increasing where knowledge and skills to prevent this behaviour are most available.

3. *Attempted suicides.* Of those discharged from general hospitals 1% will kill themselves within the year, and up to 10% will die by suicide eventually.

4. *Alcoholics and drug dependents.* Both are at least as high suicide risks as those who attempt suicide.

Middle-aged and elderly people who are socially isolated are at the greatest risk in each of these target groups.

MANAGEMENT OF CRISIS AND ATTEMPTED SUICIDE

Quite apart from any considerations of preventing further suicidal behaviour, medical resuscitation of those who attempt suicide necessitates the use of considerable health service resources. A conservative estimate made in Britain (*25*) puts this cost at £20 million per annum at mid-1980 prices, equivalent to approximately £200 per case. The Working Group considered there was a need to define the most efficient ways of using such resources. Because many hospitals have no coherent policy for managing these case, there must be a great deal of room for improvement in using resources effectively, ethically and humanely.

Cooper's survey of European crisis admission units and emergency psychiatric services (*26*) provides a variety of effective methods of care for those who attempt suicide. However, as Cooper points out, none of these has been fully costed and evaluated. The Working Group considered that general hospital units exclusively designed for managing those who attempt suicide have advantages. The "ward culture" accepts rather than rejects them. Continuity of care with one therapist or therapeutic team has enormous psychological advantages as the patient moves through the stages of medical assessment, psychiatric assessment and after-care. These units have special expertise in toxicology. They also provide training areas for medical students and nurses, demonstrating *par excellence* the indivisibility of psychological and social factors in health care. Units like these have shown that non-psychiatrists, including social workers and nurses, can, with proper training and support, provide adequately skilled crisis intervention and after-care (*24*). Psychiatric after-care resources are used to a minimum with only 10–20% requiring inpatient psychiatric treatment, and only half the remainder being likely to require outpatient follow-up. The disadvantage is that the "poisons unit" may become cut off from and stigmatized by the rest of the general hospital and fail to influence outside attitudes. A child psychiatrist on the Working Group drew attention to the increasing number of children who deliberately poison themselves. Out of misguided kindness, paediatricians prefer to assume that the overdose was accidental, thus denying the child and his family any help with their distressing problems.

Cooper also describes crisis intervention services not exclusively for attempted suicide, which may be more appropriate when cost and case load would not support a special unit in a general hospital. Those who have

attempted suicide are referred on after resuscitation. There is often a broader view of social and psychological problems and how they may be solved by multidisciplinary teams less hierarchical than in the hospital, where medical authority prevails. No particular model of care for those who attempt suicide has clearly emerged the best. The evidence does not suggest, nor would finances permit, development of a new range of services. The Working Group believed that most existing services could be improved without additional resources after a change in attitude of senior and junior personnel in general hospitals, which will only come through better education. Representatives of the International Association for Suicide Prevention stressed the need for broadening these educational aims: A change in the attitude of the general public is desirable and will only come through better education. Teenage schoolchildren deserve special attention, not only because they are a high-risk group, but because attitudes established at this age may have far-reaching effects. The low self-esteem of many adolescents in modern society and the attractiveness of suicidal behaviour as a way of responding to acute distress might be counteracted by education.

Quite a lot of work has been done on predicting repetition of attempted suicide, and it is possible to identify repeaters fairly accurately. However, a number of schemes to prevent repeated attempted suicide have failed, and we do not yet know of any effective method of secondary prevention. This suggests that psychiatric and social measures to help those who have attempted suicide are futile. Yet these after-care programmes, whilst they did not prevent repetition, were successful in improving the social conditions of patients. Also, a significant proportion of those who attempt suicide have distressing and disabling mental illnesses which can be alleviated or cured by psychiatric treatment. Attempted suicide among the mentally ill is often followed by a successful attempt. Therapeutic pessimism regarding the after-care of those who attempt suicide is misplaced, since there are good reasons for helping these patients apart from preventing repetition.

CONCLUSIONS

1. Suicide and attempted suicide should be considered separately. Although they are related, there are important demographic, social and clinical differences.

2. No change in the International Classification of Diseases (ICD) definition of suicide is proposed, nor any alteration in the traditional ascertainment procedures of European countries.

3. The term "attempted suicide" should include *all* non-fatal, intentional, self-inflicted injuries or poisonings.

Suicide

4. The Working Group expressed confidence in using official suicide statistics from European countries for trend analysis. The errors are not such as to invalidate their use.

5. The following trends were studied and considered worthy of further investigation:

(*a*) the rising rates of suicide in most European countries, which have now reached particularly high levels in Hungary and the northern parts of Yugoslavia;

(*b*) the exceptional decline in rates in England & Wales and in Greece during the last two decades;

(*c*) the relatively low rate in Norway compared with other Scandinavian countries;

(*d*) the marked increase in rates for elderly women in most European countries; and

(*e*) the marked increase in rates for young adults in most European countries.

6. The Working Group related changes in social and economic conditions to changes in reported suicide rates. Changes in societies that are likely to lead to social isolation of more individuals may increase the suicide rate.

7. The following were considered important high-risk groups for experiments in suicide prevention:

(*a*) persons known to be subject to depressive illness;

(*b*) psychiatric hospital inpatients;

(*c*) those who have attempted suicide; and

(*d*) alcoholics.

Attempted suicide

8. Underestimation of attempted suicide is likely to be much greater than for suicide. Community field surveys suggest that as many as a third to a half of persons who attempted suicide never disclosed the fact to a doctor.

9. Nevertheless, the following trends for hospital-referred attempted suicides have been identified in nearly all European countries where cases were related to the population at risk:

(*a*) the overall rate of attempted suicide has been steadily increasing during the last 20 years; and

(*b*) teenagers and young adults have shown the greatest increase and have the highest rates.

10. Attempted suicide rates are highest in poor city areas where other indices of social disorganization are high. Socioeconomic changes which put families under increased stress may lead to increased rates of attempted suicide.

11. It was of the greatest concern to the Working Group that health care professionals in and out of hospitals so often have no training, and no coherent policy for managing attempted suicide. This is reflected in unsympathetic attitudes to the patients.

12. Just as the reduction in availability of coal gas does not seem to affect the suicide rate, so also the massive increase in medical drug prescribing does not seem to explain the rise in rates of intentional self-poisoning.

RECOMMENDATIONS

1. The World Health Organization should continue to collect and compare official suicide statistics. The attention of governments should be drawn to large differences in rates between different societies and subgroups within those societies. The reasons for these differences should be explored. The propensity to suicide in any social group should never be regarded as inevitable. There is ample evidence that social conditions which are amenable to change are the main determinants of suicide. When those intent on suicide are rescued, lasting solutions can be found for their problems. For instance, social isolation is a potent cause of depressive illness, in which setting suicide often occurs. Communities can reduce the risk of social isolation. Depressive illness is treatable.

2. Epidemiological and clinical studies have provided an accurate picture of the potential suicide victim, and this information needs to be propagated as widely as possible through educational programmes. Education concerning attempted suicide should also be included, not only because the

attempted suicide may become a suicide, but also because it is so common as to affect many families and to make heavy demands on virtually everyone in the health care system.

3. Medical school and nurse training curricula and examinations should include not only information on suicide and attempted suicide but also training in the kind of sensitive interviewing required to elicit information about depression and suicidal thinking. There is a great need for a change in the attitude of primary care doctors and staff in general hospitals, who are often unsympathetic to the suicidal.

4. Health authorities should expect general hospitals to have defined policies for dealing with self-poisoning cases, including the psychological assessment of all cases by personnel who are trained to do so. There is no model service for attempted suicide which has emerged as the best. It is recommended that existing services be improved by defining more clearly who is responsible for making psychological assessments of attempted suicides and making sure that they are adequately trained. Junior doctors, nurses and social workers have proved effective in this respect so long as the local psychiatric services offer advice and support. There are advantages in concentrating resources for medical resuscitation and crisis intervention in one or two wards of a hospital. Whatever the local arrangements, it is necessary to provide for the psychological needs of children and young teenagers after self-poisoning.

5. Dissemination of information about suicidal behaviour to the general public is recommended. Censorious attitudes to the suicidal are common, based on ignorance and centuries of prejudice. Knowledge of the true facts will evoke more compassionate and caring responses. The Working Group endorsed the views of the International Association for Suicide Prevention (IASP) and of the International Federation of Telephonic Emergency Services (IFOTES) that suicide prevention cannot be left to professionals alone. It is because telephone emergency services are manned by volunteer members of the lay public that they have attracted so much public interest and concern for the suicidal. Ultimately it is the attitudes within families and neighbourhoods which will determine whether distressed individuals ask for relief or resort to suicidal behaviour.

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Annex 1

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