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ABSTRACT

A review of the literature concerning suicide among youth provides information on variations and trends in incidence in terms of age, sex, racial, and national factors. Theories on the etiology of suicide explore social, psychological, socioeconomic, religious, educational, and cultural factors among suicidal adolescents. Various types of treatment and methods of suicide prevention are described. Twenty four tables and 11 figures present extensive data on death rates for suicide according to age, race, sex, date, nationality, marital status, methods of death, and psychological characteristics. (RD)

SUICIDE AMONG YOUTH

A SUPPLEMENT TO THE BULLETIN OF SUICIDOLOGY

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This review of the literature on
Health of Children to Robert H
Commission's report to the Governor
and to the Governor of the State
emotional illness in children, adolescents
illnesses. Youthful suicide
and Youth.

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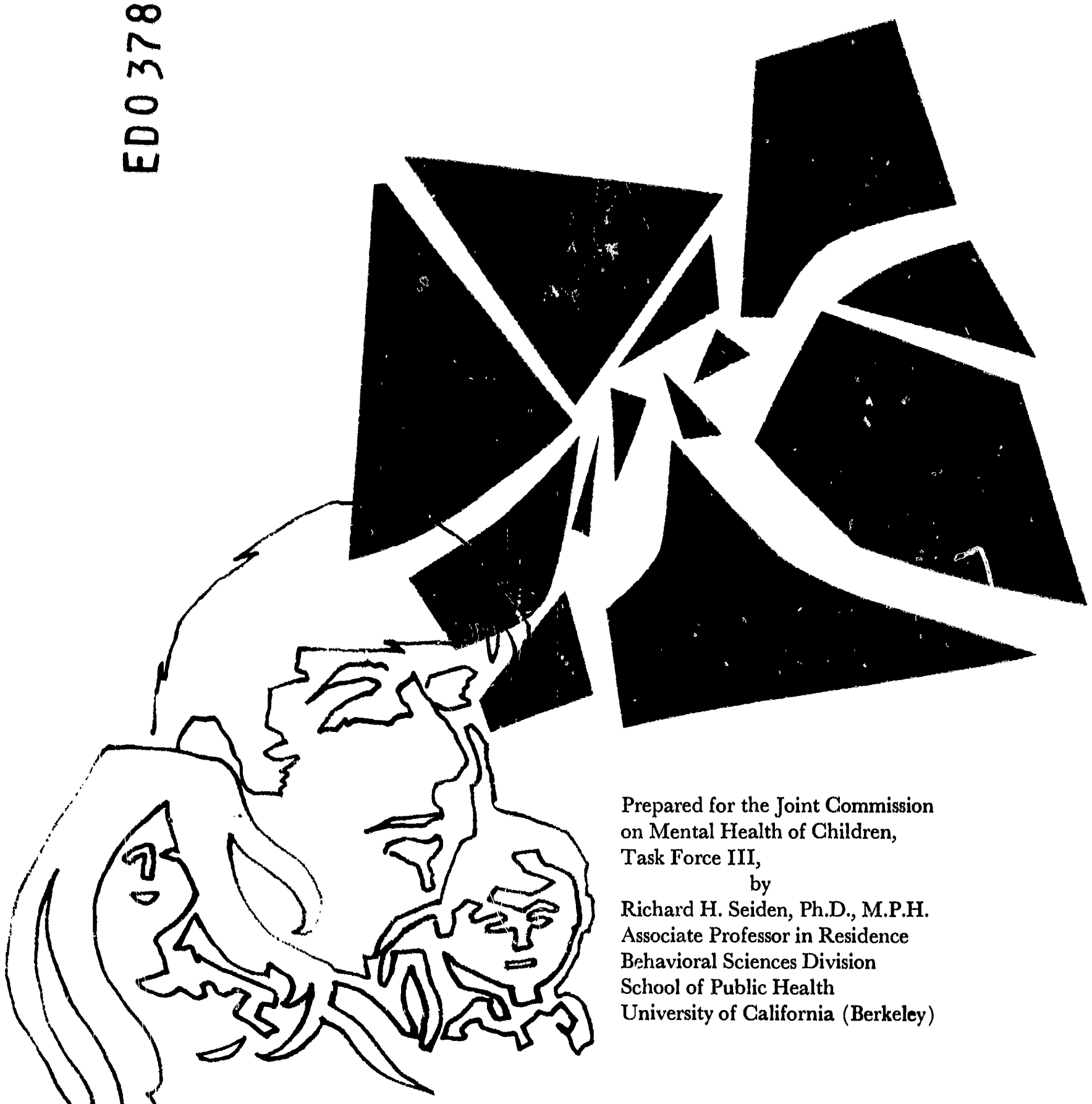

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on Mental Health of Children,
Task Force III,
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SUICIDE AMONG YOUTH

A REVIEW OF THE LITERATURE, 1900-1967

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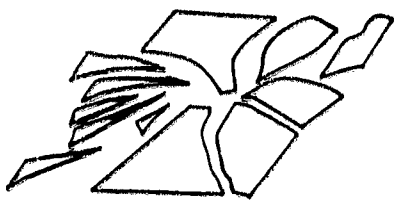

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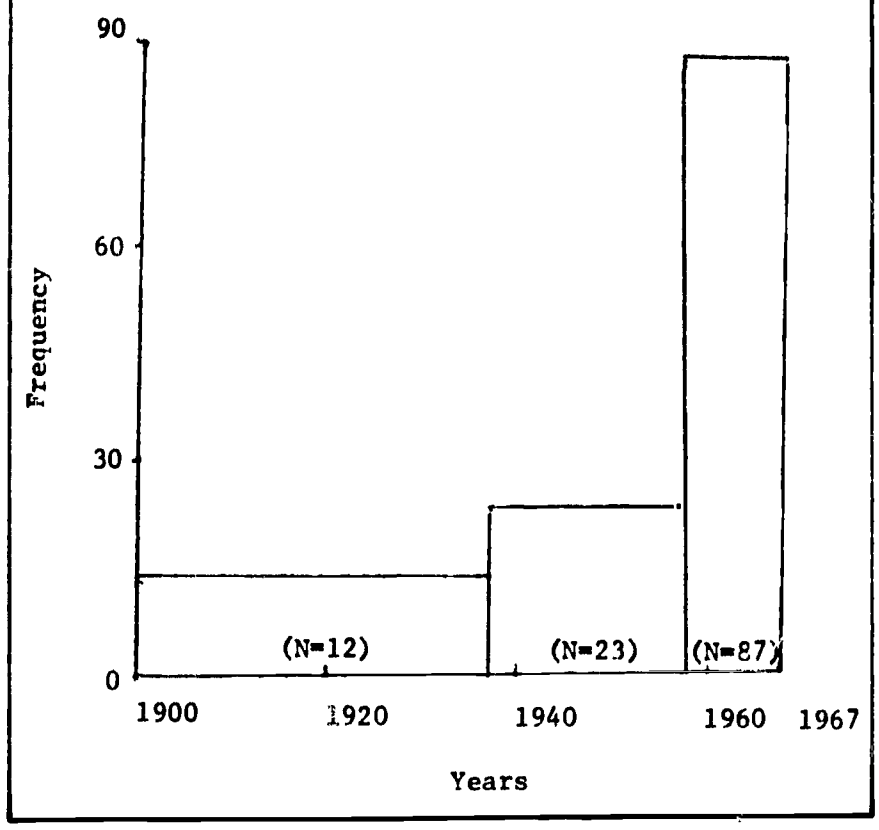
Figure 1
Frequency of publications on youthful suicide, 1900-1967.



"Nothing seems so tragic to one who is old as the death of one who is young, and this alone proves that life is a good thing."

Zoe Akins, *The Portrait of Tiero*

Overview

Suicide troubles and appalls us because it so intransigently rejects our deeply held conviction that life must be worth living. Otherwise, why would countless millions keep struggling to survive, often under conditions that seem almost intolerable. Yet, in this country alone, more than 20,000 persons a year choose death over life. Of these suicides, the most tragic and puzzling are the suicides of the young. We may comprehend and even accept, though not without a feeling of guilt, that old people, perhaps incurably ill or unbearably lonely, may be impelled toward despair and self-destruction. But a child at the threshold of his life should not be devoid of hope for the future. What desperate forces drive a child to suicide?

For many years philosophers as well as serious writers have been concerned with the enigma of suicide. Among the latter, Albert Camus in his essay, *The Myth of Sisyphus* (1942), went so far as to consider suicide to be the one truly serious philosophical problem since in his view, the question whether life is or is not worth living is the fundamental question of philosophy. In recent years, professionals concerned with mental health have had a corresponding interest in suicide. Their interest has been reflected in the establishment in 1957 of a U.S. Public Health Service demonstration project Suicide Prevention Center in Los Angeles and more recently, the creation in 1966 of a Center for Studies of Suicide Prevention within the National Institute of Mental Health. In addition, during the last 10 years, the output of writings on suicide has increased sharply (see Figure 1). Surprisingly, there is only one comprehensive review of the literature concerning suicide in children and adolescents (Bakwin, 1957), and only one on childhood suicide (Shaw and Schelkun, 1965). This report presents a critical review of the literature that was written during the 20th century on the topic of suicide among the young. It conveys the present state of our knowledge, gives a picture of current research efforts and indicates the most pressing areas for future investigation. The findings were abstracted from a wide variety of sources including books, journal articles, papers read at conventions, magazine articles, newspaper reports, literary works, unpublished manuscripts, dissertations, and research project reports. The professional areas of the sources were similarly catholic—including psychology, sociology, pediatrics, genetics, psychiatry, education, law, statistics and public health. Also diversified were the national origins of the literature, which comprised materials published in the United States, Canada, England, France, Germany, Austria, Czechoslovakia, Soviet Union, Poland, Netherlands, Argentina, Scandinavia, Japan, Switzerland, Brazil, Italy, and Hungary.

Although our literature review was exhaustive, encompassing over 200 references, many of the writings did not meet our criterion of acceptability, which was for the material selected to contribute to the knowledge of the subject. While it was necessary for the reviewer to read and abstract all that was written on the subject, because the quality of the articles varied markedly it was not necessary to accord them equal space or treatment in this report. For instance, Bakwin, reviewing the literature up to 1957, was able to cite only five studies which he considered to be important contributions to the literature. Ten years later the picture is not quite as gloomy, but his pessimistic appraisal still has considerable justification. Far too many of the reviewed articles consisted of anecdotal speculations, parrotry of previous findings (uncritically accepted and repeated) or unsupported opinions and contentions. Rare indeed was the study which put an hypothesis to the test. Rarer still was the presence of a theoretical orientation.

Even the best studies contain certain problems which impede literature surveys on suicide and which lend a cautionary tone to any conclusions. Foremost among these is the lack of uniform definition. Thus the literature includes studies of completed suicide, attempted suicide, "partial" suicide, threatened suicide, all lumped together under the rubric of "suicidal behavior," even though many investigators believe that these phenomena are not really comparable. Another difficulty arises from the wide differences in study design, generalizability and validity. By far the largest number of studies are based upon clinical observation or case history approaches. Usually the data come from very small and unrepresentative samples; more frequently than not the data lack any statistical treatment. Other reports are based on hospital or school records which have corresponding problems of validity. Less questionable are results from the few studies which utilize controls or comparison groups in their research design. However, even these more rigorous works share a failing common to almost all research in this area. That is the fallacy of *post-hoc* reasoning. Almost without exception the studies are retrospective, based upon the study of suicidal individuals after their crises. The logical pitfalls which can develop from this approach are well known. Even the "hard" data derived from vital statistics records have their limitations. Most prominent is the problem of underreporting. Since mortality statistics are obtained from death certificates, the certificates should be valid with respect to cause of death. However, it is widely accepted that, with regard to suicide, they are not highly accurate. Because of the stigma attached to suicidal death, death certificates may be altered to protect the feelings of the survivors, or these survivors, out of embarrassment and shame, may deliberately conceal the true mode of death. It has been estimated that recorded suicide figures are underreported by 25 to 33 percent for the total population and suggested that the suicides of children and adolescents are understated by an ever greater amount than are adult suicides.

Bearing these reservations and handicaps in mind, we can still draw some useful generalizations about the nature and extent of youthful suicide, what has been written regarding its etiology, treatment, and prevention, and which gaps in our present knowledge need to be bridged by future research.

The format of this report starts with a statistical section designed to establish an understanding of the incidence of suicide deaths, the trend of youthful suicides in the United States, the variation by age-groups, by sex, and by race throughout this century. It also deals with more specific questions: How does the United States compare with other countries? Is it true that youthful suicides are on the rise? If so, among what groups? How does the picture now compare with past experience? What methods are employed by youngsters who kill themselves? How does suicide rank as a cause of death among the young?

Statistics can point out relationships but they cannot provide answers to the painful question of *why* youngsters kill themselves. For insights into this area one needs to analyze the studies of children who have attempted or threatened suicide or in the case of completed childhood suicides, by reconstruction of their life style through interviews of parents, friends, and teachers or by review of their school records and holographic documents. What seem to be the causes of youthful suicide? This general inquiry leads to more particular questions: Is youthful suicide similar to or different from adult suicide? How does it relate to family disorganization and broken homes? What is the effect upon children of parental suicide? Do youngsters actually have a realistic concept of death? Are there genetic or familial tendencies to suicide? What is the suicide rate among students? Does it vary from one school to another? How has adolescent suicide been depicted in literature? Does such depiction have an unhealthy influence on the immature? And what is the relationship between suicide and psychedelic drugs, especially LSD?

If first the causes can be identified, then there follow implications for prevention: What steps can be taken at primary, secondary and tertiary levels of prevention? What are the prodromal signs, the clues to suicide? What types of treatment appear most effective? What facilities are needed for a positive preventive approach?

The answers to these and related questions form the body of the review which follows.

The Epidemiology of Adolescent Suicide

This section deals with data on suicide deaths obtained from official sources including the National Office of Vital Statistics publications. By analyzing such data we can attempt to answer some very important epidemiological questions: (1) *Who* commits suicide? What demographic characteristics are associated with suicide-risk? (2) *Where* is suicide most frequent? What are the differences among regions and nations? (3) *When* is suicide most likely? At what time during an individual's lifespan and at what time within the socioeconomic lifespan of a country is suicide most frequent? (4) How is suicide committed? What methods are employed?

Another advantage of studying vital statistics is to use the data for comparison. Fluctuations in the suicide rate can be assessed and evaluated against a background of past experience and future expectancies. And, to a lesser extent, the trends and relationships observed in the vital statistics can lead to informed hypotheses about the basic question of motivation—the "Why?" of suicide.

What was the pattern of juvenile suicide in earlier years?

Until the 19th century, statistics on childhood suicides were unmentioned in the literature; however, the situation changed during the last century when several extensive studies appeared. This shift probably reflected an increased public concern, because by the late 19th century the rates of youthful suicide had increased strikingly (much higher than modern rates) and were still on the rise. MacDonald, in a survey of the 19th century European statistics (MacDonald, 1906–07) reported increases of suicides among the young in France, England, and Russia and an "enormous increase" in Prussia. The suicide rate among German youth has remained one of the highest even to the present day, a phenomenon which some authors have blamed upon the rigid rules of conduct and resultant fear of punishment that were characteristic of Prussian society. Paradoxically, the high childhood rates were also attributed to a "Teutonic emotionalism" as exemplified by Goethe's romantic and suicidal hero, young Werther (A student suicide, 1774).

After the early 20th century, interest in the statistics of juvenile suicide lagged. No substantial survey material appeared until Mulcock's study of England and Wales (1955). The problem there had been neglected for some time even though the British Minister of Health was asked to investigate the high number of youthful suicides. The Minister declined this request so Mulcock went ahead on his own and analyzed official statistics for the period 1938–1953. The patterning which he found agreed with prior studies and remains generally consistent to this day. That is, a preponderance of boys over girls commit suicide; the reverse pattern is true for suicide attempts. By breaking the data into 8–14 and 14–17 year age groups, he was able to show an increase of suicide and suicide attempts with age, a phenomenon he described as a "sudden and dramatic spurt with puberty." Finally, he noted that the suicides of English boys increased during wartime and that the rate for girls remained constant in marked contrast to the adult population where suicides decreased greatly. He concluded that different forces may be at work, a viewpoint he shared with MacDonald (1906–07) who believed that juvenile suicides were not influenced by overall social conditions (e.g. war, depression, unemployment) so much as they were by immediate concerns of family and school.

How does the United States compare with other countries?

International statistics are not strictly comparable because of differences in reporting procedures. Many suicides may go unreported in countries where the governmental attitude toward suicide is unfavorable because of social, religious or political factors. For example, statistics from largely Catholic countries must be regarded with caution. Similarly, since the middle 1920s no current data from the Soviet Union has been available for comparative purposes. (The present Soviet policy represents a real shift in attitude when one considers that a "Museum of Suicide" was established in Odessa circa 1902 and was regarded as a pioneering program of scientific study [Beeley, 1929]). Despite these limitations, a rough idea of international ranking is available from the reports of the World Health Organization. Tables 1 and 2 report the suicide rates[1] at ages 10–14 and 15–19 for several countries. Wide national variations are apparent in both tables. At ages 10–14 the rates are fairly low. Even Germany, which has the highest mortality in this age range, reports only 1.9 for boys, 0.5 for girls. The United States rates of 0.7 (boys) and 0.2 (girls) are right at the median for the selected countries. At the 15–19 year age range the suicide rate jumps sharply upward. The median rates for this group are 5.6 (males) and 2.5 (females). Japan, a country of youthful suicides, leads the list. The United States rates of 3.9 for boys and 1.6 for girls are well below the median. Within the limitations imposed by international variation in reporting, the United States compares favorably with other countries usually at the median or below for juvenile suicide deaths. The 1966 edition of WHO Vital Statistics reports lists the United States as 13th of 27 countries in childhood suicides (Gunther, 1967).

Table 1

SUICIDE RATES IN SELECTED COUNTRIES, AGES 10-14, BY SEX

Country	Years	Males	Females
Germany, Federal Republic	1952–1954	1.9	0.5
Portugal	1947–1949	1.7	0.3
Denmark	1952–1954	1.3	0.2
New Zealand (without Maoris)	1952–1954	1.3	—
Finland	1952–1954	1.2	0.4
Switzerland	1951–1953	1.1	0.4
Japan	1952–1954	0.9	0.5
Chile	1950–1951	0.8	0.5
Sweden	1951–1953	0.7	0.1
United States	1951–1953	0.7	0.2
Austria	1952–1954	0.7	0.3
France	1952–1954	0.6	0.2
Australia	1951–1953	0.5	—
Italy	1951–1953	0.5	0.2
Netherlands	1952–1954	0.5	—
Canada	1952–1954	0.5	0.2
Spain	1951–1953	0.5	0.2
Union South Africa (European population only)	1951–1953	0.2	—
England and Wales	1952–1954	0.2	0.1
Ireland	1952–1954	0.2	—
Scotland	1952–1954	—	0.2
Norway	1952–1954	—	0.3

Source: WHO Epidemiological and Vital Statistics Report. *Mortality From Suicide.* 9:243, 1956.

Table 2

SUICIDE RATES IN SELECTED COUNTRIES, AGES 15–19, BY SEX.

Country	Years	Males	Females
Japan	1951–1953	26.1	18.7
Switzerland	1952–1954	16.9	6.4
Finland	1952–1954	12.3	2.6
German Federal Republic	1952–1954	12.1	6.8
Austria	1952–1954	11.7	8.1
Union South Africa (European population only)	1951–1953	9.7	2.8
Denmark	1952–1954	8.3	5.9
Chile	1950–1951	7.6	4.3
Portugal	1947–1949	6.9	6.0
Australia	1951–1953	6.2	1.9
Sweden	1951–1953	6.0	3.3
New Zealand (without Maoris)	1952–1954	5.2	0.5
France	1952–1954	4.4	2.4
United States	1951–1953	3.9	1.6
Spain	1951–1953	3.8	2.0
Canada	1952–1954	3.8	0.7
Italy	1951–1953	2.9	3.3
England and Wales	1952–1954	2.9	1.1
Netherlands	1952–1954	2.3	0.8
Norway	1952–1954	2.0	1.0
Scotland	1952–1954	1.9	0.4
Ireland	1952–1954	0.6	1.1

Source: WHO Epidemiological and Vital Statistics Report. *Mortality From Suicide.* 9:243, 1956.

[1] All rates of suicide are based upon the number of suicidal deaths per 100,000 population.

Table 3

SUICIDE IN SELECTED COUNTRIES

Country	Average Annual Death Rates Per 100,000, 1962-63*					Percent change since 1952–53				
	All Ages	15–24	25–44	45–64	65 and over	All Ages	15–24	25–44	45–64	65 and over
Males										
Hungary	35.5	29.7	41.7	56.3	87.8	+34	+49	+54	+32	†
Austria	29.5	20.5	33.6	56.8	61.1	+ 3	0	+ 7	+ 4	— 8
Sweden	24.0	12.9	28.2	49.4	48.3	†	+36	+ 3	— 5	—13
Germany (West)	23.1	18.7	25.1	43.3	49.4	0	+18	+ 9	— 5	—16
Japan	21.3	23.9	22.3	28.0	66.9	—22	—36	—13	—21	—20
France	20.8	6.8	19.8	46.1	63.9	0	+15	+10	— 4	— 7
Australia	20.7	11.1	27.4	38.9	38.7	+33	+34	+60	+26	— 6
United States										
White	18.0	9.3	19.7	36.1	45.0	+10	+35	+22	+ 7	—11
Nonwhite	9.6	8.0	14.1	13.3	16.9	+33	+82	+40	+12	+19
Poland	16.6	12.9	24.1	27.4	20.4	+58	+57	+72	+50	+32
Belgium	16.2	7.1	13.2	33.5	62.2	— 1	+29	+ 2	— 6	— 3
England and Wales	12.7	7.0	13.6	24.4	36.4	+ 8	+52	+35	— 4	—12
Canada	12.6	8.5	14.8	25.3	22.1	+ 9	+49	+18	+ 4	—22
Italy	7.1	3.8	6.0	14.8	22.7	—25	—25	—29	—30	—15
Females										
Japan	14.3	19.7	14.0	16.7	46.9	—19	—19	—19	—20	—17
Hungary	14.1	13.4	14.0	24.2	37.2	+24	+44	+15	+32	+13
Austria	11.1	6.3	13.7	20.3	24.5	—19	—49	—17	—14	†
Germany (West)	10.4	6.6	10.9	21.7	22.0	+ 3	—13	— 1	+ 9	+ 9
Australia	9.9	3.8	13.0	21.5	14.0	+80	+81	+83	+76	+69
Sweden	8.8	5.4	13.1	14.8	13.2	+21	+10	+52	— 3	+21
England and Wales	7.9	2.8	8.7	17.3	19.2	+39	+100	+64	+25	+26
Belgium	6.4	2.8	5.9	14.2	18.5	+14	+40	+31	+ 5	+10
France	6.2	3.7	5.8	12.8	17.7	+ 9	+37	+14	+ 1	+ 7
United States										
White	6.7	3.2	8.7	12.2	8.7	+49	+45	+53	+33	+ 5
Nonwhite	2.7	2.9	4.4	3.1	3.2	+80	+81	+91	+72	†
Canada	3.9	2.4	5.2	7.6	5.2	+11	+33	+27	— 4	—10
Poland	3.5	3.6	4.0	6.6	4.9	+46	+38	+38	+57	+44
Italy	2.9	2.8	2.9	5.3	7.1	—17	—28	—26	—10	+ 9

* Age-adjusted on basis of U.S. total population, 1940.
† Percent change not shown if less than 20 deaths in either period or less than 0.5 percent.

Note: For Hungary and Belgium, percent change is since 1954–55; for Poland, since 1955–56; and for Italy, since 1952.
Canada: Excludes Yukon and Northwest Territories for 1952–53.
Germany, Federal Republic: Excludes Saarland for 1952–53.
United States: Excludes New Jersey for 1962–63.

Source of basic data: World Health Statistics Annuals, World Health Organization.

Source: Metropolitan Life Insurance Co. *Statistical Bulletin,* 48:7; March, 1967.

Has there been a world-wide rise in childhood suicide?

In recent years, the mortality rate from suicide has increased in many countries. The most striking feature of this increase has been the upswing in suicide among young persons. The particulars are shown in Table 3 which gives suicide rates by age and sex during 1962–63 and the percent change since 1952–53. In the United States suicide rates have also shown the largest increases at younger ages. The rates have risen more sharply for females than males and for nonwhites than whites. This differential increase has lowered the sex ratio of 3–1/2 male suicides to each

female suicide among whites to a current disparity of 2–1/2:1. Among nonwhites the ratio changed from 5:1 to 3–1/2:1. Although the suicide rates for nonwhites has increased rapidly, their mortality from suicide was still only half that of whites in 1962–63. The dramatic increase has occurred among nonwhite teenagers who show only slightly lower suicide rates than their white peers.

The international rise in suicide may be caused by comparing recent rates with those of 1952–53. These were years in which the suicide rates for young persons were decreasing throughout the world to their lowest point in the 20th century. Any comparison to these years of decline would obviously present an unfavorable contrast.

What has been the total suicide trend in the United States?

In many cases the yearly suicide rates given for a particular country are crude rates which do not take into account changes in the age composition of the population. Because suicide prevalence increases with age, any changes in the age distribution may affect the total rate. Standardized rates were computed to correct this difficulty. This correction keeps age distribution consistent from one year to another. Table 4 presents the age-adjusted rates for suicide from 1900 through 1964, the last year for which such data are available. The age distribution obtained in the 1940 United States census is used as the standard. At the beginning of the century the suicide rate was 11.3 per 100,000 but by 1915 it had increased to 17.9 —a rise of 58 percent in 15 years. During the period surrounding our entry into World War I, the rate declined steadily, reaching a low point in 1920 of 11.5. For the next few years the rate began increasing slowly, reaching a maximum peak in the depression year of 1932 when a rate of 18.6 was recorded—the highest in this entire century. In the later depression years the rate dropped slowly and continued to decrease during World War II reaching a new low in the year of 1957 when the incidence was 9.6. From this low point it has risen slightly to about 11 per 100,000 where it has leveled out for the latest years of 1962–64. In overall perspective, the current picture is very similar to that at the beginning of the century. Changes during the intervening years can be associated with political and socioeconomic variations. Maximum figures are reached during depression years, low figures during war years. Figure 2 portrays the trend in the adjusted rates; the straight line describes t. median rate for the years 1900–64. Although the rate has risen in the last decade the current rate of 11.0 is still well below the century-wide average of 13.4.

Table 4

AGE-ADJUSTED DEATH RATES FOR SUICIDES, UNITED STATES, 1900-1964*

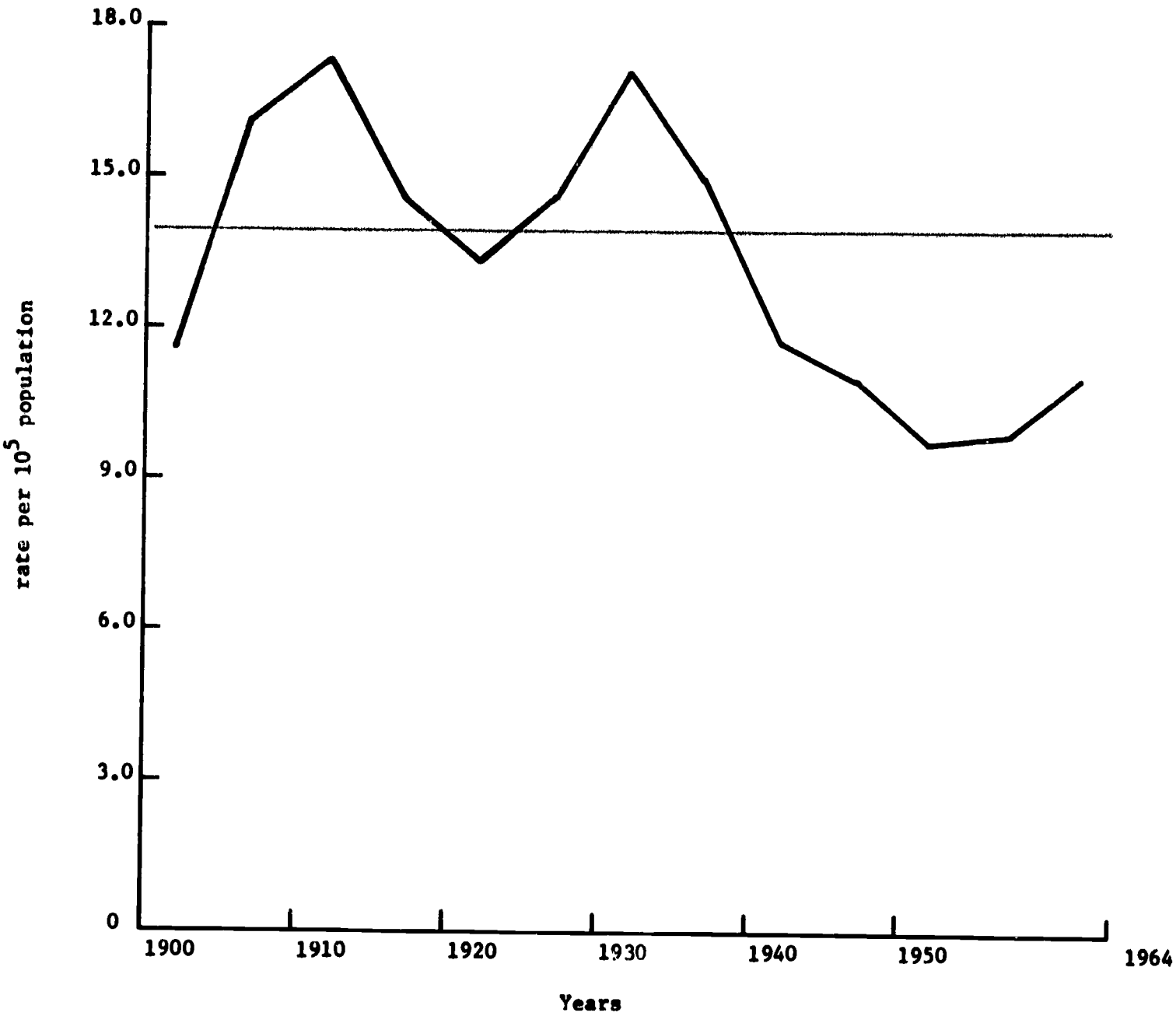
Year	Total	Year	Total
1964	11.0	1929	15.3
1963	11.2	1928	15.0
1962	11.0	1927	14.6
1961	10.5	1926	14.0
1960	10.6	1925	13.4
1959	10.5	1924	13.4
1958	10.5	1923	12.9
1957	9.6	1922	13.3
1956	9.7	1921	13.9
1955	9.9	1920	11.5
1954	9.8	1919	12.8
1953	9.8	1918	13.6
1952	9.7	1917	14.6
1951	10.0	1916	15.4
1950	11.0	1915	17.9
1949	11.0	1914	17.8
1948	10.8	1913	17.0
1947	11.1	1912	17.3
1946	11.1	1911	17.7
1945	10.7	1910	16.9
1944	9.6	1909	17.6
1943	10.0	1908	18.6
1942	11.8	1907	16.1
1941	12.7	1906	14.3
1940	14.3	1905	14.9
1939	14.3	1904	13.4
1938	15.5	1903	12.5
1937	15.3	1902	11.5
1936	14.8	1901	11.6
1935	14.9	1900	11.3
1934	15.7		
1933	17.0		
1932	18.6		
1931	18.2		
1930	17.0		

* Age adjusted on the basis of the Standard Million Population, United States, 1940.

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A): (1)–28, 1966.

Figure 2

Age-adjusted death rates for suicide, All Ages, United States, 1900-1964.



How does the annual suicide rate vary by age, race and sex?

To answer these questions requires a series of age-specific rates for suicide deaths by race and sex. These tables (located in the Appendix, Tables I–IX) comprise the most comprehensive series of vital statistics which can be found on the suicide mortality of the United States. They describe the entire panoply of available suicide rates for every age group in the United States and are subdivided into the following nine sex-race groupings: (1) all races, both sexes, (2) all races, male, (3) all races, female, (4) white, both sexes, (5) white, male, (6) white, female, (7) nonwhite, both sexes, (8) nonwhite male, (9) nonwhite, female. They cover the earliest period in which such data were available up to the latest year for which they can be obtained (1964). Such a large scale comparison presents certain major difficulties which qualify interpretation of the data:

Death-registration areas. Mortality statistics have been collected since 1900, but at that time death certificates from only 10 States and the District of Columbia were officially collected. The official death registration area expanded steadily until 1933 when all contiguous States had entered the system (Alaska and Hawaii entered subsequently). As various States were added, the whole area's age-sex-color composition changed. Consequently, before 1933, the mortality data for the entire nation is not strictly comparable. However, the accepted practice is to regard statistics from the expanding group of registration States as the best approximation to the national figures and to use them to make comparisons over a long period.

Cause of death revisions. For the years covered by these tables the causes of death were classified according to seven different revisions. Changes in the classification of suicide for the first six revisions were not extensive and listings for suicide were essentially comparable. That is, the same number of deaths assigned to that cause in earlier years would be similarly classified in the Sixth Revision which was used in 1949–57. Beginning in 1958 there was an important change. Deaths from self-inflicted injuries and accidents where suicidal intent was unclear were classified as suicides. This revision was based on the assumption that most of such deaths are truly suicidal but that a certifier is reluctant to label a death as suicide unless there is room for no other alternative. The comparability rates, obtained by dividing the number of deaths classified as suicide by the Seventh Revision by the number of deaths assigned to that cause by the Sixth Revision, vary widely by method, from 1.02 for firearms and explosives to 1.55 for jumping from high places. In all cases, the most recent revision (post–1958) yields a greater number of deaths attributable to suicide and raises the suicide rate solely because of these changes in reporting procedures.

Underreporting. Because suicide is a stigmatizing event, many self-inflicted deaths are not recorded as suicides, frequently being certified as accidental to spare the feelings of survivors. In some cases, to avoid the stigma, the survivors themselves have deliberately concealed evidence, such as a hand-written will or suicide note. Consequently, recorded figures may be underreported by as much as one-fourth to one-third (Dublin, 1963). Possibly suicides of the young are even more shameful and embarrassing to survivors than are adult suicides. Accordingly there may be a greater concealment of suicide at younger ages. Moreover, youngsters may be less likely to leave notes for *bona-fide* evidence and adults may be more likely to dismiss the prospect of suicidal intent in children than in older persons.

In any event, we must assume that the recorded data for deaths by suicide are in error, underestimate the extent of the problem, and do not represent true probability of suicide-risk. We are also assuming that the possible differential in underreporting of young persons will not affect comparisons of a very general nature.

It is reported that 12 percent of all the suicide attempts in this nation were made by adolescents and that 90 percent of these attempts were made by adolescent girls.

For purposes of illustration, the tabled data are also presented in graphic form (Figures 3–11). Each figure supplies the curves for the total population, the 5–14 age range and the 15–24 age range in each of the nine race-sex groups. As a point of reference, a straight line describes the median death rate for the 15–24 year age group in each race and sex category.

No median is given for the 5–14 year olds since the suicide curve in every instance is essentially flat with little, if any, variation over time. These median death rates also appear in Table 5.

Table 5

MEDIAN DEATH RATES FOR SUICIDE BY RACES AND SEX, AGES 15–24, UNITED STATES, 1910–1964.

Sex	Race: All Races*	White	Nonwhite
Both Sexes	6.0 (6.6)	6.2	3.8
Male	7.6 (8.1)	7.8	5.1
Female	3.8 (5.2)	4.0	2.6

* The figures in parentheses are medians for the years 1900–1964.

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A): (1)–28, 1966.

Age-specific rates

Suicide risk is directly correlated with advancing age. It is nonexistent under 5, virtually nonexistent at 5–9 years of age, rare at 10–14 (less than one case in 200,000 persons), increases in frequency about 8 to 10–fold at ages 15–19 and doubles again in frequency in the 20–24 year age group.

All Races, Both Sexes, (see Figure 3). Youthful rates are lower than the total population and run roughly parallel except for a much lower incidence during depression years. They were highest in years around World War I, lowest in the early 1950's and are currently increasing but are still below the median (median 6.6:1964 6.0).

All Races, Male, (see Figure 4). Suicides for the 15–24 year olds are rising faster than the total rate and the rate is now slightly above the median for the century (median 8.1:1964 9.2).

All Races, Female, (see Figure 5). These rates show a great amount of variation. During the early years of this century, the suicide rates among 15–24-year-old-girls was higher than the rate for the total female population of the United States. This higher rate is remarkable because suicide is so highly correlated with age that the total rates are almost always higher than they are for the younger age groups. About 1910 the age 15–24 female rate began to decline, intersecting the total female population curve about 1915 and remaining at a lower level parallel to the total rate thereafter. There has been an increase in recent years but the current rates are still below the median (median 5.2:1964 2.8).

White, Both Sexes, (see Figure 6). The 15–24 age rate parallels the total rate at a lower level with a much flatter peak during depression years. Currently the rate is on the upswing at a faster pace than the total population but it is still just about average compared to past years (median 6.2:1964 6.1).

White Male, (see Figure 7). This rate is similar to the total rate but at a lower level and with a much flatter peak during depression years. There has been a strong increase in recent years in contrast to a slight total population increase. The present rate is slightly above median, however there has been little variation compared to the general population (median 7.8:1964 9.3).

White Female, (see Figure 8). Another instance of the phenomenon where suicide rates at ages 15–24 exceed the rates for the total population occurred in the early 1900's. By 1915, the rates at the younger ages had fallen below the total curve and remain parallel thereafter. Both curves are currently on the increase; however, the current rates for the younger age group are far below its median (median 4.0:1964 2.9).

Nonwhite, Both Sexes, (see Figure 9). A more complicated picture. Before World War I the rates for ages 15–24 were approximately the same as for the total population. In succeeding years, they declined but peaked sharply in depression years. This peaking contrasts with a much gentler rise in the total population and suggests, surprisingly, a more aggravated effect upon the younger age groups. Suicides in the 15–24 year group are currently rising markedly to the point where they have now surpassed the rate for

Figure 3

Death rates for suicide, All Races, Both Sexes, United States, 1900-1964.

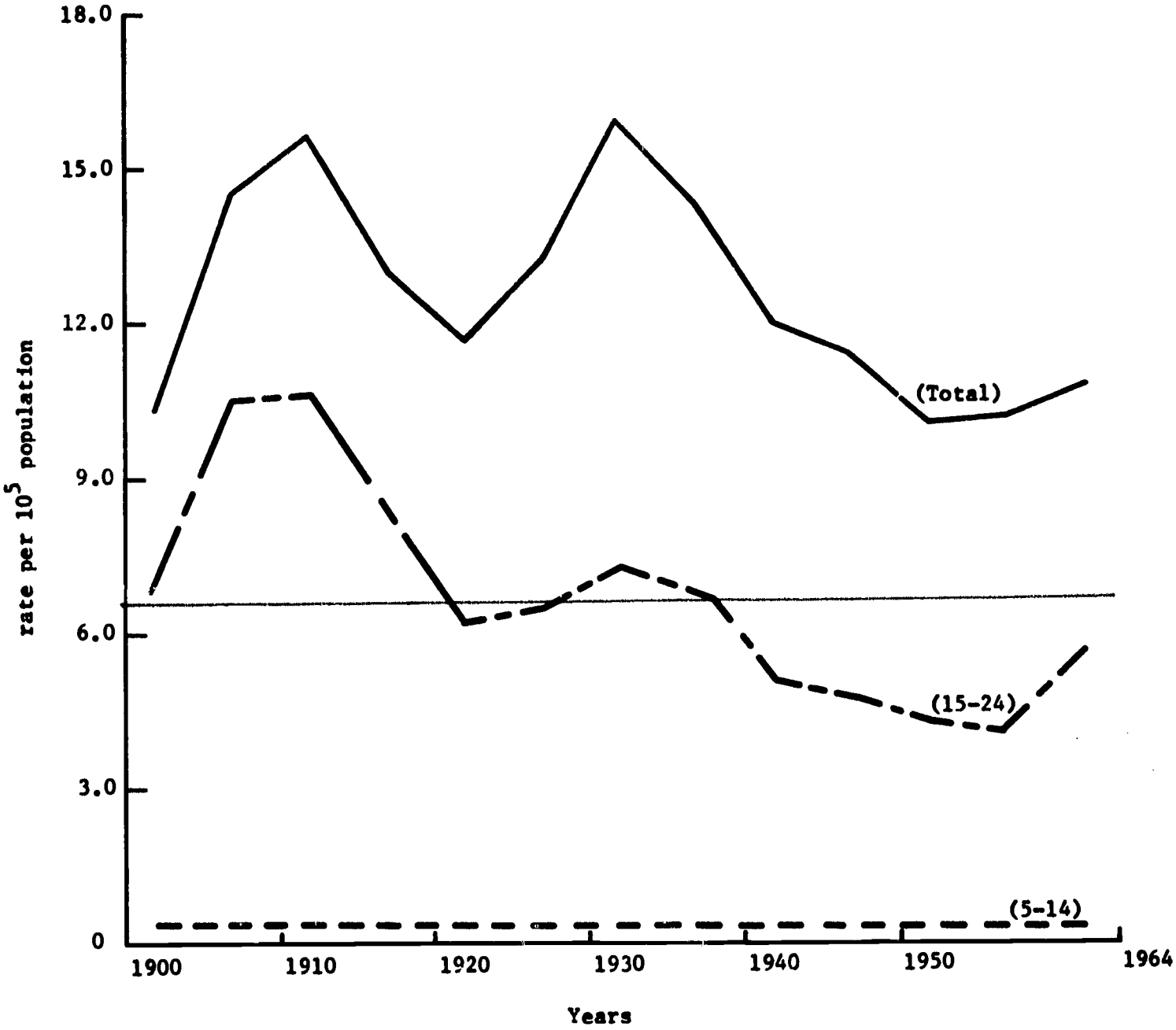


Figure 4

Death rates for suicide, All Races, Male, United States, 1900-1964.

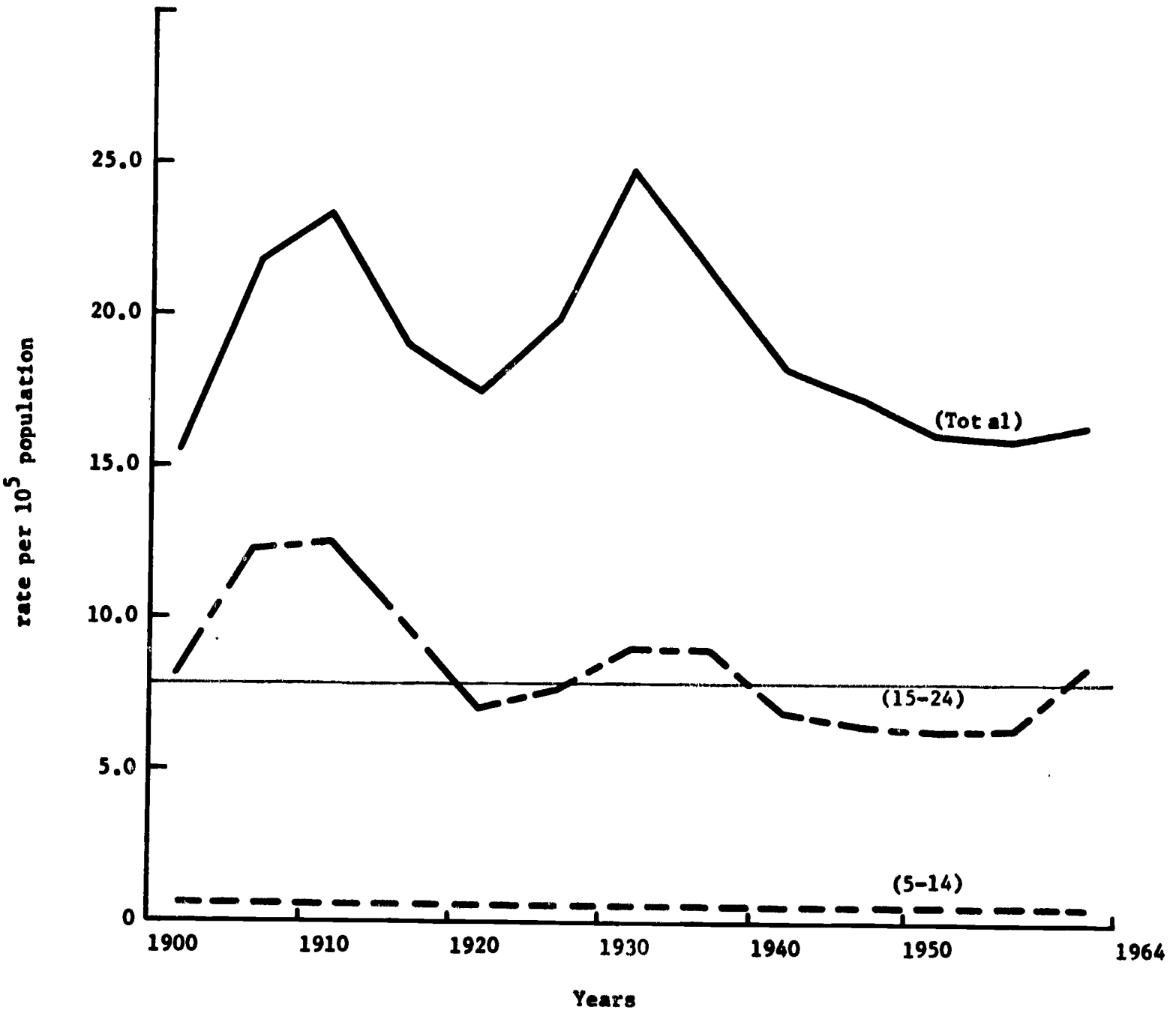


Figure 5

Death rates for suicide, All Races, Females, United States, 1900-1964.

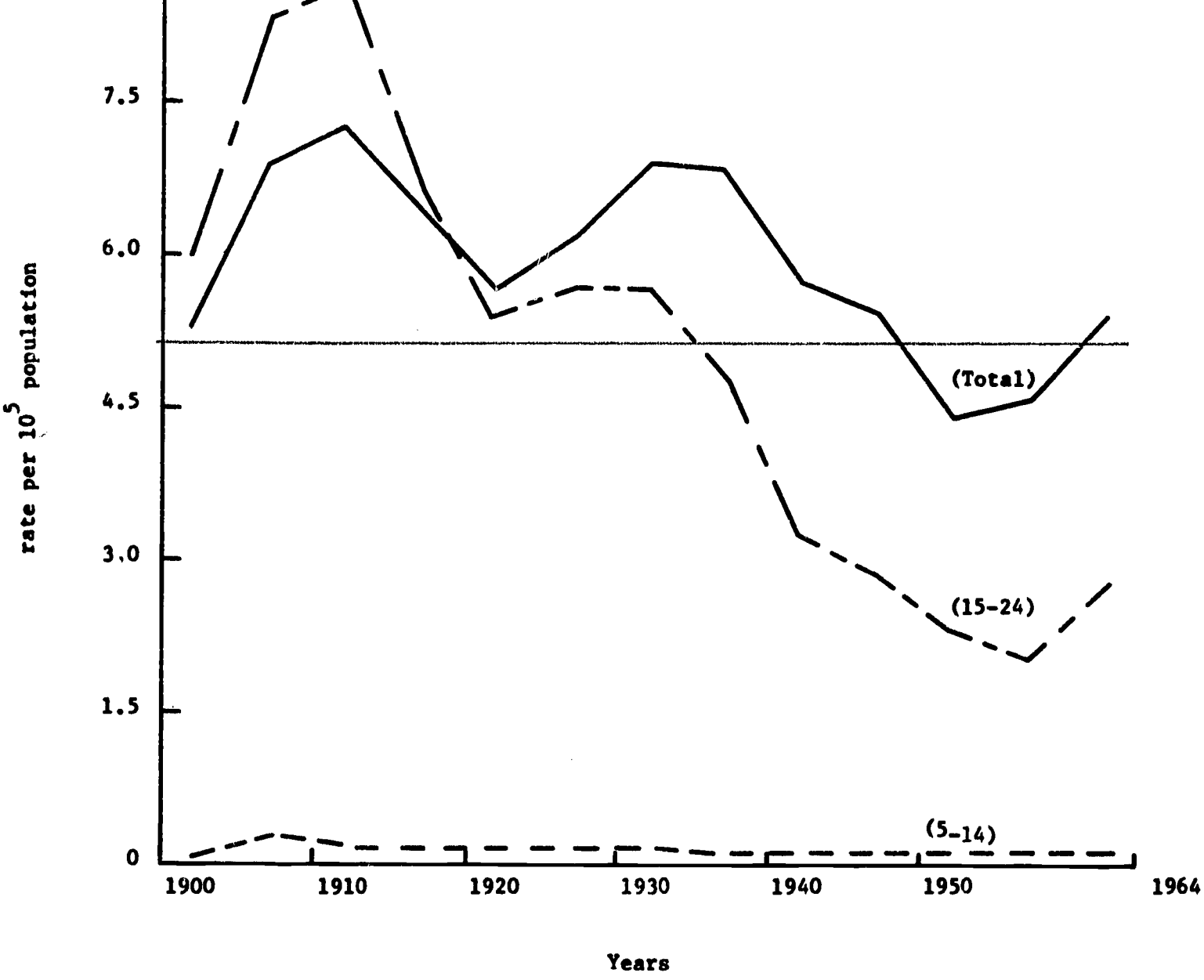


Figure 6

Death rates for suicide, White, Both Sexes, United States, 1910-1964.

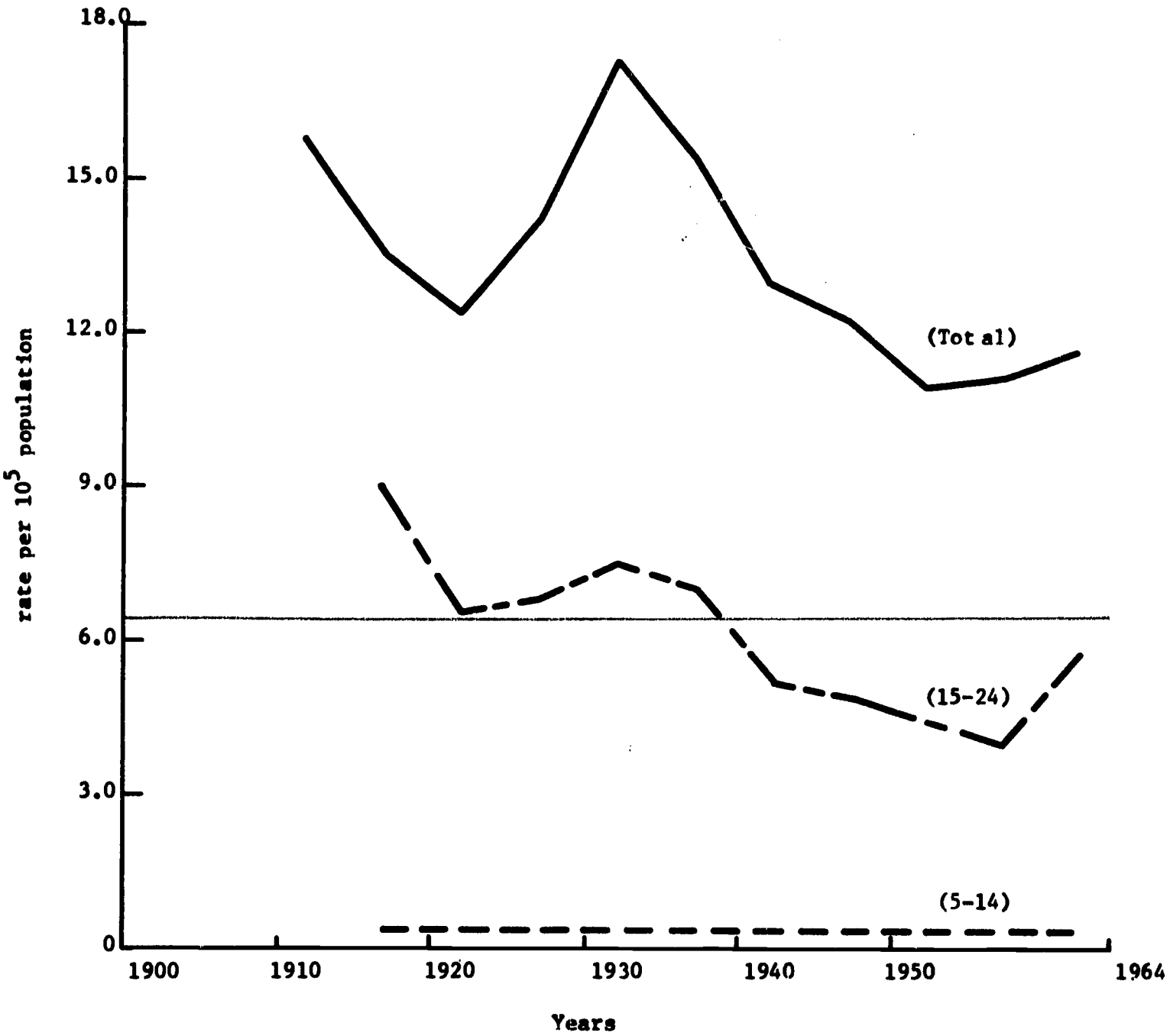


Figure 7

Death rate for suicide, White, Male, United States, 1910-1964.

Figure 8

Death rates for suicide, White, Female, United States, 1910-1964.

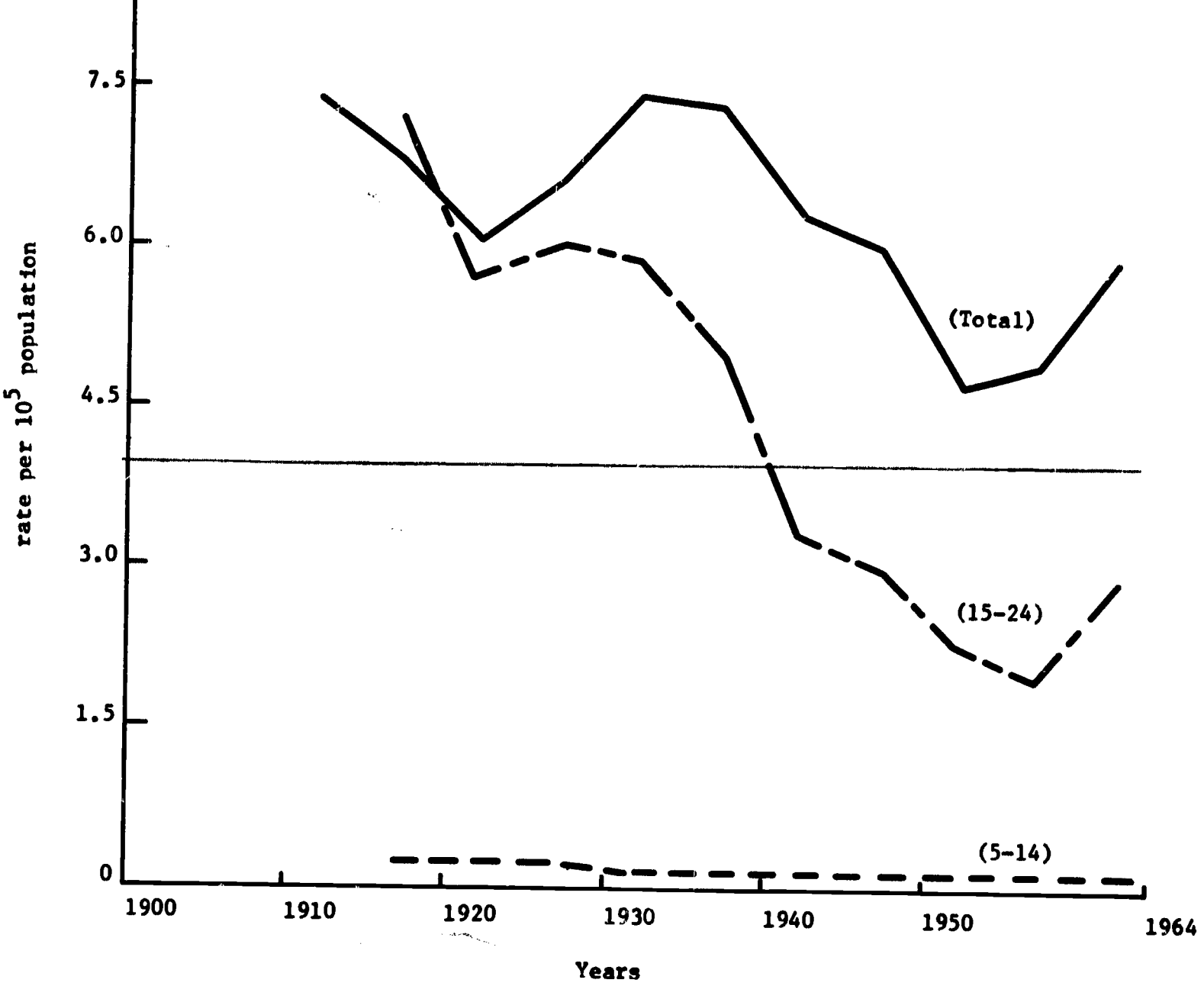


Figure 9

Death rate for suicide, Nonwhite, Both Sexes, United States, 1910-1964.

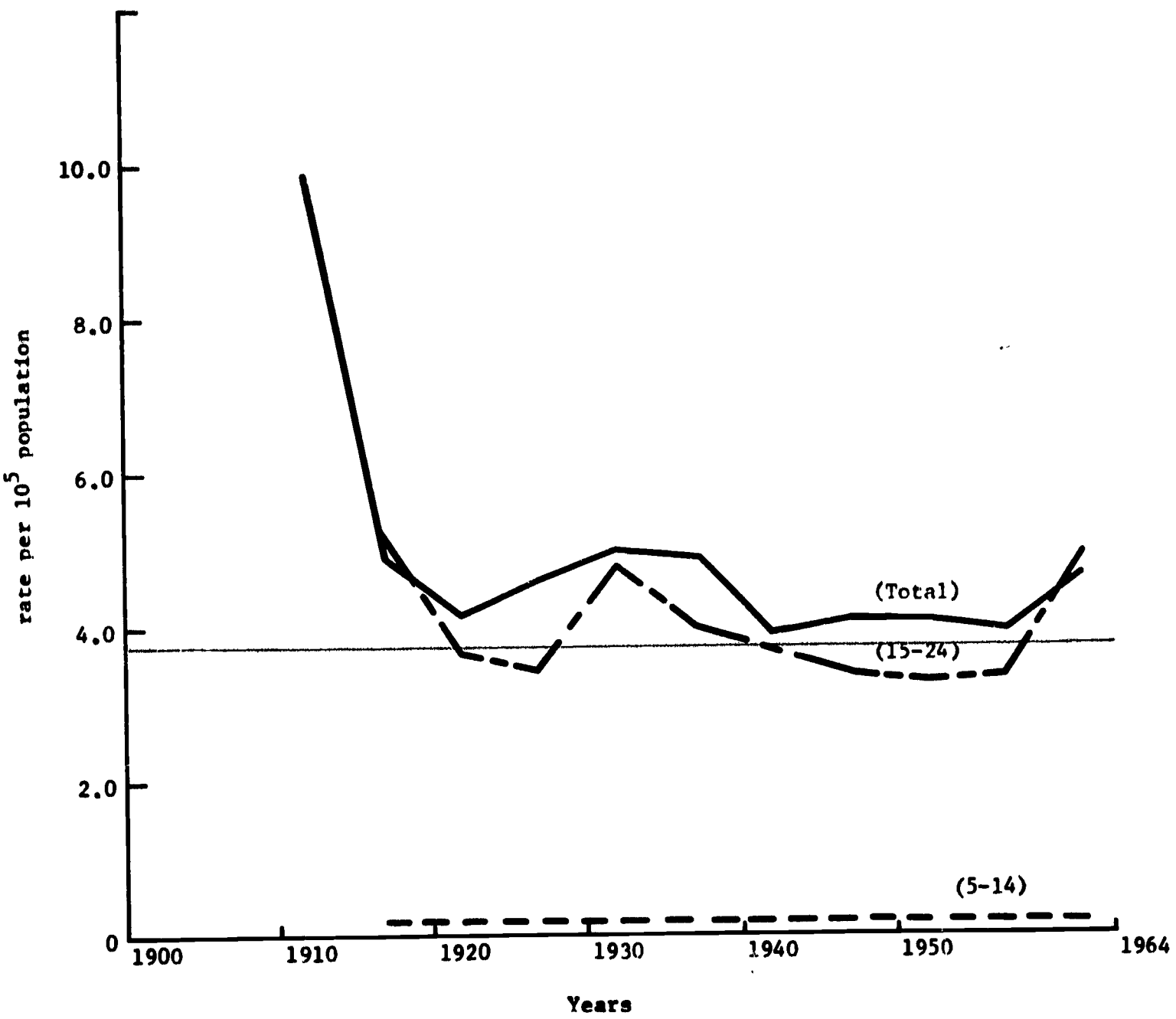


Figure 10
Death rates or suicide, Nonwhite, Male, United States, 1910-1964.

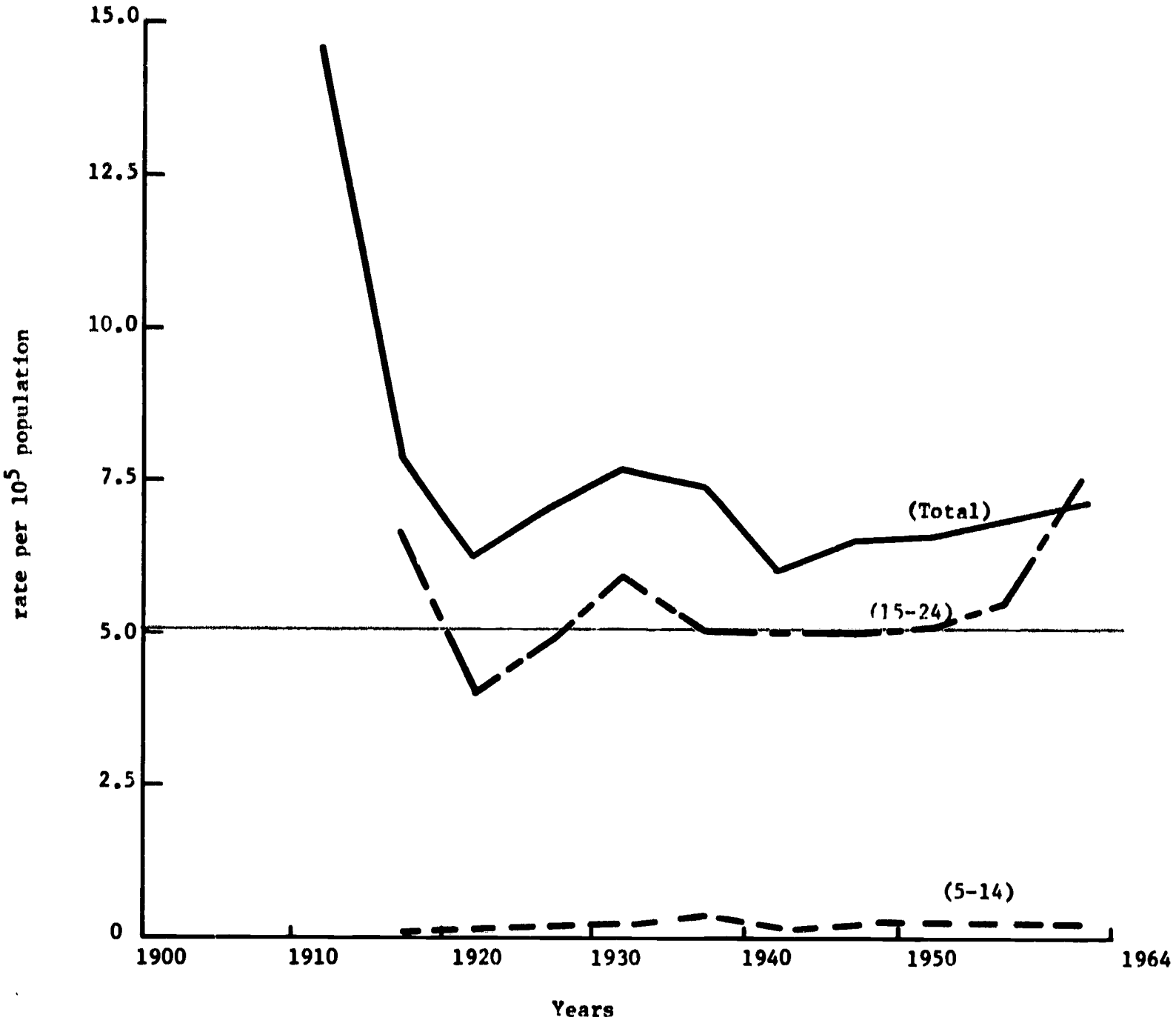
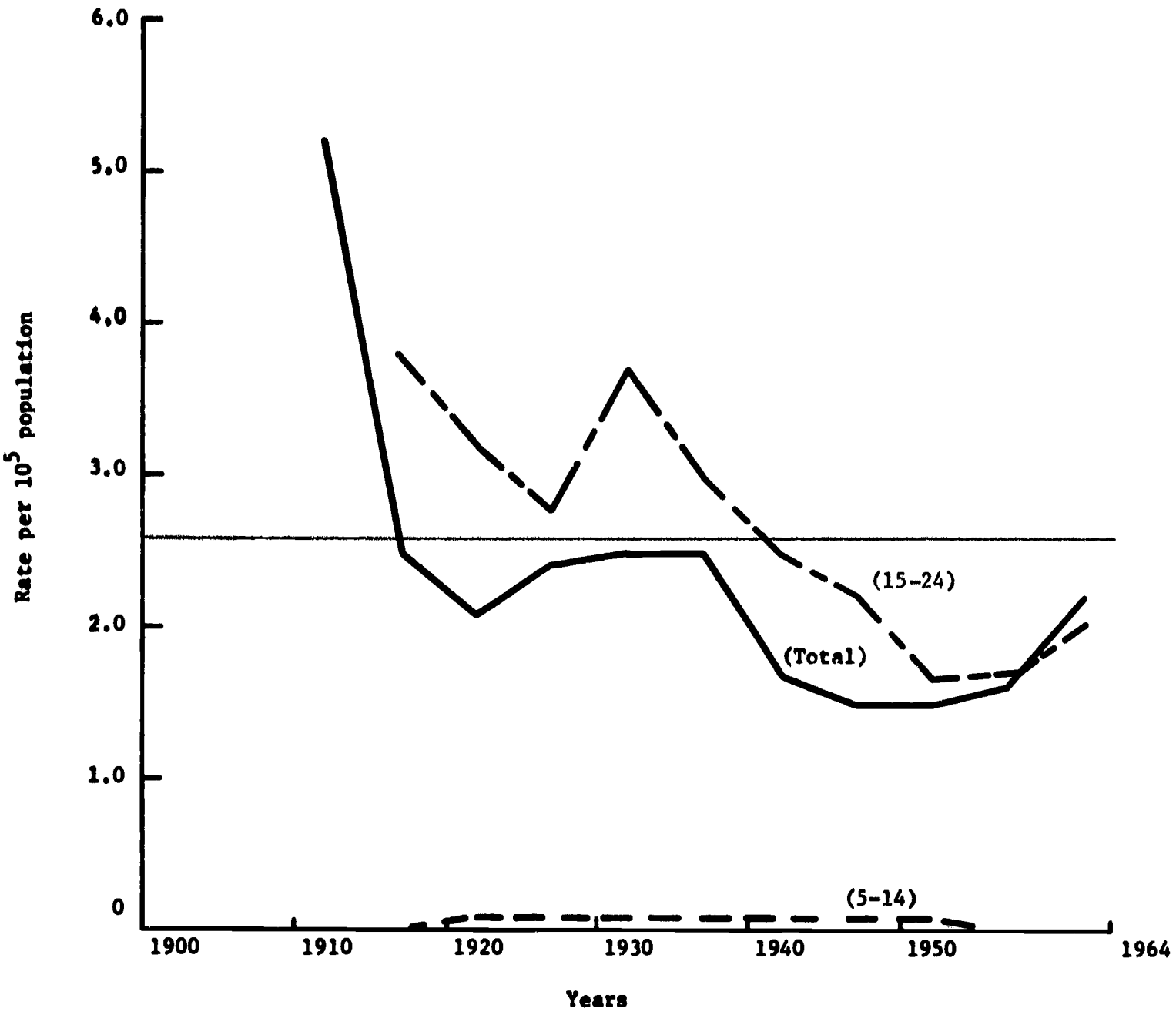


Figure 11

Death rates for suicide, Nonwhite, Female, United States, 1910-1964.



the total population of nonwhites and have climbed well above the median (median 3.8:1964 4.9).

Nonwhite, Male, (see Figure 10). Until recent years, the death rates of the 15–24 year olds ran a similar but lower course than the total population. However, during the last decade there has been a striking increase of suicides among the young. This rate of increase has not been paralleled in the total population and has surpassed the total population curve for the first time in this century. The rates are currently far above the median (median 5.1:1964 8.0).

Nonwhite, Female, (see Figure 11). These rates show another remarkable exception to the general rule that suicides increase with age. Up to the early 1950's the death rates at age 15–24 were greater than for the total population, particularly during depression years when the suicide rate at younger ages rose acutely. Though the rate is currently increasing, it is increasing more slowly than the rate for the total population, is below the rate for the total population and below the median for this age group (median 2.6:1964 2.0).

To summarize:

At ages 5–14. The suicide rate for ages 5–14 is quite low. It shows very little variation over time, or by race or sex. The rate moves along at a small but steady pace showing a constant but limited toll of childhood deaths.

At ages 15–24. (1) The total suicide rate at ages 15–24 has, since the Depression, declined. During the last decade there has been an upswing of the rate parallel to an increase among the total population. However, when these rates are compared by race and sex a different pattern is revealed.

(2) The suicide rates for females have shown considerable improvement particularly so for nonwhite females. Until the 1950s the rate of suicide for nonwhite females at the younger age 15–24 was higher than the rate for the total age population of nonwhite females. This was in sharp contrast to the general rule that suicides increase with age. During the last decade the rates for the 15–24 year olds have dropped below the total nonwhite female rates where they remain at this time.

(3) The suicide rates for males have demonstrated a marked increase, particularly so for nonwhite males. Until the 1950s, the rate of suicide for nonwhite males at the younger ages of 15–24 was at a lower level than the rate for the total age population of nonwhite males. Within the past 10 years, the suicide rates have risen strikingly and are currently higher than the total nonwhite male rates for the first time in the history of the United States mortality statistics.

A finer breakdown for the present picture

The previous tables and figures were based upon 10–year age groups. When the rates are distributed by smaller 5–year units, the current pattern becomes even clearer. Table 6 supplies the age-race-sex variation for 1964, the latest year for which data are reported, and leads us to certain general conclusions about the current picture.

Table 6

DEATH RATES FOR SUICIDE BY AGE, COLOR AND SEX, UNITED STATES, 1964.

Color and Sex	5 year age groups*		
	10–14	15–19	20–24
Suicide	0.5	4.0	8.4
Male	0.9	6.3	12.9
Female	0.1	1.7	4.2
White	0.5	4.2	8.5
Male	1.0	6.7	12.8
Female	0.1	1.7	4.4
Nonwhite	0.2	2.9	7.7
Male	0.3	4.0	13.5
Female	0.1	1.8	2.3

* The age breakdown begins with the 10–14 year age group since there were no cases of suicide under age 5 and only one case, a white male, in the 5–9 year age range.

Source: *Vital Statistics of the United States, 1964.* II(A): (1) 20, 1966.

Age: There is a direct correlation between suicide rates and advancing age. Because suicidal deaths are nonexistent before age 5, and virtually nonexistent at 5–9 years of age, these age-groups are not included.[2] Even at ages 10–14 suicide is a rarity, accounting for less than one death per 200,000 children. The rate rises acutely during ages 15–19 when there is an eight

[2] Since 1962 the policy of the Division of Vital Statistics is that deaths of children under 8 years of age are not tabulated as due to suicide, regardless of the information entered on the death certificate. Instead, these deaths have been coded as due to "other and unknown and unspecified causes," which spuriously decreases the already low rate in the 5-9 year age group.

to 10–fold increase, and at ages 20–24 the suicide rate doubles again.

Sex: For all three age groups, for both whites and nonwhites, the relative incidence of suicide is always higher for males than females in an average ratio of about 3 males: 1 female.

Race: Generally speaking, the rates for nonwhites are below those for whites for all three age groups and both sexes. There are two important exceptions: nonwhite females age 15–19 have very slightly higher rates than white females of the same age (nonwhite females 1.8:white females 1.7) although they are lower at ages 10–14 and 20–24. Nonwhite males at ages 20–24 have higher rates than their white male age peers (nonwhite male 13.5:white male 12.9) although they are considerably lower than whites at the younger ages.

Is the youthful suicide rate rising in the United States?

The answer to this question is both yes and no depending upon what year is used for a baseline. Reference to Table 7 reveals a rise in the relative proportion of youthful suicides in post-war years. Comparing the decade 1945–54 to 1955–64 reveals an increase in post-war years. Comparing the decade 1945–54 to 1955–64 reveals an increase of about one-third in the proportion of youthful suicides, (1945–54 2.1:1955–64 2.8). The most current (1964) percentage of 3.6 percent is the highest of all the postwar years. The age-adjusted rates detailed in Table 8 also document this rise, demonstrating a rate increase of 50 percent over the latest decade (1945–54 1.0:1955–64 1.5). But when the increase of recent years is evaluated against more distant past experience a different

Table 7

RELATIVE PROPORTION OF YOUTHFUL SUICIDES, UNITED STATES, 1945–1964.

Year	All Ages	Under 20 years of age	Percent suicide deaths under 20 years of age		
1964	20,588	744	3.61		
1963	20,825	721	3.46		
1962	20,207	658	3.26	3.24	
1961	18,999	543	2.86		
1960	19,041	568	2.98		
					2.78
1959	18,633	519	2.78		
1958	18,519	444	2.40		
1957	16,632	356	2.14	2.24	
1956	16,727	311	1.86		
1955	16,760	324	1.93		
1954	16,356	298	1.82		
1953	15,947	356	2.23		
1952	15,567	335	2.15	2.02	
1951	15,909	322	2.02		
1950	17,145	320	1.87		
					2.13
1949	16,993	324	1.91		
1948	16,354	358	2.19		
1947	16,538	388	2.35	2.25	
1946	16,152	395	2.44		
1945	14,782	352	2.38		
1945–64	348,674	8,636	2.48		

Sources: *Vital Statistics of the United States, 1945–1964.*

Table 8

AGE-ADJUSTED DEATH RATES FOR SUICIDE UNDER 20 YEARS OF AGE, UNITED STATES, 1945–1964.

Year	Rate		
1964	2.2		
1963	2.1		
1962	1.9	1.9	
1961	1.6		
1960	1.7		
1959	1.5		1.5
1958	1.3		
1957	1.1	1.2	
1956	0.9		
1955	1.0		
1954	0.9		
1953	1.1		
1952	1.0	1.0	
1951	1.0		
1950	0.9		1.0
1949	1.0		
1948	1.1		
1947	1.1	1.1	
1946	1.2		
1945	1.0		
1945–64	1.3		

* Age-adjusted on the basis of 1950 United States Census of Population.
Sources: *Vital Statistics of the United States, 1945–1964.*

interpretation emerges. Table 9 specifies the suicide deaths and suicide rates at the earlier ages for 10–year intervals from 1934 (after the death-registration area was complete) up through 1964. Three things are clearly evident: First there is the previously mentioned increase of suicide deaths and death rates with age. Second is the fact that while the absolute number of deaths (in all but ages 20–24) is presently at its highest level the relative rate of suicide is generally lower than it was in 1934. That is, the absolute increase of suicides has been due to an increase in numbers of persons at the younger age levels. Lastly is the factor of the baseline for comparison. If the years 1944 or 1954 are used then there has indeed been an increase. However, these years had the lowest recorded rates in our history. On the other hand, if we compare the present situation with the Depression years which had high (but not the highest) rates, then the current rates, although rising, would still represent a decrease in the rate of youthful suicide. The one notable exception is the suicide rate of young nonwhite males which is currently the highest it has ever been.

How does suicide rank as a cause of youthful deaths?

On face value, the statement that suicide is a leading cause of youthful deaths, is misleading. Actually, the recent prominence of suicide is due to a notable shift in mortality trends over the years. Improvements in sanitation, medical care, and pharmacology have all but eliminated many infectious diseases as major public health problems. With the decline in mortality from infectious diseases, the relative importance of chronic diseases and violent deaths, such as suicide, has increased.

Up to 14 years of age, suicide is negligible as a ranking cause of death. The rate in 1964 was so low (0.2 per 100,000) that it is not even among the leading causes. Accidents (18.9) are by far the leading source of mortality while suicide ranks well below the homicide rate (0.6) at a par with deaths from asthma and bronchitis.

Table 10 reveals that within the 15–19 and 20–24 year age ranges, suicide was the fifth leading cause of death in 1964, but again well below the toll from accidents which are the leading cause of youthful

Table 9

SUICIDE DEATHS AND DEATH RATES BY AGE, UNITED STATES, 1934–1964.

Years	5-year age groups							
	5–9		10–14		15–19		20–24	
	Number	Rate per 10^5	Number	Rate per 10^5	Number	Rate per 10^5	Number	Rate per 10^5
1934*	1	<0.05	45	0.4	531	4.6	1179	10.8
1944	0	.....	46	0.4	313	2.8	606	6.0
1954	0	.....	37	0.3	261	2.4	604	6.0
1964	1	<0.05	91	0.5	652	4.0	1084	8.4

* Rates for 1934 are based upon the population enumerated in the 1930 U.S. census.
Sources: *Vital Statistics of the United States, 1934–64.*

Table 10

LEADING CAUSES OF DEATH, AGES 15–24, UNITED STATES, 1964.

Cause of death	15–19 years of age Rate per 10^5 pop.	Rank	20–24 years of age Rate per 10^5 pop.	Rank
Accidents	53.5	1	66.4	1
Malignant neoplasms	7.7	2	9.2	3
Cardiovascular–renal disease	5.7	3	10.0	2
Homicide	4.3	4	8.8	4
Suicide	4.0	5	8.4	5

Source: *Vital Statistics of the United States, 1964.* II(A): (1) 8–(1)21, 1966.

deaths. Indeed, the accidental death rate is so astronomically high at these younger ages that some investigators regard it with suspicion. They reason that many accidental deaths are probably suicides which are not certified as such. Particularly suspect are the accidental deaths of very young children who, having no access to firearms or drugs, die from falls and drowning. Many of these deaths are regarded as highly suspect.

Still, on balance, suicide at younger ages has assumed a relative importance as a leading cause of death, simply because the general mortality trend has been dropping steadily. Be that as it may, suicide is still a special kind of guilt-provoking tragedy. While it may rank only fifth overall as a cause of death, suicide is the *number one* cause of ***unnecessary*** and *stigmatizing* death (Shneidman, 1966a).

Why has the suicide rate for nonwhite males increased?

The increase in suicides for young nonwhite males is recent and not much research has been completed on this subject. Herbert Hendin is currently embarked on a study of Negroes in Harlem; however his findings have not yet been published.* Generally speaking, there is a prevalent opinion that the much larger increase among nonwhites may reflect their migration to the large cities and consequent exposure to new and unfamiliar stresses (International rise in suicide, 1967). The correlation between high unemployment rates and high suicide rates among the nonwhite young male population further suggests a particular stress selectively affecting this segment of our population.

A different explanation can be found in the work of Gibbs and Martin (1964). According to their Status Integration theory, suicides may paradoxically be expected to increase as employment opportunities open up for the nonwhite population. Increasing opportunity allows diversity of occupational statuses, and such factors as role conflicts between competing statuses can be anticipated to follow, leading to more suicides. This rise is predicted by Gibbs and Martin to continue to a point where the nonwhite rates approximate those of the white population. Their theory does not, however, explain the opposite pattern of a declining suicide rate among young nonwhite females who are also experiencing greater opportunities.

> *There are no modern writers who contend that mental disorder is either a necessary or sufficient cause of suicide.*

A different interpretation can be made from an important study by Wolfgang (1959) which introduced the concept of "victim-precipitated homicide." By this concept Wolfgang referred to the tendency of certain homicide victims to behave in such a way as to invite and assure personal injury to themselves. Noting that homicide rates are quite high and suicide rates low among Negro males, Wolfgang analyzed the pattern of homicides for this group. After reviewing the Philadelphia police records, he observed a disproportionately high number of these "victim-precipitated" homicides among young Negro males. He related this disparity to a prevailing attitude that to die by suicide was cowardly and effeminate whereas death by homicide was masculine, hence more acceptable. In other words, many of these homicidal deaths should really be classified as suicide since the victim's underlying intention is truly self-destructive. Perhaps with more sophisticated reporting procedures (such as used in the Seventh Revision) a number of victim-instigated deaths which in the past

* The findings have since been published. See Herbert Hendin. *Black Suicide.* New York: Basic Books, Inc., 1969. —*Editor.*

would have been called homicidal might now be listed as suicides. This provocative possibility awaits further verification.

What is the relationship between early marriage and suicide?

Students of suicide epidemiology have consistently contended that suicide is less frequent among married persons. And so it is with but one remarkable exception—the young married population. The rate of suicide in the under 24 age range is quite a bit higher for married than it is for single persons. Tables 11

Table 11

DEATH RATES FROM SUICIDE BY MARITAL STATUS AND SEX, UNDER 20 YEARS, UNITED STATES, 1949–1951.

Age and sex	Total	Single	Married	Widowed	Divorced
White males, under 20 years	0.9	0.9	6.2	0	14.5
White females, under 20 years	0.4	0.3	3.1	9.1	13.8

Source: Dublin, 1963, p. 213.

and 12 present data for the years 1949–51 and 1959 demonstrating this atypical reversal of form. The discrepancy is more apparent under age 20 but is still evident up to age 24. From that point the odds change to favor the married. This unusual pattern is rarely remarked upon although Durkheim, in his classic study of 19th century European suicide (Durkheim, 1897) reported that early marriages had an aggravating influence on suicide. The current situation confirms Durkheim's original findings but the reasons are not readily apparent. Perhaps youngsters who marry in their teens are seeking to escape from unsatisfactory home environments, or perhaps early marriage, *per se,* introduces stresses which lead to

Table 12

MORTALITY FROM SUICIDE BY MARITAL STATUS AND SEX, 15–24 YEARS OF AGE, UNITED STATES, 1959.

Age and sex	Total	Single	Married	Widowed	Divorced
Males, 15–24 years	7.4	6.8	8.4	....	19.7
Females, 15–24 years	2.1	1.7	2.4	....	12.4

Source: Dublin, 1963, p. 27.

suicide. In any case this exception to the usual pattern m[illegible]its further investigation.

What methods are used by juvenile suicides?

Table 13 illustrates the methods of suicide used by males and females at the younger ages. At ages 10–14, firearms and hanging account for 90 percent or more of all suicides. There is an almost total absence of poisonous agents for this age group, and very little difference in methods between the sexes. During the ages of 15–19 and 20–24 years the difference in methods between the sexes is notable. The specific pattern lies in the primary use of firearms by males and poisons by females—a sex difference which persists with increasing age. This difference is not simply one of type but reflects a difference in lethality as well. Males tend to choose more lethal means, violent methods which leave little margin for survival. Female methods tend to be less lethal, allowing time for rescue or apprehension. This pattern is consistent with the fact that men outnumber women in completed suicide while the sex ratio for "unsuccessful" suicide attempts are reported to be just the reverse. The motives behind the pattern are not altogether clear. Do women use less lethal methods to avoid disfigurement? Because violence is culturally less sanctioned for females? Or because they really do not wish to die? These questions warrant further study.

Table 13

PROPORTIONAL FREQUENCY (IN %) OF SUICIDE METHODS BY AGE AND SEX, UNITED STATES, 1964.

Method	10–14 years of age		15–19 years of age		20–24 years of age	
	M (N=81)	F (N=10)	M (N=516)	F (N=136)	M (N=810)	F (N=274)
Firearms and explosives	47	50	58	35	59	38
Poisoning	01	....	14	48	22	42
Hanging and strangulation	51	40	21	10	12	06
All other means	01	10	07	07	07	14

Source: *Vital Statistics of the United States, 1964.* II(A):(1)158–(1)159, 1966.

Studies of Adolescent Suicidal Behavior

This section is based upon studies which have dealt directly with suicidal adolescents. The format of this section is to cover, in turn, the three major areas of etiology, treatment, and prevention. Within each of these major headings, the material is divided into more specific categories. For example, the etiological factors are categorized according to individual, social, and cultural determinants. The treatment material not only covers the areas of formal psychotherapy and hospitalization but chemotherapy and non-traditional methods as well. The topic of prevention is separated into three levels of preventive approach. Primary prevention, which deals with the prodromata or "warning signs"; secondary prevention which covers crisis intervention and basically concerns the material reviewed in the treatment section; and tertiary prevention which treats the important subject of how the survivors are affected by suicide. Such complicated material presented numerous problems in the arrangement and ordering of the data. These problems were exacerbated by two major considerations: first, the methodological defects and non-comparability of many of the studies, and secondly, the sheer weight of the literature written upon this subject. The etiological section, in particular, includes large numbers of studies, which are very uneven in their quality. Many studies contained imprecise definitions or conclusions that frequently went far beyond their data. Particularly common was the failure to distinguish between attempted, committed, threatened, "partial" and "probable" suicides. Various kinds of self-destructive behaviors were frequently combined without due respect for the important differences which exist between them. In some cases the results from a study based upon one group, such as attempted suicides, were over-generalized to other categories of suicidal behavior as well. In other cases the authors drew conclusions which were not evident from their data but which seemed to have been applied "wholesale" from previous studies. Yet another obstacle to neat, synoptic organization was introduced by the great number of factors which had been elicited in the various studies. For example, a prodigious number of psychodynamic characteristics have been causally linked to adolescent suicide, including, among others:

Chronic depression (Lawler, Nakielny & Wright, 1963: Cerny & Cerna, 1962),

Hallucinations, delusions, schizophrenic reactions (Lawler, et al., 1963; Toolan, 1962),

Feelings of rage and desire for revenge (Bender & Schilder, 1937; Moss & Hamilton, 1956),

Guilt—self-blame for parent's suicide (Cain & Fast, 1966); over sexual freedom (Jensen, 1955); anxiety and guilt over sexual impulses (Mohr & Despres, 1958); arousing guilt as a means of hurting others (Block & Christiansen, 1966); remorse (Bakwin, 1964); shame about failure and reactions of others (Iga, 1961),

Fear—of punishment (Bakwin, 1964; MacDonald, 1906–7; Zumpe, 1959); failure in school, especially college (Jensen, 1955; Rook, 1959),

Feelings of powerlessness (Porot, Collet, Girard, Jean & Coudert, 1965),

Desire to control environment (Mohr & Despres, 1958); need to force attention and love from others (Bender & Schilder, 1937; Bergstrand & Otto, 1962; Faigel, 1966; Gould, 1965); manipulativeness (Toolan, 1962); blackmail (Launay, 1964; Ringel, Spiel & Stepan, 1955),

Feeling of worthlessness (Hendin, 1964); of inadequacy (Iga, 1961; Lyman, 1961); severely reduced self-esteem (Munter, 1966); sense of failure (Gunther, 1967),

Loneliness and creation of unreal world (Bergsma, 1966; Maycock, 1966); withdrawal (Morrison & Smith, 1967); isolation (Jacobs & Teicher, 1967; Jan-Tausch, n.d.); fantasy life (Lawler, et al., 1963)

Feelings of helpessness—dependency needs, insecurity (Iga, 1966); when dependency removed (Lourie, 1966); lack of love and protection (Zumpe, 1959),

Impulsivity (Geisler, 1953; Gould, 1965); ineffective self-control (Iga, 1966); crisis in control of aggressive urges; hypersensitivity, suggestibility, magical thinking (Schneer, Kay & Brozovsky, 1961),

Identification—wish for reunion with dead parent (Keeler, 1954; Launay, 1964; Mohr & Despres, 1958; Moss & Hamilton, 1956); follow example of parent's suicidal behavior (Lourie, 1966),

Feelings of hopelessness—futility; last resort (Jacobs & Teicher, 1967; Tuckman, Youngman & Leifer, 1966),

Desire for escape from unbearable situation (Bender, 1953); tired of poor treatment (Faigel, 1966); feels unloved (Mohr & Despres, 1958; Peck, 1967a),

Loss of love object, concept of death, puberty (Alexander & Alderstein, 1958; Nagy, 1959).

Our major task was to bring some order into the literature on this subject. We have attempted to evaluate the key studies, and from the numerous papers to select those whose findings had sufficient correspondence to warrant their presentation as a body of consensual knowledge. That is, our criterion was to select the research that was substantially relevant and could be generalized to the study of adolescent suicide.

Attempted vs. Committed Suicide

The most striking defect in many of the studies of adolescent suicides was their frequent failure to distinguish between various self-destructive behaviors, particularly between the general categories of attempted and committed suicides. The only logical way to combine these categories is to assume that cases of attempted and committed suicide come from the same population or are characteristic of the same kinds of persons. This assumption infers that all degrees of self-destructive behavior are essentially attempts at suicide which differ only with respect to how "successful" they are. In other words. the suicidal behavior is regarded as continuous, and fatal attempts simply mark its terminal phase. The unsoundness of this assumption is indicated by a wide body of evidence that persons who attempt suicide do not come from the same population as those who commit suicide. Mintz (1964) conducted the only prevalence study of suicide attempts to be found in the literature. His results indicated that suicide attempters were younger (model age range 14–24) than completed suicides and that the sex ratio for attempts was the reverse (females 3:1 over males) of the sex ratio associated with completed suicides. Shneidman & Farberow (1961) summarized the demographic distinctions between attempters and committers in the following table:

Possibly suicides of the young are even more shameful and embarrassing to survivors than are adult suicides.

Table 14

CHARACTERISTICS OF ATTEMPTED AND COMMITTED SUICIDES.

Variables	Modal Attempter	Modal Committer
Sex	F	M
Age	20–30	40 plus
Method	barbiturates	gunshot
Reasons	marital or depression	ill health, marital or depression

Source: Adapted from Shneidman & Farberow, 1961, p. 44.

On the basis of their investigation they concluded that attempted and committed suicides cannot be combined without masking some extremely importand differences. Stengel (1964) also insists that data on attempters and committers should be clearly separated. He points out that less than 10 percent of persons who attempt suicide later kill themselves and that many of the people who commit suicide do so on their first attempt. An important reason for distinguishing attempters from committers is that the problems of persons who survive attempted suicide offer the greatest challenge and hope for remedial action: First, for the obvious reason that these people have survived despite their suicidal behavior, but also because they outnumber committed suicides, especially in adolescence, by a ratio which has been estimated from 7:1 (Dublin, 1963) to as high as 50:1 (Jacobziner, 1960). The problem of suicide attempts is particularly significant in adolescence since it is reported that 12 percent of all the suicide attempts in this nation were made by adolescents, and that 90 percent of these attempts were made by adolescent girls (Balser & Masterson, 1959).

Some of the recent studies in progress (e.g. Peck & Schrut, 1967) demonstrate an increased awareness of

the important differences manifested among varieties of self-destructive behavior and, in fact, are utilizing these distinctions for comparative study. In their current research on college-student suicide Peck & Schrut have divided their subjects into four groups: attempted, threatened, and committed suicides and a control group of non-suicidal individuals. Their design calls for comparisons among these four groups to determine differences in demographic factors, factual items, and life style.

Unfortunately, many of the studies encompassed in this review did not make such necessary distinctions. Most of the published studies were based upon suicide attempters (about one-fourth of them were based upon cases of committed suicide, a handful on threatened suicide and other forms of suicidal behavior). Nonetheless, of all the etiological factors presented in the following section, there was only one characteristic which was differentially assigned to one type of suicidal activity. That single characteristic was "social isolation." This determinant was generally attributed to cases of completed suicides but apparently was not seen to be as characteristic of suicide attempters or threateners. Except for this single instance, the causative, dynamic factors were applied to the entire range of suicidal behaviors. More often than not widely different suicidal behavior ranging from the "partial" suicide of a diabetic who disregarded medical dietary advice (Mason, 1954) to the suicide of an adolescent who killed himself by highly lethal means on his first attempt, was attributed to similar if not identical dynamics.

Theories of Suicide

Another deficiency of most of the studies of adolescent suicide is the absence of a theoretical orientation from which testable hypotheses can be derived and verified. This absence is not surprising because no theories of suicide are directly based upon adolescent cases. With the possible exception of psychoanalytic theory, which does emphasize the importance of renewed libidinal impulses at puberty, the theories of suicide were derived from the study of adult cases. Little attention has been paid to the specific dynamics leading to youthful self-destruction.

In general, the various theoretical writings on suicide can be divided into two major categories: (1) those formulations where individual, psychodynamic determinants are emphasized and, (2) those in which socio-cultural factors are accorded a dominant role.

The psychodynamic formulations fall into two main classifications: non-psychoanalytic and psychoanalytic. The nonpsychoanalytic theories are widely diversified, ranging from the view that suicide is caused by a failure in adaptation (Crichton-Miller, 1931) to the idea that suicide is affected by climate (Mills, 1934). The psychoanalytic theories stress the importance of libidinal impulses, particularly dynamic, strongly aggressive impulses directed against an introjected object. Schneer and Kay (1962) specifically apply psychoanalytic formulations to describe the particular dynamics of adolescent suicide. They conceive of adolescent suicide as an immature means of coping with extensive Oepidal conflicts through renewal of infantile primary process thought and action.

Sociocultural theories of suicide place greatest emphasis upon dynamic interrelated social forces influencing the suicide rate. The most important of these formulations was developed by (Durkhein 1899) who stated as a general rule that the suicide potential of a given society varied inversely to the degree of cohesion existing within that society. According to Durkheim, suicides could be classified into three types reflecting an individual's relationships and attachments within his social context. Three types of suicide he described were: (1) Anomic, where a poorly structured, normless society provided few ties for an individual; (2) Egoistic, wherein an individual was unwilling to accept the doctrine of his society and; (3) Altruistic, where an individual was too strongly identified with the traditions and mores of his social group. Gibbs and Martin (1964) likewise propose a theory based upon the durability and stability of social relationships and the degree to which different social statuses are successfully integrated by an individual. Paralleling Durkheim, they state as their major premise that the suicide rate of any population will vary inversely with the degree of such status integration. Henry and Short (1954) also employ a sociocultural frame of reference in relating suicide and homicide rates to shifts and trends in the economic business cycle.

These examples afford a brief description of the major theoretical orientations. The reader who wishes a discussion and review of the various theories of suicide is referred to the informative articles written by Jackson (1957) and Farberow (Farberow & Shneidman, 1961) on psychodynamic theories; Broom and Sel-

znick (1958) and Sorokin (1947) for the sociocultural viewpoint on suicide.

Etiology — Individual Determinants

Genetic and Familial tendencies

The literature records several references to families with a history of self-destruction (A family of suicides, 1901; Manganaro, 1957; Shapiro, 1935; Swanson, 1960). Since, in these cases, suicide seemed to "run in the family," it was speculated that a tendency to suicide may be inherited. However, this speculation has never been proven and there is no evidence that self-destructive tendencies can be transmitted genetically. The only studies specifically designed to examine the possibility of genetic influence were done by Kallman (Kallman & Anastasio, 1946; Kallman, De Porte, De Porte & Feingold, 1949). In these investigations, the case-histories of suicides occurring in sets of identical and fraternal twins (11 sets in the first study, 27 in the second) were compared. Kallman found that suicidal behavior was not consistent among sets of twins even though they might be similar in personality or even when they were handicapped by comparable mental disorders. He concluded that there were no special hereditary traits predisposing a person to suicide. Instead, he reasoned that suicide was "the result of such a complex combination of motivational factors as to render a duplication of this unusual constellation very unlikely even in identical twin partners."

There is no evidence that self-destructive tendencies can be transmitted genetically.

Puberty

There are indications that, at puberty, a sudden significant increase takes place in the number of suicide attempts. Puberty is also the stage of development where characteristic sex-specific differences in suicidal behavior become apparent (a male preponderance for completed suicide, a female preponderance for suicide attempts). This pubertal increase in suicidal activity has generally been linked to the "stress and strain" of adolescence, especially to conflicts over sexuality and dependency. As Gorceix (1963) points out, the adolescent is sexually mature but his environment does not accept this maturity. According to Schneer, et al. (1961), suicidal behavior in adolescence (either attempts or threats) may represent a cry for help in dealing with the problems of sexual identification and with associated libidinal and hostile impulses. A crisis in sexual identity is cited by several authors (Bigras, Gauthier, Bouchard & Tassé, 1966; Schneer & Kay, 1962; Zilboorg, 1937) who propose that a failure in masculine or feminine identity, or concern about possible homosexual tendencies, may lead to serious suicide attempts. In a recent study, Peck (1967b) pointed out that many boys use their fathers' guns (symbolizing masculinity) to commit suicide. He found that if a boy has a father who places a premium on masculinity, commanding his son to "be a man," this directive may frequently have the opposite effect and lead to a weakening of his sense of masculine identity.

Even when sexual identification is adequate, the increased sexual impulses of adolescence, *per se,* may lead to anxiety, guilt, and frustration. Schrut (1967) as well as Winn & Halla (1966), concluded from their studies of adolescent girls that "guilt over sexual acting out" was a major factor precipitating their suicide attempts. Another example of the eroticization of suicide has been described by McClelland (1963) who proposed that there were persons (mostly women) who fantasied death as a lover—"a mysterious, dark figure who seduces and takes them away . . ." McClelland calls this feeling of excitement and anticipation, of "flirting with death," the "Harlequin complex." As such his findings would help to explain the greater preponderance of female suicide attempts, particularly among adolescent girls dealing with the renaissance of their sexual impulses. Increased sexual impulsivity may also be responsible for one very unusual and highly sexualized type of self-destruction. That is, the death by hanging of adolescent males acting out erotic fantasies. One of the earliest studies which mention this peculiar kind of death was published by Stearns (1953) who reported several cases of early-adolescent males who had hanged themselves while dressed in female clothing, in some cases with their feet and hands bound up as well. He made no attempt to explain this phenomenon but regarded it as a case of "probable" suicide. Similar cases where young men hanged themselves while engaging in transvestite activity were also mentioned by Ford (1957); Litman, Curphey, Shneidman, Farberow & Tabachnik (1963); Mulcock (1955); Shankel

and Carr (1956). All these instances involved young males who died during autoerotic or transvestite activity. Precautions were frequently taken to avoid disfigurement (e.g. a towel placed around the neck to prevent rope burns). The repetitive history of this unusual activity led these investigators to regard such deaths as accidents caused by excessive eroticized "risk-taking" rather than as clear-cut cases of suicide.

Mental Disorder

The two mental disorders most frequently linked to suicide are depressive states and schizophrenic reactions. However, there are no modern writers who contend that mental disorder is either a necessary or sufficient cause of suicide.

Depression: In the clinical evaluation of suicide potential, the role of depression has always been considered important. But, recent studies indicate that depression defined by internalized aggression and self-hatred may not be as important a factor in younger age groups as it is in cases of adult suicide.

If a pathological state of depression occurs in a young person it is usually associated with the loss of a love-object either through death or separation. For example, after the death of a parent, impairment of ego-functioning coupled with a feeling of helplessness, has been observed. This combination of symptoms may lead to a serious suicide attempt as a means of regaining contact with the lost love-object (Faigel, 1966; Schechter, 1957; Toolan, 1962.) Paradoxically, the critical period for suicidal behavior does not seem to be during the depressive reaction but shortly after the depression lifts. Apparently a patient's mood may improve chiefly because he has resolved his conflict by making definite plans for his own destruction. Some recent studies. (Cerny & Cerna, 1962; Lawler, et al., 1963) found depression to be characteristic of half the young people who attempted suicide. Contrary results were reported by Lourie (1966) who stated that younger children making suicide attempts revealed no depression in the usual adult sense. He suggested that it was not until late adolescence that the clinical picture of depression appears as a prime factor. Likewise, Balser and Masterson (1959) concluded that depression was not important among adolescent suicide attempters. They were joined in their dissent by Winn & Halla (1966) who were similarly skeptical as to the importance of depression in children who threatened suicide.

In brief, if depression is simply and circularly defined as normal grief over the loss of significant relationships, then children and adolescents can be considered depressed. On the other hand, if depression is defined as a syndrome characterized by feelings of guilt, worthlessness and pessimism, then such symptoms would not appear to be as characteristic of youthful suicides as they are of adults.

Schizophrenic Reactions: Response to auditory hallucinations or commands may sometimes be the cause of serious suicide attempts among young people (Lawler, et al., 1963; Toolan, 1962). The combination of a rich fantasy life coupled with limited environmental interaction has been proposed as the factor which produces these suicidal hallucinations (Lawler, et al., 1963).

Winn and Halla (1966) diagnosed childhood schizophrenia in 70 percent of the threatened or attempted suicides in their study. Fifty percent of the attempters experienced hallucinations telling them to kill themselves; all of the adolescent boys in their study described "command" hallucinations. Balser & Masterson (1959) found that 23 of 37 adolescent suicide attempters had been diagnosed as schizophrenic, with specific pathology which included dissociation, hallucinations, delusional ideas, withdrawal, suspiciousness, and lack of communicability. These investigators concluded that schizophrenic reactions bear a closer relationship to suicidal tendencies in adolescents than does depression. Maria (1962) supports this hypothesis with his observation that in cases of completed suicides, schizophrenia is diagnosed more frequently in childhood and adolescent cases than it is in adult cases.

Many boys use their fathers' guns (symbolizing masculinity) to commit suicide.

Identification, Imitation, Suggestion

Studies of suicide and suicidal behavior have found that children may imitate the actions or follow the suggestions of people close to them who have died, attempted suicide, are preoccupied by suicidal thoughts, or who openly reveal death wishes toward them.

Death may mean to the child a chance for reunion

with a loved one, and there are instances where a child has attempted, through suicide, to join a beloved brother, sister, or parent—or even a favorite pet. In his study of children's reaction to the death of a parent, Keeler (1954) reported fantasies of reunion with the dead parent were present in eight of 11 children, and that suicidal preoccupations and attempts in six of these children seem to represent an identification with the dead parent and a wish to be reunited.

Lourie (1966) cited identification (or imitation) as an important dynamic factor for the younger children in his study. A suicide or suicide attempt by a family member may lead the young child to copy his example, even insofar as making the same choice of weapon. Bender & Schilder (1937) suggested that a deep attachment to a mother or father with suicidal preoccupations may spur suicidal preoccupations in a child. Schrut (1964) stated that a young child does not clearly differentiate his identity from that of his mother. If the mother harbors feelings of self-hatred and helplessness, the child may also harbor these same feelings. The opposite case, where lack of identification plays a part in suicidal behavior, was reported by Fowler (1949) on the basis of her work with suicidal children. She cited problems in primary family relationships where the parents provided poor models for the child to identify with as important determinants of suicidal activity.

An almost universal fantasy among children is "If I die, then my parents will feel sorry."

A child's capacity for responding to suggestion may contribute to suicidal tendencies. Children who are openly rejected by a parent, or whose parents are frequently hostile toward them may respond to these "death wishes" with a suicide attempt. In their study of children who had threatened or attempted suicide, Winn and Halla (1966) found that over 50 percent of the children had experienced hallucinations directing them to kill themselves. Lawler, et al. (1963) described these auditory hallucinations as "hearing a voice, speaking in a critical manner, telling [the child] to kill himself." Occasionally, epidemics of suicides among school children have been recorded. These, too, seem to be at least partly motivated by suggestion and imitation.

It is doubtful whether any very young (under age 9) children actually intend to die. Because of their incompletely developed concept of death, any type of threat or attempt by children is particularly dangerous. If a child does not fully anticipate that he may indeed kill himself, his choice of method (jumping from a window, leaping into a river, or running in front of a car or train) may not leave him any of the chances for rescue which characterize the suicide attempt made in later adolescence.

Death Concept

Integrally connected to suicide is an individual's conception of death. To understand why a person takes his own life, we must also understand what death means to that person. Suicide in the young is particularly tragic since they frequently do not seem realistically aware of their own mortality. Winn and Halla (1966) found that young children often attach as much significance to stealing from their mother's purse as they do to a threat to kill themselves. Paradoxically, a child may wish to kill himself but not to die. That is, death is simply and tragically equated to running away or escaping from an unbearable situation. Without the realization that death is final, a child measures his own life's value with a defective yardstick. While young children do not lack a conception of death, their death concept is qualitatively different and frequently distorted when compared to that of a mature adult. A more realistic concept of death seems to emerge in a predictable, developmental sequence which corresponds to chronological age.

Without the realization that death is final, a child measures his own life's value with a defective yardstick.

The earliest empirical investigation of this topic was conducted by Schilder and Wechsler (1934). Their findings indicated that even a child who was preoccupied with fantasies of death and violence did not really believe in the possibility of his own destruction. Similarly, Bender & Schilder (1937) believed

that a child conceived of death as reversible and temporary. Supposedly, a child has this concept because of his difficulty in distinguishing between reality and unreality. Geisler (1953) emphasized the ambivalence of childhood fantasies of suicide which might be violent and motivated by aggressive-sadistic impulses, but also by a desire not to cease existing but to return to a more peaceful existence.

Nagy (1959) published a definitive study of the developmental sequence of children's death concepts. On the basis of compositions, drawings, and discussions collected from children (ages 3–10), she was able to formulate three major developmental stages: Stage 1 (under 5 years) is characterized by a denial of death. Death is seen as separation or similar to sleep and as gradual or temporary. Stage 2 (ages 5–9 years) is where the child reifies and personifies death. Death is imagined as a separate person or is identified with those already deceased. The existence of death at this stage is accepted but averted. At Stage 3 (age 9 years and older) a child begins to realize that death means a final cessation of bodily activities. This general developmental sequence was confirmed by Lourie (1966). Moreover, he pointed out that among the school age children he studied a frequent awareness of death was expressed in their thoughts and even in wishes for their own death. This awareness was evident not only among 70 percent of the children with emotional problems but among 54 percent of the normal school-age population. Rochlin (1965) also indicated that children are quite concerned with death. He disagrees with other writers in maintaining that by as early as age 3 or 4 a child is aware of his own mortality. It is for this reason, says Rochlin, that a child sees death as temporary or reversible—to defend himself against an overwhelming fear of his own demise. In this regard he agrees with Ackerly (1967) who also sees the childhood belief in the reversibility of death as a defensive maneuver. In a study comparing different age groups, Alexander and Alderstein (1958) measured emotional responses to the idea of death using word-association tasks. They concluded that the concept of death had greatest emotional significance in young children (5 to 8 years) and adolescents (13 to 16 years) as compared to the latency age (9 to 12 year) child. This discrepancy was attributed to the observation that social roles and self-concepts in the latency age child were more well defined than they were in the other two groups. Death attitudes among adolescents were specifically studied by Kastenbaum (1959). He concluded that the adolescent lived in an intense "present" and paid little attention to such distant future concepts as death. When adolescents did regard the remote future they saw it as risky, unpleasant and devoid of significant value. The findings of Alexander and Alderstein and of Kastenbaum seem to indicate that the concept of death achieves a renewed emotional significance in adolescence but that it is handled by displacement or denial in a manner characteristic of much younger children. Denial of death fears by suicidal adolescents has also been cited by Lester (1967) who developed a scale to measure the fear of death. He concluded that suicidal adolescents feared death less than did their non-suicidal adolescent counterparts. These observations are additionally confirmed by the work of Speigel and Neuringer (1963). Through a detailed study of suicide notes they concluded that normal feelings of dreading death were inhibited as a necessary precondition for suicidal activity.

Aggression

All types of suicidal behavior in young children—whether threats, attempts, or completed suicide—have been customarily explained as displacement of frustrated aggression which becomes self-directed (Bender & Schilder, 1937). However, Stengel (1964) argues that aggression directed toward others, not oneself, is more typical of the suicide attempter. He believes that this means of directing aggression is an important difference which distinguishes suicide attempts from cases of completed suicide.

The particular dynamic relationship between aggression and suicide stems from the belief that direct expressions of hostility or rage—usually provoked by disappointments or deprivation of love—are thwarted (Moss & Hamilton, 1956) and are turned inward for several reasons: 1) The motive of spite or revenge is predominant. Faigel (1966) stated that the desire to punish others who will grieve at their death was one of the most frequent motives to suicide in young children. An angry child, powerless to punish or manipulate his parents directly, may take his revenge through an attempt at self-destruction. Zilboorg (1937) found that spite was a frequent motivation to suicide among primitive people. He suggested that it was a typical and universal reaction. 2) A child may become overwhelmed with guilt, fear, or anxiety

about his feelings of hostility, and then direct his aggression against himself (Moss & Hamilton, 1956).

Spite, Revenge, or Manipulation.

An almost universal fantasy among children is "If I die, then my parents will feel sorry." Hall (1904) suggested that such desires to punish others were a frequent motive to suicide in young children. Research by Lourie (1966), Bender and Schilder (1937) and Faigel (1966) supported this conclusion. They found that revenge or spite toward a parent was one of the most frequent reasons given by young children for their suicidal behavior. In particular, Lourie maintained that the ultimate goal a child hoped to achieve was the love and attention of the parents while Bender and Schilder declared that suicide threats were frequently used by a youngster to assert his independence.

According to Lawler, et al. (1963), these manipulative attempts were not likely to result in death except through miscalculation.

Impulsivity

Suicide threats and attempts are often attributed to the greater impulsiveness of youth. As such, this impulsivity is considered to be the necessary component which translates youthful suicidal thoughts into actions.

Winn and Halla (1966) designated impulsivity as a prominent feature in the personality of a child and noted its existence in two-thirds of their cases of children who threatened suicide. Lawler, et al. (1963) described the children in their study of attempts as possessing a rich fantasy life leading to little environmental interaction. This combination, they stated, leads to a control by inner impulses sometimes resulting in self-destructive action.

Lourie (1966) concluded from his study of childhood attempters that the vast majority of these children had impulse control problems. Although most of the children had no particular preoccupation with self-destruction, they came from a cultural setting which encouraged or even stimulated general impulsivity. He suggested that the attempts were "mostly based on the pressure of the moment in an individual with relatively poor impulse control." But he also noted that despite their immediate problems of impulsivity, these children had a chronic history of long-standing problems.

Jacobziner (1960) reported that the high incidence of attempts among adolescent girls is "probably due to the greater impulsivity of the young female, who does not premeditate the act . . . it is, in the main, a precipitous impulsive act, a sudden reaction to a stressful situation." In their study of suicide attempts in Sweden, Bergstrand and Otto (1962) likewise concluded that for most adolescent girls, suicidal attempts seem to be impulsive acts connected with small problems.

A strong note of disagreement with these conclusions was reached by Teicher and Jacobs (1966a). They argue with the idea that suicide attempts are impulsive and precipitated by some trivial, isolated problem. Rather, they suggest that a longitudinal view of a person's total life history, demonstrates that "the suicide attempt is considered in advance and is . . . from the conscious perspective of the suicide attempter . . . weighed rationally against other alternatives." In other words, the suicide attempt is not really an impulsive, spur-of-the moment decision but an end-phase to a long history of problems in adjustment.

In LSD-related suicides there does not seem to be any underlying depression, rather, the main precipitant is an overwhelming emotional experience beyond an individual's control.

Drugs

Of all the "psychedelic" drugs currently popular among the youthful generation, LSD has been most frequently linked with suicide. There has been a great deal of heat, particularly by the mass media, but relatively little light, beamed on this subject. According to Cohen (1967), LSD can be related to suicide in the following ways:

Accidental: Where, under the influence of hallucination or delusion, a subject embarks upon an act which leads to his destruction. Examples: the delusion that one has the ability to fly, hallucinations that cars on highways are toys which can be picked up

in motion. In this category, there is no true suicidal intent as such.

Exacerbation of suicide proneness: Cases where suicidal thought has taken place before ingestion and the LSD experience intensified such wishes. This condition can lead to:

1) suicide attempts under LSD or;
2) suicide attempts after the "trip."

Intrusion of suicidal ideas in "normal" individuals, usually as a result of a panic state in an individual who has not previously thought of suicide. Under LSD, dissociation of body or thoughts that a "bad trip" will never end can take place. These ideas might result in suicidal attempts made during a drug-induced state of agitated depression.

Suicide as a result of LSD-induced fantasy: These are miscellaneous cases where a subject may sense his death is necessary for altruistic reasons. This type of suicide is sometimes associated with a person's feelings of guilt and his conviction that he "must die to save the world."

Flashback suicide: These are cases where LSD effects recur without the drug-magnifying or distorting psychopathology or depression. Panic is intensified by a confusion over what brought the episode on and whether or not it can be ended. Attempts at suicide in this state may be marked by the same motivation to escape psychic pain that occurs in the drugged state.

In these LSD-related suicides there does not seem to be any underlying depression, rather, the main precipitant is an overwhelming emotional experience beyond an individual's control; an experience which can be exacerbated by suggestibility factors when the drug is taken in social groupings. At this stage the psychopharmacology is still not clear, but it seems reasonable to conclude that LSD may act to catalyze underlying conflicts and emotions including suicidal predispositions and to disorient a person to such a degree that his self-destructive potential (lethality) is increased.

It is unclear whether these LSD suicides are really intentional. Shneidman (1963) considers such individuals to be what he calls "psyde-experimenters." Their motivation is not to die but to be in a perceptually altered and befogged state. They wish to remain conscious and alive but benumbed and drugged. Accordingly they may experiment with dosages, sometimes with fatal consequences but this type of death is traditionally considered to be accidental.

While there is scanty evidence of a direct causal connection between adolescent drug usage and suicide, there have been some anecdotal speculations concerning the observed association. Trautman (1966) reports a case study in which drug abuse and an attempt at suicide were viewed as complementary means of escaping an "unbearable family situation." Schonfeld (1967) blames our affluent society which emphasizes immediate rewards, not allowing adolescents to become tolerant of frustration. Subsequently, he writes, when faced with difficulties, they become overwhelmed and turn to escapist measures such as drugs, withdrawal and suicide.

Etiology — Social Determinants

Family relationships

Family relationships are particularly important in the etiology of adolescent suicide. Not only because the family represents the most viable social unit in our society, but because of the significance of family relationships in the life of the young. Hardly any studies have investigated the protective values of a favorable family environment; instead, most studies have emphasized sibling position, family disorganization, loss, and types of destructive parent-child relationships which lead to suicidal behavior.

Sibling Order: Kallmann, et al. (1949) observed in their studies that the suicide rate of only children did not differ significantly from that of the general population. Several recent investigators, however, have suggested that a child's sibling position may be related to his suicidal behavior. Toolan (1962) found that 49 of 102 adolescent suicide attempters were first-born children. Lester (1966) compared Toolan's statistics on sibling positions with data from the New

Statistics can point out relationships but they cannot provide answers to the painful question of why *youngsters kill themselves.*

York City population. He confirmed that the distribution of sibling positions in Toolan's samples—especially the high number of first-borns—differed significantly from the expected distribution.

Another group of investigators (Lawler, et al., 1963) concluded from their study of suicide attempts that a disproportionate number of suicidal children occupy special sibling positions. Fourteen of the 22 children in their study occupied special positions (three only children, seven first-born, four youngest), but the sample was too small for adequately reliable conclusions. Lester recently (1966) re-examined the relationship between sibling position and suicidal behavior. He reasoned that suicide attempts might express an affiliative tendency to communicate with significant others. Noting that such affiliative tendencies are strongest in first-born and only children, Lester predicted an overrepresentation of first-born and only children attempting suicide. His data did not bear out the hypothesized relationship.

Family disorganization: A significant number of young people who commit or attempt to commit suidice have a history of broken or disorganized homes. A correlation between broken homes and suicide has been noted not only in the United States but has been observed throughout the world by investigators in such countries as Canada (Bigras, et al., 1966); Japan (Iga, 1966); Germany (Zumpe, 1959); France (Porot, et al., 1965, Zimbacca, 1965); England (Mulcock, 1955); and Sweden (Bergstrand & Otto, 1962).

But Stengel (1964) injects a note of controversy by pointing out that the definition of "broken home" varies greatly in the discussions of different authors. To some it means lack of at least one parent. Others seem to include all forms of family disorganization, including severe parental discord or extreme family conflict.

However it is generally agreed that the motives for suicide in children cannot be fully understood without carefully considering their family situations. Most young people who exhibit suicidal behavior seem to come from homes with grossly disturbed family relationships. Frequently these family problems constitute the dominant motivations provoking the suicidal behavior.

In study after study, the home lives of suicidal children have been characterized as disruptive or chaotic. Their histories generally include several of the following indices of family disruption: 1) Frequent moving from one neighborhood or city to another, with many changes of school; 2) family estrangement because of quarreling between parents or between parent(s) and child; 3) great financial difficulties and impoverishment; 4) sibling conflict; 5) illegitimate children; 6) paternal or maternal absence; 7) conflict with step-parent(s); 8) cruelty, rejection, or abandonment by parent(s); 9) institutionalization of adolescent or family member (hospital, jail, reformatory, etc.); 10) suicide attempts by parents; and 11) alcoholic parents.

Such poor family life has been hypothesized to lead to the following conflicts: A fear or knowledge of being unloved; fear of harsh punishment; desire to escape from intolerable conditions; lack of meaningful relationships, creation of guilt; spite; depression; loneliness; hostility; conflict; anxiety; and other affective states, any of which can predispose a child to many forms of anti-social behavior. This consequent anti-social behavior may range from stealing, fire-setting, running away, sexual promiscuity, to other forms of juvenile delinquency or, in some youngsters, to suicide.

Suicide is less frequent among married persons, with but one remarkable exception — the young married population.

Despite the general agreement that broken homes are causally related to youthful suicide, a critical view is taken by Jacobs & Teicher (1967) who contend that any valid analysis must place "broken homes" into the context of an adolescent's total life history. In their study of adolescent suicide attempts, they found that broken homes *per se,* were not distinctively precursive of suicidal behavior. Both their suicidal and non-suicidal control groups demonstrated similarly high percentages of broken homes. The real distinction was that the control group had experienced a stable home life *during the preceding five years* while the suicide attempter group had not.

Loss: The loss of a parent or other loved one (through death, divorce, or prolonged separation) seems to have several significant influences affecting suicidal behavior in children. First, a loss through death may lead to a desire for reunion with the lost loved one. A young child may therefore attempt suicide in order

to rejoin his dead parent, sibling (or even a favorite cat), yet not intend to die permanently. An older child or adolescent who believes in the existence of an afterlife, may make a serious attempt at suicide in order to rejoin a parent, sibling, or friend.

The death of significant persons in the child's life can also stimulate suicidal activity in other ways: 1) Parental suicide may lead a young child to copy his parent's example. 2) A child may blame himself for the death of his parent and be driven by this guilt to make a serious suicide attempt. 3) A child may be predisposed to suicide in later life through parental loss in childhood.

Zilboorg (1937) suggested that "when a boy or girl loses a father, brother, or sister at a time when he or she is at the height of their Oedipus complex, or transition to puberty, there is . . . a true danger to suicide." Several studies support the conclusion that the death of a parent early in a child's life may contribute to his later suicide-susceptibility. Dorpat, Jackson and Ripley (1965) studied 114 completed suicides and 121 attempted suicides. They found that the death of a parent was highest for completed suicides, and concluded from this that unresolved object-loss in childhood leads to an inability to sustain object-loss in later life. Bruhn (1962) compared a group of attempted suicides against a control group without suicidal tendencies. The group of suicide attempters was distinguished by the lack of both parental figures or had experienced the absence or death of a family member. Similar results were reported by Greer (1964) who found that the incidence of parental loss was higher in suicidal than nonsuicidal persons. Paffenbarger and Asnes (1966) discovered that death or absence of the father was the major precursor of suicide among college males. Another consequence of paternal loss or absence is that the mother may be cast in the role of chief disciplinarian. According to Henry (1960), this type of family role structure is associated with children's tendencies toward self-blame. And since the turning of blame inwards has been related to suicide, this type of family structure may predispose children toward suicide.

Again an iconoclastic note is sounded by Jacobs and Teicher (1967), who argue against a simple unitary relationship between loss and suicide. Their research compared the life histories of 50 adolescent suicide attempters with those of 32 control adolescents. Both the suicide attempters and control adolescents had high rates of parental loss in childhood. One group attempted suicide; the other did not. Obviously it was not simply parental loss in childhood which predisposed some subjects to depression and suicides in later life. They concluded that:

> loss of love-object is an important aspect of the process, but it must be viewed as part of a process where particular attention is paid to when it occurred and/or recurred, and not merely to its presence or absence. Furthermore, it seems that it is not the loss of a love object per se that is so distressing but the loss of love.

4. A child who suffers the loss of a love object may be predisposed to states of depression linked with suicidal tendencies (Lawler, et al., 1963). The common denominator in all youthful depression is considered to be the loss of the love-object. When this loss occurs to young children it can lead to difficulty in forming the object-relationships required for healthy emotional development. When the loss occurs during adolescence it does not block the development of object-relationships since the critical years for this development are passed. On the other hand, it can cause an adolescent to hate the love-object, who he feels has betrayed and deserted him (Toolan, 1962).
5. Adolescent girls, who make approximately three-fourths or more of all adolescent suicide attempts, may be especially vulnerable to loss of a father. Lack of a father is frequently noted in their histories and some writers hypothesize that paternal deprivation plays a significant part in the suicidal attempt of young girls (Bigras et al., 1966, Gorceix, 1963; Toolan, 1962; Zimbacca, 1965).
6. Other forms of love-object losses have also appeared to be significant influences leading to youthful suicide. They include:

   a. Loss of close friends through repeated school transfers (Lawler, et al., 1963).
   b. Loss of older siblings through marriage, college, Army, or moving (Teicher & Jacobs, 1966a).
   c. Loss of boy-friend or girl-friend, where this love-object has become a substitute for a dependency upon the parent (Peck, 1967a).
   d. Loss felt by freshmen at college—a kind of homesickness which overcomes the youngster when he finds himself alone and his dependency needs acutely unsatisfied (Peck, 1967a).

Social Isolation

Of all the psychodynamic attributes associated with suicidal behavior, the factor of human isolation and

withdrawal appears to be the most effective in distinguishing those who will kill themselves from those who will not. While withdrawal and alienation can be important determinants of many types of suicidal behavior, they seem to characterize cases of completed suicides rather than suicide attempts or threats.

Jan-Tausch (n.d.) studied New Jersey school children and reported that "in every case of suicide, ... the child [had] no close friends with whom he might share confidences or from whom he received psychological support." The critical difference between attempters who "failed" and those who "succeeded" was that those who failed had a relationship with "someone to whom they felt close." Jan-Tausch goes on to suggest:

> the individual has either withdrawn to the point where he can no longer identify with any person or idea, or (he) sees himself as rejected by all about him and is unable to establish a close supportive relationship with any other individual.

Reese (1966) also investigated school-age suicides and found chronic social isolation to be the single most striking feature of this group. He reported that these youngsters had such a marked lack of involvement with other students or teachers that they were literally "unknown" in their own classrooms. Social isolation was also regarded as a major prodromal sign for college suicides many of whom were described as "terribly shy, virtually friendless individuals, alienated from all but the most minimal interactions" (Seiden, 1966).

Various reasons have been assigned to explain this state of isolation. Stengel (1964) maintains that "lack of secure relationship to a parent figure in childhood may have lasting consequences for a person's ability to establish relationships with other people. Such individuals are likely to find themselves socially isolated in adult life, and social isolation is one of the most important causal factors in the causation of suicidal acts." Schrut (1967) states that, for adolescent females, isolation is a gradual process which takes place over a long period. This process of isolation has also been associated with progressive family conflict which becomes increasingly more severe. He reported that the adolescent female suicide attempter in his studies "characteristically saw herself as being subjected to an unjust, demanding, and often irreconcilable isolation with a typical, chronically progressive, diminution of receptive inter-familial communication." After an adolescent becomes estranged from her parents, she relies upon a boy-friend to become the substitute parental image. A fight with the boy-friend is frequently the final blow and becomes the precipitating factor in her suicide attempt. Jacobs & Teicher (1967) concur with this analysis, adding that suicidal adolescents usually have numerous and serious problems which progressively isolate them. These authors describe a similar chain-reaction of conflicts isolating an adolescent from meaningful social relationships and frequently leading to a suicide attempt: A long period of extreme conflict between an adolescent girl and her parent(s) eventually leads to parent-child alienation; the adolescent girl frequently seeks to re-establish a meaningful relationship through a romance with a boy-friend. During this time she alienates all other friends by concentrating all her time and energy on her boy-friend. When the romance fails, she finds herself isolated from all "significant others," and the possibility of a suicide attempt is likely. The importance of an active social life is emphasized in the research of Barter, et al. (1968) where peer group relations

Parental suicide may lead a young child to copy his parent's example.

were considered an important barrier to suicide attempts. They note that even though the nuclear family life might remain quite disorganized, when the adolescent has an active social life the prognosis is favorable. Additional support for the significance of good peer-group relations can be found in the research of Harlow and Harlow (1966) in their continuing studies of affective relationships among lower [primate] animals.

Communication

Closely related to feelings of social isolation are problems in communicating with others—difficulties which are characteristic of many suicidal individuals. In some cases the suicidal act itself is a form of communication, a desperate "cry for help." In other cases, an individual may attempt suicide because of the loneliness and despair growing out of his failure to communicate.

In many cases of attempted or threatened suicide, self-destruction may not be the dominant purpose. That is, some suicidal activities are distinguished by features which are not entirely compatible with the

purpose of self-destruction: Some suicide attempters give warning of their intention (allowing for preventive action) or the attempts are carried out in a setting which makes intervention by others possible or probable (allowing for rescue). Stengel (1964) calls these attempts "Janus-faced," because they are directed towards destruction, but at the same time towards human contact and life. He believes they are really alarm signals which should be regarded as appeals for help. They should be treated as highly emotional types of communication which are different in style and content from the usual kinds of communication. A recent study by Darbonne (1967) investigating this point, indicated that the communication style of suicidal individuals was distinctively different from the non-suicidal individuals.

A large portion of the suicidal behavior of adolescent girls seems to fall into the category of communication attempts. Stengel (1964) thinks these young girls use suicidal threats and acts as appeals to the environment more frequently than males, and that females seem inclined to use the suicidal act as an aggressive manipulative device more often than males.

Why do adolescents resort to this dangerous method of gaining attention and response? Lourie (1966) indicates that they drag with them, into adolescence, poor, distorted answers to the problems of earlier development (i.e. what to do with aggression, how to get attention, etc.) Peck (1967b) commented:

> We must . . . wonder at the condition of poverty of one's inner resources, when suicidal behavior becomes one's sole means of obtaining that attention.

But he goes on to state that these young people are not to be shrugged off merely as attention-seeking, manipulating youngsters, but should be regarded as unhappy, helpless, hopeless young people who are apparently unable to change things in more constructive ways.

These attempts to communicate through suicidal behavior may have two outcomes: change or further impasse. On a hopeful note Peck reports:

> . . . when the kinds of problems that underlie a suicidal behavior are appropriately confronted . . . suicidal behavior often disappears as a coping mechanism.

Yet a high percentage of these attempts do not result in improved conditions and when they do not they sometimes end in suicide. Peck (1967a) states that if the communications go unheeded, they become louder and more lethal, and the consequences, regardless of how nonlethally intended, may be disastrous. The possibility of tragic consequences is also confirmed by Teicher and Jacobs (1966a) who similarly observed:

> More often than not adolescents who adopt the drastic measure of an attempt as an attention-getting device find that this too fails . . . (and) the adolescent is then convinced . . . that death is the only solution to what appears to him as the chronic problem of living.

Socio-economic status

The relationship between socio-economic factors and youthful suicide is, in general, similar to that of adult suicides. That is, suicides are highest in times of economic depression and lowest during periods of war. However, social upheavals do not seem to affect the suicide rate of the young as much as the rate of adults. The factors predisposing to youthful suicide appear to be much more related to home, family, and school life. Poverty has been associated with suicide and so has wealth but on balance there is no real evidence to suggest that suicide is more frequent among the rich or the poor. As Shneidman and Farberow (1961) pointed out, the distribution is very "democratic" and represented proportionately among all levels of society. Nevertheless, suicide is most prevalent in the transitional sections of a community, which are usually impoverished and run-down areas. Sainsbury (1955) has reported that low income by itself does not lead to high suicide rates. In his ecological studies, he discovered that it was the poor stability of a neighborhood not its poverty which accounted for the high rate of suicide.

Religion

There is little reliable evidence to relate religion specifically to suicide. Among the three major religions in this country, the suicide rate is highest among Protestants, lowest among Catholics. Durkheim (1897) proposed that the higher rate among Protestants was because Protestantism had less social integration and consistency than did Catholicism and therefore the Protestant church had a less moderating effect upon suicides of its members. On the other side of the coin, it is possible that Catholic suicides may frequently be concealed because of religious and social pressures. History indicates that religion has both moderated and facilitated suicidal activity. For

example, the history of the Jews is replete with instances of mass suicides which occurred as a consequence of persecution and discrimination. There are also cases of individuals caught up in a religious frenzy or motivated to achieve religious martyrdom through self-immolation.

Simplistic attempts to relate suicide to unitary religious dimensions e.g. Catholic, Protestant and Jewish, are merely exercises in futility. Questions of religious affiliation do not get at the critical variables influencing suicide. The important unanswered questions concerning religion and suicide were delineated by Shneidman (1964):

> What would seem to be needed would be studies relating self-destructive behaviors to the operational features of religious beliefs; including a detailed explication of the subject's present belief system in relation to an omnipotent God, the efficacy of prayer, the existence of an hereafter, the possibility of reunion with departed loved ones, etc.

Education – the Special Case of Student Suicide

The subject of student suicide appears throughout the 20th century literature, however, the first thorough study of suicide on United States campuses dates back only 30 years (Raphael, Power & Berridge, 1937). Stimulated by the fact that suicides accounted for over half the deaths at the University of Michigan, Raphael and his colleagues investigated the role and function of the university mental hygiene unit in dealing with this problem. Later research on college suicide described the suicide problem at Yale (Parrish, 1957), Cornell (Braaten & Darling, 1962), and Harvard (Temby, 1961). The results of these studies indicated that the suicide problem was substantial and implied that the risk of suicide was greater for students than for their non-academic peers. In addition, these authors attempted to identify the factors which predisposed students to suicide and to offer suggestions for its prevention. These earlier studies were almost entirely descriptive, and while they did provide informative insights they failed to provide control groups for a baseline against which the validity of their findings could be assessed. This situation was remedied by later studies (Bruyn & Seiden, 1965; Seiden, 1966) which applied the necessary principle of adequate control or comparison groups to answer two basic questions: (1) Are students at greater risk of suicide than non-students? (2) How do suicidal students differ from their non-suicidal classmates?

Students vs. Non-students: Studies by Temby (1961) and Parrish (1957) indicated that students were more suicidal than non-students. Temby reported a suicide rate of 15 per 100,000 at Harvard, and Parrish's work indicated a suicide rate of 14 per 100,000 at Yale. Both of these rates are well in excess of the expected suicide rate for this population (7 to 10 per 100,000). A series of studies in English universities also led to the conclusion that students were more suicidal than their nonacademic age peers. Parnell (1951) published a detailed analysis of suicides at Oxford University comparing deaths due to suicide among Oxford students to those in the population at large. He found that the suicide rate was approximately 12 times as great for Oxford students (59.4:5.0). Carpenter (1959), after reviewing cases of suicide among Cambridge undergraduates, also concluded that the rate of [male] students was higher than for comparable groups. Two years later Lyman (1961) investigated suicides at Oxford University comparing the incidence at various British schools. Her data is summarized as follows:

To test whether the same relationship held in American universities, Bruyn and Seiden (1965) investigated the incidence of suicide among college students at the University of California, Berkeley campus (UCB) and contrasted this incidence with the figures for comparable age groups in the California population. During the 10-year period they studied (1952-1961) there were 23 student suicides whereas only 13 suicides would be expected if the general population rates held. They concluded that the suicide rate among students was significantly greater than for a comparable group of age cohorts. In addition, they found that the general mortality experience [deaths due to all causes] was significantly lower for students when contrasted to a comparable group of age peers.

Table 15
SUICIDE RATES OF BRITISH UNIVERSITIES

Populations	Annual suicide rate per 100,000 population ages 20 to 24
England and Wales	4.1
Oxford University	26.4
Cambridge University	21.3
University of London	16.3
Seven unnamed British universities	5.9

Source: Lyman, 1961, p. 219.

There is one study which indicates lower suicide

incidence among [male Finnish University] students, when compared to the general population (Idanpann-Hekkila, *et al.,* 1967). Barring this exception, the general rule obtains that students are at greater risk of suicide than their non-student peers.

Suicidal Students vs. Non-suicidal Classmates: This question was investigated by Seiden (1966) who compared students at the University of California, Berkeley (UCB) who committed suicide during the 10 year period, 1952 through 1961, with the entire UCB student body population during this same decade. The main findings of this research were:

> Suicidal students could be significantly differentiated from their classmates on the variables of age, class standing, major subject, nationality, emotional condition, and academic achievement. Compared to the student population at large, the suicidal group was older, contained greater proportions of graduates, language majors, and foreign students, and gave more indications of emotional disturbance. In addition, the undergraduate suicides fared much better than their fellow students in matters of academic achievement.

Another study which distinguished between suicidal and non-suicidal students was published by Paffenbarger and Asnes (1966). Using the college records of 40,000 former students at the Universities of Pennsylvania and Harvard, they examined the records for characteristics precursive of eventual suicide. Early loss of or absence of the father was found to be the dominant distinguishing characteristic in cases of male suicide.

The Effects of School Success or Failure: There is some disagreement about the importance of school success in relation to suicide. This has been a recurrent question over many years. One of the most famous discussions of the Vienna Psychoanalytical Society was held in 1910 to deal with the specific problem of suicide among students. The Teutonic school system was the target of much public criticism and members of the Viennese psychoanalytic group, including Freud, Adler, Stekel, *et al.* applied the newly developed insights of dynamic psychology and psychoanalysis to this controversy. A recent translation (Friedman, 1967) of this classic symposium provides an extremely interesting historical and theoretical contribution to the literature.

In more recent times Otto (1965) examined 62 cases where public school problems were indicated as a provoking cause of suicidal attempts. He found that the school problems, when compared to other difficulties, were factors of relatively slight importance. However, Reese (1966), studying public-school-age suicides to assess the effects of the school environment found that half of the subjects were doing failing work at the time of their suicide.

Reese's study was the only research which showed a relationship between low I.Q. and suicide. He found that in 25 percent of those cases where the I.Q. was available, the scores were borderline or below. In contrast, other studies by various authors have indicated that suicidal adolescents have invariably been of average or better than average intelligence. With college students, the factor of intellectual competence has been characteristically greater in the suicidal students than in their nonsuicidal classmates (Seiden, 1966). Students who committed suicide had higher gradepoint averages (3.18 as opposed to 2.50) and a greater proportion of them had won scholastic awards (58 percent as opposed to 5 percent). The transcripts of these students would indicate that they had done splendidly in their academic pursuits. However, reports from family and friends revealed that these students were never secure despite their high grades. Characteristically, they were filled with doubts of their adequacy, dissatisfied with their grades, and despondent over their general academic aptitude. This propensity for some brilliant academic students to feel that they achieved their eminence by specious means was also reported by Munter (1966) who called this syndrome the "Fraud Complex" and indicated that it was a frequent cause of depression among students.

Suicidal Students or Academic Stress? A pivotal question is whether students are at greater risk of suicide because they are initially more suicidal than non-students or because the school environment makes them more susceptible. Is the higher student rate due to selection procedures? Rook (1959) maintained that it was when he wrote that "higher standards of entry are more likely to lead to selection of the mentally unstable." Or is the elevated rate due to the institutional inflexibility and the stresses of academe? The Conference on Student Stress implied this viewpoint when they met to deal with the question: "How do stresses of students affect their emotional growth and academic performance?" (Shoben, 1966). The answer to this question needs further research to follow up college students and record their later mortality experience. Unfortunately, the stan-

dard death certificate does not supply information regarding education of the decedent. Such data would be helpful for a definitive answer to the controversial question of which is more significant, the susceptible student or the academic stress?

Variation by College: There is no evidence directly bearing upon this question. A definitive answer would require standardized reporting procedures probably involving a national clearinghouse for information on student suicide. Nonetheless, the data from Lyman's study of English universities (1961) clearly indicated that the Oxbridge schools had a remarkably high rate of suicide compared to the nation in general and to the unnamed "red-brick" British universities in particular. Accordingly, it may be reasonable to hypothesize that the suicide rates at top-ranked American universities, e.g. Harvard, Yale, Cornell, Berkeley, are higher than the suicide rates at schools of lesser academic reputation. The test of this hypothesis is an interesting subject for future research. Other provocative questions which must await future research are the comparison of suicide rates for: Large vs. small schools; public vs. private schools; and co-ed vs. sexually segregated schools.

Mass Media

Youthful suicide has been a subject for novelists and poets throughout the years. Literature is filled with humorous, insightful and sensitive treatments of the conflicts and despair of adolescents (Beerbohm, 1911; Gide, 1926; Goethe, 1774; Hardy, 1923; Ibsen, 1961; Kleinschmidt, 1956; Reid, 1939; Roth, 1963; Shakespeare, 1936; Stevenson, n.d.). Some people believe that the fictional, romanticized treatment of suicide and adolescence acts as a stimulant to self-destruction. Perhaps the most vigorous advocacy of this position came from Mapes (1903) who wrote that:

> Trashy novels and all kinds of unwholesomely sentimental literature are a very important predisposing cause to suicide in this country. They produce a morbid condition of mind which unfits people for realities.

Mapes' outrage was primarily aroused by one of the most celebrated examples of stormy adolescent love —Goethe's novel, *The Sorrows of Young Werther* (1774). This slim volume became a symbol of 18th century *Weltschmerz* and was vastly popular throughout the world. Soon afterwards Goethe and his book were accused of initiating a wave of school-boy suicides which followed its publication. Goethe himself came in for various denunciations, his book was lampooned (Thackeray, 1903) and banned from public sale in some cities. Even to the present day, one finds castigating references blaming "Wertherism" for adolescent suicides (Becker, 1965).

Despite the condemnation of "trashy" novels and romantic sentimentality there is no evidence that the treatment of suicide by mass media influences the suicide rate. The only study to directly attack this question was done recently by Motto (1967). To determine whether newspaper publicity about suicides influenced the suicide rate, he studied the incidence of self-destruction in cities which had experienced newspaper blackouts due to strikes. No significant changes were noted when the newspaper coverage was suspended. Motto concluded that newspaper publicity was not an instrumental precipitating factor for suicide. The blame for youthful suicide is no longer placed upon literary influences but on the deeper underlying motives which lead children to suicide. Nonetheless, it is of some passing interest and a reflection of the *Zeitgeist* that *The Ode to Billy Joe* (Gentry, 1967) which tells the story of a teenage suicide was, for many weeks, the number one best-selling phonograph record throughout this country.

Despite the inflammatory accusations leveled against the mass media, the educational aspects of a mass media approach have not been overlooked. There have been numerous films, plays and stories designed to educate the public about the general problem of self-destruction. In the specific area of youthful suicide, such a training film has been produced with the cooperation of the Los Angeles Suicide Prevention Center (Peck, 1969). This film is especially geared to help teachers, counselors, parents and others who have frequent contact with adolescents, to recognize and deal with the clues prodromal to adolescent suicide.

Etiology — Cultural Determinants

Cultural factors may influence the suicide rate in three basic ways: (1) By the acute psychological stresses and tensions produced in its members; (2) by the degree of acceptability accorded to suicidal behavior; and (3) by the opportunity for alternative behaviors provided by the culture.

Stresses: Instances of the first type, where the built-in stresses of a culture may catalyze and aggravate

the suicide potentiality of its members, were discussed by Bakwin (1957). Writing on the "Prussian" attitude toward children, Bakwin related the high suicide rate among Prussian children to their fear of punishment and to their strong guilt feelings about failure. Prussian children were reared in an atmosphere which demanded a rigid conformity; punishment was frequent and severe. Overly-strict attitudes with few excuses accepted for "misbehavior" were the dominant codes at home and in the classroom. A comprehensive study of cultural factors influencing suicide was published by Hendin (1964) who used a psychoanalytic frame of reference to study individuals and their culture. Hendin investigated the reasons for the consistent differences in suicide incidence among the Scandinavian countries of Denmark, Sweden and Norway. From his observations of parent-child relationships, Hendin formulated modal "psycho-social character" structures which typified each of the three Scandinavian nations and which he related to national differences in child-rearing orientations. Sweden, where the suicide rate is relatively high, was characterized by "performance" types of suicide due to high achievement expectations, self-hatred for failure and problems with affectivity resulting from early maternal separation. Denmark, where the suicide rate is also high, was characterized by "dependency" suicides revolving around such conflicts as anxiety about losing dependency relationships, over-sensitivity to abandonment, and difficulty in expressing overt aggression. In contrast, the suicide rate in Norway is quite low. Hendin proposed that this lower rate occurred because Norwegian mothers were more accepting, less concerned with their children's performance, more tolerant of aggression and strivings for independence, than were Swedish or Danish mothers. He believed that those suicides which occurred in Norway were mainly of a "moralistic" type, stemming from guilt feelings precipitated by puritanical aspects of Norwegian culture. Hendin's hypotheses were later tested by Block and Christiansen (1966) who investigated the reported child-rearing practices of Scandinavian mothers. They found general, but somewhat equivocal, support for Hendin's conclusions. In particular, their results were fairly consistent with Hendin's regarding Denmark and Norway; less so with respect to Sweden.

Acceptability: Examples of the second type, where culturally favorable attitudes may affect the suicide rate were presented by Bakwin (1957) who pointed out that countries such as Austria and Germany, where suicide is regarded as an honorable way to die, produce a higher incidence of self-destruction than countries like England or the United States where suicide is looked upon as cowardly or as a sign of mental aberration. The effect of culturally favorable attitudes toward suicide are probably best exemplified by the extreme case of Japan. In past years children of the nobility and military classes were indoctrinated at an early age with the belief that suicide was an acceptable, often highly valued, means for resolving demands of honor or duty, e.g. *kamikaze, seppuku.* Although traditional suicides are no longer as prevalent in Japan, the general attitude toward suicide is still much more tolerant than it is in many other parts of the world. At present, in Japan, suicide incidence has reached the point where it is the number one cause of death below the age of 30. Contrary to the United States pattern where the frequency of suicide increases with advancing age, Japanese suicides reach a peak at the youthful ages of 20–25. During the age range of 15–24, the suicide rates for Japanese youth are 10–20 times the corresponding United States rates (Iga, 1961). Despite the fact that academic competition (Examination Hell, 1962); exaggerated dependency and shame or failure (Iga, 1961); poor family relationships (Iga, 1966); and attempts at symbolic communication (Hayakawa, 1957) have all been cited as significant influences, the singularly distinctive characteristic cited in studies of Japanese suicide is the culturally favorable attitude toward self-destruction.

Alternatives: Conversely, where the cultural attitudes are condemnatory or repressive, one finds examples of the third type where the culture provides for alternative behaviors that indirectly satisfy the same end of self-destruction. Wolfgang's research (1959) supported the belief that the relatively high homicide and low suicide rates among young American Negro males were influenced by common values shared by members of this sub-cultural group. That is, suicide was perceived as cowardly and effeminate whereas death by homicide was considered to be masculine and courageous. Lowie (1935) recorded a somewhat parallel phenomenon among the Crow Indians. He observed a cultural pattern which was geared towards those men who were no longer interested in living. They were allowed to become a "Crazy-Dog-Wishing-to-Die."

> Above all, these warriors were pledged to foolhardiness and they deliberately courted death, recklessley dashing up to the enemy so as to die within one season.

A similar cultural pattern had also been observed in past years among the Northern Cheyenne Indians. Formerly, when a Cheyenne warrior became depressed or lost face, he could deal with the situation by organizing a small war party. During the ensuing battle, he could resolve his conflict through a feat of bravery which would renew his self-esteem or by engaging in an extremely dangerous and courageous act during which he was killed (Dizmang, 1967). As such, these cultural alternatives bear some similarity to the fictitious Suicide Club described by Robert Louis Stevenson (n.d.). Members of this club could manage to die without actually doing the killing themselves. As one of the characters remarked, "the trouble with suicide is removed in that way . . .".

But what happens when a culture comes to a deadend and no longer offers these alternative outlets for its members? Dizmang (1967), writing on the Northern Cheyenne Indians, observed that their traditional ways of acquiring self-esteem were gone, the culturally approved means of expressing aggression (e.g. Sun Dance, buffalo hunt, inter-tribal warfare) had been denied to them and he reasoned that it was these sorts of deprivation which were responsible for a mass epidemic of adolescent suicide attempts. In this case, Dizmang concluded, a whole culture had been "denied means for dealing with instinctual feelings . . . and the result was a feeling of hopelessness and helplessness," stemming from this cultural deadend.

Treatment

The methods indicated for treatment of suicidal adolescents are generally different from those most useful for adults. Despite these differences, the subject of specific treatment for youthful suicidal behavior has received singularly little attention in the literature. Surely this is a subject which warrants serious investigation.

Treatment of any kind of suicidal behavior must begin with an evaluation of the seriousness of a child's suicidal desires. Observing the child, interviewing his parents, and examining the child's history and home environment, should enable an investigator to determine whether a child presents a significantly dangerous risk. Glaser (1965) offers some criteria to be appraised: depth of the conflict, inner resources for coping with the situation, outer sources available, and severity of the stressful situation.

Hospitalization

For those children who are identified as "high risk," immediate precautions must be taken. Hospitalization is the most effective precautionary measure. Shaw and Schelkun (1965) set forth some of the advantages of temporarily hospitalizing the child: 1) It provides a breathing spell for both child and family; 2) it removes the child from all stressful or anxiety-producing situations; 3) it allows the child to be observed and evaluated; 4) it indicates to the child that he is being helped, and that his problems are being taken seriously; and 5) it enables the child to accept a therapeutic relationship more easily.

The child who is mentally ill or extremely suicidal will require a long period of hospitalization. Moss and Hamilton (1965) present the factors in successful therapy of the seriously suicidal patient. (N.B. although the article by Moss and Hamitlon does not refer to adolescents, it is the only extensive discussion available on treatment for seriously suicidal patients). The first phase is directed mainly toward adequate protection, relief of anxiety and hopelessness, and restoration of satisfying relationships with others. A deep, probing approach is postponed. During the next phase—the convalescent stage—the patient remains in hospital. He receives active psychotherapy, with the therapist approaching the problem directly and discussing new solutions. Only during the final phase is the patient allowed to renew contact with his original environment. Moss and Hamilton emphasize that since this is a crucial period for the patient, he should remain in hospital during this time. Although the patient usually considers himself greatly improved, there will be, upon contact with his previous environment, reactivation of the suicidal drive 90 percent of the time. This reactivation must be anticipated, and the patient and his family warned of this probability.

For the less seriously suicidal patient, hospitalization need not be for a prolonged period. Even a week can be beneficial in reducing the despair of a child, and in providing time to formulate a plan of treatment (Shaw and Schelkun, 1965).

Psychotherapy

Psychotherapy can be useful for seriously disturbed youngsters. Schechter (1957) believes that depression is the basis of much childhood suicidal behavior. Ac-

cordingly, he sees the treatment of suicide in children as based entirely on the concept of actual or threatened loss of love-object. The suicide attempt is considered to be both an attack on this object and an attempt to regain it. Therefore, he would treat all children by helping them to re-establish adequate object-relationships.

Shaw and Schelkun (1965), on the other hand, feel that the specific direction of the therapy should be highly individualized and dependent upon the predominant conflict: Inward aggression may be rechanneled; grief may be sublimated; fear of abandonment can be relieved. The therapist should work to relieve conflict and stress, to control destructive impulses, and to stimulate the child toward constructive action, but any deep, uncovering therapy should usually be avoided.

Richman (1968) sees the therapy of attempted suicide in a somewhat different perspective. On the basis of his work with adolescent suicide attempters and their families, he sees the suicide attempt as a symptom of disturbed family dynamics. In particular, these crises appear to revolve around handling of aggressive feelings within the family and with disturbed family role-relationships. He concludes that the therapy must involve the entire family as the patient; not simply the adolescent who manifested the suicide attempt.

Electro-convulsive Therapy

The use of electro-convulsive therapy (ECT) is a highly controversial matter. Fawcett (1966) maintains that ECT is probably the most effective treatment there is for severe depressions. Furthermore, Moss and Hamilton (1956) reported that with the advent of ECT, suicidal attempts by disturbed hospital patients are one-tenth as frequent, that the use of ECT significantly shortens the acute phase, and that productive psychotherapy can thus begin at an earlier stage. Toolan (1966), however, states that depressed children and adolescents, in contrast to adults, usually do not benefit from ECT therapy. Schechter (1957) objects to the use of ECT in treating children. He believes that it destroys the chances of the therapist to form an adequate relationship with the child. Even its advocates agree that electro-convulsive therapy does not have long-term effectiveness, and is highly objectionable to many groups (Fawcett, 1966). For these reasons, the anti-depressive drugs are now much more heavily relied upon than ECT.

Chemotherapy

Several authors report on the successful use of antidepressive drugs in treating young people. Faigel (1966) mentions the iminodibenzyl group, and Lawler, et al. (1963) suggest imipramine for the treatment of depression in children. Phenothiazine drugs have been cited as useful for relieving the anxiety associated with suicidal activity (Shaw & Schelkun, 1965) and for the treatment of suicidal behavior associated with schizophrenia (Lawler, et al., 1963). Lawler also suggests chlorpromazine and trifluoperazine as antipsychotic drugs (the former to control agitation and the latter for suppression of frightening hallucinations).

Shaw and Schelkun (1965) state that mood-elevating drugs seem to be ineffective in children, but may prove helpful in older adolescents. They also declare that authorities "are unanimous in condemning the use of barbiturates for the potentially suicidal patient." Even the best of the psychopharmacological agents are not considered to be the final answer since the general belief is that medication is not as effective in children as in adults (Toolan, 1966), and that medication alone is not effective treatment—only psychotherapy for both the child and his family can lead to a permanent cure (Faigel, 1966).

Nonpsychiatric Approaches

In less dangerous cases, where neither hospitalization, chemotherapy, nor extensive psychotherapy is indicated, family physicians and public health nurses can be valuable sources of treatment.

Many young people can be treated adequately by an alert and interested family physician or pediatrician. Discussions should be held not only with a youngster but also with the parents. These discussions should be directed towards the patient's conflicts, his emotional and social problems, his preoccupations with school, peers and sex, and any other difficulties which may become apparent. If the physician then finds a deep-seated emotional disturbance, psychiatric care can be recommended (Jacobziner, 1960, 1965a).

Powers (1954, 1956), also, comments on the role of the physician in treating young people for suicidal behavior. He contends that any doctor who is willing to listen to a child, accept him, and try to understand him, can provide the proper supportive setting. Powers suggests that it helps the physician to create this

supportive setting if he starts with a thorough physical examination. He believes this examination reassures the patient, reduces his tension, and is conducive to an atmosphere of hope and understanding. Once a positive relationship is established, the factors contributing to the child's suicidal activity can be discussed and their relative importance assessed. The physician should point out positive values and points of strength to the patient, thereby assisting the child in mobilizing and integrating his strength so that he can better meet his stresses.

Teicher and Jacobs (1966b) call attention to the unique position of the physician to recognize early symptoms of potential suicidal behavior and to provide a source of help for young people before this behavior becomes serious. An adolescent views a doctor as someone who is readily accessible, and as one of the few people in whom he can confide freely. He may seek out a doctor as the last possible resource for help in resolving his problems. It is emphasized, therefore, that a physician should listen to the complaints of adolescents sympathetically, and be ready to respond to warning signs of suicidal thoughts.

Jacobziner (1960) discusses the contribution of public health nurses in the treatment of suicidal behavior. He has found that in New York City the public health nurse was the logical person to make home visits. She had an intimate knowledge of the existing community resources, of the cultural and social characteristics, and diverse customs and traditions of the residents of the city. Public health nurses are also capable of establishing rapport with families easily. In fact, Jacobziner notes, families tend to accept visits from public health nurses more readily than from any other member of the health professions. The nurse can explain the emotional and social development of adolescents to their families, and can make follow-up visits to provide further guidance. Furthermore, she can help the families with health problems and, if necessary, she is in a position to recommend and make referrals for psychiatric treatment.

Finally, the most succinct and probably the most difficult prescription for treatment of the self-destructive adolescent was advanced by Shneidman. Departing from traditional methods, he proposed that the best therapy was to indulge the adolescent, to "cater to his wants and to help him fulfill his emotional life" (Shneidman, 1966a). Moreover, he states, the problem should not be seen as an individual conflict, but as the expression of a family disturbance, since

> one does not encounter a disturbed, suicidal adolescent without also finding a disturbed, destructive family. Parents as well as child, need a great deal of help. (Shneidman, 1966b).

In this connection, various suggestions relating to the patient's home environment have been made:

1. Before the patient leaves the hospital, his family and community must be prepared for his return home, and acceptance into his family must be assured (Jacobziner, 1960).

2. Destructive environmental factors should be corrected. Family conflicts must be resolved, schoolload reduced, and all other serious stresses removed, if possible. If the patient is seriously suicidal, a major change in his environment is usually required (Moss & Hamilton, 1956).

3. If a child's home-life cannot be changed, it may be necessary to remove him from the damaging environment. This can be done by placing him with relatives, in a boarding school or foster home, or returning him to the hospital (Schechter, 1957; Lawler, et al., 1963; Shaw & Schelkun, 1965).

Prevention

The primary aim of suicide prevention is the identification and treatment of the presuicidal individual which leads to the ultimate goal, the saving of lives. Unfortunately, it is not always possible to prevent suicide at this primary level. However, preventive efforts can be directed at different levels with different objectives.

At the secondary level, during the acute period of suicidal crisis, the aim is to help the individual deal with his conflicts by providing adequate treatment and crisis-intervention services and to prevent further suicidal behavior.

At the tertiary level, after a suicidal crisis has occurred, the program shifts to the survivors who must cope with the stigma and shame that accrues to the family and even to friends and acquaintances of the suicidal individual. The aim at this level is to help the survivors to live with the condemnatory attitudes of the community as well as to work through the personal feelings of grief and guilt which invariably accompany suicide.

Primary Level

It is now well established that the suicidal person

gives many clues regarding his suicidal intentions. Most people who kill themselves give definite warnings of their plans. The first step in preventing suicide is the recognition of these warning signs.

Otto (1964), in an effort to identify a specific presuicidal syndrome, first searched the literature for recorded opinions on the subject. He found that most investigations of this problem only concerned adults, and that they were not able to define a specific presuicidal syndrome. Otto then reviewed psychiatric material on 581 cases of children and adolescents in Sweden who attempted suicide in order to detect changes in behavior during a 3 month period preceding the attempt. He concluded from his study that a specific presuicidal syndrome does not exist in children and adolescents. The most common changes consisted of depressive and neurotic symptoms, such as anxiety, insomnia, anorexia, and psychosomatic symptoms. These presuicidal depressive and neurotic symptoms correspond to the findings of other recent studies of suicidal youth (Bakwin, 1957; Faigel, 1966; Jacobziner, 1960, 1965a; Seiden, 1966; Toolan, 1962).

Balser and Masterson (1959), however, describe reactions which contrast markedly to those described above. They assert that schizophrenic symptoms are much more common in adolescents than depressive symptoms. They describe a presuidical adolescent as one who is delusional in varying degrees and spends much time in fantasy activity. These adolescents may not show anxiety, sleeping and eating disturbances, nor any of the typical symptoms of depressive reactions.

Literature review indicates that rather than just one particular type of presuicidal syndrome, all kinds of prodromal signs have been reported. As an example, the following prodromal signs have been compiled from the studies of Faigel, (1966); Teicher and Jacobs (1966a); Perlstein (1966); Jacobziner (1965a) and Toolan (1962):

Changes in behavior preceding an attempt:
Eating disturbances or loss of appetite (anorexia), psychosomatic complaints, insomnia, withdrawn or rebellious behavior, neglect of school work, inability or unwillingness to communicate, promiscuity, use of alcohol or drugs, truancy or running away, neglect of personal appearance, loss of weight, sudden changes in personality, difficulty in concentration.

Related psychodynamic factors:
Repressed anger, sex anxieties, deflated self-image or self-depreciation, irritability, outbursts of temper, hostility, hallucinations, hypersensitivity, hypersuggestibility, low frustration tolerance, despondency.

Other related characteristics:
Broken home or disorganized family life, lack of friends, extreme parent-child conflict, long history of problems and a period of escalation of problems, death or loss of parent or other important person, accident-proneness, chronic disease or deformity, a clinical evaluation of depression or schizophrenia.

Despite the multiplicity of prodromal factors there is widespread agreement with one explicit point made by Jacobziner (1965b) and by Shneidman (1966a), among others. That is, that all suicidal behavior must be taken seriously. Even mere threats or seeming gestures should not be ignored.

Parents have the main responsibility for raising children in such a way that they will not resort to suicidal behavior as a "solution" for problems. Beeley (1929) considered suicide as a form of evasion or escape from crises. His answer to the problem was not to avoid conflict but to teach children early in life how to meet inevitable crises intelligently. Recently, Shaw and Schelkun (1965) have returned to this same theme: A child must learn to live with his conflicts.

Jacobziner (1965a) suggested that parents be better educated to understand the needs of adolescents and the psychodynamics of adolescence if they were to prevent suicidal behavior in their children.

A simpler and more direct way to reduce the number of suicide attempts would be to persuade parents to make guns and poisons inaccessible to their children. Since some authors believe that suicide attempts in adolescents tend to be spontaneous, impulsive actions, they suggest (Roche, et al., 1965; Peck, 1967b; Shaw & Schelkun, 1965) that the lack of immediate access to these two methods would be enough to prevent many of these supposedly impulsive actions.

Expanding preventive efforts into the school setting, Jan-Tausch (n.d.) recommends ways that public schools could help to prevent suicide:

1. Remedial reading courses should be made available, because there seems to be a correlation between poor reading and emotional distress.

2. Children should be encouraged to participate in extra-curricular activities, as a deterrent to withdrawal and isolation.

3. Schools should encourage more personalized teacher-pupil relationships.

4. Counselors should try to see that all pupils have at least one friend or confidant.

5. Guidance counselors should begin counseling children instead of performing administrative duties as a "way up the ladder."

Munter (1966) makes the following recommendations for colleges:

1. Close personal contact between students, faculty, and administrators.

2. Provision of counseling and treatment facilities.

3. Training of faculty and physicians in student health services to recognize prodromal signs, particularly of depression.

4. Encouraging an atmosphere in which emotional difficulties are accepted and support is provided to students.

Shoben (1966) in a report of the U. S. National Student Association Conference on Student Stress (Nov. 11–14, 1965) summarizes the conference's recommendations to minimize academic stress as follows:

1. Increase the relevance of education to the modern world.

2. Encourage more authentic and personalized student-faculty relationships.

3. Revise the campus community from an adversary atmosphere to a cooperative one by allowing greater student participation within decision-making bodies.

Farnsworth (1966) states that the prognosis of students contemplating suicide is good if treatment is obtained. He provides the following suggestions for college psychiatrists:

1. Suspect suicidal preoccupations or actions in anyone who is depressed and anxious.

2. Make it clear to a student that he is free to talk about his feelings without any action being taken against him.

3. Develop a warm and accepting relationship with students suspected of suicidal thoughts.

4. Keep lines of communication open at all times from him to a source of help.

5. Notify parent or next of kin if suicidal signs become ominous.

Finally, Paffenbarger and Asnes (1966), on the basis of their research proposed that the appropriate guidance by college agencies might provide a substitute for the paternal deprivation which influenced male college suicides.

In connection with student populations, Cohen (1967) has a few suggestions for proper education about drug use: Make accurate information available; make sure the sources are credible; and provide information about alternatives. Only in this way, he concludes, can attitudes toward drugs be changed.

On a community level, Jacobziner (1965a) advocates providing a greater concentration of health services in deprived areas where many of the potential suicides live.

Efforts could be made by communities to disseminate information about how to recognize warning signs and where to go for help. Shneidman (1966b) proposes using all the media—TV, newspapers, billboards, and even signs in public toilets—for providing this information. Concise and inexpensive pamphlets are also useful as a guide for parents, teachers, family doctors, ministers, youth leaders, and others who come into contact with adolescents. Such pamphlets which discuss the problem of suicide, prodromal clues, and the nature of community suicide prevention services, are *How to Prevent Suicide* by Shneidman and Mandelkorn (1967) and the U. S. Public Health Service pamphlet entitled *Some Facts about Suicide* (Shneidman, Farberow & Leonard, 1961).

Suicide prevention in an unusual setting is described by Dizmang (1967) in his study of young people on the Cheyenne reservation. At present, the VISTA workers, the clergy, the Community Health Workers (Cheyenne who have received special training in public health practices and practical nursing) are the major sources of help used by the Cheyenne youngsters. These three groups have been alerted to watch for cries for help, so that referrals can be made to the Public Health Service. An effort is now being made to help young Cheyenne function in the "white man's world." Through the Neighborhood Youth Corps, the adolescents learn regular work habits, and gain approval of the tribe by learning how to improve the reservation. Dizmang comments that response to this program has been "overwhelmingly positive." But the larger problem, he says, will be one of "community organization, through which the latent internal resources of these young people could be tapped, and a cultural process of self-renewal rather than self-destruction begun."

Secondary Level:

The measures useful at the level of secondary prevention have been discussed previously in the section on treatment. These methods are used during the period when the suicidal tendencies have become apparent, but the person has not yet become a suicide. They include hospitalization, medication, psychotherapy, and environmental intervention.

One topic not yet covered is that of crisis-intervention. That is, methods which deal with the crisis while it is in progress. This is one of the main purposes of a suicide prevention center. Operating around the clock, the center is always available to desperate people. The center attempts to find out what is bothering the person, provides reassurance that solutions can be found, and makes referrals to appropriate community agencies. The goal during this acute phase is not solution of the person's problems, but rather to provide immediate relief and hope since the suicidal mood is usually a temporary state. Thus, the suicide prevention center is primarily directed toward averting the immediate crisis, which then allows time for providing long-term solutions to the person's problems.

Suicide prevention centers in this country are developing rapidly. There are, in 1969, over 100 such centers throughout the nation and the number is increasing annually. As part of this movement, the federal government in 1966 established as part of the National Institute of Mental Health, a Center for Studies of Suicide Prevention. The Center acts as a catalyst for research, training, and community services, and as a guiding force for the development of the newly created, interdisciplinary, field of "suicidology."

Tertiary Level:

Tertiary prevention refers to efforts made after a suicide has occurred. It involves working with the survivors of the person who committed suicide—especially those survivors who are children or adolescents.

Appropriate to the idea of tertiary prevention are several articles dealing with children's reactions to the death of a parent.

Keeler (1954) examined eleven children (ages 6–14) who were admitted to hospital after the death of a parent. He found depression in all eleven cases; along with such serious symptoms as fantasies of reunion with the dead parent, visual and auditory hallucinations, and development of conversion hysterias. Of particular significance was the report of suicidal attempts and preoccupations in six of the 11 children. Cain and Fast (1966) studied 45 "disturbed" children (ages 4–14) whose reactions had been caused by the suicide of a parent. Their disturbances were attributed to guilt derived from 1) pre-existing hostile fantasies toward the suiciding parent; 2) feelings of blame for the parent's despair; 3) their inability to prevent the suicide. Cain and Fast found that there had been no opportunity for the children to get relief from these feelings of guilt because of distorted communications regarding the parental suicide. The stigma surrounding suicide had led the surviving parent to do such things as completely deny the fact of the suicide, or to give differing accounts of the death at different times. Lastly, Sugaya (1965) reports the case history of a child whose father hanged himself. She was placed in a foster family, where she later became emotionally autistic and behaved bizarrely.

One of the few published studies in the area of postvention or tertiary prevention consisted of interviews with the parents of adolescents who had committed suicide (Herzog & Resnik, 1968). These interviews occurred from 2 months to 2 years after the suicide deaths. The experiences and recommendations of the investigators may be summarized as follows:

PARENTAL RESPONSE

1. Overwhelming hostility directed towards essentially neutral parties such as medical examiners, physicians, hospital attendants, etc. and denial of suicide claiming that it was an accidental death or other non-suicidal death. It was felt that these unresolved emotions led to later feelings of guilt, depression, and failure as parents.
2. Due to the stigma parents were unable to derive the usual social benefits of working through their grief by talking to others about their children's death. In fact, it was felt that the parents rarely were able to talk even with one another about this event.
3. Parents would have appreciated professional help at the time of the suicide in order to deal with their feelings of grief, mourning and bewilderment.

RECOMMENDATIONS

1. Followup interviews in *all* families where a suicide occurs.

2. This function to be performed by mental health personnel operating on an official basis e.g. through the coroner's office.
3. Early contact in the first few hours after a death occurs.
4. It was concluded that the interviews had therapeutic and cathartic value for the parents and serve as a first step toward an eventual psychological resynthesis and the prevention of subsequent suicides and related mental disorders among the survivors.

Though little work has been published on the subject of tertiary prevention, the lack of studies is by no means commensurate with the importance of the subject. The problem is one of extreme significance for it is quite likely that as Shneidman (1966b) has indicated, positive preventive efforts in this area will "head off the schizophrenias of the next generation."

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Appendix A

Table 1

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:
DEATH-REGISTRATION STATES, 1900–1964.
ALL RACES, BOTH SEXES

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	10.8	—	0.2	6.0	11.8	15.5	20.5	22.6	22.1	24.0	25.3
1963	11.0	—	0.3	6.0	11.8	16.0	21.1	23.6	22.4	25.4	24.6
1962	10.9	—	0.3	5.7	11.3	15.0	21.0	23.7	22.2	27.2	26.7
1961	10.4	—	0.2	5.1	10.3	14.4	20.3	23.1	22.0	26.0	25.0
1960	10.6	—	0.3	5.2	10.0	14.2	20.7	23.7	23.0	27.9	26.0
1959	10.6	—	0.2	4.9	9.9	13.6	19.8	24.3	24.8	27.8	25.7
1958	10.7	—	0.2	4.8	9.8	13.7	20.7	24.1	25.1	27.7	25.8
1957	9.8	—	0.2	4.0	8.7	12.7	18.2	22.4	23.6	26.5	26.4
1956	10.0	—	0.2	4.0	8.5	12.1	18.5	24.2	25.2	28.0	23.5
1955	10.2	—	0.1	4.1	8.4	12.3	19.6	24.8	25.0	27.5	27.9
1954	10.1	—	0.1	4.2	8.7	12.5	19.3	23.9	25.1	25.6	25.1
1953	10.1	—	0.2	4.3	8.5	12.6	18.7	22.5	26.0	28.7	27.1
1952	10.0	—	0.1	4.2	8.5	12.3	18.2	22.6	26.0	28.4	30.5
1951	10.4	—	0.2	4.4	8.6	13.2	18.7	23.2	27.4	28.0	30.0
1950	11.4	—	0.2	4.5	9.1	14.3	20.9	26.8	29.6	31.1	28.8
1949	11.4	—	0.2	4.6	8.8	15.1	20.6	27.6	28.4	30.1	32.8
1948	11.2	—	0.2	4.8	9.0	14.5	20.7	26.0	27.1	30.4	30.4
1947	11.5	—	0.3	4.6	9.4	15.1	20.7	26.7	27.9	34.2	31.5
1946	11.5	—	0.3	5.2	9.9	15.3	20.7	25.9	26.1	29.3	33.0
1945	11.2	—	0.2	4.7	10.3	15.0	19.2	23.5	26.0	31.0	25.9
1944	10.0	—	0.2	4.3	9.1	13.4	17.1	21.5	23.1	30.6	25.1
1943	10.2	—	0.3	4.5	9.0	13.1	17.4	23.5	25.7	31.4	28.8
1942	12.0	—	0.3	5.1	11.5	16.1	21.1	28.0	27.9	33.4	26.1
1941	12.8	—	0.2	5.7	12.4	17.1	23.1	29.4	30.9	33.8	29.6
1940	14.4	—	0.2	6.1	13.5	19.4	27.7	34.3	33.5	34.2	27.4
1939	14.1	—	0.3	5.9	12.9	18.9	28.2	34.4	34.0	36.0	24.1
1938	15.3	—	0.2	6.7	14.5	21.0	30.7	37.5	34.4	36.1	27.7
1937	15.0	—	0.3	6.9	14.4	20.7	30.1	35.5	34.5	38.6	27.7
1936	14.3	—	0.3	6.8	14.5	19.7	27.6	34.1	34.7	38.0	26.8
1935	14.3	—	0.2	7.1	14.3	19.0	28.6	34.9	35.8	38.7	27.3
1934	14.9	—	0.2	7.4	14.5	19.9	29.6	37.2	40.9	41.2	25.6
1933	15.9	—	0.2	7.2	13.9	21.3	33.2	43.0	46.1	45.1	31.7
1932	17.4	—	0.2	7.3	15.5	22.8	36.4	49.1	51.3	45.5	27.5
1931	16.8	—	0.2	7.2	15.1	22.9	36.0	46.9	48.6	42.1	33.9
1930	15.6	—	0.2	7.5	14.9	22.7	33.0	41.2	42.8	40.1	29.2
1929	13.9	—	0.2	7.1	13.6	20.3	28.7	35.0	41.0	40.8	25.3
1928	13.5	—	0.2	6.7	13.4	19.4	29.0	34.3	40.4	39.4	29.9
1927	13.2	—	0.3	6.4	13.1	19.6	27.7	33.7	37.4	35.9	34.0
1926	12.6	—	0.2	6.5	12.2	19.2	26.4	31.9	36.6	36.1	32.1
1925	12.0	—	0.2	5.9	12.2	18.0	25.2	30.3	35.8	31.7	32.4
1924	11.9	—	0.2	6.3	11.9	18.6	24.9	31.3	33.4	30.8	31.0
1923	11.5	—	0.2	5.7	11.9	17.8	24.0	29.5	31.2	35.0	35.4
1922	11.7	—	0.2	6.4	12.1	18.0	24.8	29.7	33.8	32.8	35.1
1921	12.4	—	0.3	6.9	13.3	19.0	26.2	31.3	32.5	32.3	35.0
1920	10.2	—	0.2	6.2	11.5	15.7	20.4	24.2	27.4	28.2	32.5
1919	11.5	—	0.2	6.6	13.7	18.1	21.6	27.7	29.4	32.2	39.5
1918	12.3	—	0.2	7.3	15.8	19.2	22.0	29.0	30.0	30.4	31.5
1917	13.0	—	0.3	8.3	16.7	18.9	25.0	30.1	34.7	32.5	27.0
1916	13.7	—	0.2	8.7	15.5	20.1	26.9	35.9	36.3	34.4	29.9
1915	16.2	—	0.3	9.8	18.6	23.9	32.2	41.3	39.7	35.1	36.8
1914	16.1	—	0.3	10.8	18.9	23.6	32.5	40.0	35.7	32.7	31.3
1913	15.4	—	0.2	10.4	18.9	22.9	30.1	36.7	35.1	31.6	27.1
1912	15.6	—	0.3	9.8	18.4	23.6	31.1	38.7	34.2	38.1	28.9
1911	16.0	—	0.2	10.9	18.8	24.5	32.1	37.3	35.6	34.8	27.8
1910	15.3	—	0.3	10.7	17.7	22.4	29.9	37.0	35.3	38.7	33.4
1909	16.0	—	0.3	10.5	18.1	23.8	33.7	37.5	35.9	34.0	30.5
1908	16.8	—	0.3	11.3	19.4	25.2	36.0	40.2	35.7	34.3	33.2
1907	14.5	—	0.3	10.8	17.0	21.1	28.4	33.6	35.5	32.7	25.7
1906	12.8	—	0.3	8.0	14.1	19.8	26.5	30.5	31.4	31.0	29.7
1905	13.5	—	0.3	9.4	14.9	19.6	26.5	30.3	33.0	37.9	57.1
1904	12.2	—	0.2	8.5	14.0	17.2	25.3	27.9	27.7	32.2	22.6
1903	11.3	—	0.2	6.6	13.3	18.9	22.9	23.0	27.9	24.4	27.7
1902	10.3	—	0.2	7.4	10.3	16.1	20.0	24.3	25.5	30.3	35.3
1901	10.4	—	0.2	6.8	11.4	15.4	20.5	25.6	25.6	29.2	19.1
1900	10.2	—	0.2	6.8	11.2	15.8	19.9	23.5	26.1	29.2	21.7

Sources: *Vital Statistics—Special Reports*. 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table II

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:
DEATH-REGISTRATION STATES, 1900–1964.
ALL RACES, MALE

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	16.1	—	0.4	9.2	16.9	21.2	29.9	36.0	37.0	47.6	59.7
1963	16.5	—	0.5	9.0	16.6	22.4	30.7	37.3	38.3	49.4	55.8
1962	16.5	—	0.5	8.5	15.9	21.6	30.9	38.0	38.8	53.6	57.4
1961	16.1	—	0.3	7.9	14.9	21.2	31.0	37.4	37.7	50.4	56.4
1960	16.5	—	0.4	8.2	14.7	21.0	31.6	38.1	39.6	52.5	57.4
1959	16.6	—	0.4	7.7	14.4	20.5	31.0	39.4	42.6	54.2	59.4
1958	16.8	—	0.4	7.4	14.2	21.1	32.1	39.6	43.3	54.9	54.9
1957	15.4	—	0.3	6.4	12.7	19.1	28.6	35.9	41.4	52.5	58.8
1956	15.7	—	0.3	6.3	12.7	18.2	28.3	39.1	43.6	54.8	51.1
1955	16.0	—	0.2	6.3	12.4	18.8	29.7	40.3	42.8	51.7	57.9
1954	16.3	—	0.2	6.7	13.4	18.9	31.0	39.2	43.7	49.9	50.7
1953	16.1	—	0.3	6.5	12.7	19.6	29.2	36.6	45.6	54.3	58.8
1952	15.8	—	0.2	6.5	12.4	18.6	27.9	36.7	45.0	54.1	65.3
1951	16.2	—	0.3	6.5	12.6	19.5	28.5	37.6	47.6	51.6	65.8
1950	17.8	—	0.3	6.5	13.4	21.3	32.0	43.6	50.5	58.3	58.3
1949	17.9	—	0.3	6.7	13.0	22.7	31.6	44.3	48.6	56.6	69.2
1948	17.2	—	0.3	6.6	12.9	20.8	31.5	42.0	46.3	55.1	63.3
1947	17.6	—	0.5	6.6	13.2	22.1	30.5	43.0	45.8	64.1	64.1
1946	17.4	—	0.5	7.4	14.2	21.9	30.3	40.4	43.1	53.5	66.7
1945	17.2	—	0.4	7.4	15.9	21.8	27.2	36.2	42.3	55.6	54.2
1944	14.9	—	0.3	6.0	13.3	18.7	24.2	32.0	37.6	54.2	52.5
1943	15.2	—	0.4	6.3	12.9	18.5	24.5	35.0	41.3	57.0	61.2
1942	18.3	—	0.4	7.0	16.6	23.8	30.9	44.3	47.0	58.0	54.7
1941	19.4	—	0.2	7.5	17.5	24.8	33.8	46.4	52.1	62.6	61.8
1940	21.9	—	0.4	8.4	19.1	28.2	41.6	55.3	55.1	62.5	55.6
1939	21.7	—	0.4	8.0	18.8	27.5	42.1	54.8	56.3	67.3	47.7
1938	23.5	—	0.3	9.0	20.9	31.1	47.0	60.2	58.0	66.0	54.6
1937	22.8	—	0.5	9.0	20.4	30.4	45.5	56.1	58.1	70.3	57.1
1936	21.7	—	0.4	8.8	19.7	29.0	41.9	54.4	58.2	69.3	53.9
1935	21.7	—	0.3	9.0	19.7	27.5	44.1	55.5	60.1	71.9	57.0
1934	22.8	—	0.3	9.2	20.3	29.2	45.0	60.1	70.6	75.1	51.3
1933	24.9	—	0.2	8.8	19.4	31.6	52.8	70.2	79.9	83.8	64.5
1932	27.4	—	0.3	9.0	21.8	34.7	58.0	81.4	87.6	84.9	53.4
1931	26.2	—	0.3	8.7	20.9	34.4	56.9	77.0	84.3	76.1	70.4
1930	24.1	—	0.3	9.1	20.6	34.2	51.9	66.6	72.3	72.6	58.3
1929	21.1	—	0.3	8.6	18.4	30.0	43.9	54.8	69.4	73.5	51.2
1928	20.7	—	0.2	7.8	18.4	28.6	45.1	55.4	68.4	73.1	57.1
1927	19.9	—	0.3	7.9	17.9	28.6	42.4	53.7	63.6	64.9	67.6
1926	18.8	—	0.3	7.4	16.1	28.0	39.6	50.3	61.9	64.4	62.6
1925	18.0	—	0.3	7.2	16.3	26.1	37.7	48.3	60.4	59.0	63.9
1924	18.1	—	0.2	7.4	16.4	27.5	38.0	49.7	56.1	56.0	61.6
1923	17.0	—	0.3	6.0	16.1	26.0	36.3	45.4	52.7	61.6	67.8
1922	17.6	—	0.2	7.1	17.0	26.2	37.4	46.6	56.7	57.6	70.9
1921	18.9	—	0.4	8.3	18.7	28.5	39.9	49.6	54.4	57.9	73.0
1920	14.5	—	0.2	7.1	15.1	21.5	28.7	36.6	44.6	49.9	63.5
1919	16.5	—	0.3	7.5	19.3	25.7	29.8	41.2	46.9	56.5	80.0
1918	18.2	—	0.2	9.2	23.4	28.0	31.6	43.7	48.5	52.1	60.7
1917	19.2	—	0.3	9.9	23.4	26.8	36.5	47.8	57.0	58.1	48.3
1916	20.7	—	0.3	10.4	21.7	30.1	40.1	57.3	61.0	63.2	64.1
1915	24.3	—	0.3	11.5	26.1	35.0	49.2	66.5	65.4	61.8	75.6
1914	24.1	—	0.3	12.5	27.0	34.8	50.4	62.9	59.5	58.2	62.3
1913	23.2	—	0.2	12.0	26.7	33.9	47.4	59.9	59.7	55.8	44.6
1912	23.4	—	0.3	11.5	25.7	34.9	48.1	62.2	58.8	68.3	57.5
1911	23.9	—	0.2	13.0	26.1	36.8	49.4	60.7	58.6	61.9	54.5
1910	23.0	—	0.4	12.9	24.9	32.6	46.4	61.2	58.2	68.9	61.7
1909	24.2	—	0.4	12.3	25.0	36.7	52.3	60.9	62.2	62.4	64.5
1908	25.5	—	0.3	13.8	27.0	37.9	56.2	66.8	59.1	59.8	66.8
1907	21.9	—	0.4	13.5	24.0	30.8	44.1	54.4	61.5	59.4	56.3
1906	19.6	—	0.3	9.8	20.0	30.1	41.3	50.0	55.0	57.6	58.4
1905	20.2	—	0.4	10.6	20.1	29.5	41.3	51.4	58.1	67.0	108.8
1904	18.5	—	0.4	9.7	18.9	26.3	40.1	45.8	48.9	57.6	53.3
1903	17.2	—	0.3	8.1	18.0	28.7	37.2	36.9	47.7	43.8	60.1
1902	15.4	—	0.3	8.4	13.9	24.7	30.4	39.4	42.1	59.1	66.9
1901	15.5	—	0.4	8.0	15.6	20.7	32.1	43.9	42.5	58.3	34.0
1900	15.7	—	0.2	7.7	15.2	24.5	32.9	40.0	44.6	56.4	45.9

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table III

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:

DEATH-REGISTRATION STATES, 1900–1964.

ALL RACES, FEMALE

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	5.6	—	0.1	2.8	6.9	10.1	11.6	10.2	9.8	6.4	4.0
1963	5.8	—	0.1	3.1	7.2	9.9	11.9	10.9	9.1	7.4	5.0
1962	5.4	—	0.1	2.9	6.8	8.8	11.5	10.4	8.2	7.2	7.3
1961	4.9	—	0.1	2.3	5.8	7.8	9.9	9.7	8.5	7.2	4.9
1960	4.9	—	0.1	2.2	5.5	7.7	10.2	10.2	8.4	8.9	6.0
1959	4.7	—	0.1	2.1	5.4	7.0	8.8	10.1	9.3	7.2	3.7
1958	4.7	—	0.1	2.3	5.6	6.7	9.7	9.4	9.0	6.4	6.4
1957	4.3	—	0.1	1.8	4.8	6.6	8.0	9.6	7.8	5.9	4.3
1956	4.4	—	0.1	1.9	4.5	6.3	9.0	9.9	8.9	6.5	4.3
1955	4.6	—	0.1	2.0	4.6	6.1	9.6	9.8	8.9	7.9	6.7
1954	4.1	—	0.0	1.8	4.3	6.3	7.7	9.0	8.3	5.9	6.8
1953	4.3	—	0.1	2.3	4.5	6.0	8.3	8.7	8.0	7.3	4.8
1952	4.4	—	0.1	2.0	4.7	6.4	8.6	8.7	8.5	6.8	5.9
1951	4.7	—	0.1	2.3	4.8	7.1	9.0	8.8	8.7	8.0	5.1
1950	5.1	—	0.1	2.6	4.9	7.5	9.9	9.9	10.1	8.1	8.2
1949	5.1	—	0.1	2.5	4.8	7.6	9.6	10.8	9.5	7.3	7.1
1948	5.2	—	0.1	2.9	5.2	8.3	9.9	9.9	8.9	9.1	6.9
1947	5.5	—	0.1	2.7	5.7	8.3	10.9	10.2	10.8	8.3	8.0
1946	5.8	—	0.1	3.2	5.9	8.7	11.0	11.2	9.8	8.2	8.5
1945	5.8	—	0.1	2.9	6.4	8.7	11.0	10.6	10.2	9.5	5.0
1944	5.4	—	0.1	3.1	5.7	8.3	9.8	10.8	9.2	10.0	4.9
1943	5.4	—	0.1	3.0	5.6	7.8	10.0	11.6	10.5	8.8	4.6
1942	5.8	—	0.1	3.2	6.8	8.6	11.0	11.2	9.2	11.5	4.8
1941	6.3	—	0.2	3.9	7.5	9.4	11.9	11.8	10.1	8.0	5.5
1940	6.8	—	0.1	3.8	8.1	10.6	13.1	12.3	12.2	8.6	6.2
1939	6.5	—	0.1	3.8	7.2	10.1	13.4	12.9	11.7	7.4	6.3
1938	6.9	—	0.1	4.4	8.2	10.8	13.3	13.4	10.8	8.5	7.5
1937	7.0	—	0.1	4.9	8.5	10.7	13.7	13.6	10.8	9.3	5.7
1936	6.8	—	0.2	4.8	9.3	10.1	12.4	12.6	11.0	9.1	6.4
1935	6.8	—	0.2	5.2	9.1	10.2	12.0	13.1	11.2	7.7	5.0
1934	6.8	—	0.1	5.5	8.7	10.4	12.9	12.7	10.4	9.6	6.2
1933	6.8	—	0.1	5.7	8.4	10.5	12.0	13.9	11.4	8.7	7.0
1932	7.1	—	0.1	5.7	9.3	10.5	13.0	14.3	14.0	8.5	8.1
1931	7.1	—	0.1	5.6	9.4	10.9	13.2	14.5	11.8	10.2	6.4
1930	6.9	—	0.1	6.1	9.1	10.7	12.3	13.8	12.2	9.5	7.3
1929	6.6	—	0.1	5.7	8.7	10.1	12.0	13.4	11.7	10.2	5.6
1928	6.2	—	0.2	5.7	8.4	9.6	11.6	11.3	11.4	7.9	9.0
1927	6.2	—	0.2	5.1	8.4	10.1	11.7	11.8	10.4	8.9	8.3
1926	6.2	—	0.2	5.7	8.2	9.7	12.0	11.8	10.3	10.0	8.7
1925	5.8	—	0.2	4.7	8.0	9.3	11.6	10.7	10.3	6.5	8.2
1924	5.6	—	0.2	5.2	7.4	8.9	10.5	11.4	9.7	7.5	7.5
1923	5.8	—	0.1	5.4	7.7	8.9	10.6	12.2	9.0	10.5	10.6
1922	5.7	—	0.1	5.7	7.2	9.0	10.8	11.4	10.1	10.1	8.0
1921	5.7	—	0.2	5.5	7.8	8.7	10.8	11.3	9.8	8.8	6.1
1920	5.7	—	0.2	5.3	7.7	9.3	11.1	10.6	9.5	8.3	9.2
1919	6.3	—	0.1	5.7	8.2	9.8	12.2	12.7	11.4	10.0	9.1
1918	6.2	—	0.2	5.7	8.7	9.6	11.0	12.9	11.1	10.6	9.6
1917	6.6	—	0.2	6.7	9.7	10.3	11.9	10.6	11.8	9.3	10.9
1916	6.4	—	0.1	6.9	8.9	9.2	11.9	12.5	11.1	8.2	3.8
1915	7.6	—	0.3	8.0	10.4	11.5	13.0	13.7	13.6	10.8	6.9
1914	7.7	—	0.2	9.2	10.2	11.2	12.2	15.0	11.6	9.3	7.1
1913	7.1	—	0.3	8.7	10.3	10.7	10.5	11.6	10.3	9.6	13.6
1912	7.3	—	0.2	8.1	10.4	11.0	12.0	13.2	9.5	10.4	6.4
1911	7.5	—	0.2	8.8	10.8	10.8	12.7	12.0	12.3	9.8	6.6
1910	7.2	—	0.3	8.4	9.6	11.0	11.4	11.1	12.5	11.1	11.2
1909	7.3	—	0.3	8.8	10.6	9.5	13.0	12.7	9.8	8.0	4.0
1908	7.8	—	0.2	8.8	11.1	11.1	13.5	12.1	12.4	10.9	7.1
1907	6.9	—	0.2	8.0	9.5	10.4	11.0	12.1	10.2	8.6	2.6
1906	5.8	—	0.3	6.2	7.8	8.4	10.3	10.4	8.4	6.9	8.2
1905	6.8	—	0.3	8.3	9.6	9.2	10.8	9.4	9.3	11.9	19.1
1904	6.0	—	0.1	7.3	8.9	7.5	9.7	10.2	7.7	9.5	0
1903	5.4	—	0.1	5.1	8.5	8.4	7.8	9.3	9.2	6.9	4.0
1902	5.2	—	0.1	6.3	6.6	6.9	9.0	9.6	9.9	4.2	12.2
1901	5.3	—	0.1	5.6	7.1	9.7	8.5	7.7	9.5	2.9	8.2
1900	4.7	—	0.2	6.0	7.1	6.5	6.3	7.3	8.6	4.3	4.1

Sources: *Vital Statistics—Special Reports*. 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table IV

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:

DEATH-REGISTRATION STATES, 1910–1964.

WHITE, BOTH SEXES

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	11.6	—	0.3	6.1	12.1	16.4	21.9	24.1	23.3	25.3	27.5
1963	11.9	—	0.3	6.2	12.2	17.1	22.8	25.4	23.4	26.9	25.9
1962	11.8	—	0.3	5.8	11.8	16.1	22.7	25.3	23.6	28.8	28.4
1961	11.1	—	0.2	5.1	10.4	15.2	21.6	24.5	23.3	27.3	26.3
1960	11.4	—	0.3	5.4	10.3	14.9	22.1	25.0	24.2	29.4	27.4
1959	11.3	—	0.3	5.0	10.0	14.4	20.7	25.6	27.8	29.2	29.5
1958	11.5	—	0.2	4.9	10.1	14.5	21.9	25.4	28.0	29.4	28.7
1957	10.5	—	0.2	4.1	8.8	13.5	19.3	23.7	26.0	28.1	28.4
1956	10.8	—	0.2	4.1	8.8	12.8	19.7	25.7	27.8	29.9	25.2
1955	11.0	—	0.1	4.0	8.7	13.1	20.8	26.3	27.3	29.4	29.6
1954	10.9	—	0.1	4.2	8.9	13.2	20.5	25.3	27.0	27.4	26.3
1953	10.8	—	0.2	4.5	8.8	13.4	19.9	23.8	27.3	29.8	29.4
1952	10.7	—	0.1	4.4	8.7	13.1	19.5	23.8	27.4	29.9	32.6
1951	11.1	—	0.2	4.5	8.8	14.0	20.0	24.5	28.9	29.2	32.6
1950	12.2	—	0.2	4.7	9.4	15.2	22.3	28.3	31.1	32.9	30.6
1949	12.3	—	0.3	4.8	9.1	16.0	22.0	29.1	29.9	31.5	35.0
1948	12.0	—	0.2	4.9	9.3	15.3	22.0	27.7	28.5	32.0	32.8
1947	12.4	—	0.3	4.7	9.8	16.1	22.2	28.3	29.4	36.0	33.8
1946	12.4	—	0.3	5.4	10.4	16.4	22.1	27.4	27.6	30.8	35.7
1945	12.1	—	0.3	4.9	10.9	16.1	20.5	25.1	27.4	32.5	27.7
1944	10.8	—	0.2	4.5	9.6	14.4	18.2	22.8	24.5	32.3	26.8
1943	11.1	—	0.3	4.7	9.6	14.1	18.6	24.9	27.3	33.0	31.2
1942	13.0	—	0.3	5.2	12.1	17.3	22.6	29.7	29.5	35.1	28.5
1941	13.8	—	0.2	6.0	13.2	18.3	24.5	31.2	32.7	35.4	31.9
1940	15.5	—	0.2	6.4	14.2	20.8	29.4	36.4	35.3	36.0	29.5
1939	15.3	—	0.3	6.2	13.7	20.2	30.0	36.4	36.2	37.5	26.8
1938	16.4	—	0.2	7.0	15.3	22.5	32.7	39.4	36.6	37.5	30.2
1937	16.1	—	0.3	7.3	15.2	22.1	32.1	37.4	36.5	40.5	30.5
1936	15.4	—	0.3	7.1	15.4	21.0	29.6	35.9	36.7	39.8	29.8
1935	15.4	—	0.2	7.4	15.0	20.1	30.6	36.7	37.9	40.6	30.0
1934	16.1	—	0.2	7.6	15.2	21.3	31.6	39.2	43.1	42.9	27.4
1933	17.2	—	0.2	7.5	14.6	22.5	35.4	45.5	48.5	47.4	34.9
1932	18.7	—	0.2	7.6	16.4	24.2	38.9	51.5	53.9	47.4	30.1
1931	18.0	—	0.2	7.6	15.8	24.4	38.6	49.3	51.0	44.2	36.3
1930	16.8	—	0.2	8.0	15.7	24.2	35.3	43.4	44.5	42.0	31.5
1929	14.9	—	0.2	7.5	14.2	21.6	30.5	36.9	42.9	42.6	27.2
1928	14.5	—	0.2	7.1	14.0	20.5	31.0	36.1	42.4	41.4	32.3
1927	14.0	—	0.3	6.8	13.6	20.7	29.4	35.5	39.0	37.8	37.5
1926	13.4	—	0.2	6.9	12.7	20.3	27.8	33.4	38.1	37.8	34.8
1925	12.7	—	0.2	6.2	12.7	19.0	26.8	31.9	37.2	33.1	35.0
1924	12.7	—	0.2	6.6	12.4	19.5	26.4	32.9	34.9	32.3	33.5
1923	12.2	—	0.2	6.0	12.5	18.7	25.4	31.1	32.7	36.8	38.4
1922	12.5	—	0.2	6.7	12.7	18.9	26.4	31.3	35.5	34.2	38.9
1921	13.1	—	0.2	7.1	13.8	20.0	27.8	32.8	33.7	33.8	37.6
1920	10.8	—	0.2	6.5	12.0	16.7	21.5	25.2	28.5	29.4	35.7
1919	12.2	—	0.2	6.9	14.2	19.1	22.9	29.0	30.9	33.9	43.5
1918	12.8	—	0.3	7.5	16.4	19.9	23.0	30.0	30.7	31.3	34.2
1917	13.6	—	—	—	—	—	—	—	—	—	—
1916	14.3	—	0.2	9.0	15.9	20.9	27.9	37.3	37.6	35.5	32.0
1915	16.5	—	0.3	9.9	18.6	24.3	33.0	42.2	40.6	35.8	38.6
1914	16.4	—	0.3	11.0	19.0	24.0	33.5	40.8	36.3	33.4	32.8
1913	15.6	—	—	—	—	—	—	—	—	—	—
1912	15.8	—	—	—	—	—	—	—	—	—	—
1911	16.1	—	—	—	—	—	—	—	—	—	—
1910	15.4	—	—	—	—	—	—	—	—	—	—

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table V

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:

DEATH-REGISTRATION STATES, 1910–1964.

WHITE, MALE

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	17.2	—	0.5	9.3	17.0	22.2	31.8	38.5	39.0	50.6	65.6
1963	17.8	—	0.5	9.2	16.9	23.6	33.0	40.2	40.3	52.6	59.5
1962	17.8	—	0.5	8.7	16.5	22.9	33.4	40.5	41.3	57.1	61.5
1961	17.1	—	0.4	7.9	14.7	22.4	32.8	39.7	39.9	53.2	60.3
1960	17.6	—	0.5	8.6	14.9	21.9	33.7	40.2	42.0	55.7	61.3
1959	17.8	—	0.5	7.8	14.5	21.7	32.6	42.0	47.9	57.8	65.2
1958	18.0	—	0.4	7.5	14.4	22.2	33.9	42.1	48.4	59.3	58.9
1957	16.5	—	0.4	6.4	12.7	20.2	30.2	38.3	45.5	56.3	62.7
1956	16.9	—	0.3	6.3	13.0	19.1	30.1	41.8	48.0	59.0	53.9
1955	17.2	—	0.2	6.1	12.7	19.8	31.7	43.1	46.9	55.5	61.2
1954	17.5	—	0.2	6.8	13.6	19.9	33.0	41.8	47.1	53.3	53.9
1953	17.2	—	0.4	6.8	13.0	20.5	31.0	38.7	48.1	56.6	63.7
1952	16.9	—	0.2	6.8	12.6	19.6	29.7	38.6	47.5	57.2	70.2
1951	17.3	—	0.3	6.7	12.8	20.4	30.3	39.8	50.4	54.1	71.5
1950	19.0	—	0.3	6.6	13.8	22.4	34.1	45.9	53.2	61.9	61.9
1949	19.1	—	0.4	6.9	13.3	24.0	33.6	46.6	51.2	59.6	73.7
1948	18.4	—	0.4	6.8	13.3	21.8	33.3	44.7	48.8	58.1	68.2
1947	18.9	—	0.5	6.8	13.8	23.3	32.6	45.5	48.3	67.6	68.4
1946	18.7	—	0.5	7.7	14.7	23.4	32.4	42.8	45.7	56.4	72.0
1945	18.5	—	0.4	7.7	16.7	23.3	29.0	38.6	44.7	58.4	57.6
1944	16.0	—	0.4	6.2	14.0	20.1	25.8	33.8	40.0	57.4	56.2
1943	16.4	—	0.4	6.5	13.5	19.9	26.2	37.1	44.0	60.2	65.9
1942	19.7	—	0.4	7.2	17.4	25.3	33.0	46.8	49.9	61.1	59.5
1941	20.8	—	0.3	7.8	18.3	26.4	35.8	49.2	55.2	65.7	66.9
1940	23.5	—	0.4	8.8	19.9	30.1	44.1	58.8	58.2	65.9	60.1
1939	23.4	—	0.5	8.5	19.8	29.3	44.8	58.2	60.2	70.4	52.9
1938	25.3	—	0.3	9.4	22.2	33.1	50.1	63.6	61.9	68.5	59.9
1937	24.5	—	0.5	9.5	21.5	32.2	48.5	59.2	61.6	73.8	62.6
1936	23.3	—	0.4	9.1	21.0	30.7	44.9	57.3	61.6	73.0	59.9
1935	23.3	—	0.3	9.5	20.7	29.0	47.0	58.5	63.6	75.8	62.6
1934	24.6	—	0.3	9.6	21.3	31.0	48.1	63.6	74.8	78.1	56.2
1933	26.8	—	0.2	9.1	20.4	33.2	56.3	74.7	84.1	88.2	70.9
1932	29.4	—	0.3	9.4	23.0	36.5	62.1	85.9	92.2	88.5	58.3
1931	28.2	—	0.3	9.2	21.8	36.4	61.2	81.4	88.6	80.1	75.2
1930	25.9	—	0.3	9.6	21.6	36.2	55.7	70.6	75.3	76.1	63.8
1929	22.5	—	0.3	8.9	19.2	31.8	46.7	58.1	72.6	76.8	54.8
1928	22.1	—	0.2	8.1	19.3	30.1	48.2	58.6	72.1	77.0	61.1
1927	21.2	—	0.3	8.3	18.4	30.0	45.2	56.8	66.3	68.5	74.1
1926	20.0	—	0.3	7.7	16.8	29.6	42.0	53.0	64.7	67.7	67.1
1925	19.1	—	0.3	7.4	17.0	27.3	40.3	51.1	63.0	61.5	68.4
1924	19.2	—	0.2	7.7	17.1	28.8	40.5	52.3	59.0	58.9	67.3
1923	18.1	—	0.3	6.3	16.9	27.3	38.4	48.0	55.3	65.2	74.1
1922	18.7	—	0.3	7.4	17.8	27.4	40.0	49.3	59.7	60.1	78.0
1921	20.0	—	0.4	8.5	19.4	29.9	42.5	52.2	56.6	60.7	78.2
1920	15.4	—	0.2	7.5	15.7	22.7	30.2	38.3	46.6	52.2	69.6
1919	17.5	—	0.3	7.7	19.9	27.1	31.7	43.3	49.4	59.7	88.1
1918	19.0	—	0.2	9.5	24.1	29.0	33.3	45.2	49.8	53.9	65.7
1917	20.1	—	—	—	—	—	—	—	—	—	—
1916	21.5	—	0.3	10.8	22.1	31.1	41.8	59.6	63.2	65.4	68.5
1915	24.8	—	0.3	11.7	26.2	35.8	50.6	68.2	66.8	63.1	79.1
1914	24.5	—	0.3	12.6	27.0	35.3	52.1	64.1	60.6	59.4	65.2
1913	23.6	—	—	—	—	—	—	—	—	—	—
1912	23.8	—	—	—	—	—	—	—	—	—	—
1911	24.1	—	—	—	—	—	—	—	—	—	—
1910	23.2	—	—	—	—	—	—	—	—	—	—

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table VI

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:

DEATH-REGISTRATION STATES, 1910–1964.

WHITE, FEMALE

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	6.1	—	0.1	2.9	7.3	10.9	12.5	10.9	10.4	6.7	4.4
1963	6.3	—	0.1	3.1	7.5	10.9	12.9	11.6	9.5	7.7	5.1
1962	5.9	—	0.1	2.9	7.2	9.5	12.4	11.1	8.8	7.6	7.6
1961	5.3	—	0.1	2.3	6.1	8.3	10.8	10.4	9.1	7.6	4.9
1960	5.3	—	0.1	2.3	5.8	8.1	10.9	10.9	8.8	9.2	6.1
1959	5.0	—	0.0	2.1	5.7	7.5	9.3	10.5	10.4	7.5	4.2
1958	5.1	—	0.1	2.4	5.9	7.1	10.3	9.9	10.1	6.6	7.2
1957	4.6	—	0.1	1.8	5.0	7.1	8.7	10.0	8.7	6.3	4.1
1956	4.8	—	0.1	2.0	4.7	6.6	9.6	10.5	9.7	6.9	4.7
1955	4.9	—	0.1	2.0	4.9	6.6	10.2	10.4	9.7	8.5	7.2
1954	4.5	—	0.1	1.8	4.4	6.8	8.2	9.5	8.9	6.4	6.9
1953	4.6	—	0.0	2.3	4.8	6.5	9.0	9.3	8.4	7.7	5.3
1952	4.7	—	0.1	2.1	4.9	6.8	9.4	9.2	9.1	7.2	6.1
1951	5.0	—	0.1	2.3	5.0	7.7	9.7	9.3	9.1	8.4	5.6
1950	5.5	—	0.1	2.7	5.2	8.2	10.5	10.7	10.6	8.4	8.9
1949	5.5	—	0.1	2.6	5.1	8.2	10.4	11.5	10.0	7.6	7.7
1948	5.7	—	0.1	3.1	5.5	9.0	10.7	10.6	9.4	9.7	7.6
1947	6.0	—	0.1	2.7	6.0	8.9	11.8	10.9	11.5	8.8	8.7
1946	6.2	—	0.1	3.4	6.3	9.4	11.7	11.9	10.3	8.7	9.2
1945	6.3	—	0.1	3.0	6.8	9.5	12.0	11.4	10.9	9.9	5.5
1944	5.9	—	0.1	3.3	6.1	9.0	10.5	11.5	9.6	10.4	4.9
1943	5.9	—	0.2	3.2	6.1	8.4	10.8	12.4	11.2	9.1	5.0
1942	6.3	—	0.1	3.2	7.1	9.3	11.8	12.0	9.7	12.2	5.2
1941	6.8	—	0.2	4.1	8.1	10.3	12.8	12.5	10.7	8.3	5.5
1940	7.3	—	0.1	3.9	8.6	11.5	14.0	13.1	12.9	9.0	6.4
1939	7.1	—	0.1	3.9	7.6	11.0	14.3	13.7	12.4	7.5	7.0
1938	7.4	—	0.0	4.6	8.5	11.7	14.3	14.0	11.4	9.0	7.8
1937	7.6	—	0.1	5.1	9.0	11.6	14.6	14.4	11.5	9.8	6.3
1936	7.3	—	0.2	5.0	9.8	10.9	13.3	13.4	11.6	9.0	7.1
1935	7.2	—	0.2	5.4	9.4	10.9	13.0	13.8	11.9	7.9	5.5
1934	7.3	—	0.1	5.7	9.2	11.1	13.8	13.3	10.9	9.9	5.7
1933	7.3	—	0.1	5.9	9.0	11.3	12.9	14.6	12.1	9.1	7.8
1932	7.7	—	0.1	5.9	9.9	11.1	13.9	15.0	14.7	9.0	9.0
1931	7.6	—	0.1	5.9	9.9	11.8	14.2	15.2	12.3	10.5	7.1
1930	7.4	—	0.1	6.4	9.8	11.4	13.2	14.5	12.7	10.0	7.4
1929	7.1	—	0.1	6.0	9.3	10.8	12.9	14.1	12.3	10.7	6.3
1928	6.6	—	0.1	6.1	8.8	10.3	12.5	11.9	11.8	8.2	10.1
1927	6.6	—	0.2	5.3	8.8	10.6	12.4	12.4	10.9	9.4	9.1
1926	6.6	—	0.2	6.1	8.6	10.2	12.6	12.3	10.7	10.3	9.7
1925	6.2	—	0.2	5.0	8.4	9.9	12.3	11.3	10.7	6.9	9.0
1924	5.9	—	0.2	5.4	7.6	9.5	11.1	11.9	10.1	8.0	7.3
1923	6.2	—	0.2	5.7	8.1	9.4	11.3	12.9	9.5	10.9	10.7
1922	6.1	—	0.1	6.0	7.6	9.6	11.4	11.9	10.7	10.7	8.9
1921	6.1	—	0.2	5.7	8.0	9.2	11.5	11.8	10.2	9.3	6.7
1920	6.1	—	0.2	5.5	8.2	10.0	11.7	11.1	9.9	8.6	10.1
1919	6.7	—	0.2	6.1	8.5	10.5	12.9	13.4	11.9	10.6	10.1
1918	6.5	—	0.3	5.8	9.1	10.1	11.5	13.4	11.2	10.9	10.4
1917	6.9	—	—	—	—	—	—	—	—	—	—
1916	6.8	—	0.2	7.2	9.3	9.7	12.4	12.9	11.5	8.5	4.1
1915	7.7	—	0.3	8.1	10.4	11.6	13.3	14.0	14.0	10.8	7.3
1914	7.8	—	0.2	9.3	10.3	11.5	12.6	15.5	11.7	9.5	7.5
1913	7.2	—	—	—	—	—	—	—	—	—	—
1912	7.4	—	—	—	—	—	—	—	—	—	—
1911	7.6	—	—	—	—	—	—	—	—	—	—
1910	7.2	—	—	—	—	—	—	—	—	—	—

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table VII

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:
DEATH-REGISTRATION STATES, 1910–1964.
NONWHITE, BOTH SEXES

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	4.6	—	0.1	4.9	10.0	8.1	7.4	8.0	7.9	7.3	1.1
1963	5.0	—	0.3	5.0	10.0	9.1	7.9	7.4	11.1	9.7	7.7
1962	4.7	—	0.1	5.2	8.4	8.1	7.7	9.1	8.9	8.1	6.8
1961	4.7	—	0.1	4.7	9.4	7.5	8.2	9.0	7.3	8.6	8.3
1960	4.5	—	0.1	3.4	7.9	8.3	7.9	10.0	8.0	7.6	9.8
1959	4.6	—	0.1	4.2	8.7	6.9	8.0	9.7	10.9	11.8	4.3
1958	4.4	—	0.1	3.4	7.8	7.6	7.6	9.2	10.1	7.2	5.8
1957	4.0	—	0.0	3.3	7.3	6.5	6.2	8.0	11.5	8.5	7.2
1956	3.8	—	0.0	3.3	6.4	6.9	6.2	7.8	7.5	6.3	3.8
1955	3.8	—	0.1	3.9	5.9	5.7	6.5	7.6	7.8	7.0	5.4
1954	4.1	—	0.0	3.3	7.4	6.3	7.0	7.4	9.3	7.1	2.9
1953	3.8	—	0.2	3.0	5.8	5.9	7.1	6.8	8.1	11.7	4.7
1952	3.7	—	0.2	2.7	6.4	5.6	5.7	8.0	6.3	6.0	8.6
1951	4.1	—	0.2	3.7	6.4	6.6	6.8	7.2	6.9	8.6	1.9
1950	4.3	—	0.1	3.4	6.3	6.6	7.9	9.1	8.7	5.4	6.7
1949	4.3	—	0.1	3.1	6.0	6.8	7.1	9.4	8.8	8.6	7.0
1948	4.1	—	0.0	3.3	6.0	7.1	8.1	6.0	8.1	6.3	2.4
1947	4.1	—	0.2	3.8	5.9	6.6	5.5	7.8	7.7	8.2	5.0
1946	3.9	—	0.1	3.6	6.0	5.7	6.6	7.7	6.2	6.3	2.6
1945	3.5	—	0	3.4	5.5	5.4	5.4	5.3	6.5	8.4	5.4
1944	3.0	—	0.1	2.8	4.5	4.5	4.9	6.3	4.7	5.1	5.7
1943	3.0	—	0.2	3.1	4.5	4.4	4.2	6.3	3.8	6.0	2.9
1942	3.9	—	0.2	3.9	6.5	6.2	5.1	8.2	5.3	4.9	0
1941	4.1	—	0.1	3.8	6.3	6.0	7.8	7.2	6.8	7.4	5.9
1940	4.6	—	0.2	4.2	7.3	6.7	9.2	7.3	8.2	3.9	8.5
1939	4.2	—	0.1	3.3	6.5	7.0	8.6	7.3	6.0	10.7	0
1938	4.9	—	0.2	4.1	7.5	7.8	8.7	11.2	6.1	11.9	5.7
1937	4.9	—	0.3	3.9	7.6	8.3	8.7	10.0	7.5	7.0	2.9
1936	4.7	—	0.3	4.2	7.0	7.9	6.9	10.8	6.9	8.9	0
1935	5.1	—	0.2	4.3	8.4	8.4	8.3	10.7	6.2	7.3	3.1
1934	4.7	—	0.1	5.2	8.4	7.7	8.8	10.5	6.9	14.0	9.6
1933	4.9	—	0.1	4.9	7.4	9.8	10.9	9.0	9.8	7.6	3.3
1932	5.5	—	0.2	4.8	8.1	10.3	10.1	15.7	9.3	12.6	3.6
1931	5.2	—	0.0	4.0	8.8	8.5	8.7	13.2	9.0	7.5	11.2
1930	5.0	—	0.1	4.0	7.7	8.5	9.0	10.6	13.8	8.7	7.6
1929	4.9	—	0.1	4.4	7.8	7.7	10.1	9.3	10.2	12.1	8.0
1928	4.8	—	0.1	4.0	7.9	8.6	8.7	10.5	7.8	8.8	8.4
1927	4.7	—	0.1	3.5	8.6	8.6	8.2	8.2	8.9	3.8	0
1926	4.4	—	0.2	3.3	7.3	7.2	8.6	9.3	8.4	8.0	5.5
1925	4.0	—	0.1	3.5	6.7	7.7	6.0	5.8	10.1	9.6	5.7
1924	4.3	—	0.1	3.6	7.2	8.4	6.9	8.8	7.0	5.6	5.8
1923	3.7	—	0	3.0	5.5	7.8	8.0	6.4	6.6	4.3	5.8
1922	4.2	—	0	3.8	6.1	8.9	7.6	6.7	7.3	10.3	0
1921	4.6	—	0.1	5.0	7.7	8.0	6.7	6.7	11.0	5.2	6.7
1920	3.6	—	0.2	3.7	5.6	5.4	7.6	6.3	7.5	7.2	0
1919	4.0	—	0	3.8	8.0	7.2	5.8	5.9	5.6	1.8	0
1918	5.5	—	0.1	5.2	9.3	9.9	6.1	10.3	16.5	10.9	0
1917	4.9	—	—	—	—	—	—	—	—	—	—
1916	5.0	—	0	4.3	9.5	9.2	8.5	6.8	9.0	6.0	0
1915	9.3	—	0	6.3	17.4	14.8	13.1	13.3	12.3	13.6	0
1914	9.8	—	0.2	8.1	18.3	15.5	9.1	17.4	17.1	9.2	0
1913	8.9	—	—	—	—	—	—	—	—	—	—
1912	9.7	—	—	—	—	—	—	—	—	—	—
1911	12.7	—	—	—	—	—	—	—	—	—	—
1910	11.8	—	—	—	—	—	—	—	—	—	—

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table VIII

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:

DEATH-REGISTRATION STATES, 1910–1964.

NONWHITE, MALE

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	7.2	—	0.1	8.0	16.2	12.7	11.8	12.3	13.4	12.6	2.7
1963	7.9	—	0.3	7.5	15.9	14.9	13.6	12.7	18.1	19.0	12.1
1962	7.2	—	0.1	7.5	12.8	12.8	12.4	14.6	16.7	13.7	12.9
1961	7.6	—	0.1	7.6	16.3	11.5	14.0	14.9	13.2	16.6	12.9
1960	7.2	—	0.1	5.3	12.9	13.5	12.8	16.9	12.6	11.3	15.9
1959	7.4	—	0.2	6.2	14.3	11.5	13.7	15.3	18.7	23.4	7.3
1958	7.0	—	0.2	5.1	12.6	13.0	12.6	15.7	17.7	11.7	10.5
1957	6.8	—	0.0	5.4	12.9	11.2	11.6	12.1	21.2	15.7	8.3
1956	6.1	—	0.0	5.5	10.7	11.2	9.7	12.4	12.0	11.7	8.8
1955	6.1	—	0.1	6.2	9.5	10.1	10.4	12.7	12.7	12.9	12.5
1954	6.8	—	0.1	5.3	12.7	11.1	11.3	12.1	15.6	13.7	3.3
1953	6.4	—	0.1	4.1	10.0	10.7	12.5	11.8	13.8	22.7	11.1
1952	6.1	—	0.3	4.3	10.7	9.1	9.8	13.9	12.3	11.2	16.0
1951	6.6	—	0.3	5.1	10.7	10.9	11.4	11.5	11.2	15.4	4.5
1950	7.0	—	0.1	5.3	10.1	11.3	11.7	16.8	15.0	7.9	16.1
1949	7.1	—	0.1	4.6	9.9	11.3	12.0	16.4	15.8	15.3	16.7
1948	6.9	—	0.0	5.0	9.1	12.2	14.1	10.9	14.5	12.6	5.9
1947	6.5	—	0.3	5.0	8.9	11.1	9.1	13.8	14.3	16.5	12.5
1946	6.1	—	0.2	5.0	9.4	8.8	9.9	12.8	10.7	12.6	6.7
1945	5.7	—	0.0	5.1	9.1	8.8	9.1	9.1	12.2	14.6	13.3
1944	4.8	—	0.1	3.9	7.6	7.2	8.0	11.1	6.7	7.7	7.1
1943	4.8	—	0.4	4.9	7.8	6.2	6.9	10.3	6.5	8.2	7.1
1942	6.0	—	0.2	5.0	9.3	9.7	8.0	14.5	9.2	10.1	0.0
1941	6.6	—	0.1	5.1	10.3	10.5	12.5	11.7	11.3	12.1	7.1
1940	7.2	—	0.4	5.1	11.5	10.6	14.8	12.6	13.5	6.5	13.3
1939	6.5	—	0.0	3.9	10.1	11.8	13.1	12.0	9.3	16.9	0.0
1938	7.4	—	0.3	5.5	9.8	12.7	14.0	17.2	9.0	24.4	6.7
1937	7.4	—	0.4	4.4	10.7	13.7	13.2	15.9	13.0	12.5	6.9
1936	7.0	—	0.4	5.5	9.2	13.2	10.6	17.8	11.2	7.3	0.0
1935	7.4	—	0.2	5.1	10.7	13.0	14.8	17.8	10,8	9.4	7.3
1934	6.9	—	0.1	6.3	11.9	11.3	13.8	16.7	10.8	25.0	7.5
1933	7.7	—	0.1	5.9	11.2	16.3	17.5	13.8	17.4	13.7	7.7
1932	8.6	—	0.2	5.9	11.9	16.1	16.8	24.9	16.3	25.8	8.5
1931	8.0	—	0.1	4.6	12.7	14.2	14.6	20.0	14.9	11.0	26.1
1930	7.6	—	0.1	4.4	11.9	13.4	14.3	16.5	23.0	15.6	8.9
1929	7.6	—	0.2	5.7	11.6	11.9	16.6	13.8	17.5	22.3	18.9
1928	7.2	—	0.0	5.2	10.8	14.0	14.2	15.8	9.9	15.6	20.2
1927	7.0	—	0.2	4.3	12.8	12.8	12.4	12.6	16.5	7.6	0.0
1926	6.2	—	0.2	3.8	9.7	10.3	12.1	14.0	14.5	10.8	13.6
1925	6.1	—	0.2	4.8	9.7	12.0	8.2	9.1	16.6	19.3	14.2
1924	6.3	—	0.2	4.1	9.6	13.6	10.2	13.8	11.8	11.1	0.0
1923	5.6	—	0.0	3.5	7.5	11.9	13.2	10.4	12.0	5.7	0.0
1922	6.3	—	0.1	4.6	9.2	14.1	10.7	9.9	13.2	20.5	0.0
1921	6.9	—	0.1	6.3	10.8	12.8	10.3	10.3	19.0	10.4	16.2
1920	5.2	—	0.2	3.7	8.5	8.3	10.7	10.0	12.6	10.7	0.0
1919	6.0	—	0.0	5.2	11.8	10.9	8.8	9.8	8.0	3.6	0.0
1918	8.4	—	0.2	6.7	14.8	15.7	8.6	16.1	23.8	17.6	0.0
1917	7.2	—	—	—	—	—	—	—	—	—	—
1916	7.9	—	0.0	4.8	15.5	15.4	12.6	11.2	14.9	12.2	0.0
1915	13.3	—	0.0	7.2	24.0	20.2	18.7	19.5	23.1	18.6	0.0
1914	14.6	—	0.4	8.4	26.9	23.6	13.9	29.7	26.3	19.1	0.0
1913	12.7	—	—	—	—	—	—	—	—	—	—
1912	13.8	—	—	—	—	—	—	—	—	—	—
1911	19.3	—	—	—	—	—	—	—	—	—	—
1910	16.9	—	—	—	—	—	—	—	—	—	—

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Table IX

DEATH RATES FOR SUICIDE, BY AGE, RACE, AND SEX:

DEATH-REGISTRATION STATES, 1910–1964.

NONWHITE, FEMALE

Year	Total	< 5 years	5–14 years	15–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75–84 years	85 years and over
1964	2.2	—	0.0	2.0	4.6	4.1	3.4	4.0	3.1	2.8	0.0
1963	2.2	—	0.2	2.6	5.0	4.0	2.7	2.3	5.0	1.5	4.4
1962	2.2	—	0.0	3.0	4.6	3.9	3.3	3.9	2.0	3.2	2.4
1961	1.9	—	0.2	2.0	3.5	3.9	2.7	3.2	1.9	1.6	4.9
1960	2.0	—	0.0	1.5	3.5	3.7	3.2	3.4	3.8	4.2	5.0
1959	1.9	—	0.1	2.2	3.8	2.8	2.8	4.4	3.8	1.8	2.0
1958	1.8	—	0.0	1.7	3.6	2.8	3.0	3.0	3.0	3.2	2.1
1957	1.4	—	0.0	1.3	2.5	2.3	1.2	4.0	2.4	2.0	6.5
1956	1.6	—	0.0	1.2	2.6	3.0	2.9	3.3	3.4	1.4	0.0
1955	1.5	—	0.0	1.8	2.8	1.7	2.7	2.6	3.1	1.5	0.0
1954	1.5	—	0.0	1.5	2.7	2.0	2.8	2.8	3.2	0.8	2.6
1953	1.3	—	0.2	2.0	2.1	1.6	1.8	1.8	2.6	0.9	0.0
1952	1.3	—	0.1	1.3	2.7	2.5	1.6	2.1	0.3	0.9	3.0
1951	1.7	—	0.0	2.4	2.6	2.7	2.2	2.7	2.7	1.9	0.0
1950	1.7	—	0.1	1.7	2.8	2.2	4.0	1.2	2.5	2.9	0.0
1949	1.5	—	0.2	1.7	2.5	2.6	2.1	2.2	1.8	2.0	0.0
1948	1.5	—	0.1	1.8	3.1	2.4	2.2	0.8	1.5	0.0	0.0
1947	1.6	—	0.1	2.6	3.1	2.5	1.7	1.5	0.8	0.0	0.0
1946	1.8	—	0.0	2.3	2.8	2.8	3.4	2.2	1.6	0.0	0.0
1945	1.5	—	0.0	2.2	2.8	2.3	1.5	1.1	0.4	2.4	0.0
1944	1.4	—	0.1	2.0	2.1	2.0	1.8	1.2	2.5	2.5	4.8
1943	1.3	—	0.1	1.6	1.7	2.7	1.4	1.9	0.9	3.9	0.0
1942	2.0	—	0.1	2.8	4.0	2.9	2.1	1.3	0.9	0.0	0.0
1941	1.7	—	0.1	2.5	2.6	1.8	2.9	2.3	1.9	2.9	5.0
1940	2.1	—	0.0	3.3	3.5	3.0	3.2	1.4	2.5	1.5	4.9
1939	2.0	—	0.1	2.7	3.2	2.4	3.7	1.8	2.3	4.8	0.0
1938	2.5	—	0.1	2.9	5.3	3.1	2.9	4.1	3.0	0.0	4.9
1937	2.5	—	0.1	3.4	4.7	3.0	3.8	2.9	1.6	1.7	0.0
1936	2.4	—	0.3	3.0	4.9	2.7	2.8	2.3	2.2	10.4	0.0
1935	2.7	—	0.1	3.6	6.3	4.0	1.2	2.0	1.2	5.3	0.0
1934	2.6	—	0.1	4.3	5.1	4.2	3.2	2.8	2.5	3.6	11.2
1933	2.2	—	0.1	4.0	3.9	3.5	3.4	2.9	1.3	1.9	0.0
1932	2.5	—	0.2	3.7	4.5	4.7	2.6	4.0	1.5	0.0	0.0
1931	2.5	—	0.0	3.5	5.2	3.0	2.1	4.5	2.4	4.2	0.0
1930	2.4	—	0.1	3.6	3.8	3.7	2.9	2.9	3.4	2.1	6.7
1929	2.3	—	0.0	3.3	4.2	3.6	2.6	3.4	1.7	2.2	0.0
1928	2.4	—	0.2	2.9	5.3	3.2	2.3	3.4	5.4	2.2	0.0
1927	2.4	—	0.1	2.8	4.8	4.3	3.2	2.4	0.0	0.0	0.0
1926	2.6	—	0.2	2.8	5.1	3.9	4.3	3.1	1.1	5.3	0.0
1925	2.0	—	0.0	2.3	3.9	3.2	3.4	1.6	2.2	0.0	0.0
1924	2.3	—	0.1	3.2	4.9	3.0	2.9	2.2	1.1	0.0	9.6
1923	1.8	—	0.0	2.5	3.6	3.6	1.5	1.1	0.0	2.9	9.8
1922	2.1	—	0.2	3.1	3.3	3.4	3.6	2.4	0.0	0.0	0.0
1921	2.3	—	0.0	3.7	4.9	2.9	1.8	2.1	1.3	0.0	0.0
1920	2.0	—	0.1	3.7	2.9	2.3	3.3	1.5	1.4	3.6	0.0
1919	2.0	—	0.0	2.5	4.6	3.2	1.8	0.8	2.7	0.0	0.0
1918	2.5	—	0.0	3.8	4.1	3.4	2.7	2.7	8.1	4.3	0.0
1917	2.5	—	—	—	—	—	—	—	—	—	—
1916	2.0	—	0.0	3.8	3.6	2.2	3.1	1.2	2.2	0.0	0.0
1915	5.1	—	0.0	5.4	10.4	8.2	5.5	5.3	0.0	8.8	0.0
1914	4.6	—	0.0	7.8	8.9	5.6	2.8	1.8	6.7	0.0	0.0
1913	4.7	—	—	—	—	—	—	—	—	—	—
1912	5.2	—	—	—	—	—	—	—	—	—	—
1911	5.3	—	—	—	—	—	—	—	—	—	—
1910	6.0	—	—	—	—	—	—	—	—	—	—

Sources: *Vital Statistics—Special Reports.* 43(30):467–476, August 22, 1956.
Vital and Health Statistics. 20(2):52, June 1966.
Vital Statistics of the United States, 1964. II(A):(1)–28, 1966.

Supplementary Bibliography

Appendix B

The following references do not appear in the text either because they essentially duplicated references already cited or because they were not directly relevant to the selected material. They are included in this supplementary listing in the hope that they will be of value for further investigations of youthful suicide.

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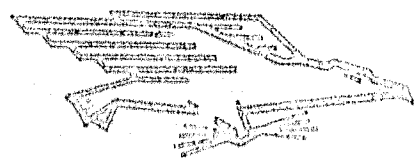

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