Population Losses Through Death, 1941–51

By LILLIAN GURALNICK, M.Sc.

THE DEPARTMENT OF DEFENSE has recently released figures on the number of deaths among the armed forces during the years 1941–51, tabulated by age and sex. These figures make possible the first complete assessment of the losses in the population of the United States, by age, during the disturbed years since 1941.

The laws of the 48 States and the District of Columbia require that every death occurring within their boundaries be reported. From these records, our national mortality statistics are produced. It is likely that a few deaths in remote rural areas where family burial plots are still used are never reported. On the other hand, the reported figures include deaths among visitors and employees of foreign governments in this country and exclude deaths among our nationals overseas.

In "normal" years, a death rate based on the deaths occurring in the United States and on the population estimated to be residing in the country is entirely satisfactory as a measure of the loss of population through death. The few deaths of American citizens abroad that are omitted or the deaths of foreign citizens here temporarily that are included have no serious effect on the final figures. But in the years since 1941, large numbers of the population have been overseas. There were 281,000 persons outside the country in July 1941. This figure rose to 7,447,000 in 1945. In July 1950, it was estimated to be 449,000, the smallest number since the end of World War II. The population overseas increased with our participation in the Korean war.

There is at present no complete count of the deaths among the overseas population. Deaths among the armed forces are recorded by the Department of Defense, and figures on the numbers of deaths have been released each year. Deaths of civilians are registered with the consular service, but no central collection of these figures is made. As complete a count as is possible of the annual loss of population is obtained when the deaths among the armed forces overseas are added to the deaths registered in the continental United States.

The crude death rates per 1,000 population based on deaths including those overseas and on the total population for each year, 1941–51, are shown below, along with the crude death rates computed from deaths and population excluding the armed forces overseas.

These figures show that the losses incurred during World War II and during the Korean

Year	*Including armed forces overseas*	*Excluding armed forces overseas*
1951	9. 7	9. 7
1950	9. 7	9. 6
1949	9. 7	9. 7
1948	9. 9	9. 9
1947	10. 0	10. 1
1946	9. 9	10. 0
1945	10. 8	10. 6
1944	11. 4	10. 6
1943	11. 0	10. 9
1942	10. 5	10. 3
1941	10. 5	10. 5

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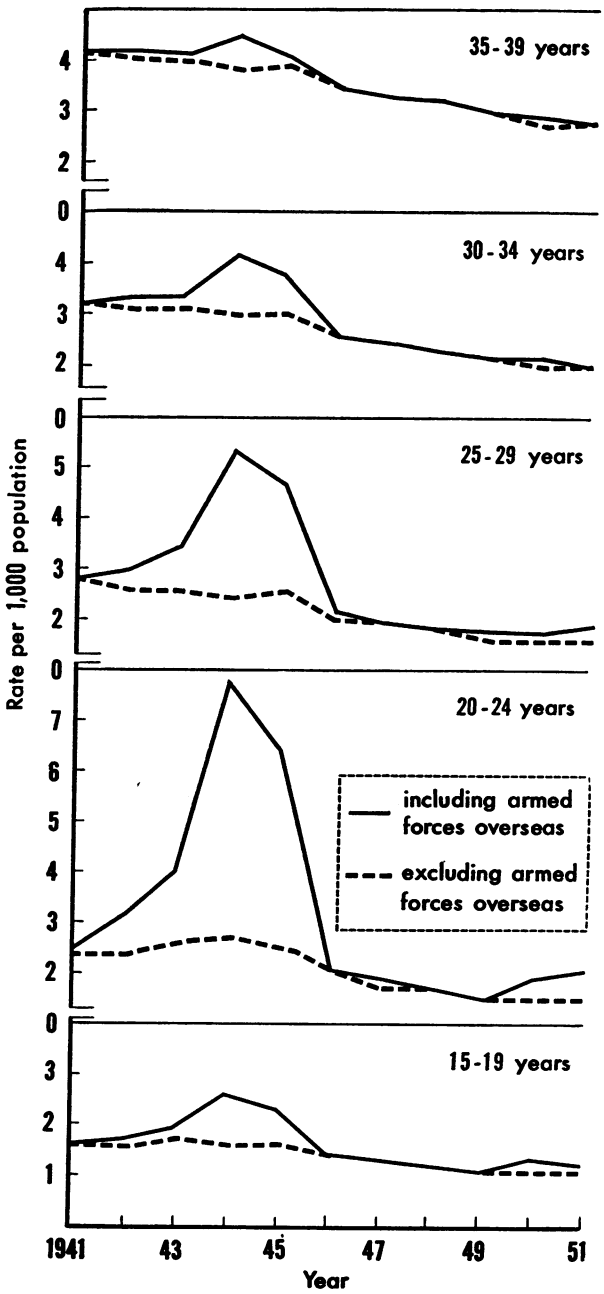
Death rates for total population at ages 15–39 years, United States, 1941–51.



engagement, while of tremendous personal and national consequence, had no large effect on the crude death rate for the population as a whole except in 1944.

The highest death rate in the period 1941–51 was recorded in 1944, when there were 170,000 deaths among military personnel overseas. Losses in 1945 were smaller. Since we were not at war during the entire year, it is likely that, on a monthly basis for the war period the death rate in 1945 was very close to that for 1944. Even though figures for 1946 include persons declared dead after having been missing in action more than a year, the mortality rates for 1946, and for 1947–49, including deaths and population overseas, were at the same level as the rates for the continental population.

Rates by Age and Sex

The impact of the war fatalities is seen more clearly in the death rates by age. The chart compares the death rates obtained for the continental United States, based on the deaths and population present in the country, with the rates for the total population, which is computed from all deaths, in the United States and overseas, for each age group from 15–39. A few deaths overseas were recorded at higher ages, even above 60 years; but most of the deaths (and the population) fell between the ages of 18 and 40. The death rates for each age group between 15 and 39 years were affected, and the extent of the change is shown in the chart.

The chart shows that there was also an increase in the rates for the continental population during the war years. In part, this change is an artificial one, resulting from the withdrawal of large numbers of young men for service overseas. The population remaining in the United States included those subject to higher mortality risks from natural causes. The number of deaths occurring among the younger age groups in the country was thus not likely to decrease appreciably, while the number of persons on which the death rate was based declined sharply. In addition, deaths in this country at these ages were increased somewhat during the war years by accidents in military training, industry, and transportation.

The population overseas during 1941–51 consisted almost entirely of men. The greatest number of women outside the country was 51,000 in 1945; and the total number of reported fatalities of women in the armed forces overseas, 1941–51, was less than 250. The death rates for women will not differ whether they

Table 1. Death rates [1] for men by age: United States, 1941–51

[Rates per 1,000 population in each specified group]

Age groups	Rates										
	1951	1950	1949	1948	1947	1946	1945	1944	1943	1942	1941
15–19 years:											
Including deaths and population overseas	1.7	1.9	1.5	1.5	1.6	1.8	3.4	3.5	2.4	2.1	2.0
Excluding deaths and population overseas	1.4	1.4	1.5	1.5	1.6	1.8	2.0	2.1	2.1	1.9	2.0
20–24 years:											
Including deaths and population overseas	3.3	2.8	2.0	2.2	2.3	2.7	11.3	12.2	6.2	4.6	3.0
Excluding deaths and population overseas	2.0	1.9	2.0	2.2	2.3	2.6	4.2	4.1	3.6	2.9	2.8
25–29 years:											
Including deaths and population overseas	2.4	2.2	2.0	2.2	2.3	2.5	7.6	7.7	4.7	3.9	3.1
Excluding deaths and population overseas	2.0	2.0	2.0	2.1	2.3	2.4	3.5	3.1	3.0	2.9	3.0
30–34 years:											
Including deaths and population overseas	2.5	2.5	2.4	2.6	2.7	3.0	5.2	5.2	3 9	3.9	3.6
Excluding deaths and population overseas	2.4	2.4	2.4	2.6	2.7	2.9	3.7	3.5	3.5	3.6	3.6
35–39 years:											
Including deaths and population overseas	3.4	3.4	3.5	3.7	3.8	4.0	5.0	5.0	4.7	4.9	4.8
Excluding deaths and population overseas	3.3	3.4	3.5	3.7	3.8	4.0	4.6	4.4	4.6	4.7	4.8

[1] Based on deaths registered in the United States and on provisional records of the Department of Defense. Deaths at unknown ages not included.

are computed for the continental United States, or for the total population.

The rates for men show clearly the losses sustained during World War II and the Korean engagement. The rates which include the deaths and population overseas are shown in table 1 along with the rates for the continental United States, by age. The excess mortality was greatest for the age group 20–24. In 1944, when the peak figure was recorded, the rate including deaths overseas (12.2 per 1,000 population) was 3 times the death rate for the continental United States. The rate for the 25–29-year-olds was more than doubled in 1944, and for ages 15–19 and 30–34, the figures were about 1.5 times the comparable continental rate in that year.

Age-Adjusted Rates

In a "normal" year, such as 1948, deaths of men 15–39 years old represent less than 5 percent of all deaths, so that even a considerable increase in these figures does not have a very great effect on a rate computed for the total population. This was evident in the crude death rates shown earlier. The effect of the military losses on the age-adjusted rates, when the age distribution of the population in 1940 is used as the standard, is greater, chiefly because the proportion of the population in the age groups 15–39 years was larger in 1940 than it has been in subsequent years. The death rates that would have been obtained had the age distribution of the population remained that of 1940, while the age-specific rates for each year pre-

Table 2. Age-adjusted death rates per 1,000 population

Year	Total population		Men	
	Including armed forces overseas	Excluding armed forces overseas	Including armed forces overseas	Excluding armed forces overseas
1951	8.4	8.3	10.1	9.9
1950	8.5	8.4	10.1	10.0
1949	8.5	8.5	10.1	10.1
1948	8.8	8.8	10.3	10.3
1947	9.0	9.0	10.5	10.5
1946	9.1	9.1	10.6	10.6
1945	10.1	9.4	12.4	11.1
1944	10.8	9.7	13.3	11.2
1943	10.4	10.1	12.1	11.6
1942	10.1	9.9	11.7	11.4
1941	10.3	10.3	11.7	11.7

vailed, are shown in table 2 for the experience including and excluding the armed forces overseas. The general downward trend in mortality, both for men and for the total population, was interrupted for the years 1943–45.

Summary

The effect of the deaths among the armed forces overseas on crude, age-adjusted, and age-specific rates for the United States has been shown for the years 1941–51.

Syphilis Serology Courses

The Public Health Service is offering six 2-week refresher courses on the laboratory techniques of the serology of syphilis at the Venereal Disease Research Laboratory in Chamblee, Ga., from September 1954 through April 1955. The courses are arranged to meet the needs of senior operating personnel from State laboratories, health departments, Federal Government installations, and of accredited representatives from other countries desiring refresher rather than fundamental training. Lectures, demonstrations, quizzes, discussions, and performance of the tests by the students are included in the courses which are designed to acquaint students with the methods most widely used in the United States for the serodiagnosis of syphilis. A third week of intensive training is available after each scheduled course.

In addition, a 2-week course on the management and control of syphilis serology by the regional laboratory is scheduled for May 2–13, 1955. Especially arranged for assistant laboratory directors and senior laboratory staff members, the course includes review of interlaboratory training programs, regional laboratory evaluation studies, laboratory inspection procedures, demonstration of antigen check-testing, and control serum preparation.

The refresher courses on serology of syphilis are scheduled as follows:

Sept. 13–24, 1954.	Jan. 31–Feb. 11, 1955.
Oct. 4–15, 1954.	Mar. 7–18, 1955.
Oct. 25–Nov. 5, 1954.	Apr. 11–22, 1955.

Applications should be addressed to: Director, Venereal Disease Research Laboratory, Division of Special Health Services, Public Health Service, Department of Health, Education, and Welfare, P. O. Box 185, Chamblee, Ga.