ACTUARIAL NOTE

NUMBER 4
AUGUST 1963

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE
SOCIAL SECURITY ADMINISTRATION

COMPARISON OF MORTALITY IN LARGE WESTERN EUROPEAN COUNTRIES WITH THAT OF THE UNITED STATES

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This note will analyze the mortality experienced in 1959 in England, France, and West Germany as compared with that of the United States for the same year. Table 1 gives the death rates by age groups for men for each of the countries, while Table 2 gives corresponding data for women. The death rates shown for all ages combined are standardized rates based on the age composition of the United States as reported in the 1960 Census.

The English death rates for men are significantly lower than those of the United States up to age 60, with a differential of as much as 40% at ages 20–34. At ages 70 and over, English death rates are shown to be significantly higher than those of the United States, with the differences being about 20% at ages 75 and over. Next, considering France, male mortality is higher than that in the United States under age 5 and at ages 75 and over, but is lower at other ages, with the differential being 10% or less in most instances between ages 25 and 75. Finally, comparing West Germany and the United States, the situation is somewhat similar to the comparison with France, except that West German mortality tends to be higher than that in France at all ages, except between ages 30 and 60.

When male mortality rates are standardized[1] on the basis of the United States 1960 population, the net result is that the mortality of the three large Western European countries is shown to be slightly lower than that of the United States, with the differentials being 1% for England and West Germany, and 4% for France. It should, of course, be recognized that if a different population were used for standardization purposes, these results might be somewhat different. For instance, if an "older" population were used for standardization purposes – so that there was a higher proportion of persons aged 75 and over, where the highest mortality occurs – then the United States might show the lowest aggregate death rate and thus the lowest overall mortality by this method of analysis, since its death rates are the lowest at the most advanced ages.

Now, turning to women, we find a somewhat different situation. First, comparing England and the United States, it may be seen that United States mortality is lower only from age 70 on, with the differentials being not nearly as large as for men. French female mortality is lower than that of the United States in virtually every age group beyond age 5, although the differential is rarely more than 15%. West German female mortality is significantly higher than in the United States under age 5 and after age 70, virtually the same at ages 5–29, and lower for ages 30–69 (with the differential never amounting to more than 15%).

Considering the relative female mortality between the various countries as measured on the basis of standardization with the 1960 United States Census, we find that English mortality is 1% lower, French mortality is 6% lower, but West German mortality is 11% higher. Once again, we must note that the age distribution of the population used for standardization purposes can be important in determining the comparison for all

[1] "Standardization" is performed by weighting the various age-specific death rates (for age groups) by the numbers of persons in each age group, so as to obtain an "average" death rate. This rate is more meaningful in comparing different experiences than the crude death rate (total deaths related to total population), which may be affected significantly by differences in age-sex composition.

ages combined. The use of an "older" population would have shown a more favorable comparison for the United States as against both England and West Germany, but would make relatively little difference in the comparison with France. In fact, under almost any circumstances, it would appear that French female mortality is more favorable than that in any of the other three countries considered.

Finally, an aggregate comparison for both sexes combined may be made for these four countries – once again, using the 1960 United States population for standardizing purposes. The aggregate death rates, both in rates per thousand and relative to the United States rate, are as follows:

Country	Death Rate	Death Rate Relative to United States Rate
United States	9.6	100%
England	9.5	99
France	9.2	95
West Germany	10.1	104

In summary, it may be said that the mortality experienced by these four countries is at about the same general level. England shows slightly lower mortality than the United States (for both males and females), but a result showing the reverse might have been obtained if standardization had been on the basis of an "older" population; a computation of the aggregate death rate on the basis of standardization by the estimated English population in 1956 produced an English rate that was only 0.1% lower than that of the United States (as compared with 0.9% on the basis above, computed from unrounded figures). French mortality is significantly lower (by about 5% for both men and women) than that in the United States, with the latter having a definite advantage only at the very youngest ages for both men and women, and at the very oldest ages for men. Mortality in the United States appears to be somewhat lower than that in West Germany (about the same for men, but significantly lower for women); this is primarily the result of lower mortality in the United States at the youngest ages and at the very oldest ages.

In brief, then, the relatively "equal" status of the United States in regard to mortality as compared with the three large Western European countries, arises from low mortality at the very youngest and oldest ages. Conversely, however, this means that at the younger and middle ages, mortality in the United States is not as favorable as in these three large Western European countries. In fact, with only few exceptions, mortality rates at ages 10–69 in the United States are higher than those in these countries.

Table 1

COMPARISON OF DEATH RATES IN VARIOUS COUNTRIES FOR 1959, MEN

Age	Death Rate (per 1000)				Death Rate as Percent of United States Rate		
	United States	England	France	West Germany	England	France	West Germany
0	29.6	24.5	33.3	38.0	83%	112%	128%
1– 4	1.2	1.0	1.5	1.6	83	125	133
5– 9	.6	.5	.5	.7	83	83	117
10–14	.6	.4	.4	.5	67	67	83
15–19	1.3	.9	1.0	1.3	69	77	100
20–24	1.8	1.1	1.3	1.9	61	72	106
25–29	1.7	1.0	1.7	1.7	59	100	100
30–34	2.1	1.2	2.1	1.9	57	100	90
35–39	2.9	1.9	2.8	2.4	66	97	83
40–44	4.6	3.1	4.2	3.4	67	91	74
45–49	7.5	5.1	6.5	5.4	68	87	72
50–54	12.2	9.4	10.7	9.3	77	88	76
55–59	18.8	17.2	16.7	15.9	91	89	85
60–64	27.7	27.9	24.7	25.2	101	89	91
65–69	43.5	43.2	36.4	38.8	99	84	89
70–74	62.8	67.7	56.7	60.1	108	90	96
75–79	85.9	102.4	89.5	95.9	119	104	112
80–84	132.1	161.8	145.3	154.5	122	110	117
85 and over	202.6	240.0	244.5	259.8	118	121	128
All Ages	11.1	10.9	10.7	11.0	99	96	99

Table 2

COMPARISON OF DEATH RATES IN VARIOUS COUNTRIES FOR 1959, WOMEN

Age	Death Rate (per 1000)				Death Rate as Percent of United States Rate		
	United States	England	France	West Germany	England	France	West Germany
0	23.0	19.8	25.5	30.3	86%	111%	132%
1– 4	1.0	.8	1.3	1.2	80	130	120
5– 9	.4	.3	.4	.4	75	100	100
10–14	.3	.3	.3	.3	100	100	100
15–19	.5	.4	.4	.5	80	80	100
20–24	.7	.5	.7	.7	71	100	100
25–29	.9	.7	.8	.9	78	89	100
30–34	1.3	.9	1.1	1.2	69	85	92
35–39	1.8	1.4	1.6	1.7	78	89	94
40–44	2.7	2.2	2.5	2.3	81	93	85
45–49	4.1	3.4	3.5	3.5	83	85	85
50–54	6.2	5.3	5.3	5.3	85	85	85
55–59	9.4	8.4	7.8	8.2	89	83	87
60–64	14.4	13.6	12.1	13.6	94	84	94
65–69	24.3	22.8	19.7	24.0	94	81	99
70–74	39.1	40,0	33.9	43.2	102	87	110
75–79	59.2	69.3	61.0	78.6	117	103	133
80–84	105.6	116.0	107.6	133.6	110	102	127
85 and over	202.5	215.4	200.4	234.7	106	99	116
All Ages	8.2	8.2	7.7	9.1	99	94	111

Source: "Annual Epidemiological and Vital Statistics, 1959," World Health Organization.