

VITAL and HEALTH STATISTICS
DATA FROM THE NATIONAL VITAL STATISTICS SYSTEM

Mortality Trends
in the United States
1954-1963

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A study of the upward trends during 1954-63 for 12 of the 15 leading causes of death which accounted for 85 percent of the 1,813,549 deaths occurring in the United States in 1963.

Washington, D.C.

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U.S. DEPARTMENT OF
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CONTENTS

	Page
Introduction -----	1
Table 1. Mortality from 15 leading causes of death: United States, 1963--	1
2. Death rates for 60 selected causes: United States, 1954-63-----	2
Some Breaks in Comparability Between 1957 and 1958-----	6
Impact on Annual Rates of Outbreaks of Influenza-----	6
Table 3. Age-adjusted death rates, by color and sex: United States, 1954-63-----	7
Trends by Personal Characteristics-----	7
Age-Specific Death Rates by Color and Sex-----	7
Table 4. Death rates by 10-year age groups, sex, and color: United States, 1954-63-----	8
5. Percent excess of death rates for males over those for females, by age and color: United States, 1954 and 1963-----	10
Sex Differentials for Mortality-----	10
Trends for Selected Leading Causes, by Age, Color, and Sex-----	11
Diseases of Heart-----	11
Table 6. Death rates for arteriosclerotic heart disease, including coronary disease, by sex and age: United States, 1954-63-----	12
7. Death rates for arteriosclerotic heart disease, including coronary disease, by color and sex: United States, 1954-63-----	14
8. Death rates for hypertensive heart disease, by color and sex: United States, 1954-63-----	14
9. Death rates for hypertensive heart disease, by sex and age: United States, 1954-63-----	15
Malignant Neoplasms, Including Neoplasms of Lymphatic and Hemato- poietic Tissues-----	16
Table 10. Death rates for malignant neoplasms, by color and sex: United States, 1954-63-----	16
11. Death rates for malignant neoplasm of digestive organs and peritoneum, not specified as secondary, by sex and age: United States, 1954-63-----	17
12. Death rates for malignant neoplasm of digestive organs and peritoneum, not specified as secondary, by color and sex: United States, 1954-63-----	18
13. Death rates for malignant neoplasm of respiratory system, not specified as secondary, by sex and age: United States, 1954-63-----	20
14. Death rates for malignant neoplasm of respiratory system, not specified as secondary, by color and sex: United States, 1954-63-----	22

CONTENTS--Con.

	Page
Vascular Lesions-----	22
Table 15. Death rates for major components of vascular lesions affecting central nervous system, by color and sex: United States, 1954 and 1963-----	23
16. Death rates for cerebral hemorrhage, and cerebral embolism and thrombosis, by sex and age: United States, 1954 and 1963--	24
Accidents-----	24
Table 17. Death rates for all motor vehicle accidents and for motor vehicle traffic accident to pedestrian, by color and sex: United States, 1954-63-----	25
18. Death rates for motor vehicle accidents, by age, sex, and color: United States, 1963-----	27
19. Death rates for motor vehicle traffic accident to pedestrian, by age, sex, and color: United States, 1963-----	29
20. Percentage change, 1954-63 and 1961-63, in the death rate for motor vehicle accidents, by age, sex, and color: United States--	31
21. Death rates for accidents, by color and sex: United States, 1954-63-----	32
22. Deaths and death rates for accidents, by external cause of injury: United States, 1954 and 1963-----	33
Influenza and Pneumonia-----	33
Table 23. Death rates for pneumonia, except pneumonia of newborn, by color and sex: United States, 1954-63-----	34
24. Death rates for pneumonia, except pneumonia of newborn, by sex and age: United States, 1954-63-----	35
General Arteriosclerosis-----	38
Table 25. Death rates for general arteriosclerosis, by color and sex: United States, 1954-63-----	38
26. Death rates for general arteriosclerosis, by sex and age: United States, 1954-63-----	39
Diabetes Mellitus-----	38
Table 27. Death rates for diabetes mellitus, by color and sex: United States, 1954-63-----	42
28. Death rates for diabetes mellitus, by sex and age: United States, 1954-63-----	43
Other Diseases of Circulatory System-----	43
Table 29. Death rates for other diseases of circulatory system, by sex and age: United States, 1954-63-----	44
30. Death rates for other diseases of circulatory system, by color and sex: United States, 1954-63-----	45

CONTENTS—Con.

	Page
Other Bronchopulmonic Diseases-----	45
Table 31. Death rates for other bronchopulmonic diseases, by sex and age: United States, 1960-63-----	46
32. Death rates for other bronchopulmonic diseases, by color and sex: United States, 1954-63-----	47
33. Death rates for emphysema, without mention of bronchitis, by color and sex: United States, 1954-63-----	47
Cirrhosis of Liver-----	48
Table 34. Death rates for cirrhosis of liver, by color and sex: United States 1954-63-----	48
35. Death rates for cirrhosis of liver, by sex and age: United States, 1954-63-----	49
✓ Suicide-----	50
Table 36. Death rates for suicide, by color and sex: United States, 1954-63--	50
37. Death rates for suicide, by sex and age: United States, 1954-63--	52
Ulcer of Stomach and Duodenum-----	53
Table 38. Death rates for ulcer of stomach and duodenum, by sex and age: United States, 1954-63-----	54
39. Death rates for ulcer of stomach and duodenum, by color and sex: United States, 1954-63-----	55
Summary-----	55
Qualifications of Data-----	56
References-----	57
Bibliography-----	57

IN THIS REPORT data is presented on mortality other than that included in annual or monthly reports. This study of mortality trends for 1954-63 examines death rates for 12 of the 15 leading causes of death by age, color, and sex.

For white men at ages under 45 years there was a decrease in the rate of fall in mortality; and at ages 45 years and over there was an actual halt in the downward trend during 1954-63. These changes in the rate of improvement resulted in part from substantial increases in the death rates for arteriosclerotic heart disease, malignant neoplasm of respiratory system (especially "lung cancer"), motor vehicle accidents, pneumonia, cirrhosis of liver, diabetes mellitus, and other bronchopulmonic diseases (including emphysema).

The death rate for the white female population leveled off during 1954-63 for each 10-year-age group. Contributing to this deceleration in the downward trend were increases in the death rate for arteriosclerotic heart disease, malignant neoplasm of respiratory system, motor vehicle accidents, other diseases of circulatory system, cirrhosis of liver, and ulcer of stomach and duodenum.

The downward mortality trend for the nonwhite population also leveled off during 1954. For nonwhite men this deceleration is attributable to increases for the same causes of death listed above for white men. For some causes, including arteriosclerotic heart disease and malignant neoplasm of respiratory system, the mortality differential by color decreased during 1954-63, owing to the greater relative increase in mortality from these causes in the nonwhite male population.

Contributing to the decrease in the rate of fall in mortality for the nonwhite female population were increases in mortality from arteriosclerotic heart disease, malignant neoplasm of respiratory system, motor vehicle accidents, pneumonia, other circulatory diseases, cirrhosis of liver, and suicide.

SYMBOLS

Data not available-----	---
Category not applicable-----	...
Quantity zero-----	-
Quantity more than 0 but less than 0.05----	0.0
Figure does not meet standards of reliability or precision-----	*

MORTALITY TRENDS IN THE UNITED STATES

A. Joan Klebba, *Division of Vital Statistics*

INTRODUCTION

This report is the second in a series dealing with mortality data. The study examines mortality trends for 1954-63 for 12 of the 15 leading causes of death by age, color, and sex.

Until about 1954, the trend in the total death rate for the United States was downward; during the ensuing decade, however, it leveled off. Death rates for 1954-63 for some of the leading causes contributing to this leveling off of the general mortality trend are analyzed by age, color, and sex in this report.

There were apparent increases in the death rates during the 1954-63 period for 12 of the 15 leading causes shown in table 1. For 10 of these causes the direction of the mortality curve was upward almost over the entire decade: diseases of heart; malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues; influenza and pneumonia, excluding pneumonia of newborn; general arteriosclerosis; diabetes mellitus; other diseases of circulatory system; other bronchopulmonic diseases; cirrhosis of liver; suicide; and ulcer of stomach and duodenum (table 2). For another cause, vascular lesions

Table 1. Mortality from 15 leading causes of death: United States, 1963

[Ranked on the basis of the List of 60 Selected Causes of Death. Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955]

Rank order	Cause of death	Rates per 100,000 population	Percent of total deaths
	All causes-----	961.9	100.0
1	Diseases of heart-----400-402,410-443	375.4	39.0
2	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----140-205	151.4	15.7
3	Vascular lesions affecting central nervous system-----330-334	106.7	11.1
4	Accidents-----E800-E962	53.4	5.6
...	Motor vehicle accidents-----E810-E835	23.1	2.4
...	Other accidents-----E800-E802,E840-E962	30.3	3.1
5	Influenza and pneumonia, except pneumonia of newborn---480-493	37.5	3.9
6	Certain diseases of early infancy-----760-776	33.3	3.5
7	General arteriosclerosis-----450	19.9	2.1
8	Diabetes mellitus-----260	17.2	1.8
9	Other diseases of circulatory system-----451-468	12.9	1.3
10	Other bronchopulmonic diseases-----525-527	12.3	1.3
11	Cirrhosis of liver-----581	11.9	1.2
12	Suicide-----E963,E970-E979	11.0	1.1
13	Congenital malformations-----750-759	11.0	1.1
14	Other hypertensive disease-----444-447	6.7	0.7
15	Ulcer of stomach and duodenum-----540,541	6.5	0.7
...	All other causes-----Residual	94.8	9.9

Table 2. Death rates for 60 selected causes: United States, 1954-63

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and according to the Seventh Revision for 1958-63]

	Cause of death	
1	All causes-----	
2	Tuberculosis, all forms-----	001-019
3	Tuberculosis of respiratory system-----	001-008
4	Tuberculosis, other forms-----	010-019
5	Syphilis and its sequelae-----	020-029
6	Dysentery, all forms-----	045-048
7	Scarlet fever and streptococcal sore throat-----	050,051
8	Diphtheria-----	055
9	Whooping cough-----	056
10	Meningococcal infections-----	057
11	Acute poliomyelitis-----	080
12	Measles-----	085
13	Other infective and parasitic diseases-----	030-044,049,052-054,058-074,081-084,086-138
14	Malignant neoplasms, including neoplasms of lymphatic and hematopoietic tissues-----	140-205
15	Malignant neoplasm of buccal cavity and pharynx-----	140-148
16	Malignant neoplasm of digestive organs and peritoneum, not specified as secondary-----	150-156A,157-159
17	Malignant neoplasm of respiratory system, not specified as secondary----	160-164
18	Malignant neoplasm of breast-----	170
19	Malignant neoplasm of genital organs-----	171-179
20	Malignant neoplasm of urinary organs-----	180,181
21	Malignant neoplasm of other and unspecified sites-----	156B,165,190-199
22	Leukemia and aleukemia-----	204
23	Lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues-----	200-203,205
24	Benign neoplasms and neoplasms of unspecified nature-----	210,239
25	Asthma-----	241
26	Diabetes mellitus-----	260
27	Anemias-----	290-293
28	Meningitis, except meningococcal and tuberculous-----	340
29	Major cardiovascular-renal diseases-----	330,334,400-468,592-594
30	Diseases of cardiovascular system-----	330-334,400-468
31	Vascular lesions affecting central nervous system-----	330-334
32	Diseases of heart-----	400-402,410-443
33	Rheumatic fever and chronic rheumatic heart disease-----	400-402,410-416
34	Arteriosclerotic heart disease, including coronary disease-----	420
35	Nonrheumatic chronic endocarditis and other myocardial degeneration-----	421,422
36	Other diseases of heart-----	430-434
37	Hypertensive heart disease-----	440-443
38	Other hypertensive disease-----	444-447
39	General arteriosclerosis-----	450
40	Other diseases of circulatory system-----	451-468
41	Chronic and unspecified nephritis and other renal sclerosis-----	592-594

Table 2. Death rates for 60 selected causes: United States, 1954-63—Con.

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and according to the Seventh Revision for 1958-63—Con]

1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	
Rates per 100,000 population										
961.9	945.4	929.6	954.7	938.6	950.8	958.6	935.1	930.4	919.0	1
4.9	5.1	5.4	6.1	6.5	7.1	7.8	8.4	9.1	10.2	2
4.6	4.7	5.0	5.6	6.0	6.6	7.3	7.8	8.3	9.3	3
0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.8	0.8	4
1.4	1.5	1.6	1.6	1.7	2.0	2.2	2.3	2.3	3.0	5
0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	6
0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	7
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	8
0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.2	0.3	0.2	9
0.4	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	10
0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.3	0.6	0.8	11
0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.3	12
3.2	3.1	3.1	3.2	3.1	3.0	2.8	2.7	2.6	2.7	13
151.4	149.9	149.4	149.2	147.3	146.8	148.6	147.8	146.5	145.6	14
3.5	3.5	3.5	3.4	3.4	3.3	3.4	3.3	3.4	3.3	15
49.3	49.5	50.1	50.8	50.7	50.9	51.7	52.4	52.3	53.0	16
24.9	24.0	23.1	22.2	21.2	20.4	19.9	19.2	18.2	17.1	17
13.5	13.4	13.4	13.4	13.1	13.1	13.3	13.3	13.4	13.0	18
21.2	21.3	21.4	21.6	21.6	22.1	22.6	22.6	22.8	22.9	19
7.2	7.2	7.1	7.1	7.1	7.0	7.1	7.0	7.0	6.9	20
17.0	16.6	16.4	16.5	16.2	16.1	16.7	16.3	16.4	16.5	21
7.2	7.0	7.0	7.1	7.0	6.9	6.9	6.8	6.6	6.5	22
7.6	7.4	7.4	7.2	7.1	6.9	7.0	6.8	6.5	6.3	23
2.6	2.5	2.6	2.7	2.8	2.9	3.0	2.9	3.1	3.2	24
2.7	2.6	2.7	3.0	2.8	2.9	3.9	3.6	3.6	3.8	25
17.2	16.8	16.4	16.7	15.9	15.9	16.0	15.7	15.5	15.6	26
1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	1.9	2.0	27
1.2	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.1	1.1	28
527.6	521.4	511.5	521.8	515.9	523.5	523.5	510.5	506.0	495.2	29
521.7	515.2	505.1	515.1	508.9	515.5	514.6	501.4	496.3	484.6	30
106.7	106.3	105.4	108.0	108.4	110.1	110.2	106.3	106.0	104.1	31
375.4	370.3	362.4	369.0	363.2	367.7	369.4	361.0	356.5	348.3	32
8.8	9.6	9.8	10.3	10.4	10.8	11.8	12.0	12.0	12.1	33
290.0	283.9	274.4	275.6	268.6	266.2	265.6	255.5	247.0	235.7	34
29.7	29.4	29.8	31.8	31.8	33.8	36.8	37.7	39.9	41.0	35
14.5	13.9	13.8	14.3	13.8	14.2	12.8	12.6	12.6	13.0	36
32.4	33.5	34.6	37.0	38.6	42.7	42.5	43.3	45.0	46.6	37
6.7	6.7	6.7	7.1	7.4	8.0	6.5	6.5	6.8	7.1	38
19.9	19.8	19.3	20.0	19.6	19.9	19.5	19.1	19.8	18.8	39
12.9	12.2	11.3	11.0	10.3	9.9	9.0	8.4	7.3	6.4	40
6.0	6.1	6.3	6.7	7.0	8.0	8.8	9.1	9.6	10.6	41

Table 2. Death rates for 60 selected causes: United States, 1954-63—Con.

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and according to the Seventh Revision for 1958-63]

Cause of death	
42	Influenza and pneumonia, except pneumonia of newborn-----480-493
43	Influenza-----480-483
44	Pneumonia, except pneumonia of newborn-----490-493
45	Bronchitis-----500-502
46	Other bronchopulmonic diseases-----525-527
47	Ulcer of stomach and duodenum-----540,541
48	Appendicitis-----550-553
49	Hernia and intestinal obstruction-----560,561,570
50	Gastritis, duodenitis, enteritis, and colitis, except diarrhea of newborn-----543,571,572
51	Cirrhosis of liver-----581
52	Cholelithiasis, cholecystitis, and cholangitis-----584,585
53	Acute nephritis, and nephritis with edema including nephrosis-----590,591
54	Infections of kidney-----600
55	Hyperplasia of prostate-----610
56	Deliveries and complications of pregnancy, childbirth, and the puerperium-----640-689
57	Abortion-----650-652
58	Other complications of pregnancy, childbirth, and the puerperium-----640-649,660-689
59	Congenital malformations-----750-759
60	Certain diseases of early infancy-----760-776
61	Birth injuries, postnatal asphyxia, and atelectasis-----760-762
62	Infections of newborn-----763-768
63	Other diseases peculiar to early infancy, and immaturity unqualified-----769-776
64	Symptoms, senility, and ill-defined conditions-----780-795
65	All other diseases-----Residual
66	Accidents-----E800-E962
67	Motor vehicle accidents-----E810-E835
68	Other accidents-----E800-E802,E840-E962
69	Suicide-----E963,E970-E979
70	Homicide-----E964,E980-E985

Table 2. Death rates for 60 selected causes: United States, 1954-63—Con.

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and according to the Seventh Revision for 1958-63]

1963	1962	1961	1960	1959	1958	1957	1956	1955	1954	
Rates per 100,000 population										
37.5	32.3	30.1	37.3	31.2	33.1	35.8	28.2	27.1	25.4	42
3.8	1.8	1.2	4.4	1.6	2.6	4.4	1.4	1.7	1.7	43
33.8	30.4	29.0	32.9	29.6	30.6	31.4	26.8	25.4	23.8	44
2.9	2.5	2.2	2.4	2.2	2.3	2.1	1.9	1.9	1.8	45
12.3	10.8	9.7	9.6	8.5	8.2	8.1	7.0	6.1	5.4	46
6.5	6.6	6.3	6.3	6.0	6.2	6.1	6.0	5.9	5.8	47
0.9	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.4	1.4	48
5.3	5.2	5.0	5.1	5.2	5.1	5.0	5.1	5.3	5.3	49
4.4	4.4	4.3	4.4	4.4	4.5	4.7	4.5	4.7	4.9	50
11.9	11.7	11.3	11.3	10.9	10.8	11.3	10.7	10.2	10.1	51
2.5	2.6	2.6	2.6	2.5	2.7	2.9	3.1	3.6	3.5	52
0.8	0.8	0.9	0.9	1.0	1.3	1.3	1.4	1.5	1.6	53
4.7	4.7	4.4	4.3	3.9	4.0	3.7	3.4	3.0	2.7	54
2.3	2.3	2.3	2.5	2.6	2.7	3.0	3.2	3.7	3.8	55
0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.2	1.3	56
0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	57
0.6	0.6	0.7	0.7	0.7	0.8	0.9	0.9	1.0	1.1	58
11.0	11.4	12.0	12.2	12.3	12.4	12.8	12.6	12.5	12.5	59
33.3	34.6	35.9	37.4	38.5	39.8	39.1	38.6	39.0	39.4	60
14.3	15.2	15.8	16.6	17.1	18.2	17.8	17.7	17.8	17.8	61
2.3	2.4	2.6	2.7	2.9	3.2	3.0	2.8	2.6	2.7	62
16.7	16.9	17.5	18.2	18.5	18.4	18.3	18.1	18.6	18.9	63
11.9	10.6	10.4	11.4	10.8	11.4	11.2	11.3	12.1	12.5	64
28.7	28.1	28.2	29.0	28.8	28.4	26.9	25.9	25.7	25.7	65
53.4	52.3	50.4	52.3	52.2	52.3	55.9	56.7	56.9	55.9	66
23.1	22.0	20.8	21.3	21.5	21.3	22.7	23.7	23.4	22.1	67
30.3	30.3	29.6	31.0	30.7	30.9	33.2	33.0	33.5	33.8	68
11.0	10.9	10.4	10.6	10.6	10.7	9.8	10.0	10.2	10.1	69
4.9	4.9	4.7	4.7	4.6	4.5	4.5	4.6	4.5	4.8	70

affecting the central nervous system, the slight rise that started about 1955 leveled off around 1959, with the end result of only about a 2.5 percent increase in the death rate for the period 1954-63. For accidents, there was a reversal in the mortality trend during the latter part of 1954-63, resulting in an upturn for the last years of the decade. These 12 causes accounted for 85 percent of the 1,813,549 deaths occurring in the United States in 1963.

Two of the three remaining 15 leading causes, certain diseases of early infancy and congenital malformations, will be included in another report in this series. The remaining cause, other hypertensive disease, contributed nothing to the leveling off of the mortality trend during 1954-63. The death rate for this cause declined from 7.1 deaths per 100,000 persons for 1954 to 6.7 for 1963 (table 2).

One step in the analysis of these selected leading causes is the identification of opposite trends for the principal subcategories of a cause. For example, in the analysis of malignant neoplasms, both those of the respiratory system, for which the trend is upward, and those of the digestive organs and peritoneum, for which the trend is downward, are treated separately.

Some Breaks in Comparability Between 1957 and 1958

During 1954-63 the causes of death were classified according to two different revisions of the International Classification of Diseases. The Sixth Revision, issued in 1948, was used for the first 4 years (1954-57) and the Seventh Revision, issued in 1955, was used for the last 6 years (1958-63). A study in which a 10-percent sample of deaths occurring in the United States in 1958 was coded by both the Sixth and Seventh Revisions (applying the coding procedures in effect, respectively, with each Revision) shows that breaks in comparability were not appreciable in number.¹

The differences resulting from the use of the two revisions are expressed by factors termed "comparability ratios" which are computed by dividing the numbers of deaths assigned to particular causes using the Seventh Revision by the numbers of deaths assigned to the same causes by the Sixth Revision. These ratios give an indi-

cation of the net changes between the two revisions. A comparability ratio of 1.00 indicates that the same number of deaths was assigned to a particular cause whether the new or old classification was used. A ratio of less than 1.00 indicates a decrease in assignment of deaths to a cause in the Seventh Revision as compared with the Sixth. Conversely, a ratio of more than 1.00 means that there was an increase in assignments under the Seventh Revision.

For the most part the degree of discontinuity in the trend for the years in which the Sixth and Seventh Revisions were in use is not a problem of great concern. With two exceptions, the 12 selected leading causes included in this report are among those for which the comparability ratios were close to 1.00.

For the two exceptions, namely, influenza and pneumonia and other bronchopulmonic diseases, the ratios were 0.94 and 0.93, indicating decreases of, respectively, 6 percent and 7 percent in assignment under the Seventh Revision.

Impact on Annual Rates of Outbreaks of Influenza

Despite the fact that there has been a gradual diminution over the century in the excess number of deaths attributed to heart and other chronic diseases and conditions during influenza epidemics, widespread epidemics still tend to raise somewhat the level of mortality for the year in which they occur. There were four influenza epidemics during the 1954-63 decade (in 1957-58, 1960, 1962, and 1963). During these epidemics, with the exception of the 1962 outbreak which was not widespread, substantial numbers of excess deaths were estimated to have occurred. During the January-April 1963 epidemic, for example, the excess number of deaths from all causes was estimated to be about 3 percent of the total number of deaths that occurred in 1963. Only about one-fifth of these were assigned to influenza and pneumonia as the underlying cause of death. The other excess deaths were distributed for the most part among the cardiovascular and nonneoplastic respiratory diseases.

Because of the influence of influenza outbreaks on the total death rate, a clearer view of the resulting trend is obtained by looking at the

Table 3. Age-adjusted death rates, by color and sex: United States, 1954-63

[Computed by the direct method, using as the standard population the age distribution of the total population of the United States as enumerated in 1940; see Qualifications of Data]

Year	Total			White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 1,000 population								
1963 ¹ -----	7.6	9.6	5.8	7.2	9.2	5.5	10.6	12.5	8.9
1962 ¹ -----	7.5	9.4	5.8	7.1	9.0	5.4	10.3	12.0	8.7
1961-----	7.3	9.2	5.7	7.0	8.9	5.4	10.0	11.6	8.6
1960-----	7.6	9.5	5.9	7.3	9.2	5.6	10.4	12.1	8.9
1959-----	7.5	9.3	5.9	7.2	9.0	5.5	10.3	11.9	8.8
1958-----	7.7	9.4	6.0	7.3	9.1	5.7	10.6	12.2	9.2
1957-----	7.8	9.6	6.1	7.4	9.2	5.8	10.8	12.4	9.4
1956-----	7.6	9.4	6.0	7.3	9.1	5.7	10.5	11.9	9.1
1955-----	7.7	9.3	6.1	7.4	9.1	5.7	10.4	11.9	9.1
1954-----	7.6	9.3	6.1	7.3	9.0	5.8	10.6	12.0	9.2

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

rates for the years which were relatively free of influenza separately from those years which experienced influenza epidemics. During the decade the death rate per 100,000 population was as follows:

Years without influenza

1961-----	929.6
1959-----	938.6
1956-----	935.1
1955-----	930.4
1954-----	919.0

Years with influenza

1963-----	961.9
1962-----	945.4
1960-----	954.7
1958-----	950.8
1957-----	958.6

The death rate moved upward in the first 4 of the 5 years that were free of serious outbreaks of influenza: from 919 deaths per 100,000 population

in 1954 to 939 in 1959. In 1961, however, it returned to the level for 1955 (930 deaths per 100,000 population).

In the epidemic years the death rate fluctuated according to the severity of the outbreaks. In 1963 it was 962 deaths per 100,000 population, the highest rate for any year since 1951.

In contrast to the decided decline in the age-adjusted death rate prior to the decade 1954-63, the age-adjusted mortality rates for 1954 and 1963 were the same—7.6 deaths per 100,000 population (table 3).

**TRENDS BY
PERSONAL CHARACTERISTICS**

**Age-Specific Death Rates
by Color and Sex**

The age-specific death rates by color and sex for 1954-63 are shown in table 4. During this period the mortality rate for the white male population continued to decline at ages under 45 years;

Table 4. Death rates by 10-year age groups, sex, and color: United States, 1954-63

Sex, year, and color	Total ¹	Under 1 year	1-4 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
<u>Both sexes</u>												
Rates per 1,000 population												
1963-----	9.6	25.4	1.0	0.4	1.1	1.5	3.0	7.5	17.3	38.8	85.2	210.1
1962-----	9.5	25.3	1.0	0.4	1.0	1.5	3.0	7.4	16.9	38.0	84.3	205.1
1961-----	9.3	25.3	1.0	0.4	1.0	1.4	2.9	7.3	16.7	37.2	83.6	196.3
1960-----	9.5	27.0	1.1	0.5	1.1	1.5	3.0	7.6	17.4	38.2	87.5	198.6
1959-----	9.4	27.5	1.1	0.5	1.1	1.5	2.9	7.4	17.1	37.6	85.8	194.2
1958-----	9.5	28.1	1.1	0.5	1.1	1.5	3.0	7.5	17.4	38.4	87.9	198.0
1957-----	9.6	28.0	1.1	0.5	1.2	1.5	3.1	7.6	17.8	39.0	88.1	197.9
1956-----	9.4	28.2	1.1	0.5	1.2	1.5	3.0	7.5	17.4	38.1	87.9	192.3
1955-----	9.3	28.5	1.1	0.5	1.2	1.5	3.1	7.6	17.3	38.1	87.9	189.8
1954-----	9.2	29.3	1.2	0.5	1.1	1.5	3.0	7.8	17.4	37.9	86.0	181.6
<u>Male</u>												
1963-----	11.1	28.7	1.1	0.5	1.5	1.9	3.8	9.8	23.2	51.1	100.9	224.6
1962-----	10.9	28.7	1.0	0.5	1.5	1.9	3.7	9.7	22.7	49.4	98.9	219.0
1961-----	10.7	28.5	1.1	0.5	1.5	1.8	3.7	9.6	22.4	48.1	97.9	209.1
1960-----	11.0	30.6	1.2	0.6	1.5	1.9	3.7	9.9	23.1	49.1	101.8	211.9
1959-----	10.8	31.1	1.2	0.6	1.5	1.9	3.7	9.7	22.8	47.9	99.1	205.4
1958-----	11.0	31.6	1.2	0.6	1.5	1.9	3.7	9.8	23.0	48.5	101.4	208.3
1957-----	11.1	31.6	1.2	0.6	1.7	1.9	3.8	9.9	23.5	49.2	101.0	207.3
1956-----	10.8	32.0	1.2	0.6	1.7	1.9	3.7	9.6	22.9	47.6	100.8	200.5
1955-----	10.8	32.1	1.2	0.6	1.7	1.9	3.8	9.7	22.6	47.3	100.4	195.9
1954-----	10.7	33.1	1.3	0.6	1.6	2.0	3.8	9.9	22.5	46.7	98.0	187.4
<u>Female</u>												
1963-----	8.2	21.9	0.9	0.4	0.6	1.1	2.3	5.2	11.8	28.6	73.4	201.1
1962-----	8.1	21.8	0.9	0.4	0.6	1.1	2.3	5.2	11.6	28.3	73.3	196.3
1961-----	7.9	21.9	0.9	0.4	0.6	1.0	2.2	5.1	11.5	27.9	72.7	187.8
1960-----	8.1	23.2	1.0	0.4	0.6	1.1	2.3	5.3	12.0	28.7	76.3	190.1
1959-----	8.0	23.8	1.0	0.4	0.6	1.1	2.2	5.2	11.8	28.6	75.5	186.8
1958-----	8.1	24.5	1.0	0.4	0.6	1.1	2.3	5.4	12.1	29.4	77.4	191.0
1957-----	8.1	24.3	1.0	0.4	0.7	1.1	2.4	5.5	12.4	30.0	77.8	191.5
1956-----	7.9	24.3	1.0	0.4	0.7	1.1	2.3	5.3	12.2	29.6	77.5	186.6
1955-----	7.9	24.7	1.0	0.4	0.7	1.1	2.4	5.4	12.2	29.8	77.9	185.5
1954-----	7.8	25.3	1.1	0.4	0.7	1.1	2.4	5.7	12.4	29.8	76.3	177.4
<u>White--both sexes</u>												
1963 ² -----	9.5	22.3	0.9	0.4	1.0	1.3	2.6	6.8	16.2	37.5	85.8	215.8
1962 ² -----	9.4	22.3	0.9	0.4	1.0	1.2	2.6	6.8	15.9	36.8	85.1	209.7
1961 ² -----	9.3	22.4	0.9	0.4	1.0	1.2	2.5	6.7	15.8	36.4	84.7	200.7
1960 ² -----	9.5	23.6	1.0	0.4	1.0	1.2	2.6	6.9	16.3	37.4	88.3	203.5
1959 ² -----	9.3	24.0	0.9	0.5	1.0	1.2	2.6	6.8	16.2	36.9	86.8	199.3
1958 ² -----	9.4	24.5	1.0	0.4	1.0	1.2	2.6	6.9	16.4	37.6	88.9	203.3
1957 ² -----	9.5	24.6	1.0	0.5	1.1	1.3	2.7	6.9	16.7	38.3	89.1	203.1
1956 ² -----	9.3	25.0	1.0	0.4	1.1	1.3	2.6	6.8	16.4	37.5	88.9	197.8
1955 ² -----	9.2	25.3	1.0	0.5	1.1	1.3	2.7	6.9	16.4	37.6	89.1	195.3
1954 ² -----	9.1	26.1	1.1	0.5	1.0	1.3	2.7	7.0	16.5	37.4	87.1	186.2
<u>Male</u>												
1963 ² -----	11.0	25.3	0.9	0.5	1.4	1.7	3.3	9.2	22.3	49.8	102.0	230.7
1962 ² -----	10.8	25.4	0.9	0.5	1.4	1.6	3.3	9.1	21.8	48.4	100.2	224.5
1961 ² -----	10.7	25.5	1.0	0.5	1.4	1.6	3.3	9.0	21.6	47.4	99.6	213.9
1960 ² -----	11.0	26.9	1.0	0.5	1.4	1.6	3.3	9.3	22.3	48.5	103.0	217.5
1959 ² -----	10.8	27.4	1.0	0.6	1.5	1.6	3.3	9.1	22.0	47.3	100.5	210.9
1958 ² -----	10.9	27.7	1.1	0.5	1.5	1.6	3.4	9.2	22.1	47.9	102.7	213.5
1957 ² -----	11.0	28.0	1.1	0.6	1.6	1.7	3.4	9.2	22.5	48.6	102.4	211.6
1956 ² -----	10.8	28.5	1.1	0.5	1.6	1.7	3.3	9.0	22.0	47.3	102.3	205.1
1955 ² -----	10.7	28.8	1.1	0.6	1.6	1.7	3.4	9.1	21.8	47.0	102.0	200.6
1954 ² -----	10.6	29.7	1.1	0.6	1.5	1.7	3.4	9.2	21.7	46.5	99.4	190.8

See footnote at end of table.

Table 4. Death rates by 10-year age groups, sex, and color: United States, 1954-63—Con.

Sex, year, and color	Total ¹	Under 1 year	1-4 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
Rates per 1,000 population												
Female												
1963 ² -----	8.1	19.0	0.8	0.3	0.6	0.9	1.9	4.6	10.5	27.3	73.8	206.6
1962 ² -----	8.0	19.0	0.8	0.3	0.5	0.9	1.9	4.6	10.4	27.1	73.7	200.4
1961-----	7.8	19.2	0.8	0.3	0.5	0.8	1.9	4.5	10.3	27.0	73.4	192.0
1960-----	8.0	20.1	0.9	0.3	0.5	0.9	1.9	4.6	10.8	27.8	77.0	194.8
1959-----	7.9	20.5	0.8	0.3	0.5	0.9	1.9	4.5	10.7	27.8	76.3	191.8
1958-----	8.0	21.2	0.9	0.4	0.5	0.9	1.9	4.6	11.0	28.5	78.1	196.5
1957-----	8.0	21.1	0.9	0.4	0.6	0.9	2.0	4.7	11.3	29.2	78.6	197.3
1956-----	7.8	21.4	0.9	0.4	0.6	0.9	1.9	4.6	11.1	28.8	78.4	192.7
1955-----	7.8	21.7	0.9	0.4	0.6	0.9	2.0	4.6	11.2	29.1	78.8	191.6
1954-----	7.6	22.4	1.0	0.4	0.6	0.9	2.0	4.9	11.4	29.2	77.2	182.8
Nonwhite—both sexes												
1963 ² -----	10.1	41.7	1.8	0.6	1.6	3.2	6.5	13.2	27.9	52.9	74.6	145.7
1962 ² -----	9.8	41.8	1.7	0.6	1.6	3.1	6.3	12.9	27.0	49.7	72.2	144.0
1961-----	9.6	40.9	1.7	0.6	1.5	3.1	6.2	12.7	26.6	47.1	70.3	142.3
1960-----	10.1	46.3	1.9	0.6	1.6	3.2	6.3	13.4	27.7	47.8	76.3	139.1
1959-----	9.9	47.4	1.9	0.7	1.6	3.3	6.3	13.3	27.1	46.1	72.5	131.8
1958-----	10.3	49.8	2.0	0.6	1.6	3.4	6.2	14.0	28.2	47.8	74.8	134.0
1957-----	10.5	48.1	2.0	0.7	1.8	3.5	6.5	14.5	29.6	47.6	73.9	132.5
1956-----	10.1	47.6	1.9	0.7	1.8	3.4	6.4	14.0	29.0	44.9	72.5	126.0
1955-----	10.0	48.0	2.0	0.7	1.8	3.4	6.4	14.4	28.1	44.4	72.4	122.7
1954-----	10.1	49.4	2.0	0.7	1.9	3.5	6.6	15.1	28.3	43.3	71.1	121.8
Male												
1963 ² -----	11.5	46.6	1.9	0.7	2.2	4.0	7.6	15.7	31.8	64.2	85.0	161.6
1962 ² -----	11.2	46.5	1.8	0.7	2.1	3.9	7.4	15.3	30.5	59.4	81.0	161.0
1961-----	10.9	45.3	1.8	0.7	2.1	3.8	7.2	14.7	30.0	56.2	78.2	155.9
1960-----	11.5	51.9	2.1	0.8	2.1	3.9	7.3	15.5	31.5	56.6	86.6	152.4
1959-----	11.3	52.6	2.1	0.8	2.2	4.1	7.2	15.3	31.0	54.5	81.8	144.4
1958-----	11.6	55.6	2.0	0.7	2.2	4.1	7.0	15.7	32.0	56.1	84.4	156.1
1957-----	11.9	53.4	2.1	0.8	2.3	4.3	7.3	16.2	33.8	55.6	82.6	155.0
1956-----	11.4	53.7	2.1	0.8	2.4	4.1	7.0	15.5	32.7	51.8	81.2	144.5
1955-----	11.3	53.5	2.1	0.8	2.4	4.1	7.2	15.9	31.9	51.6	80.2	137.7
1954-----	11.4	55.0	2.2	0.8	2.5	4.3	7.2	16.6	32.3	50.1	79.9	143.8
Female												
1963 ² -----	8.7	36.7	1.6	0.5	1.0	2.5	5.5	11.0	24.2	43.0	65.4	134.0
1962 ² -----	8.5	37.0	1.5	0.5	1.1	2.4	5.4	10.7	23.7	41.2	64.1	134.8
1961-----	8.4	36.5	1.6	0.5	1.1	2.5	5.3	10.8	23.4	38.9	62.9	132.0
1960-----	8.7	40.7	1.7	0.5	1.1	2.6	5.5	11.4	24.1	39.8	67.1	128.7
1959-----	8.6	42.2	1.7	0.5	1.2	2.6	5.4	11.4	23.4	38.5	64.1	122.3
1958-----	9.0	44.1	1.9	0.5	1.1	2.8	5.6	12.4	24.7	40.1	66.1	121.7
1957-----	9.1	42.9	1.8	0.6	1.3	2.8	5.9	12.9	25.6	40.3	65.9	120.3
1956-----	8.8	41.5	1.8	0.5	1.2	2.7	5.9	12.6	25.3	38.3	64.3	113.3
1955-----	8.8	42.8	1.9	0.6	1.3	2.8	5.8	12.9	24.4	37.8	64.4	112.1
1954-----	8.8	43.8	1.9	0.6	1.4	2.9	6.0	13.7	24.3	37.0	62.2	110.5

¹Figures for age not stated included in "Total" but not distributed among age groups.

²Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 5. Percent excess of death rates for males over those for females, by age and color: United States, 1954 and 1963¹

Age	Total		White		Nonwhite	
	1963	1954	1963	1954	1963	1954
	Percent excess of death rates					
All ages-----	35.4	37.1	36.1	38.1	32.7	30.5
Under 1 year-----	31.2	30.5	33.2	32.8	26.9	25.6
1-4 years-----	18.7	19.1	21.0	20.4	14.8	17.2
5-14 years-----	46.7	49.8	51.4	51.5	31.5	43.5
15-24 years-----	142.3	142.5	152.1	164.4	109.6	83.0
25-34 years-----	79.7	74.7	93.9	88.8	57.9	47.4
35-44 years-----	62.1	54.1	72.8	67.2	39.0	19.1
45-54 years-----	87.0	73.5	100.4	89.0	42.7	21.2
55-64 years-----	97.4	82.3	112.5	90.8	31.6	33.0
65-74 years-----	78.5	56.9	82.5	59.2	49.3	35.3
75-84 years-----	37.4	28.5	38.3	28.8	30.0	28.5
85 years and over-----	11.7	5.6	11.6	4.4	20.5	30.1

¹Figures by color exclude data for residents of New Jersey: see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

but the rate of decline was much slower than for the years prior to 1954.² At ages 45 years and over, however, there was an upturn in the death rate for the white male population—except at ages 45-54 and 75-84 years.

In the white female population the downward trend in the death rate for every age group under 85 years slowed down substantially during 1954-63 compared with the deceleration in preceding years.² For white women 85 years and over there was a reversal of the downward trend.

In the nonwhite male population the death rate continued to decline during 1954-63 at ages under 35 years and at ages 45-64 years, but the rate of decline was substantially slower than in preceding years. For the remaining age groups, however, there were increases in the death rate.

In the nonwhite female population, the mortality rate continued to decline during the decade at ages under 65 years, but at a slower rate than in preceding years. At ages 65 years and over the death rates rose, with the greatest average rate of increase at ages 85 years and over.

Sex Differentials for Mortality

The formerly rising mortality excess for white males as compared with that for white females, for all ages combined, leveled off during the decade 1954-63. For the nonwhite population, however, the mortality excess for males at all ages continued to rise (table 5).

The decrease in the mortality sex differential for the white population occurred primarily at ages 15-24 years. This resulted from a relatively greater increase, during this period, in the death rates for girls and young women as compared with that for boys and young men for a number of important causes, including malignant neoplasm of respiratory system, motor vehicle accidents, and suicides. For every age group except 5-14 and 15-24 years the mortality excess for white males was greater in 1963 than in 1954.

On the other hand, in the period 1954-63 the mortality excess increased for the nonwhite male population at ages 15-24 years; it declined at ages 1-4, 5-14, 55-64, and 85 years and over.

TRENDS FOR SELECTED LEADING CAUSES, BY AGE, COLOR, AND SEX

Mortality trends for 1954-63 for the 12 selected leading causes are shown below; for each of these causes, variations in mortality by age, color, and sex are presented. The 12 causes are taken up in the order of their appearance in table 1.

Diseases of Heart

Diseases of the heart accounted for 707,830 deaths or nearly 40 percent of all deaths occurring in 1963. In the period 1954-63 the relative increase in mortality from this cause was about 8 percent. Consistently the largest component of heart disease, arteriosclerotic heart disease, including coronary disease accounted for 546,813 deaths in 1963, representing a rate of 290.0 deaths per 100,000 population. This was an increase of about 23 percent since 1954. Except for the minor subcategory, other diseases of heart, the trend was downward for 1954-63 for the other components of heart disease shown in table 2.

Variations in mortality trends by age, color, and sex for arteriosclerotic heart disease, and variations by color and sex for hypertensive heart disease are indicated below. The latter category is the largest component of diseases of the heart shown in table 2 for which the trend was downward.

Arteriosclerotic heart disease.—The increase in arteriosclerotic heart disease during 1954-63 is not attributable to a break in comparability of cause-of-death statistics between 1957 and 1958. The effect of the adoption of the Seventh Revision of the International Lists of Diseases and Causes of Death which came into use beginning with data year 1958, resulted in fewer deaths being coded to this cause than would have been the case under the Sixth Revision. The comparability ratio was 0.98. (For a further description of classification changes involving arteriosclerotic heart disease, see reference 1.)

By age, the greatest relative increases during 1954-63 for mortality from arteriosclerotic heart disease were for persons 65 years and over (table 6). But there were also substantial increases

in the death rate for this group of heart diseases at ages 25-64 years.

There was a more rapid rise in this death rate for women (about 31 percent) than for men (about 19 percent) in the period 1954-63. Even so, the death rate for arteriosclerotic heart disease in 1963 was still about 64 percent higher for men than women (table 6).

There were increases in the death rate for both men and women for arteriosclerotic heart disease at ages 25 years and over, in the period 1954-63, with the greatest increase at ages 65 years and over (fig. 1). The relative increase in this rate at ages 25-44 years was about 20 percent for women as compared with about 17 percent for men. At ages 45 years and over the relative increases in mortality were somewhat higher for men than for women.

The excess of the death rate for arteriosclerotic heart disease for men over the corresponding death rate for women was greatest among young adults and decreased with an advance in age. Thus at ages 25-44 years the 1963 death rate for this cause for men was about 4.6 times the corresponding rate for women, 3.4 times at ages 45-64 years, and 1.5 times as high for those 65 years and over.

The increase in the death rate for this cause was greater for the nonwhite population (37 percent) than for the white population (22 percent). The greatest relative increase was for nonwhite women, amounting to about 41 percent (table 7).

Hypertensive heart disease.—The death rate for hypertensive heart disease decreased about 30 percent in the period 1954-63. The greatest relative decrease was for the white male population (about 37 percent). The death rate for this cause for the nonwhite population was still more than twice that for the white population, and the rates for both white and nonwhite women were still considerably higher than the corresponding rates for white and nonwhite men.

This reduction is not ascribable to changes in the International Lists. Under the Seventh Revision, more deaths were coded to this cause than would have been assigned under the Sixth Revision. The comparability ratio was 1.11. It is not known to what extent the upward trends in mortality from arteriosclerotic heart disease reflect increased recognition of arteriosclerosis in the etiology of

Table 6. Death rates for arteriosclerotic heart disease, including coronary disease, by sex and age: United States, 1954-63

[Deaths are those attributed to category number 420 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
Both sexes	Rates per 100,000 population									
All ages--	290.0	283.9	274.4	275.6	268.6	266.2	265.6	255.5	247.0	235.7
1-4 years----	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-14 years---	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-24 years--	0.6	0.5	0.6	0.6	0.8	0.7	0.9	0.9	1.0	0.9
25-34 years--	7.2	7.1	6.6	6.8	7.2	7.4	7.0	6.9	7.0	6.7
35-44 years--	53.2	51.2	50.5	50.4	49.9	50.3	50.5	49.3	48.7	47.8
45-54 years--	209.7	208.1	205.2	207.7	206.9	205.7	202.7	197.4	196.9	198.3
55-64 years--	583.4	576.4	566.4	580.9	571.9	574.7	580.1	563.7	549.7	540.9
65-74 years--	1,413.2	1,384.9	1,344.7	1,356.1	1,332.3	1,329.6	1,340.1	1,297.9	1,265.8	1,225.2
75-84 years--	3,051.1	3,010.6	2,934.4	2,998.0	2,912.5	2,920.7	2,932.4	2,868.6	2,780.4	2,624.3
85 years and over-----	7,127.2	6,914.7	6,457.8	6,368.6	6,119.6	6,048.4	6,054.4	5,732.9	5,467.7	5,003.4
Male										
All ages--	361.6	354.9	345.5	348.0	339.7	337.9	336.4	325.4	316.2	304.5
1-4 years----	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1	0.2
5-14 years---	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2
15-24 years--	0.9	0.7	0.9	0.8	1.1	1.0	1.1	1.3	1.3	1.1
25-34 years--	11.1	11.4	10.7	10.9	11.7	11.6	11.0	11.0	11.1	10.7
35-44 years--	89.7	87.3	87.0	86.2	85.6	85.9	86.0	84.2	82.5	80.6
45-54 years--	348.9	346.0	341.3	347.1	343.7	339.5	335.0	327.1	324.6	325.6
55-64 years--	995.2	883.1	868.8	885.2	875.5	876.0	881.6	856.0	834.3	818.2
65-74 years--	1,977.5	1,919.8	1,860.2	1,863.2	1,820.5	1,810.1	1,804.5	1,745.2	1,700.6	1,642.8
75-84 years--	3,740.2	3,661.2	3,565.0	3,636.6	3,499.2	3,513.7	3,490.2	3,414.2	3,311.6	3,130.6
85 years and over-----	7,754.0	7,571.8	7,057.4	6,930.6	6,606.5	6,570.6	6,473.6	6,118.3	5,777.0	5,292.8
Female										
All ages--	220.9	215.3	205.6	205.4	199.5	196.5	196.8	187.5	179.6	168.8
1-4 years----	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1
5-14 years---	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
15-24 years--	0.4	0.3	0.3	0.4	0.5	0.5	0.7	0.6	0.7	0.7
25-34 years--	3.4	3.0	2.6	2.8	2.9	3.4	3.2	3.0	3.1	3.0
35-44 years--	18.4	16.9	15.7	16.4	15.9	16.3	16.4	15.8	16.0	16.2
45-54 years--	76.4	75.5	73.7	72.4	74.2	75.5	73.7	70.6	71.7	73.2
55-64 years--	294.0	290.7	283.8	295.6	286.5	290.2	293.9	284.6	275.9	272.2
65-74 years--	943.4	933.3	903.6	914.8	905.4	906.1	927.1	897.4	873.6	846.3
75-84 years--	2,534.1	2,516.1	2,451.1	2,502.5	2,455.1	2,453.9	2,489.1	2,431.5	2,351.4	2,211.4
85 years and over-----	6,736.1	6,499.2	6,064.0	6,009.4	5,801.3	5,700.2	5,768.4	5,464.7	5,248.6	4,796.5

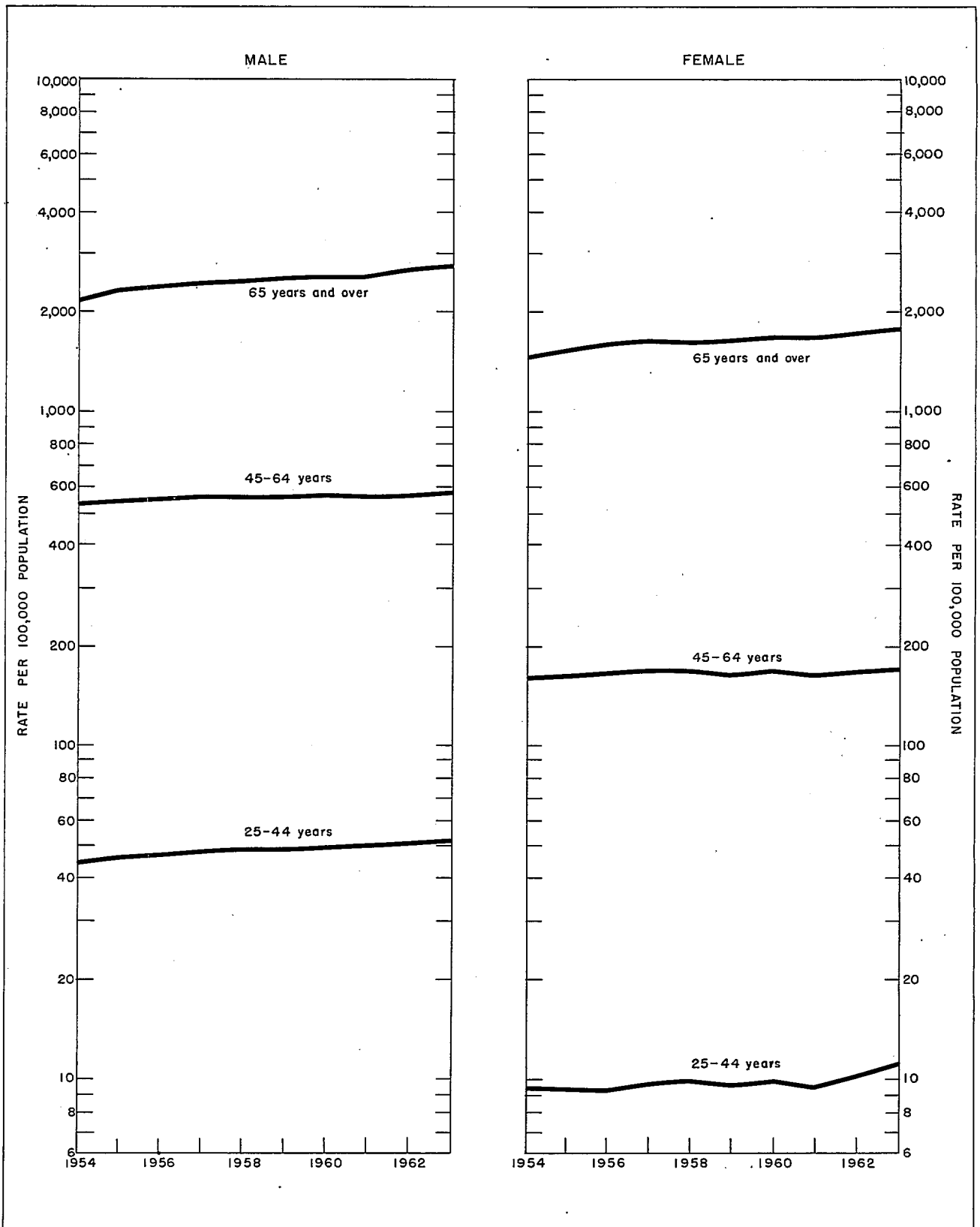


Figure 1. Death rates for arteriosclerotic heart disease, including coronary disease, at ages 25 years and over: 1954-63.

Table 7. Death rates for arteriosclerotic heart disease, including coronary disease, by color and sex: United States, 1954-63

[Deaths are those attributed to category number 420 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	303.3	379.7	229.2	175.3	208.6	143.9
1962 ¹ -----	297.0	372.8	223.4	169.8	202.2	139.2
1961-----	289.2	365.3	215.2	161.2	190.9	133.3
1960-----	290.5	368.0	215.1	160.4	190.7	131.7
1959-----	283.0	358.8	209.2	154.0	185.9	123.8
1958-----	280.2	356.8	205.6	153.3	183.1	125.2
1957-----	279.3	354.7	205.6	154.6	184.6	126.2
1956-----	269.1	344.0	196.0	144.4	171.3	118.8
1955-----	260.4	334.5	188.1	136.2	162.9	110.9
1954-----	248.6	322.0	177.0	128.0	155.7	101.9

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 8. Death rates for hypertensive heart disease, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 440-443 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	28.1	24.1	32.0	64.1	61.1	67.0
1962 ¹ -----	29.3	24.9	33.5	65.1	62.3	67.7
1961-----	30.5	26.2	34.6	66.0	62.3	69.5
1960-----	32.7	28.3	37.1	69.9	67.1	72.4
1959-----	34.4	30.0	38.7	72.2	68.0	76.1
1958-----	38.1	33.2	43.0	79.0	73.2	84.5
1957-----	37.6	33.5	41.7	81.9	77.7	85.8
1956-----	38.6	34.5	42.6	81.4	78.2	84.4
1955-----	40.4	36.4	44.4	82.5	80.9	83.9
1954-----	42.0	38.2	45.8	84.4	81.6	87.1

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 9. Death rates for hypertensive heart disease, by sex and age: United States, 1954-63

[Deaths are those attributed to category numbers 440-443 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
Both sexes										
	Rates per 100,000 population									
All ages--	32.4	33.5	34.6	37.0	38.6	42.7	42.5	43.3	45.0	46.6
1-4 years----	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5-14 years----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-24 years--	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25-34 years--	1.2	1.2	1.2	1.3	1.3	1.3	1.5	1.5	1.4	1.9
35-44 years--	6.0	6.0	6.0	6.4	6.4	6.9	8.0	7.4	8.4	8.9
45-54 years--	19.7	20.6	21.4	22.7	24.2	27.3	29.3	29.6	30.5	34.7
55-64 years--	56.8	57.5	61.6	67.4	69.3	78.9	82.6	83.3	88.1	93.5
65-74 years--	149.5	154.7	159.8	174.9	183.6	205.7	206.8	210.5	222.8	237.1
75-84 years--	373.3	395.3	414.4	450.2	474.9	530.6	512.5	545.9	571.0	578.4
85 years and over-----	927.3	949.6	953.9	984.2	1,046.9	1,130.0	1,086.4	1,114.6	1,128.4	1,115.9
Male										
All ages--	28.4	29.2	30.3	32.7	34.2	37.5	38.3	39.2	41.1	42.7
1-4 years----	-	-	0.0	-	-	-	-	-	-	0.0
5-14 years----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-24 years--	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
25-34 years--	1.4	1.3	1.1	1.3	1.3	1.3	1.4	1.5	1.5	1.7
35-44 years--	6.4	6.2	6.2	6.4	6.3	7.0	7.9	7.2	8.5	8.6
45-54 years--	21.0	22.8	22.0	23.9	25.7	27.7	29.7	30.5	31.6	35.1
55-64 years--	60.3	61.7	65.5	71.2	74.2	80.8	86.4	87.1	93.1	99.0
65-74 years--	151.9	153.4	158.7	174.3	180.4	203.6	206.9	210.2	218.9	231.4
75-84 years--	338.4	350.5	375.2	401.2	425.2	471.3	459.5	498.6	526.2	529.4
85 years and over-----	785.2	790.3	803.7	858.2	901.4	957.8	959.1	966.7	987.4	1,001.3
Female										
All ages--	36.2	37.6	38.7	41.2	42.9	47.6	46.6	47.2	48.7	50.3
1-4 years----	-	-	-	0.0	-	0.0	0.0	0.0	0.0	0.0
5-14 years----	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-24 years--	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.3
25-34 years--	1.0	1.1	1.2	1.2	1.3	1.3	1.5	1.4	1.3	2.0
35-44 years--	5.6	5.8	5.8	6.5	6.5	6.8	8.1	7.7	8.3	9.1
45-54 years--	18.6	18.4	20.7	21.5	22.8	26.9	28.9	28.7	29.3	34.2
55-64 years--	53.5	53.6	58.0	63.9	64.8	77.2	79.0	79.7	83.3	88.2
65-74 years--	147.5	155.8	160.8	175.4	186.4	207.5	206.7	210.8	226.3	242.2
75-84 years--	399.4	429.3	444.6	488.3	513.9	577.3	554.7	583.7	607.2	618.0
85 years and over-----	1,016.0	1,050.4	1,048.2	1,064.8	1,142.0	1,244.8	1,173.3	1,217.4	1,228.3	1,197.9

heart disease, particularly when associated with hypertension. But inasmuch as the decrease recorded for mortality from hypertensive heart disease is little more than one-fourth the increase from arteriosclerotic heart disease, possible exchanges in coding assignments between these two subcategories of diseases of heart, due to changes in medical diagnoses, cannot account for the greater part of the increases in mortality from arteriosclerotic heart disease (tables 6 and 9).

Neither does the pattern for relative decreases in the death rate for hypertensive heart disease by sex and color support the hypothesis of change of assignment for deaths from this group of diseases to arteriosclerotic heart disease. Whereas relative increases for arteriosclerotic heart disease were greater for women than for men and greater for the nonwhite than for the white population, for hypertensive heart disease the relative decreases were greater for men than for women, and greater for the white than for the nonwhite population (tables 7 and 8).

Malignant Neoplasms, Including Neoplasms of Lymphatic and Hematopoietic Tissues

The death rate for malignant neoplasms rose about 4 percent in the period 1954-63 owing to an increase in mortality from this cause for the male population. The relative increase for the white male population was about 7 percent, while that for the nonwhite male population was about 17 percent (table 10). There was little change in the death rate for malignant neoplasms for either the white or the nonwhite female population.

The digestive organs and peritoneum were the site of about one-third of the 290,267 deaths from malignant neoplasms for 1963, while the respiratory system was the site of about one-sixth. But in the decade 1954-63 the mortality curves for these two major groups of malignant neoplasms were in opposite directions. The death rate for malignant neoplasm of respiratory system, not specified as secondary rose about 46 percent. The relative changes in 1954-63 for

Table 10. Death rates for malignant neoplasms, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 140-205 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	153.6	168.5	139.3	125.2	142.5	108.9
1962 ¹ -----	152.4	166.6	138.6	122.4	135.9	109.5
1961-----	153.0	166.9	139.4	122.2	135.9	109.3
1960-----	152.8	166.1	139.8	121.6	134.1	109.8
1959-----	150.9	163.4	138.7	118.8	131.7	106.7
1958-----	150.4	161.6	139.4	118.0	126.4	110.1
1957-----	152.3	163.8	141.0	119.0	129.2	109.3
1956-----	151.4	162.4	140.7	118.3	125.4	111.5
1955-----	150.4	160.0	141.0	114.0	119.9	108.4
1954-----	149.3	158.2	140.7	114.9	121.5	108.7

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 11. Death rates for malignant neoplasm of digestive organs and peritoneum, not specified as secondary, by sex and age: United States, 1954-63

[Deaths are those attributed to category numbers 150-156A, 157-159 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
Both sexes										
Rates per 100,000 population										
All ages-	49.3	49.5	50.1	50.8	50.7	50.9	51.7	52.4	52.3	53.0
1-4 years-----	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2
5-14 years-----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
15-24 years-----	0.6	0.5	0.5	0.5	0.6	0.6	0.5	0.7	0.7	0.7
25-34 years-----	2.4	2.5	2.6	2.6	2.9	2.8	2.9	2.9	2.8	3.0
35-44 years-----	11.3	11.5	11.9	11.6	12.1	12.1	12.3	13.2	12.6	13.6
45-54 years-----	42.9	44.3	44.8	45.9	46.4	46.2	46.2	47.7	47.3	50.0
55-64 years-----	120.5	122.1	122.9	127.1	128.9	129.1	132.3	135.3	133.8	136.8
65-74 years-----	266.9	267.4	269.0	272.4	271.0	277.1	283.9	284.2	291.3	296.0
75-84 years-----	449.9	452.2	469.3	482.6	476.3	481.4	492.0	512.9	510.7	516.3
85 years and over-----	659.6	647.5	645.5	630.7	633.3	633.4	658.8	649.7	654.9	655.7
Male										
All ages-	54.4	54.7	55.7	56.4	56.4	56.4	57.6	58.6	58.4	59.2
1-4 years-----	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
5-14 years-----	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2
15-24 years-----	0.6	0.6	0.6	0.5	0.6	0.7	0.6	0.9	0.8	0.8
25-34 years-----	2.6	2.7	2.9	2.9	3.1	3.1	2.9	2.9	2.9	3.0
35-44 years-----	12.2	12.7	12.5	12.5	12.9	12.9	13.2	14.0	12.7	14.2
45-54 years-----	50.0	50.9	51.7	53.2	53.4	53.1	52.4	54.4	54.2	56.4
55-64 years-----	146.0	148.0	148.1	153.7	155.0	154.0	157.9	161.0	158.9	162.4
65-74 years-----	332.4	327.3	333.4	334.9	332.0	336.1	346.9	343.5	353.4	357.0
75-84 years-----	526.6	530.1	556.5	559.5	555.8	561.9	570.2	599.6	589.0	590.6
85 years and over-----	720.8	717.4	697.1	676.6	691.0	659.6	705.3	700.0	685.8	678.9
Female										
All ages-	44.4	44.6	44.7	45.3	45.2	45.5	46.0	46.5	46.3	47.1
1-4 years-----	0.2	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2
5-14 years-----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-24 years-----	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.5	0.6
25-34 years-----	2.2	2.2	2.3	2.4	2.8	2.4	2.8	2.9	2.7	2.9
35-44 years-----	10.3	10.4	11.3	10.8	11.4	11.3	11.5	12.4	12.4	13.0
45-54 years-----	36.1	37.9	38.0	38.9	39.6	39.5	40.1	41.2	40.6	43.8
55-64 years-----	96.8	98.0	99.4	102.2	104.4	105.6	107.9	110.6	109.7	112.0
65-74 years-----	212.5	216.8	213.9	218.0	217.6	225.0	227.8	231.1	235.2	240.8
75-84 years-----	392.4	393.0	402.6	422.9	414.3	418.1	429.8	443.4	447.5	455.6
85 years and over-----	621.4	603.3	611.5	601.4	595.6	615.9	627.1	614.7	633.0	639.1

heart disease, particularly when associated with hypertension. But inasmuch as the decrease recorded for mortality from hypertensive heart

Malignant Neoplasms, Including Neoplasms of Lymphatic and Hematopoietic Tissues

Table 12. Death rates for malignant neoplasm of digestive organs and peritoneum, not specified as secondary, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 150-156A, 157-159 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	49.7	54.1	45.5	41.4	51.1	32.1
1962 ¹ -----	50.1	54.7	45.7	40.6	49.2	32.5
1961-----	51.2	56.2	46.3	41.9	51.5	32.8
1960-----	51.9	57.0	47.0	41.8	51.4	32.8
1959-----	52.0	57.1	47.0	40.7	50.8	31.1
1958-----	52.1	57.3	47.1	40.8	49.4	32.7
1957-----	53.0	58.5	47.8	40.9	50.7	31.7
1956-----	53.8	59.4	48.4	41.0	51.2	31.5
1955-----	53.7	59.3	48.3	40.2	50.2	30.7
1954-----	54.4	60.0	49.0	41.4	52.1	31.4

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, *Vital Statistics of the United States, 1963*.

mortality from malignant neoplasms for the other sites shown in table 2 were less pronounced. The death rates for malignant neoplasm of buccal cavity and pharynx, breast, urinary organs, leukemia and aleukemia, and lymphosarcoma and other neoplasms of lymphatic and hematopoietic tissues rose during this period. The death rates for malignant neoplasm of digestive organs and peritoneum, not specified as secondary and malignant neoplasm of genital organs declined about 7 percent.

Malignant neoplasm of digestive organs and peritoneum.—The mortality curve for this group of neoplasms continued a downward trend through 1954-63, from 53.0 to 49.3 deaths per 100,000 population (table 11). The highest rate recorded for this cause was 60.5 deaths per 100,000 for 1945. Almost all of the decline in the death rate (about 9 percent) occurred for the white population (table 12). In fact there was an increase of about 2 percent in mortality for this cause for nonwhite women.

The death rate for this group of malignant neoplasms continued through 1963 to be higher for men than for women (fig. 2) at every age

over 35 years. For both sexes the direction of the mortality curve for every age in the span 35-84 years was downward during 1954-63. Only at ages 85 years and over did the rate continue to increase during this period. This rise at these advanced years occurred for both men and women.

Malignant neoplasm of respiratory system.—A total of 46,973 persons died in 1963 from malignant neoplasm of respiratory system, not specified as secondary. About 93 percent of these deaths (43,568) were attributed to "cancer of the lung". The remaining 7 percent were caused by malignant neoplasm of the larynx, mediastinum, and other sites of respiratory system.

More than half of the 370,027 deaths attributed to malignant neoplasm of respiratory system during 1954-63 occurred at ages under 65 years. For this 10-year period the number of fatalities from these neoplasms was about six times greater for men than for women.

The total death rate for this group of causes and the death rates for age groups 25 years and over rose steadily during 1954-63. By age and sex, the greatest percentage increase in this rate was for women at ages 25-44 years, with

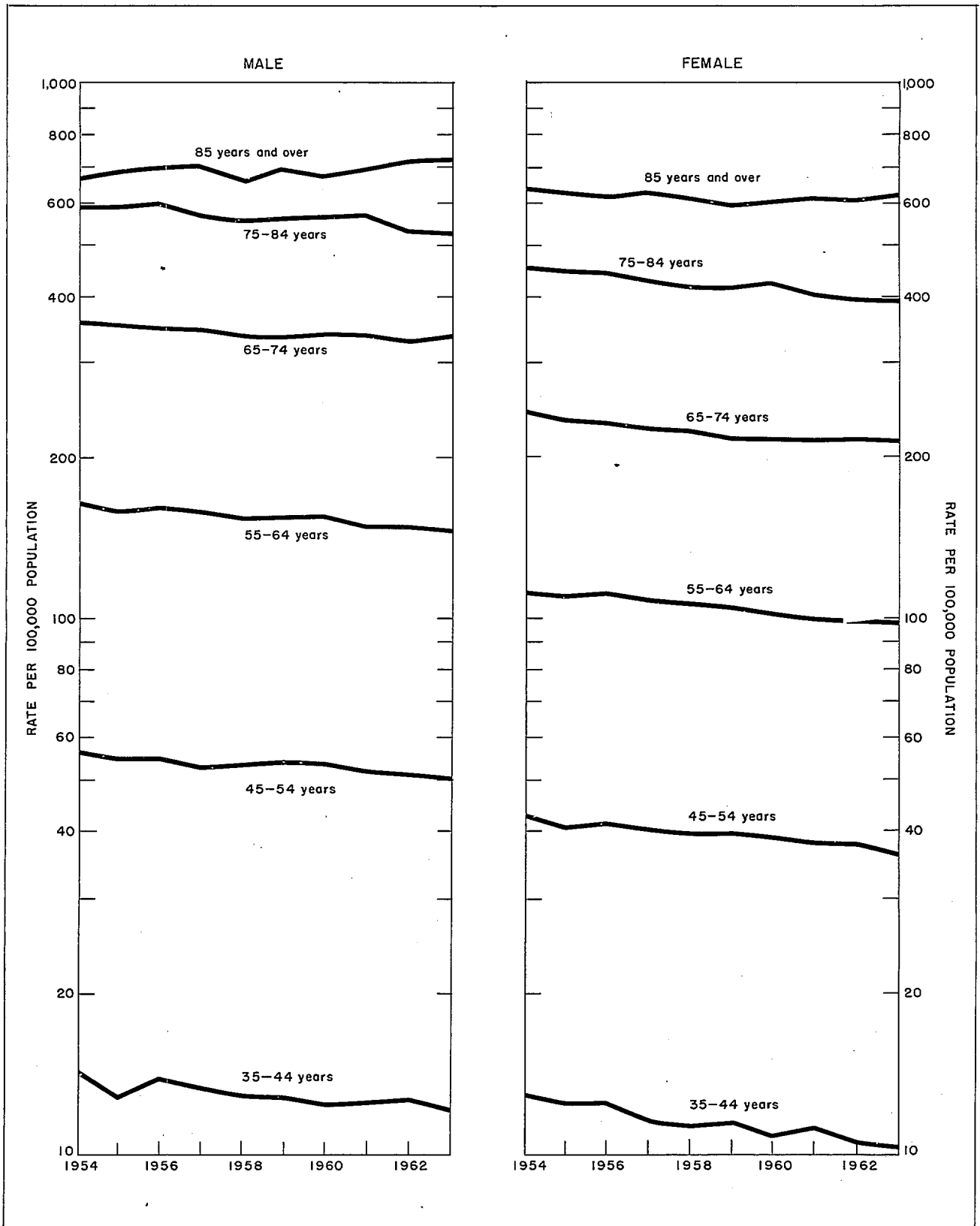


Figure 2. Death rates for malignant neoplasm of digestive organs and peritoneum, by sex, at ages 35 years and over: 1954-63.

Table 13. Death rates for malignant neoplasm of respiratory system, not specified as secondary, by sex and age: United States, 1954-63

[Deaths are those attributed to category numbers 160-164 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
<u>Both sexes</u>	Rates per 100,000 population									
All ages-	24.9	24.0	23.1	22.2	21.2	20.4	19.9	19.2	18.2	17.1
1-4 years-----	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-14 years-----	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
15-24 years-----	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.3	0.3
25-34 years-----	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0
35-44 years-----	8.5	8.0	7.7	7.3	6.9	6.9	6.3	6.3	5.9	5.8
45-54 years-----	35.2	34.4	32.6	32.0	30.4	30.0	29.0	28.3	27.4	26.0
55-64 years-----	88.8	87.3	84.0	81.5	79.5	76.0	75.2	73.1	68.5	64.8
65-74 years-----	135.9	128.6	123.8	117.2	111.4	106.7	103.3	99.3	92.9	87.7
75-84 years-----	116.8	112.3	106.5	102.9	96.4	94.7	93.0	90.5	88.2	81.1
85 years and over-----	91.5	84.3	86.7	79.1	77.4	71.5	72.8	66.5	65.8	63.2
<u>Male</u>										
All ages-	43.0	41.7	39.9	38.5	36.7	35.3	34.4	33.1	31.2	29.3
1-4 years-----	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1
5-14 years-----	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
15-24 years-----	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3	0.4	0.5
25-34 years-----	1.8	1.8	1.8	1.7	1.6	1.7	1.5	1.5	1.4	1.4
35-44 years-----	12.9	12.4	11.9	11.4	10.9	10.6	9.9	10.0	9.3	9.3
45-54 years-----	58.7	58.3	55.3	54.7	51.9	51.6	50.1	49.2	48.0	45.1
55-64 years-----	161.7	159.5	153.8	150.2	146.1	140.0	138.3	132.7	123.9	117.1
65-74 years-----	262.8	247.5	235.8	221.7	208.4	197.6	189.8	180.9	166.5	155.9
75-84 years-----	221.1	208.5	194.3	188.5	171.2	164.5	160.8	154.8	150.1	131.1
85 years and over-----	160.5	145.0	149.5	132.2	137.5	112.8	117.8	109.2	100.6	97.7
<u>Female</u>										
All ages-	7.5	7.0	6.7	6.2	6.1	6.0	5.8	5.7	5.6	5.3
1-4 years-----	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-14 years-----	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0
15-24 years-----	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.1
25-34 years-----	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.5
35-44 years-----	4.4	3.9	3.7	3.4	3.2	3.3	2.9	2.8	2.7	2.4
45-54 years-----	12.6	11.3	10.6	10.1	9.5	8.9	8.4	7.8	7.2	7.3
55-64 years-----	21.1	20.0	18.8	17.0	16.9	15.6	15.2	16.1	15.1	14.2
65-74 years-----	30.2	28.1	28.0	26.2	26.5	26.6	26.5	26.2	26.6	25.7
75-84 years-----	38.5	39.2	39.0	36.5	38.0	39.9	39.1	39.0	38.3	40.4
85 years and over-----	48.5	45.9	46.5	45.2	38.1	44.0	42.1	36.8	41.2	38.6

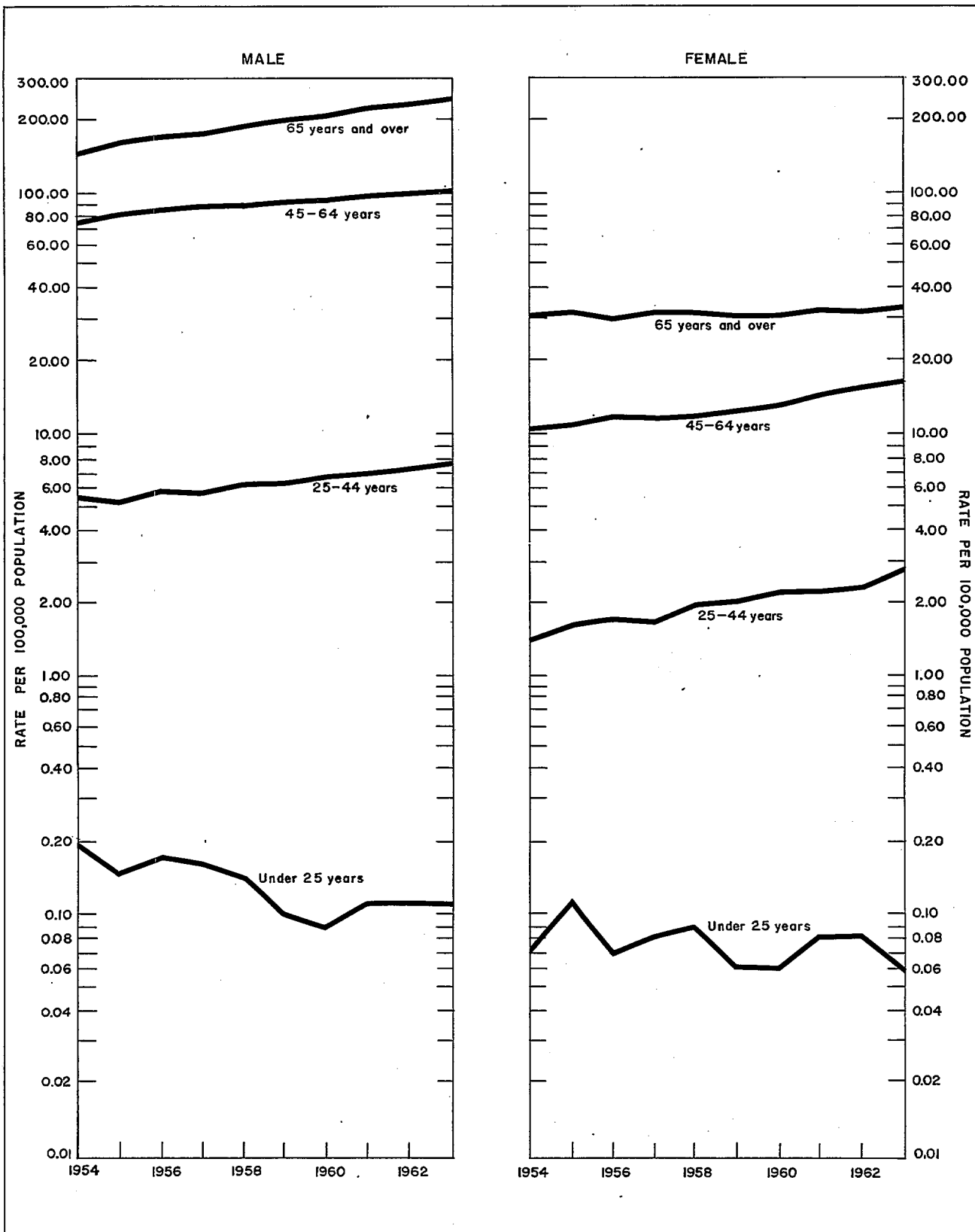


Figure 3. Death rates for malignant neoplasm of respiratory system, not specified as secondary, by sex and age: 1954-63.

Table 14. Death rates for malignant neoplasm of respiratory system, not specified as secondary, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 160-164 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
Rates per 100,000 population						
1963 ¹ -----	25.4	43.7	7.6	19.8	34.5	6.0
1962 ¹ -----	24.6	42.5	7.2	17.9	31.2	5.2
1961-----	23.8	41.1	7.0	17.3	30.4	4.9
1960-----	22.8	39.6	6.4	17.3	30.5	4.9
1959-----	21.9	37.9	6.3	15.7	27.0	5.0
1958-----	21.2	36.5	6.2	14.7	25.4	4.5
1957-----	20.6	35.6	6.0	14.2	24.6	4.3
1956-----	20.0	34.4	5.9	13.3	23.0	4.1
1955-----	18.9	32.5	5.7	12.3	20.6	4.5
1954-----	17.8	30.4	5.6	11.5	20.0	3.6

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

an increase of over 87 percent (table 13 and fig. 3). This amounted to almost twice the corresponding increase for men at these ages (44 percent). At ages 45-64 years the percentage increase in the death rate for these neoplasms for women (58 percent) was also greater than for men (about 35 percent).

At ages under 25 years there were only 71 deaths from malignant neoplasm of the respiratory system for 1963, as compared with 87 deaths for 1954. Owing to the substantial increase in the population at these ages (from 67,837,000 in 1954 to 86,451,000 in 1963) these figures represent a slight decrease in the death rate for this cause.

Mortality from malignant neoplasm of the respiratory system is greater for the white population than for the nonwhite population, but the color differential is becoming smaller (table 14). This is being brought about by the rapidly rising death rate from these neoplasms for the nonwhite population. By color and sex the greatest percentage increase in this rate during 1954-63 was for nonwhite men, with an increase of 72.5 percent. The corresponding percentage increase for white men was 43.8 percent. For nonwhite

women there was also a marked increase—66.7 percent; as compared with 35.7 percent for white women.

Vascular Lesions

The upturn in mortality from vascular lesions affecting the central nervous system that started about 1955 leveled off around 1959 (table 2). The mortality rates for the components of this group of diseases showed an upturn for cerebral embolism and thrombosis, and subarachnoid hemorrhage, and a decline for the less specific categories of cerebral hemorrhage, and other vascular lesions (fig. 4). This increase in the death rate for subarachnoid hemorrhage during the decade and the accompanying fall in the death rate for other and ill-defined vascular lesions may reflect more precise diagnosis. During this same period the death rate for cerebral hemorrhage declined, while the death rate for cerebral embolism and thrombosis increased. Part of the decline in cerebral hemorrhage over 1954-63 may be associated with the use of drugs for lowering blood pressure, which became widely avail-

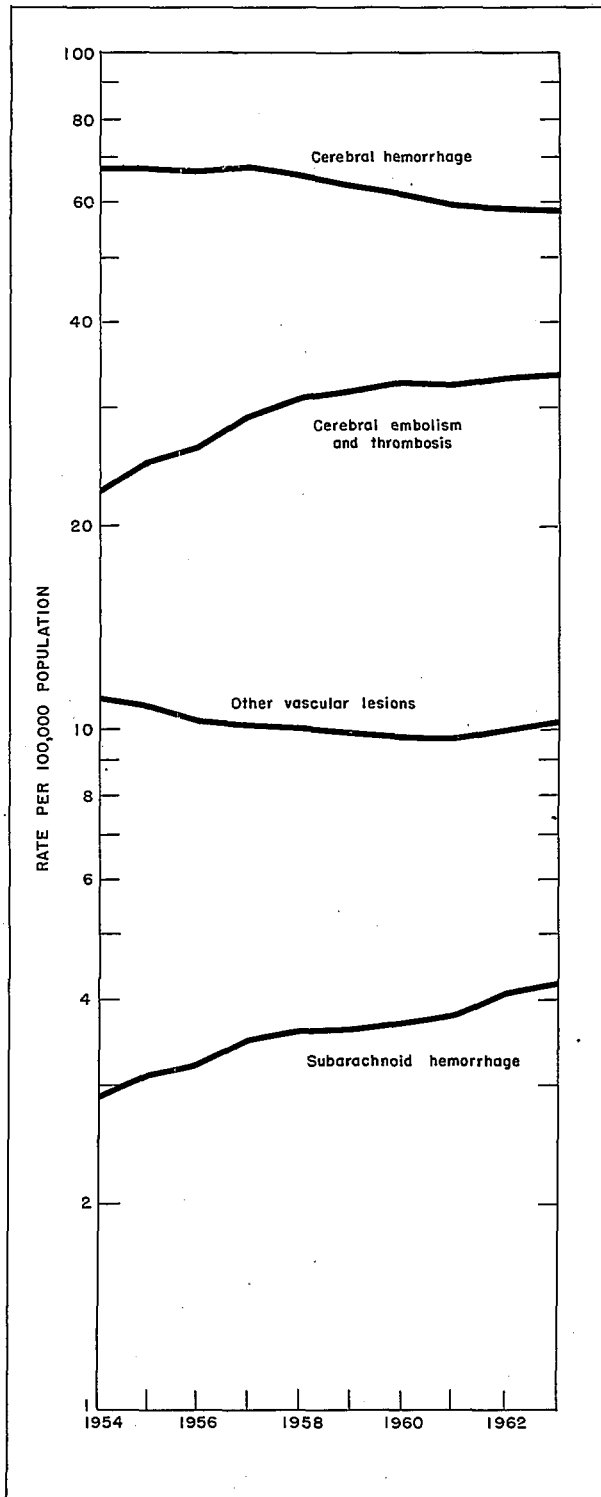


Figure 4. Death rates for components of vascular lesions affecting central nervous system: 1954-63.

Table 15. Death rates for major components of vascular lesions affecting central nervous system, by color and sex: United States, 1954 and 1963

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Cause of death, color, and sex	1963 ¹	1954
	Rates per 100,000 population	
Vascular lesions affecting central nervous system (330-334)-----	106.7	104.1
White male-----	100.5	100.4
White female-----	110.9	103.9
Nonwhite male-----	116.8	117.3
Nonwhite female-----	120.4	122.8
Subarachnoid hemorrhage (330)-----	4.2	2.9
White male-----	3.6	2.6
White female-----	4.3	2.9
Nonwhite male-----	5.5	4.2
Nonwhite female-----	6.7	4.5
Cerebral hemorrhage (331)-----	58.7	67.3
White male-----	54.6	63.7
White female-----	60.2	67.2
Nonwhite male-----	70.1	79.4
Nonwhite female-----	73.8	85.3
Cerebral embolism and thrombosis (332)-----	33.5	22.8
White male-----	32.8	23.7
White female-----	35.4	23.2
Nonwhite male-----	29.8	18.3
Nonwhite female-----	28.5	16.5
Other and ill-defined vascular lesions affecting central nervous system (333-334)-----	10.3	11.1
White male-----	9.5	10.4
White female-----	11.0	10.6
Nonwhite male-----	11.3	15.4
Nonwhite female-----	11.3	16.5

¹ Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 16. Death rates for cerebral hemorrhage, and cerebral embolism and thrombosis, by sex and age: United States, 1954 and 1963

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	Cerebral hemorrhage (331)		Cerebral embolism and thrombosis (332)	
	1963	1954	1963	1954
<u>Male</u>				
Rates per 100,000 population				
All ages-----	55.9	65.3	32.4	23.1
Under 25 years-----	0.4	0.5	0.1	0.1
25-44 years-----	4.6	6.5	1.1	0.8
45-64 years-----	59.2	79.2	23.0	20.8
65 years and over-----	511.3	571.7	328.0	226.2
<u>Female</u>				
All ages-----	61.4	69.2	34.6	22.4
Under 25 years-----	0.3	0.6	0.1	0.1
25-44 years-----	4.6	6.8	0.8	0.7
45-64 years-----	46.2	75.4	15.6	14.0
65 years and over-----	496.2	562.2	306.1	210.8

able during this period since they may reduce the incidence of these hemorrhages.

For these subcategories of cerebrovascular diseases similar trends were observed for both white and nonwhite men and women, with one minor exception (tables 15 and 16). For the residual group other and ill-defined vascular lesions affecting the central nervous system, the rate for white women was about 4 percent higher in 1963 than in 1954; the rates for the total population and for each of the other three color-sex groups for this cause were lower in 1963 than in 1954.

Accidents

Altogether accidents caused 100,669 deaths in 1963—more than in any other year since 1941. From 1941 through 1963 accidents constituted the leading cause of death among preschool and school-age children and young adults 1-24 years

of age; they were the second leading cause among persons 25-44 years of age. Since, about two-fifths of all accident fatalities for 1963 were caused by motor vehicles, deaths involving motor vehicles and other accidental deaths are considered separately.

Motor vehicle accidents.— The mortality curve for motor vehicle accidents had two points of inflection during 1954-63. The high point was for 1956 (23.7 deaths per 100,000 population); then the curve fell almost steadily to 20.8 deaths per 100,000 for 1961 (table 17). Since then its direction has again been upward, reaching 23.1 deaths per 100,000 for 1963. This latter rate represents 43,564 deaths.

On the other hand, the rate for fatalities to pedestrians declined from 4.6 deaths per 100,000 for 1954 to 3.9 per 100,000 for 1961, and remained at about this same level through 1963. The 7,535 pedestrian deaths in 1963 represent a rate of 4.0 deaths per 100,000 population. The proportion of total motor vehicle fatalities that

Table 17. Death rates for all motor vehicle accidents and for motor vehicle traffic accident to pedestrian, by color and sex: United States, 1954-63

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	Total			White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
<u>Motor vehicle accidents</u> (E810-E835)									
Rates per 100,000 population									
1963 ¹ -----	23.1	34.2	12.4	23.4	34.4	12.7	23.4	36.7	11.0
1962 ¹ -----	22.0	32.4	11.8	22.2	32.6	12.1	22.4	34.7	10.8
1961-----	20.8	31.1	10.9	20.8	30.9	11.0	21.2	32.8	10.3
1960-----	21.3	31.8	11.0	21.2	31.5	11.2	21.9	34.4	10.1
1959-----	21.5	32.3	11.0	21.4	31.9	11.1	22.5	35.4	10.2
1958-----	21.3	32.2	10.8	21.2	31.8	10.9	22.2	35.4	9.7
1957-----	22.7	34.4	11.3	22.5	33.9	11.3	24.7	38.4	11.8
1956-----	23.7	36.1	11.6	23.3	35.3	11.5	26.8	42.6	11.9
1955-----	23.4	35.5	11.6	23.1	35.0	11.5	25.8	40.2	12.1
1954-----	22.1	33.7	10.8	21.8	33.1	10.8	24.5	38.4	11.4
<u>Motor vehicle traffic</u> <u>accident to pedestrian</u> (E812)									
1963 ¹ -----	4.0	5.8	2.3	3.6	5.2	2.1	6.8	10.3	3.5
1962 ¹ -----	4.0	5.8	2.2	3.6	5.3	2.0	6.6	10.0	3.4
1961-----	3.9	5.7	2.1	3.6	5.2	2.0	6.1	9.3	3.2
1960-----	4.1	5.9	2.3	3.7	5.4	2.1	6.5	9.5	3.7
1959-----	4.1	6.1	2.2	3.8	5.6	2.1	6.6	10.0	3.4
1958-----	4.1	6.0	2.2	3.8	5.6	2.1	6.1	9.2	3.0
1957-----	4.3	6.4	2.2	4.0	6.0	2.0	6.6	9.7	3.6
1956-----	4.4	6.7	2.2	4.1	6.3	2.1	6.8	10.5	3.2
1955-----	4.6	6.9	2.4	4.4	6.5	2.3	6.8	10.1	3.6
1954-----	4.6	6.8	2.3	4.3	6.5	2.2	6.4	9.7	3.2

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

were deaths to pedestrians decreased from about 21 percent for 1954 to 17 percent for 1963.

The mortality curve for motor vehicle accidents for the broad age groups shown in figure 5 had high and low points in 1956 and 1961 respectively that correspond, with minor exception, to the high and low points for the total mortality curve for these accidents. For each of these five broad age groups there has been a decided upturn since 1961 in the mortality rate for motor vehicle accidents.

The age group 15-24 years maintained the highest death rate for motor vehicle accidents during the decade 1954-63, but the death rate for this cause at ages 65 years and over was almost as high. For these older persons, however, a great part of these deaths were fatalities to pedestrians. For the age groups 45-64 and 65 years and over the curves for fatalities to pedestrians were generally downward. Despite this decrease in the rate at the older ages, fatalities to pedestrians in 1963 still constituted

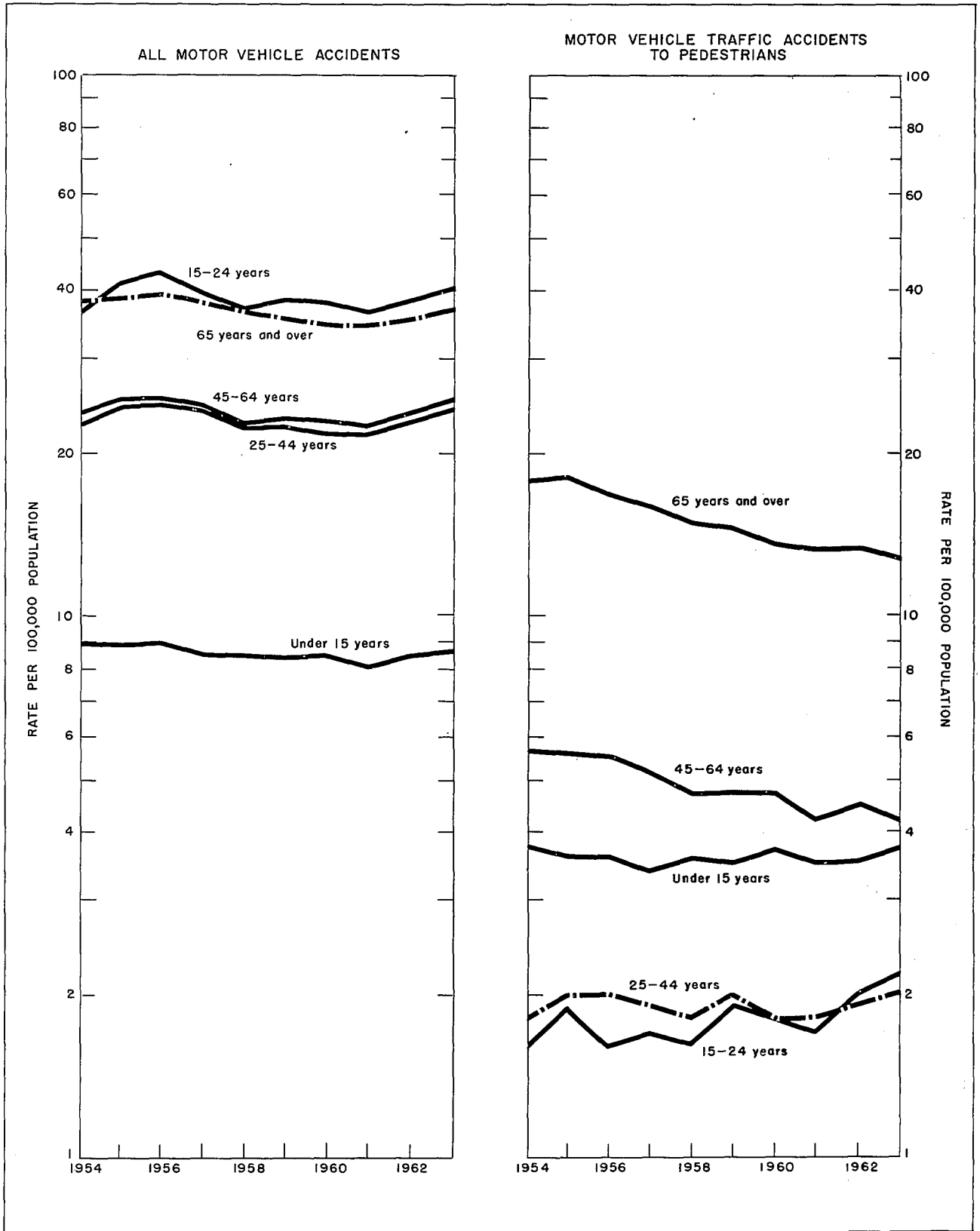


Figure 5. Death rates for all motor vehicle accidents and for motor vehicle traffic accident to pedestrian, by age: 1954-63.

Table 18. Death rates for motor vehicle accidents, by age, sex, and color¹: United States, 1963

[Deaths are those attributed to category numbers E810-E835 of the Seventh Revision of the International Lists, 1955]

Age	Both sexes	Male			Female		
		Total	White	Non-white	Total	White	Non-white
Rates per 100,000 population							
All ages-----	23.1	34.2	34.4	36.7	12.4	12.7	11.0
Under 1 year-----	7.9	7.5	8.1	5.6	8.2	8.9	5.4
1-4 years-----	10.0	11.5	11.2	14.7	8.5	8.7	8.6
5-14 years-----	8.1	10.6	10.4	12.2	5.4	5.4	6.0
15-24 years-----	40.1	63.4	65.6	52.9	17.2	18.1	11.6
25-34 years-----	27.0	43.8	42.7	57.9	10.8	10.6	13.9
35-44 years-----	21.9	33.7	32.4	49.6	10.7	10.9	11.3
45-54 years-----	23.6	34.7	34.0	48.1	13.0	13.0	15.3
55-64 years-----	27.0	38.7	37.9	51.3	16.2	16.4	16.1
65-74 years-----	33.4	47.9	47.3	58.3	21.3	21.8	16.7
75-84 years-----	44.5	69.9	72.2	50.0	25.4	26.2	16.1
85 years and over-----	39.8	71.9	72.7	63.6	19.8	20.8	11.1

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

17 and 34 percent of the total motor vehicle fatality rates for the age groups 45-64 and 65 years and over, respectively. At ages under 15 years there was little change in the proportion of those deaths that resulted in fatalities to pedestrians. Both in 1954 and in 1963 about 43 percent of the motor vehicle fatalities among children were deaths to pedestrians.

Motor vehicle fatalities occur more frequently among the male than among the female population (table 17). About 74 percent of the 387,829 fatalities in 1954-63 were deaths of males. During this decade, the mortality differential by sex grew smaller because of a greater relative increase in the death rate among the female population. In 1954 the death rate for motor vehicle accidents for males was 3.1 times the rate for females; by 1963 this figure was 2.8.

The relative reduction during 1954-63 in the death rate for pedestrians was less for the female than for the male population. At ages 45-64 years

and 65 years and over this relative reduction for the female population (about 15 percent) was only about half as much as the corresponding reduction for the male population (close to 30 percent).

The color differential for motor vehicle accident fatalities disappeared during the decade. For 1963 the death rate for both the white and nonwhite populations was 23.4 deaths per 100,000 population; in 1954 the rates were 21.8 and 24.5, respectively. For motor vehicle accidents other than those to pedestrians, the death rate for the white population increased substantially over 1954-63, while the corresponding death rate for the nonwhite population decreased. During the same period the death rate for accidents to pedestrians increased for the nonwhite population and decreased for the white population.

For both males and females the high (1956) and low (1961) points of the mortality curve for motor vehicle accidents reflect correspondingly high and low points for almost all of the age

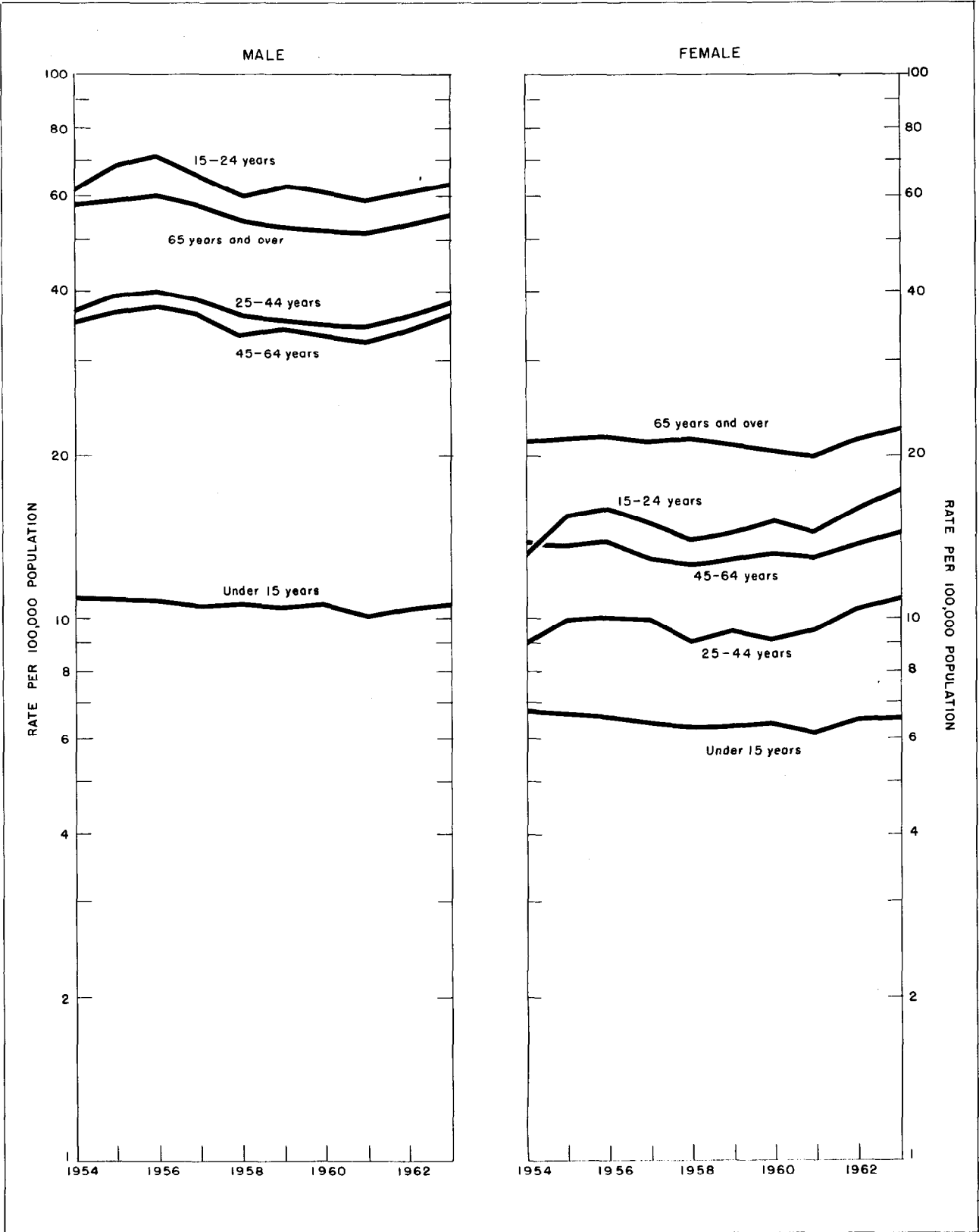


Figure 6. Death rates for motor vehicle accidents, by sex and age: 1954-63.

groups shown in figure 6. In general, the rank of these death rates by sex and age did not change during 1954-63. The highest level of mortality for motor vehicle accidents other than to pedestrians was for boys and young men at ages 15-24 years (tables 18 and 19).

During 1954-63 one of the greatest relative increases in the death rate for motor vehicle accidents, by age, sex, and color, was for white girls and women at ages 15-24 years (table 20). At ages 15-24 years the relative increase in these fatalities for white girls and women was substantially greater than for either the white male or the nonwhite population at these ages. On the other hand, the greatest relative increase in this decade in these fatalities among children 1-4 and 5-14 years of age was for nonwhite boys. There was also a substantial increase in the rate for these accidents among nonwhite girls 5-14 years of age. It is at these younger ages, as well as at ages 65 years and over, that a considerable

part of these accidental fatalities occur to pedestrians (fig. 7).

The rise in the death rate for motor vehicle accidents since 1961 reflects increases in the rates for each of the four color-sex segments of the population, with the greatest relative increase for the white female population (table 21).

Other accidental deaths.—The five major causes of other accidental fatalities in 1963 were accidental falls, accident caused by fire and explosion of combustible material, accidental drowning, accident caused by firearm, and accidental poisoning by solid and liquid substances (table 22). The first four of these causes were also the first four in 1954. Accidental poisoning by solid and liquid substances rose from 10th place for 1954 to 5th place for 1963.

Other important changes took place in the period 1954-63 in the rank of accidental deaths caused by external injury (table 22). Blow from falling or projected object or missile rose from

Table 19. Death rates for motor vehicle traffic accident to pedestrian, by age, sex, and color¹: United States, 1963

[Deaths are those attributed to category number E812 of the Seventh Revision of the International Lists, 1955]

Age	Both sexes	Male			Female		
		Total	White	Non-White	Total	White	Non-White
Rates per 100,000 population							
All ages-----	4.0	5.8	5.2	10.3	2.3	2.1	3.5
Under 1 year-----	0.3	0.4	0.4	0.9	0.1	0.1	-
1-4 years-----	4.5	5.8	5.1	9.6	3.2	3.1	4.5
5-14 years-----	3.6	4.8	4.3	7.7	2.4	2.2	4.0
15-24 years-----	2.2	3.4	3.0	6.0	1.0	0.9	1.2
25-34 years-----	1.8	3.0	2.2	9.0	0.7	0.6	1.7
35-44 years-----	2.2	3.5	2.8	9.9	1.0	0.9	2.1
45-54 years-----	3.2	4.8	3.9	12.9	1.7	1.4	4.3
55-64 years-----	5.6	8.1	7.2	16.8	3.2	2.8	7.0
65-74 years-----	9.7	14.5	13.2	27.5	5.8	5.6	8.4
75-84 years-----	17.9	29.5	29.0	31.6	9.2	9.0	8.5
85 years and over-----	19.0	39.2	37.0	54.5	6.3	6.7	4.4

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

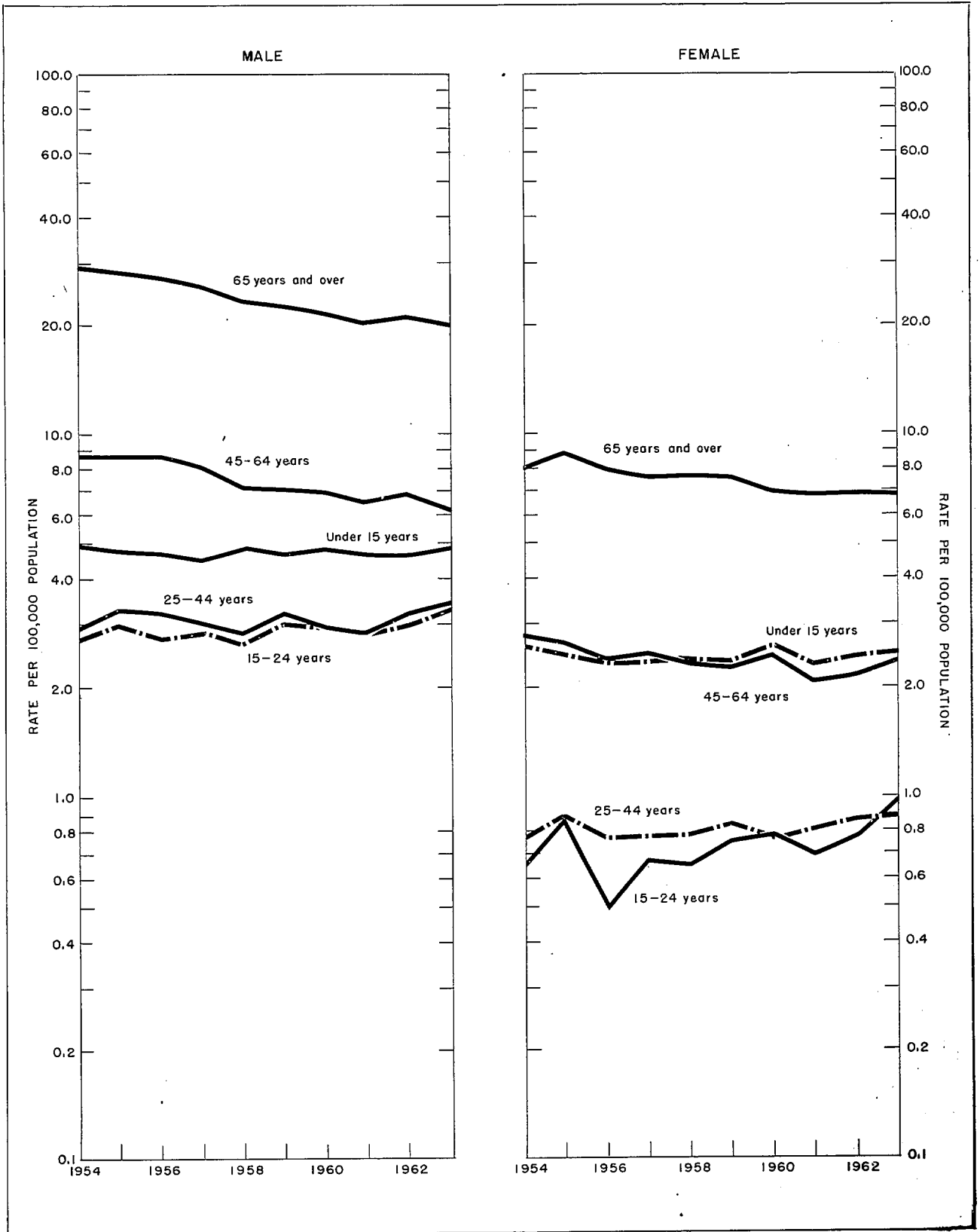


Figure 7. Death rates for motor vehicle traffic accident to pedestrian, by sex and age: 1954-63.

Table 20. Percentage change, 1954-63¹ and 1961-63,¹ in the death rate for motor vehicle accidents, by age, sex, and color: United States

Age	1954-63				1961-63			
	Male		Female		Male		Female	
	White	Non-white	White	Non-white	White	Non-white	White	Non-white
	Percentage change							
All ages-	+3.92	-4.18	+17.59	-3.51	+11.68	+11.89	+15.45	+6.79
Under 1 year-	-5.82	-57.90	+32.83	-38.64	+12.50	-6.67	+14.10	+12.50
1-4 years----	-9.68	+11.36	-4.40	-23.22	+2.75	+19.51	+7.40	+6.17
5-14 years---	-0.95	+17.30	-1.82	+11.11	+6.12	+7.96	+10.20	+1.69
15-24 years--	+3.96	+5.16	+36.09	-2.53	+8.07	+13.76	+23.12	-6.46
25-34 years--	+5.95	-2.04	+26.19	+15.83	+11.48	+13.97	+13.97	+16.80
35-44 years--	+9.45	+8.06	+25.28	-14.40	+13.28	+15.88	+18.47	-2.59
45-54 years--	+11.11	-13.02	+16.07	+10.07	+14.09	+13.71	+14.03	+34.21
55-64 years--	+3.26	-6.39	+13.10	-4.17	+13.47	+6.65	+10.81	+10.27
65-74 years--	-6.16	+16.60	+9.54	+20.14	+5.34	+9.58	+15.34	+15.97
75-84 years--	-8.73	-17.36	+3.96	-18.69	+11.93	-4.04	+10.08	-19.91
85 years and over-----	+5.20	-33.41	-12.98	-40.96	+7.22	-1.40	+18.85	+362.50

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

11th to 8th place; accidental poisoning by gases and vapors from 12th to 9th place, and complications due to nontherapeutic medical and surgical procedures from 15th to 11th place. Water transport accidents dropped from 7th to 10th place; aircraft accidents from 8th to 12th place; railway accidents from 9th to 13th place; and excessive heat and insolation from 13th to 17th place.

The upturn since 1961 for the category all other accidents (table 21) resulted primarily from increased death rates for accident caused by fire and explosion of combustible material and accidental poisoning by solid and liquid substances.

There were 6,083 deaths from fire and explosion in 1954 (representing a rate of 3.8 deaths per 100,000 population) and 8,172 from this cause for 1963 (4.3 deaths per 100,000). About 3 percent of such deaths in 1963 (271 deaths) occurred among infants, and about 13 percent (1,069 deaths) among children 1-4 years of age. The risk of death by

fire and explosion was about five times greater among nonwhite children under 5 years of age (18.7 deaths per 100,000 population) than among white children at these ages (3.9 deaths). Most of these deaths occurred in the home.

In 1963 there were 2,061 deaths from accidental poisoning by solid and liquid substances. Among 465 deaths attributed to barbituric acid and derivatives, 243 occurred at ages 35-54 years. A total of 224 deaths were from accidental poisoning by alcohol. The majority (140 deaths) of the 204 fatalities from accidental poisoning by aspirin and salicylates occurred among children under 5 years of age.

The death rate for accidental poisoning by solid and liquid substances was greater for the nonwhite than for the white population, with the highest rate for nonwhite males (3.1 deaths per 100,000), and the lowest rate for white females (0.8 deaths per 100,000 population).

Table 21. Death rates for accidents, by color and sex: United States, 1954-63

[Numbers after causes of death are category numbers of the Seventh Revision of the International Lists, 1955]

Year	Total			White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female	Both sexes	Male	Female
<u>Accidents</u> (E800-E962)									
Rates per 100,000 population									
1963 ¹ -----	53.4	74.1	33.4	52.3	72.2	33.0	65.5	94.6	38.1
1962 ¹ -----	52.3	72.3	32.9	51.2	70.5	32.4	64.3	92.3	37.9
1961-----	50.4	70.3	31.1	49.0	68.0	30.5	61.4	88.2	36.0
1960-----	52.3	72.8	32.4	50.5	70.0	31.5	66.1	95.0	38.7
1959-----	52.2	73.2	31.8	50.5	70.5	31.0	65.3	94.5	37.6
1958-----	52.3	73.2	32.0	50.5	70.5	31.1	66.2	94.7	39.2
1957-----	55.9	78.2	34.3	54.2	75.4	33.5	70.3	101.0	41.3
1956-----	56.7	79.8	34.2	54.9	76.9	33.5	70.7	103.6	39.5
1955-----	56.9	79.8	34.5	55.3	77.3	33.8	70.0	100.9	40.7
1954-----	55.9	78.5	33.9	54.3	75.9	33.2	69.0	99.7	40.1
<u>Motor vehicle accidents</u> (E810-E835)									
1963 ¹ -----	23.1	34.2	12.4	23.4	34.4	12.7	23.4	36.7	11.0
1962 ¹ -----	22.0	32.4	11.8	22.2	32.6	12.1	22.4	34.7	10.8
1961-----	20.8	31.1	10.9	20.8	30.9	11.0	21.2	32.8	10.3
1960-----	21.3	31.8	11.0	21.2	31.5	11.2	21.9	34.4	10.1
1959-----	21.5	32.3	11.0	21.4	31.9	11.1	22.5	35.4	10.2
1958-----	21.3	32.2	10.8	21.2	31.8	10.9	22.2	35.4	9.7
1957-----	22.7	34.4	11.3	22.5	33.9	11.3	24.7	38.4	11.8
1956-----	23.7	36.1	11.6	23.3	35.3	11.6	26.8	42.6	11.9
1955-----	23.4	35.5	11.6	23.1	35.0	11.5	25.7	40.1	12.1
1954-----	22.1	33.6	10.8	21.8	33.1	10.8	24.5	38.3	11.4
<u>Other accidents</u> (E800-E802 E840-E962)									
1963 ¹ -----	30.3	39.9	21.0	28.9	37.8	20.3	42.0	57.9	27.1
1962 ¹ -----	30.3	39.9	21.1	29.0	37.9	20.3	41.9	57.6	27.1
1961-----	29.6	39.2	20.2	28.2	37.2	19.5	40.1	55.4	25.8
1960-----	31.0	41.1	21.3	29.4	38.6	20.4	44.1	60.6	28.6
1959-----	30.7	40.9	20.8	29.2	38.7	19.9	42.8	59.1	27.4
1958-----	30.9	41.0	21.2	29.3	38.7	20.1	44.0	59.3	29.5
1957-----	33.2	43.7	23.0	31.7	41.5	22.2	45.6	62.6	29.5
1956-----	33.0	43.6	22.6	31.6	41.6	21.9	43.9	61.1	27.6
1955-----	33.5	44.3	23.0	32.2	42.3	22.3	44.2	60.8	28.6
1954-----	33.8	44.8	23.1	32.5	42.8	22.4	44.6	61.4	28.7

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 22. Deaths and death rates for accidents, by external cause of injury: United States, 1954 and 1963

[Rates per 100,000 population. Numbers after causes of death are category numbers E800-E962 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954 and the Seventh Revision for 1963]

Cause of death	1963		1954	
	Number	Rate	Number	Rate
All accidents-----E800-E962	100,669	53.4	90,032	55.9
Motor vehicle accidents-----E810-E835	43,564	23.1	35,586	22.1
Accidental falls-----E900-E904	19,335	10.3	19,771	12.3
Accident caused by fire and explosion of combustible material-----E916	8,172	4.3	6,083	3.8
Accidental drowning-----E929	5,103	2.7	5,049	3.1
Accident caused by firearm-----E919	2,263	1.2	2,281	1.4
Accidental poisoning by solid and liquid substances-----E870-E888	2,061	1.0	1,339	0.8
Accident caused by machinery-----E912	1,965	1.0	2,009	1.2
Inhalation and ingestion of food or other object causing obstruction or suffocation-----E921,E922	1,949	1.0	1,627	1.0
Blow from falling or projected object or missile-----E910	1,533	0.8	1,255	0.8
Accidental poisoning by gases and vapors-----E890-E895	1,489	0.8	1,223	0.8
Water transport accidents-----E850-E858	1,416	0.8	1,498	0.9
Complications due to nontherapeutic medical and surgical procedures, therapeutic misadventure, and late complications of therapeutic procedures-----E940-E959	1,324	0.7	768	0.5
Aircraft accidents-----E860-E866	1,294	0.7	1,450	0.9
Railway accidents-----E800-E802	887	0.5	1,347	0.8
Accident caused by electric current-----E914	875	0.5	965	0.6
Accident caused by hot substance, corrosive liquid, steam, and radiation-----E917,E918	375	0.2	742	0.5
Other road vehicle accidents-----E840-E845	296	0.2	366	0.2
Excessive heat and insolation-----E931	196	0.1	978	0.6
All other accidents-----Residual	6,569	3.5	5,695	3.5

There was little improvement in the number of fatalities caused by firearms during this period, with 2,281 accidental deaths from firearms in 1954 (1.4 deaths per 100,000 population) and 2,263 such deaths in 1963 (1.2 deaths per 100,000 population). Over half of these firearm deaths in 1963 (1,158) occurred at ages under 25 years. By age the largest number occurred at 15-19 years (402 deaths).

Influenza and Pneumonia

In the decade 1954-63 there were 558,817 deaths attributed to this fifth leading cause of death--influenza and pneumonia, except pneu-

monia of newborn. Only about 8 percent of these deaths were assigned to influenza. During the nonepidemic years of 1954-63 the annual number of deaths attributed to influenza was under 3,000, while during the severe epidemic years this number was more than doubled (7,463 in 1957, 7,872 in 1960, and 7,083 deaths in 1963).

Beginning in 1937, with the introduction of sulfa drugs and antibiotics, mortality from pneumonia declined rapidly, reaching a low of 23.8 deaths per 100,000 population in 1954. But the death rates for pneumonia for the nonepidemic years of the decade 1954-63 suggest that the downward trend has been reversed. The rates for the 5 nonepidemic years 1954-56, 1959, and

Table 23. Death rates for pneumonia, except pneumonia of newborn, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 490-493 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	31.4	35.9	27.1	52.8	62.8	43.3
1962 ¹ -----	28.4	32.4	24.6	46.7	55.1	38.8
1961-----	27.0	30.9	23.2	44.2	53.2	35.7
1960-----	30.1	35.1	25.3	54.0	65.7	43.0
1959-----	27.1	31.2	23.1	49.2	58.5	40.5
1958-----	28.0	32.6	23.5	51.5	62.0	41.6
1957-----	28.6	33.6	23.8	54.2	63.2	45.7
1956-----	24.5	28.2	20.8	45.6	53.2	38.4
1955-----	23.1	26.4	19.9	44.5	53.3	36.1
1954-----	21.4	24.8	18.1	43.6	51.7	35.9

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

1961 were as follows: 23.8, 25.4, 26.8, 29.6, and 29.0 deaths per 100,000 population.

There is no reason to believe that any part of this increase is ascribable to changes introduced with the Seventh Revision of the International Lists which was put into use beginning with 1958. In fact assignment of deaths according to the Sixth and Seventh Revisions of the International Lists for the above described 10-percent sample of deaths in 1958 showed that about 6 percent fewer deaths were assigned to this cause as a result of the procedures adopted with the Seventh Revision, as compared with the number assigned under the Sixth Revision.

The greatest number of deaths from pneumonia are attributed to bronchopneumonia (19.2 deaths per 100,000 population), which constituted about 57 percent of the 63,678 pneumonia deaths in 1963. The death rates for the remaining groups of pneumonias were as follows: 5.3 deaths per 100,000 for lobar pneumonia; 3.1, for primary atypical pneumonia; and 6.2 for pneumonia, other and unspecified.

There were still large color-sex differentials in mortality from pneumonia (tables 23 and 24). In

1963 the mortality rate for nonwhite males was 62.8 deaths per 100,000 population; nonwhite females, 43.3; white males, 35.9; and white females, 27.1. But during the decade the color and sex differentials lessened. In the period 1954-63 the relative increase in the pneumonia death rate for white persons was 47 percent, as compared with only 21 percent for nonwhite persons. Using the nonepidemic years 1954 and 1961, the lessening of the mortality differential by color is even more pronounced: a 26 percent increase in the pneumonia death rate for white persons as compared with only a 1 percent increase for nonwhite persons.

The jagged mortality curves for most age groups shown in figures 8 and 9, with pronounced peaks for 1957, 1960, and 1963, reflect the serious outbreaks of influenza during the decade. They are evident for each of the four color-sex groups, at ages 45 years and over. For the younger age groups there is less peaking of the curves in epidemic years, except for the steep rise in pneumonia mortality for school children and young adults for 1957. This is associated with the first outbreak of Asian influenza in the

Table 24. Death rates for pneumonia, except pneumonia of newborn, by sex and age: United States, 1954-63

[Deaths are those attributed to category numbers 490-493 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
Rates per 100,000 population										
<u>Both sexes</u>										
All ages--	33.8	30.4	29.0	32.9	29.6	30.6	31.4	26.8	25.4	23.8
1-4 years----	13.4	13.0	12.6	15.0	14.5	14.9	16.4	14.6	14.1	15.1
5-14 years---	2.1	2.1	1.9	2.3	2.2	2.1	2.9	2.2	2.4	2.2
15-24 years--	2.2	2.3	2.1	2.4	2.5	2.5	4.0	2.2	2.5	2.2
25-34 years--	3.8	3.3	3.1	4.1	3.6	3.9	4.5	2.9	2.9	3.0
35-44 years--	7.7	7.2	6.9	8.2	7.2	7.2	8.6	6.7	6.4	6.3
45-54 years--	16.6	14.3	13.5	17.1	14.7	15.9	17.7	13.4	13.3	13.3
55-64 years--	36.8	31.4	29.7	37.8	31.7	35.7	38.1	29.1	27.7	26.0
65-74 years--	103.6	88.9	83.3	97.5	82.3	88.2	92.7	76.6	71.5	65.8
75-84 years--	309.6	278.6	262.4	297.0	266.4	268.8	266.3	243.5	233.0	204.3
85 years and over-----	1,114.7	978.4	910.8	966.5	868.6	893.8	863.1	796.5	732.2	661.2
<u>Male</u>										
All ages--	38.8	34.9	33.5	38.5	34.2	35.8	36.8	30.9	29.3	27.6
1-4 years----	14.0	13.7	13.3	15.9	15.5	15.1	17.0	15.1	15.0	15.8
5-14 years---	2.1	2.1	2.0	2.5	2.2	2.2	3.0	2.1	2.4	2.4
15-24 years--	2.4	2.6	2.5	2.8	2.8	2.9	3.9	2.6	2.8	2.4
25-34 years--	3.8	3.6	3.5	4.4	4.1	4.4	4.6	3.3	3.3	3.6
35-44 years--	9.5	8.6	8.5	10.4	8.8	9.4	10.7	8.1	8.2	7.9
45-54 years--	22.7	19.3	18.4	23.7	19.9	21.8	24.6	18.2	18.2	18.5
55-64 years--	51.0	43.5	41.5	53.6	44.7	50.8	54.3	41.1	38.7	36.6
65-74 years--	146.7	123.2	117.1	136.3	113.3	122.0	126.6	102.5	93.4	86.9
75-84 years--	390.1	350.1	329.2	372.3	330.2	333.8	325.3	295.9	279.5	241.6
85 years and over-----	1,274.8	1,102.9	1,028.7	1,096.1	974.6	1,008.7	967.4	870.3	780.5	719.7
<u>Female</u>										
All ages--	28.9	26.2	24.6	27.4	25.0	25.5	26.2	22.7	21.7	20.0
1-4 years----	12.9	12.2	11.8	14.2	13.5	14.8	15.8	14.1	13.2	14.4
5-14 years---	2.1	2.1	1.9	2.2	2.2	2.0	2.7	2.3	2.3	2.1
15-24 years--	2.0	2.0	1.7	2.1	2.2	2.2	4.1	1.9	2.1	2.0
25-34 years--	3.8	3.0	2.8	3.9	3.2	3.5	4.4	2.5	2.5	2.5
35-44 years--	6.0	5.9	5.3	6.1	5.7	5.2	6.5	5.3	4.7	4.6
45-54 years--	10.7	9.6	8.7	10.7	9.7	10.2	11.1	8.6	8.4	8.3
55-64 years--	23.7	20.2	18.7	22.9	19.4	21.4	22.7	17.6	17.2	15.7
65-74 years--	67.8	59.9	54.4	63.8	55.2	58.4	62.5	53.5	51.7	46.6
75-84 years--	249.3	224.3	211.1	238.6	216.8	217.7	219.4	201.5	195.4	173.9
85 years and over-----	1,014.7	899.7	834.0	883.6	799.3	817.2	791.9	745.1	698.0	619.3

United States during the fall of 1957. For each of the four color-sex groups, the very young (under 5 years) and the older segment of the population (65 years and over) continued throughout the decade to have the highest death rates for pneumonia. For 1963, the pneumonia death

rate for nonwhite male infants was about three times higher than for white male infants; and the pneumonia death rate for nonwhite female infants was about four times higher than the corresponding rate for white female infants.

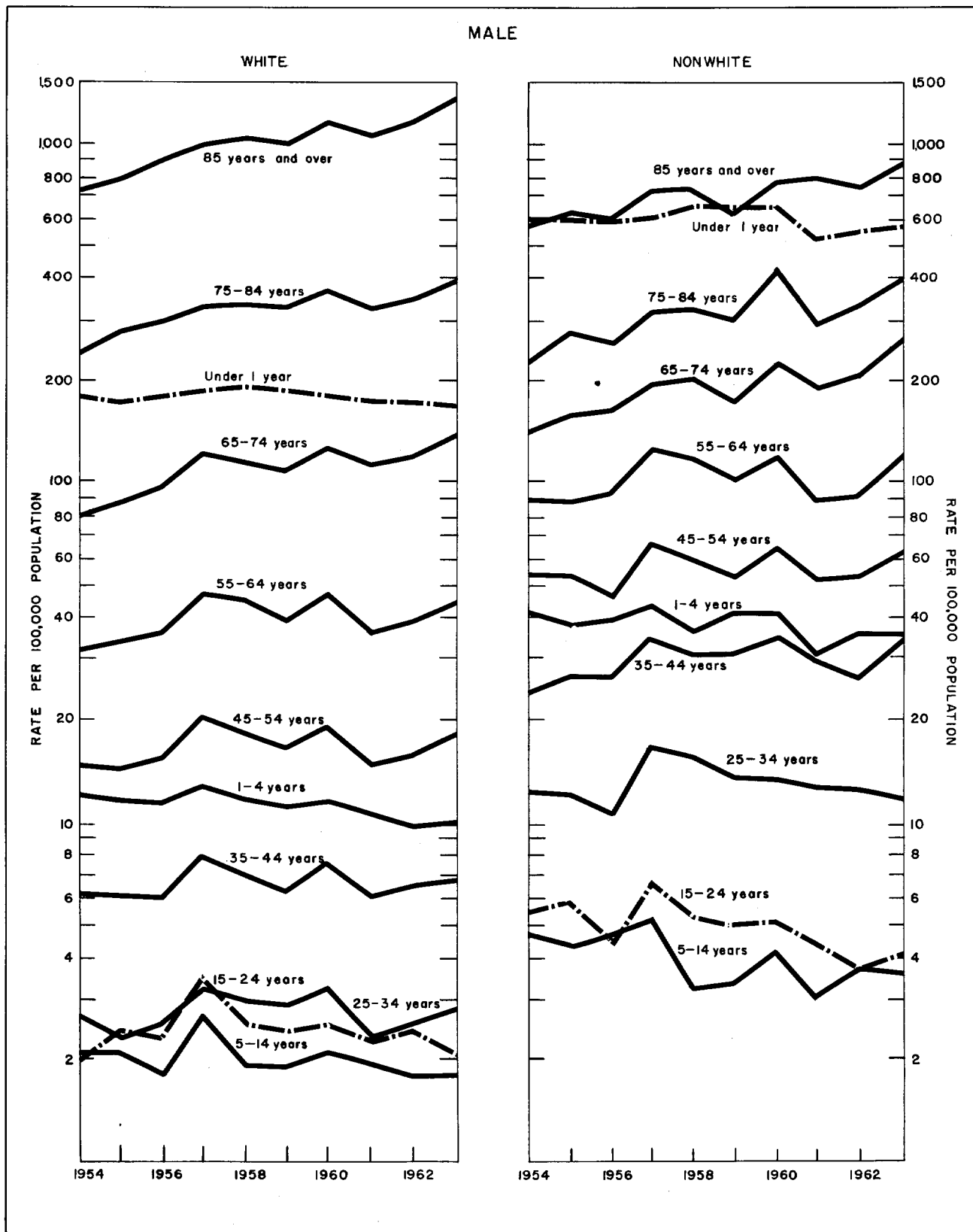


Figure 8. Death rates for pneumonia, excluding pneumonia of newborn, among male population, by color and age: 1954-63.

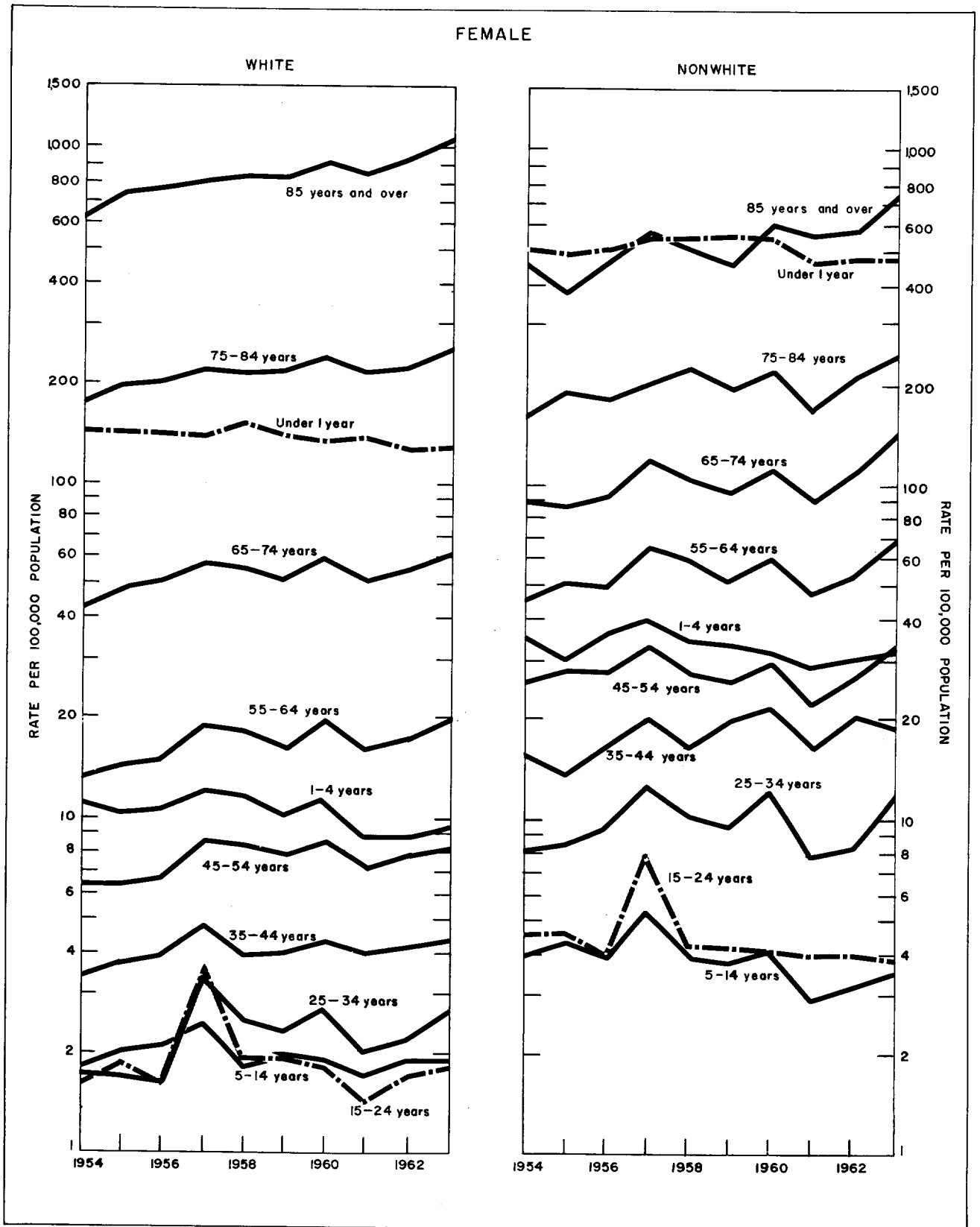


Figure 9. Death rates for pneumonia, excluding pneumonia of newborn, among female population, by color and age: 1954-63.

Table 25. Death rates for general arteriosclerosis, by color and sex: United States, 1954-63

[Deaths are those attributed to category number 450 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
Rates per 100,000 population						
1963 ¹ -----	20.9	19.3	22.4	12.9	13.4	12.5
1962 ¹ -----	20.9	19.2	22.5	12.9	13.7	12.2
1961-----	20.3	19.0	21.5	12.1	12.9	11.4
1960-----	20.9	20.0	21.8	13.0	14.0	12.0
1959-----	20.5	19.6	21.3	12.8	13.6	12.0
1958-----	20.7	20.1	21.3	13.7	14.2	13.2
1957-----	20.3	19.8	20.9	13.0	13.5	12.5
1956-----	20.0	19.6	20.4	12.4	13.0	11.8
1955-----	20.6	20.5	20.7	12.9	14.2	11.7
1954-----	19.5	19.3	19.8	12.4	13.4	11.6

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

General Arteriosclerosis

The rise in the death rate for this group of diseases resulted primarily from a rise in the death rate for females (tables 25 and 26). The death rate for general arteriosclerosis rose from 18.9 to 19.9 deaths per 100,000 females between 1954 and 1957 (the years the Sixth Revision was in use) and from 20.4 to 21.2 deaths per 100,000 female persons in the period 1958-63. The break in comparability with the introduction of the Seventh Revision beginning with data year 1958 is minimal: the comparability ratio is 1.01 for the female population.

The increase in the death rate for the total female population that occurred despite the decline in the age-specific death rates for females in the decade 1954-63 is attributable in great part to the substantial increase in the elderly female population (at ages 65 years and over). For this latter part of the life span the death rate for these diseases of the arteries rises steeply.^{3,4}

Although the death rate for general arteriosclerosis was higher for the total female popula-

tion than for the total male population during most of 1954-63, the age-specific death rates were generally higher for the male population. This comes about because at ages 65 years and over, when mortality from this cause is high, the number of women is substantially greater than the number of men.

For both white and nonwhite males the death rate for general arteriosclerosis was the same for 1954 and 1963 (table 25). For the white population the death rate for this cause is higher for females than for males, whereas for the nonwhite population, males have somewhat higher rates than females.

Diabetes Mellitus

The death rate for diabetes mellitus increased about 10 percent in the period 1954-63 (table 28).

By far the largest relative increases occurred in the nonwhite population. For nonwhite males this rise amounted to about 42 percent, and for nonwhite females to about 40 percent.

In 1963 this cause ranked as the 7th leading cause of death for nonwhite females, the 8th

Table 26. Death rates for general arteriosclerosis, by sex and age: United States, 1954-63

[Deaths are those attributed to category number 450 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
Both sexes	Rates per 100,000 population									
All ages--	19.9	19.8	19.3	20.0	19.6	19.9	19.5	19.1	19.8	18.8
1-4 years----	-	0.0	-	-	-	0.0	-	0.0	0.0	0.0
5-14 years----	-	0.0	0.0	-	-	0.0	-	0.0	-	-
15-24 years----	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
25-34 years----	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1
35-44 years----	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.3	0.3
45-54 years--	1.7	1.9	1.6	1.8	2.1	1.7	1.9	1.8	1.8	1.9
55-64 years--	9.6	9.3	10.0	10.9	10.8	10.4	10.4	9.8	10.1	10.3
65-74 years--	54.3	52.7	53.3	56.9	54.8	58.7	58.8	56.7	58.7	57.6
75-84 years--	286.1	290.0	284.8	307.4	306.6	313.7	312.0	319.1	340.2	324.0
85 years and over-----	1,425.8	1,452.8	1,405.4	1,423.3	1,410.5	1,465.7	1,448.9	1,436.4	1,491.4	1,444.0
Male										
All ages--	18.5	18.5	18.3	19.3	18.9	19.4	19.1	18.9	19.9	18.6
1-4 years----	-	-	-	-	-	0.0	-	0.0	0.0	0.0
5-14 years----	-	0.0	-	-	-	0.0	-	-	-	-
15-24 years----	-	-	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
25-34 years----	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1
35-44 years----	0.3	0.3	0.4	0.4	0.4	0.3	0.2	0.3	0.3	0.3
45-54 years--	2.2	2.7	2.0	2.5	2.8	2.2	2.4	2.4	2.6	2.4
55-64 years--	12.3	12.1	13.2	14.3	13.9	13.0	13.1	12.7	12.8	12.8
65-74 years--	65.6	62.1	64.4	68.8	66.3	70.8	72.1	68.1	71.7	69.0
75-84 years--	312.7	315.2	312.1	340.9	338.5	351.2	341.9	354.8	383.8	362.9
85 years and over-----	1,433.2	1,447.6	1,413.6	1,453.3	1,414.4	1,488.1	1,462.3	1,442.5	1,506.6	1,420.1
Female										
All ages--	21.2	21.2	20.3	20.7	20.3	20.4	19.9	19.4	19.7	18.9
1-4 years----	-	0.0	-	-	-	-	-	-	-	-
5-14 years----	-	-	0.0	-	-	-	-	0.0	-	-
15-24 years----	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	0.0
25-34 years----	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1
35-44 years----	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.2	0.3
45-54 years--	1.3	1.2	1.1	1.0	1.4	1.3	1.4	1.3	1.0	1.3
55-64 years--	7.2	6.7	7.1	7.7	7.9	7.9	7.8	7.0	7.4	7.8
65-74 years--	44.8	44.7	43.7	46.5	44.8	47.9	47.0	46.5	47.0	47.2
75-84 years--	266.1	270.8	263.9	281.4	281.8	284.6	288.3	290.5	305.0	292.2
85 years and over-----	1,421.2	1,456.1	1,397.8	1,404.1	1,407.9	1,450.8	1,439.7	1,432.1	1,480.6	1,461.2

leading cause for white females, and the 12th leading cause for white males. For nonwhite males, diabetes mellitus and cirrhosis of liver both ranked as the 11th leading cause.

For white males the relative increase in the death rate for diabetes mellitus was about 12 percent. There was comparatively little change

over the decade in the corresponding death rate for white females. As a result, the mortality differential in the white population by sex for this cause narrowed over the decade from an excess in the death rate for females of 48 percent for 1954 to an excess of 35 percent for 1963. In the nonwhite population mortality for females re-

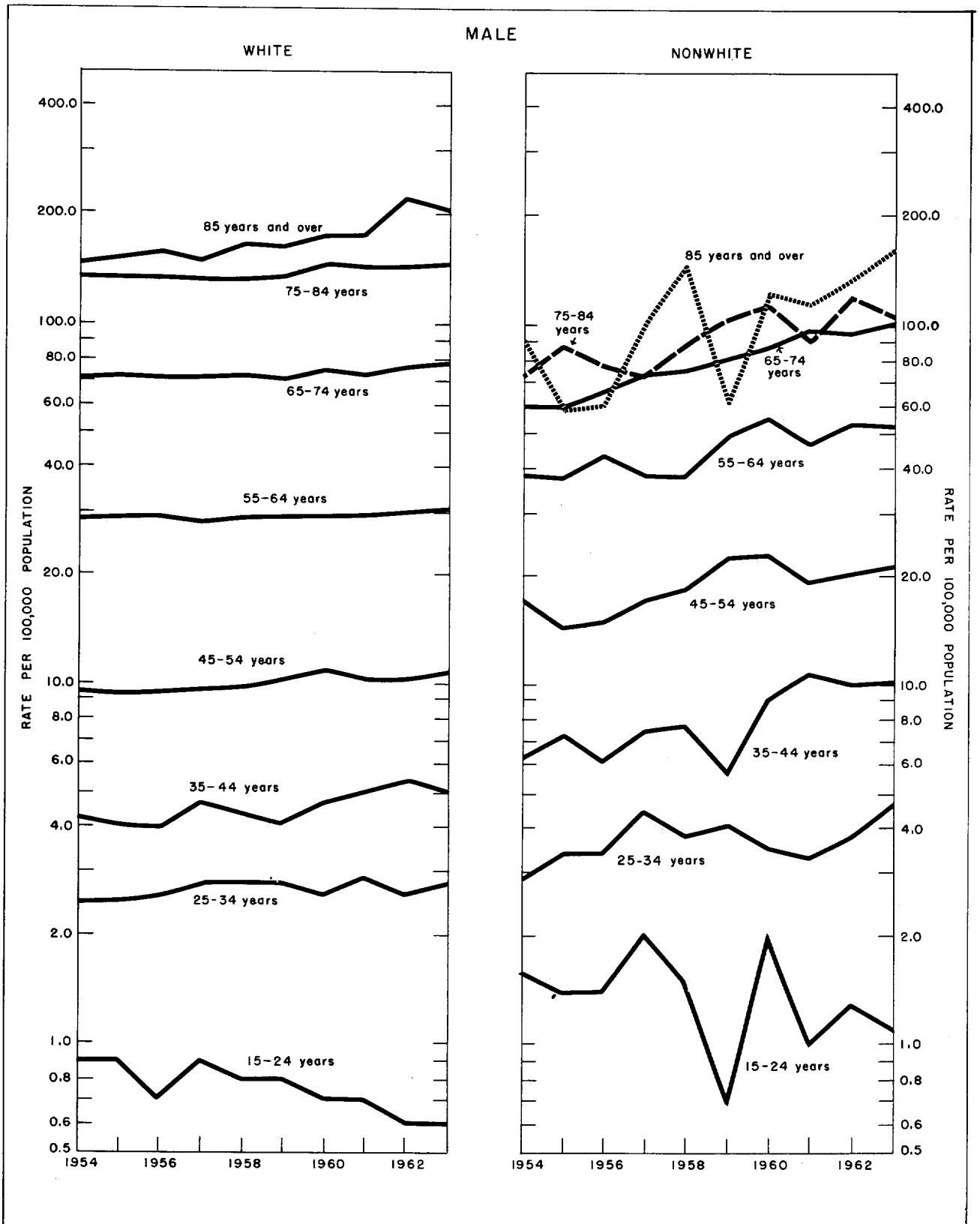


Figure 10. Death rates for diabetes mellitus among male population, by color and age: 1954-63.

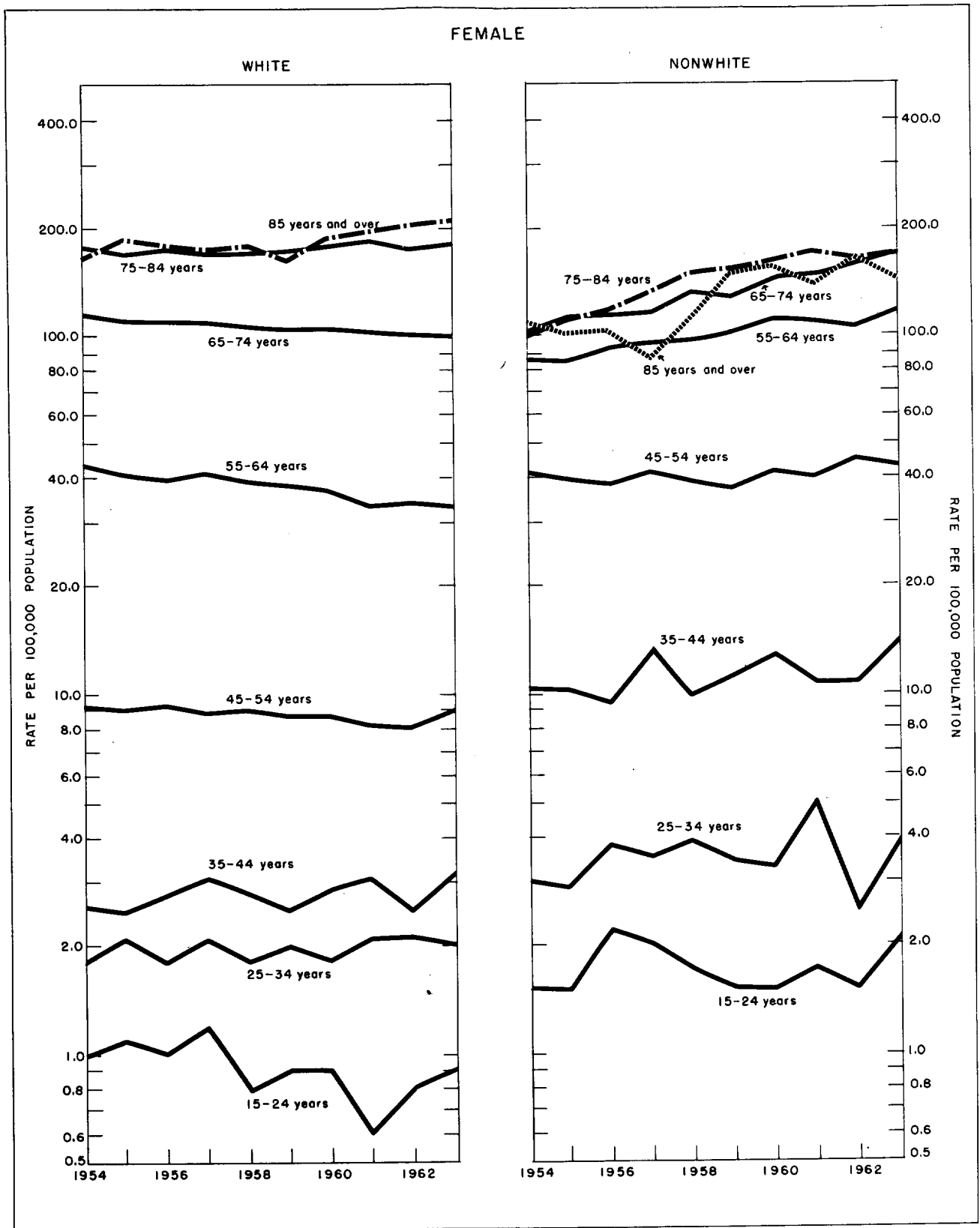


Figure 11. Death rates for diabetes mellitus among female population, by color and age: 1954-63.

Table 27. Death rates for diabetes mellitus, by sex and age: United States, 1954-63

[Deaths are those attributed to category number 260 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
<u>Both sexes</u>	Rates per 100,000 population									
All ages-	17.2	16.8	16.4	16.7	15.9	15.9	16.0	15.7	15.5	15.6
1-4 years-----	0.2	0.2	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3
5-14 years-----	0.3	0.3	0.3	0.4	0.4	0.3	0.4	0.3	0.4	0.4
15-24 years----	0.9	0.8	0.7	0.9	0.9	0.9	1.2	1.0	1.0	1.0
25-34 years----	2.6	2.5	2.7	2.3	2.6	2.5	2.6	2.4	2.4	2.2
35-44 years----	5.0	4.6	4.7	4.5	3.8	4.1	4.5	3.8	3.9	3.9
45-54 years----	12.1	11.7	11.3	12.1	11.4	11.2	11.2	11.0	10.9	11.3
55-64 years----	37.5	36.9	35.8	37.9	37.5	37.0	38.0	37.5	37.3	38.3
65-74 years----	95.1	94.0	91.4	93.4	89.9	91.6	92.5	92.1	91.7	92.3
75-84 years----	165.9	160.3	162.9	163.7	154.5	151.7	149.8	151.7	150.6	153.9
85 years and over-----	206.6	207.1	184.5	181.7	158.8	169.9	158.1	162.6	163.1	155.3
<u>Male</u>										
All ages-	14.2	14.1	13.4	13.8	12.9	12.8	12.6	12.5	12.4	12.4
1-4 years-----	0.1	0.2	0.2	0.3	0.2	0.4	0.3	0.2	0.3	0.3
5-14 years-----	0.2	0.3	0.2	0.3	0.3	0.3	0.4	0.2	0.4	0.4
15-24 years----	0.7	0.7	0.7	0.8	0.8	0.9	1.0	0.8	0.9	1.0
25-34 years----	3.0	2.8	3.0	2.7	3.0	2.9	3.0	2.7	2.6	2.5
35-44 years----	5.5	5.8	5.5	5.1	4.2	4.8	5.0	4.2	4.4	4.5
45-54 years----	11.8	11.5	11.2	12.1	11.4	10.6	10.4	9.9	9.9	10.3
55-64 years----	33.3	32.8	31.1	31.9	31.0	30.1	29.3	30.6	29.8	29.4
65-74 years----	80.4	79.0	74.8	76.1	71.7	73.1	71.9	71.5	70.7	70.0
75-84 years----	144.9	141.3	138.9	144.6	133.5	129.0	127.8	129.8	131.2	131.0
85 years and over-----	204.9	211.3	170.5	170.6	153.5	163.4	145.1	150.5	143.4	143.1
<u>Female</u>										
All ages-	20.1	19.4	19.3	19.6	18.8	18.8	19.2	18.7	18.5	18.7
1-4 years-----	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.3
5-14 years-----	0.4	0.3	0.4	0.5	0.5	0.4	0.6	0.4	0.4	0.5
15-24 years----	1.1	0.9	0.8	1.0	1.0	0.9	1.3	1.2	1.1	1.1
25-34 years----	2.2	2.2	2.5	2.0	2.2	2.1	2.3	2.0	2.2	1.9
35-44 years----	4.4	3.4	4.0	4.0	3.5	3.6	4.1	3.5	3.3	3.4
45-54 years----	12.3	11.9	11.4	12.1	11.5	11.9	12.0	12.1	11.9	12.3
55-64 years----	41.4	40.7	40.2	43.7	43.6	43.5	46.2	44.0	44.5	46.9
65-74 years----	107.3	106.7	105.6	108.4	105.8	107.8	110.8	110.5	110.5	112.5
75-84 years----	181.8	174.7	181.4	178.5	170.9	169.6	167.2	169.3	166.3	172.5
85 years and over-----	207.6	204.5	193.2	188.7	162.2	174.2	167.0	171.1	177.1	164.0

Table 28. Death rates for diabetes mellitus, by color and sex: United States, 1954-63

[Deaths are those attributed to category number 260 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	16.7	14.2	19.2	19.8	13.9	25.4
1962 ¹ -----	16.4	14.1	18.6	18.9	13.7	23.8
1961-----	16.2	13.5	18.8	18.2	12.8	23.3
1960-----	16.4	13.7	19.1	18.8	13.9	23.4
1959-----	15.8	13.0	18.5	16.8	12.1	21.2
1958-----	15.8	13.0	18.5	16.3	11.2	21.1
1957-----	16.0	12.8	19.0	15.8	10.8	20.4
1956-----	15.8	12.8	18.6	14.7	10.1	19.1
1955-----	15.7	12.8	18.5	14.3	9.7	18.5
1954-----	15.8	12.7	18.8	14.1	9.8	18.1

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

mained almost double that for males throughout the decade.

For males at the younger ages (under 25 years) there was still some slight improvement during 1954-63 in the death rate for diabetes; but the decline in recent years constitutes a leveling off in the trend, compared with the relatively steep declines in the years immediately following 1922 when insulin was discovered. At ages 25 years and over the death rate for this cause increased for the male population during 1954-63 (table 27).

In 1954 the death rate for this cause at ages 45-54 years was higher for the first time for white men than for white women (figs. 10 and 11). During 1954-63 the ratio of this death rate for white men at these ages to the corresponding rate for white women continued to increase. For 1963 at ages 45-54 years the rate for white men was about 21 percent higher than for white women. In addition to this age group, the death rate for white men was higher than the corresponding rate for white women for age groups 25-34 and 35-44 years. In the nonwhite population, mortality from diabetes was still higher for females at all ages

except at ages 5-14, 25-34, and 85 years and over.

This cause was relatively unaffected by changes in classification and coding procedures introduced with the Seventh Revision, in use beginning with data year 1958. The comparability ratio between the Sixth and the Seventh Revisions for diabetes mellitus was 1.01.

Other Diseases of Circulatory System

This group of diseases includes aortic aneurysm, nonsyphilitic, and dissecting aneurysm; peripheral vascular disease; arterial embolism and thrombosis; phlebitis and thrombophlebitis; pulmonary embolism and infarction; and other diseases of veins and other diseases of the circulatory system. The death rates for this group of causes, which was the 12th leading cause in 1959, the 11th leading cause in 1960, and the 9th in 1963, have increased every year since 1950. The rate of 12.9 deaths per 100,000 population in 1963 was more than twice that of 1954 (tables 29 and 30). For each of the four color-sex groups the rate for 1963 is about double that for

Table 29. Death rates for other diseases of circulatory system, by sex and age:
United States, 1954-63

[Deaths are those attributed to category numbers 451-468 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
<u>Both sexes</u>	Rates per 100,000 population									
All ages-	12.9	12.2	11.3	11.0	10.3	9.9	9.0	8.4	7.3	6.4
1-4 years-----	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.2
5-14 years-----	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2
15-24 years-----	0.8	0.8	0.8	0.9	0.9	0.7	0.8	0.8	0.9	0.8
25-34 years-----	2.0	1.8	1.8	1.6	1.5	1.7	1.5	1.6	1.5	1.6
35-44 years-----	4.2	3.9	3.4	3.8	3.4	3.3	3.2	3.2	3.0	2.9
45-54 years-----	10.2	9.5	9.5	9.1	8.8	8.9	8.0	8.2	7.3	7.2
55-64 years-----	27.6	26.9	24.8	25.6	24.7	22.8	23.2	20.6	18.1	16.2
65-74 years-----	68.5	65.1	59.4	56.1	52.8	52.0	45.8	43.1	35.8	30.2
75-84 years-----	116.2	107.4	102.9	100.5	92.9	89.3	74.0	70.1	60.8	47.7
85 years and over-----	197.3	185.8	163.5	161.0	137.3	136.5	117.4	98.4	95.4	78.9
<u>Male</u>										
All ages-	15.9	15.0	14.1	13.7	12.8	12.5	11.4	10.7	9.2	8.0
1-4 years-----	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.3	0.1	0.2
5-14 years-----	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1
15-24 years-----	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.4	0.7	0.6
25-34 years-----	1.6	1.4	1.5	1.2	1.1	1.3	1.2	1.2	1.1	1.4
35-44 years-----	4.1	4.0	3.6	3.9	3.6	3.5	3.6	3.3	3.0	3.0
45-54 years-----	13.0	12.3	11.9	11.5	11.2	11.2	10.4	10.0	9.7	9.3
55-64 years-----	38.9	37.7	35.4	36.6	34.9	33.1	33.7	30.7	25.8	22.7
65-74 years-----	101.7	97.2	86.7	81.4	77.0	74.6	65.5	62.5	50.7	42.7
75-84 years-----	151.4	136.7	134.2	127.6	117.2	115.8	95.0	90.6	76.8	62.0
85 years and over-----	209.6	205.3	185.9	190.7	151.5	155.8	135.0	116.2	117.3	87.2
<u>Female</u>										
All ages-	10.1	9.4	8.6	8.5	7.9	7.5	6.6	6.2	5.5	4.8
1-4 years-----	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
5-14 years-----	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.3
15-24 years-----	1.1	1.1	1.0	1.2	1.3	1.0	1.1	1.1	1.1	1.0
25-34 years-----	2.5	2.3	2.1	2.0	1.8	2.0	1.9	2.0	1.8	1.8
35-44 years-----	4.3	3.8	3.2	3.6	3.1	3.1	2.9	3.0	2.9	2.7
45-54 years-----	7.5	6.8	7.1	6.8	6.4	6.5	5.7	6.4	5.0	5.2
55-64 years-----	17.2	16.8	14.9	15.3	15.1	13.1	13.3	11.0	10.7	9.8
65-74 years-----	40.9	38.1	36.1	34.1	31.6	32.1	28.3	25.7	22.3	18.8
75-84 years-----	89.7	85.1	78.9	79.5	73.9	68.5	57.4	53.7	47.9	36.1
85 years and over-----	189.6	173.5	148.9	142.0	128.0	123.6	105.5	86.0	80.0	72.9

Table 30. Death rates for other diseases of circulatory system, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 451-468 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	13.0	16.1	10.0	12.7	14.1	11.3
1962 ¹ -----	12.3	15.4	9.3	11.1	12.1	10.2
1961-----	11.4	14.3	8.5	10.9	12.1	9.7
1960-----	11.1	14.0	8.4	10.4	11.6	9.4
1959-----	10.4	13.0	7.8	9.8	11.0	8.7
1958-----	9.9	12.7	7.2	9.9	10.4	9.3
1957-----	9.0	11.5	6.5	9.0	10.5	7.6
1956-----	8.4	10.9	6.0	8.1	8.9	7.4
1955-----	7.3	9.3	5.3	7.4	8.0	6.7
1954-----	6.3	8.1	4.7	6.6	7.3	5.9

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

1954. In the white population, the risk of death from this cause is still substantially higher for males than for females, but over the decade 1954-63 this differential decreased from about 72 to 61 percent. There is still little difference in the death rate for these diseases in the white and nonwhite populations, for the increases in the death rate for the two groups have been closely parallel during 1954-63. The mortality differential by sex in the nonwhite population, however, is smaller than in the white population.

At ages 65-74, 75-84, and 85 years and over the death rate for these diseases has more than doubled, but there have also been substantial increases at the younger ages. The doubling of the risk of death from this group of causes occurred for both the male and female populations (table 29).

The comparability ratio between the Sixth and Seventh Revisions was 1.04. Thus the increase in assignments of deaths to this group of causes in the Seventh Revision as compared with the Sixth Revision accounted for only a small part of the doubling of this death rate in the period 1954-63. Part of the 4 percent increase

in assignment under the Seventh Revision resulted from transfers from cerebral embolism and thrombosis.

Other Bronchopulmonic Diseases

This group of respiratory diseases has shown a marked increase during 1954-63, especially in the male population (tables 31 and 32). The risk of dying from other bronchopulmonic diseases (ICD Nos. 525-527) in 1963 was twice as high for nonwhite males and almost three times as high for white males as the corresponding risks in 1954. There were also substantial increases in the death rate for these diseases in the female population, both for white and nonwhite persons.

The color and sex differentials widened during 1954-63. Mortality from this cause in 1963 was about four times greater for males than for females and about one and one-half times greater for the white population than for the nonwhite.

During 1954-63 an increasing proportion of the deaths in this subgroup of respiratory

Table 31. Death rates for other bronchopulmonic diseases, by sex and age: United States, 1960-63

[Deaths are those attributed to category numbers 525-527 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960
<u>Both sexes</u>	Rates per 100,000 population			
All ages-----	12.3	10.8	9.7	9.6
1-4 years-----	1.1	1.1	1.1	1.2
5-14 years-----	0.1	0.2	0.2	0.2
15-24 years-----	0.3	0.3	0.3	0.3
25-34 years-----	0.7	0.6	0.6	0.6
35-44 years-----	2.1	2.1	1.9	2.1
45-54 years-----	8.8	7.7	6.7	7.4
55-64 years-----	30.6	26.9	25.0	24.3
65-74 years-----	70.2	59.5	52.4	51.9
75-84 years-----	92.3	82.3	73.4	70.3
85 years and over-----	115.9	97.2	88.9	79.1
<u>Male</u>				
All ages-----	20.0	17.3	15.5	15.3
1-4 years-----	1.2	1.3	1.2	1.4
5-14 years-----	0.2	0.2	0.1	0.2
15-24 years-----	0.3	0.3	0.3	0.4
25-34 years-----	0.7	0.7	0.6	0.7
35-44 years-----	2.8	2.6	2.5	2.6
45-54 years-----	13.5	11.6	10.1	11.6
55-64 years-----	54.0	47.4	44.4	42.7
65-74 years-----	132.7	112.0	97.0	94.5
75-84 years-----	171.1	145.9	129.5	122.6
85 years and over-----	206.0	166.1	144.9	128.4
<u>Female</u>				
All ages-----	4.9	4.5	4.1	4.1
1-4 years-----	1.1	0.9	1.1	1.0
5-14 years-----	0.1	0.2	0.3	0.2
15-24 years-----	0.2	0.3	0.3	0.3
25-34 years-----	0.7	0.6	0.6	0.5
35-44 years-----	1.4	1.5	1.2	1.5
45-54 years-----	4.3	3.9	3.4	3.2
55-64 years-----	8.8	7.7	6.8	7.1
65-74 years-----	18.2	15.1	14.3	14.8
75-84 years-----	33.2	34.0	30.3	29.7
85 years and over-----	59.6	53.7	53.0	47.6

Table 32. Death rates for other bronchopulmonic diseases, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 525-527 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
Rates per 100,000 population						
1963 ¹ -----	13.0	21.2	5.0	8.4	12.3	4.7
1962 ¹ -----	11.4	18.4	4.6	7.4	10.7	4.4
1961-----	10.1	16.2	4.2	7.0	10.4	3.8
1960-----	10.0	16.0	4.1	6.7	9.8	3.9
1959-----	8.7	13.9	3.7	6.7	9.4	4.2
1958-----	8.4	13.3	3.6	6.3	8.9	3.8
1957-----	8.2	12.8	3.8	6.6	9.1	4.2
1956-----	7.2	11.0	3.4	5.3	7.3	3.4
1955-----	6.3	9.5	3.2	4.6	6.5	2.8
1954-----	5.6	8.3	2.9	4.3	6.0	2.7

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 33. Death rates for emphysema, without mention of bronchitis, by color and sex: United States, 1954-63

[Deaths are those attributed to category number 527.1 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
Rates per 100,000 population						
1963 ¹ -----	8.7	15.5	2.2	3.6	6.3	1.1
1962 ¹ -----	7.2	12.8	1.8	2.9	4.9	0.9
1961-----	6.0	10.6	1.5	2.6	4.6	0.7
1960-----	5.5	9.8	1.3	2.4	4.2	0.7
1959-----	4.7	8.4	1.0	2.1	3.7	0.7
1958-----	4.1	7.4	0.9	1.8	3.2	0.5
1957-----	3.6	6.4	0.8	1.7	3.1	0.4
1956-----	2.9	5.1	0.6	1.1	1.8	0.3
1955-----	2.4	4.2	0.6	1.1	1.9	0.3
1954-----	2.0	3.5	0.5	0.8	1.5	0.2

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

diseases was attributed to emphysema, without mention of bronchitis. By 1963 this figure had grown to 65 percent. The death rate for emphysema increased substantially in the white male population, from 3.5 deaths per 100,000 white males for 1954 to 15.5 deaths per 100,000 white males for 1963 (table 33). In the nonwhite male population the death rate for emphysema for 1963 (6.3 deaths per 100,000) was about four times greater than the corresponding rate for 1954.

Age-sex specific death rates for 1960-63 (the only years of the decade for which such rates are available) show that in the male population the risk of dying from other bronchopulmonic diseases increased at ages 35 years and over. At these ages the rate for males was higher than the corresponding rate for females. For the age group 55-64 years the risk of dying from these diseases in 1963 was more than six times higher for men than for women.

For other bronchopulmonic diseases as a whole, none of the rise may be ascribed to increased assignments under the Seventh Revision of the International Lists as compared with the Sixth Revision. As stated above, the comparability ratio between the Seventh and Sixth Re-

visions was 0.93, indicating that about 7 percent fewer assignments were made to this group of causes under the Seventh Revision. For emphysema, without mention of bronchitis, the subcategory for which the death rate more than quadrupled during 1954-63, an increase of only about 2 percent resulted from transfers in classification.¹

Cirrhosis of Liver

Cirrhosis of liver moved from the 13th leading cause of death in 1954 to the 11th leading cause in 1963. The death rate for this chronic disease increased about 18 percent over these years, chiefly as a result of higher mortality in the nonwhite population (table 34). In 1954 the death rate for the white population was about one and one-half times the rate for the nonwhite, but this differential had almost disappeared by 1963. For nonwhite males the relative increase in this death rate during 1954-63 was 62 percent, and for nonwhite females 63 percent.

In the white population in 1963 the death rate for cirrhosis of liver for males was still about twice the rate for females.

Table 34. Death rates for cirrhosis of liver, by color and sex: United States, 1954-63

[Deaths are those attributed to category number 581 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63.]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	11.8	15.7	8.0	11.5	13.9	9.3
1962 ¹ -----	11.6	15.7	7.6	11.5	13.8	9.3
1961-----	11.4	15.4	7.5	10.8	13.3	8.4
1960-----	11.5	15.6	7.4	10.2	12.6	7.9
1959-----	11.1	14.9	7.3	9.7	11.7	7.9
1958-----	11.0	14.9	7.2	8.5	10.7	6.5
1957-----	11.6	15.8	7.5	9.4	11.6	7.4
1956-----	11.0	14.7	7.4	8.5	10.2	6.9
1955-----	10.5	14.2	7.0	7.5	9.0	6.0
1954-----	10.4	14.1	6.8	7.1	8.6	5.7

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

Table 35. Death rates for cirrhosis of liver, by sex and age: United States, 1954-63

[Deaths are those attributed to category number 581 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
<u>Both sexes</u>	Rates per 100,000 population									
All ages-	11.9	11.7	11.3	11.3	10.9	10.8	11.3	10.7	10.2	10.1
1-4 years-----	0.1	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1
5-14 years-----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-24 years-----	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
25-34 years-----	3.3	3.2	3.1	2.9	2.8	2.5	2.9	2.4	2.1	2.2
35-44 years-----	12.7	13.0	12.3	11.8	11.5	11.1	12.1	11.2	10.5	10.4
45-54 years-----	29.9	28.9	27.5	27.6	26.1	24.9	25.6	23.8	22.8	21.5
55-64 years-----	36.4	35.4	34.2	32.7	31.8	31.3	33.0	30.9	28.8	29.1
65-74 years-----	37.5	37.1	35.6	37.4	34.9	36.6	38.2	36.8	36.1	35.5
75-84 years-----	29.6	29.5	30.1	32.1	33.0	34.0	35.3	37.3	35.9	35.7
85 years and over-----	26.1	26.3	25.9	28.8	29.6	31.2	32.3	32.7	37.0	37.4
<u>Male</u>										
All ages-	15.7	15.7	15.1	15.3	14.6	14.5	15.3	14.2	13.6	13.5
1-4 years-----	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2
5-14 years-----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
15-24 years-----	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.4
25-34 years-----	3.6	3.4	3.6	3.1	2.9	2.6	3.1	2.4	2.1	2.2
35-44 years-----	15.3	15.7	14.8	14.4	14.1	13.4	14.7	13.6	12.9	12.7
45-54 years-----	38.2	38.2	36.1	36.8	34.7	33.9	35.3	31.9	30.9	29.6
55-64 years-----	52.4	51.7	49.4	48.5	46.1	45.1	48.2	44.2	41.4	42.1
65-74 years-----	57.8	56.7	55.1	57.4	53.3	56.2	57.4	54.6	52.5	51.5
75-84 years-----	42.7	43.1	44.8	45.1	46.2	46.1	48.9	48.6	50.1	47.5
85 years and over-----	34.5	37.9	32.4	40.0	37.5	41.0	42.1	42.8	43.7	47.4
<u>Female</u>										
All ages-	8.3	7.9	7.6	7.5	7.3	7.1	7.5	7.3	6.9	6.7
1-4 years-----	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1
5-14 years-----	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2
15-24 years-----	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3
25-34 years-----	3.0	3.0	2.7	2.7	2.7	2.3	2.8	2.4	2.1	2.1
35-44 years-----	10.2	10.5	9.9	9.3	9.1	8.9	9.7	8.8	8.2	8.2
45-54 years-----	21.9	20.0	19.2	18.6	17.7	16.0	16.2	15.9	14.8	13.6
55-64 years-----	21.6	20.1	19.9	17.9	18.5	18.2	18.6	18.2	16.6	16.5
65-74 years-----	20.6	20.6	19.0	20.1	18.8	19.4	21.2	20.8	21.4	21.0
75-84 years-----	19.7	19.1	18.8	22.0	22.6	24.5	24.4	28.2	24.3	26.1
85 years and over-----	20.9	19.0	21.7	21.7	22.8	24.6	25.5	25.7	32.3	30.4

At ages under 25 years, the period of life when cirrhosis of liver is a minor cause of death, the death rate remained almost constant. But for every age group in the span 25-74 years the rates increased during the period 1954-63, while at ages 75 years and over they declined (table 35). This has been the pattern for about two decades. Since 1945 the rates have generally been increasing at ages 25-74 years and declining at ages 75 years and over.

Increases for all age groups 25-64 years during 1954-63 were in excess of 20 percent for both men and women. For men at these ages the greatest relative increase in mortality from this cause occurred at ages 25-34 years (64 percent); and for women at these ages the greatest relative increase was for the age group 45-54 years (61 percent).

In 1950 the risk of death from cirrhosis of liver was about twice as great among the population 75 years of age and over as it was among persons 45-54 years of age. The increases in the death rate in 1963 at ages 45-54 years have resulted in a greater rate for these ages than for ages 75 years and over. Cirrhosis of the liver is now one of the five leading causes of death at the productive ages of 45-54 years.

Suicide

The increase in the total suicide rate that began in 1958 continued, with minor fluctuations through 1963. The rate rose from 9.8 suicides per 100,000 population for 1957, the lowest rate recorded in this century, to 11.0 suicides per 100,000 for 1963. This increase reflects a rise in suicides among teenagers and adults under 45 years of age. The upturn in mortality from suicide among these younger persons actually began in 1956, and continued through 1963. But for several years this rise was obscured by the decline in the suicide rate among persons 65 years and over. This decline started in the mid 1930's and continued throughout 1954-63. As a consequence of the interaction of the upturn in the suicide rate for young persons and the downward trend for older persons, the decline in the total suicide rate leveled off during 1955-57 (from 10.2 to 9.8 suicides per 100,000 persons). After that the increase in suicide among persons under 45 years of age tended to outweigh the decrease among older persons, and resulted in the now clear upward trend in the total suicide rate (fig. 12).

Table 36. Death rates for suicide, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers E963, E970-E979 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63.]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	11.9	17.8	6.3	5.0	7.9	2.2
1962 ¹ -----	11.8	17.8	5.9	4.7	7.2	2.2
1961-----	11.1	17.1	5.3	4.7	7.6	1.9
1960-----	11.4	17.6	5.3	4.5	7.2	2.0
1959-----	11.3	17.7	5.0	4.6	7.5	1.9
1958-----	11.5	18.0	5.1	4.4	7.1	1.8
1957-----	10.5	16.5	4.6	4.0	6.8	1.4
1956-----	10.8	16.9	4.8	3.8	6.1	1.6
1955-----	11.0	17.2	4.9	3.8	6.1	1.5
1954-----	10.9	17.5	4.5	4.1	6.8	1.5

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

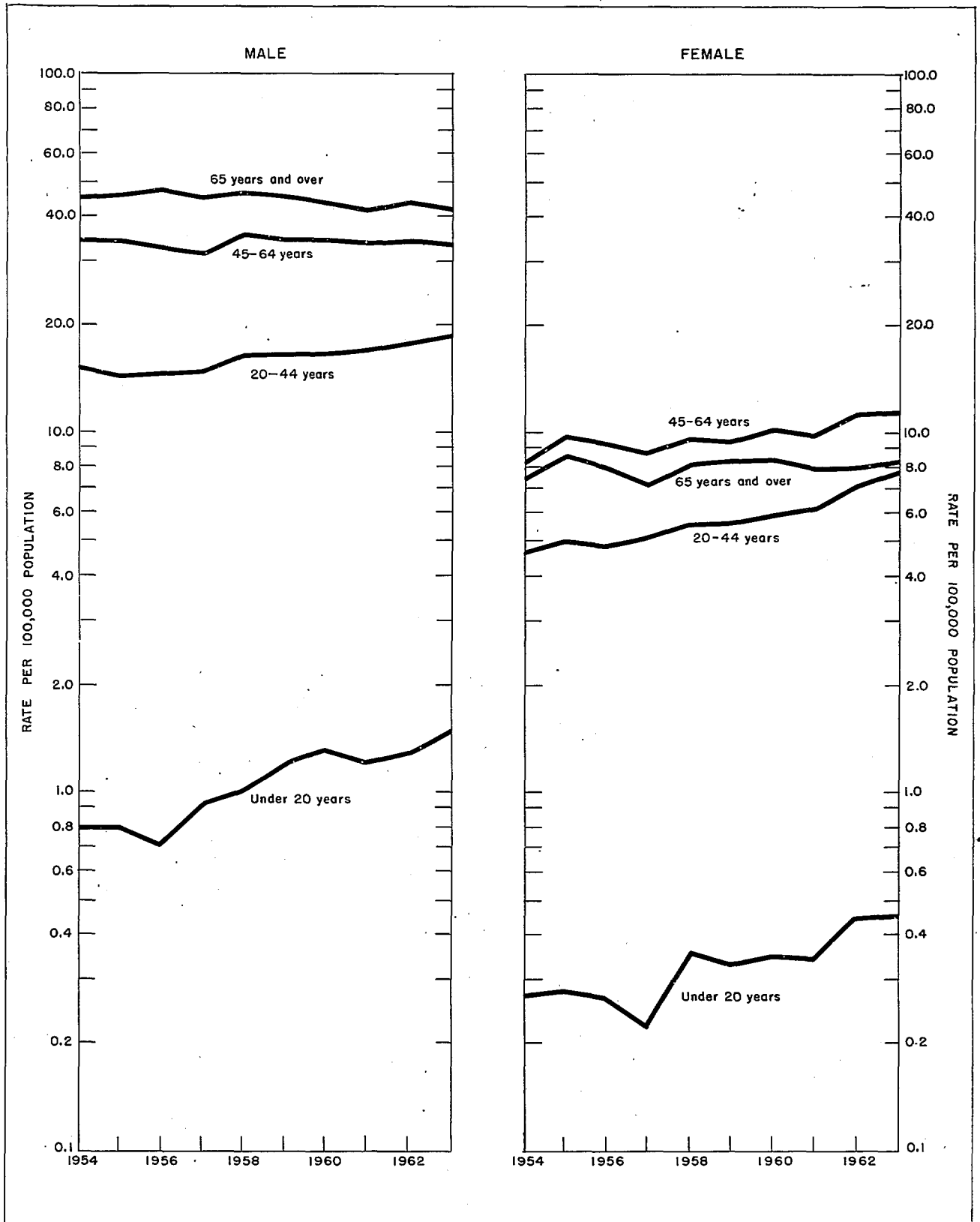


Figure 12. Death rates for suicide, by sex and age: 1954-63.

Table 37. Death rates for suicide, by sex and age: United States, 1954-63

[Deaths are those attributed to category numbers E963, E970-E979 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
<u>Both sexes</u>	Rates per 100,000 population									
All ages-	11.0	10.9	10.4	10.6	10.6	10.7	9.8	10.0	10.2	10.1
1-4 years-----	...	...	...	...	...	...	...	...	...	...
5-14 years-----	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.1
15-24 years-----	6.0	5.7	5.1	5.2	4.9	4.8	4.0	4.0	4.1	4.2
25-34 years-----	11.8	11.3	10.3	10.0	9.9	9.8	8.7	8.5	8.4	8.7
35-44 years-----	16.0	15.0	14.4	14.2	13.6	13.7	12.7	12.1	12.3	12.5
45-54 years-----	21.1	21.0	20.3	20.7	19.8	20.7	18.2	18.5	19.6	19.3
55-64 years-----	23.6	23.7	23.1	23.7	24.3	24.1	22.4	24.2	24.8	23.9
65-74 years-----	22.4	22.2	22.0	23.0	24.8	25.1	23.6	25.2	25.0	25.1
75-84 years-----	25.4	27.2	26.0	27.9	27.8	27.7	26.5	28.0	27.5	25.6
85 years and over-----	24.6	26.7	25.0	26.0	25.7	25.8	26.4	23.5	27.9	25.1
<u>Male</u>										
All ages-	16.5	16.5	16.1	16.5	16.6	16.8	15.4	15.7	16.0	16.3
1-4 years-----	...	...	...	...	...	...	...	...	...	...
5-14 years-----	0.5	0.5	0.3	0.4	0.4	0.4	0.3	0.3	0.2	0.2
15-24 years-----	9.0	8.5	7.9	8.2	7.7	7.4	6.4	6.3	6.3	6.7
25-34 years-----	16.6	15.9	14.9	14.7	14.4	14.2	12.7	12.7	12.4	13.4
35-44 years-----	22.4	21.6	21.2	21.0	20.5	21.1	19.1	18.2	18.8	18.9
45-54 years-----	30.7	30.9	31.0	31.6	31.0	32.1	28.6	28.3	29.7	31.0
55-64 years-----	37.3	38.0	37.4	38.1	39.4	39.6	35.9	39.1	40.3	39.2
65-74 years-----	38.3	38.8	37.7	39.6	42.6	43.3	41.4	43.6	42.8	43.7
75-84 years-----	49.4	53.6	50.4	52.5	54.2	54.9	52.5	54.8	51.7	49.9
85 years and over-----	55.8	57.4	56.4	57.4	59.4	54.9	58.8	51.1	57.9	50.7
<u>Female</u>										
All ages-	5.8	5.4	4.9	4.9	4.7	4.7	4.3	4.4	4.6	4.1
1-4 years-----	...	...	...	...	...	...	...	...	...	...
5-14 years-----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
15-24 years-----	3.1	2.9	2.3	2.2	2.1	2.3	1.8	1.9	2.0	1.8
25-34 years-----	7.2	6.8	5.8	5.5	5.4	5.6	4.8	4.5	4.6	4.3
35-44 years-----	9.9	8.8	7.8	7.7	7.0	6.7	6.6	6.3	6.1	6.3
45-54 years-----	11.9	11.5	9.9	10.2	8.8	9.7	8.0	9.0	9.6	7.7
55-64 years-----	10.9	10.4	9.7	10.2	10.1	9.4	9.6	9.9	9.8	9.0
65-74 years-----	9.1	8.2	8.5	8.4	9.3	9.0	7.8	8.9	8.9	8.3
75-84 years-----	7.4	7.2	7.2	8.9	7.2	6.4	5.9	6.5	7.9	5.9
85 years and over-----	5.0	7.3	4.9	6.0	3.7	6.4	4.3	4.3	6.7	6.8

The rate for suicide for 1963 was still about three times higher for males than for females, and about two times higher for white than for nonwhite persons (table 36). But owing to the accelerated increase in the suicide rate for women and for the nonwhite population, the sex and color differentials have decreased markedly: as late as 1954 the suicide rate in the male population was more than four times that in the female, and in the white population it was almost three times that in the nonwhite population. Over the decade 1954-63 the percentage increase in the suicide rate for nonwhite females was greater than the corresponding increase for any of the other color-sex populations.

Throughout the decade 1954-63 the death rate for suicide was higher at every age for boys and men than for girls and women (table 37). For women this rate was highest at ages 45-64 years, while for men the rate was highest at ages 65 years and over.

There were 182,699 *known* suicides in the United States in the 10-year period 1954-63. It is generally believed that some suicides are unreported.

As shown in figure 12, the 1958 death rate for suicides is markedly higher than that for 1957 both for males and females and for most age groups. About 3.3 percent of the total suicide rate for 1958 as compared with that for 1957 resulted from the transfer of a number of deaths from accidents to suicide. In 1958 a change was made in the interpretation of injuries where there was some doubt as to whether they were accidentally inflicted or inflicted with suicidal intent. Beginning with the Seventh Revision for data year 1958 "self-inflicted" injuries with no specification as to whether or not they were inflicted with suicidal intent and deaths from injuries, whether or not self-inflicted, with an indication that it is not known whether they were inflicted accidentally or with suicidal intent, are classified as suicides. The change was made on the assumption that the majority of such deaths are properly classified as suicide because of the reluctance of the certifier to designate a death as suicide unless

evidence indicates suicidal intent beyond the shadow of a doubt. The magnitude of the comparability ratios for suicide varied considerably by means of injury, from 1.02 for suicide by fire-arm and explosive to 1.55 for suicide by jumping from high places.

Ulcer of Stomach and Duodenum

Ulcer of stomach and duodenum ranked as the 16th leading cause of death in 1954. As a result of increases in the period 1954-63, this cause ranked 15th for 1963. This higher mortality is attributable chiefly to an increase in the death rate among white females (table 39). For these persons the risk of dying from this cause increased about 54 percent, while for white males the death rate remained almost constant during 1954-63. Despite the lessening of the sex differential in mortality from this group of ulcers, the death rate for this cause in 1963 was still greater for males than for females (table 38).

For males at ages 25-64 years the death rate for ulcer of stomach and duodenum decreased during 1954-63. For females at ages 45-54 years and 55-64 years the death rate increased more than 20 percent. For both males and females the death rates for this cause continued during 1954-63 to increase at ages 65 years and over.

No part of the rise in mortality from this cause in the female population is ascribable to increased assignments under the Seventh Revision of the International Lists as compared with the Sixth Revision. The comparability rate for this cause of death is 1.00 for both white and nonwhite female persons.

During 1954-63 the rise in mortality for the subgroup ulcer of stomach amounted to about 17 percent (from 2.9 to 3.4 deaths per 100,000 population), while that for ulcer of duodenum amounted to only 7 percent (from 2.9 to 3.1 deaths per 100,000 population). Over this decade the death rate for ulcer of stomach in the white female population increased about 62 percent from 1.3 deaths per 100,000 for 1954 to 2.1 deaths for 1963.

Table 38. Death rates for ulcer of stomach and duodenum, by sex and age: United States, 1954-63

[Deaths are those attributed to category numbers 540,541 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Sex and age	1963	1962	1961	1960	1959	1958	1957	1956	1955	1954
<u>Both sexes</u>	Rates per 100,000 population									
All ages-	6.5	6.6	6.3	6.3	6.0	6.2	6.1	6.0	5.9	5.8
1-4 years-----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-14 years-----	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-24 years----	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2
25-34 years----	0.8	0.7	0.8	0.7	0.7	0.9	0.7	0.8	0.8	0.8
35-44 years----	2.5	2.6	2.4	2.5	2.7	2.8	2.8	2.6	2.9	3.2
45-54 years----	7.0	7.0	7.4	7.3	7.1	7.5	7.6	7.5	7.8	8.1
55-64 years----	14.8	15.4	15.1	15.7	14.9	16.1	16.0	15.6	16.0	15.9
65-74 years----	30.2	31.1	29.6	29.9	28.2	28.7	28.6	28.4	28.2	27.3
75-84 years----	55.9	56.9	53.3	53.6	52.1	51.7	47.4	48.5	44.9	41.4
85 years and over-----	93.0	94.7	82.8	77.9	66.8	70.7	72.0	68.5	55.8	53.9
<u>Male</u>										
All ages-	9.5	9.7	9.4	9.6	9.2	9.5	9.4	9.4	9.3	9.4
1-4 years-----	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
5-14 years-----	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
15-24 years----	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3
25-34 years----	1.2	1.2	1.3	1.1	1.1	1.4	1.0	1.3	1.2	1.3
35-44 years----	3.6	3.9	3.7	3.9	4.1	4.1	4.5	4.3	4.7	5.2
45-54 years----	11.0	10.8	11.4	11.6	11.4	11.9	12.5	12.4	13.0	13.7
55-64 years----	24.4	25.0	24.7	26.5	25.4	27.1	26.7	26.5	27.2	27.3
65-74 years----	50.0	51.3	48.9	49.4	46.0	47.4	47.4	47.4	46.4	45.5
75-84 years----	87.2	88.0	82.8	85.0	80.5	81.7	74.0	75.3	71.4	66.6
85 years and over-----	132.2	134.7	122.1	114.3	96.9	100.0	100.3	100.0	76.1	79.3
<u>Female</u>										
All ages-	3.5	3.6	3.3	3.1	3.0	3.0	2.9	2.7	2.6	2.4
1-4 years-----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
5-14 years-----	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
15-24 years----	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
25-34 years----	0.4	0.3	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
35-44 years----	1.4	1.4	1.2	1.2	1.3	1.4	1.1	1.0	1.1	1.3
45-54 years----	3.3	3.3	3.5	3.2	3.0	3.2	2.9	2.8	2.6	2.6
55-64 years----	6.0	6.5	6.0	5.6	5.1	5.7	5.8	5.2	5.3	4.9
65-74 years----	13.7	14.1	13.2	12.9	12.6	12.2	12.0	11.3	11.8	10.8
75-84 years----	32.5	33.2	30.7	29.3	30.0	28.1	26.3	27.0	23.5	20.9
85 years and over-----	68.6	69.4	57.6	54.7	47.1	51.2	52.6	46.6	41.4	35.8

Table 39. Death rates for ulcer of stomach and duodenum, by color and sex: United States, 1954-63

[Deaths are those attributed to category numbers 540,541 of the Seventh Revision of the International Lists, 1955. Deaths are classified according to the Sixth Revision for 1954-57 and to the Seventh Revision for 1958-63]

Year	White			Nonwhite		
	Both sexes	Male	Female	Both sexes	Male	Female
	Rates per 100,000 population					
1963 ¹ -----	6.7	9.8	3.7	4.6	6.7	2.5
1962 ¹ -----	6.8	10.0	3.8	4.6	7.0	2.3
1961-----	6.5	9.7	3.4	4.6	6.7	2.5
1960-----	6.6	10.0	3.3	4.5	6.9	2.2
1959-----	6.3	9.5	3.1	4.2	6.5	2.0
1958-----	6.4	9.9	3.1	4.5	6.5	2.7
1957-----	6.3	9.7	3.0	4.2	6.6	2.0
1956-----	6.2	9.8	2.8	4.0	5.9	2.2
1955-----	6.1	9.7	2.7	4.2	6.3	2.2
1954-----	6.0	9.7	2.4	4.3	6.5	2.2

¹Figures by color exclude data for residents of New Jersey; see page 6-9, Section 6, Volume II, Vital Statistics of the United States, 1963.

SUMMARY

Until about 1954 the trend in the death rate for the United States was downward. During the ensuing decade, however, it leveled off. Increases in some of the leading causes of mortality contributed to this result.

The rate for mortality attributed to arteriosclerotic heart disease increased 23 percent during 1954-63. The relative increase was more rapid for women than for men, but in 1963 men still had a rate which was more than one and one-half times the rate for women.

The death rate for malignant neoplasm of the respiratory system rose about 46 percent. Over 90 percent of these deaths in 1963 were attributed to cancer of the lung with more than half of these occurring at ages under 65 years. The number of fatalities for men was about six times the number for women. Mortality from malignant neoplasm of the respiratory system continued to be greater for the white population than for the nonwhite but the color differential became smaller during the decade while the sex differential widened.

There was an increase in the latter part of the decade for accidents which were the

leading cause of death among children and young adults and the second leading cause at ages 25-44 years. The age group 15-24 years had the highest death rate for motor vehicle accidents. Males accounted for about 74 percent of the motor vehicle fatalities during the decade but the sex differential did become smaller. The color differential for motor vehicle fatalities was reversed for females and lessened for males. The rate was higher for nonwhite than for white females in the early part of the decade and lower in the later years. It was higher for nonwhite than for white males throughout the decade but the difference narrowed.

The death rates for pneumonia for the years without influenza epidemics suggest that the downward trend evident for this disease prior to 1954 has been reversed. There were still large color-sex differentials in mortality from pneumonia, with the rates being higher for the nonwhite population and for males, but they lessened during the decade.

The death rate for diabetes mellitus increased about 6 percent during 1954-63 with the largest relative increase in the nonwhite population. At the beginning of the decade, the white population had the higher rate; this was

reversed in 1958, however. In the nonwhite population, mortality for females remained almost double that for males throughout the decade. In the white population the sex differential narrowed.

Cirrhosis of liver moved from 13th to 11th place among the leading causes of death. The death rate for the white population was one and one-half times the rate for the nonwhite in 1954, but this color differential had almost disappeared by 1963. In the white population the death rate for cirrhosis of liver for males was about twice the rate for females. The difference was not quite so pronounced in the nonwhite population.

Suicide had increased among teenagers and adults under 45 years of age and declined among persons 65 years and over. Mortality from suicide continued to be greater for males than for females and greater for white than for nonwhite persons but the sex and color differentials lessened.

Over the decade the risk of dying from ulcer of stomach and duodenum increased some 54 percent for white females while it remained almost constant for white males. In 1963 it was about three times greater for males than for females, compared with about four times as great for males in 1954.

QUALIFICATIONS OF DATA

The rates shown in this report are based on deaths tabulated by place of occurrence, that is, all deaths occurring in the death-registration States from 1900 to 1932, and all deaths occurring in the continental United States thereafter, with Alaska added beginning 1959, and Hawaii, 1960. Deaths among armed forces overseas and among U.S. nationals living abroad are excluded for all years. Fetal deaths are also excluded.

The category "White" includes, in addition to persons reported as "White," persons reported to be Mexican or Puerto Rican. The category "Nonwhite" consists of persons reported as Negro, American Indian, Chinese, and Japanese;

other numerically small nonwhite groups; and persons of mixed white-nonwhite races.

Rates were computed on the bases of population statistics made available by the U.S. Bureau of the Census. Rates for decennial years are based on the populations enumerated in censuses of those years, which are taken as of April 1. Rates for all other years are based on midyear (July 1) estimates. Sources of the populations used, published by the Bureau of the Census, are given below.

Vital Statistics Rates in the United States, 1900-1940, Washington, U.S. Government Printing Office, 1943.

Current Population Reports, Series P-25:

- No. 98. "Estimates of the Population of the United States and of the Components of Change, by Age, Color, and Sex: 1940 to 1950," 1954.
- No. 265. "Estimates of the Population of the United States, by Age, Color, and Sex: July 1, 1950 to 1962," 1963. (Used only for data years 1961 and 1962)
- No. 276. "Estimates of the Population of the United States; by Age, Color, and Sex: July 1, 1963," 1963.
- No. 310 "Estimates of the Population of the United States and Components of Change, by Age, Color, and Sex: 1950 to 1960," 1965.

The population estimates by color used for 1962 and 1963 exclude New Jersey. The birth, death, and fetal death records of the State of New Jersey did not contain the race item in the beginning of 1962. The certificate revision without this item was used for most of 1962 as well as for 1963. Therefore the National Center for Health Statistics estimated a population base by color for these years which excluded New Jersey. The estimates for 1963 are shown in table 6-5 Part A, Volume II, of *Vital Statistics of the United States, 1963*. Those for 1962 are shown in the comparable report for that year.

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