

Geographic Patterns in the Risk of Dying and Associated Factors Ages 35-74 Years

United States, 1968-72

Sex-race-specific death rates for ages 35-74 years (age-adjusted) are presented for selected causes of epidemiological importance for each State and each of 510 State economic areas. Factors associated with geographic differences in death rates include mining, elevation, population density, some indexes of patient care resources, and especially the "enigma of the Southeast."

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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-----	*

GEOGRAPHIC PATTERNS IN THE RISK OF DYING AND ASSOCIATED FACTORS AGES 35-74 YEARS

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INTRODUCTION

Differences between areas in attack rates and death rates for infectious diseases were used a century and more ago in the effort to control such diseases, even before the etiology had been identified. In 1855 John Snow recognized the concentration of cholera cases in the vicinity of the Broad Street pump in London.¹ In 1846 Lemuel Shattuck advocated the study of geographic patterns in disease rates as part of the approach needed for their control.^{2,3} Malaria (bad air) was recognized as being caused by exposure to the bad night air near the ground in low-lying areas, during the summer.⁴ This approach helped identify the vector responsible for this disease, the *Anopheles* mosquito.

In more recent years, age-sex-race-specific or age-adjusted rates for various chronic diseases and for all causes of death by geographic areas have been presented by the National Center for Health Statistics and its predecessors,⁵⁻⁹ the Vital and Health Statistics Monograph Series of the American Public Health Association,¹⁰⁻¹⁴ the National Cancer Institute,¹⁵⁻¹⁷ and others.¹⁸⁻²⁵

The present study focuses on identifying geographic patterns of the risk of dying and the degree of association between various factors in the environment and the risk of dying, for various specific causes as well as for all causes as a group. Included are several of the major causes of death classified by Rutstein and associates as preventable and/or treatable.²⁶

In addition to presenting descriptive statistics, consideration is given to several specific hypotheses generated from our analyses of rates for 1949-51 for the United States and for Missouri, Georgia, and North Carolina for the decade of the 1950's; a substantial portion of this material has been published.^{20-25,27} These hypotheses, for death rates among middle-aged white persons, follow:

1. Males living in the Coastal Plain, particularly in the Southeast, have high rates.^{20-22,27}
2. For each sex, areas at a higher elevation tend rather consistently to have lower rates.²¹
3. For each sex, areas that may be classified as "mining and/or history of mining" tend to have high rates, regardless of elevation.^{20,27}
4. Less densely populated areas tend to have lower rates.²⁰
5. Availability of patient care resources is not associated with mortality rates, either for all causes or for many specific causes.²³
6. Geographic patterns, as well as the foregoing associations, are generally very similar for other time periods, especially for 1959-61 as compared with 1968-72.

If an association persists to a statistically significant and at least moderately substantial extent, it does not necessarily imply direct

causation. It does suggest that further epidemiological and ecological study is in order.

MATERIALS AND METHODS

Death detail tapes from the National Center for Health Statistics (NCHS) for the years 1968-72 were tabulated by cause of death, race, age, and sex, by State and by State economic area (SEA).²⁸ The population at risk has been obtained from the revised Second Count tape of the U.S. Bureau of the Census, 1970 enumeration, through the Institute for Behavioral Research, University of Georgia.

Deaths as similarly tabulated by NCHS for work related to the American Public Health Association (APHA) Monograph Series¹⁰⁻¹⁴ for the 1959-61 period were also obtained through Duffy and Carroll¹⁸ as was the 1960 population

CAUSE OF DEATH

Deaths were tabulated by more than 50 categories of causes of death, grouped from the three-digit code of the *Eighth Revision International Classification of Diseases Adapted for Use in the United States* (ICDA).³⁰ Many of the groupings, such as "Cancer or malignant neoplasms, all forms and sites, ICDA 140-209" and "Cerebrovascular diseases (or 'stroke'), ICDA 430-438," are defined in the same way by the World Health Organization, NCHS, the National Institutes of Health, and others. When definitions differ, the basic criterion used was apparent epidemiological usefulness. For example, when planning the tabulations for 1959-61 with NCHS, the Chief of the Cardiopulmonary Section (later the Chronic Respiratory Diseases Branch), Division of Chronic Diseases, Bureau of State Services, Public Health Service advised us to define chronic respiratory diseases as including emphysema, chronic and unspecified bronchitis, asthma, chronic interstitial pneumonia, and bronchiectasis. With many deaths in recent years being classified as chronic obstructive lung disease, it is obviously necessary to include these deaths (resulting in ICDA codes 490-493 and

517-519) in the definition of chronic respiratory diseases, so as to be comparable with the definition for 1959-61.

The broad category, "Ischemic heart disease, ICDA 410-413" is used in conformity with NCHS' 34-cause list³¹ rather than for each digit separately. For some analyses, "Ischemic and other heart disease, ICDA 410-429" is used, to be more nearly comparable with the *International Classification of Diseases* (ICD)³² codes 420-434 for 1959-61.

Some ill-defined and unspecified categories have been identified, such as "Cancer, primary site not given, ICDA 195-199" and "Symptoms and ill-defined conditions, ICDA 780-796." The latter has been included with the cardiovascular diseases rather than with "All other diseases," because one study of about 1,000 sudden, unexpected deaths produced pathological evidence that about 98 percent of such deaths among white males were due to cardiovascular diseases.⁴¹ Thus from this and other studies, it seems reasonable to infer that there will probably be less error if such deaths are included in the cardiovascular category than in the all other diseases category. The "Ill-defined conditions, ICDA 780-796," are, however, listed separately, so that in situations in which it is inappropriate to use this definition of cardiovascular diseases, it can be excluded. Prior to 1968, there was extensive use of the category major cardiovascular-renal diseases (which would be equivalent to ICDA 390-458, 582-584) which we have also used for comparison with rates in earlier periods. It seems equally appropriate to combine the ill-defined category with this broader definition in the cardiovascular category.

"Neoplasms benign and unspecified, ICDA 210-239" are ordinarily classified separately from cancer, yet almost half of the deaths in this category are unclassified as to whether the tumor is malignant or benign. If it is assumed that at least some of these neoplasms are malig-

nant, then the cancer rates are slightly understated, by an unknown amount. The rates for this category are, however, consistently low and well distributed over the United States, thereby minimizing the possibility that varying use of this category may affect the comparability of the cancer category.

Cause categories were selected for tables 2-5, inclusive, and included in tables A-D, for the following reasons:

1. High death rates for a disease or group of diseases.
2. Recognition by Rutstein and associates²⁶ that at least some of the deaths in a category are preventable and/or treatable.
3. The special challenge presented by pancreatic cancer to identify geographic patterns of risk.

RACE

For 1968-72, rates were calculated for white and black persons. In view of the small number of deaths among American Indians, Japanese, Chinese, and other races for most counties of the United States, rates for these groups have not yet been calculated. For 1959-61 rates were calculated for "all other races," which includes these groups as well as the black group. Thus for many areas in the western half of the United States, rates for all other races (also called "nonwhites" in prior reports^{8, 15, 17, 18}) for 1959-61, are not even approximately comparable with rates for black persons for 1968-72.

Spanish Americans, including those born in Mexico, are classified as white, in keeping with standard U.S. practice.

Table A. Death rates for selected causes for white males aged 35-74 years (age-adjusted) for lowest and highest rate areas: 1968-72
[Rate per 100,000 population. Lowest and highest rate areas determined from natural causes]

Cause of death and ICDA code ¹	United States	Two lowest		Average of 6 lowest areas ²	Two highest		Average of 6 highest areas ³
		Kansas SEA 4	Utah SEA 1		Alabama SEA B Phenix City-Russell County	Pennsylvania SEA G Wilkes-Barre-Hazleton	
All causes.....	1,529.0	1,149.7	1,161.1	1,176.6	2,381.6	1,962.4	2,071.6
Natural causes.....000-796	1,406.2	1,029.0	1,023.4	1,048.9	2,186.1	1,880.5	1,910.2
Malignant neoplasms.....140-209	313.2	209.9	195.4	211.0	484.6	300.9	354.9
Colo-rectal.....152-154	37.6	22.1	23.7	26.2	23.2	57.1	33.8
Pancreas.....157	18.0	11.8	6.9	12.5	28.8	17.6	19.6
Respiratory system.....160-163	115.3	78.9	41.1	58.4	246.9	90.7	144.1
Bladder.....188	9.1	5.3	9.9	6.9	20.8	9.3	10.7
Ill-defined sites.....195-199	18.3	12.0	6.7	11.9	61.6	15.8	31.2
Major cardiovascular (and ill-defined) diseases.....390-448, 780-796	815.4	621.2	606.3	621.2	1,311.3	930.4	1,112.8
Rheumatic heart disease.....390-398	14.4	10.3	20.8	16.4	8.8	14.5	14.1
Hypertensive heart disease and hypertension.....400-404	10.9	4.0	11.1	6.3	17.7	16.0	14.2
Ischemic heart disease.....410-413	610.1	476.1	415.0	454.9	968.6	718.4	684.5
Other and ill-defined heart disease.....420-429	29.3	33.0	23.9	17.7	74.4	35.6	63.2
Cerebrovascular disease.....430-438	100.1	61.6	91.9	82.3	206.9	104.1	154.4
Ill-defined conditions.....780-796	17.3	13.4	13.9	12.8	25.1	4.3	41.3
All other diseases.....000-136, 210-389, 450-778	277.4	197.8	220.2	216.4	390.1	649.1	442.5
Diabetes.....250	23.5	12.1	27.4	18.0	28.7	30.5	25.1
Influenza and pneumonia.....470-486	34.9	27.4	22.3	26.1	65.7	30.1	47.9
Chronic respiratory diseases.....490-493, 517-519	55.4	47.1	61.9	50.3	85.7	45.7	75.7
Cirrhosis of liver.....571	44.5	14.7	18.2	17.3	54.0	51.6	50.2
External causes.....E800-E999	122.8	120.7	139.0	127.4	195.4	81.8	161.3

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

²Consisting of these SEA's: Colorado D, Kansas 4, Minnesota 6, North Dakota 5, Utah 1, and Utah 2.

³Consisting of these SEA's: Alabama B, Georgia F, Pennsylvania C, Pennsylvania G, South Carolina 7, and West Virginia 4.

Table B. Death rates for selected causes for white females aged 35-74 years (age-adjusted) for lowest and highest rate areas: 1968-72
 [Rate per 100,000 population. Lowest and highest rate areas determined from natural causes]

Cause of death and ICDA code ¹	United States	Two lowest		Average of 6 lowest areas ²	Two highest		Average of 6 highest areas ³
		Colorado SEA 4	Washington SEA 8		New Jersey SEA H Jersey City	New York SEA 8	
All causes.....	715.3	559.6	587.3	586.3	968.4	983.6	968.8
Natural causes.....000-796	718.7	515.7	540.9	540.7	944.1	938.6	924.6
Malignant neoplasms.....140-209	222.7	156.3	164.9	158.0	269.7	278.5	255.4
Colo-rectal.....152-154	30.1	19.1	10.0	21.7	44.2	31.7	38.9
Pancreas.....157	10.1	3.8	5.9	7.3	13.5	10.6	11.7
Respiratory system.....160-163	23.2	8.8	14.6	11.6	25.8	32.4	25.0
Bladder.....188	2.4	1.8	6.5	2.5	2.6	3.0	2.4
Ill-defined sites.....195-199	14.0	11.3	10.3	9.2	16.5	16.2	20.8
Major cardiovascular (and ill-defined) diseases.....390-448, 780-796	344.7	249.9	256.8	241.8	480.2	504.5	495.8
Rheumatic heart disease.....390-398	14.0	17.6	15.9	9.9	19.3	20.1	18.5
Hypertensive heart disease and hypertension.....400-404	7.7	7.8	3.3	5.4	13.0	9.3	13.8
Ischemic heart disease.....410-413	217.1	138.7	155.8	148.7	333.6	339.3	331.9
Other and ill-defined heart disease.....420-429	13.7	14.1	25.6	13.5	24.7	20.9	23.5
Cerebrovascular disease.....430-438	71.8	62.1	42.7	53.2	76.5	85.2	84.5
Ill-defined conditions.....780-796	7.0	1.8	.	0.9	2.4	2.5	5.2
All other diseases.....000-136, 210-389, 450-778	151.2	109.3	118.9	114.7	194.1	155.6	173.3
Diabetes.....250	22.6	26.8	15.7	18.9	40.0	18.7	31.7
Influenza and pneumonia.....470-486	17.2	3.5	9.8	8.1	23.5	24.8	21.9
Chronic respiratory diseases.....490-493, 517-519	13.9	12.6	7.3	10.0	9.0	18.9	10.9
Cirrhosis of liver.....571	20.3	6.4	28.0	9.5	31.4	18.4	16.9
External causes.....E800-E999	46.5	43.9	46.3	45.5	24.3	44.8	44.0

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

²Consisting of these SEA's: Colorado 4, Kansas 4, Minnesota 8, Nebraska 5, North Dakota 5, and Washington 8.

³Consisting of these SEA's: Alabama B, New Jersey F, New Jersey H, New York 8, Pennsylvania 6, and Pennsylvania G.

AGE AND SEX

Age-specific rates have been calculated by 10-year age groups—the usual 11 age groups—for males and females. Rates for persons aged 35-74 years are age adjusted, by 10-year age groups by the direct method, to the total U.S. population in those age groups in 1950, so as to be comparable with rates for persons aged 35-74 in other studies.^{14, 22, 25}

For each age-sex-race group, the estimated person years at risk (for the 1968-72 period) consists of the 1970 enumeration times 4.5. Since NCHS coded only a 50-percent sample of 1972 deaths, the 1968-72 period consists of 4½ years.

GEOGRAPHIC AREAS

Rates have been routinely calculated by place of usual residence for each of 50 States and the District of Columbia, and the 510 State

economic areas (SEA's) of the United States, the latter as defined by the U.S. Bureau of the Census.²⁸ Green Bay-Brown County, Wisconsin, was first classified as a metropolitan SEA in the 1970 census; to simplify comparisons of 1959-61 rates with the 1968-72 rates, Brown County was subtracted from Wisconsin SEA 7 and arbitrarily considered an SEA for 1959-61 also. There are 207 metropolitan SEA's that differ from Standard Metropolitan Statistical Areas (SMSA's):

1. Their boundary lines are the same for 1970 as for 1960 (except for Brown County, Wisconsin).
2. They cross neither State boundary lines nor economic subregion boundary lines.
3. They exclude some of the smaller SMSA's as well as some suburban-type counties that are part of large SMSA's.

Table C. Death rates for selected causes for black males aged 35-74 years (age-adjusted) for lowest and highest rate areas: 1968-72
 [Rate per 100,000 population. Lowest and highest rate areas determined from natural causes]

Cause of death and ICDA code ¹	United States	Two lowest		Average of 6 lowest areas ²	Two highest		Average of 6 highest areas ³
		California SEA H San Bernardino, etc.	Louisiana SEA 4		Florida SEA 6	Georgia SEA E Savannah	
All causes.....	2,377.1	1,709.2	1,744.6	1,759.1	3,459.7	3,130.6	3,163.0
Natural causes.....000-796	2,111.7	1,462.5	1,481.4	1,535.0	2,887.2	2,833.1	2,789.1
Malignant neoplasms.....140-209	431.0	333.5	290.9	348.2	570.5	576.4	494.6
Colo-rectal.....152-154	36.7	23.5	18.0	23.2	35.5	60.7	38.9
Pancreas.....157	23.7	28.0	26.6	18.6	26.7	17.4	27.4
Respiratory system.....160-163	145.5	94.4	87.9	106.9	186.2	173.0	154.7
Bladder.....188	9.2	7.3	8.4	9.5	14.7	12.5	13.2
Ill-defined sites.....195-199	33.3	26.7	34.9	24.8	58.7	52.4	50.1
Major cardiovascular (and ill-defined) diseases.....390-448, 780-796	1,159.9	642.6	871.6	802.5	1,632.0	1,567.0	1,607.1
Rheumatic heart disease.....390-398	13.2	26.3	19.8	16.7	20.4	12.6	16.2
Hypertensive heart disease and hypertension.....400-404	54.0	36.8	30.9	32.5	84.2	98.2	76.3
Ischemic heart disease.....410-413	653.7	414.6	454.2	474.5	668.1	638.3	887.7
Other and ill-defined heart disease.....420-429	78.7	43.0	67.5	50.8	90.8	195.6	103.1
Cerebrovascular disease.....430-438	243.8	101.6	258.0	175.7	274.7	506.4	365.4
Ill-defined conditions.....780-796	77.5	6.0	12.8	31.4	428.0	14.6	83.7
All other diseases.....000-136, 210-389, 450-778	520.7	486.2	318.8	384.3	684.5	689.5	687.3
Diabetes.....250	45.1	27.6	34.8	32.3	53.7	49.2	53.5
Influenza and pneumonia.....470-486	85.1	70.1	49.4	64.4	149.7	165.3	131.9
Chronic respiratory diseases.....490-493, 517-519	47.9	97.1	33.0	49.0	65.6	31.7	62.5
Cirrhosis of liver.....571	71.7	89.0	8.0	52.8	47.2	17.4	57.1
External causes.....E800-E999	265.3	246.7	263.2	224.1	572.5	297.4	373.8

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

²Consisting of these SEA's: Arkansas 7, California C, California G, California H, Louisiana 4, and Maryland B.

³Consisting of these SEA's: Delaware A, Florida 6, Georgia E, Georgia F, North Carolina B, and South Carolina D.

These excluded counties are included as parts of nonmetropolitan SEA's.^{28,29} There are 303 nonmetropolitan SEA's, each of which usually consists of 4-20 counties (within a State) that are similar in agricultural or other economic activity.

Hawaii presents demographic difficulties. The Census definition of "white" for this State for 1970 differs from that used for death certificates and in prior censuses. Present race-specific rates, especially for white persons, for 1968-72 seem to be of questionable soundness. Further study is needed also, for 1959-61, on the comparability of numerators and denominators, especially for rates among white persons. Therefore, the mortality data for the Honolulu metropolitan SEA and the Hawaii nonmetropolitan SEA are reported, but have not been used in this report in preparing maps and correlations.

Rates for black persons are presented for each State and SEA that have a black population aged 35-74 years, in 1970, in excess of 10,000. This population size is approximately equivalent to the white population of the smallest SEA's. A total of 34 States and 155 SEA's meet this criterion. The rates for a State are for the entire State, including those SEA's with a population too small to be listed separately. Therefore, in States with only one SEA listed, the rate for the State may differ somewhat from the single SEA rate listed.^a

FOREIGN RESIDENTS

Prior to 1970 NCHS counted deaths of foreign residents as if they were residents of the county in which death occurred. For 1970-72

^aThis pertains just to rates for black persons.

Table D. Death rates for selected causes for black females aged 35-74 years (age-adjusted) for lowest and highest rate areas: 1968-72
 [Rate per 100,000 population. Lowest and highest rate areas determined from natural causes]

Cause of death and ICDA code ¹	United States	Two lowest		Average of 6 lowest areas ²	Two highest		Average of 6 highest areas ³
		Washington SEA A Seattle	California SEA H San Bernardino, etc.		Georgia SEA E Savannah	Florida SEA 6	
All causes.....	1,466.5	1,039.5	1,060.2	1,100.7	2,106.7	2,084.8	2,040.4
Natural causes .....000-796	1,401.0	968.2	992.9	1,032.9	2,012.5	1,967.4	1,946.1
Malignant neoplasms.....140-209	277.7	285.4	227.3	257.4	349.8	324.4	299.6
Colo-rectal.....152-154	34.6	27.1	21.7	27.0	48.4	25.2	34.0
Pancreas.....157	14.3	15.0	15.6	17.2	18.8	11.0	15.7
Respiratory system.....160-163	25.4	39.7	31.1	26.2	22.5	39.6	26.2
Bladder.....188	4.8	3.5	6.2	5.0	7.9	11.2	4.9
Ill-defined sites.....195-199	24.8	29.6	15.6	20.9	34.2	28.0	26.2
Major cardiovascular (and ill-defined) diseases.....390-448, 780-796	785.0	446.6	471.7	502.9	1,213.0	1,043.8	1,189.1
Rheumatic heart disease.....390-398	11.4	8.5	24.6	11.9	18.3	16.9	12.0
Hypertensive heart disease and hypertension.....400-404	45.6	63.9	40.0	33.0	86.9	81.9	87.5
Ischemic heart disease.....410-413	405.5	218.6	257.9	290.4	402.3	398.6	493.4
Other and ill-defined heart disease.....420-429	47.6	23.9	21.6	15.8	145.6	95.3	97.2
Cerebrovascular disease.....430-438	206.2	121.1	114.9	132.0	478.8	286.0	356.3
Ill-defined conditions.....780-796	42.5	3.8	-	4.8	10.9	195.2	89.2
All other diseases .....000-136, 210-389, 450-778	338.2	236.1	293.8	272.4	449.5	549.0	457.3
Diabetes.....250	70.1	44.4	33.9	41.5	77.3	109.3	95.9
Influenza and pneumonia.....470-486	39.2	24.1	34.4	30.0	74.6	59.3	59.0
Chronic respiratory diseases.....490-493, 517-519	14.7	26.7	14.9	19.2	16.4	25.8	19.2
Cirrhosis of liver.....571	36.8	37.2	49.7	36.0	22.0	95.0	34.9
External causes.....E800-E999	65.4	71.2	67.2	67.7	94.1	117.4	94.3

¹Based on *Eighth Revision International Classification of Diseases Adapted for Use in the United States*.

²Consisting of these SEA's: California F, California G, California H, Maryland B, New York 9, and Washington A.

³Consisting of these SEA's: Florida 6, Georgia D, Georgia E, South Carolina 8, South Carolina C, and South Carolina D.

there were 3,372 deaths among the white population designated in NCHS tabulations as foreign resident deaths and not included with usual resident deaths. In order to have comparability with methods used for 1968-69 and 1959-61, deaths of foreign residents in the 1970-72 period, have also been counted in the present study as if they were residents of the county in which death occurred.

For some groups of foreign residents in the United States with a substantial population at risk (such as Mexican nationals), this procedure, as used in 1968-69 by NCHS, would seem likely to minimize error. For ordinary tourist, business, and embassy personnel, it also seems reasonable to assume that deaths would tend to be counterbalanced by deaths abroad of U.S. citizens in similar categories. Individuals coming to the United States specifically for major surgery should probably be excluded if a feasible way could be devised (e.g., the moderate number of Canadian deaths due to rheumatic heart disease in Houston-Harris County, Texas).

ELEVATION AND DENSITY

Elevations for SEA's and States were derived from county data. They were obtained for the county seats from a Rand McNally *Atlas*.³³ However, for about 400 counties this information was not available from the *Atlas* and was obtained from topographical maps of the U.S. Geological Survey.³⁴ When another city had a larger population than that of the county seat, the two elevations were averaged in order to obtain a better estimate of the approximate average elevation at which people in the county lived. Whenever there appeared to be doubt as to the adequacy of the estimate, information was obtained regarding the population distribution in the county and the probable elevation. For calculating the elevation at which people in each SEA and each State lived, elevations for the counties were weighted according to the population of white persons 35-74 years of age and summed.

Population density was calculated from the

total population of the SEA or State and the land area, the latter being in the area resources file (ARF) of November 1976, maintained by the Bureau of Health Manpower.

PATIENT CARE RESOURCES

The number of individuals actively engaged in specified health professions, along with the number of inpatient days in general hospitals, and the total population per county, all contained on the ARF tape, were used to calculate the rate of physicians, general practitioners, nurses, dentists, and hospital bed days per 100,000 population for the SEA's and States.

ANALYTIC METHODS

Emphasis has been placed on correlations of entire distributions and analysis of extreme values.

Correlations

The Pearsonian or product moment coefficient of correlation r is used to measure the extent of the association of two variables for the

entire distribution. Specifically, we computed correlations of sex-race-cause-specific death rates for geographic units such as SEA's with other cause-specific death rates and with other variables. Although any correlation more than ± 0.17 for the 508 SEA's ($p < 0.0001$) or for more than ± 0.36 for the 50 States ($p < 0.01$) can be considered statistically significant, our attention is focused almost entirely on correlations in excess of ± 0.40 . Therefore, the p values are generally omitted from the text.

Analysis of Extreme Values

Extreme death rates, particularly the 10 percent or 50 SEA's with the lowest death rates and the 50 with the highest, were analyzed in order to study the causes of high endemic rates (rates that are often so high that they might be considered epidemics), as well as to study the protective factors that contribute toward the lowest rates. That is, the greater the difference in rates, along with adequate levels of statistical significance, the easier it should be to identify factors contributing to the production of such differences.

ANALYSIS OF MORTALITY RATES

AGE, SEX, AND RACE

The risk of dying from natural causes (ICDA 000-796)—all causes except accidents and violence—increases drastically with age. For white persons in the United States, 1968-72, the rate for those aged 65-74 years is 15-20 times that for persons aged 35-44. This increase presents an approximation of a straight line on the logarithmic scale, with the rate doubling every 6-9 years. For the cardiovascular diseases, the rates for white persons aged 65-74 are 24-34 times the rates for those aged 35-44 (figure 1). It seems untenable to assume that all the increase is due to "aging." Rather, an unknown but probably substantial portion of this increase in the risk of dying with increasing age is due to decades of exposure to avoidable risk factors, which might be called improper health habits, such as cigarette smoking, improper diet, and insufficient

exercise, as well as to exposure to other environmental risk factors, many of which have not as yet been adequately identified. It is beyond the scope of the present study to determine the extent to which age functions as an index of the duration or time of exposure to different factors. This increase in risk with increasing age does, however, point to the need to use age-specific death rates.

Mortality rates among males are consistently higher than those for females for most specific causes, as well as for all causes of death. Rates for black persons tend to be higher than those for white persons, and these differences are sufficient to suggest the need to continue the standard practice of presenting age-sex-race-specific rates.³⁷ An adjustment for age has been made whenever the rate given is for a broader span of age than 10 years. With this approach, one is, in effect, saying: There are factors that

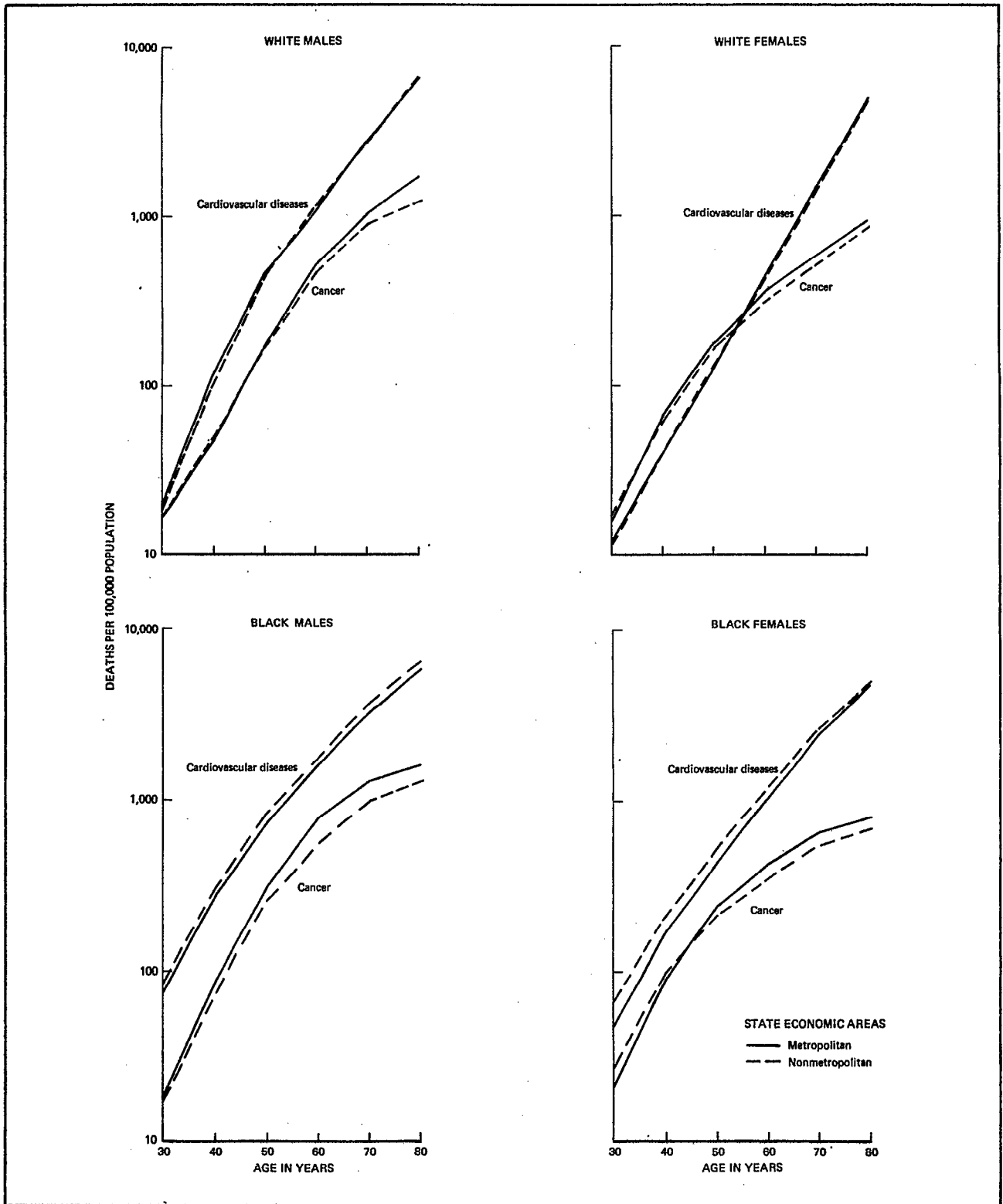


Figure 1. Rates per 100,000 population for deaths due to cardiovascular diseases and cancer (semilogarithmic scale) by age and metropolitan status: United States, 1968-72

fall into the areas of physiology, genetics, and the environment, broadly defined, that in different age-sex-race groups affect the risk of dying. However, these age-sex-race differences in risk should be studied separately, and should be held constant when studying geographic differences.

METROPOLITAN STATUS

It has been widely recognized that the metropolitan areas of the United States generally have higher death rates than nonmetropolitan areas have.^{10,11,13} For the 1949-51 period, middle-aged white persons in metropolitan areas had rates generally 20-26 percent higher than those in nonmetropolitan areas.²⁰ In the 1968-72 period, however, the differences in rates between these two groups were generally very slight (table 1).

For cardiovascular diseases, mortality rates for white persons are essentially the same for metropolitan and nonmetropolitan areas: for black persons the rates are clearly higher in nonmetropolitan areas. Technically these comparisons are made between rates for urban masses of population and rates for scattered small cities and rural areas combined. Yet for the white population the metropolitan population is concentrated in the Northeast^b and along the west coast; the nonmetropolitan population is more scattered, with more people in the Great Plains and mountain regions. For black persons, this contrast is even greater: The metropolitan population is scattered in many parts of the country, and the nonmetropolitan population is found almost entirely in the South. Thus to some extent, metropolitan-nonmetropolitan analyses unintentionally include some regional comparisons. This built-in regional comparison should not be ignored when recognizing the higher cardiovascular diseases rates for black persons in nonmetropolitan areas (table 1).

^bIn this report, the term "Northeast" includes the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania. The term "northeastern section" includes the States just listed, plus Maryland, Virginia, West Virginia, Kentucky and parts of the five East North Central States.

A minor problem in the comparisons is the varying definition of "metropolitan" by the U.S. Bureau of the Census. Specifically, in 1950 and 1960 there were a few small SMSA's that were classified as metropolitan for many purposes, but that were part of nonmetropolitan SEA's. For 1970 the number of such areas increased substantially, and particularly included suburban counties that are now part of larger SMSA's, but which are still classified as part of the nonmetropolitan SEA's. These SMSA counties have been included in the nonmetropolitan SEA rates in table 1, in accord with Census definitions, and rates have also been calculated for the nonmetropolitan SEA's with such SMSA counties excluded, resulting in only nominal differences in the rates, usually less than 1 percent.

Of more than 50 cause categories presented in table 1, cirrhosis of liver presents the greatest contrast, with mortality rates for white persons 75 percent higher in metropolitan SEA's than in nonmetropolitan SEA's and with an even greater contrast for rates for black persons. Rates for cancer of breast are about 20 percent higher in metropolitan SEA's than in nonmetropolitan SEA's. Accident rates are clearly lower in metropolitan areas. In spite of these contrasts, however, the overall differences in risk between metropolitan and nonmetropolitan areas for various specific causes, as well as for natural causes as a group, are rather small.

The similarity in risk of dying between metropolitan areas and nonmetropolitan areas extends to death rates for various age groups of white males, for the cardiovascular diseases and also for cancer for persons under the age of 55 (figure 1). For age groups 55 and over, the metropolitan rate is moderately higher.

The classification of the United States as to metropolitan or nonmetropolitan status thus seems to be of very limited usefulness for identifying contrasts in the risk of dying.

NATURAL CAUSES

Natural causes of death, ICDA 000-796,³⁰ or the sum of all diseases, are nearly all chronic diseases, particularly for adults in the United States. With the data presently available, it seems appropriate to focus on natural causes

rather than on all causes, but this implies a substantial degree of accuracy in the distinction between natural causes and external causes. The latter group consists of accidents and violence, including suicide and homicide (table 1).

Death rates for deaths due to natural causes for persons aged 35-74 years, age-adjusted, are presented for each race-sex group for each State and each of the 510 SEA's in the second column of tables 2-5. Death rates for all causes of death are presented in the first column.

White Males

Males are clearly the weaker sex, as far as the age-specific risk of dying, particularly among white persons in the United States. Almost half of all deaths in the United States occur in this one race-sex group. Thus there is a tendency to give priority to the analysis of high rates for middle-aged white males for the purpose of obtaining information that may be of value in the effort to reduce these rates. The lowest rate areas have generally been concentrated in the Great Plains. In the period 1968-72 the 10 percent of the areas with the lowest rates for natural causes are all located west of the Mississippi River or in west central Wisconsin (figure 2). The 10 percent of areas with the highest rates are concentrated largely in the Southeast and other portions of the Coastal Plain, but several are in mining areas. The only area entirely west of the Mississippi in this high rate group is the Missouri Bootheel, which is classified by geologists as part of the Coastal Plain.³⁸

The areas adjacent to or near the low rate areas consistently have below average rates, and those near the highest rate areas generally have above average rates, even though they are all shown on the map as falling within the middle 80 percent.

The two SEA's with the lowest rates are Utah SEA 1, consisting of eight nonmetropolitan counties of northern and central Utah including the cities of Logan and Brigham City, and Kansas SEA 4—seven rural counties along the Nebraska border, from Marshall to Norton. This area, along with Nebraska SEA's 4 and 5, constitutes an economic subregion that had one of the very lowest rates in 1949-51.²¹ It also had low rates in 1959-61.

The age-specific rates for these two areas are consistently very low (figure 3). These two areas generally have low rates for various specific causes of death. Obvious exceptions are the rheumatic heart disease and chronic respiratory categories for Utah SEA 1 (table A). The Mountain areas generally have high rates for these categories.

The highest rate areas are Alabama SEA B, Phenix City (and all of Russell County), which is part of the Columbus (Georgia) SMSA, and Pennsylvania SEA G, the Wilkes-Barre-Hazleton SMSA or Luzerne County. The rates for these two areas are consistently very high for each age group (figure 3). The Phenix City area has high rates for nearly all the major cause categories, with the exceptions of colo-rectal cancer and rheumatic heart disease (including rheumatic fever), both of which tend to be low in the South. The Wilkes-Barre-Hazleton area has high rates for the cardiovascular diseases, and especially for "all other diseases" (table A). It also has high rates for colo-rectal cancer, as does much of the Northeast.

As an indication of the extent to which these four extreme-rate areas are representative of the range between the extremes, the average rates (arithmetic mean) for the six lowest and highest rate areas, for deaths due to natural causes for each race-sex group, are included in tables A-D.

White Females

Among white females aged 35-74 years, the lowest rate areas for deaths attributed to natural causes are also nearly all west of the Mississippi River, but with more low rate areas in north and central Texas than among white males (figure 4). The low rate area in northern Georgia is consistent with low rates for prior periods.^{22, 24} The low rates in the Florida peninsula areas in 1968-72 are consistent with patterns for 1959-61 and appear to be related to selective migration (that is, the low rates are due to low rates among Florida residents who were born in the North).³⁹

The highest rate areas are east of the Mississippi and nearly all are found in the northeast section of the country, especially in the Middle Atlantic States, the bituminous coal mining areas of West Virginia, and adjacent States.

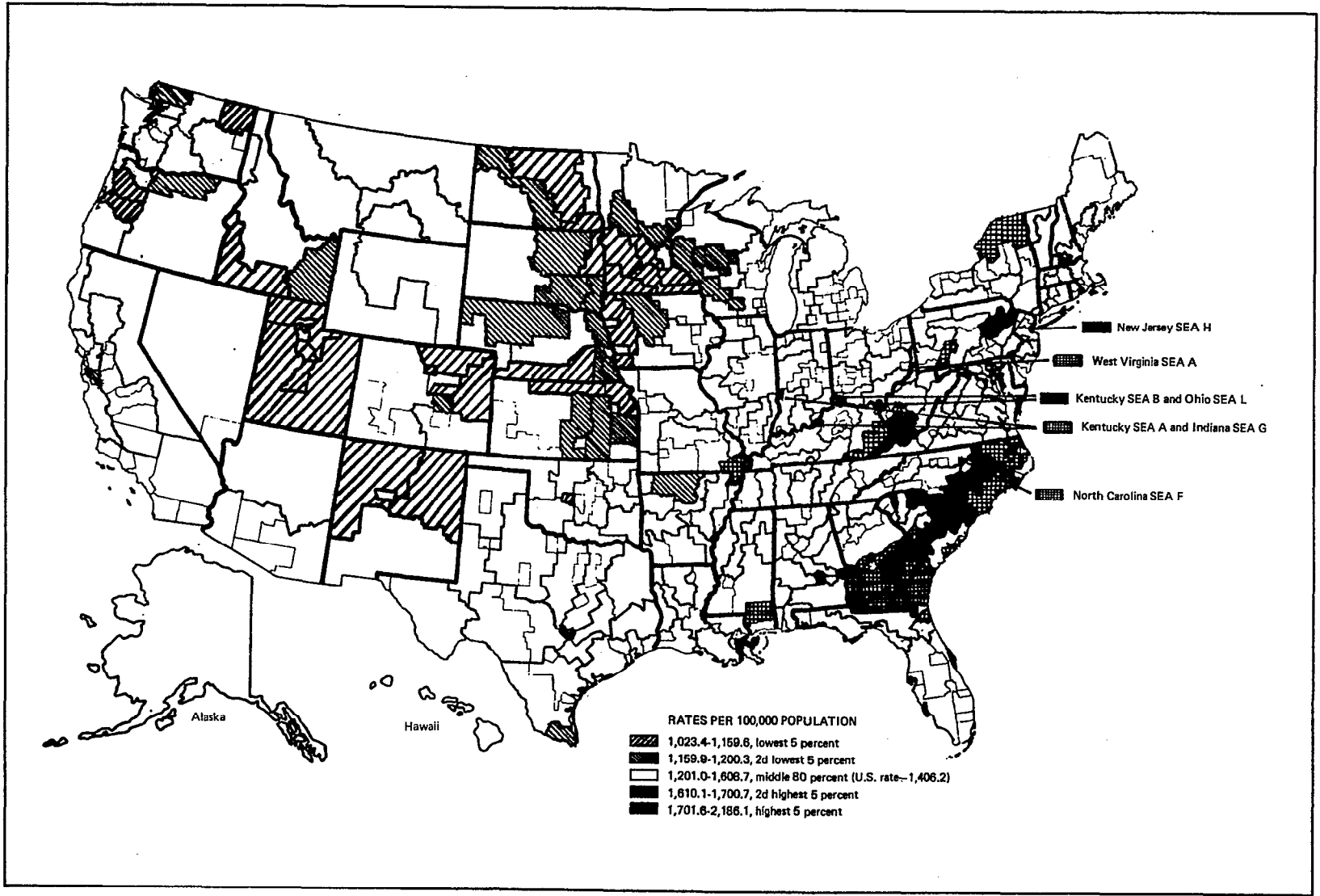


Figure 2. Death rates for natural causes (ICDA 000-796) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

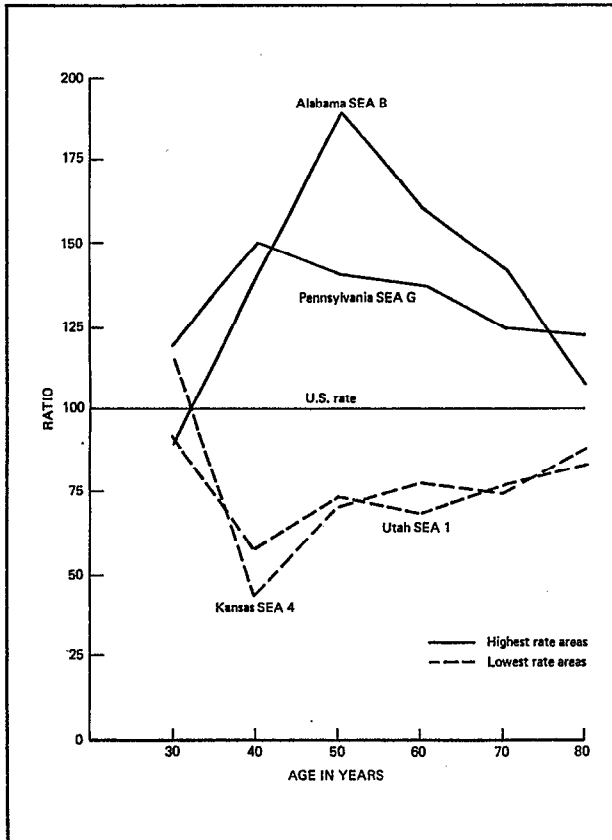


Figure 3. Ratios of age-specific rates for natural causes of death (ICDA 000-796) among white males in 2 lowest and 2 highest rate State economic areas to rates of the United States, 1968-72

The two lowest rate SEA's are Colorado SEA 4, consisting of nine very rural counties in the high plains area of east central Colorado, and Washington SEA 8, three counties in extreme northeastern Washington. The rates for each age group are substantially lower than the comparable U.S. rate (figure 5).

The two highest rate SEA's are New Jersey SEA H, which is Hudson County including Jersey City, and New York SEA 8, consisting of Warren and Washington counties, north of the Albany SMSA. The age-specific rates for these areas are also consistently high, including age group 75-84.

In Colorado SEA 4, in spite of the small population of each county, the death rates are consistently low, and are also in the very low death-rate category among white males. Washington SEA 8 also has low rates among white

males. Jersey City, New Jersey SEA H, has one of the highest death rates for each sex and for prior periods. New York SEA 8 has the second highest rate in New York State for white males. This repetition in death rate patterns suggests that factors producing very low or very high rates among white females may have a similar effect on white males.

Among white persons, the six lowest rate areas have low age-specific rates, and the six highest rate areas also have very high rates, a pattern similar to what is shown in figures 3 and 5.

The two low rate areas for deaths due to natural causes also have low rates for deaths due to cancer, all sites and specific sites, as well as for the cardiovascular diseases and all other diseases; the two highest rate areas have correspondingly high rates for the specific causes (table B). However, for some of the specific diseases in the all other diseases group, the patterns are mixed.

Black Males

The lowest rate areas for deaths among black males are west of the Mississippi River, especially on the west coast, and in the North (figure 6). It is obviously impossible for the lowest black and white rates to be found in the same areas, because in many of these areas the black population is too small to permit the calculation of meaningful rates. The highest rate areas are in the South Atlantic States, and a few areas are the same as those for white males.

The two lowest rate areas are San Bernardino-Riverside (California) and Louisiana SEA 4, a group of 10 counties in north central Louisiana between Shreveport and Monroe. The two highest rate areas are Savannah-Chatham County, Georgia and 10 counties south of Tampa in Florida SEA 6, including cities such as Ft. Myers, Sarasota, and Bradenton. For each 10-year group, aged 35-74, the rates are consistently extreme (figure 7).

The age-specific rates for the six lowest and six highest rate areas present a similar pattern.

For each of the major groups of causes, malignant neoplasms, cardiovascular, all other diseases, and external, the two lowest rate areas have rates lower than the U.S. rate, and the two

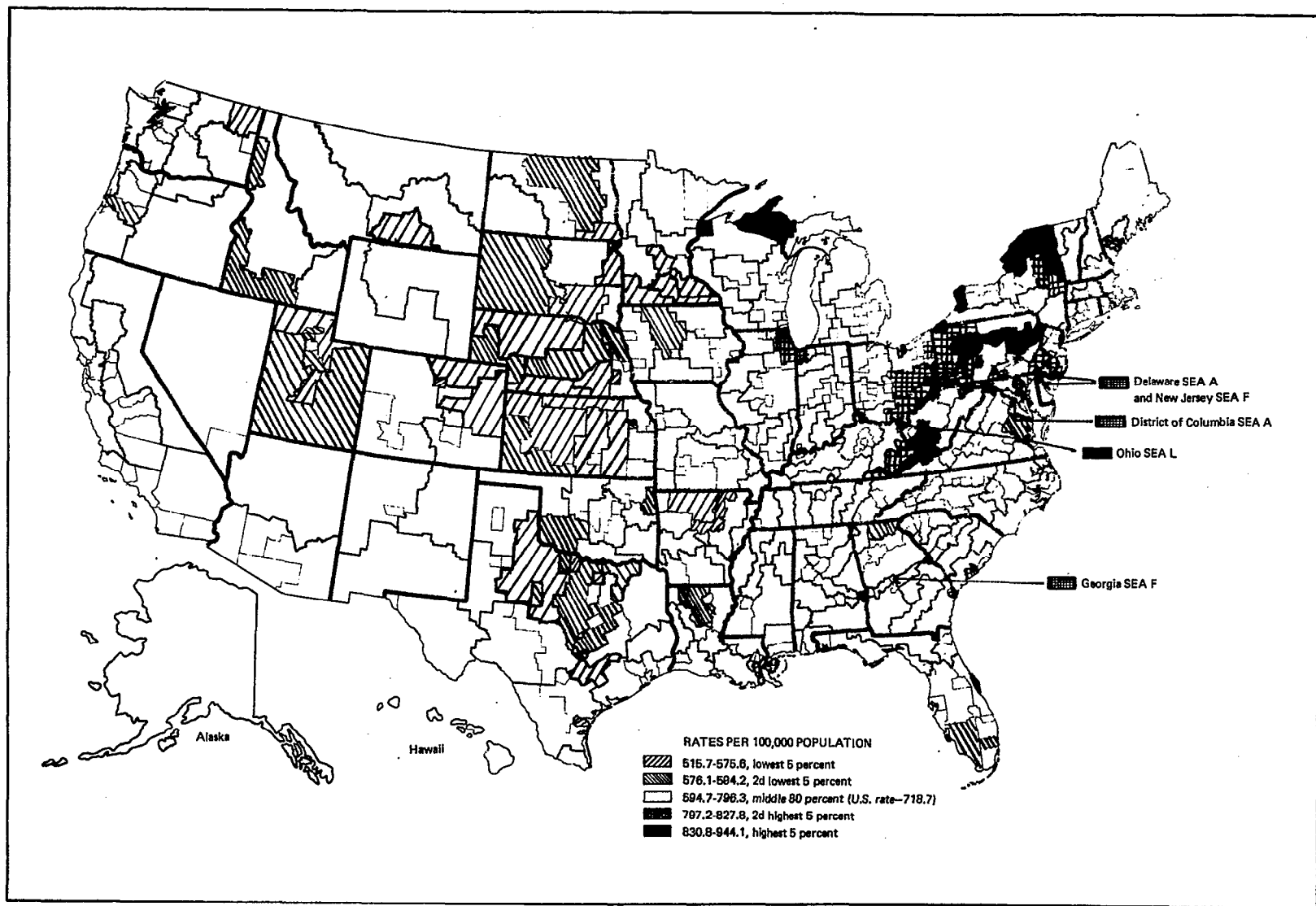


Figure 4. Death rates for natural causes (ICDA 000-796) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

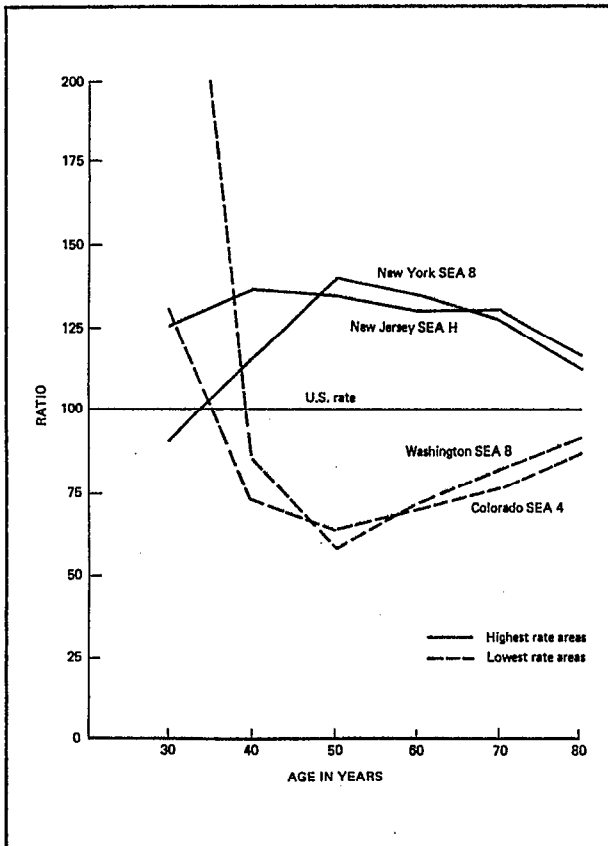


Figure 5. Ratio of age-specific rates for natural causes of death (ICDA 000-796) among white females in 2 lowest and 2 highest rate State economic areas to rates of the United States, 1968-72

highest have rates higher than the U.S. rate (table C). Also in harmony with the natural causes pattern are cancer of the respiratory system, ischemic heart disease, and stroke (cerebrovascular disease). The rate for the latter for Savannah is five times as high as for San Bernardino-Riverside. The ill-defined conditions category is also low for the two low rate areas and very high for Florida SEA 6, but not for Savannah.

Black Females

The lowest and highest rate areas for black females tend to be similar to those for black males (figure 8). All of the west coast areas are in the lowest rate category, and five are in the northeast section as far south as east central Virginia. The highest rate areas are in the South-

east, but also include Norfolk and Chattanooga. For both the lowest rate and highest rate groups, 11 out of 16 are metropolitan. This is a contrast to the lowest rate areas for the white population, nearly all of which are nonmetropolitan.

The two lowest rate areas (San Bernardino-Riverside, California SEA H, and Seattle, Washington SEA A) and the two highest rate areas (Savannah, Georgia SEA E and Florida SEA 6, southwestern Florida) have extreme rates for each 10-year age group, from 35 to 74 years (figure 9).

The two lowest rate areas have very low rates for the cardiovascular diseases and for all other diseases, as does San Bernardino-Riverside for malignant neoplasms, all sites (table D). The two highest rate areas are consistently very high for each of these three major groups of diseases. For a substantial number of the more specific disease categories, the rates are in harmony with the natural causes rate for the area, but there are also exceptions. For Florida SEA 6, the very high rate for ill-defined conditions makes it difficult to compare cause-specific rates with Savannah; for example, if these are nearly all stroke deaths, then its stroke rate may be almost as high as Savannah's; however, if they are mostly due to ischemic heart disease, then the rate for this category would be substantially greater than for Savannah.

Associations

To what extent are the geographic patterns of death rates for natural causes real and due to environmental factors? Progress in answering such a question may be made by considering a number of more specific questions implied in it.

1. To what extent are geographic patterns similar over time, especially 1968-72 as compared with 1959-61? For natural causes, for white males aged 35-74, for 508 SEA's, the correlation is +.85. For 50 States, for the metropolitan SEA's separately, and for the nonmetropolitan SEA's, the correlations are nominally higher (table 6). For the 1,084 largest counties r equals +.77. This similarity in geographic patterns from one time

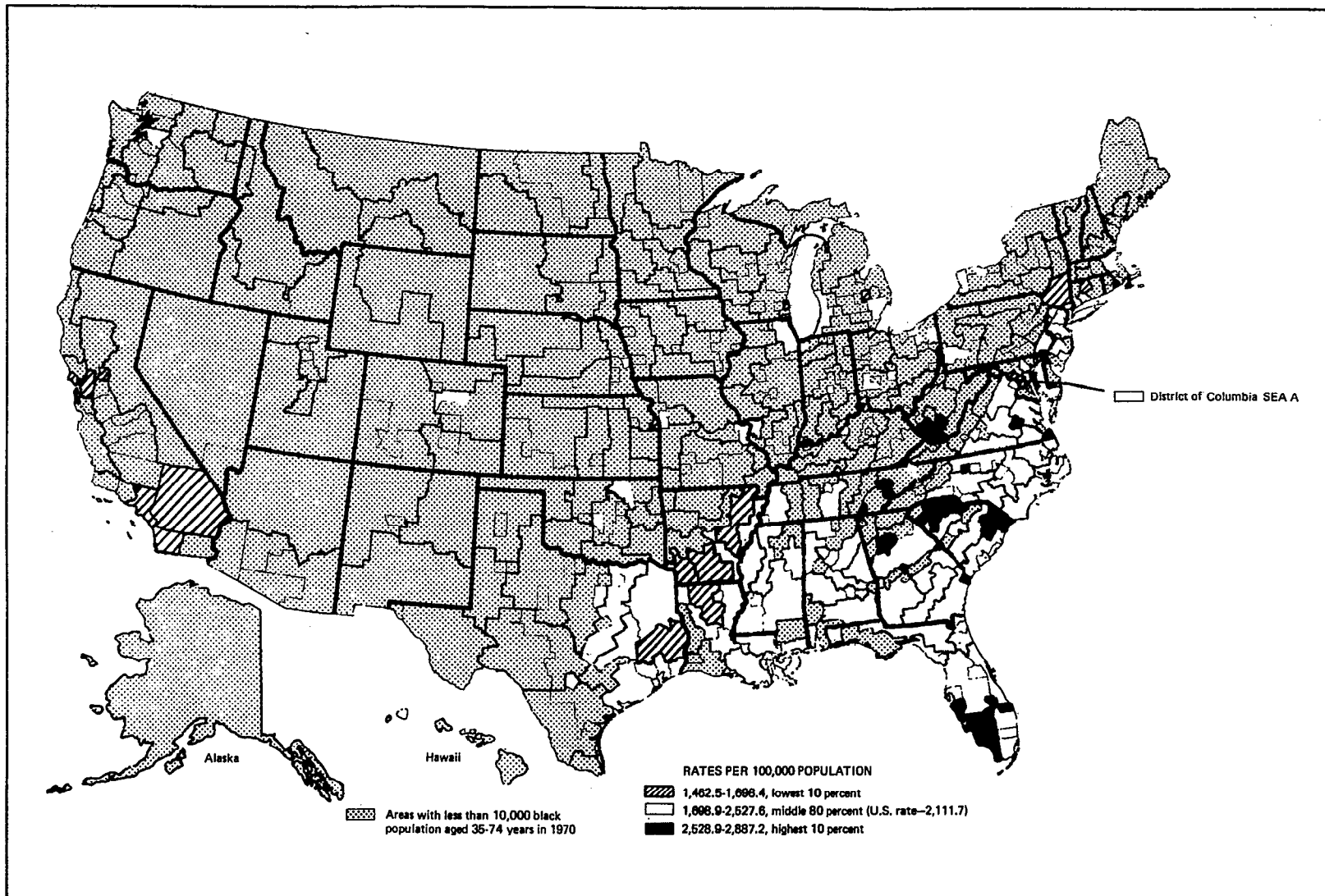


Figure 6. Death rates for natural causes (ICDA 000-796) among black males aged 35-74 years (age-adjusted) in 16 lowest and 16 highest rate State economic areas: United States, 1968-72

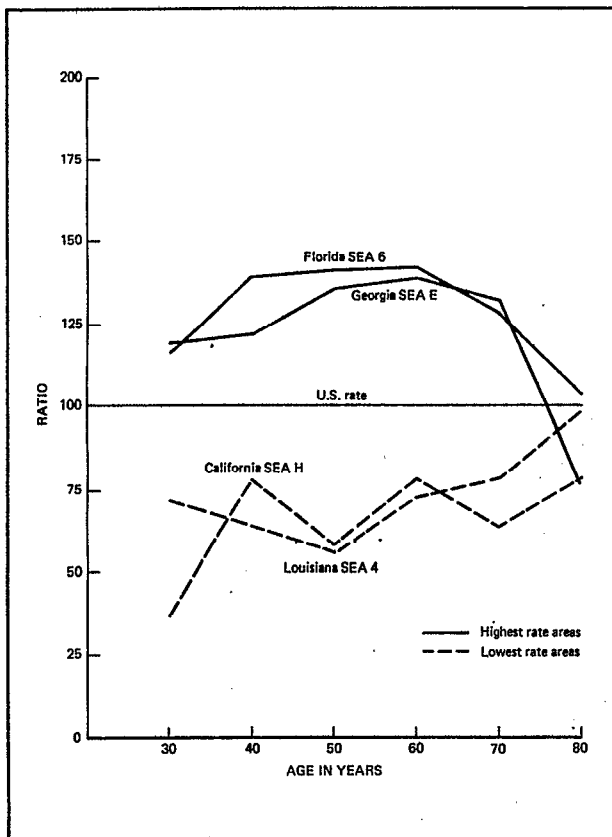


Figure 7. Ratio of age-specific rates for natural causes of death (ICDA 000-796) among black males in 2 lowest and 2 highest rate State economic areas to rates of the United States, 1968-72

period to another, for natural causes or for all causes of death, is apparent by comparing them with maps in prior reports, even though the geographic or age groupings are not identical.^{14, 20, 24, 25}

2. To what extent are geographic patterns for white males similar to those for females? For the 508 SEA's, the correlation is +.71, and for other geographic groupings the levels of association are similar (table 7). Yet most of the highest rate areas for white males are in the Southeast, but very few are for white females (figures 2 and 4). Since causes of death are not identical for males and for females, it is unreasonable to expect identical geographic patterns. Specifically, cancer of the breast and genital

organs are important causes of death for females, and prostate cancer is important for men. Also several major cause categories such as ischemic heart disease, respiratory cancer, chronic respiratory diseases, and cirrhosis of liver rates for males are much higher than for females. In view of these factors, this correlation of rates by sex seems to be quite substantial. Similar correlations have been obtained for prior time periods and for other groupings.

3. To what extent are geographic patterns similar for black and white persons? For the 155 SEA's that have black populations at least equal to the SEA's with the smallest white population, the correlation for males of black with white rates is +.54, with very slightly higher correlations for other geographic groupings of males (table 8). For females, the correlations of black with white rates is generally lower.

In view of the present lack of knowledge as to the relevant environmental factors that affect the risk of dying, and differences within an area or even a city in the exposure to both the occupational and general environment, it may be unrealistic to expect higher correlations than these.

ALL MALIGNANT NEOPLASMS

For cancer, all sites and forms, the white male rates are lowest in the Great Plains and Mountain areas, including parts of Wisconsin and also several areas in the mid-South (figure 10). The highest rate areas are nearly all metropolitan and nearly all east of the Mississippi River, located particularly in the northeast section of the country. Exceptions are Galveston, Houston, and areas in Louisiana. The correlation, for 508 SEA's, between 1968-72 and 1959-61 is +.75 (table 6).

For white females, the cancer rates are lowest in nonmetropolitan areas of the West and South (figure 11). Several of the southern low rate areas are ones in which there are also very

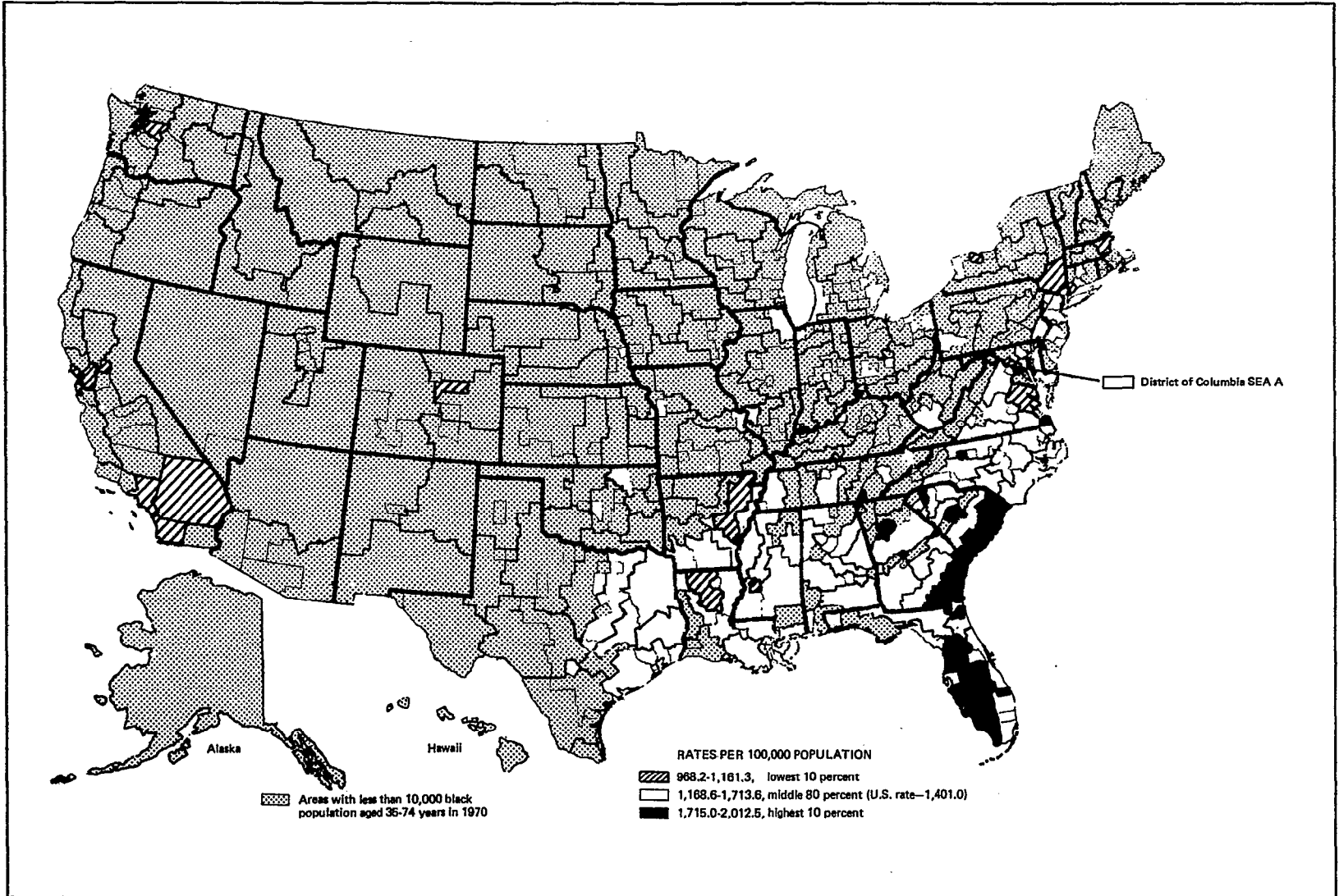


Figure 8. Death rates for natural causes (ICDA 000-796) among black females aged 35-74 years (age-adjusted) in 16 lowest and 16 highest rate State economic areas: United States, 1968-72

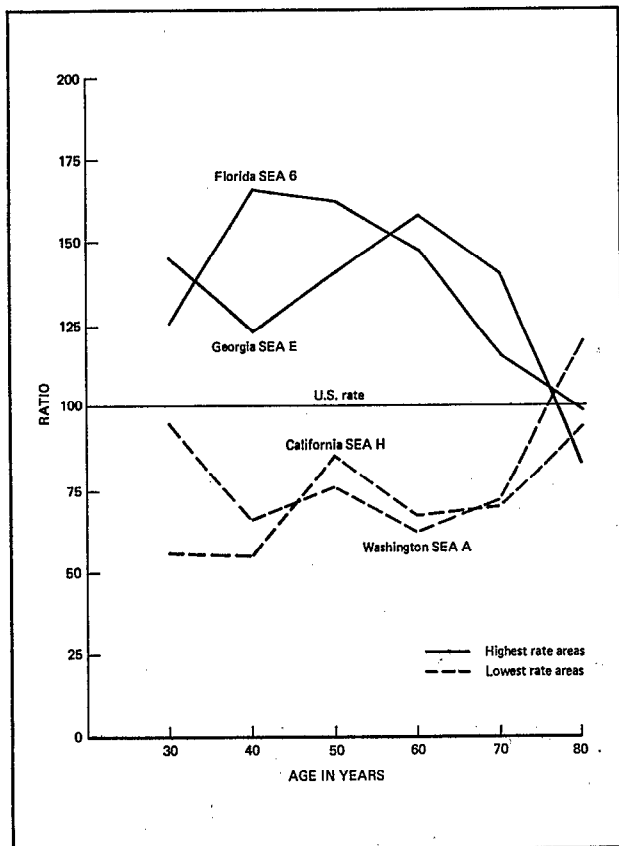


Figure 9. Ratio of age-specific rates for natural causes of death (ICDA 000-796) among black females in 2 lowest and 2 highest rate State economic areas to rates of the United States, 1968-72

high natural-causes rates for white males. All of the highest rate areas are in the northeast section of the country, except for the San Francisco-Oakland area. Included in the highest rate areas in the northeast are several nonmetropolitan areas. Although there are differences between the patterns of death rates of the two sexes, there are also substantial similarities, and the correlation by sex, for 508 SEA's is +.54 (table 7).

For black males the lowest rate areas extend from central Georgia westward through Arkansas (figure 12). The highest rate areas are mostly in the northeast, broadly defined, as far south as Newport News, Virginia, and including parts of Ohio. Some Florida areas, Savannah, and New Orleans are also among the highest rate areas. For the 155 SEA's with substantial black popu-

lation, the correlation between black and white males rates is +.54.

For black females, the lowest rate areas show a somewhat similar pattern, but extend from North Carolina to Texas (figure 13). The highest rate areas are also largely in the northeast, as for black males, and also include Florida SEA 6 and the New Orleans area.

Colo-Rectal Cancer

Colo-rectal cancer death rates are lowest in areas in the South for each sex for both white and black populations, and for white people west of the Mississippi River (figures 14 and 15). The highest rates are for the most part in the northeastern section of the country. Of the 50 highest rate SEA's, three-fourths are of a metropolitan composition, nearly all in the northeast. However, of the 50 lowest rate SEA's, less than one-fifth are metropolitan; of the nine metropolitan areas with low rates, seven are in the South. ("Cancer of the small intestine, ICDA 152," is also included, but constitutes less than 2 percent of this category labeled "colo-rectal.") Maps for colon cancer and cancer of the rectum present generally similar patterns, with a higher correlation between these two categories than any other two diseases for which correlations have been calculated ($r=+.86$, $n=51$ States; $r=+.57$, $n=510$ SEA's, for both, $p<0.0001$). This suggests that they may, to a considerable extent, have common causes. However, differences between the two distributions do exist. For example, the coefficient of variation for cancer of the rectum among white males aged 35-74, for 508 SEA's is +.46, and for colon cancer it is +.28. Using percentiles the same point may be made: The 90th percentile rate for colon cancer is about 2.05 times the 10th percentile; for rectal cancer it is about 3.62 times. In other words, there is greater proportionate variability for rectal cancer than for colon cancer.

There are two objectives in presenting these maps and rates for colo-rectal cancer: (1) to facilitate epidemiological study of risk factors and (2) to point out high rate areas including those in the northeast that appear to have a greater need for treatment, which the Rutstein

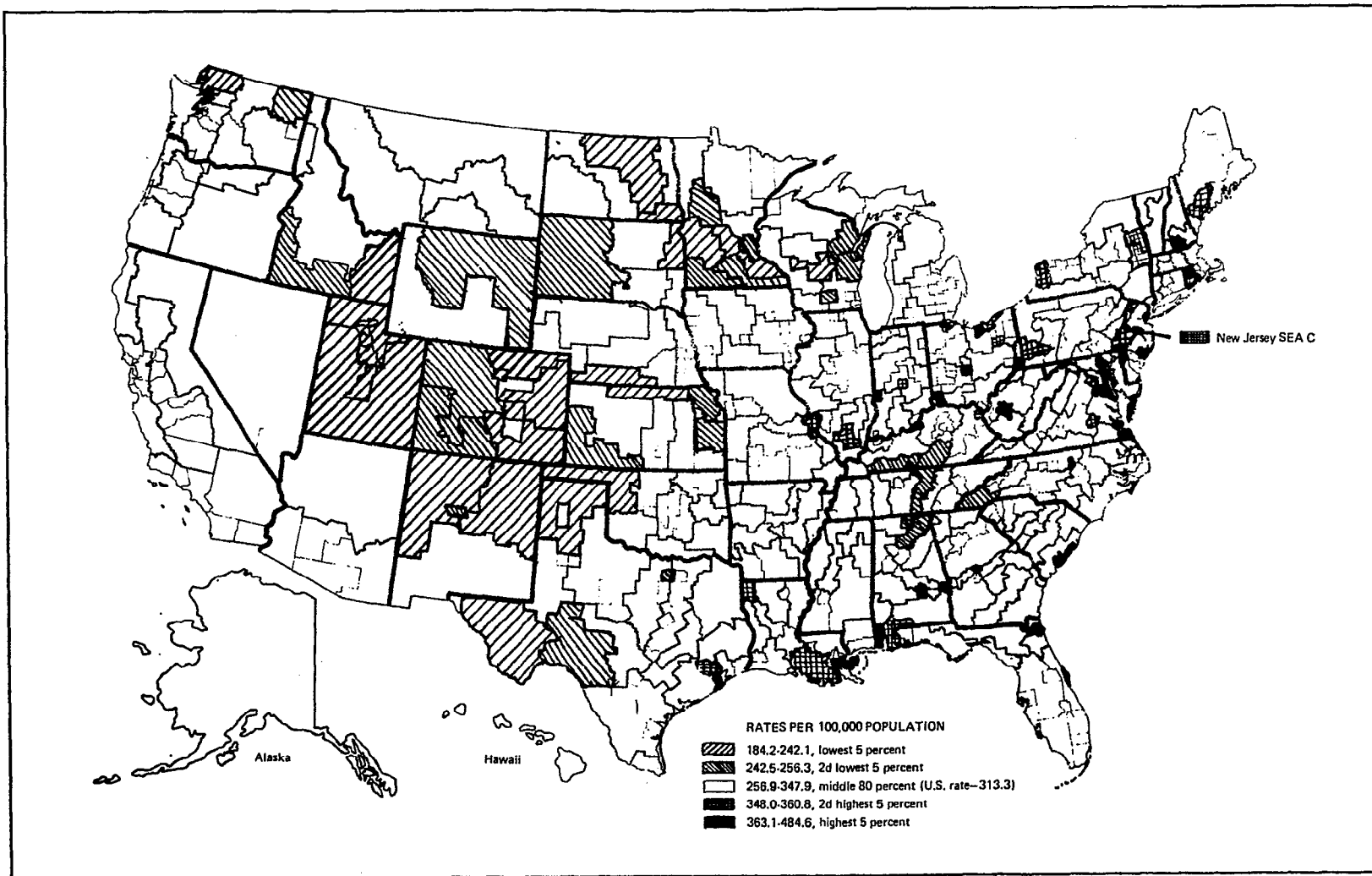


Figure 10. Death rates for cancer, all sites (ICDA 140-209) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

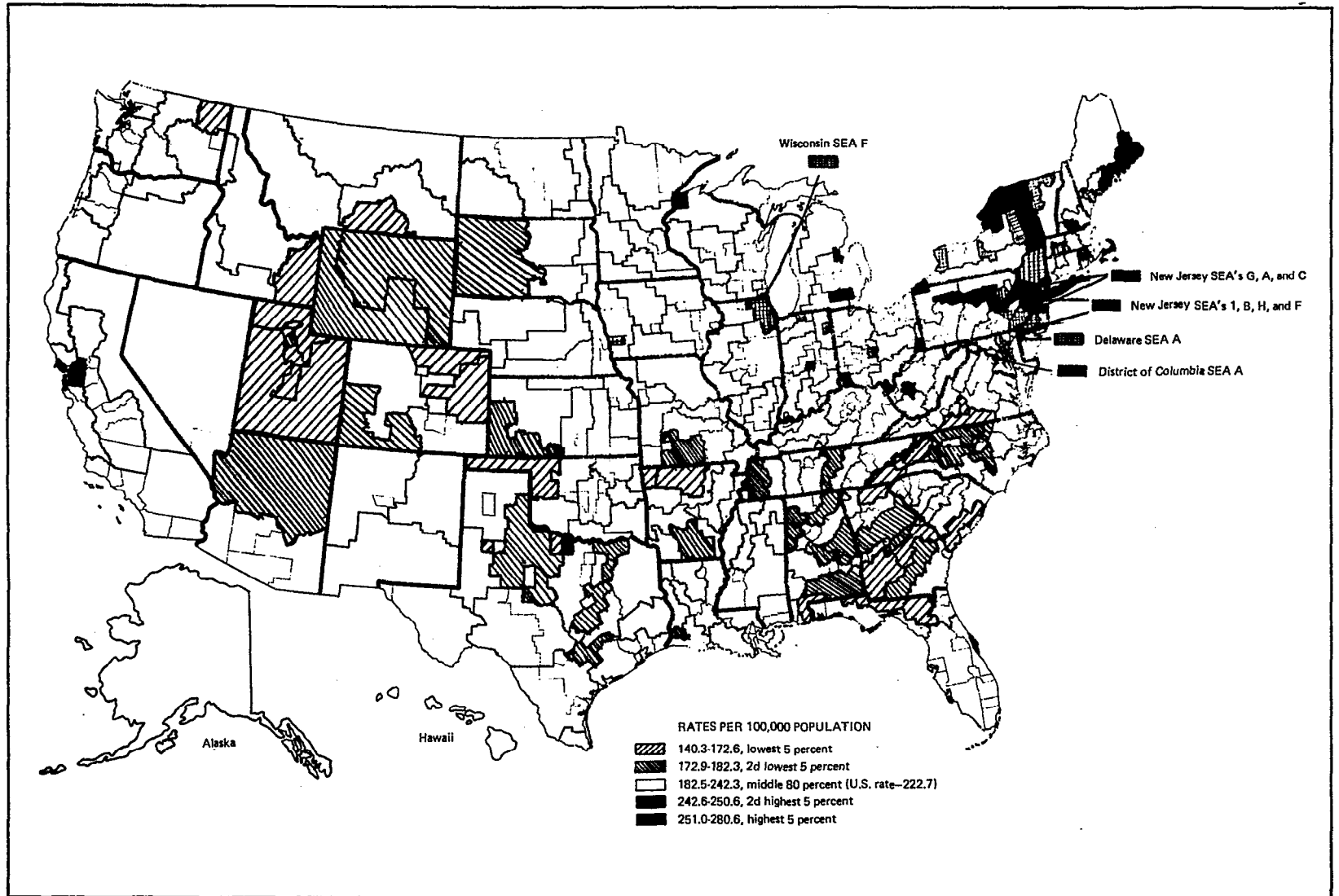


Figure 11. Death rates for cancer, all sites (ICDA 140-209) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

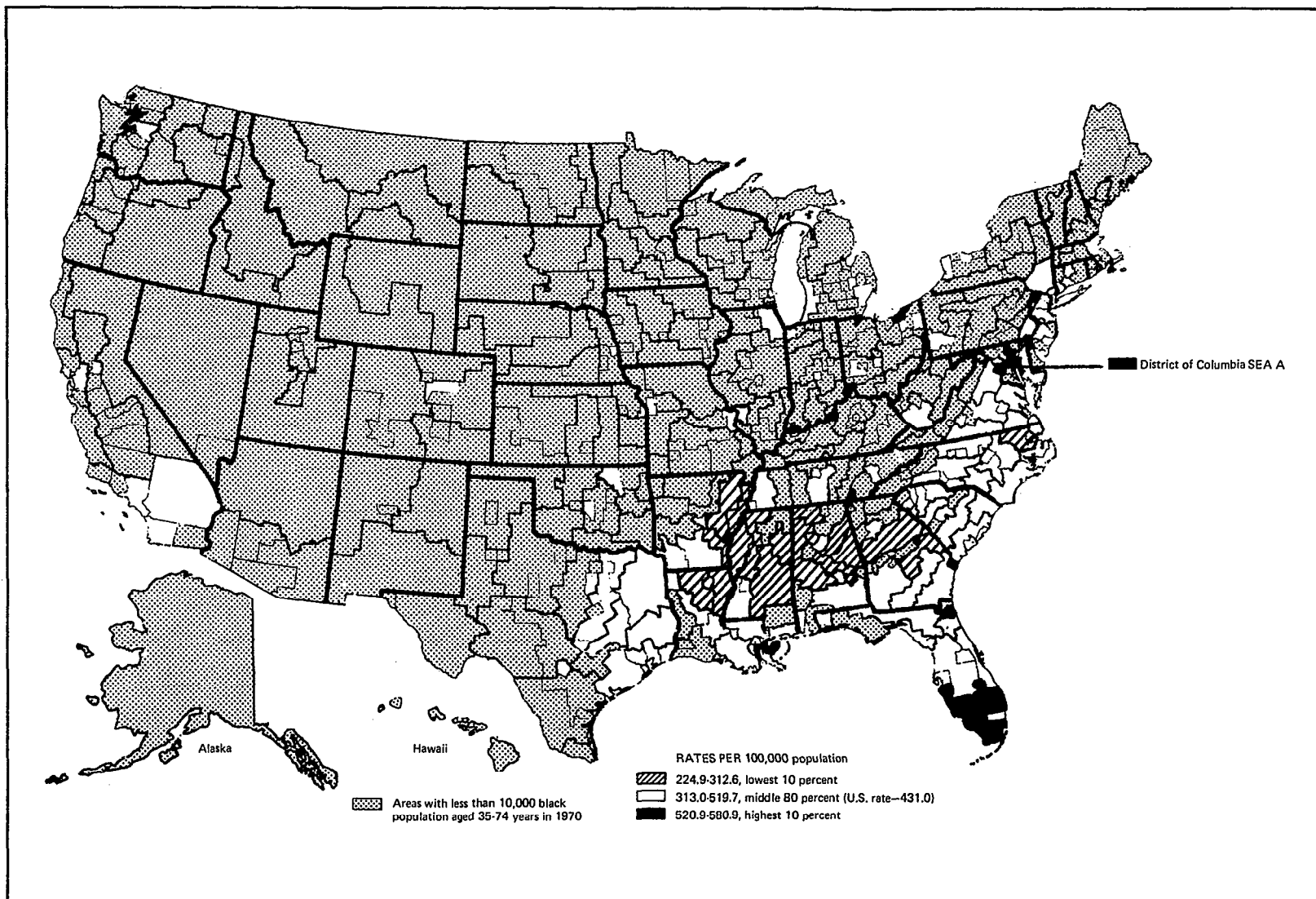


Figure 12. Death rates for cancer, all sites (ICDA 140-209) among black males aged 35-74 years (age-adjusted) in 16 lowest and 16 highest rate State economic areas: United States, 1968-72

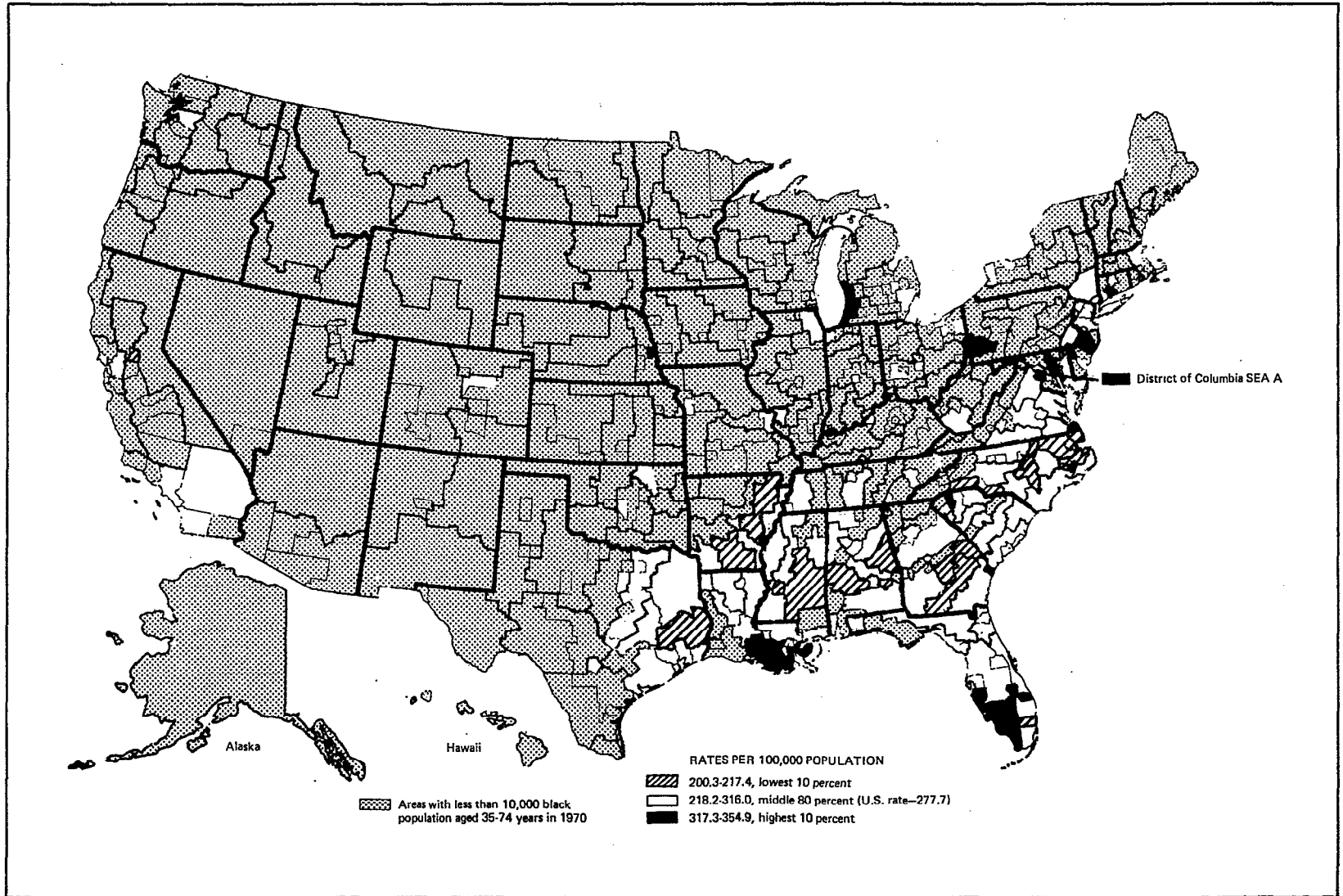


Figure 13. Death rates for cancer, all sites (ICDA 140-209) among black females aged 35-74 years (age-adjusted) in 16 lowest and 16 highest rate State economic areas: United States, 1968-72

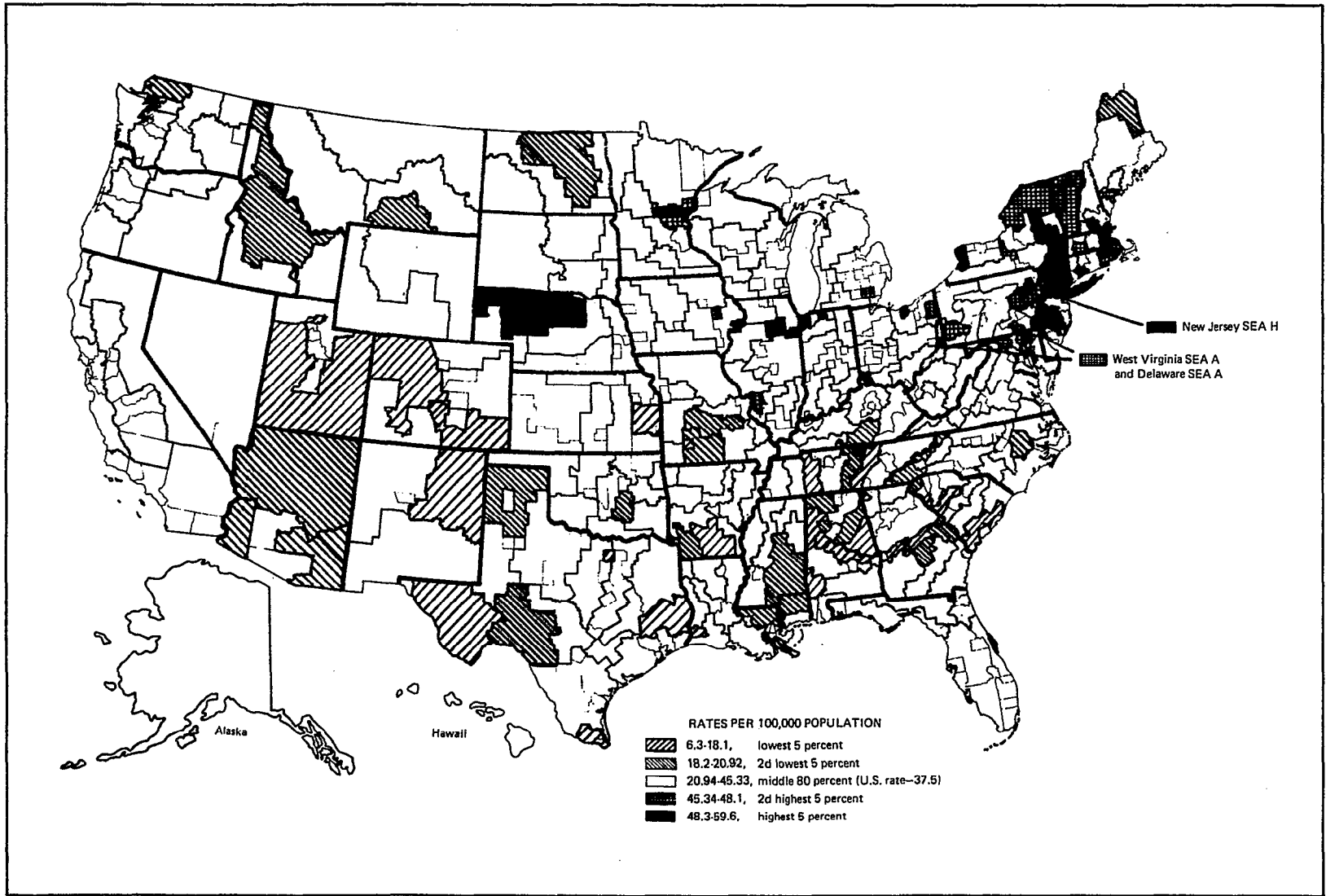


Figure 14. Death rates for colo-rectal cancer (ICDA 152-154) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

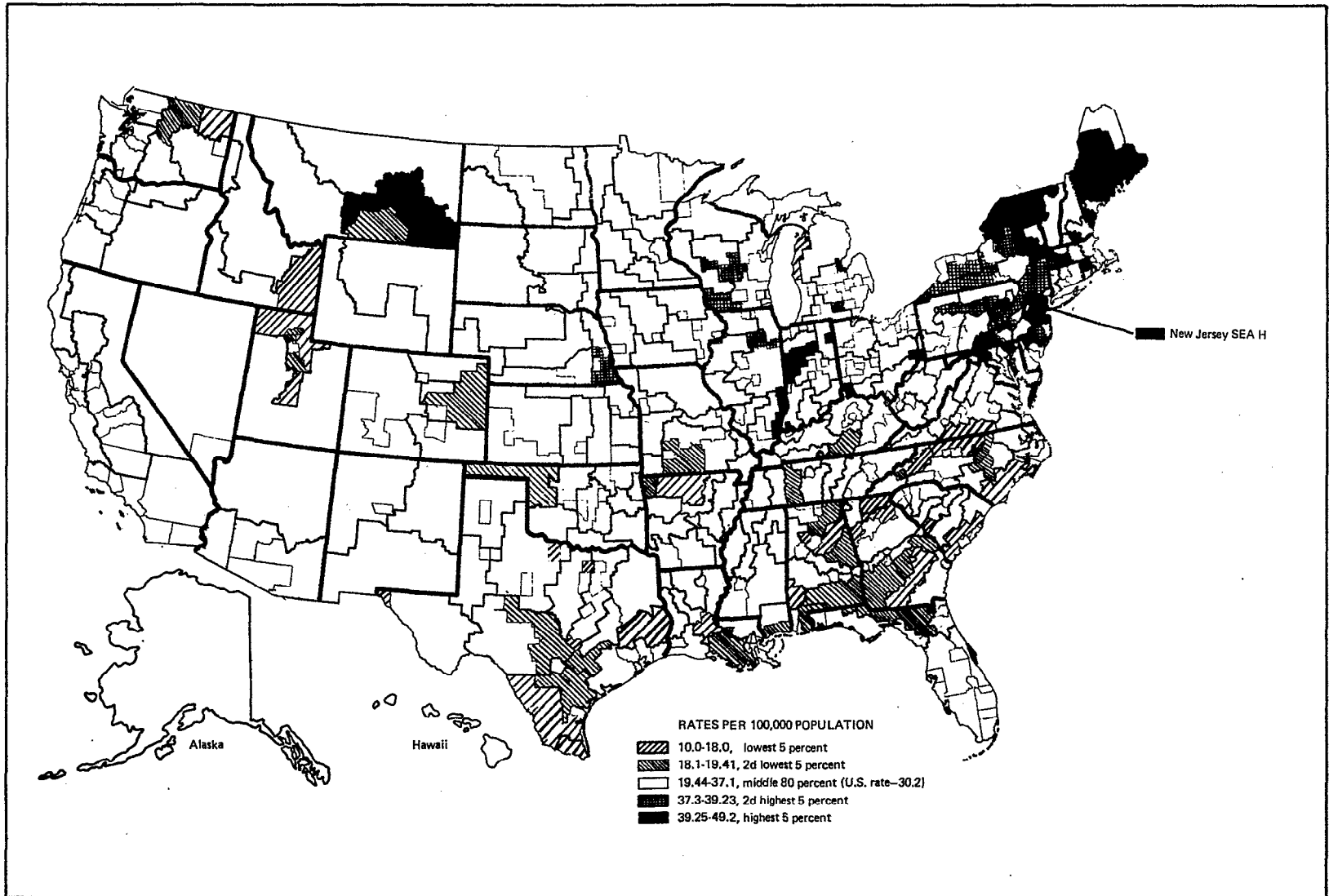


Figure 15. Death rates for colo-rectal cancer (ICDA 152-154) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

group presents as being available, to reduce the number of untimely deaths in this category.²⁶

Black persons in many of the rural areas of the South have low rates; in metropolitan areas of the North they have high rates for colo-rectal cancer. However, Savannah has a high rate for each sex, and Georgia SEA 9 (rural counties along the Georgia coast) and Jacksonville have above average rates for black males.

Pancreatic Cancer

The lowest death-rate areas do not show an easily recognized pattern when using SEA's as units, but the highest rate areas are located in the South (figures 16 and 17). Louisiana consistently has high rates, and a band of Southern States from Texas to South Carolina is among the one-third of the States with the highest rates. Utah has consistently the lowest rates; and Kansas, Iowa, and other States west of the Mississippi also have low rates, as do portions of rural Pennsylvania.

Pancreatic cancer has in recent years appeared to be the most lethal of all cancer sites and probably of chronic diseases in general; only 2 percent of patients afflicted are still living at the end of 3 years.⁴² In view of the very limited effectiveness of treatment and of modest accomplishments in identifying risk factors,⁴³ it seems especially important to try to identify geographic patterns that persist from one time period to another or from one sex to the other or in other ways. Yet the correlation between 1968-72 and 1959-61 for white males is only +.21 ($n = 508$ SEA's), and for white females +.11 ($n = 508$ SEA's) (table 6). Correlation by sex is similarly low (table 7). The correlation by race is so low that there seems to be no clear association by race (table 8).

Respiratory Cancer

Among white males the lowest rate areas for death attributed to respiratory cancer (95 percent of which is cancer of the lung and bronchus) are in Utah, in other areas west of the Mississippi, and in Wisconsin (figure 18), very similar to the pattern previously identified for death due to natural causes (figure 2). The

highest rates are concentrated, to a considerable extent, along the lower Atlantic coast, the gulf coast, and the lower Mississippi River, similar to the highest rate lung cancer counties for 1950-69.¹⁶ The highest 5 percent of the areas all have rates from two to six times the rates of the lowest 5 percent. Patterns for 1959-61 were similar, showing a correlation with 1968-72 of +.71 ($n = 508$ SEA's).

Among white females, the lowest rate areas are also located in Utah, southeast Idaho, and the Great Plains area, but about one-fourth of the lowest rate areas are in the rural South (figure 19). The highest rate areas are to a large extent of a metropolitan nature, in portions of the South, the northeast, and west coast. The highest 5 percent of the areas have rates that are three to ten times the rates of the lowest 5 percent. The correlation of white female with white male rates is +.53 ($n = 508$ SEA's).

For the black population, the lowest rate areas for respiratory cancer consist to a substantial extent of rural areas in the South, especially in Mississippi, Alabama, and Arkansas. The highest rates are found generally in northern metropolitan SEA's. These patterns differ from white patterns, and the correlation for males between black and white is only +.17 ($n = 155$ SEA's).

In view of the high rates for this disease, particularly in males, the preventive actions suggested by Rutstein et al.²⁶ would seem to be particularly important in these high rate areas.

Breast Cancer

Breast cancer rates are higher than rates for any other site in females. However, the male rates are so low that presently no effort is being made to analyze them. The lowest rate areas for white females are all either in the South or are west of the Mississippi, and nearly all are non-metropolitan areas. The highest rate areas are in the Northeast and East North Central States, mostly in metropolitan areas (figure 20).

The pattern was similar for 1959-61, as to the general location of the lowest and highest rate areas, but the correlation between the two time periods was only +.53 ($n = 508$ SEA's). For black females, the lowest breast cancer rates are

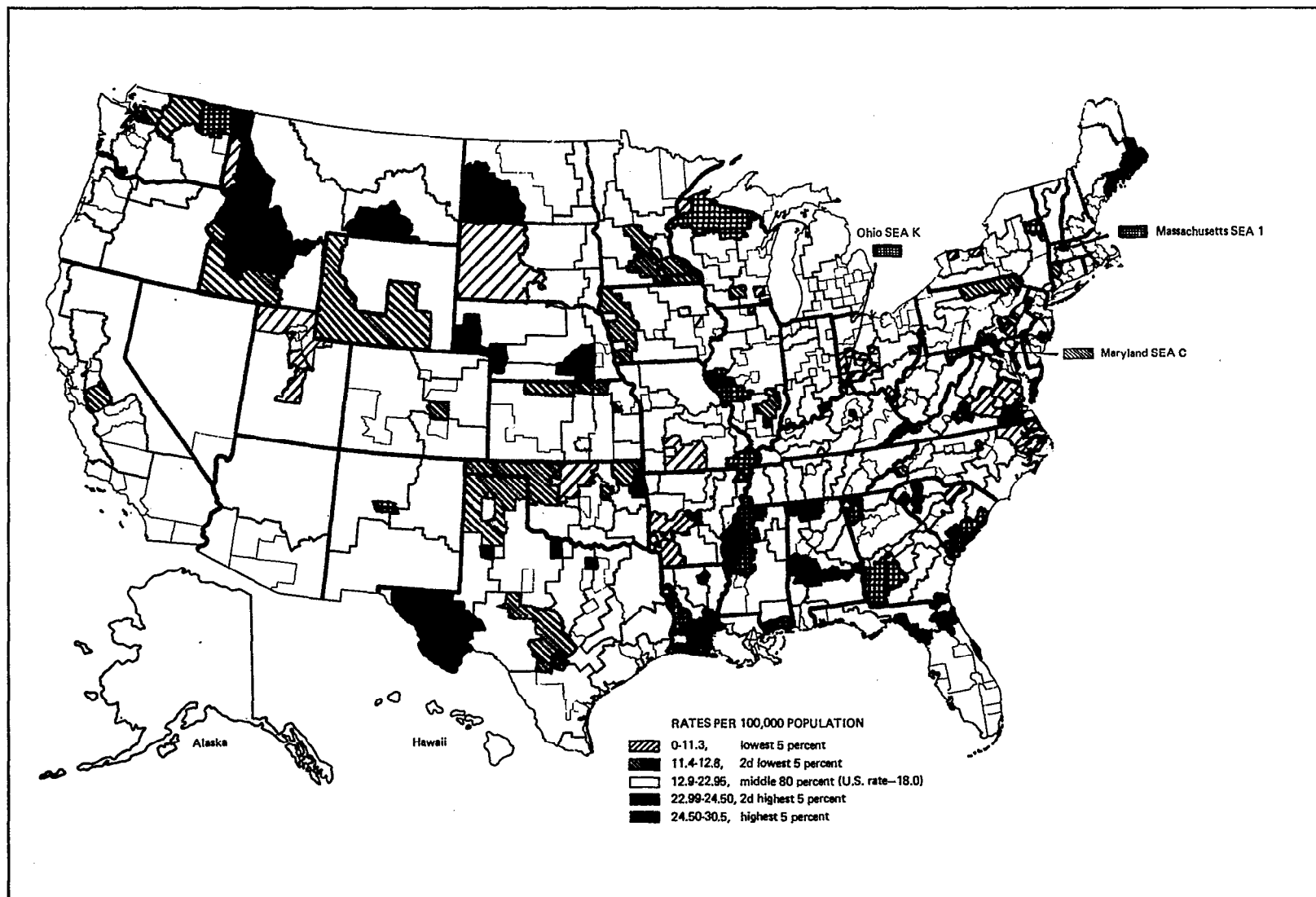


Figure 16. Death rates for pancreatic cancer (ICDA 157) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

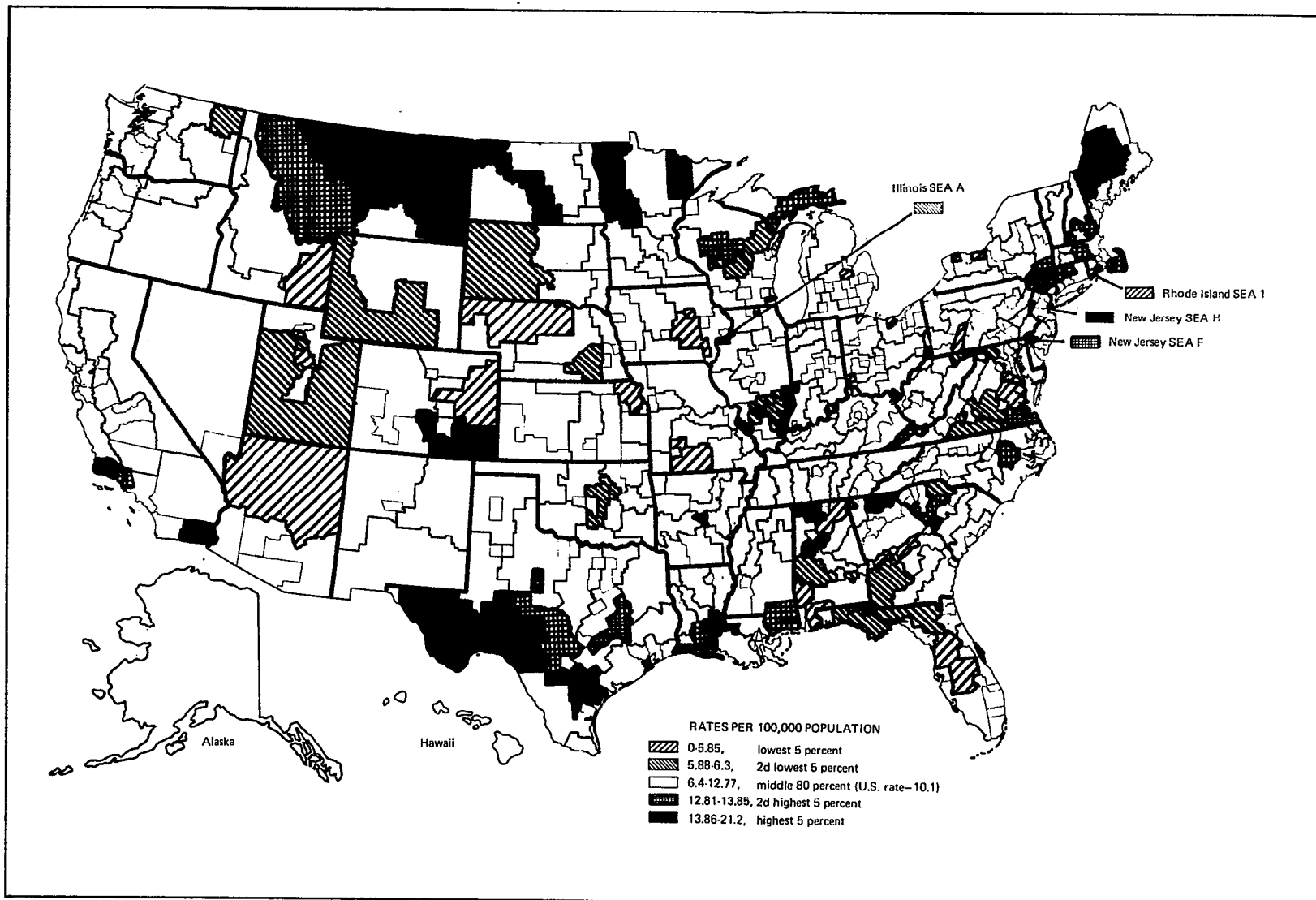


Figure 17. Death rates for pancreatic cancer (ICDA 157) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

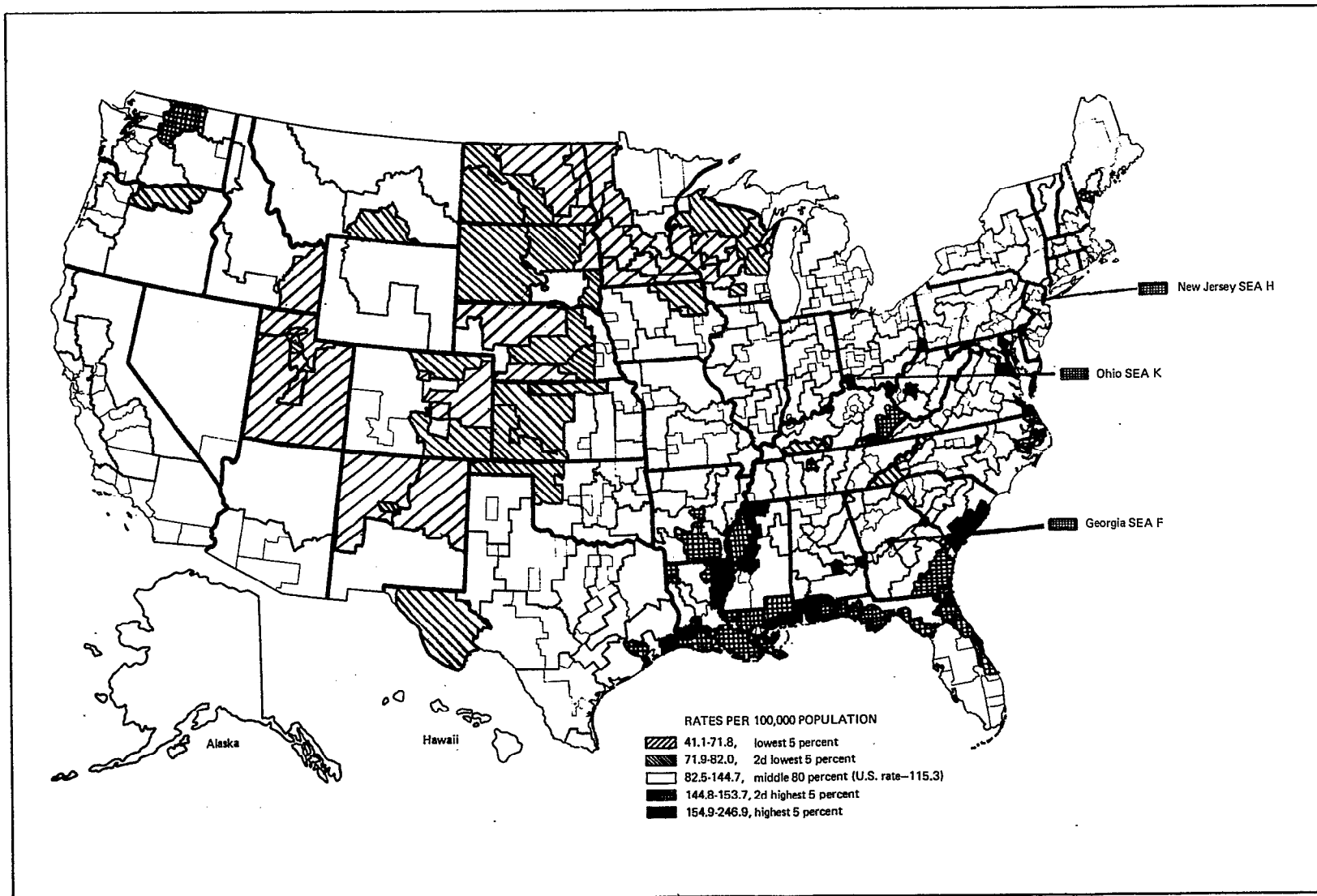


Figure 18. Death rates for respiratory cancer (ICDA 160-163) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

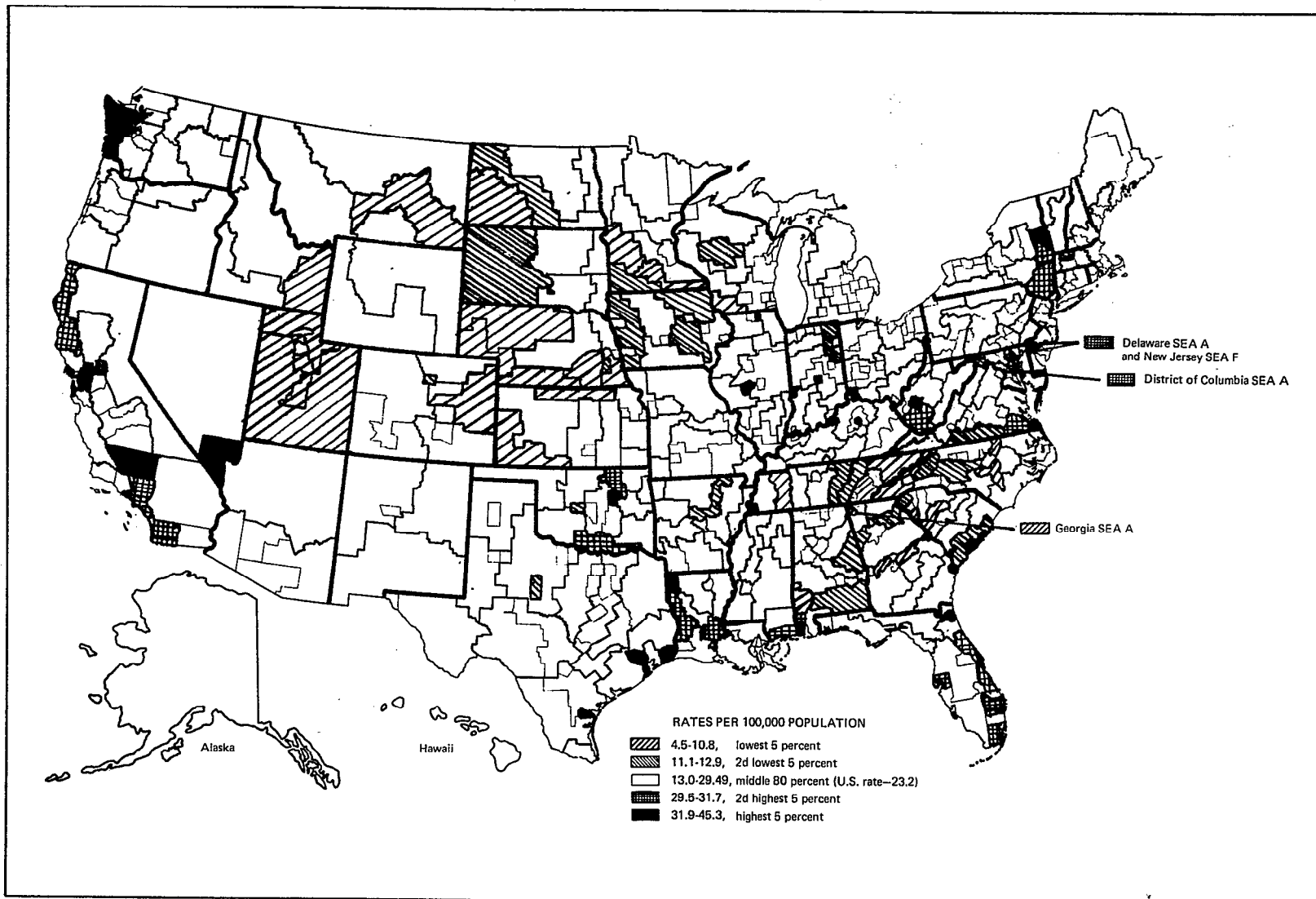


Figure 19. Death rates for respiratory cancer (ICDA 160-163) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

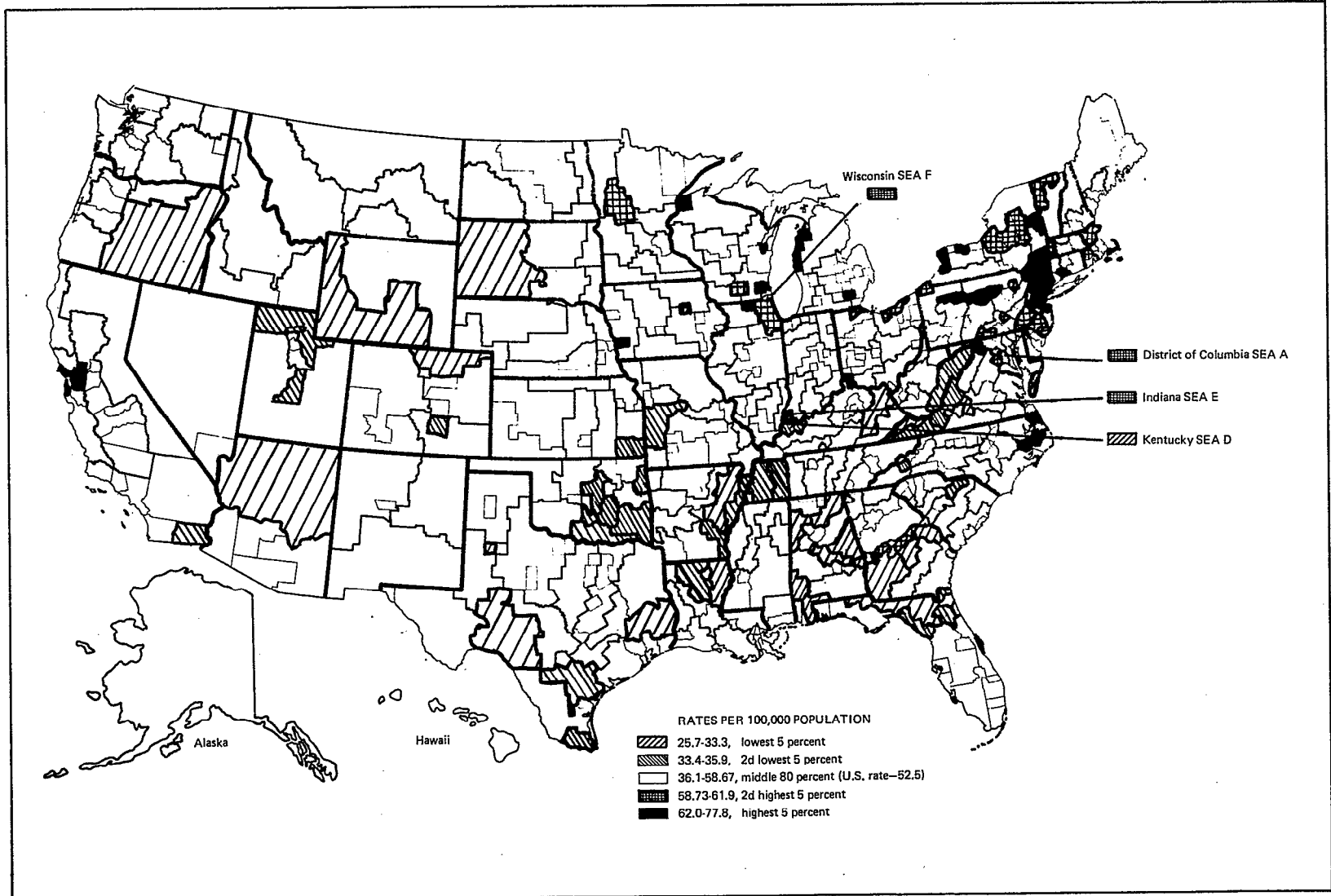


Figure 20. Death rates for breast cancer (ICDA 174) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

mostly in the rural South; most of the highest rate areas are in metropolitan areas in the North, with several very high rate areas in the South.

For white females, the correlations are high between breast and colo-rectal cancer ($r=+.81$, $n=50$ States; $r=+.52$, $n=508$ SEA's) (tables 11 and 12). Although this may suggest a common cause, it should also be noted that there is a very substantial inverse correlation with motor vehicle death rates, $-.79$ ($n=50$ States).

CARDIOVASCULAR DISEASES

The cardiovascular diseases, or diseases of the heart and blood vessels—ICDA 390-448, 780-796—consist of the various forms of heart disease, hypertension, cerebrovascular diseases (or stroke), arteriosclerosis, aortic aneurysm, and other diseases of the arteries. Also included are deaths ascribed to "symptoms and ill-defined conditions" because of evidence that they are usually cardiovascular.⁴¹ They exclude diseases of the veins, congenital circulatory diseases, and syphilitic heart disease.

For white males, in this category, all but two of the areas with the lowest rates are west of the Mississippi River, including a number of Pacific coast States. Of the highest rate areas, only one, the Bootheel area of southeastern Missouri, is so located (figure 21). Most of the highest rate areas lie in the southeastern Coastal Plain, along the Fall Line, and adjacent areas in South Carolina. Nearly all of the lowest rate areas are non-metropolitan, but many of the highest rate areas are nonmetropolitan, too. (The actual rates are given in table 2.) For 1959-61, the geographic patterns are similar to those for 1968-72, the coefficient of correlation being $+.84$ for the 508 SEA's. Correlations are similar for States and for SEA's divided into metropolitan and nonmetropolitan (table 6).

For white females the patterns are grossly similar; nearly all of the lowest rate areas are west of the Mississippi, but the highest rate areas (except for the Missouri Bootheel) are east of the Mississippi (figure 22). However, for white females the highest rate areas are concentrated in the Middle Atlantic States, in mining portions of Appalachia, and also in the Coastal Plain of the Carolinas. The correlation between male and

female rates, for white people, is in the vicinity of $+.75$ for several correlation matrices (table 7).

For black males the lowest rate areas, much like the natural causes patterns, are largely in the West and North, but include Louisiana SEA 4 (figure 23). The highest rate areas are in Georgia and the Carolinas, in the areas with very high white male rates, but also include Florida SEA 6 (Ft. Myers, Sarasota, Bradenton, and rural areas in southwestern Florida), an area with low white rates. The correlation between black and white male rates is generally about $+.70$ (table 8).

For black females the lowest rate areas are in the same general areas and are often the same specific areas as for black males (figure 24). The situation for highest rate areas is similar, except that Winston-Salem is the only North Carolina area in the highest rate group for black females. Thus the geographic pattern for the extreme-rate groups for black males and black females is similar. The correlation for black males versus black females for the 155 SEA's with a black population aged 35-74 in excess of 10,000 is $r=+.88$, somewhat higher than for the white population.

Rheumatic Heart Disease

Rheumatic fever and rheumatic heart disease, ICDA 390-398, is the usual description for this category, but essentially all of the deaths assigned to this category are listed as due to rheumatic heart disease, mostly chronic rheumatic heart disease. It, therefore, seems more appropriate to reverse the label, to rheumatic heart disease and acute rheumatic fever, then shorten the label for practical purposes to rheumatic heart disease.

For years it has been recognized that rheumatic heart disease death rates are lower in the South.⁸ Even though rates are now much lower than in 1949-51, the pattern of low rates in the South still holds (figures 25 and 26). Rates are essentially the same for each sex, and the highest rates are in the North, particularly in mountainous or hilly terrain. The high rates for San Bernardino-Riverside and to a lesser extent for San Diego, may be due largely to the fact that most of the population in these areas aged 35-74 were born elsewhere and thus may well have had their initial attacks of rheumatic fever when of

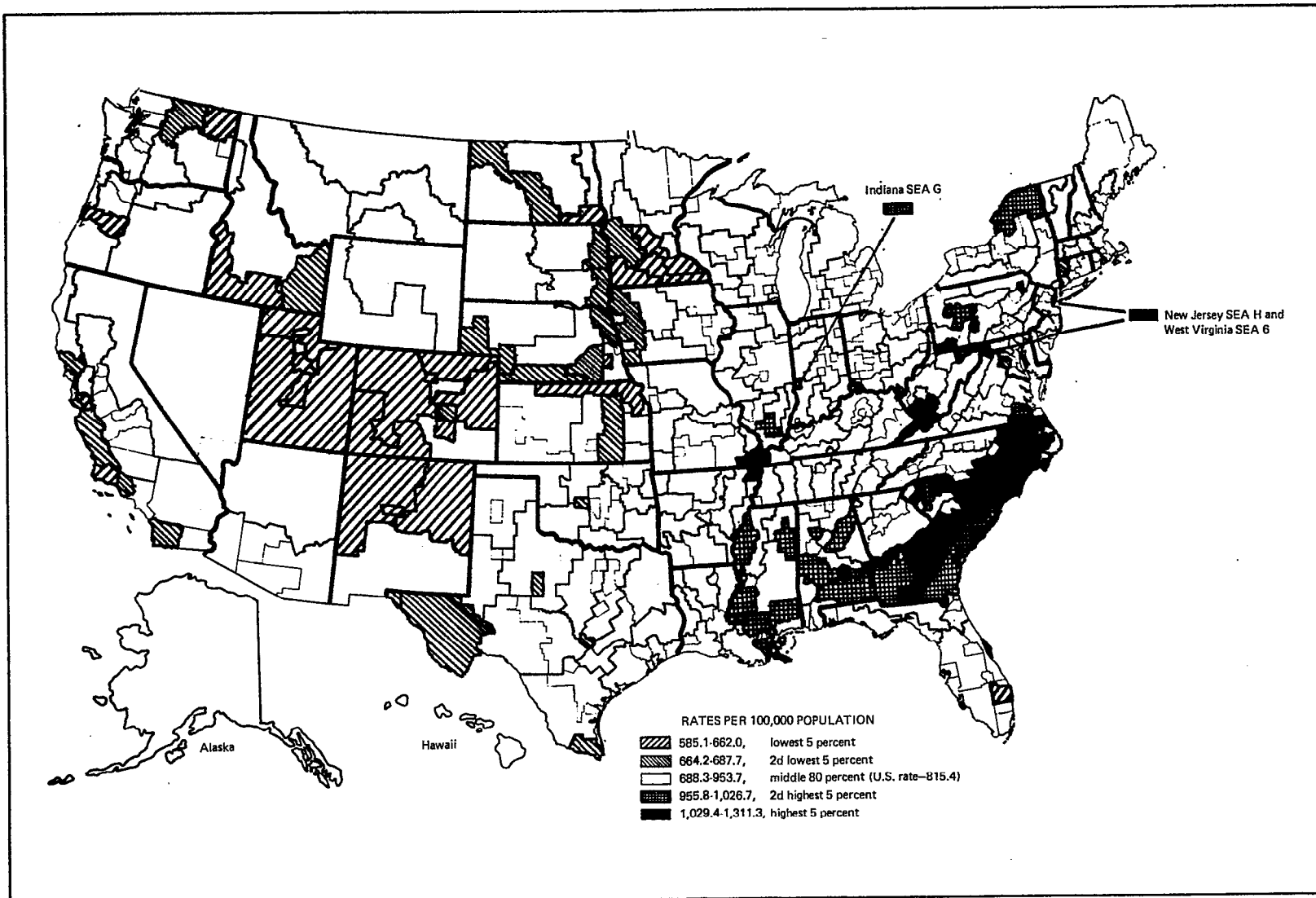


Figure 21. Death rates for cardiovascular diseases (ICDA 390-448, 780-796) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

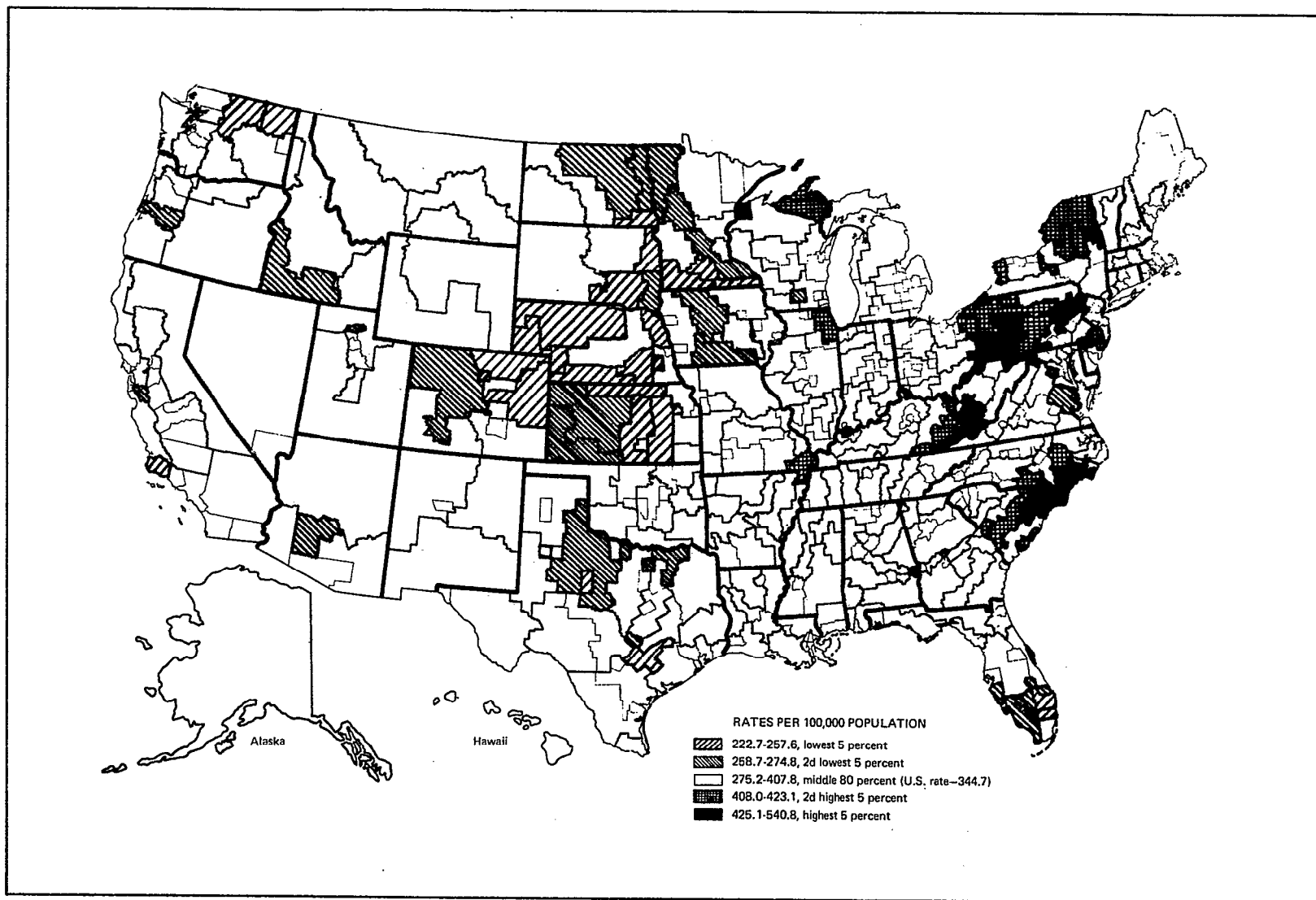


Figure 22. Death rates for cardiovascular diseases (ICDA 390-448, 780-796) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

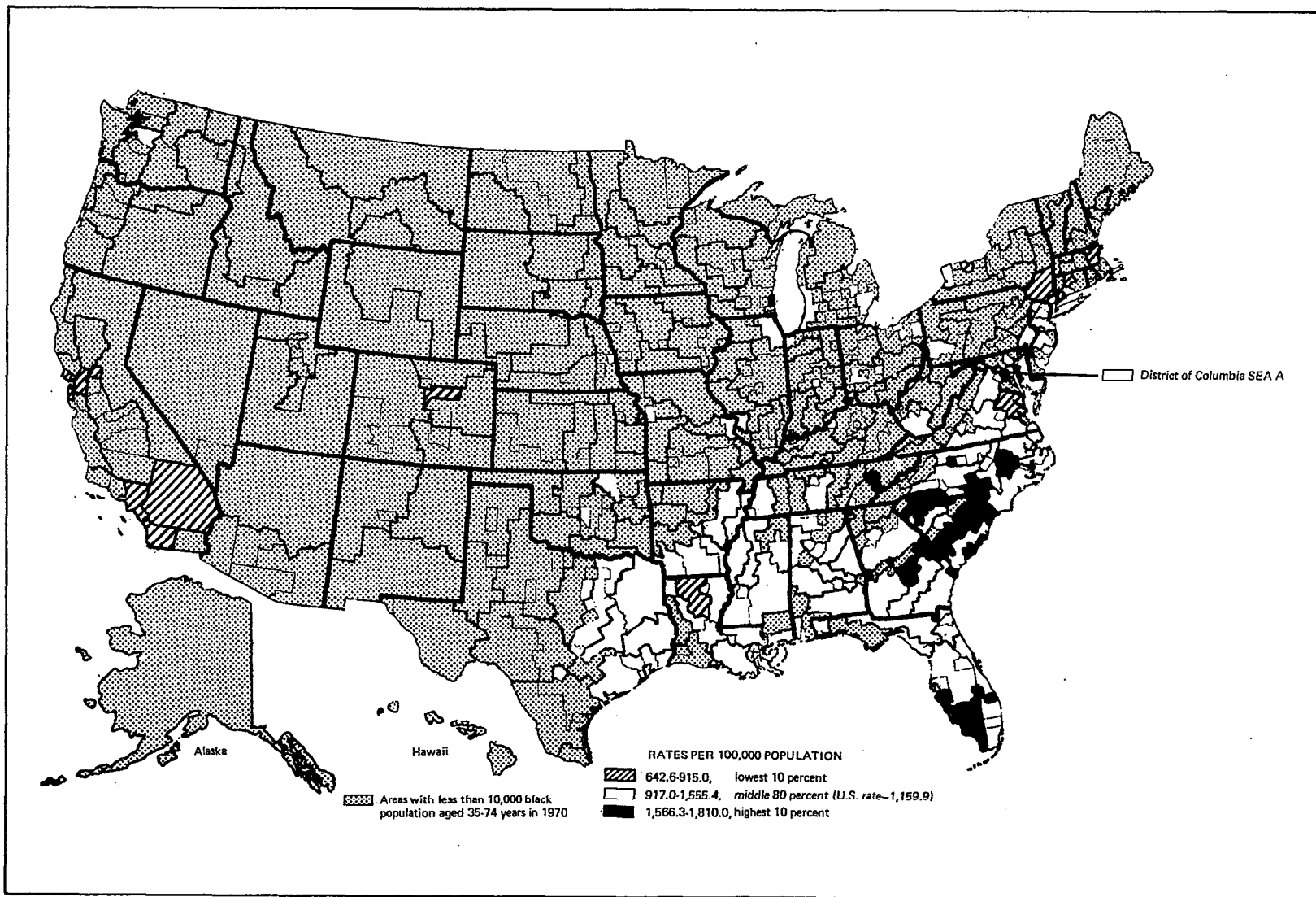


Figure 23. Death rates for cardiovascular diseases (ICDA 390-448, 780-796) among black males aged 35-74 years (age-adjusted) in 16 lowest and 16 highest rate State economic areas: United States, 1968-72

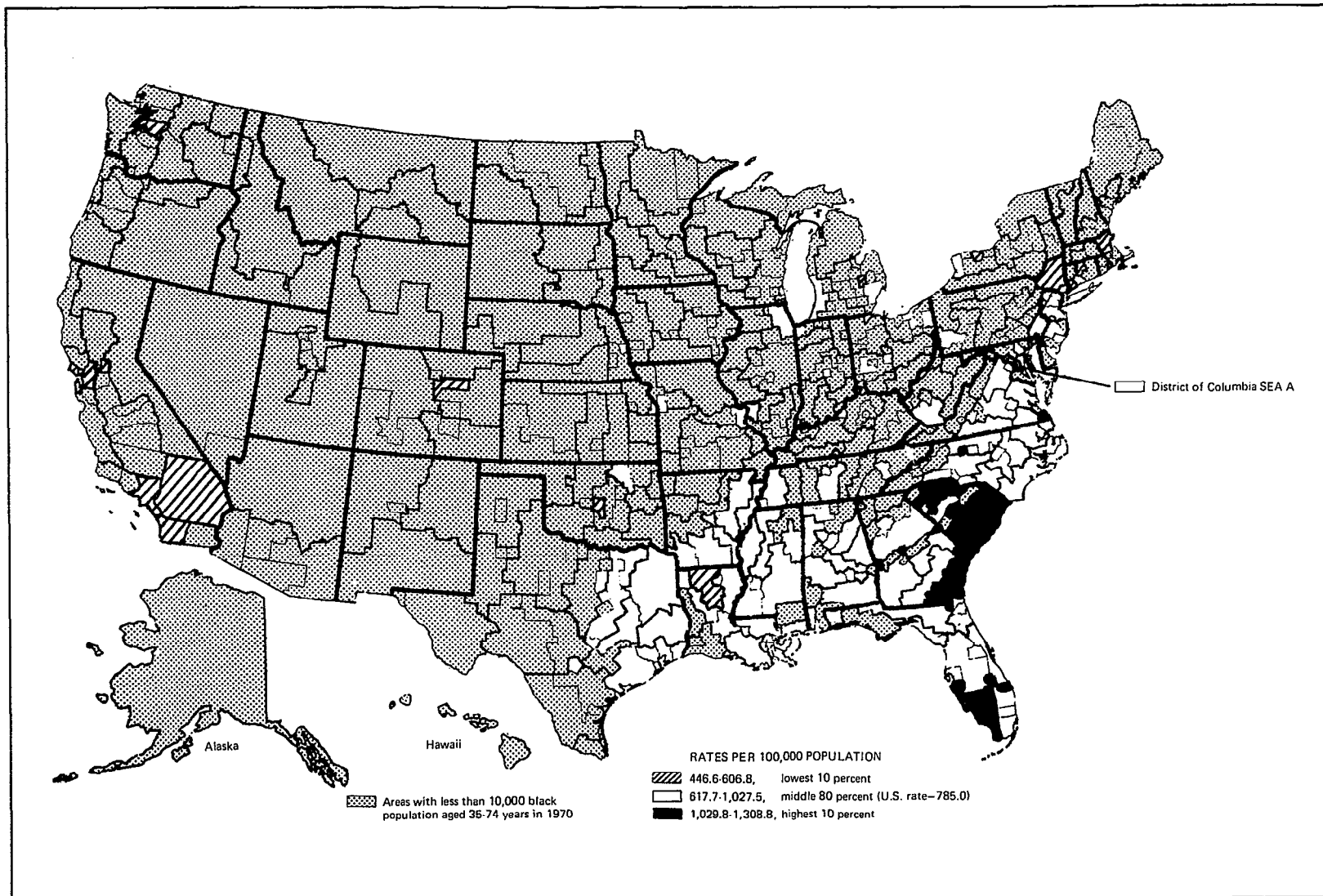


Figure 24. Death rates for cardiovascular diseases (ICDA 390-448, 780-796) among black females aged 35-74 years (age-adjusted) in 16 lowest and 16 highest rate State economic areas: United States, 1968-72

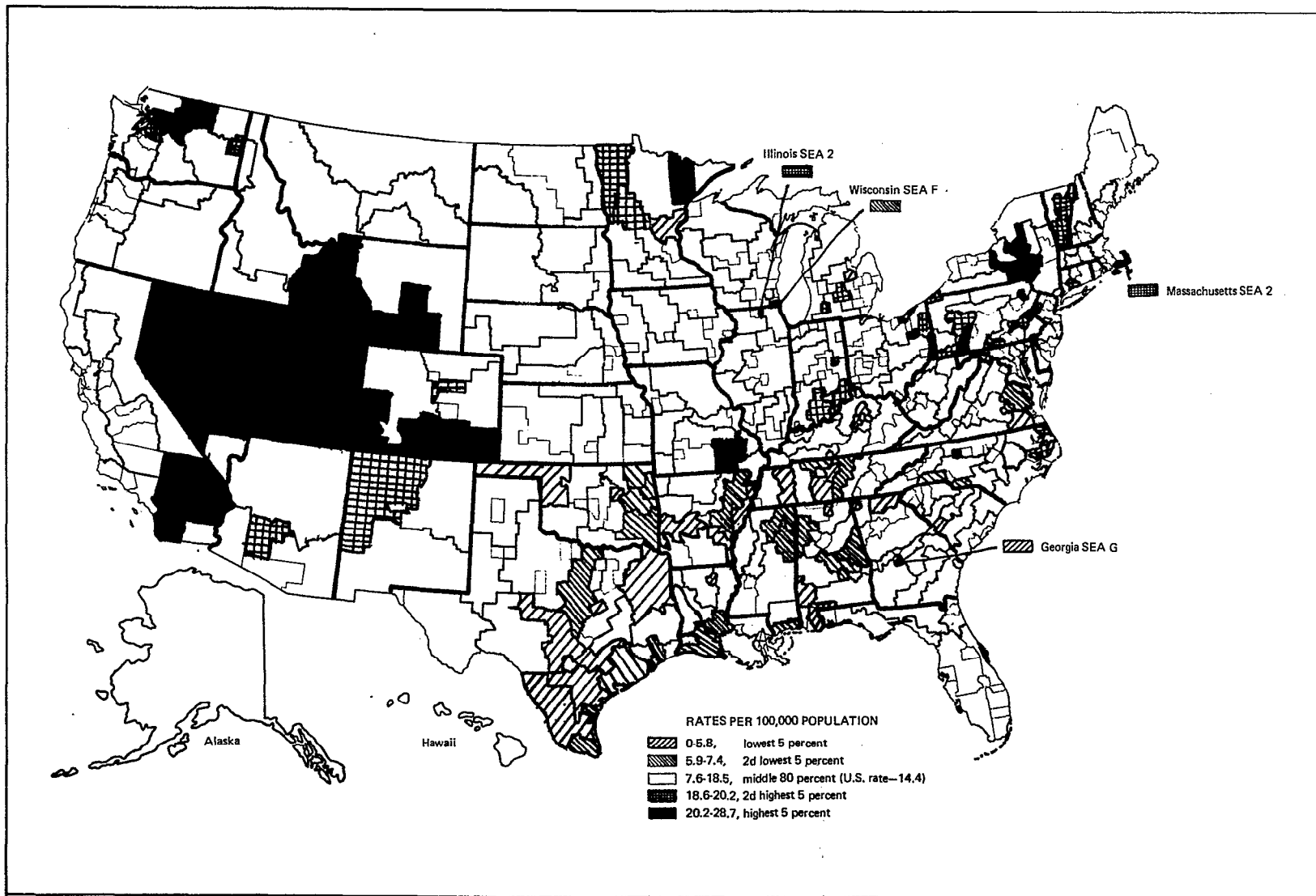


Figure 25. Death rates for rheumatic heart disease and rheumatic fever (ICDA 390-398) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

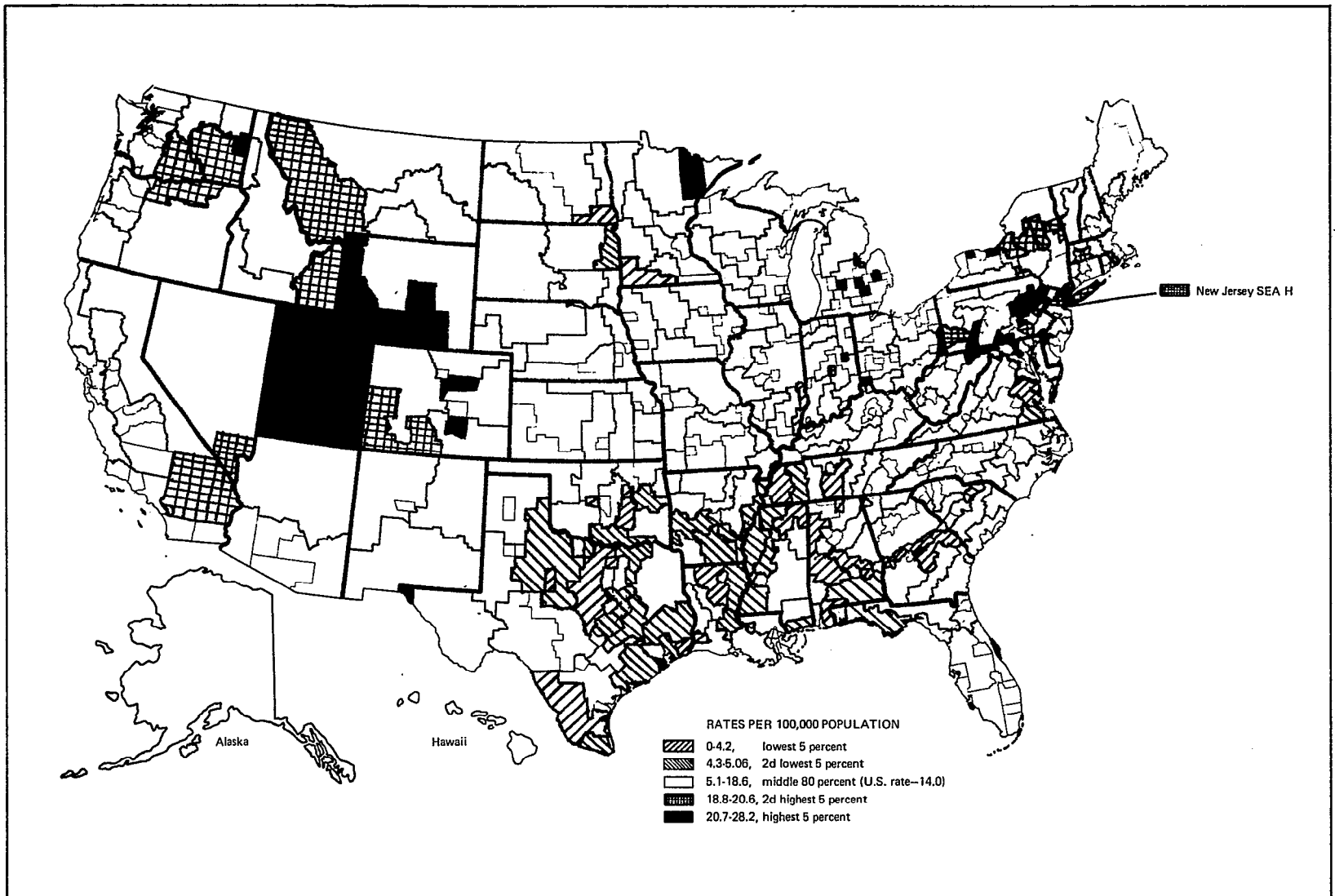


Figure 26. Death rates for rheumatic heart disease and rheumatic fever (ICDA 390-398) among white females aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

elementary school age before moving to southern California. The correlation of 1968-72 rates with 1959-61 for males was +.57 ($n = 508$ SEA's) and for females +.71 ($n = 508$ SEA's) (table 6).

Black males and females have rates similar to those for the white population, with the lowest rate areas generally in the South, and the highest rate areas in the North (and San Bernardino-Riverside, California) (tables 4 and 5). However, the correlation between white and black male rates was only +.43 ($n = 155$ SEA's) (table 8).

Ischemic Heart Disease

Ischemic heart disease, ICDA 410-413, for white males aged 35-74, has a higher death rate for every SEA than does any other cause of death, even though it is usually considered as a part of the broader category, "heart disease," in the ranking of causes of death. It is a broader category than "Arteriosclerotic heart disease, including coronary disease, ICD 420," as defined in the 6th and 7th revisions and used from 1949 to 1967. Many risk factors have been identified in various studies, including hypertension.

For white males, all but two of the lowest rate areas are west of the Mississippi River (figure 27). Both of these areas have below average rates for the cardiovascular diseases and for natural causes. The highest rate areas are east of the Mississippi River, except for four in Louisiana, and of these, the New Orleans area and the nonmetropolitan area around New Orleans are mostly east of the Mississippi River (figure 27). More specifically, they are concentrated in the southeastern Coastal Plain and adjacent areas and in the Middle Atlantic States.

For white females, the lowest rate areas are largely in Texas, Kansas, Nebraska, Minnesota, Colorado, and Utah, and the highest rate areas are in the Middle Atlantic States and also in the Southeast (table 3). Thus the patterns are similar to those for death due to natural causes, and also, to a considerable extent, similar to those deaths among white males.

For black males, the 16 lowest rate areas are widely scattered; half are west of the Mississippi and only one, Florida SEA 3, is in the South Atlantic States (table 4). Of these 16, nine had

rates for the cardiovascular diseases less than the U.S. rate. Most of the highest rate areas were in the South Atlantic States, and more than three-fourths of them had cardiovascular diseases rates even more elevated over the U.S. rates than were the ischemic heart disease rates, thereby providing evidence that these areas did generally have high rates.

For black females, the geographic patterns of rates are similar to those for black males. Seattle has very low rates for ischemic heart disease and also for other cause categories. Other west coast areas also have low rates.

Stroke

Stroke, or more precisely, "Cerebrovascular diseases, ICDA 430-438," was listed in the 7th Revision³² as "Vascular lesions of the central nervous system." It consists of subarachnoid hemorrhage, cerebral and precerebral embolism, thrombosis and hemorrhage, and ill-defined cerebrovascular diseases, including some with onsets so gradual that the term "stroke" scarcely seems appropriate.

The rates for this category have been declining for many years. Hypertension is generally recognized as a risk factor.

For white males, more than three-fourths of the lowest rate areas are west of the Mississippi, largely in areas that have low rates shown for other cause categories (figure 28). The highest rate areas, particularly areas with the very highest rates, are concentrated in the Georgia-Carolina section of the United States, but some high rate areas are also located in Alabama, Mississippi, Tennessee, Pennsylvania, Ohio, and Indiana. Patterns of rates a decade earlier were similar— $r = +.74$, $n = 508$ SEA's (table 6).

For white females, a number of lowest rate areas are in Kansas, Colorado, and Texas, with others well scattered, except that none are in the Southeast. The highest rate areas are distributed over a large portion of the eastern half of the United States, with about one-third of them in the Southeast (table 3). Thus female rates are somewhat similar to those for males ($r = +.63$, $n = 508$ SEA's) (table 7).

For black males and females, the lowest rate areas are metropolitan, in the western half of the

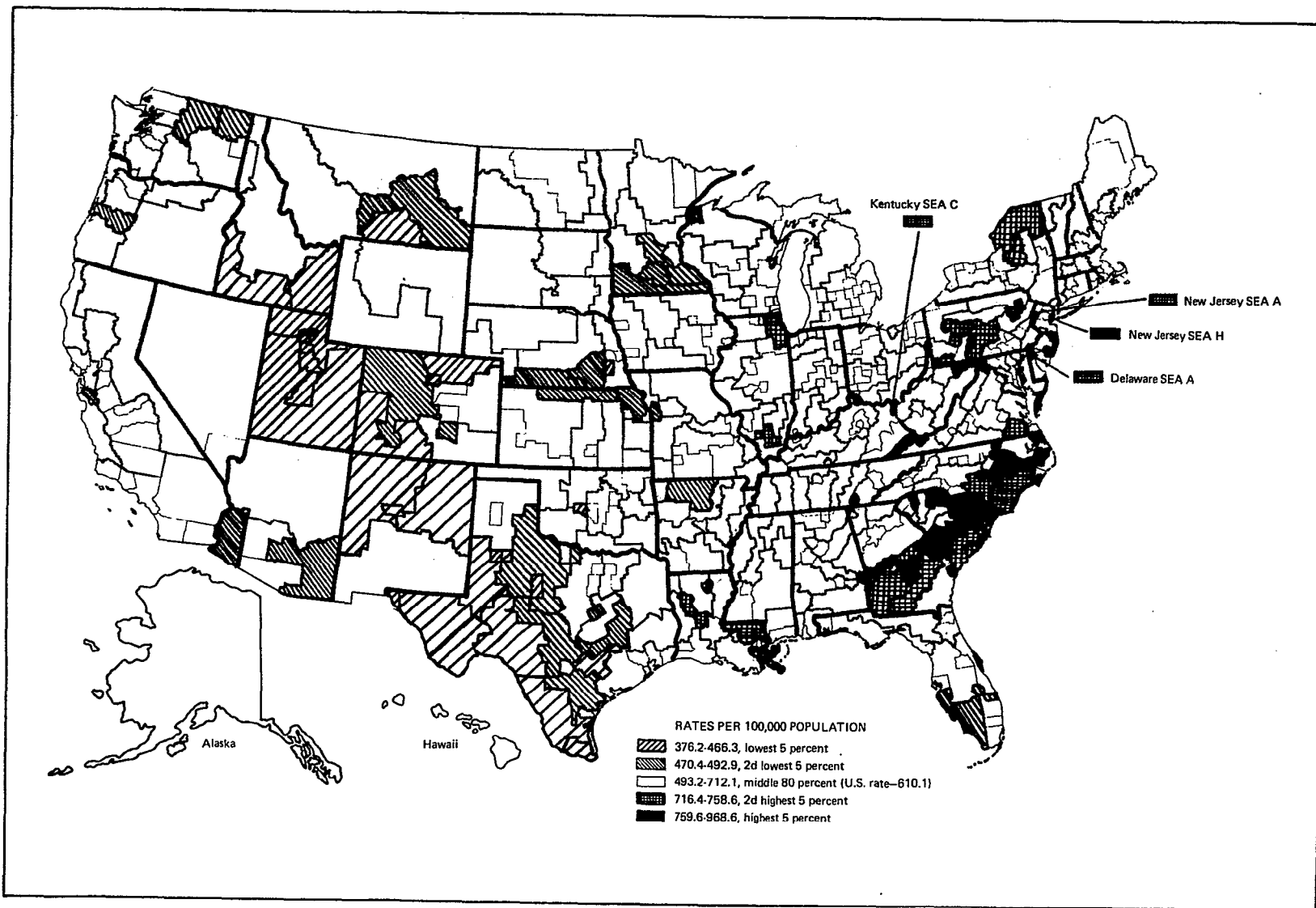


Figure 27. Death rates for ischemic heart disease (ICDA 410-413) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

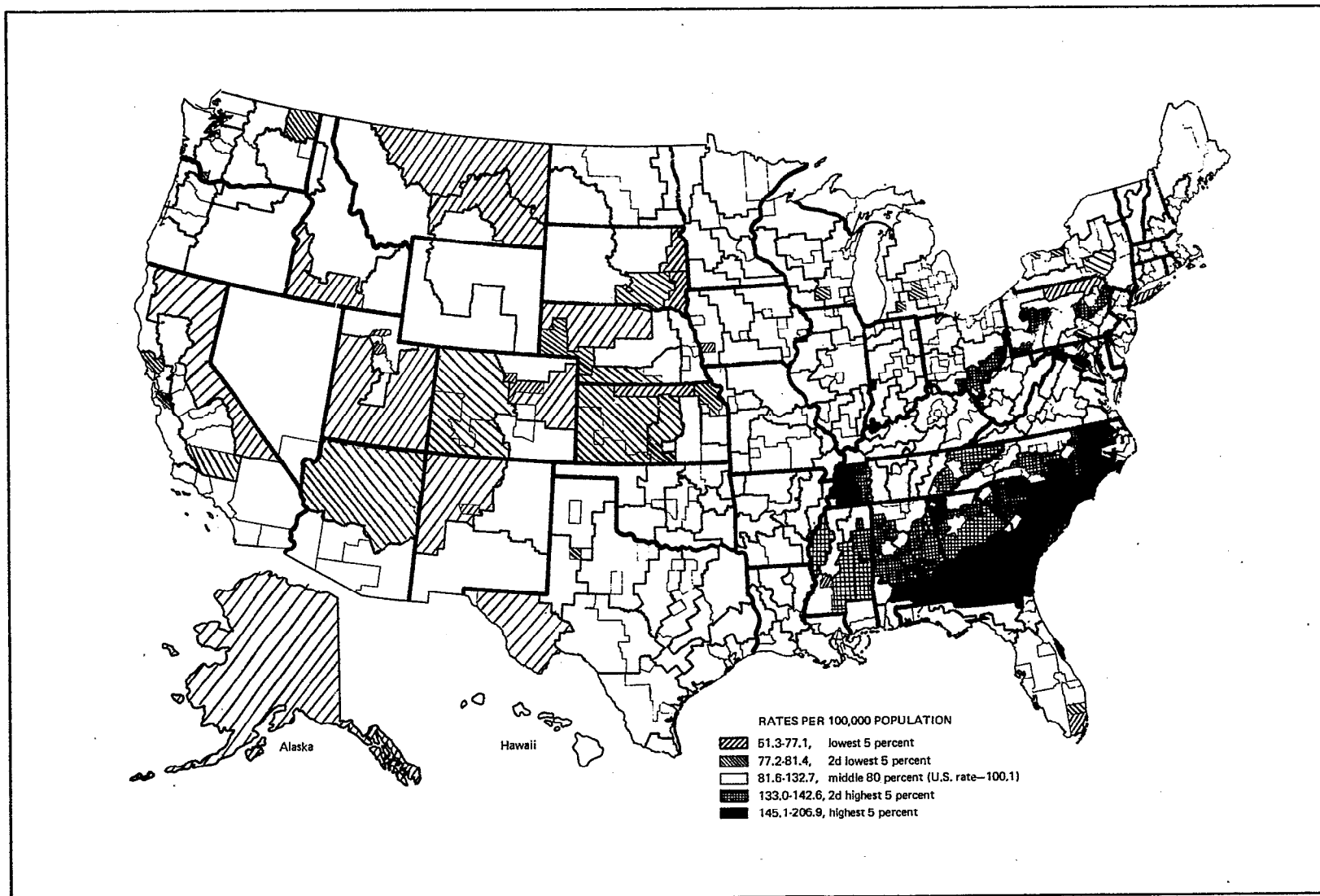


Figure 28. Death rates for cerebrovascular disease (ICDA 430-438) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

United States, and also north of the Ohio and Potomac Rivers. Almost all of the highest rate areas are in the Georgia-Carolina area (tables 4 and 5). Rates among black persons tend to present geographic patterns similar to those for white people—males, $r = +.75$; females, $r = +.54$; for both $n = 155$ SEA's (table 8).

CHRONIC RESPIRATORY DISEASES

Chronic respiratory diseases, ICDA 490-493 and 517-519, consist primarily of chronic bronchitis, emphysema and asthma, and also other chronic interstitial pneumonia, bronchiectasis, and other diseases of the respiratory system. Although a few deaths in this latter category may be specific, nearly all are charged to "Chronic obstructive lung disease, ICDA 519.3," sometimes abbreviated as COLD. Sometimes this category of chronic respiratory diseases is referred to as nonspecific.

For white persons, the rates for this category tend to be highest in mountain areas (figure 29). The high rates for Arizona and parts of New Mexico are undoubtedly due largely to the tendency for some patients with these chronic diseases to relocate in these areas; however, it does not seem probable that this is the explanation for the experience of other high rate areas. Many of the lowest rate areas are in the central portion of the country, particularly in the upper portions of the North Central States, that generally have low rates for other causes as well.

Black rates tend to parallel the patterns for white rates, even though in the extreme-rate areas for white people, the black population is too small to be listed in tables 4 and 5.

CAUSE CORRELATIONS

Product-moment coefficients of correlation of selected causes with each other have been calculated with the assumption that any two cause categories that share a common etiology would have a high correlation with each other, an approach used in prior studies.^{14, 22, 44} These correlations for white males aged 35-74 (age adjusted) are presented with $n = 50$ States in table 9 and with $n = 508$ SEA's in table 10. Cor-

relations of a part with a whole are excluded as are correlations by State when p is less than 0.01 and by SEA when p is less than 0.0001, in accord with conventional methods of calculating statistical significance.

The correlation of cancer of the respiratory system with ischemic and other heart disease is $+.75$ ($n = 50$ States) and $+.58$ ($n = 508$ SEA's); there are similar correlations of cancer of the respiratory system with cardiovascular-renal diseases. The obvious hypothesis, derived from numerous other studies, is that geographic differences in both respiratory cancer and ischemic heart disease are, to a substantial extent, the result of differences in cigarette smoking and community air pollution. The correlation of cancer, all sites, with these cardiovascular categories is almost as high, and the correlation of nonrespiratory cancers as a group with the cardiovascular diseases is high enough to suggest the possible value of testing other hypotheses as well. Similar correlations were obtained for death rates for 1959-61.¹⁴

Most of the correlations of various chronic diseases with each other are positive, and in some instances very strongly positive. For example, colo-rectal and bladder cancer have a correlation of $+.75$ ($n = 50$ States) and $+.30$ ($n = 508$ SEA's), obviously suggesting that there may be a common cause. However, the association is even stronger for colo-rectal cancer and motor vehicle accident death rates, ($r = -.83$, $n = 50$ States, and $r = -.61$, $n = 508$ SEA's), suggesting the possibility that whatever is providing protection against colo-rectal cancer in some areas is also increasing the risk of deaths due to motor vehicle accidents. A more realistic possibility is that underlying environmental factors producing such differences merely happen to be associated with each other. The association is not simply due to the inverse pattern of death rates by metropolitan status observed for these two causes. As noted earlier in this report, high rate areas for colo-rectal cancer tend to be metropolitan areas. The observation that motor vehicle accident death rates tend to be higher in the nonmetropolitan areas suggests that the negative correlation could result from this relationship. However, correlation coefficients for colo-rectal cancer and motor vehicle accidents

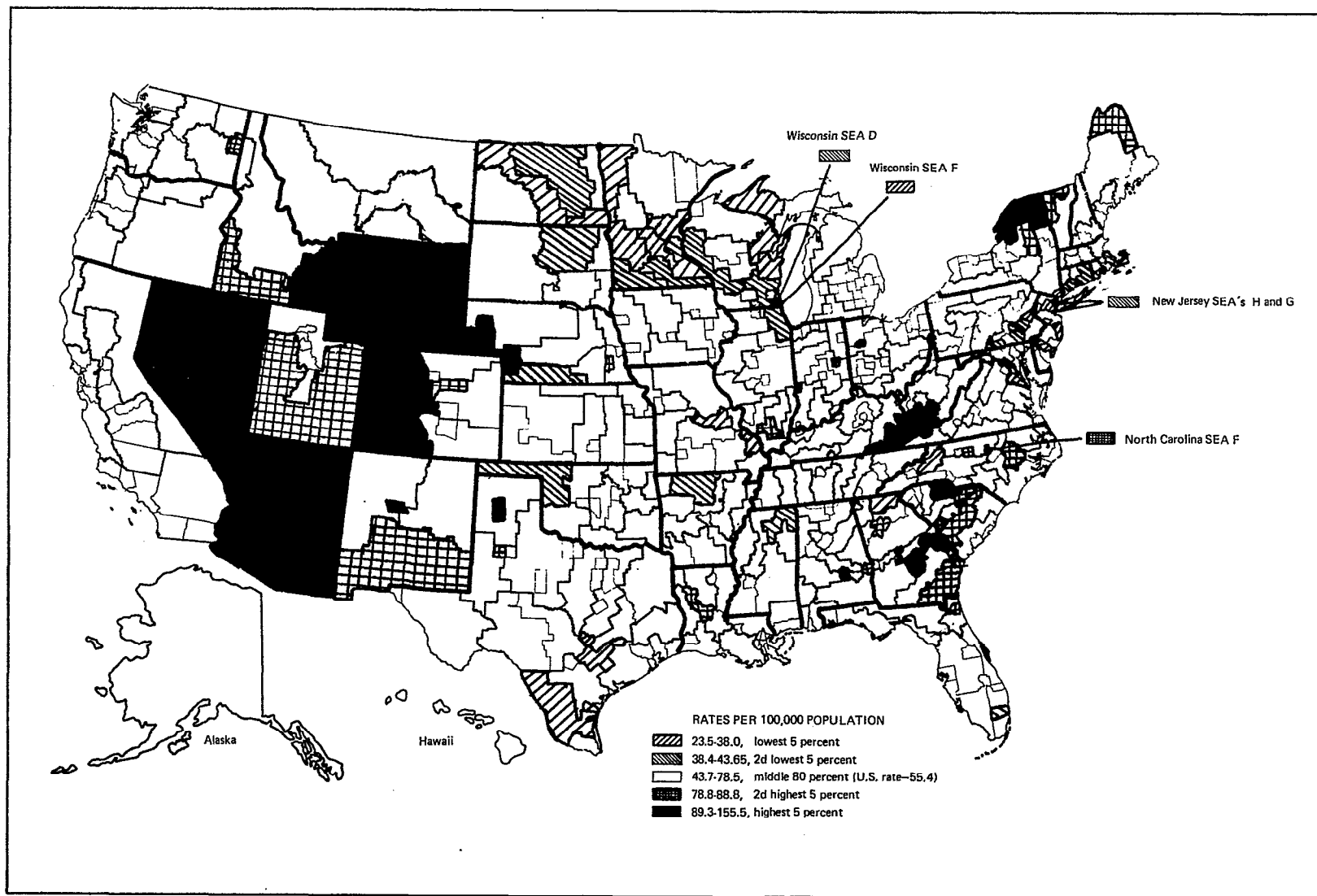


Figure 29. Death rates for chronic respiratory diseases (ICDA 490-493, 517-519) among white males aged 35-74 years (age-adjusted) in 50 lowest and 50 highest rate State economic areas: United States, 1968-72

were calculated separately for the 206 metropolitan SEA's and the 302 nonmetropolitan SEA's. For metropolitan SEA's, $r = -.62$ and for nonmetropolitan SEA's, $r = -.56$. So the association of these death rates is about as strong for the metropolitan and nonmetropolitan SEA's separately, and they are not due simply to metropolitan status.

The correlation of stroke with ischemic and other heart disease is $+0.68$ ($n = 50$ States) and $+0.63$ ($n = 508$ SEA's). These and other positive correlations of various diseases with each other suggest that some factors producing differences in death rates (even though generally not identified at present) are not disease specific. If so, then they are, in at least this respect, similar to widely recognized risk factors such as cigarette smoking, obesity, hypertension, and insufficient exercise.

The correlations for white females are generally similar to those for white males, but with

lower values (tables 11 and 12). However, for males, breast cancer rates are so low that correlations have little meaning and are, therefore, omitted from the tables. For white females, the correlation of breast cancer with colo-rectal cancer is $+0.81$ ($n = 50$ States) and $+0.52$ ($n = 508$ SEA's), again suggesting the possibility of a common etiology. The correlations of breast cancer with colo-rectal cancer for white females for the 206 metropolitan SEA's is $+0.53$ and for the 302 nonmetropolitan SEA's is $+0.47$. These strong correlations for SEA's treated separately by metropolitan status imply that the association is not due simply to metropolitan status even though for both causes the 50 highest rate SEA's have a much greater percent of metropolitan SEA's than do the 50 lowest rate SEA's. The correlation among white females of $+0.44$ ($n = 508$ SEA's) between genital cancer and colo-rectal cancer may also deserve attention.

HYPOTHESES FOR CONSIDERATION

THE SOUTHEAST

The Southeast is by far the largest geographic area in the United States with high rates. Even though it has not yet been possible to identify the factors responsible for the causes of these high rates, substantial progress has been made in delineating the characteristics of these high rates. By so doing, many hypotheses can be rejected without performing expensive field studies and others can be developed that are compatible with present findings. For example, substantial evidence has been presented to the effect that neither the softness of the drinking water nor the low levels of radiation from the Savannah River Plant (Aiken and Barnwell counties, South Carolina) are responsible for the high rates in the Southeast.⁴⁵ A more recent report provides additional evidence that the Savannah River Plant does not contribute to the high risk in this area.⁴⁶ However, these reports are not intended to reject the more general hypotheses (1) that hard water may in some way be beneficial to human health or (2) that higher levels of radiation are harmful.

Death rates for middle-aged white males in the Southeast are high for the cardiovascular diseases, especially for stroke, but also for ischemic heart disease, and for natural causes and all causes (figures 2, 21, 27, and 28). The Southeast areas, in many instances, also have high rates for respiratory cancer, but generally not for other cancer sites (figures 14, 16, 18, and 20). However, rates for external causes also tend to be high.

As regards the risk of dying, middle-aged white males are the weaker sex to an even greater extent in the Southeast than in the United States generally. For example, in Georgia and the Carolinas the white male rates are about $2\frac{3}{4}$ times the white female rates, but in Pennsylvania areas they are only double. Yet, even in Georgia and the Carolinas, the white female rates tend to parallel the white male rates, but merely at a lower level than would be expected from experience elsewhere.

The high rate area of the Southeast, which we have called "the enigma of the Southeast," does not have precise boundary lines, but generally extends from southern Louisiana to south-

eastern Virginia, in the Coastal Plain and the Fall Line, but also including portions of the Piedmont in South Carolina. The rates were identified as high for 1940 and 1949-51 for South Carolina^{8,9,23} and for 1949-51 for broader areas of the Southeast,^{20,21} for Georgia and North Carolina areas 1950-59,²² for the Southeast by SEA's, 1959-61^{14,24} and for all causes of death for the 11-year period, 1959-69.²⁵ From the 1950's to the 1968-72 period, (1) a number of metropolitan counties showed somewhat of a decline in rates, although remaining moderately high, but (2) many nonmetropolitan counties of Georgia and North Carolina showed increases in rates, of sufficient magnitude that by 1968-72 the nonmetropolitan counties of Georgia and the Carolinas had higher rates than did the metropolitan counties as a group, for the cardiovascular diseases for both white males and white females, and also for all causes of death for white males. As specific examples, the counties around Athens, Georgia, for white males, tended to have rather low or moderate rates in the 1950's, but by 1968-72 had rates that in any other section of the country would be considered high.

The southern Blue Ridge areas (Georgia SEA 2, and North Carolina SEA's 1 and 2) had very low rates in the 1950's. Their rates for the cardiovascular diseases and natural causes, for white males aged 35-74, were as a group only moderately below average in 1968-72, substantially higher than the low rate areas of the Great Plains and Utah. This adds to the complexity of defining precise boundary lines for the enigma of the Southeast.

Further work is in progress in delineating the patterns and characteristics of the high rate areas of the Southeast as part of the task of generating hypotheses regarding factors that may be determinants of these high rates. These hypotheses involve cultural characteristics, and the availability of patient care resources, as well as content of the drinking water, atmospheric science variables, and geochemistry and geobotany. Work in the latter fields has already been done under the leadership of the Branch of Regional Geochemistry, U.S. Geological Survey, showing very low levels of many trace elements in nine very high death-rate counties of Georgia around and south of Augusta, and high levels of a

variety of trace elements in nine low death-rate counties in the mountains and Upper Piedmont of northern Georgia.⁴⁸

It has been pointed out that the soils of the high death-rate areas of the Southeast are highly leached, and thus low in many trace elements. The soils of the low rate areas of the western Great Plains are relatively unleached of soluble ions and plant nutrients.⁴⁹ The possible role of selenium deficiency in the Southeast is being explored in a cooperative endeavor.⁵⁰

MINING

In the analysis of death rates by economic subregions and metropolitan areas for 1949-51, it became apparent that the coal mining areas of east central Pennsylvania had high rates for all causes of death as well as for the cardiovascular diseases, with the rates for white middle-aged people in these areas being among the very highest in the Nation.²¹ The calculation of Missouri death rates for the period 1950-59 identified Jasper County as the county in the State with the highest rates.²⁷ Jasper County is part of the old Tri-State District with extensive lead-zinc mines, thus providing a basis for developing the hypothesis that mining or history of mining is in some way associated with high death rates for all causes of death, for middle-aged white people.

For operational reasons regarding availability of geological data, the hypothesis tested (stated as a null hypothesis) is: That counties with deposits of coal or metal ores, mining, and/or history of such mining do not have death rates higher than other counties. For the present study it was not feasible to attempt to characterize the coal-metal classification of all counties of the United States. Therefore a sample of almost one-tenth of the counties of the United States was identified on the basis of all-causes death rates for white persons, each sex, aged 35-74 (age-adjusted), for the 11-year period, 1959-69. The hundred counties with the lowest death rates, the hundred with rates nearest the median, and the hundred with the highest rates (with each sex equally represented in the determination of counties) were chosen. Since 26 counties fell in the same group for male and

female, there were 163 counties chosen on the basis of the male rates, and the same number on the basis of the female rates. Only one county was excluded from the sample, a county with a very small population that had one of the 50 highest rates for white males and of the 50 lowest rates for white females. The independent cities of Virginia and the areas of Alaska were excluded from consideration because of evidence questioning the comparability of numerators and denominators for those areas. The hypothesis as presently proposed includes mining of coal and one or more of the following 10 metals: arsenic, copper, gold, lead, mercury, molybdenum, silver, pyritic sulfur, zinc, and iron.

The list of 300 counties was arranged in geographic sequence, without identification as to whether a county was low, near median, or high, or whether it had been selected on the basis of the male or the female rate, and then sent to the geologist. Blindly as regards the death-rate status of the county, he classified each county in regard to deposits and mining of coal and of each of the 10 metals as:

*Mining, history of mining
and/or deposits* Code

None (or assumed to have little or no possible effect on the human popula-

tion because of the small extent or remoteness from populated areas)..... Code 0

Small extent (unlikely to have an influence on health)..... Code 1

Moderate (or moderately substantial, more likely to have an influence on health)..... Code 2

Heavy..... Code 3

For the purpose of testing the general hypothesis as initially proposed, each county is classified according to the highest code assigned to any metal or to coal. The counties with a mining code of zero are also classified as to whether they fall into the area already identified as the enigma of the Southeast, or into other areas that are geologically considered part of the Coastal Plain.

Mining counties are associated strongly, and to a statistically significant extent, with high death rates, regardless of the definition used (table E). That is, even if the sum of all mining codes is used as the definition of mining counties, in contrast to counties with mining codes of zero, the chi-square value is statistically significant ($p < 0.0001$). If code 3 alone, heavy mining, history of mining and/or deposits, is used as the definition of mining, the statistical significance becomes stronger. This association of min-

Table E. Mining and "Southeast" classification of specified counties of the United States for all causes of death for white persons aged 35-74 years: 1959-69

Mining and "Southeast" classification	Total	Lowest death rate counties	Nearest median rate counties	Highest death rate counties
All classifications.....	300	100	100	100
Mining codes 1, 2, or 3.....	78	9	27	42
Heavy, code 3.....	25	-	2	23
Moderate or substantial, code 2.....	23	3	8	12
Light, code 1.....	30	6	17	7
Mining code 0, none or essentially none.....	222	91	73	58
Counties in area classified as "enigma of the Southeast".....	46	2	4	140
Other Coastal Plain counties.....	25	110	11	4
Other counties.....	151	79	58	14

¹Plus 1 county already classified as mining code 1.

NOTE: Counts are unduplicated counts.

ing with death rates is clearly stronger for white females than for white males, but this may be due in part to the few high rate counties for white females in the Southeast (table F).

Preliminary analysis of death rates by cause indicates that rates are high for a wide range of categories. Included in the category of residual diseases in table 1 are "Pneumoconioses and related diseases, ICDA 515, 516"; in some counties death rates for other years suggest that for males this category is probably high, as is the category other accidents. However, rates are also high for females, and they are obviously not exposed to the occupational risks of mining. Various hypotheses may be proposed, for example, that the presence of large coal or metal ore deposits, and particularly that the mining of such deposits in some way disturbs the environment sufficiently to increase the risk of dying in mid-

dle age. Conceivably it is the exposure to the coal or metal itself, or possibly more likely exposure to byproducts or waste substances (maybe sulfur) including trace substances (possibly arsenic) in these ores. The mode of transmission might be through water, especially drinking water, or air pollution. We have been told that in some areas the waste ore has been used as a substitute for gravel on country roads, thereby increasing the potential for air pollution in contrast to those areas where the waste ore merely settles in huge piles.

Cultural or socioeconomic factors may also be considered. Individuals who move into the mining counties are not necessarily the same as individuals who pursue other occupations or work in other industries. Further, mining tends to be a boom or bust type of economy, which may have stressful effects on humans.⁵¹ A num-

Table F. Counties selected on the basis of sex-specific death rates for all causes of death for white persons aged 35-74 years by mining and "Southeast" classification: 1959-69

Sex and mining and "Southeast" classification	Total	Lowest death rate counties	Nearest median rate counties	Highest death rate counties
<u>Counties selected on basis of male death rates</u>				
All codes.....	163	55	51	57
Mining codes 1, 2, or 3.....	34	4	14	16
Heavy, code 3.....	15	-	2	13
Moderate or substantial, code 2.....	17	1	4	2
Light, code 1.....	12	3	8	1
Mining code 0, none or essentially none.....	129	51	373	41
Counties in areas classified as "enigma of the Southeast".....	40	-	4	136
Other Coastal Plain counties.....	6	1	3	2
Other counties.....	83	50	30	3
<u>Counties selected on basis of female death rates</u>				
All codes.....	163	55	51	57
Mining codes 1, 2, or 3.....	55	6	14	35
Heavy, code 3.....	18	-	1	17
Moderate or substantial, code 2.....	18	2	4	12
Light, code 1.....	19	4	9	6
Mining code 0, none or essentially none.....	108	49	38	21
Counties in area classified as "enigma of the Southeast".....	10	2	2	6
Other Coastal Plain counties.....	21	10	8	3
Other counties.....	77	37	28	12

¹Plus one county already classified as mining, code 1.

NOTE: Some counties fell in the same category (lowest, nearest median, or highest) for both male and female.

ber of the mining counties, such as those in east central Pennsylvania, Storey, Nevada, and Yuba, California, have had declining amounts of activity in mining for years, in some instances to justify the use of the term, "history of mining," rather than current mining. The old Tri-State lead-zinc belt consists of three counties, Cherokee, Kansas, Jasper, Missouri, and Ottawa, Oklahoma, each of which has the highest rate of any county in the State in which it is located, for females as well as for males. Terre Haute-Vigo County, Indiana, with a history of coal (and iron pyrite) mining also has the highest rate in the State of Indiana. Thus an alternate hypothesis may be proposed for some "history of mining" counties, particularly those with substantial outmigration over the years: That the able-bodied, more aggressive individuals would tend to migrate elsewhere in search of employment and that the remaining individuals aged 35-74 would include a higher than usual proportion of individuals with chronic diseases or vague ill health that detracted from their willingness to search elsewhere for employment. Thus in some instances it may be appropriate to consider the hypothesis that the high rates are due largely to selective outmigration.

As shown in tables E and F, the counties falling in the area designated, from SEA groupings, as the enigma of the Southeast are almost entirely high rate counties, particularly for white males. Other Coastal Plain counties do not have any clear association with high rates, in this sample study designed primarily to investigate the role of mining.

ELEVATION

Elevation above sea level has been recognized as a variable with a statistically significant association with death rates for coronary heart disease ($r = -.45; n = 163; p < 0.01$), based upon an analysis of metropolitan area death rates for 1949-51.²¹ In that period the 10 lowest rate areas (metropolitan areas and nonmetropolitan economic subregions) were all at a higher elevation above sea level than any of the 10 highest rate areas.

Low death rates generally tend to be associated with high elevation, shown by correla-

tions consistently negative and statistically significant, for each sex, and for various geographic groupings, by State, SEA, and larger counties (table 13). The highest correlation is $-.72$, for cancer, all sites, with elevation by State ($n = 50$). This category and an important component, respiratory cancer, have higher correlations with elevation than do any of several dozen cause categories thus far considered. The cardiovascular diseases group and its major components, as well as natural causes and all causes of death, all have statistically significant correlations with elevation, although in many instances these are only $-.40$ to $-.30$ or less. These associations for entire distributions of areas are consistent with the tails of the distributions presented in maps for cancer all sites, for the cardiovascular diseases, and for all causes. That is, the highest rate areas are to a large extent located in the Coastal Plain, and many of the lowest rate areas are located in the high western plains, with elevations of 300-2,000 meters (roughly 1,000-6,500 feet). However, the population in these areas generally lives in relatively level or moderately rolling terrain—including low rate areas of Utah and eastern Colorado.

The low or essentially negligible correlations for some categories such as bladder cancer may be ascribed to a substantial extent to the relatively low death rates and the resulting greater role of chance fluctuation. However, even for a category with extremely low rates, such as breast cancer in males, the correlations are generally negative. Among several dozen disease categories thus far included in correlation matrices, only two show clearly positive correlations: chronic respiratory diseases and rheumatic heart disease. Obviously these associations might also be inferred from the maps (figures 25 and 29) depicting the highest rate areas.

The major exception to this association is the tendency for mining counties to have high death rates. As soon as it becomes feasible to classify all counties with respect to mining, it is obvious that for nonmining counties the correlations of elevation with death rates should be slightly higher. Most variables being considered as possible risk factors, such as elevation above sea level, may be viewed as a composite and/or as an index, rather than as a specific unitary risk factor. Consistently, for metropolitan areas for

which data are presently available, elevation above sea level has a higher correlation with death rates than do any of the weather variables thus far measured or of any of the chemical characteristics of drinking water.⁵² Yet another reason for caution in assuming that there is a direct causal relation between elevation and the risk of dying is the low rates for the Netherlands, lower than for any of the 509 SEA's in the United States in 1959-61.²⁴

POPULATION DENSITY

Population density or population mass was in prior decades generally recognized to be associated with higher death rates.^{9-11,13,20} Yet in the 1968-72 period this factor appears to be rather weak. Specifically, for white males, the rates for the cardiovascular diseases in nonmetropolitan areas are essentially as high as those in metropolitan SEA's, and for other cause categories the difference is generally not very great (table 1). Correlations of all cardiovascular diseases death rates with density ($n = 508$ SEA's) is quite low (table 14). The coefficient of determination r^2 is less than .02, indicating that less than 2 percent of the variation in population density is associated with variations in the death rates. A number of cancer categories have moderate correlations with population density, but lower than those with elevation. The category with the highest correlations is cirrhosis of liver.

The usual measure of population density, population per square mile, generally seems to be a reasonably sound index. There are, however, some clearcut exceptions, including the largest county of the United States, San Bernardino County (California), with some 20,000 square miles but with nearly all of the population concentrated in the extreme southwestern corner of the county. The calculation of population per square mile from one point of view implies that the population is dispersed over the area of this county even though most of the county consists of mountains and desert. Various other indexes may be developed to measure population density.

Percent of the population in multifamily dwellings is a measure that seemed to offer promise.⁵³ Population mass or the total popula-

tion of a county and also population per square mile, urbanized area only, may also be useful, along with a number of measures presented recently by Myers and Manton.⁵⁴

As an alternative approach, population density may be hypothesized to consist of physical factors, such as air pollution and content of the drinking water, and cultural or psychological factors, such as the effect of living in close proximity to large numbers of other people. The latter approach would hopefully lead to the measurement of factors that in some way would be more closely related to health effects that are manifested in the risk of dying than in the conventional measure of population density.

In spite of the low correlations, an inspection of the various maps shows clearly that very few of the lowest rate areas are metropolitan, thus suggesting the possible usefulness of developing additional techniques for analyzing geographic patterns. Suburban counties generally have lower death rates than do center-city counties, just as they did in the 1949-51 period.²⁰

PATIENT CARE RESOURCES

Many different indexes of patient care resources may be considered, one of the most obvious being physicians per 1,000 population. For example, it was shown that, for white males aged 45-64, for the 1949-51 period, the correlations for this variable with coronary heart disease, with cardiovascular diseases, and with all causes of death were statistically significant ($n = 48$ States, $p \leq 0.01$).²³ That is, States with above average numbers of physicians per 1,000 population showed a slight tendency to have higher death rates for all causes as well as for coronary heart disease. At that time it seemed illogical to propose the hypothesis that a greater availability of physicians increased the risk of dying for middle-aged whites, but rather that there were other (presently unrecognized) variables that affected both the supply of physicians and the death rate. It still seems appropriate to be cautious about assuming causal sequences, either positive or negative, from identified associations.

The correlations between number of physicians per 1,000 population and death rates

among white males for 1949-51 and 1968-72 are as follows:

Cause of death	White males, aged 45-64 (n = 48 States)	White males, aged 35-74 (n = 50 States)
	1949-51	1968-72
All causes.....	+36	+24
Cardiovascular diseases.....	+33	+04
Coronary or ischemic heart disease.....	+60	+11

For 1949-51 rates, coronary heart disease was defined as "arteriosclerotic heart disease, including coronary disease, ICD 420, 6th revision." For 1968-72, the definition was somewhat broader, "Ischemic and other heart disease, ICDA 410-429, 8th revision," and may account for a small portion of the decrease in the correlation value. For 1968-72, to the definition of cardiovascular diseases was also added "Renal diseases, ICDA 582-584," and "Ill-defined diseases, ICDA 780-796." This failure to find lower death rates associated with greater availability of physicians may be explained to some extent by another recent study that used additional criteria for identifying medically underserved and adequately served areas.⁵⁵ In this study little difference was found between the two groups of areas in the number of visits with physicians.

In order to explore in greater depth the possible association of availability of patient care resources and death rates by geographic area, the availability of patient care resources per 1,000 population has been measured by five indexes, as follows:

1. Physicians—the number of active non-Federal M.D.'s and D.O.'s in 1971. (This year was chosen because it was the only year for which data on D.O.'s were available.) It is used as an estimate of physicians in practice, and obviously includes specialists as well as general practitioners.
2. General practitioners—the number of active non-Federal general practitioner

M.D.'s in 1969 plus the number of active non-Federal D.O.'s in 1971 (the only years for which data with these two definitions were available). Since the overwhelming majority of D.O.'s are in general practice, this is used as an estimate of general practitioners in practice.

3. Patient days hospitalized in 1969.
4. Nurses— $\frac{1}{2}$ (active R.N.'s employed in nursing, 1966) + $\frac{1}{2}$ (active R.N.'s, 1972) + $\frac{1}{2}$ (active employed L.P.N.'s, 1967) + $\frac{1}{2}$ (full-time L.P.N.'s in general hospital employment, 1974) provided the estimate of number of nurses around 1970.
5. Dentists—number of licensed dentists, 1971.

All rates were calculated using the 1970 census (Second Count revised tape) as the estimated population at risk.

The correlation of these five indexes of patient care resources with groups of causes of death are presented in table G. Since patients may easily cross geographic boundary lines (of counties, SEA's, and States), the question may be raised as to the usefulness of these estimates of availability of patient care resources such as physicians. Obviously, for larger geographic units, such as States, there would be proportionately less such crossing of boundaries than for counties. Further, an inspection of medical care centers suggests that patients will often cross State boundaries in both directions. For example, patients in southern Indiana may utilize the time of physicians in Louisville, thereby reducing their availability to Kentucky residents; but, at the same time, it seems likely that many residents of Kentucky near Cincinnati would cross over to Ohio, thus providing more medical care to Kentucky residents than the number of physicians would suggest. Thus for patient care variables, both SEA's and States may be useful units for study.

Correlations between physicians and death rates for cancer and for all other diseases (that is, diseases other than cancer and cardiovascular-renal diseases) are clearly positive and statistically significant ($p < 0.01$) for both white male and white female rates. The correlations between general practitioners and death rates are

Table G. Correlation of selected indexes of patient care resources per 1,000 population and death rates for major groups of causes for white persons aged 35-74 years, by sex: 50 States, 1968-72

Sex and cause group	Physicians	General practitioners	Patient days hospitalized	Nurses	Dentists
<u>Male</u>					
Natural causes.....	+0.33	-0.37	+0.19	-0.03	-0.19
Cancer.....	+0.40	-0.17	+0.09	+0.21	+0.04
Cardiovascular-renal.....	+0.04	-0.31	+0.14	-0.18	-0.35
All other diseases.....	+0.62	-0.38	+0.24	+0.11	+0.11
External causes.....	-0.32	-0.39	-0.13	-0.57	-0.39
<u>Female</u>					
Natural causes.....	+0.44	-0.14	+0.05	+0.26	+0.10
Cancer.....	+0.59	-0.03	+0.18	+0.51	+0.37
Cardiovascular-renal.....	+0.16	-0.07	-0.02	+0.10	-0.11
All other diseases.....	+0.51	-0.28	+0.04	+0.10	+0.15
External causes.....	-0.13	-0.35	-0.22	-0.49	-0.13

generally negative; for white males, the correlations between general practitioners and (1) natural causes, (2) all other diseases, and (3) external causes, as well as some others, are statistically significant.

The correlations between (1) patient days hospitalized, (2) nurses, and (3) dentists, and groups of diseases are generally not statistically significant and are mixed, positive and negative (table G). However, for white females, there are positive correlations between cancer (all sites) and the numbers of nurses and dentists per 1,000 population; the more practitioners of these two professions per 1,000 population in a State, the higher the cancer death rate ($p < 0.01$). For each sex and for each index of patient care resources, the correlation with external causes is negative, but is strongest for nurses correlated with white male external causes ($r = -0.57, p < 0.0001$).

For specific cause categories, the highest correlation thus far identified is cirrhosis of liver with physicians, for white males by State ($n = 50$) +0.85, by SEA ($n = 508$) +0.47, for white females by State ($n = 50$) +0.72, by SEA ($n = 508$) +0.47 (for each, $p < 0.0001$) (table 15). As yet, we have been unable to propose a hypothesis as to how the presence of more physicians in a community or State could be responsible for higher actual death rates for cirrhosis of liver. Therefore, it seems appropriate to have similar

reservations as to whether the greater numbers of general practitioners per 1,000 population are producing lower cirrhosis rates—the inference that some might wish to draw from the correlations in table 16, the same four correlations (as cited for table 15) all being negative and statistically significant ($p < 0.01$). Dentists (table 19) and nurses (table 18) have positive correlations with cirrhosis, but lower than those for physicians.

Colo-rectal cancer in each sex and breast cancer in females also have moderately substantial positive correlations with availability of physicians, nurses, and dentists, but not with general practitioners or patient days hospitalized.

The correlations between patient care resources and specific cause categories are summarized in table H.

Pancreatic cancer correlations are consistently low and lacking in statistical significance. In view of the high fatality rate for this disease, it would appear to be unrealistic to expect any appreciable negative correlations for this category and patient care resources. Stomach cancer correlations are also generally low, but the association of this cause for white males with nurses is positive and statistically significant.

Low respiratory cancer rates tend to be associated with higher rates of general practitioners, especially for the 508 SEA's ($r = -0.35$, white

Table H. Number of statistically significant correlations of specific causes with specified patient resources among 45 (22 male and 23 female) correlations with specific cause categories: 1968-72

Correlation and level of significance	Physicians	General practitioners	Patient days hospitalized	Nurses	Dentists
<u>By States, n=50, ($r > \pm .36$ results in $p < 0.01$)</u>					
All correlations.....	45	45	45	45	45
Positive correlations significant ($p < 0.01$).....	13	2	1	7	4
Correlations not significant.....	30	33	43	32	34
Negative correlations significant ($p < 0.01$).....	2	10	1	6	7
<u>By SEA's, n=508 ($r > \pm .17$ results in $p < 0.0001$)</u>					
All correlations.....	45	45	45	45	45
Positive correlations significant ($p < 0.0001$).....	13	-	1	11	10
Correlations not significant.....	28	34	42	27	21
Negative correlations significant ($p < 0.0001$).....	4	11	2	7	14

SOURCE: Tables 12-16, inclusive.

males, and $-.19$, white females, $p < 0.0001$); reverse correlation figures tend to be true for physicians.

Rheumatic heart disease, positively correlated with the availability of physicians, nurses, and dentists, shows a negligible association with general practitioners and patient days hospitalized. The ischemic and other heart disease category tends to have a slight negative correlation with dentists and also with general practitioners, but the negative correlation of stroke with dentists is more pronounced.

There is no clearcut pattern for other diseases, although tuberculosis and influenza and pneumonia tend to have positive correlations with physicians and negative correlations with general practitioners.

Motor vehicle accident death rates have a rather clearcut negative correlation with physicians, nurses, and dentists, but not with general practitioners or patient days hospitalized. Homicide rates have a negative association with general practitioners, nurses, and dentists. Other accidents (other than motor vehicle accidents) also show some tendency toward negative associations with general practitioners and nurses.

The association of patient care resources with groups of causes-of-death categories constitutes one method for summarizing the detailed correlation tables (table G). Another method is

simply to count the number of specific cause categories that have statistically significant correlations with each type of patient care resources (table H). Omitting the group or summed categories, there are 22 causes listed for males and 23 for females (tables 15-19). Most of the statistically significant correlations of cause categories with physicians (including specialists) are positive; for general practitioners nearly all are negative. In other words, for about 10 categories, the more general practitioners there are, the lower the death rates tend to be. However, none of the cause categories has appreciable, consistent associations with the number of days a patient is hospitalized. Dentists were included as one of the patient care resources with the hypothesis that the presence of dentists in greater numbers in relation to population would generally have no direct effect, positive or negative, upon death rates. Yet they have about as many statistically significant correlations as do other indexes.

The entire group of correlations of patient care resources with various death rates presents a puzzling picture. Generally available information strongly suggests that some of the highest correlations are probably not causally associated. Yet it seems reasonable to continue to propose for further study the hypotheses that some patient care resources are associated with lower

death rates, at least for some causes. In the effort to test such hypotheses with greater accuracy and thoroughness, needs for improvement may be explored in four general areas:

1. Control of confounding variables, in addition to the control of age, sex, and race. Three variables have already been identified that may reasonably be hypothesized to be essentially independent of patient care resources, specifically (a) elevation above sea level, (b) mining and/or history of mining, and (c) the enigma of the Southeast. These should, therefore, be brought under control in appropriate ways, preferably by direct means when feasible. Population density needs further analysis to determine appropriate ways of control. Densely populated areas, or metropolitan areas, tend to be different from sparsely settled areas as far as (i) factors in the physical environment, (ii) factors in the cultural environment, or factors related to human crowding, and (iii) availability of patient care resources. Thus, the routine application of procedures of statistical analysis that assume independence of factors may very well produce results of uncertain value. Other factors of importance, not yet identified, may vary from one geographic area to another and will require control in order to study the association of patient care resources with death rates.
2. Development of better indexes of patient care resources.
3. Evaluation of the adequacy or accuracy of classification of counts of patient care resources and deaths.
4. More nearly adequate denominators for calculating patient care resources per 1,000 population at risk:
 - a. There is a general impression that patients frequently cross county boundary lines in order to obtain

care. In the present study the best approach feasible seemed to be the use of available units such as SEA's and States, but alternative approaches need to be developed for obtaining better estimates of the actual population at risk of using patient care resources, such as:

- i. Identifying the counties that function, at least approximately, as a geographic unit in the delivery of health care. That is, a group of rural counties may be served to a considerable extent by hospitals and specialists in a metropolitan area, so that the entire groups of counties should be classified as a unit.
 - ii. Determining the number of patients who are served by physicians or hospitals in other counties and developing a way of having a more realistic estimate of the population at risk of using specified patient care resources.
- b. Instead of assuming that the entire population of a county is at risk of using the patient care resources in a county, recognize that there are differential uses of patient care resources by age, sex, race, and possibly other variables. For example, if in one county, blacks (or young people or any other specific group) use patient care resources very little, then the remainder of the population may have much greater access to such resources than indicated by the calculated indexes.

Adequate measurement of patient care resources and their use may be very difficult, but there appears to be enough of a possibility of their importance in contributing to geographic differences in the risk of dying that it scarcely seems tenable to ignore such variables.

DISCUSSION OF METHODS

Many different approaches are recommended for studying the effect of the environment upon health, such as those described in a recent report to NCHS.⁶⁰ One example is the present ecological study of geographic differences in the risk of dying. All studies require adequately accurate data, with considerations for both standard error and the possibility of systematic error, the latter having been considered in the light of uses being made of the data in prior papers.^{21-23,35,36} A study involving the tabulation of more than 8 million deaths by cause, age, sex, and race for 510 areas obviously requires attention to quality control. In many ways, data have been checked for consistency and accuracy. Methods of this type should be considered as part of a never-ending process of examining and evaluating the adequacy of methods used in any type of research—laboratory, clinical, or epidemiological. The lipid standardization laboratory work at the Center for Disease Control (Atlanta) is an obvious example of work on quality control.

STANDARD ERROR

For practically all of the SEA's, the standard error of the death rate for natural causes and for all causes listed in tables 2-5, inclusive, is less than 2 percent, and for white males for many SEA's, less than 1 percent. However, for specific causes, the standard errors are obviously higher. For each of four causes—pancreatic cancer, bladder cancer, rheumatic heart disease, and hypertensive heart disease (including hypertension without mention of heart disease)—SEA's with small population may have five or fewer deaths expected, on the basis of the U.S. rate, with a resulting high standard error. In tables 2-5, the number of deaths attributed to natural causes, age groups 35-74, is given in the righthand column, to make it possible to calculate an estimate of standard error for any specific SEA.

CORRELATIONS

Conventional Pearsonian product-moment coefficients of correlation have been routinely

calculated as a major technique of analysis. In view of the possibility that some distributions may deviate considerably from normality, a number of matrices of Spearman rank correlation have been calculated. For example, out of 25 correlations of cause-specific rates among white persons, aged 35-74 (age-adjusted), male *versus* female ($n=508$ SEA's), 20 had coefficients of correlation (r) in close agreement with the rank correlation (p), the coefficient of determination (r^2) showing differences of 4 percent or less. Three categories—chronic respiratory diseases, other accidents, and homicide—showed differences between the two methods of correlation of about 7 percent. Hypertensive heart disease and hypertension showed a difference of 10 percent; this difference resulted almost entirely from differences for metropolitan areas, the two methods of correlation producing almost identical values for the nonmetropolitan areas. The greatest difference was for ill-defined conditions, 17 percent. Even so, both the rank correlation and the coefficient of correlation for this category (which is obviously not a specific cause) are each greater than for any specific cause. Thus similar conclusions regarding correlations will be drawn, regardless of whether the coefficient of correlation with its implied assumptions is used or whether a nonparametric method such as rank correlation is used.

CAUSE OF DEATH

The use of broad categories of causes of death, including natural causes, all malignant neoplasms, and cardiovascular diseases, should minimize possible limitations in classification of cause of death. Yet there is an obvious need to study factors associated with specific, more narrowly defined causes of death. Adequately validating the certification of cause of death by means of thorough autopsies of samples of all deaths of the residents of a county is obviously desirable, but it would require the investment of substantial professional manpower. Considerable effort is required also for a more limited follow-back study of the type described in a recent

report, or other evaluative approaches.⁵⁷⁻⁵⁹ In the present analyses, an effort has been made to minimize the use of data about which questions might be raised, focusing rather upon those categories and groups of categories that seemed most likely to be of sufficient quality for ecological analyses, thereby making more extensive use of vital statistics data, as has been advocated.⁵⁸

AGE, SEX, AND RACE

An observation that is almost universally indicated by age-specific death rates presented in vital statistics reports is that the male is the weaker sex, as far as the risk of dying is concerned. The most pronounced differences by sex include such categories as respiratory cancer, chronic respiratory diseases, alcoholism, cirrhosis of liver, and external causes. Available evidence suggests that factors other than differences in hormonal physiology are probably largely responsible for deaths in these categories and for the higher rates among males.

Around 1920, death rates for the cardiovascular-renal (CVR) diseases among white males, aged 45-54, were about the same as for females; in 1968-72 the male rates were 3.16 times the female rates. Since it seems most unlikely that there would be appreciable changes in hormonal physiology in just half a century, this pattern provides evidence for the hypothesis that changing sex differences in the CVR death rates are due largely to environmental factors of some kind.

The ratio of male to female death rates was substantially higher in a large number of SEA's in the South than in other parts of the United States for the 1959-61 period.¹⁴ These ratios are also substantially higher for the 1968-72 period for the South, and lower in SEA's in the Middle Atlantic States and other areas. Thus geographic differences in the risk of dying also provide a tool for endeavoring to identify factors that contribute toward making the male the weaker sex as far as the risk of dying is concerned.

The need to use age-specific death rates and not to rely completely upon age-adjusted death rates was emphasized by the report of a commit-

tee of the Statistics Section of APHA⁶² and illustrated in a more recent report.¹⁴ For future analyses, it seems appropriate to recognize that age group 35-74 years (age-adjusted) probably will often not be a specific enough age group to identify epidemics or to measure the maximum differences that exist between areas with very low and those with very high endemic rates.

For the group all other races (races other than white), there is uncertainty as to the reproducibility of age and of its effect upon age-specific death rates.^{40,47} Further work on this subject is in process, in cooperation with investigators in areas concerned.

USUAL RESIDENCE

While classification of deaths by place of usual residence and by place of occurrence seem to be very clearly the only feasible procedure for general usage, there are obviously instances in which there will be a need for identification of the place at which exposure occurred or the event occurred that eventually resulted in death. But, in view of the present inadequacy of scientific information about the etiology of many chronic diseases, it is very often impossible to define either exposure or event. Even though this general problem is too broad for present solution, progress may be attempted through consideration of specific problems.

For example, residents of large institutions, primarily mental hospitals and correctional institutions, are counted as residents of the county and SEA in which the institution is located, but from the 1940's to the 1970's the standard practice in vital statistics was to classify decedents of such institutions as residents of the county from which they were originally admitted. Questions may be raised as to whether this procedure or any other feasible procedure yet developed fully meets the needs for calculating death rates for ecological-epidemiological studies. An interim adjustment procedure previously developed²² could not be used because necessary Census data are not available. However, in view of the substantial decline in mental hospital populations in recent years and in view of the small population of males age 45 and over and of females in correctional institutions, it appears likely that, even

for SEA's with large resident institutions, the potential difference in death rates for age group 35-74 resulting from different methods of classifying residence is probably less than 3 percent for all but half a dozen or fewer SEA's.

POTENTIAL BENEFITS

The several factors that have presently been identified as associated with geographic differences in the risk of dying are merely actual or suspected risk factors with cigarette smoking being one of the most likely environmental factors.⁶¹ A basic practical question is: If the causes of these differences could be identified, and if the key factors in the environment of the United States could be adjusted so as to be at the levels of the areas with the lowest death rates, how many fewer deaths per year would there be in the United States under the age of 75?

In order to control for chance fluctuation and temporary factors, the two SEA's with the lowest rates for white males aged 35-74 in 1959-61 were identified, but calculations were made from their rates a decade later, 1968-72, for all natural causes (table J). Implied in this approach is the further assumption that the environmental factors conducive to lessening risk were present in the period around the 1970 census as well as in the earlier period.

Several variations in this method might be appropriately considered, some of which would increase and some decrease the calculations. As one example, a county included among the 25 lowest rate large counties in 1959-61, Cache County, Utah, has provided substantial evidence of consistently low rates. If the entire United States could have rates similar to this

county's rates, there would be about 300,000 fewer deaths per year. It therefore seems conservative to estimate that, if the key elements of the environment of the lowest rate areas could be identified and become the environment of the entire country, there would be 170,000 fewer deaths per year under the age of 75. A similar estimate was made, derived from a similar calculation from areas selected on the basis of their 1949-51 rates, using their experience for the 1959-61 period.^{24,56}

Ethnic, genetic, and migration patterns may contribute to some extent to the geographic patterns, such as the low rates for Florida residents born in the North, the high rates for chronic respiratory diseases for those in Arizona, and low rates for those of Spanish American ancestry in the Southwest.^{11,21,39} Available evidence from these and other sources, however, point to the probability that these factors contribute very little either generally or for the extreme rate areas considered. Thus, it can be presumed that environmental factors are primarily responsible, but there is no present reason for assuming that the residents of any one area are receiving an optimum dosage of all the relevant environmental factors. The potential reduction in the number of deaths under age 75 may therefore be much greater than the calculations of table J.

On the other hand, as long as the causes of high rates in specific areas are not known, there might be an inadvertent acceptance of the dosage of the detrimental environmental factors present in the highest rate areas for the population of the United States as a whole, thereby resulting in an additional 300,000 deaths per year under the age of 75 (table J). The present study is thus focused upon areas of research recommended by a national committee.⁶⁰

SUMMARY

Cause-specific death rates have been calculated for ages 35-74 (age-adjusted) by sex and race for the 510 State economic areas of the United States, 1968-72, from which various analyses have been made.

For natural causes of death and for a number of specific causes, for the white population, the lowest rate areas are generally west of the Mississippi River, but often include some Wisconsin areas. The highest rate areas are generally

Table J. Difference in average annual number of deaths from natural causes in the United States under different assumptions for white persons under age 75, by sex: 1968-72

Age and sex	If, instead of the actual United States experience, the death rates for specified areas for 1968-72 applied:				
	Lowest rate SEA's ¹		Cache County, Utah	Highest rate SEA's ¹	
	Nebraska SEA 4	Nebraska SEA 5		Alabama SEA B Phenix City	Pennsylvania SEA G Wilkes-Barre Hazleton
Under age 75, both sexes.....	-182,714	-173,744	-312,718	+383,992	+254,002
<u>Under 1 year</u>					
Male.....	1,832	898	-6,636	15,670	994
Female.....	-7,905	-3,132	-20,367	4,208	1,499
<u>1-4 years</u>					
Male.....	-106	672	-2,086	-2,881	1,915
Female.....	986	332	-1,605	-817	-839
<u>5-14 years</u>					
Male.....	230	726	-1,825	-2,038	-
Female.....	-3,188	-441	-1,458	3,866	203
<u>15-24 years</u>					
Male.....	2,936	-764	-4,938	-612	-31
Female.....	-278	-1,686	-2,119	7,562	-263
<u>25-34 years</u>					
Male.....	2,022	-2,985	-1,309	-703	1,341
Female.....	-2,131	-2,164	-1,435	1,888	-144
<u>35-44 years</u>					
Male.....	-9,988	590	-10,919	9,518	12,130
Female.....	-882	-5,283	-5,159	-2,771	3,540
<u>45-54 years</u>					
Male.....	-28,148	-23,202	-38,596	68,422	32,284
Female.....	-16,729	-9,809	-24,145	23,013	12,612
<u>55-64 years</u>					
Male.....	-33,713	-26,654	-62,194	100,190	62,616
Female.....	-22,516	-19,572	-26,241	39,446	16,983
<u>65-74 years</u>					
Male.....	-38,536	-43,901	-76,166	97,843	59,252
Female.....	-26,600	-37,369	-28,436	21,188	49,910

¹Areas identified on the basis of having lowest or highest rates for white males aged 35-74 years (age-adjusted) for 1959-61, but with calculations made from rates for the 1968-72 period.

east of the Mississippi. This pattern appeared to be slightly stronger than for prior periods of time.

For black persons, for natural causes, the lowest death-rate areas tended to be in the West and the highest in the Southeast.

For white males, for all natural causes and especially for the cardiovascular diseases, the highest rate areas are largely located in the Southeast; for white females they were more often in the Middle Atlantic States and adjoining States, and also in the Chicago area.

Respiratory cancer rates tended to be highest for white males along the gulf coast, lower Atlantic coast, and the lower Mississippi, but for black males, rates tended to be higher in northern metropolitan areas.

For colo-rectal cancer and for breast cancer in females, the lowest rate areas are both in the South and west of the Mississippi. Most of the highest rate areas are in the Northeast.

The Southeast area with high rates of deaths among white males attributed to cardiovascular diseases may be delineated as the Coastal Plain from southern Louisiana to southeastern Virginia, the Fall Line, and in South Carolina parts of the Piedmont. Black persons also tend to have high rates in this section, as do white females in a few areas. However, most of these areas have near-average rates for white females.

Many counties classified as mining and/or history of mining have high rates for all causes of death and all natural causes, for white females as well as for white males.

Elevation above sea level is associated, to a moderate but statistically significant extent ($p < 0.0001$), with death rates for various dis-

eases, but especially for cancer. The lowest rate areas are, to a large extent, in high plains areas.

The more densely populated areas tend to have higher death rates due to cancer. However, for the cardiovascular diseases, nonmetropolitan areas have rates about as high as do metropolitan areas, in contrast to the substantially higher rates for metropolitan areas two decades earlier. In the Southeast, rates for nonmetropolitan areas tend to be slightly higher than for metropolitan. Yet, generally for the United States, the lowest rate areas for various categories, including the cardiovascular diseases, are nearly all non-metropolitan.

Higher rates of general practitioners per 1,000 population tended to be associated slightly with lower death rates attributed to natural causes; the reverse was true for physicians as a group. Other measures of patient care resources, such as nurses, dentists, and patient days hospitalized presented mixed associations with death rates. More research needs to be done in the proper handling of these variables before clear conclusions can be drawn from them.

Although the causes of geographic differences in the risk of dying have not been established, associations have been delineated in a way to suggest more specific research. If the beneficial environmental factors in the low rate areas could be identified, with abstinence from cigarette smoking being an example of one likely factor, and if the key elements of the environment of the lowest rate areas could become the environment of the entire United States, it is estimated that there would be about 170,000 fewer deaths per year under the age of 75.



REFERENCES

- ¹Snow, J.: *On the Mode of Communication of Cholera*, 2d ed. Churchill, London, 1855. Reproduced in *Snow on Cholera*. Commonwealth Fund, New York, 1936. Reprinted by Hafner, New York, 1965.
- ²Shattuck, L.: Art. XVI—Report to the Committee of the City Council (Boston, 1846). Reviewed in *Am. J. Med. Sci.* 12:177-178, July 1846.
- ³Shattuck, L. et al.: *Report of Sanitary Commission of Massachusetts*, 1850. Cambridge. Harvard University Press, 1948.
- ⁴Sternberg, G. M.: *Malaria and Malarial Diseases*. New York. William Wood & Co., 1884. p. 31.
- ⁵U.S. Bureau of the Census: *Vital Statistics Rates in the United States, 1900-1940*, by F. E. Linder and R. D. Grove. Washington. U.S. Government Printing Office, 1943.
- ⁶National Center for Health Statistics: *Vital Statistics Rates in the United States, 1940-1960*, by R. D. Grove and A. M. Hertz. PHS Pub. No. 1677. Public Health Service. Washington. U.S. Government Printing Office, 1968.
- ⁷Woolsey, T. D.: An investigation of low mortality in certain areas. *Public Health Rep.* 64:909-920, July 22, 1949.
- ⁸National Office of Vital Statistics: Death rates for selected causes by age, color, and sex, United States and each State, 1949-51. *Vital Statistics—Special Reports*. Vol. 49, Nos. 1-62. Public Health Service. Washington. U.S. Government Printing Office, Sept. 1959.
- ⁹Gover, M.: Statistical studies of heart disease, IV. Mortality from heart disease (all forms) related to geographic section and size of city. *Public Health Rep.* 64:439-456, Apr. 8, 1949.
- ¹⁰Lilienfeld, A. M., Levin, M. L., and Kessler, I. I.: *Cancer in the United States*. Cambridge. Harvard University Press, 1970.
- ¹¹Moriyama, I. M., Krueger, D. E., and Stamler, J.: *Cardiovascular Diseases in the United States*. Cambridge. Harvard University Press, 1970.
- ¹²Lowell, A. M., Edwards, L. B., and Palmer, C. E.: *Tuberculosis*. Cambridge. Harvard University Press, 1969.
- ¹³Kitagawa, E. M., and Hauser, P. M.: *Differential Mortality in the United States*. Cambridge. Harvard University Press, 1973.
- ¹⁴Erhardt, C. L., and Berlin, J. E., eds.: *Mortality and Morbidity in the United States*. Cambridge. Harvard University Press, 1974.
- ¹⁵National Cancer Institute: *U.S. Cancer Mortality by County: 1950-1969*, by T. J. Mason and F. W. McKay. DHEW Pub. No. (NIH) 74-615. National Institutes of Health, 1974.
- ¹⁶National Cancer Institute: *Atlas of Cancer Mortality for U.S. Counties, 1950-1969*, by T. J. Mason, F. W. McKay, et al. DHEW Pub. No. (NIH) 75-780. National Institutes of Health, 1975.
- ¹⁷National Cancer Institute: *Atlas of Cancer Mortality Among U.S. Non-whites, 1950-1969*, by T. J. Mason, F. W. McKay, et al. DHEW Pub. No. (NIH) 76-1204. National Institutes of Health, 1976.
- ¹⁸Duffy, E. A., and Carroll, R. E.: *United States Metropolitan Mortality, 1959-1961*. PHS Pub. No. 999-AP-39. Public Health Service. National Center for Air Pollution Control, 1967.
- ¹⁹Enterline, P. E., and Stewart, W. H.: Geographic patterns in deaths from coronary heart disease. *Public Health Rep.* 71:849-855, Sept. 1956.
- ²⁰Enterline, P. E., Rikli, A. E., Sauer, H. I., and Hyman, M.: Death rates for coronary heart disease in metropolitan and other areas. *Public Health Rep.* 75:759-766, Aug. 1960.
- ²¹Sauer, H. I.: Epidemiology of cardiovascular mortality—geographic and ethnic. *Am. J. Public Health* 52:94-105, Jan. 1962.
- ²²Sauer, H. I., Payne, G. H., Council, C. A., and Terrell, J. C.: Cardiovascular disease mortality patterns in Georgia and North Carolina. *Public Health Rep.* 81(5):455-465, May 1966.
- ²³Sauer, H. I. and Enterline, P. E.: Are geographic variations in death rates for the cardiovascular diseases real? *J. Chronic Dis.* 10:513-524, Dec. 1959.
- ²⁴Sauer, H. I., and Brand, F. R.: Geographic patterns in the risk of dying. In H. C. Hopps and H. Cannon, eds. *Environmental Geochemistry in Health and Disease*. The Geol. Soc. Am., Inc. Memoir 123:131-150, 1971.
- ²⁵Sauer, H. I.: Risk of illness and death in metropolitan and nonmetropolitan areas. In E. W. Hassinger and L. R. Whiting, eds. *Rural Health Services: Organization, Delivery, and Use*. Ames. Iowa State University Press, 1976.
- ²⁶Rutstein, D. D., Berenberg, W., Chalmers, T. C., et al.: Measuring the quality of medical care, a clinical method. *New Engl. J. Med.* 294:582-588, Mar. 11, 1976.

²⁷Sauer, H. I., Banta, J. E., and Marshall, W. W., Jr.: Cardiovascular disease mortality patterns among middle-aged white males in Missouri. *Mo. Med.* 61:921-926, 929, Nov. 1964.

²⁸U.S. Bureau of the Census: *Census of Population: 1970, State Economic Areas*. Final Report. PC(2)-10B. Washington. U.S. Government Printing Office, 1972.

²⁹U.S. Bureau of the Census: *Census of Population: 1970, Volume 1, Characteristics of the Population*. Washington. U.S. Government Printing Office, 1973.

³⁰National Center for Health Statistics: *Eighth Revision International Classification of Diseases Adapted for Use in the United States*. Vol. 1. PHS Pub. No. 1693, Public Health Service. Washington. U.S. Government Printing Office, 1967.

³¹National Center for Health Statistics: *Vital Statistics of the United States, 1970*. Volume II—Mortality, Part B, Table 7-9. DHEW Pub. No. (HRA) 74-1102. Health Resources Administration. Washington. U.S. Government Printing Office, 1974.

³²World Health Organization: *Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, Seventh Revision, 1955*. Geneva. World Health Organization, 1957.

³³Rand McNally and Co.: *1976 Commercial Atlas and Marketing Guide*, 107th ed. Chicago. 1976.

³⁴U.S. Geological Survey: *Topographic Maps*. Washington. U.S. Department of the Interior.

³⁵Sauer, H. I., Selby, L. A., and Prendergast, T. J.: Epidemiological factors in the measurement of health effects. In D. D. Hemphill, ed. *Trace Substances in Environmental Health, VII*. Proceedings of Conference, June 12-14, 1973. University of Missouri-Columbia, 1973, pp. 13-17.

³⁶Sauer, H. I.: Cause-specific death rates as a measure of need. In R. W. Wilson, ed. *Proceedings*. Data Use Conference, sponsored by NCHS, HRA-PHS-HEW, Dallas, Mar. 28-30, 1977.

³⁷MacMahon, B., and Pugh, T. F.: *Epidemiology: Principles and Methods*. Boston. Little, Brown & Co., 1970.

³⁸Hunt, C. B.: *Natural Regions of the United States and Canada*. San Francisco. W. F. Freeman & Co., 1974.

³⁹Sauer, H. I.: Migration and the risk of dying. In E. D. Goldfield, ed. *Proceedings of the Social Statistics Section*. Am. Stat. Assoc., Dec. 27-30, 1967, pp. 399-407.

⁴⁰Sauer, H. I.: Adequacy of age data for age-specific death rates: Reliability and validity of age as entered on death certificates, Charleston County, South Carolina, 1961-1963. Presented at Population Assoc. of Am. meeting, New York, Apr. 29, 30, 1966. Abstract in *Population Index* 32:353, 1966.

⁴¹Spain, D. M., Bradess, V. A., and Mohr, C.: Coronary atherosclerosis as a cause of unexpected and unexplained death, an autopsy study from 1949-1959. *JAMA* 174:384-388, Sept. 24, 1960.

⁴²Axtell, L. M., Cutler, S. J., Myers, M. H., eds.: *End Results in Cancer, Report No. 4*. DHEW Pub. No. (NIH) 73-272, National Cancer Institute, 1972.

⁴³Wynder, E. L.: An epidemiological evaluation of the causes of cancer of the pancreas. *Cancer Res.* 35:2228-2233, Aug. 1975.

⁴⁴Winkelstein, W., Jr., Sacks, S. T., Ernster, V. L., and Selvin, S.: Correlations of incidence rates for selected cancers in the nine areas of the Third National Cancer Survey. *Am. J. Epidemiol.* 105:407-419, May 1977.

⁴⁵Sauer, H. I.: The enigma of the Southeast. In D. D. Hemphill, ed. *Trace Substances in Environmental Health, IX*. Proceedings of Conference, June 10-12, 1975. University of Missouri-Columbia, 1976, pp. 3-14.

⁴⁶Sauer, H. I.: Mortality in areas surrounding the Savannah River Plant. In D. D. Hemphill, ed. *Trace Substances in Environmental Health, XIII*. Proceedings of Conference, June 5-7, 1979. University of Missouri-Columbia. In press.

⁴⁷National Center for Health Statistics: Comparability of age on the death certificate and matching census record, United States, May-August 1960, by T. Z. Hambricht. *Vital and Health Statistics*. PHS Pub. No. 1000-Series 2-No. 29. Public Health Service. Washington. U.S. Government Printing Office, June 1968.

⁴⁸Shacklette, H. T., Sauer, H. I., and Miesch, A. T.: Geochemical environments and cardiovascular mortality rates in Georgia. *Geological Survey Professional Paper 574-C*. Washington. U.S. Government Printing Office, 1970, 39 pp.

⁴⁹Keller, W. D.: *Principles of Chemical Weathering*, rev. ed. Columbia, Missouri. Lucas Brothers Publishers, 1957.

⁵⁰John C. Cassel Memorial Symposium on the Enigma of the Southeast and the Possible Role of Selenium. Curtis G. Hames, Chairman. University of North Carolina, Chapel Hill, Dec. 8, 1977.

⁵¹Keller, W. D.: Personal communication. Mar. 9, 1977.

⁵²Sauer, H. I.: Relationship between trace element content of drinking water and chronic diseases. In J. T. O'Connor and A. R. Sapoznik, eds. *Proceedings of the 16th Water Quality Conference*. University of Illinois-Champaign, Feb. 12-13, 1974, pp. 39-48.

⁵³Klusman, R. W. and Sauer, H. I.: Some possible relationships of water and soil chemistry to cardiovascular diseases in Indiana. In J. Freedman, ed. *Trace Element Geochemistry in Health and Disease*. The Geol. Soc. Am., Inc. Special paper. 155:27-40, 1975.

⁵⁴Myers, G. C. and Manton, K. G.: The structure of urban mortality, a methodological study of Hannover, Germany, part 1. *Internat. J. Epidemiol.* 6:203-212, Sept. 1977.

⁵⁵Kleinman, J. C. and Wilson, R. W.: Are "medically underserved areas" medically underserved? *Health Services Res.* 12:147-162, Summer 1977.

⁵⁶Sauer, H. I.: Geographic differences in the risk of premature death. *Büs. Gov. Rev.* 11(3):19-26, May-June 1970.

⁵⁷Schwartz, C. J.: The Hawaii Mortality Follow-Back: 2. An Evaluation of Medical Certification of the Cause of Death Through the Use of Hospital Discharge Diagnoses. Research and Statistics Office Hawaii State Department of Health. *R & S Report*, No. 17, Oct. 1977.

⁵⁸Erhardt, C. L.: The underutilization of vital statistics. *Am. J. Public Health* 67:325-326, 1977.

⁵⁹Kuller, L., Lilienfeld, A., and Fisher, R.: Quality of death certificate diagnoses of arteriosclerotic heart disease. *Public Health Rep.* 82:339-346, 1967.

⁶⁰National Center for Health Statistics: Statistics needed for determining the effects of the environment on health: Report of the Technical Consultant Panel to the United States National Committee on Vital and Health Statistics. *Vital and Health Statistics*. Series 4-No. 20. DHEW Pub. No. (HRA) 77-1457. Health Re-

sources Administration. Washington. U.S. Government Printing Office, July 1977.

⁶¹Friedman, G. D.: Cigarette smoking and geographic variation in coronary heart disease mortality in the United States. *J. Chron. Dis.* 20:769-779, Oct. 1967.

⁶²American Public Health Association Committee on Forms and Methods of Statistical Practice, A. W. Hedrich, chairman: Age adjustment of the crude death rate. *Am. Public Health Assoc. Year Book, 1939-40*. Supplement to *Am. J. Public Health* 30:123-131, Feb. 1940.

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Table 1. Rates per 100,000 population for selected causes of death for persons aged 35-74 years (age-adjusted) by color, sex, and metropolitan status: United States, 1968-72

Cause of death and ICDA code ¹	White						Black					
	Males			Females			Males			Females		
	United States	Metropolitan SEA's	Non-metropolitan SEA's	United States	Metropolitan SEA's	Non-metropolitan SEA's	United States	Metropolitan SEA's	Non-metropolitan SEA's	United States	Metropolitan SEA's	Non-metropolitan SEA's
All causes.....	1,529.1	1,542.6	1,512.6	765.3	783.2	735.5	2,377.7	2,404.5	2,320.9	1,467.0	1,464.4	1,467.3
Natural causes.....000-796	1,406.2	1,432.7	1,367.7	718.8	737.6	687.2	2,112.3	2,150.0	2,027.0	1,401.6	1,401.4	1,405.5
Malignant neoplasms, all sites.....140-209	313.3	327.7	292.0	222.8	232.4	206.7	431.1	466.4	359.4	277.8	289.8	253.1
Buccal cavity, pharynx.....140-149	10.5	11.9	8.3	3.1	3.4	2.5	15.7	17.9	10.8	4.3	4.7	3.1
Digestive organs and peritoneum.....150-159	84.1	90.6	74.4	55.0	57.6	50.9	131.0	144.8	103.6	74.1	80.3	61.7
Esophagus.....150	7.3	8.2	5.9	1.8	2.1	1.3	26.6	32.0	15.4	6.5	7.7	3.7
Stomach.....151	14.7	15.6	13.3	6.9	7.3	6.4	33.6	34.6	31.9	12.8	13.1	12.4
Colo-rectal.....152-154	37.6	41.0	32.3	30.2	31.5	27.9	36.7	41.6	28.8	34.6	38.2	27.0
Intestine.....152-153	27.7	30.2	24.0	24.4	26.4	22.7	27.1	30.9	19.5	27.3	30.0	21.8
Rectum.....154	9.8	10.9	8.3	5.7	6.1	5.2	9.6	10.7	7.3	7.2	8.1	5.2
Liver, gall bladder, and bile ducts.....155-156	5.0	5.4	4.5	4.6	4.7	4.6	8.3	9.4	5.9	4.0	4.5	3.1
Pancreas.....157	18.0	18.6	17.1	10.1	10.5	9.4	23.7	24.9	21.5	14.4	14.9	13.2
Other and unspecified.....158-159	1.2	1.2	1.1	.9	.9	.9	1.8	1.8	1.7	1.5	1.5	1.4
Respiratory system.....160-163	115.3	120.1	108.4	23.2	25.5	19.2	145.5	161.3	112.6	25.4	28.3	18.5
Breast.....174	0.4	0.5	0.4	52.5	56.1	46.4	0.7	0.8	0.6	51.7	54.2	46.1
Female genital organs.....180-184	...	...	...	37.3	37.4	37.3	...	...	...	62.4	60.9	66.9
Cervix uteri.....180	...	...	...	10.7	9.9	12.1	...	...	...	30.4	28.9	34.2
Other parts of uterus.....181-182	...	...	...	7.7	7.7	7.7	...	...	...	15.2	14.7	16.9
Other female organs.....183-184	...	...	...	18.8	19.6	17.5	...	...	...	16.7	17.2	15.6
Prostate.....185	17.6	17.4	17.9	...	...	...	45.4	45.4	45.5	...	...	...
Bladder.....188	9.1	9.9	8.0	2.4	2.4	2.2	9.2	9.6	8.5	4.8	5.2	4.2
Kidney.....189	7.9	8.1	7.8	3.4	3.5	3.4	7.1	7.5	6.1	3.0	3.2	2.4
Brain and other nervous system parts.....191-192	9.2	9.5	8.7	5.8	6.0	5.6	4.7	5.1	3.8	2.9	3.3	2.2
Lymphosarcoma.....200	7.0	7.4	6.5	4.8	5.1	4.3	4.7	4.9	4.1	2.7	2.9	2.1
Hodgkins disease.....201	3.4	3.4	3.4	1.9	2.0	1.8	3.0	3.1	2.6	1.2	1.3	1.0
Multiple myeloma.....203	3.9	3.8	4.1	2.8	2.8	2.8	8.3	8.8	7.6	5.8	6.1	5.2
Leukemia.....204-207	11.4	11.3	11.7	6.9	6.9	6.9	10.2	9.9	10.6	6.6	6.5	6.8
Other lymphatic.....202, 208, 209	3.9	3.9	3.9	2.5	2.5	2.4	3.3	3.7	2.6	1.9	2.0	1.7
Other sites.....170-173, 186, 187, 190, 193, 194	10.3	10.2	10.3	6.2	6.2	6.3	8.2	8.5	7.7	5.3	5.5	5.0
Ill-defined sites.....195-199	18.3	19.0	17.4	14.0	14.2	13.7	33.4	34.1	31.8	24.8	24.4	25.9
Major cardiovascular (and ill-defined) diseases.....390-448, 780-796	815.5	817.7	813.2	344.7	349.9	336.1	1,160.2	1,120.5	1,244.0	785.3	758.6	846.3
Rheumatic heart disease.....390-398	14.4	15.6	12.7	14.0	15.7	11.0	13.2	14.8	10.0	11.4	12.8	8.2
Hypertensive heart disease and hypertension.....400-404	10.9	10.9	11.0	7.7	7.4	8.1	54.0	51.9	58.4	45.6	44.1	48.8
Ishemic heart disease.....410-413	610.2	622.2	592.8	217.1	224.1	205.6	653.9	671.6	617.2	405.6	413.0	393.8
Acute ishemic.....410-411	424.8	400.9	462.7	133.7	129.9	140.0	331.4	305.6	386.2	183.4	170.4	213.5
Chronic ishemic.....412-413	185.3	221.3	130.0	83.3	94.1	65.5	322.5	366.0	231.0	222.2	242.6	180.3
Other and ill-defined heart disease.....420-429	29.3	24.8	36.2	13.7	12.4	16.0	78.8	68.6	100.5	47.6	43.3	57.5
Cerebrovascular disease.....430-438	100.1	96.2	106.1	71.8	70.2	74.3	243.9	216.0	302.1	206.3	187.8	245.5
Arteriosclerosis.....440	8.4	8.5	8.4	5.0	5.1	5.1	14.7	13.8	16.4	11.0	10.2	12.3
Aortic aneurysm.....441	16.4	17.2	15.4	3.1	3.2	2.8	12.8	13.5	11.3	6.5	6.7	6.2
Other arterial diseases.....442-448	7.9	7.6	8.3	4.9	4.8	5.0	11.0	10.9	11.0	8.1	8.3	7.6
Symptoms and ill-defined conditions.....780-796	17.3	14.3	21.8	7.0	6.6	7.6	77.5	58.9	116.5	42.5	31.8	65.7
All other diseases.....000-136, 210-389, 450-778	277.6	287.2	262.6	151.3	155.3	144.4	520.9	563.1	423.7	338.5	353.0	306.1
Neoplasms, benign and unspecified.....210-239	3.8	4.0	3.5	3.4	3.5	3.2	5.1	5.5	4.2	6.2	6.1	6.4
Tuberculosis, all forms.....010-019	5.3	5.6	4.6	1.5	1.6	1.4	25.1	28.0	18.5	7.8	8.6	6.0
Other infective and parasitic diseases.....000-009, 020-136	5.4	5.5	5.2	3.9	3.9	3.9	15.7	16.0	15.5	11.3	11.4	11.4
Diabetes.....250	23.5	23.9	23.0	22.6	21.9	23.9	45.1	46.7	42.5	70.1	69.1	73.0
Alcoholism.....303	5.9	6.0	5.8	1.6	1.7	1.3	21.6	23.0	18.4	5.9	6.3	4.8
Diseases of the veins.....450-458	12.8	12.8	12.9	9.0	9.0	9.0	27.9	30.0	24.1	20.8	22.4	17.8
Chronic nephritis.....582-584	5.1	4.8	5.4	3.2	2.9	3.5	21.1	21.1	20.8	17.0	16.9	17.1
Influenza and pneumonia.....470-486	34.9	36.5	32.4	17.2	17.7	16.2	85.1	91.9	70.0	39.2	41.1	34.9
Chronic respiratory diseases.....490-493, 517-519	55.4	53.4	58.5	13.9	14.2	13.5	47.9	52.9	38.3	14.7	16.2	11.3
Cirrhosis of liver.....571	44.5	53.2	30.5	20.3	24.1	13.6	71.8	89.0	28.1	36.9	44.5	17.0
Infections of kidney.....590	3.6	3.5	3.8	3.7	3.6	3.9	12.6	12.0	14.0	13.9	13.7	14.5
Congenital malformations.....740-759	2.4	2.2	2.5	2.0	2.0	2.1	3.0	3.2	2.9	2.4	2.5	2.3
Residual diseases.....Residual	74.1	74.6	73.4	48.1	48.2	48.0	137.7	142.9	125.5	91.4	93.3	88.4
External causes.....E800-E999	122.8	109.8	145.0	46.5	45.5	48.2	265.4	254.5	293.9	65.4	63.0	71.4
Motor vehicle accidents.....E810-E823	36.8	29.6	49.1	15.1	12.2	20.1	60.7	48.7	92.4	16.3	13.7	23.0
Other accidents.....E800-E807, E825-E949	43.9	38.6	53.1	14.7	14.8	14.7	86.3	79.2	104.5	25.4	24.2	28.5
Suicide.....E950-E959	29.3	27.8	31.8	12.3	13.6	9.9	12.2	12.6	11.0	3.3	3.6	2.4
Homicide.....E960-E978	8.7	9.1	8.0	2.4	2.4	2.2	93.4	98.8	79.5	16.9	17.3	15.6
External, ill-defined.....E980-E999	3.8	4.5	2.8	1.8	2.3	1.1	12.5	14.8	6.3	3.3	4.0	1.7

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
United States.....	1,529.0	1,406.2	313.3	37.6	18.0	115.3	9.1	18.3	815.4	14.4	10.9	610.1	29.3	100.1	17.3	55.4	2,230,846
Alabama.....	1,644.3	1,472.1	304.7	24.5	19.7	124.5	7.7	22.0	902.9	8.2	11.3	580.7	70.0	128.4	72.6	60.4	32,125
1 Northwest.....	1,605.0	1,429.5	279.5	20.4	24.5	108.8	12.6	18.9	903.8	8.5	9.8	505.9	163.6	120.6	67.9	51.0	2,614
2 Northeast.....	1,580.5	1,381.7	252.8	25.9	19.1	82.8	3.8	20.8	868.6	7.6	12.2	581.9	78.7	126.8	49.1	56.0	2,738
3 North Central.....	1,733.0	1,531.7	306.1	18.2	18.0	141.3	6.6	24.5	955.9	8.3	12.1	615.2	65.5	134.7	91.0	60.7	4,562
4 East Central.....	1,576.9	1,386.0	257.8	18.2	18.0	90.6	10.1	17.3	867.2	5.9	11.3	554.5	107.0	132.7	33.8	52.6	1,689
5 West Central, North.....	1,632.4	1,436.7	280.2	17.8	19.2	113.6	5.6	27.7	883.1	7.2	9.4	530.4	118.1	139.8	56.7	46.9	2,650
6 West Central, South.....	1,770.6	1,564.4	316.7	30.5	24.8	134.5	3.3	14.5	960.3	7.8	12.7	589.6	69.5	137.4	108.0	60.2	967
7 West Central, South.....	1,624.3	1,360.3	284.7	16.5	19.0	101.5	15.4	24.9	832.1	5.9	5.9	637.1	25.8	91.4	56.3	65.6	441
8 Southwest.....	1,629.8	1,445.2	358.3	26.3	23.0	163.5	6.8	24.3	865.2	4.6	22.6	633.3	30.1	121.6	24.6	44.4	1,009
9 Southeast.....	1,767.4	1,557.1	293.9	23.3	17.3	119.2	6.9	22.5	980.7	8.2	15.7	650.0	83.4	151.1	30.0	65.4	3,347
A Birmingham.....	1,623.2	1,485.4	336.8	30.8	20.4	138.1	8.1	16.9	883.0	11.5	5.9	530.2	32.2	122.3	145.4	67.0	5,705
B Phenix City.....	2,381.6	2,186.1	484.6	23.2	28.8	246.9	20.8	61.6	1,311.3	8.8	17.7	968.6	74.4	206.9	25.1	85.7	450
C Montgomery.....	1,897.1	1,753.7	386.4	32.5	27.0	166.8	11.1	32.4	1,045.7	7.1	12.9	624.5	25.6	150.1	175.9	98.7	1,418
D Mobile.....	1,682.8	1,542.6	369.1	34.8	15.7	160.5	8.8	22.0	895.5	10.4	13.3	686.3	21.2	113.7	13.6	71.3	2,647
E Tuscaloosa.....	1,245.8	1,098.1	258.5	17.2	13.0	105.1	4.1	18.7	643.8	5.8	6.5	446.5	20.1	105.4	30.1	36.1	821
F Huntsville.....	1,468.4	1,357.6	256.0	29.2	25.0	84.1	11.3	28.9	860.8	5.2	19.5	594.5	80.1	104.0	28.8	64.9	1,167
Alaska.....	1,507.5	1,239.4	265.2	29.2	14.6	98.6	9.2	12.3	696.1	12.5	7.6	495.0	49.3	74.0	21.5	57.3	1,363
Arizona.....	1,533.6	1,372.5	288.5	26.7	19.0	110.8	8.4	20.5	711.7	17.6	9.0	528.3	22.3	84.1	16.9	121.7	19,659
1 North.....	1,559.5	1,333.5	263.8	20.4	17.2	108.9	7.2	20.6	725.5	14.2	5.6	522.3	16.5	77.9	49.2	106.8	2,110
2 South.....	1,555.2	1,358.9	265.8	18.9	15.6	88.3	10.5	23.0	704.9	14.0	10.1	491.3	26.0	95.3	35.3	104.5	2,426
A Phoenix.....	1,508.1	1,368.2	298.3	29.5	19.7	113.8	9.0	20.2	710.9	18.9	10.2	536.3	21.5	83.3	9.3	115.9	10,879
B Tucson.....	1,578.1	1,414.7	289.2	27.3	20.0	117.5	6.3	19.7	710.6	18.2	6.9	533.1	24.5	83.1	9.3	155.5	4,244
Arkansas.....	1,512.1	1,366.3	301.5	26.4	18.0	124.2	6.1	22.9	820.0	8.8	10.6	570.4	50.6	109.2	43.1	56.8	21,949
1 Northwest.....	1,417.8	1,298.9	276.1	31.9	18.6	107.2	2.3	16.8	760.9	12.5	11.8	535.2	16.8	108.8	47.8	53.2	1,539
2 West Central, North.....	1,512.8	1,387.9	294.8	31.5	18.0	122.7	5.2	20.1	856.5	12.8	6.2	528.9	87.3	119.6	85.6	60.3	2,565
3 North Central, East.....	1,414.9	1,270.9	288.1	21.7	17.5	110.0	4.7	18.1	797.9	7.7	6.9	559.5	34.7	88.1	72.9	51.2	1,702
4 West Central, South.....	1,510.7	1,364.3	281.3	29.7	10.8	103.0	5.8	25.7	841.8	4.3	13.7	605.8	54.6	103.3	36.5	51.0	2,499
5 Southwest.....	1,525.2	1,380.9	305.1	19.5	11.3	137.2	7.4	23.5	789.2	8.6	8.4	531.8	87.7	98.8	31.9	57.0	1,323
6 South Central.....	1,603.8	1,423.2	317.7	17.8	14.1	149.1	9.2	20.3	880.7	10.1	11.8	628.1	45.3	116.6	42.8	51.2	2,006
7 Northeast.....	1,496.2	1,332.2	298.0	24.7	19.9	129.2	4.4	24.3	796.4	6.7	12.7	544.3	53.2	128.0	30.8	72.7	3,154
8 East.....	1,633.7	1,480.6	337.0	31.3	18.8	144.7	11.1	23.3	885.8	5.6	12.3	620.9	54.1	111.9	45.0	73.6	2,406
9 North Central.....	1,341.8	1,197.2	272.3	25.6	19.5	93.4	4.0	28.4	693.1	14.7	12.9	481.7	33.9	87.8	32.2	42.1	1,977
A Little Rock.....	1,656.3	1,517.2	344.0	27.7	28.0	147.7	7.8	25.6	878.3	8.5	9.3	651.1	36.2	116.0	15.1	50.1	2,778
California.....	1,443.7	1,310.4	305.2	33.8	17.8	112.3	9.3	17.1	726.9	16.3	7.9	561.5	15.5	89.2	2.1	56.8	195,605
1 Northwest.....	1,543.1	1,346.0	310.8	33.9	17.2	126.4	11.5	17.2	745.5	15.3	19.1	542.6	29.4	96.8	3.7	77.6	2,579
2 West Central, North.....	1,385.8	1,242.3	290.6	28.0	15.6	111.3	8.5	13.8	677.8	14.2	6.4	509.6	31.9	77.2	1.3	53.9	3,590
3 West Central.....	1,411.9	1,250.9	298.5	35.0	13.7	110.1	8.4	18.5	679.1	13.4	10.3	510.6	17.5	87.3	2.7	60.4	5,144
4 North Central.....	1,571.0	1,396.3	318.1	32.1	17.0	121.5	10.8	23.2	794.5	15.3	10.9	612.5	20.0	87.7	3.2	66.9	4,231
5 Central.....	1,494.8	1,336.7	304.9	28.9	12.8	121.6	11.7	17.7	710.4	17.8	6.4	543.7	18.8	84.9	0.4	77.2	3,285
6 Central South.....	1,473.0	1,294.9	298.3	22.4	17.5	121.2	6.2	24.6	698.3	14.2	12.7	530.5	16.1	87.5	0.8	65.7	3,201
7 Ventura County.....	1,345.0	1,228.2	286.5	33.4	19.4	109.4	9.1	17.3	686.4	13.0	7.9	513.9	13.4	97.7	1.4	56.5	2,930
8 Imperial County.....	1,684.3	1,433.4	276.6	25.6	14.8	106.3	8.2	15.1	796.3	18.5	8.5	618.1	17.4	103.4	-	68.2	842
9 Northeast.....	1,410.0	1,236.4	272.1	30.3	15.7	102.5	10.5	16.7	705.7	15.4	5.8	543.7	21.0	74.1	2.1	58.6	5,077
A San Francisco, Oakland.....	1,481.7	1,341.7	323.3	37.3	20.0	116.4	9.7	17.9	711.9	17.5	5.8	546.4	16.0	88.0	1.8	52.1	32,580
B San Jose.....	1,272.5	1,165.7	294.3	35.3	16.0	104.7	7.7	17.7	625.3	11.1	4.8	482.0	15.2	81.4	1.0	50.6	7,121
C Sacramento.....	1,611.5	1,469.9	340.2	35.9	22.4	125.8	12.0	17.6	821.8	17.2	10.8	631.2	21.0	94.8	4.2	65.8	6,349
D Stockton.....	1,536.5	1,365.7	320.0	39.0	16.8	122.5	7.1	21.6	702.0	17.7	6.9	536.3	14.0	83.2	9.0	67.5	3,291
E Fresno.....	1,475.3	1,311.8	288.7	29.7	16.2	116.0	6.5	14.9	688.7	13.4	9.6	528.9	14.4	89.3	1.7	69.7	4,048
F Los Angeles.....	1,455.9	1,335.9	307.3	34.8	17.6	110.7	9.8	16.4	762.4	15.5	8.3	599.4	13.3	92.7	1.3	51.3	80,952

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
California—Con.																	
G San Diego.....	1,344.4	1,227.0	303.7	31.5	19.9	116.3	8.9	13.9	667.4	20.3	6.4	500.1	13.2	86.2	4.6	61.6	12,060
H San Bernardino, Riverside, Ontario.....	1,410.5	1,267.3	284.1	29.8	15.6	108.0	7.3	19.8	700.0	22.2	9.5	522.7	16.0	91.7	4.2	72.3	12,570
J Bakersfield.....	1,536.0	1,353.4	280.9	32.0	18.1	104.8	9.6	12.5	769.4	15.1	10.3	613.3	14.6	79.4	2.8	75.9	3,462
K Santa Barbara.....	1,326.8	1,201.0	292.6	35.2	22.8	96.3	8.3	21.5	657.6	13.1	3.6	517.9	12.0	83.7	1.5	47.9	2,293
Colorado.....	1,385.3	1,236.1	248.3	29.0	16.9	83.3	8.3	14.7	669.7	19.0	5.5	492.5	25.1	78.8	13.7	81.8	20,002
1 Northwest.....	1,432.1	1,220.8	252.0	16.2	20.9	83.4	3.7	19.6	653.0	15.8	7.5	479.0	31.1	77.9	8.9	106.2	986
2 Southwest.....	1,422.9	1,235.1	248.4	31.3	14.5	93.5	6.8	7.8	653.7	24.5	7.7	466.0	28.2	78.9	11.6	99.4	1,949
3 North.....	1,249.6	1,113.5	238.0	33.6	15.5	74.1	8.9	18.9	616.7	15.7	4.6	452.8	24.3	89.6	3.5	71.3	1,926
4 East Central.....	1,245.8	1,101.2	184.2	28.3	13.7	60.8	3.6	9.2	660.0	8.4	1.8	505.8	41.6	73.3	5.9	66.4	569
5 South, East ¹	1,468.2	1,278.2	238.1	17.5	15.1	76.7	6.1	15.3	719.7	21.3	6.0	519.8	30.1	98.1	12.8	75.8	1,340
A Denver.....	1,436.6	1,296.9	266.9	31.2	17.9	91.2	9.4	15.7	692.7	20.2	5.6	511.9	23.5	73.0	21.0	83.2	9,708
B Colorado Springs.....	1,340.5	1,199.5	215.3	33.1	12.1	66.6	6.7	13.7	669.1	14.5	3.4	496.1	22.8	86.4	1.2	76.4	1,492
C Pueblo ¹	1,412.2	1,258.2	259.2	28.0	20.8	89.8	11.1	10.4	644.0	25.7	8.2	475.3	22.2	87.4	3.1	72.0	1,239
D Boulder.....	1,179.3	1,049.2	207.6	22.2	19.0	57.2	10.8	14.0	600.7	13.4	3.8	442.1	17.2	66.5	9.3	70.7	793
Connecticut.....	1,412.6	1,334.0	325.6	43.8	18.2	107.2	9.8	20.1	740.1	15.2	9.4	566.0	18.1	88.6	6.9	43.6	33,149
1 Northwest.....	1,303.7	1,217.6	274.1	42.3	12.5	93.0	4.9	12.4	685.6	16.3	15.2	506.0	19.3	83.9	11.7	50.3	1,676
2 East.....	1,441.8	1,350.4	325.1	44.0	20.5	106.6	9.9	19.7	766.2	12.9	13.3	579.9	18.7	101.1	3.6	43.1	5,803
A Bridgeport, Stamford, Norwalk.....	1,360.8	1,284.9	312.9	43.1	16.3	100.8	10.1	18.9	709.1	14.1	6.1	539.8	20.7	85.4	8.6	42.8	8,447
B New Haven, Waterbury.....	1,478.0	1,405.7	341.3	46.8	17.1	114.5	10.6	21.4	806.2	19.1	7.4	623.6	19.6	87.7	6.5	40.4	8,752
C Hartford, New Britain, Bristol.....	1,408.3	1,331.0	335.1	41.0	20.8	110.3	9.9	22.0	704.5	14.0	11.0	542.3	13.6	85.8	6.9	46.6	8,771
Delaware.....	1,641.9	1,527.1	337.4	40.3	17.6	132.8	11.4	22.0	895.7	15.0	7.0	720.8	21.6	84.5	3.8	61.6	5,527
1 South.....	1,610.1	1,460.7	279.2	26.5	18.3	116.3	10.1	20.9	885.6	10.2	4.6	708.0	29.6	86.0	5.6	72.0	1,587
A Wilmington.....	1,658.6	1,557.0	363.1	46.2	17.2	141.1	11.9	22.7	900.0	16.9	8.1	726.1	18.3	83.9	3.0	56.9	3,940
District of Columbia.....	1,908.0	1,731.1	350.7	44.4	17.5	120.4	9.2	22.1	893.6	18.1	12.5	671.4	28.1	93.2	32.3	62.2	4,227
Florida.....	1,472.2	1,332.6	316.9	34.8	17.6	130.5	9.3	18.0	756.5	14.5	8.5	544.5	30.9	87.5	37.4	54.0	89,652
1 Northwest.....	1,628.2	1,458.3	337.6	28.8	18.0	151.3	8.9	22.9	865.7	11.1	8.4	541.2	48.5	108.6	120.0	57.3	2,115
2 Central North.....	1,654.0	1,460.0	330.6	27.7	26.3	148.6	12.4	14.8	831.3	13.7	9.1	566.1	77.3	104.2	23.4	66.7	1,828
3 North Central ¹	1,553.1	1,375.9	315.9	28.8	18.4	138.7	9.6	21.5	812.2	11.5	8.6	510.7	81.0	100.6	67.1	61.5	2,846
4 East Central.....	1,504.3	1,373.0	330.6	37.2	15.6	146.4	8.3	18.2	776.6	15.4	6.7	564.5	26.8	82.1	43.8	64.0	6,116
5 Central South.....	1,573.4	1,392.3	314.2	31.4	15.6	131.5	8.6	20.2	827.9	13.3	11.1	565.5	38.4	94.2	72.1	49.2	9,187
6 Southwest.....	1,425.9	1,265.3	296.9	36.5	15.1	120.2	9.3	15.1	717.7	11.0	7.7	484.1	32.2	82.5	70.1	51.4	9,221
A Jacksonville.....	1,792.4	1,633.6	375.0	32.7	20.0	184.0	8.5	21.4	894.1	14.8	17.6	649.8	27.7	117.2	17.8	85.2	4,881
B Tampa, St. Petersburg.....	1,519.0	1,392.7	324.7	35.6	18.2	137.1	8.6	17.7	798.7	15.1	9.0	546.2	19.8	102.2	72.0	57.0	16,523
C Miami.....	1,434.8	1,303.8	319.7	38.4	18.5	120.5	10.5	16.4	708.2	17.5	6.3	559.3	22.9	70.4	3.5	49.7	16,208
D Pensacola.....	1,611.8	1,453.6	341.1	24.4	19.8	147.0	10.2	23.7	866.6	13.3	6.2	675.5	27.9	100.6	13.1	53.4	1,937
E Orlando.....	1,428.7	1,302.9	303.1	27.6	16.6	125.1	7.8	19.1	751.1	16.2	6.5	574.4	24.4	86.3	10.2	67.3	3,982
F West Palm Beach.....	1,336.0	1,212.5	306.5	34.0	15.2	119.2	8.7	22.6	657.0	13.3	8.3	494.9	15.2	83.9	4.9	49.8	4,755
G Fort Lauderdale.....	1,366.5	1,249.9	306.1	38.5	19.4	116.7	10.5	17.6	714.7	14.8	8.3	521.1	45.0	79.8	12.4	43.0	10,053
Georgia.....	1,743.2	1,566.1	302.5	24.9	18.7	125.1	7.3	21.4	942.5	10.3	12.7	684.1	44.0	139.5	17.1	72.5	40,968
1 Northwest.....	1,732.1	1,546.2	316.0	26.0	23.7	123.2	10.7	18.5	927.6	9.3	14.5	653.3	54.1	159.3	12.9	72.9	3,263
2 Northeast.....	1,458.4	1,272.0	275.2	26.0	15.3	94.7	5.8	23.1	750.0	4.0	10.3	539.4	38.2	123.1	17.0	28.8	1,059
3 North Central.....	1,638.7	1,430.9	270.9	25.3	19.1	102.8	5.8	13.5	893.4	7.7	7.1	645.5	44.2	142.6	19.1	50.2	3,346
4 Central, North ¹	1,664.0	1,486.7	284.3	21.9	19.7	115.8	8.2	23.0	911.0	9.2	13.3	664.0	30.4	138.8	21.3	64.7	5,111
5 "Fall Line".....	1,826.3	1,620.5	275.4	6.4	13.1	127.4	3.4	24.1	1,086.8	10.0	13.7	728.1	55.5	206.6	31.8	55.5	474
6 Central, South.....	2,036.6	1,800.9	285.0	20.7	16.0	136.1	6.6	21.4	1,134.1	10.7	26.1	759.6	55.4	178.1	61.6	96.7	1,626
7 Southwest.....	1,844.4	1,634.7	324.7	22.2	23.7	143.1	5.3	20.6	982.3	11.2	14.1	719.1	40.8	150.4	14.7	76.4	3,332

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Georgia—Con.																	
8 South Central	1,898.3	1,700.7	298.6	25.6	17.1	123.6	7.7	23.5	1,080.2	10.5	21.9	751.3	68.1	172.3	19.3	78.5	3,539
9 Southeast	1,896.4	1,688.4	326.7	25.6	13.4	151.9	8.2	20.1	1,009.7	11.8	18.2	699.4	75.6	148.6	8.1	82.0	1,855
A Walker County	1,572.5	1,406.4	271.8	17.1	19.4	96.4	7.4	19.9	881.3	2.8	14.9	688.2	47.3	85.0	17.6	65.9	567
B Atlanta	1,667.6	1,516.3	304.4	29.8	16.9	123.0	5.6	21.3	866.1	11.2	8.7	656.9	27.0	114.7	14.4	79.0	10,810
C Columbus	1,960.7	1,822.0	334.1	28.3	17.5	141.0	11.9	26.8	1,133.3	15.0	10.2	749.5	136.7	145.1	29.1	71.3	1,389
D Augusta ¹	1,891.1	1,692.7	341.3	18.9	20.7	165.8	14.2	16.4	1,007.8	16.5	22.6	787.4	20.7	109.6	5.5	70.8	1,183
E Savannah	1,864.3	1,702.4	335.5	25.3	20.8	142.8	9.5	23.0	1,026.7	12.7	11.2	767.0	40.1	135.4	6.3	79.4	1,598
F Macon	2,065.8	1,875.6	364.6	16.7	18.3	153.7	8.1	45.6	1,130.0	16.9	6.1	805.8	54.8	177.9	7.7	100.7	1,414
G Houston County	1,690.1	1,569.2	270.1	11.6	16.8	114.5	3.9	17.5	858.6	1.9	10.6	597.5	32.3	160.0	10.6	126.0	402
Hawaii	1,284.8	1,177.8	281.9	34.1	16.3	86.4	8.4	18.5	649.2	15.5	5.1	503.6	21.6	59.7	8.2	39.4	1,925
1 All	1,188.8	1,068.9	243.2	30.4	-	70.3	2.6	24.5	629.9	18.7	2.7	487.0	23.3	51.3	9.3	36.9	360
A Honolulu	1,313.1	1,206.8	295.2	36.8	20.9	91.8	10.0	17.5	651.6	15.0	6.0	503.4	22.1	62.4	8.1	40.1	1,565
Idaho	1,348.0	1,172.2	244.8	24.3	15.9	79.6	7.3	12.3	669.3	16.2	7.8	485.5	34.3	83.0	11.6	79.7	7,323
1 Central	1,548.4	1,288.1	261.0	19.2	26.8	90.8	5.0	16.2	747.7	10.8	7.5	551.7	26.9	111.0	17.3	72.0	1,332
2 Northwest	1,384.2	1,206.8	279.5	43.5	10.4	94.5	6.2	13.4	700.6	15.7	9.8	499.2	32.9	91.5	19.9	69.3	1,126
3 South	1,276.5	1,122.2	242.5	21.0	11.5	86.8	8.5	9.8	622.8	15.5	6.8	466.3	24.2	66.8	10.1	81.4	3,154
4 Southeast	1,323.7	1,167.1	217.9	22.7	19.6	49.0	7.5	13.5	683.8	21.5	8.9	466.2	60.2	89.7	4.6	89.3	1,711
Illinois	1,589.3	1,483.5	323.0	43.0	18.6	116.2	9.5	17.3	895.0	13.5	15.4	684.0	39.0	106.0	3.8	49.4	129,897
1 Northwest	1,422.3	1,302.4	281.3	38.6	18.4	91.1	8.2	12.0	779.3	13.5	15.4	602.8	18.8	84.0	8.4	56.9	3,354
2 Boone County	1,364.6	1,268.2	295.8	36.4	4.9	92.4	20.4	5.3	724.2	20.0	15.5	544.8	35.6	98.3	-	56.4	249
3 North Central	1,418.9	1,305.4	270.0	34.6	13.9	100.9	8.6	15.7	799.7	11.3	8.5	617.8	30.3	93.9	3.2	48.4	4,290
4 West Central	1,534.1	1,407.0	315.1	40.1	23.2	119.7	9.0	17.5	832.3	8.3	10.8	642.9	23.8	112.1	4.5	63.2	3,985
5 Northeast ¹	1,465.4	1,360.8	313.8	50.9	20.6	103.4	9.3	18.4	813.7	13.1	10.1	637.2	18.5	100.3	4.2	55.0	3,174
6 East Central	1,463.3	1,343.2	291.8	40.2	15.4	109.5	8.9	18.1	808.3	12.0	12.5	614.4	23.8	105.7	4.8	64.2	8,431
7 Southwest ¹	1,334.9	1,215.6	304.7	42.5	15.0	106.2	9.9	11.1	694.9	11.6	24.0	531.9	11.8	82.1	4.7	48.1	1,941
8 South Central	1,469.0	1,349.2	296.8	35.6	11.7	122.3	3.3	14.7	816.8	12.3	8.1	636.3	28.9	94.7	8.1	56.7	1,813
9 Southeast	1,540.4	1,414.9	292.1	42.6	13.1	112.8	8.7	22.1	881.3	14.8	15.9	657.2	32.8	121.5	4.9	53.4	1,633
10 South Central, South	1,746.8	1,599.4	348.1	41.5	18.8	138.5	7.0	20.2	961.3	17.1	18.7	753.7	24.0	113.9	1.0	83.3	3,065
11 South ¹	1,681.0	1,524.4	329.2	33.4	20.3	136.0	7.9	20.6	906.8	13.4	14.7	677.2	39.0	127.5	7.1	71.4	1,679
A Rock Island, Moline	1,541.1	1,434.8	342.9	40.3	16.1	122.0	12.1	22.1	848.2	10.7	9.5	671.7	12.8	98.9	2.3	65.7	2,049
B Rockford	1,370.0	1,275.2	281.5	34.4	16.2	101.9	9.2	8.5	734.9	15.8	8.8	561.2	17.8	94.9	2.2	56.6	2,356
C Chicago	1,653.8	1,557.3	334.6	45.4	19.6	117.1	10.3	17.4	946.7	13.8	17.0	723.9	50.0	107.1	3.0	41.4	78,906
D Peoria	1,489.1	1,375.0	317.9	37.6	16.6	126.3	9.4	16.4	794.3	15.6	9.5	600.9	20.1	99.9	4.1	67.0	3,638
E Springfield	1,888.6	1,474.4	-316.2	38.8	21.6	117.9	9.1	17.8	877.5	11.5	9.1	675.7	17.1	106.3	9.4	68.3	2,096
F East St. Louis	1,603.2	1,473.9	340.3	45.8	18.5	138.0	7.5	20.7	882.3	16.8	20.0	656.6	24.4	120.6	7.5	53.2	5,857
G Decatur	1,456.6	1,347.7	347.5	38.6	18.3	128.7	10.1	22.4	761.6	9.9	16.4	554.6	29.2	112.3	3.8	69.1	1,381
Indiana	1,554.5	1,430.9	313.2	38.5	16.8	120.2	8.9	20.0	850.2	14.4	16.1	625.7	28.6	122.7	5.7	60.0	57,791
1 North ¹	1,508.5	1,405.0	320.3	36.7	18.1	102.9	13.3	20.5	851.3	14.7	16.1	644.5	16.0	111.4	4.4	47.9	2,541
2 North Central, West	1,588.8	1,435.8	297.6	36.9	20.7	101.9	6.2	21.4	892.4	15.1	17.9	641.5	29.3	129.5	14.6	57.5	2,176
3 Northeast	1,449.5	1,327.9	268.6	29.0	18.0	99.3	7.6	20.3	832.7	10.5	9.8	604.8	33.2	127.3	8.5	53.4	2,952
4 East Central ¹	1,552.9	1,442.4	305.2	33.9	14.0	124.5	7.5	22.9	871.2	17.5	17.6	650.2	30.5	112.1	7.0	64.1	5,742
5 Central	1,466.8	1,344.4	295.8	35.5	15.6	118.2	8.6	16.4	806.2	12.1	18.4	602.4	20.8	115.7	3.1	57.3	4,227
6 Southwest	1,565.6	1,423.0	304.8	43.0	13.6	116.3	9.6	21.6	865.0	14.7	17.6	644.7	26.3	124.8	3.5	61.7	4,240
7 South Central	1,525.3	1,383.7	286.8	36.7	18.4	99.9	8.3	16.2	826.5	20.0	25.9	590.1	22.4	126.1	3.8	49.2	2,876
8 Southeast ¹	1,507.8	1,354.1	257.8	34.3	17.7	103.1	5.2	12.7	812.4	18.6	7.9	614.0	25.3	107.3	5.1	52.1	2,148
9 West Central	1,556.0	1,428.3	312.6	38.8	16.9	119.5	8.2	18.3	862.2	14.7	12.2	626.4	35.5	130.9	7.8	55.9	4,778
A Gary, Hammond, East Chicago	1,614.7	1,497.1	338.6	49.1	18.4	128.1	8.2	17.2	882.1	11.6	14.0	661.4	28.9	126.9	4.3	53.4	6,082
B South Bend	1,531.7	1,429.5	339.0	47.0	18.7	127.1	11.2	20.1	852.6	11.5	13.9	629.7	20.0	125.4	12.5	50.8	2,895
C Fort Wayne	1,405.1	1,305.2	294.1	35.7	14.9	102.5	11.4	15.8	765.7	12.8	13.0	541.2	52.5	107.2	4.2	55.4	2,631

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72-Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Indiana-Con.																	
D Indianapolis.....	1,620.7	1,493.9	348.8	39.6	19.0	144.6	9.4	25.0	835.8	13.9	14.6	613.3	31.6	121.8	3.3	67.2	7,810
E Evansville.....	1,618.7	1,498.0	339.1	44.5	15.3	125.9	9.5	25.6	887.9	18.2	33.1	630.9	23.5	134.3	3.9	65.4	2,205
F Jeffersonville, New Albany.....	1,625.6	1,489.4	317.4	33.5	9.9	141.3	9.8	11.9	839.0	8.9	6.9	624.7	29.7	128.3	7.8	78.0	1,499
G Terre Haute.....	1,798.7	1,684.4	363.5	43.1	19.4	140.2	14.0	25.9	963.7	16.7	24.9	689.0	34.7	153.0	7.3	112.9	1,650
H Muncie.....	1,634.0	1,500.2	315.0	29.0	13.3	123.7	11.0	26.8	882.4	20.1	14.7	661.2	12.5	130.7	2.2	85.6	1,339
Iowa.....	1,379.4	1,264.1	291.4	38.8	15.8	100.6	8.7	14.2	736.2	12.4	9.8	558.7	23.3	96.5	2.8	58.6	33,400
1 West.....	1,287.5	1,158.9	293.2	40.5	12.5	96.8	8.9	16.9	666.9	8.5	6.8	518.3	21.0	85.6	0.3	46.8	3,913
2 North Central.....	1,297.0	1,188.1	286.9	38.7	17.9	94.2	9.3	12.6	688.6	9.7	8.7	528.5	18.3	98.2	2.5	55.2	4,594
3 South Central.....	1,333.7	1,218.1	261.5	34.7	14.4	95.6	7.1	12.2	716.4	11.9	9.7	529.7	29.3	100.5	3.7	56.4	3,624
4 Northeast.....	1,322.0	1,209.4	271.7	35.6	14.9	77.3	7.5	13.7	720.0	13.3	8.7	548.0	20.0	96.1	1.6	54.5	3,725
5 East Central.....	1,343.7	1,219.3	269.3	36.6	14.5	92.6	9.1	10.9	711.5	13.5	9.8	530.1	25.9	98.2	4.9	58.1	3,026
6 Southeast.....	1,486.7	1,373.7	316.2	41.9	16.5	116.4	7.5	12.7	796.2	14.6	10.8	601.7	24.5	106.8	3.1	58.2	4,793
A Sioux City.....	1,457.7	1,334.7	295.7	37.6	22.8	87.3	13.0	21.7	784.7	14.4	14.9	588.7	30.9	99.4	3.5	62.6	1,274
B Council Bluffs.....	1,416.7	1,271.0	327.8	30.9	13.7	137.1	13.4	11.0	688.7	18.0	8.0	546.2	15.2	62.7	7.0	71.9	931
C Des Moines.....	1,529.0	1,417.1	306.0	40.0	18.5	119.2	5.9	16.2	843.8	12.8	12.4	651.6	21.8	104.5	3.2	73.8	3,119
D Davenport.....	1,470.8	1,372.5	324.4	46.5	19.0	121.8	12.8	18.2	789.8	17.0	17.7	564.3	32.1	118.1	2.6	55.0	1,507
E Waterloo.....	1,412.4	1,316.1	288.0	40.4	19.3	92.1	9.0	18.9	782.4	16.1	9.5	601.1	26.0	92.0	1.9	72.6	1,300
F Cedar Rapids.....	1,453.8	1,340.1	320.6	45.4	10.5	120.6	12.0	14.2	741.6	9.8	7.6	572.1	16.0	93.4	2.4	76.7	1,594
Kansas.....	1,350.8	1,226.8	274.3	32.1	15.2	100.4	7.9	13.5	709.7	12.0	7.8	539.5	24.0	84.4	11.1	59.2	24,365
1 Southwest.....	1,411.9	1,243.0	252.9	35.4	20.5	75.3	4.1	10.6	716.8	9.6	11.4	550.7	25.8	79.6	12.3	71.5	1,180
2 Northwest.....	1,352.7	1,217.9	267.3	35.8	17.4	76.0	5.0	13.2	708.7	10.8	9.2	540.4	33.6	77.4	8.3	54.1	2,739
3 Central.....	1,290.4	1,173.0	256.3	38.3	15.2	91.2	7.1	9.6	691.2	13.2	6.7	525.2	23.9	80.3	8.9	62.0	3,321
4 North Central.....	1,149.7	1,029.0	209.9	22.1	11.8	78.9	5.3	12.0	621.2	10.3	4.0	476.1	33.0	61.6	13.4	47.1	847
5 East South Central.....	1,238.4	1,200.3	269.9	32.1	13.1	96.9	8.9	14.2	681.9	9.9	5.8	519.6	21.6	81.6	12.1	56.8	2,393
6 North East ¹	1,268.2	1,157.4	255.2	27.6	12.9	84.7	7.5	9.8	659.9	11.1	8.6	484.5	29.3	78.7	21.8	52.5	1,831
7 East Central.....	1,308.1	1,182.3	242.6	16.0	15.2	99.3	4.1	10.1	715.8	13.9	2.4	546.4	20.1	86.2	8.3	57.8	1,644
8 Southeast.....	1,586.4	1,453.0	339.2	34.5	14.9	138.5	12.7	20.0	825.5	12.9	17.2	610.7	38.1	106.9	10.2	66.6	2,527
A Wichita.....	1,398.8	1,282.5	299.7	32.3	16.0	117.6	9.8	14.0	736.0	12.4	7.2	575.9	19.5	84.9	3.0	56.5	3,094
B Kansas City.....	1,343.4	1,227.8	283.6	35.5	15.8	104.6	9.5	17.6	703.8	10.7	9.7	537.8	13.8	84.3	18.7	67.0	3,371
C Topeka ¹	1,361.5	1,255.0	294.1	27.5	11.4	127.1	9.6	14.3	691.2	18.5	0.9	521.9	14.0	97.9	4.4	60.7	1,418
Kentucky.....	1,624.7	1,461.0	310.4	32.1	18.7	123.4	7.0	15.0	855.3	11.7	10.1	642.6	40.3	115.7	5.2	66.4	38,580
1 West.....	1,549.0	1,382.1	263.9	27.5	16.0	106.1	4.6	10.0	858.9	10.5	8.5	642.3	35.5	128.4	9.0	60.6	2,323
2 Northwest.....	1,572.7	1,391.5	314.6	31.1	17.2	133.7	7.1	13.6	834.1	8.8	7.2	624.0	39.0	102.0	2.2	49.2	1,327
3 West Central.....	1,484.4	1,311.5	269.9	28.1	18.5	103.0	6.9	14.4	785.3	12.6	13.1	579.6	40.0	105.7	8.7	58.1	3,912
4 South West Central.....	1,462.6	1,305.3	250.1	36.4	13.4	80.1	6.3	15.1	808.5	9.6	10.4	620.4	39.6	102.1	5.2	51.7	1,963
5 South Central.....	1,459.0	1,292.2	245.2	18.7	15.7	90.5	9.2	11.4	793.0	8.0	8.5	576.4	60.4	109.9	3.3	58.3	2,240
6 North Central.....	1,560.0	1,388.8	290.9	24.8	17.0	107.6	8.6	11.6	833.3	10.5	12.8	622.7	28.8	131.3	4.6	59.5	4,310
7 Central.....	1,499.3	1,326.2	261.4	30.0	16.7	97.8	2.9	12.9	794.6	5.1	8.8	613.8	27.3	108.7	-	57.2	1,315
8 Northeast.....	1,492.2	1,295.8	261.8	27.4	16.3	96.7	5.0	14.8	763.0	14.1	9.4	562.9	47.5	96.1	4.4	64.3	2,577
9 Southeast.....	1,876.9	1,645.6	334.5	22.3	21.8	147.6	6.5	22.1	929.7	12.9	10.1	675.4	79.3	104.8	12.3	97.8	5,124
A Louisville.....	1,744.4	1,610.7	379.2	45.0	22.3	156.1	7.5	15.6	896.6	13.5	9.8	678.5	30.4	130.5	1.6	75.4	7,616
B Covington.....	1,897.7	1,776.3	412.4	51.3	17.0	167.8	8.0	17.2	1,030.0	14.6	10.9	812.2	24.1	129.7	4.0	71.2	3,245
C Ashland.....	1,683.1	1,557.9	360.8	35.1	19.3	177.2	4.2	20.3	895.2	13.3	11.1	726.3	21.8	86.2	2.1	53.4	717
D Henderson County.....	1,638.8	1,500.7	271.1	23.7	20.4	102.8	16.9	10.1	911.2	10.2	3.4	707.5	7.6	136.5	11.1	58.4	437
E Lexington ¹	1,570.4	1,448.4	322.7	42.1	25.7	128.5	9.3	12.9	823.3	11.9	4.4	627.4	27.3	120.1	1.9	54.8	1,474
Louisiana.....	1,715.8	1,560.7	348.4	29.5	20.3	152.3	8.3	25.8	917.6	10.0	8.6	705.2	38.6	113.1	6.6	63.5	32,026
1 Central ¹	1,703.0	1,520.0	287.1	22.5	13.5	122.6	4.1	19.0	925.2	9.2	5.2	718.0	25.8	127.2	4.1	80.5	1,443
2 Northeast.....	1,641.1	1,457.8	340.7	22.6	18.6	163.5	10.5	28.4	864.8	9.9	9.6	678.9	28.2	100.2	7.7	63.7	1,346
3 East Central.....	1,645.7	1,471.6	326.6	25.4	28.0	139.9	6.0	29.0	885.4	6.2	12.4	677.0	34.3	124.6	1.3	57.2	2,390

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Louisiana—Con.																	
4 North Central	1,596.8	1,433.0	322.2	28.9	17.7	137.8	4.7	23.6	879.4	17.1	11.8	683.9	25.9	108.6	2.0	55.2	1,972
5 East ¹	1,757.8	1,580.5	322.3	18.7	17.1	161.2	7.3	33.3	962.7	12.9	5.2	734.4	57.5	109.3	10.8	70.8	2,764
6 South Central	1,648.5	1,490.3	354.9	27.3	21.4	150.5	8.2	31.9	890.1	8.1	6.9	696.3	38.6	97.2	5.3	52.9	3,234
7 Southwest	1,583.2	1,437.4	345.1	24.8	23.2	146.8	8.5	22.8	810.3	5.9	7.6	609.4	39.6	107.1	5.5	55.6	1,647
8 West Central	1,574.8	1,474.7	326.2	26.4	24.0	123.7	7.2	35.5	807.3	8.6	3.2	569.6	38.8	120.7	42.6	48.5	901
A Shreveport	1,629.9	1,483.7	353.8	33.0	15.4	153.6	8.6	18.4	851.9	10.6	13.4	638.8	33.5	114.3	4.4	71.4	2,319
B New Orleans	1,921.9	1,782.8	401.2	41.2	22.5	176.0	10.6	28.8	1,009.8	11.4	9.0	787.4	34.4	124.5	5.2	65.9	9,909
C Baton Rouge	1,555.9	1,436.4	290.4	25.7	14.9	122.2	8.8	12.1	867.5	10.1	4.1	666.5	39.5	94.0	5.6	62.8	1,878
D Lake Charles	1,643.1	1,476.5	319.1	15.1	16.0	153.2	10.4	16.3	895.8	10.4	9.6	645.5	73.1	114.8	6.7	77.8	1,255
E Monroe	1,666.9	1,519.9	332.9	21.2	24.0	153.0	4.6	20.1	935.3	3.1	15.7	727.5	50.4	92.3	9.5	63.5	968
Maine	1,620.7	1,499.1	338.4	42.2	20.0	127.4	11.4	17.9	855.7	11.1	11.9	657.6	25.9	106.5	6.5	73.2	13,742
1 North	1,559.3	1,418.0	315.4	19.8	17.6	127.5	2.6	9.8	804.4	13.6	6.9	608.1	24.4	129.2	4.5	82.8	1,048
2 Central	1,613.8	1,486.3	310.6	44.7	18.3	114.1	9.2	19.1	863.7	12.8	13.7	639.1	38.0	109.4	14.9	76.9	3,289
3 East	1,615.1	1,472.0	345.3	41.9	25.5	115.0	14.1	19.7	823.3	10.1	10.2	626.4	25.9	103.4	4.0	72.6	2,224
4 South	1,635.6	1,527.7	352.4	43.3	17.7	132.9	14.2	17.2	872.3	10.6	14.4	684.2	20.9	101.8	4.5	66.8	4,562
A Portland	1,637.7	1,523.5	352.9	47.0	22.3	144.8	10.8	20.4	866.0	9.9	9.1	684.3	19.7	102.9	2.5	76.0	2,619
Maryland	1,617.5	1,500.1	354.2	41.3	19.1	138.8	10.5	25.3	845.5	15.3	9.3	665.6	24.7	88.0	6.3	56.4	37,868
1 West	1,702.5	1,577.0	322.3	32.5	23.0	130.2	6.5	15.4	961.4	11.8	13.0	786.5	16.7	89.7	3.7	53.4	1,668
2 Northeast	1,573.4	1,455.3	313.6	47.5	17.3	111.6	7.6	22.2	870.1	10.2	9.1	704.4	20.1	94.6	2.1	59.6	3,138
3 South Central	1,716.8	1,512.9	383.4	30.0	17.2	155.7	16.0	34.0	802.6	12.0	19.1	528.9	19.1	103.5	74.7	35.6	857
4 Eastern Shore	1,703.5	1,536.2	345.9	36.1	18.0	141.1	8.5	24.1	880.3	13.9	11.5	699.1	19.9	99.1	3.1	76.1	3,108
A Baltimore	1,752.9	1,634.0	391.2	47.2	19.6	159.0	11.6	31.4	897.8	18.1	8.2	708.9	31.5	89.5	4.1	61.6	19,616
B Montgomery & Prince Georges County	1,397.3	1,299.3	318.2	32.2	20.6	116.8	10.9	18.0	740.2	14.2	10.5	572.9	18.6	81.0	6.6	43.2	8,306
C Carroll & Howard Counties ¹	1,332.3	1,224.4	287.4	39.5	12.7	116.7	7.4	14.4	698.1	13.9	3.4	558.0	12.7	71.3	6.1	48.3	1,175
Massachusetts	1,569.3	1,483.2	336.4	47.1	18.6	118.3	9.4	19.3	829.1	15.9	14.0	627.5	28.3	97.1	13.5	50.7	72,061
1 Franklin County	1,554.7	1,457.5	316.2	45.2	24.5	98.5	11.7	8.4	829.6	12.7	13.4	650.0	18.5	91.7	6.1	66.5	844
2 Southeast	1,466.9	1,371.8	331.4	38.4	17.0	111.7	7.7	17.3	770.9	20.2	4.9	570.3	21.2	105.4	8.9	31.5	1,701
A Springfield, Holyoke	1,547.1	1,464.0	318.6	46.2	19.2	110.5	9.4	16.9	842.2	13.7	13.3	651.7	22.3	106.6	4.8	56.6	7,112
B Worcester	1,519.5	1,441.0	309.2	41.8	19.6	113.1	6.6	16.8	838.7	14.3	11.4	638.1	40.7	95.3	5.5	49.5	8,364
C Boston, Lawrence, Lowell	1,599.3	1,509.6	347.9	48.5	18.1	122.8	9.6	20.8	825.7	16.8	13.4	625.0	27.8	91.2	19.2	49.9	42,154
D Brockton	1,540.8	1,458.3	333.3	47.4	17.1	118.7	12.0	20.4	846.3	16.5	13.6	621.0	36.7	116.3	12.4	42.9	3,772
E Fall River, New Bedford	1,566.7	1,487.3	338.0	50.7	20.9	113.2	9.3	18.9	854.2	14.7	29.1	636.2	22.6	115.1	2.3	57.3	6,171
F Pittsfield	1,454.9	1,377.6	303.6	43.3	17.3	105.6	12.5	14.6	770.9	13.6	2.7	590.7	21.8	98.4	4.5	59.1	1,943
Michigan	1,532.5	1,420.5	320.2	39.4	17.1	114.2	10.4	18.1	817.0	15.0	10.9	627.3	20.9	102.0	6.6	55.2	91,855
1 Upper West	1,646.3	1,501.5	290.1	35.1	19.0	96.1	7.8	15.4	931.4	12.2	15.0	703.8	27.9	125.4	7.5	37.1	2,836
2 Upper East	1,582.4	1,459.2	293.8	42.5	18.2	94.2	2.9	20.5	869.2	15.4	15.7	643.6	33.2	120.0	11.5	51.7	1,839
3 Northwest ¹	1,416.7	1,308.5	264.0	38.4	14.1	89.3	9.9	14.6	809.4	16.6	7.0	615.9	17.5	105.9	7.8	53.3	1,574
4 North	1,596.1	1,454.4	312.2	39.7	13.5	114.2	13.3	18.8	879.5	15.9	8.6	667.8	27.3	111.6	4.4	65.6	5,109
5 East Central	1,476.8	1,340.6	282.1	33.6	13.2	97.0	5.8	18.0	807.2	13.8	11.6	596.0	31.4	109.1	2.8	52.7	3,233
6 Southwest	1,463.0	1,349.3	298.3	34.1	15.6	111.3	12.0	15.4	803.3	13.6	10.2	616.2	15.6	102.5	6.3	54.9	5,825
7 Central ¹	1,472.0	1,332.8	293.4	39.7	18.0	104.3	9.2	18.1	770.8	15.1	7.9	586.5	20.6	96.1	4.3	66.0	2,200
8 Southeast	1,518.8	1,402.7	306.8	40.7	16.9	106.7	10.8	17.8	821.0	16.4	13.4	628.7	22.7	104.0	3.7	50.4	2,714
9 South Central	1,421.0	1,295.4	301.2	39.1	14.1	111.5	10.6	15.2	727.2	12.6	10.8	534.9	28.2	97.9	3.4	66.4	4,618
A Saginaw	1,470.9	1,367.9	332.7	37.6	19.1	115.5	10.1	22.6	781.8	5.5	8.4	583.3	29.6	114.8	0.6	55.1	2,014
B Grand Rapids	1,399.3	1,311.0	302.3	39.0	22.6	97.8	9.8	12.9	746.1	16.0	10.3	551.3	16.5	89.1	30.4	58.9	4,013
C Bay City	1,613.2	1,500.6	325.8	41.8	19.5	119.8	5.2	24.3	881.1	13.1	4.4	669.1	15.2	131.8	5.4	64.5	1,361
D Flint	1,577.1	1,470.3	330.6	37.7	16.8	113.3	7.5	24.4	882.4	15.4	9.1	706.2	20.4	95.1	4.9	60.1	4,017
E Lansing	1,384.3	1,276.6	281.6	29.1	17.9	86.6	9.2	15.4	733.8	18.8	15.0	545.4	27.9	80.4	4.0	72.6	2,972
F Detroit	1,594.7	1,488.7	342.1	42.2	17.7	123.4	11.2	19.4	836.3	15.8	11.0	653.7	17.7	102.3	5.8	51.1	42,777

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 396	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Michigan—Con.																	
G Kalamazoo ¹	1,408.5	1,309.4	322.0	35.7	16.0	114.3	9.6	15.6	746.2	18.8	11.1	562.6	28.2	77.6	5.7	58.8	1,778
H Jackson ¹	1,432.5	1,328.4	304.4	26.1	14.1	127.9	15.6	11.6	751.4	13.2	12.0	595.3	12.7	82.0	5.4	63.2	1,471
J Ann Arbor ¹	1,390.9	1,270.9	319.3	47.3	19.2	119.4	11.0	12.1	693.6	16.2	10.7	503.5	23.3	104.3	7.5	59.0	1,504
Minnesota.....	1,332.9	1,212.9	271.7	36.9	17.2	82.3	7.6	12.4	727.0	15.8	7.7	550.3	20.3	98.7	5.9	40.6	39,810
1 Northwest.....	1,322.6	1,205.7	262.4	36.0	20.1	68.1	11.3	7.4	726.3	19.0	4.8	536.5	21.7	120.2	1.2	35.7	1,864
2 Northeast.....	1,410.4	1,254.6	260.2	33.4	19.7	82.5	8.4	12.7	788.5	12.2	7.6	605.7	14.4	109.7	6.0	44.4	2,905
3 West Central, North.....	1,304.9	1,189.7	252.0	35.6	15.3	70.9	7.3	10.7	723.4	19.5	11.8	550.4	15.0	91.8	5.5	47.9	1,906
4 East Central, North.....	1,341.5	1,180.4	283.7	45.9	15.1	87.1	3.0	8.4	694.0	5.2	3.9	534.9	22.1	104.0	3.3	34.8	1,740
5 West Central.....	1,229.8	1,100.9	237.9	31.9	11.1	63.9	7.9	12.4	676.5	10.5	11.8	511.9	21.4	101.8	3.6	37.4	2,258
6 East Central, South.....	1,178.1	1,069.7	236.4	35.3	12.7	63.3	4.3	11.2	640.4	16.1	6.8	481.6	16.1	88.9	6.7	38.0	4,688
7 Southeast.....	1,199.3	1,073.5	246.1	37.7	11.9	64.4	6.8	12.5	639.5	10.1	8.1	471.3	36.8	89.6	3.0	39.4	2,950
8 Southwest.....	1,197.3	1,075.4	242.7	37.0	18.8	64.8	6.9	6.9	645.4	13.3	5.7	492.6	17.0	94.0	0.5	40.8	2,129
A Duluth.....	1,599.7	1,455.5	333.4	40.5	18.1	110.5	10.1	15.2	861.3	25.1	6.5	670.4	24.4	95.1	1.8	47.9	3,094
B Minneapolis, St. Paul.....	1,406.6	1,296.3	294.8	38.4	20.1	96.9	8.5	14.4	769.9	17.8	8.2	582.6	18.9	100.1	8.5	41.2	16,276
Mississippi.....	1,682.8	1,500.6	313.7	24.8	20.6	131.5	6.6	17.2	939.4	9.0	10.4	612.1	56.4	124.1	92.9	53.8	18,896
1 Northwest.....	1,794.7	1,571.5	344.0	27.0	28.4	151.8	7.9	14.1	955.8	7.7	10.6	628.3	78.0	138.0	56.3	62.1	1,756
2 North Central.....	1,638.0	1,471.5	331.6	34.0	24.2	156.8	5.4	20.5	903.2	8.3	11.1	590.9	39.6	127.7	95.7	64.1	1,593
3 Southwest.....	1,756.5	1,590.0	313.0	28.3	15.6	137.6	7.6	17.4	1,018.4	9.1	9.3	694.8	59.2	111.2	91.6	46.8	1,824
4 Northeast.....	1,572.6	1,381.2	287.0	23.7	22.0	110.6	4.3	13.0	888.7	7.4	8.8	596.2	59.7	121.6	72.3	38.9	2,035
5 East Central, North.....	1,699.2	1,530.1	334.1	28.3	20.4	127.3	6.0	23.8	958.1	7.1	8.3	669.5	59.6	139.3	47.2	54.6	1,741
6 East Central.....	1,673.5	1,481.8	289.0	20.8	15.6	111.1	3.1	14.9	952.4	9.6	12.3	611.1	34.8	139.4	111.6	52.3	4,879
7 Southeast, North.....	1,831.1	1,629.1	331.3	20.2	21.9	147.6	9.6	21.3	990.2	12.0	5.3	675.4	44.0	126.6	92.1	72.7	1,509
8 Southeast, South ¹	1,696.4	1,545.1	342.5	21.1	23.2	160.9	14.4	18.7	946.0	7.0	15.5	562.3	117.5	108.2	101.0	52.3	2,132
A Jackson.....	1,602.9	1,426.0	311.4	29.9	22.6	125.2	9.3	18.2	851.7	13.1	8.5	521.5	36.2	71.8	141.6	57.6	1,427
Missouri.....	1,534.2	1,401.7	314.0	33.3	16.5	123.6	8.4	23.9	824.5	13.8	12.7	553.7	35.1	103.8	73.3	55.4	56,979
1 Northwest.....	1,478.4	1,336.9	299.2	26.8	16.3	121.5	5.9	20.3	797.3	11.3	14.6	538.7	33.4	90.9	76.8	58.5	3,629
2 Northeast.....	1,446.6	1,303.1	281.1	32.4	14.2	109.3	8.0	22.1	772.7	11.4	16.4	545.5	30.0	106.6	40.2	59.0	6,331
3 West Central.....	1,418.6	1,274.2	265.2	29.7	14.7	91.3	8.2	22.3	775.3	13.5	10.3	532.3	43.3	109.2	43.3	57.3	2,892
4 Southwest.....	1,672.0	1,518.7	318.4	31.9	14.4	131.2	7.4	25.0	922.0	13.9	12.5	576.4	44.3	112.7	128.6	64.1	2,857
5 Central.....	1,453.1	1,300.7	280.4	20.4	14.2	95.8	7.6	31.6	802.5	14.1	9.9	514.1	57.4	98.9	72.6	45.1	2,371
6 East Central.....	1,358.0	1,229.2	285.4	33.8	16.7	106.0	4.2	19.3	749.6	11.3	13.6	529.4	38.5	86.3	47.7	37.8	2,938
7 West Ozarks.....	1,392.8	1,245.9	269.1	19.3	8.3	105.5	5.0	19.8	755.5	10.6	12.4	506.9	47.5	97.3	56.6	45.1	2,442
8 East Ozarks.....	1,691.1	1,545.2	313.0	26.1	18.5	137.2	6.4	32.0	929.1	22.9	11.9	596.6	30.9	128.5	103.4	55.7	2,057
9 Southeast.....	1,836.9	1,666.3	323.8	28.2	23.1	135.3	5.7	30.0	1,040.2	9.4	14.8	649.5	51.0	129.1	153.1	67.9	3,012
A Kansas City.....	1,572.4	1,443.5	332.9	34.4	17.8	128.7	9.2	27.5	819.6	14.6	8.5	488.7	31.8	95.0	145.9	65.5	8,055
B St. Louis.....	1,590.6	1,474.9	348.8	42.6	18.1	139.9	11.4	22.6	841.1	15.7	13.7	599.9	29.6	104.7	39.8	52.0	18,800
C Springfield.....	1,483.5	1,332.2	301.9	17.9	15.1	119.8	7.8	23.2	811.6	11.9	8.5	516.1	22.7	113.4	106.4	56.5	1,695
Montana.....	1,499.2	1,324.6	282.8	31.0	20.3	94.7	12.0	11.2	767.6	16.0	7.7	499.5	63.1	91.4	57.1	66.7	7,901
1 West.....	1,539.3	1,355.3	287.7	35.6	17.6	98.0	13.1	12.7	767.2	15.4	6.0	512.9	49.7	96.7	52.7	72.8	3,938
2 North.....	1,484.2	1,321.0	290.1	29.8	22.9	97.5	8.2	8.6	781.6	18.1	10.6	514.0	81.2	77.0	53.7	64.6	2,407
3 South Central.....	1,448.0	1,283.0	257.8	18.3	25.6	80.2	13.8	13.5	765.6	16.2	6.8	433.5	70.9	111.1	93.1	54.2	1,125
4 Southeast.....	1,395.3	1,207.3	271.6	32.6	16.7	91.8	16.4	8.2	707.6	11.0	8.2	486.2	61.8	72.2	19.1	60.1	431
Nebraska.....	1,351.6	1,230.9	279.4	36.5	19.7	88.2	8.0	12.1	710.0	11.7	11.8	536.8	22.8	91.9	5.8	56.5	16,765
1 Northwest.....	1,324.0	1,188.5	284.9	48.4	22.9	71.8	8.0	14.6	718.1	11.6	14.6	579.9	13.1	67.8	2.9	43.8	799
2 Southwest.....	1,406.6	1,256.7	291.6	30.3	26.4	92.1	5.5	11.8	687.6	13.8	16.9	511.2	21.2	80.8	4.9	93.6	1,113
3 Central.....	1,348.0	1,218.1	271.8	36.3	20.7	81.6	8.3	11.5	727.8	13.0	7.7	564.7	25.8	82.8	9.4	47.5	3,625
4 South Central, West.....	1,219.3	1,089.4	211.6	24.7	19.2	60.8	3.1	5.2	666.5	12.5	17.0	492.4	24.9	79.3	6.1	39.4	984

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Nebraska—Con.																	
5 South Central, East.....	1,266.3	1,145.2	263.2	38.2	25.5	73.1	5.3	12.9	662.0	7.7	9.8	481.5	27.2	105.6	8.3	52.3	1,667
6 Northeast.....	1,294.4	1,171.4	267.2	30.1	21.0	89.6	9.3	12.9	679.3	11.8	10.5	511.0	27.7	85.7	5.6	51.2	1,416
7 Southeast.....	1,341.3	1,192.3	269.9	44.0	15.5	89.7	9.4	9.5	696.3	12.7	16.9	517.5	17.2	96.4	4.3	49.4	1,476
A Lincoln ¹	1,264.1	1,180.6	283.7	38.7	19.2	90.5	6.3	16.8	639.2	16.1	11.2	463.4	19.5	93.7	3.2	79.0	1,467
B Omaha.....	1,491.8	1,384.2	320.0	38.3	15.0	111.7	11.6	13.0	776.5	9.7	11.9	591.9	21.2	105.7	3.9	59.6	4,218
Nevada.....	1,658.3	1,460.9	313.0	32.6	19.1	128.7	9.9	18.0	803.0	16.5	12.7	568.4	44.9	100.7	20.8	93.6	5,582
1 All.....	1,653.6	1,431.4	302.3	31.8	19.2	117.1	13.7	18.8	776.5	21.7	12.9	534.3	53.1	87.5	31.6	96.9	2,732
A Las Vegas.....	1,664.0	1,490.0	324.1	33.3	19.2	140.9	5.8	17.1	830.6	11.3	12.2	601.6	37.5	115.3	9.7	89.8	2,850
New Hampshire.....	1,615.3	1,509.3	350.8	45.8	19.3	130.2	12.0	19.5	855.8	16.6	15.1	611.1	22.3	106.0	44.7	64.0	9,748
1 North.....	1,622.2	1,485.8	344.5	44.2	19.6	124.5	8.6	18.9	851.3	14.1	11.1	600.2	32.6	125.2	33.3	65.9	2,563
2 South.....	1,527.5	1,433.9	333.9	41.9	20.0	130.9	13.5	19.2	803.4	17.7	16.3	612.0	17.1	92.8	13.6	67.9	4,168
A Manchester.....	1,755.8	1,654.8	383.7	54.2	17.5	134.7	12.5	20.2	945.6	17.4	17.0	622.2	20.9	108.8	104.2	55.6	3,017
New Jersey.....	1,512.9	1,434.6	341.4	49.6	19.9	121.3	11.6	16.6	839.0	16.5	9.8	664.4	21.6	90.8	5.6	40.2	85,328
1 North.....	1,496.7	1,416.7	352.4	48.3	22.6	125.8	11.5	15.8	800.4	17.2	8.8	631.6	17.3	90.2	3.4	46.9	14,512
2 South.....	1,598.3	1,495.3	339.6	45.2	17.6	123.6	13.5	17.4	914.9	18.3	10.6	747.5	19.4	85.6	3.8	36.0	6,385
A Phillipsburg.....	1,635.3	1,639.0	319.2	53.9	24.1	107.2	10.0	23.1	932.7	6.9	10.4	742.1	17.4	107.4	2.9	69.2	1,072
B Newark.....	1,459.1	1,383.2	328.1	51.2	18.7	108.6	9.9	15.9	809.9	16.3	11.2	649.9	17.5	82.7	4.3	36.5	20,521
C Trenton.....	1,566.6	1,492.8	356.4	55.4	16.1	127.2	13.3	14.3	864.8	15.4	11.1	681.5	16.6	98.3	7.2	45.2	3,576
D Camden.....	1,558.5	1,474.9	343.2	49.6	17.7	135.8	9.7	16.8	882.6	12.7	7.2	690.9	22.1	103.4	9.3	51.3	9,669
E Atlantic City.....	1,704.0	1,608.7	368.0	47.3	24.4	130.2	13.3	14.8	948.0	17.7	7.4	766.5	14.4	103.8	7.8	45.7	2,742
F Salem County.....	1,596.1	1,468.4	337.9	38.1	19.7	116.1	37.5	9.8	880.9	17.7	12.8	664.2	18.5	104.3	4.5	32.5	7,917
G Paterson, Clifton, Passaic.....	1,363.3	1,302.2	328.1	48.4	22.0	113.5	11.8	14.6	750.2	17.9	7.7	591.0	14.6	82.4	7.4	34.1	15,194
H Jersey City.....	1,859.7	1,767.7	387.3	54.0	17.8	146.8	12.6	24.9	1,041.2	18.4	14.4	800.5	66.5	110.7	6.5	40.1	10,140
New Mexico.....	1,429.4	1,239.0	246.8	23.0	18.2	80.2	6.6	16.7	650.6	15.8	9.0	427.7	34.1	82.0	50.8	75.5	8,400
1 Northwest.....	1,343.5	1,128.7	206.2	23.7	18.3	52.8	4.2	14.6	585.1	18.9	7.2	376.2	34.3	72.6	41.3	55.0	1,656
2 Northeast.....	1,334.9	1,136.8	204.7	14.2	14.5	60.4	9.2	16.2	621.9	16.3	11.6	380.1	51.4	97.0	48.7	48.3	1,203
3 South.....	1,516.9	1,316.4	287.0	23.6	15.4	106.5	11.1	20.1	698.6	13.7	9.3	496.3	29.0	84.7	32.3	85.4	2,958
A Albuquerque.....	1,448.5	1,288.3	252.9	26.7	23.0	81.7	2.6	15.2	659.3	15.6	8.7	413.9	30.1	76.8	79.5	96.8	2,583
New York.....	1,551.6	1,461.6	336.5	48.8	19.4	115.6	10.9	18.0	832.0	17.0	10.1	661.2	17.9	85.6	8.9	44.9	227,244
1 Northwest.....	1,455.0	1,348.3	322.1	35.8	8.2	128.4	9.5	16.0	788.1	14.5	14.2	607.9	15.3	80.1	3.9	63.9	1,325
2 West Central ¹	1,461.2	1,355.8	294.5	39.1	18.3	108.1	9.8	8.0	786.1	17.1	10.5	596.0	22.6	96.1	3.5	66.3	3,413
3 Southwest.....	1,581.4	1,474.6	321.2	43.3	17.4	118.6	9.0	11.0	863.5	16.1	12.0	645.8	19.0	111.0	15.0	67.4	7,915
4 North Central.....	1,596.1	1,487.9	314.2	47.7	20.3	109.5	13.8	9.0	894.7	20.2	13.1	702.8	18.6	97.1	2.9	65.7	1,580
5 North Central.....	1,631.2	1,531.6	318.9	54.3	17.3	110.7	9.1	14.6	909.0	16.2	24.6	699.4	18.4	108.5	3.1	81.0	1,911
6 South Central.....	1,504.1	1,381.2	285.2	33.1	16.1	105.1	8.1	9.6	835.2	21.4	10.8	667.8	28.1	78.3	2.0	75.1	2,343
7 Northeast.....	1,749.0	1,623.5	318.3	45.7	15.9	121.4	12.7	9.0	965.2	12.6	14.7	739.4	23.0	128.6	6.1	94.5	5,196
8 East Central.....	1,729.2	1,596.9	354.8	31.5	23.6	129.3	16.8	16.4	930.8	17.3	8.4	706.5	20.7	127.0	5.3	73.1	1,483
9 Southeast ¹	1,590.3	1,481.2	340.8	51.1	20.0	121.3	11.2	16.2	862.7	18.4	12.2	667.0	24.1	100.2	4.6	57.4	10,463
A Buffalo.....	1,655.9	1,573.2	360.4	52.4	19.2	128.3	12.7	13.4	907.9	15.2	10.2	710.1	16.8	118.2	4.6	55.9	17,735
B Rochester.....	1,352.0	1,274.3	304.8	42.2	18.8	105.9	9.9	14.2	715.6	17.7	4.4	562.6	14.9	82.8	1.1	51.8	7,046
C Syracuse.....	1,513.8	1,420.6	335.2	43.0	16.9	125.9	10.7	17.1	811.5	17.1	11.0	615.7	30.4	97.7	3.3	62.1	7,105
D Utica, Rome.....	1,629.7	1,533.2	319.5	45.0	16.4	107.9	11.0	10.0	946.6	21.0	25.0	738.3	19.1	109.7	4.9	57.4	4,667
E Binghamton.....	1,506.9	1,429.5	317.6	43.2	18.1	108.4	10.0	12.4	844.2	22.5	8.0	650.4	14.1	97.8	11.6	60.1	2,814
F Albany, Schenectady, Troy.....	1,628.2	1,546.0	354.5	53.1	17.8	130.4	12.8	19.0	877.9	17.5	9.9	696.0	17.6	89.1	6.1	60.4	10,049
G New York City.....	1,538.2	1,451.2	338.9	50.0	20.2	113.0	10.6	20.5	815.8	17.0	9.3	657.8	16.7	75.6	11.2	34.8	142,199

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
North Carolina.....	1,666.9	1,509.9	288.1	25.2	16.4	109.6	6.1	24.2	924.9	11.5	12.2	662.2	47.4	132.1	24.6	60.4	47,349
1 Southwest.....	1,459.3	1,293.6	245.0	18.3	19.7	79.4	7.1	17.5	738.5	9.0	7.2	549.2	27.6	98.7	17.8	70.8	3,456
2 Northwest.....	1,541.3	1,379.6	256.9	23.7	13.8	96.8	8.1	19.7	832.9	13.2	4.1	563.8	29.4	112.4	89.4	37.4	2,227
3 West North Central.....	1,642.5	1,483.9	277.1	25.7	12.9	101.3	4.5	30.1	910.1	13.1	12.1	644.2	48.9	130.2	30.4	57.8	4,267
4 West Central.....	1,520.6	1,373.3	269.4	25.9	20.8	85.4	5.8	23.7	857.7	12.2	11.0	626.7	33.7	133.4	15.5	45.7	6,250
5 West South Central.....	1,666.5	1,503.9	266.7	25.6	15.7	100.1	5.0	21.1	936.4	5.9	13.8	691.7	40.9	127.8	13.7	57.8	4,156
6 Central.....	2,023.6	1,813.5	314.5	32.7	14.5	131.8	7.0	25.6	1,169.1	11.0	19.4	853.9	91.3	138.9	16.9	67.9	2,626
7 East North Central.....	1,819.0	1,647.1	288.2	22.2	10.3	107.1	7.1	30.7	1,055.1	11.3	20.0	666.7	95.5	181.6	48.9	59.0	1,560
8 East Central.....	1,971.1	1,804.6	326.0	19.4	21.7	132.1	4.6	30.1	1,111.9	14.2	20.3	777.9	67.6	174.8	17.7	85.8	3,482
9 South Central.....	1,981.8	1,784.8	313.5	26.9	14.8	111.5	4.2	33.1	1,142.6	8.6	21.2	727.5	114.6	188.8	37.3	73.8	2,916
10 Northeast.....	1,871.1	1,673.3	332.8	24.5	9.7	146.9	6.5	30.2	1,035.7	19.9	9.3	772.1	44.3	132.1	19.1	49.3	1,023
11 Southeast.....	1,849.9	1,683.3	323.3	26.4	15.2	133.0	5.3	28.2	1,060.2	8.1	14.4	716.4	67.7	151.1	63.1	61.0	3,891
A Asheville.....	1,487.9	1,375.8	300.7	26.5	12.7	130.7	5.4	19.5	776.1	10.4	10.2	564.1	30.6	98.5	18.2	55.4	1,735
B Winston-Salem.....	1,584.6	1,473.2	282.5	31.8	14.2	113.5	6.8	17.7	923.9	18.8	7.3	697.5	36.6	123.7	6.0	59.2	1,835
C Greensboro, High Point.....	1,583.4	1,442.7	290.5	22.8	19.4	117.6	8.9	14.4	838.1	11.4	5.0	633.2	22.4	130.2	5.4	78.8	2,525
D Charlotte.....	1,528.5	1,395.5	297.1	29.3	17.6	118.9	7.6	19.3	831.4	14.0	15.6	619.3	32.7	102.1	7.1	47.4	2,599
E Raleigh ¹	1,610.8	1,468.2	300.8	28.1	16.9	125.0	5.8	28.4	870.5	13.4	8.9	658.1	22.7	109.3	8.7	62.4	1,682
F Durham.....	1,793.7	1,641.0	376.4	23.0	10.2	169.2	11.2	37.2	921.9	13.5	4.0	686.7	35.4	129.8	2.7	88.8	1,119
North Dakota.....	1,303.2	1,161.6	254.6	26.6	18.1	64.7	6.9	9.6	699.3	13.1	7.1	538.9	20.6	91.1	3.2	41.1	6,683
1 Southwest.....	1,369.2	1,238.4	294.5	37.4	25.2	77.2	11.7	12.6	739.1	9.4	11.2	558.5	32.4	104.5	1.1	56.7	964
2 West Central.....	1,302.5	1,167.1	272.5	22.7	17.0	71.9	7.6	8.3	682.9	8.9	6.6	531.2	16.7	92.1	6.7	36.9	1,243
3 Central.....	1,257.9	1,113.0	239.0	20.0	17.6	55.6	5.1	7.2	688.3	16.0	6.0	536.8	17.6	81.9	3.0	38.4	2,290
4 East.....	1,367.4	1,219.3	259.9	34.7	16.0	68.0	7.0	12.3	721.0	15.3	7.2	545.6	25.5	94.8	2.8	44.9	1,698
5 Southeast.....	1,213.4	1,064.6	205.5	24.5	18.1	60.5	6.0	10.2	643.3	9.1	6.0	508.7	7.9	91.4	-	24.1	488
Ohio.....	1,572.8	1,463.7	331.3	42.1	18.0	123.6	9.6	17.9	856.9	16.3	18.9	644.0	21.8	108.2	11.2	59.0	118,674
1 Northwest.....	1,413.6	1,296.9	276.8	32.9	19.4	98.2	11.0	17.2	789.5	13.7	16.1	609.1	19.5	99.2	3.8	50.7	4,198
2 West Central, North.....	1,531.4	1,411.3	314.0	36.6	15.3	114.5	9.2	17.3	826.7	12.5	13.5	632.7	22.6	105.1	4.4	69.1	5,014
3 West Central, South.....	1,479.8	1,362.6	292.6	32.8	11.2	114.8	7.9	17.0	837.0	16.7	11.2	619.8	28.4	121.4	4.3	55.2	4,325
4 North Central.....	1,558.5	1,439.7	298.5	39.8	17.8	100.5	8.3	14.0	881.0	12.9	16.4	620.3	31.1	120.5	43.2	67.8	5,401
5 Northeast.....	1,517.9	1,410.0	299.6	37.0	14.6	102.8	10.1	20.3	844.3	16.0	12.2	651.1	17.7	103.9	4.5	60.3	4,301
6 East Central.....	1,604.9	1,487.3	312.4	38.9	15.8	117.7	7.5	18.9	880.0	16.3	14.5	668.3	27.8	112.1	4.3	69.1	8,499
7 Southwest.....	1,493.3	1,362.7	297.8	40.5	16.8	115.3	9.9	18.7	836.4	12.0	9.8	631.2	24.9	119.6	7.9	51.3	2,736
8 Southeast.....	1,702.7	1,558.6	331.6	35.2	15.5	134.5	8.7	19.4	927.2	15.8	16.2	679.7	32.1	135.6	8.2	69.3	4,997
A Toledo.....	1,691.7	1,591.9	357.8	44.3	18.8	134.4	10.3	17.6	904.6	16.6	8.0	695.3	19.2	117.6	3.3	69.6	6,239
B Columbus.....	1,640.3	1,535.8	356.1	44.3	14.8	143.2	9.0	23.8	876.8	15.3	95.3	549.1	28.3	120.6	29.6	71.4	7,677
C Dayton.....	1,492.3	1,395.0	318.2	44.3	17.7	121.8	10.0	16.2	808.5	16.1	10.2	607.9	19.1	107.8	9.4	57.8	7,439
D Hamilton, Middletown.....	1,560.6	1,440.8	321.4	41.5	14.8	133.5	9.0	19.7	832.6	12.0	23.8	650.6	13.6	93.4	3.2	66.0	2,303
E Cleveland.....	1,617.4	1,510.2	350.2	45.3	19.8	127.3	9.8	18.8	878.1	19.3	9.9	687.5	16.5	98.9	3.5	48.3	21,446
F Akron.....	1,499.7	1,421.3	319.6	40.7	18.4	113.3	10.3	16.1	853.5	17.7	7.6	599.3	23.4	107.5	60.8	50.5	6,153
G Canton.....	1,481.1	1,389.0	321.9	43.3	19.8	116.5	11.1	17.5	816.3	20.9	10.8	631.3	18.7	97.3	4.9	62.5	4,245
H Youngstown.....	1,690.4	1,487.4	352.5	47.7	22.1	117.9	12.0	15.7	879.6	18.7	13.5	664.4	25.2	112.3	2.2	51.7	6,271
J Steubenville.....	1,619.1	1,492.6	304.2	32.7	12.4	116.2	6.8	16.2	925.0	17.3	10.3	676.9	29.2	136.5	19.7	50.4	1,248
K Cincinnati.....	1,600.2	1,486.6	383.2	52.8	23.4	151.5	9.7	16.2	811.2	16.6	10.9	638.1	15.6	91.5	3.4	55.4	9,813
L Ironton-Lawrence County.....	1,832.4	1,704.1	329.4	28.3	6.0	151.3	20.2	16.1	1,000.0	12.6	6.1	817.8	29.2	97.8	12.3	83.3	834
M Lorain, Elyria.....	1,592.5	1,477.8	372.4	49.8	21.1	136.4	8.2	25.4	840.9	12.7	15.5	642.4	13.6	106.8	4.0	47.2	2,533
N Springfield.....	1,627.3	1,524.1	324.5	32.0	19.5	143.4	9.9	15.7	908.3	14.5	9.8	696.0	14.2	129.4	4.4	64.9	1,725
O Lima.....	1,587.9	1,485.6	339.3	40.4	20.9	119.5	10.6	14.3	814.2	14.1	11.3	636.5	27.0	84.7	1.3	96.1	1,277
Oklahoma.....	1,492.8	1,350.2	299.7	27.8	16.8	115.9	7.3	24.4	786.4	9.5	10.5	583.3	30.7	100.3	19.8	58.3	29,908
1 Northwest.....	1,382.6	1,211.6	230.3	27.2	11.5	80.6	6.4	15.5	761.6	3.0	9.1	568.7	32.3	101.3	14.8	40.3	1,244
2 North Central.....	1,374.2	1,261.2	282.8	24.7	10.8	106.8	13.6	20.4	742.4	8.9	13.7	564.1	34.6	82.2	8.9	56.4	2,190
3 Northeast.....	1,553.7	1,411.7	336.0	31.9	12.1	132.4	7.9	24.5	799.5	7.3	16.5	570.8	29.3	108.5	28.9	63.4	2,055
4 Southwest.....	1,451.7	1,300.2	271.1	32.2	16.2	99.1	7.0	26.2	783.8	10.1	10.0	576.7	34.5	102.0	20.4	55.6	2,868

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Oklahoma—Con.																	
5 Central.....	1,443.5	1,314.5	296.5	28.2	19.8	117.4	10.0	22.3	764.4	14.2	13.5	570.8	22.3	95.3	18.9	62.0	2,388
6 Central East.....	1,533.9	1,383.1	290.9	19.8	22.6	108.7	5.5	24.4	825.1	12.3	15.2	605.6	26.1	112.7	25.7	44.7	1,259
7 South.....	1,620.4	1,432.5	299.6	23.6	18.6	107.7	2.5	24.1	864.0	9.2	6.7	637.8	49.9	105.0	24.2	50.8	2,514
8 East Central.....	1,569.2	1,414.9	316.3	23.4	18.9	125.2	3.9	33.6	833.2	7.1	16.2	620.1	22.5	95.2	39.1	61.2	2,046
9 Southeast.....	1,559.2	1,362.3	303.2	23.5	15.9	121.4	7.7	28.6	771.9	7.3	7.7	564.5	41.5	106.4	18.9	69.6	1,736
10 East Central, North.....	1,456.0	1,305.0	278.5	21.0	30.5	110.2	6.3	11.2	793.8	6.1	11.3	586.3	38.8	116.3	14.5	67.2	690
A Tulsa.....	1,509.5	1,377.2	322.4	32.3	16.6	133.2	8.3	23.1	787.2	12.5	7.7	595.8	31.9	94.5	6.8	62.3	4,213
B Oklahoma City.....	1,518.6	1,388.4	313.1	29.7	17.7	122.3	7.7	24.7	777.7	9.1	8.2	575.2	23.6	104.1	23.2	63.5	5,843
C Creek County.....	1,554.1	1,394.9	302.2	28.5	12.8	92.8	7.4	40.2	829.8	2.2	18.9	626.3	14.4	106.0	40.6	43.9	562
D El Reno.....	1,252.7	1,145.0	267.9	27.5	18.3	106.3	3.6	26.1	664.2	15.6	7.2	457.0	47.0	91.8	3.6	58.4	300
Oregon.....	1,410.4	1,268.8	290.0	30.8	18.6	106.4	10.5	14.6	733.9	14.6	8.2	541.5	20.8	96.9	18.8	62.3	24,671
1 West.....	1,449.2	1,278.6	282.1	30.0	16.4	107.2	9.9	13.2	765.4	13.7	11.3	578.6	25.2	92.9	9.4	63.6	5,183
2 Central, West ¹	1,286.0	1,159.6	268.8	29.0	16.3	98.3	9.8	15.7	689.6	13.5	8.8	501.6	21.3	90.2	16.5	56.2	3,834
3 North Central ¹	1,346.4	1,196.4	267.6	38.6	18.4	82.0	11.1	11.1	690.4	10.1	6.4	521.0	16.2	100.6	7.2	62.9	935
4 Southeast.....	1,392.9	1,222.8	272.9	27.7	14.9	98.0	10.2	13.7	694.1	16.1	11.0	510.2	34.0	85.5	5.5	75.2	2,305
A Portland.....	1,496.3	1,367.4	311.0	31.3	21.6	115.7	11.9	15.8	775.0	15.5	6.6	561.5	17.6	107.0	33.1	61.4	10,537
B Eugene.....	1,237.9	1,103.6	283.3	35.0	17.8	95.8	6.6	12.8	632.8	15.5	4.1	493.2	10.3	85.3	1.1	62.3	1,877
Pennsylvania.....	1,625.1	1,530.2	326.9	47.1	17.1	113.3	10.2	23.6	894.8	17.4	11.6	668.2	27.7	103.7	30.2	49.8	158,659
1 Northwest.....	1,565.6	1,457.2	310.9	42.5	14.7	110.1	9.8	20.4	869.9	16.3	12.6	660.3	27.9	107.7	4.5	52.3	9,242
2 Northeast.....	1,538.7	1,417.0	304.6	40.9	11.8	109.4	8.7	20.3	840.7	16.2	11.2	665.9	29.2	74.3	4.8	65.7	2,673
3 Central, North Central.....	1,611.4	1,514.2	321.3	39.9	22.7	98.1	12.6	20.9	896.4	14.9	10.0	687.9	25.8	114.2	3.1	72.2	2,959
4 Southwest.....	1,662.0	1,542.6	295.4	36.2	17.8	94.7	11.0	18.5	964.5	18.6	14.6	721.6	34.9	137.3	3.8	47.4	6,520
5 South Central.....	1,557.6	1,451.0	262.6	36.2	14.9	92.2	7.0	15.7	948.3	16.9	15.4	723.4	27.5	112.8	2.1	52.1	4,052
6 East Central.....	1,860.3	1,748.5	309.3	47.5	14.6	101.8	9.9	24.1	936.8	17.0	11.5	691.9	37.5	135.3	3.8	50.0	8,524
7 South Central, East.....	1,455.4	1,360.3	273.4	44.3	12.1	96.6	8.6	14.6	882.5	20.1	13.0	686.0	27.8	104.5	1.3	42.8	3,101
A Erie.....	1,675.7	1,578.2	328.3	40.5	20.7	119.7	5.3	26.2	922.7	19.5	12.8	706.1	21.6	125.5	2.3	73.9	3,448
B Philadelphia.....	1,630.7	1,543.3	348.0	52.0	18.6	124.8	10.4	25.9	907.6	17.0	8.9	630.3	28.9	90.6	96.9	50.5	45,373
C Scranton.....	1,918.2	1,824.2	336.8	59.7	14.8	100.4	11.2	22.4	1,018.0	22.7	16.8	772.6	42.7	124.5	6.0	46.8	4,571
D Pittsburgh.....	1,618.0	1,526.8	351.9	46.6	18.1	123.8	10.6	28.1	883.5	17.2	14.1	684.9	23.5	106.7	3.4	48.4	32,938
E Johnstown.....	1,721.7	1,610.1	297.8	41.7	15.9	92.2	10.0	22.1	934.6	22.7	14.0	707.2	31.8	112.5	7.1	57.0	4,161
F Altoona.....	1,773.8	1,672.8	345.5	42.8	17.0	130.4	15.8	27.4	1,012.3	16.8	19.3	785.7	28.7	120.6	5.7	69.4	2,263
G Wilkes-Barre, Hazleton.....	1,962.4	1,880.5	300.9	57.1	17.6	90.7	9.3	15.8	930.4	14.5	16.0	718.4	35.6	104.1	4.3	45.7	7,060
H Harrisburg.....	1,539.6	1,446.7	325.2	41.6	17.6	121.6	11.6	22.3	838.9	14.3	10.0	657.4	24.6	100.2	4.0	51.7	4,611
J York.....	1,371.4	1,275.2	286.3	48.2	14.8	90.0	8.3	20.1	750.7	13.8	5.9	577.1	34.3	79.2	1.6	43.9	3,161
K Lancaster.....	1,345.5	1,258.1	269.9	43.5	11.0	94.7	6.2	19.4	781.6	16.8	9.1	607.0	18.9	92.7	2.2	39.5	3,410
L Reading.....	1,455.8	1,356.3	299.6	44.9	12.3	96.5	10.5	23.3	822.0	20.1	12.2	634.0	16.3	102.7	2.2	43.4	4,163
M Allentown, Bethlehem, Easton.....	1,517.3	1,432.5	326.0	47.5	20.0	114.2	13.1	19.6	863.1	21.3	7.1	675.5	19.1	97.1	4.8	36.6	6,429
Rhode Island.....	1,533.0	1,462.9	364.1	54.5	17.4	135.4	13.2	15.8	825.4	14.8	10.4	649.8	20.5	94.1	2.3	45.1	12,244
1 South.....	1,450.9	1,365.6	354.4	46.4	15.0	129.5	11.6	19.8	781.9	18.3	7.2	603.8	17.5	100.9	1.8	43.7	1,540
A Providence.....	1,547.0	1,479.2	365.4	55.7	17.7	136.3	13.4	15.3	833.1	14.2	10.9	657.7	21.0	93.3	2.4	45.3	10,704
South Carolina.....	1,820.1	1,657.1	313.2	26.8	21.0	126.7	7.9	18.1	1,036.6	10.9	11.0	744.3	45.6	150.2	36.0	67.9	22,482
1 Northwest.....	1,618.2	1,446.6	261.6	18.6	15.2	99.6	4.7	22.2	913.0	10.2	11.1	697.4	33.5	126.4	5.8	67.1	998
2 Northwest Central.....	1,760.1	1,698.9	311.8	30.2	27.4	121.4	4.4	21.6	990.3	12.1	9.2	679.5	61.8	134.9	57.6	60.0	4,063
3 North Central.....	1,845.0	1,702.6	304.5	25.3	21.1	114.6	6.8	11.8	1,069.2	9.8	11.8	809.5	31.4	150.0	20.8	91.4	2,293
4 West Central.....	1,711.2	1,550.3	289.7	17.4	21.9	106.9	11.1	18.4	948.5	14.2	11.4	673.0	40.3	139.2	31.4	63.7	974
5 East North Central.....	2,016.6	1,809.7	308.0	31.9	5.5	135.1	10.8	16.8	1,137.9	14.0	10.8	851.6	36.7	160.6	25.8	83.1	675
6 Central.....	1,955.3	1,774.3	306.7	27.9	20.5	133.3	8.0	17.1	1,122.8	8.1	15.6	790.2	51.4	171.9	40.4	80.8	2,477
7 Northeast.....	2,064.9	1,854.1	307.0	23.7	20.5	129.7	6.1	15.7	1,205.8	9.3	13.0	774.3	94.7	192.0	81.5	60.8	2,286

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
South Carolina—Con.																	
8 Southeast.....	1,735.4	1,590.3	316.3	12.5	23.4	155.2	7.7	6.1	1,016.7	8.6	5.0	732.4	46.1	159.3	28.8	56.9	1,268
A Columbia ¹	1,676.5	1,544.8	304.1	27.6	16.5	114.2	9.6	22.8	950.1	9.5	12.2	712.0	18.5	146.8	12.5	65.2	2,342
B Aiken County.....	1,791.9	1,640.3	316.7	22.1	15.0	122.3	12.7	7.4	1,013.1	3.0	9.9	773.1	16.2	129.9	41.8	86.3	851
C Charleston.....	1,869.0	1,694.7	374.5	31.9	27.3	170.6	11.1	22.9	1,029.4	10.6	12.1	719.4	53.2	133.5	55.9	61.9	1,680
D Greenville.....	1,861.2	1,701.6	340.7	34.9	18.2	129.8	10.9	22.0	1,064.0	18.3	9.5	806.2	29.8	152.7	5.6	58.8	2,575
South Dakota.....	1,309.5	1,183.4	260.5	37.8	15.7	76.4	6.3	9.6	710.6	11.8	9.1	532.1	34.5	81.1	13.5	54.2	7,450
1 West.....	1,394.0	1,237.6	242.8	38.4	10.7	73.3	6.8	11.6	735.7	14.6	10.0	535.7	36.1	84.3	21.6	68.3	1,590
2 North Central.....	1,315.3	1,193.1	285.7	43.5	21.3	75.4	8.3	10.9	723.6	8.4	10.4	526.4	46.2	89.4	16.6	40.7	1,724
3 South Central.....	1,323.4	1,196.7	261.9	39.8	16.5	94.3	2.5	6.7	729.9	7.6	6.5	564.2	34.2	79.9	17.2	61.9	1,309
4 Northeast.....	1,236.9	1,113.4	225.1	33.5	13.3	49.9	5.7	13.0	669.3	7.9	6.2	522.8	19.4	76.7	5.7	49.6	964
5 Southeast.....	1,260.5	1,159.9	271.4	33.9	15.5	82.0	7.2	6.8	685.2	17.2	10.8	515.9	30.9	73.8	6.0	53.4	1,863
Tennessee.....																	
1,578.3	1,418.3	298.5	26.6	17.7	122.5	6.7	17.2	863.3	10.7	10.3	647.1	23.5	123.3	20.2	57.8	41,090	
1 West.....	1,533.7	1,368.7	289.1	29.2	16.3	114.6	6.4	17.6	847.2	9.8	12.2	619.3	20.2	149.3	12.4	73.1	3,149
2 West Central.....	1,527.7	1,360.0	259.8	29.8	14.9	98.9	2.6	16.7	875.6	5.1	14.6	661.6	18.9	135.7	14.0	44.6	2,262
3 West Central, East.....	1,591.3	1,404.4	299.3	16.4	10.9	124.4	4.2	16.6	845.8	11.9	10.4	645.4	28.8	109.3	14.4	50.1	1,574
4 North Central.....	1,484.1	1,324.0	317.3	28.9	18.6	125.5	7.0	18.4	786.8	6.3	8.8	597.0	9.7	113.0	20.6	48.3	1,497
5 South Central.....	1,529.6	1,365.3	269.0	22.7	13.2	112.8	6.3	18.8	830.6	5.8	9.8	619.6	32.3	129.7	11.4	58.4	3,163
6 East Central, West.....	1,488.1	1,308.1	254.7	20.5	13.2	94.5	10.3	18.4	832.3	6.0	8.5	643.3	18.8	110.1	22.5	46.8	2,483
7 East Central.....	1,707.3	1,490.3	261.4	11.7	17.0	109.0	8.4	23.6	926.7	17.1	7.0	701.9	39.5	117.1	13.1	75.8	1,487
8 East.....	1,603.7	1,442.7	293.6	23.1	19.1	118.5	4.5	17.3	892.2	12.3	14.6	668.1	26.7	127.1	16.1	52.4	9,242
A Memphis.....	1,626.1	1,490.8	338.4	34.4	23.3	144.4	8.6	18.3	852.2	13.0	6.1	640.3	20.8	128.9	8.7	76.5	4,916
B Nashville.....	1,591.6	1,437.9	334.6	35.8	17.4	151.0	8.1	16.7	861.9	9.3	6.7	694.5	15.8	104.9	2.7	58.6	4,021
C Chattanooga.....	1,744.9	1,576.2	332.9	29.7	16.7	127.7	10.7	16.1	939.5	12.9	10.3	739.1	15.3	124.1	4.9	61.7	2,786
D Knoxville.....	1,552.7	1,408.7	305.0	26.9	20.6	127.1	7.7	14.3	851.0	15.7	8.1	566.6	30.5	114.9	82.4	53.0	4,510
Texas.....																	
1,485.2	1,338.3	306.2	27.5	19.1	121.6	6.8	15.1	767.4	9.7	9.0	528.2	58.8	99.0	31.5	56.3	106,991	
1 West.....	1,374.4	1,201.4	237.9	14.4	26.7	73.8	18.3	18.5	686.2	8.4	10.5	446.4	86.5	76.6	27.8	54.1	582
2 Central West.....	1,404.1	1,251.4	297.6	27.5	12.7	114.8	6.8	14.4	698.2	5.2	8.5	478.0	59.9	103.2	15.4	67.6	2,882
3 South West.....	1,401.9	1,252.1	271.7	21.4	21.6	92.2	6.7	18.3	693.4	4.4	14.4	409.5	74.5	88.7	77.4	23.5	1,802
4 North West.....	1,399.3	1,216.0	232.8	20.8	12.7	92.5	1.6	10.8	743.9	10.6	12.9	506.0	53.9	95.1	42.3	62.8	2,283
5 West Central, North.....	1,386.7	1,231.9	283.2	23.4	20.9	107.8	7.2	9.7	706.8	8.1	6.0	454.5	64.4	88.2	53.9	63.8	3,202
6 North Central, West.....	1,407.5	1,262.0	288.0	25.5	18.4	115.8	3.7	11.7	750.3	7.8	8.8	473.3	84.1	102.1	48.7	51.9	3,734
7 North Central.....	1,447.1	1,293.2	285.3	26.8	13.2	119.8	6.8	13.9	779.0	6.1	8.8	498.9	91.0	96.6	51.4	55.0	3,799
8 North Central, East.....	1,498.9	1,350.1	295.3	24.1	20.3	119.7	7.2	15.0	813.0	9.2	9.0	521.4	103.3	98.8	46.9	56.1	6,015
9 Central East.....	1,499.1	1,379.5	307.5	28.6	18.7	107.4	3.1	10.7	802.7	12.5	9.5	480.7	79.5	104.2	90.7	53.4	1,567
10 Central South.....	1,347.4	1,202.9	273.3	36.2	17.1	100.4	3.4	4.3	705.3	5.7	8.8	418.6	71.1	119.8	61.2	37.6	1,541
11 Gulf Coast.....	1,428.3	1,264.8	286.4	25.5	15.7	104.4	5.4	18.5	729.4	4.4	10.8	473.6	68.3	111.8	31.9	44.0	2,342
12 Northeast.....	1,517.4	1,357.5	308.4	27.2	20.0	129.0	6.1	17.7	819.0	5.4	8.0	535.6	81.4	102.8	55.8	54.9	8,061
13 East Central.....	1,475.0	1,307.5	298.2	18.1	18.2	131.2	5.9	17.6	791.9	7.9	6.5	526.3	78.8	101.3	46.1	58.3	2,662
14 Southeast.....	1,447.4	1,299.5	302.7	27.8	16.0	122.4	5.8	17.4	780.1	7.3	6.9	511.3	76.2	96.7	55.7	49.4	3,670
15 South.....	1,322.5	1,190.3	270.7	15.8	22.9	104.0	7.8	17.0	687.1	6.0	12.3	398.8	64.2	85.9	93.1	44.3	2,988
16 West Central, South.....	1,412.0	1,224.3	248.2	20.4	21.1	88.5	8.0	16.3	709.1	7.9	14.3	440.0	58.9	126.5	49.0	58.4	851
A El Paso.....	1,462.4	1,331.4	268.3	22.2	15.2	89.6	3.7	15.8	687.7	17.1	12.0	378.8	81.0	84.7	72.1	57.3	2,679
B Fort Worth.....	1,570.8	1,427.6	330.1	32.2	19.8	132.8	5.8	17.1	794.1	11.8	9.9	588.2	37.5	105.2	8.7	74.2	7,043
C Dallas.....	1,545.5	1,410.8	329.6	29.3	18.5	134.8	7.8	17.5	799.7	10.7	7.7	598.6	31.8	102.9	13.8	69.0	11,846
D Waco.....	1,519.7	1,387.3	298.6	26.7	17.9	105.0	4.6	15.6	831.4	2.7	7.7	490.9	188.0	100.1	12.4	50.8	1,739
E Austin ¹	1,295.5	1,166.8	274.0	27.1	17.1	107.8	5.0	13.5	670.7	13.7	6.6	488.1	39.1	83.0	11.2	37.5	1,938
F San Antonio.....	1,482.5	1,356.0	315.3	30.3	23.1	115.0	9.2	13.5	712.3	10.3	10.1	512.1	26.2	101.4	6.2	46.2	7,095
G Houston.....	1,612.5	1,455.4	344.5	33.2	20.8	145.2	8.5	13.8	820.6	16.7	8.0	623.7	27.8	103.7	6.2	58.1	13,678
H Beaumont, Port Arthur.....	1,558.7	1,425.0	360.1	30.0	17.6	162.9	7.3	19.3	806.0	8.4	9.1	572.1	53.5	106.2	18.6	50.9	3,038
J Amarillo.....	1,620.8	1,475.0	321.3	29.7	21.3	124.4	15.0	14.8	815.1	11.2	6.6	625.1	28.4	92.6	7.4	103.3	1,587
K Wichita Falls ¹	1,558.2	1,401.1	332.0	30.1	27.3	131.7	9.5	19.1	801.0	10.6	13.5	582.7	31.6	122.8	9.4	58.2	1,330

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Texas—Con:																	
L Lubbock.....	1,413.2	1,244.6	301.2	24.1	26.3	106.7	6.5	14.5	712.1	16.6	5.4	424.4	144.9	77.5	7.7	79.2	1,320
M Galveston, Texas City.....	1,659.0	1,515.5	373.4	44.9	19.2	162.4	9.8	18.5	834.2	7.0	14.3	668.8	31.0	76.9	3.2	56.0	1,729
N Corpus Christi.....	1,567.9	1,381.3	302.7	34.1	13.7	107.4	9.6	10.7	805.2	6.3	11.1	632.2	28.9	89.7	6.0	37.0	2,170
O Denton.....	1,405.5	1,294.0	248.2	11.8	25.5	88.0	7.8	11.7	828.2	10.0	9.9	542.0	90.2	100.2	46.2	61.0	655
P Abilene.....	1,355.6	1,214.3	298.3	22.9	19.0	112.4	6.9	14.0	675.2	9.6	3.9	435.0	61.3	97.7	37.4	55.5	1,163
Utah.....	1,312.3	1,172.2	215.0	23.6	12.8	61.3	6.6	12.1	671.3	23.1	7.7	437.6	32.5	76.1	66.1	70.8	8,481
1 North.....	1,161.1	1,023.4	195.4	23.7	6.9	41.1	9.9	6.7	606.3	20.8	11.1	415.0	23.9	91.9	13.9	61.9	906
2 Central.....	1,184.4	1,066.2	214.3	29.1	7.7	50.5	4.9	17.9	619.0	28.7	5.9	407.3	25.0	93.1	32.4	61.2	1,326
3 South.....	1,293.4	1,110.3	205.4	12.5	16.6	55.8	2.6	15.6	621.3	21.3	3.9	463.9	32.1	57.7	20.3	87.1	1,201
A Salt Lake City.....	1,398.6	1,258.3	231.1	26.8	14.1	74.3	6.5	11.2	706.8	22.0	8.6	437.6	33.9	71.3	107.1	69.8	3,929
B Ogden.....	1,377.6	1,248.2	191.8	17.7	16.6	57.5	11.0	7.8	746.2	25.1	9.2	470.4	47.0	77.1	76.3	76.4	1,119
Vermont.....	1,541.0	1,423.7	324.9	45.8	17.0	122.6	9.9	13.3	791.5	17.8	12.8	585.0	22.1	97.3	14.7	73.0	5,471
1 Northwest.....	1,547.4	1,439.2	311.3	46.5	16.8	114.6	9.8	18.3	809.6	15.3	12.9	612.6	32.1	92.1	1.5	81.5	1,879
2 Southeast.....	1,539.8	1,417.9	332.3	45.5	17.1	127.1	10.0	10.8	783.4	19.2	12.7	571.2	17.1	100.3	21.7	68.6	3,592
Virginia.....	1,592.2	1,453.8	303.1	31.9	17.4	121.7	6.4	21.7	858.7	10.2	9.5	645.0	31.2	106.8	18.2	62.2	42,145
1 West.....	1,948.8	1,741.3	302.6	30.6	23.8	125.4	3.6	26.9	1,034.6	15.0	16.2	795.4	37.4	107.1	26.6	96.9	2,303
2 Southwest.....	1,527.6	1,385.5	261.0	26.5	15.4	97.6	4.4	24.2	824.3	16.9	14.4	614.0	22.8	106.9	14.5	66.8	2,735
3 West Central.....	1,711.3	1,543.3	280.3	31.5	13.2	118.4	6.6	18.5	936.5	13.1	16.5	698.9	27.4	115.7	18.3	72.8	3,529
4 Northwest Central.....	1,592.2	1,430.7	260.1	32.3	20.1	99.0	5.4	18.2	872.6	10.4	9.4	667.2	19.5	107.6	21.7	56.8	2,107
5 North Central.....	1,650.2	1,489.3	308.7	35.5	13.1	128.4	4.1	18.1	891.5	10.3	10.0	682.9	35.2	106.6	13.4	55.6	2,999
6 Central.....	1,638.1	1,452.5	291.3	23.1	11.3	127.3	4.8	17.7	890.8	7.6	5.7	655.9	30.9	112.2	39.2	54.1	2,062
7 South Central.....	1,568.7	1,396.8	264.6	24.9	15.9	99.4	4.6	17.7	839.6	13.6	8.8	593.9	35.0	132.4	24.0	61.0	3,003
8 East Central ¹	1,543.8	1,373.2	297.8	31.2	10.2	124.7	4.8	22.5	827.2	6.4	12.6	628.2	25.8	97.4	13.7	56.3	1,693
9 East.....	1,913.7	1,732.9	429.8	34.4	23.5	211.4	13.2	22.2	953.7	9.8	-	768.4	8.5	119.8	3.2	77.9	553
10 Southeast.....	1,714.5	1,558.1	313.6	27.1	24.8	129.6	6.7	26.2	975.5	3.4	6.2	758.6	26.0	118.5	14.9	51.4	1,231
A Roanoke ¹	1,696.2	1,529.9	305.0	30.5	17.8	106.5	10.8	22.3	873.2	8.9	9.1	632.9	28.5	120.7	28.0	71.9	2,215
B Northern Virginia Metropolitan.....	1,304.1	1,217.2	291.5	31.1	13.8	107.0	8.8	23.9	682.9	10.5	7.1	514.3	23.2	78.5	12.6	48.5	5,230
C Richmond.....	1,704.4	1,578.6	352.6	37.0	22.3	138.7	8.4	26.6	922.2	7.4	7.7	712.1	32.6	114.1	10.5	65.6	4,497
D Norfolk, Portsmouth.....	1,724.2	1,607.6	363.8	40.8	20.6	157.2	6.7	25.2	933.7	8.4	9.0	700.6	55.0	109.6	15.1	70.5	4,903
E Newport News, Hampton.....	1,618.2	1,513.9	349.6	39.2	23.3	157.7	7.1	17.2	860.6	8.3	9.8	645.1	30.2	84.4	38.6	61.1	1,888
F Lynchburg.....	1,603.0	1,451.0	315.2	31.0	26.6	128.9	8.7	21.5	851.8	14.3	4.6	627.7	34.2	130.5	7.1	71.3	1,197
Washington.....	1,464.0	1,329.6	299.5	32.1	18.8	113.1	8.9	15.2	756.1	16.8	9.3	566.9	25.7	99.2	4.8	63.5	37,351
1 West.....	1,461.0	1,297.8	283.6	24.4	15.9	98.7	7.2	16.0	767.3	13.1	10.4	571.9	28.0	103.7	3.7	58.8	2,105
2 Northwest.....	1,304.2	1,177.4	240.8	21.0	15.6	85.0	10.0	14.2	693.5	13.3	7.1	510.5	22.8	94.7	3.6	61.4	1,890
3 Kitsap County.....	1,397.9	1,300.5	300.1	36.0	17.3	125.6	12.9	15.0	767.3	9.4	7.4	588.2	29.2	91.4	2.1	63.6	1,199
4 South Central West.....	1,389.1	1,268.7	294.8	37.0	16.7	114.8	3.8	13.5	725.5	15.7	6.5	530.9	38.0	86.1	20.6	62.9	2,294
5 North Central.....	1,438.6	1,251.1	313.5	25.2	12.0	144.8	9.4	15.9	670.0	20.4	9.0	492.9	23.2	81.7	11.9	65.0	904
6 South Central.....	1,404.2	1,258.7	298.8	28.9	21.9	120.1	9.1	11.3	720.5	14.3	5.6	541.3	27.3	97.2	6.4	58.4	2,853
7 Southeast.....	1,338.4	1,201.7	277.4	27.6	13.7	98.1	6.0	15.0	691.3	12.8	8.0	520.4	22.1	85.1	11.1	53.5	2,173
8 Northeast.....	1,240.7	1,095.4	248.5	22.2	23.2	84.0	8.7	19.1	646.2	9.2	9.2	479.4	43.5	77.5	3.1	44.2	343
A Seattle.....	1,510.1	1,374.5	313.9	33.8	22.4	117.2	9.8	14.9	758.3	19.0	9.6	567.0	23.2	105.0	1.8	64.0	11,806
B Tacoma.....	1,560.0	1,441.7	322.8	36.7	15.3	125.9	8.4	25.0	847.8	16.8	6.7	648.8	26.0	114.5	3.0	65.5	4,251
C Vancouver.....	1,444.5	1,309.6	290.4	26.0	23.5	104.2	11.3	9.1	787.8	12.3	12.9	624.1	17.9	78.3	3.6	63.3	1,407
D Spokane.....	1,602.9	1,460.7	306.5	39.4	21.9	111.3	9.2	11.5	809.8	19.0	19.5	615.8	24.1	99.4	2.3	86.0	3,690
E Everett.....	1,436.3	1,303.9	295.1	36.2	12.5	112.3	9.9	16.7	746.6	22.5	6.9	536.5	28.3	106.7	4.0	51.1	2,436

See footnotes at end of table.

Table 2. Rates per 100,000 population for selected causes of death for white males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA CR 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 790-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
West Virginia.....	1,741.1	1,583.1	325.5	32.1	17.5	133.0	8.9	22.6	938.3	12.7	14.7	657.4	43.8	117.6	54.9	71.0	25,580
1 Northwest.....	1,632.6	1,496.1	328.8	43.0	15.2	131.8	10.0	23.0	894.5	13.4	20.7	645.4	27.6	121.2	26.9	61.9	2,545
2 West Central ¹	1,513.5	1,344.0	270.6	27.9	17.2	105.5	3.5	15.4	824.8	11.8	13.7	575.4	43.7	107.9	44.1	46.6	3,171
3 North Central.....	1,723.8	1,577.2	318.6	29.7	16.4	125.5	12.2	18.1	926.8	13.1	15.8	694.0	28.4	100.1	40.2	66.4	3,768
4 South.....	2,036.4	1,840.9	335.3	22.3	17.3	143.4	8.6	26.2	1,081.0	12.5	15.3	687.5	76.8	121.1	123.3	114.3	5,862
5 East.....	1,655.3	1,471.8	282.8	33.5	12.9	110.2	7.4	20.3	906.4	11.9	14.7	672.4	27.6	120.3	22.5	60.1	2,415
6 Northeast ¹	1,813.2	1,667.7	315.3	33.9	14.4	117.9	1.6	32.4	1,031.5	4.6	6.2	815.9	22.9	133.0	8.6	60.6	1,017
A Wheeling.....	1,765.4	1,637.0	409.3	46.3	20.4	177.2	15.3	32.1	906.4	20.0	25.3	609.1	33.5	109.2	67.3	77.7	1,652
B Huntington.....	1,667.3	1,542.2	328.5	32.9	20.0	143.8	4.4	22.7	903.9	8.4	8.1	605.0	17.2	167.7	68.1	61.1	2,031
C Charleston.....	1,761.7	1,619.2	378.9	36.2	22.8	154.9	14.3	24.9	942.0	15.6	10.0	679.2	65.7	107.6	25.4	61.2	3,119
Wisconsin.....	1,388.3	1,281.4	282.6	38.9	16.4	86.1	8.6	15.3	763.9	14.7	11.9	567.8	31.6	103.5	4.1	41.9	50,177
1 North.....	1,437.5	1,312.8	270.2	38.0	23.6	74.5	9.7	17.8	814.0	16.9	10.2	565.6	68.2	110.1	11.5	50.5	3,053
2 West Central.....	1,282.5	1,162.7	261.6	38.3	17.2	68.7	8.5	14.8	693.0	14.0	11.1	512.0	27.9	92.2	6.5	38.6	4,677
3 Southwest.....	1,443.4	1,304.8	264.7	38.5	16.2	87.7	11.9	10.5	786.9	12.4	8.3	589.3	30.0	120.9	3.1	44.4	1,626
4 North Central.....	1,311.3	1,186.7	269.7	44.6	19.5	66.5	7.2	14.6	697.1	15.4	12.8	507.1	31.8	94.4	6.1	43.8	3,528
5 South Central.....	1,365.3	1,236.3	230.6	28.7	18.3	62.9	7.6	12.3	782.8	10.8	15.1	588.1	45.5	97.3	7.2	43.7	1,500
6 Northeast.....	1,348.7	1,238.3	247.1	38.1	15.2	75.6	8.9	11.5	769.8	10.3	7.7	552.9	57.1	108.7	4.9	36.8	2,516
7 East Central.....	1,319.4	1,229.4	255.6	40.5	13.7	74.8	5.2	14.2	756.5	12.4	10.1	576.9	21.2	106.2	3.3	32.3	5,732
8 Southeast.....	1,348.1	1,238.3	274.6	36.9	18.1	90.4	9.5	14.4	739.6	13.7	6.4	555.5	30.7	98.2	5.0	42.8	5,403
A Superior.....	1,690.5	1,547.4	320.4	35.4	10.1	102.6	6.1	12.6	930.5	14.4	12.6	742.4	25.0	91.4	6.1	49.2	720
B Madison.....	1,294.7	1,192.6	249.8	31.1	12.5	72.9	6.5	14.8	707.8	17.9	7.8	553.9	19.1	77.9	2.2	51.3	2,198
C Milwaukee.....	1,540.8	1,440.4	326.8	44.3	17.1	106.7	9.8	17.6	833.5	18.1	18.8	623.7	20.1	115.5	1.6	43.2	12,938
D Racine.....	1,392.2	1,300.8	310.0	25.8	14.6	99.0	9.9	17.5	769.9	16.1	7.6	568.7	39.0	102.3	1.5	43.6	1,697
E Waukesha.....	1,306.1	1,216.0	294.2	35.4	10.5	85.3	12.8	20.0	704.4	12.2	7.9	538.2	21.8	87.1	0.6	46.6	1,891
F Kenosha.....	1,421.4	1,307.5	304.8	31.4	9.1	127.5	9.0	12.3	794.2	6.0	16.2	615.4	24.1	107.3	4.3	38.0	1,275
G Green Bay.....	1,348.3	1,250.4	308.2	42.9	15.7	95.4	7.8	15.7	715.7	14.9	13.1	456.6	86.9	113.9	3.4	47.1	1,423
Wyoming.....	1,513.3	1,306.0	259.6	30.3	15.2	85.9	7.9	11.4	736.3	17.9	8.2	533.1	37.8	86.1	16.6	94.2	3,728
1 Southwest.....	1,557.1	1,327.3	270.6	27.0	12.1	87.8	9.1	13.6	732.1	25.2	10.0	494.4	44.1	88.7	23.0	96.0	1,451
2 Northeast.....	1,486.5	1,293.6	253.0	32.6	17.3	84.7	7.3	10.1	739.2	13.2	7.1	557.5	33.8	84.5	12.5	93.4	2,277

¹State economic area contains large resident institutions, mental and/or penal. It has not yet been possible to obtain the age-sex-race-specific counts of the population in these institutions and, therefore, rates have not been adjusted in accord with methods previously developed.²² Some of these rates may be slightly too low as a result.

NOTE: Abbreviations used in column headings are described in the appendix.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 795	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
United States	765.3	718.7	222.7	30.2	10.1	23.2	52.5	2.4	14.0	344.7	14.0	7.7	217.1	13.7	71.8	7.0	13.9	1,345,572
Alabama	711.5	659.5	193.7	21.0	9.5	18.9	40.7	2.1	16.0	337.2	6.0	6.7	187.6	20.8	78.8	25.0	11.5	17,221
1 Northwest	695.9	646.7	186.8	22.3	14.0	17.5	39.0	3.2	16.2	330.0	6.2	5.7	167.5	39.9	80.0	22.6	11.8	1,376
2 Northeast	689.1	639.0	181.4	18.8	5.5	16.1	30.5	2.4	13.4	326.3	6.8	8.0	175.1	22.5	78.3	19.5	11.6	1,450
3 North Central	748.8	694.1	198.5	17.9	8.9	17.5	38.2	1.9	14.8	374.5	6.3	5.5	218.2	19.3	85.8	25.4	9.5	2,437
4 East Central	712.2	667.0	177.6	19.0	6.8	11.4	33.4	2.5	17.8	346.3	6.3	7.5	194.5	31.3	83.7	7.3	6.5	981
5 West Central, North	690.9	630.9	178.9	22.4	6.7	13.7	28.8	1.9	17.0	320.9	2.6	5.1	177.8	31.0	80.3	16.4	9.6	1,307
6 West Central	693.8	638.2	194.2	24.7	6.3	14.4	41.9	1.1	25.5	320.5	2.7	4.8	170.0	17.4	75.0	41.2	6.9	483
7 West Central, South	741.5	673.9	185.2	14.3	5.3	9.4	29.6	-	29.4	359.3	8.9	7.8	225.3	12.3	60.6	16.5	11.2	240
8 Southwest	634.2	594.7	172.3	18.7	2.3	27.6	30.3	1.2	11.2	298.8	2.4	5.4	202.9	14.4	56.3	10.1	6.3	464
9 Southeast	702.0	647.6	173.3	18.6	10.0	11.5	38.0	-	18.7	344.3	4.8	9.5	190.7	24.0	85.4	15.5	13.7	1,708
A Birmingham	694.3	643.7	209.0	23.2	13.1	23.3	51.9	2.6	12.8	309.4	8.4	5.1	152.5	12.8	73.1	47.7	13.8	3,134
B Phenix City	1,011.8	916.6	212.6	24.2	11.3	27.4	30.4	3.8	38.9	540.8	8.1	23.4	346.7	37.4	82.4	20.1	12.7	237
C Montgomery ¹	759.8	705.2	214.8	25.7	7.8	28.3	50.8	2.6	14.4	366.3	7.6	5.3	179.0	8.1	99.4	57.0	11.5	785
D Mobile	780.7	729.7	223.5	24.3	9.8	31.4	54.6	4.8	16.0	368.5	5.3	7.7	243.3	12.3	75.6	7.1	18.8	1,487
E Tuscaloosa ¹	581.6	547.8	185.8	22.6	14.9	7.4	40.4	-	16.4	253.6	4.7	8.3	141.9	11.2	64.4	9.2	6.8	459
F Huntsville	739.3	685.9	198.4	21.6	8.3	20.5	37.4	0.7	17.8	346.2	4.0	10.6	208.3	20.6	76.2	18.6	9.8	673
Alaska	734.0	635.3	195.6	30.9	7.5	28.9	42.8	8.0	8.0	276.7	12.9	5.3	149.8	20.8	62.9	6.0	19.1	571
Arizona	733.6	669.8	196.8	23.5	9.3	21.9	44.3	1.5	16.8	287.3	16.6	7.2	164.0	13.2	63.9	9.4	30.6	10,695
1 North	753.5	654.0	172.9	25.9	3.8	21.1	31.7	-	18.7	315.9	17.9	8.1	173.5	15.1	65.2	20.3	25.0	1,006
2 South	805.3	737.5	200.0	19.5	8.9	22.5	39.7	1.7	15.6	334.0	12.3	7.8	182.8	25.7	77.6	14.0	27.3	1,312
A Phoenix ¹	702.2	644.3	199.2	25.3	10.2	22.0	47.5	1.2	16.0	269.9	16.9	7.3	156.1	10.2	60.4	7.2	28.1	5,871
B Tucson	772.8	711.2	199.1	20.1	9.5	21.5	43.4	2.7	18.8	298.3	18.0	6.2	172.0	14.5	64.8	8.4	41.9	2,506
Arkansas	675.8	628.9	192.6	23.9	10.1	19.5	39.9	1.9	15.8	309.6	8.4	6.0	181.0	17.4	71.4	14.7	11.3	11,514
1 Northwest	648.8	612.7	171.2	18.7	11.3	18.9	41.5	0.8	16.6	315.3	17.7	3.7	173.9	9.2	81.9	15.5	12.2	826
2 West Central, North	680.8	648.2	209.4	23.7	9.0	25.8	37.9	2.5	12.5	313.2	10.9	4.3	176.3	19.3	69.7	22.7	8.7	1,402
3 North Central, East	616.8	573.3	187.4	25.1	7.7	11.3	43.3	1.2	16.9	276.4	9.6	3.5	158.8	11.8	70.6	14.8	8.4	867
4 West Central, South	706.0	658.2	202.1	26.7	10.5	21.1	42.8	3.1	16.7	317.8	4.9	8.2	181.1	20.5	80.2	13.1	13.8	1,366
5 Southeast	711.9	646.4	206.0	31.5	8.7	18.7	51.0	0.9	9.6	307.8	11.1	4.6	169.4	30.4	55.4	18.5	6.9	722
6 South Central	694.1	647.0	181.7	24.2	8.0	18.0	41.2	2.9	11.8	333.3	4.4	4.9	207.6	19.3	65.5	23.0	7.9	1,050
7 Northeast	678.3	635.0	191.1	24.6	10.9	16.5	31.9	1.0	21.4	321.8	6.5	10.3	182.0	20.1	77.1	13.7	15.1	1,675
8 East	666.9	612.4	183.7	22.0	11.4	19.2	34.4	2.1	14.7	324.0	4.4	6.5	203.4	19.7	68.0	10.6	15.9	1,115
9 North Central	617.0	573.3	168.2	17.2	7.6	14.3	41.8	0.6	18.0	282.7	9.7	5.8	159.9	18.8	66.7	13.1	8.5	994
A Little Rock	708.3	652.5	213.8	24.6	13.2	26.7	41.3	3.7	15.7	294.6	9.6	5.0	188.1	8.0	69.2	5.5	10.9	1,497
California	759.3	692.9	229.2	27.6	10.7	29.0	53.7	2.5	12.8	307.4	14.7	5.8	193.9	8.9	69.0	1.4	18.0	121,846
1 Northwest	811.8	739.3	216.5	28.0	11.4	30.1	47.8	3.3	18.6	334.6	17.7	10.3	202.7	15.9	63.2	2.8	23.1	1,381
2 West Central, North ¹	735.0	665.3	225.8	27.5	8.2	26.1	53.2	2.8	12.5	277.9	13.3	3.6	162.6	18.3	67.2	2.4	16.9	2,095
3 West Central ¹	731.2	660.1	222.7	30.3	11.3	29.3	49.2	2.4	13.2	280.0	9.8	6.2	163.1	11.3	71.3	1.6	15.8	3,115
4 North Central	743.9	671.6	212.3	26.8	10.6	24.5	42.5	1.2	13.9	304.0	11.7	6.1	187.0	8.8	72.6	1.3	24.6	2,088
5 Central	726.6	662.9	197.2	23.2	10.1	18.5	41.4	3.0	9.5	296.1	13.2	5.9	193.4	9.9	59.6	-	19.9	1,754
6 Central South	737.5	677.3	210.9	24.0	7.7	23.0	43.6	3.0	17.3	302.6	12.0	8.7	188.6	11.6	67.0	2.3	15.2	1,722
7 Ventura County ¹	701.5	640.3	199.5	23.4	13.7	26.4	47.7	1.0	11.8	291.8	17.4	7.2	181.5	7.7	65.9	0.7	20.1	1,750
8 Imperial County	806.9	759.5	225.3	21.0	14.9	20.5	34.4	-	23.9	335.8	10.8	7.5	238.4	7.2	56.7	-	12.6	407
9 Northeast	762.8	687.4	209.8	25.7	10.2	26.5	46.5	1.4	13.8	307.1	12.4	6.2	198.0	12.5	60.4	1.9	22.4	2,757
A San Francisco, Oakland	804.9	728.1	251.0	31.3	11.3	33.4	62.0	2.4	13.8	303.3	14.8	4.1	189.1	8.2	70.9	1.6	17.3	21,082
B San Jose	689.2	629.6	224.4	26.5	12.6	24.8	49.7	3.4	12.6	260.6	13.9	4.2	155.1	9.4	64.1	0.9	13.5	4,598
C Sacramento	769.6	706.2	235.5	27.4	9.8	30.2	50.5	3.3	13.6	312.4	15.2	3.6	193.3	11.8	69.0	3.7	18.4	3,502
D Stockton	763.3	702.9	220.2	26.1	9.4	23.0	55.0	-	16.6	310.5	13.9	7.3	193.5	6.8	62.7	8.0	22.6	1,792
E Fresno	701.8	634.1	201.1	22.5	8.1	20.4	49.4	3.6	14.2	288.9	11.7	8.4	181.5	9.5	64.0	1.1	18.2	2,207
F Los Angeles	770.3	706.2	233.8	28.0	10.4	29.6	55.9	2.5	12.3	324.1	14.8	6.0	211.1	7.6	71.8	0.5	17.2	53,015

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
California—Con.																		
G San Diego.....	724.4	659.9	218.7	25.0	11.5	30.3	50.7	2.5	8.9	285.1	16.3	5.3	167.9	10.4	66.3	2.7	19.9	7,720
H San Bernardino, Riverside, Ontario.....	718.9	652.2	205.3	24.9	9.1	25.5	45.8	2.4	14.6	289.2	18.9	6.8	172.5	11.1	65.3	2.1	21.0	7,399
J Bakersfield.....	822.3	758.8	233.1	23.9	9.9	33.6	51.8	1.5	13.2	349.3	13.1	12.2	232.3	10.7	66.0	0.3	24.8	2,047
K Santa Barbara.....	665.3	609.8	217.0	23.6	16.5	29.2	48.0	2.4	11.5	251.5	12.0	5.6	161.8	7.9	59.6	0.5	13.8	1,415
Colorado.....	712.6	654.3	194.5	24.0	9.3	17.7	46.8	2.1	12.8	287.8	18.8	5.8	168.2	12.0	61.0	8.2	19.1	12,147
1 Northwest.....	687.2	638.6	195.9	28.1	10.2	25.0	48.6	1.2	13.7	265.1	14.0	7.9	141.9	12.7	69.6	3.7	21.2	502
2 Southwest.....	699.0	643.0	175.3	22.9	10.0	14.1	46.8	3.0	11.3	285.7	19.1	9.7	147.8	10.3	83.3	4.3	17.2	1,059
3 North.....	609.4	556.5	157.6	21.1	7.9	17.5	31.8	0.6	14.7	257.1	15.4	7.0	148.4	17.0	54.7	1.5	14.6	1,081
4 East Central.....	559.6	515.7	156.3	19.2	3.8	8.8	39.5	1.8	11.3	249.9	17.6	7.8	138.7	14.2	62.1	1.8	12.6	253
5 South, East ¹	730.0	670.2	196.6	25.0	17.0	13.2	44.6	0.9	15.7	285.8	16.2	6.5	175.8	15.1	54.5	2.6	21.3	766
A Denver.....	750.2	686.2	206.5	24.1	9.0	20.0	51.2	2.6	12.5	302.8	20.7	4.3	180.9	10.6	58.0	14.2	21.2	6,168
B Colorado Springs.....	706.2	650.1	199.5	26.9	7.9	14.5	46.5	2.7	15.1	284.5	17.8	4.0	157.1	15.2	73.7	3.3	17.0	978
C Pueblo ¹	785.6	733.1	199.7	25.4	11.9	17.3	35.3	0.9	14.5	317.7	24.8	10.9	203.7	8.6	57.3	-	20.7	803
D Boulder.....	613.9	570.1	201.2	24.2	7.4	12.3	54.2	3.1	4.3	230.7	11.4	4.1	135.5	10.7	51.2	-	11.8	537
Connecticut.....	734.5	702.8	231.4	34.9	11.9	23.2	56.6	2.3	14.7	327.9	15.2	6.2	207.7	9.0	70.0	4.2	12.0	21,045
1 Northwest.....	751.9	701.8	229.1	34.8	13.3	21.1	57.6	2.4	14.1	310.1	16.4	7.7	205.0	5.1	55.7	7.3	23.7	1,111
2 East.....	735.4	699.1	227.3	33.6	9.6	24.0	54.0	1.6	11.8	325.3	15.8	8.4	204.3	8.3	72.7	1.9	10.9	3,317
A Bridgeport, Stamford, Norwalk.....	709.6	677.8	227.9	34.0	11.2	25.2	50.9	3.3	15.9	310.1	12.3	4.9	190.4	12.0	71.4	6.2	11.5	5,368
B New Haven, Waterbury.....	755.3	730.6	238.6	35.7	11.9	23.0	62.2	2.5	15.3	360.7	17.6	4.9	232.7	11.2	71.5	3.1	9.9	5,618
C Hartford, New Britain, Bristol.....	735.7	703.8	231.3	35.8	13.6	21.1	58.7	1.4	14.8	318.6	15.1	7.0	203.2	5.2	68.4	4.0	13.0	5,631
Delaware.....	822.8	780.9	231.4	31.7	9.9	25.7	49.9	2.0	15.6	393.2	17.8	8.4	274.8	12.4	64.0	2.0	12.3	3,369
1 South.....	753.5	698.6	185.3	24.6	7.6	14.1	48.7	1.7	16.9	359.4	9.2	1.4	267.7	8.0	62.2	2.4	18.1	893
A Wilmington.....	853.7	816.6	250.6	34.9	10.8	30.3	50.5	2.2	14.9	407.8	21.4	11.3	278.4	14.3	64.4	1.9	10.2	2,476
District of Columbia.....	867.3	803.4	255.4	33.0	9.5	31.7	60.7	2.6	13.6	335.8	10.9	6.4	203.3	10.6	66.4	21.4	16.1	2,898
Florida.....	687.8	631.8	205.5	24.7	8.5	28.9	46.7	2.2	12.2	287.5	13.0	4.5	168.9	13.7	63.6	12.5	14.7	50,699
1 Northwest.....	716.1	657.0	184.8	25.1	6.3	15.6	41.8	5.0	13.7	336.2	5.0	4.4	189.9	28.2	60.9	33.7	8.1	1,047
2 Central North.....	745.3	675.8	197.3	24.2	10.0	27.6	34.1	4.7	14.2	334.2	7.0	9.0	186.8	31.4	65.6	14.6	21.5	924
3 North Central ¹	675.4	609.5	162.3	18.9	5.6	22.6	28.0	2.5	14.1	309.9	9.7	3.1	186.8	19.3	59.5	20.6	16.2	1,480
4 East Central.....	711.9	655.5	205.5	24.7	11.2	30.1	49.0	4.1	10.7	310.7	13.6	4.0	181.9	12.7	69.0	17.6	16.2	3,467
5 Central South.....	698.2	629.8	195.9	23.2	5.1	26.7	46.0	2.0	13.4	292.9	10.8	6.3	164.6	17.5	62.4	19.6	15.9	4,624
6 Southwest.....	654.4	593.0	192.5	25.7	7.9	27.9	42.1	1.6	12.4	262.8	12.0	3.8	144.0	11.7	61.6	18.1	13.3	4,846
A Jacksonville.....	853.8	788.2	224.9	24.6	7.7	33.5	47.3	2.9	14.0	372.0	12.8	6.7	223.7	14.1	89.3	7.6	22.6	2,904
B Tampa, St. Petersburg.....	689.8	640.9	202.4	21.9	7.8	29.8	48.4	1.7	11.4	302.4	14.3	4.6	167.5	13.2	71.0	23.2	13.4	9,544
C Miami.....	701.6	648.3	224.5	28.0	8.5	30.8	52.2	2.0	11.9	276.9	14.7	3.9	179.9	12.7	54.1	1.6	15.1	10,089
D Pensacola.....	779.2	723.3	222.9	20.4	8.2	29.2	42.0	3.8	17.1	338.7	12.2	3.2	224.3	15.3	70.1	1.9	16.2	1,133
E Orlando.....	684.4	624.9	201.6	25.2	9.5	26.3	41.7	2.7	11.0	292.2	15.7	3.7	166.5	14.9	71.1	6.1	13.7	2,328
F West Palm Beach.....	645.3	595.7	216.7	26.5	8.4	31.4	46.7	1.4	11.2	249.2	10.7	3.0	154.3	7.1	60.6	1.7	13.9	2,787
G Fort Lauderdale.....	633.5	582.8	204.2	25.9	11.9	28.6	48.2	2.3	12.5	253.9	14.8	4.5	145.2	12.4	58.5	8.3	13.9	5,526
Georgia.....	751.1	698.7	194.4	21.4	9.9	20.1	44.4	2.3	15.2	346.3	7.4	7.4	206.1	18.2	86.8	6.2	13.4	22,273
1 Northwest.....	748.7	701.8	206.1	19.5	12.4	13.8	49.2	3.0	12.2	349.0	5.8	8.8	195.6	23.1	98.4	3.9	9.8	1,772
2 Northeast.....	614.4	577.3	170.5	10.6	16.1	21.3	38.2	3.8	11.5	294.2	6.3	4.8	169.4	8.0	90.3	4.2	11.9	547
3 North Central.....	724.5	665.6	190.9	17.0	11.0	12.8	42.4	1.5	16.7	330.8	7.9	3.2	198.0	17.3	87.6	4.9	11.6	1,827
4 Central, North ¹	697.4	645.4	178.2	22.7	10.5	14.3	39.7	1.8	15.3	329.2	5.7	7.1	202.8	11.0	81.3	8.8	9.7	2,719
5 "Fall Line".....	791.2	713.8	176.8	26.6	-	10.5	61.7	5.0	10.3	377.2	2.8	7.4	221.3	20.4	104.2	-	21.3	251
6 Central, South.....	777.0	728.2	168.5	18.2	9.3	13.6	32.9	1.7	15.0	403.7	4.0	7.3	230.7	19.4	114.0	12.0	8.9	781
7 Southwest.....	708.9	656.8	160.3	18.5	6.0	17.8	32.7	1.1	14.7	353.8	6.8	10.2	203.5	20.5	92.8	3.9	15.6	1,646
8 South Central.....	795.5	737.5	177.1	14.8	9.2	17.6	39.7	3.1	13.5	388.3	9.7	10.1	228.1	34.1	81.8	8.0	15.4	1,783

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 164	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Georgia—Con.																		
9 Southeast.....	814.9	751.1	209.3	24.3	9.5	18.8	39.6	2.3	17.9	377.6	7.4	9.7	231.5	32.1	85.7	0.8	10.3	937
A Walker County.....	777.0	729.5	185.2	25.8	4.2	10.8	44.4	2.1	15.5	378.9	13.3	8.5	227.6	21.4	85.8	4.3	11.2	335
B Atlanta.....	738.5	685.1	207.7	22.8	10.5	25.8	49.7	2.6	15.0	315.1	7.8	6.6	192.3	12.2	76.5	6.6	13.1	6,172
C Columbus.....	797.5	760.8	214.9	27.6	7.0	26.1	48.5	3.0	18.1	378.6	3.0	8.9	190.7	41.3	92.5	17.8	27.7	769
D Augusta ¹	881.5	838.3	232.1	26.9	10.0	31.9	55.6	-	16.6	407.7	10.0	7.7	273.3	12.3	85.5	7.7	16.7	747
E Savannah.....	855.9	804.9	224.5	34.5	10.4	33.1	47.5	3.2	14.5	384.3	9.9	3.4	232.6	23.4	96.5	2.4	19.0	982
F Macon.....	858.7	805.9	197.9	26.1	10.5	20.2	43.9	1.9	26.7	417.4	14.8	14.3	235.7	14.7	111.7	3.6	15.7	809
G Houston County.....	738.7	685.0	170.9	22.7	5.8	19.8	47.3	4.8	6.9	298.4	11.7	-	190.0	21.2	84.4	3.6	23.4	196
Hawaii.....	664.5	614.0	197.5	28.0	8.7	27.9	40.2	1.3	9.1	271.3	11.0	2.0	172.9	14.8	53.0	4.6	19.6	997
1 All.....	695.8	637.0	162.4	30.5	9.7	22.0	28.5	-	7.1	331.3	2.9	6.3	212.7	25.6	61.3	8.8	22.7	199
A Honolulu.....	658.8	609.4	207.1	27.9	8.7	29.5	43.2	1.6	9.8	256.4	12.9	0.9	163.5	12.0	50.6	3.5	18.6	798
Idaho.....	669.2	612.5	185.6	22.1	9.4	17.0	46.2	1.8	13.9	291.3	15.3	6.9	169.0	15.8	65.9	4.9	12.3	3,926
1 Central.....	751.3	683.1	202.5	22.5	11.2	20.4	55.2	4.1	16.1	333.9	13.9	6.8	199.4	17.0	79.5	6.3	24.7	634
2 Northwest.....	692.6	642.6	216.3	32.3	7.3	22.6	50.9	0.9	17.9	291.0	11.6	3.8	170.2	13.9	73.6	9.0	20.0	614
3 Southwest.....	635.4	582.1	185.4	21.0	12.1	19.2	47.1	1.9	12.8	272.5	14.3	8.8	164.5	14.8	53.1	3.0	7.8	1,750
4 Southeast.....	669.6	608.9	157.4	17.7	4.5	7.0	37.1	0.6	12.3	302.4	20.4	5.2	158.7	18.7	77.6	5.3	9.0	928
Illinois.....	809.3	767.5	233.2	33.2	10.4	22.3	56.5	2.2	13.6	388.1	14.2	11.5	257.2	15.1	74.8	2.1	12.2	79,634
1 Northwest.....	756.3	713.0	232.0	37.1	8.2	18.9	51.3	3.8	14.9	332.8	12.4	8.3	221.7	11.7	64.6	1.3	10.1	2,092
2 Boone County.....	814.5	744.0	249.7	32.5	-	33.9	64.4	4.4	24.6	363.3	14.2	10.0	223.3	27.7	83.3	4.8	10.6	157
3 Northwest Central.....	705.5	659.5	203.4	30.6	8.5	17.5	52.5	2.4	7.4	336.1	11.7	8.9	227.3	12.9	62.8	2.6	11.1	2,503
4 West Central.....	735.2	685.5	207.0	32.6	9.9	15.2	38.6	2.0	11.1	355.5	14.2	9.6	227.5	10.6	66.0	10.2	11.5	2,239
5 Northeast ¹	737.8	690.6	221.6	38.7	10.0	22.1	50.2	2.1	8.8	345.6	13.7	11.3	222.5	11.0	71.5	2.0	12.7	1,825
6 East Central.....	731.4	688.0	212.8	30.9	9.7	16.3	50.8	1.9	12.6	340.6	11.0	11.8	214.0	10.6	75.4	2.5	15.7	5,216
7 Southwest ¹	672.6	625.0	199.6	29.7	6.1	16.6	49.3	2.4	11.3	307.3	9.2	16.0	208.7	11.8	49.7	0.9	9.9	1,119
8 South Central.....	708.7	666.2	210.2	36.7	6.1	15.7	45.7	0.7	11.3	334.8	14.3	6.1	221.7	12.7	68.9	3.3	14.1	1,041
9 Southeast.....	782.5	735.7	218.6	40.8	13.9	17.1	44.0	-	15.1	353.8	3.0	11.5	216.7	11.8	92.3	3.2	17.9	993
10 South Central, South.....	778.1	737.9	206.2	29.5	8.6	17.2	47.1	3.9	11.3	393.1	8.9	11.9	273.0	10.7	75.3	1.4	12.8	1,736
11 South ¹	787.6	720.9	214.1	26.6	10.6	22.2	38.1	1.5	18.0	388.8	7.1	8.8	236.2	18.5	101.4	-	11.9	923
A Rock Island, Moline.....	746.3	702.9	194.3	33.9	5.8	19.8	38.6	2.8	12.8	370.7	6.9	5.9	253.9	11.4	71.3	0.6	13.4	1,174
B Rockford.....	765.8	709.1	223.5	28.3	12.2	17.3	65.6	1.8	10.7	335.8	16.2	3.1	213.8	9.6	76.4	1.9	18.6	1,504
C Chicago.....	857.0	818.9	246.6	33.4	11.2	24.2	61.5	2.2	14.9	416.1	15.7	12.5	280.4	17.6	75.4	1.6	11.5	49,467
D Peoria.....	738.5	690.9	207.7	31.8	8.9	25.6	49.8	1.9	7.6	342.0	16.6	7.8	220.7	9.4	73.0	1.7	17.7	2,114
E Springfield.....	774.8	722.6	228.6	30.2	10.6	35.7	54.6	0.5	13.6	358.0	13.1	6.7	230.3	8.5	84.1	4.9	9.5	1,331
F East St. Louis.....	773.4	723.6	223.2	36.5	9.8	22.6	45.7	2.6	13.7	382.5	15.0	13.2	239.2	10.3	84.9	3.2	10.4	3,397
G Decatur.....	676.7	638.3	212.8	35.7	8.3	20.8	52.9	1.4	11.4	300.7	8.4	12.4	174.3	16.5	77.3	3.5	14.1	803
Indiana.....	786.4	739.9	224.8	33.3	9.5	22.3	50.1	2.3	16.0	364.8	13.5	11.8	217.6	16.6	85.8	2.6	13.4	35,175
1 North ¹	734.2	683.3	212.6	27.9	10.3	22.1	47.0	0.4	9.8	340.4	12.7	7.0	217.7	13.3	75.0	1.1	9.2	1,435
2 North Central, West.....	797.4	747.9	237.4	34.3	7.3	22.4	50.8	2.2	17.5	366.1	8.1	12.7	238.7	18.8	71.6	3.0	10.4	1,282
3 Northeast.....	719.5	675.4	189.3	33.1	10.5	12.4	45.5	1.5	11.5	353.1	11.0	12.3	197.6	22.5	84.6	3.7	8.0	1,758
4 East Central ¹	785.9	737.0	217.3	26.5	9.0	22.0	50.9	2.2	18.9	366.0	16.2	15.0	209.8	13.9	92.5	2.2	14.2	3,450
5 Central.....	746.1	703.4	198.9	28.5	6.9	18.3	49.1	2.9	13.6	354.1	10.8	8.2	211.4	15.0	91.6	1.2	13.6	2,582
6 Southwest.....	795.1	744.9	214.9	31.3	8.0	18.3	48.4	0.5	15.8	385.9	11.9	15.7	229.9	22.2	89.1	1.3	11.9	2,602
7 South Central.....	758.2	714.9	201.5	31.3	12.0	18.1	37.3	3.9	10.2	350.6	12.4	19.0	210.7	14.8	78.2	2.7	14.3	1,682
8 Southeast ¹	784.6	741.5	225.5	37.1	10.2	16.4	43.4	2.2	17.2	351.6	10.5	13.4	220.2	16.6	74.1	1.0	14.0	1,303
9 West Central.....	801.7	756.3	225.2	42.4	10.7	19.1	52.1	2.2	17.4	378.2	11.7	10.0	226.5	18.6	86.8	4.9	11.8	3,016
A Gary, Hammond, East Chicago.....	840.2	797.2	236.6	36.4	12.0	25.1	52.0	1.6	16.3	401.6	12.5	12.1	254.2	16.4	86.5	2.9	10.6	3,453
B South Bend.....	775.4	733.8	242.7	29.2	8.8	25.5	52.8	3.2	15.7	348.9	12.1	7.1	215.7	7.1	82.7	5.7	12.8	1,769
C Fort Wayne.....	763.4	719.9	244.9	38.7	12.8	20.7	56.2	3.5	17.1	327.8	14.1	12.1	168.5	24.5	88.2	3.6	13.3	1,766
D Indianapolis.....	815.3	762.4	250.1	34.5	8.6	32.4	54.7	2.8	19.8	361.2	20.4	9.4	208.1	17.3	85.7	2.5	18.7	4,979
E Evansville.....	779.7	739.0	240.4	38.0	10.9	21.2	59.7	1.6	11.8	357.2	13.1	14.2	212.7	8.8	88.9	1.7	10.5	1,410

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL. D 195- 199	CV + ILL. D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Indiana—Con.																		
F Jeffersonville, New Albany	747.4	703.0	206.9	35.2	5.8	18.8	41.7	0.8	15.0	360.9	8.4	9.8	223.8	15.0	88.2	-	12.2	837
G Terre Haute.....	828.6	790.8	237.1	32.6	5.8	29.6	45.5	4.6	17.1	387.3	10.1	17.9	232.9	19.0	81.4	4.4	18.9	1,024
H Muncie.....	832.2	778.1	211.7	29.6	8.3	22.3	46.4	5.5	19.5	383.9	21.8	4.6	243.7	7.0	93.9	1.0	27.1	827
Iowa.....	674.9	632.9	211.3	32.2	7.8	16.4	51.5	1.9	11.1	294.5	10.1	8.0	181.9	13.9	67.4	1.5	11.7	19,424
1 West.....	637.1	597.0	199.3	28.7	7.6	12.3	54.3	0.7	13.8	280.4	10.5	6.9	171.4	13.9	65.9	0.3	11.2	2,275
2 North Central.....	629.4	588.2	216.5	35.2	6.4	17.6	52.7	3.9	8.7	268.8	8.4	6.6	167.8	11.2	61.7	2.1	10.0	2,638
3 South Central.....	655.1	613.8	207.2	34.9	7.2	17.5	45.8	1.2	9.6	277.6	9.8	7.3	170.5	19.4	61.9	1.0	9.3	2,042
4 Northeast.....	631.2	593.4	201.0	29.5	9.8	12.5	44.4	1.2	9.0	274.5	6.5	4.2	169.2	9.9	72.7	1.0	8.5	2,025
5 East Central.....	643.1	597.3	196.9	32.9	5.4	12.5	52.3	0.7	10.3	275.2	12.4	9.9	162.9	13.8	63.6	1.8	10.3	1,698
6 Southeast.....	707.4	671.6	214.6	33.2	9.4	14.5	53.4	1.7	10.4	311.7	8.4	10.7	198.5	12.9	67.0	1.4	15.5	2,787
A Sioux City.....	766.1	711.5	231.3	27.0	10.9	23.2	50.3	-	13.6	320.5	10.6	12.4	185.2	21.3	83.0	1.6	17.9	824
B Council Bluffs.....	805.5	755.6	243.1	37.2	6.9	22.7	62.0	5.9	12.5	358.9	15.1	13.1	241.5	16.1	58.8	2.3	15.1	650
C Des Moines.....	727.7	683.1	217.8	31.1	8.8	21.7	47.6	2.1	12.3	333.8	15.0	7.1	209.2	15.9	70.2	2.4	12.8	1,908
D Davenport.....	773.8	733.2	223.4	34.9	8.7	14.4	53.9	3.0	16.2	352.9	10.3	17.1	211.1	19.1	81.4	3.4	20.1	920
E Waterloo.....	679.5	632.1	218.1	28.9	5.1	20.2	61.6	4.1	13.0	290.5	12.6	8.4	164.8	11.9	73.3	1.7	7.8	740
F Cedar Rapids.....	685.2	634.8	213.6	33.4	6.9	20.7	52.8	0.6	10.6	304.3	9.4	3.0	199.7	7.6	67.5	0.7	7.9	917
Kansas.....	652.6	607.5	201.5	28.9	8.6	19.3	45.9	2.1	10.4	272.2	9.3	5.4	166.6	12.1	62.3	4.1	12.8	14,121
1 Southwest.....	634.4	585.2	178.2	23.7	12.4	8.8	44.4	4.9	9.6	259.8	10.0	7.0	140.6	16.5	71.4	4.9	8.4	603
2 Northwest.....	615.4	575.1	186.7	24.8	9.0	14.1	47.4	0.4	10.3	258.7	9.1	3.8	161.1	13.5	57.2	3.7	13.1	1,475
3 Central.....	597.8	562.6	199.6	24.4	6.9	17.6	50.7	1.6	8.8	236.8	10.3	3.8	137.0	12.3	57.4	3.4	14.6	1,903
4 North Central.....	609.5	548.2	190.4	24.9	9.6	8.7	52.0	4.6	9.2	252.0	6.3	6.9	148.0	15.3	66.6	-	10.4	489
5 East South Central.....	611.1	563.7	189.6	26.9	8.5	20.1	43.6	2.4	7.4	240.4	7.3	3.9	149.4	8.2	57.2	5.1	15.0	1,316
6 North East ¹	656.2	618.4	199.1	36.0	4.2	16.9	39.8	3.3	9.7	287.8	8.8	10.0	168.1	12.5	66.6	9.8	11.3	1,075
7 East Central.....	666.0	609.8	197.5	31.7	7.5	19.9	51.1	1.5	10.0	290.6	9.3	3.2	179.6	11.7	65.6	6.1	6.8	946
8 Southeast.....	746.8	679.2	207.1	33.8	8.1	19.9	34.9	2.1	9.2	312.1	7.4	9.7	196.5	22.8	65.0	3.6	11.7	1,455
A Wichita.....	687.3	646.0	225.0	29.5	10.1	26.0	49.1	2.6	12.4	280.8	11.4	6.0	185.9	7.9	57.9	1.8	15.6	1,909
B Kansas City.....	699.0	657.6	219.5	33.9	10.5	25.7	47.6	0.9	13.5	305.8	10.8	5.0	187.4	8.6	73.3	4.4	14.7	2,121
C Topeka ¹	631.0	587.1	196.5	28.1	8.4	16.0	41.1	2.6	10.6	256.8	8.6	2.9	154.5	10.1	56.0	2.2	9.9	829
Kentucky.....	777.0	728.9	217.1	29.6	9.4	22.6	45.8	2.2	11.7	356.6	9.9	7.1	226.5	18.8	79.5	2.1	16.2	22,324
1 West.....	712.0	657.9	206.7	26.5	8.1	14.5	48.8	2.4	7.2	338.8	11.9	5.1	213.9	18.5	74.6	5.1	9.4	1,319
2 Northwest.....	730.7	685.3	189.2	26.5	12.7	20.4	35.6	3.3	7.5	355.6	8.9	9.8	226.9	19.2	75.5	1.7	17.5	794
3 West Central.....	705.1	662.2	193.3	27.3	9.1	15.9	41.3	2.8	9.7	324.7	9.4	7.5	204.3	13.9	78.9	1.5	15.4	2,141
4 South West Central.....	728.7	678.8	204.5	31.2	10.1	16.1	44.7	2.0	9.5	334.1	5.9	12.3	211.0	16.4	75.7	1.6	8.9	1,189
5 South Central.....	712.6	663.6	184.5	18.5	8.6	15.5	41.5	1.0	10.6	346.3	6.5	8.0	213.5	24.5	78.4	0.5	8.8	1,230
6 North Central.....	760.0	707.5	211.0	35.5	10.5	16.8	44.0	1.0	13.3	353.3	10.6	6.8	227.4	16.0	76.4	1.7	12.8	2,459
7 Central.....	800.2	742.5	222.7	32.8	9.9	18.5	39.7	1.0	18.1	345.0	6.5	6.7	219.6	20.0	73.0	-	21.0	838
8 Northeast.....	723.6	685.6	186.7	24.9	7.3	14.6	30.3	0.8	13.7	350.8	9.1	3.4	222.1	24.7	77.8	2.1	18.8	1,453
9 Southeast.....	861.9	813.2	222.0	22.3	8.6	23.6	43.0	2.4	13.3	415.8	9.6	8.6	263.2	35.0	81.6	4.8	21.7	2,823
A Louisville.....	804.8	753.6	235.2	33.4	9.7	31.3	54.9	2.2	9.2	345.1	11.3	5.6	216.5	17.0	80.4	2.3	19.6	4,508
B Covington.....	928.9	884.4	280.6	41.8	8.3	33.2	63.5	3.7	20.0	427.3	11.8	8.7	290.4	12.3	89.0	0.4	15.2	2,039
C Ashland.....	769.9	733.8	196.2	21.8	9.0	33.8	33.3	7.0	10.8	375.6	14.2	14.1	233.9	21.1	80.2	1.6	19.9	415
D Henderson County.....	682.1	631.5	206.6	31.5	10.5	22.6	32.6	5.2	-	274.1	10.3	2.6	197.3	3.1	48.5	-	22.1	215
E Lexington ¹	754.2	713.3	234.4	28.6	12.5	32.8	45.2	3.1	13.5	319.8	10.4	5.5	189.7	6.4	95.0	1.6	15.7	901
Louisiana.....	775.3	725.7	206.0	24.7	10.5	26.0	46.0	2.1	19.3	360.7	6.7	6.3	236.3	21.8	71.4	3.3	14.4	17,698
1 Central ¹	767.2	708.4	200.5	23.1	6.5	24.5	41.1	3.2	21.5	364.2	6.6	4.2	248.1	16.1	75.5	4.2	14.0	815
2 North Central.....	723.4	667.3	182.5	22.9	9.7	16.7	32.7	-	16.7	350.7	4.8	3.9	237.8	13.5	75.8	0.9	12.3	668
3 East Central.....	738.5	681.5	197.9	16.0	21.2	30.6	39.3	2.2	17.3	344.2	5.0	6.6	234.8	20.4	64.0	2.0	16.2	1,293
4 North Central.....	646.4	589.9	183.0	23.0	10.1	14.5	33.7	0.6	17.6	297.8	2.2	8.9	184.1	17.6	68.7	2.1	11.0	945
5 East ¹	829.5	776.3	197.2	26.4	9.5	24.3	44.8	3.9	12.8	407.3	8.1	5.5	283.8	23.7	66.9	7.6	17.5	1,508
6 South Central.....	728.3	689.5	189.7	19.0	7.4	21.4	42.2	1.6	19.9	346.6	6.3	6.5	239.6	20.4	55.1	2.0	12.4	1,658
7 Southwest.....	796.9	750.7	213.3	21.0	13.8	29.1	52.4	-	19.4	354.4	5.5	3.6	229.4	21.7	74.3	3.3	11.8	983

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 167	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Louisiana—Con.																		
8 West Central.....	811.2	757.7	218.9	21.4	6.5	31.0	46.1	4.1	26.5	378.0	7.2	6.4	216.0	41.4	84.7	12.2	10.6	550
A Shreveport.....	706.4	643.5	204.9	20.7	7.2	31.9	53.2	1.4	10.8	294.0	10.3	3.9	193.3	14.7	52.3	1.5	13.6	1,284
B New Orleans.....	861.1	815.6	223.3	29.4	9.6	29.5	54.7	2.3	25.3	402.5	8.7	7.9	265.4	20.6	80.6	3.3	14.8	5,778
C Baton Rouge.....	714.8	659.9	232.7	38.0	15.0	21.0	45.3	3.2	17.6	292.2	5.1	4.0	173.8	27.0	66.4	3.6	22.8	1,010
D Lake Charles.....	745.7	709.1	181.6	20.1	10.4	25.0	38.5	3.2	15.5	373.3	2.1	7.6	217.5	32.9	91.8	-	16.8	669
E Monroe.....	732.4	691.0	196.3	24.4	11.6	26.7	37.6	2.5	10.3	379.0	5.2	6.3	227.2	39.0	77.3	5.2	5.1	537
Maine.....	826.7	790.3	239.1	38.4	11.1	24.2	47.6	2.9	15.0	384.2	12.4	10.2	254.7	12.9	77.8	2.8	17.3	8,531
1 North.....	769.0	745.3	185.9	25.0	9.1	14.8	41.8	2.6	14.4	389.9	6.8	6.3	272.3	6.4	91.2	1.3	13.1	571
2 Central.....	827.4	793.3	231.8	40.6	14.5	22.6	47.6	1.9	14.1	387.9	12.0	11.6	248.0	18.6	79.6	6.4	23.3	2,006
3 East.....	834.7	796.3	255.6	39.5	11.4	28.9	48.3	3.9	17.8	373.2	11.2	8.1	232.6	14.7	88.2	2.6	17.3	1,361
4 South.....	831.3	792.9	242.3	39.8	8.2	23.4	45.7	3.3	14.1	381.0	14.2	13.3	252.3	9.5	76.1	2.0	14.5	2,878
A Portland.....	838.6	798.7	248.9	37.1	12.5	27.5	52.2	3.0	15.8	394.8	12.9	6.6	279.8	12.9	67.2	0.8	16.5	1,715
Maryland.....	798.5	755.5	233.4	34.5	10.0	27.9	52.6	2.7	19.3	356.7	15.1	6.7	243.2	12.4	62.3	3.1	14.5	22,709
1 West.....	862.8	822.1	231.0	30.2	5.9	21.1	47.8	2.9	15.6	460.3	21.4	12.8	349.4	2.4	56.0	1.6	13.2	1,042
2 Northeast.....	791.4	756.0	224.4	41.2	5.9	22.0	48.4	3.9	13.4	380.9	11.9	6.7	261.9	11.2	72.1	3.9	19.0	1,898
3 South Central.....	742.6	690.0	209.4	33.1	3.5	26.2	40.0	3.5	15.7	298.3	5.3	6.9	172.5	15.7	64.7	19.1	16.8	396
4 Eastern Shore.....	851.7	791.4	232.3	31.7	11.8	27.9	48.0	2.1	19.3	382.0	12.2	10.4	245.5	13.7	83.4	2.4	14.6	1,838
A Baltimore.....	850.5	805.7	243.9	35.6	11.2	30.7	54.8	2.8	24.8	373.5	16.8	5.5	259.5	14.2	61.9	2.1	14.9	11,706
D Montgomery & Prince Georges Counties...	705.0	665.2	223.8	32.8	9.6	26.7	53.0	2.5	11.9	304.8	12.5	7.1	196.0	11.7	68.7	4.1	13.6	5,128
C Carroll & Howard Counties ¹	688.2	652.5	209.8	34.6	12.2	24.2	46.7	2.7	20.4	310.9	24.6	6.4	216.0	3.6	43.2	-	10.3	701
Massachusetts.....	795.1	758.2	238.2	35.0	11.1	22.6	59.4	2.9	14.9	353.0	17.9	9.7	220.1	13.8	71.9	6.4	12.9	47,462
1 Franklin County.....	743.4	695.0	198.4	32.7	11.2	12.8	42.7	5.3	19.3	318.0	10.5	10.6	203.9	7.4	68.7	5.0	11.5	485
2 Southeast.....	721.2	721.2	261.2	35.6	13.3	28.9	69.9	5.3	19.0	287.9	18.4	3.4	166.2	13.6	67.1	4.7	17.4	1,087
A Springfield, Holyoke.....	813.7	772.1	246.1	42.3	10.4	24.9	57.8	3.2	12.5	361.7	14.8	8.3	220.6	14.2	82.4	4.0	14.8	4,706
B Worcester.....	764.4	732.6	219.6	30.4	13.7	18.3	54.1	2.6	12.6	358.9	14.5	9.2	227.7	18.1	72.0	3.1	12.1	5,243
C Boston, Lawrence, Lowell.....	801.3	763.7	242.1	34.8	10.9	23.9	61.7	2.9	15.2	349.1	18.6	8.7	220.6	12.6	67.4	8.4	13.2	28,189
D Brockton.....	806.5	772.6	238.5	32.5	9.1	20.4	55.9	2.5	15.0	378.8	15.7	8.4	235.4	20.6	76.5	7.1	12.3	2,405
E Fall River, New Bedford.....	785.7	754.8	226.4	33.8	11.0	17.1	54.7	2.9	17.5	373.1	19.6	21.8	219.7	11.7	86.0	1.4	10.1	4,024
F Pittsfield.....	803.7	766.0	240.7	38.5	8.1	24.4	59.5	2.7	11.8	357.8	14.9	8.7	217.2	17.0	85.0	1.2	10.7	1,323
Michigan.....	796.0	749.4	228.1	30.1	10.2	22.1	53.6	2.6	15.5	358.5	15.1	8.6	229.9	12.5	75.4	3.6	13.7	54,352
1 Upper West.....	897.2	854.3	236.2	28.3	11.7	21.6	55.6	2.0	20.6	418.5	7.2	16.5	261.1	16.2	92.3	5.3	15.6	1,654
2 Upper East.....	835.8	795.4	210.8	25.8	13.8	27.6	46.9	1.4	19.2	389.2	11.4	7.1	248.2	21.8	78.1	4.1	12.3	1,038
3 Northwest ¹	753.9	710.2	241.9	18.1	11.3	25.5	63.7	0.7	21.0	323.4	13.1	6.0	204.1	10.2	67.9	2.8	11.0	912
4 North.....	839.2	774.3	230.1	31.0	11.5	23.2	44.1	3.6	19.0	376.5	12.9	9.5	246.2	14.2	80.9	1.7	14.7	2,772
5 East Central.....	773.5	727.3	210.1	32.3	10.8	14.0	49.2	3.5	14.6	355.0	9.5	9.6	218.1	18.5	80.3	2.3	14.7	1,872
6 Southwest.....	757.6	713.4	227.2	31.1	7.5	20.4	49.3	2.8	15.4	337.0	12.8	8.8	202.0	12.2	82.2	1.9	12.1	3,435
7 Central ¹	691.4	650.0	192.5	26.4	9.6	14.7	46.0	0.5	10.1	320.0	21.5	8.3	191.7	12.2	70.5	-	11.5	1,161
8 Southeast.....	817.7	758.5	225.7	32.8	6.6	21.7	47.6	3.3	16.7	366.4	10.1	10.8	245.8	12.8	72.5	0.9	15.3	1,588
9 South Central.....	787.7	735.9	218.5	26.8	10.5	21.7	51.8	2.8	17.2	345.3	14.8	8.8	203.8	16.3	82.5	3.1	15.9	2,893
A Saginaw.....	754.4	708.7	205.7	29.2	4.2	14.8	50.7	3.5	16.9	352.9	13.8	7.2	235.1	14.3	62.0	1.2	12.5	1,176
B Grand Rapids.....	703.9	664.1	202.6	28.9	10.0	21.2	48.5	2.8	10.8	318.7	16.4	8.8	188.5	10.7	68.5	11.2	11.8	2,468
C Bay City.....	804.3	750.7	253.7	38.9	11.9	17.6	57.1	5.1	31.9	348.9	19.3	3.8	223.7	11.4	76.9	-	16.9	763
D Flint.....	827.9	777.8	236.1	23.8	7.3	25.4	57.7	2.5	22.1	380.6	15.1	9.4	257.4	10.5	71.3	1.6	13.7	2,414
E Lansing.....	704.0	666.4	207.7	31.0	8.7	16.7	50.1	1.4	16.8	319.4	18.5	9.0	188.1	20.9	63.3	2.2	15.4	1,817
F Detroit.....	818.5	773.7	234.3	30.8	11.1	23.6	56.0	2.4	14.3	371.9	16.4	8.1	246.4	10.4	75.5	4.2	13.2	25,305
G Kalamazoo ¹	719.7	674.0	223.3	36.5	11.0	21.4	57.4	2.4	11.0	297.7	12.9	4.2	192.2	14.3	59.5	1.9	22.9	1,087
H Jackson ¹	804.9	769.2	258.9	37.9	10.2	26.7	55.9	3.9	20.3	336.0	14.0	9.6	206.2	11.8	77.3	1.8	14.3	968
J Ann Arbor ¹	793.6	730.2	251.6	31.2	12.1	23.8	65.4	2.8	7.6	319.9	17.0	7.1	182.4	13.4	84.1	3.6	13.3	1,029

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA R- 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Minnesota	669.2	625.2	212.4	28.8	10.3	17.1	52.0	1.9	11.3	288.6	13.1	5.3	174.6	10.4	70.0	3.6	10.8	23,269
1 Northwest.....	640.4	602.6	202.0	27.6	15.3	18.3	46.8	3.0	8.4	271.8	12.1	6.2	154.4	6.1	71.3	2.0	10.4	934
2 Northeast.....	717.0	671.9	214.0	27.5	11.1	16.6	55.9	2.5	8.9	322.8	9.8	5.7	195.1	7.2	90.7	3.3	11.1	1,534
3 West Central, North.....	652.5	611.0	226.2	33.2	14.7	17.8	59.2	2.1	12.4	264.5	15.9	9.9	177.9	4.6	48.0	0.5	8.7	997
4 East Central, North.....	673.7	626.7	203.6	28.0	7.5	18.7	52.0	1.1	10.9	315.3	11.2	4.2	192.5	16.7	78.3	1.7	9.4	926
5 West Central.....	632.1	598.2	207.4	31.3	6.7	10.1	50.3	0.8	11.7	274.3	15.6	4.7	155.9	8.7	78.3	2.9	13.0	1,246
6 East Central, South.....	616.8	571.6	198.4	29.2	9.2	13.5	46.7	1.8	10.6	265.5	13.6	6.8	156.2	9.1	64.9	3.7	8.4	2,724
7 Southeast.....	606.3	565.6	204.2	28.1	8.4	10.8	52.8	1.5	12.6	252.3	11.8	4.3	145.7	17.0	62.8	2.2	10.5	1,670
8 Southwest.....	585.1	550.7	207.7	25.8	7.2	12.4	56.1	0.8	13.1	225.1	4.2	4.9	147.3	10.0	47.1	2.0	6.9	1,174
A Duluth.....	781.4	731.5	229.8	27.1	14.5	20.8	51.8	0.8	15.7	351.9	21.1	4.6	219.2	13.6	72.6	3.8	12.4	1,737
B Minneapolis, St. Paul.....	690.4	644.8	216.5	29.2	10.5	19.8	52.6	2.3	10.8	298.7	13.6	4.9	181.6	10.1	72.3	4.6	12.0	10,277
Mississippi	717.9	663.4	197.0	23.5	10.2	20.4	44.7	2.1	12.8	335.5	5.3	5.7	189.9	17.5	75.5	29.6	12.9	9,817
1 Northwest.....	761.0	689.5	207.9	27.3	10.9	28.5	49.4	0.7	13.9	367.5	4.4	2.8	218.0	17.4	92.8	14.4	12.7	920
2 North Central.....	692.7	635.6	184.5	23.4	9.7	17.8	42.5	0.7	14.9	313.9	4.9	7.9	185.8	14.0	66.4	25.6	22.1	784
3 Southwest.....	742.5	699.6	204.1	21.7	8.7	21.0	51.4	1.8	11.6	346.3	4.9	5.3	197.2	19.1	80.4	29.4	11.7	979
4 Northeast.....	648.1	597.1	184.6	22.6	8.3	13.7	40.7	1.6	10.5	306.6	3.3	7.7	172.8	18.7	71.6	21.3	8.8	1,023
5 East Central, North.....	659.5	612.1	186.3	20.8	10.1	21.2	38.9	5.4	15.8	305.8	10.3	5.9	179.4	15.4	65.5	17.7	8.5	845
6 East Central.....	714.2	660.6	188.5	24.1	8.8	14.9	45.7	1.6	14.1	343.1	5.3	6.8	182.3	16.0	86.0	35.6	9.4	2,568
7 Southeast, North.....	776.9	720.6	208.3	23.3	13.7	19.4	54.5	-	13.1	369.8	5.9	4.8	215.4	17.0	77.8	35.5	15.6	775
8 Southeast, South ¹	825.3	755.4	224.4	18.8	13.5	29.8	43.5	2.7	12.8	366.7	4.7	4.6	225.5	25.1	55.2	27.7	18.9	1,112
A Jackson.....	671.3	627.4	201.4	30.8	11.4	27.1	39.2	5.3	6.1	302.8	5.3	2.3	158.0	16.9	55.5	53.9	16.9	811
Missouri.....	744.8	694.9	214.8	29.9	9.7	22.4	47.7	2.0	16.5	337.2	12.6	7.0	193.8	14.9	72.8	22.5	12.5	33,843
1 Northwest.....	755.8	708.2	225.9	29.9	12.6	21.4	45.9	1.6	17.6	333.3	8.3	9.1	196.8	14.0	73.3	19.4	12.2	2,260
2 Northeast.....	697.0	650.3	201.9	29.2	7.6	14.9	42.2	2.2	17.2	316.3	9.6	7.7	186.2	17.6	76.1	6.8	12.0	3,592
3 West Central.....	696.4	645.9	192.3	31.8	8.8	16.9	34.9	1.9	17.8	322.2	10.4	9.5	174.0	21.6	78.8	13.7	13.5	1,657
4 Southwest.....	783.6	721.8	198.7	29.5	8.0	16.5	43.2	1.7	19.1	371.6	9.4	9.6	199.2	21.9	90.0	29.7	10.8	1,630
5 Central.....	725.1	662.0	198.7	24.6	11.6	18.8	41.5	1.7	19.3	326.2	8.4	12.4	185.1	17.2	73.5	19.0	8.3	1,278
6 East Central.....	678.4	644.1	210.1	35.9	10.2	19.7	44.5	1.5	15.9	309.4	13.8	4.5	188.2	16.1	65.3	12.1	14.0	1,648
7 West Ozarks.....	674.8	622.6	179.9	19.0	4.6	13.1	43.8	1.3	15.2	324.9	8.9	6.9	191.1	14.4	76.9	13.4	4.7	1,280
8 East Ozarks.....	770.9	714.7	217.3	25.6	12.2	26.0	47.3	2.4	23.5	342.3	12.6	5.0	194.5	7.8	81.7	28.3	9.5	1,056
9 Southeast.....	828.1	770.8	203.7	20.3	10.7	20.6	43.8	2.7	22.0	409.4	8.5	9.1	238.6	25.5	79.2	34.8	12.4	1,631
A Kansas City.....	745.2	696.6	216.0	28.0	8.8	24.6	49.6	1.6	14.8	336.3	13.0	5.0	162.2	15.5	73.5	54.2	14.3	4,990
B St. Louis.....	774.9	724.7	229.8	33.8	10.7	26.7	53.6	2.4	14.5	343.8	16.4	6.9	213.4	11.2	66.3	14.7	13.8	11,769
C Springfield.....	695.5	652.2	216.9	29.0	8.6	28.7	46.9	2.1	19.5	311.2	12.6	0.7	157.2	11.0	79.8	31.3	12.3	1,052
Montana.....	745.8	692.4	205.3	26.3	12.7	20.8	50.4	1.7	10.6	333.0	18.3	6.1	180.3	20.9	73.4	18.4	16.6	4,250
1 West.....	801.1	744.2	215.4	27.4	13.6	22.5	53.9	2.0	10.0	363.7	20.6	5.8	207.2	21.5	75.6	18.1	18.0	2,229
2 North.....	721.4	672.7	209.3	25.4	14.0	24.1	51.8	1.6	12.4	316.2	17.1	8.1	158.8	22.7	68.2	21.5	16.2	1,233
3 South Central.....	617.9	564.1	161.5	18.7	7.5	14.9	40.8	-	7.3	283.0	15.9	6.3	142.1	11.6	78.5	16.5	11.4	533
4 Southeast.....	754.8	706.8	215.9	41.1	13.9	5.9	42.1	5.9	14.1	296.5	10.6	-	169.0	30.6	67.7	9.2	22.0	255
Nebraska.....	654.4	607.4	209.2	31.8	9.1	14.9	51.1	1.7	8.0	271.4	12.8	8.0	167.9	9.2	61.1	1.8	13.3	9,533
1 Northwest ¹	612.0	570.1	188.4	23.7	1.9	8.0	48.6	1.5	6.3	257.6	5.2	19.4	179.8	11.3	33.7	2.3	17.2	402
2 Southwest.....	624.1	576.1	207.7	27.6	12.7	7.7	46.0	2.7	9.8	244.7	9.2	13.9	141.6	7.5	59.0	0.9	15.5	563
3 Central.....	646.1	593.5	189.9	30.5	9.5	16.4	47.0	1.6	5.1	283.7	14.4	7.7	181.4	10.8	59.8	2.9	11.3	1,970
4 South Central, West.....	611.8	557.4	195.0	26.9	6.9	10.6	49.8	1.9	7.3	257.0	14.8	8.7	145.8	15.0	62.4	-	7.6	657
5 South Central, East.....	595.2	544.6	187.6	24.7	6.2	8.9	53.0	1.1	9.6	244.2	11.4	7.1	144.0	7.0	62.9	1.6	10.7	916
6 Northeast.....	637.5	588.6	226.7	36.0	9.0	18.3	58.5	1.4	11.5	246.5	5.3	3.3	151.4	11.7	64.7	1.8	7.6	771
7 Southeast.....	672.8	636.9	226.0	38.4	12.1	10.3	53.8	3.7	7.9	285.8	12.2	10.5	177.9	5.1	63.1	2.4	15.2	883
A Lincoln.....	591.5	558.4	199.7	32.3	9.8	12.3	43.3	1.1	8.0	232.8	12.7	8.5	132.3	7.5	55.4	1.3	16.1	891
B Omaha.....	739.1	690.8	234.3	36.3	9.4	21.0	55.9	1.5	8.8	306.3	17.2	5.4	195.7	8.4	66.3	1.7	16.9	2,580

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Nevada	865.5	778.8	225.3	26.3	9.3	31.6	48.6	3.4	18.7	345.9	18.4	10.5	189.1	19.9	83.9	7.6	25.1	2,808
1 All	870.0	783.4	225.7	32.4	8.7	24.5	47.7	2.8	18.6	342.3	17.1	8.7	183.7	20.1	82.7	10.7	29.1	1,419
A Las Vegas	859.1	772.5	224.2	20.1	10.2	38.6	49.2	4.3	18.4	349.9	19.3	12.5	194.5	19.8	85.9	4.4	21.0	1,389
New Hampshire	811.1	771.9	242.2	36.8	11.5	23.7	54.0	3.7	16.7	363.3	13.2	8.6	220.1	13.0	74.5	17.3	14.2	5,930
1 North	821.0	770.3	239.4	32.4	10.8	24.3	50.5	2.7	16.0	370.0	11.7	7.3	233.6	13.6	72.5	16.3	15.9	1,524
2 South	793.5	758.1	232.1	31.3	12.9	25.0	54.4	4.1	16.2	354.0	12.8	7.1	221.8	11.7	77.6	6.7	13.5	2,575
A Manchester	830.4	794.7	260.7	49.0	10.0	21.1	56.4	4.1	14.4	370.8	14.9	12.1	205.6	14.5	71.7	33.6	14.1	1,831
New Jersey	817.2	785.2	250.0	39.3	11.3	26.1	62.3	2.8	12.0	383.8	18.5	7.4	263.6	11.2	67.0	3.7	10.1	55,820
1 North	823.8	791.0	258.6	39.6	11.7	28.9	64.9	2.7	10.9	377.5	17.2	7.5	253.4	9.2	75.1	2.5	12.9	9,408
2 South	833.6	787.0	237.8	36.5	9.1	28.1	64.3	3.3	16.2	390.9	11.8	6.1	279.0	13.9	66.4	3.4	10.7	3,938
A Phillipsburg	831.2	786.5	240.8	37.0	13.9	23.5	58.2	4.7	10.6	425.1	20.1	4.7	313.8	6.3	68.1	2.6	9.4	645
B Newark	789.9	758.1	251.5	38.4	11.3	24.3	64.1	3.4	11.3	362.5	20.0	7.0	249.4	9.2	61.2	3.8	9.7	13,630
C Trenton	800.8	769.9	244.4	39.7	9.3	29.2	56.5	2.9	9.7	367.8	15.7	7.8	250.8	8.1	64.9	3.6	11.6	2,251
D Camden	852.1	814.9	243.8	39.0	10.8	25.7	59.2	2.2	11.5	419.5	16.0	5.1	295.0	15.9	70.8	1.5	9.8	6,320
E Atlantic City	867.4	825.7	248.5	39.3	8.6	26.2	59.0	1.5	15.2	417.7	11.8	4.7	304.1	7.4	74.8	4.4	13.4	1,845
F Salem County	938.3	903.9	272.8	49.2	13.0	30.6	52.4	-	11.7	459.1	20.9	9.4	323.1	13.1	75.2	-	5.5	471
G Paterson, Clifton, Passaic	750.7	723.9	242.6	39.3	11.2	25.4	62.7	2.4	11.3	343.8	22.3	7.1	225.8	7.8	61.5	7.0	8.5	10,541
H Jersey City	968.4	944.1	269.7	44.3	13.5	25.8	65.6	2.6	16.5	480.2	19.3	13.0	333.6	24.7	76.5	2.4	9.0	6,771
New Mexico	765.5	703.8	205.8	24.4	10.2	23.5	42.8	1.2	14.4	309.0	15.2	5.1	161.3	15.4	72.7	23.8	23.2	5,223
1 Northwest	763.7	690.7	199.3	24.7	11.0	18.5	41.3	0.6	13.6	300.1	16.5	7.0	157.0	16.3	71.7	18.7	18.4	1,064
2 Northeast	731.3	678.1	189.6	22.8	6.4	21.2	39.2	1.3	10.6	305.7	8.4	7.4	158.3	15.0	73.8	24.0	23.0	765
3 South	774.5	713.2	208.7	24.9	9.1	28.1	44.8	1.6	17.9	319.8	16.0	5.0	175.8	17.7	74.9	12.7	22.6	1,720
A Albuquerque	777.7	720.4	215.6	24.5	12.4	23.3	43.6	1.2	13.1	308.9	16.6	2.5	151.8	13.4	71.4	39.7	27.4	1,674
New York	825.8	791.6	251.8	36.8	11.7	25.6	65.1	2.6	13.6	380.8	18.9	7.6	257.7	10.0	66.1	7.5	12.4	150,485
1 Northwest	758.7	717.7	206.8	26.6	5.2	16.6	49.4	4.3	7.6	361.8	21.5	10.9	243.5	12.6	61.0	2.0	17.3	795
2 West Central ¹	763.6	718.3	222.5	38.3	10.3	22.1	54.1	2.4	5.3	349.2	15.4	10.1	215.1	12.7	76.9	1.4	13.8	2,015
3 Southwest	832.8	795.5	233.1	39.2	9.7	20.8	53.2	3.3	9.5	390.0	12.9	12.4	243.1	10.5	88.2	5.9	19.2	4,967
4 North Central	833.4	794.3	244.5	38.3	12.7	15.6	56.9	1.4	10.1	408.0	16.8	14.6	269.3	10.7	75.7	0.8	10.7	992
5 North Central	859.9	827.8	243.4	43.6	7.4	15.3	61.9	2.0	12.5	412.8	20.1	13.8	278.6	12.9	74.7	3.6	12.9	1,198
6 South Central	793.3	753.1	224.1	33.0	8.0	21.2	55.5	3.3	13.2	369.4	13.3	7.9	247.8	15.1	71.4	3.5	18.3	1,414
7 Northeast	890.8	851.9	253.0	41.2	12.1	23.0	54.4	3.9	11.7	417.6	12.9	14.3	266.9	13.3	88.5	3.3	16.4	3,185
8 East Central	983.6	938.6	278.5	31.7	10.6	32.4	77.8	3.0	16.2	504.5	20.1	9.3	339.3	21.0	85.2	2.5	18.9	1,051
9 Southcentral ¹	811.6	772.9	246.8	38.5	12.8	29.9	62.1	1.9	12.3	382.3	18.2	9.4	257.3	9.4	73.3	1.7	12.4	6,223
A Buffalo	872.8	837.3	244.2	34.0	10.3	23.3	62.0	1.9	9.9	419.2	16.6	8.0	283.5	9.9	86.9	2.2	12.0	11,423
B Rochester	745.9	704.5	232.6	33.6	9.7	22.5	62.6	2.3	12.2	324.1	18.5	4.9	207.4	7.5	66.9	1.7	14.7	4,814
C Syracuse	801.9	763.8	234.8	34.0	12.0	22.3	60.3	2.6	12.3	379.7	19.1	8.9	234.4	17.1	81.6	3.2	15.8	4,576
D Utica, Rome	832.7	795.9	238.5	38.1	11.0	18.5	60.6	2.2	9.1	415.4	19.2	12.1	272.5	10.0	85.6	2.3	12.2	2,939
E Binghamton	759.1	732.1	226.8	34.9	6.6	25.2	54.8	1.2	11.3	361.9	18.8	6.3	250.2	9.2	59.9	5.2	12.8	1,761
F Albany, Schenectady, Troy	831.9	800.5	254.5	41.0	11.9	30.0	58.6	3.4	14.4	390.0	18.0	6.6	260.1	13.5	75.3	3.5	15.0	6,409
G New York City	826.7	794.2	258.2	36.9	12.2	26.5	68.4	2.6	14.9	376.5	20.0	6.8	258.9	9.1	59.1	10.3	11.3	96,723
North Carolina	720.6	671.2	185.8	20.5	8.5	15.0	42.3	2.1	16.8	339.6	9.6	7.0	207.4	15.8	78.4	8.4	13.5	25,656
1 Southwest	646.6	599.8	172.1	20.7	7.4	9.5	43.0	1.3	10.7	288.2	13.6	5.4	166.2	12.1	74.1	5.2	12.0	1,821
2 Northwest ¹	664.4	612.4	160.2	15.7	9.5	12.3	37.2	2.2	9.8	324.5	12.1	4.2	184.4	11.1	74.6	28.2	12.1	1,147
3 West North Central	660.4	619.5	179.5	17.1	7.7	14.2	44.1	1.4	20.7	298.5	10.8	5.7	180.3	17.0	65.7	7.8	12.1	2,199
4 West Central	690.6	645.2	180.4	21.3	7.4	12.5	39.4	1.4	16.8	330.5	6.8	9.8	199.7	14.2	83.9	5.6	10.2	3,515
5 West South Central	719.9	670.8	191.5	20.4	8.0	13.9	37.8	2.9	25.8	331.7	9.0	6.0	206.8	16.8	77.7	5.0	11.1	2,289
6 Central	743.6	693.8	179.8	19.1	8.3	7.2	42.4	0.5	15.4	378.0	6.0	5.5	248.8	24.2	74.7	6.1	16.1	1,227
7 East North Central	736.8	701.8	185.4	23.5	7.5	17.9	36.5	0.8	14.0	360.5	5.1	10.3	212.1	19.1	85.8	14.0	18.6	814

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
North Carolina—Con.																		
8 East Central	826.8	779.3	199.7	22.0	13.8	18.0	44.0	4.8	20.5	414.2	7.2	8.6	259.3	17.8	103.0	5.2	8.1	1,906
9 South Central.....	827.1	768.4	198.5	20.3	9.7	20.1	37.9	1.5	13.7	409.6	8.6	8.1	238.4	22.8	94.7	19.3	15.7	1,512
10 Northeast.....	777.5	713.9	215.9	24.3	11.3	14.6	67.1	5.0	22.1	339.4	10.4	10.2	193.9	14.3	85.6	11.8	17.2	541
11 Southeast.....	818.3	772.7	186.4	16.8	7.7	20.3	37.9	1.5	21.1	429.7	10.5	11.4	264.3	24.7	81.8	19.7	17.7	2,085
A Asheville.....	682.4	635.8	188.8	18.6	7.2	17.2	35.2	4.1	12.7	314.8	14.8	7.4	185.8	14.0	72.4	10.4	13.0	984
B Winston-Salem.....	749.2	694.2	201.8	28.1	8.7	13.9	42.9	0.6	19.3	344.6	9.4	4.3	225.3	10.0	76.9	3.6	19.4	1,111
C Greensboro, High Point.....	675.4	625.1	186.6	22.1	9.4	15.8	44.6	3.5	16.2	289.4	6.8	6.7	180.3	8.5	70.8	2.3	16.4	1,378
D Charlotte.....	722.4	657.9	199.0	27.5	7.5	17.7	47.6	2.0	14.5	306.7	13.9	4.6	194.1	11.3	66.9	2.9	12.2	1,555
E Raleigh ¹	699.2	646.5	186.5	18.3	7.5	21.3	58.7	2.8	12.2	323.4	13.0	4.1	194.0	13.1	78.5	2.0	17.7	940
F Durham.....	759.5	703.9	185.2	16.1	10.8	15.9	47.1	2.1	10.5	348.0	5.4	3.6	230.7	18.9	70.0	1.2	23.1	632
North Dakota.....																		
630.8	596.6	204.4	24.7	10.9	13.0	49.2	1.5	7.1	275.4	12.4	6.5	166.5	8.9	66.5	2.0	8.8	3,482	
1 Southwest.....																		
652.4	622.0	198.1	19.6	12.2	7.4	51.2	1.2	7.2	305.5	16.3	8.5	180.2	10.6	71.5	1.2	10.4	492	
2 West Central.....																		
643.1	608.5	213.6	29.6	15.4	12.2	44.3	1.9	10.0	287.3	9.5	8.3	161.1	7.5	85.7	3.2	9.5	647	
3 Central.....																		
615.4	585.8	202.4	21.7	9.5	13.1	46.6	1.9	8.0	269.6	11.4	3.8	171.7	10.8	56.5	1.5	6.4	1,179	
4 East.....																		
643.7	602.9	205.6	27.7	9.0	15.8	55.8	1.5	5.4	270.2	15.7	8.8	156.8	6.4	71.7	2.9	9.7	919	
5 Southeast.....																		
581.1	544.1	197.4	25.6	10.9	16.4	46.5	-	1.8	222.7	4.2	2.4	158.3	8.5	37.6	-	12.2	245	
Ohio.....																		
811.0	766.3	232.3	33.3	9.4	23.5	55.3	2.7	12.7	375.7	15.7	11.6	238.0	12.4	76.7	6.0	14.1	73,711	
1 Northwest.....																		
724.9	672.7	204.1	26.6	8.4	13.6	49.3	1.5	13.1	332.0	10.9	9.8	213.3	13.5	68.9	2.2	8.2	2,474	
2 West Central, North.....																		
766.2	717.0	211.8	31.3	7.7	20.0	49.4	2.1	11.0	355.8	10.7	11.2	224.8	11.7	82.3	1.2	11.8	2,994	
3 West Central, South.....																		
773.8	725.0	218.7	35.2	8.3	19.7	44.7	1.7	12.8	368.9	12.0	10.2	230.0	13.9	81.8	6.8	12.7	2,543	
4 North Central.....																		
797.5	760.3	225.8	32.5	8.5	20.4	49.2	3.2	11.8	376.8	15.5	9.5	218.2	17.3	87.2	11.7	16.2	3,221	
5 Northeast.....																		
841.9	794.1	222.2	34.3	7.4	17.3	58.2	3.2	15.3	414.9	17.8	11.8	255.9	14.8	92.2	2.4	12.2	2,691	
6 East Central.....																		
851.5	807.0	227.6	37.2	7.3	24.3	50.6	4.3	11.2	402.4	17.5	12.8	250.4	13.5	90.1	3.1	16.5	5,275	
7 Southwest ¹																		
811.7	768.9	226.7	32.9	10.2	22.7	51.0	3.6	14.9	389.5	12.3	10.6	249.4	19.0	75.5	7.6	13.7	1,628	
8 Southeast.....																		
844.5	801.9	229.0	36.3	6.5	21.5	45.2	3.1	13.2	396.8	12.5	10.2	264.0	16.8	75.8	1.4	18.6	2,951	
A Toledo.....																		
841.9	785.8	240.7	34.4	10.7	25.8	59.2	3.6	12.7	374.6	14.1	5.8	256.0	9.8	72.3	1.1	18.3	3,695	
B Columbus.....																		
823.9	780.3	247.4	35.7	11.4	29.5	53.0	3.3	14.2	370.9	13.1	37.2	198.4	12.2	81.6	13.2	16.4	4,954	
C Dayton.....																		
762.7	725.3	221.3	33.1	8.0	22.8	55.1	2.0	12.0	357.8	14.8	7.3	221.5	14.2	74.3	7.3	11.9	4,608	
D Hamilton, Middletown.....																		
782.3	736.3	240.3	29.4	4.9	25.4	52.0	1.6	18.8	347.0	10.9	16.9	218.1	7.6	68.5	1.6	16.1	1,376	
E Cleveland.....																		
826.8	780.1	240.1	31.4	11.6	24.3	60.7	2.6	13.5	373.2	18.3	11.0	244.2	11.0	73.8	2.5	13.1	13,694	
F Akron.....																		
768.9	733.0	214.4	30.4	9.7	23.1	50.9	3.2	9.1	379.7	16.8	7.4	215.4	15.5	72.5	38.1	15.2	3,786	
G Canton.....																		
783.4	744.3	219.5	30.2	9.1	21.9	54.0	2.5	16.2	380.2	16.2	12.8	254.7	10.8	69.2	1.1	11.9	2,663	
H Youngstown.....																		
844.4	801.3	227.5	31.0	10.5	19.6	57.5	1.8	11.4	415.4	18.1	11.1	266.7	14.2	85.0	1.4	12.0	3,933	
J Steubenville.....																		
866.4	836.2	231.2	37.3	9.4	20.9	50.3	-	6.7	435.1	16.8	6.8	265.5	21.7	98.0	13.6	3.0	824	
K Cincinnati.....																		
836.1	786.7	272.0	40.1	9.8	34.2	67.9	2.4	12.2	359.2	19.1	7.4	245.2	6.2	62.6	2.7	16.3	6,671	
L Ironton-Lawrence Co.....																		
875.1	830.8	257.0	35.5	15.9	27.1	48.0	-	13.9	423.1	7.5	6.9	296.6	5.3	94.4	-	22.8	455	
M Lorain, Elyria.....																		
852.1	801.3	236.1	32.3	4.7	16.5	61.8	4.7	13.7	364.9	16.4	7.8	246.0	11.0	64.5	4.0	13.9	1,538	
N Springfield.....																		
810.8	770.4	212.4	29.0	12.3	21.9	66.5	6.7	7.4	387.0	16.1	4.9	253.1	10.4	88.7	-	21.1	1,038	
O Lima ¹																		
712.0	681.1	230.8	31.3	9.7	22.3	45.7	3.5	16.3	322.4	10.5	7.0	209.4	10.7	70.9	2.9	11.8	701	
Oklahoma.....																		
688.7	640.6	203.5	24.9	8.7	24.5	41.5	2.4	18.8	305.3	7.4	6.4	189.2	13.5	69.1	8.0	12.6	16,642	
1 Northwest.....																		
645.4	594.8	172.6	18.6	10.0	14.9	50.4	1.6	17.7	291.9	10.3	11.1	175.7	15.9	61.8	8.1	12.1	671	
2 North Central.....																		
664.2	618.5	199.4	21.0	10.5	16.4	44.9	0.5	16.7	294.7	6.4	10.3	186.0	9.5	66.1	3.9	11.7	1,273	
3 Northeast.....																		
757.9	715.8	227.3	33.5	8.2	27.5	40.9	1.8	26.2	342.8	10.3	14.2	202.4	13.9	83.1	5.9	15.7	1,171	
4 Southwest.....																		
635.6	586.5	187.4	24.1	7.2	22.2	40.6	0.3	12.9	285.2	5.2	4.3	165.6	15.0	75.6	9.6	7.8	1,495	
5 Central.....																		
677.4	626.8	205.2	29.7	6.1	22.7	33.4	2.3	23.2	305.3	7.8	7.8	187.3	12.2	75.7	4.0	7.8	1,304	
6 Central East.....																		
659.5	602.9	196.4	20.3	8.5	20.7	35.4	3.6	6.1	294.4	2.6	10.1	196.2	7.7	62.1	8.5	10.8	667	
7 South.....																		
665.7	614.7	193.1	30.0	7.8	29.5	34.3	1.5	20.4	307.7	4.8	6.6	192.9	13.2	71.5	9.9	8.3	1,232	
8 East Central.....																		
703.2	652.1	195.7	27.3	9.5	19.0	39.8	4.7	21.1	323.6	4.5	6.9	197.8	14.1	72.4	16.9	18.8	1,083	
9 Southeast.....																		
725.6	669.2	203.7	24.0	9.6	18.9	35.5	2.9	16.1	321.4	7.0	7.1	201.9	15.9	67.0	6.2	10.1	959	
10 East Central, North.....																		
632.2	577.2	184.4	24.6	8.1	17.9	33.5	2.9	19.4	281.9	8.3	1.4	171.0	13.7	67.6	8.3	8.7	335	
A Tulsa.....																		
711.7	661.9	212.5	24.8	9.1	30.6	43.6	2.7	16.1	311.6	9.3	2.2	193.5	17.6	70.1	4.5	17.4	2,528	
B Oklahoma City.....																		
694.5	648.8	212.2	22.7	9.6	28.9	45.7	3.4	22.0	290.6	8.6	4.3	184.3	11.8	60.4	9.4	14.1	3,365	
C Creek County.....																		
801.2	760.2	232.6	25.9	5.7	34.5	36.5	6.2	26.4	368.0	3.5	7.5	252.4	10.7	62.3	16.3	13.7	357	
D El Reno.....																		
706.4	674.2	203.2	30.8	6.4	11.4	44.0	6.4	17.2	325.6	-	12.0	204.1	17.1	69.6	10.8	17.2	202	

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72-Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Oregon	702.4	650.2	209.0	26.2	10.2	23.5	47.0	2.1	11.1	310.0	14.8	6.7	181.3	10.0	73.0	9.0	16.5	13,840
1 West.....	741.7	683.9	214.2	25.6	8.2	27.7	45.5	1.9	14.0	335.1	15.7	9.1	195.9	12.2	85.3	2.7	19.3	2,733
2 Central, West ¹	652.8	604.0	204.2	27.3	9.5	18.0	52.0	1.6	11.1	285.4	13.4	6.8	162.5	12.3	66.1	11.0	16.7	2,226
3 North Central ¹	752.5	705.1	220.8	25.0	11.7	17.2	53.4	-	8.6	320.4	18.8	11.1	181.6	8.9	73.6	10.9	12.4	550
4 Southeast.....	692.3	628.6	185.7	24.0	8.7	15.9	32.8	2.1	8.4	308.4	14.8	7.7	180.5	17.5	67.4	4.2	20.1	1,124
A Portland.....	718.7	667.3	214.3	26.5	11.0	26.2	50.2	2.7	10.6	317.0	14.7	5.8	187.2	7.7	72.6	13.8	13.9	6,115
B Eugene.....	630.2	587.7	201.5	26.6	12.8	22.7	37.5	2.3	10.9	269.0	14.7	3.1	159.1	5.3	67.6	-	21.6	1,092
Pennsylvania.....	854.3	817.5	237.8	35.3	9.9	22.2	56.9	2.7	19.2	419.7	18.6	8.8	272.7	16.1	79.2	9.2	12.1	102,406
1 Northwest.....	851.7	814.6	226.6	32.9	10.0	17.3	57.5	2.8	17.9	422.3	13.7	9.4	275.0	17.5	87.9	2.2	11.6	5,884
2 Northeast.....	796.5	753.2	222.4	33.9	11.5	17.0	54.6	3.2	18.9	365.3	17.7	12.2	233.1	15.8	68.5	3.1	10.9	1,550
3 Central, North Central.....	867.0	831.2	253.5	38.6	10.8	23.0	67.9	1.1	15.1	421.9	12.7	15.5	282.2	15.6	78.9	0.9	15.3	1,878
4 Southwest.....	906.9	872.0	242.3	35.1	11.1	13.2	58.2	3.3	20.6	467.3	12.7	10.6	315.3	16.6	94.1	2.4	11.6	4,245
5 South Central.....	810.8	770.4	204.7	30.0	10.0	15.0	46.6	1.2	18.5	413.5	15.1	11.1	262.0	18.4	87.4	1.6	13.0	2,464
6 East Central.....	968.4	929.3	252.2	39.2	9.6	15.9	52.4	2.0	24.0	497.0	21.4	10.5	316.6	20.8	104.8	3.8	8.8	5,527
7 South Central, East.....	846.0	813.2	230.6	40.9	8.8	15.5	58.8	3.6	13.7	426.0	22.7	8.6	291.5	17.1	69.9	1.1	9.8	2,173
A Erie.....	891.2	853.6	262.9	38.0	8.9	25.8	58.7	5.3	20.4	426.5	15.5	9.6	270.5	18.2	96.7	3.1	14.7	2,193
B Philadelphia.....	843.7	805.5	244.6	36.9	10.0	26.1	59.2	2.9	20.5	403.5	18.3	6.7	254.4	15.3	68.0	26.1	13.3	29,487
C Scranton.....	931.6	899.2	237.0	35.7	9.1	23.0	60.6	1.1	16.8	480.1	26.0	17.7	315.2	23.5	80.2	2.4	12.0	3,005
D Pittsburgh.....	862.1	827.0	237.7	31.7	9.9	26.4	57.5	2.5	19.6	426.3	20.6	9.0	282.7	13.3	84.1	2.2	12.4	21,331
E Johnstown.....	861.1	825.6	218.7	32.6	4.5	15.7	49.8	2.3	17.6	434.3	21.1	7.6	279.1	19.5	85.5	4.1	9.7	2,515
F Altoona.....	885.5	846.8	227.6	30.2	9.2	17.4	53.5	2.1	15.8	447.7	17.0	16.1	298.9	16.5	82.9	6.6	13.0	1,456
G Wilkes-Barre, Hazleton.....	942.3	915.3	246.5	44.7	12.1	17.9	56.2	3.0	17.4	493.4	21.1	17.1	332.1	24.1	82.6	2.4	10.5	4,472
H Harrisburg.....	811.5	770.0	234.4	37.4	11.1	22.3	57.7	1.9	17.4	380.0	16.0	5.5	247.7	13.1	80.8	2.1	12.2	3,022
J York.....	772.2	735.5	240.1	37.9	9.5	18.7	57.1	4.3	19.6	347.9	17.2	5.5	221.4	22.4	68.1	1.0	13.7	2,114
K Lancaster.....	743.6	707.4	232.4	36.0	7.9	22.3	54.6	2.9	22.4	344.9	19.4	6.7	215.8	14.0	73.3	1.8	10.0	2,303
L Reading.....	812.7	771.9	242.8	37.6	9.3	17.5	58.1	3.1	18.4	382.7	17.3	8.4	256.2	9.9	75.2	0.7	10.8	2,793
M Allentown, Bethlehem, Easton.....	780.3	744.9	208.3	29.5	10.5	18.8	47.6	3.0	12.8	400.0	20.5	3.7	266.5	13.7	75.4	1.7	8.9	3,994
Rhode Island.....	786.2	756.0	246.0	41.2	8.1	24.2	60.6	2.4	13.1	353.7	15.3	7.5	246.5	10.6	62.9	0.7	11.2	8,039
1 South.....	775.4	736.1	220.9	34.6	5.0	27.7	55.8	1.4	10.2	355.2	8.2	6.0	255.9	8.7	64.4	-	13.5	996
A Providence.....	787.6	758.9	249.7	42.1	8.6	23.7	61.3	2.5	13.5	353.5	16.3	7.7	245.2	10.9	62.7	0.8	10.8	7,043
South Carolina.....	789.7	735.1	202.9	22.9	10.1	18.3	47.1	2.7	13.2	382.0	7.8	6.5	239.7	17.2	86.6	10.5	14.0	12,199
1 Northwest.....	737.0	687.4	190.2	19.6	9.5	12.2	41.4	3.6	12.6	351.5	6.4	8.5	210.9	13.7	99.8	1.2	6.4	558
2 Northwest Central.....	749.2	703.2	204.4	22.1	8.7	15.5	48.7	2.7	14.1	369.5	7.1	4.7	226.2	17.8	72.2	19.3	14.1	2,226
3 North Central.....	773.8	714.4	187.4	21.8	5.9	15.3	46.7	1.7	9.9	374.6	7.0	7.7	238.3	15.6	88.4	5.1	14.2	1,193
4 West Central.....	718.5	680.0	191.4	19.6	13.3	10.4	46.1	1.3	20.4	326.4	6.7	6.0	176.5	30.0	85.0	10.8	7.3	511
5 East North Central.....	811.2	761.0	227.5	19.9	10.9	26.0	35.1	-	20.1	405.4	4.6	4.4	263.4	22.2	94.5	6.7	6.5	340
6 Central.....	824.0	762.7	198.5	26.3	11.0	16.0	46.2	2.8	9.4	414.5	6.9	7.9	261.1	15.9	96.0	10.3	12.8	1,315
7 Northeast.....	834.3	786.2	202.4	22.2	11.9	14.7	52.0	3.4	10.0	449.8	6.9	10.4	275.5	25.5	101.2	20.0	9.4	1,168
8 Southeast.....	784.6	734.9	171.1	16.0	10.1	12.2	47.6	-	8.6	401.6	7.6	9.2	259.4	20.2	76.3	12.6	15.8	648
A Columbia ¹	765.9	706.8	194.1	23.0	9.3	18.2	41.7	4.7	7.3	359.9	8.0	7.4	224.8	8.4	90.1	2.6	21.4	1,346
B Aiken County.....	847.3	793.3	223.6	18.0	16.2	22.3	42.1	3.3	24.5	410.4	8.1	1.6	281.8	8.3	85.4	9.9	13.2	478
C Charleston.....	860.3	800.8	235.0	23.5	10.8	45.3	52.3	4.3	14.8	415.5	6.7	2.3	265.8	22.6	91.2	15.1	17.2	972
D Greenville.....	812.7	752.3	219.9	30.5	11.5	18.6	50.8	2.0	20.0	358.1	13.5	6.4	224.5	13.9	81.7	3.6	16.1	1,444
South Dakota.....	638.5	591.8	201.2	29.1	9.0	15.3	47.0	1.4	8.3	271.3	10.2	6.0	170.0	11.3	59.7	3.4	11.1	3,949
1 West.....	657.4	578.3	173.4	32.2	6.0	11.2	28.9	1.4	7.4	289.3	8.2	6.4	171.3	17.1	66.5	6.9	12.9	747
2 North Central.....	660.4	621.0	203.8	29.8	10.0	14.1	52.6	-	10.1	294.3	7.7	7.9	186.7	9.0	64.0	4.1	11.9	957
3 South Central.....	596.5	560.0	187.9	24.4	8.1	14.4	42.3	2.3	15.6	251.7	13.2	5.8	157.7	9.5	57.2	3.1	17.6	648
4 Northeast.....	603.8	569.3	213.7	31.3	9.8	15.7	52.3	1.5	6.4	255.1	4.3	2.7	171.5	11.1	57.4	-	3.3	494
5 Southeast.....	649.3	608.8	222.7	28.0	10.6	20.0	56.0	2.1	4.1	259.3	14.6	6.3	162.0	10.8	54.0	2.2	8.9	1,103

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Tennessee.....	717.8	671.2	200.0	26.4	9.2	17.5	43.4	2.4	11.3	337.7	8.7	6.5	210.0	14.4	78.2	7.8	12.6	23,216
1 West.....	660.9	608.2	181.1	25.7	7.1	15.4	35.9	3.8	10.7	321.9	4.1	8.2	195.7	12.5	84.7	4.2	12.3	1,667
2 West Central.....	671.9	626.8	190.4	27.7	12.3	8.0	34.2	3.9	10.8	327.6	4.9	7.1	194.3	19.6	86.2	1.3	9.2	1,200
3 West Central, East.....	719.3	665.6	175.1	19.4	8.3	12.8	36.9	2.2	10.4	373.4	11.4	8.8	233.6	20.1	83.0	4.6	10.3	835
4 North Central.....	755.1	694.6	201.9	29.8	8.3	16.8	40.3	1.5	12.2	362.1	8.4	12.0	223.8	18.8	79.1	4.6	9.7	863
5 South Central.....	702.7	653.5	210.4	27.2	8.0	18.1	43.8	1.7	15.0	312.6	4.2	7.2	190.3	16.9	78.0	5.2	10.1	1,753
6 East Central, West.....	690.7	649.4	179.6	21.8	9.0	11.9	39.8	1.8	10.1	331.6	7.8	4.2	220.3	13.5	70.4	5.9	12.3	1,420
7 East Central.....	765.1	702.5	190.4	27.9	7.9	12.9	45.4	4.5	13.6	363.6	10.2	6.6	222.2	15.8	88.6	8.2	12.7	764
8 East.....	748.2	709.5	200.2	25.9	9.1	12.0	39.3	2.6	11.5	362.9	8.6	9.4	224.2	15.8	85.8	6.7	12.0	5,222
A Memphis.....	760.0	710.2	236.6	35.3	11.8	31.4	57.1	2.0	13.5	324.5	12.7	3.8	204.3	8.1	81.4	1.2	19.7	3,064
B Nashville.....	666.6	622.6	185.3	21.0	9.0	19.2	41.3	1.3	9.4	322.9	8.6	2.4	220.1	10.1	69.4	1.7	13.5	2,290
C Chattanooga.....	723.9	680.8	204.3	24.8	7.5	20.2	49.0	4.2	12.8	337.0	6.6	5.1	237.7	14.3	60.1	2.3	9.9	1,535
D Knoxville.....	721.0	670.8	203.6	26.8	9.5	20.9	48.3	2.0	7.3	329.9	13.1	5.7	175.6	17.0	69.7	36.4	12.2	2,603
Texas.....	702.5	651.1	199.9	21.8	10.8	24.2	43.7	1.7	11.3	299.9	7.7	6.3	171.6	22.1	68.5	11.1	14.2	50,414
1 West.....	782.2	724.3	230.9	21.9	14.1	24.2	47.2	2.1	12.7	317.7	10.3	16.0	152.6	38.4	77.3	18.8	20.3	356
2 Central West.....	682.4	623.2	196.7	18.1	13.2	20.9	50.0	3.3	12.0	284.6	10.9	8.8	159.8	23.1	67.9	3.4	16.5	1,634
3 Southwest.....	793.0	759.8	216.1	13.4	9.6	18.1	47.3	0.6	20.7	352.0	3.9	12.0	181.5	37.4	77.5	23.8	7.0	1,239
4 Northwest.....	676.5	624.3	190.3	25.4	6.5	24.2	41.3	2.5	8.1	296.7	5.6	5.4	157.1	22.9	79.5	13.4	15.1	1,219
5 West Central, North.....	684.3	634.8	187.5	19.5	9.4	26.1	41.4	2.5	14.0	301.3	10.2	4.6	162.3	28.7	62.9	18.7	15.7	1,747
6 North Central, West.....	622.2	575.6	182.3	23.0	8.6	13.0	39.7	1.0	11.6	264.4	4.4	5.1	141.0	25.4	65.4	12.4	11.4	1,957
7 North Central.....	635.2	579.5	190.4	22.0	10.9	18.5	47.2	1.2	8.0	277.5	4.1	4.2	143.1	37.6	64.0	9.6	8.8	1,963
8 North Central, East.....	631.4	581.5	176.8	21.6	8.7	17.3	42.0	1.7	8.2	274.8	4.3	6.4	148.9	30.4	62.4	11.5	12.1	3,119
9 Central East.....	646.8	610.1	193.6	31.7	13.1	16.0	37.5	1.3	9.4	286.8	4.8	5.2	169.4	21.0	50.0	29.5	13.3	789
10 Central South.....	594.9	556.6	178.5	19.2	12.5	14.9	38.8	3.3	7.8	253.7	5.1	8.3	144.0	24.2	50.8	14.8	8.7	821
11 Gulf Coast.....	716.0	676.4	204.8	19.4	15.7	29.5	34.2	1.3	15.6	305.2	6.5	11.4	159.1	31.4	69.8	14.6	13.6	1,367
12 Northeast.....	660.0	602.8	190.0	22.6	10.2	20.9	39.4	1.6	10.5	288.9	5.4	4.6	163.0	22.4	65.2	19.1	10.8	4,169
13 East Central.....	694.6	637.3	189.9	13.6	10.1	26.0	31.9	1.8	19.3	317.9	4.8	9.2	193.0	24.0	60.5	18.4	9.9	1,382
14 Southeast.....	700.7	651.5	195.8	20.6	12.6	24.3	41.2	3.0	11.8	326.9	5.0	9.6	178.2	23.4	79.1	19.1	12.0	1,942
15 South.....	725.6	689.1	192.6	10.1	11.2	21.5	35.0	2.4	13.3	314.6	4.4	8.8	163.9	19.7	65.6	39.4	13.4	1,936
16 West Central, South.....	769.2	708.2	208.2	24.5	16.9	21.6	28.6	-	14.5	329.2	8.2	2.5	182.7	27.3	73.7	26.0	10.5	536
A El Paso.....	819.6	775.5	218.9	16.8	10.2	25.7	49.9	2.0	16.8	336.2	22.9	10.6	142.8	41.4	71.6	28.5	17.4	1,901
B Fort Worth.....	727.4	668.9	213.0	24.5	11.8	27.9	46.3	1.8	9.1	292.7	7.7	5.7	172.8	12.6	76.1	4.9	20.3	3,999
C Dallas.....	697.8	646.0	202.4	22.2	10.3	23.8	46.6	1.4	12.4	296.1	8.0	5.2	178.3	12.3	73.1	5.8	15.6	6,791
D Waco.....	684.8	636.1	193.7	24.4	8.5	15.3	48.2	0.5	11.5	317.2	6.6	3.6	163.3	45.7	76.7	5.4	12.5	977
E Austin.....	635.7	580.3	191.7	16.8	10.3	27.9	41.9	3.9	10.8	259.1	11.9	4.9	145.2	17.9	62.5	3.5	11.9	1,167
F San Antonio.....	766.7	721.7	211.9	21.2	9.3	23.2	46.3	2.1	11.5	310.5	7.6	6.1	182.1	18.0	71.6	6.7	13.9	4,690
G Houston.....	744.6	688.9	216.3	24.6	11.2	33.8	50.0	1.9	9.7	318.5	11.1	5.2	201.1	14.9	71.6	2.3	16.5	7,487
H Beaumont, Port Arthur.....	721.5	673.2	213.7	31.7	9.7	32.3	49.2	2.0	11.6	308.1	3.2	8.9	188.0	27.0	60.2	7.6	14.3	1,642
J Amarillo.....	758.2	696.4	192.6	26.8	10.1	15.9	38.2	1.5	10.1	340.9	13.9	3.1	206.9	17.3	73.9	4.7	24.2	883
K Wichita Falls.....	639.4	589.5	166.8	16.7	12.8	13.8	36.1	1.6	5.1	290.4	8.8	4.0	193.4	13.3	62.4	1.8	10.6	705
L Lubbock.....	667.2	606.1	171.8	20.7	8.1	27.4	25.7	-	8.9	275.5	12.0	4.7	132.0	44.7	69.0	1.5	21.5	752
M Galveston, Texas City.....	840.2	784.3	228.6	27.1	17.0	35.1	39.5	0.8	12.0	366.6	4.8	10.7	246.8	18.7	69.1	1.6	15.8	965
N Corpus Christi.....	780.5	729.8	224.2	25.7	11.2	32.1	45.6	1.6	12.8	328.1	6.7	5.7	225.8	17.3	58.6	1.1	18.0	1,292
O Denton.....	608.6	555.3	193.3	13.2	9.9	27.7	49.0	1.5	17.4	269.1	3.4	3.5	150.5	25.8	52.4	13.9	5.0	328
P Abilene.....	641.9	580.1	193.0	29.8	13.9	11.1	43.7	-	8.2	247.8	2.7	2.7	127.8	27.8	50.5	24.9	15.7	669
Utah.....	661.5	609.2	163.9	20.3	6.4	10.5	44.4	1.1	11.6	290.6	25.5	6.6	147.0	15.9	58.7	24.8	14.4	4,893
1 North.....	604.6	563.4	143.8	13.4	9.8	4.5	35.9	-	12.7	284.9	25.7	12.8	147.0	17.8	62.8	8.3	5.1	539
2 Central.....	633.2	587.4	154.1	18.1	5.4	7.5	50.1	2.3	13.6	279.2	24.3	5.3	136.2	17.4	65.0	16.8	15.1	782
3 South.....	638.2	584.6	140.3	19.8	5.7	8.3	39.4	-	10.6	305.5	20.7	10.1	166.7	26.0	62.3	5.4	14.2	631
A Salt Lake City.....	701.3	642.6	177.5	23.0	5.8	13.1	47.7	1.6	9.6	298.4	26.7	4.6	142.1	14.2	57.7	41.1	15.6	2,335
B Ogden.....	642.7	594.2	170.4	19.2	8.8	13.6	34.3	-	16.5	271.5	28.2	5.8	157.9	8.5	47.4	13.6	18.5	606

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Vermont.....	776.9	741.0	240.7	37.8	9.6	21.6	58.9	4.9	13.4	343.0	12.8	9.1	219.7	13.7	69.6	4.6	16.3	3,331
1 Northwest.....	747.5	711.6	244.8	39.5	7.7	25.8	61.1	6.7	10.7	326.5	12.0	9.1	214.1	20.6	56.2	1.7	13.4	1,099
2 Southeast.....	792.9	757.1	239.1	36.9	10.6	19.3	58.1	3.9	14.8	351.8	13.3	9.1	222.9	9.8	76.7	6.3	18.0	2,232
Virginia.....	742.0	693.7	208.5	26.5	9.3	23.6	46.3	2.2	15.7	336.4	9.4	6.4	214.2	15.0	68.7	8.1	15.8	23,978
1 West.....	880.9	839.8	201.6	22.6	13.3	16.6	31.1	1.3	17.2	451.3	12.0	4.9	324.2	14.6	76.5	6.2	22.8	1,243
2 Southwest.....	731.0	686.8	185.8	27.6	8.1	15.3	35.6	1.7	12.0	355.5	15.6	11.2	214.7	10.7	84.2	5.7	17.3	1,567
3 West Central.....	814.2	763.8	204.2	26.4	8.7	21.6	35.9	1.5	21.2	387.5	14.5	9.2	245.4	16.5	71.8	8.5	23.4	1,446
4 North West Central.....	776.8	726.1	198.0	27.3	9.0	20.7	46.4	3.8	14.0	368.1	8.1	9.2	231.1	15.3	78.5	8.8	16.6	1,853
5 North Central.....	760.8	707.9	212.9	28.2	12.1	21.5	47.4	3.0	16.1	340.2	10.5	5.8	211.7	16.9	72.1	8.4	19.2	1,622
6 Central.....	720.8	663.2	190.6	22.9	6.2	15.3	49.1	3.3	15.4	319.8	8.0	6.6	199.8	15.4	67.1	10.9	15.1	1,089
7 South Central.....	654.8	615.3	155.6	17.5	5.8	12.4	40.2	1.1	12.7	320.3	8.6	7.9	199.0	14.5	69.8	8.4	11.4	1,551
8 East Central ¹	635.5	588.9	201.8	26.6	5.3	21.0	45.2	4.0	14.8	274.4	4.1	2.7	180.4	16.0	54.3	8.9	15.8	836
9 East.....	741.8	709.2	241.0	43.1	7.7	36.2	32.1	1.9	13.2	344.3	3.8	3.6	254.0	4.5	67.0	3.6	8.4	300
10 Southeast.....	763.9	696.2	238.3	35.0	13.7	30.4	58.3	2.1	9.9	316.9	4.5	8.4	207.0	15.2	67.9	4.2	10.8	645
A Roanoke.....	726.5	673.2	197.9	26.6	7.1	19.0	37.4	1.5	18.4	310.1	9.4	2.5	187.4	10.4	70.8	14.9	16.7	1,214
B Northern Virginia Metropolitan.....	654.6	609.8	224.2	29.0	8.2	29.3	59.7	1.8	13.2	265.0	12.3	5.1	159.3	12.0	54.0	7.7	15.1	3,241
C Richmond.....	785.2	724.3	222.7	24.5	10.5	26.3	56.8	1.7	18.1	334.3	9.1	7.0	219.1	13.7	65.5	5.0	15.5	2,762
D Norfolk, Portsmouth.....	830.3	785.2	236.1	28.8	13.4	35.0	43.0	3.1	21.1	391.6	6.3	5.6	249.3	25.2	76.0	9.1	16.8	2,938
E Newport News, Hampton.....	767.1	726.2	221.6	32.0	4.8	26.0	47.6	0.7	17.7	334.3	6.9	7.7	222.9	11.6	55.5	16.6	14.4	1,023
F Lynchburg.....	638.2	601.6	170.7	19.5	12.7	22.1	28.4	3.7	10.6	314.6	9.8	3.6	213.7	10.3	67.2	-	10.2	648
Washington.....	734.7	683.6	213.8	26.4	10.4	24.3	49.8	2.1	11.5	316.1	14.7	8.0	191.5	13.4	73.0	1.8	19.7	21,410
1 West.....	787.2	727.5	212.5	29.8	12.0	34.3	40.9	1.7	9.4	351.7	7.4	5.6	234.5	16.2	73.2	3.3	20.2	1,179
2 Northwest.....	676.7	636.9	187.4	21.4	8.3	19.5	42.8	0.6	9.7	298.7	14.9	8.3	173.8	8.7	78.2	2.5	21.3	1,095
3 Kitsap County.....	828.6	773.2	221.4	26.2	11.6	19.2	50.5	2.0	18.5	389.3	15.8	12.7	244.3	13.0	83.8	1.9	24.9	771
4 South Central West.....	703.6	653.5	211.1	30.7	8.3	21.8	39.0	2.6	14.8	303.8	10.3	6.3	186.8	18.6	64.3	4.3	14.6	1,297
5 North Central.....	644.4	598.2	207.5	19.1	8.3	21.1	50.7	2.4	9.6	256.1	11.2	5.2	158.2	5.4	59.0	-	6.0	451
6 South Central.....	697.5	654.3	208.2	23.5	12.5	20.7	52.0	1.2	10.1	300.4	18.8	7.9	183.7	11.7	69.0	1.0	18.4	1,554
7 Southeast.....	699.1	649.3	192.8	25.3	9.5	19.7	40.0	2.2	10.6	312.9	19.5	10.6	182.1	14.9	67.8	6.8	15.6	1,217
8 Northeast.....	587.3	540.9	164.9	10.0	5.9	14.6	44.3	6.5	10.3	256.8	15.9	3.3	155.8	25.7	42.7	-	7.3	152
A Seattle.....	747.2	688.7	217.6	23.6	11.0	26.7	53.5	1.8	11.3	306.8	14.4	7.7	183.1	11.5	74.9	0.4	20.8	7,021
B Tacoma.....	789.9	737.9	227.6	28.2	10.2	24.5	53.1	3.8	13.4	357.2	12.2	9.5	216.8	17.7	83.9	2.0	23.0	2,500
C Vancouver.....	679.2	638.3	198.5	25.9	6.7	24.6	46.1	3.3	8.4	312.3	17.0	8.3	190.5	12.1	69.1	2.5	20.4	748
D Spokane.....	736.5	688.3	229.0	31.2	12.2	24.9	57.4	1.6	12.6	302.7	21.7	8.7	168.4	16.5	70.2	0.7	21.6	1,995
E Everett.....	734.7	697.9	215.2	36.6	10.7	21.9	45.2	2.9	10.1	334.5	11.5	5.4	223.0	10.2	70.0	3.8	16.0	1,430
West Virginia.....	863.6	816.5	222.6	26.9	10.3	25.2	43.1	2.7	19.9	426.8	13.4	10.5	258.8	22.1	84.5	18.2	20.2	15,150
1 Northwest.....	868.9	832.9	215.5	33.7	11.1	20.9	43.4	0.5	20.8	443.5	16.5	18.4	271.4	19.2	90.5	9.5	16.7	1,630
2 West Central ¹	796.7	743.5	208.3	27.3	9.0	15.8	46.2	5.8	16.8	384.3	12.0	15.1	227.3	18.6	79.1	17.3	16.2	1,893
3 North Central.....	829.7	784.0	223.2	23.8	10.4	27.1	49.6	2.5	13.3	407.8	12.3	8.8	266.1	15.7	70.7	14.9	15.8	2,244
4 South.....	927.6	872.7	220.3	22.4	7.7	30.1	38.8	1.6	25.8	480.6	12.1	9.3	274.0	36.1	86.5	39.7	27.5	3,114
5 East.....	811.1	760.4	197.1	23.8	8.5	22.3	34.2	1.0	16.1	392.9	10.2	8.2	249.3	16.7	77.9	7.5	17.3	1,380
6 Northeast ¹	901.3	862.6	202.0	33.5	11.1	12.5	33.9	4.3	22.4	463.3	6.8	12.2	277.2	20.6	125.4	4.4	14.4	561
A Wheeling.....	917.8	879.3	274.4	46.1	17.1	28.0	56.9	4.4	20.0	418.4	23.3	12.4	230.8	21.4	93.0	18.2	17.3	1,092
B Huntington.....	796.8	756.5	205.7	20.2	9.5	26.0	36.5	3.2	21.9	395.7	18.5	6.2	230.0	7.6	95.0	20.7	16.2	1,219
C Charleston.....	919.8	871.3	253.6	26.0	12.3	32.9	45.4	2.6	21.4	442.6	11.4	5.9	288.9	29.5	80.9	8.0	29.1	2,017
Wisconsin.....	718.3	677.8	222.1	32.6	9.3	16.2	57.7	2.4	11.9	320.0	11.8	9.2	197.4	12.8	73.5	2.0	10.8	29,746
1 North.....	766.5	721.9	223.3	35.9	11.5	19.7	54.8	2.6	13.0	352.6	9.3	10.7	219.4	20.4	74.1	4.2	11.9	1,672
2 West Central.....	668.2	629.4	206.6	30.0	10.3	15.2	50.6	2.1	9.5	287.9	8.5	7.2	179.6	12.4	63.5	3.7	9.1	2,663
3 Southwest.....	709.2	665.0	208.9	38.5	7.2	5.4	53.0	3.0	9.1	331.3	14.9	11.7	191.3	11.6	84.3	4.4	11.8	886
4 North Central.....	695.8	654.8	222.9	36.4	13.0	11.4	53.3	0.6	13.3	314.0	11.1	9.8	191.4	11.0	76.5	2.6	12.1	2,119
5 South Central.....	729.2	679.7	227.6	38.4	5.9	14.7	57.0	2.3	8.4	329.4	15.6	7.5	194.1	8.5	84.5	4.3	14.2	840

See footnotes at end of table.

Table 3. Rates per 100,000 population for selected causes of death for white females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Wisconsin—Con.																		
6 Northeast.....	700.8	660.8	222.9	26.7	6.0	15.1	49.5	2.5	14.5	298.6	6.5	5.6	183.4	16.1	72.6	0.9	11.1	1,377
7 East Central.....	698.8	661.0	215.3	36.1	8.4	16.0	50.6	4.3	11.8	313.7	9.7	7.4	197.5	14.8	71.3	1.2	10.0	3,535
8 Southeast.....	719.9	680.6	214.0	34.4	9.0	15.7	52.7	2.0	12.5	326.1	9.6	7.4	201.7	15.9	75.0	2.8	11.3	3,256
A Superior.....	932.9	877.3	260.8	21.2	7.2	23.0	72.8		20.6	430.8	11.5	12.3	289.9	13.6	87.3		7.2	443
B Madison.....	649.9	611.6	213.5	28.5	7.9	19.2	59.1	2.2	10.2	261.6	12.6	5.7	158.4	4.5	66.4	0.5	18.5	1,360
C Milwaukee.....	754.6	713.8	233.8	32.9	8.9	18.0	66.9	2.6	12.6	338.4	15.3	11.6	209.0	10.1	76.5	1.3	10.3	7,826
D Racine.....	704.1	668.0	219.5	28.8	14.5	19.7	57.1	2.4	13.7	308.4	14.1	9.9	193.8	14.2	67.9	0.6	11.9	998
E Waukesha.....	712.2	666.8	227.1	23.1	12.8	16.5	67.3	3.8	13.5	307.1	11.7	6.2	186.9	16.1	74.3	1.0	5.7	1,114
F Kenosha.....	770.8	729.6	246.0	36.3	7.1	18.2	59.9	3.0	7.6	344.2	8.4	15.0	225.8	11.7	73.6	1.7	6.1	806
G Green Bay.....	683.5	648.9	222.6	28.3	8.9	15.4	68.9	0.7	8.9	313.1	15.7	12.8	174.1	18.2	71.9	0.7	8.7	851
Wyoming.....	715.9	649.0	179.6	23.0	6.7	16.8	40.9	1.0	11.6	296.3	19.7	6.3	163.2	17.1	68.0	5.1	25.4	1,901
1 Southwest.....	773.3	692.4	181.8	26.2	6.2	20.9	33.2	-	14.6	330.8	23.7	7.3	176.8	22.9	76.9	6.5	22.9	757
2 Northeast.....	681.6	623.5	178.3	20.9	6.9	14.2	45.7	1.5	9.6	276.5	17.1	5.7	155.6	13.7	63.0	4.4	26.8	1,144

¹State economic area contains large resident institutions, mental and/or penal. It has not yet been possible to obtain the age-sex-race-specific counts of the population in these institutions and, therefore, rates have not been adjusted in accord with methods previously developed.²² Some of these rates may be slightly too low as a result.

NOTE: Abbreviations used in column headings are described in the appendix.

Table 4. Rates per 100,000 population for selected causes of death for black males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
United States.....	2,377.1	2,111.7	431.0	36.7	23.7	145.5	9.2	33.3	1,159.9	13.2	54.0	653.7	78.7	243.8	77.5	47.9	315,956
Alabama.....	2,302.0	2,004.1	334.1	25.0	19.1	105.2	8.1	29.6	1,243.6	8.5	64.8	507.4	99.8	307.8	215.8	40.3	13,510
1 Northwest.....	2,384.8	2,130.6	281.4	23.5	15.1	67.7	7.7	44.7	1,397.8	7.0	98.8	410.7	305.1	265.3	284.3	37.7	554
3 North Central.....	2,424.6	2,060.2	292.9	19.4	12.5	89.9	7.7	29.8	1,379.9	9.3	64.3	654.4	167.4	296.8	161.8	40.2	971
4 East Central.....	2,459.4	2,065.2	289.0	31.3	15.0	63.9	14.7	23.4	1,335.5	2.8	70.2	601.6	212.3	353.7	69.8	32.1	677
5 West Central, North.....	2,054.6	1,733.3	224.9	22.3	16.3	67.2	3.6	11.4	1,090.9	4.1	52.8	500.0	88.7	289.9	149.0	21.5	805
6 West Central.....	2,076.6	1,790.2	263.1	17.8	20.1	58.2	6.0	26.2	1,185.3	5.8	64.4	356.9	104.8	275.4	335.9	23.8	1,518
9 Southeast.....	2,402.6	2,076.2	319.5	19.4	13.4	85.1	2.8	39.6	1,315.5	6.6	67.2	549.1	148.7	359.7	135.2	22.8	1,295
A Birmingham.....	2,303.0	2,047.1	386.9	32.7	18.6	136.2	8.8	25.0	1,195.5	10.1	74.5	378.2	47.0	341.4	301.8	59.0	3,618
C Montgomery.....	2,598.1	2,265.2	390.2	32.3	30.6	115.6	11.8	59.8	1,439.6	17.7	82.4	479.5	30.5	296.9	515.3	34.6	932
D Mobile.....	2,400.1	2,134.9	423.7	28.2	20.6	162.5	15.1	21.3	1,221.5	13.3	41.9	810.5	37.0	250.1	27.5	54.2	1,503
Arizona.....	2,493.9	2,097.9	399.9	28.9	34.9	139.3	7.9	35.5	899.0	16.0	47.1	560.7	38.3	171.3	30.9	135.9	789
Arkansas.....	2,096.7	1,818.6	325.5	31.0	22.0	88.7	8.7	35.9	1,155.8	7.0	57.4	541.9	116.7	276.2	131.3	27.4	5,362
5 Southwest.....	2,018.7	1,696.4	326.0	28.4	11.7	110.3	2.3	44.7	1,081.7	5.6	47.7	517.5	123.5	224.8	152.3	19.5	545
6 South Central.....	2,021.4	1,688.8	313.1	30.3	26.6	80.1	9.8	29.7	1,081.4	6.0	63.4	529.6	60.9	256.8	139.9	18.6	812
7 Northeast.....	1,825.8	1,566.9	262.7	31.7	14.3	58.4	10.3	28.9	1,089.4	13.6	33.6	468.8	78.4	299.2	157.6	24.1	490
8 East.....	2,007.2	1,779.6	312.6	32.1	23.3	82.4	6.8	38.3	1,149.6	3.2	64.7	481.2	166.1	271.2	138.0	27.9	2,150
A Little Rock.....	2,471.0	2,143.7	392.7	34.2	25.2	116.9	13.6	47.0	1,293.1	8.7	55.0	741.9	71.4	315.9	65.1	42.3	898
California.....	1,912.7	1,679.2	411.2	37.0	22.2	144.0	9.9	24.5	826.8	16.3	33.7	555.8	29.9	153.1	4.1	54.1	13,937
A San Francisco, Oakland.....	1,887.6	1,639.6	412.7	37.4	28.1	149.6	9.4	23.1	770.8	14.9	31.3	532.6	29.3	126.9	4.7	48.0	3,669
C Sacramento.....	1,796.6	1,553.7	348.1	22.1	0.0	102.8	13.2	21.8	781.9	22.6	26.9	543.3	45.2	135.2	0.0	39.0	321
F Los Angeles.....	1,898.5	1,682.5	421.4	40.8	22.6	145.6	10.5	25.2	862.2	15.0	30.9	574.7	28.6	171.0	2.5	46.6	7,411
G San Diego.....	1,875.2	1,526.0	443.2	31.6	15.6	157.5	9.8	12.8	671.8	5.6	40.1	436.2	32.4	124.3	2.4	45.8	409
H San Bernardino, Riverside, Ontario.....	1,709.2	1,462.5	333.5	23.5	28.0	94.4	7.3	26.7	642.6	26.3	36.8	414.6	43.0	101.6	6.0	97.1	423
Colorado.....	2,002.0	1,773.8	366.3	35.6	20.8	93.8	3.9	31.0	899.6	30.2	25.8	598.8	51.3	126.6	26.5	58.3	589
A Denver.....	2,074.3	1,821.6	392.6	40.3	22.4	113.3	4.6	37.7	907.5	24.0	31.4	614.8	43.2	126.2	31.3	55.4	497
Connecticut.....	2,062.4	1,838.6	444.1	36.5	26.8	152.3	5.5	17.3	872.9	8.1	38.9	551.1	44.7	161.8	17.7	39.9	1,637
A Bridgeport, Stamford, Norwalk.....	2,115.7	1,869.6	393.1	29.3	25.8	148.0	-	14.1	896.2	15.1	34.4	506.8	65.6	201.4	20.2	49.6	536
B New Haven, Waterbury.....	2,240.9	2,065.6	509.8	30.8	32.5	167.9	4.1	11.7	1,058.1	8.2	45.1	691.2	52.2	183.3	11.5	13.5	534
C Hartford, New Britain, Bristol.....	1,873.3	1,639.1	456.3	37.4	22.1	162.2	14.4	28.3	674.3	-	44.1	449.7	23.7	101.8	25.6	58.9	456
Delaware.....	2,962.2	2,652.3	551.3	29.3	41.9	193.9	17.7	40.6	1,371.5	17.4	78.1	978.9	60.4	200.8	9.5	86.5	1,350
A Wilmington.....	3,010.0	2,733.9	559.2	21.6	50.0	203.3	12.2	49.2	1,412.1	15.8	102.0	1,017.3	65.3	183.2	-	99.2	884
District of Columbia.....	2,680.1	2,435.1	585.1	49.4	31.3	184.7	8.7	40.7	1,052.3	14.8	41.2	710.9	44.6	168.5	31.5	58.1	8,514
Florida.....	2,674.9	2,319.1	471.0	25.9	23.6	159.8	14.2	37.7	1,240.8	18.3	62.7	589.0	92.7	283.4	146.1	57.1	16,027
2 Central North.....	2,854.6	2,305.5	456.1	12.6	33.3	173.7	7.5	30.3	1,332.9	9.2	58.3	634.6	191.1	255.2	145.3	48.9	646
3 North Central.....	2,249.9	1,948.9	370.2	20.9	24.7	129.5	7.3	42.2	1,231.3	13.8	46.0	414.6	126.3	338.3	257.7	24.0	1,528
4 East Central.....	2,659.0	2,345.5	466.7	22.4	20.3	148.8	15.9	34.0	1,292.8	20.3	67.9	564.5	122.3	270.9	208.4	67.6	1,041
5 Central South.....	2,803.4	2,200.4	412.9	22.2	21.3	133.2	21.6	32.1	1,235.8	14.6	56.4	520.4	94.0	280.8	219.2	69.6	1,597
6 Southwest.....	3,459.7	2,887.2	570.5	35.5	26.7	186.2	14.7	58.7	1,632.0	20.4	84.2	668.1	90.8	274.7	428.0	65.6	967
A Jacksonville.....	2,842.7	2,527.6	522.8	45.0	26.1	167.9	12.6	36.2	1,249.8	30.7	78.2	630.5	76.9	301.6	70.6	76.4	2,165

Table 4. Rates per 100,000 population for selected causes of death for black males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Florida—Con.																	
C Miami	2,576.1	2,225.0	546.3	30.5	21.0	184.8	19.0	36.9	961.8	18.1	36.0	547.8	91.8	207.9	6.1	65.5	2,381
D Pensacola	2,613.6	2,325.2	487.9	28.3	26.9	153.8	12.0	64.2	1,362.2	12.0	61.3	953.1	42.1	258.0	19.2	27.5	598
E Orlando	2,786.3	2,416.7	413.9	6.9	25.8	146.7	16.4	32.6	1,362.8	27.2	77.1	764.2	109.5	292.1	33.6	44.8	1,014
F West Palm Beach	2,832.2	2,451.2	531.2	12.2	21.5	191.6	16.9	35.7	1,212.7	19.7	68.9	670.5	41.3	315.2	36.6	66.2	1,004
G Fort Lauderdale	2,618.8	2,223.1	414.3	29.5	19.9	149.5	9.8	30.0	1,184.9	23.6	68.6	588.1	91.6	307.3	66.7	68.4	901
Georgia	2,727.0	2,406.9	390.2	27.9	17.9	122.6	8.8	38.2	1,475.5	13.6	82.6	707.6	118.5	429.9	66.1	40.5	18,177
4 Central, North	2,500.9	2,186.2	295.5	16.2	14.6	93.6	7.8	26.0	1,431.8	21.0	69.4	691.7	79.2	418.3	92.3	38.6	2,774
6 Central, South	2,655.0	2,311.9	311.6	21.7	17.4	103.7	5.1	34.7	1,585.3	8.9	66.9	768.4	102.2	494.3	91.9	33.9	924
7 Southwest	2,586.4	2,290.6	358.3	25.1	27.2	102.8	10.0	27.1	1,493.1	10.0	85.5	659.7	104.9	511.3	62.7	29.6	2,517
8 South Central	2,249.3	2,006.6	335.5	18.9	15.5	125.8	9.5	32.9	1,292.7	2.7	73.4	591.9	125.2	391.2	66.3	32.6	1,372
9 Southeast	2,624.8	2,279.7	450.4	53.6	19.5	144.7	15.5	24.2	1,366.6	2.5	145.5	604.2	156.5	382.6	27.0	45.6	846
B Atlanta	2,955.6	2,605.8	456.9	29.0	19.3	148.7	10.2	51.7	1,438.8	17.2	66.4	753.5	106.3	365.8	85.4	54.9	4,624
C Columbus	2,742.4	2,495.5	432.3	37.0	11.1	141.2	3.5	51.4	1,580.6	7.6	112.7	557.7	363.2	434.9	73.9	29.0	676
D Augusta	3,018.2	2,683.9	447.5	30.1	17.0	135.9	-	30.2	1,631.6	16.3	206.3	826.8	50.2	428.2	3.1	37.5	807
E Savannah	3,130.6	2,833.1	576.4	60.7	17.4	173.0	12.5	52.4	1,567.0	12.6	98.2	638.3	195.6	506.4	14.6	31.7	1,319
F Macon	3,063.4	2,743.8	408.1	24.4	13.6	108.9	12.2	74.7	1,787.4	13.6	39.5	960.6	111.6	551.0	25.2	42.4	873
Illinois	2,483.4	2,239.0	481.3	52.8	28.1	168.3	9.9	25.6	1,275.1	12.3	93.1	778.7	152.2	199.1	11.0	44.7	19,314
C Chicago	2,515.3	2,276.0	491.5	53.4	28.3	170.8	10.4	25.2	1,297.2	11.5	92.7	786.0	171.1	196.5	11.5	42.4	16,741
F East St. Louis	2,456.7	2,112.9	422.2	44.2	34.6	155.2	4.1	30.8	1,283.2	19.5	173.2	800.2	34.4	213.6	10.4	41.0	1,087
Indiana	2,166.2	1,923.4	460.8	51.9	24.5	168.1	9.2	34.3	1,013.0	16.2	41.3	625.7	55.2	234.2	11.8	59.0	4,534
A Gary, Hammond, East Chicago	2,251.7	1,981.9	428.3	58.6	30.9	125.0	15.6	31.1	1,116.1	17.9	60.7	725.7	42.2	246.1	4.4	53.6	1,420
D Indianapolis	2,137.5	1,912.6	499.7	53.5	21.3	206.4	9.4	41.0	919.3	16.8	22.5	568.5	62.7	213.5	8.8	66.9	1,769
Kansas	1,955.8	1,727.7	399.9	37.2	22.0	122.9	8.0	35.7	908.4	14.9	29.4	618.2	37.1	163.0	18.0	32.1	1,282
B Kansas City	1,920.5	1,644.8	398.6	43.6	32.5	82.5	11.2	56.9	873.7	9.4	27.5	616.7	43.4	130.2	25.0	28.1	459
Kentucky	2,610.2	2,298.6	477.6	46.6	18.6	178.6	6.5	25.8	1,273.7	8.8	46.0	816.2	85.2	274.8	8.8	54.8	4,307
A Louisville	2,852.2	2,520.6	574.9	57.7	19.1	195.2	2.6	36.6	1,284.1	12.3	31.6	829.7	99.7	281.0	5.8	70.4	1,867
Louisiana	2,295.5	2,038.8	429.9	33.3	21.3	150.4	8.5	41.1	1,158.1	7.8	42.9	705.0	92.9	257.5	13.5	52.2	15,125
1 Central	2,267.4	1,956.6	323.2	22.8	20.5	132.3	-	28.7	1,204.3	4.6	30.3	812.0	59.0	261.3	12.0	47.9	771
2 Northeast	2,015.2	1,777.3	311.7	28.2	20.1	92.0	7.3	26.5	1,195.1	2.5	63.2	673.0	66.8	318.0	16.3	22.4	1,003
3 East Central	2,131.7	1,907.7	450.9	23.6	38.8	154.0	14.3	43.7	1,034.9	5.6	23.0	694.9	36.8	227.7	9.3	47.0	1,034
4 North Central	1,744.6	1,481.4	290.9	18.0	26.6	87.9	8.4	34.9	871.6	19.8	30.9	454.2	67.5	258.0	12.8	33.0	823
5 East	2,203.8	1,938.3	349.7	21.6	11.7	121.3	11.8	35.4	1,200.2	6.1	29.4	744.2	123.5	246.0	21.5	41.4	1,143
6 South Central	2,331.9	2,061.4	465.7	20.6	14.6	175.1	8.9	55.0	1,221.9	6.5	36.1	777.9	88.4	265.9	14.9	53.1	1,554
A Shreveport	2,159.3	1,897.2	402.3	33.9	18.0	119.9	5.2	32.5	1,060.9	11.3	70.4	681.5	61.0	194.7	5.2	41.7	1,337
B New Orleans	2,568.9	2,326.3	543.6	46.1	21.8	209.8	9.2	44.2	1,208.7	9.9	34.5	807.1	75.1	237.5	7.0	62.3	4,706
C Baton Rouge	2,420.9	2,147.0	361.2	43.3	17.6	99.7	9.6	57.2	1,262.6	2.0	49.5	623.0	189.4	302.7	25.3	131.3	1,081
E Monroe	2,570.8	2,280.7	400.5	68.3	26.2	114.9	3.5	21.9	1,433.6	11.3	152.7	611.6	303.4	316.9	12.8	51.5	528
Maryland	2,421.2	2,178.2	501.8	46.9	26.2	177.3	10.2	47.2	1,057.7	18.1	36.7	714.1	46.7	186.5	12.9	52.7	9,755
4 Eastern Shore	2,366.7	2,105.4	410.9	43.7	12.0	146.1	5.9	43.8	1,107.3	22.1	58.0	725.3	57.3	187.0	10.1	70.5	1,054
A Baltimore	2,583.0	2,327.8	540.9	52.3	29.4	194.4	10.7	53.5	1,104.8	19.6	35.0	752.2	49.0	195.3	9.1	52.2	7,308
B Montgomery & Prince Georges Counties	1,803.4	1,619.6	410.5	26.2	27.1	140.5	8.1	23.5	777.5	12.1	26.6	529.8	38.4	136.0	9.3	54.8	747

See footnote at end of table.

Table 4. Rates per 100,000 population for selected causes of death for black males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72-Con.

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State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Massachusetts.....	2,235.6	1,993.7	457.5	43.7	29.0	141.3	11.4	29.2	894.4	15.2	51.5	562.0	60.0	155.7	13.4	52.2	1,784
C Boston, Lawrence, Lowell.....	2,306.1	2,046.8	452.0	36.6	30.8	129.6	12.1	33.4	896.1	17.1	49.8	561.4	66.5	152.3	12.5	57.0	1,354
Michigan.....	2,193.1	1,932.9	445.6	41.7	26.8	160.6	9.8	28.5	970.1	16.2	49.7	647.0	40.7	171.5	15.0	51.0	12,900
6 Southwest.....	2,037.7	1,730.3	404.6	35.4	21.8	138.9	3.4	35.8	925.9	7.0	34.3	566.7	38.9	229.0	15.7	71.2	490
D Flint.....	1,928.2	1,686.0	455.5	43.6	32.2	178.8	8.3	36.0	941.2	6.9	28.7	665.6	25.3	159.7	4.8	34.5	481
F Detroit.....	2,262.9	1,998.8	450.2	43.5	27.2	162.4	10.2	27.0	995.0	17.9	50.6	668.8	42.3	172.2	15.2	49.9	10,642
Mississippi.....	2,129.8	1,844.9	294.6	22.5	20.4	93.5	7.1	24.6	1,222.4	8.9	59.9	489.9	100.4	271.4	290.6	27.9	11,121
1 Northwest.....	2,253.8	1,961.7	302.7	31.8	21.0	97.0	6.0	31.7	1,323.7	4.1	59.5	568.4	149.0	303.7	224.5	24.9	2,771
2 North Central.....	1,933.4	1,898.9	227.5	8.5	18.9	67.6	7.5	22.7	1,170.7	3.9	61.0	413.0	102.2	279.0	280.8	19.5	1,518
3 Southwest.....	2,078.0	1,838.1	336.1	27.5	24.4	90.1	12.8	26.3	1,184.1	17.4	63.9	497.7	77.6	232.1	265.4	27.5	1,503
5 East Central, North.....	2,239.4	1,955.9	283.9	22.8	21.3	82.8	-	29.0	1,363.9	12.2	75.1	520.9	122.6	364.7	231.3	18.9	983
6 East Central.....	2,031.1	1,715.4	279.9	20.3	20.6	87.6	7.3	15.1	1,129.0	8.8	51.7	480.3	70.2	247.9	240.5	25.1	2,123
8 Southwest, South.....	2,400.8	2,103.9	415.3	32.0	30.1	150.9	12.9	8.8	1,287.8	-	56.7	511.2	126.0	325.8	212.3	42.4	479
A Jackson.....	2,146.9	1,848.3	318.9	22.3	10.5	113.8	1.8	39.3	1,180.6	13.3	53.2	345.7	62.7	231.2	438.3	45.0	989
Missouri.....	2,467.8	2,173.2	461.0	41.1	26.4	152.6	10.9	45.3	1,172.2	10.3	51.5	607.8	76.4	227.6	151.7	55.5	7,384
A Kansas City.....	2,404.1	2,099.1	448.4	35.9	24.8	158.6	12.9	48.1	1,181.1	14.7	45.1	389.3	78.8	175.4	434.1	51.2	1,628
B St. Louis.....	2,516.9	2,220.9	496.9	48.8	28.0	155.9	10.5	46.0	1,143.9	6.9	49.7	690.2	71.0	245.2	28.4	63.8	4,639
Nebraska.....	2,250.9	2,027.4	444.1	44.9	22.4	169.4	4.6	13.4	1,068.8	26.9	43.1	712.4	42.0	212.5	9.0	70.0	458
B Omaha.....	2,308.3	2,084.2	458.7	44.8	24.9	177.9	5.0	15.0	1,100.4	30.0	43.7	737.6	46.6	217.4	-	72.9	424
New Jersey.....	2,335.6	2,123.7	476.2	44.4	22.6	173.3	9.0	30.2	1,111.5	14.7	38.2	771.9	46.3	193.6	14.9	53.6	9,493
1 North.....	2,359.0	2,167.2	535.7	28.5	30.1	204.2	12.4	43.5	1,086.6	16.6	38.4	715.7	28.5	223.7	11.9	89.7	946
B Newark.....	2,284.9	2,074.7	471.5	48.3	21.0	167.8	10.5	28.0	1,089.6	18.5	38.5	781.3	42.1	168.8	11.4	43.9	4,026
C Trenton.....	2,288.1	2,025.3	469.6	57.4	17.3	168.1	11.2	21.2	1,007.7	10.0	57.9	666.0	36.9	193.4	9.9	57.9	621
D Camden.....	2,165.5	1,970.9	484.0	46.7	26.7	157.0	11.1	39.5	1,021.8	6.6	34.8	679.6	38.5	206.6	13.9	58.2	1,133
E Atlantic City.....	2,660.6	2,413.9	429.6	42.2	12.3	190.0	-	23.2	1,401.7	3.2	21.9	1,046.3	41.6	240.9	32.4	71.3	593
G Paterson, Clifton, Passaic.....	2,265.6	2,065.7	505.1	40.9	35.6	181.7	4.1	20.9	1,033.7	21.0	38.3	691.4	25.6	186.7	25.2	47.2	833
H Jersey City.....	2,630.0	2,395.9	455.4	29.6	20.1	173.6	-	39.3	1,269.0	10.7	18.6	811.0	159.6	244.3	32.1	50.8	748
New York.....	2,388.1	2,151.1	460.2	42.5	24.2	149.2	10.0	31.3	991.5	19.3	35.8	661.7	41.6	171.3	24.5	47.3	27,349
9 Southeast.....	1,857.9	1,619.8	365.9	34.7	16.5	89.7	19.2	26.4	767.4	18.9	23.4	467.6	38.4	172.2	4.0	50.8	422
A Buffalo.....	2,358.7	2,141.3	445.3	39.5	18.6	167.3	4.4	25.3	1,110.8	23.2	40.2	689.1	61.6	225.1	27.6	70.9	1,524
B Rochester.....	2,105.0	1,807.9	381.8	14.7	15.1	189.5	6.1	8.9	836.5	15.3	33.9	516.5	55.5	172.5	-	34.4	407
G New York City.....	2,414.5	2,177.5	466.2	43.4	24.3	148.9	10.2	32.5	991.5	18.1	35.8	669.0	40.1	167.5	25.3	46.2	24,081
North Carolina.....	2,586.4	2,280.9	372.5	26.3	21.1	109.8	8.0	37.2	1,384.6	11.2	65.1	730.0	113.5	334.1	85.2	38.4	17,206
3 West North Central.....	2,250.0	1,984.8	336.0	10.6	21.2	101.8	1.6	41.9	1,234.6	11.9	48.9	674.0	105.8	280.3	68.7	28.3	1,291
4 West Central.....	2,533.4	2,221.7	326.1	31.3	32.1	70.8	3.8	30.9	1,410.1	7.5	61.1	827.0	90.8	318.7	68.7	39.9	1,241
5 West South Central.....	2,631.7	2,266.0	313.0	18.8	21.9	61.1	9.3	37.7	1,507.8	20.3	71.0	862.3	101.8	303.0	109.4	21.3	923
6 Central.....	2,655.9	2,301.5	355.7	12.2	14.8	109.5	10.4	34.7	1,391.0	9.6	42.8	761.0	133.6	328.3	83.0	31.2	1,095
7 East North Central.....	2,255.5	1,985.6	297.3	14.2	21.4	84.0	5.6	32.8	1,243.0	1.4	77.4	506.7	149.1	333.9	144.1	33.1	1,357
8 East Central.....	2,748.5	2,479.7	377.3	28.5	23.2	111.4	8.3	35.3	1,576.1	3.9	81.7	804.5	120.5	453.9	55.2	49.5	2,488
9 South Central.....	2,832.1	2,625.8	415.6	40.9	17.4	122.9	11.2	33.8	1,605.4	11.4	67.6	693.8	240.3	380.1	148.1	22.3	1,561

Table 4. Rates per 100,000 population for selected causes of death for black males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
North Carolina—Con.																	
11 Southeast.....	2,636.2	2,298.1	367.2	18.8	23.6	103.5	8.7	38.2	1,464.6	15.6	73.4	586.7	129.1	387.9	223.6	32.3	1,768
B Winston-Salem.....	3,196.5	2,806.3	422.4	42.8	21.4	127.7	11.4	36.8	1,631.8	11.1	47.1	1,154.3	43.4	302.5	10.6	84.0	987
C Greensboro, High Point.....	2,574.0	2,270.2	414.8	29.1	25.8	166.4	13.1	39.2	1,259.9	23.6	75.2	749.8	68.9	282.0	13.1	41.8	872
D Charlotte.....	2,688.9	2,398.5	471.1	40.6	23.7	136.5	11.6	54.4	1,291.6	17.4	69.6	845.6	79.0	227.8	7.6	51.7	1,154
E Raleigh.....	2,358.6	2,050.1	372.9	31.8	11.6	134.7	5.7	22.7	1,122.4	15.3	43.5	651.2	51.0	316.5	18.5	38.5	695
F Durham.....	2,250.6	2,002.2	405.2	30.7	8.9	129.0	9.1	50.3	1,056.1	9.1	55.5	640.6	82.1	212.1	7.6	37.0	622
Ohio.....	2,279.5	2,037.0	496.5	45.0	27.2	187.9	11.9	29.2	1,043.3	16.5	74.3	652.6	41.8	185.9	32.8	57.3	13,924
A Toledo.....	2,388.9	2,132.8	580.9	62.4	24.5	245.7	13.6	35.4	1,066.4	10.9	46.2	739.9	27.1	208.9	2.9	62.7	780
B Columbus.....	2,339.2	2,175.1	513.5	53.2	21.6	193.2	10.1	40.6	1,155.7	21.2	312.9	427.1	52.8	203.6	94.4	61.7	1,519
C Dayton.....	2,219.1	1,993.4	420.7	54.4	29.7	146.5	7.6	14.5	1,031.2	12.1	46.2	692.6	58.5	162.6	25.5	73.5	1,226
E Cleveland.....	2,322.2	2,018.0	520.9	46.0	27.7	190.9	18.3	36.1	999.6	18.1	49.5	659.9	37.7	183.3	9.5	52.6	4,556
F Akron.....	2,242.0	2,049.4	482.6	55.5	35.0	157.5	6.2	29.1	1,102.9	22.7	46.9	547.8	46.1	210.4	193.6	31.9	703
H Youngstown.....	2,236.0	1,971.7	469.0	23.3	26.1	192.6	4.4	37.5	1,019.4	22.0	38.5	619.6	42.1	237.8	7.0	56.7	815
K Cincinnati.....	2,357.0	2,125.9	555.7	45.4	30.7	218.1	7.9	17.1	1,048.1	13.5	44.9	736.5	32.7	171.4	17.5	59.4	2,348
Oklahoma.....	2,137.0	1,854.2	371.1	21.7	17.4	111.8	12.9	38.3	1,038.2	9.8	51.5	600.7	48.0	230.9	63.2	37.9	2,338
A Tulsa.....	2,204.1	1,918.0	362.7	32.6	12.5	128.5	13.4	37.1	1,009.8	17.3	44.5	663.6	19.6	197.6	22.0	36.3	491
B Oklahoma City.....	2,143.0	1,849.8	429.7	14.9	17.9	150.6	9.1	36.3	1,029.6	6.4	49.1	565.9	78.6	245.7	62.5	27.3	607
Pennsylvania.....	2,528.6	2,306.4	500.7	46.8	26.6	183.3	7.7	38.9	1,216.3	15.1	37.4	577.1	63.3	181.8	304.2	60.8	17,432
B Philadelphia.....	2,532.0	2,305.3	495.0	45.0	25.8	178.6	8.0	38.9	1,232.4	14.4	35.3	488.1	66.9	167.8	421.7	59.4	12,328
D Pittsburgh.....	2,438.1	2,245.7	517.2	48.7	28.7	191.4	7.5	45.4	1,142.0	14.3	41.8	788.1	51.7	210.8	5.2	64.6	3,439
South Carolina.....	2,761.1	2,440.1	376.9	27.1	21.6	110.7	7.1	32.7	1,603.4	10.9	89.3	808.0	104.9	414.6	123.2	33.1	11,828
2 Northwest Central.....	2,848.8	2,528.9	397.6	27.3	16.1	127.2	5.3	30.0	1,665.6	12.5	87.4	847.3	122.4	388.2	142.3	29.0	1,376
3 North Central.....	2,946.3	2,638.9	380.6	47.5	17.2	105.2	8.4	22.6	1,810.0	11.7	106.7	1,001.8	85.2	452.2	73.0	24.1	934
4 West Central.....	2,969.6	2,237.3	359.5	27.3	27.5	102.4	13.5	23.8	1,526.6	6.4	51.2	760.1	90.1	458.0	108.3	30.4	647
6 East Central.....	2,713.7	2,371.2	333.1	26.4	20.4	83.4	5.7	28.0	1,600.0	12.5	122.1	726.3	85.8	445.1	158.1	26.2	2,401
7 Northeast.....	2,873.1	2,546.3	375.8	18.7	35.3	117.2	5.2	20.7	1,718.2	3.6	84.4	775.6	175.3	496.5	148.1	41.2	1,498
8 Southeast.....	2,511.7	2,216.5	369.7	18.9	13.0	127.1	1.9	33.0	1,464.1	3.7	73.0	737.7	66.2	422.7	120.8	23.2	1,150
A Columbia.....	2,659.7	2,379.1	377.6	29.9	24.1	105.2	5.9	45.2	1,527.0	14.9	97.0	943.3	33.4	390.5	18.1	48.1	1,155
C Charleston.....	2,815.7	2,505.1	409.3	29.8	17.4	107.5	3.9	52.3	1,581.3	8.4	56.8	655.7	208.4	334.8	269.3	38.2	1,146
D Greenville.....	3,117.7	2,730.3	431.1	48.2	35.2	129.3	16.1	28.6	1,612.2	24.1	86.5	887.3	112.0	374.8	23.6	52.2	680
Tennessee.....	2,393.3	2,125.1	411.6	35.7	20.1	132.7	10.1	38.8	1,267.4	8.4	49.5	768.0	48.9	314.0	35.8	44.5	9,937
1 West.....	2,105.8	1,855.6	326.2	28.8	29.4	102.8	5.8	30.4	1,208.7	4.7	56.2	693.9	34.8	338.2	46.4	38.5	1,379
5 South Central.....	2,235.1	1,942.5	343.9	26.0	12.3	131.3	8.8	37.0	1,129.0	14.5	49.7	586.0	120.7	303.5	17.4	21.8	611
A Memphis.....	2,308.9	2,082.3	420.0	36.6	16.4	123.0	11.2	48.1	1,234.3	12.2	49.8	751.2	33.3	338.0	5.4	49.8	3,852
B Nashville.....	2,613.0	2,265.5	443.5	40.9	17.4	160.3	8.9	28.4	1,296.4	4.5	38.8	884.9	63.5	262.7	3.0	54.2	1,451
C Chattanooga.....	2,863.1	2,610.5	541.4	60.4	15.7	171.0	15.8	32.7	1,487.4	7.6	42.2	1,023.3	48.9	311.9	11.1	47.7	944
D Knoxville.....	3,002.0	2,641.8	508.8	27.4	49.0	186.6	12.7	56.7	1,566.3	7.8	72.7	790.2	45.1	282.0	312.4	32.5	602
Texas.....	2,185.9	1,903.1	410.7	33.1	24.7	135.0	7.1	29.1	1,079.8	9.0	38.8	581.9	109.6	235.2	68.0	44.1	18,858
8 North Central, East.....	2,236.0	1,925.9	341.6	27.3	21.2	117.8	6.7	29.6	1,143.7	7.5	38.6	499.6	199.0	266.9	98.4	40.2	1,153
9 Central East.....	2,024.6	1,759.1	365.8	24.2	29.2	122.1	7.3	22.5	1,085.3	-	36.4	458.2	121.7	232.4	193.1	41.0	647
12 Northeast.....	2,054.5	1,742.4	338.0	25.7	27.5	73.6	3.8	31.7	1,061.7	4.5	44.9	461.2	114.0	241.6	160.9	27.7	2,521
13 East Central.....	1,923.6	1,635.3	358.7	23.9	30.7	87.8	8.5	27.9	969.6	7.3	15.7	401.5	126.1	238.1	154.2	31.9	764

See footnote at end of table.

Table 4. Rates per 100,000 population for selected causes of death for black males aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BLAD 188	CA ILL D 195- 199	CV.+ ILL D 390-448, 780-796	RHD RF 399	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Texas—Con.																	
14 Southeast.....	2,108.2	1,828.8	385.5	35.7	28.3	119.1	9.7	26.2	1,077.2	14.5	36.1	424.4	174.1	256.9	129.9	55.2	897
B Fort Worth.....	2,430.4	2,107.4	438.9	28.5	24.7	155.5	13.2	18.9	1,167.6	9.4	68.7	681.7	80.1	285.6	11.3	49.3	1,107
C Dallas.....	2,337.5	2,029.1	472.4	43.4	30.4	163.2	7.9	33.9	1,090.6	10.5	26.5	677.1	76.7	228.7	33.8	61.4	2,610
E Austin.....	2,048.4	1,833.0	366.7	42.5	18.8	114.9	9.4	43.1	1,030.2	9.1	37.3	619.0	110.5	187.5	37.7	38.2	384
F San Antonio.....	2,166.9	1,974.2	457.2	36.9	10.4	149.5	15.5	23.4	1,039.0	13.5	51.5	630.9	50.4	213.5	18.6	49.3	757
G Houston.....	2,187.2	1,922.7	434.7	34.3	19.3	159.5	5.4	25.5	1,073.7	11.1	31.2	704.8	60.2	229.1	6.6	52.5	4,039
H Beaumont, Port Arthur.....	2,312.9	2,103.3	510.2	45.3	28.3	170.8	10.1	33.5	1,082.1	8.2	44.1	682.2	72.7	206.5	31.7	40.1	1,053
M Galveston, Texas City.....	2,227.2	1,947.4	419.1	37.0	33.7	177.9	16.3	27.3	1,063.5	3.9	40.8	631.6	93.8	240.5	8.5	51.6	507
Virginia.....	2,523.7	2,255.5	466.0	36.0	26.9	157.4	10.9	42.2	1,257.3	9.0	52.4	725.0	86.6	282.1	60.3	48.5	14,236
5 North Central.....	2,444.3	2,113.8	457.0	55.5	27.6	135.3	13.8	56.6	1,164.8	14.4	37.5	738.4	90.9	208.1	52.2	51.1	745
6 Central.....	2,100.8	1,847.3	377.4	30.3	28.6	139.6	6.0	28.3	1,067.0	6.1	34.4	634.1	59.8	260.2	36.8	48.9	1,205
7 South Central.....	2,348.6	2,069.4	391.6	30.7	17.2	118.7	11.1	45.0	1,218.8	11.7	54.4	695.7	76.8	266.8	68.0	53.3	1,446
8 East Central.....	2,006.4	1,729.9	432.1	31.0	15.7	169.2	6.4	35.9	915.0	3.9	38.5	489.9	42.3	275.3	36.6	36.3	853
10 Southeast.....	2,607.5	2,315.6	469.4	31.6	27.6	136.3	11.7	38.3	1,368.4	5.9	68.6	790.7	55.1	333.9	61.8	33.5	1,231
B Northern Virginia Metropolitan.....	2,370.8	2,153.1	541.4	25.6	20.8	232.7	20.2	26.8	1,112.9	27.0	28.2	698.6	109.6	176.0	25.5	41.2	525
C Richmond.....	2,869.1	2,583.1	506.7	35.3	27.4	171.4	13.0	54.7	1,369.8	6.9	54.1	828.2	83.1	298.5	45.8	44.2	2,262
D Norfolk, Portsmouth.....	2,776.3	2,554.6	516.6	42.7	27.6	174.7	7.7	49.9	1,461.8	7.7	58.7	782.6	166.5	336.2	65.3	55.7	2,921
E Newport News, Hampton.....	2,450.7	2,272.7	519.7	37.0	52.5	193.4	7.0	40.8	1,226.8	8.7	50.4	717.4	44.0	255.5	115.7	61.8	1,130
Washington.....	2,166.6	1,901.2	443.3	31.1	23.7	169.5	9.7	28.1	969.2	18.9	48.1	638.1	42.0	187.0	3.6	73.1	818
A Seattle.....	2,221.5	1,963.2	429.8	32.2	23.3	151.6	11.6	22.3	959.1	18.5	68.3	603.9	52.2	184.4	2.7	96.9	534
West Virginia.....	2,762.3	2,519.8	478.1	40.9	23.7	170.9	8.3	42.0	1,383.4	9.3	53.7	727.0	129.3	302.4	122.6	92.5	1,816
4 South.....	2,947.9	2,690.6	434.0	36.3	21.0	135.6	8.1	30.2	1,531.3	2.7	54.6	769.0	148.4	314.7	201.3	104.7	985
Wisconsin.....	1,893.8	1,684.1	432.7	23.0	32.1	167.5	7.3	19.5	836.2	14.1	65.2	512.0	41.2	180.1	1.4	38.3	943
C Milwaukee.....	1,900.0	1,691.0	447.9	25.4	31.4	172.4	8.7	21.7	840.8	14.7	67.9	511.4	42.3	179.0	1.6	32.0	794

NOTE: Abbreviations used in column headings are described in the appendix.

Table 5. Rates per 100,000 population for selected causes of death for black females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
United States	1,466.5	1,401.0	277.7	34.6	14.3	25.4	51.7	4.8	24.8	785.0	11.4	45.6	405.5	47.6	206.2	42.5	14.7	253,006
Alabama.....	1,446.3	1,383.0	257.4	26.6	11.6	16.9	45.2	3.0	26.0	846.0	6.3	47.3	327.3	54.5	254.8	125.7	9.0	11,839
1 Northwest.....	1,449.5	1,364.6	272.3	29.0	16.2	16.8	42.4	8.7	42.4	844.6	3.8	28.4	309.6	99.6	232.7	139.5	11.7	446
3 North Central.....	1,561.0	1,491.6	262.4	34.8	13.2	12.3	41.4	7.8	23.6	923.4	12.2	26.3	461.1	72.4	263.1	65.2	2.3	887
4 East Central.....	1,410.1	1,318.4	211.5	16.3	6.1	22.7	36.6	4.4	29.0	844.4	2.2	41.5	340.5	90.9	323.7	22.3	6.5	583
5 West Central, North.....	1,287.5	1,221.7	260.0	27.3	13.0	13.3	42.4	1.8	28.1	711.0	2.4	39.3	280.0	41.4	243.4	76.0	5.6	656
6 West Central.....	1,282.2	1,224.7	201.0	9.1	9.9	7.8	41.2	1.3	33.9	761.8	6.4	40.1	201.8	56.0	235.2	200.6	12.2	1,351
9 Southeast.....	1,476.9	1,398.8	232.2	18.5	8.9	17.4	34.4	0.9	29.3	886.0	2.7	71.1	299.1	82.7	298.0	94.6	14.2	1,163
A Birmingham.....	1,475.1	1,417.2	279.5	35.3	12.2	23.2	54.1	3.3	20.7	831.9	8.4	46.8	259.1	32.8	273.4	184.6	12.2	3,111
C Montgomery.....	1,604.4	1,547.7	251.4	24.0	4.6	12.8	49.2	4.3	27.7	992.0	9.6	72.7	333.5	13.8	263.0	256.4	7.7	896
D Mobile.....	1,470.2	1,418.5	279.3	37.6	16.5	20.1	44.0	1.0	16.6	826.2	7.3	53.3	519.6	37.0	155.2	18.0	9.0	1,264
Arizona.....	1,232.2	1,123.2	228.4	24.5	10.6	30.0	41.2	5.5	21.5	584.1	19.3	40.6	318.7	30.1	145.5	13.4	27.6	413
Arkansas.....	1,361.1	1,296.0	240.7	25.5	15.5	15.9	38.0	3.1	34.3	800.3	6.3	39.0	366.4	61.6	238.6	71.3	10.8	4,671
5 Southwest.....	1,320.5	1,235.0	244.4	29.3	12.4	16.0	39.1	2.5	46.8	763.2	2.5	38.4	326.4	68.7	202.9	101.7	6.6	499
6 South Central.....	1,258.6	1,194.5	211.5	12.5	19.4	19.5	45.0	2.4	23.3	683.2	-	50.7	305.5	34.5	228.3	46.7	7.5	671
7 Northeast.....	1,150.6	1,102.4	205.7	20.9	15.7	2.8	43.2	2.8	22.4	712.6	7.1	32.0	298.3	29.9	248.3	78.6	6.8	405
8 East.....	1,394.3	1,333.2	245.6	22.6	12.4	14.8	33.1	2.4	35.5	849.8	10.1	34.6	361.2	92.6	250.4	84.6	13.6	1,932
A Little Rock.....	1,576.5	1,500.2	283.2	43.1	13.0	25.0	40.5	1.9	55.2	910.5	7.3	41.1	501.8	31.0	281.7	33.8	13.4	808
California.....	1,146.0	1,080.7	263.5	31.0	15.7	29.3	53.2	4.3	20.1	533.3	13.4	27.1	318.0	17.1	132.3	2.5	16.5	10,429
A San Francisco, Oakland.....	1,163.1	1,095.1	284.5	35.6	18.7	37.1	53.1	3.4	21.4	528.9	11.8	26.0	308.6	15.2	135.8	3.3	17.1	2,691
C Sacramento.....	1,139.4	1,085.0	207.4	25.2	6.2	16.7	24.7	-	4.0	654.5	43.1	28.1	277.4	43.3	113.4	11.3	34.3	221
F Los Angeles.....	1,137.4	1,074.1	261.3	31.0	13.2	25.4	55.0	4.4	22.0	544.8	12.8	26.0	334.7	16.6	133.3	0.9	14.7	5,919
G San Diego.....	1,111.7	1,037.3	263.4	33.7	33.8	24.5	40.6	-	13.2	463.8	4.9	34.3	256.7	5.9	134.0	14.8	18.0	325
H San Bernardino, Riverside, Ontario.....	1,060.2	992.9	227.3	21.7	15.6	31.1	62.1	6.2	15.6	471.7	24.6	40.0	257.9	21.6	114.9	-	14.9	320
Colorado.....	1,162.8	1,102.6	227.3	42.5	27.9	14.4	51.4	5.1	21.8	544.8	18.2	34.8	292.9	24.2	135.3	13.9	20.7	443
A Denver.....	1,132.8	1,088.5	227.2	38.6	30.6	11.5	47.1	6.2	16.6	532.1	18.5	34.9	289.3	26.2	122.5	13.5	19.4	366
Connecticut.....	1,256.3	1,205.6	274.1	39.7	18.1	27.5	54.7	7.0	20.8	593.2	11.1	39.7	321.5	32.2	146.6	9.2	16.6	1,319
A Bridgeport, Stamford, Norwalk.....	1,171.5	1,114.7	264.6	43.4	29.4	25.6	50.2	5.8	9.4	513.3	10.8	30.9	277.7	45.7	119.7	4.6	15.6	420
B New Haven, Waterbury.....	1,366.3	1,321.0	317.8	60.5	14.0	27.7	52.6	3.3	34.2	675.7	9.2	41.1	364.3	28.8	166.7	8.4	12.9	427
C Hartford, New Britain, Bristol.....	1,248.8	1,191.3	248.8	13.0	12.4	32.6	63.7	13.3	14.6	581.8	16.4	49.0	307.5	18.4	155.5	18.1	19.2	382
Delaware.....	1,624.0	1,556.0	345.0	42.0	15.8	27.9	73.0	10.4	21.1	796.1	10.4	37.0	529.2	29.7	161.6	6.9	7.1	887
A Wilmington.....	1,655.9	1,588.6	325.8	49.0	13.4	24.6	62.0	10.6	13.3	825.3	10.4	30.5	566.6	24.1	169.3	5.5	2.9	584
District of Columbia.....	1,424.5	1,370.6	321.2	50.8	18.6	32.2	55.6	5.0	23.4	622.5	11.0	26.8	396.9	20.3	127.6	13.1	19.3	5,860
Florida.....	1,692.1	1,607.0	275.4	30.4	13.7	22.7	48.6	6.7	22.0	919.4	13.2	57.4	423.2	61.8	253.3	76.5	17.0	12,897
2 Central North.....	1,647.3	1,530.5	248.3	27.8	2.5	18.0	32.5	-	43.7	907.9	13.9	69.7	365.0	112.9	246.2	55.8	10.4	507
3 North Central.....	1,549.6	1,481.0	244.0	30.1	14.4	13.2	48.2	6.9	25.1	969.1	7.2	57.6	359.6	86.1	280.1	138.2	9.4	1,431
4 East Central.....	1,816.0	1,711.9	306.0	37.1	12.0	23.3	60.9	4.0	16.6	998.6	12.0	49.1	502.1	58.1	257.6	93.1	14.5	832
5 Central South.....	1,799.7	1,715.1	294.9	27.7	18.2	24.3	49.8	5.1	22.2	949.5	20.0	65.0	433.7	45.7	236.5	118.1	19.2	1,295
6 Southwest.....	2,084.8	1,967.4	324.4	25.2	11.0	39.6	53.8	11.2	28.0	1,093.8	16.9	81.9	398.6	95.3	286.0	195.2	25.8	697
A Jacksonville.....	1,849.8	1,779.8	285.8	26.0	14.7	35.6	45.3	6.5	24.4	981.5	15.0	83.7	438.9	70.5	279.8	44.3	17.7	1,886
B Tampa, St. Petersburg.....	1,775.4	1,686.9	281.2	45.4	18.7	21.1	48.0	9.7	18.5	962.0	7.0	59.5	428.1	46.9	242.6	148.9	14.8	1,517
C Miami.....	1,539.1	1,457.7	287.1	26.5	15.4	25.3	59.4	7.5	19.7	753.8	17.1	38.3	386.8	63.9	210.7	5.6	16.2	1,824

See footnote at end of table.

Table 5. Rates per 100,000 population for selected causes of death for black females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72-Con.

(Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.))

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Florida-Con.																		
D Pensacola.....	1,470.0	1,428.8	278.8	34.9	19.7	11.3	47.0	8.6	40.9	854.1	3.0	48.7	560.6	35.4	174.8	5.8	5.8	495
E Orlando.....	1,635.5	1,540.3	268.7	38.1	8.2	10.3	44.4	4.1	17.0	877.4	10.2	49.9	404.2	50.3	305.9	35.9	29.4	735
F West Palm Beach.....	1,637.3	1,645.8	270.5	34.1	9.3	19.8	46.8	9.1	6.8	837.0	18.1	40.4	440.9	17.9	246.3	27.1	20.2	685
G Fort Lauderdale.....	1,587.9	1,490.1	212.6	26.2	3.6	23.1	29.6	6.2	15.7	902.8	11.3	44.4	461.5	50.3	292.1	13.3	26.3	675
Georgia.....	1,739.1	1,657.0	264.8	32.6	12.5	18.5	46.3	5.5	30.7	1,001.8	9.0	63.6	437.2	75.0	341.0	39.4	13.1	16,644
4 Central, North.....	1,574.7	1,489.4	233.3	28.9	8.8	20.6	44.6	8.0	22.4	935.7	7.8	51.9	436.4	39.8	317.3	45.8	10.0	2,444
6 Central, South.....	1,620.2	1,529.5	200.3	27.0	10.0	5.8	40.7	5.7	20.1	1,000.0	3.8	38.0	443.5	42.5	390.6	47.7	8.8	810
7 Southwest.....	1,676.2	1,603.3	269.5	30.3	11.1	15.4	41.5	4.4	24.1	1,002.9	8.0	58.2	420.9	55.5	395.5	37.0	4.1	2,410
8 South Central.....	1,603.3	1,526.1	205.9	15.7	16.7	9.3	31.9	1.4	33.1	966.7	7.2	53.6	362.0	123.5	351.1	39.1	12.3	1,249
9 Southeast.....	1,919.4	1,824.9	276.0	27.3	6.6	25.2	52.1	2.0	34.3	1,130.2	5.3	113.1	471.5	103.9	377.0	19.9	22.2	801
B Atlanta.....	1,814.8	1,732.0	293.2	42.7	11.6	21.0	58.9	5.6	40.9	942.8	10.4	47.1	462.1	75.1	267.9	54.7	22.6	4,221
C Columbus.....	1,772.6	1,685.1	287.4	26.3	17.5	15.7	52.9	12.7	41.3	1,094.9	13.2	125.2	331.8	203.9	315.7	79.2	10.2	653
D Augusta.....	2,011.7	1,931.5	291.9	30.1	19.8	31.1	49.8	2.6	23.3	1,201.7	12.5	139.8	561.2	38.8	340.5	-	14.5	800
E Savannah.....	2,108.7	2,012.5	349.8	48.4	18.8	22.5	63.6	7.9	34.2	1,213.0	18.3	96.9	402.3	145.6	478.8	10.9	16.4	1,259
F Macon.....	1,817.6	1,752.1	250.3	30.6	10.2	23.1	24.0	4.0	46.9	1,067.3	4.8	80.4	502.3	54.1	374.7	7.8	9.7	812
Illinois.....	1,506.3	1,452.2	305.5	44.0	16.9	30.4	54.8	5.6	18.8	845.5	12.0	83.4	450.3	92.9	184.3	3.1	14.5	14,715
C Chicago.....	1,528.1	1,476.3	312.1	46.6	17.1	30.8	55.9	6.1	18.0	861.0	12.2	81.2	454.0	104.9	187.7	2.5	14.7	12,739
F East St. Louis.....	1,526.1	1,455.6	267.9	30.3	17.3	27.8	48.6	1.5	30.3	884.5	8.0	161.8	493.6	24.3	179.1	6.5	12.6	910
Indiana.....	1,470.1	1,411.0	300.0	43.4	14.6	27.6	62.5	5.6	25.0	784.2	15.6	49.2	413.4	42.7	228.5	7.4	17.5	3,766
A Gary, Hammond, East Chicago.....	1,623.5	1,557.6	300.8	40.4	11.8	14.6	69.3	3.6	21.8	914.3	9.7	63.6	481.8	35.0	273.4	10.1	15.8	1,215
D Indianapolis.....	1,396.3	1,341.1	316.0	49.6	18.8	39.2	66.5	7.2	26.2	708.1	17.1	29.9	382.5	43.6	214.8	1.8	17.2	1,476
Kansas.....	1,256.7	1,185.3	272.7	34.5	16.6	37.3	47.2	3.6	18.6	597.3	9.7	33.9	354.3	19.7	153.5	10.1	13.8	1,037
B Kansas City.....	1,315.6	1,227.8	271.5	33.6	20.7	27.6	33.1	3.3	14.4	642.6	10.5	25.5	381.3	25.3	179.0	12.8	17.9	433
Kentucky.....	1,817.6	1,545.8	322.8	40.2	13.7	36.5	48.9	6.0	17.6	851.5	6.4	48.2	503.1	44.7	219.0	4.0	24.2	3,469
A Louisville.....	1,701.7	1,623.6	305.6	35.3	10.8	32.3	45.8	6.5	13.5	905.6	3.9	30.5	531.6	60.3	251.0	5.2	31.1	1,495
Louisiana.....	1,528.3	1,465.1	287.4	29.9	11.8	25.3	54.6	6.6	34.0	836.6	6.7	38.0	468.3	73.2	213.3	9.7	20.6	13,358
1 Central.....	1,468.3	1,411.6	286.6	14.7	5.9	14.4	53.8	6.3	46.0	818.1	4.7	23.9	516.8	47.2	205.4	3.8	10.1	683
2 Northeast.....	1,401.9	1,339.2	247.6	16.9	12.4	18.7	52.3	5.3	32.7	858.8	7.3	47.6	457.3	56.0	230.6	18.1	7.3	941
3 East Central.....	1,340.6	1,291.7	271.8	18.8	10.7	32.9	50.9	7.7	42.9	739.5	5.0	37.3	416.8	51.0	202.0	4.3	9.8	812
4 North Central.....	1,158.4	1,086.6	240.2	17.0	8.5	12.6	55.1	4.0	24.8	577.6	6.6	43.4	281.8	35.8	180.9	6.1	7.4	701
5 East.....	1,587.1	1,487.3	228.5	23.9	1.5	20.9	42.3	10.0	32.7	907.8	4.9	24.6	516.4	87.5	224.1	33.1	12.6	978
6 South Central.....	1,587.3	1,535.5	322.5	42.1	17.4	21.4	59.1	11.3	44.9	880.4	3.4	37.7	511.7	69.4	223.1	2.2	20.1	1,363
A Shreveport.....	1,413.3	1,343.0	246.7	23.6	11.1	16.9	62.2	4.2	20.4	770.9	6.8	70.9	438.5	59.9	173.7	3.2	13.9	1,245
B New Orleans.....	1,736.7	1,675.5	338.9	42.3	10.8	34.3	64.4	6.5	31.9	910.5	8.7	28.4	571.4	60.3	205.5	6.5	20.8	4,272
C Baton Rouge.....	1,583.4	1,512.1	295.8	30.9	20.3	24.4	54.5	4.8	52.4	877.3	10.0	24.9	387.9	137.9	281.9	4.6	88.0	966
E Monroe.....	1,629.1	1,572.4	247.3	28.2	12.1	18.7	32.5	5.4	22.4	914.3	8.7	92.3	247.2	283.4	213.3	29.8	22.5	482
Maryland.....	1,457.5	1,397.7	304.1	41.8	12.9	35.1	52.3	5.9	33.1	709.3	13.4	35.0	442.9	34.4	154.2	6.8	17.2	6,960
4 Eastern Shore.....	1,540.6	1,474.7	291.6	38.4	19.1	24.5	42.3	3.5	33.4	801.2	9.0	69.3	470.1	56.1	174.7	7.2	11.8	761
A Baltimore.....	1,532.8	1,472.1	317.4	44.5	12.1	39.3	53.1	5.8	35.2	745.5	15.7	31.6	468.9	34.8	161.3	5.4	17.7	5,301
B Montgomery & Prince Georges Counties.....	1,112.0	1,066.3	277.4	36.7	13.8	20.0	62.2	12.2	25.2	513.7	8.2	19.7	324.2	19.0	130.5	5.3	13.4	508
Massachusetts.....	1,215.3	1,160.8	286.9	37.9	15.3	30.7	57.7	1.8	25.7	552.4	17.0	38.5	315.5	26.8	127.8	7.4	11.1	1,325
	1,711.1	1,654.2	283.9	35.2	15.7	26.6	60.9	1.2	25.7	548.7	18.1	39.3	317.3	27.6	121.5	7.8	11.3	996

Table 5. Rates per 100,000 population for selected causes of death for black females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72-Con.

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Michigan.....	1,389.1	1,324.9	286.1	37.7	14.0	28.3	55.6	3.4	24.7	680.2	12.0	44.4	403.2	23.8	168.4	7.5	15.0	9,532
6 Southwest.....	1,429.5	1,332.5	346.6	23.3	13.1	40.9	54.3	3.2	30.8	617.7	14.2	71.8	303.9	20.4	180.5	-	20.9	394
D Flint.....	1,237.8	1,174.0	248.1	33.5	11.9	39.2	35.3	6.9	23.8	595.1	2.8	34.9	390.9	25.8	104.7	4.2	6.3	347
F Detroit.....	1,419.0	1,356.5	286.9	39.1	13.1	27.4	59.4	3.2	24.2	699.2	11.8	42.8	421.7	24.0	171.2	7.9	16.2	7,849
Mississippi.....	1,365.4	1,294.7	232.7	20.2	11.8	14.2	44.7	3.0	24.8	807.0	7.3	49.8	322.6	49.5	209.4	148.8	8.5	9,340
1 Northwest.....	1,432.0	1,358.4	238.0	24.8	12.2	20.0	38.0	2.6	26.8	862.9	9.5	54.5	346.2	70.1	221.2	142.6	5.7	2,300
2 North Central.....	1,320.3	1,251.4	242.9	15.8	10.3	11.0	49.8	1.5	34.8	794.2	2.0	50.2	300.1	38.2	231.9	149.8	9.6	1,293
3 Southwest.....	1,353.1	1,287.9	266.8	27.8	11.8	14.2	50.3	6.1	21.6	776.7	8.7	49.2	335.5	39.8	194.4	125.9	8.0	1,287
5 East Central, North.....	1,414.6	1,343.8	218.2	14.2	11.8	14.6	34.6	2.5	16.0	870.3	12.3	62.2	316.0	67.3	256.4	133.9	4.9	842
6 East Central.....	1,323.1	1,256.5	214.2	14.7	13.9	12.5	45.2	1.6	22.6	778.1	5.9	39.5	325.5	34.9	213.0	139.4	11.4	1,819
8 Southeast, South.....	1,557.6	1,478.3	260.1	18.1	14.3	3.5	63.9	3.5	22.2	850.9	3.7	72.1	418.2	70.2	208.5	67.0	7.7	399
A Jackson.....	1,224.1	1,161.3	202.6	17.2	7.8	16.5	36.5	4.3	23.6	708.7	10.9	28.2	211.4	38.0	140.8	271.0	11.1	752
Missouri.....	1,526.9	1,463.8	306.1	36.5	13.2	30.4	54.9	3.7	30.4	791.7	12.4	43.4	381.0	42.1	216.1	72.4	16.8	6,086
A Kansas City.....	1,494.1	1,436.8	307.3	41.5	13.8	22.9	48.9	5.1	37.2	784.7	6.3	32.4	292.0	52.5	159.3	225.3	17.9	1,343
B St. Louis.....	1,532.4	1,468.9	302.9	33.9	12.6	31.1	56.5	3.4	27.8	785.4	13.7	47.0	410.7	36.6	234.8	14.1	17.7	3,859
Nebraska.....	1,406.6	1,362.9	326.4	34.8	18.1	28.1	63.6	4.1	11.2	731.1	22.3	69.4	410.3	27.5	185.8	4.1	18.8	357
B Omaha.....	1,423.1	1,375.4	349.5	38.2	19.7	31.0	65.6	4.6	12.3	738.1	24.4	67.9	426.5	30.3	175.8	4.6	20.6	328
New Jersey.....	1,376.2	1,323.1	301.0	41.8	15.4	31.2	52.7	6.2	21.4	705.5	16.8	35.6	440.5	31.6	155.5	6.8	16.4	7,285
1 North.....	1,402.6	1,354.1	294.5	27.9	16.2	27.1	53.5	5.3	18.4	721.2	11.3	49.1	424.0	35.3	179.0	5.5	17.6	692
B Newark.....	1,318.2	1,269.3	294.7	44.2	15.0	27.6	50.2	6.6	20.1	677.4	17.6	29.9	442.3	29.6	138.6	5.8	16.2	3,128
C Trenton.....	1,347.0	1,294.8	285.3	45.8	21.4	36.6	39.4	9.5	20.2	661.7	11.9	43.2	379.5	22.2	180.2	3.2	23.8	444
D Camden.....	1,360.4	1,304.8	334.9	50.0	18.8	35.8	67.4	6.4	24.5	685.1	20.0	19.9	413.1	19.9	190.1	3.1	16.2	854
E Atlantic City.....	1,580.8	1,506.0	344.9	54.1	15.1	37.1	69.4	-	16.6	826.0	14.4	54.0	579.3	15.1	127.7	13.2	22.6	505
G Paterson, Clifton, Passaic.....	1,281.3	1,239.3	312.4	41.7	9.2	40.4	57.7	6.3	15.8	643.1	24.5	34.1	383.9	18.8	139.2	11.8	12.9	641
H Jersey City.....	1,647.9	1,589.6	303.3	18.5	12.9	38.7	42.6	10.2	41.8	848.7	15.7	49.4	495.6	83.4	164.1	14.6	12.6	621
New York.....	1,346.8	1,289.4	278.4	38.2	14.2	28.0	54.4	4.1	19.5	628.3	16.3	30.8	385.5	22.3	138.7	12.9	15.3	21,802
9 Southeast.....	1,143.3	1,068.4	229.6	11.7	12.0	27.8	42.9	3.9	19.8	576.9	12.1	23.8	350.3	7.9	158.4	4.0	27.7	269
A Buffalo.....	1,413.8	1,360.1	266.8	30.6	16.6	33.0	66.2	1.4	11.7	723.3	25.2	33.6	420.8	22.5	187.9	5.7	20.2	1,034
B Rochester.....	1,232.5	1,148.6	243.3	27.6	27.9	22.6	39.3	3.5	13.7	580.9	3.5	37.2	324.0	31.9	158.2	6.1	13.7	274
G New York City.....	1,350.4	1,293.9	280.4	39.2	13.6	28.0	54.7	4.2	20.2	626.3	16.3	30.9	387.0	21.9	135.2	13.5	14.8	19,658
North Carolina.....	1,527.9	1,453.9	246.8	29.3	13.3	13.9	47.3	3.6	29.2	866.9	8.7	49.8	430.8	54.3	248.5	46.6	12.0	13,496
3 West North Central.....	1,306.1	1,256.7	227.8	39.3	10.7	13.2	37.1	2.5	30.4	727.5	7.1	31.0	362.9	46.7	213.3	38.6	10.6	945
4 West Central.....	1,483.6	1,412.4	236.8	26.3	12.9	7.3	48.4	2.9	20.4	831.0	4.3	45.2	410.2	64.6	253.6	30.4	9.5	938
5 West South Central.....	1,497.6	1,424.3	217.4	21.2	9.4	9.7	34.4	5.1	22.1	896.5	10.5	43.0	469.3	39.4	240.1	57.5	13.0	751
6 Central.....	1,369.5	1,289.4	211.8	26.9	14.7	9.2	41.3	1.6	23.3	809.7	6.9	39.1	421.8	59.2	216.8	46.2	10.4	744
7 East North Central.....	1,358.8	1,316.1	216.7	18.2	19.8	8.9	51.3	1.5	21.5	823.8	6.8	64.2	349.1	72.2	244.2	61.5	12.3	1,028
8 East Central.....	1,602.2	1,538.1	248.5	26.5	9.5	13.4	51.1	3.0	33.7	951.2	8.9	58.2	451.0	52.9	316.9	29.8	8.2	1,958
9 South Central.....	1,693.0	1,603.3	246.0	25.2	10.0	12.9	44.1	3.7	29.3	1,027.5	3.7	50.7	429.9	103.9	285.5	123.2	11.6	1,245
10 Northeast.....	1,387.5	1,327.9	215.9	17.3	14.0	23.4	37.9	-	28.9	795.8	14.8	62.9	371.6	43.9	257.6	20.8	23.2	370
11 Southeast.....	1,557.1	1,477.2	246.6	26.1	8.7	19.8	43.6	4.1	41.8	894.5	13.2	51.4	361.1	54.3	293.3	100.1	13.7	1,379
B Winston-Salem.....	1,899.4	1,802.0	305.0	47.4	12.9	14.2	41.7	8.5	27.5	1,069.5	7.7	34.4	719.8	40.3	222.0	11.8	9.7	847
C Greensboro, High Point.....	1,546.7	1,456.5	302.2	39.5	22.9	8.4	54.5	6.2	43.8	773.3	4.3	33.6	435.5	27.8	232.0	12.8	20.9	694
D Charlotte.....	1,747.0	1,644.7	281.1	38.9	22.6	20.9	53.0	8.1	21.0	940.1	19.1	74.3	536.4	41.4	221.8	11.2	12.7	1,017
E Raleigh.....	1,350.3	1,270.1	215.6	28.2	11.3	11.9	59.7	2.2	26.0	716.9	10.0	46.6	410.1	30.6	179.0	15.1	12.0	532
F Durham.....	1,439.2	1,385.2	305.0	45.4	18.6	22.3	55.5	-	34.6	696.3	4.6	51.8	394.8	39.7	175.6	12.4	10.2	550

See footnote at end of table.

Table 5. Rates per 100,000 population for selected causes of death for black females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72--Con.

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Ohio.....	1,398.9	1,334.9	287.7	39.7	17.5	33.1	55.6	5.5	20.1	717.6	15.9	56.1	413.6	25.7	164.5	14.8	16.4	10,373
A Toledo.....	1,302.1	1,234.4	259.8	28.9	18.7	29.2	47.1	7.0	18.7	652.1	9.3	26.4	405.4	25.5	160.7	2.5	18.9	523
B Columbus.....	1,505.5	1,457.7	308.3	39.5	4.9	44.0	64.0	5.0	18.4	778.7	9.8	147.1	336.8	35.3	193.2	32.9	17.2	1,181
C Dayton.....	1,297.8	1,246.9	275.7	30.8	20.3	33.2	63.1	9.0	14.9	680.2	14.6	42.3	379.2	26.8	169.6	9.3	8.4	852
E Cleveland.....	1,411.1	1,340.2	282.4	38.4	21.0	28.3	55.3	5.1	26.3	736.1	13.7	47.9	443.5	28.3	166.0	6.7	17.8	3,468
F Akron.....	1,281.6	1,244.4	245.8	22.7	13.3	28.0	42.5	12.8	10.7	675.2	20.1	33.3	308.9	32.7	161.0	92.3	10.2	486
H Youngstown.....	1,439.5	1,369.9	293.3	41.9	16.3	25.5	62.6	4.6	13.6	673.2	29.0	52.3	335.3	22.4	193.4	8.8	16.0	599
K Cincinnati.....	1,459.3	1,388.4	314.2	47.9	23.8	41.0	52.1	4.4	18.2	746.0	17.2	42.7	482.9	18.2	148.5	6.9	18.2	1,867
Oklahoma.....	1,244.7	1,187.7	270.0	37.6	9.6	21.0	52.0	3.9	22.2	613.6	8.6	42.4	304.2	41.5	176.5	21.3	15.7	1,900
A Tulsa.....	1,268.8	1,193.7	284.8	42.4	17.5	23.9	48.6	2.6	9.7	627.0	16.6	38.0	348.8	45.8	156.6	8.6	18.7	397
B Oklahoma City.....	1,220.1	1,174.3	242.4	29.2	4.9	17.2	47.3	2.4	36.8	606.8	2.5	45.6	271.5	36.4	201.9	31.9	17.1	483
Pennsylvania.....	1,532.6	1,470.8	305.0	44.0	13.3	28.8	57.7	6.9	31.7	806.4	15.7	33.0	381.6	41.5	167.5	140.3	16.7	13,351
B Philadelphia.....	1,523.4	1,464.7	297.9	39.8	14.1	29.7	55.5	7.4	30.9	810.9	13.5	31.0	346.1	45.0	160.6	189.3	16.7	9,692
D Pittsburgh.....	1,525.0	1,458.1	318.4	56.5	12.1	25.7	66.3	3.3	33.1	787.8	23.8	43.7	461.1	30.5	190.2	5.8	13.9	2,478
South Carolina.....	1,818.2	1,742.5	255.0	23.0	15.0	19.8	45.7	5.1	22.9	1,123.4	7.7	65.1	536.0	68.7	322.4	83.6	9.8	10,902
2 Northwest Central.....	1,778.6	1,713.6	259.5	21.0	15.8	24.9	57.8	2.9	20.7	1,070.3	9.3	85.3	524.6	51.9	257.1	101.3	18.7	1,206
3 North Central.....	1,710.6	1,647.2	242.8	21.7	17.9	38.6	46.8	5.7	19.7	1,029.8	-	51.6	513.2	59.4	324.1	35.6	2.1	788
4 West Central.....	1,625.8	1,564.9	244.7	27.3	18.4	14.1	46.0	2.5	24.3	1,005.8	11.5	35.0	468.0	53.2	346.1	45.6	7.8	557
6 East Central.....	1,716.3	1,639.2	239.1	15.6	11.3	14.6	34.8	9.4	15.6	1,066.2	9.4	61.9	499.7	63.5	306.1	89.0	5.7	2,205
7 Northeast.....	1,820.8	1,736.4	247.9	15.3	22.5	10.2	50.0	1.2	27.9	1,165.3	7.1	62.8	511.3	84.0	376.2	93.2	7.1	1,342
8 Southeast.....	1,989.9	1,910.0	247.1	30.6	15.5	12.7	38.3	1.5	24.5	1,308.8	9.6	91.4	582.5	69.3	413.1	92.6	4.8	1,213
A Columbia.....	1,792.7	1,715.0	275.1	20.3	14.3	23.3	41.1	11.6	27.0	1,107.5	10.3	89.6	615.1	23.4	320.3	10.2	3.6	1,020
C Charleston.....	2,034.6	1,959.6	259.3	28.0	8.2	23.5	50.4	3.3	28.5	1,279.3	1.8	49.4	535.4	169.1	257.6	224.5	25.1	1,177
D Greenville.....	2,014.8	1,895.6	325.0	41.9	21.1	27.8	50.1	3.0	30.6	1,037.7	12.6	75.6	480.4	65.0	361.6	12.1	28.7	612
Tennessee.....	1,548.0	1,478.0	287.1	34.3	13.9	22.9	55.3	4.8	31.4	871.7	8.5	34.3	489.7	33.3	259.9	20.5	12.8	8,482
1 West.....	1,318.8	1,265.2	251.9	30.4	10.8	18.6	40.7	1.9	25.4	767.2	3.2	37.9	415.4	22.3	249.7	21.6	4.1	1,064
5 South Central.....	1,483.4	1,421.6	240.9	21.1	10.2	11.7	66.3	2.5	16.8	791.4	5.8	54.7	416.4	47.6	233.1	10.1	10.9	514
A Memphis.....	1,548.1	1,483.5	302.5	35.7	12.6	21.3	57.8	4.2	49.0	888.6	12.2	25.8	502.5	28.3	289.8	4.5	16.5	3,363
B Nashville.....	1,678.9	1,596.7	310.3	34.5	15.5	32.5	56.5	12.0	12.0	923.4	9.6	33.0	560.1	48.8	239.0	1.2	5.9	1,311
C Chattanooga.....	1,824.0	1,739.5	314.9	46.8	25.3	24.0	53.9	7.9	38.4	1,015.9	3.6	23.9	640.1	33.9	282.5	6.8	16.7	873
D Knoxville.....	1,699.0	1,634.5	305.8	45.0	16.5	32.0	51.8	3.1	16.1	919.9	13.4	31.1	398.9	48.3	196.3	196.6	23.9	472
Texas.....	1,424.8	1,357.9	274.5	30.4	17.0	24.5	50.2	4.4	20.3	789.7	10.5	41.5	382.4	66.6	219.1	43.5	11.3	15,737
8 North Central, East.....	1,433.7	1,355.8	262.1	28.3	15.8	11.0	55.6	4.5	35.3	816.7	8.3	45.2	315.1	135.6	230.6	64.0	7.7	1,006
9 Central East.....	1,357.5	1,299.9	250.7	26.0	9.6	17.2	40.3	1.5	18.5	793.7	8.2	32.6	304.1	91.0	210.7	127.9	12.3	590
12 Northeast.....	1,385.5	1,317.9	287.4	25.1	22.1	16.4	49.7	2.4	23.7	802.4	8.3	42.9	353.7	70.6	210.8	95.8	9.0	2,258
13 East Central.....	1,277.2	1,231.5	215.2	23.8	6.7	14.9	36.0	3.1	11.7	765.5	5.2	24.2	320.3	65.3	228.7	97.2	7.0	616
14 Southeast.....	1,517.6	1,433.1	273.9	35.8	19.5	23.2	38.4	-	28.8	892.1	12.6	37.6	369.3	90.8	265.4	91.1	11.1	803
B Fort Worth.....	1,500.1	1,433.0	299.1	36.1	11.2	15.6	46.3	7.8	26.3	798.5	17.5	52.2	398.7	49.3	246.1	12.7	22.5	910
C Dallas.....	1,459.1	1,399.4	258.3	32.7	13.8	24.0	51.0	1.9	20.1	818.8	10.3	36.7	456.2	55.5	208.8	21.1	10.3	2,152
E Austin.....	1,250.0	1,197.9	302.9	36.5	20.9	39.8	61.9	3.2	13.1	664.2	22.8	19.1	355.7	65.7	127.8	20.4	18.6	337
F San Antonio.....	1,310.7	1,250.3	299.3	47.4	19.5	19.6	49.5	6.0	14.0	638.4	14.4	43.4	331.4	28.4	153.8	19.8	18.5	631
G Houston.....	1,471.9	1,413.1	280.3	30.2	18.9	35.7	48.9	5.7	15.5	826.4	11.8	43.5	462.5	39.3	241.1	6.2	11.6	3,329
H Beaumont, Port Arthur.....	1,560.2	1,494.2	292.6	26.5	14.1	30.8	63.7	5.4	30.2	847.3	10.8	71.1	414.7	51.4	251.3	29.7	8.7	840
M Galveston, Texas City.....	1,394.7	1,321.9	294.7	51.6	13.7	44.1	44.5	9.9	17.0	745.1	3.3	14.0	435.5	64.4	187.0	9.9	-	388

Table 5. Rates per 100,000 population for selected causes of death for black females aged 35-74 years (age-adjusted) by States and State economic areas: United States, 1968-72—Con.

[Including just the 34 States and 155 SEA's with a black population aged 35-74 years inclusive in 1970 of more than 10,000, approximately the white population in the least populous SEA. (The State rate is for the entire black population in the State and thus will not be identical with the SEA rate, even when only one SEA is listed under a State.)]

State and State economic area	ALL C	NAT C 000- 796	CA 140- 209	CA C-R 152- 154	CA PAN 157	CA RESP 160- 163	CA BRST 174	CA BLAD 188	CA ILL D 195- 199	CV + ILL D 390-448, 780-796	RHD RF 390- 398	HYP HHD 400- 404	ISCH HT 410- 413	OTH HT 420- 429	STRK 430- 438	ILL DEF 780- 796	CHR RESP 490-493, 517-519	NO. OF DEATHS NATC
Virginia	1,554.6	1,482.0	280.4	37.2	14.2	25.2	53.5	3.8	26.0	863.1	9.0	53.1	459.0	50.8	228.1	33.0	14.6	10,645
5 North Central.....	1,407.4	1,346.4	276.0	44.4	18.2	19.4	56.9	-	30.2	742.9	7.6	35.3	426.2	58.6	164.2	23.7	14.1	498
6 Central.....	1,413.6	1,343.3	263.7	37.5	22.8	21.5	43.7	4.0	18.1	774.4	6.3	30.3	434.1	31.3	217.7	21.6	11.1	930
7 South Central.....	1,467.5	1,401.9	243.2	45.3	11.3	12.9	45.4	4.9	19.8	861.2	15.1	42.8	479.3	35.7	227.5	33.2	10.2	1,102
8 East Central.....	1,210.6	1,134.9	239.7	36.1	9.8	22.4	32.4	5.8	31.9	655.0	10.5	35.5	334.1	32.9	188.7	24.0	10.3	564
10 Southeast.....	1,583.3	1,514.9	306.0	46.1	13.1	22.1	73.6	-	23.1	880.8	7.0	54.9	475.0	38.8	256.7	30.1	11.8	904
B Northern Virginia Metropolitan	1,388.5	1,347.4	354.9	55.0	7.1	56.0	59.7	3.8	15.7	663.8	3.8	29.0	381.9	46.5	147.7	15.0	18.1	348
C Richmond.....	1,618.2	1,521.6	275.9	34.8	10.5	24.1	53.1	4.3	29.4	858.4	8.9	50.4	460.4	55.3	235.7	29.9	20.7	1,706
D Norfolk, Portsmouth.....	1,840.4	1,781.1	317.3	29.3	12.3	30.0	55.2	3.0	42.2	1,093.1	7.9	84.4	547.8	92.7	272.4	51.3	22.1	2,437
E Newport News, Hampton.....	1,580.5	1,526.0	291.6	35.9	21.6	36.6	62.3	3.8	17.0	880.3	5.6	71.1	483.0	42.7	195.7	55.1	9.4	818
Washington.....	1,141.5	1,076.8	302.6	30.4	15.0	36.7	65.7	4.0	30.9	509.4	5.4	45.8	248.0	31.6	155.8	2.5	30.0	421
A Seattle.....	1,039.5	968.2	285.4	27.1	15.0	39.7	49.0	3.5	29.6	446.6	8.5	53.9	218.6	23.9	121.1	3.8	26.7	254
West Virginia.....	1,630.0	1,584.0	275.4	28.0	14.2	33.2	31.0	6.6	36.5	905.5	8.8	37.3	490.8	80.4	181.4	82.1	22.9	1,317
4 South.....	1,691.7	1,634.9	264.9	24.8	13.3	36.1	26.0	9.3	39.8	986.6	6.7	41.5	505.6	93.4	171.8	141.3	10.2	691
Wisconsin.....	1,191.2	1,139.7	275.4	38.8	16.5	30.1	46.1	4.8	15.8	625.9	15.8	45.5	307.6	16.5	207.3	1.4	10.0	704
C Milwaukee.....	1,218.8	1,168.6	277.9	40.8	18.2	28.1	50.1	5.6	18.8	640.6	13.9	52.2	314.6	17.7	209.4	1.6	11.8	608

NOTE: Abbreviations used in column headings are described in the appendix.

Table 6. Correlations of rates for 1968-72 and 1959-61 for selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	White males				White females			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	.85	.83	.86	.85	.89	.83	.84	.81
Natural causes.....000-796	.88	.85	.86	.86	---	---	.86	.83
Malignant neoplasms, all sites.....140-209	.91	.75	.65	.72	.93	.71	.73	.61
Digestive organs and peritoneum.....150-159	.94	.71	.72	.61	.93	.62	.64	.57
Stomach.....151	.64	.41	.44	.37	.70	.39	.43	.37
Colo-rectal.....152-154	.92	.73	.72	.67	.89	.68	.67	.65
Pancreas.....157	.56	.21	.23	.17	.19	.11	.12	.09
Respiratory system.....160-163	.86	.71	.54	.78	.78	.39	.32	.34
Breast.....174	*	*	*	*	.65	.53	.55	.42
Female genital organs.....180-184	...	...	...	...	.67	.39	.40	.38
Cervix uteri.....180	...	...	...	...	.56	.40	.44	.40
Prostate.....185	.50	.18	.30	.06	...	...	...	...
Bladder.....188	.77	.41	.36	.34	.62	.04	-.01	.04
Leukemia.....204-207	.26	.13	.14	.12	.32	.03	.07	.01
Major cardiovascular-renal (and ill-defined) diseases.....390-458, 582-584, 780-796	.87	.84	.85	.86	.86	.83	.84	.82
Rheumatic heart disease.....390-398	.85	.57	.59	.53	.94	.71	.71	.67
Hypertensive heart disease and hypertension.....400-404	.36	.32	.33	.34	.36	.26	.25	.29
Ischemic and other heart disease.....410-429	.80	.76	.80	.76	.87	.81	.84	.79
Cerebrovascular disease.....430-438	.93	.74	.57	.82	.70	.49	.45	.52
Ill-defined conditions.....780-796	.69	.58	.50	.64	.69	.60	.51	.68
All other diseases.....000-136, 210-389, 450-778	.87	.81	.82	.76	.85	.63	.58	.63
Neoplasms, benign and unspecified.....210-239	.66	.22	.22	.22	.26	.01	.01	.01
Tuberculosis, all forms.....010-019	.78	.67	.68	.65	.65	.42	.23	.52
Diabetes.....250	.87	.52	.57	.49	.88	.61	.68	.57
Influenza and pneumonia.....470-486	.79	.44	.50	.36	.59	.34	.38	.32
Chronic respiratory diseases.....490-493, 517-519	.85	.67	.70	.66	.84	.45	.48	.42
Cirrhosis of liver.....571	.92	.79	.76	.68	.93	.72	.72	.61
External causes.....E800-E999	.94	.81	.75	.77	.91	.46	.54	.41
Motor vehicle accidents.....E810-E823	.89	.73	.64	.67	.82	.44	.39	.36
Other accidents.....E800-E807, E825-E949	.97	.72	.57	.70	.70	.21	.21	.20
Suicide.....E950-E959	.85	.55	.55	.55	.87	.37	.40	.29
Homicide.....E960-E978	.80	.71	.60	.76	.57	.23	.31	.18

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

Table 7. Correlations of male with female rates for 1968-72 and 1959-61 for selected causes of death among white persons aged 35-74 years (age-adjusted) by States and metropolitan and nonmetropolitan State economic areas: United States

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	1968-1972				1959-1961			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	.74	.67	.71	.64	.73	.65	.64	.61
Natural causes.....000-796	.80	.71	.73	.67	.77	.68	.69	.62
Malignant neoplasms, all sites.....140-209	.79	.54	.49	.43	.81	.56	.51	.42
Digestive organs and peritoneum.....150-159	.94	.66	.65	.63	.85	.58	.61	.49
Stomach.....151	.86	.40	.41	.38				
Colo-rectal.....152-154	.94	.70	.70	.67	.79	.70	.69	.65
Pancreas.....157	.73	.22	.16	.24	.12	.10	.10	.07
Respiratory system.....160-163	.60	.53	.49	.46	.52	.35	.21	.32
Bladder.....188	.34	.05	-.10	.09	.36	.24	.23	.20
Leukemia.....204-207	.18	-.05	-.06	-.04	-.05	-.01	-.02	-.00
Ill-defined sites.....195-199	.85	.51	.53	.51	---	---	---	---
Major cardiovascular-renal (and ill-defined) diseases.....390-458, 582-584, 780-796	.80	.75	.78	.74	.74	.67	.63	.69
Rheumatic heart disease.....390-398	.88	.65	.65	.62	.87	.67	.69	.65
Hypertensive heart disease and hypertension.....400-404	.78	.62	.73	.46	.84	.70	.69	.71
Ischemic and other heart disease.....410-429	.85	.79	.81	.77	.83	.72	.72	.68
Cerebrovascular disease.....430-438	.86	.63	.60	.64	.64	.57	.50	.62
Ill-defined conditions.....780-796	.96	.94	.95	.93	.97	.90	.91	.89
All other diseases.....000-136, 210-389, 450-778	.90	.65	.65	.62	.81	.59	.59	.55
Neoplasms, benign and unspecified.....210-239	.47	.16	.13	.19	.14	.09	.17	.04
Tuberculosis, all forms.....010-019	.88	.40	.27	.48	---	---	---	---
Diabetes.....250	.79	.54	.61	.49	.84	.56	.64	.48
Influenza and pneumonia.....470-486	.83	.54	.58	.52	.70	.48	.57	.40
Chronic respiratory diseases.....490-493, 517-519	.78	.51	.58	.44	.84	.53	.67	.35
Cirrhosis of liver.....571	.92	.80	.78	.72	.89	.71	.74	.54
External causes.....E800-E999	.86	.57	.65	.55	.84	.51	.60	.50
Motor vehicle accidents.....E810-E823	.89	.73	.67	.62	.85	.58	.63	.50
Other accidents.....E800-E807, E825-E949	.87	.40	.38	.46	.46	.27	.26	.32
Suicide.....E950-E959	.65	.32	.50	.25	.61	.35	.42	.32
Homicide.....E960-E978	.79	.53	.62	.48	.64	.21	.34	.15

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

Table 8. Correlations of rates for white and black persons for selected causes of death among persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas giving a black population in excess of 10,000; United States, 1968-72

[Excluded from the correlations are States and SEA's with a black population aged 35-74 years inclusive in 1970 of less than 10,000, approximately the white population in the SEA with the smallest white population]

Cause of death and ICDA code ¹	Males				Females			
	States (n=34)	SEA's (n=155)	Metro- politan SEA's (n=91)	Non- metro- politan SEA's (n=64)	States (n=34)	SEA's (n=155)	Metro- politan SEA's (n=91)	Non- metro- politan SEA's (n=64)
All causes .....	.70	.49	.58	.48	.28	.28	.25	.39
Natural causes.....000-796	.73	.54	.59	.55	.29	.28	.25	.36
Malignant neoplasms, all sites.....140-209	.59	.54	.41	.35	.62	.55	.34	.41
Digestive organs and peritoneum.....150-159	.78	.57	.35	.51	.68	.41	.25	.12
Stomach.....151	.13	-.01	-.07	.11	.20	.10	.11	.11
Colo-rectal.....152-154	.67	.48	.33	.21	.74	.36	.20	.03
Pancreas.....157	-.17	.15	.05	.26	.07	-.01	-.12	.05
Respiratory system.....160-163	.12	.17	.10	.24	.43	.50	.25	.45
Breast.....174	*	*	*	*	.44	.41	.31	.26
Female genital organs.....180-184	...	...	...	...	.17	.12	.13	.23
Cervix uteri.....180	...	...	...	...	.35	.36	.30	.39
Prostate.....185	-.02	.19	.13	.25	...	...	...	...
Bladder.....188	.34	.09	-.18	.28	.03	.03	-.01	.00
Leukemia.....204-207	.28	.08	.09	.07	.31	-.06	-.07	-.06
Major cardiovascular-renal (and ill-defined) diseases.....390-458, 582-584, 780-796	.79	.70	.73	.62	.39	.35	.33	.42
Rheumatic heart disease.....390-398	.65	.43	.32	.26	.70	.56	.46	.47
Hypertensive heart disease and hypertension.....400-404	.43	.70	.76	.38	.31	.43	.48	.23
Ischemic and other heart disease.....410-429	.70	.64	.72	.60	.59	.50	.47	.58
Cerebrovascular disease.....430-438	.86	.75	.66	.76	.61	.54	.53	.52
Ill-defined conditions.....780-796	.83	.92	.96	.82	.77	.88	.90	.83
All other diseases.....000-136, 210-389, 450-778	.74	.46	.38	.52	.47	.47	.34	.54
Neoplasms, benign and unspecified.....210-239	.52	.08	.15	.05	...	...	...	...
Tuberculosis, all forms.....010-019	.53	.31	.29	.35	.09	.13	.17	.01
Diabetes.....250	.44	.40	.38	.44	.51	.38	.40	.34
Influenza and pneumonia.....470-486	.68	.37	.39	.38	.67	.43	.50	.33
Chronic respiratory diseases.....490-493, 517-519	.66	.04	.04	.19	.71	.25	.21	.17
Cirrhosis of liver.....571	.82	.78	.70	.50	.72	.69	.50	.64
External causes.....E800-E999	.59	.48	.50	.26	.50	.36	.35	.32
Motor vehicle accidents.....E810-E823	.68	.70	.57	.30	.49	.49	.36	.28
Other accidents.....E800-E807, E825-E949	.43	.46	.30	.25	.23	.27	.29	.25
Suicide.....E950-E959	.28	.05	-.03	.26	.16	.14	.12	-.09
Homicide.....E960-E978	.27	.37	.49	.37	.49	.18	.27	.10

¹Based on *Eighth Revision International Classification of Diseases Adapted for Use in the United States*.

Table 9. Correlations of rates of selected causes of death with each other among white males aged 35-74 years (age-adjusted) by States: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	CA colorectal 152-154	CA pancreas 157	CA respiratory 160-163	CA prostate 185	CA bladder 188	Leukemia 204-207	CA ill-defined 195-199	CVR and ill-defined 390-458, 582-584, 780-796	RHD 390-398	Hypertension and hypertensive heart disease 400-404	Ischemic and other heart disease 400-429	Stroke 430-438	Ill-defined 780-796
Malignant neoplasms, all sites.....140-209	(2)	(2)	(2)	(2)	(2)	(2)	(2)	.68	(3)	.50	.75	(3)	(3)
Digestive organs and peritoneum.....150-159	(2)	(2)	(3)	(3)	.75	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-.37
Stomach.....151	.43	(3)	(3)	(3)	.44	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Colo-rectal.....152-154		(3)	(3)	(3)	.75	(3)	(3)	(3)	(3)	.36	(3)	(3)	-.42
Pancreas.....157		(3)	.53	(3)	(3)	(3)	(3)	.47	(3)	(3)	.46	.41	(3)
Respiratory system.....160-163				(3)	(3)	(3)	.71	.75	-.36	.43	.75	.50	(3)
Prostate.....185					(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Bladder.....188						(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Leukemia.....204-207							(3)	(3)	(3)	.40	(3)	(3)	(3)
Ill-defined sites.....195-199								.65	(3)	.37	.61	.44	(3)
Major cardiovascular-renal (and ill-defined diseases).....390-458, 582-584, 780-796									(2)	(2)	(2)	(2)	(3)
Rheumatic heart disease.....390-398										(3)	-.37	-.57	(3)
Hypertensive heart disease and hypertension.....400-404											.47	.52	(3)
Ischemic and other heart disease.....410-429												.68	(3)
Cerebrovascular disease.....430-438													(3)
Ill-defined conditions.....780-796													(3)
All other diseases.....000-136, 210-389, 450-778													(3)
Neoplasms, benign and unspecified.....210-239													(3)
Tuberculosis, all forms.....010-019													(3)
Diabetes.....250													(3)
Influenza and pneumonia.....470-486													(3)
Chronic respiratory diseases.....490-493, 517-519													(3)
Cirrhosis of liver.....571													(3)
External causes.....E800-E999													(3)
Motor vehicle accidents.....E810-E823													(3)
Other accidents.....E800-E807, E825-E949													(3)
Suicide.....E950-E959													(3)

See footnotes at end of table.

Table 9. Correlations of rates of selected causes of death with each other among white males aged 35-74 years (age-adjusted) by States: United States, 1968-72—Con.
 [The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	All other diseases 000-136, 210-389, 450-581, 590-778	Tumors, benign and un- specified 210-239	TB 010-019	Diabetes 250	Flu and pneu- monia 470-486	Chronic respi- ratory 490-493, 517-519	Cirrhosis 571	External causes E800-E999	Motor vehicle accidents E810-E823	Other accidents E800-E807, E825-E949	Suicide E950-E959	Homicide E960-E978
Malignant neoplasms, all sites.....140-209	(3)	(3)	.43	.60	(3)	(3)	.43	-.46	-.51	-.39	-.39	(3)
Digestive organs and peritoneum.....150-159	(3)	(3)	(3)	.52	(3)	(3)	-.45	-.64	-.79	(3)	-.64	(3)
Stomach.....151	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-.43	(3)	-.47	-.47
Colo-rectal.....152-154	(3)	(3)	(3)	.54	(3)	(3)	-.42	.41	-.74	-.83	-.47	-.62
Pancreas.....157	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Respiratory system.....160-163	(3)	(3)	.48	.42	(3)	(3)	(3)	(3)	(3)	(3)	(3)	.41
Prostate.....185	(3)	(3)	-.36	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Bladder.....188	(3)	(3)	(3)	.48	(3)	(3)	.39	-.44	-.55	(3)	(3)	(3)
Leukemia.....204-207	-.59	(3)	(3)	(3)	-.49	(3)	-.51	-.43	(3)	-.53	(3)	(3)
Ill-defined sites.....195-199	.39	.48	.53	(3)	.36	(3)	(3)	(3)	(3)	(3)	(3)	.42
Major cardiovascular-renal (and ill-defined diseases).....390-458, 582-584, 780-796	(3)	(3)	.48	.49	.36	(3)	(3)	(3)	(3)	(3)	(3)	.45
Rheumatic heart disease.....390-398	.36	(3)	(3)	(3)	(3)	(3)	.40	(3)	(3)	(3)	(3)	(3)
Hypertensive heart disease and hypertension.....400-404	(3)	(3)	(3)	.42	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Ischemic and other heart disease.....410-429	(3)	(3)	.42	.54	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Cerebrovascular disease.....430-438	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	.41
Ill-defined conditions.....780-796	(3)	(3)	(3)	(3)	(3)	(3)	(3)	.38	.47	(3)	(3)	(3)
All other diseases.....000-136, 210-389, 450-778		(2)			(2)	(2)	(2)	(3)	(3)	(3)	(3)	.54
Neoplasms, benign and unspecified.....210-239			.39	(3)	.45	(3)	.61	(3)	(3)	(3)	(3)	(3)
Tuberculosis, all forms.....010-019				(3)	.68	(3)	.55	(3)	(3)	(3)	(3)	.70
Diabetes.....250					(3)	(3)	(3)	-.44	-.40	-.39	(3)	(3)
Influenza and pneumonia.....470-486					(3)	(3)	(3)	(3)	(3)	(3)	(3)	.50
Chronic respiratory diseases.....490-493, 517-519					(3)	(3)	.61	(3)	.52	(3)	.69	(3)
Cirrhosis of liver.....571					(3)	(3)	(3)	(3)	(3)	(3)	(3)	.38
External causes.....E800-E999									(2)	(2)	(2)	(2)
Motor vehicle accidents.....E810-E823										.41	.63	.44
Other accidents.....E800-E807, E825-E949											.45	(3)
Suicide.....E950-E959												.40

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

²Correlation of a part with the whole.

³Not statistically significant at 0.01 level ($r < \pm .36$).

NOTE: Abbreviations used in column headings are described in the appendix.

Table 10. Correlations of rates of selected causes of death with each other among white males aged 35-74 years (age-adjusted) by State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	CA colo- rectal 152-154	CA pancreas 157	CA respira- tory 160-163	CA prostate 185	CA bladder 188	Leuke- mia 204-207	CA ill- defined 195-199	CVR and ill-defined 390-458, 582-584, 780-796	RHD 390-398	Hyperten- sion and hyperten- sive heart disease 400-404	Ischemic and other heart disease 400-429	Stroke 430-438	Ill- defined 780-796
Malignant neoplasms, all sites.....140-209	(2)	(2)	(2)	(2)	(2)	(2)	(2)	.56	(3)	.22	.57	.30	(3)
Digestive organs and peritoneum.....150-159	(2)	(2)	(3)	(3)	(3)	(3)	(3)	.31	(3)	.17	.17	(3)	(3)
Stomach.....151	.26	(3)	(3)	(3)	(3)	(3)	(3)	.22	(3)	(3)	(3)	(3)	-.24
Colo-rectal.....152-154		(3)	(3)	(3)	(3)	(3)	(3)	.35	(3)	.19	(3)	(3)	(3)
Pancreas.....157			.23	(3)	(3)	(3)	(3)	.17	(3)	(3)	(3)	(3)	-.32
Respiratory system.....160-163				(3)	(3)	(3)	(3)	.61	(3)	(3)	.58	(3)	(3)
Prostate.....185					(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Bladder.....188						(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Leukemia.....204-207							(3)	(3)	(3)	(3)	(3)	(3)	(3)
Ill-defined sites.....195-199								.50	(3)	.20	.43	.40	.20
Major cardiovascular-renal (and ill-defined diseases).....390-458, 582-584, 780-796									(2)	(2)	(2)	(2)	.21
Rheumatic heart disease.....390-398										(3)	(3)	-.23	-.19
Hypertensive heart disease and hypertension.....400-404											.22	.21	(3)
Ischemic and other heart disease.....410-429												.63	(3)
Cerebrovascular disease.....430-438													.17
Ill-defined conditions.....780-796													
All other diseases.....000-136, 210-389, 450-778													
Neoplasms, benign and unspecified.....210-239													
Tuberculosis, all forms.....010-019													
Diabetes.....250													
Influenza and pneumonia.....470-486													
Chronic respiratory diseases.....490-493, 517-519													
Cirrhosis of liver.....571													
External causes.....E800-E999													
Motor vehicle accidents.....E810-E823													
Other accidents.....E800-E807, E825-E949													
Suicide.....E950-E959													

See footnotes at end of table.

Table 10. Correlations of rates of selected causes of death with each other among white males aged 35-74 years (age-adjusted) by State economic areas: United States, 1968-72—Con.

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	All other diseases 000-136, 210-389, 450-581, 590-778	Tumors, benign and un- specified 210-239	TB 010-019	Diabetes 250	Flu and pneu- monia 470-486	Chronic respira- tory 490-493, 517-519	Cirrhosis 571	External causes E800-E999	Motor vehicle accidents E810-E823-	Other accidents E800-E807, E825-E949	Suicide E950-E959	Homicide E960-E978
Malignant neoplasms, all sites.....140-209	.35	(³)	.26	.22	.30	(³)	.43	-.18	-.26	-.19	(³)	(³)
Digestive organs and peritoneum.....150-159	.18	(³)	(³)	.27	(³)	(³)	.46	-.56	-.56	-.40	-.31	-.31
Stomach.....151	(³)	(³)	(³)	(³)	(³)	(³)	.23	-.18	-.18	(³)	-.21	-.18
Colo-rectal.....152-154	(³)	(³)	(³)	.24	(³)	-.20	.34	-.66	-.61	-.50	-.34	-.44
Pancreas.....157	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	.19
Respiratory system.....160-163	.35	(³)	.30	(³)	.37	.25	.28	(³)	(³)	(³)	(³)	.37
Prostate.....185	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Bladder.....188	(³)	(³)	(³)	.19	(³)	(³)	.27	-.24	-.22	-.18	(³)	(³)
Leukemia.....204-207	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	-.17	(³)
Ill-defined sites.....195-199	.29	.26	.28	(³)	.31	(³)	(³)	(³)	(³)	(³)	(³)	.32
Major cardiovascular-renal (and ill-defined diseases).....390-458, 582-584, 780-796	.45	(³)	.38	.29	.46	.21	(³)	.19	(³)	(³)	(³)	.36
Rheumatic heart disease.....390-398	.21	(³)	(³)	(³)	(³)	.31	.31	-.30	-.35	-.18	(³)	-.32
Hypertensive heart disease and hypertension.....400-404	(³)	(³)	(³)	.25	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Ischemic and other heart disease.....410-429	.41	(³)	.34	.29	.41	.17	(³)	(³)	(³)	(³)	(³)	.28
Cerebrovascular disease.....430-438	.28	(³)	.23	.22	.33	(³)	(³)	.27	.27	(³)	.20	.33
Ill-defined conditions.....780-796	(³)	(³)	.18	(³)	(³)	(³)	(³)	.31	.32	.22	(³)	.28
All other diseases.....000-136, 210-389, 450-778	(²)	(²)	(²)	(²)	(²)	(²)	(²)	.17	(³)	(³)	.26	.26
Neoplasms, benign and unspecified.....210-239	(³)	(³)	(³)	(³)	.23	(³)	.18	(³)	(³)	(³)	(³)	(³)
Tuberculosis, all forms.....010-019	(³)	(³)	(³)	(³)	.36	.19	.22	.17	(³)	(³)	(³)	.40
Diabetes.....250	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)
Influenza and pneumonia.....470-486	(³)	(³)	(³)	(³)	(³)	.30	.32	.20	(³)	(³)	(³)	.32
Chronic respiratory diseases.....490-493, 517-519	(³)	(³)	(³)	(³)	(³)	(³)	(³)	.32	.19	.23	.38	.21
Cirrhosis of liver.....571	(³)	(³)	(³)	(³)	(³)	(³)	(³)	(³)	-.27	(³)	(³)	(³)
External causes.....E800-E999								(²)	(²)	(²)	(²)	(²)
Motor vehicle accidents.....E810-E823										.55	.26	.41
Other accidents.....E800-E807, E825-E949											.30	.36
Suicide.....E950-E959												.30

¹Based on *International Classification of Diseases Adapted for Use in the United States*.²Correlation of a part with the whole.³Not statistically significant at 0.0001 level ($r < \pm .17$).

NOTE: Abbreviations used in column headings are described in the appendix.

Table 11. Correlations of rates of selected causes of death with each other among white females aged 35-74 years (age-adjusted) by States: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	CA colo-rectal 152-154	CA pancreas 157	CA respira-tory 160-163	CA breast 174	CA genitals 180-184	CA cervix 180	CA bladder 188	Leuka-mia 204-207	CA ill-defined 195-199	CVR and ill-defined 390-458, 582-584, 780-796	RHD 390-398	Hyperten-sion and hyperten-sive heart disease 400-404	Ischemic and other heart disease 400-429	Stroke 430-438
Malignant neoplasms, all sites.....140-209	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	.59	(3)	.50	.67	(3)
Digestive organs and peritoneum.....150-159	(2)	(2)	.37	.81	.59	(3)	(3)	(3)	(3)	.46	(3)	.43	.56	(3)
Stomach.....151	.38	.42	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Colo-rectal.....152-154		(3)	(3)	.81	.63	(3)	.39	(3)	(3)	.43	(3)	.47	.55	(3)
Pancreas.....157			(3)	.38	(3)	(3)	(3)	(3)	(3)	.39	(3)	(3)	.39	(3)
Respiratory system.....160-163				(3)	(3)	(3)	.46	(3)	(3)	.37	(3)	(3)	.38	(3)
Breast.....164					.46	(2)	(3)	(3)	(3)	.36	.38	.38	.46	(3)
Female genital organs.....180-184						(2)	(3)	(3)	(3)	.55	(3)	.61	.57	(3)
Cervix uteri.....180							(3)	(3)	(3)	.49	(3)	.39	.41	(3)
Bladder.....188							(3)	(3)	(3)	.49	(3)	(3)	(3)	(3)
Leukemia.....204-207							(3)	(3)	(3)	.60	(3)	(3)	(3)	(3)
Ill-defined sites.....195-199							(3)	(3)	(3)				.52	.42
Major cardiovascular-renal (and ill-defined diseases).....390-458, 582-584, 780-796											(2)	(2)	(2)	(2)
Rheumatic heart disease.....390-398												(3)	(3)	(3)
Hypertensive heart disease and hypertension.....400-404													.56	.47
Ischemic and other heart disease.....410-429														.43
Cardiovascular disease.....430-438														
Ill-defined conditions.....780-796														
All other diseases.....000-136, 210-389, 450-778														
Neoplasms, benign and unspecified.....210-239														
Tuberculosis, all forms.....010-019														
Diabetes.....250														
Influenza and pneumonia.....470-486														
Chronic respiratory diseases.....490-493, 517-519														
Cirrhosis of liver.....571														
External causes.....E800-E999														
Motor vehicle accidents.....E810-E823														
Other accidents.....E800-E807, E825-E949														
Suicide.....E950-E959														

See footnotes at end of table.

Table 11. Correlations of rates of selected causes of death with each other among white females aged 35-74 years (age-adjusted) by States: United States, 1968-72—Con.

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	Ill-defined 780-796	All other diseases 000-136, 210-389, 450-581, 590-778	Tumors, benign and un- specified 210-239	TB 010-019	Diabetes 250	Flu and pneu- monia 470-486	Chronic respira- tory 490-493, 517-519	Cirrhosis 571	External causes E800-E999	Motor vehicle accidents E810-E823	Other accidents E800-E807 E825-E949	Suicide E950-E959	Homicide E960-E978
Malignant neoplasms, all sites .....140-209	(3)	(3)	(3)	.36	.43	.39	(3)	.44	-.43	-.82	(3)	(3)	-.38
Digestive organs and peritoneum .....150-159	(3)	(3)	(3)	(3)	.41	(3)	(3)	(3)	-.51	-.78	(3)	(3)	-.60
Stomach .....151	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-.38
Colo-rectal .....152-154	-.38	(3)	(3)	(3)	.41	(3)	(3)	(3)	-.50	-.78	(3)	(3)	-.60
Pancreas .....157	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	-.37	-.79	(3)	(3)	-.60
Respiratory system .....160-163	(3)	.60	(3)	.49	(3)	.53	(3)	.68	(3)	(3)	.39	(3)	(3)
Breast .....164	(3)	(3)	(3)	(3)	(3)	(3)	(3)	.36	-.48	-.79	(3)	(3)	-.49
Female genital organs .....180-184	(3)	(3)	(3)	(3)	.37	(3)	(3)	(3)	-.45	-.56	(3)	(3)	(3)
Cervix uteri .....180	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Bladder .....188	(3)	(3)	(3)	(3)	(3)	.54	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Leukemia .....204-207	(3)	(3)	(3)	(3)	.40	(3)	(3)	(3)	(3)	(3)	.66	(3)	(3)
Ill-defined sites .....195-199	(3)	.37	.53	.42	.41	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Major cardiovascular-renal (and ill-defined diseases) .....390-458, 682-684, 780-796	(3)	(3)	.50	.40	.66	.39	(3)	(3)	-.36	-.49	(3)	(3)	(3)
Rheumatic heart disease .....390-398	(3)	.40	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Hypertensive heart disease and hypertension .....400-404	(3)	(3)	(3)	(3)	.48	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Ishemic and other heart disease .....410-429	(3)	(3)	.42	.37	.68	(3)	(3)	(3)	-.48	-.61	(3)	(3)	-.60
Cerebrovascular disease .....430-438	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Ill-defined conditions .....780-796	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
All other diseases .....000-136, 210-389, 450-778			(2)	(3)	(2)	(2)	(2)	(2)	.43	(3)	.45	(3)	.50
Neoplasms, benign and unspecified .....210-239				(3)	.37	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Tuberculosis, all forms .....010-019					(3)	(3)	(3)	.36	(3)	(3)	(3)	(3)	(3)
Diabetes .....250					(3)	(3)	(3)	(3)	-.44	(3)	(3)	(3)	(3)
Influenza and pneumonia .....470-486					(3)	(3)	(3)	(3)	(3)	(3)	.51	(3)	(3)
Chronic respiratory diseases .....490-493, 517-519							.38	.62	(3)	(3)	.48	(3)	.59
Cirrhosis of liver .....571								.42	.64	(3)	.47	.61	.40
External causes .....E800-E999										(2)	(2)	(2)	(2)
Motor vehicle accidents .....E810-E823											(3)	(3)	.49
Other accidents .....E800-E807, E825-E949												(3)	.46
Suicide .....E950-E959												.50	.57

¹Based on *International Classification of Diseases Adapted for Use in the United States*.²Correlation of a part with the whole.³Not statistically significant at 0.01 level ($r < \pm .36$).

NOTE: Abbreviations used in column headings are described in the appendix.

Table 12. Correlations of rates of selected causes of death with each other among white females aged 35-74 years (age-adjusted) by State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	CA colo-rectal 152-154	CA pancreas 157	CA respira-tory 160-163	CA breast 174	CA genitals 180-184	CA cervix 180	CA bladder 188	Leuke-mia 204-207	CA ill-defined 195-199	CVR and ill-defined 390-458, 582-584, 780-796	RHD 390-398	Hyperten-sion and hyperten-sive heart disease 400-404	Ischemic and other heart disease 400-429	Stroke 430-438
Malignant neoplasms, all sites.....140-209	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	.45	.33	.24	.48	(3)
Digestive organs and peritoneum.....150-159	(2)	(2)	.23	.50	.41	(3)	(3)	(3)	(3)	.35	.32	.25	.37	(3)
Stomach.....151	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Colo-rectal.....152-154		(3)	.18	.52	.44	(3)	.18	(3)	(3)	.31	.33	.25	.34	(3)
Pancreas.....157			.20		(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Respiratory system.....160-163				.21		(3)	.17	(3)	(3)	.22	(3)	(3)	.25	(3)
Breast.....164					.20	(3)	(3)	(3)	(3)	.19	.42	(3)	.21	(3)
Female genital organs.....180-184						(2)	(3)	(3)	(3)	.36	.17	.31	.38	(3)
Cervix uteri.....180							(3)	(3)	(3)	.42	(3)	.23	.36	(3)
Bladder.....188								(3)	(3)	(3)	(3)	(3)	.32	(3)
Leukemia.....204-207									(3)	(3)	(3)	(3)	.33	(3)
Ill-defined sites.....195-199									(3)	.42	(3)	(3)	.36	.30
Major cardiovascular-renal (and ill-defined diseases).....390-458, 582-584, 780-796											(2)	(2)	(2)	(2)
Rheumatic heart disease.....390-398												(3)	(3)	(3)
Hypertensive heart disease and hypertension.....400-404													.33	.27
Ischemic and other heart disease.....410-429														.44
Cerebrovascular disease.....430-438														
Ill-defined conditions.....780-796														
All other diseases.....000-136, 210-389, 450-778														
Neoplasms, benign and unspecified.....210-239														
Tuberculosis, all forms.....010-019														
Diabetes.....250														
Influenza and pneumonia.....470-486														
Chronic respiratory diseases.....490-493, 517-519														
Cirrhosis of liver.....571														
External causes.....E800-E999														
Motor vehicle accidents.....E810-E823														
Other accidents.....E800-E807, E825-E949														
Suicide.....E950-E959														

See footnotes at end of table.

Table 12. Correlations of rates of selected causes of death with each other among white females aged 35-74 years (age-adjusted) by State economic areas: United States, 1968-72—Con.

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	III-defined 780-796	All other diseases 000-136, 210-389, 450-581, 590-778	Tumors, benign and un- specified 210-239	TB 010-019	Diabetes 250	Flu and pneu- monia 470-486	Chronic respira- tory 490-493, 517-519	Cirrhosis 571	External causes E800-E999	Motor vehicle accidents E810-E823	Other accidents E800-E807 E825-E949	Suicide E950-E959	Homicide E960-E978
Malignant neoplasms, all sites .....140-209	-.20	.36	(3)	(3)	.30	.17	(3)	.40	-.25	-.43	(3)	(3)	(3)
Digestive organs and peritoneum .....150-159	-.21	.26	(3)	(3)	.32	(3)	(3)	.22	-.38	-.39	(3)	(3)	-.24
Stomach .....151	(3)	(3)	(3)	(3)	.20	(3)	(3)	(3)	-.17	(3)	(3)	(3)	(3)
Colo-rectal .....152-154	-.26	(3)	(3)	(3)	.25	(3)	(3)	(3)	-.36	-.36	-.18	(3)	-.30
Pancreas .....157	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Respiratory system .....160-163	(3)	.36	(3)	(3)	.20	.16	.28	.52	-.22	-.22	.19	(3)	.28
Breast .....164	-.24	(3)	(3)	(3)	.19	(3)	(3)	.30	-.26	-.41	(3)	(3)	-.23
Female genital organs .....180-184	-.19	.18	(3)	(3)	.23	(2)	(3)	(3)	-.24	-.19	(3)	(3)	-.17
Cervix uteri .....180	(3)	.18	(3)	(3)	.30	.18	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Bladder .....188	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Leukemia .....204-207	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
III-defined sites .....195-199	(3)	.29	(3)	(3)	.26	.22	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Major cardiovascular-renal (and III-defined diseases) .....390-458, 582-584, 780-796	(3)	.42	(3)	.29	.47	.40	(3)	(3)	(3)	-.21	(3)	(3)	(3)
Rheumatic heart disease .....390-398	-.19	.29	(3)	(3)	(3)	.17	(3)	.32	(3)	-.32	(3)	(3)	-.20
Hypertensive heart disease and hypertension .....400-404	(3)	-.19	(3)	(3)	.34	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Ischemic and other heart disease .....410-429	(3)	.36	(3)	.25	.46	.36	(3)	(3)	-.20	-.24	(3)	(3)	(3)
Cerebrovascular disease .....430-438	(3)	.23	(3)	.20	.26	.25	(3)	(3)	(3)	(3)	(3)	(3)	.17
III-defined conditions .....780-796	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	.21	(3)	(3)	.18
All other diseases .....000-136, 210-389, 450-778			(2)	(2)	(2)	(2)	(2)	(2)	.17	(3)	.27	.20	.25
Neoplasms, benign and unspecified .....210-239				.25	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Tuberculosis, all forms .....010-019					.19	(3)	(3)	(3)	(3)	(3)	(3)	(3)	.19
Diabetes .....250						.27	(3)	(3)	-.23	(3)	-.17	-.19	(3)
Influenza and pneumonia .....470-486						(3)	.20	(3)	(3)	(3)	.18	(3)	.20
Chronic respiratory diseases .....490-493, 517-519								.24	.34	(3)	.30	.33	.26
Cirrhosis of liver .....571								.38	.23	-.32	.34	.46	.17
External causes .....E800-E999										(2)	(2)	(2)	(2)
Motor vehicle accidents .....E810-E823											(3)	(3)	.24
Other accidents .....E800-E807, E825-E949												.32	.24
Suicide .....E950-E959													.19

¹Based on *International Classification of Diseases Adapted for Use in the United States*.²Correlation of a part with the whole.³Not statistically significant at 0.0001 level ($r < \pm .17$).

NOTE: Abbreviations used in column headings are described in the appendix.

Table 13. Correlations of elevation above sea level with death rates of selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	White males				White females			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	-.38	-.33	-.25	-.35	-.27	-.23	-.17	-.23
Natural causes.....000-796	-.50	-.39	-.30	-.42	-.34	-.26	-.20	-.26
Malignant neoplasms, all sites.....140-209	-.72	-.55	-.52	-.56	-.53	-.34	-.32	-.31
Digestive organs and peritoneum.....150-159	-.49	-.25	-.27	-.19	-.43	-.21	-.25	-.15
Stomach.....151	-.12	.02	-.08	.09	-.06	.02	-.01	.05
Colo-rectal.....152-154			-.28	-.18		-.20	-.26	-.14
Pancreas.....157	-.33	-.07	-.05	-.06	-.31	-.12	-.15	-.08
Respiratory system.....160-163	-.65	-.52	-.44	-.54	-.39	-.31	-.35	-.24
Breast.....174	*	*	*	*	-.36	-.18	-.23	-.09
Female genital organs.....180-184	...	...	...	...	-.33	-.13	-.02	-.18
Cervix uteri.....180	...	...	...	...	...	...	...	...
Prostate.....185	.21	.05	.02	.04	...	...	...	...
Bladder.....188	-.27	-.13	-.15	-.06	-.37	-.19	-.13	-.19
Leukemia.....204-207	-.17	.06	.10	-.05	-.09	.04	.12	.01
Major cardiovascular-renal (and ill-defined) diseases.....390-458, 582-584, 780-796	-.53	-.41	-.31	-.45	-.37	-.28	-.22	-.29
Rheumatic heart disease.....390-398	.41	.24	.21	.33	.46	.29	.26	.41
Hypertensive heart disease and hypertension.....400-404	-.29	-.13	-.09	-.20	-.17	-.02	-.07	-.01
Ischemic and other heart disease.....410-429	-.62	-.46	-.39	-.48	-.52	-.36	-.31	-.39
Cerebrovascular disease.....430-438	-.38	-.32	-.22	-.39	-.19	-.15	-.15	-.15
Ill-defined conditions.....780-796	.18	.04	.15	-.04	.22	.07	.17	-.01
All other diseases.....000-136, 210-389, 450-778	.11	.05	.11	.07	.22	.10	.17	.11
Neoplasms, benign and unspecified.....210-239	-.03	.01	.01	.02	.06	.04	-.02	.09
Tuberculosis, all forms.....010-019	-.27	-.14	.01	-.20	-.27	-.08	.09	-.15
Diabetes.....250	-.34	-.16	-.06	-.21	-.14	-.06	-.02	-.11
Influenza and pneumonia.....470-486	-.08	-.04	.03	-.04	-.09	-.01	.07	-.02
Chronic respiratory diseases.....490-493, 517-519	.56	.30	.32	.32	.48	.21	.23	.24
Cirrhosis of liver.....571	-.15	-.13	-.13	-.03	.01	-.04	-.03	.04
External causes.....E800-E999	.40	.23	.17	.20	.38	.20	.17	.20
Motor vehicle accidents.....E810-E823	.53	.20	.12	.17	.52	.21	.11	.19
Other accidents.....E800-E807, E825-E949	.22	.23	.14	.21	.11	.14	.10	.15
Suicide.....E950-E959	.48	.19	.26	.13	.27	.05	.13	.07
Homicide.....E960-E978	-.10	-.09	-.07	-.09	.30	.01	.08	-.01

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

Table 14. Correlations of population density per square mile with rates for selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	White males				White females			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	.40	.14	.18	.14	.32	.22	.24	.34
Natural causes.....000-796	.39	.20	.21	.23	.29	.24	.25	.36
Malignant neoplasms, all sites.....140-209	.28	.28	.24	.36	.36	.30	.30	.35
Digestive organs and peritoneum.....150-159	.30	.30	.28	.36	.17	.23	.25	.23
Stomach.....151	-.14	.05	.05	.07	-.05	.10	.14	.02
Colo-rectal.....152-154			.28	.36		.19	.21	.27
Pancreas.....157	-.00	.07	.04	.03	.01	.11	.13	.01
Respiratory system.....160-163	.10	.16	.12	.22	.34	.24	.19	.23
Breast.....174	*	*	*	*	.34	.25	.25	.28
Female genital organs.....180-184	...	...	...	...	.25	.08	.11	.20
Cervix uteri.....180	...	...	...	...	...	...	...	...
Prostate.....185	.10	-.04	-.09	-.01	...	...	...	...
Bladder.....188	.10	.10	.01	.22	.05	.06	.02	.15
Leukemia.....204-207	-.36	-.07	.14	-.04	.27	-.01	-.03	.01
Major cardiovascular-renal (and ill-defined) diseases.....390-458, 582-584, 780-796	.18	.11	.15	.20	.06	.14	.15	.33
Rheumatic heart disease.....390-398	.20	.12	.08	.15	-.04	.13	.06	.17
Hypertensive heart disease and hypertension.....400-404	.13	.06	.07	.11	-.06	.02	-.06	.09
Ischemic and other heart disease.....410-429	.19	.15	.18	.24	.05	.16	.18	.36
Cerebrovascular disease.....430-438	-.06	-.04	-.04	.08	-.11	-.02	-.03	.15
Ill-defined conditions.....780-796	.03	-.05	-.01	-.12	-.22	.00	.04	-.12
All other diseases.....000-136, 210-389, 450-778	.66	.20	.18	.07	.47	.20	.21	.15
Neoplasms, benign and unspecified.....210-239	.59	.12	.15	.13	.01	.01	-.02	.07
Tuberculosis, all forms.....010-019	.59	.15	.18	.08	.52	.06	.06	.01
Diabetes.....250	.16	.04	.04	.21	-.15	-.01	.02	.15
Influenza and pneumonia.....470-486	.57	.19	.23	.02	.46	.16	.22	.10
Chronic respiratory diseases.....490-493, 517-519	-.05	-.08	-.16	-.13	-.00	-.01	-.09	.02
Cirrhosis of liver.....571	.81	.43	.46	.21	.70	.36	.38	.21
External causes.....E800-E999	.06	-.20	-.12	-.40	.10	-.11	-.11	-.19
Motor vehicle accidents.....E810-E823	-.19	-.30	-.30	-.37	-.33	-.30	-.36	-.33
Other accidents.....E800-E807, E825-E949	.08	-.17	-.05	-.38	.19	-.01	-.01	-.06
Suicide.....E950-E959	-.05	-.11	-.13	-.11	.25	.09	-.00	-.07
Homicide.....E960-E978	.44	.07	.12	-.13	.27	.02	.01	-.10

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

Table 15. Correlations of number of physicians¹ per 1,000 population with rates of selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ²	White males				White females			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	.24	.02	-.02	-.10	.43	.14	-.03	.10
Natural causes.....000-796	.33	.08	-.02	-.05	.44	.14	-.05	.11
Malignant neoplasms, all sites .....140-209	.40	.31	.13	.11	.59	.34	.10	.32
Digestive organs and peritoneum .....150-159	.53	.32	.09	.29	.40	.21	.03	.23
Stomach .....151	.04	.01	-.08	.08	.03	.02	-.02	.01
Colo-rectal .....152-154	.53	.33	.15	.35	.42	.17	-.03	.23
Pancreas.....157	.04	.08	.08	-.09	.20	.19	.21	.12
Respiratory system.....160-163	.13	.19	.08	-.02	.43	.36	.17	.25
Breast .....174	*	*	*	*	.65	.35	.19	.32
Female genital organs.....180-184	...	...	...	...	.33	.03	-.07	.11
Cervix uteri .....180	...	...	...	...	-.22	-.11	-.10	-.07
Prostate .....185	.00	-.04	-.10	.00	...	...	...	...
Bladder.....188	.36	.19	.00	.16	.06	.06	-.10	.11
Leukemia.....204-207	-.30	-.03	.08	-.01	.30	-.01	.03	-.10
Major cardiovascular-renal (and ill-defined) diseases .....390-458, 582-584, 780-796	.04	-.07	-.12	-.15	.16	-.03	-.16	-.04
Rheumatic heart disease .....390-398	.52	.31	.19	.33	.30	.28	.05	.34
Hypertensive heart disease and hypertension.....400-404	.08	-.06	-.07	-.08	.03	-.15	-.20	-.02
Ischemic and other heart disease.....410-429	.11	-.04	-.12	-.12	.18	-.02	-.15	-.03
Cerebrovascular disease.....430-438	-.28	-.20	-.18	-.23	-.25	-.12	-.14	-.13
Ill-defined conditions.....780-796	-.16	-.09	-.04	-.13	.05	-.05	-.06	-.13
All other diseases.....000-136, 210-389, 450-778	.62	.22	.10	.11	.51	.23	.14	.16
Neoplasms, benign and unspecified.....210-239	.59	.04	-.02	.07	.20	.09	.04	.10
Tuberculosis, all forms.....010-019	.47	.04	.02	-.14	.46	.02	.02	-.11
Diabetes.....250	.23	-.05	-.04	-.15	-.04	-.15	-.13	-.15
Influenza and pneumonia .....470-486	.59	.15	.10	.07	.49	.13	.08	.14
Chronic respiratory diseases.....490-493, 517-519	-.11	.05	-.04	.11	.03	.20	.12	.20
Cirrhosis of liver .....571	.85	.47	.29	.31	.72	.47	.34	.34
External causes .....E800-E999	-.32	-.31	.01	-.26	-.13	-.03	.10	-.03
Motor vehicle accidents .....E810-E823	-.53	-.46	-.23	-.34	-.63	-.38	-.15	-.21
Other accidents.....E800-E807, E825-E949	-.26	-.27	.03	-.16	-.03	.10	.16	.10
Suicide.....E950-E959	-.22	.03	.10	.07	.26	.28	.14	.16
Homicide.....E960-E978	.17	-.01	.17	-.28	.03	.00	.06	-.17

¹Physicians are defined as active, non-Federal M.D.'s and D.O.'s in 1971.

²Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

Table 16. Correlations of number of general practitioners¹ per 1,000 population with rates of selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ²	White males				White females			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	-.47	-.36	-.26	-.40	-.21	(3)	(3)	-.20
Natural causes.....000-796	-.37	-.36	-.22	-.38	(3)	(3)	(3)	(3)
Malignant neoplasms, all sites .....140-209	(3)	-.30	(3)	-.27	(3)	(3)	(3)	(3)
Digestive organs and peritoneum .....150-159	(3)	(3)	.24	(3)	(3)	(3)	.24	(3)
Stomach .....151	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Colo-rectal .....152-154	(3)	(3)	.31	(3)	(3)	(3)	.23	(3)
Pancreas.....157	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Respiratory system.....160-163	-.22	-.35	-.27	-.31	-.35	(3)	(3)	(3)
Breast .....174	*	*	*	*	(3)	(3)	(3)	.23
Female genital organs .....180-184	...	...	...	...	(3)	(3)	.21	(3)
Cervix uteri .....180	...	...	...	...	(3)	(3)	(3)	-.20
Prostate .....185	.37	(3)	(3)	(3)	...	...	...	(3)
Bladder .....188	(3)	(3)	(3)	(3)	-.44	(3)	(3)	(3)
Leukemia.....204-207	.46	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Major cardiovascular-renal (and ill-defined) diseases .....390-458, 582-584, 780-796	-.31	-.32	-.21	-.38	(3)	(3)	(3)	-.30
Rheumatic heart disease .....390-398	(3)	(3)	(3)	(3)	.21	(3)	.22	(3)
Hypertensive heart disease and hypertension .....400-404	(3)	(3)	(3)	(3)	.25	(3)	(3)	(3)
Ischemic and other heart disease.....410-429	-.28	-.28	(3)	-.34	(3)	(3)	(3)	-.29
Cerebrovascular disease.....430-438	(3)	-.24	-.21	-.31	(3)	(3)	(3)	(3)
Ill-defined conditions.....780-796	(3)	(3)	(3)	(3)	-.24	(3)	(3)	-.22
All other diseases.....000-136, 210-389, 450-778	-.38	-.25	(3)	-.22	-.28	(3)	(3)	(3)
Neoplasms, benign and unspecified.....210-239	-.27	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Tuberculosis, all forms.....010-019	-.49	-.24	(3)	-.29	-.29	(3)	(3)	(3)
Diabetes.....250	(3)	(3)	(3)	(3)	.20	(3)	(3)	(3)
Influenza and pneumonia .....470-486	-.46	-.29	-.23	-.28	-.54	-.24	-.21	-.23
Chronic respiratory diseases.....490-493, 517-519	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Cirrhosis of liver .....571	-.49	-.24	(3)	(3)	-.44	-.23	(3)	(3)
External causes .....E800-E999	-.39	(3)	-.29	-.21	-.35	(3)	(3)	(3)
Motor vehicle accidents .....E810-E823	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Other accidents.....E800-E807, E825-E949	-.47	(3)	-.21	(3)	-.57	(3)	(3)	(3)
Suicide.....E950-E959	(3)	(3)	-.23	(3)	(3)	(3)	(3)	(3)
Homicide.....E960-E978	-.63	-.35	-.34	-.38	-.36	-.25	-.28	-.23

¹General practitioners are defined as active, non-Federal general practitioner M.D.'s in 1969 plus active, non-Federal D.O.'s in 1971.

²Based on *Eighth Revision International Classification of Diseases Adapted for Use in the United States*.

³Correlations of less than .20 are omitted.

Table 17. Correlations of number of patient days hospitalized in 1969 per 1,000 population with rates of selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	White males				White females			
	States (n=50)	SEA's (n=508)	Metro-politan SEA's (n=206)	Non-metro-politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro-politan SEA's (n=206)	Non-metro-politan SEA's (n=302)
All causes.....	(2)	(2)	.26	(2)	(2)	(2)	(2)	(2)
Natural causes.....000-796	(2)	(2)	.23	(2)	(2)	(2)	(2)	(2)
Malignant neoplasms, all sites.....140-209	(2)	.22	.21	(2)	(2)	(2)	(2)	(2)
Digestive organs and peritoneum.....150-159	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Stomach.....151	-.35	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Colo-rectal.....152-154	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Pancreas.....157	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Respiratory system.....160-163	(2)	(2)	.25	(2)	(2)	(2)	(2)	(2)
Breast.....174	..	..	..	..	(2)	(2)	(2)	(2)
Female genital organs.....180-184	..	..	..	..	.34	(2)	(2)	(2)
Cervix uteri.....180	..	..	..	..	(2)	(2)	.26	(2)
Prostate.....185	.46	(2)	(2)	(2)	..	(2)	(2)	(2)
Bladder.....188	(2)	(2)	(2)	(2)	-.42	(2)	(2)	(2)
Leukemia.....204-207	.24	(2)	(2)	(2)	.24	(2)	(2)	(2)
Major cardiovascular-renal (and ill-defined) diseases.....390-458, 582-584, 780-796	(2)	(2)	.20	(2)	(2)	(2)	(2)	(2)
Rheumatic heart disease.....390-398	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Hypertensive heart disease and hypertension.....400-404	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Ischemic and other heart disease.....410-429	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Cerebrovascular disease.....430-438	(2)	(2)	(2)	(2)	(2)	(2)	.20	(2)
Ill-defined conditions.....780-796	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
All other diseases.....000-136, 210-389, 450-778	.24	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Neoplasms, benign and unspecified.....210-239	.23	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Tuberculosis, all forms.....010-019	.26	(2)	(2)	(2)	.27	(2)	(2)	(2)
Diabetes.....250	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Influenza and pneumonia.....470-486	.30	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Chronic respiratory diseases.....490-493, 517-519	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Cirrhosis of liver.....571	.25	(2)	(2)	(2)	(2)	(2)	(2)	(2)
External causes.....E800-E999	(2)	(2)	.24	(2)	-.22	(2)	(2)	(2)
Motor vehicle accidents.....E810-E823	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Other accidents.....E800-E807, E825-E949	-.27	(2)	.24	(2)	-.32	(2)	(2)	(2)
Suicide.....E950-E959	(2)	(2)	.24	(2)	(2)	(2)	(2)	(2)
Homicide.....E960-E978	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

¹Based on Eighth Revision International Classification of Diseases Adapted for Use in the United States.

²Correlations of less than .20 are omitted.

Table 18. Correlations of number of nurses per 1,000 population with rates of selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	White males				White females			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	(²)	(²)	(²)	(²)	(²)	.26	(²)	.22
Natural causes.....000-796	(²)	(²)	(²)	(²)	.26	.30	(²)	.25
Malignant neoplasms, all sites .....140-209	.21	.27	(²)	(²)	.51	.46	.21	.45
Digestive organs and peritoneum .....150-159	.57	.50	.31	.51	.53	.39	.23	.39
Stomach .....151	.36	.21	(²)	.25	.24	(²)	(²)	(²)
Colo-rectal .....152-154	.64	.53	.38	.53	.54	.39	.24	.41
Pancreas.....157	(²)	(²)	(²)	(²)	.32	(²)	(²)	(²)
Respiratory system .....160-163	(²)	(²)	(²)	(²)	(²)	.22	(²)	(²)
Breast .....174	*	*	*	*	.63	.48	.26	.50
Female genital organs .....180-184	...	...	...	...	.40	(²)	(²)	(²)
Cervix uteri.....180	...	...	...	...	(²)	(²)	(²)	(²)
Prostate .....185	.33	(²)	(²)	(²)	..	(²)	..	..
Bladder.....188	.49	.31	(²)	.27	(²)	(²)	(²)	(²)
Leukemia.....204-207	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Major cardiovascular-renal (and ill-defined) diseases .....390-458, 582-584, 780-796	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Rheumatic heart disease .....390-398	.52	.42	.30	.41	.43	.47	.28	.49
Hypertensive heart disease and hypertension .....400-404	(²)	(²)	(²)	(²)	.21	(²)	(²)	(²)
Ischemic and other heart disease.....410-429	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Cerebrovascular disease.....430-438	-.37	-.21	(²)	-.27	-.27	(²)	(²)	(²)
Ill-defined conditions.....780-796	-.28	-.22	(²)	-.28	-.22	(²)	(²)	-.26
All other diseases .....000-136, 210-389, 450-778	(²)	.22	(²)	(²)	(²)	.21	(²)	(²)
Neoplasms, benign and unspecified.....210-239	.26	(²)	(²)	(²)	.31	(²)	(²)	(²)
Tuberculosis, all forms.....010-019	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Diabetes.....250	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Influenza and pneumonia .....470-486	.20	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Chronic respiratory diseases.....490-493, 517-519	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Cirrhosis of liver .....571	.21	.33	(²)	.27	(²)	.37	(²)	.35
External causes .....E800-E999	-.57	-.51	-.28	-.46	-.49	-.26	-.25	-.22
Motor vehicle accidents .....E810-E823	-.57	-.56	-.36	-.48	-.61	-.47	-.33	-.33
Other accidents.....E800-E807, E825-E949	-.41	-.35	(²)	-.28	-.35	(²)	(²)	(²)
Suicide.....E950-E959	-.31	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Homicide.....E960-E978	-.57	-.36	-.29	-.48	-.50	-.23	-.25	-.30

¹Based on *Eighth International Classification of Diseases Adapted for Use in the United States*.

²Correlations of less than .20 are omitted.

Table 19. Correlations of numbers of dentists in 1971 per 1,000 population with rates of selected causes of death among white persons aged 35-74 years (age-adjusted) by sex, States, and metropolitan and nonmetropolitan State economic areas: United States, 1968-72

[The State of Hawaii, the Honolulu metropolitan SEA, and the Hawaii nonmetropolitan SEA are the only geographic areas excluded from the correlations]

Cause of death and ICDA code ¹	White males				White females			
	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)	States (n=50)	SEA's (n=508)	Metro- politan SEA's (n=206)	Non- metro- politan SEA's (n=302)
All causes.....	-.30	-.33	-.33	-.52	(²)	(²)	-.20	(²)
Natural causes.....000-796	(²)	-.24	-.30	-.46	(²)	(²)	(²)	(²)
Malignant neoplasms, all sites.....140-209	(²)	(²)	(²)	(²)	.37	.36	(²)	.27
Digestive organs and peritoneum.....150-159	.42	.41	.28	.32	.33	.29	(²)	.25
Stomach.....151	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Colo-rectal.....152-154	.45	.46	.31	.45	.35	.28	(²)	.29
Pancreas.....157	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Respiratory system.....160-163	-.25	(²)	-.28	-.38	(²)	.23	(²)	(²)
Breast.....174	•	•	•	•	.60	.47	.33	.44
Female genital organs.....180-184	•••	•••	•••	•••	(²)	(²)	(²)	(²)
Cervix uteri.....180	•••	•••	•••	•••	-.44	-.27	-.24	-.28
Prostate.....185	(²)	(²)	(²)	(²)	•••	•••	•••	•••
Bladder.....188	.38	.20	(²)	.20	(²)	(²)	(²)	(²)
Leukemia.....204-207	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Major cardiovascular-renal (and ill-defined) diseases.....390-458, 582-584, 780-796	-.35	-.37	-.37	-.51	(²)	-.22	-.29	-.32
Rheumatic heart disease.....390-398	.63	.45	.36	.44	.54	.48	.30	.49
Hypertensive heart disease and hypertension.....400-404	(²)	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Ischemic and other heart disease.....410-429	-.24	-.30	-.35	-.43	(²)	-.20	-.31	-.27
Cerebrovascular disease.....430-438	-.47	-.41	-.31	-.51	-.33	-.23	(²)	-.32
Ill-defined conditions.....780-796	-.31	-.25	(²)	-.37	(²)	-.21	(²)	-.37
All other diseases.....000-136, 210-389, 450-778	(²)	(²)	(²)	-.24	(²)	(²)	(²)	(²)
Neoplasms, benign and unspecified.....210-239	.26	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Tuberculosis, all forms.....010-019	(²)	(²)	(²)	-.41	(²)	(²)	(²)	-.29
Diabetes.....250	(²)	(²)	(²)	(²)	(²)	(²)	(²)	-.21
Influenza and pneumonia.....470-486	(²)	(²)	(²)	-.36	(²)	(²)	(²)	(²)
Chronic respiratory diseases.....490-493, 517-519	-.22	(²)	(²)	(²)	(²)	(²)	(²)	(²)
Cirrhosis of liver.....571	.45	.36	.21	(²)	.42	.40	.23	.28
External causes.....E800-E999	-.39	-.51	-.29	-.46	(²)	(²)	(²)	(²)
Motor vehicle accidents.....E810-E823	-.50	-.57	-.40	-.47	-.41	-.39	-.31	(²)
Other accidents.....E800-E807, E825-E949	-.25	-.37	(²)	-.24	(²)	(²)	(²)	(²)
Suicide.....E950-E959	-.25	(²)	(²)	(²)	.23	.27	(²)	(²)
Homicide.....E960-E978	-.32	-.37	-.24	-.57	-.22	-.21	-.22	-.30

¹Based on Eighth International Classification of Diseases Adapted for Use in the United States.

²Correlations of less than .20 are omitted.

APPENDIX

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APPENDIX

DEFINITION OF TERMS, GEOGRAPHIC CLASSIFICATION,
AND ABBREVIATIONS USED IN DETAILED TABLES

Definition of Certain Terms

Death rates.—All death rates are average annual death rates per 100,000 population, for ages 35-74, age-adjusted by the direct method by 10-year age groups, using as the standard population the U.S. total population in those age groups in 1950, so as to be comparable with rates in other studies.

Various subtotal and all causes categories are calculated directly from the age-specific rates for these categories. The sum of rates for specific causes of death are only approximately the rate for the broader category.

ICDA number.—All ICDA codes are from the *Eighth Revision International Classification of Diseases Adapted for Use in the United States*, PHS Pub. No. 1693, Public Health Service.

Washington. U.S. Government Printing Office, 1967.

Geographic Classification

SEA's or State economic areas.—Under each State, the nonmetropolitan State economic areas (SEA's) are listed in numerical sequence, with an indication of the section of the State in which they are located. (Usually they consist of from 4 to 20 counties.)

The metropolitan SEA's are identified by letter code, followed by the name of the principal city, or, in a few instances, by the name of the county or area. Each metropolitan SEA consists of one or more counties. The counties included in each SEA are listed by the Bureau of the Census in reference 28.

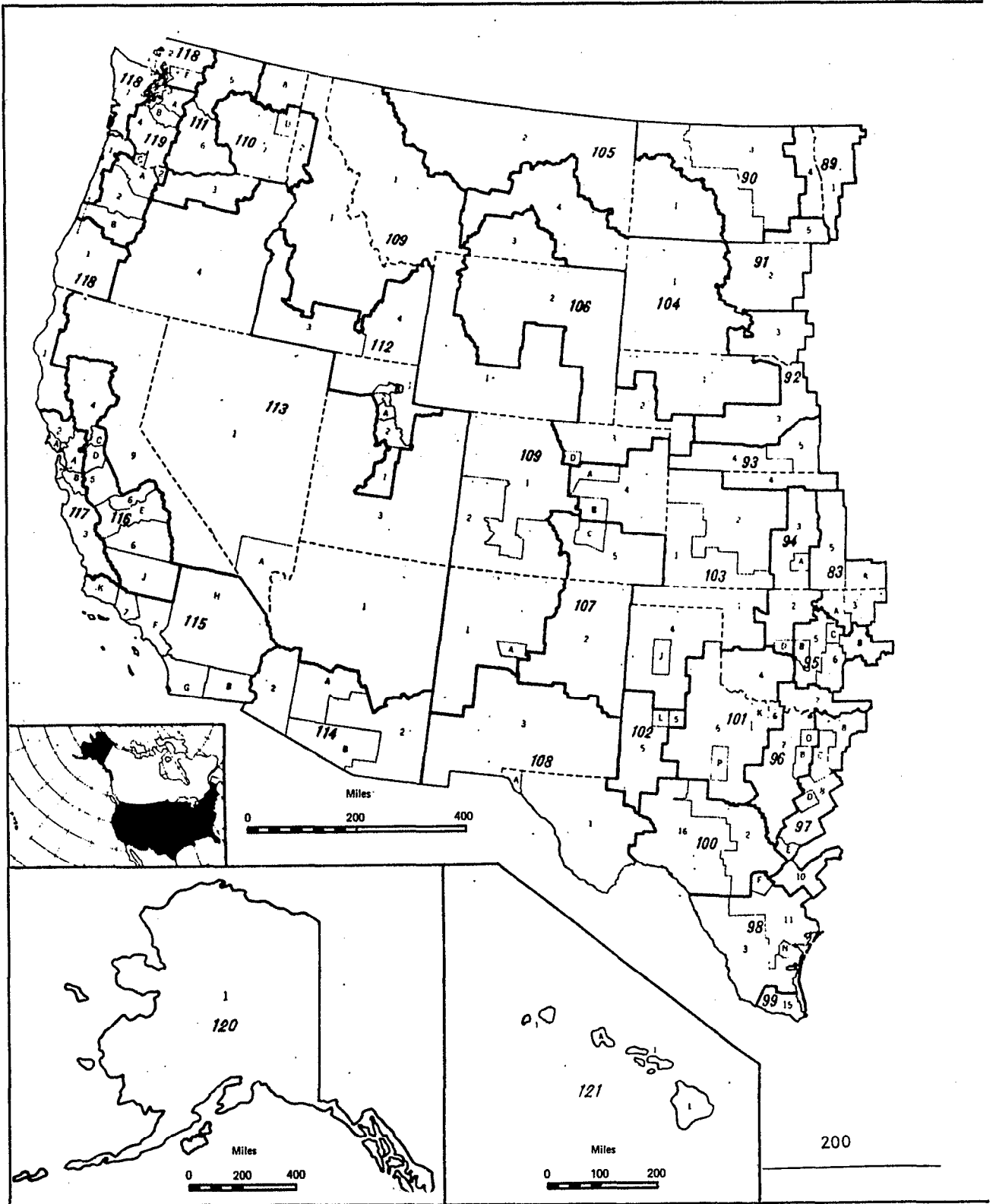


Figure I. Economic subregions and State economic areas of the United States



- Economic subregion boundary
- - - - State boundary where not part of economic subregion boundary
- State economic area boundary. All economic subregion boundaries and State boundaries are also State economic area boundaries
- 57** Economic subregions—large numbers
- A - N State economic areas—small numbers and letters

Abbreviations Used in Tables 2-5

<i>Column heading abbreviation</i>	<i>ICDA no. (8th Revision)</i>	<i>Description</i>
ALL C.....	000-999	All causes of death combined
NAT C	000-796	Natural causes—all causes excluding accidents and violence
CA	140-209	Cancer, or malignant neoplasms, all forms and sites
CA C-R	152-154	Colo-rectal cancer, or cancer of the colon and rectum (and including the few deaths, cancer of small intestines)
CA PAN	157	Cancer of pancreas
CA RESP.....	160-163	Cancer of respiratory system; approximately 95 percent are of the lung and bronchus
CA BRST	174	Cancer of breast; omitted on tables for males, due to small number of deaths and large standard error
CA BLAD.....	188	Cancer of bladder
CA ILL D.....	195-199	Cancer—ill-defined, that is, ill-defined, secondary, and unspecified sites
CV+ILL D.....	390-448, 780-796	Cardiovascular diseases plus ill-defined conditions and symptoms
RHD RF.....	390-398	Rheumatic heart disease and rheumatic fever
HYP HHD.....	400-404	Hypertension and hypertensive heart disease
ISCH HT.....	410-413	Ischemic heart disease
OTH HT	420-429	Other forms and symptomatic or ill-defined heart disease
STRK.....	430-438	Stroke—cerebrovascular diseases
ILL DEF.....	780-796	Ill-defined conditions and symptoms
CHR RESP	490-493, 517-519	Chronic respiratory diseases—asthma, bronchitis, emphysema, chronic interstitial pneumonia, bronchiectasis, chronic obstructive lung disease (and a few deaths due to pulmonary collapse, acute edema, and other diseases of the lung (519.0-519.2))
NO. OF DEATHS NATC...		Number of deaths for natural causes, ages 35-74, for the 1968-72 time period

NOTE: Only selected cause categories are listed.



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