577 Cancer Mortality - Tennessee, 1960-1980<br>580 Measles Outbreak - New York City 586 Lung Cancer among Women Tennessee

MORBIDITY AND MORTALITY WEEKLY REPORT

## Current Trends

## Cancer Mortality - Tennessee, 1960-1980

Analysis of the leading causes of death among Tennessee residents from 1968 to 1980 revealed that malignant neoplasms and suicide were the only two causes with increasing death rates (1). Age-specific and site-specific death rates for malignant neoplasms were examined for 1968-1980. During this period, mortality per 100,000 population for malignant neoplasms at all sites rose from 143.7 to 180.9 (1).

To determine the groups with increasing rates, changes in age-specific and site-specific malignant neoplasm death rates in Tennessee were tabulated from 1968 to 1980. Agespecific rates were also analyzed for respiratory and intrathoracic malignant neoplasms to determine whether there was any change over time.

For all age groups, the sites of malignant neoplasms with the highest death rates in 1968 were digestive organs and peritoneum ( $38.5 / 100,000$ ); respiratory and intrathoracic organs ( $30.0 / 100,000$ ); genital ( $21.7 / 100,000$ ); and breast (11.1/100,000) (Table 1). By 1980, respiratory and intrathoracic cancer had become the leading site-specific cause of cancer

TABLE 1. Rates of death from malignant neoplasms, per 100,000 population - Tennessee, 1968-1980

| Year | Site of malignant neoplasm (rate) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Digestive organs and peritoneum | Respiratory and intrathoracic organs | Genital organs | Breast | All other sites | All sites |
| 1968 | 38.5 | 30.0 | 21.7 | 11.1 | 42.4 | 143.7 |
| 1969 | 38.6 | 29.9 | 20.6 | 12.5 | 42.4 | 144.0 |
| 1970 | 39.8 | 34.3 | 21.2 | 12.2 | 45.0 | 152.5 |
| 1971 | 41.2 | 33.7 | 21.0 | 13.1 | 43.7 | 152.6 |
| 1972 | 36.7 | 36.2 | 21.2 | 13.4 | 45.9 | 155.4 |
| 1973 | 39.7 | 38.1 | 21.1 | 12.9 | 46.8 | 158.8 |
| 1974 | 39.5 | 40.9 | 21.4 | 14.1 | 46.9 | 162.7 |
| 1975 | 41.0 | 40.0 | 20.7 | 13.3 | 49.1 | 164.0 |
| 1976 | 42.4 | 44.9 | 20.2 | 13.4 | 50.0 | 170.8 |
| 1977 | 42.9 | 47.4 | 21.4 | 13.5 | 49.4 | 174.6 |
| 1978 | 40.5 | 47.7 | 20.0 | 13.8 | 50.0 | 172.0 |
| 1979 | 43.9 | 50.3 | 20.8 | 13.1 | 49.7 | 177.9 |
| 1980 | 44.5 | 51.5 | 21.9 | 12.4 | 50.6 | 180.9 |

## Cancer Mortality - Continued

death, with a mortality rate of $51.5 / 100,000$. Digestive organs and peritoneum were second, with a rate of 44.5/100,000. The respiratory cancer death rate rose $71.7 \%$ from 1968 to 1980. During this period, death rates for genital cancer remained relatively stable, as did those for breast cancer.

Analyzing the "all other sites" category revealed that the increase from 1968 to 1980 was due to small changes at many sites rather than a large increase at any one site. Most deaths in the respiratory and intrathoracic category were due to lung cancer (Table 2).

For Tennessee residents whose ages at death were under 25 years, mortality for all sites was relatively stable around a mean of 5.9/100,000 during this period. The rate for leukemia, the leading site-specific cause for this age group, declined from 2.6/100,000 in 1968 to $1.9 / 100,000$ in 1980. The rates for all other specific sites remained low and relatively unchanged.

For ages 25-34 years, overall rates declined from 21.3/100,000 population in 1968 to a low of 14.2/100,000 population in 1978. Lymphatic, leukemic, and digestive cancers were leading causes of site-specific deaths for persons aged $25-34$ years during this period.

For residents aged 35-44 years, mortality for all sites fell irregularly from 63.7/100,000 in 1968 to $50.0 / 100,000$ in 1980. Rates of genital cancer among females declined from $19.1 / 100,000$ to $10.2 / 100,000$. Respiratory, digestive, and breast cancers were the three other leading causes of malignant neoplasm deaths in this age group.

For residents aged 45-64 years, the overall death rate for malignant neoplasms rose from $285.4 / 100,000$ in 1968 to $321.3 / 100,000$ in 1980. This increase was due mainly to the increase in rates for respiratory and intrathoracic cancer, from 79.8/100,000 in 1968 to 120.9/100,000 in 1980, an increase of 51.5\%.

In the 65- to 74-year-old age group, the death rate for all sites rose from 677.1/100,000 to $794.4 / 100,000$; respiratory cancer rates rose from $147.4 / 100,000$ to $245.5 / 100,000$ from 1968 to 1980, an increase of $66.6 \%$.

For residents aged 75 years and older, the cancer mortality rates for all sites increased from 1,004.1/100,000 to 1,216.6/100,000. Increasing rates occurred in this age group for digestive cancer (350.2/100,000 to $378.3 / 100,000$ ), male genital cancer (306.0/100,000

TABLE 2. Rates of resident deaths from malignant neoplasms, per 100,000 population, by site - Tennessee, 1980

| Site of malignant neoplasms | ICD-9* Code | Rate |
| :--- | ---: | ---: |
| Respiratory and intrathoracic organs | $(160-165)$ | 51.5 |
| Nasal cavities, middle ear, and accessory sinuses | 160 | 0.2 |
| Larynx | 161 | 1.5 |
| Trachea, bronchus, and lung | 162 | 49.3 |
| Pleura | 163 | 0.1 |
| Thymus, heart, and mediastinum | 164 | 0.3 |
| Other and ill-defined | 165 | -34.5 |
| Digestive organs and peritoneum | $150-159$ | 29.4 |
| Genitourinary organs | $179-189$ | 17.2 |
| Lymphatic and hematopoietic tissue | $200-208$ | 16.5 |
| Bone, connective tissue, skin, and breast | $170-175$ | 3.6 |
| Lip, oral cavity, and pharynx | $140-149$ | 18.3 |
| Other and unspecified sites | $190-199$ |  |

[^0]Cancer Mortality - Continued
to $367.5 / 100,000$ ), and respiratory and intrathoracic cancer (112.8/100,000 to 217.4/100,000). The mortality for respiratory malignant neoplasms in this age group increased 92.7\% from 1968 to 1980.

Digestive cancer rates increased sharply with age. Conversely, mortality from respiratory and intrathoracic cancer has increased for all age groups, with a steeper rate of increase for men than for women and with minimal race differences (Figure 1). Nationally, the rate of increase is steeper for women and for blacks and other racial minorities (2). The mortality from male genital cancer increased from 1968 to 1980. This increase was greater with advancing age, especially after age 54 years.
Editorial Note: In Tennessee, the crude death rates for digestive and male genital cancer have increased, partly because of the aging of the population. The major cause of the increase in cancer death rates in Tennessee, however, is respiratory and intrathoracic malignant neoplasms, which increased with age in all races and both sexes. In a special study commissioned by the National Cancer Institute (3), an estimated $85 \%-95 \%$ of respiratory cancer deaths were caused by tobacco smoking. Increased efforts in patient counseling and public education regarding the health risks of tobacco use may be needed to reverse this trend.
Reported by J Harris, MD, Northern Telecom, Nashville, A Hogan, T Spillman, Health Promotion Section, Tennessee Dept of Health and Environment in the Journal of the Tennessee Medical Association, 1984;77:156-6i.

## References

1. Tennessee Department of Health and Environment. Unpublished data.
2. Office on Smoking and Health. Smoking and health: a report of the Surgeon General. Washington, D. C.: Public Health Service, Department of Health, Education, and Welfare, 1979.
3. Doll R, Peto R. The causes of cancer. New York: Oxford University Press, 1982.

FIGURE 1. Rates of death from malignant neoplasms of respiratory and intrathoracic organs, by race and sex - Tennessee, 1961-1980


## Epidemiologic Notes and Reports

## Measles Outbreak - New York City

Thirty-four confirmed and probable cases of measles were identified among residents of East Harlem by the New York City Department of Health from February 8, to May 23, 1984. Eighteen cases occurred among females; ages of all patients ranged from 8 months to 24 years (median 5 years) (Figure 2). Thirty-one cases ( $91 \%$ ) occurred among Hispanics. Onsets of rash occurred between February 8 and May 23. No additional suspected cases have occurred.

Measles was discovered simultaneously in two areas of East Harlem; a common source of infection was not identified. Exposure occurred in several hospitals and in the community but not in any single location; elementary schools were affected but had no concentrated outbreaks.

Nineteen cases were confirmed serologically or through confirmed epidemiologic links; other cases could not be conclusively linked. Thirteen cases were vaccine failures; nine oc-
(Continued on page 585)
TABLE I. Summary-cases of specified notifiable diseases, United States

| Disease | 41 st Week Ending |  |  | Cumulative, 41 st Week Ending |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Oct. } 13 \\ 1984 \\ \hline \end{gathered}$ | $\begin{aligned} & \hline \text { Oct. 15, } \\ & 1983 \\ & \hline \end{aligned}$ | $\begin{gathered} \text { Median } \\ 1979-1983 \end{gathered}$ | $\begin{gathered} \text { Oct. } 13, \\ 1984 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Oct. } 15, \\ 1983 \\ \hline \end{gathered}$ | Median $1979-1983$ |
| Acquired Immunodeficiency Syndrome (AIDS)* | 74 | 59 | N | 3.254 | 1.520 | $N$ |
| Aseptic meningitis | 239 | 433 | 315 | 6,006 | 9,859 | 7.114 |
| Encephalitis: Primary (arthropod-borne \& unspec.) Post-infectious | 41 1 | 59 | 57 1 | 846 79 | 1.464 76 | 1.200 76 |
| Gonorrhea: Civilian | 14.523 | 16.870 | 20.020 | 653.184 | 708,495 | 786,028 |
| Military | 207 | 457 | 457 | 16,616 | 19,206 | 21.796 |
| Hepatitis: Type A | 418 | 431 | 482 | 16,570 | 16,449 | 19.723 |
| Type B | 488 | 431 | 396 | 20,098 | 18,727 | 15.995 |
| Non A, Non B | 68 | 62 | N | 2.873 | 2,669 | N |
| Unspecified | 143 | 171 | 182 | 4.423 | 5.727 | 8.056 |
| Legionellosis | 8 | 7 | N | 510 | 557 | N |
| Leprosy | 5 | 2 | 2 | 182 | 195 | 168 |
| Malaria | 13 | 11 | 21 | 739 | 657 | 862 |
| Measles: Total** | 23 | 22 | 36 | 2.361 | 1.302 | 2.694 |
| Indigenous | 22 | 17 | N | 2.093 | 1,064 | N |
| Imported | 1 | 5 | N | 268 | 238 | N |
| Meningococcal infections: Total | 24 | 36 | 47 | 2,158 | 2,182 | 2.182 |
| Civilian | 24 | 36 | 47 | 2.153 5 | 2,167 15 | 2.167 15 |
| Mumps | 31 | 50 | 50 | 2,358 | 2.623 | 4.437 |
| Pertussis | 25 | 58 | 41 | 1.804 | 1.924 | 1.245 |
| Rubella (German measles) | 5 | 9 | 9 | 645 | 813 | 2.064 |
| Syphilis (Primary \& Secondary): Civilian | 379 | 528 | 537 | 21.813 | 25.431 318 | 24.150 |
| Military | 4 | 9 | 9 | 243 | 318 | 309 |
| Toxic Shock syndrome | 4 | 6 | N | 383 | 347 | N |
| Tuberculosis | 397 | 412 | 486 | 16,803 | 18.377 | 21.179 |
| Tularemia | 3 | 5 | 5 | 257 | 239 | 209 |
| Typhoid fever | 7 | 17 | 17 | 261 | 351 | 403 |
| Typhus fever, tick-borne (RMSF) | 19 | 12 | 16 | 770 | 1.041 | 1.041 |
| Rabies, animal | 108 | 80 | 113 | 4,267 | 4,976 | 5.075 |

TABLE II. Notifiable diseases of low frequency, United States

|  | Cum 1984 |  | Cum 1984 |
| :---: | :---: | :---: | :---: |
| Anthrax | 1 | Plague | 23 |
| Botulism: Foodborne | 13 | Poliomyelitis: Total | 3 |
| Infant (Calif. 1) | 71 | Paralytic | 3 |
| Other | 6 | Psittacosis (Fla. 1. Wash. 1, Calif. 1) | 72 |
| Brucellosis (Fla. 2, Ala. 2, Tex. 1, Mont. 1) | 94 | Rabies, human | 2 |
| Cholera | - | Tetanus | 47 |
| Congenital rubella syndrome | 3 | Trichinosis (Tex. 1) | 61 |
| Diphtheria | 1 | Typhus fever, flea-borne (endemic, murine) | 22 |
| Leptospirosis | 25 |  |  |

*The 1983 reports which appear in this table were collected before AIDS became a notifiable condition
"One of the 23 reported cases for this week was imported from a foreign country or can be directly traceable to a known internationally imported case within two generations.

TABLE III. Cases of specified notifiable diseases, United States, weeks ending October 13, 1984 and October 15, 1983 (41st Week)

| Reporting Area | AIDS | Aseptic Meningitis | Encephalitis |  | Gonorrhea (Civilian) |  | Hepatitis (Viral), by type |  |  |  | Legionellosis | Leprosy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Primary | Post-infectious |  |  | A | B | NA, NB | Un3pecified |  |  |
|  | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | 1984 | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1983 \end{aligned}$ | 1984 | 1984 | 1984 | 1984 | 1984 | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ |
| UNITED STATES | 3.254 | 239 | 846 | 79 | 653.184 | 708.495 | 418 | 488 | 68 | 143 | 8 | 182 |
| NEW ENGLAND | 102 | 8 | 39 | 2 | 18.197 | 17,986 | 3 | 34 | 2 | 19 | - | 9 |
| Maine |  | - | - | . | 775 | 895 | . | - | - | . | - | . |
| N.H. | 1 | - | 6 | - | 557 | 580 | - | 4 | - | - | - |  |
| V t. | - | - | 4 | - | 296 | 358 | - | 2 | - | - | - |  |
| Mass | 58 | 7 | 18 | - | 7.392 | 7.668 | 3 | 21 | 2 | 19 | - | 6 |
| R.I. | 6 | - |  | - | 1,360 | 1,005 | . | 2 | . | - | - | 3 |
| Conn. | 37 | 1 | 11 | 2 | 7.817 | 7.480 | - | 5 | - | - | - | - |
| MID ATLANTIC | 1.433 | 58 | 107 | 10 | 88.050 | 90.030 | 35 | 98 | 8 | 1 | - | 34 |
| Upstate N.Y. | 132 | 19 | 37 | 7 | 13.840 | 14.943 | 2 | 9 | 3 | - | - | 2 |
| N.Y. City | 1.034 | 6 | 10 | , | 34.953 | 35.538 | 12 | 33 | 3 | 1 | . | 30 |
| N.J. | 190 | 14 | 26 | - | 15.312 | 16.887 | 4 | 35 | 2 | - | - | - |
| Pa . | 77 | 19 | 34 | 3 | 23.945 | 22.662 | 17 | 21 | 3 | . | - | 2 |
| E.N. CENTRAL | 143 | 23 | 227 | 18 | 92.336 | 102,622 | 17 | 35 | 5 | 3 | 1 | 6 |
| Ohio | 16 | 8 | 68 | 9 | 23,767 | 25,992 | 4 | 13 | 1 | 2 | - | 2 |
| Ind. | 22 | U | 57 |  | 10.022 | 10.276 | U | U | U | U | U | 2 |
| III. | 72 | U | 27 | 6 | 21.256 | 30.079 | 7 | 4 | - | - | - | 2 |
| Mich | 23 | 15 | 49 | - | 27.013 | 27.258 | 6 | 18 | 4 | 1 | 1 | 2 |
| Wis. | 10 |  | 26 | 3 | 10.278 | 9.017 |  | 18 | 4 | , | - | 2 |
| WN CENTRAL | 32 | 11 | 74 | 3 | 32.243 | 33,822 | 14 | 11 | 2 | - | - | 1 |
| Minn | 8 | 4 | 31 | - | 4.871 | 4,720 | 4 | 2 | 1 | - | - | - |
| lowa | 2 | 2 | 29 | - | 3.485 | 3.627 | - | 2 | - | - | - | 1 |
| Mo | 18 | 2 | 8 | - | 15.559 | 16,626 | 1 | 5 | 1 | - | - | - |
| N Dak | . | 2 | - | - | 311 | , 368 | . | 5 | - | - | - | . |
| S Dak | - | - | 1 | 1 | 757 | 858 | 6 | - | - | - | - | - |
| Nebr | 2 | - | 1 | - | 2.305 | 2.155 | 2 | 2 | - | - | - | - |
| Kans | 2 | 1 | 4 | 2 | 4.955 | 5.468 | 1 | . | - | - | - | - |
| S ATLANTIC | 445 | 46 | 125 | 16 | 164.644 | 182,457 | 25 | 112 | 13 | 12 | 6 | 8 |
| Del | 5 | 1 | 1 | . | 3.081 | 3,363 | - | 2 | 1 | - | 2 | 8 |
| Md | 39 | 3 | 26 | - | 19.507 | 23.477 | - | 11 | 1 | 3 | - | 1 |
| DC | 67 | 1 | - | - | 11.831 | 12.527 | - | 1 | . | . | - | 1 |
| Va | 29 | 14 | 25 | 5 | 15.809 | 16,627 | 5 | 17 | - | 2 | 2 | 4 |
| W Va | 4 | 1 | 22 | - | 2.098 | 2.039 | - | 1 | 1 | - | . |  |
| NC | 10 | 13 | 22 | 7 | 26.957 | 28.234 | 2 | 9 | 1 | 4 | 1 | - |
| S C | 7 | 3 | 4 | - | 17.074 | 17.143 | 2 | 14 | , |  | . | - |
| Ga | 45 | 6 | 2 | 2 | 28,722 | 36.120 | 4 | 23 | 2 | - | - | 1 |
| Fla | 239 | 4 | 23 | 2 | 39.565 | 42.927 | 14 | 34 | 7 | 3 | 1 | 1 |
| ES CENTRAL | 22 | 17 | 45 | 7 | 58.052 | 59.833 | 11 | 29 | 4 | 2 | - | - |
| Ky | 9 | 1 | 8 | - | 7.032 | 7.034 | 6 | 1 | - | 2 | - | . |
| Tenn | 6 | 3 | 15 | 1 | 24.028 | 24.632 | 2 | 15 | 2 | 1 | - | - |
| Ala | 5 | 8 | 19 | 5 | 18.079 | 18,399 | 3 | 13 | 2 | 1 | - | - |
| Miss | 2 | 5 | 3 | 1 | 8.913 | 9,768 | - |  | 2 | - | - | - |
| W S CENTRAL | 238 | 30 | 73 | 4 | 88.983 | 99.653 | 76 | 29 | 10 | 62 | - | 17 |
| Ark | 1 | - | - | 2 | 7.957 | 7.818 | 6 | - | 1 | 2 | - | 1 |
| La. | 35 | 3 | 6 | - | 19.950 | 18.749 | 10 | 1 | 1 | 2 | - | 1 |
| Okla | 8 | 7 | 19 | 1 | 9.806 | 11.587 | 3 | 2 | 1 | 3 | - | . |
| Tex | 194 | 20 | 48 | 1 | 51.270 | 61.499 | 57 | 26 | 7 | 55 | - | 15 |
| MOUNTAIN | 54 | 10 | 24 | 10 | 21.429 | 22.533 | 55 | 32 | 4 | 8 | 1 | 8 |
| Mont. | - | - | 2 | - | 868 | 931 | - | - | 1 | - | . | - |
| Idaho | - | 1 | . | - | 1.015 | 1.002 | 2 | 3 | . | - | - | - |
| Wyo | 1 | - | - | - | 605 | 607 | - |  | - | - | - | - |
| Colo. | 29 | 5 | 7 | - | 6.175 | 6.308 | 6 | 6 | 1 | 1 | - | - |
| N. Mex | 1 | - | - | - | 2,615 | 2.762 | 8 | 3 | - | - | - | - |
| Ariz | 11 | 2 | 9 | 3 | 5.807 | 6.377 | 24 | 13 | 1 | 2 | 1 | 6 |
| Utah | 7 | - | 6 | 7 | 1.025 | 1.082 | 11 | 2 | - | 2 | . | 1 |
| Nev . | 5 | 2 | - | - | 3.319 | 3.464 | 4 | 5 | 1 | 3 | - | 1 |
| PACIFIC | 785 | 36 | 132 | 9 | 89,250 | 99.559 | 182 | 108 | 20 | 36 | - | 99 |
| Wash. | 39 | 5 | 7 | - | 6.579 | 7.799 | 15 | 11 | 2 | 3 | - | 3 |
| Oreg. | 77 | 28 | 122 | 9 | 5.202 | 5.316 | 27 | 3 | 2 | 1 | - | 1 |
| Calif. | 726 | 28 | 122 | 9 | 73.765 | 81.954 | 137 | 93 | 18 | 32 | . | 80 |
| Alaska | 1 | - | - | - | 2.196 | 2.587 | 3 | - | 18 | 32 | - | 8 |
| Hawaii | 12 | 3 | 3 | - | 1.508 | 1.903 | 3 | 1 | - | - | - | 15 |
|  | $3{ }^{-}$ | U | - | i |  | 114 | U | U | U | U | U | - |
| P.R | 33 | 2 | 3 | 1 | 2.676 | 2.256 | 5 | 25 | U | 3 | U | 4 |
| V.I. | - | U | - | - | 365 | 221 | U | U | U | U | U | - |
| Pac. Trust Terr. | - | U | - | - | - | 22. | U | U | U | U | U | - |

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 13, 1984 and October 15, 1983 (41st Week)

| Reporting Area | Malaria | Measles (Rubeola) |  |  |  |  | Menin-gococcalInfections | Mumps |  | Pertussis |  |  | Rubella |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Indigenous |  | Imported * |  | Total <br> 1983 |  |  |  |  |  |  |  |  |  |
|  | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | 1984 | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | 1984 | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ |  | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | 1984 | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | 1984 | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1983 \end{aligned}$ | 1984 | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1983 \end{aligned}$ |
| UNITED STATES | 739 | 22 | 2,093 | 1 | 268 | 1,302 | 2.158 | 31 | 2,358 | 25 | 1.804 | 1,924 | 5 | 645 | 813 |
| NEW ENGLAND | 43 | - | 93 | - | 12 | 18 | 144 | 3 | 75 | 1 | 53 | 61 | - | 20 | 15 |
| Maine |  | - |  | - |  |  | 1 |  | 23 | - | 2 | 4 |  | 1 |  |
| N.H. | - | - | 33 | - | 3 | 3 | 7 | - | 15 | - | 8 | 9 | - | 1 | 4 |
| Vt . | 5 | - | 2 | - | 5 | - | 26 | - | 5 | - | 23 | 8 | - | - | 5 |
| Mass. | 25 | - | 48 | - | . | 6 | 63 | 2 | 13 | - | 13 | 34 | - | 18 | 6 |
| R.I. | 4 | - | - | - | - | - | 12 | 1 | 10 | 1 | 3 | 5 | . | . | . |
| Conn. | 9 | - | 10 | - | 4 | 9 | 35 | - | 9 | - | 4 | 1 | - | - | - |
| MID ATLANTIC | 114 | 1 | 118 | - | 37 | 111 | 365 | 4 | 276 | - | 155 | 336 | - | 219 | 137 |
| Upstate N.Y. | 23 | - | 24 | - | 12 | 12 | 120 | 3 | 78 | - | 90 | 105 | - | 99 | 28 |
| N.Y. City | 32 | 1 | 90 | - | 16 | 69 | 77 | - | 23 | - | 7 | 54 | - | 99 | 86 |
| N.J. | 34 | - | 4 | - | 2 | 27 | 71 | - | 132 | - | 11 | 19 | . | 17 | 3 |
| Pa . | 25 | - | - | - | 7 | 3 | 97 | 1 | 43 | - | 47 | 158 | - | 4 | 20 |
| E.N. CENTRAL | 68 | - | 615 | - | 74 | 674 | 344 | 4 | 930 | 2 | 410 | 433 | 1 | 85 | 119 |
| Ohio | 15 | - | 3 | - | 6 | 85 | 114 | - | 452 | 1 | 69 | 127 | - | 2 | 2 |
| Ind. | 2 | U | 2 | U | 1 | 406 | 43 | U | 53 | U | 225 | 52 | U | 5 | 23 |
| III. | 24 | - | 177 | - | 1 | 175 | 77 | - | 175 | 1 | 25 | 147 | 1 | 50 | 50 |
| Mich. | 15 | - | 411 | - | 54 | 7 | 67 | 4 | 167 | . | 28 | 37 | . | 20 | 16 |
| Wis. | 12 | - | 22 | - | 12 | 1 | 43 | - | 83 | - | 63 | 70 | - | 8 | 28 |
| W.N. CENTRAL | 21 | - | 39 | - | 8 | 8 | 131 | 4 | 98 | - | 114 | 122 | 2 | 37 | 39 |
| Minn. | 7 | - | 35 | - | 3 | 1 | 28 | - | 6 | - | 14 | 41 | . | 4 | 8 |
| lowa | 2 | - | - | - | - | - | 21 | - | 22 | - | 10 | 6 | - | 1 | . |
| Mo. | 6 | - | 4 | - | - | 1 | 40 | 1 | 10 | - | 18 | 22 | - | - |  |
| N. Dak. | 1 | - | - | - | . | . | 1 | - | 2 |  |  | 2 | - | 3 |  |
| S. Dak. | 1 | - | - | - | - | - | 6 | - | - | - | 9 | 7 | - | . | . |
| Nebr. | 2 | - | - | - |  |  | 11 |  | 4 | - | 11 | 2 |  | - |  |
| Kans. | 2 | - | - | - | 5 | 6 | 24 | 3 | 54 | - | 52 | 42 | 2 | 29 | 31 |
| S. ATLANTIC | 110 | - | 18 | 1 | 30 | 204 | 453 | 1 | 172 | 1 | 137 | 236 | - | 22 | 95 |
| Del. | 4 | - | - | - | - |  | 4 | . | 2 | - | 2 | 5 | . | . |  |
| Md. | 28 | - | 8 | - | 14 | 10 | 36 | - | 37 | - | 13 | 29 | - | 1 | 3 |
| D.C. | 1 | - | - | - | 5 |  | 8 | - |  | - |  |  |  | - |  |
| Va . | 27 | - | 1 | - | 2 | 23 | 49 | - | 17 | - | 15 | 50 | - |  | 2 |
| W. Va. | 1 | - | - | - | . | . | 5 | - | 36 | - | 11 | 9 | . | - |  |
| N.C. | 9 | - | - | - | - | 1 | 74 | - | 17 | - | 32 | 27 | - | - | 10 |
| S.C. | 2 | - | - | - | - | 4 | 51 | - | 4 | - | 1 | 13 | - | - | 1 |
| Ga. | 13 | - | - |  | 1 | 8 | 84 | - | 17 | - | 10 | 64 | . | 2 | 13 |
| Fla. | 25 | - | 9 | $1^{+}$ | 8 | 158 | 142 | 1 | 42 | 1 | 53 | 39 | . | 19 | 66 |
| E.S. CENTRAL | 8 | - | 4 | - | 2 | 6 | 125 | 2 | 48 | - | 14 | 30 | - | 18 | 16 |
| Ky. | 1 | - | 1 | - |  | 1 | 49 | 1 | 10 | - | 2 | 13 | - | 12 | 15 |
| Tenn. | 2 | - | , | - | 2 | - | 31 | 1 | 16 | - | 7 | 7 | - |  |  |
| Ala. | 5 | - | 3 | - |  | 5 | 32 | - | 6 | - | 1 | 5 | - | 3 | 1 |
| Miss. | . | - | - | - | - | . | 13 | - | 16 | - | 4 | 5 | . | 3 | . |
| W.S. CENTRAL | 68 | 21 | 530 | - | 25 | 74 | 228 | 4 | 131 | - | 283 | 388 | - | 61 | 106 |
| Ark. | . | . | 8 | - | - | 13 | 35 | - | 7 | - | 15 | 20 | . | 3 | . |
| La. | 9 | - | 8 | - |  | 25 | 47 |  |  | - | 8 | 7 | - | . | 10 |
| Okla. | 8 | - | - | - | 8 | 1 | 24 | N | N | - | 234 | 289 |  | - | - |
| Tex. | 51 | 21 | 514 | - | 17 | 35 | 122 | 4 | 124 | - | 26 | 72 | - | 58 | 96 |
| MOUNTAIN | 24 | - | 113 | - | 32 | 14 | 72 | 2 | 221 | 3 | 110 | 203 | - | 21 | 30 |
| Mont. | 1 | - | - | - |  | 3 | 2 | - | 7 | - | 19 | 1 | - | i | 3 |
| Idaho | 2 | - | - | - | 23 | 7 | 8 | - | 9 |  | 7 | 15 | . |  | 8 |
| Wyo. |  | - | - | - |  | 1 | 2. | - | 2 | - | 6 | 6 | . | 2 | 4 |
| Colo. | 6 | - |  | - | 6 | 2 | 26 | - | 19 | 3 | 38 | 123 | - | 2 | 1 |
| N. Mex. | 1 | - | 88 | - | - |  | 7 | N | N | - | 8 | 12 | - | 1 |  |
| Ariz. | 9 | - |  | - | 1 | 1 | 15 | 2 | 169 | - | 23 | 22 | - | 4 | 6 |
| Utah | 5 | - | 25 | - | 2 | - | 7 | - | 11 | - | 7 | 24 | - | 7 | 7 |
| Nev . | - | - | - | - | - | - | 5 | - | 4 | - | 2 | . | - | 4 | 1 |
| PACIFIC | 283 | - | 563 | - | 48 | 193 | 296 | 7 | 407 | 18 | 528 | 115 | 2 | 162 | 256 |
| Wash. | 11 | - | 125 | - | 14 | 5 | 46 | 3 | 45 | 7 | 299 | 16 | - | 1 | 9 |
| Oreg. | 10 | - |  | - | - | 10 | 43 | N | N | - | 28 | 8 | - | 2 | 13 |
| Calif. | 258 | - | 279 | - | 30 | 175 | 199 | 3 | 331 | 9 | 127 | 84 | 2 | 154 | 232 |
| Alaska | - | - |  | - | - | 2 | 7 | - | 9 | - |  | 4 | . | 1 | 1 |
| Hawaii | 4 | - | 159 | - | 4 | 1 | 1 | 1 | 22 | 2 | 74 | 3 | - | 4 | 1 |
| Guam | 1 | U | 83 | U | 2 | 2 | 1 | U | 5 | U | - | - | U | 2 |  |
| P. | 4 | - | 1 | - | - | 94 | 4 | 9 | 153 | - | 1 | 11 | 2 | 13 | 5 |
| V.I. | - | U | - | U | - | 5 | - | U | 5 | U | . | . | U | - | 2 |
| Pac. Trust Terr. | - | U | - | U | - | - | - | U | - | U | - | - | U | - | . |

TABLE III. (Cont'd.) Cases of specified notifiable diseases, United States, weeks ending October 13, 1984 and October 15, 1983 (41st Week)

| Reporting Area | Syphilis (Civilian) (Primary \& Secondary) |  | Toxic- <br> shock <br> Syndrome <br> 1984 | Tuberculosis |  | Tularemia <br> Cum. <br> 1984 | Typhoid <br> Fever <br> Cum <br> 1984 | Typhus Fever <br> (Tick-borne) <br> (RMSF) <br> Cum <br> 1984 | Rabies, <br> Animal <br> Cum, <br> 1984 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | $\begin{aligned} & \text { Cum. } \\ & 1983 \end{aligned}$ |  | $\begin{aligned} & \text { Cum. } \\ & 1984 \end{aligned}$ | $\begin{aligned} & \text { Cum } \\ & 1983 \end{aligned}$ |  |  |  |  |
| UNITED STATES | 21.813 | 25,431 | 4 | 16,803 | 18,377 | 257 | 261 | $770+20$ | 4.267 |
| NEW ENGLAND | 407 | 532 | - | 507 | 549 | 6 | 15 | 5 | 46 |
| Maine | 5 | 18 | - | 21 | 30 | - | - | . | 12 |
| N.H. | 12 | 19 | - | 25 | 31 | - | - | - | 16 |
| Vt . | 1 | 1 | - | 9 | 7 | - | - | - | - |
| Mass. | 231 | 335 | - | 282 | 286 | 6 | 12 | 4 | 10 |
| R.I. | 16 | 16 | - | 37 | 49 | . | - | - | - |
| Conn. | 142 | 143 | - | 133 | 146 | - | 3 | 1 | 8 |
| MID ATLANTIC | 2.945 | 3.329 | - | 3.034 | 3,257 | 1 | 44 | 22 | 383 |
| Upstate N.Y. | 228 | 302 | - | 486 | 515 | - | 12 | 7 | 79 |
| N.Y. City | 1.830 | 1.944 | - | 1.217 | 1.296 | 1 | 12 | 2 | - |
| N.J. | 516 | 646 | - | 684 | 691 | - | 14 | 3 | 30 |
| Pa. | 371 | 437 | . | 647 | 755 | - | 6 | 10 | 274 |
| E.N. CENTRAL | 1.047 | 1.359 | - | 2.173 | 2.452 | 8 | 42 | 55 | 188 |
| Ohio | 190 | 352 | - | 395 | 390 | - | 6 | 36 | 20 |
| Ind. | 109 | 92 | U | 252 | 276 | - | 4 | 6 | 20 |
| III. | 374 | 654 | - | 909 | 1.071 | 8 | 19 | 10 | 69 |
| Mich | 310 | 191 | - | 483 | 589 | . | 6 | 3 | 21 |
| Wis. | 64 | 70 | - | 134 | 126 | - | 7 | - | 58 |
| W.N CENTRAL | 298 | 312 | 2 | 515 | 603 | 78 | 10 | 47 | 625 |
| Minn. | 80 | 119 | 2 | 85 | 126 | 1 | 3 | 1 | 69 |
| lowa | 11 | 19 | - | 56 | 56 | - | - | 6 | 125 |
| Mo | 150 | 117 | - | 256 | 307 | 40 | 5 | 13 | 56 |
| N Dak | 9 | 2 | - | 10 | 6 | - | - | - | 124 |
| S Dak |  | 11 | . | 18 | 33 | 34 | - | 5 | 163 |
| Nebr | 11 | 12 | - | 27 | 20 | . | - | 4 | 40 |
| Kans | 37 | 32 | - | 63 | 55 | 3 | 2 | 18 | 48 |
| S ATLANTIC | 6.399 | 6.788 | 1 | 3.579 | 3.687 | 7 | 31 | 365 - | 1.267 |
| Del | 23 | 28 | - | 50 | 52 | . | - | 1 | 7 |
| Md | 405 | 411 | - | 349 | 287 | - | 2 | 29 | 702 |
| DC | 253 | 297 | - | 144 | 152 | - | 6 | - | - |
| Va | 333 | 468 | - | 375 | 388 | 1 | 8 | 51 | 180 |
| W Va | 15 | 21 | - | 108 | 113 | - | - | 6 | 38 |
| NC | 662 | 665 | - | 521 | 561 | 1 | 1 | 155 | 24 |
| S. C | 619 | 418 | - | 426 | 337 | - | 1 | 76 | 50 |
| Ga | 1.059 | 1,218 | - | 555 | 649 | 4 | 1 | 44 | 159 |
| Fla | 3.030 | 3.262 | 1 | 1.051 | 1.148 | 1 | 12 | 3 | 107 |
| ES CENTRAL | 1.540 | 1.759 | - | 1.565 | 1,644 | 6 | 7 | 81 . | 210 |
| Ky | 84 | 136 | - | 357 | 417 | - | 2 | 16 | 48 |
| Tenn | 404 | 477 | - | 456 | 494 | 5 | 2 | 42 | 71 |
| Ala | 506 | 689 | - | 475 | 419 | - | 2 | 14 | 91 |
| Miss | 546 | 457 | - | 277 | 314 | 1 | 1 | 9 | , |
| W S CENTRAL | 5.346 | 6.583 | - | 1.959 | 2,240 | 109 | 15 | 179 | 850 |
| Ark | 154 | 155 | - | 210 | 264 | 79 | , | 30 ; | 97 |
| La | 974 | 1.340 | - | 267 | 356 | 7 | 1 | 3 | 50 |
| Okla. | 175 | 161 | - | 185 | 209 | 18 | 3 | 118 - | 90 |
| Tex. | 4.043 | 4.927 | - | 1.297 | 1.411 | 5 | 11 | 28 U | 613 |
| MOUNTAIN | 488 | 534 | 1 | 451 | 506 | 32 | 12 | 12 | \. 244 |
| Mont. | 3 | 7 |  | 17 | 42 | 3 | 1 | 8 | 106 |
| Idaho | 21 | 7 | - | 27 | 27 | 7 | - | 1 | $9$ |
| Wyo | 4 | 10 | - | 1 | 12 | 1 | - | 3 | $17$ |
| Colo. | 134 | 125 | - | 55 | 69 | 6 | 4 | 3 | 39 |
| N Mex | 66 | 145 | - | 87 | 91 | 2 | 3 | - | 11 |
| Ariz. | 164 | 134 | - | 208 | 195 | 4 | 3 | . | 41 |
| Utah | 18 | 20 | 1 | 32 | 36 | 4 | - | . | 5 |
| Nev . | 78 | 86 | - | 24 | 34 | 5 | 1 | . | 16 |
| PACIFIC | 3.343 | 4.235 | - | 3,020 | 3.439 | 10 | 85 | 4 | 454 |
| Wash. | 120 | 155 | - | 153 | 193 | 2 | 3 | , | 3 |
| Oreg | 92 | 114 | - | 123 | 145 | 2 | 2 | 1 | 1 |
| Calif. | 3.064 | 3.892 | - | 2.520 | 2.853 | 6 | 75 | 2 | 442 |
| Alaska | 6 | 12 | - | . 52 | 2,80 | , | 1 | 1 | 8 |
| Hawaii | 61 | 62 | - | 172 | 188 | - | 4 | 1 | 8 |
| Guam |  | 780 | U | 5 | 5 | - | - | - | - |
| PR. | 639 | 780 | - | 292. | 385 | - | 3 | - | 56 |
| V.I. | 8 | 17 | U | 3 | - 2 | - | 3 | - | 56 |
| Pac. Trust Terr. | - | - | U |  | . | - | - | $\bullet$ | - - |

TABLE IV. Deaths in 121 U.S. cities,* week ending October 13, 1984 (41st Week Ending)


- Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed Fetal deaths are not included.
- Pneumonia and influenza
+ Because of changes in reporting methods in these 4 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.
t† Total includes unknown ages.
§ Data not available. Figures are estimates based on average of past 4 weeks.

TABLE V. Years of potential life lost, deaths, and death rates, by cause of death, and estimated number of physician contacts, by principal diagnosis, United States

| Cause of morbidity or mortality (Ninth Revision ICD, 1975) | Years of potential life lost before age 65 by persons dying in $1982^{\circ} \dagger$ | Estimated mortality May 1984 |  | Estimated number of physician contacts May $1984^{.4}$ |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{gathered} \text { Annual } \\ \text { Rate } / 100,000^{*} \S \end{gathered}$ |  |
| ALL CAUSES (TOTAL) | 9,429,000 | 169,530 | 846.5 | 107,800,000 |
| Accidents and adverse effects (E800-E949) | 2,367,000 | 7,650 | 38.2 | 5,800,000 |
| Malignant neoplasms (140-208) | 1,809,000 | 37,210 | 185.8 | 1,300,000 |
| Diseases of heart (390-398, 402, 404-429) | 1,566,000 | 63,450 | 316.8 | 6,100,000 |
| Suicides, homicides (E950-E978) | 1,314,000 | 3,990 | 19.9 | - |
| Cerebrovascular diseases $(430-438)$ | 256,000 | 12,940 | 64.6 | 700,000 |
| Chronic liver disease and cirrhosis (571) | 252,000 | 2,140 | 10.7 | 200,000 |
| Pneumonia and influenza $(480-487)$ | 118,000 | 4,830 | 24.1 | 800,000 |
| Chronic obstructive pulmonary diseases and allied conditions (490-496) | 114,000 | 6,170 | 30.8 | 1,900,000 |
| Diabetes mellitus (250) | 106,000 | 2,820 | 14.1 | 2,600,000 |
| Prenatal care* |  |  |  | 2,300,000 |
| Infant mortality* ${ }^{+\dagger}$ |  | 3,200 | 10.6 /1.00 | ve births |

-For details of calculation, see footnotes for Table V, MMWR 1984;33:2.
${ }^{\dagger}$ Years of potential life lost for persons between 1 year and 65 years old at the time of death are derived from the number of deaths in each age category as reported by the National Center for Health Statistics, Monthly Vital Statistics Report (MVSR), Vol. 31, No. 13, October 5, 1983.
$\S_{\text {National Center for Health Statistics, Monthly Vital Statistics Report (MVSR), Vol. 33, No. 6, September 20, 1984, pp. }}$ 8-9.
${ }^{4}$ IMS America National Disease and Therapeutic Index (NDTI), Monthly Report, May 1984, Section III.
${ }^{\dagger}{ }^{\prime}$ MVSR Vol. 33, No. 5. August 22, 1984, p. 1.

## Measles - Continued

curred among children under 16 months old; and one occurred in a schoolchild who had not been vaccinated because of a history of physician-diagnosed measles. None of the cases was imported. Of the 11 (32\%) preventable cases, five involved children under 6 years old who were not enrolled in day-care centers or preschool, and four involved adults 19-24 years old. These nine cases were defined as "hard-to-reach." Although conclusive epidemiologic links have been shown for only 19 ( $56 \%$ ) of the 34 cases, this outbreak probably represents a single extended chain of transmission involving up to seven generations of spread.
Editorial Note: A previous large outbreak of measles, involving primarily preschool-aged and school-aged Hispanic children, occurred in the Bronx in the spring of 1983 (1). Unlike the current East Harlem outbreak, several Bronx cases were traced to an imported case from Puerto Rico.

In early April, to control the spread of measles, particularly among the young preschoolers involved in the current outbreak, the New York City Department of Health increased vaccination clinic hours from 3 to 24 hours of clinic time and recommended measles vaccination for children aged 6 months through 11 months in the outbreak area. Subsequent reimmunization with measles-mumps-rubella vaccine at 15 months of age was recommended for all children vaccinated before the first birthday. The New York City Department of Health also recommended that Harlem children 12 months old or older be vaccinated with combined measles-mumps-rubella vaccine (2). This early immunization policy was discontinued on June 20 after active surveillance revealed no new cases for 4 weeks (two incubation periods of measles).
Reported by City Health Information, Vol. 3 (August 1-8, 1984), New York City Dept of Health; Div of Field Svcs, Epidemiology Program Office, CDC.
References

1. Rutherford GW, Desilva JM, et al. The epidemiology of measles in New York City, 1983: the role of imported cases. 19th Annual Immunization Conference, Boston, Massachusetts, May 22, 1984.
2. ACIP. Measles prevention. MMWR 1982;31:217-24, 229-31.

FIGURE 2. Measles cases, by age group - East Harlem, New York City, February 8, to June 30, 1984


Current Trends

## Lung Cancer among Women - Tennessee

Lung cancer has, or will shortly, become the leading site-specific cause of cancer deaths among women in California, Florida, Louisiana, Mississippi, Oregon, Texas, and Washington, (1). It is now the leading cause of cancer deaths among women in Kentucky (2), where the age-adjusted rate doubled from 1971 to 1981 . In Tennessee, analysis of cancer deaths among women by primary site revealed that, from 1968 through 1982, the lung cancer death rate increased 152.6\%, from 9.7 deaths per 100,000 females in 1968 to

By contrast, rates for digestive system cancer have remained relatively stable, ranging from 35.4/100,000 in 1973 to 40.8/100,000 in 1979. The 1982 rate was only $1.5 \%$ greater than the 1968 rate; this statistic includes all digestive cancers, whereas lung cancer rates are site-specific. Breast cancer mortality rates rose from 21.9/100,000 in 1968 to $27.7 / 100,000$ in 1982, a $26.5 \%$ increase. Breast cancer death rates have fluctuated around a mean of $25.3 / 100,000$, compared to the nearly linear rise in the lung cancer death rate for women. Genital cancer rates in Tennessee women have declined 29.2\%, from 26.4/100,000 in 1968 to $18.7 / 100,000$ in 1982.

The rising trend for deaths from lung cancer among Tennessee women parallels the U.S. trends (3). However, while U.S. rates increased $127.0 \%$ from 1968 to 1980, the last year for which final statistics are available, Tennessee rates rose $140.2 \%$ during that period (Figure 3). Breast cancer mortality rates for the United States and Tennessee rose similarly for the same time period, showing $8.5 \%$ and $8.7 \%$ increases, respectively.

Higher respiratory cancer death rates for every age group are seen in 1982 than in 1968 or 1975 (Figure 4). Death rates in 1982 for women aged 45-54 years and 55-64 years were $182.0 \%$ and $168.8 \%$ higher, respectively, than comparable 1968 rates.

Death rates for respiratory cancer among men in Tennessee rose from 53.5/100,000 in 1968 to $90.2 / 100,000$ in 1982, a $68.6 \%$ increase. The health profession and public should focus attention, time, and effort on reducing smoking to control this new epidemic (4).
Reported by J Harris, MD, Northern Telecom, Nashville, Center for Health Statistics, Tennessee Dept of Health and Environment.
Editorial Note: Epidemics of chronic diseases do not receive the same public attention as epidemics of acute diseases, because they usually occur after a long latent period and over a longer period of time. The steady increase of lung cancer among women in the United States is an example of this phenomenon. While the prevalence of smoking has fallen substantially among men, it has not among women. Several states have reported that lung cancer has overtaken breast cancer as the leading cause of cancer mortality among women. It is anticipated that this will soon be true for the nation as a whole.
FIGURE 3. Respiratory cancer death rates for female residents - Tennessee and United States, 1968-1982


* Final U.S. data not available after 1980.


## Lung Cancer - Continued

Approximately $85 \%$ of all lung cancer cases are attributed to cigarette smoking (5). The lung cancer epidemic is especially tragic because it is preventable.
References

1. Starzyk P. Lung cancer deaths: equality by 2000? [Letter]. N Engl J Med 1983;308:1289-90.
2. Division of Epidemiology, Kentucky Department of Health Services. The rising epidemic of lung cancer among Kentucky women. Kentucky epidemiologic notes and reports 1983;1811:1-2.
3. National Center for Health Statistics. Advance report of final mortality statistics, 1980. Monthly vital statistics report 1983:32(Suppl).
4. Stolley, PD. Lung cancer in women-five years later, situation worse. N Engl J Med 1983;309:428-9.
5. Office on Smoking and Health. The health consequences of smoking, cancer: a report of the Surgeon General. Rockville, Maryland: Public Health Service, Department of Health and Human Services, 1982

FIGURE 4. Respiratory cancer death rates among female residents, by age at death Tennessee, 1968, 1975, and 1982


* Less than 0.5.

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[^0]:    *International Classification of Diseases, 9th Revision.

