

CHAPTER 30

Hypertensive Disease, Deaths: Relation with Medical Radiation

Box 1 of Chap. 30

Summary: Regression Outputs, Deaths due to Hypertensive Disease

Below are the summary-results from all the regressions of MortRates upon PhysPops. MortRates are from Table 30-A, and PhysPops are from Table 3-A. No 1940 MortRates were available.

MALES

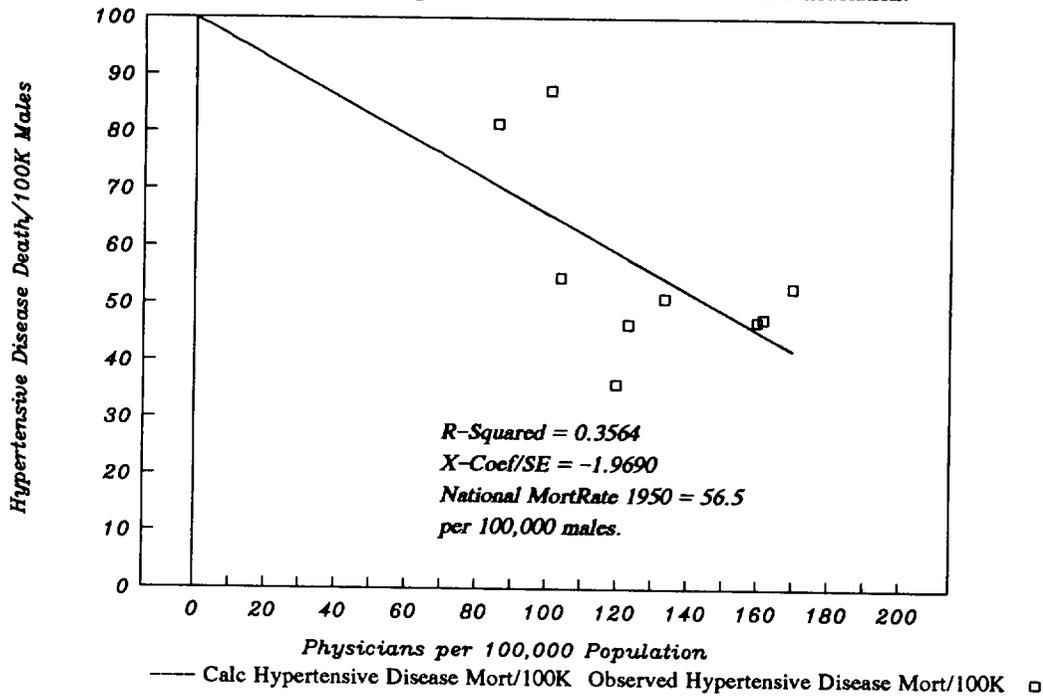
Year MortRate	Year PhysPop	R-squared	Constant	Coeff.	Std Err	Coeff/S.E
1950	1921	0.5421	164.2534	-0.8039	0.2793	-2.8786
1950	1923	0.5152	151.6962	-0.7307	0.2679	-2.7275
1950	1925	0.4405	135.4498	-0.6265	0.2669	-2.3475
1950	1927	0.4249	129.5071	-0.5896	0.2592	-2.2744
1950	1929	0.4341	127.2765	-0.5764	0.2488	-2.3172
1950	1931	0.4362	121.5148	-0.5270	0.2264	-2.3273
1950	1934	0.4133	112.4607	-0.4516	0.2034	-2.2207
1950	1936	0.4202	111.0723	-0.4379	0.1944	-2.2521
1950	1938	0.3982	106.6419	-0.4003	0.1860	-2.1523
1950	1940	0.3564	99.8226	-0.3409	0.1731	-1.9690
1950	1950	0.3458	98.4891	-0.3398	0.1766	-1.9236
1960	1960	0.2406	55.0867	-0.1728	0.1161	-1.4891
1970	1970	--	--	--	--	--
1980	1980	--	--	--	--	--
1990	1990	--	--	--	--	--

FEMALES

Year MortRate	Year PhysPop	R-squared	Constant	Coeff.	Std Err	Coeff/S.E
1950	1921	0.5351	139.6800	-0.6175	0.2175	-2.8384
1950	1923	0.4809	128.0052	-0.5457	0.2143	-2.5464
1950	1925	0.4076	115.6127	-0.4659	0.2123	-2.1944
1950	1927	0.3539	108.3911	-0.4159	0.2124	-1.9581
1950	1929	0.3484	105.8938	-0.3992	0.2064	-1.9345
1950	1931	0.3421	101.3833	-0.3608	0.1891	-1.9078
1950	1934	0.2930	93.2838	-0.2940	0.1726	-1.7034
1950	1936	0.2817	91.3934	-0.2772	0.1673	-1.6570
1950	1938	0.2487	87.4682	-0.2445	0.1606	-1.5222
1950	1940	0.2056	82.2607	-0.2001	0.1487	-1.3461
1950	1950	0.1905	80.9067	-0.1949	0.1519	-1.2833
1960	1960	0.1649	50.3462	-0.1217	0.1035	-1.1758
1970	1970	--	--	--	--	--
1980	1980	--	--	--	--	--
1990	1990	--	--	--	--	--

1950 MortRate, Males, Hypertensive Disease Deaths, versus
1940 PhysPop Values for the 9 Census Divisions, USA.
Marginally Significant INVERSE Relationship.

PhysPop is a surrogate for accumulated dose from medical irradiation.



1950 MortRate, Females, Hypertensive Disease Deaths, versus
1940 PhysPop Values for the 9 Census Divisions, USA.
Not provably significant, but sign tests are all in same direction.

PhysPop is a surrogate for accumulated dose from medical irradiation

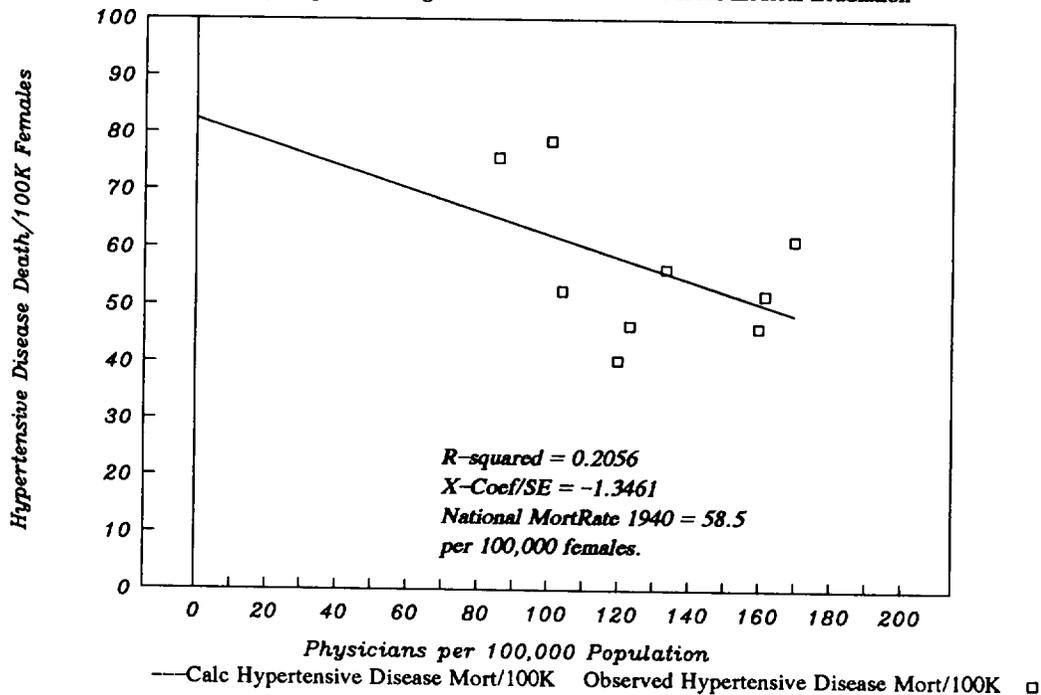


Table 30-A
Hypertensive Disease: Death Rates by Census Divisions and National.

NOTE: Grove 1968 did not supply MortRates for 1940.

Annual death-rates per 100,000 are age-adjusted to the 1940 reference year. There are no exclusions by color or "race." Entries for the Nine Census Divisions are population-weighted; the averages below them are not. "National Rates" for both sexes: Deaths per 100,000 population (males + females). Males: Deaths per 100,000 male population. Females: Deaths per 100,000 female population.

MALES						
Census Division	1940	1950	1960	1970	1980	1990
Pacific	--	46.9	25.8	--	--	--
New England	--	47.4	26.7	--	--	--
West North Central	--	46.4	26.3	--	--	--
Mid-Atlantic	--	52.8	34.3	--	--	--
East North Central	--	51.0	33.8	--	--	--
Mountain	--	36.0	21.7	--	--	--
West South Central	--	54.5	33.5	--	--	--
East South Central	--	81.4	49.2	--	--	--
South Atlantic	--	87.3	51.0	--	--	--
Average ALL	--	56.0	33.6	--	--	--
Average High-Five	--	48.9	29.4	--	--	--
Average Low-Four	--	64.8	38.9	--	--	--
Ratio (High/Low)	--	0.75	0.76	--	--	--
FEMALES						
	1940	1950	1960	1970	1980	1990
Pacific	--	46.1	27.4	--	--	--
New England	--	51.7	30.7	--	--	--
West North Central	--	46.4	28.2	--	--	--
Mid-Atlantic	--	61.3	38.8	--	--	--
East North Central	--	56.2	35.5	--	--	--
Mountain	--	40.4	24.5	--	--	--
West South Central	--	52.4	34.7	--	--	--
East South Central	--	75.6	48.9	--	--	--
South Atlantic	--	78.5	48.2	--	--	--
Average ALL	--	56.5	35.2	--	--	--
Average High-Five	--	52.3	32.1	--	--	--
Average Low-Four	--	61.7	39.1	--	--	--
Ratio (High/Low)	--	0.85	0.82	--	--	--
NATIONAL RATES						
	1940	1950	1960	1970	1980	1990
Both Sexes	--	57.6	35.7	--	--	--
Males	--	56.5	34.6	--	--	--
Females	--	58.5	36.5	--	--	--

● - 1950, 1960: All rates come from Grove 1968, Table 67, Pages 725-728, "Hypertensive Disease (440-447)" ICD/7.

● - Omitted data are only marginally related to examination of Hypotheses 1+2, as noted in Chapter 4, Part 2c.