

CHAPTER 28

Chronic Nephritis, Deaths: Relation with Medical Radiation

*Box 1 of Chap. 28*

*Summary: Regression Outputs, Deaths due to Chronic and Unspecified Nephritis*

Below are the summary-results from all the regressions of MortRates upon PhysPops. MortRates are from Table 28-A, and PhysPops are from Table 3-A. The MortRates for 1950 and beyond were not reported on the same basis as the rates for 1940 (please see Chapter 4, Part 5).

MALES .....

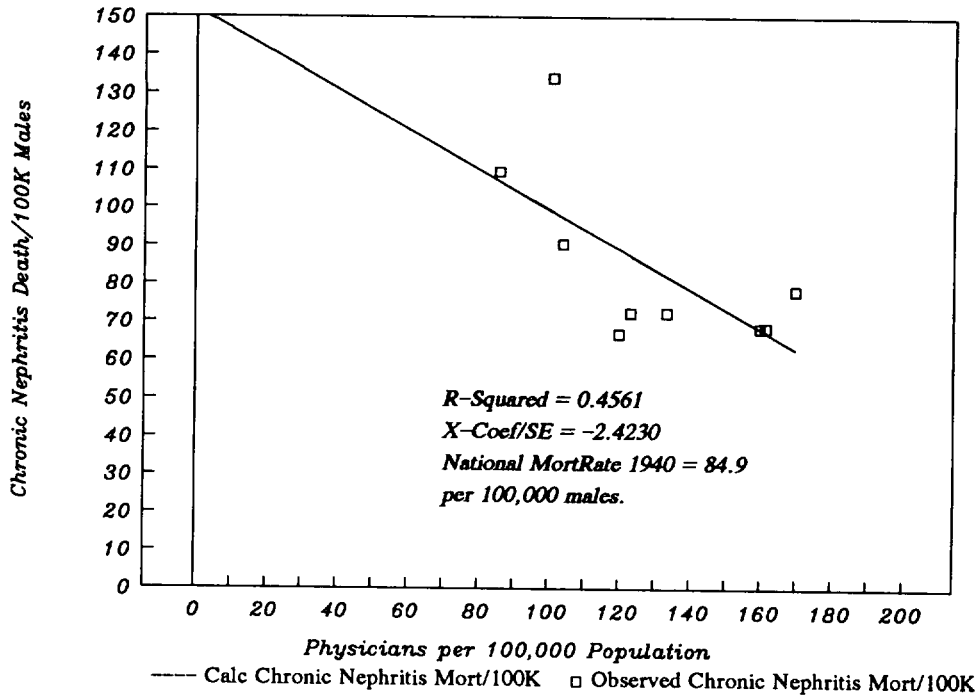
Year MortRate	Year PhysPop	R-squared	Constant	Coeff.	Std Err	Coeff/S.E
1940	1921	0.6768	248.885	-1.2204	0.3188	-3.8284
1940	1923	0.6414	229.620	-1.1077	0.3130	-3.5388
1940	1925	0.5771	208.098	-0.9743	0.3152	-3.0905
1940	1927	0.5597	199.162	-0.9192	0.3082	-2.9829
1940	1929	0.5692	195.433	-0.8967	0.2949	-3.0409
1940	1931	0.5687	186.178	-0.8175	0.2691	-3.0380
1940	1934	0.5387	172.126	-0.7005	0.2450	-2.8593
1940	1936	0.5339	168.897	-0.6706	0.2368	-2.8319
1940	1938	0.5084	162.289	-0.6144	0.2284	-2.6905
1940	1940	0.4561	151.903	-0.5239	0.2162	-2.4230
1950	1950	0.6537	33.894	-0.1400	0.0385	-3.6351
1950	1960	0.6543	12.790	-0.0464	0.0127	-3.6402
1950	1970	--	--	--	--	--
1950	1980	--	--	--	--	--
1950	1990	--	--	--	--	--

FEMALES .....

Year MortRate	Year PhysPop	R-squared	Constant	Coeff.	Std Err	Coeff/S.E
1940	1921	0.6772	189.917	-0.8788	0.2293	-3.8319
1940	1923	0.6063	173.109	-0.7752	0.2361	-3.2831
1940	1925	0.5344	157.170	-0.6749	0.2381	-2.8347
1940	1927	0.4683	147.050	-0.6053	0.2438	-2.4831
1940	1929	0.4554	142.976	-0.5774	0.2387	-2.4192
1940	1931	0.4429	136.140	-0.5193	0.2202	-2.3589
1940	1934	0.3849	124.867	-0.4262	0.2036	-2.0931
1940	1936	0.3595	121.400	-0.3962	0.1998	-1.9823
1940	1938	0.3211	116.051	-0.3515	0.1932	-1.8197
1940	1940	0.2687	108.786	-0.2895	0.1805	-1.6038
1950	1950	0.7010	28.068	-0.1156	0.0285	-4.0513
1950	1960	0.5441	8.911	-0.0314	0.0109	-2.8903
1950	1970	--	--	--	--	--
1950	1980	--	--	--	--	--
1950	1990	--	--	--	--	--

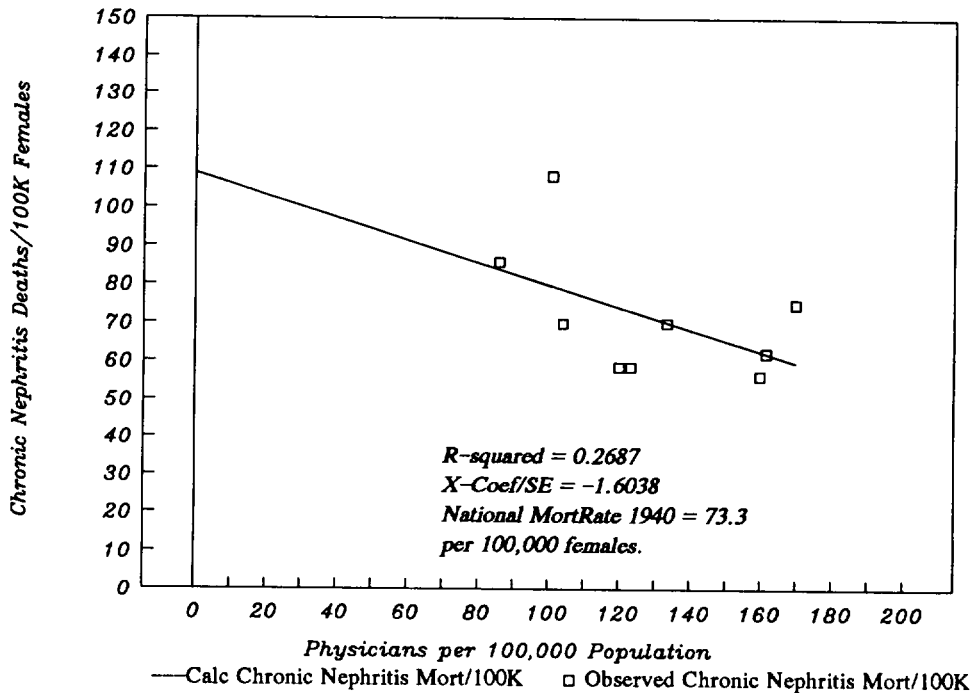
1940 MortRate, Males, Chronic Nephritis Deaths, versus  
1940 PhysPop Values for the 9 Census Divisions, USA.  
Significant INVERSE Relationship.

PhysPop is a surrogate for accumulated dose from medical irradiation.



1940 MortRate, Females, Chronic Nephritis Deaths, versus  
1940 PhysPop Values for the 9 Census Divisions, USA.  
Marginally Significant. All sign tests show Inverse Relationship

PhysPop is a surrogate for accumulated dose from medical irradiation



**Table 28-A**  
**Chronic and Unspecified Nephritis and Other Renal Sclerosis**

NOTE: The MortRates for 1950 and beyond were not reported on the same basis as the rates for 1940 (please see Chapter 4, Part 5).

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	68.4	9.6	4.7	--	--	--
New England	68.5	12.2	5.6	--	--	--
West North Central	72.4	15.4	6.7	--	--	--
Mid-Atlantic	78.2	14.7	6.2	--	--	--
East North Central	72.4	15.4	6.3	--	--	--
Mountain	66.8	12.7	6.7	--	--	--
West South Central	90.4	19.7	7.9	--	--	--
East South Central	109.4	25.1	9.8	--	--	--
South Atlantic	134.0	22.6	9.3	--	--	--
Average ALL	84.5	16.4	7.0	--	--	--
Average High-Five	72.0	13.5	5.9	--	--	--
Average Low-Four	100.2	20.0	8.4	--	--	--
Ratio (High/Low)	0.72	0.67	0.70	--	--	--

**FEMALES** .....

	1940	1950	1960	1970	1980	1990
Pacific	56.3	7.8	3.4	--	--	--
New England	62.1	10.3	4.4	--	--	--
West North Central	58.5	12.3	4.5	--	--	--
Mid-Atlantic	74.9	11.9	4.3	--	--	--
East North Central	70.0	13.1	4.6	--	--	--
Mountain	58.5	11.8	4.1	--	--	--
West South Central	69.8	16.3	6.2	--	--	--
East South Central	85.8	20.8	7.1	--	--	--
South Atlantic	108.0	18.1	6.4	--	--	--
Average ALL	71.5	13.6	5.0	--	--	--
Average High-Five	64.4	11.1	4.2	--	--	--
Average Low-Four	80.5	16.8	6.0	--	--	--
Ratio (High/Low)	0.80	0.66	0.71	--	--	--

**NATIONAL RATES** .....

	1940	1950	1960	1970	1980	1990
Both Sexes	79.1	14.8	5.9	--	--	--
Males	84.9	16.2	6.9	--	--	--
Females	73.3	13.4	4.9	--	--	--

● - 1940, 1950, 1960: All rates come from Grove 1968, Table 67, Pages 730-734, "Chronic and unspecified nephritis and other renal sclerosis (592-594)" ICD/7.

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