

CHAPTER 34

Rheumatic Fever & Rheum. Heart Disease: Relation with Medical Radiation

Box 1 of Chap. 34

Summary: Regression Outputs, Rheumatic Fever & Rheum. Heart Disease

Below are the summary-results from all the regressions of MortRates upon PhysPops. MortRates are from Table 34-A, and PhysPops are from Table 3-A.

MALES

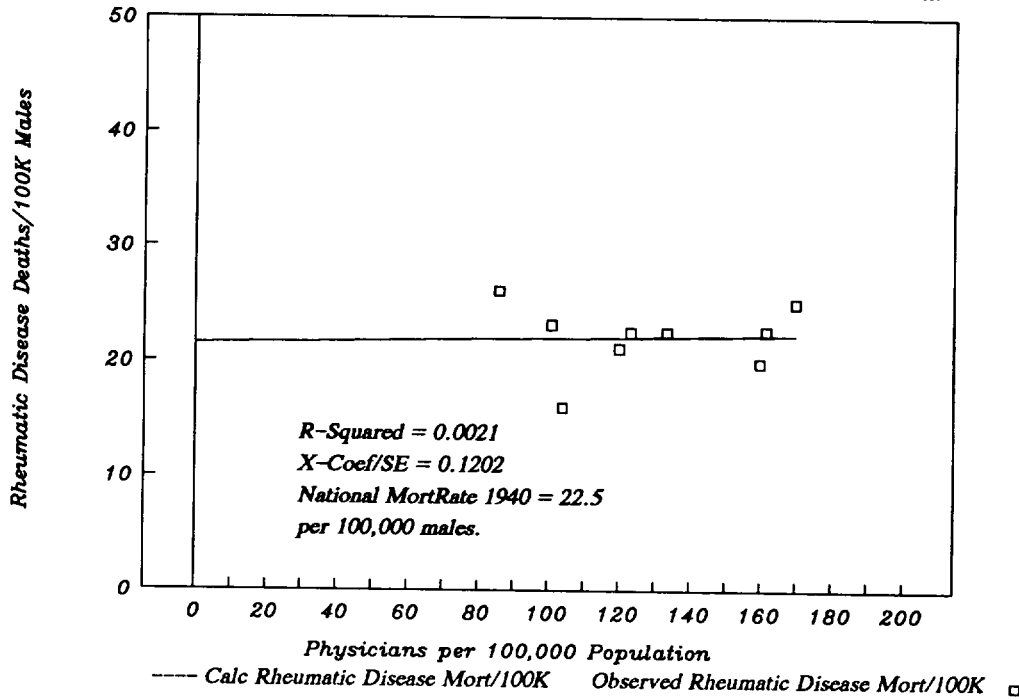
Year MortRate	Year PhysPop	R-squared	Constant	Coeff.	Std Err	Coeff/S.E
1940	1921	0.0456	27.4733	-0.0401	0.0693	-0.5782
1940	1923	0.0254	25.7307	-0.0279	0.0653	-0.4272
1940	1925	0.0175	24.8033	-0.0215	0.0608	-0.3535
1940	1927	0.0041	23.3121	-0.0099	0.0586	-0.1688
1940	1929	0.0022	22.9462	-0.0070	0.0568	-0.1237
1940	1931	0.0046	23.2366	-0.0093	0.0517	-0.1802
1940	1934	0.0007	22.4888	-0.0033	0.0456	-0.0720
1940	1936	0.0000	22.0125	0.0005	0.0439	0.0118
1940	1938	0.0011	21.6206	0.0036	0.0412	0.0877
1940	1940	0.0021	21.5047	0.0045	0.0370	0.1202
1950	1950	0.1891	9.8946	0.0335	0.0262	1.2775
1960	1960	0.3873	3.6475	0.0467	0.0222	2.1034
1970	1970	--	--	--	--	--
1980	1980	--	--	--	--	--
1990	1990	--	--	--	--	--

FEMALES.....

Year MortRate	Year PhysPop	R-squared	Constant	Coeff.	Std Err	Coeff/S.E
1940	1921	0.0092	23.9603	-0.0191	0.0748	-0.2554
1940	1923	0.0025	22.5958	-0.0092	0.0699	-0.1317
1940	1925	0.0018	22.3047	-0.0072	0.0649	-0.1113
1940	1927	0.0015	20.5846	0.0064	0.0622	0.1037
1940	1929	0.0053	19.9609	0.0115	0.0600	0.1923
1940	1931	0.0039	20.2540	0.0091	0.0548	0.1666
1940	1934	0.0155	19.3990	0.0159	0.0479	0.3318
1940	1936	0.0314	18.6489	0.0218	0.0457	0.4761
1940	1938	0.0468	18.2291	0.0250	0.0426	0.5860
1940	1940	0.0550	18.2527	0.0244	0.0382	0.6386
1950	1950	0.3732	5.1440	0.0659	0.0323	2.0417
1960	1960	0.4874	0.4857	0.0713	0.0276	2.5799
1970	1970	--	--	--	--	--
1980	1980	--	--	--	--	--
1990	1990	--	--	--	--	--

1940 MortRate, Males, "Rheumatic Disease" Deaths, versus
1940 PhysPop Values for the 9 Census Divisions, USA.
Not Significant

PhysPop is a surrogate for accumulated dose from medical irradiation.



1940 MortRate, Females, "Rheumatic Disease" Deaths, versus
1940 PhysPop Values for the 9 Census Divisions, USA.
Not Significant.

PhysPop is a surrogate for accumulated dose from medical irradiation

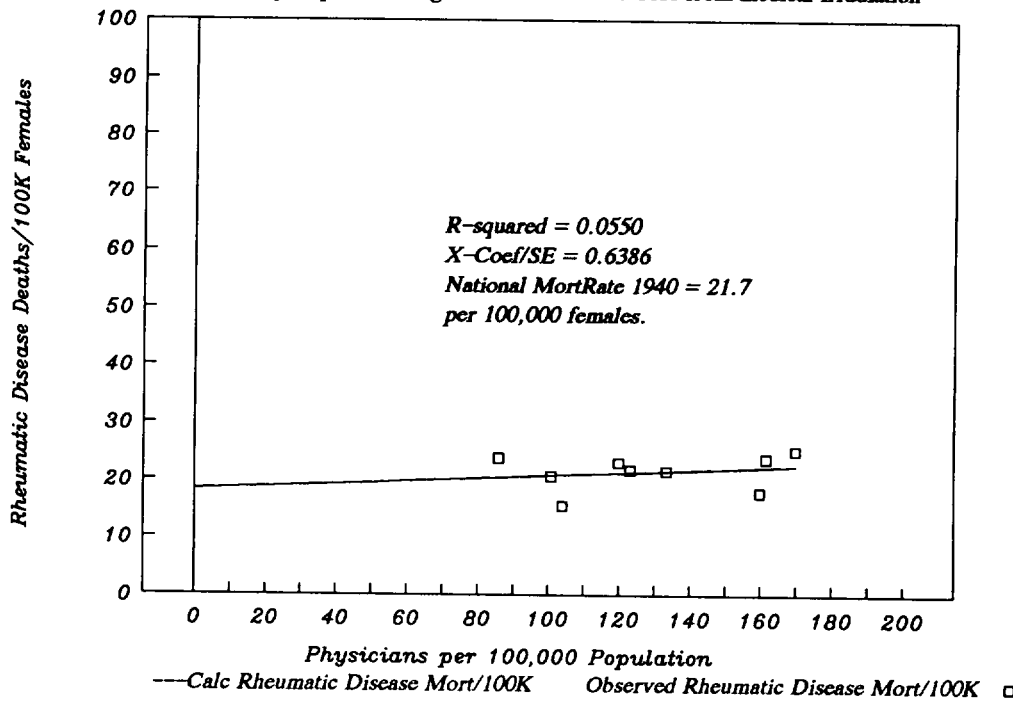


Table 34-A
Rheumatic Fever and Chronic Rheumatic Heart Disease

Death Rates by Census Divisions and National.

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	19.9	14.5	10.2	--	--	--
New England	22.6	14.0	10.7	--	--	--
West North Central	22.5	13.8	9.6	--	--	--
Mid-Atlantic	25.0	16.0	11.5	--	--	--
East North Central	22.5	15.6	9.9	--	--	--
Mountain	21.1	17.1	12.4	--	--	--
West South Central	16.0	9.2	5.6	--	--	--
East South Central	26.0	13.9	6.7	--	--	--
South Atlantic	23.1	12.7	8.5	--	--	--
Average ALL	22.1	14.1	9.5	--	--	--
Average High-Five	22.5	14.8	10.4	--	--	--
Average Low-Four	21.6	13.2	8.3	--	--	--
Ratio (High/Low)	1.04	1.12	1.25	--	--	--
FEMALES						
	1940	1950	1960	1970	1980	1990
Pacific	17.8	13.3	10.4	--	--	--
New England	23.7	15.6	11.5	--	--	--
West North Central	21.7	11.9	8.2	--	--	--
Mid-Atlantic	25.1	16.7	12.9	--	--	--
East North Central	21.5	14.1	9.9	--	--	--
Mountain	23.0	18.1	13.2	--	--	--
West South Central	15.4	7.7	4.7	--	--	--
East South Central	23.7	12.1	6.0	--	--	--
South Atlantic	20.6	11.0	7.4	--	--	--
Average ALL	21.4	13.4	9.4	--	--	--
Average High-Five	22.0	14.3	10.6	--	--	--
Average Low-Four	20.7	12.2	7.8	--	--	--
Ratio (High/Low)	1.06	1.17	1.35	--	--	--
NATIONAL RATES						
	1940	1950	1960	1970	1980	1990
Both Sexes	22.1	14.0	9.6	--	--	--
Males	22.5	14.4	9.6	--	--	--
Females	21.7	13.5	9.6	--	--	--

● - 1940, 1950, 1960: All rates come from Grove 1968, Table 67, Pages 716-720, Death-rates from "Rheumatic Fever and Chronic Rheumatic Heart Disease (400-402, 410-416)" ICD/7.

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