

Health Effects of Using Ad Valorem Taxes to Fund Local Public Health Agencies

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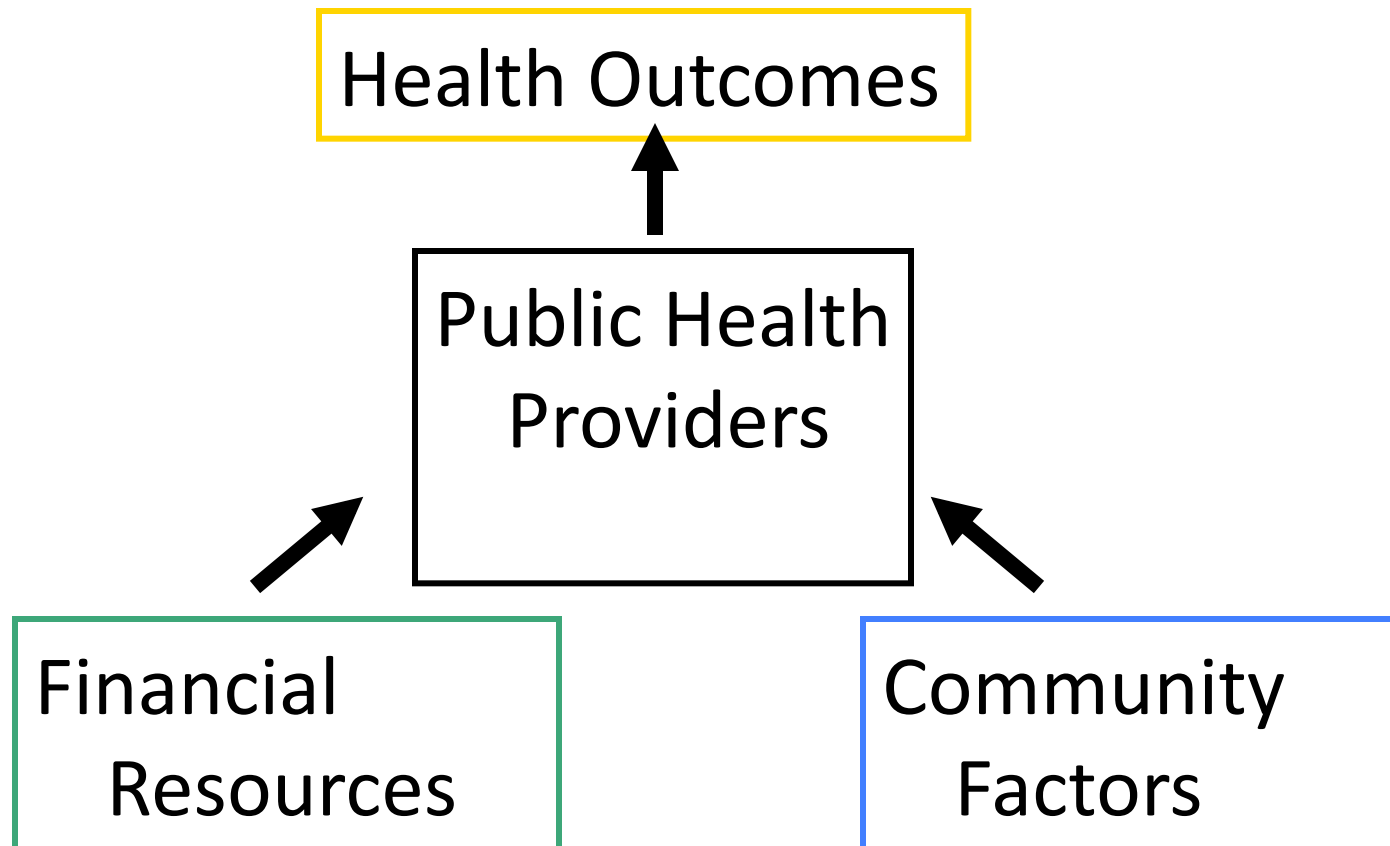
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Why financial resources matter...

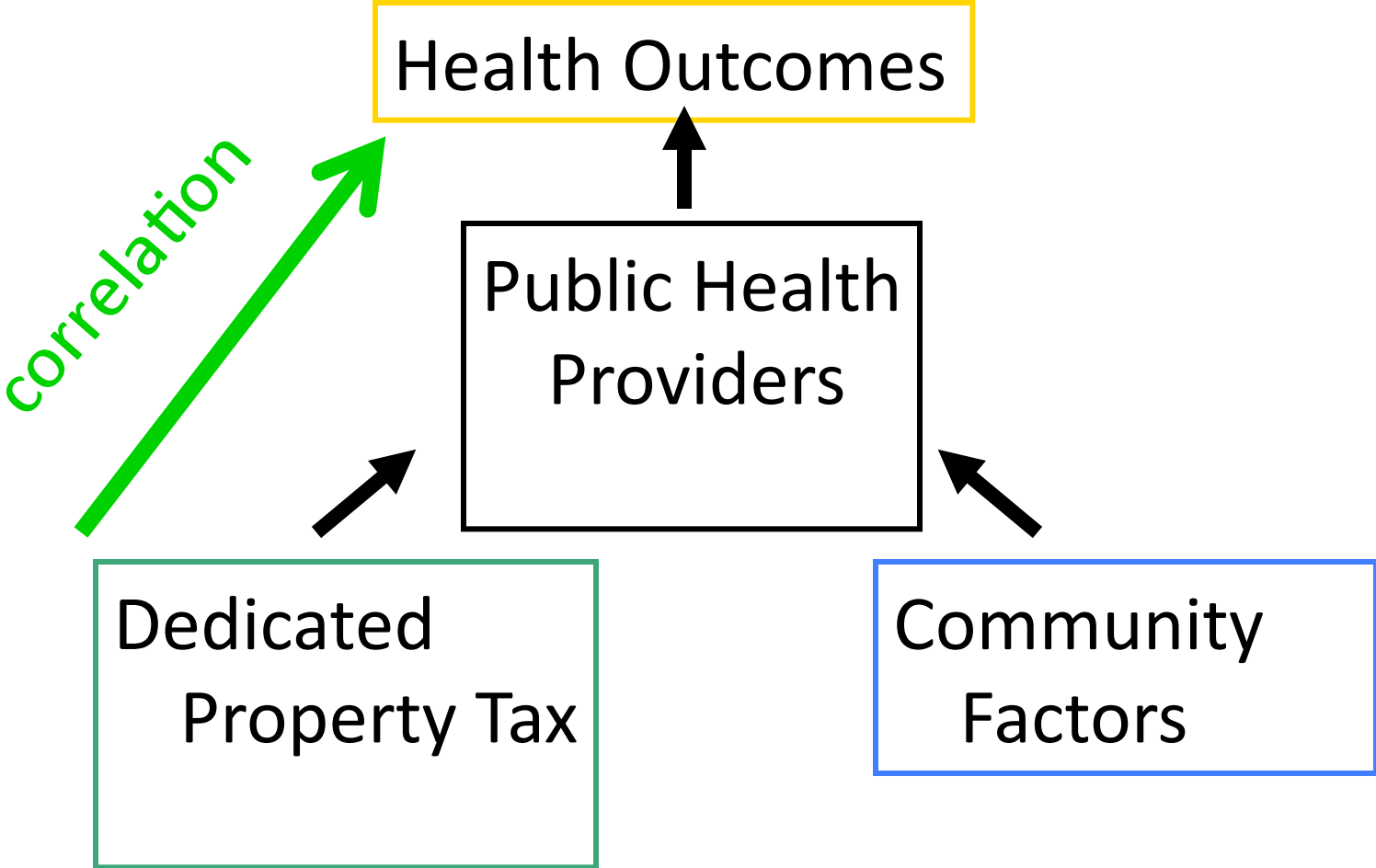


Ad Valorem Property Tax

- Widely used at the local level
- Tax revenues remain fairly stable
- Tax is fairly robust to economic cycles

When property tax is earmarked for Public Health programs, then political risk (competition) for general fund appropriations is reduced.

Is the use of property tax correlated with health outcomes?



Research Objective

- To determine if use of ad valorem taxes to fund local public health agencies is associated with county-level incidence and mortality from selected diseases over time.

Special Healthcare Taxing Districts Association with Population Health Status

James Studnicki et al. (Am. J. Preventative Medicine 2007;32(2):116–123)

- Locally generated special healthcare taxes are an important component of community infrastructure, but their impact on the health status of populations has not been systematically addressed.
- Florida counties were segmented on the basis of the use/nonuse of locally generated tax dollars for health care during the 1992–1996 period and analyzed in 2004.
- Taxing behavior served as the primary predictor variable for total age-adjusted and selected cause-specific mortality. Race/ethnicity, rurality, poverty, access to a public hospital, and physician availability were controlled
- Results: Local taxation was associated with lower total age-adjusted mortality, and lower mortality for the major causes of death, except stroke, when compared to the state mean. Local taxation is protective relative to total age-adjusted mortality.

Study Design

- level of analysis at county (720 counties)
- Incidence and mortality data from national and state data sources (averaged for 2003-05)
- Multiple regression analysis
- Primary exposure variable- use (or non use) of ad valorem taxes
- Control variables-selected demographic, economic variables and whether the county is a Delta county

Mississippi Delta Region: 8 States



720 Counties

Outcome and control Variables

Control Variables:

Delta county, percent of net migration, percent of population over 65, percent of population under 18, percent of population non-white, per capita income, percent rural population, percent Medicaid eligible, unemployment rate, percent below poverty level median household income (percent below poverty level and median household income were taken out from the final data analysis due to large variance inflation factor value), physician rate, and population size.

Age-adjusted **mortality** rates for select health outcomes

Outcome measure	Coefficient on Tax*	P-Value
All-sites Cancer	6.92	0.002
P/I	-2.53	0.02
Stroke	-4.87	<.001
Cardiovascular	-8.74	0.03

* Each row represents a full regression equation with all control variables. Only the coefficient of the tax variable is reported

Age-adjusted **incidence** rates for select health outcomes

Outcome measure	Coefficient on Tax*	P-Value
Prostate cancer	10.19	<.001
Female breast cancer	6.98	<.001
Lung cancer	5.87	<.001
Colorectal cancer	4.49	<.001
All-sites cancer	33.29	<.001

* Each row represents a full regression equation with all control variables. Only the coefficient of the tax variable is reported

Limitation of the Study

- Variation between years is ignored
- Variation between states is ignored
- Health tax is a binary variable

Conclusions

- Counties that used ad valorem taxes to fund local health department activities appear to have better mortality rates for P/I, cardiovascular and strokes.
- The higher cancer incidence rates in the counties with a property tax could indicate that there is greater screening capacity for different types of cancer in those jurisdictions.
- Public health advocates and policymakers should use this knowledge when seeking additional funding streams for public health.

Questions