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Tax Levy Financing for Local Public Health: Relationships between Fiscal Allocation, Fiscal Effort and Fiscal Capacity

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Tax Levy Financing for Local Public Health: Relationships between Fiscal Allocation, Fiscal Effort and Fiscal Capacity

ABSTRACT

This study examines property tax levy (local tax levy) as a source of local health department (LHD) funding during a five year period (2006-2010) in all Minnesota counties by assessing fiscal effort, fiscal allocation and fiscal capacity. Local health departments rely on pluralistic funding from local, state, federal and private sources. However, local tax levy funding is unexplored and little is known regarding the extent of fiscal allocation (tax levy used for LHD), fiscal effort (potential amount of tax levy available for LHD), and fiscal capacity (wealth of community). More important it is not known to what extent variation between local jurisdictions fluctuated over time, how they are offset by declining funding from other sources, or whether other sources supplement total tax levy reductions. It is essential to explore these issues to provide a basic understanding of fiscal drivers for ongoing services. Our findings indicate that from 2006 to 2010 the local tax levy for public health as a percent of total local health department expenditures decreased 6.7%, while local tax levy for public health as a percent of total tax levy decreased 14.6%. However, during this time period the total per capita tax levy for all services increased 25.2%.

Keywords

PHSSR, Public Health Services and Systems Research, Public Health Expenditures, Fiscal Allocation, Fiscal Effort, Tax Levy

Cover Page Footnote

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Introduction

State and local leaders in public health and health care have long called for adequate, stable and flexible funding for local public health services. Studies have reported a strong relationship between per capita local public health spending and performance of public health departments¹ as well as strong associations between local health department (LHD) per capita expenditures and health outcomes, including all-cause mortality.^{2,3} Local public health departments receive funding from multiple sources and the relative contributions from those sources can fluctuate from year to year.⁴ This study examines property tax levy (local tax levy) as a source of LHD funding, the extent of fluctuation over time and how the percent of local tax levy for public health relates to total tax capacity. It is essential to explore these issues to provide a basic understanding of fiscal drivers for ongoing services.

Methods

This study is a five year longitudinal, retrospective cohort design to investigate trends and variation between the expenditures reported by LHDs in Minnesota (MN) and local tax levy funding from 2006 to 2010. MN has a decentralized public health structure, which contains multi- and single-county governance structures, as well as city-based structures. This study includes all LHDs in MN, which collectively serve all 87 counties and four cities in MN. The total number of LHDs shifted over the time analyzed, from 75 in 2006 to 73 in 2010, due to changes in the governance structure of some LHDs. The final study size was n=74, the average number of LHDs over the time frame of interest.

Data sources included the MN Department of Health (MDH) Planning and Performance Management Reporting System (PPMRS), the MN Department of Administration, Office of the State Auditor, the MN State Demographic Center, and the Metropolitan Council. PPMRS data are collected annually from MN LHDs and include information related to LHD expenditures, staffing and performance. PPMRS information is self-reported by LHDs, but undergoes review by MDH staff for completeness. An automatic data validation system captures some errors (such as data entries that are out of range or that do not meet internal controls) and directs the LHD to make needed adjustments prior to final submission. Annual tax levy information was obtained from the Office of the State Auditor. Population data were obtained from the Minnesota State Demographic Center and Metropolitan Council. *Fiscal allocation* was measured as the percent of tax levy distributed to public health. *Fiscal effort* was measured as the percent of total tax capacity distributed to public health. Descriptive statistics were generated for the variables of interest.

Results

Figure 1 shows a five-year trend for the per capita local tax levy support used to fund LHDs in MN, the total local per capita public health expenditures and the total per capita local tax levy. The per capita local tax levy to fund LHDs increased 5.6% (\$16.55 to \$17.48) while the total per capita tax levy increased 25.2% (\$399.64 to \$500.46). During the same time period total local public health per capita expenditures increased 13% (\$50.98 to \$57.63). Consequently, local tax levy for public health as a percent of total local health department expenditures decreased 6.7% (32.5% to 30.3%). During the same time period, local tax levy for public health as a percent of total tax levy decreased 14.6% (4.1% to 3.5%).

Figure 2 shows that 7% of all LHDs receive zero tax levy funding, 17% of LHDs report that 0.01-9.99% of their expenditures are from local tax levy; 25% report that 10-19.9% of expenditures are from local tax levy, 22% report that 20-29.9% of expenditures are from local tax levy, 12% report that 30-39.99% of expenditures are from local tax levy, 10% report that 40-49.99% of expenditures are from local tax levy, and 7% report that more than 50% of expenditures are from local tax levy.

Implications

Local tax levy represents the largest single source of funding for MN LHDs and is a valuable source of flexible funding. Yet, some LHDs do not receive any funding from local tax levy and there is large variation over the Minnesota municipalities. The findings suggest three disparate trends: 1) LHD funding has increased over the five year period; 2) tax levy fiscal allocation to public health has decreased as a percent of overall LHD expenditures (from 32.5% to 30.3%); yet 3) local tax levy support for other local programs has increased at 25.2% over a five year period.

This study raises important questions for LHD leadership and stakeholders. It appears that a recent per capita increase in the total tax levy has not translated into a parallel increase in LHD local tax levy expenditures. To what extent does the current economic environment contribute to competition across government services for local tax levy dollars? Does having relatively fewer state public health mandates make it easier for local officials to direct scarce local resources toward those services mandated by the state? If so, and if present trends continue, how can LHDs sustain capacity to provide critical services that are not mandated or supported by categorical grants or fees? The need for such dialogue crosses the public and private sectors at the local, state and federal level. Finally, these insights further underscore the recent recommendations by the Institute of Medicine to ensure adequate and sustainable funding for governmental public health as an essential ingredient for a healthy nation⁵.

This study has limitations. First, for purposes of comparing data from various sources, we assume that all LHD expenditures reported in a given year reflect the full amount of local tax levy allocated to the LHD that year, and that any tax revenue levied in a given year is spent in that same year. The portion of total local tax levy that may go into a reserve fund is unknown. Overcoming this limitation would require new data that is not currently available. Second, this is an exploratory study, highly relevant to states like MN that have a de-centralized public health governance structure. In order to achieve wider generalizability the study should be expanded to include more centralized states and for greater validity should include non-centralized states as well as mixed governance states. Next, we have not used an inflation adjustment in order for the numbers to be consistent with publically available information. However, we conducted an inflation adjustment and the basic relationship remains consistent. Even with these limitations, by linking data on total local tax levy with data on LHD expenditures, this study examines the context of local public health finance in a way that is new to the field.

Summary Box

Local tax levy funding is an important source of funding for local health department (LHD) programs. Yet the level of funding varies across LHDs and over time, suggesting that erosion to local funding may raise important questions related to local flexibility, state mandates and the capacity to provide crucial public health services.

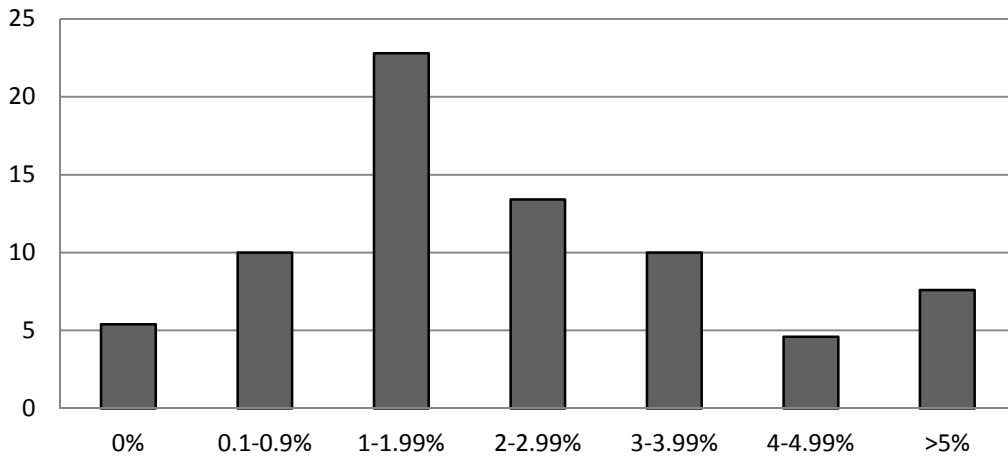
References

1. Bhandari M.W., Scutchfield F.D., Charnigo R., Ridell, M.C., & Mays, G.P. (2010). New data, same story? Revisiting studies on the relationship between of local public health systems characteristics to public health performance. *Journal of Public Health Management and Practice*, 16(2), 110-117.
2. Erwin P.C., Greene S.B, Mays G.P., Ricketts, T.C., & Davis M.V. (2011). The association of changes in local health department resources with changes in state-level health outcomes. *American Journal of Public Health*, 101(4), 609-615.
3. Mays G.P., & Smith S.A. (2011). Evidence links increases in public health spending to declines in preventable deaths. *Health Affairs*, 30(8), 1-9.
4. Riley W., Briggs J., & McCullough M. (2011). Estimating the financial resources needed for local public health departments in Minnesota: a multi-method approach. *Journal of Public Health Management and Practice*, 17(5), 413-420.
5. IOM (Institute of Medicine). 2012. *For the Public's Health: Investing in a Healthier Future*. Washington, DC: The National Academies Press.

Figure 1. Five-year per capita trends of local health department (LHD) fiscal allocation and fiscal effort (2006 to 2010).

	2006	2007	2008	2009	2010	2006 to 2010 Change (%)	Average Annual Change (%)
Total Annual Per Capita State-wide Local Tax Levy used to fund LHDs in MN	\$16.55	\$17.02	\$18.15	\$14.52	\$17.48	5.6%	1.4%
% increase/decrease		2.9%	6.6%	-20.0%	20.3%		
Total Annual Per Capita State-wide Local Public Health Expenditures	\$50.98	\$52.13	\$54.35	\$50.89	\$57.63	13.0%	3.3%
% increase/decrease		2.3%	4.3%	-6.4%	13.2%		
Total Annual Per Capita State-wide Total Tax Levy	\$399.64	\$425.98	\$452.30	\$474.23	\$500.46	25.2%	6.3%
% increase/decrease		6.6%	6.2%	4.8%	5.5%		
Local Tax Levy for Public Health as Percent of Total Public Health Expenditures	32.5%	32.7%	33.4%	28.5%	30.3%		
Local Tax Levy for Public Health as Percent of Total Tax Levy	4.1%	4.0%	4.0%	3.1%	3.5%		

Figure 2. Distribution of average annual local health department expenditure of local tax levy² as a percentage of total annual local tax levy³, Minnesota, 2006-2010 (n=74)



²Source: Planning and Performance Measurement Reporting System, Minnesota Department of Health

³Source: Office of the State Auditor, Minnesota Department of Administration