

# Structuring a Framework for Public Health Performance-based Budgeting: A Georgia Case Study

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The ability of public health to meet its functional mandates of assessment, assurance, and policy development is driven by the system's capacity to meet basic financing needs. To do so, state and local public health leaders must be able to articulate financing needs in terms that are understandable to policy makers and that link funding to anticipated community impact, benefit, and performance. "Rational" budgeting demands imposed by performance-centered budgeting in the states have proved particularly challenging for public health programs. This Georgia-based case study explores one approach for program budgeting in state and regional public health systems and finds the framework to be normatively sound and appropriately descriptive of the "core functions" of public health. The structure clearly distinguishes between personal health services and population health and allows for the future establishment of measurable program targets, an essential feature of a performance-centered budgeting system.

**KEY WORDS:** health policy, financial management, performance budgeting, public health budgeting

Health expenditures constitute a major portion of state budgets. Indeed, recent reports from the states find the full range of health-related costs comprising more than 30 percent of all state spending.<sup>1</sup> While state officials have focused considerable attention on Medicaid financing reforms and cost containment efforts, little attention has been given to developing strategic approaches to the management and tracking of public or population health investments.<sup>2</sup>

In the past decade, following adoption of the Government Performance and Results Act of 1993, states have aggressively embraced budgeting strategies that move away from traditional patterns of control and focus on performance measurement and outcomes.<sup>3-8</sup> Performance-based budgeting, known also as results-based or program budgeting, is concerned with organization or programmatic accomplishments and results rather than inputs or process measures.<sup>9</sup> Some recent studies have identified tangible cost containment and outcome benefits from performance-based budgeting strategies.<sup>10</sup> Certain state functions are more easily adapted to performance budgeting approaches. For others, complexity and constituencies tend to hamper the link between funding, programs, and performance.<sup>11</sup> As states formally embrace financing strategies that are tied to performance, programs and services that fail to conform to the approach become suspect and vulnerable. In many states, public health programs have been threatened with funding losses in part due to the challenges posed in clearly

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communicating evidence-based relationships between funding, programs, and performance.

The significance of public health financing and performance is acknowledged by policy makers. The federal government's Healthy People 2010 devotes a complete chapter to strategies for strengthening the public health infrastructure, including resource allocation and efficient performance.<sup>12</sup> Since the terrorist attacks of September 11, 2001, federal and state officials have embraced the importance of public health to respond to a full range of preparedness and security needs.<sup>13</sup> Yet, public health finance as a field of study and practice remains poorly structured, lacking "basic concepts, data, measures, and practice guidelines as well as terminological, conceptual and methodological consensus."<sup>14</sup>(p377) Strategies to fund and account for public health needs and performance often are anchored in grant-in-aid allocations and line item budgets, approaches long abandoned by most public budgeters seeking the parsimony between flexibility and accountability to provide an impetus for performance improvement. The importance of population health combined with the demand for performance measurement and accountability requires public health professionals and state budgeters to thoughtfully explore ways to link funding and investment expectations with performance goals and accountability.<sup>15</sup>

## ● Background and Study Purpose

To compete successfully in an environment of declining resources, state and local public health leaders must be able to articulate financing needs in terms that are understandable to policy makers and that link funding to anticipated community impact, benefit, and performance. This study seeks to develop a performance-focused financial reporting framework and budget model that has the potential to clearly document prior use of funding, serve as a basis for future funding requests, and, ultimately, project the relationship between funding, programs, and health status. Performance-based budgeting (also referred to as program budgeting) is discussed extensively in the budgeting literature.<sup>3-11</sup> *Attributes include flexible funding clustered by descriptive program areas linked closely to performance targets and programmatic outcomes measures.*

Differences in the organization of public health systems, along with complex program administration and financing, have limited the development of a commonly recognized framework for tracking public health expenditures and revenue sources across the various states and local jurisdictions. Previous efforts to categorize expenditures and track public health investments focused on funding inputs; they frequently proved complex and had little utility for performance

budgeting.<sup>2,16,17</sup> The lack of any agreed-upon methodology, coupled with the inability to quantify financing trends and link those trends to services and population-based demands, has made it difficult for public health programs and budgeters to effectively articulate and compare funding trends, limitations, needs, and strategies.

A comprehensive performance budgeting framework can "*explicitly* show the negative implications of budget cuts."<sup>9</sup>(p408) Without this kind of approach, particularly in states where other programs have moved to performance budgeting, public health services are left vulnerable. Policy makers may more easily alter public health funding without substantive data to influence these decisions. Linking public health standards to funding categories may promote more consistent and stable budgeting.<sup>18</sup> The public health system must have reliable and flexible financing, with program categories and performance measures linked to understandable functions such as the spread of disease, responding to disasters and bioterrorism, and promoting healthy communities and lifestyles.

## ● Methodology

Our focus for this study was identification and testing of a financial framework that could serve as a basis for performance-based budgeting. To do so, we conducted a review of the limited scholarly literature and approaches for developing public health budgets and capturing public health expenditure data. A focus group of Georgia public health system stakeholders was convened to provide insight into current budgeting approaches and to share values that would be important in any new structure. We then consulted with state and national budgeting officials to better understand challenges and desired objectives for any new budget structure. This review led to the selection of the reporting methodology developed by the National Association of State Budget Officers (NASBO) and the Reforming States Group (RSG)\* in their work on state healthcare expenditures to use as the basis for developing a public health budgeting framework.<sup>1,19</sup>

Relying on various health policy and public health expertise, NASBO/RSG established eight categories for collection of public health expenditures (direct healthcare and seven categories under the broad umbrella of population health). All 50 states have submitted state-level expenditure data for the time period

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\*NASBO is a nonpartisan professional, research, and educational organization representing the states' budget and finance officers. RSG is composed of health policy leaders from the legislative and executive branches of more than 40 states. The NASBO/RSG research partnership on state health care expenditures has been supported by the Milbank Memorial Fund.

SFY2000–SFY2004,\* using the NASBO/RSG categories. This work on health expenditures represents a unique consensus statement on state funding in these areas. Moreover, the data are used fairly widely in national rankings and advocacy forums.†

While the first of its kind to capture common categories of public health expenditures across all 50 states, the NASBO/RSG data are limited in significant ways. The data capture only state public health expenditures as reported by the executive budget office in each state. As such, the data fail to incorporate local funds and other expenditures that support public health. Furthermore, the NASBO/RSG data seek to include all population health and direct public health services funding across a range of state agencies, regardless of organizational boundaries. Consequently, the reported data are nearly impossible to validate because the categories of funding and reporting do not link back to ones routinely used in appropriations documents or a given state's budgeting process. In sum, the NASBO/RSG structure provides an initial conceptual framework and a recognized set of categories and definitions; yet, more thorough collection, refining, and partitioning of financial data are required before the information can be truly useful as an analytical tool. Our study seeks to do that using Georgia public health financial data.

In this study, we use the identical eight core NASBO/RSG categories and related definitions for data collection. These are Direct Public HealthCare Services and seven categories devoted to Population Health: prevention of epidemics and the spread of disease; protection against environmental hazards; injury prevention; chronic disease control and health promotion; disaster preparedness; disaster response; and health infrastructure.‡ Within the large category of direct public healthcare services, however, we went beyond the NASBO/RSG framework to develop three subcategories (women and children, chronic disease, and vulnerable populations) in an effort to more robustly describe the use of the funds. This approach assured that the data partitioning adhered to the NASBO/RSG categories while expanding descriptive capability around direct health expenditures, which we considered important since Georgia provides individual health services through its public health programs.

\*State Fiscal Year (SFY).

†For example, the NASBO/RSG data have been incorporated as an indicator in the America's Health Rankings, which is produced as a joint effort of the United Health Foundation, the American Public Health Association and Partnership for Prevention. See <http://www.unitedhealthfoundation.org/shr2005>.

‡A thorough description of the NASBO/RSG categories and the methods used to collect and categorize the financial data may be obtained directly from the authors. Copies of the NASBO/RSG reports are available at <http://www.milbank.org/reports/reportstest.html>.

## ● Data Sources

For the study, we collected retrospective expenditure and revenue data for five fiscal years (SFY2000 through SFY2004)§ on a statewide basis and in two health districts. The revenue data included local funding, state grant-in-aid, federal and state program funding, Medicaid and Medicare receipts, other third party insurance payments, grants, and other income. We linked each of more than 400 named program expenditure accounts to the eight (8) NASBO/RSG expenditure categories and the subcategories of direct health expenditures described earlier and then confirmed the data with the state public health systems' finance staff. We ensured that all expenditures were cross-coded by fund (revenue) source. Once the review of the expenditure reporting framework was completed, we field tested the methodology in the two health districts.||

## ● Preliminary Findings

The NASBO/RSG framework fulfills a major objective of the research—to provide for the linkage of financial data with population health needs and core public health functions by service area (health district) in a format understandable to practitioners and policy makers alike. In addition, the trend analysis provides a foundation for forecasting future funding requests, expected revenue streams, and projected correlations between funding and system behavior. The model accounts for fund source nuances and limitations as well as district variations.

Expenditure data for the 5-year period reflect distinct expenditure patterns and fund source utilization at the state level and by the two health districts, acknowledging the “local” nature of population health priorities and public health services. Table 1 presents an overview of the expenditure data by the NASBO/RSG categories at the state and district levels for the 5-year period.

Even this limited analysis provides an interesting snapshot of state and local investment patterns in

§The Georgia State fiscal year runs from July 1 to June 30. Although local boards of health are considered component units of county government, the boards follow the state fiscal year for budget and auditing purposes. Financial data were obtained from the state's Unified Accounting System used for revenue and expenditure reporting by local public health agencies.

||The two health districts were the Coastal health district, bordering Florida and South Carolina, which includes 13 counties representing both urban and rural communities, and the Northwest health district, bordering Alabama, composed of 10 counties representing suburban and rural communities. For a description of the health districts and their demographics, go to <http://health.state.ga.us/regional/>.

**TABLE 1 ● Five-year expenditure trends: Percentage comparisons by NASBO/RSG categories\*<sup>†</sup>**

	Annual percentage of expenditures by category									
	Direct health care services				Population health <sup>‡</sup>					
	General	Women and infants	Chronic disease	Vulnerable populations	Prevention epidemics	Env. health	Injury prevention	Chronic disease control	Disaster prep. & response	Health infrastructure
State Fiscal Year 2000										
Statewide	6.73	37.23	3.28	5.28	9.40	8.62	0.37	21.53	0.07	7.13
Coastal district	5.65	32.29	5.82	8.33	13.08	9.92	0.49	18.55	0.07	4.39
Northwest district	4.82	37.51	6.58	3.39	11.28	8.83	0.45	20.42	0.09	6.64
State Fiscal Year 2001										
Statewide	5.44	36.01	3.12	5.66	9.01	7.38	0.60	24.97	0.00	7.04
Coastal district	4.38	31.41	6.04	8.42	12.84	7.70	1.09	23.52	0.00	3.16
Northwest district	2.95	38.51	6.76	3.67	9.63	7.01	0.46	23.98	0.00	6.96
State Fiscal Year 2002										
Statewide	5.66	36.50	3.40	5.43	7.33	8.60	0.52	23.15	0.25	8.50
Coastal district	4.28	31.69	6.62	7.88	12.16	9.01	0.58	23.09	0.24	2.83
Northwest district	2.71	34.12	6.37	3.14	6.77	7.86	0.30	20.20	0.24	18.28
State Fiscal Year 2003										
Statewide	6.00	37.03	3.80	6.49	6.68	9.43	0.54	22.27	1.55	5.32
Coastal district	4.27	32.57	6.47	8.64	11.17	9.92	0.73	22.57	1.71	0.36
Northwest district	3.17	40.47	6.71	4.93	6.16	9.68	0.36	20.32	1.52	6.43
State Fiscal Year 2004										
Statewide	6.28	37.03	3.73	5.93	7.58	9.20	0.43	20.86	3.38	4.74
Coastal district	5.01	31.23	6.13	7.28	11.48	8.96	0.60	21.55	5.65	0.39
Northwest district	3.95	38.61	6.36	4.71	7.31	9.16	0.33	19.58	4.30	5.69
Five Year Averages										
Statewide	6.01	36.76	3.48	5.78	7.93	8.68	0.49	22.53	1.13	6.49
Coastal district	4.71	31.83	6.22	8.09	12.12	9.10	0.70	21.88	1.63	2.16
Northwest district	3.47	37.81	6.55	4.00	8.04	8.53	0.37	20.83	0.00	9.00

\*NASBO indicates National Association of State Budget Officers; RSG, Reforming States Group.

<sup>†</sup>Rows do not sum to 100% because of missing codes on some accounts.

<sup>‡</sup>Since each was proportionally small, the categories of disaster preparation and disaster response have been combined for reporting in this table.

public health. Across the state, over the past 5 years, local public health investment has been dominated by direct health expenditures for women and children (~37%) and population health expenditures in chronic disease control (~22%), environmental health (~9%), and infectious disease control (~8%). These investments are reflective of public health priorities across the nation; their identification through the model framework is further confirmation of its utility as a budgeting and management tool. The perceived inability to “accurately” capture the programmatic activities of the system has been one of the significant barriers to implementing performance-oriented budgeting strategies in public health. This study finds that public health investments can be captured and categorized in understandable and programmatically reflective ways. Previous studies have focused on organizing data by function

or line item, which is of little utility in a performance budgeting system.

One of the most interesting aspects of the modified NASBO/RSG framework is its ability to capture the distinctive investment patterns within the two pilot districts. The Northwest Georgia District historically tracks the overall state investment pattern with strong emphasis on healthy mothers and children and chronic disease prevention; however, there was a spike in health infrastructure investments in SFY2002. In the Coastal District, investments in infectious disease control and healthcare for vulnerable populations have been important, which is not surprising given the urban nature of portions of the district. Moreover, the trending for the Coastal district reflects the spike in disaster preparedness activities associated with preparations for and hosting of the G-8 Summit in SFY2004.

Table 2 summarizes trends for direct and population health expenditures and reflects a near-equal expenditure share for each category over the 5-year period. These patterns reflect a heavy investment in direct health services, highlighting what may be a concern for health and policy officials since it may be argued that the most important function for public health systems should be population-focused efforts. A budget system that recognizes these distinctions and allows for targeted funding by priority area could enhance the public health policy dialogue across the states. This framework allows state officials and public health leaders to observe these patterns and propose adjustments as appropriate. Previous studies on public health public structures have not highlighted the distinction between direct health services and population health.

Here again, the particularly salient aspect of the framework is how well it broadly captures investments by understandable public health category while underscoring the distinct patterns of local public health program priorities. One of the key strengths of a locally governed public health system is the ability to direct resources to address community demands and public health problems. At a summary level, the NASBO/RSG framework clearly reflects the different public health priorities for the two pilot districts and the investments made to address those community concerns.

Given the construct of Georgia’s current revenue tracking systems, the fund source information produced from the study is less useful, since some 60 percent of all local public health revenues are allocated (although not budgeted) as grant-in-aid or a combined pool of state and federal grant funding. Nonetheless, as presented in Table 3, there are distinct patterns of collection and utilization of other fund sources across the state and among the districts. With a more rigorous system of fund source budgeting and reporting, the NASBO/RSG framework could offer useful guidance to local and state policy makers.

### ● Discussion and Recommendations

This study and the preliminary applications of the framework reflect a potential approach for performance budgeting in state and regional public health systems. Current practices and expenditure patterns in two Georgia health districts and across the state are accurately captured and categorized within the NASBO/RSG framework. The categories set forth by the framework appear appropriately descriptive of the “core functions” of public health. As such, they allow for the future establishment of understandable and measurable program budget performance targets, an

**TABLE 2 ● Five-year expenditure trends: Direct vs population health funding\***

	FY2000			FY2001			FY2002			FY2003			FY2004			Five-year averages		
	State	Coastal	Northwest	State	Coastal	Northwest	State	Coastal	Northwest	State	Coastal	Northwest	State	Coastal	Northwest	State	Coastal	Northwest
Direct	52.52	52.09	52.30	50.23	50.24	51.90	50.99	50.46	46.34	53.32	51.95	55.28	52.98	49.65	53.64	52.04	50.86	51.83
Population	47.12	46.51	47.70	48.99	48.31	48.04	48.34	47.90	53.66	45.79	46.46	44.48	46.19	48.64	46.36	47.24	47.58	48.11

\*Rows do not sum to 100% because of missing codes on some accounts. Direct public health expenditures are those targeted to provide individual healthcare services such as health clinics, home health, and pharmaceutical services. Population health expenditures are those focused on overall public health such as epidemiology, health promotion, injury control, environmental health, and bioterrorism.

**TABLE 3 ● Direct and population health fund sources\*, comparison of 5-year totals**

	Northwest district		Coastal district		State totals	
	Direct expenditures by FS for period	FS as % direct expenditures for period	Direct expenditures by FS for period	FS as % direct expenditures for period	Direct expenditures by FS for period	FS as % direct expenditures for period
Direct health expenditures by fund source						
Federal block grants	646,314	1.0	2,799,096	6.3	12,974,707	1.3
Local funds	6,332,081	10.2	6,633,578	15.0	191,439,936	19.7
User fee/service income	0	0.0	0	0.0	0	0.0
Public and private insurance	8,579,281	13.8	3,874,733	8.7	109,197,050	11.2
Grants and awards	11,592,706	18.7	3,463,443	7.8	56,307,859	5.8
Federal and state grants	34,879,867	56.2	27,542,268	62.2	601,249,457	61.9
Population health expenditures by fund source						
Federal block grants	0	0.0	3,740,588	9.6	19,710,559	2.2
Local funds	7,711,116	15.9	7,516,429	19.2	236,998,864	26.9
User fee/service income	4,578,064	9.5	1,910,229	4.9	42,646,321	4.8
Public and private insurance	1,903,785	3.9	563,354	1.4	22,108,805	2.5
Grants and awards	3,204,615	6.6	1,838,385	4.7	53,770,726	6.1
Federal and state grants	31,037,849	64.1	23,527,954	60.2	506,444,359	57.4

\*Direct public health expenditures are those targeted to provide individual healthcare services such as health clinics, home health, and pharmaceutical services. Population health expenditures are those focused on overall public health such as epidemiology, health promotion, injury control, environmental health, and bioterrorism.

essential feature of a performance-centered budgeting system.<sup>5,6</sup>

At the outset, the limitations of this preliminary study should be acknowledged. First, the expenditure and revenue data set used for the study includes only local public health resources; state-level operating expenses are tracked separately and future research must include a mechanism to capture these dollars. Second, the state’s system of tracking local revenues dedicated to public health has no formal process to account for in-kind contributions (eg, building, maintenance, vehicles, etc) from local governments; this omission masks the overall community investment in public health programming and services. Finally, there is a certain imprecision in allocating expenditures to the NASBO/RSG framework using random-moment sample estimating techniques for the “grant-in-aid” categories of expenditures.

The NASBO/RSG framework appears to provide a viable improvement for Georgia’s public health budgeting and expenditure reporting system. Using a framework already recognized by budget officials across the country, this case study finds that the framework may be used to capture local public health expenditure activities and, thus, provide a structure to support resource allocation driven by policy goals, district performance, population needs, and availability of alternative local capacity. It is fair to say that this type of framework would make the budgeting system more transparent, with clear emphasis on broad cate-

gories of service and performance. Flexibility combined with accountability are key features of performance budgeting.<sup>5,9</sup> We believe that local public officials and board members would embrace this accountability as a means to showcase their performance across the core public health functions.

Finally, several key “take away” messages merit reinforcing. First, because of distinctive patterns of organization and financing across states, there is much we do not know about state and local public health budgeting. A common and comprehensive method of budgeting and fiscal reporting across states could help address that shortcoming. Second, the failure of state and local public health systems to link revenues, expenditures, and outcomes to common, understandable budget categories promotes confusion among users and policy makers and fails to reward good stewardship and performance.

Going forward, a clearly defined performance budgeting system that links funding to programs, and thereafter programs to accomplishments, could assist policy makers in better understanding the importance and effectiveness of public health systems. A first step in that process is establishing program budgets and capturing expenditures and revenues within those program areas. This initial study finds that public health funding and expenditures can be categorized descriptively and explained with clarity, providing a framework to support program budgeting and performance measurement. Once the framework is in place, policy

makers and public health professionals then may begin the important discussion to establish performance measures and priority outcomes.

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