People at Risk:
The Financial Crisis in West Virginia Public Health

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Prepared for:

West Virginia Public Health Partnership

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Summary: Findings and Recommendations

Findings

- **Public health is one of the most important yet most under funded governmental functions in West Virginia**.
- **A higher level of preventive medicine delivery, as provided by Local Boards of Health (LBHs), would substantially reduce the cost of State, local and private expenditures on health care in West Virginia.**
- **West Virginia spends almost 10 times as much on Medicare and Medicaid as it does on public health and these amounts could be reduced by increased public health spending related to disease prevention.**
- **Bringing the rates of preventable disease (cancer, diabetes, heart disease, and stroke) in West Virginia to the national average would save $716 million in costs to State and local governments as well as private insurers.**
- **Expanded LBH activity could result in a 10 percent reduction in preventable disease in the State. The return to the State would be $1.69 cents for every $1 spent.**
- **Despite the high payoff, neither federal nor State funding emphasizes preventive care. Preventive care includes core public health functions performed by Local Boards of Health.**
- **Local Boards of Health are significant contributors to the economy of the State.**
    - **They generate $62 million in additional output, $29 million in new income and almost 1,000 jobs as a result of their activities.**
    - **These figures do not include the increases in productivity, quality of life and reduced expenditures on other forms of health care resulting from their activities**.
- **Local health programs generate almost $6 million in additional State and local taxes.**
- **Compared to other southern states, West Virginia dramatically under funds public health. To meet the average of other southern states, funding would have to increase by 300 percent or by $14 million in each of the next three years for a total of $42 million.**
- **West Virginia uses a simple formula to distribute State Aid by funding on a per capita basis. However, by using the additional funding from the Legislature's "Basic Public Health Services Support" funding, all 49 local jurisdictions receive at least $50,000.**
- **Adopting a new formula that better represents the needs and fiscal capacities of the local bodies would better distribute State funding.** .
- **Increased funding is necessary if the formula is to provide the needed level of LBH services.**
- **There are "economies of scale" in the provision of public health services. Research supports the conclusion that local health districts should be between 20,000 and 100,000 in population to be most efficient.**

- **Local Boards of Health receive substantial and significant support from the State Department of Health and Human Resources' Bureau of Public Health (DHHR BPH). Together they work as a system. Without DHHR-BPH assistance LBHs would not be able to fulfill their responsibilities. An increase in funding for expanded local health activities would necessitate an expansion of funding for the support services rendered by DHHR-BPH.**

<u>Recommendations</u>

- **The State should increase its financial support of LBHs to match at least the average of the other southern states. This will cost $14 million in each of the next three years for a total increase of $42 million.**
- **The State should implement a new formula to distribute State aid which should include**:
    - **A "hold harmless" provision to insure each LBH receives at least the same amount of support as in the year prior to adoption of the new formula.**
    - **A base amount including hold harmless funding for each LBH, which would cover minimum staffing and support. This would amount to over $200,000 for each county.**
    - **State funding should only cover the first $100,000 of the base amount or the "hold harmless" amount whichever is greatest. The "gap", if one exists, should come from local sources.**
    - **Remaining monies should be distributed using population with a coefficient based on:**
        - **Prevalence of poverty**
        - **Health status**
        - **Population density**
        - **Interventions/permits**
        - **Consolidation**
    - **The new formula will not work without sufficient State funding**.
- **County governments should be given incentives to make significant financial contributions to the operation of their LBH.**
- **DHHR BPH activities which support the LBHs should receive increased State funding to cover the expanded services which the LBHs will provide.**
- **Consideration should be given to methods to promote the more efficient delivery of public health services.**
- **All LBHs should use a State established sliding scale fee schedule for the delivery of certain services. This sliding scale would be based on the recipient's ability to pay. LBHs would not be penalized for charging these fees.**
- **The Legislation concerning LHD responsibilities and performance outcomes should more clearly define expectations of LBHs and reconcile any statutory inconsistencies.**
- **A public education program should be undertaken, which would stress the contributions LBHs make to the health and economy of the State.**

Executive Summary

Public health is one of the most important and yet under funded governmental activities in West Virginia. The analysis in the report entitled, *"People at Risk: The Financial Crisis in West Virginia Public Health,"* provides strong support for this statement. The report also provides a detailed analysis of the state of public health in the Mountain State. Not only is the current system of finance and organization described and evaluated, but public health systems in other states are also explored.

A new system for the delivery of local public health services in the State is advanced. This proposed system would provide more public health services. In addition, it would stimulate economic growth in West Virginia while reducing the costs of health care to the State.

This study considers only support for the Basic Health Services and not the entire range of health services which LBHs current do and possibly may do. The intent is to determine what is need to meet the mandated requirements and move closer to fulfilling the recommendations from the federal government and national organizations regarding local health service delivery.

The State is divided into 49 Local Boards of Health (LBHs). While most counties have separate LBHs, some counties boards have combined LBHs to avail the economies of scale that result from consolidating functions.

LBHs provide essential services focused on prevention of disease. Although over 80 percent of the medical expenditures in the U.S are spent for "curative" and "restorative" functions, economic analysis indicates the most cost effective means of providing health care is through prevention.

Prevention is the vital role of the LBHs. A higher level of prevention would significantly reduce the burgeoning expense of health care in West Virginia. This would not only create a healthier and more productive population, but reduce the budgetary pressures now faced by the Governor and Legislature.

The contents and findings of the Report are summarized in the following sections.

Economic Impact of Local Boards of Health

Chapter 1 calculates the economic impact of the LBHs to the State. The direct, indirect and induced spending resulting from public health activity is considered. Direct spending includes the local health agencies spending for labor, services and products produced in the region. Indirect spending captures the spending by the businesses that supply the LBHs. Induced spending results from the expenditures by the households that received income from either the direct or the indirect expenditures. The sum of these three is the total economic impact.

LBHs generate over $62 million additional output, $29 million more income plus nearly 1,000 jobs. All of this benefit would be lost if the LBHs were to disappear. These statistics

would increase significantly if local public health was adequately funded. The positive economic impact of local public health provision is felt in a large variety of other industries in the state.

LBH's economic activity contributes almost $6 million in additional taxes for the support of State and local government. Personal income taxes, sales taxes and property taxes are the most significant contributors to this total.

However, these findings significantly underestimate the real economic impact of LBHs. The $6 million in additional taxes and the $62 million in additional output do not measure the return on investment the State receives from its spending on public health. The current savings from disease prevention related to the LBH activities cannot be measured. **The potential savings from increased public health action are great.**

West Virginians, particularly those in the southern portion, are less healthy than typical Americans. The rates for heart disease, stroke, diabetes, obesity and all forms of cancer are well above the national average. Most of these ailments are "life style" related and could be prevented or at the minimum reduced. The cost of these to the State is over $716 million a year.

If expanded local public health resulted in only a 10 percent improvement in the prevalence of preventable disease, the State would receive $1.69 cents in reduced health care costs for each dollar spent.

West Virginia Public Health Legislation

West Virginia's Code creates both a "State Public Health System" and "Local Boards of Health". Central to the Legislation and the Rules which supplement it is the concept of "Essential Public Health Services." The State's definition follows closely the CDC's list of essential services. These definitions were amplified by the National Association of County and City Health Officials (NACCHO).

West Virginia law requires that each LBH "must" provide:

- Communicable and reportable disease prevention and control.
- Community health promotion.
- Environmental health protection.

Each of these requirements are further explained and encompass an extensive list of requirements and activities.

Discretionary LBH activities, which "may" be provided, include:

- Clinical and categorical programs.
- Enhanced public health services focused on major community health problems for targeted populations.
- Lead and radon abatement.
- Pregnancy tracking and related services.

Funding for LBHs comes from a variety of sources totaling approximately $42 million. LBHs vary in the ways they obtain financing with the largest single source being State aid. Local funding includes county and city contributions, clinical reimbursements, grants and federal money for "threat preparedness" as well as fees and permits.

Some LBHs utilize the State's authorization to charge "reasonable fees" for service. Many counties do not allow such charges and threaten reduced county support if LBHs do institute these charges. If the voters approve, this it takes the form of local excess levies. Eight counties have these levies.

While county governments are required to support their LBHs, this sometimes is limited to "in kind" support such as providing office space. While State law allows counties to levy up to three cents for every $100 dollars of assessed value to support LBHs, this is not mandatory. If used, the revenue would have to come from the constitutionally limited county mill levy. Currently, most county governments are at or near maximum rates which precludes use of this option. Only 17 counties make no appropriation for public health. Sixteen cities also provide financial support.

A simple formula is used to allocate State dollars. A per capita dollar amount is determined by dividing the State's population into the appropriated amount. Each LBH is allotted an amount based on its population. Currently, each LBH receives a minimum of $50,000 and no LBH receives less than its 2005 distribution. The State also provides categorical grants to the LBHs, many of which are "pass-through" of federal monies.

When compared to other Southern states, West Virginia dramatically under funds public health. **A review of comparative states demonstrates that to meet the average Southern state's expenditures, West Virginia needs to increase State spending by 300 percent. To accomplish this, Overall State expenditures would have to increase by $14 million in each of the next three years for a total of $42 million.**

Assuming significant additional funding for the LBHs is forthcoming, meaningful and measurable performance improvements will be required. **Additional funding for the Bureau of Public Health (BPH) is a necessity.** These additional dollars would be used by the BPH to:

- Monitor LBH performance.
- Provide expertise and technical assistance.
- Deliver IT support.
- Continue and expand laboratory testing.

Funding Public Health

Despite the significant "pay-off" from spending on core local public health functions, neither state nor federal funding is emphasized in that area. Only five percent of federal money for health related programs goes to public health, and recent increases have mostly been related to "threat preparation." While behavior and environmental conditions account for a significant portion of the nation's health problems, little is spent on these with the majority going to "curative care."

In West Virginia, nearly 10 times as much is spent on programs like Medicare and Medicaid as on basic local public health services. **Yet the costs of both programs could be reduced by an increase in spending on local public health.** Among the states, depending on whose ranking system is used, West Virginia ranks between 37th and 48th in per capita health spending. Most of the public health spending is federal money passed through by the State or provided directly to the LBHs. Most of this goes for "curative care".

All states and Canada use some form of **formula distribution** to allocate state aid to local entities. They do so to influence the spending of local units, distribute money in relationship to need and to equalize financial capabilities. Formulas are also popular because they are transparent and remove the distribution as much as possible from the political arena.

Formulas are either open ended, where the amount the state spends is determined by the measured needs of the LBH, or closed, with a predetermined amount divided among the recipients based on some measure of need. "Need" can be measured by the cost of providing services or the number of people using the services. If need is used, some indicator of the prevalence of specific health problems is involved. Aid will then be granted not in proportion to population, but consistent with a determination of the service requirement which may vary within populations of a given size.

Need does not respect political boundaries. Individuals will gravitate to where the service is available crossing local and even state boundaries. This creates a strong case for both state and federal funding of locally provided services.

If costs are used, these must be related to the indicators of need. At the same time, certain personnel and facilities must be available no matter the level of demand. These fixed costs must be included along with the variable costs of service provision. Local and regional variations in costs, such as competitive salaries, must also be considered.

Fiscal capacity of the providing government is also included in many state formulas. Per capita income is the most commonly used indicator. It is not perfect in that areas with identical per capita incomes may have significantly different income distributions. There is a close relationship between the percent of the population in poverty and both fiscal capacity and need.

Fiscal capacity is also governed by the ability of local jurisdictions to support local public health functions. Tax limitations, such as those on local property taxes in West Virginia, erode the capacity of a local government to deliver services. As is the case in West Virginia, tax limitations can be exceeded by popular referendum.

Effort is the final element used in a formula. It is usually measured by the local revenues used to support public health. Effort is often tied to matching requirements. The greater the effort made by the jurisdiction, the greater funding that is available. Effort must always be tied to capacity in making allocations. Jurisdictions with high fiscal capacity may make less of an effort even though they spend more than jurisdictions with low capacity make.

The State may have an interest in **delivery of certain services.** Support is then tied to provision of that service as is the current federal program for threat prevention. These categorical grants are presumed to distort local or state budgets to favor the added functions, but there is little evidence that this is so.

Basic support grants are included in many formulas. For any governmental function, there is a basic level of financial support which must be available if the service is to be offered. Determining basic support involves using a resource-based approach where the costs of a minimal provision are calculated. This involves establishing what minimal staffing, equipment and facilities must be present.

A second method is to consider the **costs of providing each required service**. The required services may be dictated by statute, by regulation or by measurement of need. Many researchers advocate this approach as it leads to funding the services that are delivered more adequately.

Another method used in a few states is **cost reimbursement.** Under this method, the state or federal government picks up all or part of the costs of providing the service. In most cases, the full cost is not covered with the recipient government being expected to pay a share based on its fiscal capacity. A major problem with this approach, if initiated in West Virginia, is that the LBH would have to front the costs. They would probably be unable to make these expenditures, and would have to wait for reimbursement, given their local fiscal capacity.

Included in many formulas are **thresholds** requiring the recipient to meet some eligibility criteria to receive the grants. These range from a required number or percentage needing a service to percentage living in poverty. **Hold harmless** provisions protect recipients against changes in eligibility requirements and insure that funding does not decrease.

At the same time, **caps** limit the total amount to be distributed under the formula or the amount any single jurisdiction can receive. Some programs also include either **penalties or bonuses.** If performance criteria are not met, the jurisdiction receives a reduction in funding, but if the target is exceeded, additional funding is provided.

Public Health Formulas in Other States

All the states surrounding West Virginia have local public health programs. While there is considerable variation, two approaches are used. The first is "cost based" where the costs of providing required services in each jurisdiction are calculated as the basis for allocation. The second approach is "needs based" using income, health and other indicators to establish need. Some formulas contain elements of both.

As Table ES1 shows, West Virginia and Kentucky are the only states in the region without a required local effort. As noted earlier, the severe restrictions on local government taxing ability in the West Virginia Constitution limit the ability of LBHs to provide a guaranteed local effort or match. While excess levies are possible, and eight counties have them, these must be passed in special elections.

Three of the surrounding states do use some form of cap either on spending or on state aid. Virginia requires the State to provide the majority of the funding and caps local support at no more than 45 percent. Pennsylvania puts a $6 per capita state support limit for personal health and a $1.50 limit on environmental health. Maryland divides its state aid by designating the percentages that can be spent on each local health function.

Three of the states use an indicator of need, but the indicators of need vary. No state has an incentive to encourage consolidation, but in Virginia, almost all non-urban counties are in multi-county districts. Only Kentucky has local health personnel under a state system for compensation and benefits.

In all surrounding states, local jurisdictions can charge for services performed. While some LBHs in West Virginia do charge for some, but not all, services, the use of fees is often restricted by the terms of county support or special levy. In many cases, the local fees in other states are on a sliding scale with free care available for those who cannot pay.

These formulas are summarized in Table ES1.

Table ES1: State Public Health Formulas

State	Hold Harmless	Required Local Effort	Cap	Staffing Requirement	Need Requirement	Incentives to Consolidate	State Personnel Policy	Fees for Service
Virginia	Yes	Yes, fluctuates based on wealth	Yes, State funds between 18-45%	Yes, based on number of workers needed for each service	Yes, based on morbidity & mortality in each district	No, all counties except major cities are in multi-county districts	No	Yes, sliding scale
Kentucky	No	No, counties provide support, additional 10 cents/$100 valuation allowed if needed	No	Determined by Cabinet for Health & Family Services	Yes, includes population, local resources, tax assessments	No	Yes, state sets qualifications, salaries & retirement	Yes, sliding scale
Ohio	Yes, based on 1983 allocation	Yes, $3 per capita	No	No	No, each district receives 30 cents per capita from the state	No	No	Local districts may charge & seek state reimbursement for uninsured costs
Pennsylvania	No	Local governments are to raise sufficient funds to cover costs of basic services	Yes, no local board can receive more than $6 per capita for personal health and $1.50 for environmental health	No	Grants cover 50% of costs of local services up to cap	Boards of health may be separate or multi - jurisdictional if established by referendum	No	Yes, fees can be used to pay local costs
Maryland	Yes, at 1997 levels plus inflation	Yes, State uses incentive grants. Greater local effort increases state aid	No, but state fixes percentage that can be spent on each health function	No	2/3rd based on need as measured by poverty & mortality	No	No	Yes, but state sets fees for services funded by state or federal funds

Utah (which is frequently sited as a system to be used in sparsely populated states) uses a different system than that employed in West Virginia and surrounding states. While it does have a hold harmless requirement, it takes only eight percent of the State allocation. Utah's program contains a strong incentive system for consolidation, which allocates one quarter of the state money based on number of counties in a multi-county district. Population, poverty and square miles of each district are included as need indicators. Two thirds of the State's expenditures are allocated based on these measures.

Structure of Public Health Systems

State public health systems are either "centralized," "decentralized," or "mixed/shared" in their structure. As the terms imply, centralized systems are primarily run by the state with local offices being part of the state organization. Decentralized systems are primarily local in their governance, with the state playing a relatively minor and supporting role. Mixed/shared systems are characterized by having the responsibility divided between state and local authorities. The research shows there is no reason to prefer one structure over another as all have succeeded or failed depending on other factors.

Across the nation about half of the systems are decentralized with the other two options evenly split at 25 percent. This basic classification blurs the fact that within each category there are wide varieties of service, delivery, and finance. While larger states tend to have decentralized systems and smaller states centralized, this is not always true, nor does the source of financing dictate the structure.

West Virginia is classified as a mixed/shared state as are Kentucky and Pennsylvania. Maryland and Virginia are centralized while Ohio is the only decentralized surrounding state. While funding is better in all surrounding states, the structure does not appear to determine success in meeting established goals.

Survey of LBH Employees

In order to collect the views and suggestions of those who were delivering services at the local level, a comprehensive questionnaire was distributed. In addition, meetings were held across the State. Personnel from every LBH participated either in focus groups or by returning surveys. The results of the questionnaire can be summarized as follows:

- The majority opposed a centralized public health system but favored an alternative to the current system. A regional approach had the greatest support.
- The great majority felt they were meeting the standards for "communicable and reportable disease prevention and control" and "community health promotion." The two reasons given when standards were not met included lack of funding and insufficient personnel. These are highly correlated.
- In deciding how State aid was to be distributed, the three highest rated criteria were "need for services," "percent of low income households" and "number of uninsured."

- The majority did not want "population density" or "performance" to be included in a formula.
- The three most commonly supported criteria for distribution of a minimum allocation to each local jurisdiction were "county population," "minimum staffing" and "people served/interventions."
- Over 90 percent of the respondents felt that funding and staffing issues forced them to direct clients to other providers.
- The majority felt threat preparedness activities did not interfere with other public health activities, but a minority felt it did.
- A strong majority wished for the State to mandate some form of local support and provide a minimum sliding scale fee schedule for their services.
- The respondents, when asked about how well they felt their LBH was meeting NACCHO and CDC standards, agreed that the following were being fully or partially met:
    - Monitoring health status and identifying community health problems
    - Diagnosing and investigating health hazards
    - Informing, educating and empowering people about health issues
    - Mobilizing community partnerships
    - Enforcing laws and regulations
    - Linking people to needed personal health services and providing care not otherwise available
    - Assuring a competent workforce
- There were NACCHO and CDC standards which were not being met including:
    - Developing plans and policies for community health
    - Evaluating the effectiveness, accessibility and quality of health services
    - Research for new insights and innovative solutions to health problems

When the responses were separated to reflect the views of administrators and non-administrators, the results were similar. While there were differences in emphasis, the lack of funding and the unavailability of personnel were strongly emphasized.

Survey of State Employees Working with LBHs

To complete the process of gathering information from those involved in providing public health services, State employees who had a responsibility to assist the LBHs were asked to complete a survey. Although the return was not sufficient to draw any statistically significant conclusions, the following results are observed:

- Neither State officials nor LBH employees favored a centralized public health system.
- By significant majorities, neither group favored a fixed per capita amount for each jurisdiction, but there was some interest in varying support inversely with population.
- There was no disagreement between the two groups regarding the need for a comprehensive funding formula to replace the current system. State employees listed factors that should be included in either the base allocation or the formula.
- State officials were pessimistic about future funding from either the State or federal government. In fact, they felt that federal funding would decrease, creating major problems for LBHs.

Conclusion

This is the most comprehensive investigation of the public health delivery system completed for West Virginia. It points out **the need for substantial increases in state and local support** of local public health agencies. This case is built on the recognition that preventive health care is both less expensive and more effective that curative care. The business of Local Boards of Health is to create a healthier environment and provide health related services to the people of the State**..** There is no support for a State centralized system of public health delivery but support for more regionalization.

The 49 LBHs in West Virginia are tasked by legislation to provide core health services to those living within their boundaries. Wide varieties of services are purveyed including inspections of food vending establishments, sewer systems and water treatment. In addition vaccinations and inoculations are available as are well baby clinics and STD screenings. These are provided either free or at low cost. LHBs have devised plans for regional responses to threats from terrorism and epidemics. Unfortunately, the benefits of local public health programs would only be fully comprehended in their absence.

In a State where the incidence of preventable disease is among the highest in the nation, the need for local public health is significant. The cost savings to government and private payers could be reduced significantly by expanded attention to public health issues. But this is not just a "cost" issue. It is a quality of life issue as well.

The evidence in this report clearly demonstrates the importance of local public health services. Yet they cannot reach their full potential to contribute to a more vibrant West Virginia without additional funding. An entirely new approach needs to be taken to allocating State funds.. That new formula should include a base allocation that allows for each LHB to have minimum staffing and facilities. Other additional money should be allocated based on indicators of need and financial capacity. However, **no new formula will work unless the amount spent by the State increases by 300 percent.**

This requirement may seem unrealistic. But what is truly unrealistic is to continue to fund the more expensive curative care while under funding preventive. Increasing State investment in the LBH will pay not cost. The reductions in curative care costs are likely to offset the expense of the State's increased investment.

CHAPTER 1

The Importance of Local Boards of Health to the State Economy

Local Board of Health (LBH) spending is a relatively small component of the state and local economies. However, its importance is understated because the full economic contributions of local boards of health are very difficult to measure. The avoided costs of providing health and emergency services vary widely and are specific to individuals, families, municipalities and counties. Much simpler and more accurate to measure is the basic monetary impact of LBH budgets.

To assess the impact of all LBHs in West Virginia, spending data for each LBH was collected. The combined total budget for the 49 boards in the state was $42 million. Of this amount, $22.6 million was used for staff salaries. The remaining funds were spent in support of LBH mission objectives.

Results were modeled using the IMPLAN[1] regional input-output simulation software to assess the multiplier effects of direct LBH spending on operations and staff. This software simulates the secondary (indirect) and tertiary (induced) spending that occurs due to initial spending in an assigned industry. The secondary impacts occur when local businesses respend the dollars spent by LBHs to provide it with goods and services. The tertiary impacts result from the spending by individuals who receive their incomes either directly from the local boards of health or from those firms who do business with them.

Stated another way, initial direct spending stimulates additional indirect spending by businesses as they supply goods and services to LBHs and induced spending by households who are employed by those businesses and by the LBHs. This report measures all of these impacts, which are summarized in Table 1-1 below. The total impact is the net effect of spending and is net of leakage of spending to domestic and international trade. These funds do not remain in the local economy and do not contribute to indirect or induced spending.

Findings

Impacts are estimated for the major categories of economic activity: spending (output), income, employment and taxes.

Output, Income and Employment

The most important component of an economic impact study is output, which estimates the total spending that results from the presence of an institution or business in an area. Output includes those salaries and incomes, which are the largest contributors to the overall economic impact as they are spent and re-spent throughout the region. Output is the combined budget of the 49 LBHs. Employment translates the income received into the number of jobs.

[1] IMPLAN Professional Version 2.0 (1999) Minnesota IMPLAN Group, Stillwater MN.

Table 1-1: Summary Impacts of Local Boards of Health

	Direct	Indirect	Induced	Total
Output	$42,000,000	$6,970,574	$13,031,598	**$62,002,170**
Income	$22,577,330	$2,282,842	$4,217,001	**$29,077,172**
Jobs	729	81	167	**977**

The direct output of $42 million includes $22.6 million in staff salaries. The $42 million budget causes another $20 million in indirect and induced spending in the state. The multiplier effect of this spending is approximately 1.5; meaning that, for each dollar spent by a LBH, another 50 cents is generated in the state. The level of multiplier is typical of most service industries in West Virginia.

Local Boards of Health employ about 729 people, in terms of full-time equivalents. It is estimated that another 81 persons are employed indirectly by the businesses with whom the LBHs make expenditures for goods and services. Another 167 persons are employed as a result of household spending by LBH employees and employees of the businesses making indirect expenditures to support the LBHs.

In terms of economic classification, local boards of health fall within the Health and Social Services group. Spending is approximated using the "Other Ambulatory Health Care Services" and "Social Assistance, Except Child Day Care Services." These sectors utilize the same economic sectors covered in the North American Industrial Classification System (NAICS) sectors that include:

- Outpatient Care Centers - family planning centers, outpatient mental health and substance abuse centers, freestanding ambulatory, surgical and emergency centers
- Medical and Diagnostic Laboratories
- Other Ambulatory Health Care Services - Ambulance services, blood and organ banks
- Individual and Family Services - adoption agencies, foster care placement agencies, teen outreach services, marriage counseling services
- Community Food and Housing, and Emergency and Other Relief Services - temporary shelters, community food and housing services
- Vocational Rehabilitation Services

While LBHs may not be involved in each service covered under these sectors, the combined group that these sectors represent is the best way to approximate the impact of LBH spending and the trickle-down effects of that spending via other businesses and households. The following table shows the distribution of impacts by major industry. This describes how spending impacts are spread throughout the economy. In this case, the Health and Social Services sector is the source of the initial funding and thus has the largest concentration of activity. All other industries are beneficiaries of LBH spending.

Table 1-2: Economic Impacts by Major Industry

INDUSTRY	Output	Income	Jobs
Ag, Forestry, Fish & Hunting	$ 151,447	$ 15,926	6
Mining	$ 248,487	$ 64,070	2
Utilities	$ 834,068	$ 172,770	2
Construction	$ 324,038	$ 143,757	4
Manufacturing	$ 2,318,347	$ 417,593	9
Wholesale Trade	$ 1,056,331	$ 423,253	10
Transportation & Warehousing	$ 752,405	$ 319,448	8
Retail trade	$ 1,941,387	$ 881,457	43
Information	$ 956,750	$ 245,679	6
Finance & insurance	$ 1,191,462	$ 321,682	9
Real estate & rental	$ 1,365,854	$ 218,813	15
Professional- scientific & tech services	$ 852,593	$ 524,817	13
Management of companies	$ 152,158	$ 69,438	1
Administrative & waste services	$ 1,001,747	$ 500,264	27
Educational services	$ 154,147	$ 60,936	4
Health & social services	$44,215,328	$23,804,826	761
Arts- entertainment & recreation	$ 177,290	$ 74,912	4
Accommodation & food services	$ 1,088,099	$ 377,900	29
Other services	$ 850,860	$ 341,209	21
Government & non-NAICs	$ 2,369,375	$ 98,425	4
Total	**$62,002,170**	**$29,077,172**	**977**

Taxes

Using employment as the key indicator of economic activity and taxes paid to West Virginia, the contribution of LBHs to tax revenue is estimated. Based on the 977 persons employed either directly or indirectly by LBH activity, the portion of annual state and local tax revenue is estimated at about $6 million in FY 2006. While LBHs as government entities do not pay property taxes, their suppliers and employees do, as do the firms and individuals who are included in the indirect and induced spending rounds. The categorical distribution of this impact is shown in the table below.

Table 1-3: Tax Contribution of Local Boards of Health

	FY2006	$ Per	LBHs	Total
Employment, July 2006	767,100		727	977
Initial Business Taxes				
Business Registration	$ 1,818,860	2	$ 1,724	$ 2,317
Corporate License	$ 5,361,113	7	$ 5,081	$ 6,828
Business Taxes				
Corporation Net Income and Business Franchise	$ 347,569,611	453	$ 329,400	$ 442,674
Severance *	$ 314,726,682			$ -
Business & Occupation	$ 185,456,897	242	$ 175,762	$ 236,203
Telecommunications	$ (430,021)	-1	$ (408)	$ (548)
Insurance	$ 97,711,652	127	$ 92,604	$ 124,448
Health Care Provider	$ 172,459,353	225	$ 163,444	$ 219,649
Consumer Sales & Use Taxes				
Consumer Sales	$ 1,012,450,612	1,320	$ 959,525	$ 1,289,485
Use	$ 113,315,058	148	$ 107,392	$ 144,321
Personal Taxes				
Personal Income Tax	$ 1,297,720,394	1,692	$ 1,229,882	$ 1,652,813
Estate & Inheritance	$ 591,724	1		
Excise Taxes				
Motor Fuel Excise	$ 320,757,360	418	$ 303,990	$ 408,526
Liquor Profit Transfers	$ 11,508,649	15	$ 10,907	$ 14,658
Beer Tax & Licenses	$ 8,547,760	11	$ 8,101	$ 10,887
Wine Liter Tax	$ 1,421,151	2	$ 1,347	$ 1,810
Tobacco Products Excise Tax	$ 112,027,627	146	$ 106,171	$ 142,682
Soft Drinks	$ 14,970,961	20	$ 14,188	$ 19,067
Miscellaneous Fees and Transfers				
Solid Waste Assessment Fee	$ 14,445,964	19	$ 13,691	$ 18,399
Racing Fees	$ 1,089,011	1		
Taxes Collected by Counties				
Property (State Share Only)	$ 4,783,635	6	$ 4,534	$ 6,093
Property Transfer (State Share Only)	$ 13,658,145	18		
Subtotal	**$ 4,051,962,198**	**$4,872**	**$ 3,527,335**	**$ 4,740,312**
Property Taxes to Counties	**$ 956,727,000**		**$ 906,714**	**$ 1,218,514**
TOTAL	**$ 5,008,689,198**		**$ 4,434,050**	**$ 5,958,826**

*Severance taxes have been excluded.

Unmeasured Benefits

The $6 million figure for state and local taxes generated by LBH activity is small relative to state expenditures on LBHs. However, this should not be an indicator of return on investment since the most important returns to state spending on these services are unmeasured. Impacts such as improved health, aversion of catastrophic events, improved worker productivity and potential reduced medical expenditures by state governments, local agencies, individuals and insurance companies are extremely difficult to calculate. Even with carefully collected historical data, outcomes measurement is a complex task.

For example, the potential savings with disease prevention in the State is tremendous. West Virginia, particularly its southern counties, has above-average rates of life style related medical conditions such as cancer, cardio-vascular disease and diabetes. If the State could reduce the incidence of these diseases to match the national averages, hundreds of millions of dollars could be saved every year instead of being spent on treatment. Prevention is often much less costly than treatment.

There seems to be no controversy that West Virginians, particularly those living in the Southern portion of the state, are on average considerably less healthy than Americans living elsewhere. An improvement on this situation would translate directly into cost savings. In an excellent documentation of this problem Marshall University's Center for Rural Health determined, "The regions' higher average age is a factor, as are high-fat, high-calorie diets, tobacco use, lack of physical activity and access to health care."[2] Their overall conclusion, "The current health status of Southern West Virginia is unacceptable and a barrier to improving the lives of its citizens and the economy of the region" is fully supported.

The Marshall Rural Health Center provided the following statistics to demonstrate the scope of the State's and southern West Virginia's health problems.

- West Virginia reports a 27 percent smoking rate, four full percentage points ahead of the national average. In Southern West Virginia, the smoking rate is 37.3 percent.
- Smokeless tobacco use in West Virginia is 8.4 percent. The national usage rate is 3.7 percent. In Southern West Virginia, the rate is 10.1 percent.
- The state's obesity rate is 21.3 percent, far ahead of the national rate of 17 percent. The rate in the southern portion of the state is even greater at 24.5 percent.
- The rate for sedentary lifestyle in Southern West Virginia is 50.4 percent compared to the state rate of 42.7 percent and the national rate of 29.7 percent.
- The death rate from diabetes is 68 percent higher in Southern West Virginia than the national average.
- In West Virginia, untreated dental cases affect 66 percent of all children under 15 in Southern West Virginia. The national average in is 22 percent. For the state as a whole, the rate is 33 percent.

[2] Acker, T. S., et. al (2002). “Southern West Virginia Health: An assessment and initial plan for improving lives, building futures.” Marshall University, Robert C. Byrd Center for Rural Health. Huntington WV

- The rate of heart disease per 100,000 in the population is 612 for the nation. In West Virginia, the rate is 38 percent higher at 842 and the rate in Southern West Virginia is 92 percent higher at 1,176.

Research undertaken by Marshall University in 2004 asked the question, "If the high incidence of major illness in the state could be reduced to the national average, what would be the savings in health care costs?" The annual cost savings are estimated as follows:[3]

- The costs of all forms of cancer would be reduced by almost $230 million[4]
- The costs of cardio-vascular diseases would be reduced by $236 million[5]
- The costs of diabetes would be reduced by over $250 million[6]

Also, there would be a highly positive effect in reducing the prevalence of two "life style" conditions - smoking and obesity - which are directly related to the diseases mentioned above.

- Reducing the incidence of obesity to the national average would save nearly $96 million[7]
- Reducing the incidence of smoking among adults to the national average would save $78 million[8]

These estimates include cost savings from direct medical costs as well as indirect reductions in disability payments, work hours lost and premature mortality. The combined cost savings due to achievement of national averages of such prevention could be in the range of $716 million, a multi-fold return on investment for the State of West Virginia. While attributing any single program or organization with successful prevention of such conditions is difficult, it is a role that West Virginia LBH's can and do fill.

The LBH emphasis is on preventive medicine. The state's budget allocation for the LBHs is $42 million. As previously documented in this report, in order to achieve the average for southern states the state should increase its budget allocation by an additional $42 million. If the LBH's increased activities could bring the incidence down to the national average, the benefit to cost ratio would be 1:17, meaning for each new dollar the state would get seventeen dollars in return. Since many other factors and programs can contribute to improved health, using a conservative estimate of LBH's expanded activities, cutting the State's costs by 10 percent produces a benefit to cost ratio of 1:1.69 or for every new dollar spent on public health the State would receive $1.69 in reduced health care costs.

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[3] Kent, C. and Sowards, K. (2004). "POTENTIAL ECONOMIC IMPACTS OF A UNIVERSITY WELLNESS AND FITNESS FACILITY AT MARSHALL UNIVERSITY" Center for Business and Economic Research, Marshall University, Huntington ,WV.

[4] Cost data from Brown, Martin L., Lipscomb, J., & Snyder, C. (2001). "The burden of illness of cancer: economic cost & quality of life." *Annual Review Public Health*, 22, 91-113.

[5] Cost data from West Virginia Department of Health and Human Services (2004). "The Burden of Cardiovascular Disease in WV."

[6] Cost data from the American Diabetes Association (2003). "Economic Costs of Diabetes in the U.S. in 2002," *Diabetes Care*, 26, 3, 917-932.

[7] Cost data from Center for Disease Control, Behavioral Risk Factor Surveillance System and West Virginia Department of Health and Human Services, "Obesity: Facts, Figures and Guidelines 2002."

[8] Cost data from Center for Disease Control, Behavioral Risk Factor Surveillance System and "Smoking-Attributable Medical Care Costs: Models and Results", Vincent Miller 1998.

CHAPTER 2

Summary of West Virginia Legislation Pertaining to Local Boards of Health

Legislation governing the provision of public health services in West Virginia is provided in Article 1 "State Public Health System" Section 16-1 of the West Virginia Code and Article 2 "Local Boards of Health" Section 16-2. This legislation is supplemented by two Legislative Rules[9] promulgated by the Division of Health within the Department of Health and Human Services. Because of the interaction between the legislation and the rules, what follows is a summary organized by topic rather than by legislation or rule.

Definition of Services to be Provided

The Code provides the following definition of "essential public health services" as "the core public health activities necessary to promote health and prevent disease, injury and disability for the citizens of the state."[10] It proceeds to list the services to be provided. In 1994, the U.S. Center for Disease Control (CDC) issued its list of "Essential Public Health Services"[11] which closely correspond with the West Virginia Code. In order to make these standards operational for LBHs, the National Association of County and City Health Officials (NACCHO) issued its own standards.[12] The comparison between the West Virginia Code and the NACCHO standards is provided in Appendix A.

Article 2 concerning Local Boards of Health provides a less comprehensive definition of "basic public health services" as "The three areas of basic public health services are communicable and reportable disease prevention and control, community health promotion and environmental health protection."[13] That section further deals with the definition of what is considered to be basic public health services limiting them to communicable and reportable disease prevention and control, community health promotion and environmental health protection.[14] These three "must" be offered by every local board of health.

Each of the above basic areas of health services is further delineated.

- Communicable and reportable disease prevention and control includes "disease surveillance, case investigation and follow-up, outbreak investigation, response to epidemics, and prevention control of rabies, sexually transmitted diseases, vaccine

[9] Title 64, Series 73, "Standards for Local Boards of Health" and Series 67 "Distribution of State Aid Funds to Local Boards of Health."
[10] 16-1-2(h).
[11] Office of the Director, National Public Health Performance Standards Program, (1994). "The Essential Public Health Services." Center for Disease Control and Prevention, U.S. Department of Health and Human Services, Washington, D.C.
[12] National Association of County and City Health Officials (NACCHO) (November, 2005) *Operational Definition of a Functional Local Health Department.*
[13] 16-1-2(a)
[14] 16-2-2(a)

preventable diseases, HIV/AIDS, tuberculosis and other communicable and reportable diseases."[15] [16] [17]

- Community health promotion includes "assessing and reporting community health needs to improve health status, facilitating community partnerships including identifying the community's priority health needs, mobilization of a community around identified priorities and monitoring the progress of community health education services."[18]
- Environmental health protection services include "protecting the community from environmental health risks including inspection of housing, institutions, recreational facilities, sewage and wastewater facilities, inspection and sampling of drinking water facilities, and response to disease outbreaks or disasters."[19] [20]

While including much of the NACCHO standards, the required services to be provided by a LBH in the Code fall short of the full range of NACCHO definitions.
When the Code discusses giving authority to the Secretary of Department of Health and Human Services, it directs the Secretary to establish rules regarding[21]

- Land usage endangering the public health
- Sanitary conditions at all institutions and schools
- Occupational and industrial health hazards
- Safe drinking water

Enforcement of the rules devolves to the LBHs.[22]

The Code does provide for "primary care services" which "**may**" be provided by a LBH if the local board has determined "an unmet need for primary care services exists."[23] These can include "clinical and categorical programs."[24] Also included on the list of services a LBH may offer are "enhanced public health services" focusing on "health promotion activities to address a major health problem in a community [that] are targeted to a particular population and assist individuals in this population to access the health care system, such as lead and radon abatement for indoor air quality and positive pregnancy tracking."[25] If all WV LBHs were capable of providing these two services, the LBHs would come closer in adhering to the NACCHO standards.

Funding

The Code and Regulations provide for different sources of funding of the LBHs. These amounts, as estimated for FY 2005, are given in Appendix B. Total anticipated expenditures from all sources are nearly $42 million. Significant variations exist in the ways the local LBHs obtain

[15] 16-2-2(f)
[16] 16-2-11(a)(1)(iii)
[17] 16-2-11(1)(i)
[18] 16-2-2(g)
[19] 16-2-2(k)
[20] 16-2-11(1)(ii)
[21] 16-1-4(a)(b)(c)(d)
[22] 16-2-11(10)
[23] 16-2-2a author's emphasis
[24] 16-2-11(10)(b)(1)
[25] 16-2-2(1)

funding. The largest single source comes from state support funds (see below) followed by clinical reimbursements, state grants and monies for "threat preparedness."

Local Funding

The Commissioner of Health may authorize the LBHs to charge "reasonable fees for the provision of services"[26] by LBHs. Those fees are not to be charged to anyone unable to pay if those services are provided to others with the capacity to pay. LBHs may collect fees if approved by the Commissioner for some of the services they perform such as fees for permits, licenses and certain inspections.[27] Only 10 counties do not charge for some services. In several counties, the County Commissions do not allow the LBHs to charge for services under threat of losing county support.

LBHs may be reimbursed for services provided to other entities including school boards. The major source of reimbursements for LBHs is Medicare and Medicaid. These fees and reimbursements amount to $29 million or 69 percent of total LBH reimbursements state-wide for 2007.

LBHs may also receive funding from the general fund of either a county or municipality,[28] but there is no obligation for the bodies to provide any specific level of monetary support. Counties or municipalities "may levy a county or municipal tax to provide funds for the local board of health" but the rate may not exceed three cents on each 100 dollars of assessed valuation.[29] Use of this option is limited since the LBH levy must be included in the maximum levy rate that the county or city can use. For local governments already at the maximum allowable levy rates, use of this provision is not an option. All but 17 counties make some appropriation to their LBHs, as do 16 cities.

If a county or municipality enacts an excess levy as provided in Article 10-1 of the State Constitution, that money is available to support the LBH. Only eight counties have availed themselves of excess levies and most are constrained by the necessity of receiving 60 percent approval from the voters.

State Funding

In addition to these options the LBHs receive funding from the Legislature using a simple formula[30] and the total amount to be distributed to all LBHs is set by the Legislature in its annual budget. A per capita dollar figure is calculated by dividing the amount of available state money by the total state population and then multiplying the population of each county or municipality

[26] 16-1-11(a)
[27] 16-2-11(10)(b)(5) and (6)
[28] 16-2-14
[29] All property in West Virginia is to be assessed at 60 percent of its appraised (market) value although almost all counties fall short of this standard. The three cent tax on a home of $60,000 appraised valuation would amount to $108. ($60,000 x 0.60 x 0.003)64-67-4.2
[30] 64-67-4.2

by that per-capita amount.[31] For combined county or county/city LBHs, the combined population is used for the allocation.

By mutual agreement, although it is not in law or regulation, each LBH currently receives at least $50,000. If its population is greater than 50,000 it receives a distribution based on its population. No LBH receives less than what it received in 2005. The $12.5 million distributed averages 30 percent of the total anticipated revenues for LBHs.

It is worth noting, "All state funds appropriated by the Legislature for the benefit of local boards of health shall be used for the provision of basic public health services."[32] It is not clear to which definition of "basic health services" this has reference. As defined in Article 2, basic health services are limited to "communicable and reportable disease prevention and control, community health promotion and environmental health protection."[33] Would it allow a more expanded application to cover "essential public health services" as defined in Article 1?[34]

The State also provides a variety of specific grants to the LBHs. Some of these are "pass through" of federal funding that the State receives for programs and services provided by the LBHs.[35] Others are categorical grants for specific services for which the State wants additional emphasis. Additional grants are competitive and are distributed on the merit of applications.

State Public Health System

There is a financial crisis in West Virginia Public Health at both the State and local level. The focus of this report is funding local public health. The report recommends increased funding for local public health. There also is a need for increasing the funding for public health activities at the state level.

The Department of Health and Human Resources, Bureau for Public Health has many state level public health responsibilities some of which include support to the LBHs. Support activities for the LBHs include laboratory services, regional epidemiology specialists, and categorical program support. For this current year, 23.34 FTEs (full time equivalents) from the Bureau were allocated to the LBH related activities. The salaries alone for these individuals totaled $1,129,417 that is four percent of the total Bureau for Public Health personal services budget. Without these support services, the LBH would not have a readily available resource and they would have to provide for themselves. This would be inconsistent with the economies of scale that are associated with the provision of these services by the State.

In addition to serving as a resource and in a support capacity, the Bureau serves in a performance monitoring capacity for the public health system. With the recommendation for significant additional funding to LBHs is an increase in the responsibility for the Bureau to provide monitoring and performance evaluation activities. Increased funding for the Bureau is necessary

[31] 64-67-4.3.1 and 4.3.2
[32] 16-2-11(c)
[33] 16-2-2(a)
[34] 16-1-2(h)
[35] 16-1-12(a)

to effectively manage the additional dollars provided to LBHs, monitor LBH performance, provide much needed expertise and technical assistance, and assures accreditation and certification requirements are adopted and enforced.

Without the services provided by the DHHR, the LHDs would have to provide them for themselves. This would be inconsistent with the economies of scale, which are associated with the provision of these services by the State. This would increase the overall costs of providing local health services if the LBH were to assume them. While not covered in this report, the need for additional State funding of services provided to LBHs is apparent if LBHs are to expand their services. Adoption of the proposed formula in no way reduces the need for State services to continue and possibly expand.

Implications for State Aid in West Virginia

There are substantial variations in funding among local boards of health throughout the state. A review of the chart below reveals some interesting insights.

- The budget per capita for the highest funded LBH is 13 times greater than the least funded LBH.
- On average, the LBHs with the five smallest population bases are funded at a 35 percent greater rate than the LBHs with the five largest population bases.
- The five LBHs with the lowest per capita budget have the highest percentage of the population below the federal poverty level. From an economic perspective, this makes sense since there is less local support from less economically fortunate counties, but from a public health perspective, it suggests that the least money is distributed where there is the greatest need.
- Population density does not appear to be a factor considered when determining budget allocation. Monongalia County's population density is ten times greater than Gilmer County while Gilmer County's per capita budget is 59 percent of Monongalia's. However, Cabell County's population density is 30 times greater than Pendleton County but its per capita budget is 35 percent less.

There are reasons which explain at some of these variations. Some counties provide "home health" services for which they are reimbursed while others do not extend this service since it is available from private providers. Other LBH administer the WIC program for their county which brings in significant outside funding. Clinic offerings differ among the LBHs. This difference in functions provided is a possible explanation for the differences. These differences support the need for flexibility in structuring LBHs to meet local needs and situations.

Table 2-1: Budget Variations among Local Boards of Health in West Virginia

		Total LBH Budget Per Capita	Population	Population Density	Total Area	2004 % Below Fed. Poverty Line	2005 Per Capita Income
	West Virginia	**$ 23.19**	**1,808,344**	**75.1**	**24,230**	**16.2%**	**$26,419**
	Top 5 Per Capita						
1	Clay County	$ 135.95	10,330	30.2	344	22.4%	$16,560
2	Barbour County	$ 77.39	15,557	45.7	343	19.0%	$20,719
3	Doddridge County	$ 66.45	7,403	23.1	320	17.6%	$19,401
4	Grant County	$ 64.45	11,299	23.7	480	14.1%	$24,781
5	Taylor County	$ 56.50	16,089	93.1	176	16.7%	$21,068
	Bottom 5 Per Capita						
45	Upshur County	$ 12.29	23,404	66	355	18.6%	$21,718
46	McDowell County	$ 12.27	27,329	51.1	535	33.0%	$17,964
47	Logan County	$ 11.83	37,710	83	456	20.4%	$25,038
48	Wyoming County	$ 11.43	25,708	51.3	502	22.3%	$21,607
49	Fayette County	$ 10.25	47,579	71.7	668	20.5%	$22,584

Note: Poverty Data from the US Census Bureau, Small Area Income and Poverty Estimates (SAIPE) and Per Capita Income Data from the Bureau of Economic Analysis, Regional Economic Information System (REIS)

		Total LBH Budget Per Capita	Population	Population Density	Total Area	2004 % Below Fed. Poverty Line	2005 Per Capita Income
	West Virginia	**$ 23.19**	**1,808,344**	**75.1**	**24,230**	**16.2%**	**$26,419**
	5 Largest Populations						
1	Kanawha County	$ 16.29	200,073	221.5	911	14.5%	$34,361
2	Cabell County	$ 24.15	96,784	343.7	288	18.4%	$28,088
3	Wood County (MOV)	$ 24.32	87,986	239.6	377	13.8%	$27,714
4	Monongalia County	$ 51.79	81,866	226.7	366	15.7%	$29,742
5	Raleigh County	$ 15.80	79,220	130.5	609	17.8%	$26,980
	5 Smallest Populations						
51	Pocahontas County	$ 20.80	9,131	9.7	942	15.8%	$14,384
52	Pendleton County	$ 37.17	8,196	11.7	698	12.1%	$15,805
53	Doddridge County	$ 66.45	7,403	23.1	320	17.6%	$13,507
54	Tucker County	$ 23.79	7,321	17.5	421	16.7%	$16,349
55	Gilmer County	$ 30.45	7,160	21.1	340	19.7%	$12,498

Note: Poverty Data from the US Census Bureau, Small Area Income and Poverty Estimates (SAIPE) and Per Capita Income Data from the Bureau of Economic Analysis, Regional Economic Information System (REIS)

The discussion above provides some guidance regarding how state aid to LBH's in West Virginia should be distributed. The first and most important step is to determine what the purpose of state support is to be. The more complex the distribution formula, the more difficult it becomes either to understand or to administer. The goal should be to find the simplest method that meets the goal. There are several possibilities that may be complimentary or conflicting.

Equalization of Service Provision

For this objective to be achieved, two steps must be taken:

- The level of need in each jurisdiction must be identified. The NACCHO standards[36] could be used as a "checklist" or other indices of need derived from the prevalence of pathologies or the social/economic characteristics of the local area (See comments in "Measures of Need" section above).
- The fiscal ability of the area to support the meeting of the needs as determined in the first step must be ascertained. There is a difference between ability and willingness. As noted in the previous section, West Virginia County Commissions have the authority to levy local property taxes to support its LBH. Most do not have such a levy in place. Special or excess levies can also be used, but few counties have made this commitment. For that reason, some states (and many federal programs) require a minimum effort or match to receive the funds.

The state has shown a willingness to require such a local effort in the support of county school districts and then equalize resources based on a seven step formula which is designed to measure need.[37] Questions have been raised about the ability of the Public School Support Program (PSSP) to accurately measure needs and resources. In addition, it is sufficiently complex that it lacks transparency.

In the case of education support for pre-K-12 in West Virginia, local school districts find State salary schedules and other restrictions on what must be paid and on what functions will be supported. This has led to West Virginia having the most centralized school system in the nation next to Hawaii, which has no local schools. This centralization in turn has led to a lack of local autonomy. Loss of local independence may be resisted in West Virginia for public health services.

Delivery of Certain Services

The state may have a strong interest in the provision of certain services. The State would then provide funding to support those services either in whole or in part. If match is required, there is always the danger of a "substitution effect." The LBH may reduce its spending on other public

[36] NACCHO. (November 2005) *Operational definition of a functional local health department,* National Association of County and City Health Departments. Washington DC.
[37] WVC 18-9A-4 and 18-9A-5a. For an explanation see WV Department of Education, *State of West Virginia executive summary of the pubic school support programs for the 2006-2007 year.*

health functions to procure matching funds. A study of federal grants to states did not unearth any evidence of this effect,[38] but others support the possibility particularly during times of tight revenue.[39]

In addition, there is the distinct possibility that if the state government's concern for a local service loses its support, the funding may be withdrawn or reduced. If there is still local support for a program, this creates a dilemma for local governments. There is evidence that during times of tight state budgets, local public health support is among the first item to be cut.[40]

The use of specific grants also reduces local autonomy.[41] There is a tendency for legislators to prefer specific service grants because they receive more political capital than with general support. General support tends to give the credit to local officials, while specific support provides the same credit to state officials.

Basic Support Grants

For any governmental function there is a basic level of financial support which must be available if the service is to be provided at any level of sufficiency. For local public health services in West Virginia, this would mean determining what minimum staffing and other support must be available.

Using this approach can be handled in one of two ways, both of which involve a determination of costs.

- The costing can be resource based, such as what personnel, administrative expenses, materials and other inputs have to be covered. For example, it may be determined that for a LBH, an office must have at least a director, administrative assistant, nurse and sanitarian. The compensation paid for these individuals would be added to an estimate of the administrative and other expenses. The number of providers might be increased by some measure of need. The state would then provide funding to cover this basic resource cost.
- The costing can be service based, i.e. what expenditures are necessary to provide the minimum level of services which each local district must provide. This method is more complex than the resource based approach but more clearly provides for greater adequacy and quality. This approach suggests a needs-based formula as described above. The most efficient method to make such a determination is to base it on interventions, recognizing that costs of interventions vary based on social/economic/geographic variables among the counties. The identification of basic public health services by the state contributes significantly to this alternative. However, further specificity must be developed to accommodate variations in health, economic and geophysical characteristics.

[38] Bernet, op.cit.
[39] Brunori, 101-102.
[40] Sokolow, A.D. (1998) "The changing property tax and state and local relations," *Publius* 28(1). 165-187. See also NASBO (2005) *2002-2003 State Health Expenditure Report*, National Association of State Budget Officers for the Milbank Memorial Fund, New York: NY.
[41] Brunori, op.cit.

Cost Reimbursement

Under this approach, the state would reimburse the LBH for its costs in delivery of a service. The reimbursement would be restricted to specific functions and would require proof that the intervention was actually performed. This approach should have little appeal for West Virginia as LBHs have only limited capacity to provide upfront coverage and wait for state reimbursement, particularly if state payments required an audit prior to payment.

Characteristics of West Virginia LBHs

LBHs in West Virginia play a significant role in providing basic health services to the stakeholders. At the same time, there is a great degree of discontent among the various LBHs regarding how the funds are distributed to different agencies. West Virginia counties vary based on socio-demographic and geographic characteristics, which also play a role in the appropriate delivery of services by the LBHs. For that reason, incorporation of a simple per capita based funding formula will not be in the best interest of the State.

West Virginia has 49 Local Boards of Health that are responsible for counties with a wide range of populations. This table divides the number of responses from LBHs by population served. The LBHs responsible for populations between 100,000 and 249,999 receive less funding per person, $19.93, than any other group, and is funded below the WV state average of $23.19 funding per person. LBHs responsible for populations under 25,000 receive the highest per person average, $34.34, of all the groups. The LBHs responsible for populations between 25,000 and 49,999 provided the largest number of responses (36) and the cohort responsible for the largest percent of WV's total population (35.7%). Over half (39) of West Virginia LBH's serve counties with populations of up to 49,999. This accounts for 50% of the state's total population.

Table 2-2: Summary of WV LBH Statistics with Totals

Group	# of LBHs	Responses	Population	LBH Budget	Avg. Per Person
LBH County with 100,000 to 249,999	2	6	334,817	$ 6,672,891	$ 19.93
LBH County with 50,000 to 99,999	8	24	573,594	$ 12,785,617	$ 22.29
LBH County with 25,000 to 49,999	20	36	645,198	$ 13,731,824	$ 21.28
LBH County with < 25,000	19	32	254,735	$ 8,748,045	$ 34.34
Total	**49**	**98**	**1,808,344**	**$ 41,938,377**	**$ 23.19**

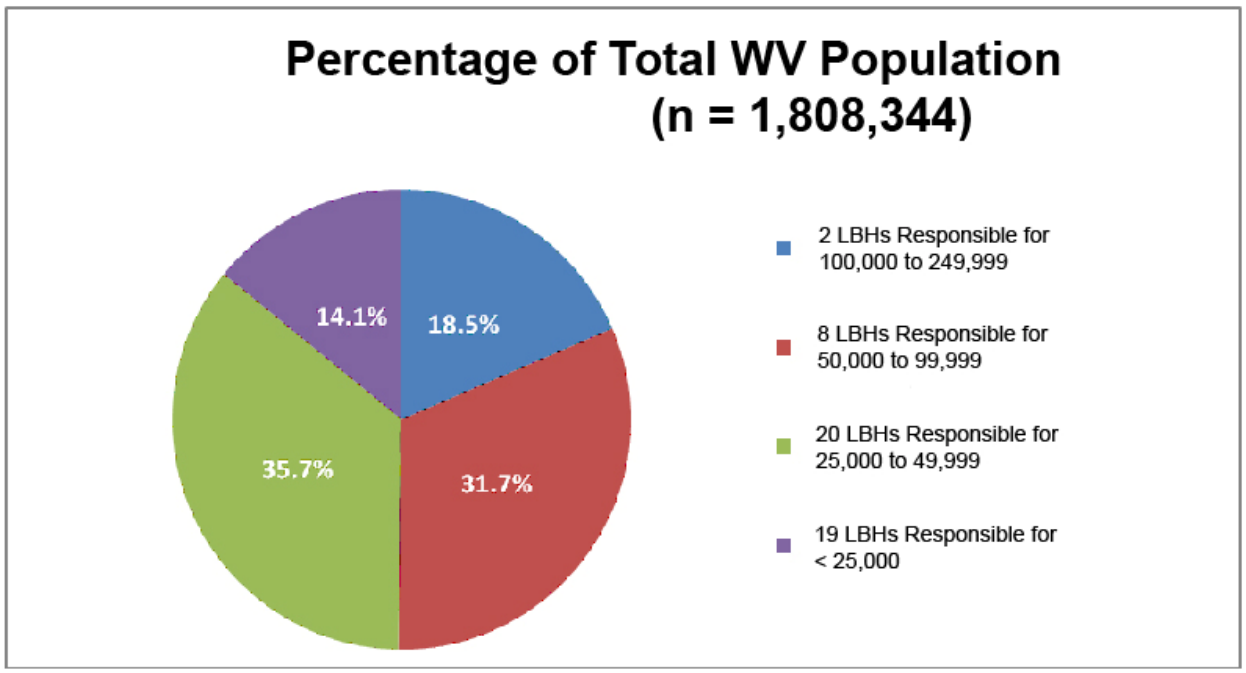
Table 2-3: Summary of WV LBH Statistics in Percentages

Group	# of LBHs	Responses	Population	LBH Budget

2 LBHs Responsible for 100,000 to 249,999	4.1%	6.1%	18.5%	15.9%
8 LBHs Responsible for 50,000 to 99,999	16.3%	24.5%	31.7%	30.5%
20 LBHs Responsible for 25,000 to 49,999	40.8%	36.7%	35.7%	32.7%
19 LBHs Responsible for < 25,000	38.8%	32.7%	14.1%	20.9%

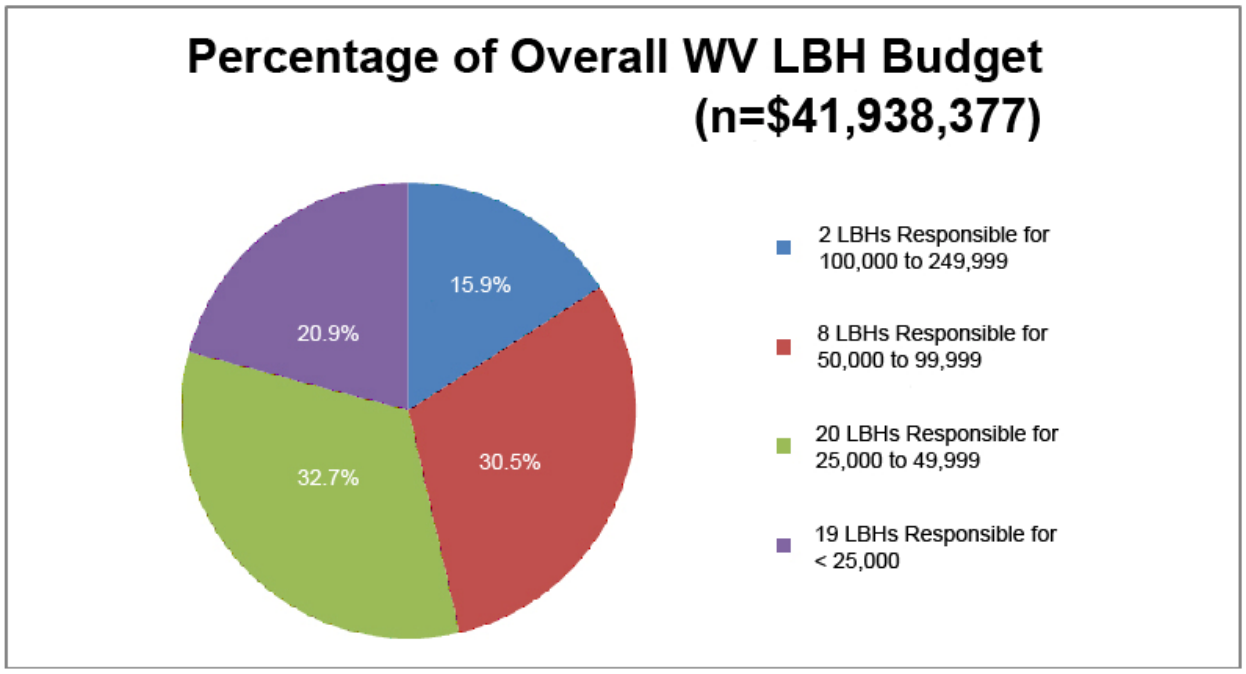
The two largest LBHs in WV are responsible for a total of 18.5 percent of the population. The 19 smallest LBHs in WV are responsible for a total of 14.1 percent of the population's public health.

Figure 2-1: 2000 Census for West Virginia



Although the two largest LBHs in West Virginia are responsible for a greater number of citizens than the 19 smallest LBHs (18.5% versus 14.1%), the largest group receives less funding than the smallest group (15.9% versus 20.9%). Obviously, there are many factors that may contribute to this outcome (e.g., geographic differences, additional funding sources, economies of scale), some of which are unavoidable; however, further analysis is suggested.

Figure 2-2: 2007 Projected WV LBH Budget



Threat Preparedness Regions

The LBHs have been placed into eight "Threat Preparedness Regions" (TPR) according to federal guidelines. These were formed as to take advantage of federal funding to ensure these areas could effectively plan for crises including bio-terrorism. These funds do not provide support for interventions. It should not be assumed that these TPRs are appropriate groupings for the delivery of basic health services in West Virginia.

Figure 2-3 – WV Threat Preparedness Regions (Provided by Bureau of Public Health)

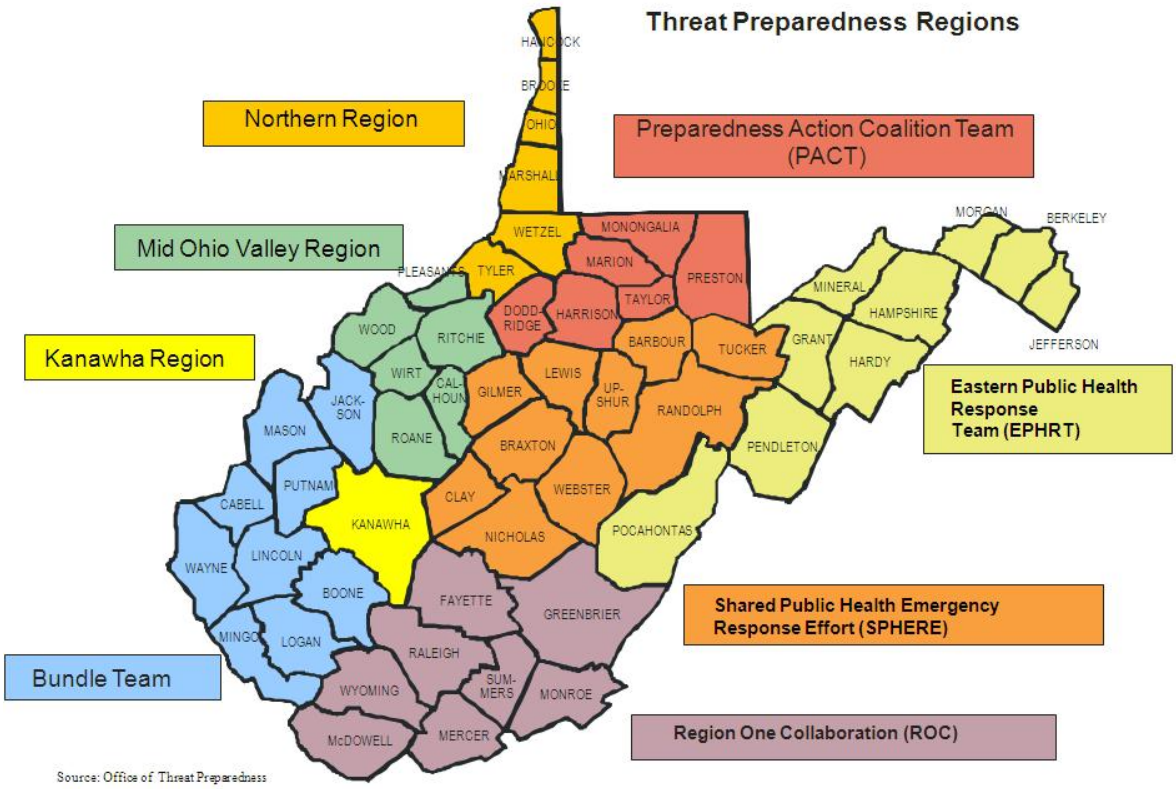


Table 2-4 outlines the eight Threat Preparedness Regions in West Virginia and a summary of information that are important factors of future funding decisions. The regions with smaller populations have higher per person funding than the regions with larger populations. The Region One Collaboration (ROC) region receives the least per capita, $14.10, and the Shared Public Health emergency Response Effort (SPHERE) region receives the greatest per capita funding of $43.72, more than 300 percent of what the ROC receives. There is a distinct variation in funding between the northern and southern regions of the state.

Table 2-4: Threat Preparedness Regions with Summary Statistics

Group	# of LBHs	Responses	Population	LBH Budget	Avg. Per Person
Bundle Team	9	29	358,839	$7,360,237	$20.51
EPHRT	9	10	235,762	$4,695,249	$19.92
Kanawha Region	1	4	200,073	$3,258,875	$16.29
Mid Ohio Valley Region	1	2	134,744	$3,414,016	$25.34
Northern Region	5	4	170,286	$4,663,227	$27.38
PACT	6	17	243,853	$7,256,915	$29.76
ROC	8	12	304,851	$4,296,875	$14.10
SPHERE	10	20	159,936	$6,992,983	$43.72
Total	**49**	**98**	**1,808,344**	**$41,938,377**	**$23.19**

Figure 2-4 – TP Region Population Comparison

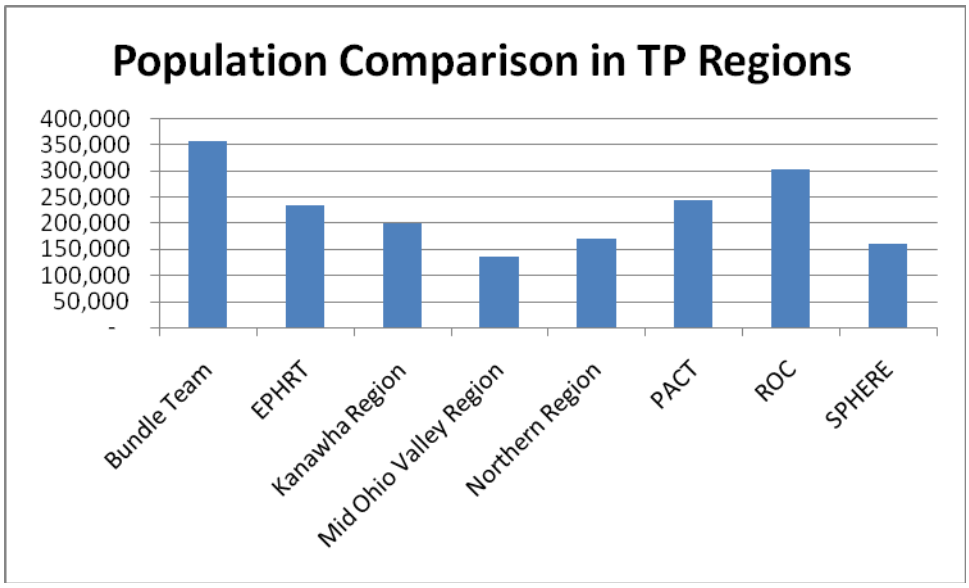
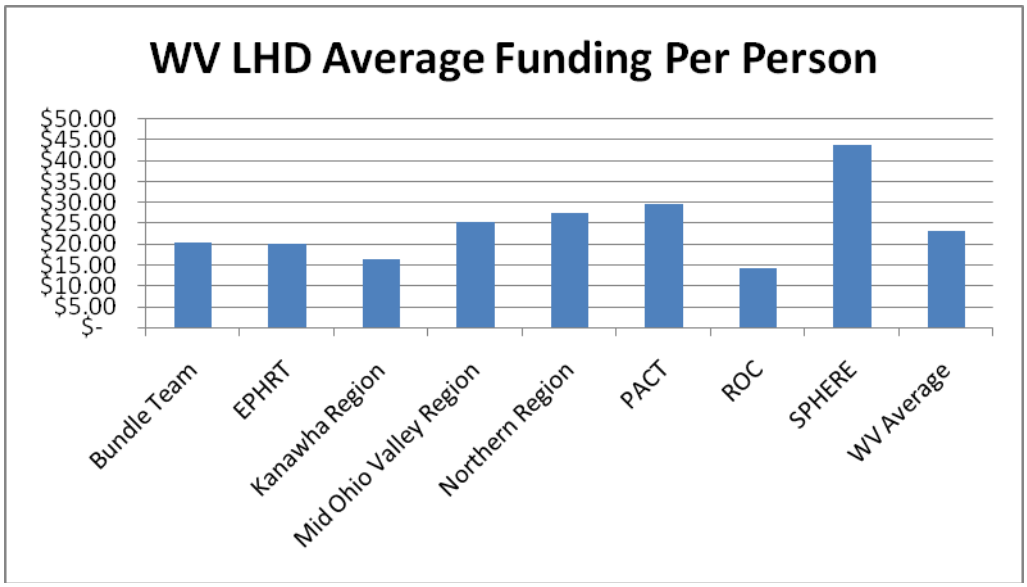


Figure 2-5 – TP Regional Funding



This report does not conclude that the delivery of local public health services be accomplished using the TPRs. While there are potential economies of scale in the regionalization of some public health services, this report does not make any recommendations nor has it investigated the subject. There are many factors to be considered before any attempt to regionalize is legislated and these require a separate investigation. The proposed formula does provide an incentive to consolidate or regionalize, but that is not mandated and left to the LBHs.

CHAPTER 3

State Public Health Systems - Structure and Fiscal Management

While Public Health Systems are usually classified as "centralized systems," "decentralized systems" or "mixed/shared systems," pragmatically they can be viewed as a dot on a continuum with a range from "centralized" to "decentralized". Each system tends to occupy a space that is either centrist or leans toward one of the extremes. As is true for all systems, the decision to centralize or decentralize is driven by the objectives of the system and assumptions concerning efficiency and effectiveness.

There is no one structure that objectively produces the most positive outcomes. If there were, all other options would be eliminated. In general, a centralized system reduces variability in decision-making, promotes economies of scale and enhances a unified focus. A decentralized system, on the other hand, promotes local decision making that is relevant to local markets, maximizes local participation and accelerates the decision making process. Ideally, a mixed system produces the advantages of both centralization and decentralization. In reality, any structure is only as good as its ability to accomplish an organization's goals and objectives effectively and efficiently.

As demonstrated in Table 3-1, approximately 50 percent of the state public health systems are classified as "decentralized systems" with 25 percent being "centralized" and the remaining 25 percent "mixed/shared." While decentralized systems are most common, there certainly is not an overwhelming mandate for any one type of structure. There are also significant variations in characteristics among systems structured in a similar fashion. For example, Alabama, Colorado and West Virginia are all classified as "mixed/shared" systems; however, in Alabama the percent of budget that is administered by the state ranges between 76 and 100 percent, in Colorado it falls to 51-75 percent, and in West Virginia it is 26-50 percent.

If the power of conditional spending has any meaning, one might speculate that "he who holds the purse strings makes the decisions." Therefore, one would assume that, although each state is classified as a "mixed/shared" structure, there is a significant difference between state-level influence in Alabama and state-level influence in West Virginia with Colorado falling in the middle.

While it appears that states with larger populations tend to have decentralized public health structures, decentralization is not a characteristic common to only large states. New York, California and Texas have decentralized structures but so do South Dakota, Maine and Idaho. Perhaps the inconsistency in structure is best demonstrated by a comparison of North Dakota and South Dakota – centralized versus decentralized. Once again, structural decisions appear to be related to individual state assumptions and not broad based characteristics common to categories of states.

Table 3-1: States

STATES	DHHS Region (U.S. Census)	Organizational Relationship State/Local	Local Control & Local Spending	Distribution of Public Health Responsibilities State/Local	% of Local Budget Administered by State
Alabama	South	Shared	Low control & spending	Hybrid	76–100
Alaska	West	n/a	Shared	Hybrid	51–75
Arizona	West	Shared		Bottom-up	51–75
Arkansas	South	Centralized		Top-down	76–100
California	West	Decentralized	High control/ low spending	Hybrid	n/a
Colorado	West	Shared	Low control/ high spending	Bottom-up	51–75
Connecticut	Northeast	Centralized		Bottom-up	0–25
Delaware	South	n/a			76–100
Florida	South	Centralized	Low control & spending	Top-down	76–100
Georgia	South	Shared		Hybrid	26–50
Hawaii	West	Centralized			Unknown
Idaho	West	Decentralized		Bottom-up	n/a
Illinois	Midwest	Decentralized		Hybrid	26–50
Indiana	Midwest	Shared		Bottom-up	0-25
Iowa	Midwest	Decentralized		Bottom-up	26–50
Kansas	Midwest	Decentralized		Hybrid	n/a
Kentucky	South	Shared		Hybrid	51–75
Louisiana	South	Centralized		Top-down	76–100
Maine	Northeast	Decentralized		Bottom-up	n/a
Maryland	South	Centralized		Hybrid	51–75
Massachusetts	Northeast	Decentralized	Low control/ high spending	Hybrid	n/a
Michigan	Midwest	Shared	High control/ low spending	Hybrid	Unknown
Minnesota	Midwest	Centralized	High control/ low spending	Hybrid	0–25
Mississippi	South	Centralized		Top-down	76–100
Missouri	Midwest	Shared		Bottom-up	0–25
Montana	West	Centralized		Bottom-up	Unknown
Nebraska	Midwest	Decentralized		Bottom-up	26–50
Nevada	West	Centralized		Bottom-up	n/a
New Hampshire	Northeast	Decentralized		Hybrid	0–25
New Jersey	Northeast	Shared	Low control/ high spending	Bottom-up	0–25
New Mexico	West	Centralized		Top-down	76–100
New York	Northeast	Decentralized	High control/ low spending	Hybrid	51–75
North Carolina	South	Decentralized		Hybrid	0–25
North Dakota	Midwest	Centralized		Bottom-up	0–25
Ohio	Midwest	Decentralized		Hybrid	0–25
Oklahoma	South	Shared		Hybrid	51–75
Oregon	West	Decentralized		Bottom-up	0–25
Pennsylvania	Northeast	Shared		Hybrid	26–50
Rhode Island	Northeast	n/a			n/a
South Carolina	South	Centralized		Top-down	76–100
South Dakota	Midwest	Decentralized		Hybrid	76–100
Tennessee	South	Centralized		Hybrid	76–100
Texas	South	Decentralized	High control/ high spending	Hybrid	51–75
Utah	West	Decentralized		Bottom-up	26–50
Vermont	Northeast	n/a			n/a
Virginia	South	Centralized		Top-down	76–100
Washington	West	Decentralized	Low control/ high spending	Bottom-up	51–75
West Virginia	South	Shared		Hybrid	26–50
Wisconsin	Midwest	Shared	High control/ high spending	Bottom-up	0–25

Source: State Funding Formulas for Local Public Health: A Look Back at the Literature
University of Pittsburgh Center for Public Health Practice
http://www.cphp.pitt.edu/events/StateFundLocalPH.ppt

CHAPTER 4

Funding Public Health and the State of West Virginia

Overview

The funding for Public Health in the United States has traditionally been weak relative to the funding for medical interventions. Preventive health care more than pays for itself in terms of reduced illness, disability, improved productivity and cost to both private insurance and to the government. The typical public health budget for an entire state often is less than the budget for a single tertiary hospital.

In West Virginia close to 60 percent of the budgets for local boards of health are smaller than the cost of two organ transplants. Society tends to vigorously support activities that focus on individual medical interventions while minimizing support of preventive efforts. As so aptly put by The State of Washington's Secretary of Health, ". . . financing appears to be the bane of virtually all Public Health Systems. Funds are generated through a complex mix of federal, state and local funding and almost universally are insufficient to meet the health needs of society."[42]

Major funding agencies, such as the federal Center for Disease Control (CDC), historically have found public health less attractive than curative services. Although the CDC has increased its funding for public health from approximately $4 billion in 2000 to $8.4 billion in 2006, most of the increase was for terrorism preparedness rather than core public health functions. A review of CDC's appropriated funds indicates that 80% goes to states and private partners to support categorical health programs and services, but little is distributed for core public health services. Even high profile disease programs like HIV are seeing substantial decreases.[43]

About 95 percent of US health care spending goes to medical intervention and only about five percent goes to preventive care. However, even a cursory review of the financial impact of preventable diseases and injuries suggest huge returns on investment for public health expenditures. The State of Washington estimates that 38,000 lives were saved and $1.4 billion in medical costs were averted between 2000 and 2006 due to its tobacco prevention and control program. The cost of this program was about $90 million.[44]

There are estimates of the costs of preventable diseases which could be saved by public health programs:[45]

- 430,000 deaths each year and $50 billion in medical costs associated with tobacco use in the United States
- $200 billion in medical expenses and lost productivity due to poor nutrition

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[42] Selecky, M.C. PHIP (December 2004. *Transforming Public Health in Challenging Times*, Washington State Department of Health, DOH Pub. 802-021.

[43] Levi, J., Juliano, C. and Richardson, M. (March/April 2007) "Financing public health: Diminished funding for core needs and state by state variations in support," *Journal of Public Health Management and Practice*, 13 (2), pp. 97-102.

[44] Selecky, op. cit., 2006.

[45] Center for Disease Control, (July 2005) *Preventing Chronic Diseases*, US Department of Health and Human Services, Washington, DC for information on benefits of public health and preventive medicine.

- between $50,000 and $100,000 in life time costs for HIV per individual
- $3 billion in hospitalizations and between $20-$40 billion in lost productivity for illness associated with microorganisms in food products

While behavior and environment may account for as much as 40 percent of the nation's health problems, state expenditures for public health to address these are relatively low. The per capita budget allocation for LBHs by the State of West Virginia in 2006 for Basic Public Health Services (BHS) was about $6.91, and total public health funding was between $63 and $91 per capita (depending on how one defines public health and the source of the definition). At the same time, Medicaid expenditures by the State were approximately $269 per capita with total Medicaid expenditures around $995 per capita. The difference in funding is close to 10 fold.[46]

It is difficult to determine the true amount of funds expended by states for public health because of wide variations in exactly what expenditures are included in the definition of "public health."[47] The per capita national average for expenditures[48] is approximately $35, yet the United Health Foundation sets a range among the 50 states between $60 and $500 per capita - a significant difference. West Virginia is ranked as low as 48th in per capita spending by some analysts and as high as 37th in per capita spending by others.[49]

Regardless of which ranking is correct, both suggest an unfavorable position for the State. However, a state's overall rank may not be indicative of its commitment to health issues but rather a reflection of its wealth. While West Virginia ranks in the lower quartile for public health expenditures per capita, it ranks in the top quartile for health spending as a percent of Gross State Product.[50] Apparently, West Virginia commits a significant amount of its budget to health care relative to other states, but the appropriation emphasizes curative rather than preventive interventions.

As stated previously, the most common estimates of per capita spending on public health for West Virginia ranges between $63 and $91. However, the direct flow of funds from the state budget to local boards of health is on average less than $10 per capita. This difference suggests two considerations:

- The financial responsibility for most public health expenditures in the State does not rest with the local boards of health. Local boards play a minor financial role in the delivery of the State's public health services.
- The State is highly dependent upon federal dollars to fund its public health services. As stated earlier, WV is ranked in the bottom quartile for public health expenditures but is

[46] www.statehealthfacts.kff.org last accessed May 22, 2007.
[47] Trust for America's Health, (2006). *Shortchanging America's health 2006: A state-by state look at how federal public health dollars are spent.* Washington: D.C.
[48] Levi et. al. op. cit.
[49] (http://www.unitedhealthfoundation.org/ahr2006).
[50] www.STATEMASTER.COM/graph/hea_tot_state_hea_car_spe_percap-state-care-spending-percapita.php and www.STATEMASTER.COM/GRAPH/HEA_TOT_STATE_SPE_pergpd-state-care-spending-per-gdp.php. Last accessed May 22, 2007.

ranked 13th in per capita CDC funding and 8th in Health Resources and Services Administration (HRSA) per capita funding.[51]

While this significant utilization of federal funds provides the State with the opportunity to allocate its budget to other needed programs and services, one might want to ask the question "what will happen to public health services if federal funds decline?" A synopsis of federal public health programs received in West Virginia and surrounding states is given in Appendix B.

Background on Formula Distributions

Formula allocation programs are not a recent development in public finance. The federal government has used various mathematical formulas to distribute nearly $250 billion in aid to the State's over 180 programs.[52] The National Research Council, in agreement with others,[53] found the following objectives to be served by using formula allocation.

- To distribute money in relationship to a measure of need
- To equalize fiscal capabilities among recipients to meet those needs
- To influence the spending decisions of recipients

These and other researchers also concluded there were distinct benefits to using formula allocation rather than using a political process to determine the amount each recipient would receive.[54]

- Since need and fiscal capacity were to be used, formulas allowed for a more informed debate
- Formulas created a higher degree of transparency by providing the data, computations and assumptions used in the formula process
- Using formulas provided an effective way for political decision makers to explain the distribution process to their constituencies

There are two basic approaches to formula distribution. Under the first, the granting agency has a set amount that is to be divided among the various recipients by use of the formula. The second approach has an open-ended allocation based on the needs of the recipients as determined by the formula. The formula is used to determine the amount that is to go to the program.[55]

[51] http://www.unitedhealthfoundation.org/ahr2006.

[52] Louis, T.A., Jabine, T.B. and Gerstein, M.A. Eds. (2003). *Statistical issues in allocating funds by formula.* Panel on Formula Allocations. National Research Council Committee on National Statistics, Division of Behavioral Science and Education. Washington DC: The National Academies Press. 5.

[53] Downes, T.A., and Pogue, T. F. (2002). "How best to hand out money: Issues in the design and structure of intergovernmental aid formulas," *Journal of Official Statistics*, 18:3, 329-333, Bernet, P.M (August 18, 2006). "Introduction to public health funding formulas." Presented to Georgia Department of Human Resources, Division of Public Health.

[54] Czajka, J.L., and Jabine, T.B. (2002). "Using survey data to allocate federal funds for the state children's health insurance program (SCHIP)" *Journal of Official Statistics*, 18:3. 409-410.

[55] This is the approach used in the federal Medicaid program and in the West Virginia Public Support for Schools Program (PSSP).

In some instances, formulas are used to equalize fiscal capacity of the recipients to allow for a more uniform distribution of financial ability.[56] Often these are for general purposes, as was the case for the federal block grant and revenue sharing programs of the 1970s and 1980s. This approach is used in Canada to assure more uniform public health services among the provinces.[57]

For formula allocation to be successful, there are four inputs that should be included:[58]

Measures of Need

While there are several indications of need that can be and are used in formula allocation, if the goal is to provide at least a minimum level of services, the need should be measured by:

- The number of people eligible for the service or the number of services (such as inspections) that are to be provided
- The cost of providing these services

The population of the provider's area is not an appropriate proxy for determining need.[59] Instances requiring intervention will vary among populations. While there may be a small incidence of low weight babies in one area, there may be a much higher incidence in another area of similar population. Determining need for a specific area requires a determination of the various interventions that are required in the area.

Need suggests some evaluation of disease prevalence within a defined population. Therefore, local participation in the development of a measurement tool for need is critical to its successful implementation. Evaluators should identify a sufficient number of health status indicators (percentage of population with asthma, diabetes, obesity, hypertension, etc.) that allows for variations among populations, but is not so comprehensive that a calculation of "need" becomes an undue burden.

It must also be recognized that political boundaries do not necessarily define the incidence of interventions that will be furnished.[60] People seeking services will go to the provider that is most convenient, where the intervention is provided, or where the quality of the intervention is highest with little concern for crossing political boundaries. Unless the provider is required to turn away those who live outside the jurisdiction, this fluidity renders use of political boundaries to define need as inaccurate.[61]

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[56] Buehler, J. W. and Holtgrave, D.R., (March/April 2007) "Who gets how much: Funding formulas in federal public health programs," *Journal of Public Health Management and Practice,* 13(2) 151-155 discusses formulas used in four federal programs and finds that these generally do not take into consideration fiscal need of the recipient.

[57] National Research Council, pp 79-90, Moloughney, B.W. (2006) *The renewal of public health in Nova Scotia: Building a public health system to meet the needs of Nova Scotians.* New Brunswick: Province of Nova Scotia.

[58] National Research Council, pp 35-50 provides a more in depth discussion of these issues and provides numerous examples from formulas used at the federal level.

[59] Honore, P.A. et.al, (2004). Practices in public health finance: An investigation of jurisdiction funding patterns and performance" *Journal of Health Management Practice,* 10:3, 448.

[60] Downes and Pogue, op.cit.

[61] This issue is discussed in Hutchinson, A.J. and Strumf, P. (March 2001). *Decentralization and public provision of public goods: The public health sector in Uganda.* Working Paper 0135, Carolina Population Center, UNC Chapel Hill.

What must be measured are the actual and/or potential interventions which are going to be, or should be, accomplished by the provider regardless of location of the provider. This becomes a political problem as governing bodies are resistant to providing services to those who are not contributors to their budgets.[62] This builds a case of a larger jurisdiction to provide at least a portion of the expense associated with the service provision.

One study of six local public health systems supported by state governments found six different ways in which LBHs were supplied with state money:[63]

- Per-capita funding
- Activity specific grants
- Negotiated contracts for local services
- Reimbursement of allowable expenditures
- Funding of local agencies which are part of a state agency
- Formulas using variables of health status and/or financial resources of local population

Some states combine one or more of the above. One conclusion reached is that as state support increases as a proportion of LBH spending, so does state control and oversight.

While it may be possible to convince state authorities to pay for services rendered to their citizens who cross county boundaries, it is extremely difficult to convince legislatures in other states to pay for those who cross state boundaries. The implication of this is that some basic support should be provided at the national level, as is the case for many federal grant-in-aid programs.

Making an accurate determination of the number of cross border interventions will require that the local jurisdictions maintain sufficient documentation to locate the residence or location of the individual who seeks the intervention. This is relatively easy for fixed assets such as buildings and treatment plants, but more difficult when individuals are involved. It also increases the workload of the staff that provides the intervention.

Cost of Service Provision

Block grants that do not consider costs are not effective in equalizing service provision. For each indicator of need, a cost must be attached and those costs included in the formula.[64] Costs must include both fixed and variable costs. A jurisdiction will need to have a nurse or other provider available to administer injections no matter the number of injections to be given. The fixed cost of the nurse must be allocated among those who actually receive injections. Basing costs entirely on the cost of the vaccine (variable cost) will seriously underestimate the cost that needs to be reimbursed under the formula.

There are also variations in geographical costs. Less densely populated areas are at a significant disadvantage as distances traveled to provide services are greater than those where interventions

[62] Brunori, D. (2003). *Local Tax Policy,* Urban Institute Press: Washington DC. 101.
[63] Potter, M.A., and Fitzpatrick, T. (March/April 2007). "State funding for local public health: Observations from six case studies." *Journal of Public Health Management and Practice,* 13(2) 163-168.
[64] Hadley, C.L, Feldman, L. and Toomey, K.E. (2004). "Local public health cost study in Georgia." *Journal of Health Management and Practice,* 10:5, 400-405 provides a discussion of the approach used in Georgia.

are more concentrated. These distances reduce productivity and increase per unit costs. Providing equal support for similar services also does not accurately reflect costs among various providers.

Compensation also varies for similar work depending on location. Jurisdictions that border other jurisdictions (usually in other states) that pay higher salaries find difficulty in recruiting. As the differential grows, so does the difficulty. Estimating cost of living differentials is more art than science. While the federal government does so for Metropolitan Statistical Areas (MSAs), there are no reliable estimates for other regions. Even these estimates are of little value as they usually cover a city, surrounding counties and often transcend state boundaries.

Fiscal Capacity

Formula allocation should also include some measure of the ability of the jurisdiction to support the interventions. Per capita personal income is the most frequently used indicator, but there are others that are probably more valid when applied to public health. Per capita income does not measure income distribution. Jurisdictions with nearly equal per capita incomes may have dramatically different income distributions. Since there appears to be a close relationship between the existence of poverty and the resources for public health services, indicators of poverty may be better indicators for public health work.[65] For example, fiscal capacity may be measured by determining the percentage of the population below the federal poverty level (FPL). In West Virginia, dividing capacity into three levels – (1) 0-15 percent below the FPL, (2) 16-25 percent below the FPL, (3) 26-40 percent below the FPL – would provide a bell shaped curve for this assessment.

Fiscal capacity is based exclusively on the allowable taxes to be used by a jurisdiction as well as the availability of other sources of guaranteed income. Some federal public health grants use Total Taxable Resources (TTR) as the appropriate measure. Authorities have advocated using a Representative Tax System (RTS) as a more inclusive measure of fiscal capacity, but it is difficult to calculate on a local basis.

Often fiscal capacity is constrained by tax limitations. In West Virginia, the only tax available to most counties for public health purposes is the one levied on property. The State Constitution provides limits on the levies that cities and counties can make.[66] Those levies must provide all services, and additional property taxes can only be enacted by special levies that must achieve 60 percent voter approval.

Effort

A final component to be used in formula allocation is effort. This constitutes state or local revenues raised to support a given service. Most federal programs require a match to draw down the money. Often the match is varied depending on how fiscal capacity is defined. Of the four components, effort is the easiest to determine, as it is a specific allocation in a budget.

[65] Hofrichter, R. ed. (2006). *Tackling Health Inequalities through Public Health Practice: A Handbook for Action. NACCHO:* Washington, D.C.
[66] West Virginia Constitution, X-7.

Match is viewed as an indicator of the jurisdiction's commitment to the program. If the recipient government does not value the service highly enough to provide the match, there is no justification for funding the program solely from the grantor government. Nevertheless, the ability to match often is constrained by the fiscal limitations placed upon the receiving jurisdiction.

In West Virginia, the willingness of county and city governments to support public health varies widely with a range from $0 to $920,000. It is not clear if more local effort would be encouraged were match for receipt of state funds required. Being constrained, additional spending on public health would have to come from diversions and reductions from other programs. This could lead to a distortion of budgets, although there is little evidence to support that outcome.

When designing a distribution formula, certain features are sometimes included. These are put in the formula for different reasons, usually political.[67] There are instances where these result in resources not corresponding to needs.

Thresholds

Using thresholds involves requiring a recipient jurisdiction to meet some criteria of eligibility prior to receiving the grant. These often involve some measure of need such as a certain number of people who have a given characteristic or a percentage of the jurisdiction's population that meet criteria like percent in poverty. Critics of thresholds contend that jurisdictions may "game" the data to meet the criteria.

This is particularly true if the jurisdiction is very close to meeting the criteria. For example, if the LBH falls a single child short, it will lose eligibility; there is pressure to find one more qualified participant. The problem is exacerbated if the measurement is based on estimates that may contain routine sampling errors. When thresholds are based on outdated measures, such as use of the 2000 census for 2007 distributions, thresholds become less justifiable.[68]

Frequently, thresholds involve organization capacity rather than community criteria. For instance, in order to qualify for funding a local health department must employ at least 10 FTE's. This criterion motivates local boards of health to consolidate into larger units providing economies of scale in the delivery of local public health services. When establishing capacity thresholds, it needs to be recognized there are tradeoffs between economies of scale and local sensitivities.

[67] For a complete discussion of the role of politics in determining formula allocations see Melnick, D. (2002). "The legislative process and the use of indicators in formula allocations," *Journal of Official Statistics* 18:3, 353-359.
[68] Czajka, and Jabine, 410-411.

Limits

When upper or lower limits are established, the result is to depart from the allocation that would result if the formula was used exclusively. Federal grants often use percentage limits that restrict eligibility to those who fall between certain percentages of the national average, usually 80-120. Limits are also used in determining match where the granting government limits the percent of state expenditures that it will match.

Sometimes limits set minimum distributions. The federal highway program guarantees that each state receives at least 90.5 percent of the road use taxes collected in the state. Other programs assure that states will receive a certain minimum percentage of what is allocated no matter what the need or capacity.

Hold Harmless Provisions

In order to ensure no recipient loses money if any eligibility criteria change, many formulas include hold harmless provisions that provide that the amount received or a specified percentage of that amount will not change. These hold harmless provisions also protect jurisdictions from loss of funding if they no longer meet the disbursement criteria. At times, hold harmless provisions are only for a limited number of years or are phased out during a transition period.

Hold harmless provisions have the advantage of providing stability and assurance of funding for the recipient. However, they may neutralize, to a degree, the distribution based on need. Critics of these provisions point out that over time needs and capacities change and hold harmless provisions reduce the ability of the grant program to respond to those changes. This is particularly true when the hold harmless provisions take a significant portion of the total amount to be distributed.[69]

Caps

Allocation caps limit the total amount of money to be distributed under the formula. When caps are in place, the usual result is for recipient governments to receive only a portion of the funds for which they are eligible. Caps are usually established when the budget for the grant program is approved. Caps do not exist when a program is open-ended and the amount allocated is related directly to the need.

Penalties and Bonuses

Many formulas include penalties if a standard is not met by the recipient. For example, if a state fails to meet its target reduction in the number of out-of-wedlock births, or does not meet its work requirements, it can lose up to 25 percent of its federal funding for Temporary Assistance for Needy Families (TANF). The same program provides a bonus for states that exceed the goal of moving individuals from welfare to work. While these provisions do serve as incentives, they

[69] Zaslavsky, A. M. and Schrim, A. L .(2002) "Interactions between survey estimates and federal funding formulas," *Journal of Official Statistics*, 18:3, 374-375.

may penalize the sub-national governments least able to meet the goal and reward those most capable.

CHAPTER 5

State Formulas

Model Formulas

There are two approaches to allocation of public health funds. While these have many variants, one focuses on the cost of the workforce needed to deliver the basic services while the other uses geographic, social and economic indicators to determine need. Two examples are provided below.

Virginia

Virginia's Public Health Department must provide the following services:[70]

- Communicable disease control including immunizations, STD screening, HIV/AIDS testing/counseling, reportable communicable disease outbreaks, food born disease outbreaks, tuberculosis screening and education
- Child health including screening for genetic problems, dietary supplements, well childcare and community education
- Maternal health services including prenatal and post partum care for high risk women, baby care, WIC, and community education
- Family planning clinic services including drugs, contraceptive devices, pregnancy testing, counseling and community education
- Environmental health services including communicable diseases, rabies control and regulation of:
    - Ice-cream, frozen deserts and milk
    - Marinas, migrant labor camps, jails, juvenile correction facilities, sewage disposal
    - Water supply sanitation and wells
    - Restaurants and tourist establishments
    - Sewage treatment
- Quality health care including inspection of hospitals and nursing homes

These services are delivered through a system consisting of a state department of health, 35 health districts and 119 local health offices. All local governments must provide health services on its own as a health district or be part of a multidistrict health system. Except for a few larger cities and counties, most local governments are in a multiple district. Funds flow from the state to the health districts to be delivered by the local health offices.

State and local governments share the costs of community health programs. In the past, the state share was based on the "true value of locally taxable real property" which was used as a proxy for local funding capacity. Local governments in Virginia (unlike West Virginia) have a variety of taxes they can use (income, sales, franchise etc.). West Virginia local governments have the

[70] Joint Legislative Audit and Review Commission (JLARC), (January 6, 2000) *Review of the performance and management of the Virginia Department of Health,* Virginia General Assembly, House Document No. 59. 4.

property tax for counties and cities. Cities can levy special fees that can only be spent for the purpose the fee is levied.

The Virginia Department of Health (VDH) Funding Formula is "need- based" with two components. The first is staffing levels to deliver certain required services. This is accomplished by "staffing standards" which determine the amount of staffing needed per incident. For example, it was determined that for individual health care there should be 110 patients per worker. The second part of the VDH formula is the incidence of morbidity and mortality in each district. This was used to determine the amount of staffing each district would need to address its problems.

Funding requests are then based on the actual workloads of the local boards of health. State aid is distributed to the local districts based on the local district's ability to fund the required staffing. The percentage ranged from 18-45 percent. The state wanted to retain the majority funding responsibility and capped the required local effort. As the Joint Legislative Committee indicated, this cap led to a continuation of service disparities between the wealthier and poorer districts.

The State of Virginia has never fully funded the formula so the use of the updated local revenue capacity measure has not been fully implemented. The result is to increase the inequalities between suburban and urban/rural counties.[71] The inequality was further increased by hold harmless provisions that assured that no local district would see its share of state aid reduced.

If fully implemented, the Virginia system has been cited as a model for other jurisdictions to consider. There are three advantages claimed for this approach.

- Funding is based on actual workload in each local district to provide the basic health services
- Local governments would pay its share of the costs based on its ability to pay
- Local governments would be free to use its own funds to provide enhanced services independently of state funding

Utah

Utah has taken a different approach to formula allocation[72], which has elements that may recommend it to West Virginia. In that state, the allocation formula is under joint control of the Utah Association of Local Health Officers and the State Department of Health. The funds available are to be allocated to ensure that all Utah citizens receive basic health services. A hold harmless clause provides that no local district receives less than the previous year unless the state budget for health care services is reduced. Approximately eight percent of the allocated funds are used to hold local health districts harmless.

[71] Ibid, 66.
[72] Utah State Code 26A-1-116 and Utah Department of Public Health, R380-50-3 "Allocation Procedures."

The formula finds, "population is not the sole relevant fact in determining need"[73] and has adopted a formula which includes:

- District incentive factor which increases the allocation based on the number of local boards of health which have joined a multi-county local health department. This provision was adopted based on the finding of significant economies of scale in the delivery of the most basic health services. Slightly more than 25 percent (25.29) of the total state aid is allocated as follows:
    - 10.34 percent to two county districts
    - 13.79 percent to three county districts
    - 17.24 percent to four county districts
    - 20.69 percent to five county districts
    - 24.14 percent to six county districts
    - 13.8 percent to single county districts

  As a result, there are 12 health districts, six of which are single-county and six multi-counties with 55 delivery sites with one in at least each county.
- Population factor is used to allocate 20.04 percent which is based on the total population of the state living in the geographic boundaries of the local health district
- Poverty population factor is used to allocate 23.34 percent of the available funds based on the percentage of the total poverty population for the state living in the local health district
- Square mile factor allocated 23.33 percent based on the percentage of total square miles in Utah lying within the local health district
- The remaining percentage is used for hold harmless support

The Utah law specifically allows local health districts to charge fees for services based on a sliding scale reflecting income as well as to charge Medicare, Medicaid and other insurance when appropriate. No one is denied care because of financial ability to pay. The fees for service are set by the state.

Formulas in States Surrounding West Virginia

Kentucky

Like West Virginia, Kentucky operates with a mixed local/state structure although the state exercises more influence in the Bluegrass State. Each county is allowed to establish a LBH which must meet and continue to meet standards established by the Kentucky Cabinet for Health and Family Services.[74] The state has the authority to cut off funding for a LBH if the standards are not met.[75]

Further, the state establishes a "merit system" for employees of the LBHs.[76] In effect, this replaces most, if not all, local discretion in matters regarding recruitment, examination,

[73] Ibid. R380-50-3(1). Note: The authors have not been able to find an explanation of how these percentages were determined but they have been in effect since 1991 without change.
[74] KY Code 212.120(2).
[75] KY Code.
[76] KY Code 211.1755 ff.

appointment, discipline, removal and all other personnel policies including compensation, performance evaluations, staff development and grievance. The state provides a minimum/maximum salary classification plan that considers responsibilities, required education and experience.

Financing is multi-tiered. LBHs are "public health taxing districts"[77] which may, upon petition to the county, receive an additional ad valorem property tax equal to not more than ten cents on each $100 of assessed valuation. This additional levy is to be sought if it is determined that the amount allocated by the public health taxing district is inadequate, in the opinion of the local board of health, to meet the public health needs of the jurisdiction as prescribed by the state.[78]

LBHs have the ability to levy sliding scale fees for services based on patient income as well as recouping the costs of inspections and other services.[79]

It is not clear how state aid is to be allotted except that the Cabinet for Health and Family Services is to "allot to each such county health department such amount that . . . it deems to constitute a just and equitable share of all funds available"[80] from those provided in state appropriation. The allocation is to equalize, so far as practicable, local health services to the people of all counties. . ."[81] Factors to be considered are population, resources, industrialization, tax assessments and tax rates. This does not reduce the requirement that counties provide, from local sources, the financial support to the LBHs to the extent of their ability.[82]

Ohio

The Ohio formula for local health districts is uncomplicated[83] as each local health department is required to spend at least $3.00 from its local funds. When the local district has provided that amount and shows that it has not decreased its spending on public health from previous years, the local district may receive thirty cents ($0.30) per capita.[84] This distribution is made after each district has received a hold harmless grant equal to its expenditures in 1983.[85] If a district does not meet the state standards, its share is distributed among those districts that do.

Community Health Centers (CHCs) received money from the state general fund and from the Master Settlement Agreement for Tobacco.[86] The CHCs charge the PPS rates and this is subtracted from the allocation based on uninsured visits. The amount received from the state from the general fund totaled only $900,000 for the 31 CHCs in Ohio which on average covers only one month's cost of extending health services to the uninsured. Each CHC receives $24,000 for administrative expenses.

[77] KY Code 212.720
[78] KY Code 212.755(1).
[79] KY Code 212.794(3) and (4).
[80] KY Code 212.120(2).
[81] Ibid. (3).
[82] KY Code 212.794(1).
[83] Ohio Code Chapter 3701-36-03(8).
[84] Ibid 3701-36-10(B)(2)(a).
[85] Ibid 3701-36-10(B)(1).
[86] E-mail from Shawn Frick, Executive Director Ohio Association of Community Health Centers, May 14, 2007.

The tobacco money is federal pass-through, and the CHCs must spend it on the required interventions. The CHCs keep five percent for administration. The relationship between the state and the CHCs is not in legislation or rule, but is determined solely by contract with the Ohio Department of Health.

Pennsylvania

The apportionment formula used in Pennsylvania employs a different, and somewhat more complex, approach. Cities, counties or joint city/county or joint county/county boards of health are created by referendum.[87] By law, these local boards of health must provide personal health and environmental health services to those in its jurisdictions along with the necessary administrative and support services.[88]

Local boards of health are to receive from their sponsoring jurisdictions sufficient funds to carry out the above duties. Grants are provided to cover 50 percent of the costs of these services provided that no county can for personal health services receive more than six dollars ($6.00) per-capita for personal health[89] and $1.50 per capita for environmental health. The actual amount each county receives depends upon its estimated annual budget which is submitted to the State Secretary of Health. That budget is reviewed and the costs of providing any services not contemplated by the law are removed.[90] The local district then receives half of the estimated expenditures on approved functions.

The payments are received in four equal installments. At the end of the year the actual expenditures of the local district are reviewed and any unauthorized expenditures are deducted from future payments.[91] Local districts may set its own fees for services rendered and use whatever other local funds are available to pay its half of the allowable costs plus any enhanced services rendered which are not covered by state law.

Maryland

For certain counties the governing body may appoint a separate board of health.[92] Local Boards of Health have the authority to impose fees or charges for services with the restriction that the State Department has the authority to set rates for services provided in part with state or federal funds.[93]

The governor is required to "include in the state budget . . .at a minimum, sufficient funds for local health services."[94] The distribution of funds to the local health districts is the amount granted in 1998, adjusted for inflation and population growth. In addition, no district is to

[87] 16PS. 12005.
[88] 28 Pa. Code 15.11.
[89] 16 PS. 12025(b).
[90] An extensive list of expenditures which are not permitted is provided in 28 Pa. Code 15.31.
[91] 16 PS. 12025(c).
[92] MD An. Code 1957; Art 43, Section 45; 1982 Chapter 21 3-201.
[93] Ibid 3-202.
[94] Ibid 2-301

receive less funding than was received in 1997.[95] The Secretary of Health, in consultation with the local districts, is to provide specific rules on the distribution based on, ". . . community health need, local funding effort and other relevant factors."[96]

The formula currently used in Maryland, after hold harmless distributions, distributes two-thirds of the funds based on need, as revealed in poverty and mortality statistics, and the remainder on local effort in the form of incentive grants.[97] Since 1999, the state has provided funding in excess of the statutory minimum which totaled $6.2 million. That money is distributed through a Targeted Funding Program distributed as follows:

- Communicable disease control (20.0%)
- Environmental health (3.3%)
- Family planning (6.6%)
- Maternal and child health (43.5%)
- Wellness promotion (5.5%)
- Adult and geriatric health (6.2%)
- Administration (14.9%)

These percentages reflect the priorities of the state for public health.

Implications for West Virginia

From the review of the literature and the practices of surrounding states, what conclusions may be drawn regarding the proper way to allocate funds and provide support for LBHs in West Virginia? In the most comprehensive statistical study completed to date on what contributes to the ability of a LBH to meet the CDC and NACCHO standards, it was determined that two factors were most important.[98]

Local Spending

The amount spent by the LBHs was the, ". . . most consistent predictor of public health system performance across the 10 essential services."[99] The amount of federal aid received was not as important as local support whether provided by local or state funds. The more a LBH spent per-capita was significantly correlated with achieving all of the NACCHO standards.

System Size

For seven of the ten essential services, the population served by the jurisdiction was a strong predictor of system success. The optimum size for a LBH was found to be 20,000 to 100,000

[95] Ibid 2-302(b)(2) and (c)(2).
[96] Ibid 2-302(c)(3)
[97] Department of Legislative Services, (2006). *Maryland Local Government*, "Health aid," Maryland General Assembly, Annapolis MD. 301-305
[98] Mays, G.P., et. al. (March 1, 2006) "Institutional and economic determinants of public health system performance", *American Journal of Public Health*, 96:3, 523-531
[99] Ibid. 527

residents. When population exceeded 500,000, performance dropped. There were several reasons given as to why size was important.[100]

- Economies of scale were found for activities such as disease surveillance and health education
- Larger districts benefited from greater pools of organizations in the community who could support public health activities (medical professionals, community organizations, educational institutions, media, businesses and other governmental agencies)
- Employment of individuals with more specialized training was also a factor which increased larger district effectiveness

The report did acknowledge that rural areas presented geographic barriers that made larger districts more costly for delivery of risk investigation and regulatory enforcement.

One additional influence on LBH effectiveness considered in the report was the type of governmental authority and control. The research showed that, of the three alternatives (decentralized, centralized and mixed), there was no clear statistical relationship between success and form of organization. For three of the standards,[101]decentralized systems performed best. For two standards,[102] centralized systems were more efficient. For the others, mixed systems performed best. A probable reason is, ". . . mixed or shared systems are able to take advantage of the public health expertise and infrastructure available at the state level while also maintaining the local flexibility to adapt activities to community needs as appropriate."[103]

Accepting this research as correct, the mixed system employed in West Virginia has evidence to support its continuation with modifications discussed elsewhere in this report. At the same time, consolidation or at least greater coordination of many LBH activities would be appropriate. Putting additional funding into a structure where many LBHs are too small to be efficient is unlikely to bring them closer to meeting CDC/NACCHO standards.[104]

Local Support

The research and the examples of other states support a uniform requirement for local support of LBHs. As noted before, West Virginia counties are faced with severe restrictions on their ability to raise funds being limited primarily to the property tax. Increased demands, particularly for support of regional jails, will make it difficult for them to use the discretionary designated levies to support LBHs and stay within the constitutionally prescribed mill limits.

Excess levies are the best alternatives, but in many areas, public support will be lacking for passage. This might be solved by a mandated statewide excess levy, but that would also require voter approval. Giving additional taxing authority to counties and cities is an alternative, but the

[100] Ibid. 523-524. This finding was consistent with two earlier studies Mays, G.P., et. al. (2004) "Availability and perceived effectiveness of public health activities in the nation's most populous communities." *American Journal of Public Health,* 94:6, 1019-1026 and Turlock, B.J., Miller C.A. and Handler, A.S., (1998) " A proposed method for assessing public health practice and effectiveness", *Journal of Public Health Management and Practice*, 4:5, 26-32.
[101] Health status monitoring, educating the public and workforce development.
[102] Investigation and research.
[103] Ibid. 530.
[104] Mays et. al. op. cit. 530.

Legislature has been reluctant to grant this authority. Providing matching funds on highly attractive requirements (4:1 or 5:1) would increase political pressure to fund LBHs, but this could lead to distortion of county budgets resulting in the neglect of other functions.

Additionally, local LBHs could be required to use fees and charges for services. These fees or charges would be based on a sliding scale dependent on income. It would be preferred for the state to determine the fees and charges as that would remove the issue from local politics. This locally raised fee money could be used for required local match or local effort under a formula allocation.

Formula Allocations

From the analysis, it appears one approach for West Virginia is to use a need based formula determined by the level of interventions. Cost based interventions have some appeal but require a calculation of costs for each intervention, which may be difficult and would vary depending on the cost of living in the area. Such an approach would require a uniform level of local effort. If the money is received without a local effort, then local governments that do provide support would be penalized if that support resulted in less state aid.

A partial solution is to allow LBHs to use locally raised revenue to provide additional services or to enhance the quality of existing services by using local sources such as special levies, specific grants, fees and other charges for services. This solution does not provide an equality of local service provision, but it would reflect the local preferences for public health services as those compete with other alternatives for local funding.

A formula must require that a clear definition be established of which basic health services the state will support. Funding will be tied to performance of those functions. Other functions would be at local discretion and local funding. At the same time, there are functions that should be transferred to the state. These include the gathering and analysis of data and the conduct of research. Local districts should not be expected to have staff qualified in those activities.

CHAPTER 6

Model for Distribution of State Aid to Local LBH in West Virginia

In an effort to ensure the funding suggestions were representative of the concerns of both the LBHs and the State focus groups were conducted and mail surveys administered. The formulas used in other states and model formulas were also considered. The formula recommended here is distilled from these studies.

It addresses the major deficiencies of the current funding system.

- Inadequate funding to cover mandated services
- Unstable funding sources
- No identified criteria for funding amounts
- Funding based purely on population rather than needs or services
- Inability to attract and retain adequate staffs
- Limited ability to charge fees for permits and services

It also endeavors to maintain the existing strengths in the current structure.

- Funding each year from the State budget
- Local autonomy
- Provides base amount for smaller counties

The project staff has developed a formula that should be considered as a replacement for the current system. It consists of two parts. First is a "Base Allocation" that determines a minimum allocation for each LBH. This minimum is based on the staffing requirements that should be present for an LBH to supply a minimally acceptable level of service.

It is based on the finding that a LBH must have at least four positions (administrator, nurse, sanitarian and clerical worker). Salaries used in the base formula are state average amounts needed. Operational costs were set at 20 and 30 percent of salaries for benefits. The result is that each LBH should be supported by funding of $203,138.10.

In addition, each LBH is required by statute to have a Health Officer. Since LBH use a variety of ways of funding these positions, these are not included in the formula. While some LBHs employ full time Health Officers other use part time employment. This is done either by contract or by creating a part time position. Consideration might be given to including this position in the base allocation.

Further, under current practice two percent of the State money is "set aside" for emergency needs. If the funds are not needed, they are distributed to the LBHs at the end of the fiscal year. The formula can easily be modified to continue this practice. It would need to be decided if the two percent was to be withheld from the total amount or from the remaining amount after the base allocations had been made.

The Base Allocation does not dictate an organizational structure for any LBH. It provides a distribution that can be used as the LBH deems appropriate. As such, it mirrors the approach used in the public school support formula for state aid to elementary and secondary education.

The Formula includes a "hold harmless" provision that stipulates that no LBH can receive less in State funding from the per-capita allocation than it received in the first year the new formula started. To determine the amount of additional base allocation to be received under the new formula, the hold harmless amount would be subtracted from the base allocation.

To provide an incentive for increased local support the formula would fund half of the gap between the hold harmless amount and the base amount.

Steps for Determining Base Allocation

Problem

The problem is to establish a step-by-step process for determining the expenditure needed to provide minimum staffing levels consistent with CDC/NACCHHO minimum standards for local health service provision in West Virginia.

Step 1: Determine the average salaries paid statewide for 1) Administrators, 2) Nurses, 3) Sanitarians and 4) clerical workers.
Step 2: Sum the salaries for the positions in Step 1 and multiply by benefits as a percent of salaries.
Step 3: Take the sum from Step 2 and multiply by the overhead factor
Step 4: Add the amounts from Steps 2 and 3 to obtain base amount for each county.
Step 5: Subtract the "hold harmless amount from the base amount calculated for each county.
Step 6: Take 50 percent of the difference in Step five for each county
Step 7: Add the amounts for each count in Step 6 to obtain the additional amount of base funding needed for all LBHs to come from the State.

Assumptions

Use statewide averages for salaries as provided by WVDHHR for:

- Nurse ($34,215.36)
- Sanitarian ($32,118.67)
- Administrator ($43,444.65)
- Clerical Worker ($20.438.05)

Use the following adjustments:

- Twenty percent (30%) for benefits
- Thirty percent (20%) for overhead

To provide an incentive to consolidate, the number of jurisdictions is set as the number of counties. If two counties consolidate, the combined jurisdiction receives the share for both counties. No counties would consolidate if they lost a portion of the funding.

Example

Step 1: $34,215.36 + $32,118.67 + $43,444.65 + $20,438.05 = $130,216.73
Step 2: $130,216.73 x 0.20 = $26,043.35 + $130,216.73 = $156,260.08
Step 3 $156,260.08 x 0.30 = $46,878.02
Step 4 $156,260.08 + $46,878.02 = $203,138.10
Step 5 $203,138.10 x 55 = $11,172,595.65

Interpretation

Given the assumptions, in order for a LBH to fill the four basic positions it would need $203,138.10 for each county. This would require a base funding level of $11,172,595.65 to be obtained from the available sources.

Calculation of Allocation State Support for Local Boards of Health

The second part of the formula provides for additional funding to go to each LBH based on indicators of need and costs. These indicators include:

- County poverty level that has been shown to be highly correlated with health issues.
- Health status as determined by "years of life expectancy lost" which provides an indicator of how poor health conditions such as diabetes, cancer, hearth disease and stroke in a county reduce life expectancy.
- Population density which allows for the difficulty in providing services in areas with low-density population.
- Interventions that indicate the level of demand for LBH services in each county. Because they can be uniformly measured and provided by all LBHs, interventions are defined as immunizations and permits issued.

In addition, a small incentive is provided to encourage consolidation of smaller LBHs that would benefit from the economies of scale in the provision of basic health services.

Problem

This formula is to be used to allocate among the LBHs the money remaining after the base allocation has been made to each county. A "weighted population" approach is used in the formula. The formula recognizes that certain LBHs have greater needs than others for the services provided by LBHs. For that reason, the population in each jurisdiction (herein defined as the county or counties in a given LBH) is multiplied by a "need factor". Each "need factor" is assigned a weight representing the value of that factor in the total allocation.

Steps

Step 1: Poverty. The "need factor" is percentage of individuals in the county living below the level of income established by the federal government as being in poverty. Poverty is assigned a weight of 40 percent.

- Coefficients are percent living below the poverty line:
  - Less than 100-110% = 0.00
  - 110-120% = 0.05
  - 121-130% = 0.10
  - Above 130% =0.15

Step 2: Health Status: The "need factor" is "years of potential life lost" in the county. Health status is assigned a weight of 20 percent.

- Coefficients are percent above the state average:
  - Less than 100-110% = 0.00
  - 111-120% = 0.05
  - 121-130% = 0.10
  - Above 130% = 0.15

Step 3: Population Density: The "need factor" is density of individuals living in the county less than the state average. Population density is assigned a weight of 15 percent.

- Coefficients are the percent above the state average:
  - Less than 100-110% = 0.00
  - 111-120% = 0.05
  - 121-130% = 0.10
  - Above 130% = 0.15

Step 4: Interventions: The "need factor" is the number of interventions per thousand population above the state average in the county total. Interventions are assigned a weight of 10 percent.

- Coefficients are the percent above the state average:
  - Less than 100-110% = 0.00
  - 111-120% = 0.05
  - 121-130% = 0.10
  - Above 130% = 0.15

Step 5: Consolidation: While not a need factor this coefficient is included to encourage counties to merge in the provision of public health services. The indicator is the number of counties in the LBH. Consolidation is assigned a weight of 15 percent.

- Coefficient is the number of counties in the district:
  - 1 = 0.00
  - 2-4 = 0.10
  - 5 or more = 0.15

Step 6: Determine weight for each LBH by:

- Multiplying each coefficient by the factor weight.
- Adding the results for each variable to one.
- Multiplying by the number of people in the county to obtain the weighted population of the county.

Step 7: The weighted population of each county is divided into the amount available after distribution of the base amount to determine the per-capita distribution for each county.

Example

Assume a county has the following coefficients:

- 15 percent living below the poverty line income
- 22 percent years of life lost above the state average
- Population density 15 percent less than the state average
- Interventions 25 percent above the state average
- Part of a two county district.

1 + (0.05 x 0.40) + (0.10 x 0.20) + (0.05 x 0.10) + (0.10 x 0.20) + (0.10 x 0.10) =
1+ (0.02) + (0.02) + (0.005) + (0.005) + (0.02) + (0.01) = 1.08

District population is taken times 1.08 to determine its total weighted population. If this county had a population of 50,000, its weighted population would be 54,000.

Total weighted population for each county is added, and the resulting weighted populations for all counties is divided into the remaining funds available (after base allocations) to determine each counties additional allocation.

It must be repeated that neither this formula nor any other will be effective unless there is adequate local support and State funding.

An effective funding formula is limited in its ability to promote efficiency and effectiveness by the absolute amount of funding provided by the State. A review of comparative financial data presented below indicates how far below the southern state's average is West Virginia's support of local public health expenditure.

Table 6-1: Southern States Public Health Expenditures for Local Public Health

State	Percentage of Total Health Spending*	Percentage of Total State Budget**
AL	6.2	1.9
AR	2.9	0.7
FL	2.3	0.7
GA	3.0	1.2
KY	1.9	0.5
LA	2.1	0.8
MS	2.8	1.0
NC	2.8	1.0
SC	3.1	1.0
TN	2.5	1.0
VA	3.7	0.7
WV	**1.4**	**0.2**

Source: 2002-03 State Health Expenditure Report, Milbank Memorial Fund, National Association of State Budget Officers and the Reforming States Group

* Refers to the percentage of state spending for all health related activities which is received by local health authorities.

** Refers to the percentage of the total state budget which is allocated to local health authorities.

In reference to the mean of all southern states for support of local public health West Virginia is experiencing a budgetary shortfall of 300 percent. It would be an unreasonable expectation for a single legislative session to make up the entire shortfall. It is recommended the State raise it's funding by one third of the necessary amount in each of the upcoming sessions. This would amount to $14 million each year for a total of $42 million additional.

CHAPTER 7

Survey of West Virginia Local Boards of Health

Research Methodology

A self administered survey instrument was devised in order to assess the perceptions of the respondents on various issues related to public health management structure systems, performance of basic public health services, NACCHO Guidelines, and the distribution formula for state funds. The survey instrument was directly mailed to Kay Shamblin of the WV Department of Health and Human Services. It was requested that she forward the survey instrument to all employees associated with local health departments statewide with a deadline to return the completed survey by May 10, 2007. The responses were faxed as well as mailed to the study investigators. Surveys that were received past the deadline were analyzed in this report. There were 101 surveys obtained with an estimate of 475 local health department employees statewide, therefore giving an approximate response rate of 23 percent.

Findings

This survey was undertaken to provide insight regarding the perceptions of those working in the LBHs regarding:

- Preferred organizational and managerial structures
- Performance in meeting standards of public health service
- Reasons for the failures to fully meet standards
- Factors to be included in a distribution formula for state aid
- Achievement of the NACCHO goals for a public health department

From the responses, the following findings are appropriate.

- The strong majority opposed a centralized public health system, but the majority also seems to favor an alternate system to the current largely decentralized one. Of the other options, a regional approach had the most support. A policy recommendation consistent with these findings is to look at local health department functions to see where some form of regional provision would be desirable and efficient given economies of scale.
- In the areas of "communicable and reportable disease prevention and control" and" community health promotion, the great majority felt that either the missions were "fully" or "partially" being accomplished. Two reasons given for not fully meeting objectives were related: insufficient funding and lack of personnel. Finding ways to strengthen the financial base for the local districts, such as recommended in this report, would allow more LBHs to more "fully" meet the criteria.
- In deciding how state aid should be distributed, the three highest rated criteria were "need for services," "percent of low income residents," and "number of uninsured." There was a general rejection of using "population density" and "satisfaction of performance criteria" as determinants of aid. While those determining the amount of state aid may disagree with the last finding, it does appear that the three criteria most strongly supported should be considered to replace the current allocation system.

- In considering how a "minimum allocation" for each local district should be structured the respondents favored using "county population," "minimum staffing requirements," and "people served/interventions" as determinants. The respondents strongly rejected giving each district the same per-capita amount and each district receiving the same amount of basic support.
- Respondents overwhelmingly agreed that a "more comprehensive" formula for state aid was needed.
- Respondents also felt districts should be allowed to set fees for service. A state salary schedule for health workers also was supported. These responses suggest that the current formula and the equal base allocation to each local district should be reconsidered by policy makers.
- The LBHs concluded by an almost 90 percent margin that the lack of financial capability and insufficient staff had forced them to direct clients to the private sector for services. This provides further evidence of the need for more adequate funding.
- Threat preparedness activities did not appear, in most cases, to reduce other local services. This is strong testimony to the flexibility of the local districts to accommodate additional responsibilities.
- Since the majority responding wanted the state to mandate some form of local support for all districts and to provide a minimum fee schedule, state policy makers should consider those options.
- When the respondents were asked to evaluate how well the 10 NACCHO standards were being accomplished in their districts, there was significant agreement regarding:
    - Monitoring health status and identifying community health problems
    - Diagnosing and investigating health hazards
    - Informing, educating and empowering people about health issues
    - Mobilizing community partnerships
    - Enforcing laws and regulations
    - Linking people to needed personal health services and providing care when otherwise unavailable
    - Assuring a competent workforce

  These were either "fully" or "partially" met, but in most instances "partially met" was at least as frequent an answer as "wholly met" indicating there are significant achievement gaps to overcome.
- There were other NACCHO standards where the responses were not as positive including:
    - Developing plans and policies for community health
    - Evaluating the effectiveness, accessibility and quality of health services
    - Research for news insights and innovative solutions to health problems

  A policy case can be made that the last of these functions can be more properly handled at the state level, particularly in West Virginia with its small and dispersed population. Smaller local districts should not be expected to have the resources and specifically trained staff to adequately support these functions. Public health problems do not respect political boundaries. The development of plans and policies may be an effective undertaking at the regional level.

These responses represent the views of the respondents. While they are not the only opinions that should shape public policy, they should be carefully considered. The "front line troops" always have insights that others do not have. For that reason, policy discussions should not ignore the actions these responses support.

Respondents

There were a total of 101 responses out of approximately 475 workers in the WV local health department system. Responses were received from 98 county LBH workers and three from the State Health Department. Administrators made up 28.4 percent of the respondents and were the largest group. Nurses comprised 22.1 percent of respondents. It appears that there was a reasonable distribution across disciplines to promote variation in viewpoints; hence, relative objectivity in analysis.

Table 7-1: Respondent's Primary Function

What is your primary function?

		Frequency	Valid Percent
Valid	Administrator	27	28.4
	Nursing	21	22.1
	Environmental Health	24	25.3
	Financial	4	4.2
	Health Promotion	3	3.2
	Threat Preparedness	4	4.2
	Other	12	12.6
	Total	95	100.0
Missing	System	6	
Total		101	

Tables 7-2 through 7-22 provide an item analysis of responses by LBH respondents: Please note that observations are based on information obtained; however, the fundamental issues identified are often influenced by information "not obtained" in the survey instrument. The reader is admonished to recognize that observations are suggestions for consideration and not conclusive fact.

Almost 30 percent of those surveyed replied that a centralized or regionalized LBH system would be most effective for the whole state. However, close to 40 percent supported a mixed system with some functions remaining local and other functions being regionalized or passed up to the State. Look to the next table and find that only 20 percent respond that a centralized or regionalized LBH system would be most effective for their individual county. This difference probably is a reflection of LBHs who receive strong local funding. The greatest number of

respondents (37%) favored a mixed management structure for the entire state of West Virginia. One might argue that the difference between decentralized and mixed is small and in both cases is a reflection of a desire to maintain local control of decision-making. Centralization and regionalization (the two least favored structures), on the other hand, suggest less local control of decision-making. Evidently, LBHs enjoy their autonomy.

Table 7-2: Management Structure for the State

In your opinion, for the whole state of WV, which management structure do you think would serve the needs of the population most effectively?

For the Whole State	Frequency	Valid Percent
Centralized	17	17.2
Decentralized	33	33.3
Mixed	37	37.4
Regionalized	12	12.1
Sub-total	**99**	**100**
Missing	2	
Total	101	

When responses are arrayed by Threat Preparedness Regions, the majority of PACT region respondents selected a decentralized type of management structure as most effective for the state, while all of the respondents from Kanawha chose a regionalized management structure as most effective. A mixed management structure was most strongly supported by the central and southern regions (Sphere, Bundle Team, ROC). Once again, these differences may be a reflection of local support and experience with economies of scale.

Table7-3: Management Structure for the State by TP Region

		In your opinion, for the whole state of WV, which management structure do you think would serve the needs of the population most effectively?				
		Centralized	Decentralized	Mixed	Regionalized	Total
Threat Preparedness Region	Bundle Team	3	8	13	4	28
	Eastern Public Health Response	4	4	3	0	11
	Kanawha County	0	0	0	4	4
	Mid Ohio Valley Region	0	1	0	1	2
	Northern Region	0	2	1	0	3
	Preparedness Action Coalition Team (PACT)	1	14	0	2	17
	Region One Collaboration (ROC)	1	1	10	0	12
	Shared Public Health Emergency Response Effort (SPHERE)	6	3	10	0	19
Total		**15**	**33**	**37**	**11**	**96**

The majority of the respondents (43.3%) chose a decentralized LBH system as the most effective model to meet the needs of their county's population. The least popular model was a regionalized LBH system, which was chosen by less than 10 percent of the respondents (9.3%). Of the four types of management structures, the decentralized and mixed systems were most favored for both the state and county levels. It is evident that LBHs want to maintain control over the decision making process regardless of economies of scale. An interesting consideration arises if one combines the responses for centralized, mixed and regionalized; almost two-thirds of the respondents favored a system other than a decentralized one. Therefore, there seems to be some evidence that LBHs want local control but not to the exclusion of regional or State participation.

Table 7-4: Management Structure for Each County

In your opinion, for your county, which management structure do you think would serve the needs of the population most effectively?

For Each County	Frequency	Valid Percent
Centralized	10	10.3
Decentralized	42	43.3
Mixed	36	37.1
Regionalized	9	9.3
Sub-total	**97**	**100**
Missing	4	
Total	101	

Data arrayed by Threat Preparedness Region reveals the same pattern of responses. Decentralized is the most preferred but the majority would favor another arrangement.

Table 7-5: Management Structure for Each County by TP Region

		In your opinion, for your county, which management structure do you think would serve the needs of the population most effectively?				
		Centralized	Decentralized	Mixed	Regionalized	Total
Threat Preparedness Region	Bundle Team	3	10	13	3	29
	Eastern Public Health Response	4	5	2	0	11
	Kanawha County	0	0	0	4	4
	Mid Ohio Valley Region	0	1	0	1	2
	Northern Region	0	2	1	0	3
	Preparedness Action Coalition Team (PACT)	0	16	1	0	17
	Region One Collaboration (ROC)	1	2	8	0	11
	Shared Public Health Emergency Response Effort (SPHERE)	2	6	11	1	20
Total		**10**	**42**	**36**	**9**	**97**

Performance of Basic Health Services

The LBH survey also inquired about their perception of how well they were performing the basic health functions. The survey respondents were also queried regarding the reasons why they had not been able to provide complete services in each category.

One-half of LBH's felt they were providing complete service in Communicable and Reportable Disease Prevention and Control. More than 70 percent state that there is a problem in funding or a shortage of personnel. While location influences recruitment and retention of personnel, funding has a major impact.

Table 7-6: Level of Service Offered - CRDPC

Communicable and reportable disease prevention and control

		Frequency	Valid Percent
Valid	Completely (100%)	48	50.5
	Mostly (About 75%)	43	45.3
	Somewhat (About 50%)	4	4.2
	Total	95	100.0
Missing	System	6	
Total		101	

Table 7-7: Reasons for Less than Complete Service - CRDPC

Communicable and reportable disease prevention and control

		Frequency	Valid Percent
Valid	Lack of Funds	16	35.6
	Lack of Personnel	17	37.8
	Lack of Sufficient Expertise	5	11.1
	Lack of Demand	7	15.6
	Total	45	100.0
Missing	System	56	
Total		101	

A much higher percentage of the respondents did not feel this function was as adequately provided as was work in the area of Communicable Diseases. A mere 12.8% of LBH's feel they are providing a complete service in Community Health Promotion. Almost 40% (37.2%) only perform half or less of what they feel they should be doing in this area of service. The shortfall may represent inadequate funding or other resources to be dedicated to this function.

Table 7-8: Level of Service Offered - CHP

Community Health Promotion

		Frequency	Valid Percent
Valid	Completely (100%)	12	12.8
	Mostly (About 75%)	46	48.9
	Somewhat (About 50%)	25	26.6
	Marginally (About 25%)	10	10.6
	Rarely (Less than 10%)	1	1.1
	Total	94	100.0
Missing	System	7	
Total		101	

Table 7-9: Reasons for Less than Complete Service - CHP

Community Health Promotion

		Frequency	Valid Percent
Valid	Lack of Funds	32	39.5
	Lack of Personnel	45	55.6
	Lack of Sufficient Expertise	2	2.5
	Lack of Demand	2	2.5
	Total	81	100.0
Missing	System	20	
Total		101	

Less than 13% of LBHs are providing a complete service in Community Health Promotion. Almost 40% (37.2%) perform half of what they believe they should be accomplishing in this area. Once again, personnel (55.6%) and funding (39.5%) are seen as the primary inhibitors of task accomplishment.

Table 7-10: Level of Service Offered - EHP

Environmental Health Protection

		Frequency	Valid Percent
Valid	Completely (100%)	47	49.5
	Mostly (About 75%)	42	44.2
	Somewhat (About 50%)	6	6.3
	Total	95	100.0
Missing	System	6	
Total		101	

Table 7-11: Reasons for Less than Complete Service - EHP

Environmental Health Protection

		Frequency	Valid Percent
Valid	Lack of Funds	22	45.8
	Lack of Personnel	23	47.9
	Lack of Sufficient Expertise	2	4.2
	Lack of Demand	1	2.1
	Total	48	100.0
Missing	System	53	
Total		101	

Criteria for Distribution of State Funds

The factor with the lowest mean score indicates the most important criteria for a funding formula. The most important factor is "need for services" and the least important factor is "satisfaction of performance criteria". While the respondents did not see population density or health status as very important criteria, the result on satisfaction of performance criteria raises the issue of accountability that is always high on the list of funders. The next table should not be viewed as the model for developing a funding formula, but it does provide a reasonable basis for the development of a formula that is responsive to the LBHs.

Table 7-12: Criteria to Be Used in Distribution Formula for WV LBH Funding

Comprehensive Formula for the Distribution of State Funds

	N	Mean	Std. Deviation
Need for Services	96	2.34	1.588
Percent of Low Income	94	3.67	1.75
Number of Uninsured	95	3.74	1.559
Availability of Services	95	3.87	1.958
Population's Health Status	95	4.08	1.629
Population Density	95	4.28	2.087
Satisfaction of Performance Criteria	95	5.48	2.093

The question addressed in the table above is a refinement of the previous question. Focusing on the issue of base funding, or the amount that would be guaranteed to each LBH, "county population" was the number one criteria for setting minimum funding for each county, followed closely by "minimum staffing" and "number of interventions." The lowest ranking criterion was giving "equal amounts for each county."

Table 7-13: Criteria to Be Used in Distribution Formula for Base Funding

Criteria for Minimum Allocation Formula

	N	Mean	Std. Deviation
County Population	96	2.61	1.524
Minimum staffing requirements	96	2.90	1.612
Number of interventions (people served)	96	2.92	1.540
Population Density	96	3.78	1.347
Number of inspections conducted	96	3.88	1.324
Equal amounts for each county	97	5.04	1.726

Almost 90 percent (88.5%) of LBHs say they perform the Basic Services directed by the State policies, although quality has been compromised at times in more than one in three LBHs (34.7%). This suggests an overly burdened work force, but until one has insights into the degree of compromise, definitive conclusions would be speculative at best. There appears to be a

significant problem with competitive wages since only 10 percent believe that their wages are competitive with the private marketplace.

Table 7-14: Statements about LBH Services and Working Environment

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
My LBH performs all Basic Health Services directed by State Policies.	2.10%	7.40%	2.10%	45.30%	43.20%
Most of my employees' pay is competitive to the local market.	27.30%	39.40%	22.20%	10.10%	1.00%
The level of work related stress experienced by most of my employees is lower than the comparable local positions.	13.10%	26.30%	27.30%	25.30%	8.10%
My LBH has occasionally compromised on the quality of services provided due to lack of funds.	12.20%	30.60%	22.40%	30.60%	4.10%
My LBH has occasionally sent individuals to the private industry because the LBH could not provide the services.	0.00%	3.10%	10.30%	64.90%	21.60%

The table above suggests that for one-fourth of the LBHs more time is being spent on Threat Preparedness activities at the cost of providing Basic Public Health Services, but the vast majority (75%) did not agree. This may be due, in part, to new federal and State regulations, but it also suggests insufficient personnel to satisfy the increasing responsibilities of LBHs in some regions.

Over 60 percent of the respondents stated that the State Legislature needs to initiate higher local taxes to support the LBHs. This would increase funding while minimizing conflict between LBH personnel and LBH administrators. For this to happen, the State Constitution would have to be changed.

More than 60 percent of the respondents stated that fee schedules should be the same for all LBHs to remove individuals from obtaining services from neighboring counties instead of their own. It appears that a statewide fee model would be responded to positively by a majority of the LBHs, but no information is available regarding the attitudes of county commissioners on this issue.

Table 7-15: Statements about LBH Activities

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Most of my LBH personnel have spent more time on Threat Preparedness related activities in comparison to providing basic public health services.	11.10%	39.40%	23.20%	12.10%	14.10%
The state legislature should mandate that local governments must initiate some form of local tax to support LBH.	8.10%	10.10%	21.20%	21.20%	39.40%
All LBHs should charge the same fee for certain services (for example, every LBH should charge $15 for a flu shot).	9.10%	21.20%	8.10%	47.50%	14.10%

The response supporting a comprehensive funding formula for State support is strong since 80.5 percent of respondents stated a more comprehensive LBH funding formula is needed. However, almost half indicated that the formula should not be per capita based with 80 percent indicating it should not be a fixed amount. There were mixed responses on questions of sliding service fees and indexation of funding by population. A substantial majority (64%) favored a state pay scale for LBH employees.

Table 7-16: Statements about WV LBH Funding

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Each LBH should receive the same per capita amount from the state.	13.40%	35.10%	19.60%	22.70%	9.30%
The amount distributed by the State should be inversely indexed based on size of the population for the LBH's service market (small LBH receive a larger per capita amount).	22.70%	15.50%	28.90%	26.80%	6.20%
Each LBH should receive the same fixed amount regardless of size.	42.90%	40.80%	10.2	4.10%	2.00%
A more comprehensive LBH funding formula is required.	1.00%	5.20%	13.40%	45.40%	35.10%
The state should set fees on a sliding scale for certain services so that they can become self supporting	7.10%	15.20%	31.30%	32.30%	14.10%
The State should establish a state salary schedule for LBH employees (just as the state does for school personnel)	3.10%	12.20%	24.00%	35.70%	28.60%

Compliance with NACCHO Standards

The majority of LBH respondents felt their LBH fully met NACCHO standard #2 protection from health problems and health hazards, #6 enforcement of public health laws and regulations; #7 help people receive health services, and #8 maintain a competent and public health workforce. However, in all other areas improvements are seen as needed. Tables 7-18 through 7-22 provide essentially the same feedback as Table 7-17 for each specific activity investigated. One should not conclude that these observations are the result of poor performance by department personnel but rather as an indication of the lack of resources available (funds and manpower) to accomplish the identified tasks. In addition, level of accomplishment will and should vary according to LBH size. For example, it would be unrealistic to expect small health departments to participate in extensive research.

Table 7-17: WV LBHs Ratings

WV LBHs	**Fully meet NACCHO standard**	**Partially meet NACCHO standard**	**Only slightly meet NACCHO standard**	**Do not meet NACCHO standard at all**
#1: Monitor health status to identify community health problems	46.90%	44.40%	7.40%	1.20%
#2: Diagnose and investigate health problems and health hazards in the community	54.30%	42.00%	2.50%	1.20%
#3: Inform, educate, and empower people about health issues	42.00%	50.60%	6.20%	1.20%
#4: Mobilize community partnerships and action to identify and solve health problems	35.80%	46.90%	16.00%	1.20%
#5: Develop policies and plans that support individual and community health efforts	28.20%	61.50%	10.30%	0.00%
#6: Enforce laws and regulations that protect health and ensure safety	59.80%	40.20%	0.00%	0.00%
#7: Link people to needed personal health services. Assure the provision of care when otherwise unavailable	52.50%	38.80%	7.50%	1.30%
#8: Assure a competent public health and personal health care workforce	51.20%	43.90%	3.70%	1.20%
#9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services	30.90%	55.60%	9.90%	3.70%
#10: Research for new insights and innovative solutions to health problems	12.30%	43.20%	21.00%	23.50%

Table 7-18: Communicable and Reportable Disease Prevention and Control Ratings

Communicable and Reportable Disease Prevention and Control Function	**Fully meet NACCHO standard**	**Partially meet NACCHO standard**	**Only slightly meet NACCHO standard**	**Do not meet NACCHO standard at all**
#1: Monitor health status to identify community health problems	48.80%	41.30%	8.80%	1.30%
#2: Diagnose and investigate health problems and health hazards in the community	54.40%	40.50%	3.80%	1.30%
#3: Inform, educate, and empower people about health issues	41.30%	43.80%	12.50%	2.50%
#4: Mobilize community partnerships and action to identify and solve health problems	21.80%	62.80%	11.50%	1.30%
#5: Develop policies and plans that support individual and community health efforts	30.80%	53.80%	10.30%	3.80%
#6: Enforce laws and regulations that protect health and ensure safety	56.80%	39.50%	2.50%	1.20%
#7: Link people to needed personal health services. Assure the provision of care when otherwise unavailable	45.60%	40.50%	11.40%	2.50%
#8: Assure a competent public health and personal health care workforce	48.10%	42.00%	6.20%	3.70%
#9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services	36.70%	44.30%	11.40%	7.60%
#10: Research for new insights and innovative solutions to health problems	12.70%	36.70%	16.50%	15.20%

Table 7-19: Community Health Promotion Ratings

Community Health Promotion Function	**Fully meet NACCHO standard**	**Partially meet NACCHO standard**	**Only slightly meet NACCHO standard**	**Do not meet NACCHO standard at all**
#1: Monitor health status to identify community health problems	44.20%	36.40%	15.60%	1.30%
#2: Diagnose and investigate health problems and health hazards in the community	41.60%	45.50%	10.40%	1.30%
#3: Inform, educate, and empower people about health issues	39.00%	40.30%	18.20%	2.60%
#4: Mobilize community partnerships and action to identify and solve health problems	23.40%	50.60%	19.50%	3.90%
#5: Develop policies and plans that support individual and community health efforts	23.40%	58.40%	11.70%	3.90%
#6: Enforce laws and regulations that protect health and ensure safety	55.10%	34.60%	7.70%	1.30%
#7: Link people to needed personal health services. Assure the provision of care when otherwise unavailable	46.80%	28.60%	19.50%	3.90%
#8: Assure a competent public health and personal health care workforce	42.30%	46.20%	9.00%	2.60%
#9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services	31.20%	44.20%	16.90%	6.50%
#10: Research for new insights and innovative solutions to health problems	7.90%	42.10%	17.10%	15.80%

Table 7-20: Environmental Health Promotion Ratings

Environmental Health Promotion Function	**Fully meet NACCHO standard**	**Partially meet NACCHO standard**	**Only slightly meet NACCHO standard**	**Do not meet NACCHO standard at all**
#1: Monitor health status to identify community health problems	50.60%	40.30%	6.50%	0.00%
#2: Diagnose and investigate health problems and health hazards in the community	59.00%	37.20%	2.60%	0.00%
#3: Inform, educate, and empower people about health issues	48.70%	38.50%	7.70%	3.80%
#4: Mobilize community partnerships and action to identify and solve health problems	26.00%	54.50%	13.00%	2.60%
#5: Develop policies and plans that support individual and community health efforts	38.70%	50.70%	9.30%	0.00%
#6: Enforce laws and regulations that protect health and ensure safety	61.50%	35.90%	1.30%	0.00%
#7: Link people to needed personal health services. Assure the provision of care when otherwise unavailable	51.30%	32.90%	7.90%	1.30%
#8: Assure a competent public health and personal health care workforce	57.70%	35.90%	3.80%	1.30%
#9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services	40.30%	40.30%	10.40%	5.20%
#10: Research for new insights and innovative solutions to health problems	15.60%	41.60%	16.90%	6.50%

Table 7-21: Enhanced Public Health Services Ratings

Enhanced Public Health Services Function	**Fully meet NACCHO standard**	**Partially meet NACCHO standard**	**Only slightly meet NACCHO standard**	**Do not meet NACCHO standard at all**
#1: Monitor health status to identify community health problems	28.60%	54.00%	11.10%	3.20%
#2: Diagnose and investigate health problems and health hazards in the community	36.50%	49.20%	9.50%	3.20%
#3: Inform, educate, and empower people about health issues	30.20%	55.60%	7.90%	4.80%
#4: Mobilize community partnerships and action to identify and solve health problems	25.80%	50.00%	17.70%	3.20%
#5: Develop policies and plans that support individual and community health efforts	25.40%	55.60%	11.10%	4.80%
#6: Enforce laws and regulations that protect health and ensure safety	46.80%	41.90%	6.50%	3.20%
#7: Link people to needed personal health services. Assure the provision of care when otherwise unavailable	35.50%	50.00%	8.10%	4.80%
#8: Assure a competent public health and personal health care workforce	38.70%	45.20%	9.70%	4.80%
#9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services	22.60%	54.80%	12.90%	6.50%
#10: Research for new insights and innovative solutions to health problems	14.50%	50.00%	12.90%	14.50%

Table 7-22: Clinical Categorical Programs Ratings

Clinical Categorical Programs Function	**Fully meet NACCHO standard**	**Partially meet NACCHO standard**	**Only slightly meet NACCHO standard**	**Do not meet NACCHO standard at all**
#1: Monitor health status to identify community health problems	48.50%	42.60%	5.90%	2.90%
#2: Diagnose and investigate health problems and health hazards in the community	51.50%	39.70%	7.40%	1.50%
#3: Inform, educate, and empower people about health issues	52.20%	37.70%	5.80%	4.30%
#4: Mobilize community partnerships and action to identify and solve health problems	45.60%	30.90%	19.10%	2.90%
#5: Develop policies and plans that support individual and community health efforts	32.40%	47.10%	14.70%	4.40%
#6: Enforce laws and regulations that protect health and ensure safety	60.90%	26.10%	8.70%	4.30%
#7: Link people to needed personal health services. Assure the provision of care when otherwise unavailable	55.10%	33.30%	7.20%	2.90%
#8: Assure a competent public health and personal health care workforce	60.90%	27.50%	7.20%	4.30%
#9: Evaluate effectiveness, accessibility, and quality of personal and population-based health services	43.50%	36.20%	13.00%	5.80%
#10: Research for new insights and innovative solutions to health problems	17.40%	39.10%	14.50%	13.00%

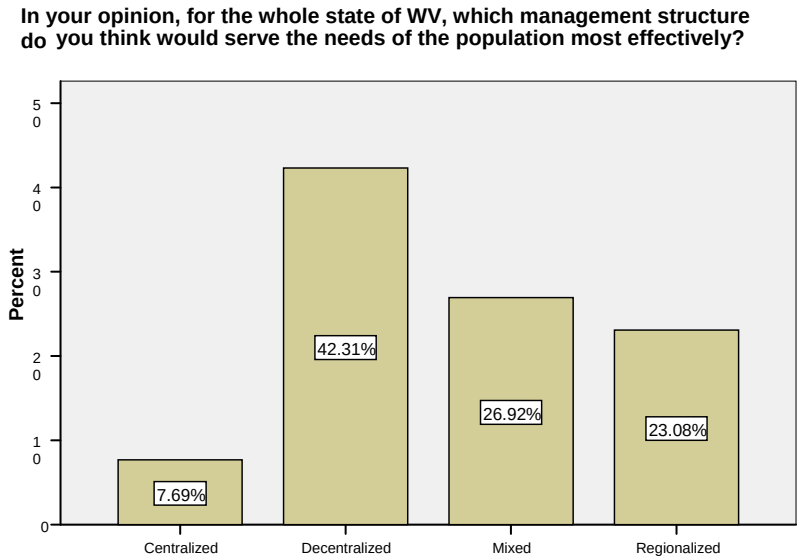
Comparison of Responses between Administrators and Non-Administrators

In an attempt to compensate for a wide variety of LBH personnel responding to the original questionnaire, a comparative analysis of responses from LBH administrators with non-administrators is provided. It is interesting to note that there are differences between the two groups for specific questions, but the overall focus of both groups appear similar.

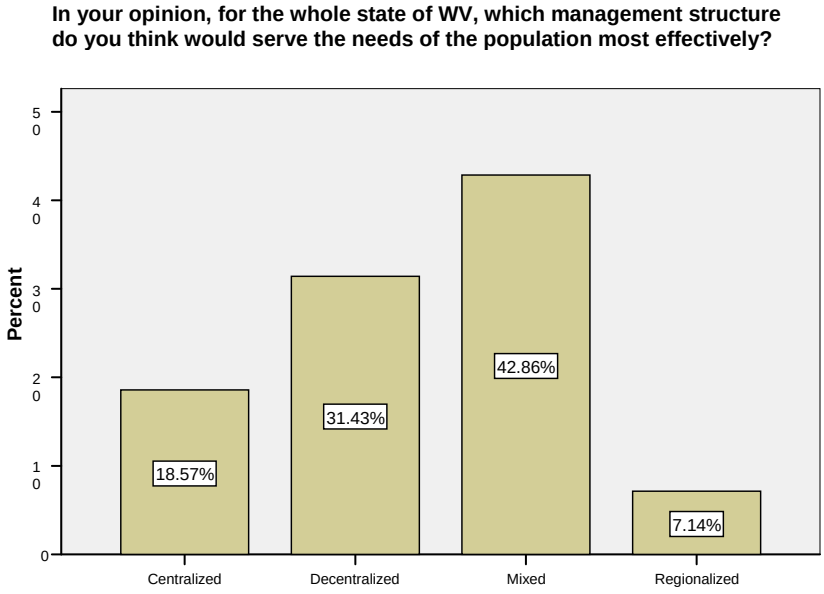
Both administrators and non-administrators favor a system that is more decentralized than centralized; both feel that task and mission accomplishment is satisfactory but funding and personnel limitations negatively impact performance. Both believe that additional funding is necessary for satisfying the needs of West Virginia citizens. An item-by-item comparison follows.

Although Administrators feel more strongly about the benefits of decentralization than non-administrators, when the analysts combines the categories of “decentralized” and “mixed” it appears that both groups reflect similar attitudes. However, non-administrators had a much more favorable view of a mixed structure. Surprisingly the administrators responded more positively to “regionalization” than non-administrators.

Frequencies - Administrator

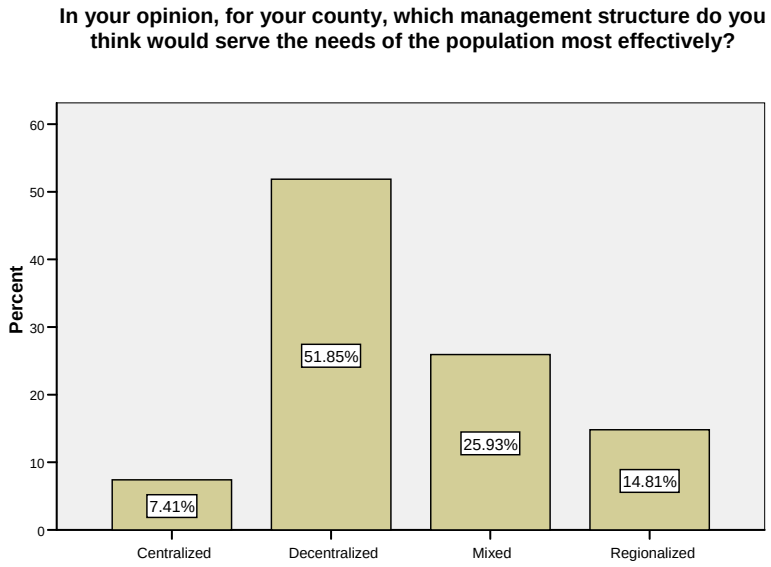


Frequencies - Other

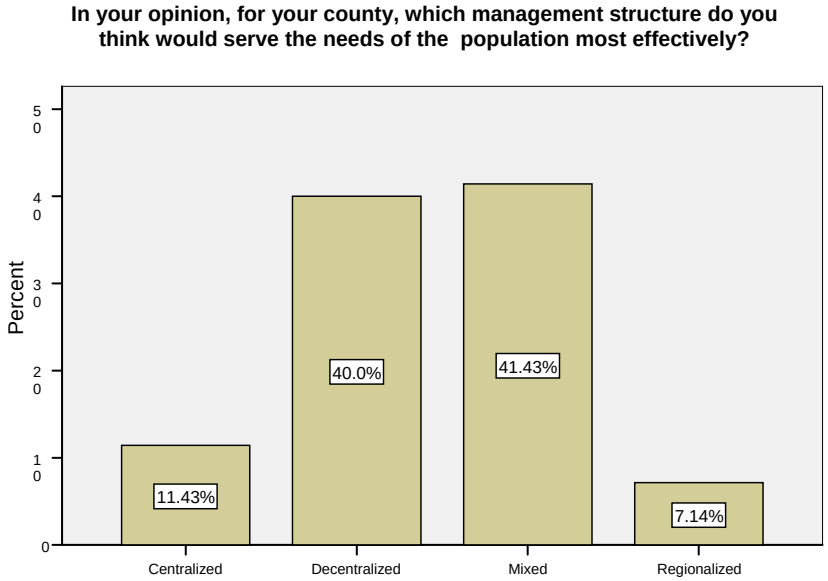


There were differences in perceptions when respondents were asked about the most appropriate management structure for "their" local health department; however, the focus remains consistent with the responses to question #1. Non-administrators view a mixed system more favorably than administrators.

Frequencies - Administrator

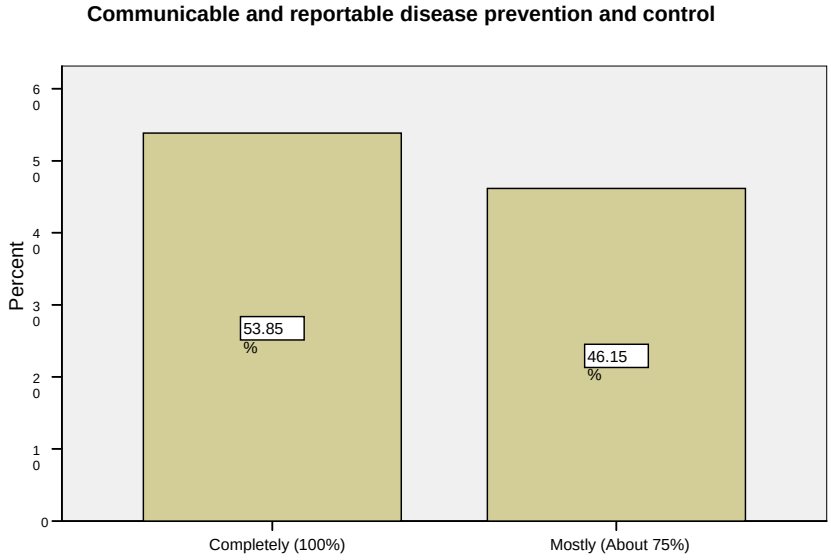


Frequencies - Other

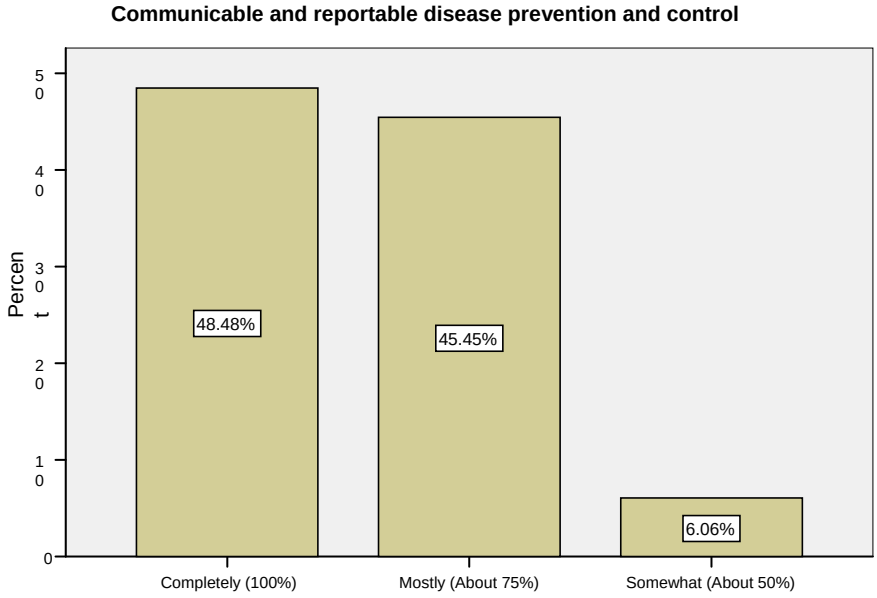


Administrators were more positive about their LBHs task accomplishment for “communicable and reportable disease prevention and control.” Both groups reported satisfactory levels of accomplishment.

Frequencies - Administrator

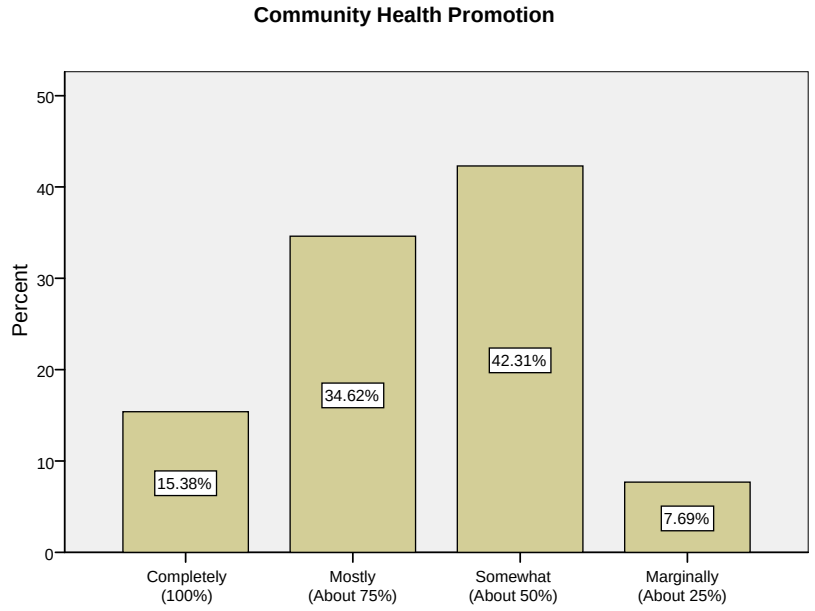


Frequencies - Other

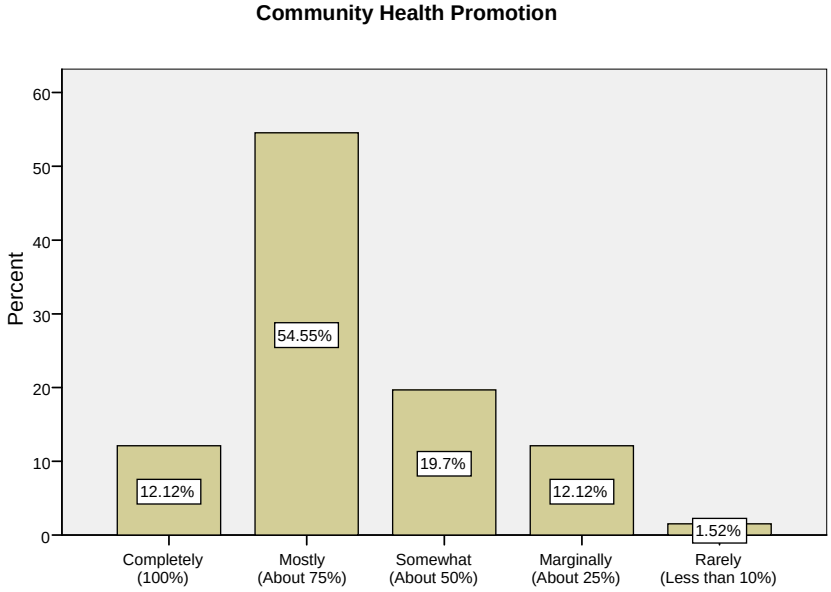


A significant difference is found between administrators and non-administrators regarding "community health promotion." While the non-administrators were strongly positive in their responses, administrators were not. There is no ready explanation for this large disparity except this may be an action item that falls more heavily on administrators to perform.

Frequencies - Administrator

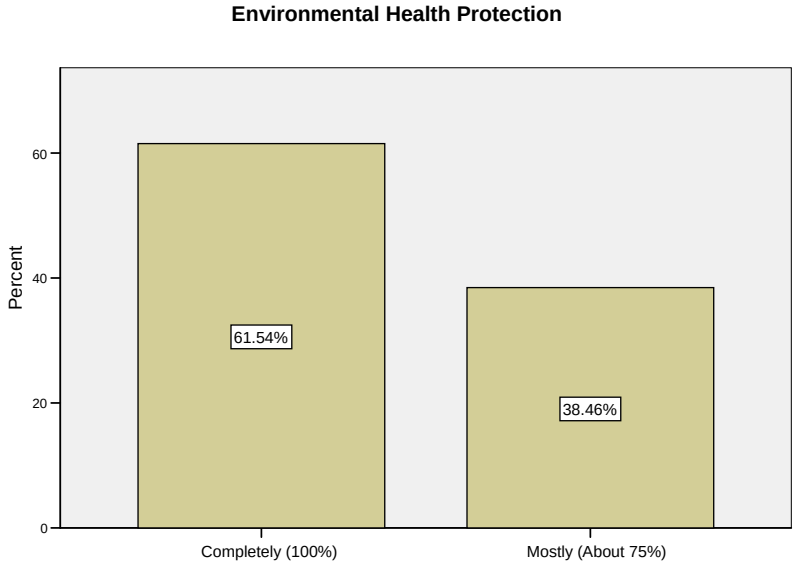


Frequencies - Other

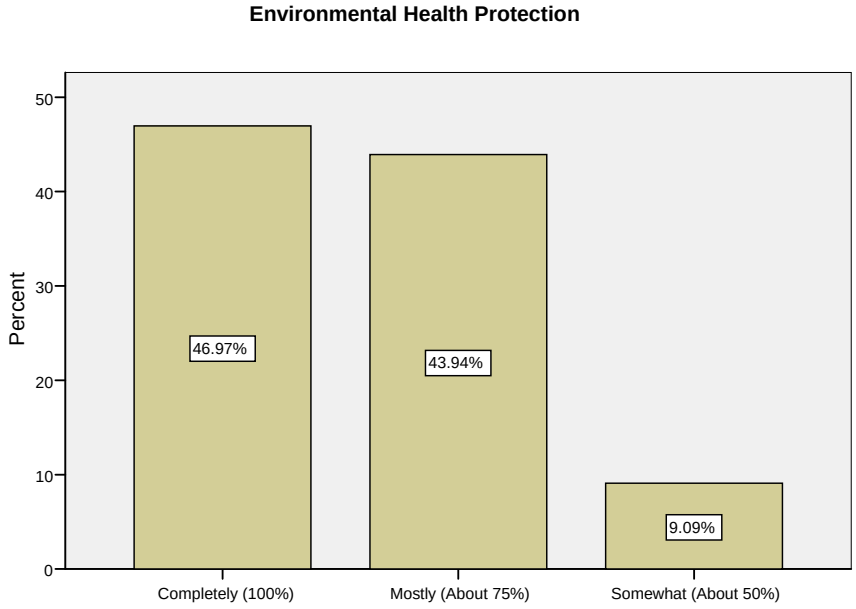


When asked about “environmental health protection” tasks both groups indicated strong task accomplishment. It should be noted however that the Administrators were substantially more positive than the non-administrators. This finding indicates an area of excellence for LBHs.

Frequencies - Administrator

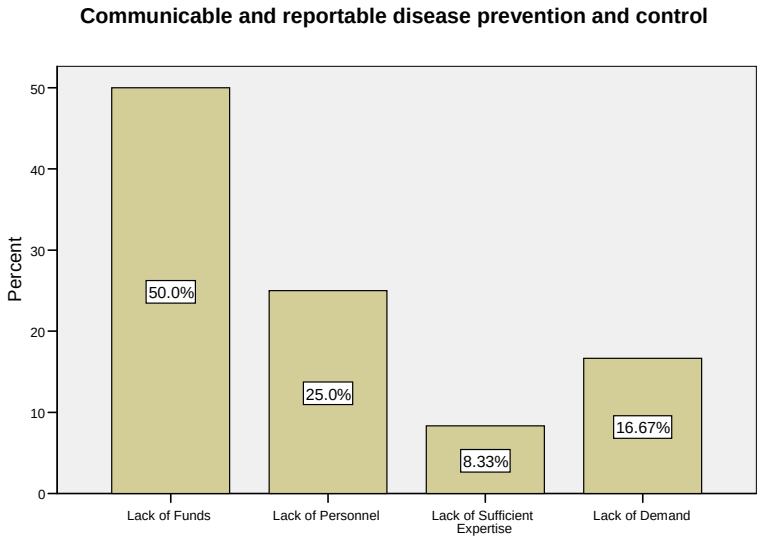


Frequencies - Other

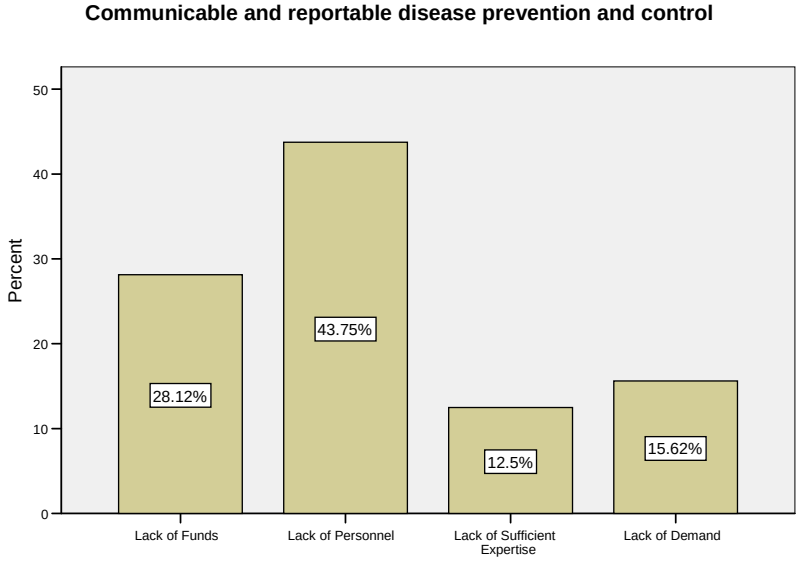


Lack of funds and lack of personnel were the two most frequently cited reasons by both groups for problems with "community and reportable disease prevention and control." The two groups differed on the importance of the reason with administrators stressing importance of the reason with administrators stressing funding and non-administrators citing personnel. The two factors are tied together, so the difference is of no significance.

Frequencies - Administrator

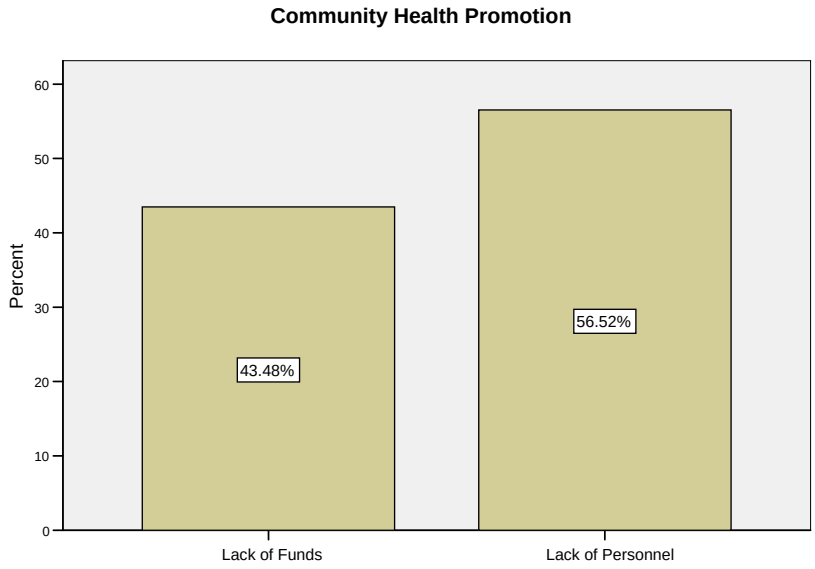


Frequencies – Other

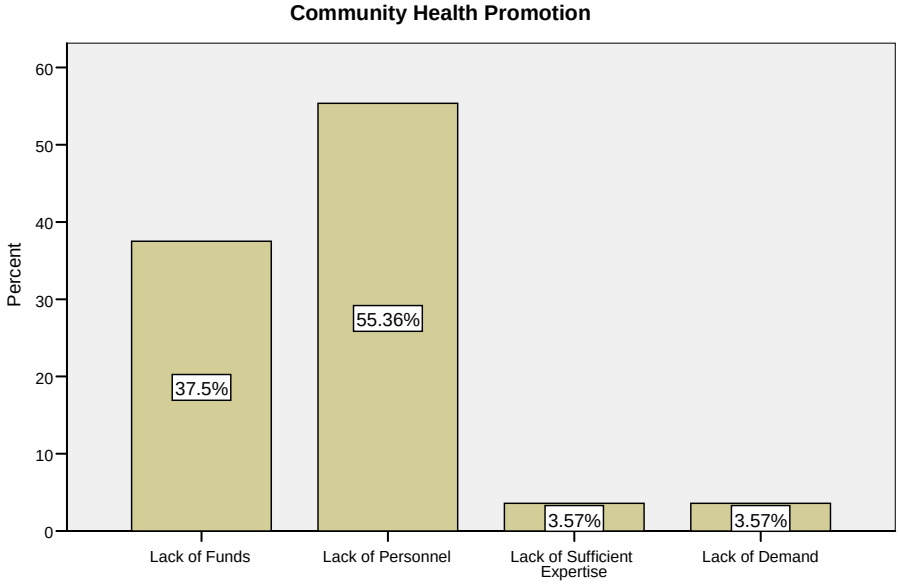


A similar response to the last question concerns “community health promotion.” Both groups of respondents did list “personnel” as more important. This may indicate a labor shortage and lack of trained individuals.

Frequencies - Administrator

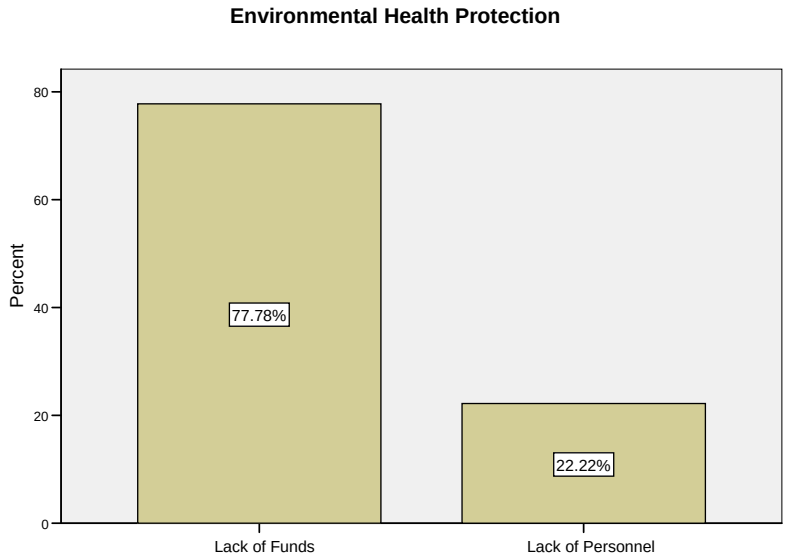


Frequencies - Other

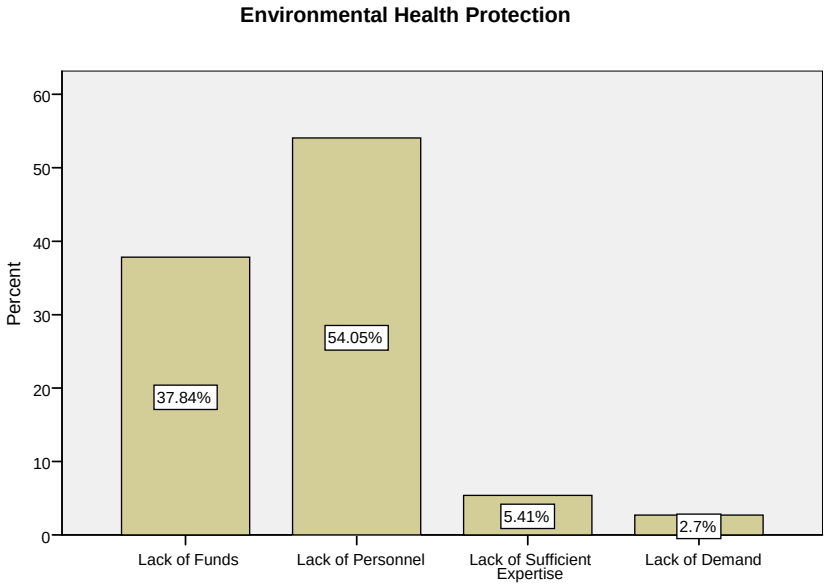


The answers to this query parallel those of the previous question. When “environmental health protection” is considered, administrators see funding and non-administrators see personnel as most important.

Frequencies - Administrator

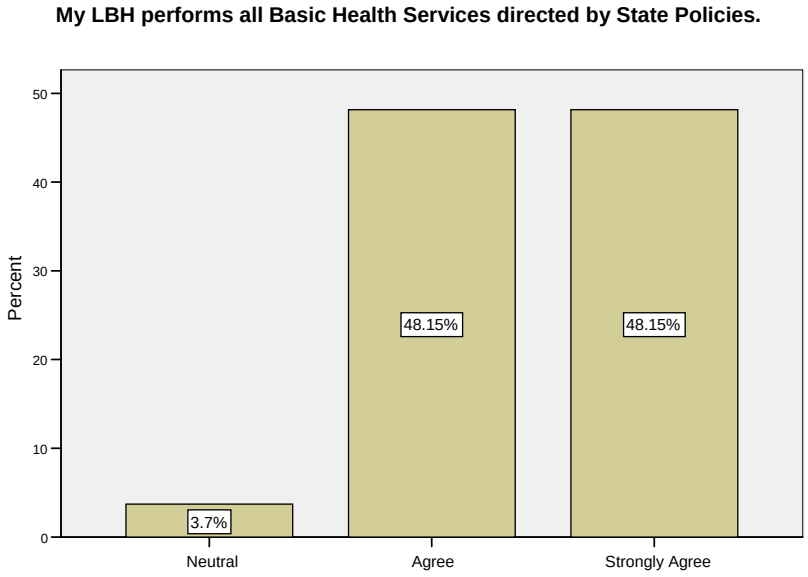


Frequencies - Other

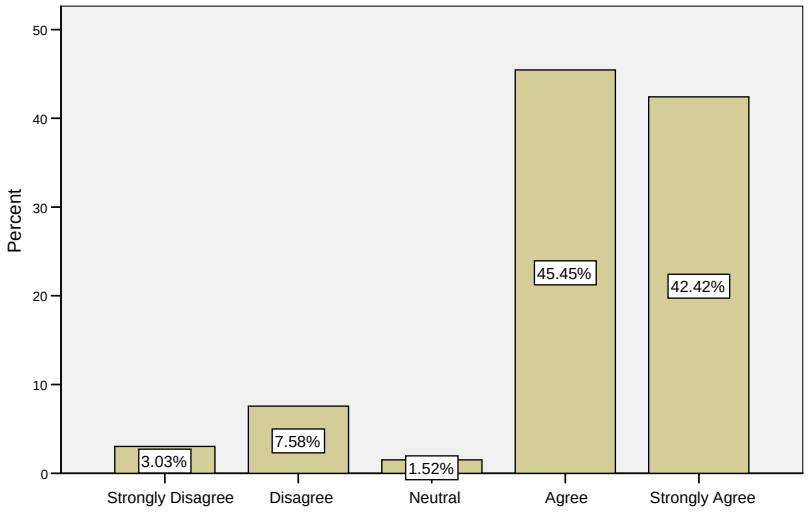


When asked if they provided all mandated basic public health services both groups were overwhelmingly positive. However, it is interesting to note that while no administrator responded negatively approximately 11% of the non-administrators did.

Frequencies - Administrator

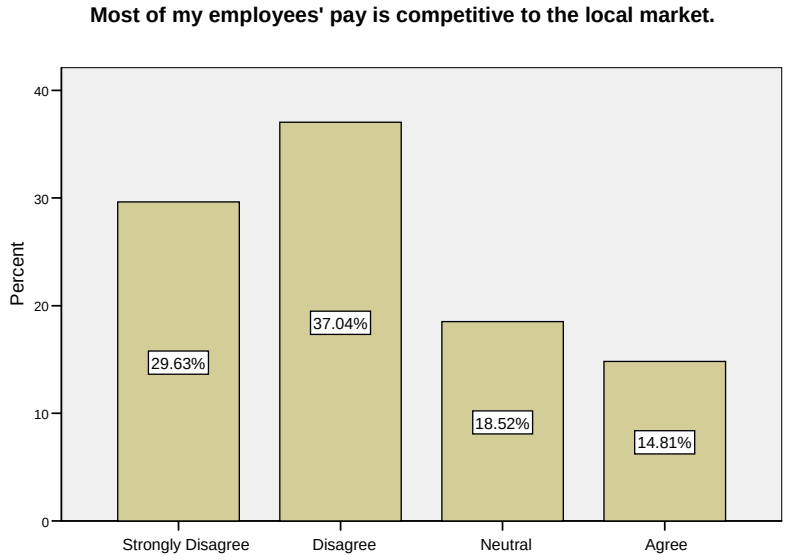


Frequencies - Other

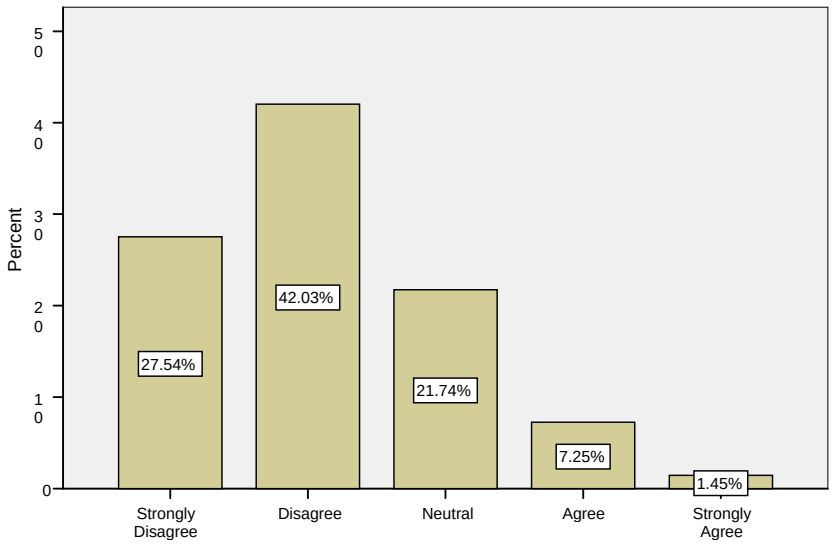


Neither Administrators nor non-administrators believe that LBH salaries are competitive in the marketplace. This observation is supported by prior responses which indicated funding and personnel were critical issues.

Frequencies - Administrator

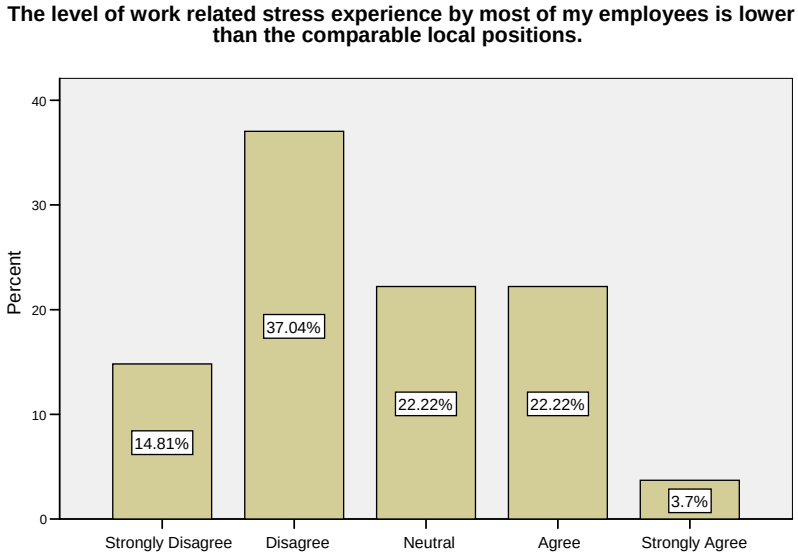


Frequencies - Other

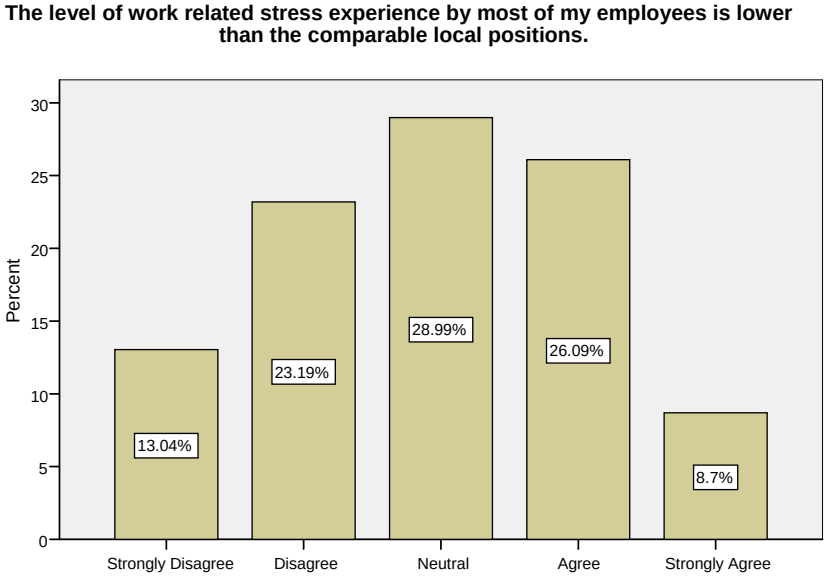


Interestingly it appears that Administrators perceive the work-related stress level of LBH employees to be higher than the level perceived by non-administrators. It is not surprising to find high stress levels for those working at below market wages with high levels of responsibility. More funding and personnel could reduce this problem. Administrators who have to lead in this environment may be especially sensitive.

Frequencies - Administrator

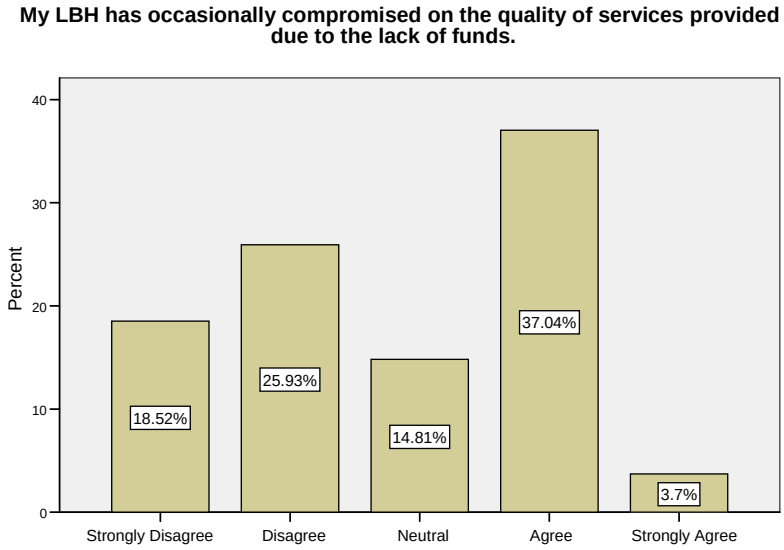


Frequencies - Other

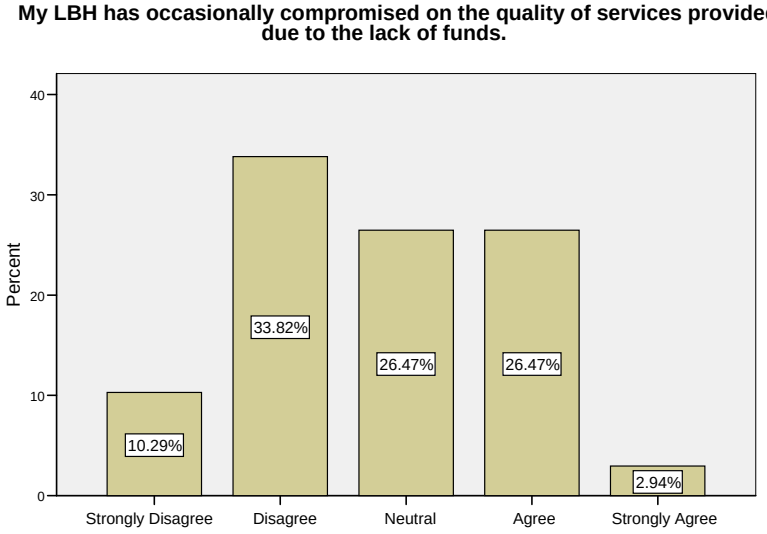


Administrators are more likely than non-administrators to feel that quality is occasionally compromised because of a lack of funds. It should be noted that for both groups less than one-half of the respondents indicated that quality was not compromised at some time. The inference suggests that while quality is not a major issue it certainly warrants concern.

Frequencies - Administrator

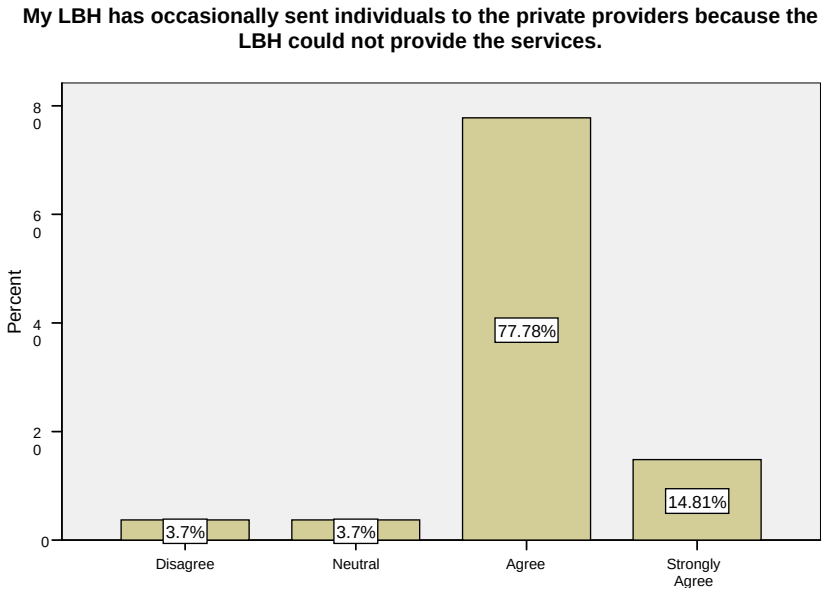


Frequencies -Other

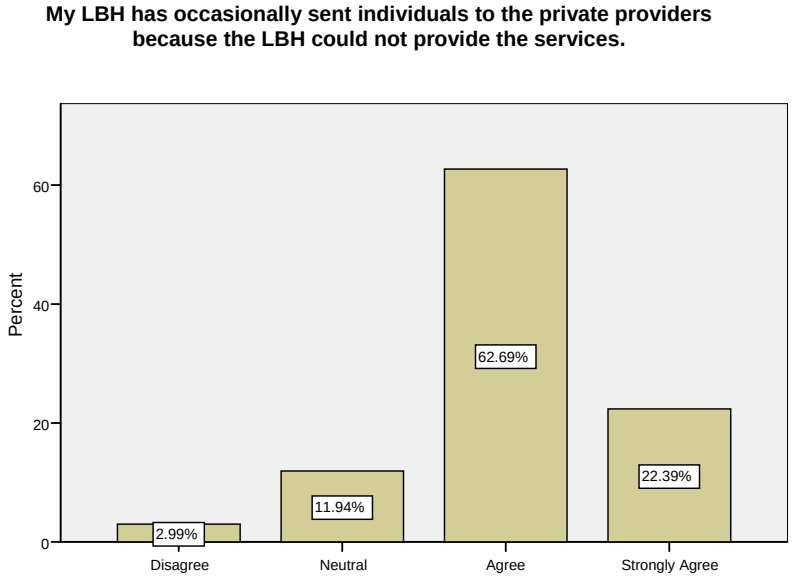


While there is no difference in the response to the question regarding "sending individuals to other providers," it is notable that this is a common practice. There are two possible reasons: lack of funding or the service being available elsewhere and no need for duplication.

Frequencies - Administrator

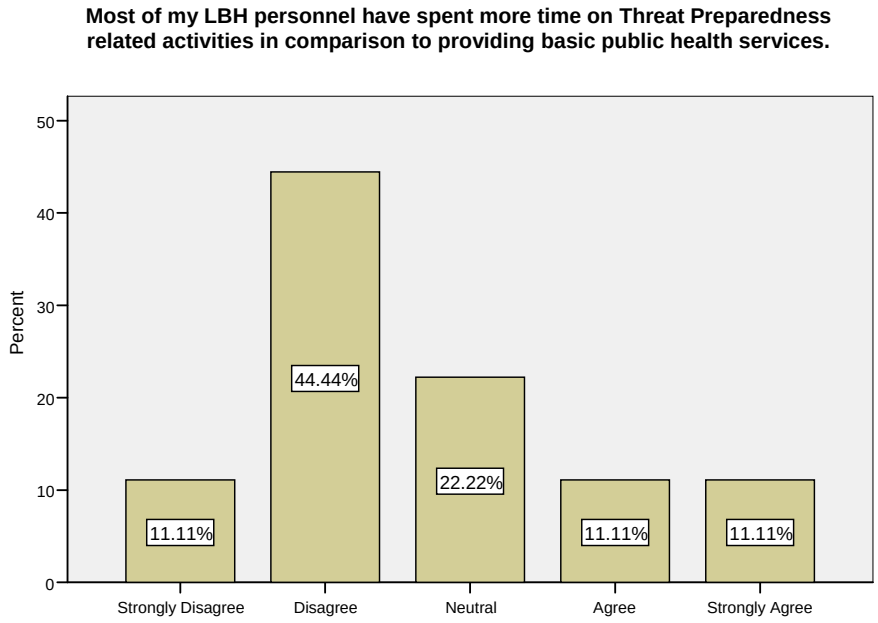


Frequencies – Other

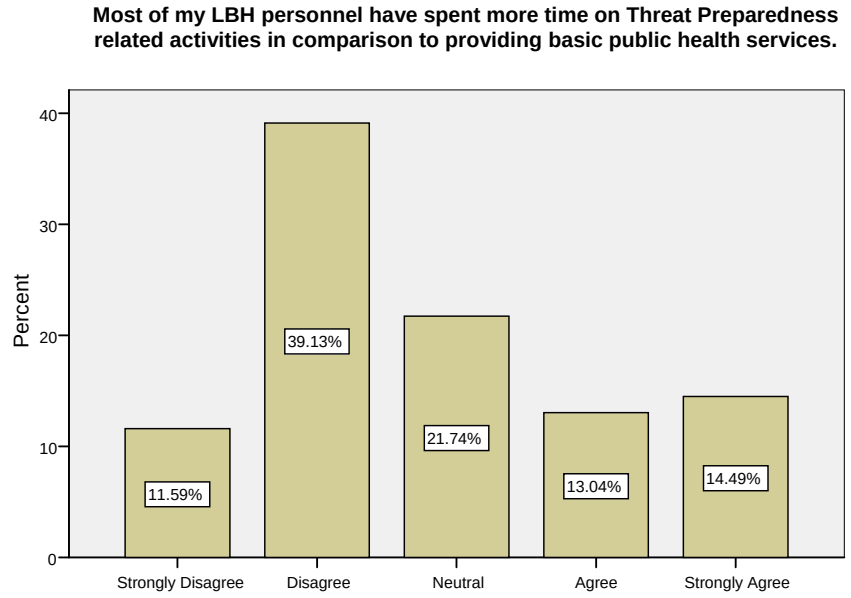


In response to the query regarding whether the current emphasis on threat preparedness had diverted employees from basic health services, a significant minority saw a problem but a slight majority did not.

Frequencies - Administrator

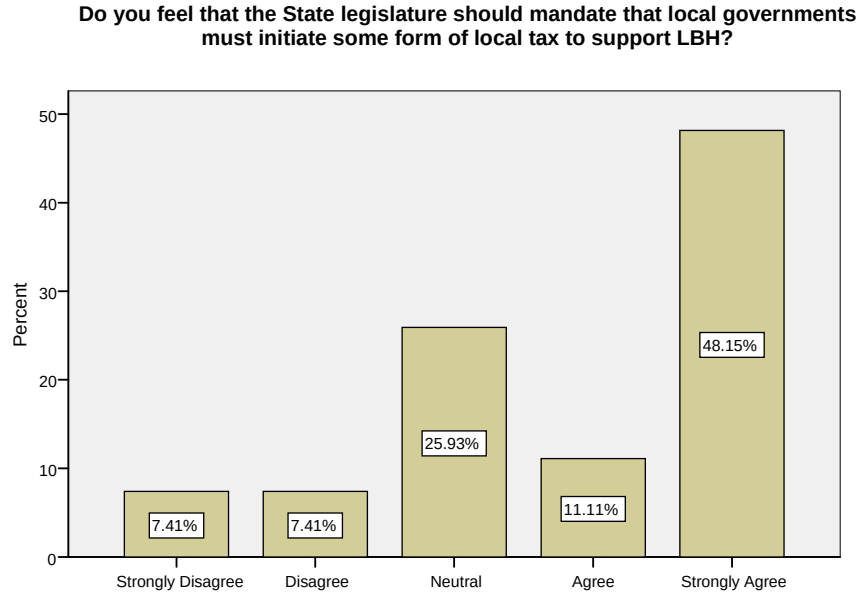


Frequencies - Other

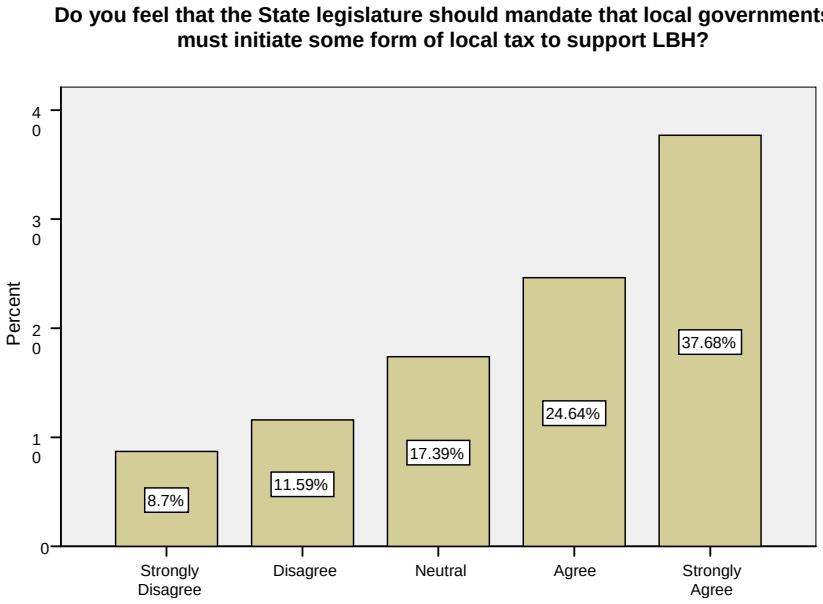


While the administrator group demonstrated a stronger positive attitude toward a mandated local tax they also had a higher concentration of “neutrals” than non-administrators. This difference may be a reflection of political “sensitivity” rather than a truly “neutral” attitude. However, it does reflect the desire of both to receive greater local support.

Frequencies - Administrator

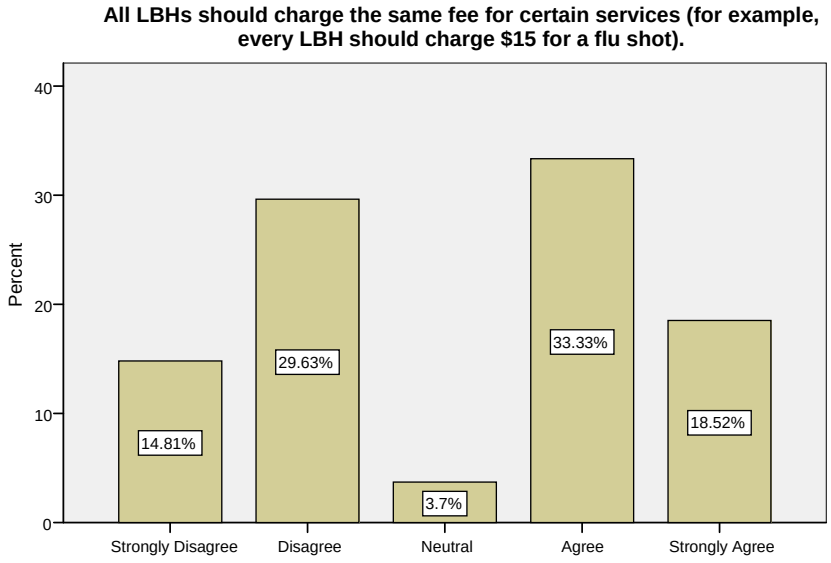


Frequencies - Other

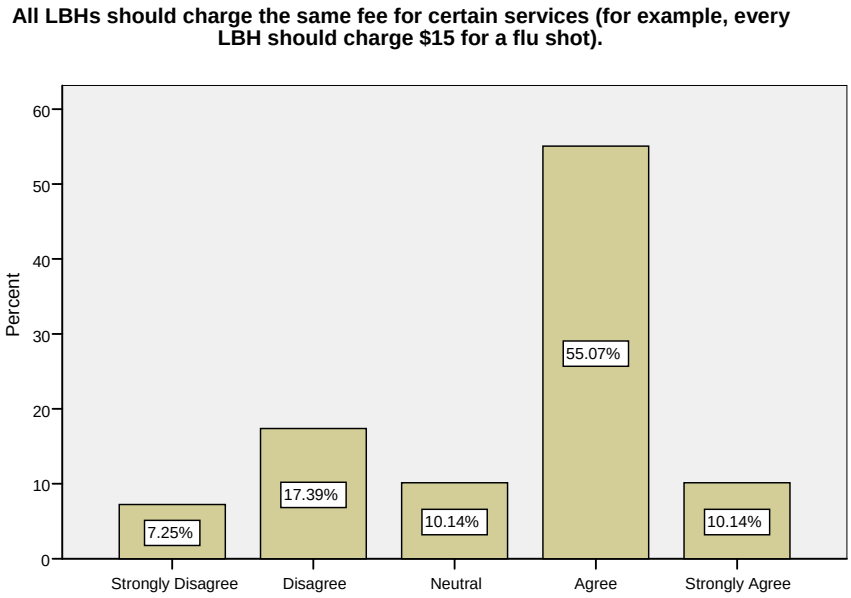


When asked if all LBH's should charge the same fee for identified services the administrator group was bi-modal while the non-administrators generally supported a common fee structure. A slight majority of the administrators did support a common fee schedule.

Frequencies - Administrator

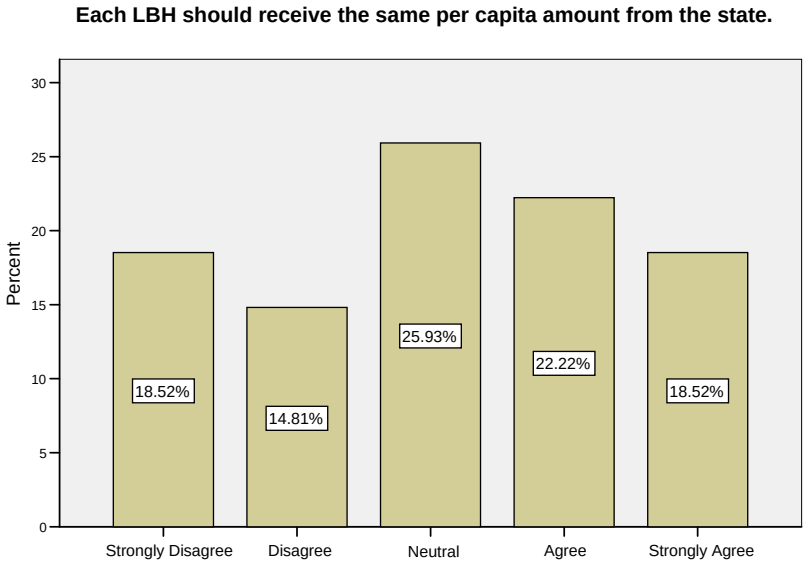


Frequencies - Other

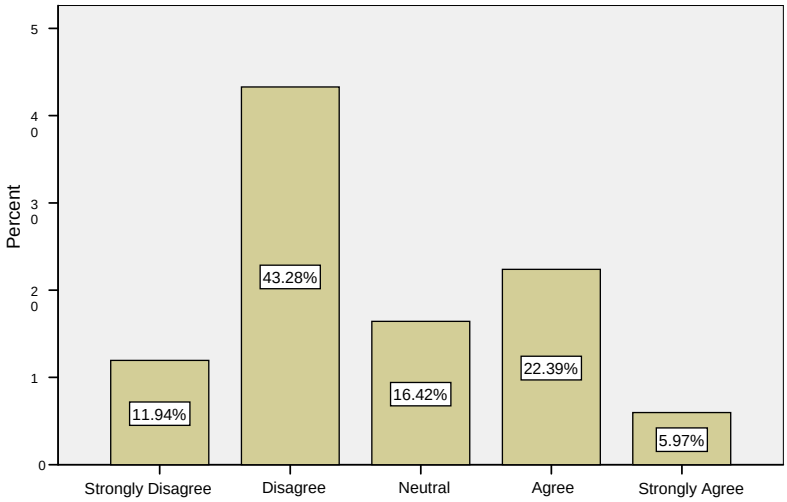


It appears that the administrative group has very mixed perceptions concerning “per capita” funding and “inversely indexed per capita” funding (based on population size) with no response receiving heavy support (neutral received the most responses). While non-administrators do not feel that each LBH should receive the same per capita amount, they believe criteria other than population should be used.

Frequencies - Administrator

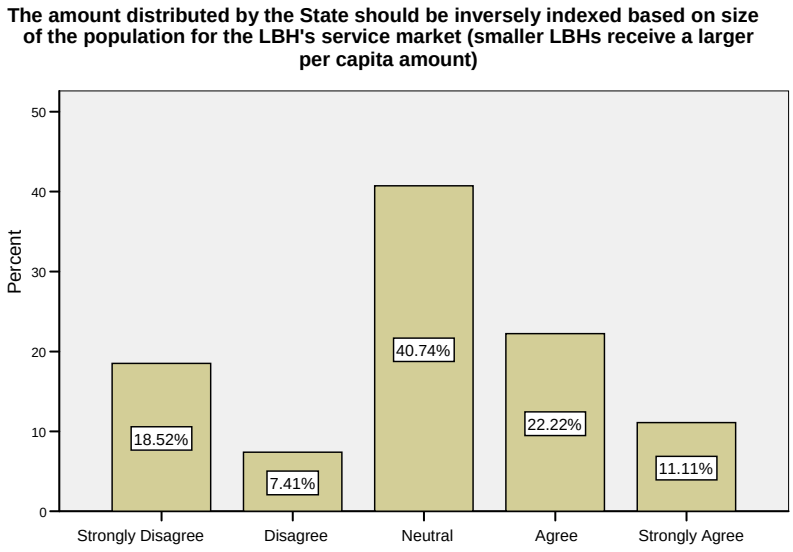


Frequencies - Other

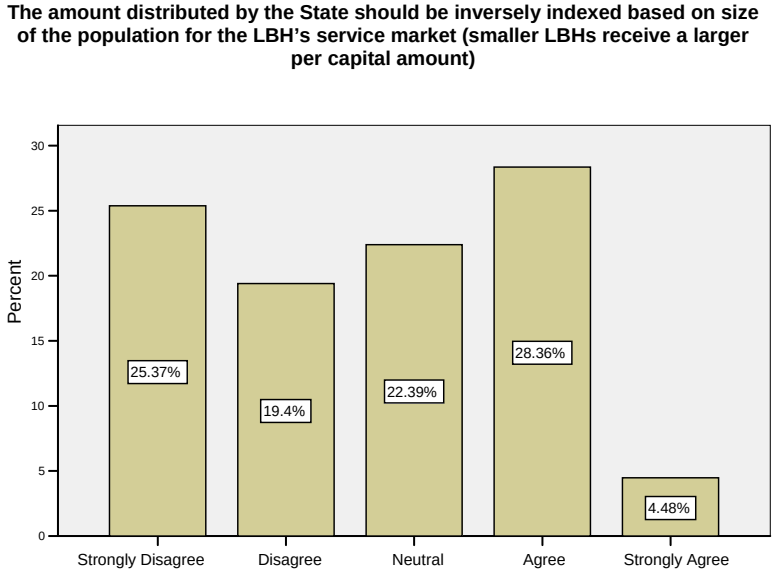


There was no consensus among either group regarding inverse indexing where smaller LBHs receive higher per capita amounts. It can be hypothesized that the responses were highly dependent on the size of the LBH. However, there is only minority support among respondents for this idea.

Frequencies - Administrator

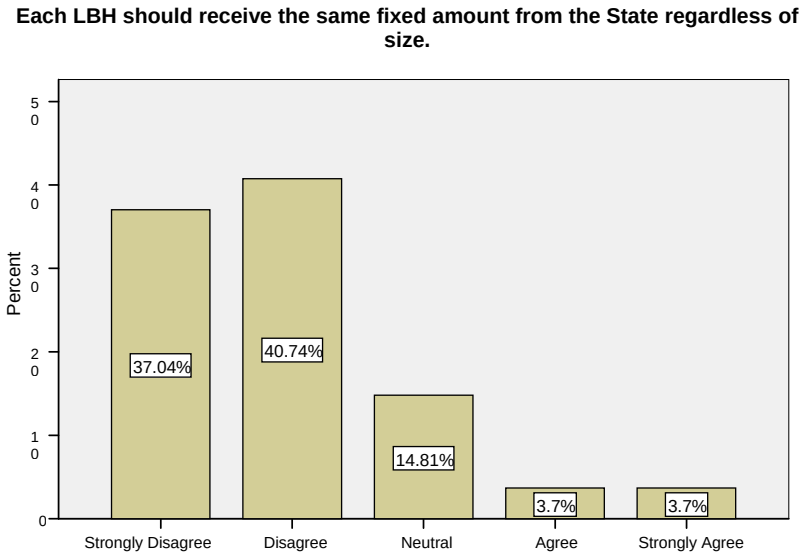


Frequencies - Other

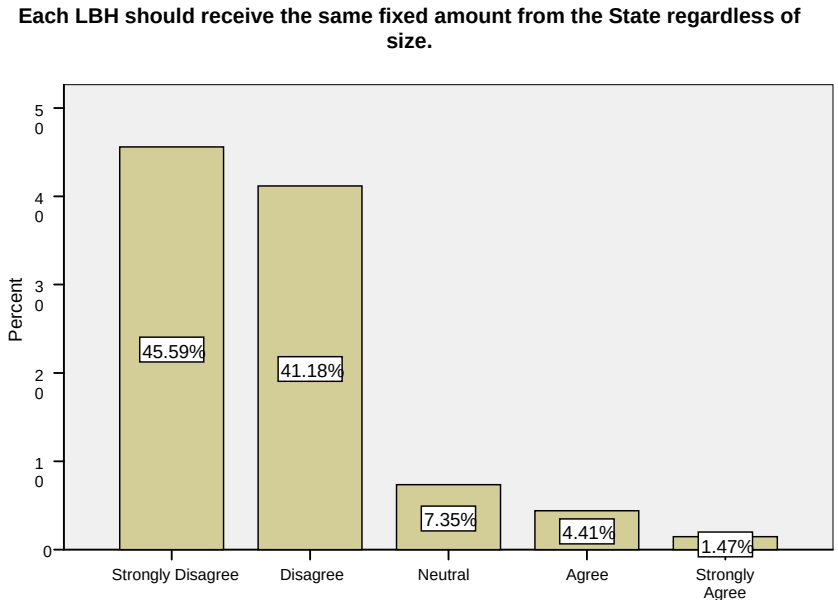


There is consensus that the LBHs should not receive equal funding. This reflects the reality of the different characteristics of each LBH and their varying requirements. Such an approach would seriously disadvantage larger jurisdictions.

Frequencies - Administrator

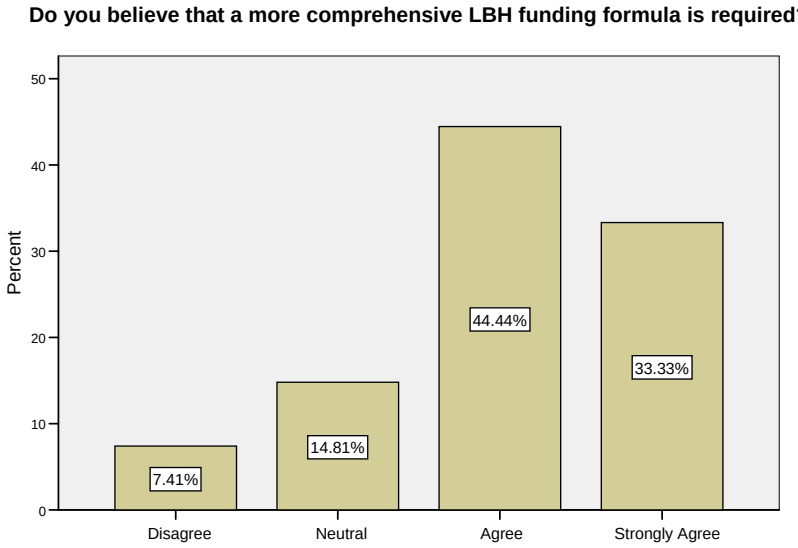


Frequencies - Other

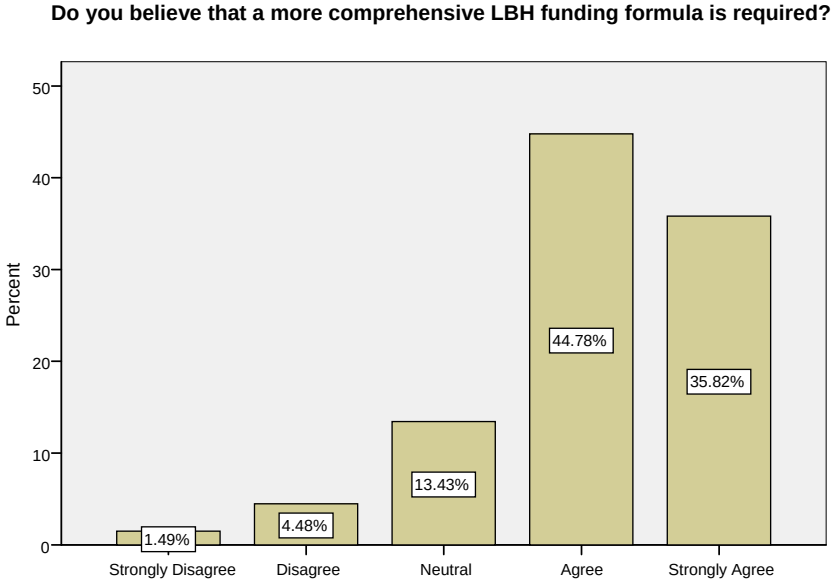


On the question of the need for a more comprehensive formula, there was minimal disagreement. Both favor the proposal. This should not be interpreted as support for a particular formula. Opinion may change when a specific formula is presented.

Frequencies - Administrator

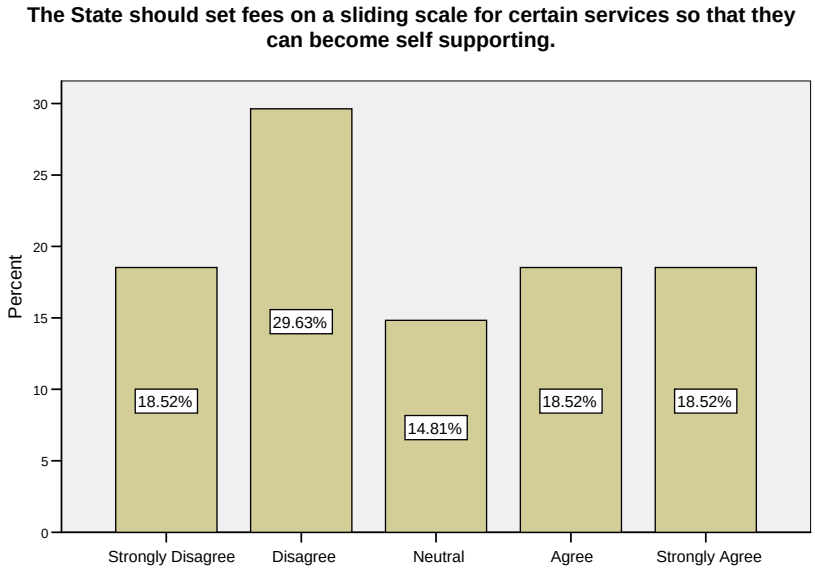


Frequencies - Other

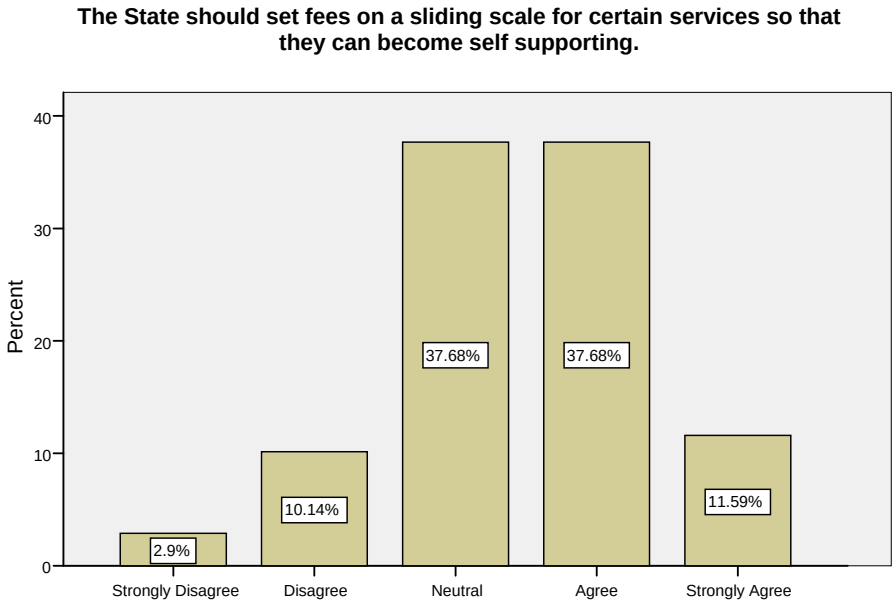


While administrators disagreed by nearly 30% that the State should set fees on a sliding scale for certain services so that they can become self supporting, non-administrators were evenly neutral with, or agreed with, the sliding scale by nearly 80% total. Of the remaining four responses for administrators, the opinions about the sliding scale were relatively the same.

Frequencies - Administrator

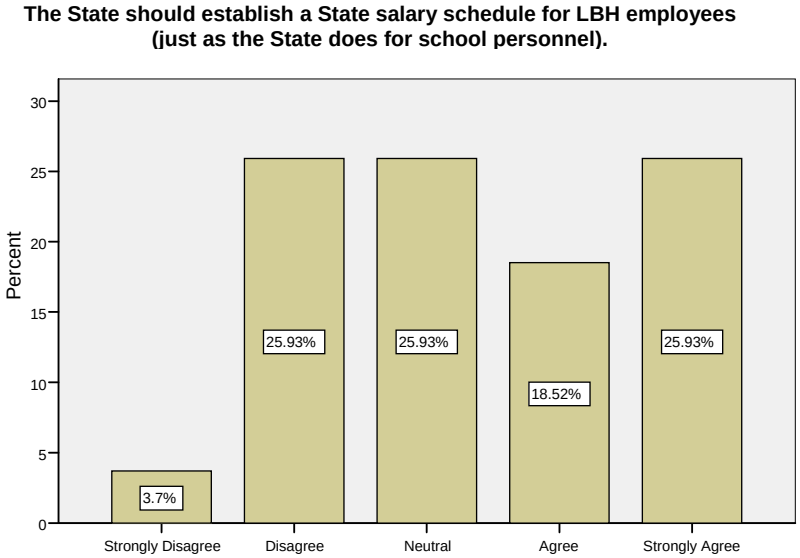


Frequencies - Other

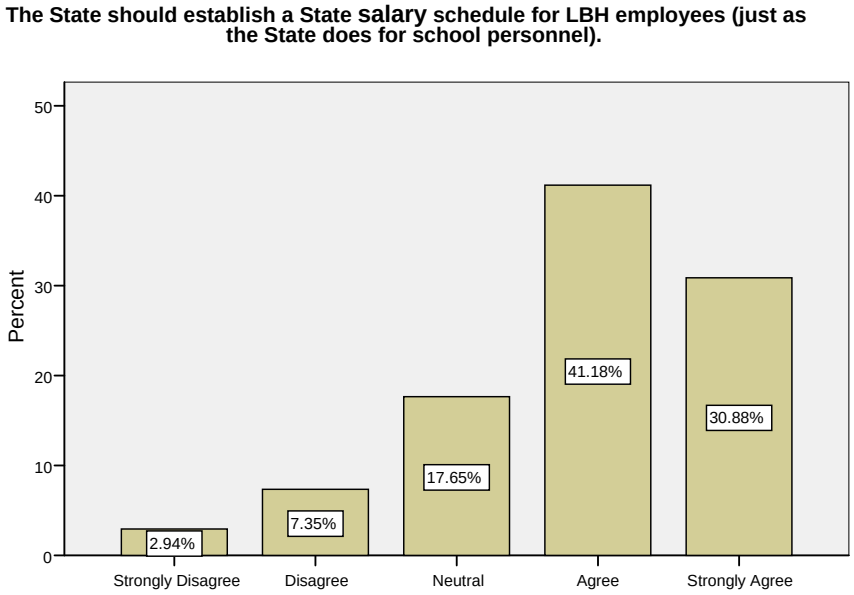


The largest group of non-administrators agreed that the State should establish a state salary schedule for LBH employees while administrators were evenly split, by about 26% each, between those who disagreed, strongly agreed, and were neutral to the question. It is interesting to note that the percentages of both the administrators and non-administrators who strongly disagreed with the state salary schedule for LBH employees were the lowest.

Frequencies - Administrator



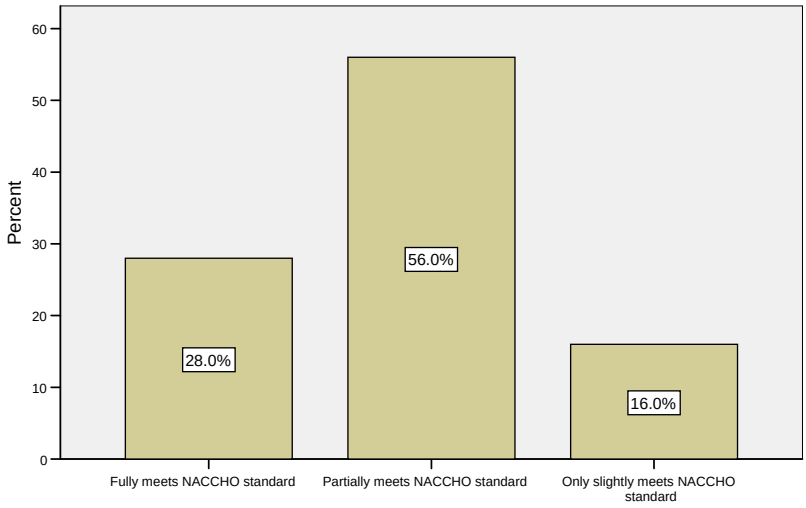
Frequencies - Other



The graph containing the non-administrative responses dealing with the monitoring of health status to identify community health problems overwhelmingly agrees that it fully meets the NACCHO standard. On the other hand, administrators mostly agreed that the monitoring of health status is only partially meeting the NACCHO standards.

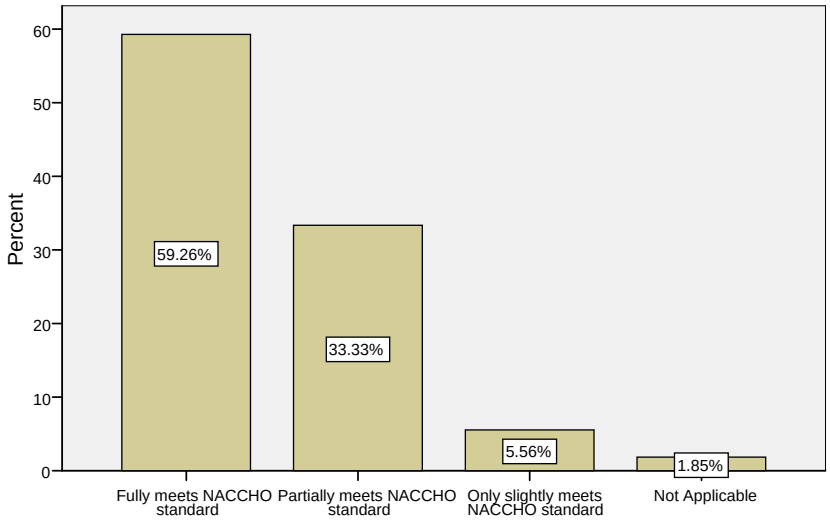
Frequencies - Administrator

CRD#1 - Monitor health status to identify community health problems.



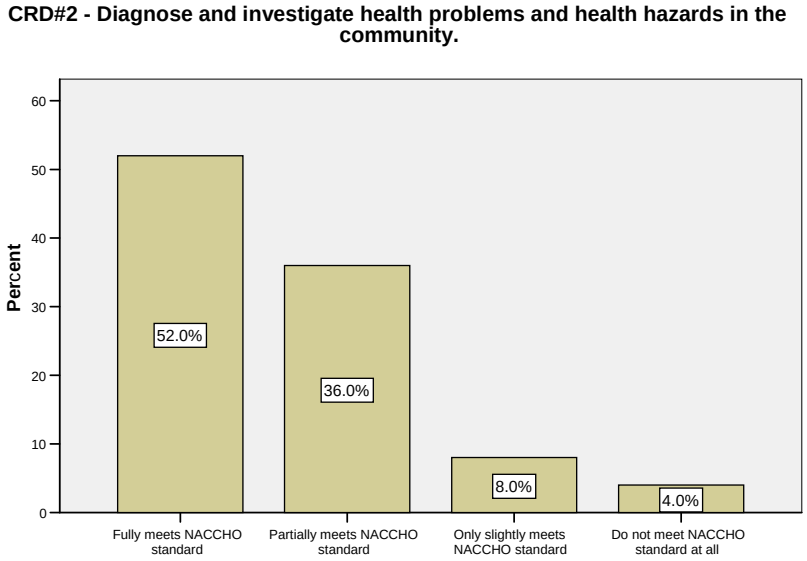
Frequencies - Other

CRD#1 - Monitor health status to identify community health problems.

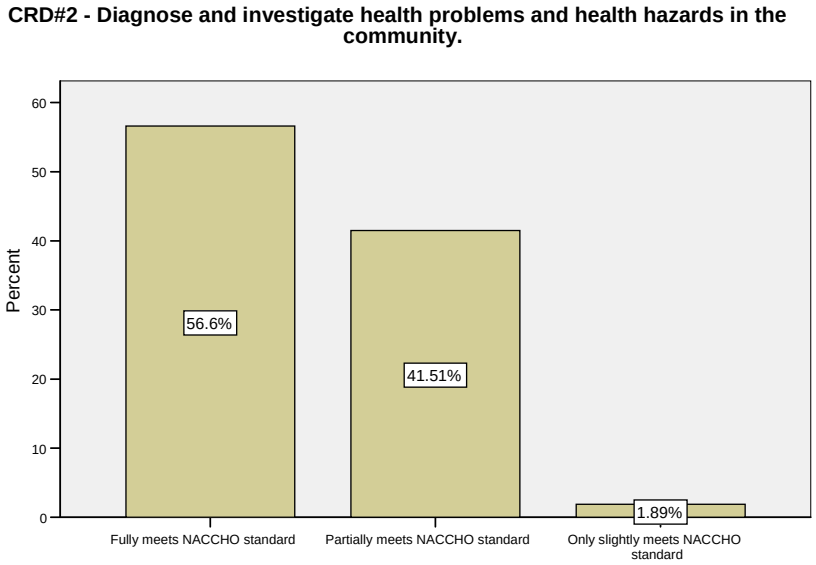


For the responses regarding the diagnosis and investigation of health problems and hazards in the community, both the administrators and non-administrators seemed to be in agreement. The percentages for the fully and partially meets the NACCHO standard are relatively similar in both cases.

Frequencies - Administrator



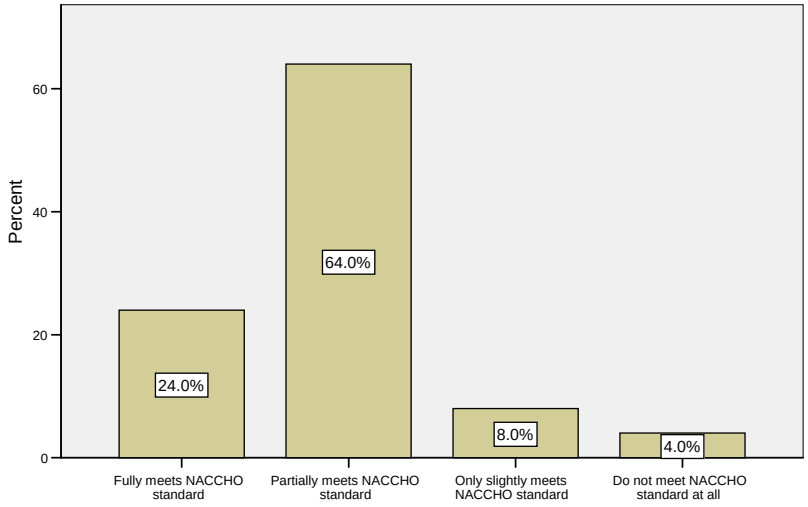
Frequencies - Other



The responses by the administrators overwhelmingly show that administrators feel their ability to inform, educate and empower people about health issues only partially meets the NACCHO standard. Non-administrators, however, mostly feel that the LBH fully meets the NACCHO standard.

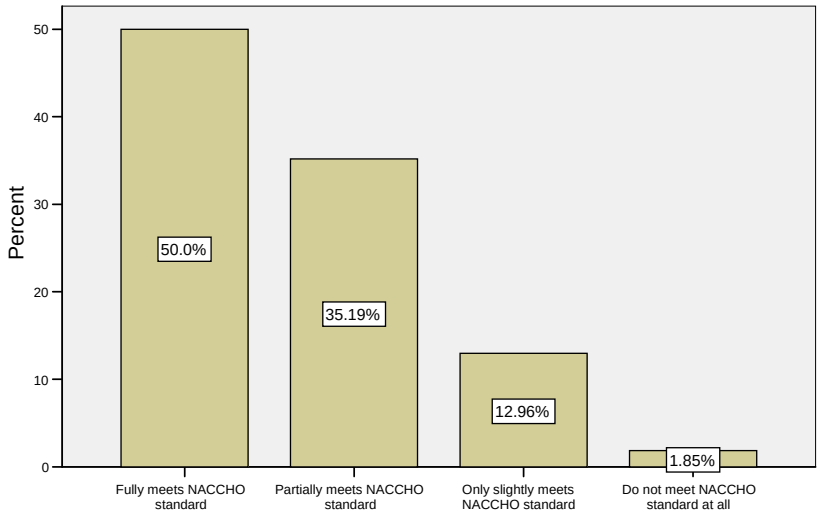
Frequencies - Administrator

CRD#3 - Inform, educate, and empower people about health issues.



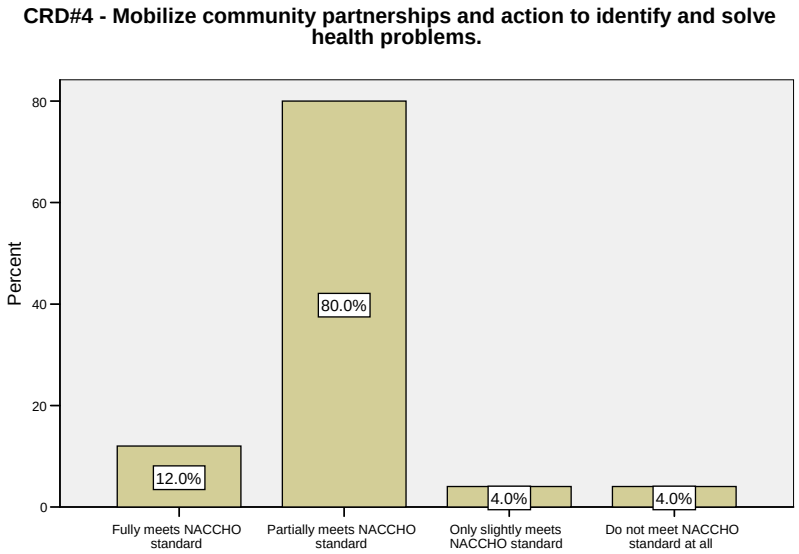
Frequencies - Other

CRD#3 - Inform, educate, and empower people about health issues.

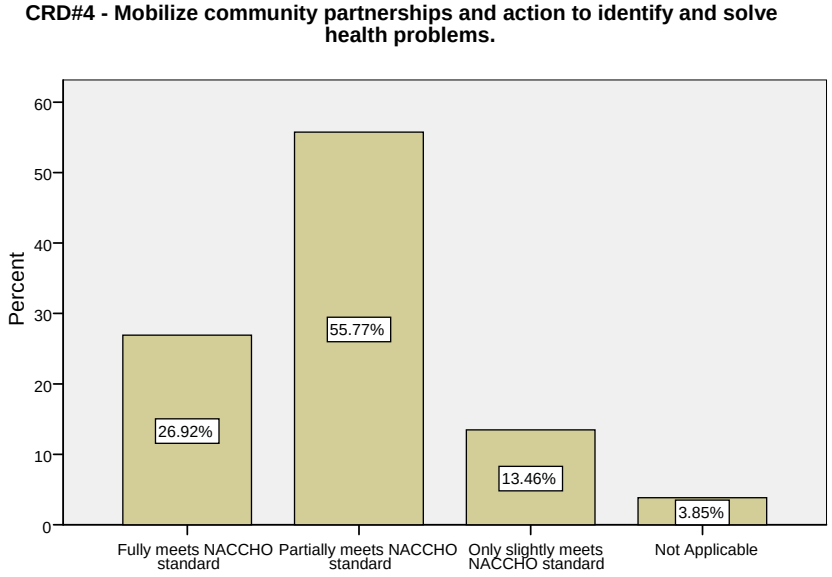


Both administrators and non-administrators feel that mobilization of community partnerships and action to identify and solve health problems only partially meets the NACCHO standard. It is interesting to note that the percentages show 80% of administrators and 56% of non-administrators feel it partially meets standards.

Frequencies - Administrator

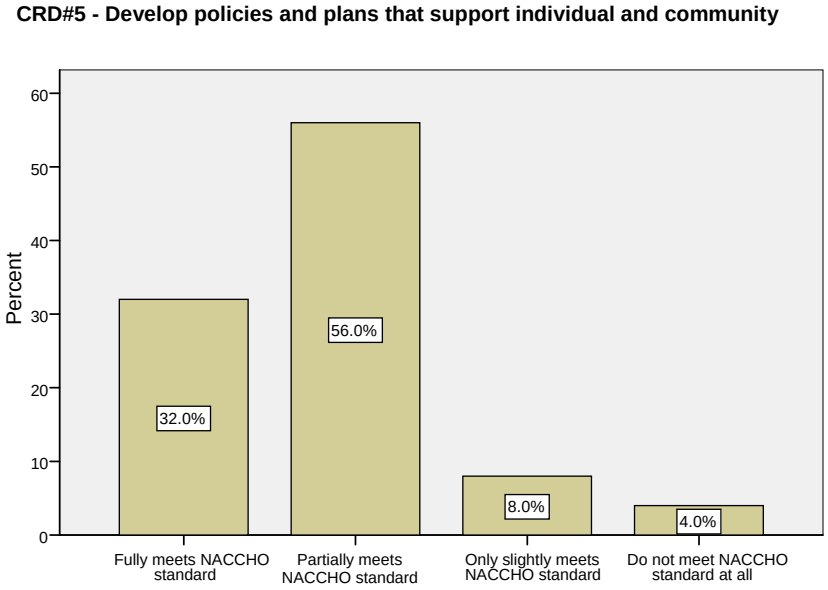


Frequencies - Other

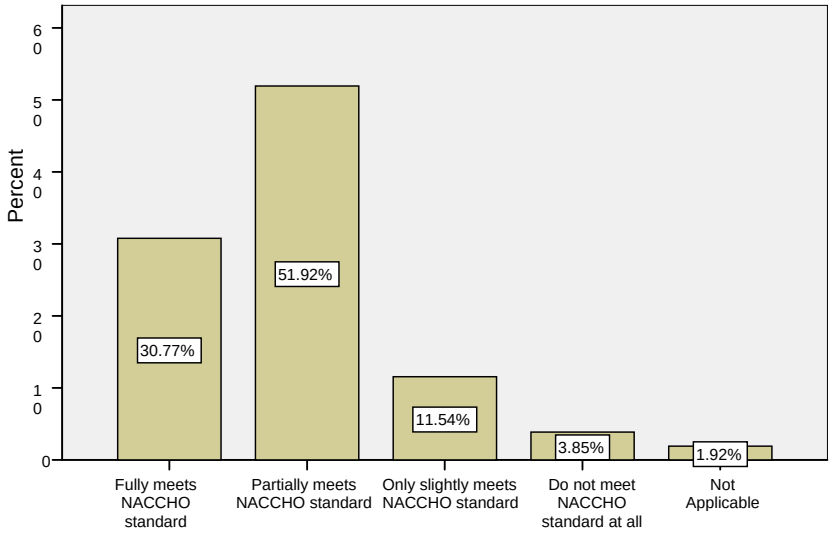


The responses for both administrators and non-administrators about the development of policies and plans that support individual and community were fairly similar. Most felt that it either fully or partially meets the NACCHO standard, showing a small percentage felt it only slightly meets standards or does not meet standards at all.

Frequencies - Administrator



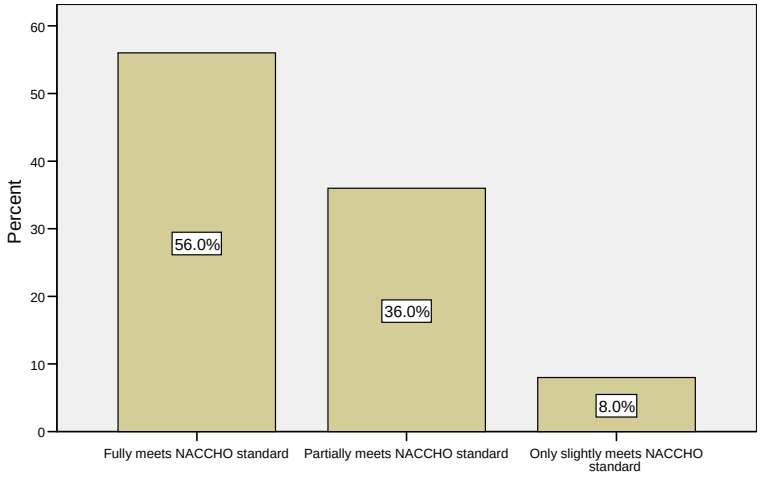
Frequencies - Other



Again, both administrators and non-administrators seem to be in agreement about the enforcement of laws and regulations that project health and ensure safety either fully or partially meeting NACCHO standard. The one big difference to note is that, of the third response recorded for each group, the administrators felt that it only slightly meets standards while non-administrators felt it does not meet the standards at all.

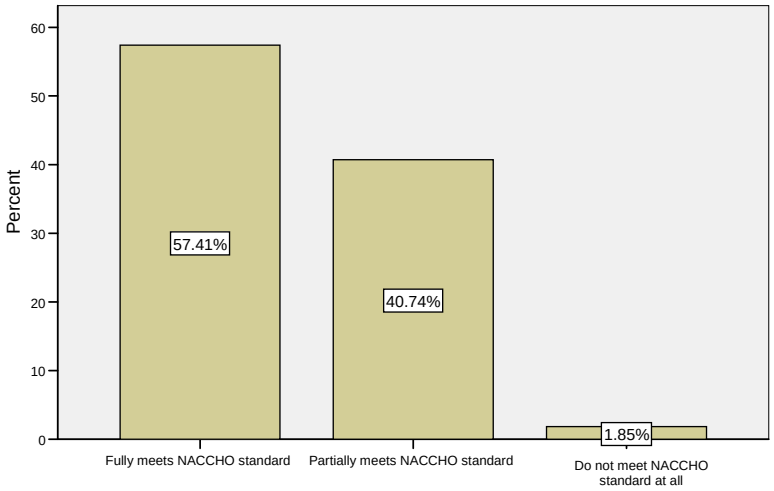
Frequencies - Administrator

CRD#6 - Enforce laws and regulations that protect health and ensure safety.



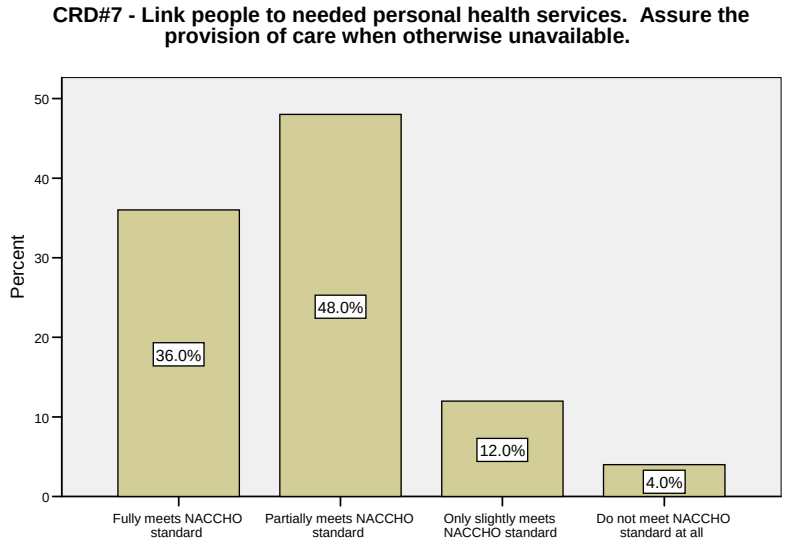
Frequencies - Other

CRD#6 - Enforce laws and regulations that protect health and ensure safety.

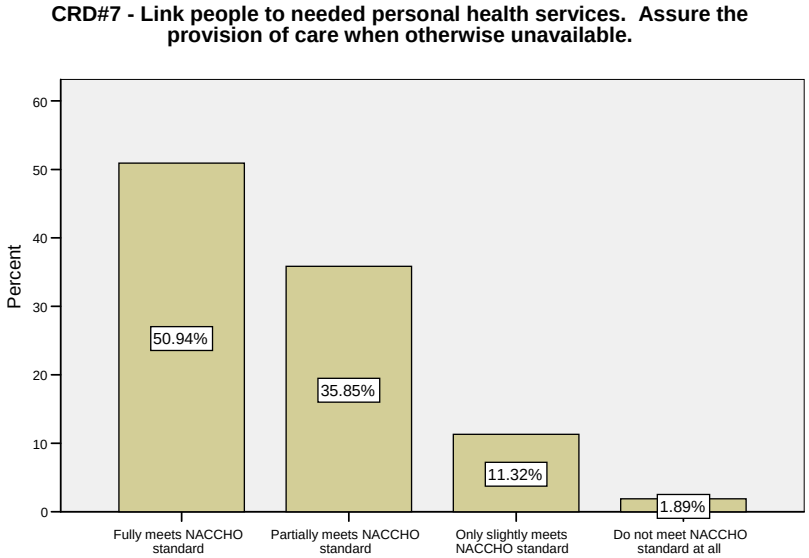


The largest percentage of administrators felt that linking people to needed personal health care services and assuring the provision of care when otherwise unavailable was only partially meeting the NACCHO standard. On the other hand, the largest percentage of non-administrators felt that, with regard to this topic, the standards were being fully met according to the NACCHO standard.

Frequencies - Administrator

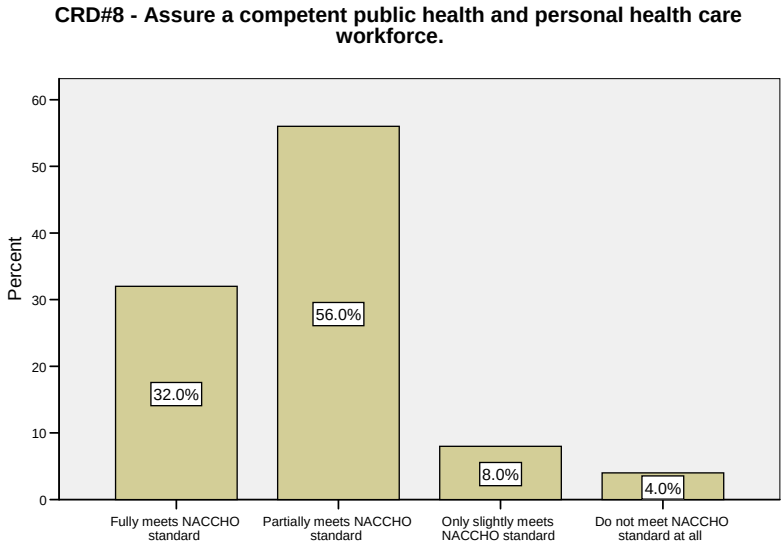


Frequencies - Other

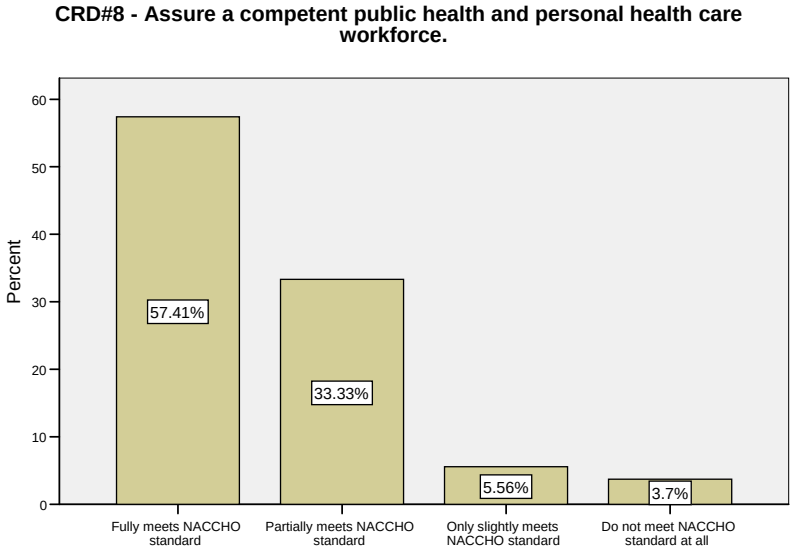


Similar to the previous graphs, the majority of administrators felt that assuring a competent public health and personal health care workforce was only partially meeting NACCHO standards while non-administrators felt that this topic was fully meeting standards.

Frequencies - Administrator

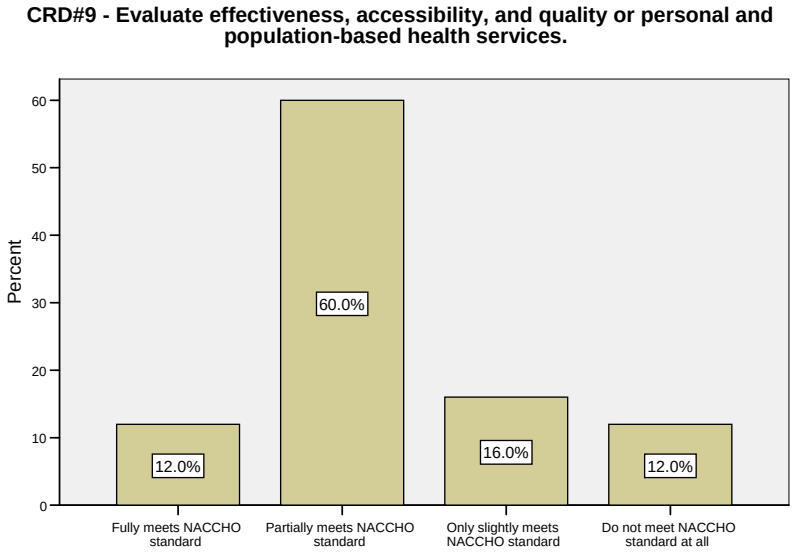


Frequencies - Other

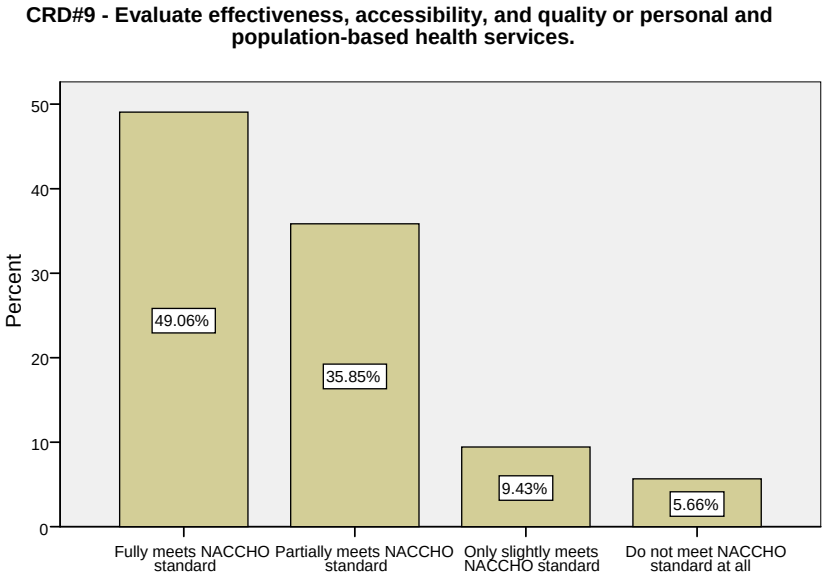


When asked about evaluation effectiveness, accessibility, and quality or personal and population-based health services, 60% of administrators felt that it was only partially meeting NACCHO standard. In an interesting contrast, over 49% of non-administrators felt that the NACCHO standard was being fully met.

Frequencies - Administrator

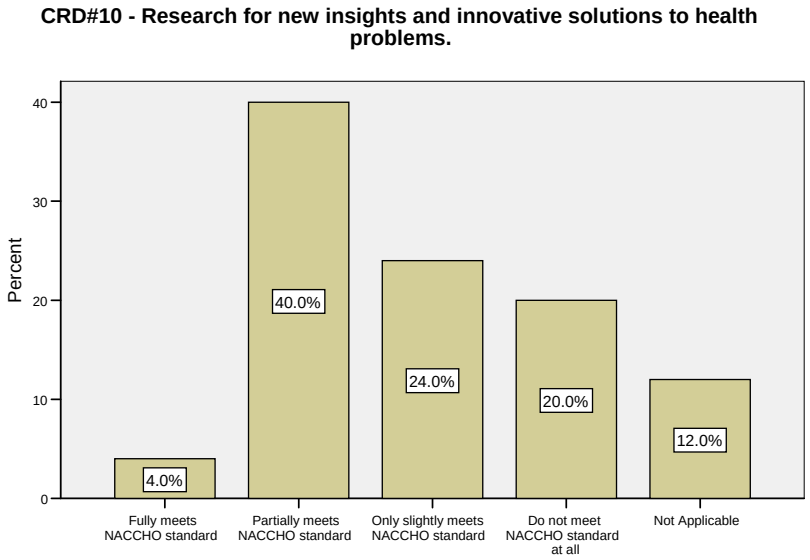


Frequencies - Other

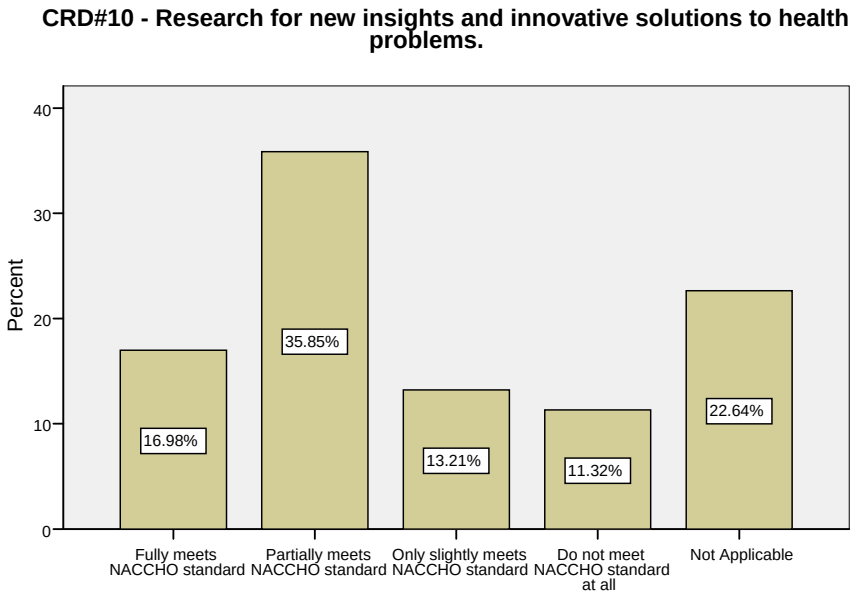


When dealing with research for new insights and innovative solutions to health problems, the majority of both administrators and non-administrators agreed that the NACCHO standard was only being partially met. As for the other responses, non-administrators were more likely to say that the NACCHO standard is being fully met rather than only slightly met, while administrators were more likely to say the standard is only slightly met versus fully met.

Frequencies - Administrator



Frequencies - Other



CHAPTER 8

Opinions and Attitudes of State Employees Providing Services to LBHs

To determine the perceptions of those working with LBHs at the State level an additional questionnaire was developed and distributed. Of the potential 20 respondents, 12 replied. The small number of responses may or may not accurately reflect the views of all State personnel.

Findings

In nearly every case where the questions were comparable there was little if any disagreement between the responses received from the administrators and non-administrators who worked at the LBHs and those who worked at the State level. It is obvious that all respondents felt that funding and salaries needed significant increases.

Support for maintaining at least a "mixed" delivery system for local health services was evidenced by both groups. Decentralization was viewed more favorably by the LBH respondents. If any changes in the current administrative structure are to be made they must be handled cautiously as there was no support for centralization among either group.

There were some, but not substantial, differences on issues of delivery of services. Local health providers gave themselves somewhat better marks than did State employees. Relationships between the State and the field appear to be satisfactory as seen by both groups.
A large majority of respondents to both surveys did not favor a fixed allocation to the LBHs nor did they favor a fixed per capita amount. There was some support for a funding formula which allocated state support inversely to population.

In keeping with the attitude prevalent among the LBH respondents, State personnel felt a more comprehensive formula for allocating funds to the local units is necessary. The State respondents listed the following as components to be considered.

- Population density
- Need for services
- Availability of services
- Population health status
- Number of uninsured
- Percent of low income residents
- Accomplishment of performance criteria

These do not vary from those identified in the other survey.

When asked to rank factors for determining the minimum base for funding LBHs the survey of State employees ranked the following:

- Staff requirements
- Population
- Number of interventions
- Equal allocations
- Population density
- Number of inspections

One fourth of the respondents did not feel they performed all of the services directed by State policies. Over 90 percent felt that quality was occasionally compromised because of lack of funds. In evaluating these answers with those from LBH respondents, it would appear that funding is negatively impacting task accomplishment at the State as well as the local level.

An important issue is demonstrated in State personnel's perception of future funding. The vast majority of respondents believe that the States allocation for public health will remain the same, but two thirds believe that federal grants will decline. There was no agreement regarding the future of private support. Considering the importance of federal funding this observation, should it prove true, would be a serious blow to program delivery and quality.

Specific Results

When asked about which of the three possible governance structures they preferred, there was no agreement except only two favored the current decentralized system. Over half favored a mixed system with shared responsibilities.

In your opinion, for the whole state of WV, which management structure do you think would serve the needs of the population most effectively?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Decentralized	2	16.7	16.7	16.7
	Mixed	7	58.3	58.3	75.0
	Regionalized	3	25.0	25.0	100.0
	Total	12	100.0	100.0	

The State employees were asked about the level and adequacy of services they were providing to the LBHs. Only one respondent felt only some of the services met that criteria, seven felt that most of the services were provided with four feeling all services were provided. The same number of respondents made it impossible to break the replies down by function.

My department/division provides:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All of the services it should be providing to LBH's	4	33.3	33.3	33.3
	Most of the services it should be providing to LBH's	7	58.3	58.3	91.7
	Some of the services it should be providing to LBH's	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

The issue regarding the State requiring local governments to require some form of local support

for LBHs received favorable responses. There were no negatives, but three were neutral.

The State legislature should mandate that local governments must initiate some form of local tax to support LBH.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	3	25.0	25.0	25.0
	Agree	5	41.7	41.7	66.7
	Strongly Agree	4	33.3	33.3	100.0
	Total	12	100.0	100.0	

There was considerable disagreement among the 12 who replied regarding the question about an identical fee structure for local services. As the table indicates while the most frequent answer was "agree" it did not represent a majority.

All LBHs should charge the same fee for certain services (for example, every LBH should charge $15 for a flu shot).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	4	33.3	33.3	33.3
	Neutral	3	25.0	25.0	58.3
	Agree	5	41.7	41.7	100.0
	Total	12	100.0	100.0	

A similar pattern of disagreement emerged when the question of equal per capita spending was raised. But a majority disagreed and only two agreed with the proposal

Each LBH should receive the same per capita amount from the State.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	5	41.7	41.7	58.3
	Neutral	3	25.0	25.0	83.3
	Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

There was some support for the idea that inverse indexing should be used. Under the system per capita payments are highest for the lowest populated LBH. Half agreed with the proposal.

The amount distributed by the State should be inversely indexed based on size of the population for the LBH's service market (smaller LBHs receive a larger per capita amount).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Disagree	3	25.0	25.0	33.3
	Neutral	2	16.7	16.7	50.0
	Agree	6	50.0	50.0	100.0
	Total	12	100.0	100.0	

There was near unanimous agreement that the LBHs should not receive the same allocations from the State regardless of their size.

Each LBH should receive the same fixed amount from the State regardless of size.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	9	75.0	75.0	91.7
	Neutral	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

While two respondents were neutral the other ten indicated approval of devising a new comprehensive funding formula for distribution of State support.

A more comprehensive LBH funding formula is required.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	2	16.7	16.7	16.7
	Agree	5	41.7	41.7	58.3
	Strongly Agree	5	41.7	41.7	100.0
	Total	12	100.0	100.0	

Half of those answering the questionnaire indicated agreement with the concept of there being a sliding scale established by the State to be charged for certain services provided by LBHs. The idea behind these charges would be to make the LBHs self-sufficient.

The State should set fees on a sliding scale for certain services so that they can become self supporting.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	2	16.7	16.7	16.7
	Neutral	4	33.3	33.3	50.0
	Agree	6	50.0	50.0	100.0
	Total	12	100.0	100.0	

Lack of agreement characterized the answers regarding a state salary schedule. The majority of answers were "neutral" with four respondents favoring the concept.

The State should establish a state salary schedule for LBH employees (just as the state does for school personnel).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	8.3	8.3	8.3
	Neutral	7	58.3	58.3	66.7
	Agree	2	16.7	16.7	83.3
	Strongly Agree	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

The next series of questions concerned what factors should be included in a State comprehensive formula for distribution of financial support. As can be seen from the following tables there was little consensus regarding these criteria. Although a previous question had indicated that there was support for a comprehensive formula, there is not agreement as to what that formula should contain.

Availability of Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	16.7	16.7	16.7
	3	3	25.0	25.0	41.7
	4	1	8.3	8.3	50.0
	5	1	8.3	8.3	58.3
	6	3	25.0	25.0	83.3
	7	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

Need for Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	25.0	25.0	25.0
	2	4	33.3	33.3	58.3
	3	1	8.3	8.3	66.7
	4	2	16.7	16.7	83.3
	5	1	8.3	8.3	91.7
	7	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

Number of Uninsured

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	8.3	8.3	8.3
	4	2	16.7	16.7	25.0
	5	7	58.3	58.3	83.3
	6	1	8.3	8.3	91.7
	7	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

Percent of Low Income Residents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	8.3	8.3	8.3
	2	2	16.7	16.7	25.0
	3	2	16.7	16.7	41.7
	4	1	8.3	8.3	50.0
	5	1	8.3	8.3	58.3
	6	5	41.7	41.7	100.0
	Total	12	100.0	100.0	

Population Density

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	50.0	50.0	50.0
	3	1	8.3	8.3	58.3
	7	5	41.7	41.7	100.0
	Total	12	100.0	100.0	

Population's Health Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	8.3	8.3	8.3
	2	4	33.3	33.3	41.7
	3	3	25.0	25.0	66.7
	4	3	25.0	25.0	91.7
	6	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

Satisfaction of Performance Criteria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	8.3	8.3	8.3
	3	1	8.3	8.3	16.7
	4	3	25.0	25.0	41.7
	5	2	16.7	16.7	58.3
	6	2	16.7	16.7	75.0
	7	3	25.0	25.0	100.0
	Total	12	100.0	100.0	

County Population

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	50.0	50.0	50.0
	2	1	8.3	8.3	58.3
	3	2	16.7	16.7	75.0
	4	1	8.3	8.3	83.3
	5	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

Equal amounts for each county

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	16.7	16.7	16.7
	2	2	16.7	16.7	33.3
	6	8	66.7	66.7	100.0
	Total	12	100.0	100.0	

Minimum staffing requirements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	3	25.0	25.0	25.0
	2	4	33.3	33.3	58.3
	3	3	25.0	25.0	83.3
	4	1	8.3	8.3	91.7
	5	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

Number of inspections conducted

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	2	16.7	16.7	16.7
	4	5	41.7	41.7	58.3
	5	2	16.7	16.7	75.0
	6	3	25.0	25.0	100.0
	Total	12	100.0	100.0	

Number of interventions (people served)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	8.3	8.3	8.3
	2	4	33.3	33.3	41.7
	3	3	25.0	25.0	66.7
	4	2	16.7	16.7	83.3
	5	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

Population Density

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	8.3	8.3	8.3
	3	2	16.7	16.7	25.0
	4	3	25.0	25.0	50.0
	5	5	41.7	41.7	91.7
	6	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

An inquiry into office performance of all the services required by the state produced some divergence in replies. Eight of the 12 agreed that their department did comply. Three disagreed or strongly disagreed.

The small number of responses made it impossible to allocate responses to departments or divisions.

My Department/Division performs all the Services directed by State Policies.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Disagree	2	16.7	16.7	25.0
	Neutral	1	8.3	8.3	33.3
	Agree	7	58.3	58.3	91.7
	Strongly Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

Almost all felt their employee's pay was not competitive with salaries in the local market. This is consistent with results derived from the surveys of other types of respondents. Pay is definitely an issue that should be addressed.

Most of my employees' pay is competitive to the local market.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8	66.7	66.7	66.7
	Disagree	3	25.0	25.0	91.7
	Neutral	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

A series of questions were asked allowing the respondents to evaluate the quality of services provided by the LBHs. There was substantial agreement that LBHs occasionally compromised on the quality of services they provided. While the slight majority felt the LBHs sent clients on occasion to private providers because they could not give the service, a strong minority disagreed

LBHs have occasionally compromised on the quality of services provided due to the lack of funds.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	8.3	8.3	8.3
	Agree	10	83.3	83.3	91.7
	Strongly Agree	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

LBHs have occasionally sent individuals to the private providers because the LBH could not provide the services.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2	16.7	16.7	16.7
	Disagree	3	25.0	25.0	41.7
	Agree	7	58.3	58.3	100.0
	Total	12	100.0	100.0	

An additional group of questions was asked regarding the sources of funding for LBHs. The responses indicated general pessimism about increases from any source: state, federal or private. In most instances, except Federal Grants, the expectation was that the funding from that source would remain the same as current. In many cases, those who answered indicated either they did not know or did not respond to the question.

State Allocation in the Next 3 Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remain Same	10	83.3	83.3	83.3
	Decline	1	8.3	8.3	91.7
	Don't Know	1	8.3	8.3	100.0
	Total	12	100.0	100.0	

Federal Grants in the Next 3 Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remain Same	2	16.7	20.0	20.0
	Decline	8	66.7	80.0	100.0
	Total	10	83.3	100.0	
Missing	System	2	16.7		
Total		12	100.0		

Private Grants in the Next 3 Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remain Same	3	25.0	37.5	37.5
	Increase	3	25.0	37.5	75.0
	Don't Know	2	16.7	25.0	100.0
	Total	8	66.7	100.0	
Missing	System	4	33.3		
Total		12	100.0		

Government Contracts in the Next 3 Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remain Same	2	16.7	25.0	25.0
	Decline	1	8.3	12.5	37.5
	Increase	1	8.3	12.5	50.0
	Don't Know	4	33.3	50.0	100.0
	Total	8	66.7	100.0	
Missing	System	4	33.3		
Total		12	100.0		

Fees in the Next 3 Years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Remain Same	4	33.3	44.4	44.4
	Increase	4	33.3	44.4	88.9
	Don't Know	1	8.3	11.1	100.0
	Total	9	75.0	100.0	
Missing	System	3	25.0		
Total		12	100.0		

All of those who responded saw their relationship with the LBHs as either excellent or good. A similar question was not asked of those working for the LBHs, but from the group meetings there appeared to be little animosity from the field to the State.

In your opinion, which of the following do you feel best describes your department/division's relationship with the LBHs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	We have an Excellent Relationship	4	33.3	33.3	33.3
	We have a Good Relationship	8	66.7	66.7	100.0
	Total	12	100.0	100.0	

When asked how they perceived the LBHs would respond to a more centralized system of governance and delivery all indicated there would be significant opposition.

If West Virginia moved toward a more centralized Public Health structure and management, I believe that the LBHs would:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Moderately oppose the change	5	41.7	41.7	41.7
	Vigorously oppose the change	7	58.3	58.3	100.0
	Total	12	100.0	100.0	

Those polled were asked to estimate the percent of time their division or department spent providing direct support to the LBHs. More than half indicated at least 50 percent or more. This answer is not surprising as many of the State offices provide services to more than one component of the Department of Health and Human Resources.

Please estimate the percent of work time your department/division devotes to providing DIRECT services to LBHs?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 15%	1	8.3	8.3	8.3
	16% to 30%	4	33.3	33.3	41.7
	31% to 45%	1	8.3	8.3	50.0
	45% to 59%	3	25.0	25.0	75.0
	60% to 74%	1	8.3	8.3	83.3
	75% to 100%	2	16.7	16.7	100.0
	Total	12	100.0	100.0	

Appendix A: Comparison of WV Code and the NACCHO Standards

Within nationally recognized frameworks and with the input from public health professionals and elected officials from across the country, the National Association of County and City Health Officials (NACCHO) developed definitions and standards that describe the fundamental responsibilities of local boards of health (LBH)l. For similar purposes, West Virginia developed state-specific standards for LBH. The West Virginia Legislature Chapter 16 Article 1 defines "Essential public health services" as the core public health activities necessary to promote health and prevent disease, injury and disability for the citizens of the state. Table A below lists the standards set by the West Virginia Legislature and the NACCHO.

As you can see in the table below, a high level of similarity is shown between the code developed by West Virginia and the NACCHO's nationally developed standards. Although different wording is used, the expectations and requirements from both the NACCHO and the West Virginia Legislature are the same. The only difference is that the NACCHO's standards included very detailed descriptions of what each of the standards mean.

Table A: Comparison of WV Code and the NACCHO Standards

	West Virginia Code (WV Legislature §16-1-2.)	**NACCHO Definition and Standards**
1	Monitoring health status to identify community health problems	Monitor health status and understand health issues facing the community.
2	Diagnosing and investigating health problems and health hazards in the community	Protect people from health problems and health hazards.
3	Informing, educating and empowering people about health issues	Give people information they need to make healthy choices.
4	Mobilizing community partnerships to identify and solve health problems	Engage the community to identify and solve health problems.
5	Developing policies and plans that support individual and community health efforts	Develop public health policies and plans.
6	Enforcing laws and rules that protect health and ensure safety	Enforce public health laws and regulations.
7	Uniting people with needed personal health services and assuring the provision of health care when it is otherwise not available	Help people receive health services.
8	Promoting a competent public health and personal health care workforce	Maintain a competent public health workforce.
9	Evaluating the effectiveness, accessibility and quality of personal and population-based health services	Evaluate and improve programs and interventions.
10	Researching for new insights and innovative solutions to health problems	Contribute to and apply the evidence base of public health.

NACCHO's Local Health Department Standards

1. Monitor health status and understand health issues facing the community.
a. Obtain and maintain data that provide information on the community's health (e.g., provider immunization rates; hospital discharge data; environmental health hazard, risk, and exposure data; community-specific data; number of uninsured; and indicators of health disparities such as high levels of poverty, lack of affordable housing, limited or no access to transportation, etc.).
b. Develop relationships with local providers and others in the community who have information on reportable diseases and other conditions of public health interest and facilitate information exchange.
c. Conduct or contribute expertise to periodic community health assessments.
d. Integrate data with health assessment and data collection efforts conducted by others in the public health system.
e. Analyze data to identify trends, health problems, environmental health hazards, and social and economic conditions that adversely affect the public's health.

2. Protect people from health problems and health hazards.
a. Investigate health problems and environmental health hazards.
b. Prevent, minimize, and contain adverse health events and conditions resulting from communicable diseases; food-, water-, and vector-borne outbreaks; chronic diseases; environmental hazards; injuries; and health disparities.
c. Coordinate with other governmental agencies that investigate and respond to health problems, health disparities, or environmental health hazards.
d. Lead public health emergency planning, exercises, and response activities in the community in accordance with the National Incident Management System, and coordinate with other local, state, and federal agencies.
e. Fully participate in planning, exercises, and response activities for other emergencies in the community that have public health implications, within the context of state and regional plans and in a manner consistent with the community's best public health interest.
f. Maintain access to laboratory and bio-statistical expertise and capacity to help monitor community health status, diagnose, and investigate public health problems and hazards.
g. Maintain policies and technology required for urgent communications and electronic data exchange.

3. Give people information they need to make healthy choices.
a. Develop relationships with the media to convey information of public health significance, correct misinformation about public health issues, and serve as an essential resource.
b. Exchange information and data with individuals, community groups, other agencies, and the general public about physical, behavioral, environmental, social, economic, and other issues affecting the public's health.
c. Provide targeted, culturally appropriate information to help individuals understand what decisions they can make to be healthy.
d. Provide health promotion programs to address identified health problems.

4. Engage the community to identify and solve health problems.
a. Engage the local public health system in an ongoing, strategic, community-driven, comprehensive planning process to identify, prioritize, and solve public health problems; establish public health goals; and evaluate success in meeting the goals.
b. Promote the community's understanding of, and advocacy for, policies and activities that will improve the public's health.
c. Support, implement, and evaluate strategies that address public health goals in partnership with public and private organizations.
d. Develop partnerships to generate interest in and support for improved community health status, including new and emerging public health issues.
e. Inform the community, governing bodies, and elected officials about governmental public health services that are being provided, improvements being made in those services, and priority health issues not yet being adequately addressed.

5. Develop public health policies and plans.
a. Serve as a primary resource to governing bodies and policymakers to establish and maintain public health policies, practices, and capacity based on current science and best practices.
b. Advocate for policies that lessen health disparities and improve physical, behavioral, environmental, social, and economic conditions in the community that affect the public's health.
c. Engage in LBH strategic planning to develop a vision, mission, and guiding principles that reflect the community's public health needs, and to prioritize services and programs.

6. Enforce public health laws and regulations.
a. Review existing laws and regulations and work with governing bodies and policymakers to update them as needed.
b. Understand existing laws, ordinances, and regulations that protect the public's health.
c. Educate individuals and organizations on the meaning, purpose, and benefit of public health laws, regulations, and ordinances and how to comply.
d. Monitor, and analyze over time, the compliance of regulated organizations, entities, and individuals.
e. Conduct enforcement activities.
f. Coordinate notification of violations among other governmental agencies that enforce laws and regulations that protect the public's health.

7. Help people receive health services.
a. Engage the community to identify gaps in culturally-competent, appropriate, and equitable personal health services, including preventive and health promotion services, and develop strategies to close the gaps.
b. Support and implement strategies to increase access to care and establish systems of personal health services, including preventive and health promotion services, in partnership with the community.
c. Link individuals to available, accessible personal healthcare providers (i.e., a medical home).

8. Maintain a competent public health workforce.
a. Recruit, train, develop, and retain a diverse staff.

b. Evaluate LBH staff members' public health competencies, and address deficiencies through continuing education, training, and leadership development activities.
c. Provide practice- and competency-based educational experiences for the future public health workforce, and provide expertise in developing and teaching public health curricula, through partnerships with academia.
d. Promote the use of effective public health practices among other practitioners and agencies engaged in public health interventions.
e. Provide the public health workforce with adequate resources to do their jobs.

9. Evaluate and improve programs and interventions.
a. Develop evaluation efforts to assess health outcomes to the extent possible.
b. Apply evidence-based criteria to evaluation activities where possible.
c. Evaluate the effectiveness and quality of all LBH programs and activities and use the information to improve LBH performance and community health outcomes.
d. Review the effectiveness of public health interventions provided by other practitioners and agencies for prevention, containment, and/or remediation of problems affecting the public's health, and provides expertise to those interventions that need improvement.

10. Contribute to and apply the evidence base of public health.
a. When researchers approach the LBH to engage in research activities that benefit the health of the community,

i. Identify appropriate populations, geographic areas, and partners;
ii. Work with them to actively involve the community in all phases of research;
iii. Provide data and expertise to support research; and,
iv. Facilitate their efforts to share research findings with the community, governing bodies, and policymakers.

b. Share results of research, program evaluations, and best practices with other public health practitioners and academics.
c. Apply evidence-based programs and best practices where possible.

Appendix B: Health Care Expenditure Effectiveness: Comparison Between West Virginia and Surrounding States

Federal Health Care Expenditure for West Virginia and Surrounding States							
FY 2005 CDC Funds for State/Local Health Departments, Universities & Other Public/Private Agencies (Selected Categories)							
Health Care Programs	**WV**	**KY**	**MD**	**OH**	**PA**	**VA**	**U.S. Total**
Bioterrorism Preparedness	$7,498,508	$12,236,859	$16,385,722	$30,088,326	$32,220,372	$20,974,500	**$888,771,465**
Cancer Prevention	$5,657,025	$4,357,524	$7,309,294	$6,577,763	$4,063,653	$4,346,450	**$247,463,555**
Chronic Disease Prevention/ Health Promotion	$9,193,460	$8,147,507	$8,554,289	$4,450,364	$11,660,808	$5,349,155	**$403,073,975**
Diabetes Control	$911,751	$591,417.00	$633,490.00	$840,923.00	$2,495,082.00	$370,658.00	**$71,819,204.00**
Environmental Health	$524,047	$0	$2,807,723	$806,093	$2,845,750	$2,361,752	**$78,861,197**
HIV Prevention	$1,298,096	$3,378,780	$39,182,557	$5,769,278	$16,465,555	$8,006,186	**$679,215,664**
Immunization	$8,033,299	$15,769,342	$27,405,233	$40,548,818	$41,124,181	$26,845,578	**$1,548,716,412**
Infectious Diseases	$949,573	$1,280,465	$2,302,709	$4,119,669	$1,854,110	$2,065,207	**$78,625,037**
Preventive Health & Health Services Block Grant	$1,095,303	$1,637,511	$2,299,500	$5,530,333	$5,825,919	$2,486,452	**$121,883,488**
Tobacco	$0	$0	$497,050	$0	$703,860	$0	**$3,408,840**
CDC Total	**$46,572,442**	**$52,309,583**	**$241,125,012**	**$135,849,476**	**$551,955,617**	**$285,682,326**	**$6,220,838,698**
CDC Per Capita	$25.63	$12.53	$43.06	$11.85	$44.41	$37.75	**$20.99**
CDC Per Capita Funding Ranking	13	47	3	49	2	4	-
FY 2005 HRSA Funds for State/Local Health Departments, Universities & Other Public/Private Agencies (Selected Categories)							
Bioterrorism Preparedness	$3,245,672	$6,745,252	$8,855,085	$17,843,984	$19,254,011	$11,701,905	**$470,755,000**
Bureau of Primary Health Care	$23,995,227	$21,109,167	$19,757,017	$39,964,114	$46,709,449	$27,491,653	**$1,464,957,902**
Health Professions	$3,469,515	$8,677,937	$8,587,090	$13,223,995	$13,824,270	$9,230,683	**$420,395,465**
Maternal Child Health Block Grant	$6,685,824	$11,890,984	$12,327,972	$23,195,606	$25,502,552	$12,942,168	**$564,587,592**
Ryan White CARE Act (Title I and II)	$2,095,875	$7,181,728	$55,235,216	$20,486,176	$64,190,252	$26,053,787	**$1,604,720,682**
HRSA Total:	**$39,492,113**	**$55,605,068**	**$104,762,380**	**$114,713,875**	**$169,480,534**	**$87,420,196**	**$4,525,416,641**
FY 2005 Total Federal Health Care Expenditures							
Grand Total*:	**$86,064,555**	**$107,914,651**	**$345,887,392**	**$250,563,351**	**$721,436,151**	**$373,102,522**	**$10,746,255,339**

*The Grand Total is calculated by adding the CDC Total and the HRSA Total.

Federal Health Care Expenditure for West Virginia and Surrounding States							
FY 2005 CDC Funds for State/Local Health Departments, Universities & Other Public/Private Agencies (Selected Categories)							
	WV Per Capita	**KY Per Capita**	**MD Per Capita**	**PA Per Capita**	**VA Per Capita**	**OH Per Capita**	**U.S. Per Capita***
Bioterrorism Preparedness	$4.12	$2.91	$2.92	$2.59	$1.69	$2.62	$2.97
Cancer Prevention	$3.11	$1.04	$1.30	$0.33	$0.35	$0.57	$0.83
Chronic Disease Prevention/ Health Promotion	$5.06	$1.94	$1.52	$0.94	$0.43	$0.39	$1.35
Diabetes Control	$0.50	$0.14	$0.11	$0.20	$0.03	$0.07	$0.24
Environmental Health	$0.29	$0.00	$0.50	$0.23	$0.19	$0.07	$0.26
HIV Prevention	$0.71	$0.80	$6.98	$1.32	$0.64	$0.50	$2.27
Immunization	$4.42	$3.75	$4.88	$3.31	$2.16	$3.53	$5.17
Infectious Diseases	$0.52	$0.30	$0.41	$0.15	$0.17	$0.36	$0.26
Preventive Health & Health Services Block Grant	$0.60	$0.39	$0.41	$0.47	$0.20	$0.48	$0.41
Tobacco	$0.00	$0.00	$0.09	$0.06	$0.00	$0.00	$0.01
CDC Per Capita	**$25.63**	**$12.53**	**$43.06**	**$44.41**	**$37.75**	**$11.84**	**$20.99**
FY 2005 HRSA Funds for State/Local Health Departments, Universities & Other Public/Private Agencies (Selected Categories)							
Bioterrorism Preparedness	$1.78	$1.60	$1.58	$1.55	$0.94	$1.55	$1.57
Bureau of Primary Health Care	$13.20	$5.02	$3.52	$3.75	$2.21	$3.48	$4.89
Health Professions	$1.91	$2.06	$1.53	$1.11	$0.74	$1.15	$1.40
Maternal Child Health Block Grant	$3.68	$2.83	$2.20	$2.05	$1.04	$2.02	$1.89
Ryan White CARE Act (Title I and II)	$1.15	$1.71	$9.84	$5.16	$2.09	$1.78	$5.36
HRSA Per Capita	**$21.72**	**$13.22**	**$18.66**	**$13.62**	**$7.03**	**$9.99**	**$15.12**
Total Per Capita:	**$47.33**	**$25.66**	**$61.59**	**$20.14**	**$94.39**	**$32.51**	**$35.89**

*The U.S. Per Capita is calculated by dividing the U.S. Total by the estimated U.S. population in 2006.