

## Rural Public Health Financing: The Relationship Between Infrastructure and Local Program Funding

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Public health in rural areas has many distinctive features, often shaped by state-level infrastructure and the related organization and financing of public health activities. Little is known about how federal and state funds for particular public health objectives are being used at the local level, particularly in rural communities where disparities in health risks may be marked. State and local variation in the way funds are distributed can influence the ability of rural communities, in particular, to conduct public health functions.

The purpose of this study was to describe how federal funds for selected chronic disease prevention and health promotion activities are distributed to local health departments (LHDs) and non-governmental organizations (NGOs)



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### KEY FINDINGS & IMPLICATIONS

- Based on our qualitative analysis of Centers for Disease Control and Prevention (CDC) prevention funding for diabetes, cancer and injury prevention, states report that funds are too limited to distribute effectively to the local level. As a result, most of the funding is kept at the state level to develop statewide program initiatives.
- Further, local funding, when provided, tends to be allocated through competitive mini-grant processes that are often difficult for rural communities to access due to infrastructural and staffing challenges.
- Local officials report that, while useful, mini-grant amounts are typically too limited to build local program capacities and are often awarded to communities with existing capacities rather than those with greater need.
- Technical assistance should be provided to communities eligible for mini-grants to facilitate their identification of community needs and development of competitive proposals.
- Compared to urban LHDs, rural LHDs receive a higher proportion of total revenues from state direct, federal pass through, and clinical sources, and a lower proportion from local and federal direct sources. This may result in less flexibility to respond to locally identified needs.
- Additional effort should be placed on analyzing the delivery of public health services in areas not under the jurisdiction of a local health department.

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at the local level and to identify infrastructure-related barriers that rural agencies may face in securing and using funds for such purposes. A central hypothesis was that the availability of federal funding for chronic disease prevention and health promotion activities may vary based on state and local public health infrastructural differences.

## METHODS

This study consisted of two major activities: (1) a 50-state analysis to describe the relationship between public health systems' infrastructure characteristics, funding for prevention activities, and degree of rurality; and (2) a set of key informant interviews to provide more in-depth analysis of funding flow from the state to the local level and, in particular, to rural communities. The intent of both study components was to assess whether federal funds, primarily CDC-prevention funds, flow differentially based on public health infrastructure and capacities. Notably, CDC prevention funding streams make up a very small portion of LHDs' overall programmatic infrastructure; the intent of the study is not to imply that these are the only sources of prevention funding available to localities.

For the first study component, the 50-state analysis, two sets of analyses were used:

a) Using state-specific data describing CDC funds and classification of states' public health infrastructures from National Association of County and City Health Officials (NACCHO), we explored the relationship between funding levels,

state public health infrastructure and degree of rurality (defined by percentage of state population residing in rural areas). State-level funding distributions were provided by the CDC Financial Management Office and included state-by-state breakdowns of funding from the following programs: Cancer Prevention; Chronic Disease Prevention/Health Promotion; Diabetes Control; and the CDC Preventive Health and Human Services (PHHS) Block Grant.

b) Using data from NACCHO's 2005 National Profile of Local Health Departments, we examined how LHD expenditures relate to public health infrastructure, rurality (defined using the Rural-Urban Commuting Area (RUCA) system<sup>1</sup>), and size of population served.

For the second study component we conducted a set of interviews across six states, using a standardized protocol through which we "followed the money" from the state to the local level – and, in particular, to rural communities – to assess whether federal funds flow differently based on public health infrastructure and capacities. A series of 30 semi-structured interviews were conducted with individuals at the state and local levels who are responsible for managing funds and implementing initiatives in selected disease areas (obesity, diabetes, cancer, cardiovascular disease, and injury). States were selected for participation based on prior analysis as part of a NORC Walsh Center study to assess differences in rural public health infrastructure across states with varied state level infrastructural

characteristics. Included states were Kentucky, Nebraska, New Mexico, Pennsylvania, South Carolina, and Wyoming. All of the results derive from the responses of our 30 key informants and are based on their opinions and experiences. It was infeasible and beyond the scope of the study to verify objectively the information reported by our respondents, and as such results should be interpreted as our respondents' understanding of the realities of public health funding in their states and jurisdictions.

## KEY FINDINGS – 50 STATE ANALYSIS

The 50-state analysis attempted to describe the distribution of public health funds at the state and local levels and explore how public health infrastructure relates to financing of public health activities. While these data did not show a relationship between public health infrastructure and the amount of funds received, differences in financing were observed across the types and sizes of populations served. Key findings include:

- Average annual CDC per capita funds for prevention activities varied widely across states.
- CDC per capita funds for prevention activities do not appear to be related to states' public health infrastructure.
- The highest annual CDC per capita funds for prevention activities were among rural states, although comparisons across categories of rurality showed no significant relationship between CDC per capita

<sup>1</sup> The Rural-Urban Commuting Area (RUCA) system is one of several ways to classify rural areas. RUCAs use the Census Bureau's definitions of Urbanized Areas and Urban Clusters combined with population work commuting information to characterize the rural and urban status of census tracts. The RUCA classification is, thus, based on the size and population density of cities and towns and their functional relationships as measured by work commuting flows. In our analyses of the NACCHO data set, categories describing degrees of rurality were defined as follows: RUCA codes 1-3 represent urban areas; RUCA codes 4-6 represent micropolitan areas; and RUCA codes 7 and higher denote rural areas. Analyses also included comparisons of "aggregated rural" versus "urban," where RUCA codes 4 and higher were combined to form a single "aggregated rural" category.

funds and the proportions of states' populations residing in rural areas.

- Per capita non-clinical expenditures were not related to whether the LHD was classified as a unit of the state health agency or a unit of local government.
- Rural LHDs have higher per capita non-clinical expenditures than non-rural LHDs.
- LHDs serving larger populations (independent of rurality) had higher per capita non-clinical expenditures than those serving smaller populations.
- Compared to urban LHDs, rural LHDs receive a higher proportion of total revenues from state direct, federal pass through, and clinical sources, and a lower proportion from local and federal direct sources.

One important association suggested by these findings is that funding levels are related to rurality. Although there was no significant relationship between CDC per capita funds for chronic disease prevention and health promotion activities and a state's degree of rurality, examination of the distribution of CDC funds showed that some of the most rural states had some of the highest levels of annual CDC per capita funds. At the local level, rural LHDs had higher per capita expenditures than non-rural LHDs, even among only those LHDs serving small jurisdictions of less than 50,000. One hypothesis for this finding may be that for the vast majority of public health programs there is a "fixed cost" that is independent of the size of the target population served. Thus, per capita expenditures for smaller populations, such as most rural LHDs, may appear falsely high relative to expenditures for larger urban LHDs.

## KEY FINDINGS – CASE STUDY ANALYSIS

State officials reported that their ability to distribute CDC funding to localities was entirely dependent on the amount of total funding available and the particular needs of the state and the localities within its jurisdiction. In many cases, the funding was used exclusively at the state level for public health activities and not distributed further. This was mainly the case in those states receiving limited funding amounts, which necessitated the decision to restrict the use of funds to state public health capacity building. Further, respondents noted that Federal funds often have a cap on the administrative costs that are allowed in a grant, and these administrative dollars can easily be used entirely by the state agency, leaving no funds for administrative costs for the local agencies. Other primary uses for the money by the state programs included establishing statewide registries, providing technical assistance to localities, and promoting collaborative efforts among localities to increase their ability to maximize available resources.

The mode for transmission of funds to localities, when it did occur, was generally through the use of mini-grants or contracts awarded as a result of a competitive request for proposal (RFP) process. While some state public health programs reported that there was consideration for population needs in selecting grantees, the majority of those contacted reported no such consideration. This competitive bidding format is reportedly used because state funding is too limited to distribute monies evenly to every locality in the state, and therefore states deem it more effective to

allocate useable amounts to those who can best utilize the funding. This format for funds distribution has one real limitation — the distribution of funds relies on the potential recipient organization having the capacity to identify the available grants and staff with sufficient experience to write a successful proposal. Rural LHDs and NGOs often struggle with hiring and retaining staff with these capabilities, who often find better pay and benefits in an inpatient or physician practice setting.<sup>2</sup> Since the amounts awarded through these processes are generally small (ranging from \$14,160 to \$65,486 among LHDs and NGOs interviewed), the time and effort to apply for funding must be weighed against the greater organizational needs of the recipient organization.

Local officials report that funding often disproportionately relies on state funds that are tied to specific programs or requirements, reducing the ability of local agencies to be responsive to other local needs. The amounts of funds distributed to the local agencies contacted as a part of this study were reportedly often too small to accomplish individual program goals, so were combined as a part of an overall programmatic budget. While the relatively small amount of funding always was mentioned by respondents as beneficial, some find it difficult to address broader community needs with resources marked for certain programs. Further, the pooling of funds made specific outcome requirements difficult to measure and therefore specific outcomes and goals were generally linked to the overall activity. In the rare instance where such goals were specifically stated, they remained fairly general in scope (e.g., increasing screening activities, reducing morbidity from diabetes, etc.). Local respondents

<sup>2</sup> Health Resources and Services Administration Bureau of Health Professions. Public Health Workforce. Washington DC: HRSA; 2005. Available at <http://ftp.hrsa.gov/bhpr/nationalcenter/publichealth2005.pdf>. Accessed December 14, 2006.

often noted that the rigidity of particular funding streams made it difficult for them to manage their already limited resources.

## CONCLUSIONS AND IMPLICATIONS

Public health systems in rural areas differ from those in urban areas in terms of scope of services and functions, in part due to differences in the level of resources available, geographic isolation and the corresponding size of the population served. Whether and how these differences are affected by state public health governance is not well understood. Moreover, many rural areas have no local governmental public health infrastructure at all. In these instances hospitals and community health providers are likely to at least partially fill the gaps in the public health infrastructure through implementation of community health initiatives. Importantly, much of the available CDC prevention funding is not distributed to LHDs, but is rather channeled through non-governmental organizations. Inasmuch as rural areas have far fewer of these organizations than their densely populated counterparts, this also becomes a limiting factor in the implementation of community-based prevention programs.

The efforts from the public as well as the private sectors in strengthening the public health infrastructure in the recent years have been noteworthy. There are, however, numerous gaps such as workforce shortages, lack of uniform performance standards for public health organizations, and inadequate/inconsistent information and data systems, all of which threaten an already weak infrastructure. While all public health systems face these challenges, infrastructure-related problems are more pronounced in rural communities than the urban ones. Based on these long-standing concerns and the findings from our quantitative and qualitative analyses, we offer the following suggestions:

1. CDC funding lines analyzed in this study were reported to be too small for statewide distribution. Future studies should examine larger funding streams such as preparedness funding.
2. Additional studies are needed to assess optimal methods for distributing limited resources to achieve a statewide impact. Current methods – developing statewide initiatives and mini-grant programs – should be evaluated to measure their impact on (and accessibility to) communities with greatest identified need.
3. Technical assistance should be provided to rural LHDs and NGOs eligible for mini-grants to help them assess their community needs and develop competitive proposals.
4. Rural LHDs and NGOs should be encouraged to conduct community needs assessments, and states should provide flexibility in the use of funding to allow agencies to address identified needs. Compared to urban LHDs, rural LHDs receive a higher proportion of total revenues from state direct, federal pass through, and clinical sources, and a lower proportion from local and federal direct sources. State level and federal pass through funds are likely to be tied to specific program activities and outcomes, which may or may not correspond to identified local needs.
5. Classification of state health department systems remains inconsistent, making comparisons across states difficult. Efforts to classify state health department systems objectively are encouraged.
6. Additional effort should be placed on analyzing the delivery of public health services in areas not under the jurisdiction of a local health department.

*The conclusions and opinions expressed in this paper are the authors' alone; no endorsement by NORC, ORHP, HRSA or other sources of information is intended or should be inferred. The Walsh Center for Rural Health Analysis is part of the Department of Health Policy and Evaluation at NORC at the University of Chicago. For more information about this project or the Walsh Center and its publications, please contact Michael Meit at (301) 634-9324 or [meit-michael@norc.org](mailto:meit-michael@norc.org).*