Changes in Local Health Department Expenditures:
Longitudinal Analysis of 2008 and 2010 Profile Data

Background
Cutbacks in state and local government, including health departments, have received considerable media attention in recent years. The National Association of County and City Health Officials (NACCHO) has conducted a series of economic surveillance surveys (beginning in late 2008) to document reductions in budgets, jobs, and services in local health departments (LHDs) across the United States. In that series of surveys, LHDs were asked to compare their agency budget in the current fiscal year with that of the prior fiscal year. The percentage of LHDs reporting budget decreases ranged from 27 percent in the December 2008 survey to 45 percent in both the January 2010 and July 2011 surveys. Data from the 2008 and 2010 National Profile of Local Health Departments (Profile) studies enable assessment of changes in the financial situation of LHDs during and after the Great Recession, which officially occurred between December 2007 and June 2009. This research brief provides a basic descriptive analysis of the changes in LHDs’ financial capacity as measured by total annual expenditures, and variation by selected LHD characteristics.

Results
Longitudinal analysis shows that 34 percent of LHDs reported lower total annual expenditures in the 2010 Profile than in the 2008 Profile (Figure 1). Sixty-one percent reported higher total annual expenditures in 2010 than in 2008, and five percent reported total annual expenditures that were nearly the same (within + or – 1%) in both Profiles.

Figure 2 shows the direction of change in total annual expenditures for two one-year time periods: FY 2008 to FY 2009 and FY 2009 to FY 2010.

Methodology
The Profile surveys are administered periodically to all LHDs in the United States. The 2008 Profile survey was administered from July to October 2008 and had an overall response rate of 83 percent; the 2010 Profile survey was administered from September to November 2010 and had an overall response rate of 82 percent. Additional details about survey methodology are available in the main reports of these studies.1,2 A longitudinal analysis was conducted to assess changes in LHDs’ total annual expenditures. A total of 1,896 LHDs completed both the 2008 and 2010 Profile studies. Data on total annual expenditures in the most recently completed fiscal year (FY) were available from both surveys for 1,476 LHDs. Data on total annual expenditures for three consecutive FYs were available for 1,380 LHDs. LHDs reported their total expenditures for their most recently completed FY in response to the Profile questionnaire. For the 2008 Profile, most respondents’ FYs (82%) ended between December 2007 and June 2008. For the 2010 Profile, most respondents’ FYs (88%) ended between December 2009 and June 2010. Although this brief will refer to the interval as “between 2008 and 2010,” some of the FYs ended in 2007 and 2009.
FIGURE 2: Percentage of LHDs, by Direction of Change in LHD Total Expenditures: 2008 to 2009 and 2009 to 2010

2010. Fifty-seven percent of LHDs experienced a decrease in total expenditures during at least one of these time periods, and 12 percent of LHDs experienced decreases in total expenditures during both time periods. Forty-two percent of LHDs experienced an increase (and no decrease) during one of these time periods and 31 percent experienced increases during both time periods. Very few LHDs had budgets that remained approximately the same (within + or – 1%) between 2008 and 2010.

Figure 3 shows the percentages of LHDs that experienced reduced expenditures between 2008 and 2010 by the size of the population served in the jurisdiction and the type of governance. Similar proportions of LHDs serving small, medium, and large population jurisdictions experienced decreased total annual expenditures between 2008 and 2010. Analysis by governance type showed modest differences. State-governed LHDs were more likely to experience decreased total annual expenditures between 2008 and 2010 than locally-governed LHDs.

Analysis by state showed larger variation in the percentage of LHDs experiencing decreased expenditures, with percentages ranging from 96 percent (Oklahoma) to five percent (North Dakota). LHDs in Idaho, Oklahoma, and South Carolina were most likely to have decreased expenditures during this time frame, while LHDs in Alabama, Kansas, Minnesota, North Carolina, and North Dakota were least likely to have decreased expenditures (Figure 4). Note that data were insufficient to generate estimates for 17 states.

Figure 5 shows the median percentage change in total annual expenditures for LHDs that experienced increases (purple bars) and decreases (teal bars) between 2008 and 2010. For all LHDs with decreased expenditures, the median size of decrease was 11 percent; for all LHDs with increased expenditures, the median size of increase was 13 percent. Analysis by size of the population served and governance type showed modest differences among most of these categories. LHDs serving jurisdictions with less than 50,000 people and state-governed LHDs experienced greater changes on average—in both the positive and negative directions—than other LHDs.
Discussion

The financial situation between 2008 and 2010 was difficult for many LHDs. Forty-five percent of LHDs experienced a decrease in total expenditures in one FY and 12 percent of LHDs had decreases in total expenditures in both FYs. This contrasts with the period between 2005 and 2008, when most LHDs experienced modest growth in total expenditures. Nearly twice as many LHDs had a net decrease in expenditures from 2008 to 2010 when compared with the period of 2005 to 2008. For LHDs that changed their expenditures between 2008 and 2010, the median size of the increase was less than half as large as the increase from 2005 to 2008 (13% vs. 28%).

LHDs serving population jurisdictions of different sizes experienced similar decreases in expenditures. State-governed LHDs were more likely to experience net reductions in total annual expenditures than their counterparts with local or shared governance. State-governed LHDs also showed the largest median percentage changes in total expenditures, in both the increasing and decreasing directions. The financial situation was particularly negative in certain states. LHDs were especially hard hit in Idaho, Maryland, Michigan, Oklahoma, South Carolina, and Washington, in terms of both percentage of LHDs with decreased expenditures and the median change in per capita LHD expenditures between 2008 and 2010 (not shown).

The financial situation was not negative for all LHDs, however. Most LHDs (61%) reported a net increase in total expenditures from 2008 to 2010. Ten percent of LHDs reported increases in total expenditures of 38 percent or more during this time period (not shown). In five states (Alabama, Kansas, Minnesota, North Carolina, and North Dakota) 75 percent or more of the state’s LHDs reported expenditures that were as large or larger in 2010 than in 2008.

In addition to examining differences by size of jurisdiction population, governance, and state, we conducted additional analyses of some other infrastructure characteristics that could plausibly be associated with the likelihood and size of reductions in expenditures (not shown). These included the presence of a local board of health, existence of a reserve or contingency fund, reliance on state funding, level of local funding, and overall level of funding. Subgroup analysis indicated that most of these factors (individually) were not associated with either the likelihood of lower expenditures or the average size of the decrease in expenditures. Two factors showed a modest association with funding decreases. The presence of a reserve fund was not associated with an increased likelihood of experiencing expenditure reductions, but LHDs with reserve funds experienced smaller decreases, on average, than LHDs without reserve funds. LHDs that were most dependent on state direct funding (those in the highest quartile of percentage of revenue from state direct sources) were more likely to experience expenditure reductions, but the average size of expenditure reductions for this group of LHDs did not differ from that of other LHDs.

Analysis of data from the 2008 and 2010 Profile studies suggests that factors related to LHD infrastructure (such as size of jurisdiction, type of governance, level of funding, and revenue sources) have limited influence on an LHD’s likelihood of experiencing reductions in funding. External factors, such as state and local economic conditions or political considerations may have much more influence on the level of funding available to LHDs. The results from NACCHO’s most recent economic surveillance survey indicate that the tide has not turned for LHD budgets yet. In July 2011, 45 percent of LHDs reported that their current FY budget was lower than the previous FY, and 52 percent anticipated a lower budget in the upcoming FY. Although the Great Recession officially ended in June 2009, many LHDs continue to face declining budgets. This loss of funding has resulted in program cuts and staff losses, both in terms of the number of employees and experience levels of employees. While LHDs are facing these cuts by looking for ways to innovate and to maximize the capabilities of their staff, the ongoing cuts threaten the ability of LHDs to prepare for and respond to emergencies, and to provide the basic services on which people depend. A strong public health infrastructure requires sufficient funding for all LHDs across the nation.

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**FIGURE 5: Median Percentages of Increase and Decrease in Total Annual Expenditures (2008 to 2010), by Selected Characteristics**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Median Decrease</th>
<th>Median Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>All LHDs</td>
<td>-11%</td>
<td>13%</td>
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<tr>
<td>&lt;50,000</td>
<td>-12%</td>
<td>15%</td>
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<tr>
<td>50,000-499,999</td>
<td>-10%</td>
<td>11%</td>
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<tr>
<td>500,000+</td>
<td>-9%</td>
<td>9%</td>
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<td>25%</td>
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<tr>
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<td>12%</td>
</tr>
<tr>
<td>Shared</td>
<td>-8%</td>
<td>11%</td>
</tr>
</tbody>
</table>

n=1,476
References

1 NACCHO. 2008 National Profile of Local Health Departments (July 2009). Available at www.naccho.org/profile.

2 NACCHO. 2010 National Profile of Local Health Departments (August 2011). Available at www.naccho.org/profile.

3 NACCHO. Trends in Local Health Department Finances, Workforce, and Activities: Findings from the 2005 and 2008 National Profile of Local Health Departments Studies (July 2010). Available at www.naccho.org/profile.


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