

## Impact of Budget Cuts on Environmental Health Services at Local Health Departments



### Executive Summary

The recent economic recession and its aftermath negatively impacted many local health departments (LHDs) across the United States. Nine surveys conducted by the National Association of County and City Health Officials (NACCHO) between August 2009 and February 2014 produced informative data and further insight into the impact of the economic consequences for LHDs. Overall, the economic challenges of the recent past have resulted in budget challenges and negative impacts on workforce and programs at the local level. Staffing was one of the most visible impacts. From 2008 to 2013, LHDs lost almost 50,000 employees.<sup>1</sup>

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To learn specifically about changes to environmental health (EH) funding and the impacts of these changes on the EH workforce and services at LHDs, NACCHO surveyed a nationally representative sample of LHDs in March and April 2012. The study assessed changes between each respondent's most recently completed fiscal year and prior fiscal year.

A total of 307 (out of a nationally representative sample of 488) LHDs participated in the survey, representing a response rate of 63 percent. Key findings from the survey are largely summarized in the following categories: Changes in EH Revenue, Impact on EH Workforce, Reduction and Elimination of EH Services, and EH Service Outcomes. Additional analysis included exploring variations in changes in EH revenue, workforce and services by jurisdictional size, governance type, and region.

The study indicated that EH revenue decreased for a substantial percentage of LHDs and that significant cuts to EH workforce and to valuable EH services occurred due to budgetary constraints. In addition, respondents indicated that some EH services that were not reduced or eliminated were still negatively impacted due to financial limitations. With shrinking resources, LHDs may be less able to provide customary services and respond to emergencies and emerging EH issues quickly and comprehensively.

## **Introduction**

The recent economic recession and its aftermath negatively impacted many local health departments (LHDs) across the United States. Nine surveys conducted by the National Association of County and City Health Officials (NACCHO) between August 2009 and February 2014 produced informative data and further insight into the impact of the economic consequences for LHDs. Overall, the economic challenges of the recent past have resulted in budget challenges and negative impacts on workforce and programs at the local level. Staffing was one of the most visible impacts. From 2008 to 2013, LHDs lost almost 50,000 employees.<sup>2</sup>

In March and April 2012, NACCHO surveyed a nationally representative sample of LHDs to understand the impact of budget cuts and the capacity of these agencies to provide environmental health (EH) services. Specifically, NACCHO examined the following research questions:

- How has funding for EH services provided by LHDs been impacted by budget cuts?
- How has the EH workforce at LHDs been impacted by budget cuts?
- How have EH services provided by LHDs been impacted by budget cuts?

The study assessed changes between each respondent's most recently completed fiscal year and prior fiscal year. The study data indicated that EH revenue decreased for more than one-third of LHDs (that were able to separate EH revenue from overall LHD revenue) and that significant cuts to EH workforce and to valuable EH services were made for budgetary reasons. Additionally, about four out of 10 LHDs reported that budgetary constraints negatively impacted EH service outcomes, such as fewer opportunities for education and training and less effective inspections due to time constraints and increased workload.

## **Methodology**

Informed by NACCHO's Environmental Health Committee, NACCHO developed, piloted, and executed an electronic quantitative survey instrument in March and April 2012 that was sent to 488 LHDs, selected as part of a stratified random sample designed to provide national estimates. LHDs were stratified by size of population served: small (<50,000), medium (50,000–499,999), and large (500,000+). Because LHDs with large population sizes represent a relatively small proportion of all LHDs, those LHDs were oversampled to ensure a sufficient number of responses from large LHDs for the analysis.

An invitation to participate in the survey was sent initially by e-mail on March 1, 2012, to an EH director, manager, supervisor, or staff of each LHD identified as part of the sample. Follow-up e-mail reminders were sent to non-respondents during March 2012. Starting March 21, 2012, remaining non-respondents were reminded by telephone. The survey took an average of 30–40 minutes to complete and was pre-tested for length and clarity by NACCHO's Environmental Health Committee prior to fielding. A total of 307 LHDs participated for a response rate of 63 percent. Data in this study were self-reported; NACCHO did not independently verify the data provided by LHDs.

The survey included key elements and questions intended to ascertain the following:

- Total and type of EH revenue (government funding, fees for service, grants from non-government organizations, etc.);
- Changes to the size and composition of EH workforce;
- Type of EH services provided;
- Type of EH services reduced or eliminated; and
- Impact of EH service outcomes.

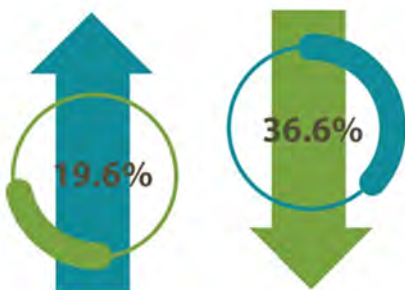
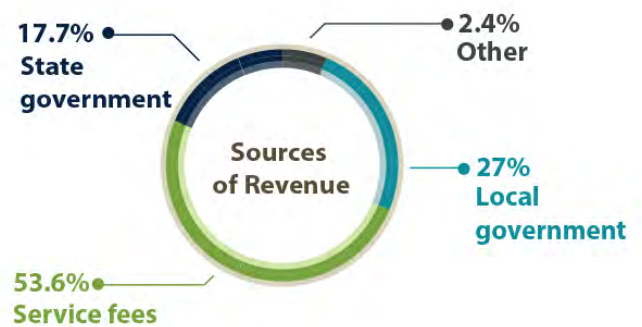
For the purpose of this survey, “EH services” refer to any activities that an LHD considers “environmental health.” Examples of EH services may include food and water protection, pollution prevention, vector control, land use planning, air quality, and radiation control.

## Findings

Key findings from the survey are summarized in the following categories: Changes in EH Revenue, Impact on EH Workforce, Reduction and Elimination of EH Services, and EH Service Outcomes. Additional analysis included exploring variations in changes in EH revenue, workforce and services by jurisdictional size, governance type, and region.

### Changes in EH Revenue

- LHDs that were able to separate EH from overall LHD revenue received almost all of their revenue from three sources: fees for service, local government funding, and state funding (direct funding or federal pass-through funding).
- Fees for service provided more than half of all EH revenue to LHDs (53.6%), while local government funding provided just over one quarter of EH revenue (27%), and state funding provided 17.7 percent of EH revenue (see Figure 1).



Of the 75% of local health departments that could separate environmental health revenue from overall revenue, about one-fifth saw an increase from the previous fiscal year, while more than one-third saw a decrease in revenue.

- Substantial percentages of LHDs experienced decreased revenue from fees for service (43.3%), local government funding (17.8%), or state funding (27.8%). While some LHDs experienced increased revenue from these sources, local government funding was the only source for which a greater percentage of LHDs received higher (22.2%) rather than lower (17.8%) revenue (see Figure 2).
- Of the 75 percent of LHDs that were able to separate EH revenue from overall LHD revenue, more than one-third (36.6%) realized lower EH revenue than in the previous fiscal year. Almost one-fifth (19.6%) of LHDs reported higher EH revenue in their most recently completed fiscal year than in the previous fiscal year (see Figure 3).

| Figure 1: Composition of Total Revenues, by Source, Weighted (Excludes State Governed LHDs) |  |
|---|--|
| State   | 17.7%  |
| Local   | 27.0%  |
| Fees  | 53.6%  |
| Grants  | 0.0%   |
| Other   | 2.4%   |
| Total   | 100.7% (Note: Does not sum to 100 due to rounding) |

(n=104)

| Figure 2: Changes in Revenue Streams, by Source, Weighted (Excludes State Governed LHDs) |       |       |       |        |       |
|--|-------|-------|-------|--------|-------|
|  | State | Local | Fees  | Grants | Other |
| Revenue is higher (n=3–50)   | 20.2% | 20.2% | 38.6% | 2.3%   | 3.8%  |
| Revenue is the same (+/- 1%) (n=22–109)  | 51.9% | 62.0% | 18.2% | 94.9%  | 90.6% |
| Revenue is lower (n=4–47)  | 27.8% | 17.8% | 43.3% | 2.9%   | 5.6%  |

| Figure 3: Comparison of EH Revenue Compared to the Previous Fiscal Year |       |
|---|-------|
| Revenue is higher   | 19.6% |
| Revenue is the same (+/- 1%)  | 43.8% |
| Revenue is lower  | 36.6% |

### Impact on EH Workforce

- Nearly three out of 10 (29.1%) LHDs experienced a reduction of their EH staff for budgetary reasons in the form of lay-offs or employee attrition in which employees were not replaced because of hiring freezes or budget cuts (see Figure 4).
- The number of job losses for the EH workforce at LHDs nationwide was estimated to be 1,350 (550 were laid off and 800 were lost to attrition and not replaced because of hiring freezes or budget cuts).
- LHDs reported that job losses negatively affected their abilities to provide EH services, increased stress on the remaining workforce, and resulted in low employee morale.
- Many respondents described the following detriments from job losses, such as “slower response to complaints, slower response to inspect hotels and motels, schools, daycare centers,” or “reducing food inspections.”



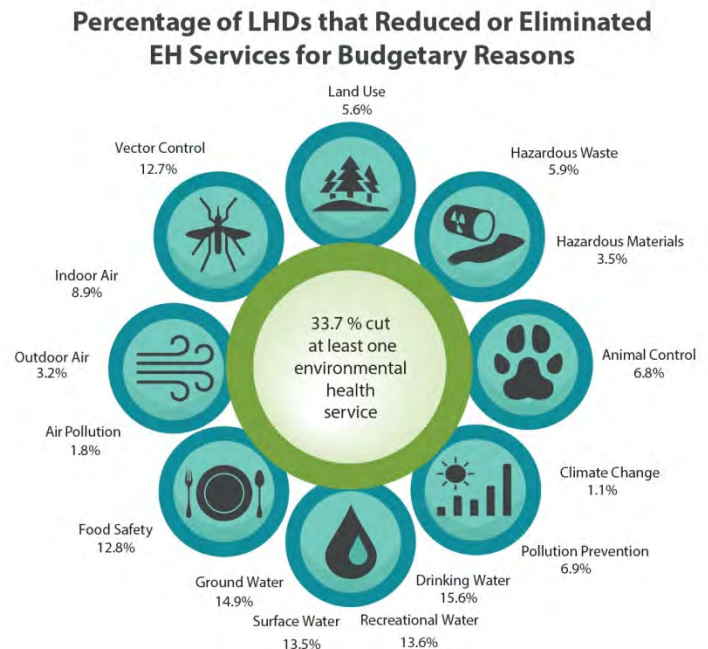
- Personnel reductions due to budget cuts had “put an enormous strain on providing customary EH services.” The respondent continued, “Customer wait time for services in some cases has doubled.” Another respondent noted that “more work is being done by fewer people, cutting efficiency and quality of work.” Other respondents indicated complete cessation of work in program areas, such as food manager certification and rabies investigations.

| Figure 4: Percentage of LHDs that Experienced EH Staff Losses                 |       |
|---|-------|
| Layoffs or Attrition  | 29.1% |
| Losses to Attrition and Not Replaced Because of Hiring Freezes or Budget Cuts | 22.0% |
| Layoffs for Budgetary Reasons   | 10.7% |

(n=275–279)

### Reduction and Elimination of EH Services

- Many LHDs reduced or eliminated EH services for budgetary reasons. Over one-third (33.7%) of LHDs reduced or eliminated at least one EH service.
- EH services that were reduced or eliminated by the largest percentages of LHDs included food safety (12.8%) and vector control (12.7%).
- EH services related to water (ground, drinking, surface, and recreational) were reduced or eliminated by the next largest percentages of LHDs.
- Multiple respondents noted reduced inspections of food establishments due to budgetary constraints. For example, one LHD “reduced food inspections from four times per year to three.”
- Several respondents indicating reduced vector control services described impacts to mosquito control. Examples included eliminating mosquito surveillance trapping, not spraying for mosquitos as frequently, and not providing any mosquito control services.
- Respondents described wide-ranging impacts on water services. One respondent noted, “Any drinking water activities were almost completely neglected.” Another LHD was “unable to [monitor] recreational waters.” More commonly however, respondents noted impacts such as “reduced amount of water sampling,” “delay in services provided,” or “services such as groundwater protection [have] been reduced from proactive to reactive.”



**EH Service Outcomes**

- About four out of 10 (39.6%) LHDs reported that budgetary constraints negatively impacted EH service outcomes (see Figure 5).
- Food safety, vector control, and services related to water were the top three areas for which LHDs reported that budgetary constraints negatively impacted service outcomes.
- Some respondents described decreased quality of work in attempting to meet unchanged or increasing workloads.
- Respondents also remarked, “Inspections are less effective due to time constraints and...personnel feeling rushed” and felt that budget constraints had led to “reduced education and training,” and “less time available for in-depth/quality inspections.

**Services Most Negatively Impacted by Budget Constraints**



| Figure 5: Percentage of LHDs for which Budgetary Constraints Negatively Impacted EH Service Outcomes |       |
|--|-------|
| Any Service  | 39.6% |
| Food Safety  | 20.7% |
| Vector Control   | 16.8% |
| Ground Water   | 14.9% |
| Surface Water  | 13.5% |
| Drinking Water   | 15.6% |
| Recreational Water   | 13.6% |
| Indoor Air   | 8.9%  |
| Outdoor Air  | 3.2%  |
| Pollution Prevention   | 6.9%  |
| Land Use   | 7.1%  |
| Hazardous Material   | 3.5%  |
| Air Pollution  | 1.8%  |
| Hazardous Waste  | 5.9%  |
| Animal Control   | 8.8%  |
| Climate Change   | 1.1%  |

(n=289–307)



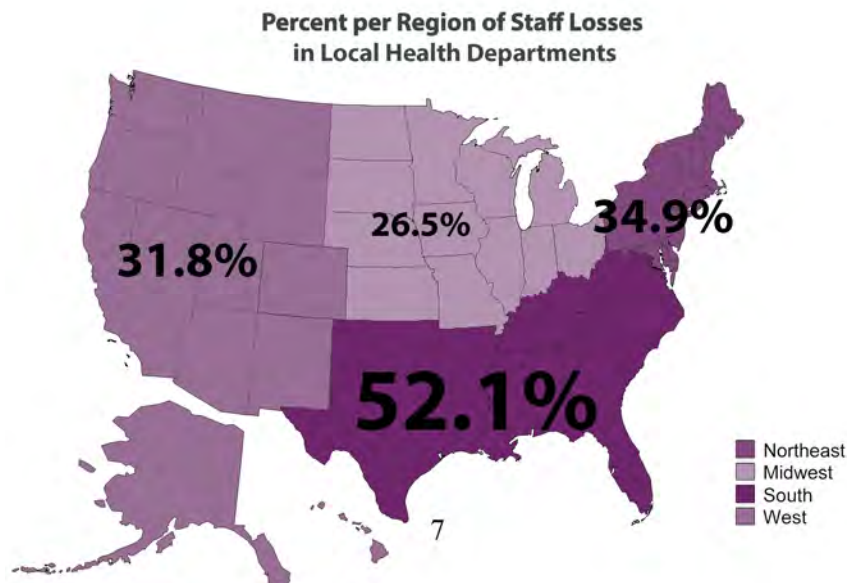
**Size of Population Served and Governance Type**

- Small, medium, and large LHDs were equally likely to report reduced revenues (see Figure 6).
- LHDs governed by shared authority were more likely to experience reduced revenue or staff losses than those that had only local authority.
- Loss of staff at LHDs was proportionate to the size of the population served. Medium LHDs were more likely to experience staff loss than small LHDs but less likely than large LHDs.
- LHDs governed by state, local, or shared authority were equally likely to report service reductions.
- Small LHDs were less likely than either medium or large LHDs to indicate budget cuts had a negative impact on at least one program, but there were no differences between medium and large LHDs.

| Figure 6: Percentage of LHDs with Cuts, by Size of Population Served, Governance |                           |                |          |            |       |        |
|--|---------------------------|----------------|----------|------------|-------|--------|
|  | Size of Population Served |                |          | Governance |       |        |
|  | <50,000                   | 50,000–499,999 | 500,000+ | State      | Local | Shared |
| Reduced Revenues (n=206)   | 33.3%                     | 42.9%          | 35.3%    | 54.6%      | 32.9% | 60.7%  |
| Staff Losses (n=279)   | 19.7%                     | 44.5%          | 65.1%    | 48.4%      | 32.7% | 55.9%  |
| Reduced Services (n=280)   | 25.4%                     | 49.2%          | 45.2%    | 46.7%      | 36.0% | 47.2%  |
| Negative Impact on EH Service Outcomes (n=291)                                   | 33.3%                     | 49.2%          | 51.2%    | 57.6%      | 40.1% | 44.4%  |

**Regional Similarities and Differences**

- LHDs that reported reduced revenues, and EH service outcomes negatively impacted, were not statistically different across the four regions (see Figure 7).
- LHDs in the South were more likely to experience staff losses than LHDs in the West or Midwest.



**Figure 7: Percentage of LHDs with Cuts, by Region**

|   | Region |         |           |       |
|---|--------|---------|-----------|-------|
|   | West   | Midwest | Northeast | South |
| Reduced Revenues ( <i>n</i> =206)                       | 28.2%  | 36.3%   | 38.5%     | 45.9% |
| Staff Losses ( <i>n</i> =279)                           | 31.8%  | 26.5%   | 34.9%     | 52.1% |
| Reduced Services ( <i>n</i> =280)                       | 40.0%  | 33.7%   | 31.7%     | 45.8% |
| Negative Impact on EH Service Outcomes ( <i>n</i> =291) | 53.3%  | 37.9%   | 29.6%     | 48.5% |

## Conclusion

Many LHDs have experienced reduced revenues, staff losses, reduction or elimination of EH services, and negative impacts of EH service outcomes. Jurisdictional population size and governance type can lead to variations in budget cuts and its negative impacts on EH workforce and services. Regardless of their region, LHDs experienced reduced revenues and EH service outcomes negatively impacted.

LHDs that are supported by diversified revenue may have a better chance of sustaining their EH programs, workforce, and services than those that predominantly receive one source of revenue. Additionally, having multiple revenue streams may help LHDs to respond more nimbly to existing and emerging issues. While more than half of the LHDs received their revenue from fees, it is unclear if revenue generated continued to support EH services or was redirected toward general LHD services. Additional exploratory analysis is needed to better understand how LHDs allocate resources to support EH programs and services.

According to the NACCHO’s 2010 and 2013 National Profile of Local Health Departments studies, the following four EH programs and services ranked among the top 10 activities provided directly and most frequently by LHDs: EH surveillance, food safety education, food service establishment inspection, and school/daycare center inspection.<sup>3,4</sup> Decision- and policymakers need to recognize the critical functions that LHDs perform to keep communities healthy and protected from public health emergencies. They should bolster support and resources for EH as an investment in healthier and safer communities nationwide.

Many LHDs have experienced reduced revenues, staff losses, reduction or elimination of EH services, and negative impacts of EH service outcomes.

With diminished resources, LHDs may be less able to provide customary services and respond to emergencies quickly and comprehensively. Recognizing the challenging conditions characterized by the survey data, NACCHO supports staff at LHDs to advance the practice of EH in the following ways:

- Learning from peers through NACCHO’s Model Practices Program;
- Sharing existing tools and resources developed by and for LHDs;



- Advocating for policies, programs, and resources to support local EH practice;
- Providing opportunities to educate and train (remotely and in-person) public health leadership and workforce to ensure the capacity of LHDs to respond to existing and emerging EH issues; and
- Communicating, illustrating, and quantifying the impact of budget cuts on EH service outcomes to decision- and policymakers.

## References

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The mission of the National Association of County and City Health Officials (NACCHO) is to be a leader, partner, catalyst, and voice for local health departments.

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