NACCHO
National Association of County & City Health Officials
The National Connection for Local Public Health

[RESEARCH BRIEF]
January 2012

Changes in Local Health Department Services and Activities:

Longitudinal Analysis of 2008 and 2010 Profile Data

Background

The Profile study questionnaire includes questions designed to assess the overall availability of public health activities and services at the local level. The 2008 and 2010 Profile questionnaires listed 87 separate activities and services and asked for information regarding which services and activities were provided by the LHD directly, as a contract, or both. The service information was gathered in the following groupings: immunization services; screening for diseases and conditions; treatment for communicable diseases; maternal and child health services; other health services; epidemiology and surveillance activities; population-based primary prevention services; regulation, inspection, and licensing activities; other environmental health activities; and other public health activities. It should be noted, however, that the Profile study does not collect information on the scale or scope of these activities and services.

Methodology

The Profile questionnaire is distributed 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] The longitudinal analysis reported on in this brief was conducted to assess changes in LHD services and activities. LHDs indicated on the Profile questionnaires whether they provided services directly or by contract across 87 services or activities that were grouped into 10 service categories. LHDs were classified as providing a service if they checked direct provision, provision by contract, or both on the questionnaire. A total of 1,893 LHDs completed at least part of the activity section of both the 2008 and 2010 Profile studies.

Results

Longitudinal analysis showed that the three services most frequently added by LHDs between 2008 and 2010 were school-based clinics (20%), laboratory services (20%), and behavioral risk factors surveillance (19%), as seen in Figure 1. Other services frequently added between 2008 and 2010 included chronic disease surveillance (17%), surface water protection (16%), syndromic surveillance (16%), smoke-free ordinances (16%), health-related facilities regulation (16%), public drinking water regulation (15%), and food processing regulation (15%).

FIGURE 1: Services Most Frequently Added by LHDs between 2008 and 2010

Service/Activity	Percent LHDs Adding
School-Based Clinics	20%
Laboratory Services	20%
Behavioral Risk Factors Surveillance	19%
Chronic Disease Surveillance	17%
Surface Water Protection	16%
Syndromic Surveillance	16%
Smoke-Free Ordinances	16%
Health-Related Facilities Regulation	16%
Public Drinking Water Regulation	15%
Food Processing Regulation	15%

n ranged from 1,780 to 1,814

At 16 percent, chronic disease surveillance and outreach and enrollment for medical insurance were the services most frequently eliminated by LHDs between 2008 and 2010 (Figure 2). Other services most frequently eliminated by LHDs at 14 percent included behavioral risk factors surveillance, vector control, injury prevention, and veterinarian public health. Unintended pregnancy prevention, physical activity promotion, chronic disease prevention, and maternal and child health epidemiology and surveillance with all at 13 percent were also among the most frequently eliminated services.

Several activities showed little change in LHD provision between 2008 and 2010. For ten services, the percentage of LHDs adding and eliminating each was less than five percent (Figure 3). Four of these activities are among the 10 activities/services most frequently provided by LHDs (child immunization provision, adult immunization provision, food service establishments regulation, communicable/infectious disease surveillance) as reported in the 2010 Profile study, while two of these activities are provided by fewer than five percent of LHDs (medical examiner's office and emergency medical services).

To illustrate national trends in service provision by LHDs, the net percentage change for each service/activity was calculated. This net change was determined by subtracting the percentage of LHDs that eliminated a service from those that added a service between 2008 and 2010.

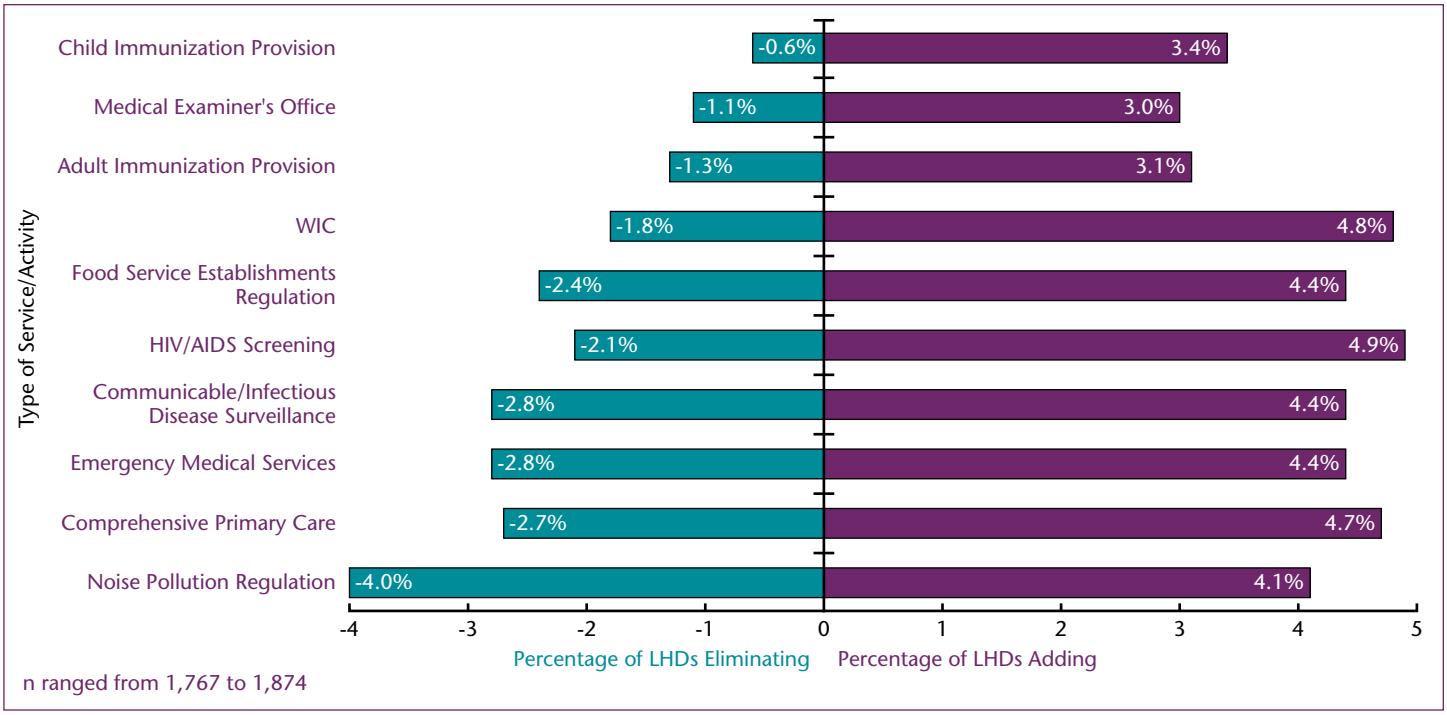
Figure 4 presents the activities with the largest positive net change in LHD provision from 2008 to 2010. School-based clinics had the largest net change (13.5%), followed by laboratory services (9.8%), collection of unused pharmaceuticals (7.3%), and public drinking water regulation (6.1%).

FIGURE 2: Services Most Frequently Eliminated by LHDs between 2008 and 2010

Service/Activity	Percent LHDs Eliminating
Chronic Disease Surveillance	16%
Outreach and Enrollment for Medical Insurance	16%
Behavioral Risk Factors Surveillance	14%
Vector Control	14%
Injury Prevention	14%
Veterinarian Public Health	14%
Unintended Pregnancy Prevention	13%
Physical Activity Promotion	13%
Chronic Disease Prevention	13%
Maternal and Child Health Epidemiology and Surveillance	13%

n ranged from 1,758 to 1,815

FIGURE 3: Services Showing Least Change in LHD Provision between 2008 and 2010



n ranged from 1,767 to 1,874

FIGURE 4: Services with Largest Positive Net Change in LHD Provision from 2008 to 2010

Service/Activity	Net Change
School-Based Clinics	13.5%
Laboratory Services	9.8%
Collection of Unused Pharmaceuticals	7.3%
Public Drinking Water Regulation	6.1%
Smoke-Free Ordinances	5.9%
HIV/AIDS Treatment	5.9%
Land Use Planning	5.5%
Children's Camps	5.3%
Schools/Day Cares	5.1%
Body Art	5.1%

n ranged from 1,780 to 1,835

As can be seen in Figure 5, no service showed a net decrease in LHD provision greater than five percent. The largest net decrease was seen in veterinarian public health, followed by well child clinic, school health, and asthma prevention and/or management.

FIGURE 5: Services with Largest Negative Net Change in LHD Provision from 2008 to 2010

Service/Activity	Net Change
Veterinarian Public Health	-4.7%
Well Child Clinic	-4.1%
School Health	-3.8%
Asthma Prevention/Management	-3.7%
MCH Home Visits	-2.7%
Vector Control	-2.6%
Cardiovascular Disease Screening	-2.5%
High Blood Pressure Screening	-2.5%
Prenatal Care	-2.4%
Diabetes Screening	-2.2%
Pollution Prevention	-2.0%

n ranged from 1,771 to 1,834

Discussion

Analysis of the activities and services reported by LHDs in the 2008 and 2010 Profile studies has demonstrated a moderate amount of change in the mix of services provided by LHDs across the nation between 2008 and 2010. However, no meaningful change in the average number of services provided by LHDs was seen between 2008 and 2010 (analysis not shown) and there was no large net decrease in any of the 87 services and activities included in the 2008 and 2010 Profile surveys.

Comparing the results of this longitudinal analysis of activities to one conducted using data from the 2005 and 2008 Profile studies[3] helps to identify activities and services that appear to be trending up or down in terms of frequency of provision by LHDs. Among the services and activities showing consistently positive changes in frequency of provision between 2005 and 2010 were smoke-free ordinances, school-based clinics, laboratory services, and regulation of schools and daycare centers. Among the services showing consistently negative changes in frequency of provision between 2005 and 2010 were prenatal care, diabetes screening, cardiovascular disease screening, and high blood pressure screening. Three activities first included in the 2008 Profile study were among those showing the largest net increases in frequency of provision between 2008 and 2010—collection of unused pharmaceuticals, children's camp regulation, and body art regulation. These bear watching in future Profile studies to determine whether these activities continue this positive trend.

Interestingly, the services provided by most LHDs were also among those that showed the least change between 2008 and 2010 and between 2005 and 2008. They include immunizations (child and adult), communicable and infectious disease surveillance, and food services establishment inspection—core public health activities that LHDs are unlikely to eliminate.

Epidemiology and surveillance programs are worthy of special notice as they were prominent among the most frequently added and eliminated services between 2008 and 2010. In fact, chronic disease surveillance and behavioral risk factors surveillance were among the most frequently added and eliminated services between 2008 and 2010 and between 2005 and 2008. This suggests that many LHDs do not consider these activities essential to their health surveillance program, but rather conduct them based on community priorities or when staffing resources permit. Primary prevention programs were also prominent among the programs most frequently eliminated by LHDs.

The Profile study cannot assess changes in the scale or scope of the services provided by LHDs; therefore, this analysis does not reflect any changes in the quantity of services being provided (i.e., units of service, unduplicated count of persons served, etc.) or the variety of activities included within a program. Consequently, the Profile study has limited utility for measuring the program cuts made by many LHDs in response to budget decreases in recent years. NACCHO conducts a periodic survey of LHDs to measure the impact of the economic recession on LHDs, which provides some insight into this issue. The most recent cycle of this survey asked LHDs if any services had been cut (defined as reduced or eliminated) for budgetary reasons between July 2010 and June 2011.[4] Study results showed that LHDs most frequently reduced or eliminated services in the program areas of maternal and child health services (21%), other personal health services (20%), and emergency preparedness (20%) (not shown). Closer examination of the program cuts reveals only a small proportion represent elimination of programs entirely, with three percent of LHDs eliminating a maternal and child health program, three percent of LHDs eliminating a personal health service, and two percent of LHDs eliminating an emergency preparedness program. This demonstrates that the number of LHDs that have reduced the scale or scope of their programs is much larger than the number of LHDs that have completely eliminated programs.

In order to have a clearer picture of the shifts in LHD services and activities across time, further exploration is needed on how to best measure the amount and quality of services being provided. Developing such measures would be an important step towards better assessment of changes in the services and activities provided by LHDs and other organizations within their jurisdictions.

References

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

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

4 NACCHO. Research Brief. Local Health Department Job Losses and Program Cuts: Findings from the July 2011 Survey (December 2011). Available at http://www.naccho.org/topics/infrastructure/lhdbudget/index.cfm.

Acknowledgments

This document was supported by Award Number 5U38HM000449-03 from the Centers for Disease Control and Prevention (CDC) and the Robert Wood Johnson Foundation (RWJF). Its contents are solely the responsibility of the authors and do not necessarily represent the views of CDC or RWJF.

FOR MORE INFORMATION, PLEASE CONTACT:

The Profile Study Team
800-758-6471
ProfileTeam@naccho.org

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1100 17th St, NW, 7th Floor, Washington, DC 20036
P 202-783-5550 F 202-783-1583