



Forces of Change: 2023 Survey Results

Acknowledgements

Report authors

Margaret C. Cunningham, MPH, RN
Krishna Patel, DrPH, MPH
Chloe Garofalini, MPH
Kellie Hall, MS
Timothy C. McCall, PhD

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Introduction

In this section:

- Background
- Methods
- Subgroup analysis

Background and Methods

Since 2008, the National Association of County and City Health Officials (NACCHO) periodically surveys local health departments (LHDs) to identify infrastructure challenges among LHDs and opportunities to strengthen local public health capacity. Initially, this survey measured the impact of the Great Recession on LHD budgets, staffing, and programs. In 2014, NACCHO expanded the survey to address broader social, political, and economic impacts on local public health.

The Forces of Change survey assesses changes in LHD capacity and activities driven by public health trends.

The 2023 Forces of Change focused on:

- Changes in LHD staffing and budgets;
- Billing practices for clinical services;
- The role of community health workers;
- Programs and collaborations related to violence prevention and social determinants of health; and,
- Data modernization and outbreak analytics capacity.

The full survey instrument can be found [here](#).

Study population

There are more than 3,300 agencies or units in the United States (U.S.) that meet the definition of an LHD. For the purposes of surveying, NACCHO utilizes a methodology to account for the most unique individuals in the U.S. at the level closest to the local level without “double counting.” For example, if a region has three counties served by three LHDs, all three LHDs are surveyed. However, if a region has three counties served by a city, two county, and a district LHD, only the district LHD may be surveyed. NACCHO uses a database of LHDs based on previous National Profile of Local Health Department (Profile) studies and consults with state health agencies and state associations of local health officials (SACCHOs) to identify the 2,503 LHDs included in the 2023 study population. Rhode Island was excluded because the state has no sub-state public health units.

Sampling

A stratified random sample of 1,200 LHDs were invited to complete the survey, with strata defined by seven categories of population size served by the LHD (i.e., less than 25,000, 25,000–49,999, 50,000–99,999, 100,000–249,999, 250,000–499,999, 500,000–999,999, and more than 1,000,000 people). NACCHO administered the survey from March to April 2023. A total of 532 LHDs responded to the survey for a response rate of 44%.

Analysis and Reporting

Survey Weight and National Estimates

Statistics were computed using post-stratification survey weights to adjust for oversampling and non-responses. National estimates were generated using these survey weights based on size of population served. Some detail may be lost in the figures due to rounding.

Limitations

All data are self-reported by LHD staff and are not independently verified. LHDs may have provided incomplete, imperfect, or inconsistent information for various reasons. In addition, non-response bias could impact the results presented in this report, and any comparisons presented are not tested for statistical significance.

Additional methodological details can be found [here](#).

Throughout this report, results are described based on different subgroup analyses.

Size of Population Served

Statistics are compared across the size of the population served by the LHDs. Small LHDs serve populations of less than 50,000 people. Medium LHDs serve populations of 50,000 to 499,999 people. Large LHDs serve populations of 500,000 people or more.

Type of Governance

Data are also presented by type of governance, which refers to the LHD's relationship to their state agency. Locally governed LHDs are agencies of local government. State-governed LHDs are local or regional units of the state health agency. LHDs that are governed by both state and local authorities are referred to as shared governance.

United States Census Region

A final subgroup by which data are presented is [U.S. Census region](#). LHDs are designated as being in the Northeast, South, Midwest, or West, based on the state in which they are located, per the U.S. Census Bureau classifications.

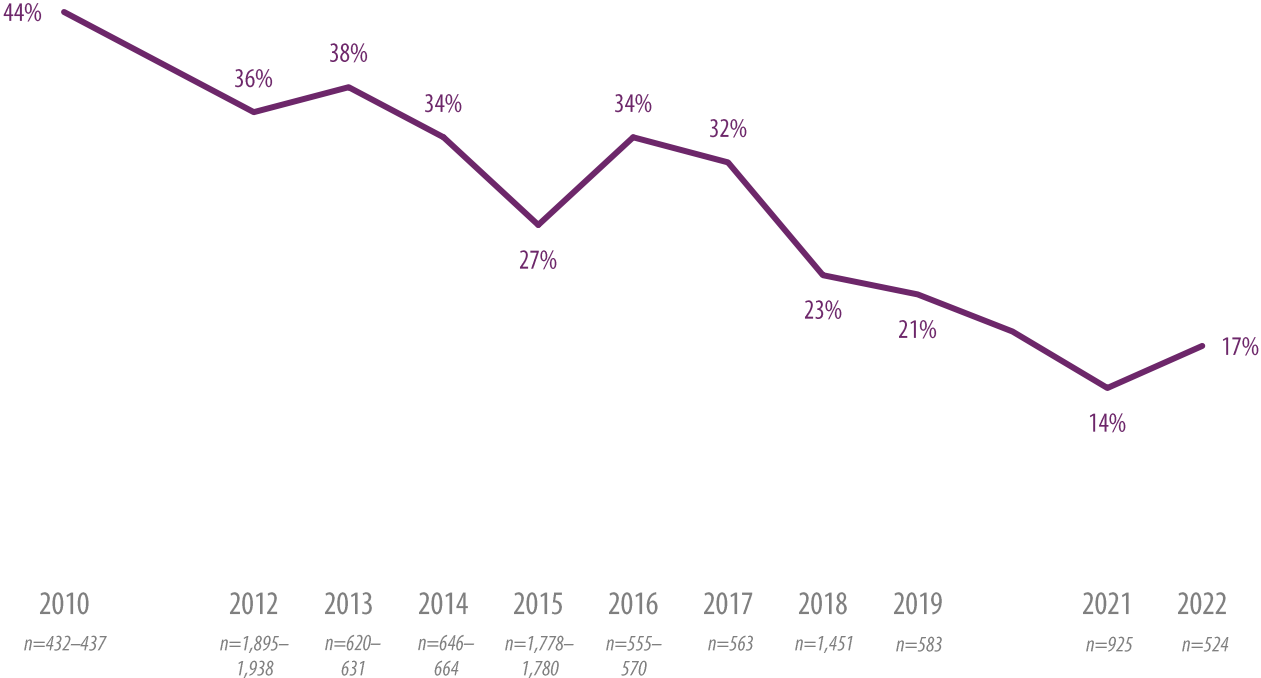
Economic Surveillance

In this section:

- Annual job losses and gains
- Changes in LHD budgets over time

Job losses among LHDs due to layoffs and/or attrition, over time

Percent of LHDs reporting at least one job lost



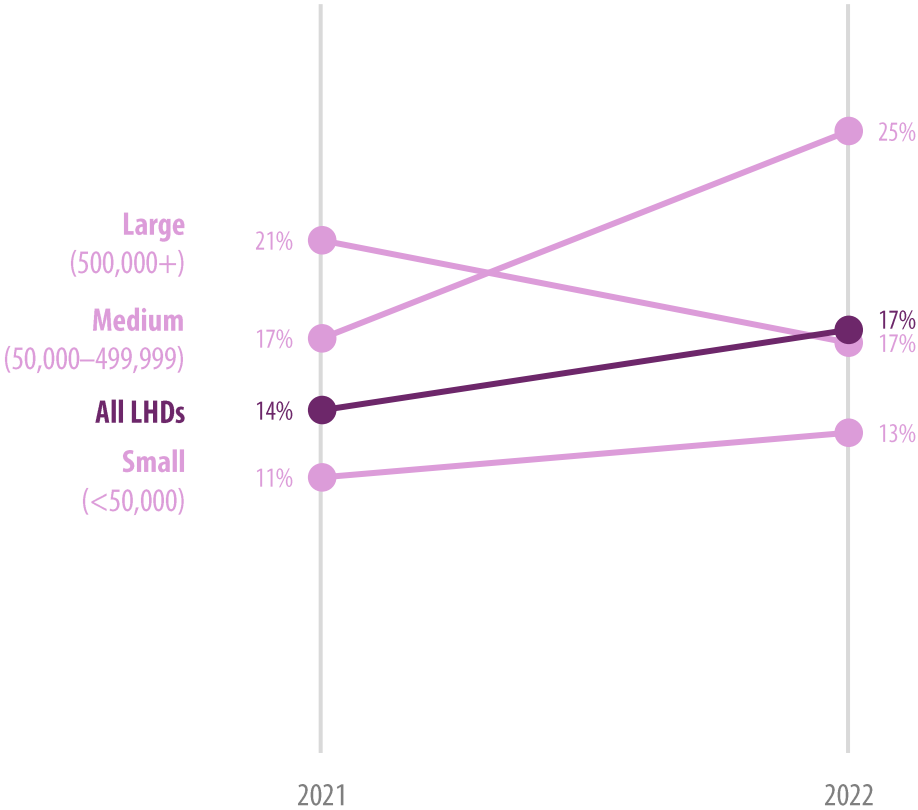
Overall, the percentage of LHDs reporting at least one job lost due to layoffs and/or attrition in the previous calendar year has decreased over the past decade.

While nearly half of LHDs lost at least one job in the 2010 calendar year, less than one-fifth had job losses during the 2022 calendar year. However, this is slightly higher than the previous year when 14% of LHDs had at least one job lost.

Technical Note
Ns vary because questions regarding layoffs and attrition were asked in separate questions with different numbers of observations across survey years.

Job losses due to layoffs and/or attrition, over time and by size of population served

Percent of LHDs reporting at least one job lost



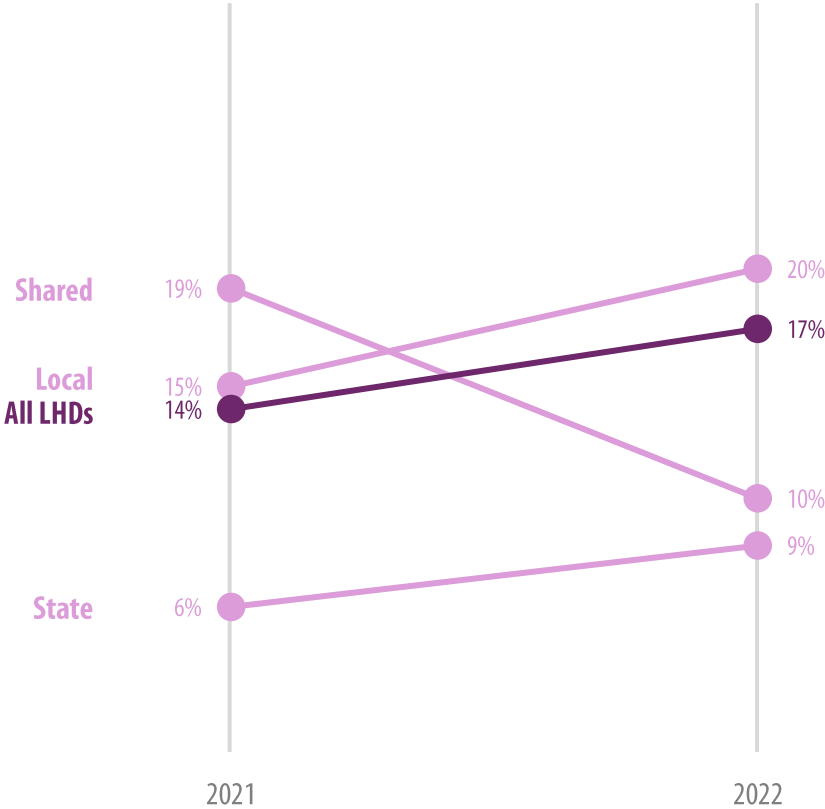
Approximately one in eight small LHDs, one in four medium LHDs, and one in six large LHDs reported at least one job lost in the previous calendar year.

Notably, fewer large LHDs experienced job losses in 2022 than in 2021.

n(2021)=925
n(2022)=524

Job losses due to layoffs and/or attrition, over time and by type of governance

Percent of LHDs reporting at least one job lost



In 2022, locally governed LHDs were more likely to report at least one job lost compared to those with state or shared governance.

Notably, fewer LHDs with shared governance experienced job losses in 2022 than in 2021.

n(2021)=925
n(2022)=524

Number of LHD jobs lost and added, over time and by size of population served

	Number of positions eliminated	Number of positions added	Net change
All LHDs			
Change in 2011 (n=604; 617)	9,970	3,700	-6,270
Change in 2012 (n=1,773)	4,090	3,680	-410
Change in 2015 (n=1,261)	2,270	3,570	850
Change in 2017 (n=545)	730	900	170
Change in 2018 (n=1,424)	2,590	4,740	2,150
Change in 2019 (n=542)	1,520	5,870	4,350
Change in 2021 (n=902)	3,180	13,110	9,930
Change in 2022 (n=502)	3,290	9,470	6,180
Small (<50,000)			
Change in 2011	2,200	600	-1,600
Change in 2012	820	620	-200
Change in 2015	620	720	100
Change in 2017	110	90	-20
Change in 2018	540	740	200
Change in 2019	540	1,000	460
Change in 2021	410	1,900	1,490
Change in 2022	480	830	350
Medium (50,000–499,999)			
Change in 2011	4,500	1,350	-3,150
Change in 2012	2,030	1,650	-3,800
Change in 2015	1,460	1,640	180
Change in 2017	380	320	-60
Change in 2018	900	400	-500
Change in 2019	740	3,400	2,660
Change in 2021	1,010	5,020	4,010
Change in 2022	980	2,180	1,200
Large (500,000+)			
Change in 2011	3,270	1,740	-1,530
Change in 2012	1,240	1,400	160
Change in 2015	640	1,210	570
Change in 2017	250	490	240
Change in 2018	1,150	2,140	990
Change in 2019	240	1,470	1,230
Change in 2021	1,760	6,180	4,420
Change in 2022	1,830	6,460	4,630

Overall, the workforce has grown each year since 2015. The number of job additions within LHDs nationally peaked in 2021, with more than 13,000 jobs added to the workforce.

In 2022, the number of jobs added again exceeded the number of jobs eliminated, for a net increase of 6,180 jobs across all LHDs.

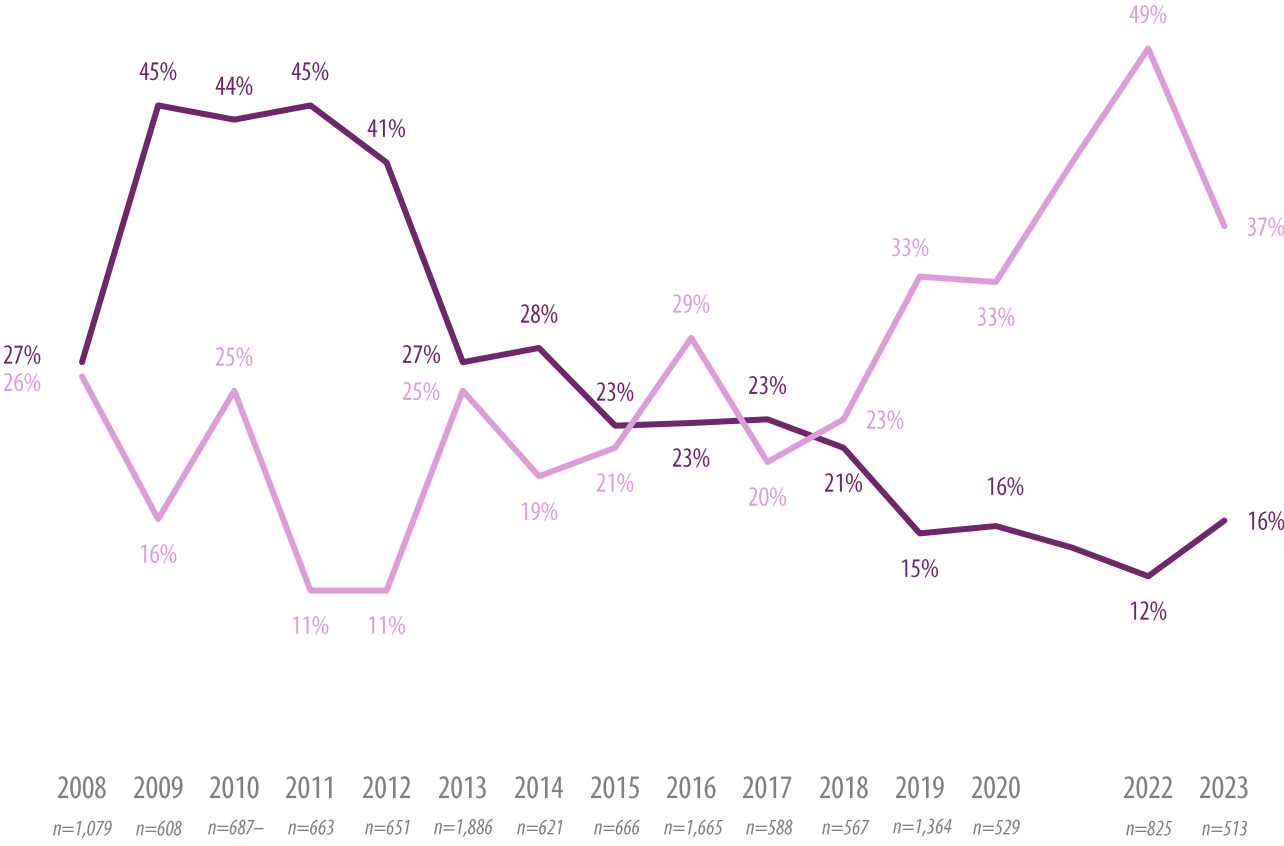
Across all jurisdiction sizes, LHDs experienced a net increase in jobs.

Technical Notes

This figure summarizes data on numbers of LHD positions added and eliminated during eight calendar years, with 2022 being the year assessed in 2023. The net change is the number of positions added minus the number of positions eliminated. Only LHDs who reported values for all variables on job cuts and additions are included in the analysis. NACCHO estimated 2011 statistics using data from two surveys in which LHDs reported jobs lost and added.

Changes in LHD budgets in current fiscal year compared to the previous fiscal year, over time

Percent of LHDs reporting a lower budget in the current fiscal year
 Percent of LHDs reporting a higher budget in the current fiscal year



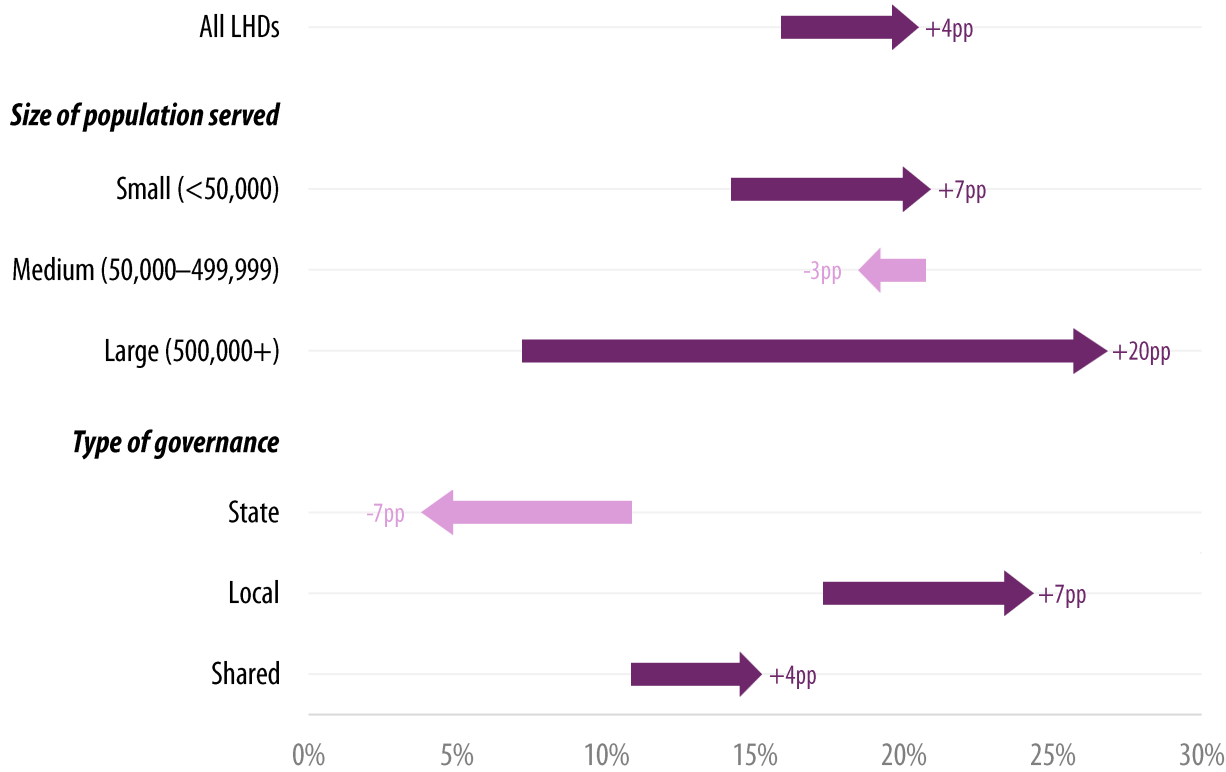
From 2009 to 2012, more than 40% of LHDs reported having a lower budget compared to the previous fiscal year. However, this proportion has been trending down since then. Most recently, only 16% of LHDs reported having a lower budget in 2022 — a relatively similar proportion to the previous three years of reports.

On the other hand, the proportion of LHDs reporting a higher budget has been trending upward over time. However, there was a 12-percentage point decrease from 49% in 2022 to 37% in 2023.

Technical Notes
 LHDs that reported do not know (<10%) were excluded. Also, NACCHO estimated 2010 statistics using data from two surveys in which LHDs reported budget changes.

Current and expected budget cuts, by size of population served and type of governance

Percent of LHDs with reported cuts in current and expected cuts in next fiscal year



In 2023, 20% of LHDs reported expecting budget cuts in their next fiscal year, while 16% reported budget cuts in their current fiscal year. This is a difference of four percentage points (pp).

Large LHDs were less likely to report current budget cuts (7%) than small and medium LHDs (14% and 21%, respectively). However, they were the most likely to report expecting future cuts (27%). Meanwhile, fewer medium LHDs were expecting future cuts (18%) than currently experiencing them.

State-governed LHDs are much less likely to report expecting cuts in the next year (4%) than those with local or shared governance (24% and 15%, respectively).

n(reported)=513
n(expected)=507

Technical Note
LHDs that reported do not know (<10%) were excluded.

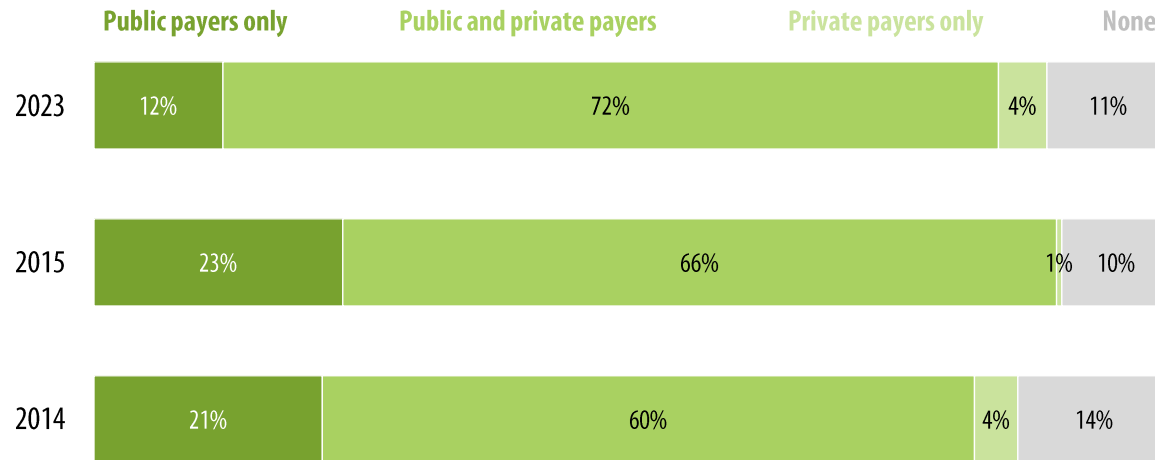
Billing for Services

In this section:

- Third-party payers billed for clinical services
- Approaches used to bill third-party payers
- Efforts to increase or establish billing

Billing third-party payers for clinical services

Percent of LHDs, among those directly providing any clinical service during calendar year 2022



n(2023)=505
n(2015)=643
n(2014)=610

Nearly nine in 10 LHDs billed third-party payers (including Medicaid, Medicare, and private insurers) in 2023, which is approximately the same as in 2015.

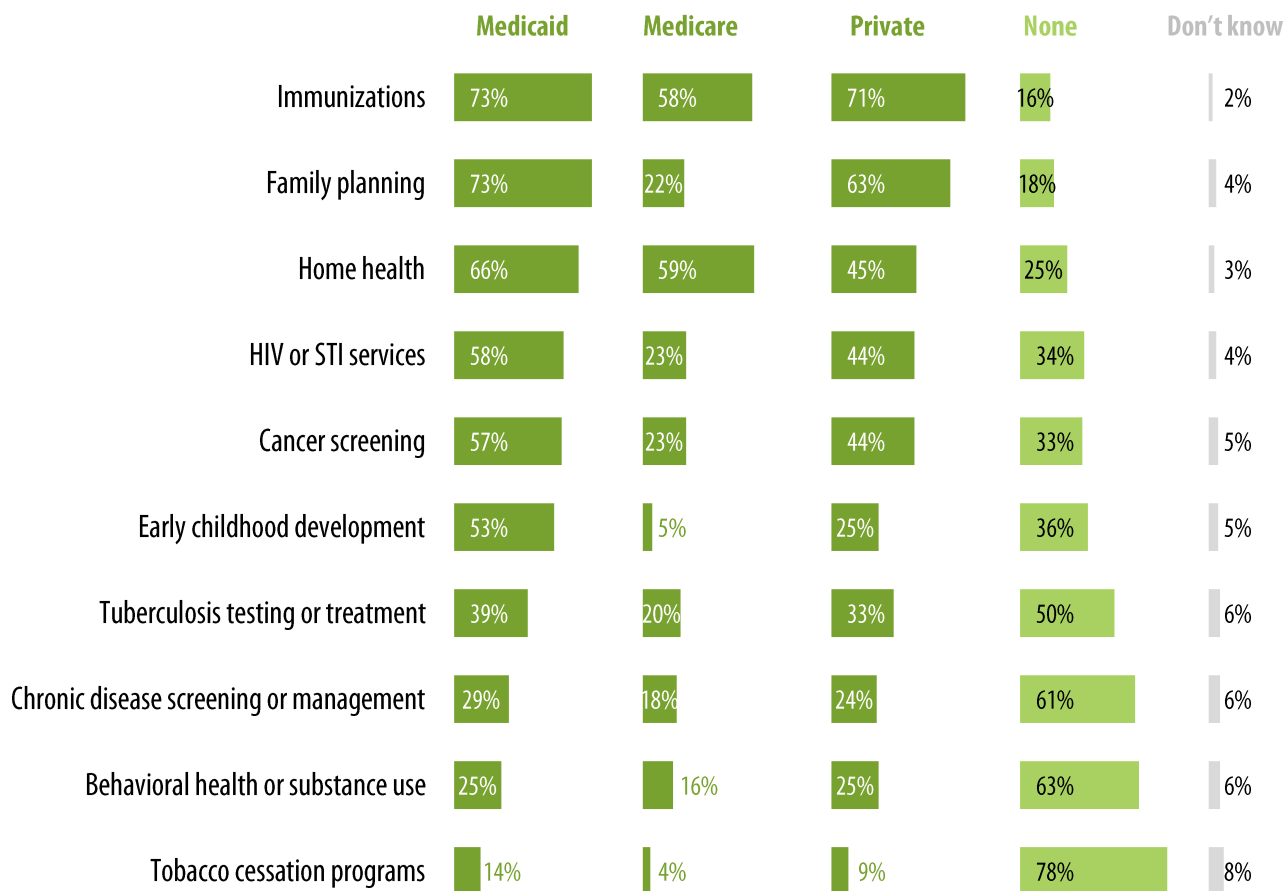
Notably, the types of payers that LHDs bill shifted over time. In 2023, LHDs were less likely to report billing only public payers compared to previous years. Meanwhile, the proportion of LHDs billing both public and private payers increased since 2014.

Technical Notes

LHDs that reported do not know (<10%) were excluded. Only 2% of LHDs did not offer any of the clinical services assessed and were excluded from the analysis.

Billing for clinical services, by third-party payer

Percent of LHDs, among those directly providing the specific service during calendar year 2022



Among LHDs that provided the clinical service, they most frequently reported billing to Medicaid or private insurers. In particular, approximately two in three LHDs providing immunizations, family planning, or home health services reported billing to Medicaid.

The most common services for which LHDs billed private insurers were immunizations and family planning.

Notably, more than half of LHDs providing chronic disease screening/management, tobacco cessation, or behavioral health/substance use services did not bill any third-party payers.

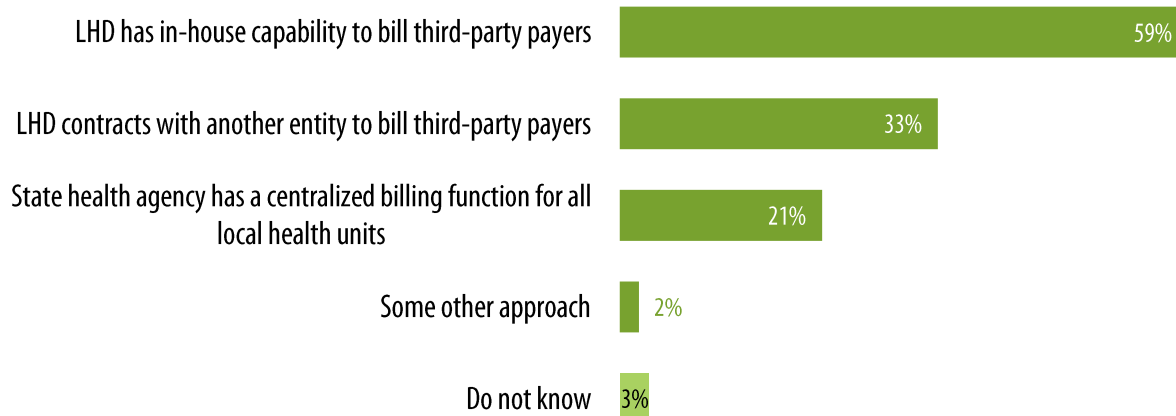
Technical Note

Ns vary because the analysis includes only the LHDs that directly provide the service.

n=123–507

Use of approaches for billing for clinical services

Percent of LHDs, among those billing one or more payers



n=442

Among LHDs that billed third-party payers, approximately three in five are doing so in-house, while another one in three are contracted with another entity for billing.

Although not shown, large LHDs were more likely to have in-house billing capabilities (79%), compared to small and medium sized LHDs (54% and 63%, respectively).

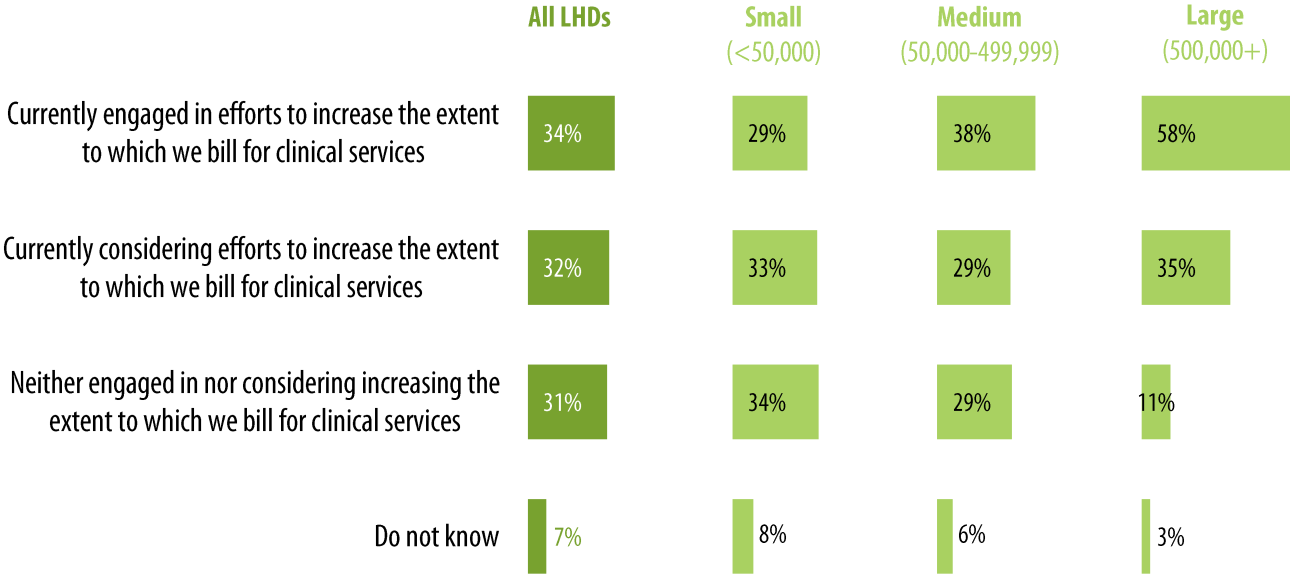
Although not shown, state-governed LHDs were more likely to have centralized billing through the state health agency (75%) than in-house billing capability within the LHD (19%). This was the opposite for both locally governed LHDs (7% and 68%, respectively) and those with shared governance (10% and 78%, respectively).

Technical Note

The analysis includes only the LHDs that bill at least one payer.

Consideration of efforts to increase the extent to which payers are billed for clinical services, by size of population served

Percent of LHDs, among those billing one or more payers



Among LHDs that billed third-party payers, approximately one-third are engaging in efforts, considering efforts, or neither as it relates to increasing the extent to which they bill for clinical services.

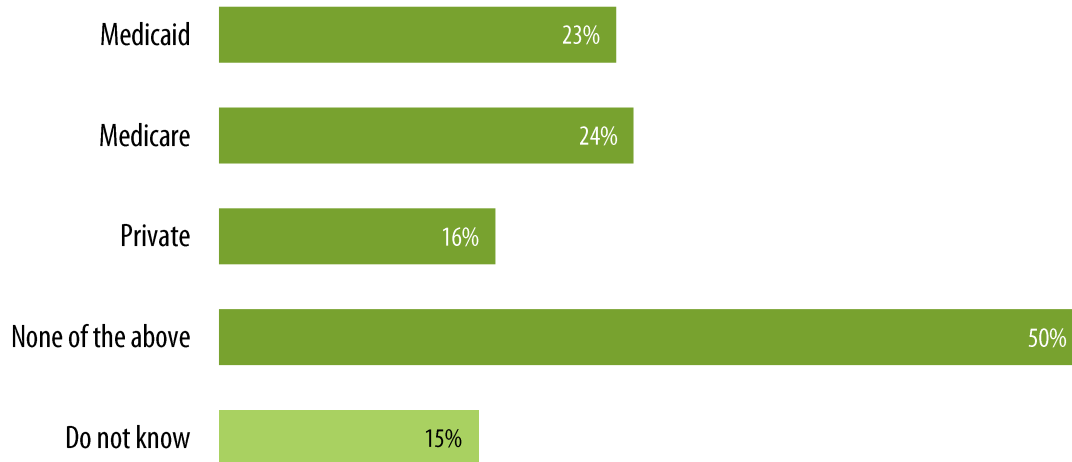
Large LHDs were twice as likely as small LHDs to currently be engaged in expanding billing efforts.

Technical Note
The analysis includes only the LHDs that bill at least one payer.

n=443

Establishment of third-party billing for clinical services

Percent of LHDs, among those not billing any payers



Among LHDs that did not bill third-party payers, half were not working to establish billing. Approximately one in four LHDs were working to establish billing with either Medicaid or Medicare.

Technical Note
The analysis includes only the LHDs that do not bill any payers.

n=70

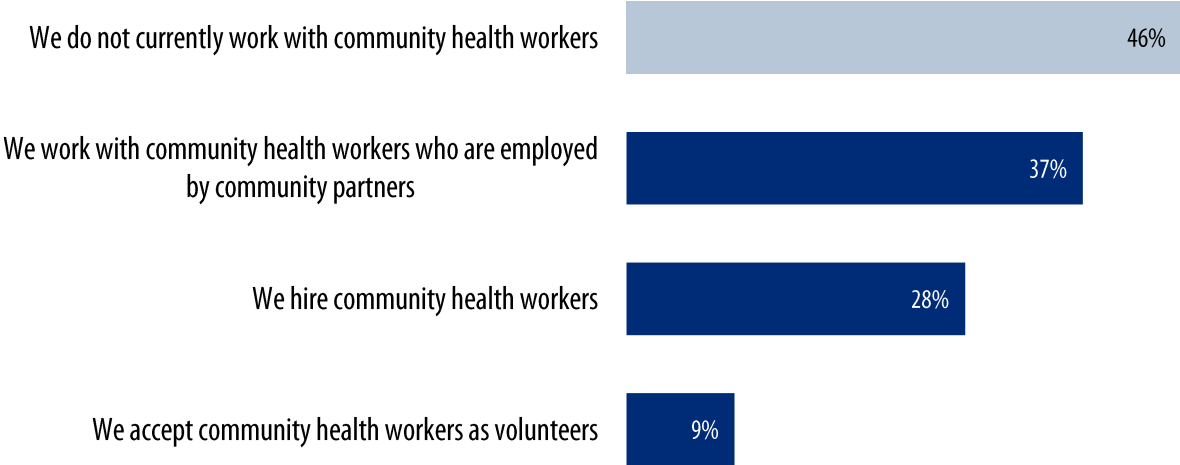
Community Health Workers

In this section:

- Collaboration with community health workers (CHWs)
- Functions of CHWs within LHDs
- Challenges faced by LHDs working with CHWs

LHD collaborations with Community Health Workers to implement public health programs and services

Percent of LHDs



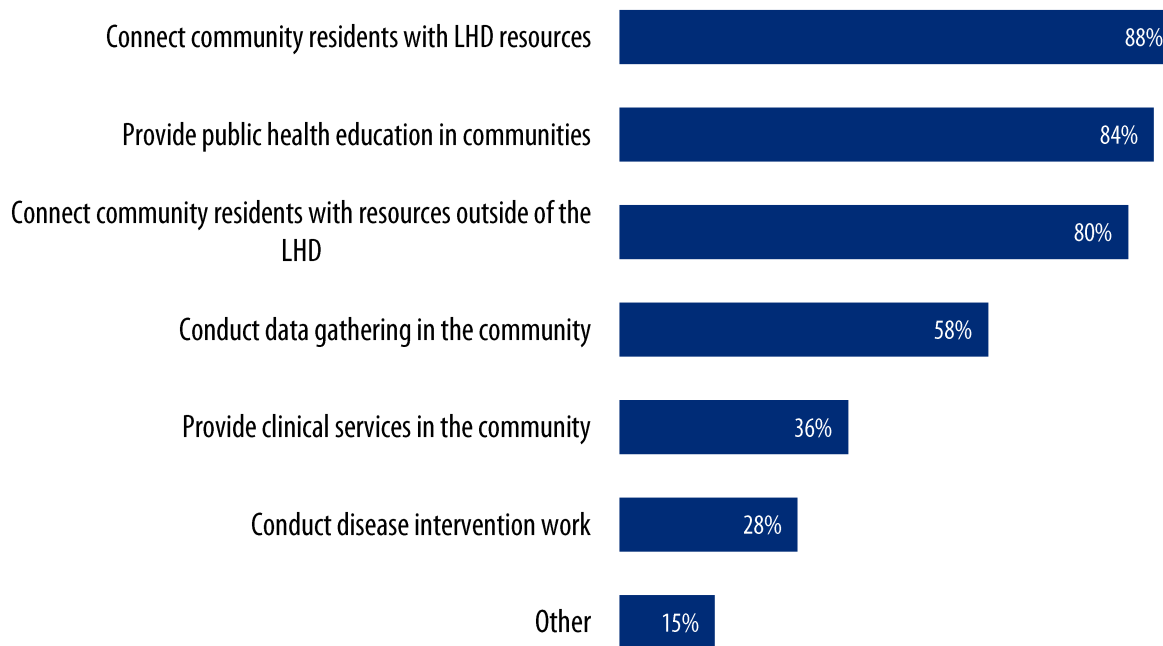
Approximately half of LHDs did not work with community health workers (CHWs) to implement public health programs. Among those that did, LHDs most frequently worked with CHWs employed by community partners.

Although not shown, large LHDs and those in the West were more likely to report working with CHWs, compared to their peer LHDs. Across jurisdiction size, 93% of large, 66% of medium, and 45% of small LHDs worked with CHWs. Across Census region, 75% of LHDs in the West, 63% in the South, 59% in the Northeast, and 41% in the Midwest did so.

n=529

LHD functions supported by Community Health Workers

Percent of LHDs, among those that hire or accept volunteer CHWs



n=173

LHDs that worked directly with CHWs most frequently reported they played a role in connecting residents to resources both within and outside of the LHD, as well as providing community education. On the other hand, fewer LHDs worked with CHWs to provide clinical services or conduct disease intervention work.

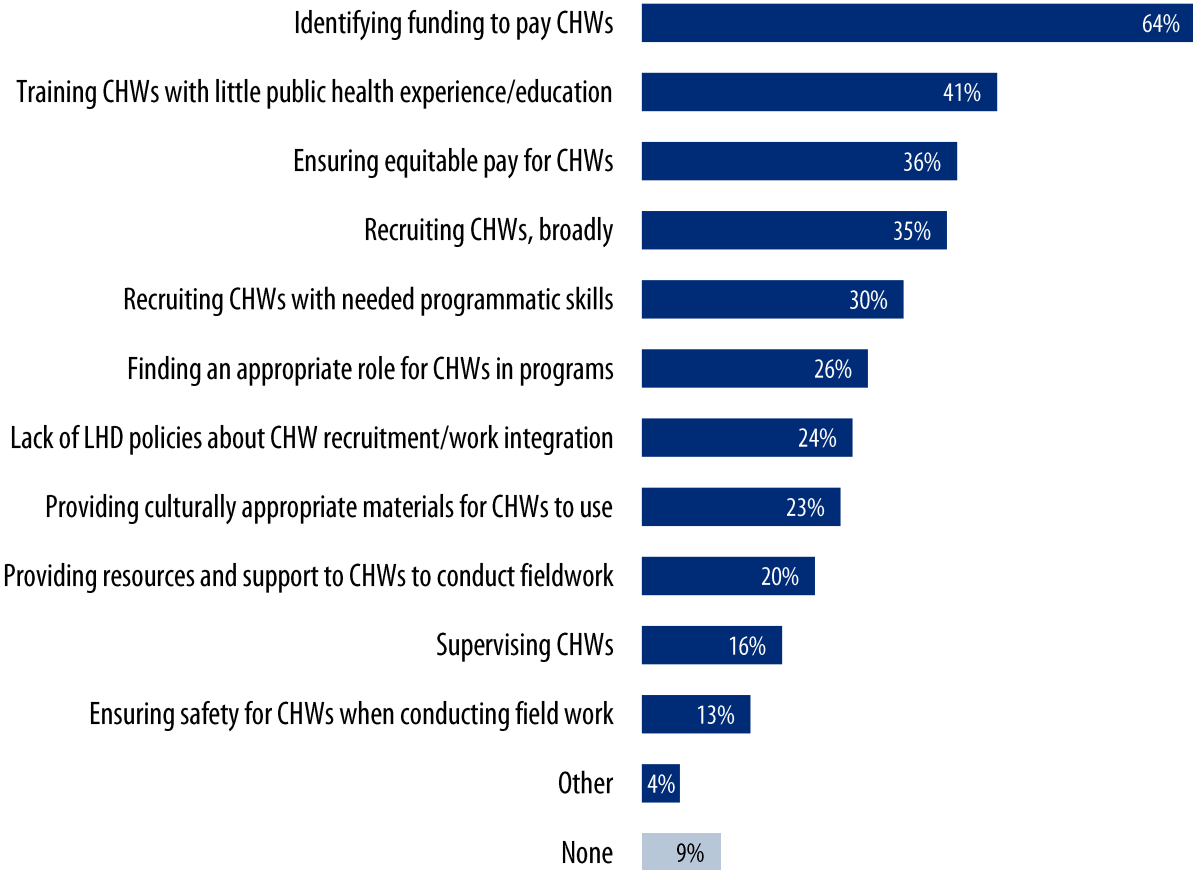
Although not shown, the proportions of LHDs reporting their CHWs supported these functions were similar across jurisdiction size and Census region. However, LHDs in the South were more likely than those in other regions to report their CHWs supported data gathering; LHDs in the Midwest and Northeast were more likely to report their CHWs supported clinical service provision.

Technical Note

The analysis includes only the LHDs that either hire CHWs or accept them as volunteers.

Challenges faced by LHDs when working with Community Health Workers

Percent of LHDs, among those that hire or accept volunteer CHWs



Among LHDs that worked directly with CHWs, nearly two-thirds reported limited funding was a challenge. This was a commonly reported challenge, regardless of jurisdiction size, type of LHD governance, or Census region.

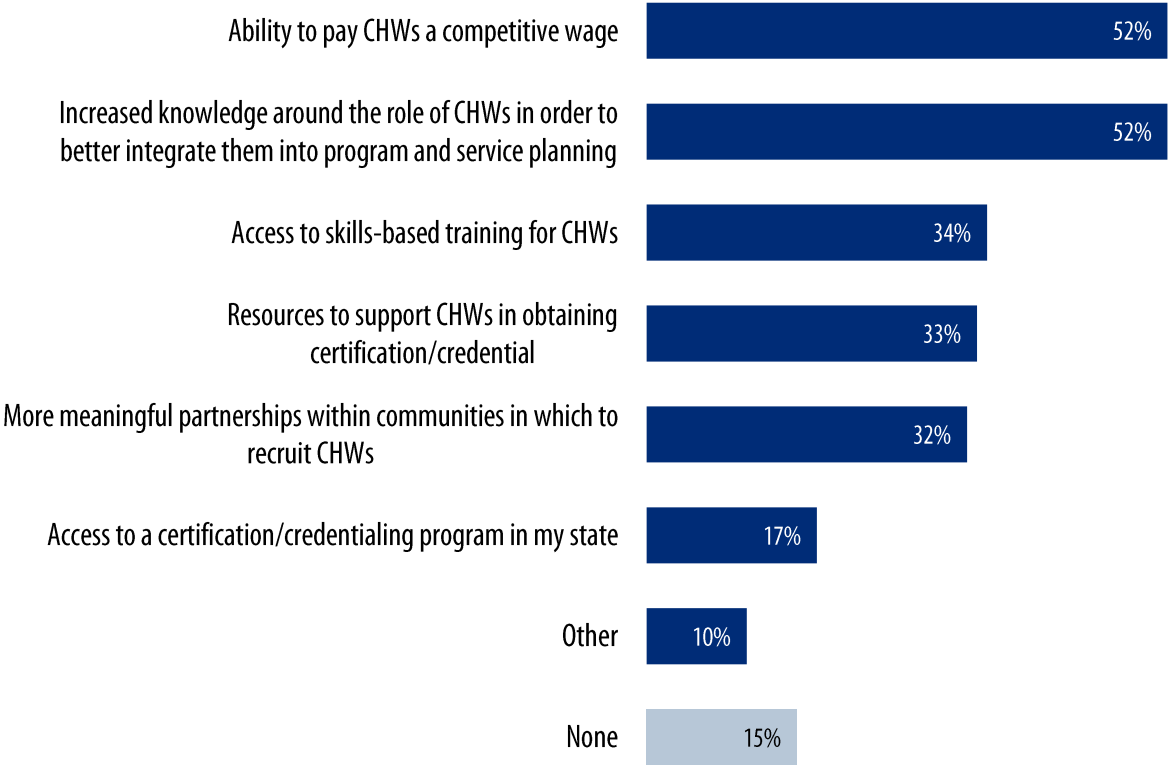
Three in 10 LHDs reported challenges with recruitment, training, and ensuring equitable pay for CHWs.

Technical Note
 The analysis includes only the LHDs that either hire CHWs or accept them as volunteers.

n=173

Resources needed to improve LHD ability to leverage Community Health Workers

Percent of LHDs



More than half of LHDs reported that they need the ability to pay a competitive wage and more knowledge about CHWs’ potential role within LHD programs to better leverage CHWs. These were both commonly reported regardless of jurisdiction size, type of LHD governance, or Census region.

n=525

Multi-sector Collaboration, Violence Prevention, & Social Determinants of Health

In this section:

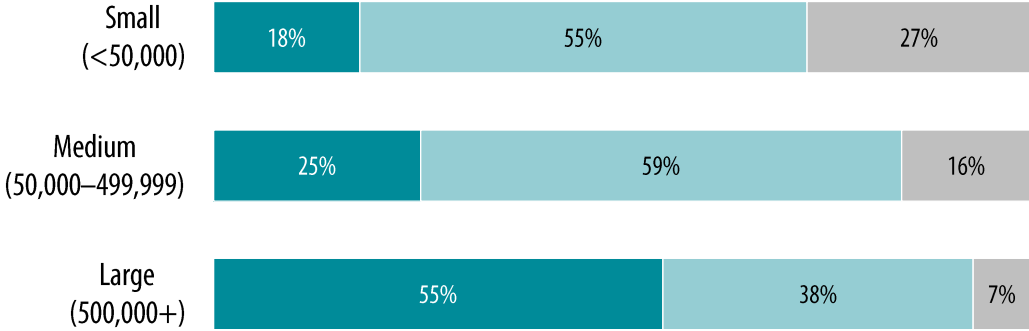
- Implementation of Health in All Policies framework
- Partnerships or collaborations to address public health issues
- Screening for social determinants of health
- Provision of violence prevention services or programming

Implementation of Health in All Policies framework, by size of population served

Percent of LHDs



Size of population served



More than half of LHDs reported not having a [Health in All Policies \(HiAP\)](#) framework in place (i.e., a policy or resolution to consider whether other policy decisions have a neutral or beneficial impact on health determinants for the population served).

While more than half of large LHDs did have a HiAP framework in place, only 18% of small LHDs and 25% of medium sized LHDs reported they did.

n= 529

LHD partnerships or collaborations on activities related to public health topic areas

Percent of LHDs



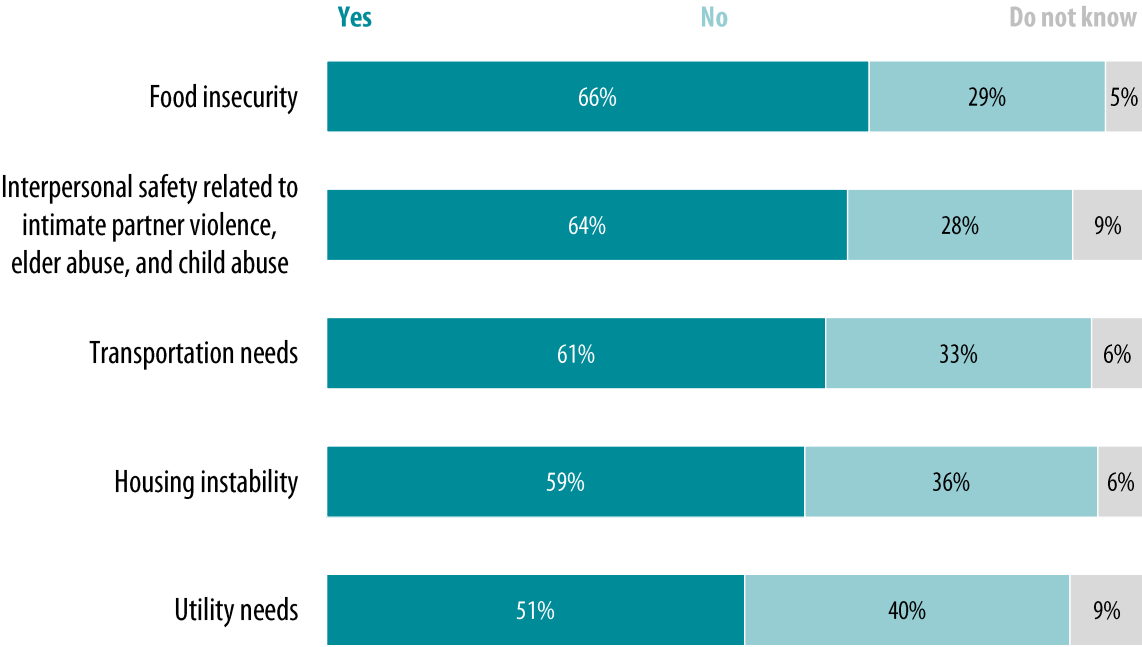
n=473-527

More than half of LHDs reported collaborations with local government, state government, community-based organizations (CBOs), or business community partners for activities related to COVID-19 and emergency preparedness.

LHDs were least likely to report partnerships with businesses, compared to other partner types, regardless of the topic area. Notably, approximately two in three LHDs did not collaborate with any partners to address climate change or environmental justice.

Screening for social determinants of health

Percent of LHDs



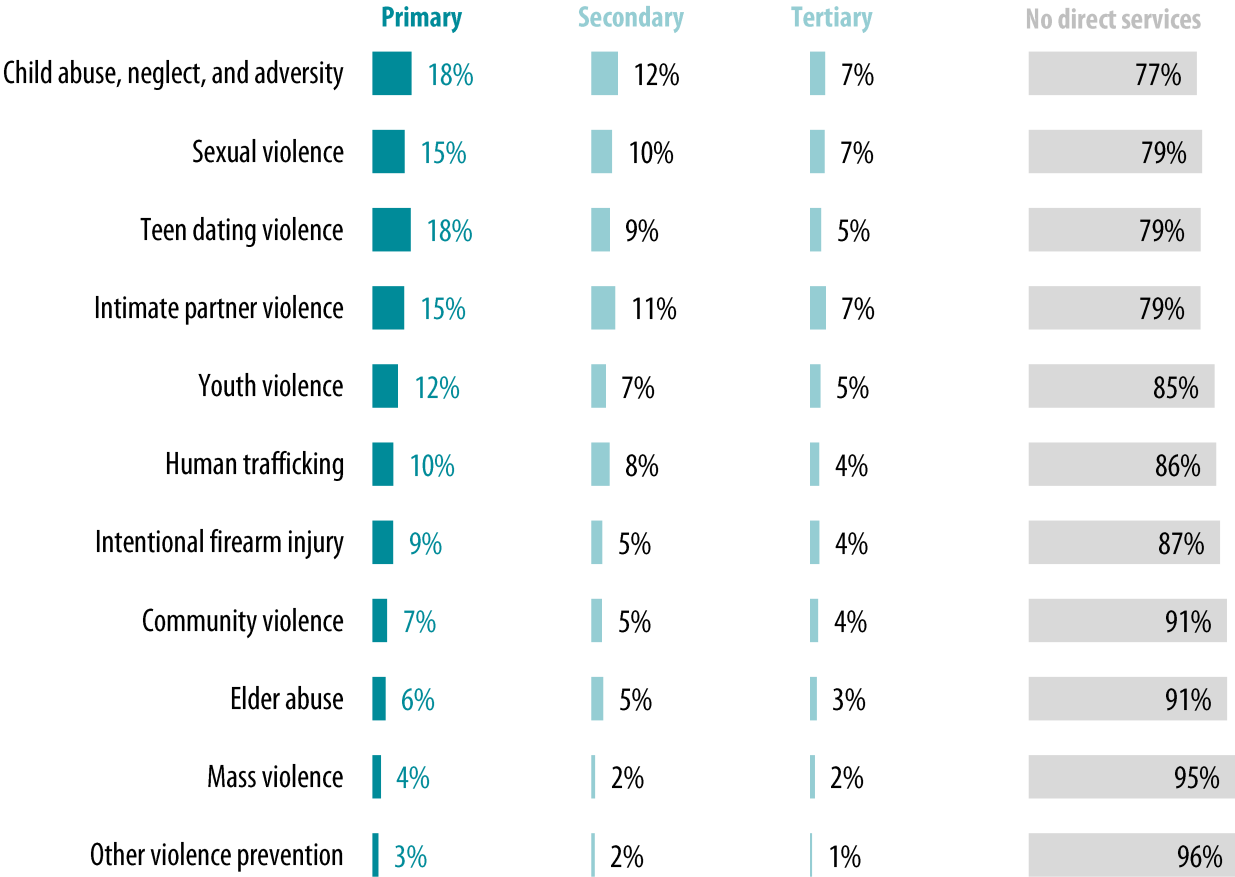
Regardless of the social determinant of health (SDOH), more than half of LHDs screened for it. In particular, approximately two in three LHDs screened for food insecurity or interpersonal safety. However, LHDs least frequently reported screening for utility needs.

Although not shown, large LHDs were more likely to report screening for SDOHs, compared to small or medium LHDs.

n=519-528

Primary, secondary, and tertiary prevention activities for violence prevention programs and services

Percent of LHDs



Fewer than 25% of LHDs directly provided violence prevention programs or services. Although not shown, most LHDs reported that violence prevention services across issue areas were provided by other organizations in the community independent of LHD funding.

Violence prevention services provided directly by LHDs were more commonly described as primary prevention, compared to secondary or tertiary prevention.

Definitions
Primary prevention activities prevent the risk factors for violence and promote protective factors. Secondary prevention activities identify individuals at higher risk for experiencing or perpetrating violence and intervene to prevent further violence. Tertiary prevention activities prevent longer term health impacts or consequences of violence.

n=515-526

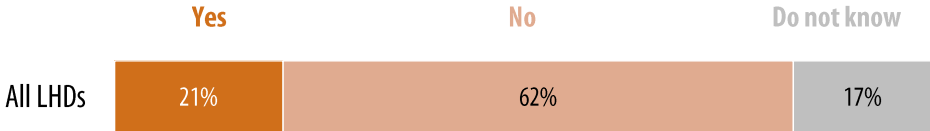
Data Modernization & Outbreak Analytics

In this section:

- Supplemental funding for data modernization
- Level of engagement in data modernization
- Management of electronic health/medical record platform
- Dedicated staff for information technology and outbreak analytics
- Data sources for outbreak analytics
- Use of outbreak analytics
- Communication of outbreak analytics

Receipt of supplemental funding for data modernization efforts, by size of population served

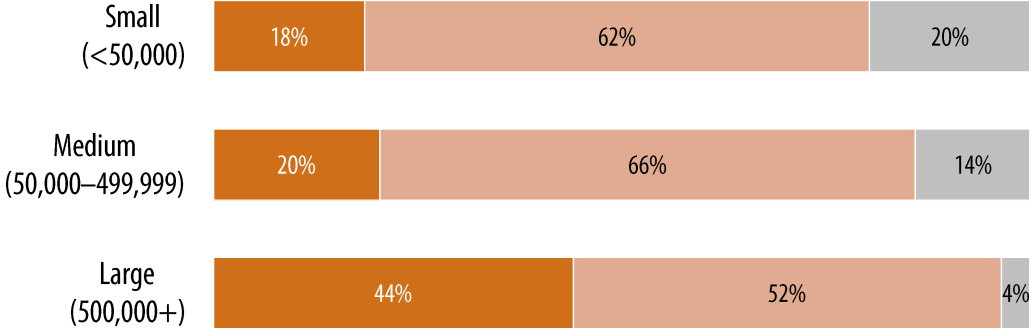
Percent of LHDs



Most LHDs reported that they did not receive supplemental funding for data modernization efforts between fiscal year (FY) 2020 and FY 2022.

Large LHDs were more likely to receive funding than medium and small LHDs.

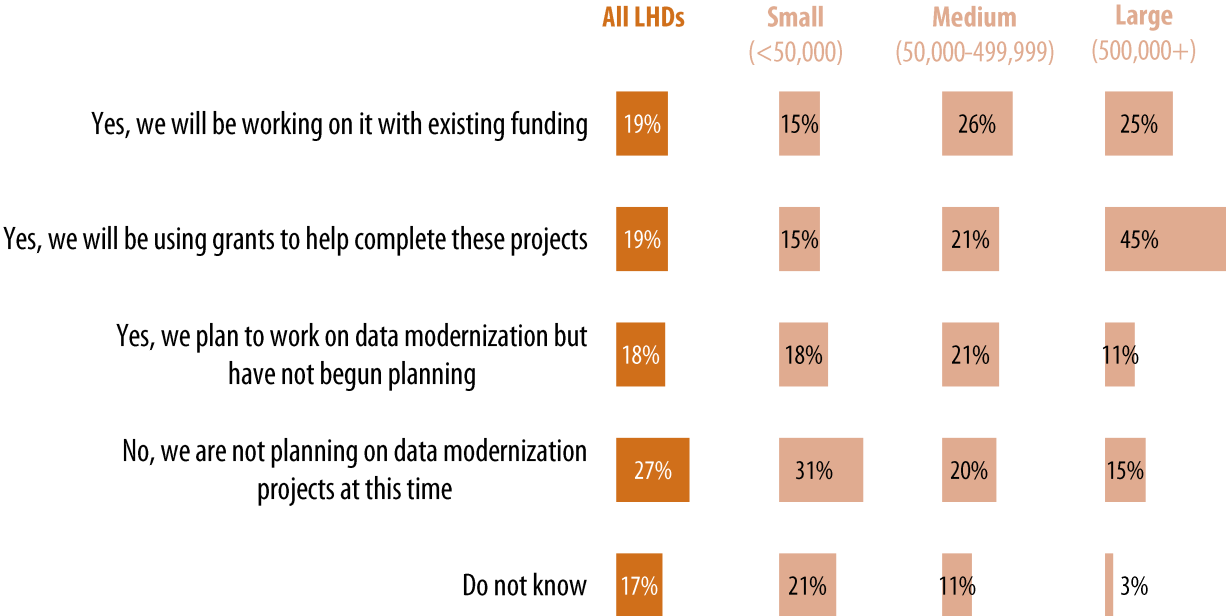
Size of population served



n=526

LHDs' level of engagement for data modernization projects in the next fiscal year, by size of population served

Percent of LHDs



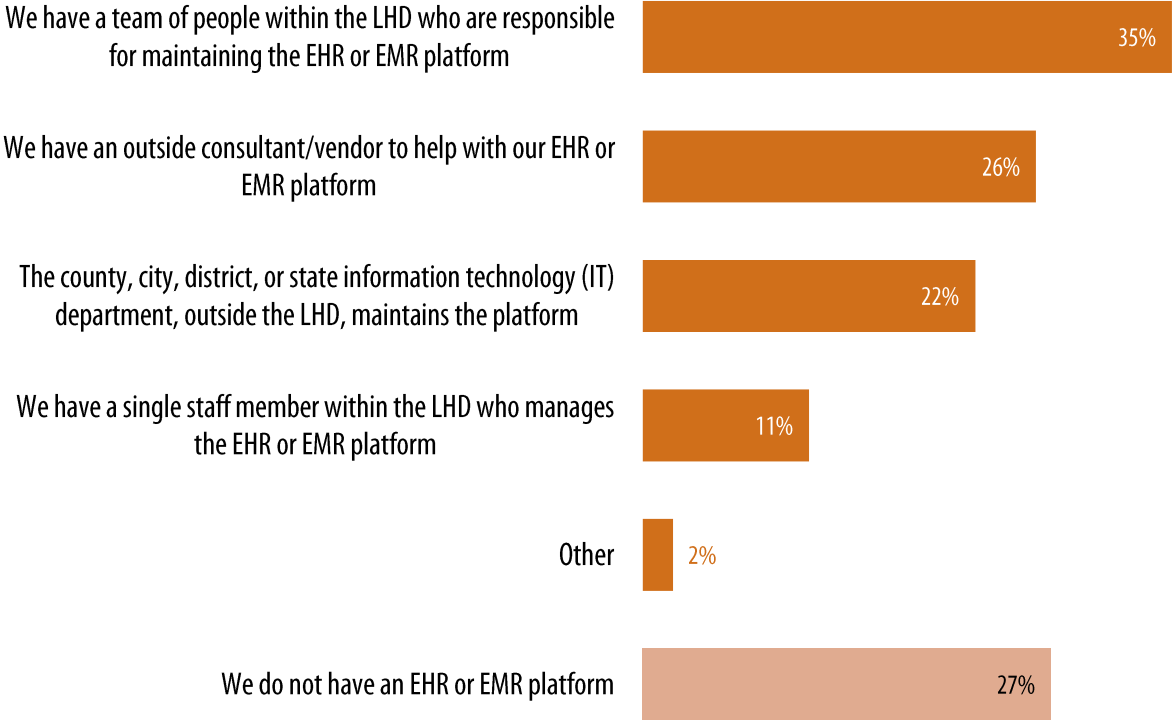
Almost three in five LHDs (56%) planned to work on data modernization projects within the next year. Among those, the proportion of LHDs using existing funds, using grants, or that hadn't begun planning were approximately the same.

More than two in three large LHDs planned to use grants or existing funds for data modernization, in comparison to less than half of medium and less than one-third of small LHDs.

n=526

LHD management of electronic health record (EHR) or electronic medical record (EMR) platform

Percent of LHDs



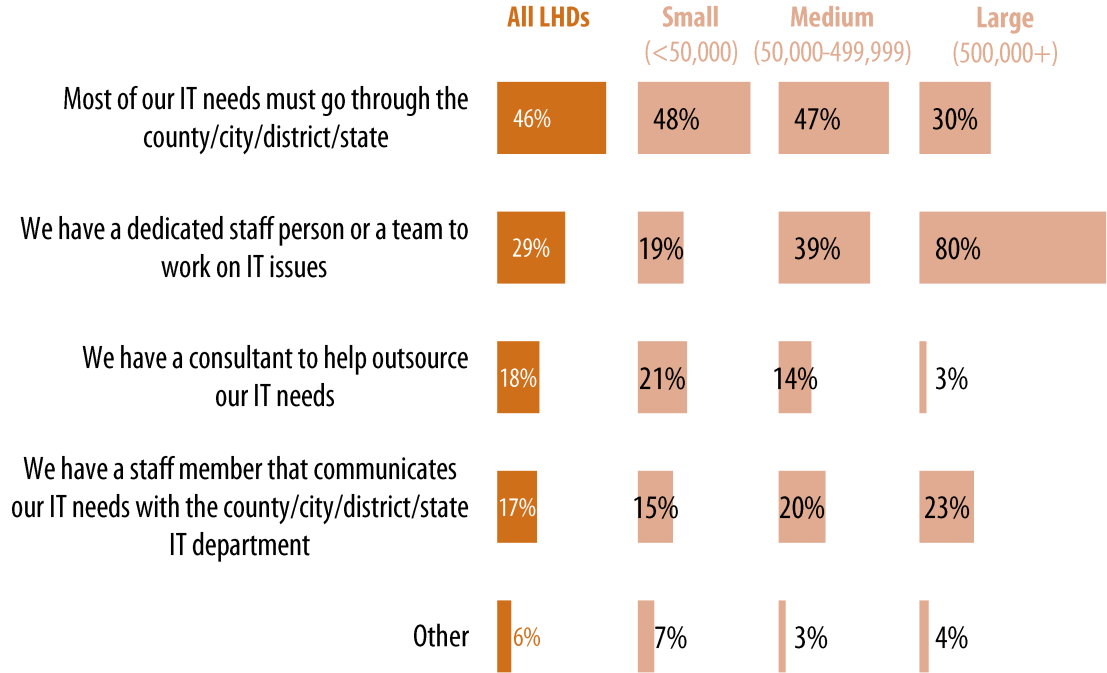
LHDs most frequently reported having a dedicated team to manage their electronic health or medical record (EHR/EMR) platform. Meanwhile, few LHDs had an individual staff member dedicated to this work. However, more than one in four LHDs reported they do not have an EHR or EMR platform.

Although not shown, small LHDs were most likely to report not having an EHR or EMR platform (33%), compared to medium and large LHDs (19% and 8%, respectively). Meanwhile, large and medium LHDs were more likely to report having a dedicated team to manage their platform (67% and 45%, respectively), compared to small LHDs (27%).

n=525

Existence of dedicated staff to help with issues related to information technology (IT), by size of population served

Percent of LHDs



Nearly half of LHDs had a staff member in their LHD to help with information technology (IT) issues; 29% indicated their dedicated staff worked in IT, while another 17% had a non-IT staff person.

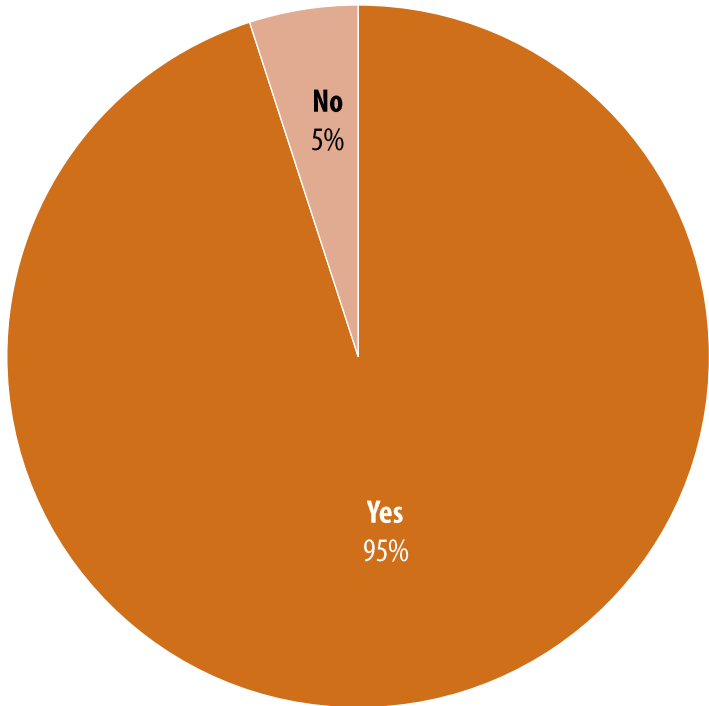
Most large LHDs reported having a dedicated IT staff member or team within their LHDs. These agencies were twice as likely as medium LHDs and four times as likely as small LHDs to report this.

Although not shown, 20% of LHDs with local and 29% with shared governance reported outsourcing IT needs to a consultant. Only 2% of state-governed LHDs that reported the same.

n=525

Inclusion of infectious disease surveillance and outbreak response as routine activities

Percent of LHDs

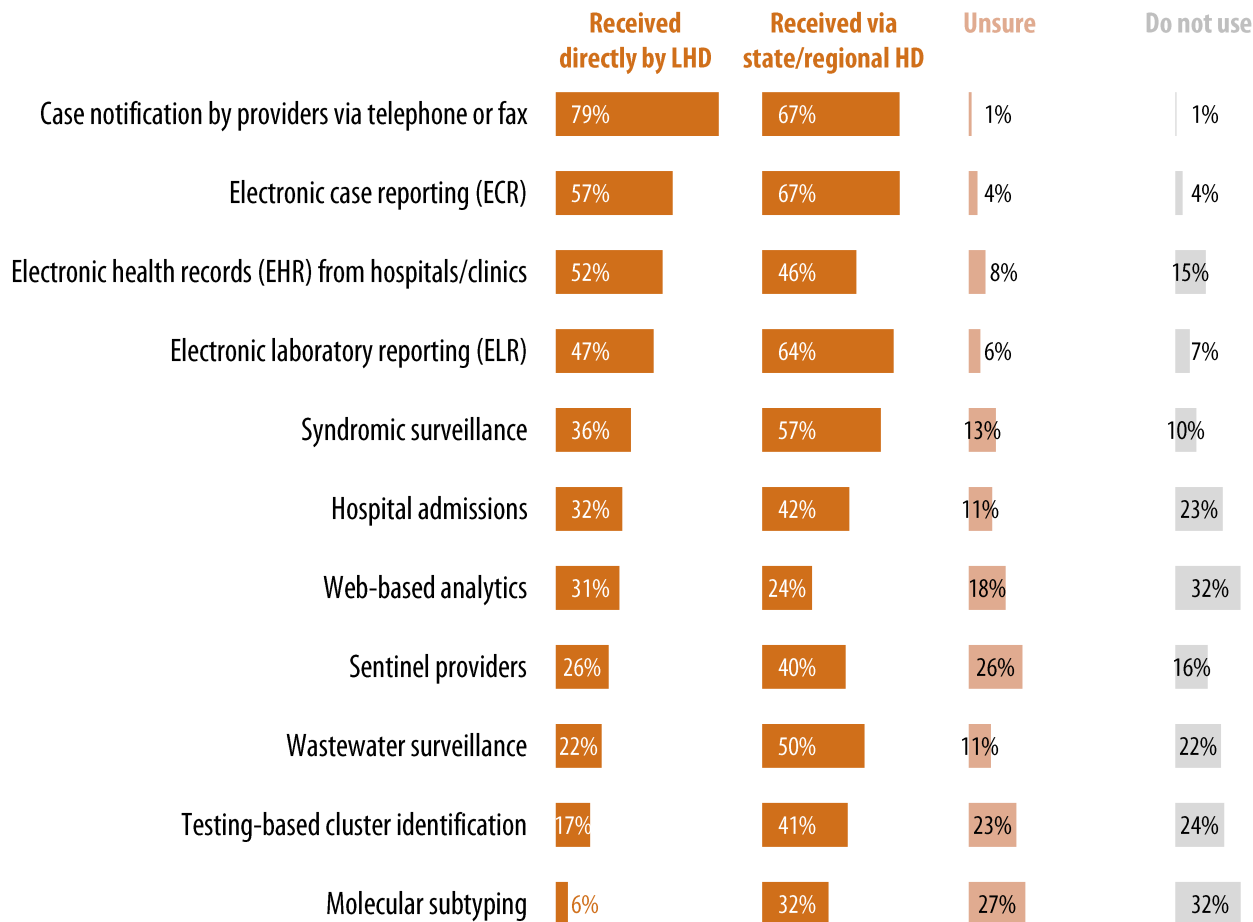


Almost all LHDs reported that their agency includes infectious disease surveillance and outbreak analytics as part of its routine activities. Across jurisdiction size, more than 90% of LHDs reported this.

n=527

Use of data sources to monitor and respond to potential outbreaks

Percent of LHDs



n=490–519

Across most of the data sources assessed, LHDs were more likely to report receiving data via the state or regional health department (HD) than directly to conduct outbreak analytics.

More than half of LHDs received case notifications, ECR, EHR, ELR, or syndromic surveillance data either directly or from the state/regional HD.

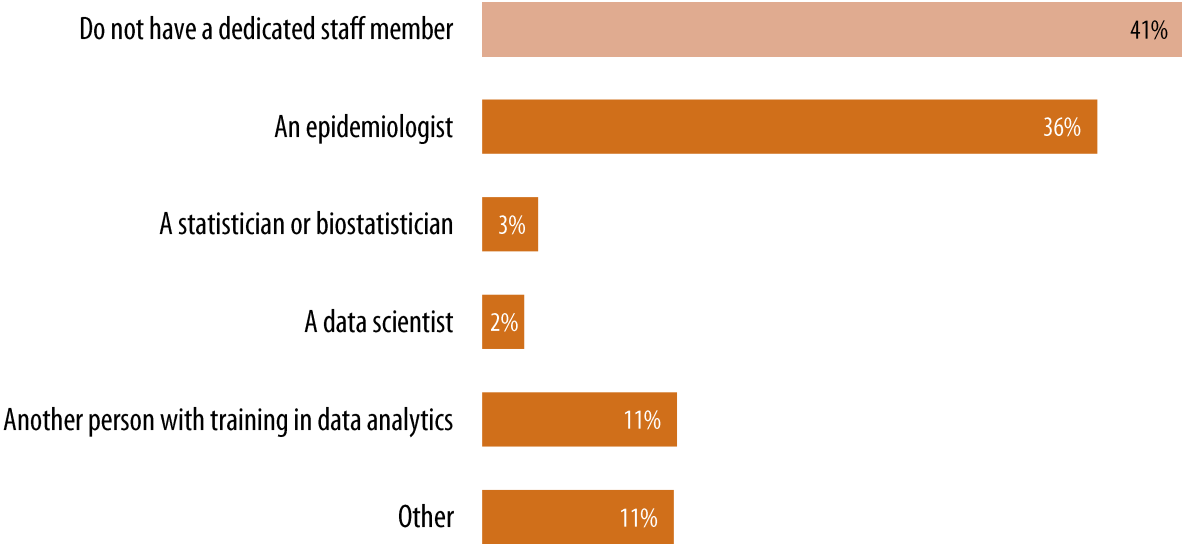
At least half of LHDs were either unsure about or not using web-based analytics or molecular subtyping as data sources for outbreak analytics.

Technical Note

The 5% of LHDs that reported they do not have routine infectious disease/outbreak response activities (on page 35) are included in the analysis but not displayed in the figure.

Existence of dedicated staff for conducting data analysis relevant to outbreaks and infectious diseases

Percent of LHDs



Four in 10 LHDs did not have a dedicated staff member to conduct outbreak analytics. LHDs with dedicated staff most frequently reported having an epidemiologist, while very few of these LHDs had a biostatistician or a data scientist.

Although not shown, 89% of large LHDs had an epidemiologist, compared to 53% of medium and 22% of small LHDs. In addition, LHDs with state and shared governance more frequently reported having an on-staff epidemiologist (64% and 63% respectively) than LHDs with local governance (28%).

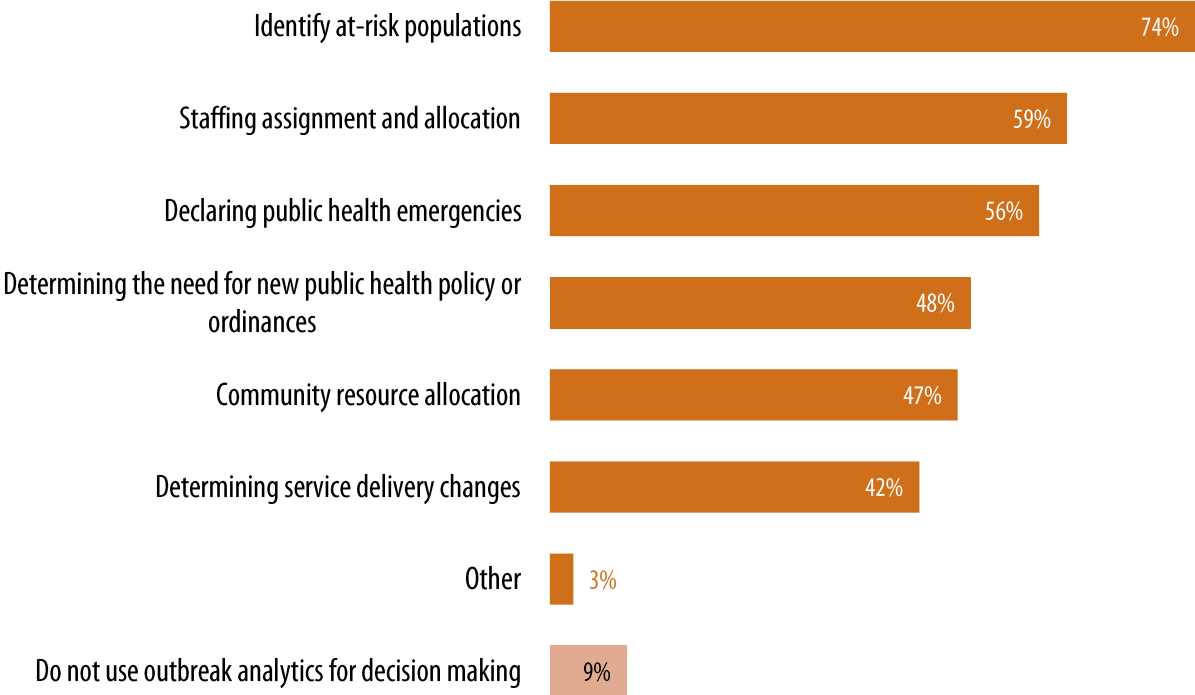
Notably, no small LHDs reported having a biostatistician.

Technical Note
The 5% of LHDs that reported they do not have routine infectious disease/outbreak response activities (on page 35) are included in the analysis but not displayed in the figure.

n=522

Use of infectious disease surveillance analytics to make decisions for outbreak response and epidemiological trends

Percent of LHDs



Most LHDs used analytics to identify at-risk populations during outbreaks. More than half of LHDs also used outbreak analytics to allocate staffing and declare public health emergencies.

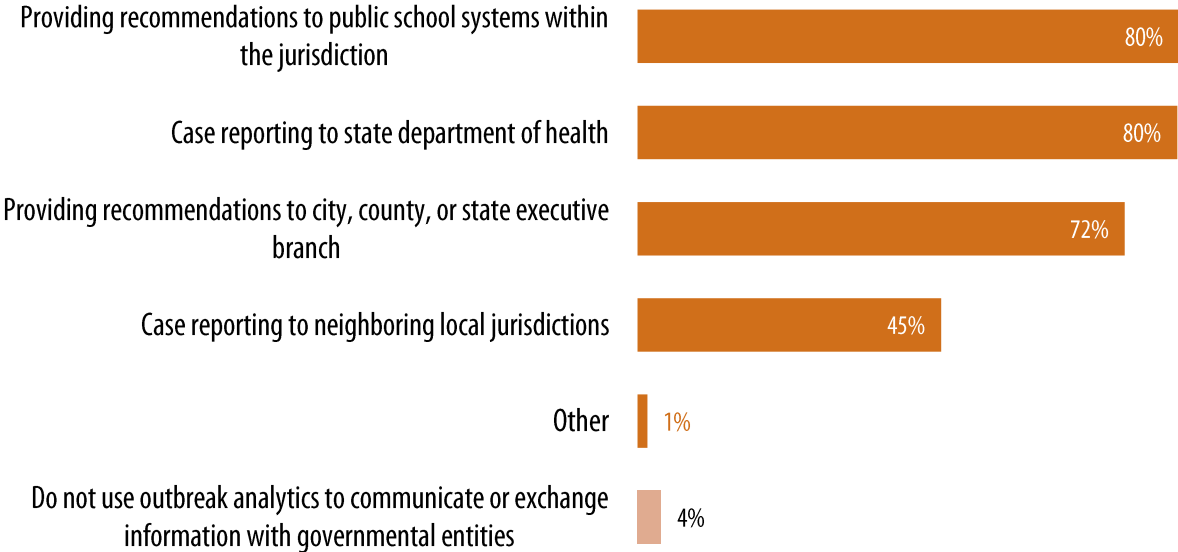
Although not shown, 12% of small LHDs engaging in outbreak analytics reported not using these data for decision making, compared to 5% of medium and 4% of large LHDs.

Technical Note
The 5% of LHDs that reported they do not have routine infectious disease/outbreak response activities (on page 35) are included in the analysis but not displayed in the figure.

n=522

Use of methods for communicating with governmental entities about outbreaks and epidemiological trends

Percent of LHDs



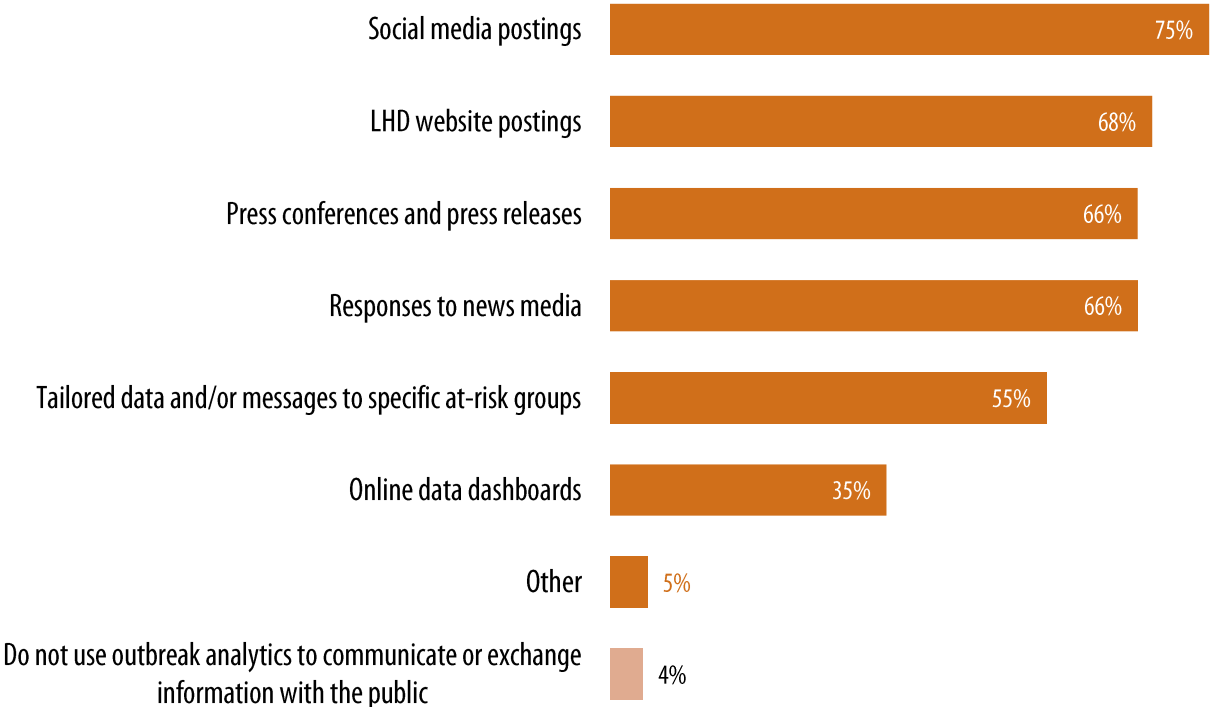
Most LHDs used outbreak analytics to communicate with government entities. They most frequently provided recommendations to public school systems or conducted case reporting to state health departments. These results did not differ substantially based on size of population served, type of governance, or Census region.

Technical Note
The 5% of LHDs that reported they do not have routine infectious disease/outbreak response activities (on page 35) are included in the analysis but not displayed in the figure.

n=521

Use of methods for communicating with the public about outbreaks and epidemiological trends

Percent of LHDs



Two-thirds of LHDs or more used social media, their agency website, or the press/news media to communicate about outbreaks and epidemiologic trends with the public. Only 4% of LHDs did not use outbreak analytics for information sharing with the public.

Although not shown, large LHDs were more likely to report using all the communication methods except for social media and other than small and medium LHDs. In particular, large LHDs were three times as likely as small LHDs to use online data dashboards (76% and 25%, respectively).

Technical Note
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n=523



The mission of the National Association of County and City Health Officials (NACCHO) is to improve the health of communities by strengthening and advocating for local health departments.

1201 I Street, NW • Fourth Floor • Washington, DC • 20005

Phone: 202.783.5550 • Fax: 202.783.1583

www.naccho.org

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