Assessing and Advancing Public Health Data Modernization in Colorado

June 2025

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Colorado Association of Local Public Health Officials

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Introduction

Colorado's public health system is at a pivotal moment. Public health agencies learned hard lessons from the COVID-19 pandemic, and now a new federal administration is changing the policy landscape. In this context, national and state efforts are driving the sector toward a more modern, connected data infrastructure. The ultimate goal, according to the Centers for Disease Control and Prevention (CDC) is to "get better, faster, actionable insights for decision-making at all levels of public health." (For a full list of acronyms in this report, see Appendix A.) To keep pace with emerging technologies, such as generative artificial intelligence (AI) and automation, local public health agencies (LPHAs) across Colorado from urban to rural to frontier communities must be equipped to participate meaningfully and in ways that are appropriate to their capacity and needs.

To advance this work, the Colorado Association of Local Public Health Officials (CALPHO) partnered with the Colorado Health Institute (CHI) to conduct a capacity assessment that considers the unique needs of LPHAs across the state and identifies action steps for LPHAs, CALPHO, and the Colorado Department of Public Health and Environment (CDPHE) to increase LPHA data capacity.

This report offers insights and practical recommendations for work in three key domains: strategy, technology, and people. It identifies ways that all LPHAs, regardless of resources, can participate in data modernization. Through coordinated data modernization infrastructure investments, including interoperable health IT systems, elevated data governance, and a highly skilled workforce, Colorado can be a leader in strengthening local capacity while aligning to national standards.

This effort to support LPHAs aligns with the 2025 Colorado Health IT Roadmap developed by the Colorado Office of eHealth Innovation (OeHI) and eHealth Commission. The Roadmap is a strategic plan for integrating policy, funding, and shared technology solutions across state agencies and community partners. With a focus on secure data sharing, responsible innovation, and increased community engagement, the Roadmap supports a future where health IT systems are interoperable, trusted, and inclusive.

Three main principles guided this work: building on previous work, meeting LPHAs where they are, and informing efforts underway.

Building on Previous Work

This project expands upon work completed in 2023 by CALPHO, the Colorado Community Managed Care Network (CCMCN), and OeHI, which identified recommendations to improve data sharing with and among LPHAs. The approach was also shaped by existing data modernization frameworks and federal standards from the U.S. General Services Administration's IT and Data Modernization Centers of Excellence.

Many data modernization efforts and frameworks cover three domains: strategy, technology, and people. Each plays a key role. Strategy provides the "why," describing the purpose and direction. Technology is the "how," offering tools and infrastructure to support strategic goals. And people are the "who," the workforce and organizational structures that shape how data are collected and used.

Each domain is important for modernizing local data infrastructure. Without strategy, there is no clear direction. Without technology, there is no functionality. Without people, there is no implementation or impact. While this report is organized around these domains, in practice, they often overlap.

Meeting LPHAs Where They Are

It is not realistic to expect every LPHA will have the same data modernization goals. The project team worked with LPHAs to strengthen their ability to deliver core public health functions in ways that are meaningful and accessible to them. All agencies can engage with data modernization in some form, whether through statewide solutions or more

targeted technical assistance. All these approaches can improve the data landscape in Colorado.

Informing Efforts Underway

Although this project focused specifically on LPHAs, CHI and CALPHO worked closely with CDPHE to share findings from LPHA engagement to inform statewide data modernization strategy and improve LPHA data capabilities. CDPHE is leading a Public Health Data Modernization Initiative that aims to enhance decision-making and public health outcomes through a stronger public health data ecosystem. Through this initiative, CDPHE is developing a unified data approach informed by the local context and experience.

Together, CDPHE's Data Modernization Initiative and the 2025 Colorado Health IT Roadmap provide a coordinated path toward a modern, equitable public health ecosystem for all Coloradans.

Methods

This work was guided by the question, "How can LPHAs improve their data capacity to deliver core public health capabilities and services, and what can CALPHO, the state, and other partners do to support LPHAs?"

Between December 2024 and May 2025, CHI and CALPHO conducted workshops and key informant interviews with LPHAs and hosted a statewide workshop with LPHAs and CDPHE (see Table 1). More detailed descriptions of activities are provided in the baseline assessment, journey mapping, and key informant interview overview sections.

Table 1. Summary of Data Collection Activities

Type	Time	Activities	Reach
Workshops with LPHAs	4.5 hours each	Activity #1: Baseline Assessment Activity #2: Journey Mapping Activity #3: Identifying Next Steps	10 LPHAs
Key informant interviews with LPHAs	2 hours each	Activity #1: Ranking of Agency Gaps and Needs Activity #2: Ranking of Potential Solutions	13 LPHAs
Statewide workshop	6 hours	Activity #1: Exploring Challenges and Potential Solutions Activity #2: Discussing Recommendations	16 participants from 11 LPHAs 10 participants from CDPHE, Colorado Office of Information Technology, and Prime Health

LPHA staff had the option to participate in either a workshop or key informant interview. CHI and CALPHO provided guidance to LPHAs on choosing the option that best suited their needs and capacity. In general, higher-capacity LPHAs participated in workshops and lower-capacity LPHAs participated in key informant interviews.

This report distinguishes between higher- and lower-capacity LPHAs because solutions and strategies to advance data modernization depend on various factors such as budget, staff size, and expertise. While capacity is a spectrum and not all LPHAs fit neatly into one category, this report aims to provide a holistic and representative view of Colorado's LPHAs.

In general, higher-capacity LPHAs are more likely to:

- Be larger
- Have existing data capacity
- Serve urban counties
- Have dedicated data staff
- Be ready to invest time in improving their data practices capacity
- Have staff capacity to participate in a half-day journey mapping workshop

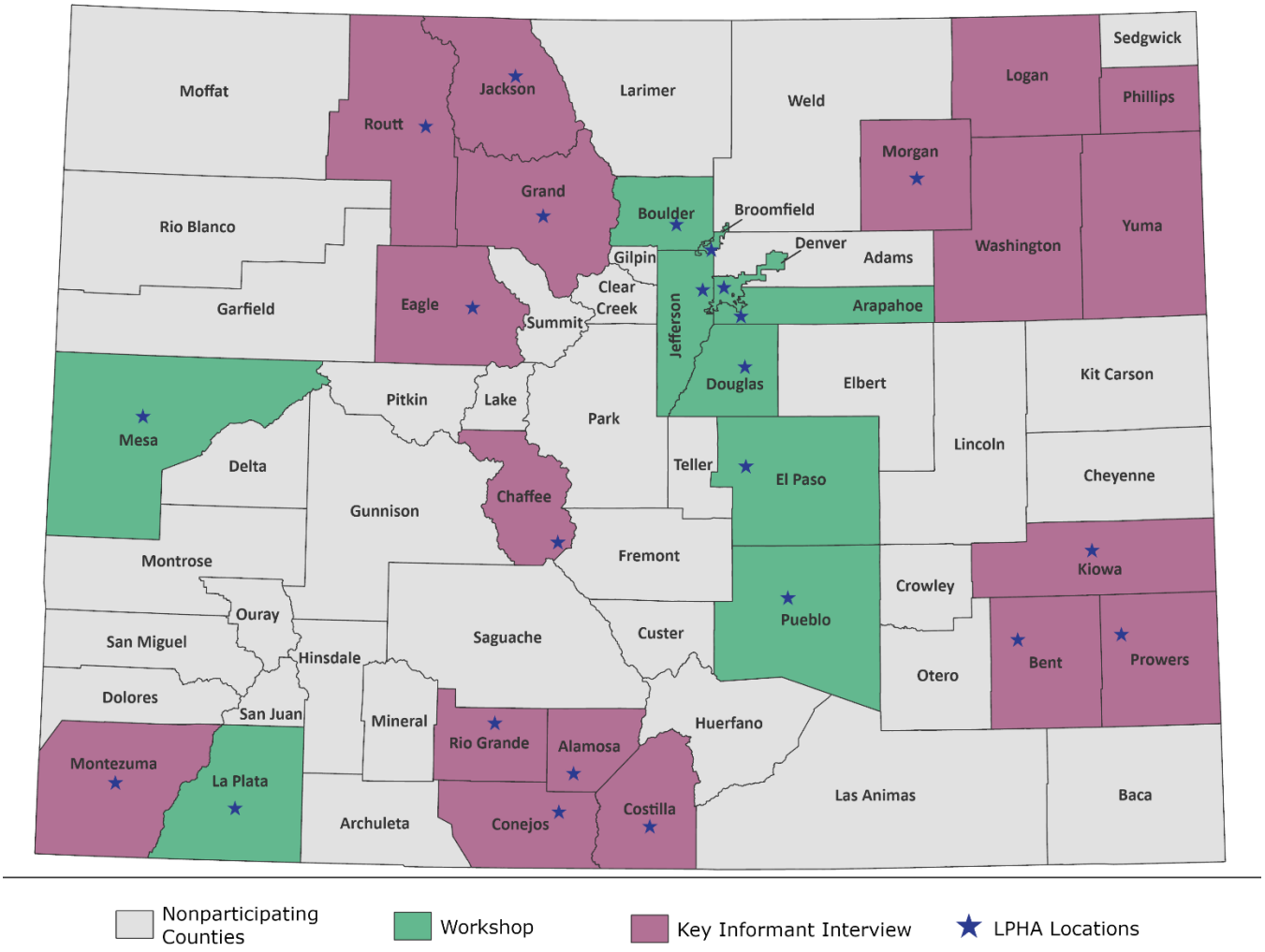
- Have staff capacity to invest time and potentially resources in taking active steps following the workshops

In general, lower-capacity LPHAs are more likely to:

- Be smaller
- Serve rural or frontier counties
- Have no dedicated data staff
- Lack staff capacity to participate in a half-day journey mapping workshop
- Lack staff capacity or resources to pursue advanced data practices
- Recognize data needs yet lack resources to address these
- Be unlikely to build additional data capacity internally and need these services provided to them

In total, 24 of Colorado's 56 LPHAs informed this work, representing agencies of varying capacities and geographies (see Figure 1). LPHA staff engaged during workshops and interviews included IT staff such as IT directors, systems administrators, and IT support specialists; program staff such as epidemiologists, data analysts, data quality specialists, public health nurses, and program coordinators; managers of large information system programs such as Women, Infants, and Children (WIC) program managers and immunization program managers; and leadership such as division directors, executive directors, and medical directors. Participants in the statewide workshop included LPHAs; CDPHE (including the Center for Health and Environmental Data, Office of Environmental Justice, and Office of Public Health Practice, Planning, and Local Partnerships); the state Office of Information Technology; and Prime Health.

Figure 1. Map of LPHA Participants



Baseline Assessment Overview

Assessment Methods

At the beginning of each of the 10 journey mapping workshops, CHI conducted a baseline assessment to help LPHA staff better understand their current data capacity (for a full list of resources for LPHAs, see Appendix C). These results also provide a shared foundation for CALPHO, CDPHE, and LPHAs to move forward with this work.

The assessment was structured like a survey, though it was delivered in a workshop format, with facilitators guiding participants through each question in a collaborative discussion. This approach allowed LPHA staff to reflect collectively on their data strengths and opportunities.

CHI adapted questions from two sources to create this assessment: Building an Informatics-Savvy Health Department: A Self-Assessment Tool and the Public Health IT Maturity Index Questionnaire. The assessment asks 24 questions across three domains: strategy, technology, and people.

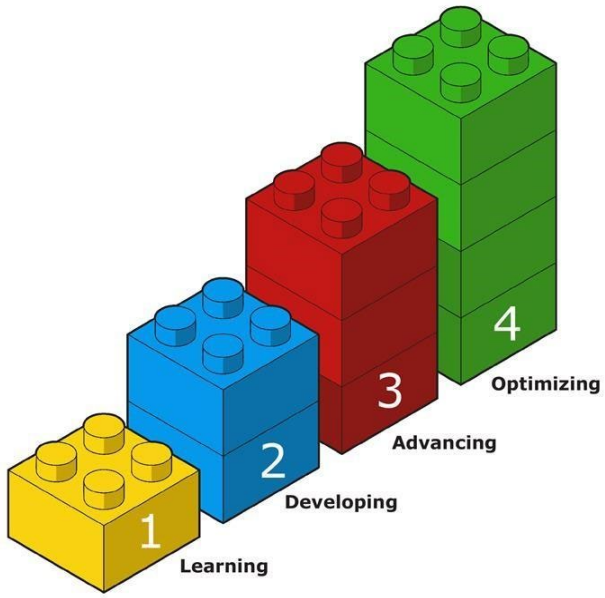
Assessment Limitations

Baseline assessment results may not reflect the experiences of all of Colorado's 56 LPHAs. Only the 10 LPHAs that participated in journey mapping workshops are included in baseline assessment results, and responses reflect only the opinions and experiences of staff present. As such, these results are biased toward the higher-capacity LPHA experience.

Overall Results

Each of the 24 statements in the baseline assessment has four response options that map to a scale from one to four. Each response option corresponds to a block in the data modernization building block framework (see Figure 2), meaning LPHA staff could categorize their organization as learning, developing, advancing, or optimizing within each question and by extension within each domain.

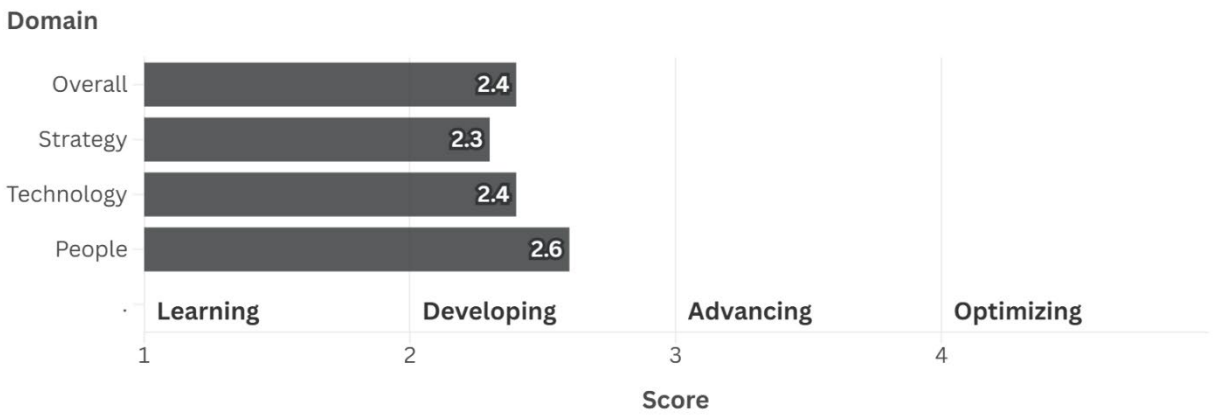
Figure 2. Data Modernization Building Block Framework



1. Learning (responses of not at all or not started)
2. Developing (responses of somewhat, initial, or partial)
3. Advancing (responses of established, developed, or comprehensive)
4. Optimizing (responses of optimized, refined, or maximized)

Across the three domains, the average LPHA's baseline assessment value was 2.4 out of 4 — between Developing and Advancing (see Figure 3). Assessment results by domain are discussed in more detail in the following sections (see Appendix B for aggregated baseline assessment results).

Figure 3. Baseline Assessment Results



Strategy

The seven questions on strategy in the baseline assessment focused on governance and visions for sustained modernization approaches.

On average, LPHA teams rated their strategic efforts at 2.3, placing them somewhere between Developing and Advancing. Representatives from every LPHA said they developed or were attempting to develop a data vision and strategy, though none said that the strategy was in place and documented yet. The average strategy rating varied from 1.7 to 3.0, and LPHAs that described their budgets as sufficient for IT were more likely to report higher overall strategy values.

The question with the highest average rating within the strategy domain asked about external collaboration. When asked whether their agency effectively communicates with external partners, LPHA teams gave an average rating of 2.8, with most LPHAs (6 out of 10) reporting that they either have established collaborative relationships or use findings to improve the collective use of information.

Participants also rated privacy policies highly relative to other strategy topics, with an average value of 2.7. Most LPHA teams described their privacy policies as fully implemented and consistently understood, though none reported conducting formal audits on these policies.

Two areas of opportunity emerged in the strategy domain. First, most LPHAs — all but two of 10 — reported not having a documented data sharing agreement procedure that is consistently followed. Second, few agencies reported having defined, sustainable funding for data modernization, a gap that appeared regardless of the size of the LPHA's IT budget.

Technology

The technology domain consisted of 12 questions on the effectiveness of data systems and processes.

On average, LPHA participants rated their technology capacity at 2.4, placing them somewhere between Developing and Advancing. Average technology rating varied from 1.8 to 3.2. Agencies with higher ratings were more likely to have conducted technology inventories and were more likely to report that electronic health records (EHRs) and other IT systems felt easy to use.

The highest rated item in this domain was software maintenance and updates. This received an average rating of 3.0, with teams from four LPHAs saying they regularly evaluate and iterate on the processes.

LPHA staff generally said it was easy to electronically submit data to CDPHE, giving this an average rating of 3.0. Seven send all or most required data directly from EHRs or other IT systems. However, there are opportunities for improving and automating data sharing in other areas. Health information exchange (HIE) connectivity, which allows electronic and secure sharing of patient health information between health care providers and other organizations, was rated at 2.4. LPHAs rated data sharing with external partners as a 2.2, with most representatives saying the process involves some manual effort. Internal system integration was rated at 2.0, with most LPHAs again relying on manual processes and two stating that there was no internal capacity for data sharing.

The question on standard operating procedures for data management and quality assurance was rated at 1.7, the lowest value in this domain. Five LPHA teams reported that they have no procedures for this, and another three said existing procedures are not consistently followed.

People

The five questions on people in the baseline assessment covered both organizational structures and individual skills.

On average, LPHA teams rated the people domain 2.6, once again placing themselves somewhere between Developing and Advancing on the data modernization building block

framework. The average rating varied less in the people domain than the strategy and technology domains, ranging from 2.2 to 3.0.

LPHA representatives reported having a public health workforce that was highly skilled in the use of information technology (IT), giving this question an average rating of 3.0. They also reported a high level of staff satisfaction with IT systems (including EHRs), with an average rating of 2.8.

With an average value of 2.2, the lowest response in this domain pertained to workforce strategy. This item asked whether there is a strategy for identifying needed modern technology capabilities and for recruiting, hiring, or training staff to meet those needs. Only three LPHA teams reported that they have completed this type of strategy for hiring or training staff to meet the demands of a technology-enabled environment. The presence of a workforce strategy was associated with higher ratings in the people domain overall, underscoring the value in defining this approach.

Journey Mapping Overview

CHI facilitated 10 journey mapping workshops with higher-capacity LPHAs, each exploring a different use case selected by that LPHA. A use case is a specific example of how people interact with a system to achieve a goal or accomplish a particular task.

CHI and CALPHO provided the following guidance to LPHAs for selecting a use case:

- Should be related to LPHA responsibilities as defined by Colorado's Core Public Health Services and Capabilities.
- Should align with and directly address one or more data-related challenges identified from LPHA interviews in the 2023 CCMCN Key Findings Report, including data governance, data quality, funding, staff support and involvement, data access, data sharing, and data storage.
- May be internal (within the LPHA) or external (involving other partners).

Use cases covered a mix of internal and external topics such as:

- Collecting and analyzing data for community health assessments
- Surveying the public
- Aggregating multiple community data sources to update a local substance use dashboard
- Prototyping a public-facing dashboard for communicable disease
- Prototyping a public-facing visualization of harm-reduction program data
- Streamlining internal data request processes
- Standardizing program evaluation

Key Informant Interviews Overview

CALPHO facilitated two-hour key informant interviews with 13 agencies over eight sessions. Interviews explored data challenges and solutions for addressing those gaps and challenges. Agencies received an overview of activities prior to the interview outlining the interview's goals and offering guidance on prioritizing gaps and solutions, drawing insights from previous reports like the 2023 CCMCN Report.

Key Findings

Findings in this report are informed by the journey mapping workshops, key informant interviews, baseline assessment, and statewide workshop. They highlight what is working well, what is not working well, and potential solutions across the strategy, technology, and people domains. Findings in the Working Well section are informed by journey mapping workshops and baseline assessment results, as key informant interviews did not focus on this aspect. Findings are included if they were noted by representatives from two or more LPHAs.

Working Well

Strategy

Public health agencies have strong partnerships that support data work.

LPHAs described many partnerships that support their data work. These include relationships with county departments, local communities, and the state. LPHAs often collaborate with county Geographic Information System (GIS) teams and IT departments. Many higher-capacity LPHAs exchange data with local partners such as those involved in substance use prevention, treatment, and recovery to bolster public health data and improve data-driven decision-making. Several LPHAs also reported good relationships with CDPHE, noting the department often helps them access data or connect with other local agencies.

Public health agencies are valuable data resources for their local communities.

LPHAs provide valuable data to their local communities. Public health leadership and elected officials often want and expect public health data to be available in dashboards and other user-friendly formats. As such, many LPHAs, especially those with higher capacity, are developing user-friendly dashboards to share data with community partners. Some work closely with community coalitions to provide data on request.

Technology

Public health data teams have access to technology and make good use of it.

Teams at many higher-capacity LPHAs reported using tools such as REDcap, Tableau, PowerBI, and R. These technologies can support automation and some forms of AI, helping to streamline workflows and reduce manual effort.

Internal data processes and resources, when followed, work well.

Several LPHA representatives said their processes for quality assurance, internal data requests, project planning, and data management are efficient and involve the right stakeholders at the right times. However, these processes are not always used consistently, a challenge described in more detail in the following section. When followed as written or intended, the processes work well.

People

Public health data teams are proficient with technology and eager to expand their technical skills.

Higher-capacity LPHAs tend to have public health data teams that may include epidemiologists, data analysts, data scientists, and population health planners. These teams are skilled with IT applications, coding languages, and data visualization tools. They understand what data are available and how to access this information. LPHA staff described their data teams as enthusiastic, quick learners, and "walking libraries" for data.

Public health leadership and data teams are aligned in recognizing the value of data and data modernization efforts.

Public health data teams value data and data modernization, and most reported support from leadership to advance this work. Though few agencies have a documented data modernization vision or strategy, many emphasized the importance of data and its role in public health.

LPHAs value direct connections to CDPHE staff for data support.

Many LPHA staff expressed appreciation for having direct connections to CDPHE staff for requesting data and receiving technical assistance. While not explicitly asked of lower-capacity LPHAs, many also said that they have found this type of support beneficial.

Not Working Well

Strategy

Funding to sustain and expand information technology is limited.

Many LPHA representatives reported limited IT funding, which affects nearly every aspect of their data and technology infrastructure. Due to the cost of more advanced technologies, many LPHAs rely on low- or no-cost tools that are often less efficient and harder to use. This does not just affect the selection of EHRs and other tools but limits the number of licenses they can provide for essential applications like ArcGIS. As a result, staff report frustration with poorly designed or inadequate systems.

These funding limitations are especially acute for lower-capacity LPHAs, which often lack basic IT infrastructure. Without adequate funding, it is difficult to hire dedicated data teams or provide training in data management and analysis.

LPHAs feel they lack guidance on making data sharing decisions in public health work.

Staff from both higher- and lower-capacity LPHAs expressed uncertainty about how, when, and what data can be shared with the public. LPHAs lack the guidance they feel they need to make these decisions.

Technology

LPHAs struggle with data access.

Respondents identified several challenges accessing the data they need.

Public health data are fragmented and navigating across multiple, disparate systems is cumbersome. LPHAs said there is not a centralized place to easily find what they need.

LPHA teams also say that it's hard to understand what data are available and who owns this information. Many dashboards lack clear documentation on how data are managed, suppressed, or categorized, which makes it difficult to interpret information. While some dashboards, like the drug overdose dashboard, provide helpful metadata, this is the exception rather than the norm.

Data sharing processes are another barrier. Key datasets such as the Healthy Kids Colorado Survey and the Behavioral Risk Factor Surveillance System often require separate data sharing agreements, with some necessitating a new agreement for each year of data requested. Navigating these requirements can be frustrating, particularly in

the absence of specialized public health legal counsel. Processes are inconsistent between data sources and not always communicated to requestors.

LPHA staff often rely on personal relationships rather than formal processes to access data. Obtaining data from health systems and community partners can be difficult due to frequent staff turnover and unclear points of contact.

Some useful resources, such as the All Payer Claims Database and HIE data, are too expensive for LPHAs to purchase.

Finally, a lack of standardization across datasets makes analysis harder for LPHAs. Mismatched age categories and reporting years are common issues that limit comparisons across different resources.

Data usability is a persistent issue.

Once LPHAs access the data they need, they often face usability challenges. Participants noted that data are frequently outdated or shared in difficult-to-use formats. This makes it hard to spot emerging trends or act quickly on public health issues. They also feel pressure from elected officials to provide real-time data. One LPHA representative said, "Real-time access to data would be wonderful, and to be able to go to the commissioners with something that is current makes a very big difference."

Lower-capacity LPHAs struggle with datasets that require significant cleaning or analysis and consistently expressed the need for ready-to-use, synthesized data. They noted that some data requires SAS software for analysis, which is a barrier to those who have opted to use an open-source software like R and to those without in-house coding expertise.

Higher-capacity LPHAs, on the other hand, usually prefer raw, granular data or application programming interface (API) access to support in-depth analysis and custom reporting. But the data they receive often come in heavily formatted Excel files or static PDFs that require time-consuming reformatting before any analysis can begin. Many dashboards don't allow users to export data directly, leading to more manual, often duplicative work.

LPHAs lack internal processes and resources to support their data work.

Within LPHAs, the absence of standardized internal processes and resources poses a major barrier to efficient and effective data work. There is often no documentation of internal workflows and program-level data collection practices, resulting in inconsistencies across public health programs in how data is gathered, defined, and stored. This lack of formalized procedures extends to data governance, where there's an absence of agency-wide strategies for managing data assets. The lowest-scoring technology-related question

in the baseline assessment was related to having standard operating procedures for data management and quality assurance.

Agency-wide standards for variables and terminology are lacking, making cross-program comparisons difficult and often unreliable. Additionally, for agencies that have dedicated data teams, public health staff are not always aware of what the data or IT teams can support or who to reach out to, highlighting a need for better internal communication and clearly defined roles.

Much of the institutional knowledge around data sources and access exists informally within staff, which can leave agencies vulnerable when people transition or change roles. This is especially acute for more remote, rural or frontier agencies where workforce availability is relatively limited.

Strict suppression rules limit LPHAs' ability to understand smaller populations.

Data suppression, although important for protecting vulnerable populations and maintaining confidentiality, was seen as a major obstacle in understanding local health trends and needs (such as needs among LGBTQ+ communities). LPHA representatives also expressed frustration with the lack of transparency and consistency around suppression rules and the inability to obtain even basic counts from the state.

Recognizing the limitations of quantitative data, especially in the context of data suppression or understanding local nuances, several LPHA teams emphasized the importance of collecting and using qualitative data to provide a more complete picture of community health needs and experiences.

Staff at several lower-capacity agencies said that there is an expectation that public health agencies provide granular, community-level data rather than regional aggregates to support programs and grants and to demonstrate health issues within smaller communities. However, many cited challenges obtaining current, granular data.

State datasets often lack consideration of the unique local context needed for accurate interpretation, resulting in state-local misalignment, data misinterpretation, and programs that might not be well-suited to the local context.

Lower-capacity LPHAs said that state-level data often don't reflect the unique context of local communities. They highlighted that this absence of local context can lead to misinterpretation of analytical results, making them appear generalizable or comparable across counties or regions when they are not. These LPHAs emphasized the need for more geographically specific and contextually relevant data that account for local factors,

particularly when there is an impact on programs and/or funding. This includes more granular geographic data as well as population-specific data, such as communities that experience large tourist influxes, communities that border other states, incarcerated populations, and Indigenous and tribal populations.

People

Staff capacity constraints significantly impact agency-wide data capabilities.

Staff capacity constraints are a challenge for many LPHAs, particularly when key tasks are dependent on a single person. If only one team member is capable of coding or managing dashboards, the workload becomes heavily reliant on that person's availability. When only one person has the necessary expertise for critical processes, the entire team becomes vulnerable to disruptions, creating a situation where workflows feel unsustainable. Many staff described themselves as a "single point of failure." This is especially acute for people at lower-capacity agencies, many of whom expressed a strong desire for funding for data-specific roles within their agency.

While there is both an internal desire and external pressure to create more public-facing dashboards, staff are often too overwhelmed with their routine tasks to grow data services and innovate.

Data literacy poses a significant challenge across LPHAs of varying capacities.

For higher-capacity LPHAs that have data-specific teams, data literacy was a significant challenge outside of these specialized teams, with many staff experiencing discomfort or uncertainty when it comes to analyzing and interpreting data. While not all staff need the same level of data literacy, a baseline level of understanding is important for making data requests, sharing information with stakeholders, understanding trends, and recognizing the importance of data integrity in programmatic work (such as building surveys).

For lower-capacity LPHAs, a lack of dedicated data staff and limited data literacy among existing personnel make it challenging to effectively handle data access, collection, analysis, and reporting tasks.

Communication regarding state data is often unclear or inconsistent.

LPHAs employees experience challenges navigating state data systems, understanding how to request data, and receiving consistent communication and support across state entities. For example, participants said their LPHAs experience delayed communication regarding changes to state-owned data; limited guidance, documentation, and definitions related to data; and inconsistent communication across different state branches.

LPHAs lack access to public-health specific legal expertise.

Several LPHAs discussed challenges establishing data sharing agreements, which go through their county legal teams for approval. Staff expressed frustration that data sharing agreements are often delayed or denied by county legal teams who have limited understanding of public health data and privacy policies and tend to approach these agreements conservatively. Specifically, legal teams have insufficient understanding of the Health Insurance Portability and Accountability Act (HIPAA) and the Family Educational Rights and Privacy Act (FERPA) and their application to public health data.

LPHAs with less internal capacity also struggle with data use agreements' descriptions of IT requirements needed to receive, store, or use the data.

Possible Solutions

LPHAs proposed several potential solutions to address these challenges. A summary of these themes follows. The recommendations section of this report presents specific, actionable examples based on the solutions identified by LPHAs.

Communication. LPHA representatives expressed a desire for more consistent and transparent communication from CDPHE regarding various aspects of data — such as when new data become available or when changes are made to methodologies.

Standardization. To understand local issues, LPHAs often rely on multiple data sources. Increased standardization across data products — including the data request processes, data layouts, and dashboard data dictionaries — would help streamline access and analysis.

Documentation. LPHAs teams identified gaps in both internal and external documentation. Internally, standard operating procedures and documented data governance would improve efficiency. Externally, more comprehensive documentation from CDPHE — such as data catalogs and metadata for dashboards — would support clearer understanding and use of available resources.

Centralization. LPHAs desire a "one-stop shop" for public health data, for instance, one webpage that links to all relevant data sources and training materials that would improve navigation and usability, promoting overall efficiency.

Flexibility. Given the varied capacity among LPHAs, flexibility in data formats is essential. Higher-capacity agencies often prefer raw data, while lower-capacity LPHAs benefit more from ready-to-use formats. Providing a range of data formats would better meet diverse needs.

Automation. LPHAs recommended automation to enhance efficiency and streamline workflows. Suggestions included implementing APIs to connect with state systems and automating processes within commonly used project management and data analysis tools.

Sustainability. LPHAs emphasized the need for sustained resources to support their data teams and tools. Key areas included increased IT funding for maintaining and expanding technological infrastructure, data workforce, and personnel development through cross-training and ongoing capacity building.

Recommendations

Data modernization requires meaningful collaboration, which is reflected in the recommendations that follow. Partnerships within and among LPHAs, CDPHE, and CALPHO can bridge local and state perspectives, facilitate feedback loops, and create modernization strategies that reflect the real-world needs and priorities of public health agencies across Colorado.

The recommendations in this report are informed by extensive engagement with LPHAs and state partners and draw on a broad set of frameworks and best practices. They are rooted in a collaborative design process that prioritizes user needs and feedback and reflect World Bank guidance for strengthening health data systems. They also align with strategic priorities from the CDC, CDPHE, and OeHI's 2025 Health IT Roadmap.

Strategy

Prioritize Documentation and Communication

Communication is key to effective public health practice. By embedding documentation and communication into everyday operations, Colorado can strengthen transparency, institutional memory, and alignment across the public health system.

LPHAs should develop and maintain a local data modernization strategy that outlines a coordinated vision, measurable priorities, and roadmap for advancing data capacity in alignment with state approaches. Standardizing documentation of workflows and data practices would help teams share knowledge, work more efficiently, and prepare for new technologies such as automation and AI. While creating a comprehensive data strategy might be challenging for some agencies depending on their capacity, there are fundamental steps that should be taken to move in this direction.

Get Started: LPHAs could get started on a data modernization strategy that will inform their approach to documentation, which may be as simple as setting a basic foundation.

Lower-capacity LPHAs might start by gathering staff input on current data challenges and priorities. From there, they could create realistic goals and outline a basic action plan.

Higher-capacity LPHAs might begin with a more formal assessment of gaps in strategy, technology, and workforce with a focused look at governance, infrastructure, and interoperability. If they have not already done so, agencies might consider taking the baseline assessment developed in conjunction with this project. Using these insights, the agency may create a detailed action plan aligned with the OeHI Health IT Roadmap, CDPHE's Public Health Data Modernization Initiative approach, and national standards. These should include clear metrics for success, a change management plan, and an implementation model that allows for continuous improvement.

Scale Up: With a data modernization strategy in place, LPHAs may then consider identifying key documentation needed both internally and from the state. LPHA participants described a number of places where they would benefit from documentation, including creating a data catalog outlining all public health information available from state, local, and federal resources.

Lower-capacity LPHAs could create a simple internal data catalog, which can be a spreadsheet or document with information on their data, including descriptions, sources, geographic availability, data owner contact information, related dashboards or reports, and refresh schedules. They could also develop standard operating procedures for tasks such as data requests, dashboard updates, and community health assessments. LPHAs should consider prioritizing tasks where a single person currently holds all knowledge or responsibility.

Higher-capacity LPHAs may go further by creating a standard set of data fields for programs to use when reporting information. They could also maintain public change logs to track changes, updates, or code edits to these programmatic datasets. LPHAs may consider using tools like GitHub to make this information easier to track over time. As noted in the Technology section, some organizations may be developing more automated workflows with minimal staff involvement in manual data tasks. In these cases, it is still important to document protocols to ensure clarity, consistency, and sustainability.

CDPHE could address the need for stronger documentation and communication across Colorado's public health system. One approach would be creating, sharing, and maintaining a directory of state-owned datasets, especially those commonly used by LPHAs. This could be accompanied by information on data sources, refresh schedules, metadata, methodologies, and instructions on accessing raw data. CDPHE developed a data inventory for the Government Data Advisory Board and should explore options to share this resource with LPHAs.

CDPHE might also consider increasing its proactive communications with LPHAs regarding data updates. This could be accomplished through newsletters and ensuring that every dashboard has a "last refreshed" date. This may include context on how these refresh schedules are established, whether due to federal timelines, the need for data validation processes, or other external influences. They should identify the most frequently requested datasets to streamline processes and reduce duplication of efforts by state and local departments.

Lower-capacity LPHAs would especially benefit from CDPHE developing a central place where data can be accessed. A clear structure and process for managing data requests will help those agencies with less internal capacity quickly and easily get the information they need. This aligns with the 2025 Colorado Health IT Roadmap priority to align data submission requirements and processes across various state agencies.

Higher-capacity LPHAs might benefit from CDPHE creating a cross-cutting data governance structure that would bring consistency to state data used by local agencies. This structure would help higher-capacity agencies understand how, when, and why data are available without needing to examine the question on a case-by-case basis.

CALPHO could support documentation and communication efforts by promoting a shared understanding of data availability and messaging. It could also support LPHAs' internal development of templates, toolkits, and processes.

Lower-capacity LPHAs would benefit most from ready-made templates and toolkits helping them develop data modernization strategies, documentation standards, and processes.

Higher-capacity LPHAs would benefit from clear guidance on documenting data systems in a way that provides more consistency and standardization across public health data available through CDPHE. They may also need support managing expectations with local officials about how quickly data can be collected and shared, especially if their more-advanced IT systems create unrealistic expectations about data availability.

Sustain and Optimize Funding

Sustainable, long-term funding is essential for both maintaining day-to-day operations and supporting innovation. Funding models should support sufficient technology, staffing, training, and data governance.

LPHAs should prioritize their most critical data needs and align funding efforts to support this.

Get Started: LPHAs may begin by identifying ways to reduce expenses. This might include using free or open-source software or advocating for shared software support across the public health system.

Lower-capacity LPHAs might start by using enterprise-level technology provided by their county IT departments that requires less internal capacity or technical expertise.

Higher-capacity LPHAs might find value in more advanced open-source tools such as R.

Scale Up: Once LPHAs have identified the lowest-cost options for meeting their basic data needs, they should look for ways to secure additional funding to expand their capabilities.

Lower-capacity LPHAs may track new funding streams announced by the state and seek targeted opportunities addressing the populations they care for, such as rural communities.

Higher-capacity LPHAs may pursue larger, more competitive grants, develop public-private partnerships, or build multiyear investment strategies to support long-term data infrastructure and capacity.

CDPHE could support sustainability by aligning data priorities with funding mandates and planning for long-term investments. This may include connecting data requirements to dedicated funding, clarifying policy expectations, and developing multiyear strategies to sustain infrastructure, workforce, and local capacity beyond 2027.

Lower-capacity LPHAs would especially benefit from shared staffing models that expand their technical capacity. CDPHE could develop and coordinate these models with equitable governance structures to ensure all LPHAs have fair, transparent, and consistent access to shared talent and expertise.

Higher-capacity LPHAs would especially benefit from the coordinated, multiyear investment strategies that could scale their more advanced systems.

CALPHO's role should be convening LPHAs to identify shared data priorities and explore shared funding strategies. One strategy might be facilitating third-party purchasing of shared datasets. For example, CALPHO could work with the Colorado Hospital Association to facilitate the purchase of hospitalization data and distribute it among LPHAs, similar to its current efforts with the Center for Improving Value in Health Care and the All Payer Claims Database. In collaboration with CDPHE, CALPHO may also investigate shared resource models to support LPHAs and explore long-term funding options to support these models.

Lower-capacity LPHAs would especially benefit from access to third-party datasets that can provide small-area estimates and granular insights not otherwise available.

Higher-capacity LPHAs might especially benefit from CALPHO exploring public-private partnerships with select technology vendors to increase data access and technical capacity.

Technology

Design With Users, Develop With Agility

Technologies and tools should always reflect real user needs and local context. Flexible and collaborative processes like prototyping and iterative feedback can help make systems that are easy to use, meet diverse LPHA needs, and grow over time. This approach can also facilitate ongoing trust building between LPHAs and CDPHE.

LPHAs could play a critical role by piloting tools, providing feedback, and ensuring systems align with real-world workflows.

Get Started: LPHAs could begin by participating in pilots of tools developed by CDPHE or other third parties, sharing direct feedback as users. For example, many LPHAs use EpiTrax and have found the tool to be useful and user-friendly, even when developing custom connections between EpiTrax and other data systems.

Lower-capacity LPHAs might leverage tools they already use and trust. By experimenting with familiar software, they can explore what works in their local context and offer valuable feedback through surveys, facilitated testing sessions, or informal feedback loops.

Higher-capacity LPHAs might partner more closely in prototyping efforts. This could include testing features like data integration and automation that streamline reporting or analytics features with CDPHE or third-party vendors. A state-led example of this is the Colorado Social Health Information Exchange effort underway in 2025 under the guidance of OeHI.

Scale Up: LPHAs could help refine tools and adopt systems that integrate with statewide infrastructure.

Lower-capacity LPHAs may scale by using shared service models that provide access to user-tested tools, such as dashboards or reporting templates.

Higher-capacity LPHAs could facilitate peer feedback sessions and shared documentation. They may also develop solutions using open-source software or adapt tools provided by

third-party vendors. Several higher-capacity LPHAs are already developing automated workflows to regularly update population health dashboards.

CDPHE could play a key role by building tools that could easily connect with others and be updated as local needs evolve. These efforts could be in collaboration with other state agencies and in support of the 2025 Colorado Health IT Roadmap's goal to foster innovation in and for communities.

Lower-capacity LPHAs might especially benefit from development processes that are flexible and can adapt technologies and tools as their needs change.

Higher-capacity LPHAs would particularly benefit from the development of more complex, interoperable data tools that they could use for advanced analytics, real-time surveillance, or integrating multiple sources into operational dashboards. Examples of these types of resources used in public health include EpiTrax and the Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE).

CALPHO should help bridge feedback loops and collect insights from LPHAs. This may include surfacing common technical needs across LPHAs and coordinating LPHA user feedback to inform statewide strategy, service, and tool development.

Lower-capacity LPHAs might especially benefit from CALPHO coordinating shared feedback channels that reduce the burden on agencies while ensuring their needs are represented in statewide design efforts. These channels could include surveys, listening sessions, or user testing cohorts.

Higher-capacity LPHAs could support by hosting tool demonstrations for other agencies, helping create user guides and documentation, and joining focused design sessions with CDPHE. They could also test automation tools, including those using AI, to see how such technologies might address workforce capacity gaps and streamline routine data tasks.

Scale Shared Solutions

A shared infrastructure can support all LPHAs and promote alignment with the state. A shared solution is any tool, resource, or process that is collaboratively developed or maintained and used across multiple agencies. This may include replicable dashboards, reporting templates, and group purchasing agreements.

LPHAs should help shape the design and adoption of shared solutions by ensuring that these tools support their work, reduce costs, and reflect the realities of local implementation. Their involvement helps keep state-led solutions grounded in real-world needs.

Get Started: LPHAs could begin by agreeing on shared metrics and tools for common items such as frequently used datasets or reports. It will be important for LPHAs to collaborate with IT departments, human services departments, and other relevant agencies.

Lower-capacity LPHAs could begin using shared dashboards and other tools as they become available. They may lower cost and reduce administrative burden by participating in shared vendor agreements or joining with other counties to purchase tools together.

Higher-capacity LPHAs could support the design, testing, and improvement of shared services and tools. LPHAs have already led the charge for improving the public health data user experience when accessing statewide data.

Scale Up: As shared tools and services evolve, LPHAs could use them to improve operations and more closely align with statewide goals. They may explore automation in tools such as REDcap, Tableau, and PowerBI, or invest in program management software to streamline internal operational processes of reviews and approvals for data projects.

Lower-capacity LPHAs might tap into regional shared services, such as data analysts or IT staff. More on this approach is outlined in the People section of these recommendations.

Higher-capacity LPHAs could take on leadership roles by co-managing shared solutions, contributing datasets, and sharing workflows that their peers can replicate. Some are already developing APIs with other systems, and they could pilot this with state systems.

CDPHE is well-positioned to develop shared data services that benefit LPHAs by improving consistency and clarity in how to access CDPHE data. It could offer centralized infrastructure and technical hosting and create standards for APIs and dashboard kits (which are pre-built customizable sets of tools), templates, and guidance that help agencies create data dashboards without starting from scratch. CDPHE could also consider providing resources or guidance on the use of AI. Solutions like these reduce burden and streamline workflows for both internal CDPHE staff and their LPHA partners.

Lower-capacity LPHAs would benefit from shared tools because they reduce the technical burden of building dashboards from scratch, speed up implementation, and ensure they can produce high-quality, standardized data visualizations even with limited staff or resources. Shared tools would also help them align with statewide practices, making it easier to share insights and collaborate across agencies.

Higher-capacity LPHAs could test cloud infrastructures, build advanced integrations, and ensure statewide tools scale effectively. For example, one LPHA is using Google's

BigQuery to integrate multiple data sources into a centralized, scalable warehouse. This would allow it to run real-time queries, support replicable dashboards, and share insights more efficiently across teams and with the state.

CALPHO is an ideal facilitator of access to shared tools, resources, and vendor relationships. CALPHO could manage vendor toolkits to help agencies evaluate, select, procure, and implement tools provided by third-party vendors. It could provide implementation templates and guides for data governance and sharing. CALPHO could also serve as a connector, gathering feedback from LPHAs to inform the development of shared services that reflect frontline needs. Through regular convenings, peer learning networks, and communities of practice, CALPHO could accelerate the adoption of promising practices and tools across LPHAs.

Lower-capacity LPHAs may find value in a CALPHO-led effort to coordinate pooled licensing agreements and shared procurement to lower costs and ensure access.

Higher-capacity LPHAs could benefit from CALPHO facilitating mentorship connections to other LPHAs. They may also consult with CALPHO to share their experiences with tools or co-create training content.

People

Grow Staff Skills

Technology changes at a rapid pace. Continuous learning opportunities can help Colorado's public health workforce develop technical skills, data literacy, and adaptive capacity needed for modern, data-driven systems.

LPHAs are responsible for cultivating a continuous learning culture within their organizations, ensuring that staff have the tools and support to use data in meaningful ways.

Get Started: LPHAs may begin by identifying their learning priorities. For example, they may need more data management to learn how to organize, store, or protect data so it is accurate and accessible when needed. Or they may prioritize the use of data in storytelling, learning how to pair statistics with stories of experiences. Once priorities are identified, LPHAs could engage in training opportunities that address their needs.

Lower-capacity LPHAs might start with low- or no-cost options like internal "show-and-tell" sessions, brown bag lunches, or recorded modules. They can take advantage of recorded webinars, free presentations, or existing CDPHE training resources such as the Introduction to the Colorado Health Information Dataset video, which introduce key concepts. The Public Health Data Learning Center also offers a number of free resources

and trainings on topics such as technical data skills, public health informatics, data visualization and AI in public health. The Rocky Mountain Public Health Training Center offers a free, online Data State of Mind training on data literacy. Tableau's Data Literacy for All program offers free online resources to help people and organizations develop foundational data skillsets.

Higher-capacity LPHAs might take a more structured approach, tailoring learning plans to different roles or departments or using prepaid trainings included in their IT enterprise software packages. They could offer staff incentives to pursue stackable credentials, which are earned over time and stacked together to build toward higher levels of skills, education, or career advancement. They could also send team members to conferences or build formal internal processes for professional development.

Scale Up: After identifying learning priorities and building some foundational capacity, LPHAs could begin strengthening internal infrastructure to support continuous learning.

Lower-capacity LPHAs might scale up by joining regional collaboratives or participating in mentorship pairings with high-capacity peers. In these peer-to-peer learning environments, best practices and protocols could be shared across Colorado.

Higher-capacity LPHAs could take a leadership role by hosting trainings, mentoring peers, and sharing best practices. They might develop customized internal trainings or allocate staff time for completing professional development courses. They may invest in learning subscriptions, such as LinkedIn Learning or Coursera, where more comprehensive data science training packages are available.

CDPHE could play a key role in supporting LPHA staff data literacy by creating more consistent ways to view and access data. One option discussed was the development of a centralized data platform that offers curated resources and technical assistance, which could be established in collaboration with CALPHO. A digital platform could serve as a focal point for coordinating activities. It could also be a place where organizations asynchronously share common questions, answers, files, and insights or connect in different ways, such as through an online forum. CDPHE may also continue developing foundational training modules on public health data use, methods, and privacy standards, while centralizing training materials in one location.

Lower-capacity LPHAs would benefit most from recorded trainings on core skills such as basic data training or pulling data from dashboards and organizing it using Excel. CDPHE could also provide templates, walkthroughs, and hands-on guidance, such as how to use and analyze the data as these LPHAs apply those skills in real-world settings.

Higher-capacity LPHAs may benefit from more advanced analytics training from CDPHE in areas such as SQL, R, or Python coding; workflow automation; use of generative AI; and leveraging data lakes. They may also consider aligning file types and coding languages with those most commonly used by LPHAs. Supporting the high-capacity LPHAs in developing these skills would help streamline processes and support more integrated, scalable data strategies.

CALPHO's role in growing staff skills is primarily through facilitating many of the partnerships and shared tools that support this development. For example, it may act as a conduit between CDPHE and all LPHAs to help close feedback loops related to data infrastructure or match CDPHE's learning content with LPHAs' needs.

Lower-capacity LPHAs may particularly benefit from receiving technical mentorship and support via a regional resource that serves as a dedicated data liaison. CALPHO should consider facilitating this model, which would help alleviate workforce limitations by offering a centralized, shared staff resource. Additionally, connecting lower-capacity LPHAs with higher-capacity peers for mentorship could further strengthen skills in data use and management. CALPHO could identify and coordinate these mentoring opportunities. It could also help lower-capacity agencies access shared resources such as pooled subscriptions to fee-based trainings or scholarships for professional development opportunities like conferences.

Higher-capacity LPHAs could contribute by partnering with CALPHO to develop training content in collaboration with CDPHE and engaging in mentorship pairings. CALPHO may support high-capacity agencies by convening communities of practice focused on more advanced tools such as R and PowerBI, ideally through existing structures to minimize time commitments. These communities of practice may be online forums or virtual or in-person interactive meetings. They would focus on peer-to-peer skill development and practical applications of these tools, allowing data experts to share best practices, questions, and code scripts. A lab or hack-a-thon are more modern ways to bring people together for this kind of collaboration, creating a shared space to experiment, learn, and apply new approaches in real time.

Build Workforce Capacity

Colorado's public health workforce is stretched thin, especially in rural and frontier communities. To build collective capacity LPHAs, CDPHE, and CALPHO should work together on solutions such as shared staffing models and technical assistance.

LPHAs are often tasked with doing more with limited resources. By identifying workforce gaps and regional approaches, they may increase their capacity to further data modernization efforts.

Get Started: LPHAs could begin conducting a workforce readiness assessment to identify their biggest capacity gaps.

Lower-capacity LPHAs might start with a basic internal review to prioritize data management and analysis needs. This could be done through a staff discussion on current roles and skills.

Higher-capacity LPHAs might take a more in-depth approach to this assessment, using a structured competency framework to evaluate current staff skills against their strategic data goals. This might include facilitated self-assessments, staff reviews, and analyses of turnover and other workforce data.

Scale Up: Once capacity needs are identified, LPHAs should implement strategies to address them.

Lower-capacity LPHAs might join or lead regional shared-staffing models to address capacity gaps. They could also leverage qualitative data efforts, which are especially important where small sample sizes result in suppressed quantitative data.

Higher-capacity LPHAs may focus on cross-training to reduce dependence on any one staff member and ensure that critical skills are shared across teams.

CDPHE should use its technical expertise to supplement LPHA capacity. This may include leveraging regional technical assistance specialists to provide help with data access, analysis, reporting, and workforce planning. CDPHE could also provide information on existing laws, regulations, and policies that govern data sharing, especially around HIPAA and FERPA, areas where many county legal teams lack public health-specific expertise. LPHA participants noted the value of past support from the Office of Public Health Practice, Planning, and Local Partnerships and expressed a desire for more resources like these.

Lower-capacity LPHAs would especially benefit from an increase in shared staffing models. To encourage these, CDPHE could fund pilot programs or grants that support regional roles in specialized areas such as epidemiology or data analytics.

Higher-capacity LPHAs might especially benefit from CDPHE support identifying regional technical assistance specialists who could provide customized or on-demand data modernization and sharing support.

CALPHO may also support the regional technical expertise and on-demand support described in this section. It might do this through a forum or community of practice similar to those described in the People recommendations. Additionally, CALPHO leadership might consider supporting the exploration and ethical use of generative AI models by LPHAs, which would offer agencies an effective method for supplementing

existing work, streamlining operations, and supplementing capacity gaps by automating routine tasks.

Lower-capacity LPHAs could especially benefit from this type of support. They often lack the resources to participate fully in collaborative efforts or to report on data due to state-level suppression of small sample sizes. CALPHO and CDPHE could help fill these gaps by providing tools and training for collecting and using qualitative data, which would offer critical context and insight where quantitative data fall short.

Higher-capacity LPHAs might especially benefit from opportunities to share innovative workforce strategies with peers through a forum or community of practice.

Conclusion

Colorado is on the path to a more modern, connected public health data infrastructure. These efforts will require sustained collaboration, thoughtful investment, and a shared commitment to innovation. The findings and recommendations in this report, along with the ongoing efforts of public health partners across the state, can help every Colorado community, regardless of size, geographic region, or resources, benefit from a timely and reliable data system to keep our residents healthy and safe.

Appendix A: Acronyms in This Report

Artificial intelligence (AI)

Application programming interface (API)

Centers for Disease Control and Prevention (CDC)

Colorado Association of Local Public Health Officials (CALPHO)

Colorado Community Managed Care Network (CCMCN)

Colorado Department of Public Health and Environment (CDPHE)

Colorado Health Institute (CHI)

Colorado Office of eHealth Innovation (OeHI)

Electronic health record (EHR)

Electronic Surveillance System for the Early Notification of Community-Based Epidemics (ESSENCE)

Family Educational Rights and Privacy Act (FERPA)

Geographic Information System (GIS)

Health information exchange (HIE)

Health Insurance Portability and Accountability Act (HIPAA)

Information technology (IT)

Local Public Health Agency (LPHA)

Women, Infants, and Children (WIC)

Appendix B: Baseline Assessment Results

CHI adapted questions from two sources to create the baseline assessment: Building an Informatics-Savvy Health Department: A Self-Assessment Tool and the Public Health IT Maturity Index Questionnaire. The assessment asks 24 questions across three domains: strategy, technology, and people. Each of the 24 statements in the baseline assessment has four response options that map to a scale from one to four.

1. Learning (responses of not at all or not started)
2. Developing (responses of somewhat, initial, or partial)
3. Advancing (responses of established, developed, or comprehensive)
4. Optimizing (responses of optimized, refined, or maximized)

Only the 10 LPHAs that participated in journey mapping workshops are included in baseline assessment results, and responses reflect only the opinions and experiences of staff present. As such, these results are biased toward the higher-capacity LPHA experience.

Average Responses in the Strategy Domain

Question	Average	Range
Does your agency effectively collaborate with community partners to use data for population health assessment and improvement?	2.8	2-4
Which of the following statements best describe the privacy policies related to your agency's IT system use?	2.7	2-3
How would you describe your agency's budget for information technology (IT)?	2.4	1-4
Does your agency have an established governance process to guide major information and/or information system decisions?	2.1	1-4
Does your agency have a documented data vision and strategy?	2.0	2-2
Has your agency adopted a standard procedure for establishing and renewing data sharing agreements?	1.9	1-3
Does your agency have a systematic, sustained approach to funding a data modernization strategy and/or activities?	1.9	1-3

Average Responses in the Technology Domain

Question	Average	Range
Does your agency have a software update and maintenance process?	3.0	2-4
How easy is it for your organization to submit required data to the state health department electronically?	3.0	2-4
On average, how long does it take to acquire usable information from the EHR and related IT systems?	2.8	1-4
How is data made available to external users?	2.7	2-4
Rate the level of health information exchange (HIE) connectivity with your community.	2.4	1-4
How easy to learn are your electronic health record (EHR) and related IT systems?	2.3	1-3
How easily can your agency securely send and receive electronic data with external partners?	2.2	2-3
Has your agency conducted an inventory of your datasets, applications, and information technology systems?	2.2	1-4
Do your programs share common databases or systems to make it easier to access and use information and data?	2.2	1-3
How would you describe the generating of most reports within your agency?	2.1	1-3
How easily can your agency electronically send, receive and process data internally between information systems?	2.0	1-3
Has your agency adopted standard operating procedures for data management and quality assurance?	1.7	1-3

Average Responses in the People Domain

Question	Average	Range
How skilled is your public health workforce in the use of information technology?	3.0	2-4
How satisfied are staff with your agency's software tools (such as electronic health records) and related IT systems?	2.8	2-4
Does your agency support staff members across a broad range of job classifications to participate in information technology training?	2.6	2-4
Does your agency have a team or person(s) responsible for implementing your organization's data modernization strategy and providing technical assistance?	2.5	2-4
Does your agency have a workforce strategy that describes needed modern technology capabilities and/or positions and have plans for recruiting, hiring and/or training existing staff to meet those needs?	2.2	1-3

Appendix C: Resources

LPHA Baseline Assessment. CHI adapted questions from two sources to create this assessment: Building an Informatics-Savvy Health Department: A Self-Assessment Tool and the Public Health IT Maturity Index Questionnaire. The assessment asks 24 questions across three domains: strategy, technology, and people. CHI recommends completing the assessment in teams with representation across leadership and staff who interact with various aspects of data, such as those working with electronic health records, state systems, population level data, and information technology.

LPHA Data Readiness Toolkit. This toolkit, developed and managed by CALPHO, provides resources to help LPHAs advance their data modernization efforts. Although this toolkit can be used by any LPHA looking to improve its data capacity and capabilities, CHI and CALPHO recommend taking the baseline assessment first to identify data-related strengths and gaps. This will help LPHAs prioritize next steps.

LPHA Data Readiness Maturity Framework - Solution Action Steps. This framework, developed by CHI and managed by CALPHO, contains specific action steps for improving agency data modernization capabilities. Although this framework can be used by any LPHA looking to improve its data capacity and capabilities, CHI and CALPHO recommend taking the baseline assessment first to identify data-related strengths and gaps. This will help LPHAs prioritize next steps.