Kansas Local Public Health Informatics Assessment 2024

Introduction

Public Health Informatics and Kansas Local Public Health

Almost every aspect of public health practice involves the use of data. Although informatics is not a commonly used term, much of the work done by Kansas public health workers is related to informatics. The world is changing rapidly when it comes to the creation and use of data-technology is expanding to make data use and management both easier and more complex at the same time. In order to serve the public's needs and in achieving optimal health and well-being for Kansans, local and state public health must forge a path to embrace the opportunities informatics provides.

The Public Health Informatics Institute defines public health informatics as the science of how to use data, information and knowledge to improve human health and the delivery of health care services. They outline that the public health workforce is using informatics when they collect data and translate them into a language practitioners can understand so that they can make data-driven decisions to improve public health.

The 10 Essential Public Health Services is a framework to understand the goals and purpose of the public health system. Below is a table providing some examples of how data and informatics are used by local health departments when implementing the 10 Essential Services.

Examples of Informatics in the Ten Essential Services

Essential Services of Public Health	Examples of the Use of Informatics
Assess and monitor population health	Gather and analyze health data to better understand health trends and disparities
Investigate, diagnose and address health hazards and root causes	Use surveillance systems to detect and respond to emerging health threats
Communicate effectively to inform and educate	Share public health information through a data dashboard to engage the community
Create, champion and implement policies, plans and laws	Use publicly available data to inform policy proposals the local or state level
Improve and innovate through evaluation, research and quality improvement	Use data to evaluate and improve how programs and processes are carried out
Enable equitable access	Using a health information exchange to identify gaps in care and connect clients with resources to remove barriers

The Survey

The purpose of the 2024 Kansas Local Public Health Informatics Survey is to provide a comprehensive assessment of the current state of informatics capacities within Kansas local health departments. It aims to evaluate and gain a stronger understanding of public health

informatics system capabilities, including infrastructure, software applications, data management practices, and interoperability. It also assesses existing workforce skills, competencies, and available resources. By identifying gaps and areas for improvement in both informatics capacities and system capabilities, the survey seeks to result in the development of strategic guidance for informatics improvements in the Kansas local public health system. The survey was initiated by the Kansas Association for Local Health Department (KALHD) Informatics Subcommittee and funded by the Epidemiology and Laboratory Cooperative Agreement, Enhancing Detection Through Coronavirus Response and Relief (CRR) CK19-1904 and compiled and administered by Wichita State University's Center for Public Health Initiatives (WSU CPHI).

Methods

The 2024 Kansas Local Public Health Informatics Survey was compiled by WSU CPHI from several sources:

- Public Health Informatics Institute (PHII)'s Informatics-Savvy Health Department Self-Assessment Tool
- PHII's Interoperability Self-Assessment Tool
- Kansas Health Institute Informatics Self Assessment Tool
- 2017 KALHD Informatics Survey

Survey Focus Areas

Data Management Practices	Data collection, storage, and reporting across LHD services
Data Integration and Sharing	Integrating data from different sources and systems, data sharing agreement procedures, and data collaboration internally and with external partners
Technological Infrastructure	Data security measures, emerging technologies
Workforce Skills and Training	Training or support opportunities

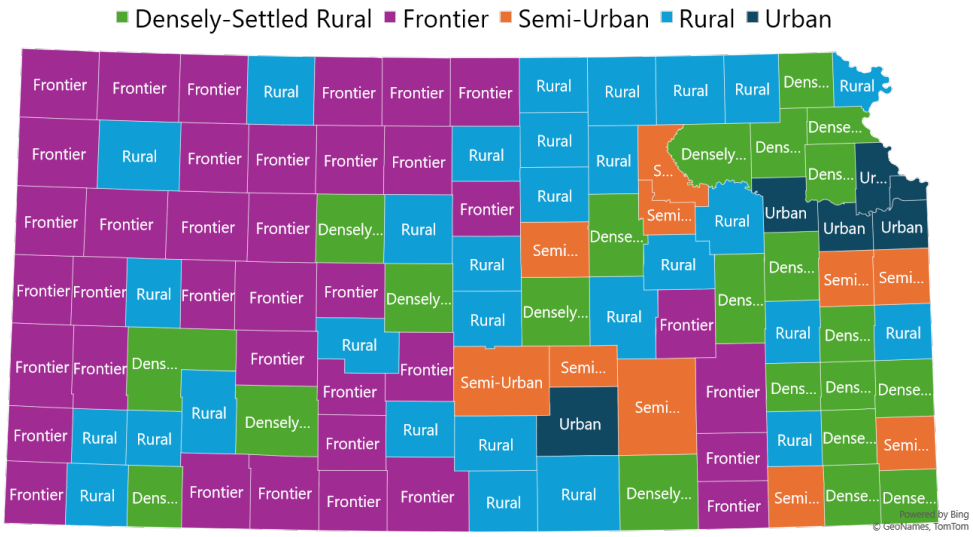
Initial drafts were reviewed and edited by the KALHD informatics subcommittee as well as the WSU CPHI team, with a focus on best meeting the needs of the target audience of Kansas local health departments. An online survey was built using the Alchemer software and sent by KALHD via email to health department administrators. The KALHD Director requested they or a staff member complete the survey on behalf of their health department. The survey was sent on February 2, 2024 and was concluded on February 29, 2024.

The 2024 Kansas Local Public Health Informatics Survey results were analyzed through several tools, including Microsoft Excel, ChatGPT, and Monday.com. For analysis, local health departments were divided into population density categories. Local health departments throughout Kansas have varying needs and capacities based on their population density, which greatly impacts the level of funding and staffing available to their department.

Kansas Counties Categorized by Population Density

Population Density by Classification*
(persons per square mile):

- Urban: 150.0 or more ppsm
- Semi-Urban: 40.0 – 149.9 ppsm
- Densely-Settled Rural: 20.0 – 39.9 ppsm
- Rural: 6.1 – 19.9 ppsm
- Frontier: Less than 6.0 ppsm



*Kansas Department of Health and Environment Classification

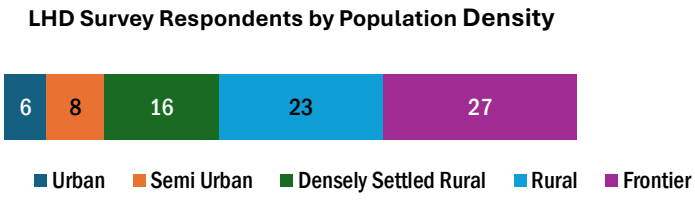
Results

The following section is an overview of 2024 Kansas Local Public Health Informatics Survey results.

Respondents

There were 80 health departments who responded to this survey. More than half of survey respondents represented local health departments (LHDs) in rural and frontier counties (n=46, 58%).

- 6 urban (8% of responses, 100% of urban LHDs)
- 8 semi-urban (10% of responses, 80% of LHDs)
- 16 densely settled rural (20% of responses, 94% of LHDs)
- 23 rural (26% of responses, 70% of LHDs)
- 27 frontier (31% of responses, 68% of LHDs)

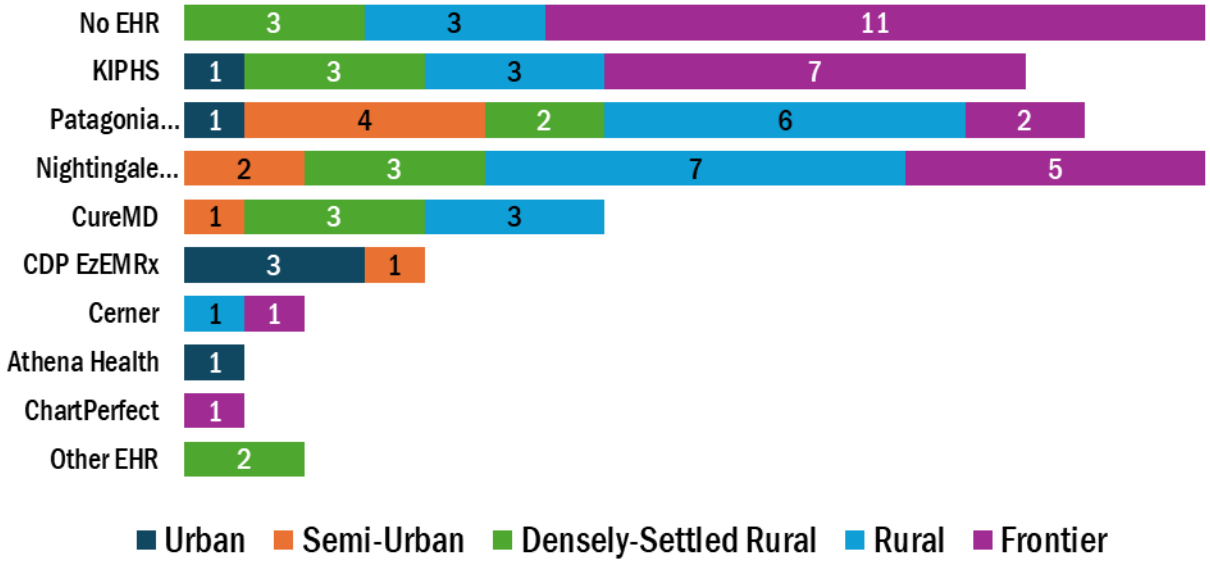


Data Collection, Storage, and Reporting Results

1. Electronic Health Record (EHR) Adoption

Excluding the KIPHS, Inc. software, which is not technically an EHR, more than half of local health departments utilize an EHR (N=49, 61%).

LHD Respondent Use of EHRs



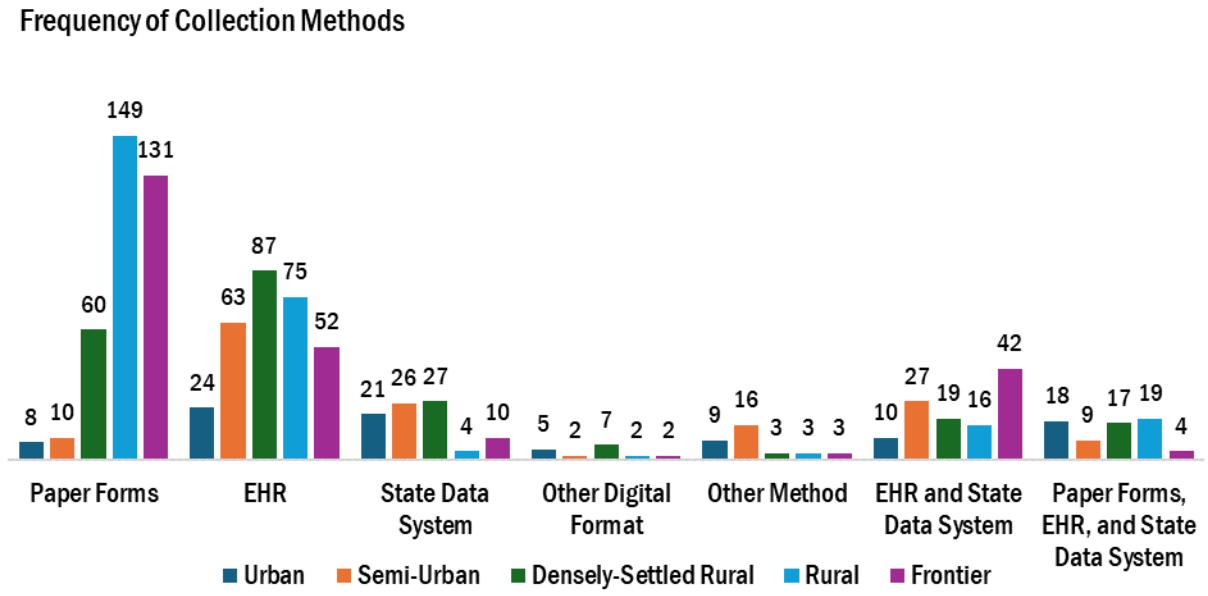
Other Key Findings:

- KIPHS is not a traditional EHR, but it is used for that purpose by 14 respondents.
- At least one health department from all population densities (except for semi-urban) indicated that KIPHS is their primary EHR.
- There are 31 health departments that either do not utilize an EHR or use KIPHS as their EHR (39% of respondents). Among these health departments, frontier health departments account for 67% (n=18)
- Excluding KIPHS:
    - More than half of respondents use an EHR of some kind (n=49, 61%).
    - The most common EHR systems used by urban and semi-urban health departments are CDP EzEMRx, CureMD, and Nightingale Notes.
    - Most densely settled rural health departments utilize an EHR, but between the 10 that responded, they use 4 different EHRs.
    - The majority of rural health departments use Patagonia Notes or Nightingale Notes (n=13, 57%)

2. Data Collection

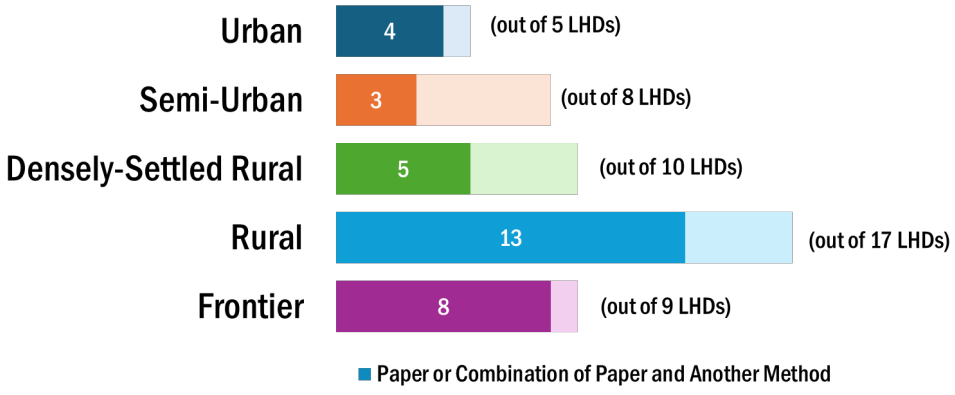
This section of the survey collected data on how LHDs initially collect records. This does not refer to how LHDs store or report data. LHDs were allowed to check all responses that applied. The results indicate that local health departments use a variety of methods and combinations of those methods to collect records for services. Rural and frontier health departments primarily utilize paper forms, while semi-urban and densely-settled rural regions are transitioning to (EHRs).

The bar graph below illustrates how often health departments in each population density indicated utilizing various record collection methods for all of the services they provide. In other words, the bars do not represent the number of health departments, but they represent the number of times urban, semi-urban, densely-populated rural, rural, and frontier health departments indicated they collect data using each method. Please note only the top seven methods (and combination of methods) are visualized below.



Among the 49 LHDs that have an EHR, 42 of them still use paper or a mix of paper, EHR, state data systems, or other methods for data collection (86%).

LHDs Using Paper for Data Collection



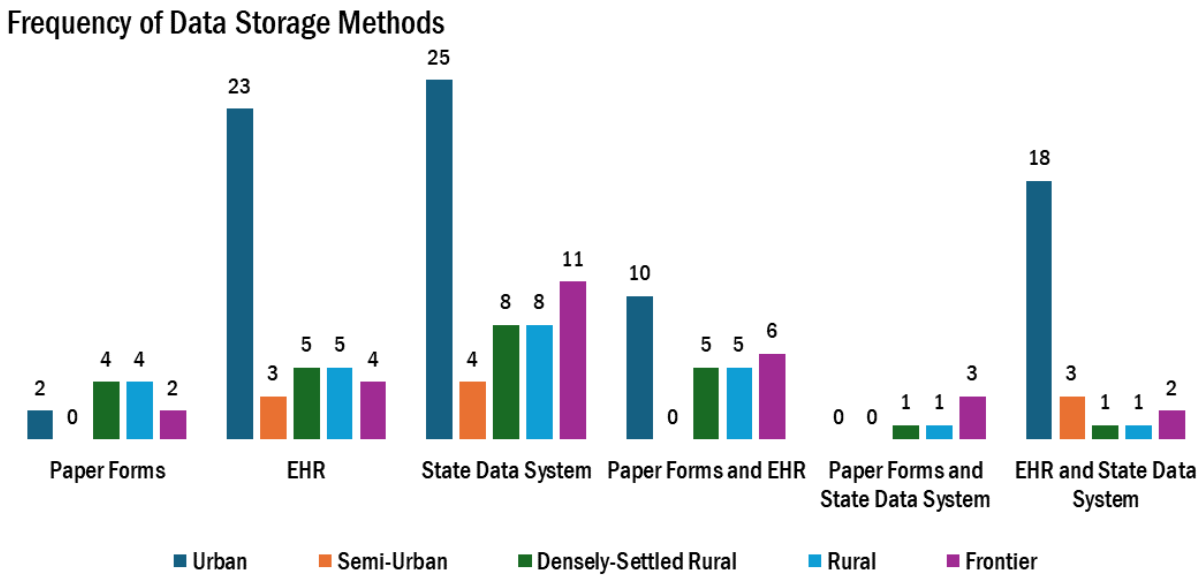
Other Key Findings:

- Frontier and rural health departments most frequently use paper forms to collect data for the services they provide.
- Range of 2 to 28 health departments that use paper forms or combination of paper forms and another method for all services except for dental restorative services and HOSPICE. But more than 90% of respondents indicated that they do not collect data for those services.

3. Data Storage

This section of the survey collected data on how LHDs store data. This does not refer to how LHDs collect or report data. LHDs were allowed to check all responses that applied. The results indicate that departments use a variety of methods and combinations of those methods to store records. Urban areas predominantly use EHR and State Data Systems, while semi-urban and rural regions exhibit varied use of mixed storage methods.

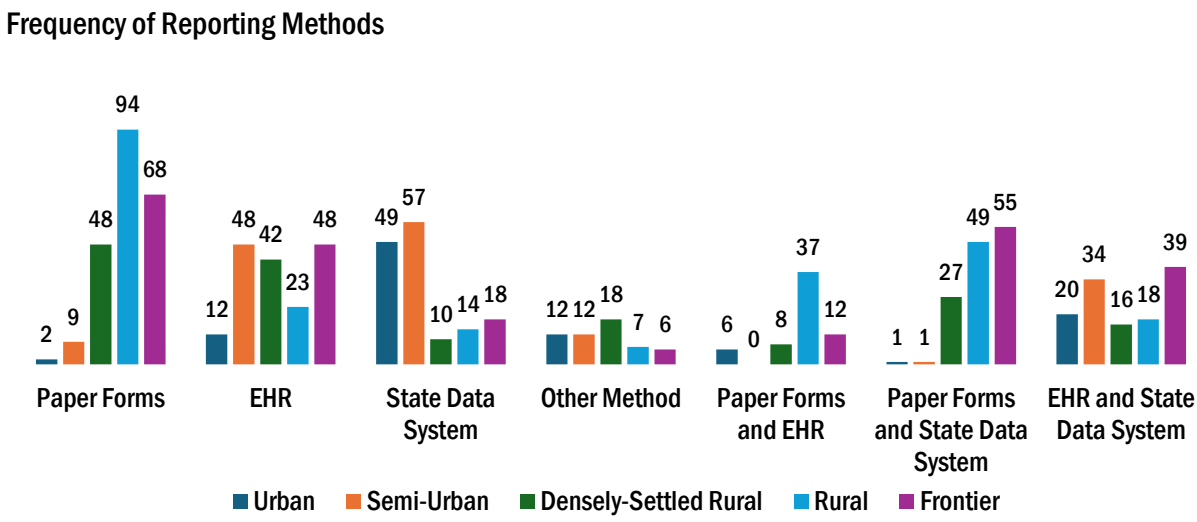
The bar graph below illustrates how often health departments in each population density indicated utilizing various record storage methods for all of the services they provide. In other words, the bars do not represent the number of health departments, but they represent the number of times urban, semi-urban, densely-populated rural, rural, and frontier health departments indicated they store data using each method. Please note only the top six methods (and combination of methods) are visualized below.



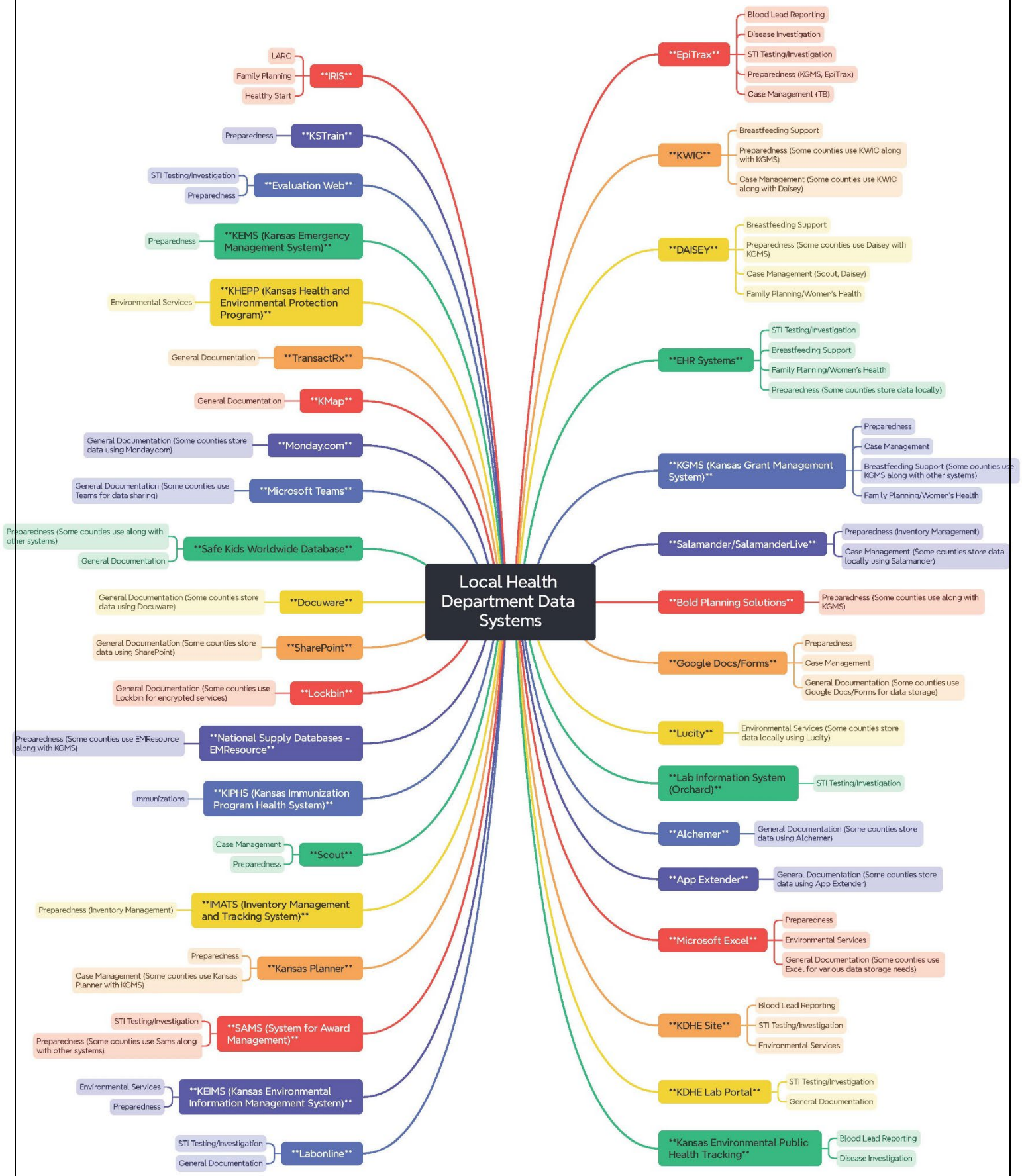
3. Data Reporting

This section of the survey collected data on how LHDs reports data. This does not refer to how LHDs collect or store data. LHDs were allowed to check all responses that applied. The results indicate that departments use a variety of methods and combinations of those methods to store records. Urban areas predominantly use EHR and State Data Systems, while semi-urban and rural regions exhibit varied use of mixed storage methods.

The bar graph below illustrates how often health departments in each population density indicated utilizing various record reporting methods for all of the services they provide. In other words, the bars do not represent the number of health departments, but they represent the number of times urban, semi-urban, densely-populated rural, rural, and frontier health departments indicated they store data using each method. Please note only the top six methods (and combination of methods) are visualized below.



When examining the different systems that health departments use to connect and report data for their services—including all EHRs as one system—there are at least 47 systems in use. The mind map below, a visual tool that helps show the relationships between different pieces of information, illustrates these various data systems and provides an overview of the programs and services associated with each system.


Local Health Department Data Systems
IRIS
LARC
Family Planning
Healthy Start
KSTrain
Preparedness
Evaluation Web
STI Testing/Investigation
Preparedness
KEMS (Kansas Emergency Management System)
Preparedness
KHEPP (Kansas Health and Environmental Protection Program)
Environmental Services
TransactRx
General Documentation
KMap
General Documentation
Monday.com
General Documentation (Some counties store data using Monday.com)
Microsoft Teams
General Documentation (Some counties use Teams for data sharing)
Safe Kids Worldwide Database
Preparedness (Some counties use along with other systems)
General Documentation
Docuware
General Documentation (Some counties store data using Docuware)
SharePoint
General Documentation (Some counties store data using SharePoint)
Lockbin
General Documentation (Some counties use Lockbin for encrypted services)
National Supply Databases - EMResource
Preparedness (Some counties use EMResource along with KGMS)
KIPHS (Kansas Immunization Program Health System)
Immunizations
Scout
Case Management
Preparedness
IMATS (Inventory Management and Tracking System)
Preparedness (Inventory Management)
Kansas Planner
Preparedness
Case Management (Some counties use Kansas Planner with KGMS)
SAMS (System for Award Management)
STI Testing/Investigation
Preparedness (Some counties use Sams along with other systems)
KEIMS (Kansas Environmental Information Management System)
Environmental Services
Preparedness
Labonline
STI Testing/Investigation
General Documentation
EpiTrax
Blood Lead Reporting
Disease Investigation
STI Testing/Investigation
Preparedness (KGMS, EpiTrax)
Case Management (TB)
KWIC
Breastfeeding Support
Preparedness (Some counties use KWIC along with KGMS)
Case Management (Some counties use KWIC along with Daisey)
DAISEY
Breastfeeding Support
Preparedness (Some counties use Daisey with KGMS)
Case Management (Scout, Daisey)
Family Planning/Women's Health
EHR Systems
STI Testing/Investigation
Breastfeeding Support
Family Planning/Women's Health
Preparedness (Some counties store data locally)
KGMS (Kansas Grant Management System)
Preparedness
Case Management
Breastfeeding Support (Some counties use KGMS along with other systems)
Family Planning/Women's Health
Salamander/SalamanderLive
Preparedness (Inventory Management)
Case Management (Some counties store data locally using Salamander)
Bold Planning Solutions
Preparedness (Some counties use along with KGMS)
Google Docs/Forms
Preparedness
Case Management
General Documentation (Some counties use Google Docs/Forms for data storage)
Lucity
Environmental Services (Some counties store data locally using Lucity)
Lab Information System (Orchard)
STI Testing/Investigation
Alchemer
General Documentation (Some counties store data using Alchemer)
App Extender
General Documentation (Some counties store data using App Extender)
Microsoft Excel
Preparedness
Environmental Services
General Documentation (Some counties use Excel for various data storage needs)
KDHE Site
Blood Lead Reporting
STI Testing/Investigation
Environmental Services
KDHE Lab Portal
STI Testing/Investigation
General Documentation
Kansas Environmental Public Health Tracking
Blood Lead Reporting
Disease Investigation

Information Management Results

1. Interest in System Adoption

Survey Question: What other systems, if any, are you interested in adopting in the next 1-3 years?

This question was answered by 26 health departments, for a response rate of 33%. Among those that responded:

- Seven health departments from predominantly rural and frontier counties indicated that they would like to adopt an EHR system for the first time.
- Another seven health departments, predominantly from rural and frontier counties, were interested in switching from their current EHR (or KIPHS) to another EHR.
- Another seven health departments expressed interest in adopting EpiTrax and/or WebIZ.
- Four health departments expressed interest in adopting KIPHS.
- Two health departments expressed interest in adopting IRIS.
- Two health departments expressed interest in adopting UniteUs.

Comments from respondents included the need for tools like FIHR (Fast Health Interoperability Resources), a set of specifications for exchanging healthcare data, to enhance interoperability of current systems. They also shared concerns about the suitability of EHRs for small communities, a lack of knowledge about ESSENCE and KIPHS, and a desire for uniform use of KIPHS across departments.

2. Patient Referral Systems

Survey Question: What systems does your health department use to make patient referrals?

This section of the survey assessed the systems local health departments (LHDs) use to make patient referrals. The three most commonly used systems selected by respondents are KanQuit, IRIS, and "Other."

- KanQuit is widely adopted, with half of the LHDs (n=40) utilizing it. Its usage varies by area: 45% in frontier regions, 50% in rural areas, 25% in densely settled rural zones, 43% in semi-urban areas, and 33% in urban settings.
- IRIS is the second most popular referral system, used by 20% of LHDs, with adoption rates of 45% in frontier regions, 17% in rural areas, 25% in densely settled rural areas, 21% in semi-urban areas, and just 3% in urban areas.
- Participants also indicated that other common methods they use to make referrals include phone calls (9), paper forms (8), and fax (4).

Comments from respondents highlight several challenges and areas for improvement, such as the high annual renewal cost of IRIS, interest in obtaining or improving referral systems, ongoing work on IRIS implementation, and the push from community partners to adopt Unite Us. Additionally, some health departments rely on informal systems through their EHRs or use different processes depending on referral needs. One respondent mentioned promoting KanQuit to WIC parents despite low interest, while another indicated they are working to establish a formal agreement with WellSky.

3. Billing Information Systems

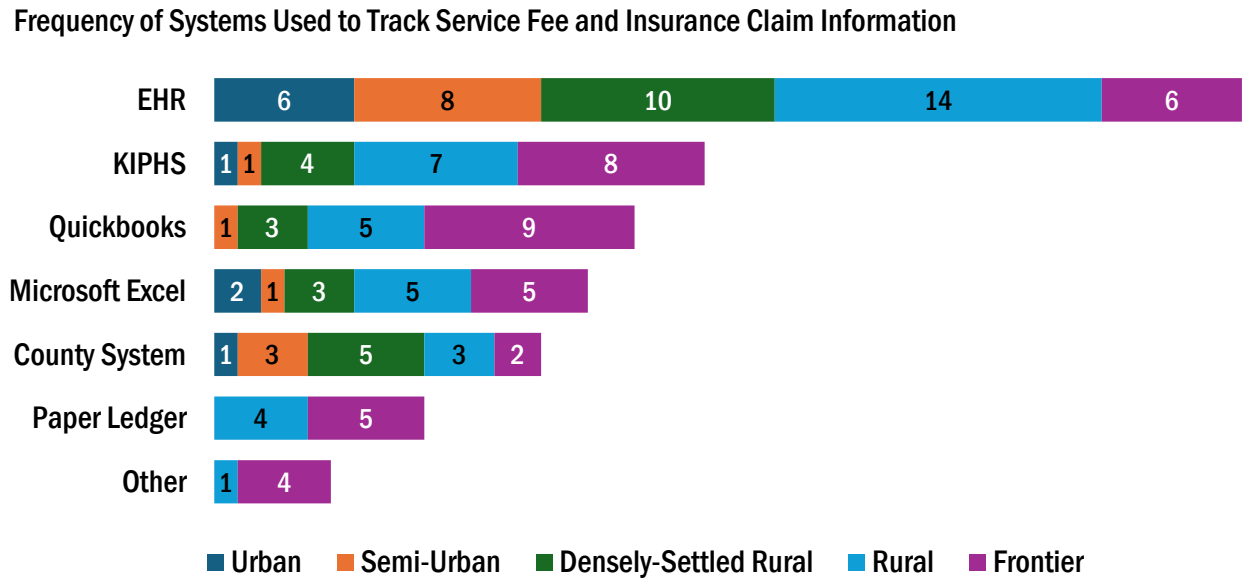
Survey Question: Which system(s) do you use to regularly track billing information as it relates to service fees and insurance claims (not asking about overall finances/budgeting)? Please select all that apply.

The three most commonly used systems are Electronic Health Records (EHRs), KIPHS, and QuickBooks. Microsoft Excel was also selected frequently, while paper ledgers and "other" systems were less common.

- EHRs were selected by more than half of the respondents (n=44, 55%). These include most rural (n=14) and densely settled rural (n=10) health departments, along with all urban and semi-urban health departments.
- KIPHS was chosen by about a quarter of respondents (n=21, 26%), with most users being from frontier (n=8) and rural (n=7) areas.
- Similarly, QuickBooks was selected by about a quarter of respondents (n=18, 23%), with the majority from frontier (n=9) and rural (n=5) regions.

The less commonly used systems were Microsoft Excel, county systems, paper ledgers, and other resources.

- Microsoft Excel was used by 20% of health departments (n=16), with four of these indicating that Excel is the sole system they use for billing related to service fees and insurance claims (two frontier and two rural).
- County systems were chosen by 18% of health departments (n=14), with CIC being the most common county system.
- Paper ledgers were utilized by 11% of health departments (n=9).
- Other resources included TransAct, WPS, KMap, OpenGov, provider websites (such as UHC, Medicare, Sunflower, etc.), copies of insurance and billed remit, and PCace.



4. Insurance Claims Tracking and Submission

Survey Question: How is insurance claim information collected and tracked (NOT asking about submission)? Please select all that apply.

The three most used systems respondents use to collect and track insurance claim information are Electronic Health Records (EHRs), TransactRx, and paper forms. Most health departments indicated that they use two systems (n=31, 39%) or one system (n=22, 28%), with the maximum number of systems used by a single health department being six.

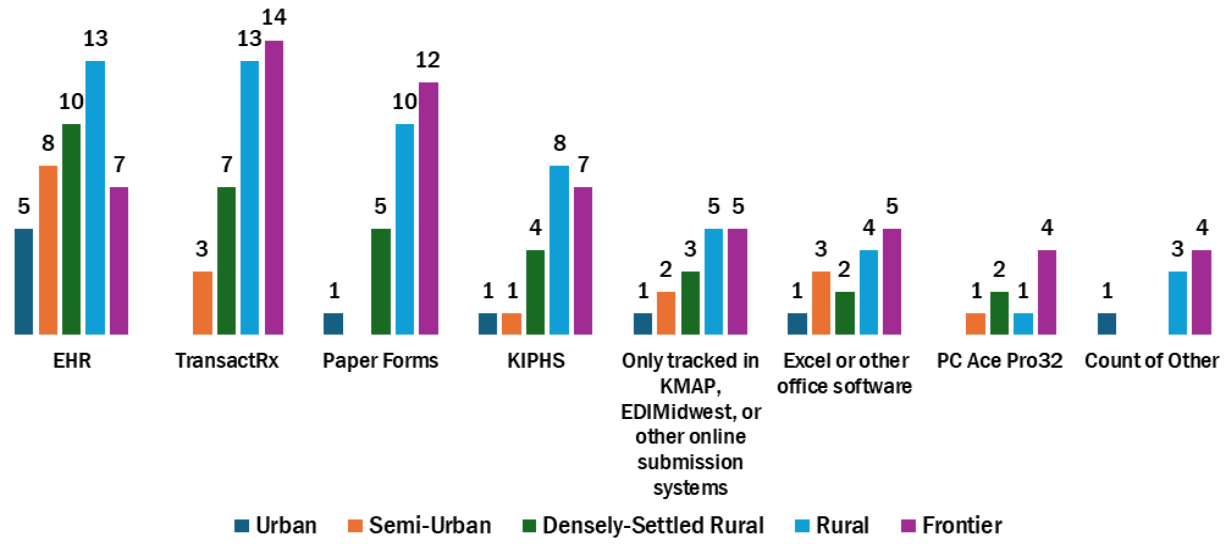
- EHRs were selected by over half of the health departments (n=43, 54%). This included five out of six urban health departments, all semi-urban health departments, most densely settled rural health departments (10/16, 63%), most rural health departments (13/21, 62%), and only 28% of frontier health departments (n=7).
- TransactRx was selected by most frontier health departments (n=14, 56%) and most rural health departments (13/21, 62%).
- Paper forms were used by more than a third of health departments (n=28, 35%), with nearly half of frontier health departments (n=12/25, 48%) and nearly half of rural health departments (n=10, 48%) relying on them.

Survey Question: How is insurance claim information typically submitted? (Please select all that apply as a regular and standard practice, and ignore the few cases you might have to operate outside the norm.) Please select all that apply.

The three most commonly used systems for this purpose are Electronic Health Records (EHRs), TransactRx, and direct entry into online systems (such as KMAP, EDIMidwest, or provider systems). Most health departments use two systems (n=26, 35%) or one system (n=25, 31%), with the maximum number of systems used by a single health department being seven (with two health departments using this many).

- EHRs were selected by half of the health departments (n=40, 50%). This included five out of six urban health departments, six out of eight semi-urban health departments, more than half of densely settled rural health departments (9/16, 56%), more than two-thirds of rural health departments (n=13/21), and less than one-third of frontier health departments (n=7, 28%).
- TransactRx was selected by almost half of the respondents (n=37, 46%), primarily by frontier and rural health departments (n=27). More than half of frontier health departments use TransactRx (n=13, 52%), while two-thirds of rural health departments use it (n=14, 67%).
- Direct entry into online systems (such as KMAP, EDIMidwest, or provider systems) was selected by 31% of health departments (n=25). Half of the semi-urban health departments indicated that they use this method to submit insurance claim information (n=4/8, 50%), and almost half of frontier health departments as well (n=10/25, 40%).

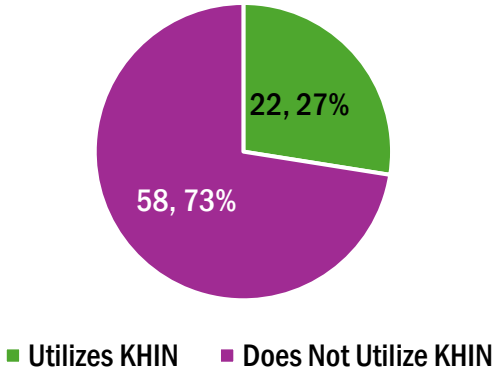
Frequency of Insurance Claim Submission



5. Kansas Health Information Network (KHIN) Utilization

Survey Question: Does your health department utilize the Kansas Health Information Network (KHIN)?

- Approximately one-quarter of respondents (n=22, 27%) reported using KHIN. Of these, about half are urban or semi-urban health departments (n=10, 45%).
- Three-quarters of respondents (n=58, 73%) do not utilize KHIN. This group includes almost all frontier health departments (24/25, 96%), the majority of rural health departments (18/21, 86%), and three-quarters of densely settled rural health departments (12/16, 75%).



Follow-up Survey Question: If yes, does your health department utilize KHIN for the following (secure messaging, data exchange, patient information look-up, community portal)?

For health departments using KHIN, almost all (n=21, 95%) use it to look up patient data, with nine using it exclusively for that purpose. Additionally, secure messaging with providers and the use of the community portal or dashboard were each selected by almost two-thirds of these health departments (n=14 for both, 64%).

Follow-up Survey Question: If no, what is the primary reason preventing your health department from utilizing the Kansas Health Information Network (KHIN)?

For those not utilizing KHIN, more than three-quarters indicated that their primary reason was a lack of knowledge about KHIN or insufficient information about it.

6. Data Analysis Proficiency and Tools

Survey Question: How would you rate your health department's overall data analysis proficiency?

LHDs were provided with the following explanation of this question: For context, data analysis involves examining information or numbers about health-related issues, like diseases, treatments, or population health to find patterns, trends, or important insights. It involves looking at data to understand what it means and using it to make informed decisions or recommendations for improving public health services or policies.

They were provided with five options to rate their proficiency:

- Advanced (we conduct regression analysis and basic multivariate statistical methods)
- Intermediate (we conduct simple statistical tests such as chi-square and t-tests
- Basic (we have a basic awareness of statistical concepts)
- Limited (we have an understanding of how to interpret reported data)
- Minimal (we have minimal familiarity with statistical concepts, often requiring assistance to interpret reported data)

More than half of the health departments rated their data analysis proficiency as "basic" (n=47, 59%). This rating was especially common among rural health departments, with almost three-quarters (n=15/21, 71%) selecting this option, and among 60% of frontier health departments (n=15/25). The next most common rating was "limited," selected by 17.5% of health departments (n=14).

Survey Question: What software or tools does your health department regularly use for data analysis?

Almost a quarter of the health departments (n=19, 24%) indicated that they do not analyze any data. 74% of health departments (n=59) reported regularly using at least one analysis software or tool. The maximum number of tools used by a single health department was six.

The most commonly used tools among all health departments are Electronic Health Records (EHRs) and Microsoft Excel. More than half of the respondents (n=46, 58%) reported using EHRs, while more than one-third (n=29, 36%) use Microsoft Excel.

- Among the 14 urban and semi-urban health departments, almost all (13/14, 93%) indicated that they regularly use their EHR for data analysis. The majority (11/14, 79%) also reported regularly using Microsoft Excel. Additionally, half of the urban health departments (n=3/6, 50%) indicated that they use ArcGIS for data analysis.
- Among the 62 densely settled rural, rural, and frontier health departments, a little over half (33/62, 53%) indicated that they regularly use their EHR for data analysis. Over a quarter (18/62, 29%) reported using Microsoft Excel.

7. Data Accuracy and Quality

Survey Question: How does your health department ensure data accuracy and quality? Please select all that apply.

More than half of the health departments (n=49, 61%) reported using at least two methods to ensure data accuracy and privacy, with the maximum number of methods used by a single health department being twelve.

- Over three-quarters of health departments (n=61, 76%) utilize standardized data entry procedures to help ensure data accuracy and quality.
- Additionally, 44% of health departments (n=35, 44%) conduct quality assurance and audits, and another 44% (n=35) implement training programs for staff.
- Regular data validation and cleaning were also commonly used methods (n=30, 38%).

The least common options selected by health departments include feedback mechanisms for improvement (n=11, 14%), automated error detection and correction (n=9, 11%), and external validation and accreditation (n=5, 6%).

Internal Information Management Results

1. Internal Data Sharing and Collaboration

Survey Question: What methods does your health department use to facilitate data sharing and collaboration internally (within the health department)? (Please select all that apply)

Email communication is the predominant method for facilitating internal data sharing and collaboration among health departments, with 89% (n=71) utilizing this approach. This method is favored consistently across all population densities. The second most prevalent method is the use of internal shared drives or platforms, such as network or cloud storage, chosen by 75% of health departments (n=60). Collaborative software tools, including Slack, Microsoft Teams, and MyRC, rank third, with 29% (n=23) adopting these for internal collaboration. Additionally, 13% of health departments (n=10) opted for other methods; the most frequent alternative mentioned is verbal communication, primarily attributed to smaller team sizes. Other noted tools include Monday.com, SharePoint, Canva, and Google Drive.

2. Data Analysis

Survey Question: How would you rate your health department's overall data analysis proficiency?

Health departments were surveyed on their data analysis proficiency using the following scale:

- Advanced: Capable of conducting regression analysis and basic multivariate statistical methods.
- Intermediate: Able to perform simple statistical tests such as chi-square and t-tests.
- Basic: Possesses a fundamental awareness of statistical concepts.

- Limited: Understands how to interpret reported data.
- Minimal: Displays minimal familiarity with statistical concepts and often requires assistance to interpret reported data.

More than half of the health departments (59%, n=47) indicated that they had a basic level of proficiency, indicating a fundamental awareness of statistical concepts. Advanced data analysis skills were predominantly found in urban areas, where half of the urban health departments reported having advanced capabilities, in addition to one rural and one semi-urban health department. A smaller portion, 18% (n=14), indicated limited proficiency, characterized by an ability to interpret reported data. Additionally, 14% (n=11) demonstrated minimal proficiency, showing minimal familiarity with statistical concepts and frequently requiring assistance to interpret data.

Survey Question: What software or tools does your health department regularly use for data analysis? Please select all that apply.

Over half of the health departments (58%, n=46) utilize their Electronic Health Records (EHR) or Electronic Medical Records (EMR) systems for data analysis. Additionally, more than a third (36%, n=29) rely on Microsoft Excel for their data analysis needs. Notably, most urban and semi-urban health departments also incorporate ESSENCE into their data analysis toolkit (n=9).

3. Data Management Practices

Survey Question: How would you rate your level of comfort with the current data management practices within the local health department?

Health departments were assessed on their comfort with current data management practices using the following criteria:

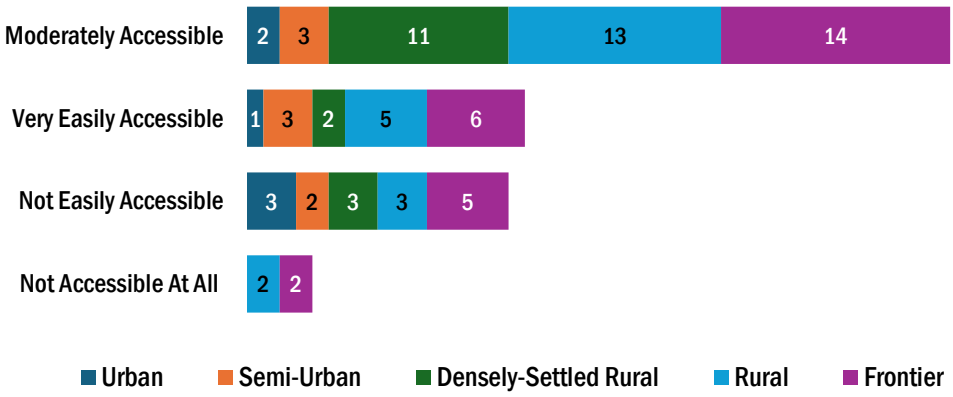
- Advanced: Implementation of sophisticated data governance frameworks and advanced technologies for comprehensive data handling, security, and utilization.
- Intermediate: Structured data management practices including defined processes for data collection, storage, and accessibility, utilizing standard tools and protocols.
- Basic: Basic data management practices are in place, ensuring proper data organization, storage, and access, albeit with limited standardization.
- Limited: A foundational understanding of data management principles, primarily focusing on basic data organization and storage without structured protocols or comprehensive strategies.
- Minimal: Minimal familiarity with data management practices, often requiring assistance to effectively and securely handle data.

A little over a quarter of health departments (26%, n=21) indicated that they had either an intermediate or advanced level of comfort with their current data management practices. The distribution of these departments is fairly split across most of the population densities, including frontier (n=4), rural (n=6), densely-settled rural (n=4), and semi-urban (n=5). Most semi-urban health departments indicated an intermediate comfort level, whereas only one urban health department reported intermediate comfort. The remaining five urban health departments, along with 30 other health departments from all population densities, reported a basic level of comfort with data management practices (44%, n=35).

4. Data Integration

Survey Question: How easily can internal data be accessed across different systems within your health department? ***For example, is information readily available across systems or does it require manual aggregation or collection to consolidate data?***

Over half of the health departments surveyed (54%, n=43) indicated that their internal data is moderately accessible, with the majority of these being frontier, rural, and densely settled rural departments. About one-fifth of the departments (21%, n=17) indicated that their data is very easily accessible across different systems within their health departments. Similarly, another fifth (20%, n=16) found data accessibility to be challenging, categorizing it as not easily accessible. A small group, comprising only four health departments from rural or frontier counties, reported that their internal data is not at all accessible across different systems within their departments.



Survey Question: Which systems or platforms should be connected to improve data integration within your health department?

This was an open-textbox survey question, allowing health departments to freely type in their answers. Out of 80 total respondents to the survey, 25 health departments provided responses to this question. A summary of their responses is provided below.

- EHR Integration: EHR systems were a common focus, with many respondents emphasizing the need for better integration between their EHRs and other systems. Specifically, there is ongoing development of an EHR interface with EpiTrax, which several respondents mentioned as a critical integration need.
- EHR and State Systems: Several health departments highlighted the importance of connecting EHRs with state systems such as DAISEY, KWIC, KHEL, and WebIZ. One respondent noted that while WebIZ works well, there is still a significant need to improve connections between EHRs and other external systems.
- Immunizations and Billing: A few respondents expressed the need for better integration between immunization records and billing systems, particularly within their EHRs.
- Specific Systems Mentioned:
    - KWIC, DAISEY, KSWebIZ were frequently mentioned, with some respondents emphasizing the need for these systems to interface seamlessly with their EHRs to provide a more integrated view of client data across different programs and services.
    - KIPHS and External EHRs were mentioned by one health department

- Another respondent expressed interest in learning more about the Kansas Health Information Network (KHIN), suggesting it could be a valuable tool for their department.

Respondents also shared a few challenges and suggestions.

- Some respondents noted that while systems like DAISEY and CureMD are technically connected, the integration is not seamless, and they still need to access multiple systems separately.
- Others highlighted the need for simpler, user-friendly solutions that come with proper installation and training.

Overall, the responses reflect a strong desire for more seamless integration across various health information systems, with particular emphasis on connecting EHRs with state systems and improving the interoperability of tools used for immunizations, billing, and client data management.

Survey Question: Has your health department conducted an inventory of your data sets, applications, and information systems?

The survey results reveal that a majority of health departments (69%) have not conducted an inventory of their data sets, applications, and systems. This is more common in frontier (17) and rural (15) areas. Additionally, 18% of respondents, primarily from frontier areas (9), indicated that they are unsure if such an inventory exists, which may suggest communication challenges or a lack of awareness within these departments.

A smaller portion of respondents, 10%, reported having attempted inventories in the past, although these efforts do not appear to be regularly maintained. Only 4% of respondents indicated that they regularly update their inventories.

These findings underscore gaps across the system. The lack of regular inventories highlights a need for improved processes to manage and integrate data more effectively across health departments, enhancing overall efficiency and data-driven decision-making.

Survey Question: What are the top three challenges your health department faces in integrating data from different sources/systems?

Health departments identified several key challenges in integrating data from different sources and systems, with responses highlighting distinct issues across varying population densities.

- The most frequently cited challenge, reported by 48% of respondents, is the limited expertise of staff, particularly in frontier and rural areas. This indicates a need for skilled personnel or increased training of current staff.
- Technological complexity was noted by 33% of respondents as a major challenge, particularly in frontier regions. This highlights the difficulties associated with integrating complex technological systems in less densely populated areas.
- Another significant barrier is infrastructure limitations, identified by 24% of respondents, especially in frontier and rural areas. These limitations appear to hinder effective data integration, making it difficult for health departments to leverage existing data fully.

Frontier and rural regions face more significant challenges related to limited staff expertise and infrastructure limitations. In contrast, more densely populated areas are more likely to encounter issues with data silos and technological complexities, though these challenges are less prevalent. Addressing these challenges will require tailored solutions that account for the unique needs and resources of each population density category.

External Data Management Results

1. Policy and Procedure

Survey Question: Does your health department have a policy or procedure for establishing and managing data-sharing agreements with external entities?

There are varying levels of policy development and awareness across health departments regarding data-sharing agreements with external entities.

- Nearly half of the respondents (45%) reported that their health departments do not have formal data-sharing policies in place.
- Thirty five percent of respondents indicated that their health departments have established data-sharing agreements, mostly commonly in rural and urban areas.
- Additionally, 20% of respondents were unsure whether their departments had data-sharing policies, with this uncertainty being especially common in frontier areas.

Survey Question: Does your health department have established policies and procedures to ensure confidentiality and informed consent?

Overall, there was a strong commitment to privacy and ethical standards across the majority of Kansas health departments. The vast majority (90%) of respondents confirmed that their health departments have established policies and procedures to ensure confidentiality and informed consent.

However, 6.25% of respondents, all from frontier areas, reported not having such policies in place.

A small percentage (3.75%) of respondents were unsure about the existence of these policies within their departments.

2. Collaboration with External Partners

Survey Question: Does your health department effectively collaborate with community partners to use information for population health assessment and improvement (not KDHE)?

There are varying levels of collaboration between health departments and community partners for population health assessment and improvement. There is an opportunity for more formalized and consistent partnerships, particularly in less densely populated regions, to enhance the effectiveness of population health assessments and improvement efforts.

- More than half of the respondents (51.25%) reported that their health departments collaborate with community partners on an as-needed basis. This approach is particularly common in rural and frontier areas.In contrast, 23.75% of respondents indicated that their health departments have ongoing, formalized collaborative relationships with community partners. This more structured approach is more prevalent in urban and semi-urban areas.

- Twenty percent of respondents, especially those in frontier areas, noted a lack of collaboration in using data for population health assessment and improvement.
- Additionally, 5% of respondents were unclear about their department's collaborative efforts.

Survey Question: Does your health department have the capability to securely send and receive electronic data sent with external partners (not KDHE)?

There are varied capabilities among health departments regarding secure electronic data exchange with external partners. These findings highlight the need for targeted efforts to enhance the secure exchange of electronic data across all regions, with a particular focus on increasing utilization and closing capability gaps in less densely populated areas.

- The most common response for health departments (43.75%) was that they have the capability to exchange electronic data securely with external partners, but this capability is rarely utilized. This trend is particularly evident in rural and frontier areas, suggesting that these departments support to increase the frequency and effectiveness of their electronic data exchanges could be tailored to their needs.
- Conversely, 28.75% of respondents indicated that their departments actively engage in electronic data exchange. This practice is more common in rural and semi-urban areas.
- Twenty five percent of respondents reported that their health departments lack the capability to securely exchange electronic data. This gap is most pronounced in frontier and rural regions.

Survey Question: How does your health department facilitate data sharing and collaboration externally with community partners (not KDHE)?

There is a blend of traditional and emerging methods used by health departments for external data sharing and collaboration with community partners.

- Traditional communication channels such as fax and email continue to dominate as the primary means for external data sharing. Fax was used by 51 respondents, while email was used by 44 respondents, particularly in rural and frontier areas.
- The use of secure online portals is on the rise, with 20 respondents indicating their adoption, particularly in rural and frontier areas.
- While less prevalent compared to traditional methods, tools such as internal shared drives and collaborative software are being adopted by some health departments, with 10 respondents each reporting their use.
- A smaller group of respondents (9) reported using health information exchanges (HIEs) for specific data-sharing needs. HIEs are particularly utilized in both urban and rural areas.

3. Data Management Practice Gaps

Survey Question: What do you believe is the most significant gap in your department's data management practices?

The survey results highlight several key gaps in data management practices across health departments, with varying challenges depending on the region and population density.

- The most significant gap, identified by 14 respondents (18%), is the difficulty in utilizing data to address community needs. This challenge is particularly pronounced in rural (4 respondents) and frontier (5 respondents) areas.
- A close second, highlighted by 13 respondents (17%), is the lack of data analysis capacity. This issue is especially notable in frontier (5 respondents) and rural (4 respondents) regions.
- Twelve respondents (15%) pointed out difficulties in sharing data with external partners. This problem is more common in frontier (5 respondents) and rural (4 respondents) health departments, indicating significant challenges in external collaboration and data exchange.
- Nine respondents (11%) cited issues with internal system interoperability, particularly in urban (3 respondents) and semi-urban (2 respondents) health departments. This suggests that some departments struggle to ensure that their internal systems communicate and share data effectively.
- Another twelve respondents (17%) pointed to a variety of other significant challenges, which are described below.
    - Some departments face limitations due to their reliance on county-based IT services, which may not always align with public health needs.
    - The time required to collect and analyze data, particularly when dealing with small numbers, was also highlighted as a barrier.
    - A lack of sufficient knowledge and training in data management practices is another critical issue, impeding the effective use of data.
    - Several respondents cited the absence of dedicated data management staff as a significant gap.
    - A shortage of experienced personnel and an overall lack of staff were also noted as key obstacles in effective data management.

Technology Infrastructure Results

1. System Security

Survey Question: Which security measures are implemented to safeguard systems and software?

There are various security measures that health departments have implemented to protect their systems and software, with differing levels of adoption across regions.

- The most commonly implemented security measure, reported by 51 respondents (63.75%), is the use of regular security updates. This practice is particularly prevalent in frontier (14) and rural (12) areas.
- VPN usage was also significant, with 43 respondents (53.75%) indicating its implementation. This measure is notably prevalent in rural (14) and densely-settled rural (12) regions.
- Another widely adopted security measure is two-factor authentication (2FA), reported by 43 respondents (53.75%). This measure is more concentrated in rural (11) and semi-urban (8) areas.
- Twenty respondents (25%) mentioned the use of intrusion detection systems, particularly in semi-urban (6) and rural (5) areas.

- Single sign-on (SSO) solutions were reported by 16 respondents (20%), especially in frontier (7) and rural (3) areas.
- A small percentage of respondents (8.75%, or 7 respondents) were unsure about the specific security measures in place within their departments. This uncertainty was predominantly found in frontier (4) and rural (2) areas.

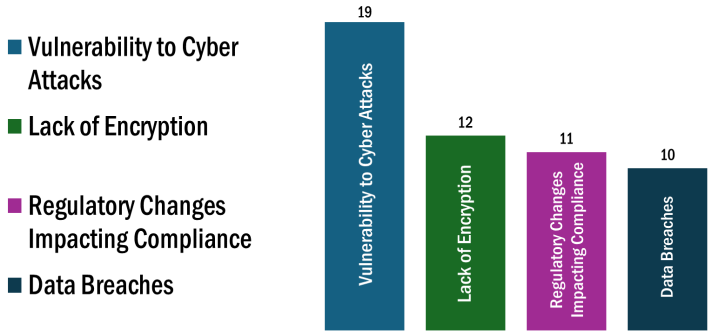
Survey Question: What security measures does your health department have in place to safeguard sensitive data?

This question focused specifically on the measures health departments use to protect sensitive data, as opposed to the previous question, which addressed general system and software security. The responses highlight both the similarities and differences in the approaches to securing sensitive data versus overall system protection.

- The most commonly implemented measures for safeguarding sensitive data are firewall and antivirus software, with 76 respondents (95%) indicating their use. These measures are particularly prevalent in frontier (25) and rural (21) areas.
- Access controls, including password protection and user permissions, were reported by 63 respondents (78.75%). This measure is mainly used in rural (19) and frontier (15) areas.
- Regular security audits were conducted by 29 respondents (36.25%), with notable mentions in rural (7) and semi-urban (5) areas.
- Data encryption, an essential tool for securing data transmission and storage, was utilized by 25 respondents (31.25%). This measure was particularly emphasized in semi-urban (5) and densely-settled rural (8) areas.

Survey Question: What is the biggest concern regarding data security and compliance practices within your health department?

Respondents revealed a range of concerns about data security and compliance practices within health departments, with some issues being more prominent in specific regions. The accompanying graph visually represents the top four concerns highlighted by respondents.



- The most pressing concern, selected by 19 respondents (23.75%), is the vulnerability to cyber attacks. This concern is particularly significant in densely-settled rural (8 respondents) and frontier (4 respondents) areas.
- Another notable concern, identified by 12 respondents (15%), is the lack of encryption. This issue is significant in rural (5 respondents) and frontier (3 respondents) areas.
- Regulatory changes impacting compliance were a concern for 11 respondents (13.75%), with the issue being particularly pronounced in frontier (7 respondents) areas.
- Lastly, data breaches were a concern for 10 respondents (12.5%), especially in rural (4 respondents) and densely-settled rural (3 respondents) areas.

Survey Question: Does your department and/or county have a documented Information Technology Disaster Recovery Plan (ITDRP)?

Across health departments in Kansas, there are varying levels of preparedness and awareness regarding Information Technology Disaster Recovery Plans (ITDRPs), with significant gaps in communication and documentation.

- The most common response, selected by 55 respondents (68.75%), was "I don't know." This uncertainty was particularly frequent in frontier (20 respondents) and rural (15 respondents) areas.
- Eleven respondents (13.75%) indicated that their department or county does not have a documented ITDRP. This response was notably common in frontier (5 respondents) and rural (4 respondents) areas.
- Seven respondents (8.75%) reported that their department or county has a fully documented ITDRP. This was more common in semi-urban (3 respondents) and urban (1 respondent) areas.
- Four respondents (5%) indicated that their ITDRP is partially documented. This response was seen in rural (3 respondents) and semi-urban (1 respondent) areas.
- Three respondents (3.75%) stated that their department or county is currently in the process of developing an ITDRP.

2. IT Infrastructure

Survey Question: Does your health department have a standard software lifecycle support process for requirements definitions, system design, implementation, change control, and maintenance?

The survey results reveal a mix of uncertainty, lack of adoption, and varied approaches to implementing software lifecycle support processes across health departments, with notable regional differences.

- The most common response, with 36 out of 77 respondents (47%), was "I don't know." This indicates a significant lack of awareness about whether such processes are in place, particularly in frontier (16 respondents) and rural (11 respondents) areas.
- Twenty-one respondents (27%) reported that their health departments have not adopted a standard software lifecycle support process. This was fairly evenly distributed across rural, urban, semi-urban, and frontier areas.
- Thirteen respondents (17%) indicated that their health department has a standard software development process in place. This is more commonly found in semi-urban and densely-settled rural areas.
- A smaller group of 7 respondents (9%) reported using customized software development processes, mainly in frontier and rural areas.

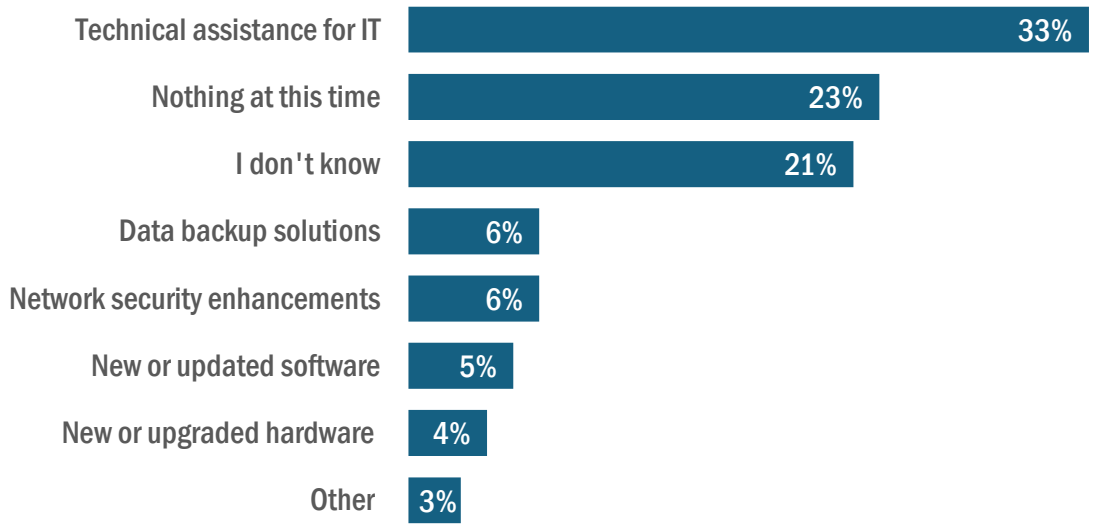
Survey Question: What area of your health department's IT infrastructure do you believe requires the most improvement?

The survey results highlight key areas where health departments believe their IT infrastructure needs improvement, along with notable levels of uncertainty about specific needs. These findings

reveal a significant need for enhanced technical support and clarity regarding IT infrastructure needs across health departments, particularly in rural and frontier areas.

- The most commonly identified area for improvement is the need for technical assistance in IT, with 26 respondents (32.5%) highlighting this as a priority. This need is particularly significant in rural (9 respondents) and densely-settled rural (6 respondents) areas, indicating a gap in IT support and expertise that could hinder the effective use and management of IT resources.
- There was also notable uncertainty, with 17 respondents (21.25%) unsure about what aspects of their IT infrastructure require improvement. This uncertainty was primarily found in frontier (8 respondents) and densely-settled rural (5 respondents) areas.
- Eighteen respondents (22.5%) reported that their health departments do not have any immediate need for IT improvements. This perspective was more common in rural (6 respondents) and frontier (7 respondents) areas.

One third of respondents indicated technical assistance for IT requires the most improvement, while 44% indicated nothing needs improved or they don't know what needs improved.

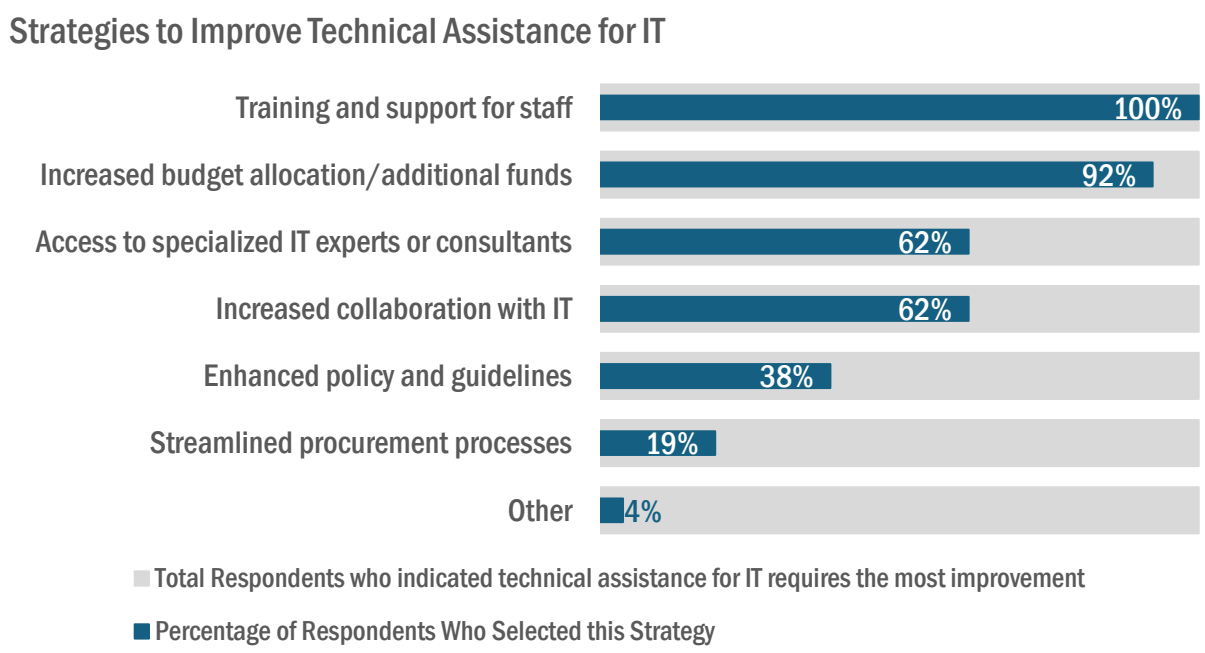


Follow-up Survey Question: What is needed to facilitate the IT infrastructure improvements selected above?

The most commonly selected area for improvement among health departments in the previous question was technical assistance for IT, with 26 departments identifying this as a priority. When asked what is needed to facilitate this improvement, all departments indicated that training and support for staff are essential.

Additionally, 92% of respondents highlighted the need for increased budget allocation or additional funds to support these efforts.

Access to specialized IT experts or consultants, as well as increased collaboration with IT departments, were also significant needs, each identified by 62% of respondents.



3. Future Focus

Survey Question: How open is your department to adopting the following emerging technologies to enhance operations?

The survey results indicate a cautious yet growing interest in emerging technologies across health departments, with notable regional variations. Frontier areas show higher levels of uncertainty, while urban and semi-urban areas are generally more open to adoption, likely due to better resources and infrastructure.

- More than one-third of respondents (36%) indicated that they are very open and actively exploring software automation technology, particularly in frontier and semi-urban areas. However, 19% of health departments remain unsure.
- Health departments show moderate interest in artificial intelligence (AI), with 15% very open and 19% somewhat open. Twenty nine percent are unsure, especially in frontier and rural areas.
- Openness to wearable health devices/remote monitoring devices is evenly split, with 25% very open and another 25% unsure.
- Internet of Things (IoT) faces the most uncertainty, with 36.25% unsure, especially in frontier and rural areas, and only 13.75% very open.

Survey Question: Does your department have a future-focused plan to enhance public health technology and system capabilities?

There is a mix of awareness, uncertainty, and varying levels of planning regarding future-focused strategies for enhancing public health technology and system capabilities across health departments.

- The most common response, with 31 out of 80 respondents (39%), was that their department does not currently have a future-focused plan but recognizes the need for one.

This sentiment was particularly strong in frontier (11 respondents) and rural (9 respondents) areas.

- Eighteen respondents (23%) were unsure whether their department has a future-focused plan. This is spread across frontier, rural, and densely-settled rural areas.
- Thirteen respondents (16%) indicated that their department has no plan but is seeking help to develop one. This response was more common in frontier (5 respondents) and rural (4 respondents) areas.
- Ten respondents (13%) reported having a basic plan in place and are seeking further development. This was seen in both frontier and semi-urban areas.
- Seven respondents (9%) indicated that their department has no plan and does not see a need for one. This response was relatively evenly spread across rural and frontier areas.
- Only one respondent indicated that this is primarily IT driven.

Workforce Results

Survey Question: Does your health department provide training opportunities for employees specifically focused on…

This question is asking respondents to indicate if their health department provides training opportunities in various data-related areas. The areas of focus include:

1. Data collection techniques/best practices
2. Data cleaning and preprocessing
3. Data analysis/interpretation
4. Data visualization
5. Database management
6. Using specific data analysis/visualization tools

Respondents were given a Likert scale with the following choices to describe how often these training opportunities are offered:

1. Not offered/not applicable
2. Rarely offered
3. Regularly offered
4. Occasionally offered
5. Unsure

The survey results indicate significant gaps in the availability of training opportunities across various data-related areas within health departments, particularly in frontier and rural regions.

Below are a few general insights from the results.

- Across all categories, a substantial portion of respondents indicated that training opportunities are either rarely offered or not available at all. This is especially pronounced in frontier and rural areas.
- A notable percentage of respondents are unsure about the availability of training opportunities, particularly in frontier areas.

- While there are occasional training opportunities available (10-15%), these are not consistent enough to meet the needs of health department staff. The availability of training varies significantly by region and topic.
- Very few respondents reported that training is regularly offered. For instance, only 2.5% reported regularly offered data analysis/interpretation training, pointing to a broader need for systematic and ongoing professional development.

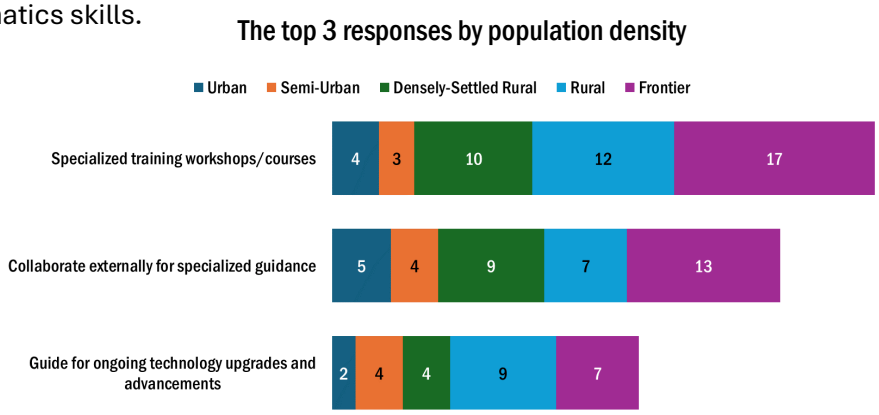
Detailed results for each training topic are provided below.

- Data Collection Techniques/Best Practices:
    - 45% of respondents stated that training is not offered or applicable, a concern noted across all population densities.
    - 24% mentioned that training is rarely offered, primarily in frontier and rural areas.
    - 6% reported regular training availability, mainly in frontier and rural areas.
- Data Cleaning and Preprocessing:
    - Half of the respondents (50%) indicated that training is not available or applicable, with this being a widespread issue.
    - 24% reported it is rarely offered, particularly in densely-settled rural and frontier areas.
    - 3% noted that regular training is available.
- Data Analysis/Interpretation:
    - 50% of respondents reported no availability or relevance of training, with similar feedback across all regions.
    - 25% mentioned it is rarely offered, again highlighting a gap, especially in densely-settled rural and frontier areas.
    - 3% reported regular training availability.
- Data Visualization:
    - 46% of respondents indicated that training in data visualization is not offered or applicable.
    - 25% mentioned that training is rarely available, particularly in densely-settled rural and frontier areas.
    - Regular training is reported by just 4% of respondents.
- Database Management:
    - 48% of respondents indicated no availability or relevance of training in database management.
    - 25% stated it is rarely offered, again mainly in densely-settled rural and frontier areas.
    - 3% reported regular training opportunities in this area.
- Using Specific Data Analysis/Visualization Tools:
    - 48% of respondents reported that training is not offered or applicable.
    - 25% stated that training is rarely offered, especially in densely-settled rural and frontier areas.
    - A small percentage (4%) noted that regular training is available.

Survey Question: What do you think would be the best ways to improve skills and system capabilities in informatics within your health department?

There is a range of approaches that health departments believe would enhance their informatics skills and system capabilities. The accompanying graph visually represents the top responses and illustrates regional preferences.

- The most popular option, selected by 46 respondents (57.5%), was for **specialized training workshops/courses**, reflecting a strong demand for structured learning opportunities to improve informatics skills. This need is particularly pronounced in frontier (17 respondents), rural (12 respondents), and densely-settled rural (10 respondents) areas. The high demand for training underscores the importance of both internal and external support in building informatics skills across these regions.



- Chosen by 38 respondents (47.5%), the second most commonly selected option was to **collaborate with external experts or consultants.** This option was especially favored in frontier (13 respondents) and rural (7 respondents) areas, indicating a desire to obtain specialized external support.
- **Creating a roadmap for ongoing technology upgrades** was the third most selected option, as it was selected by 26 respondents (32.5%). Respondents from rural (9) and frontier (7) areas particularly noted the importance of strategic planning for technology advancements.
- Selected by 21 respondents (26.25%), the fourth most common option selected was to **establish automated data collection and reporting processes.** This approach was mainly favored in rural (7 respondents) and frontier (6 respondents) areas.
- Chosen by 18 respondents (22.5%), the fifth most common option selected was to **introduce or expand data analytics and visualization tools.** There was interest from rural (5 respondents), semi-urban (4 respondents), and densely-settled rural (4 respondents) areas.

Future Support

Survey Question: What informatics areas would your health department like support on over the next 3 years? *(Please select up to five priorities)*

- The highest priority, chosen by 40% of respondents, is to **increase administrative staff's informatics knowledge and skills.** This need is particularly emphasized in frontier, rural, and densely-settled rural areas.

- Another significant focus is on **assessing informatics needs,** with 36% of respondents identifying this as a priority. This interest is also primarily from frontier, rural, and densely-settled rural regions, indicating a strong desire to better understand and address specific informatics challenges.
- **Increasing program-level staff's informatics skills** is important for 30% of respondents, especially in frontier and rural areas. This reflects a broader need for capacity-building within health departments to ensure all levels of staff are equipped with the necessary skills.
- **Improving external data exchange strategies** is a priority for 24% of respondents, particularly in rural, frontier, and densely-settled rural areas. Additionally, 23% of respondents highlighted the need to enhance collaboration with community partners for population health assessments and improvements.
- **Establishing procedures for data management and quality assurance** is another critical area, noted by 21% of respondents, primarily from frontier and rural areas. Ensuring confidentiality and informed consent is also a concern, with 19% of respondents indicating a need for clear policies and procedures in this area.
- Finally, a quarter of the respondents (25%) expressed the need for a **systematic and sustained approach to funding informatics activities**, particularly in frontier, rural, and semi-urban areas. This emphasis on funding reflects the importance of securing ongoing resources to support and sustain informatics initiatives.

Discussion

Key Report Findings

After review and analysis of the report's findings, several key findings were identified.

- Health department EHR adoption and use varies greatly, with a large amount of health departments continuing to utilize multiple methods for data collection, storage and reporting. This includes the common use of paper records, even for health departments with EHRs. Rural, frontier and densely-settled rural counties are less likely to use EHRs. Health departments with EHRs continue to utilize many systems, indicating challenges with system interoperability and duplication of effort.

- Health departments face challenges in integrating data from different sources or systems. The top three challenges they face are:
  - Limited staff expertise (55%)
  - Technology complexity (35%)
  - Infrastructure limitations (26%)

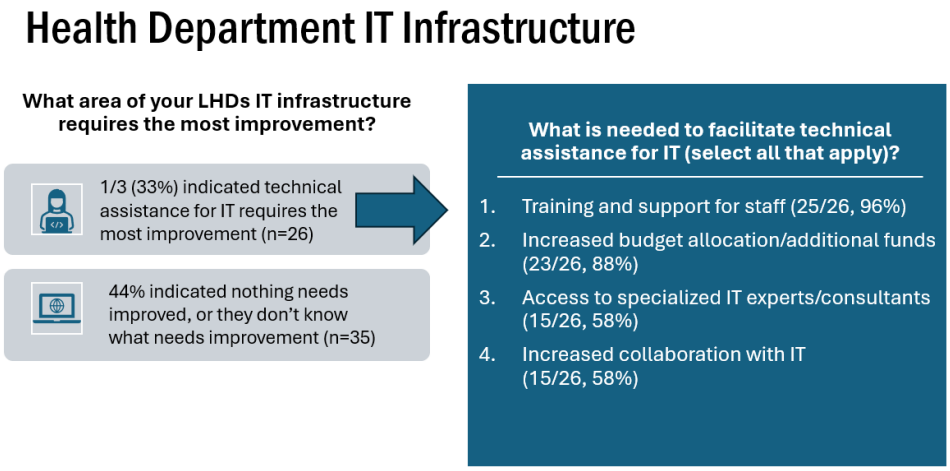
- There is opportunity for enhanced data sharing between health departments and the health care system through increased usage of health information exchange. Approximately three quarters of health departments surveyed do not utilize KHIN, the state health information exchange.

- Among health departments that do not use KHIN, 76% indicated that they don't know what KHIN is or don't know enough about it. Most of these LHDs represent frontier and rural counties (n=32, 55%).
- Among those who do, almost all use it to look up patient information (95%, n=21). 41% of these LHDs use KHIN exclusively for this purpose (n=9).
- Twenty five percent of health departments reported that they lack the capability to securely exchange electronic data, while only nine reported using health information exchanges (HIEs) for specific data-sharing needs. HIEs are particularly utilized in both urban and rural areas.

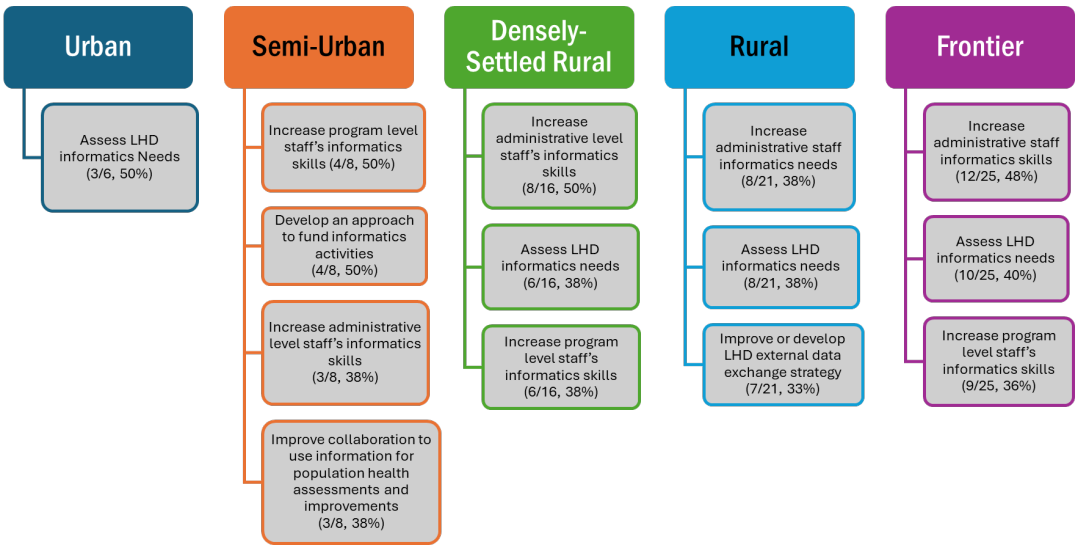
- Local Health Departments identified many shared gaps in data management practices. The top gaps identified are in the following areas:
  - Utilizing data to address community needs or issues (18%)
    - Additionally, only 24% of health departments reporting ongoing, formalized collaborative relationships with community partners to use data for population health assessment and improvement
  - Data analysis capacity (17%)
  - Sharing data with external partners (15%)
  - Internal system interoperability (11%)

- Local Health Departments also share common gaps for data security and compliance concerns:
  - Vulnerability to cyber attacks
  - Lack of encryption
  - Regulatory changes impacting compliance
  - Data breaches

- Health Department IT Infrastructure faces many challenges



- There is strong overlap in areas that LHDs would like informatics support in over the next three years



- Responses on specific training opportunities that are offered to health department staff on a variety of data skills also indicate significant gaps across various data-related areas within health departments, particularly in frontier and rural regions.

- Local Health Departments would like support improving informatics skills and systems capabilities through:
  - Specialized training workshops or courses
  - External collaboration for specialized guidance
  - Guidance for ongoing technology upgrades and advancements

Recommendations and Next Steps

After completing analysis of the report findings, ten key priorities of potential focus were identified.

These ten areas represent opportunities to advance the Kansas Local Public Health system's informatics capacity.

1. Standardize EHR Usage
2. Improve interoperability/reduce dual data entry
3. Increase Staff Informatics Expertise
4. Maximize the use of Health Information Exchange (KHIN)
5. Enhance LHD ability to address community needs
6. Increase LHD data analysis capacity
7. Decrease vulnerability to cyber attacks
8. Improve technical assistance for IT

9. Advance informatics skills and system capabilities through specialized training workshops/courses
10. Support further assessment of local health departments specific informatics needs

The team at WSU CPHI will use the assessment results outlined in this report to partner with local health department leaders and informatics staff and develop a roadmap for informatics improvements for the local public health system. The roadmap will be a strategy-level document outlining target milestones for local health departments in Kansas based, with a recognition that counties of different population densities have varying needs and resources. The roadmap will narrow the list of potential priority strategy areas, identify a desired future state for Kansas public health informatics and outline desired end goals.

Conclusion

The future of public health will be inextricably intertwined with the use of information and information technology to deliver public health services. Survey results found that 68% of health department respondents recognize a need for or are seeking help to develop a future-focused plan to enhance public health technology and system capabilities. Kansas health departments recognize the need to leverage systems and technology to fulfill their role in protecting the public's health.

This report allows health departments and other Kansas local public health system partners to identify what is needed to make strategic progress towards a more robust informatics environment. Alignment at the local and state level through a shared roadmap will allow stronger advancement over the next three to five years.

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