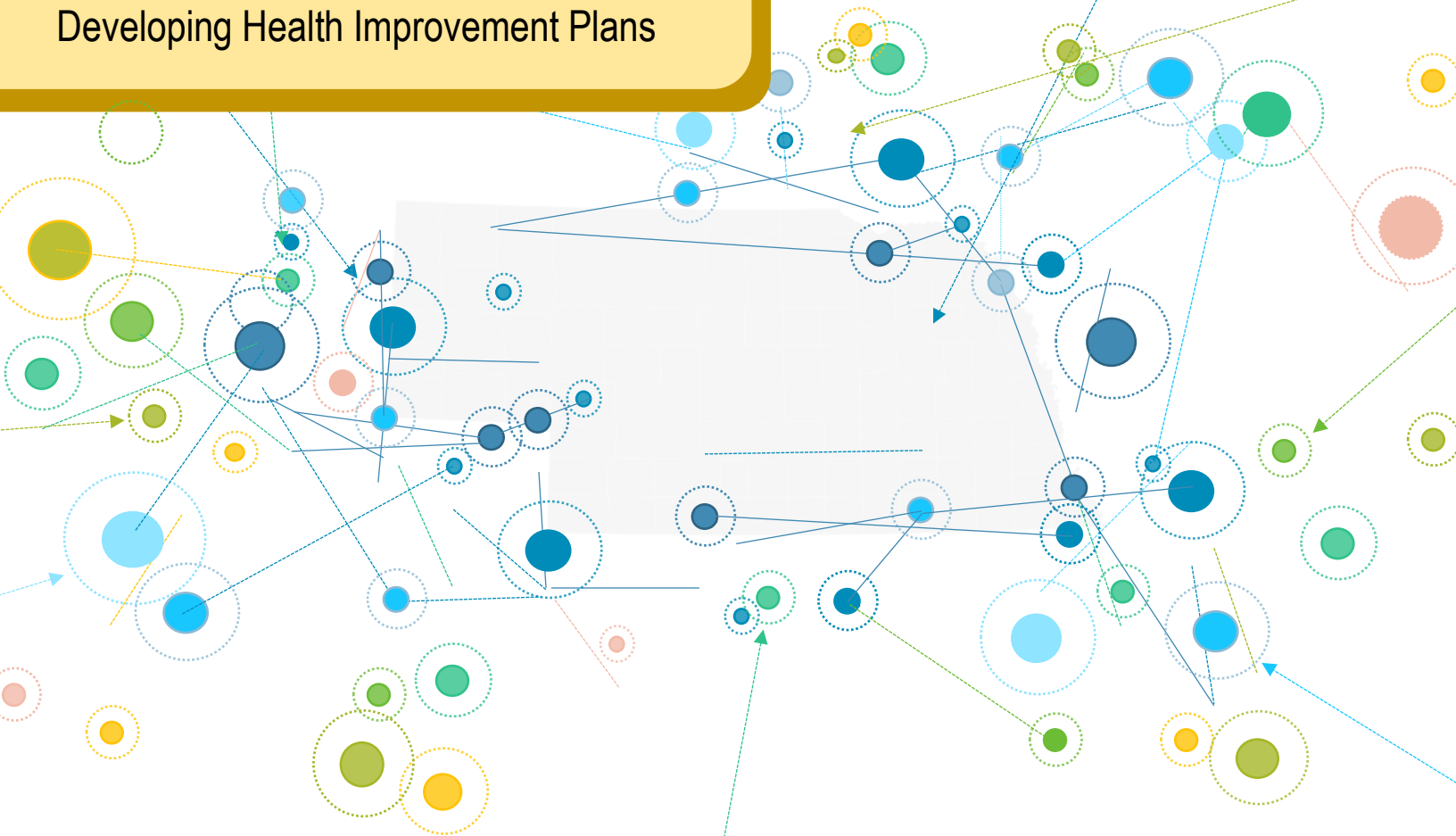


NEBRASKA

Good Life. Great Mission.

Resource Inventory

Assessing Community Needs and
Developing Health Improvement Plans



2024



Contents

- Contents 1
- Purpose 3
 - Inside the Resource Inventory 3
- Partnerships 4
 - Recruiting Partners 4
 - Ensuring Equitable and Diverse Participation 4
 - Tribal Entities 5
 - Project Management 5
- Existing (Secondary) Data Sources 7
 - Requesting Data 10
 - Data Use Agreements (DUA) 10
- Data Collection 11
 - Data Collection Methods 11
 - Surveys 11
 - Interviews 12
 - Focus Groups 12
 - Archival/Content Analysis 13
 - Data Collection Best Practices 14
 - Representativeness 14
 - Data quality 17
 - Instrument Development 18
- Data Analysis 21
 - Data cleaning 21
 - Quantitative Analysis 24
 - Tools 26
 - Dealing with Small Populations 27
 - Indexes and Scales 28
 - Weighting 29
 - Causation 29
 - Subgroup analysis 30
 - Geography 30
 - Qualitative analysis 31

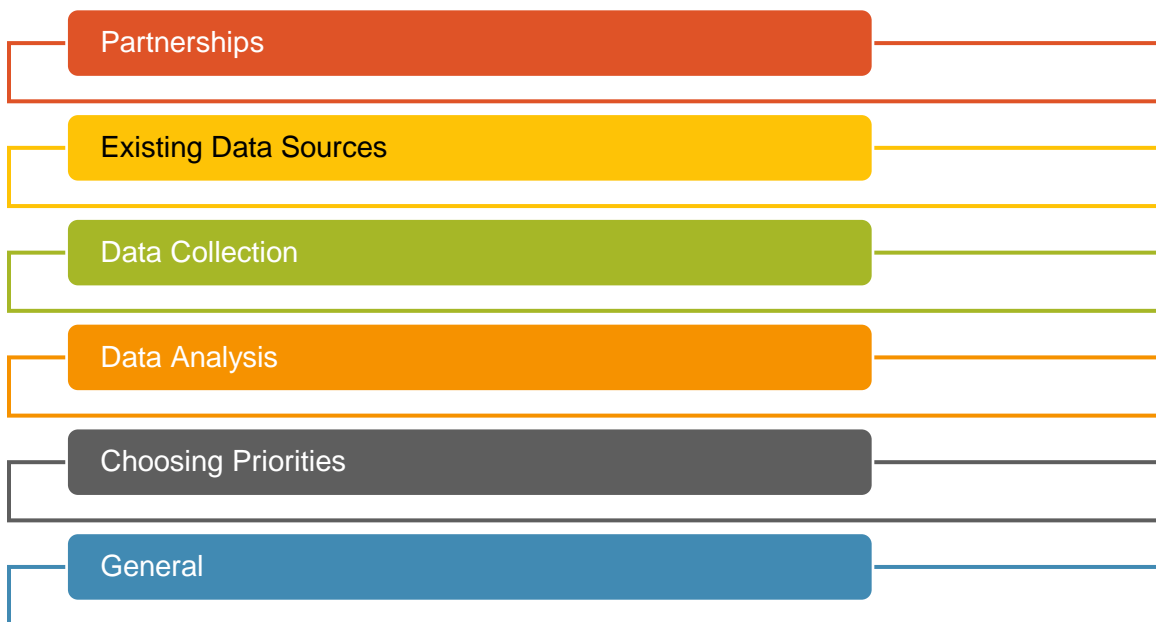
Tools.....	33
Dealing with Small Populations	34
Mapping Tools	34
Microsoft Excel Mapping Tools	34
Geographic Information Systems (GIS)	36
Choosing Priorities	39
General	41
CHA/CHIP Processes	41
Sharing Results	42
Other Resources	44
Public Health.....	44
Evaluation/Data	44
Survey Development	44
Reporting and Data Visualization	44
Glossary	46
Acronyms.....	46
Definitions.....	47
Appendix A: Existing (Secondary) Data Sources	49
Appendix B: Data Use Agreement Example	120
Appendix C: Prioritization Methods	122

Purpose

This document contains information and guidance that may help with completing community health assessments and making data-driven decisions, particularly for strategic or community plans. This Inventory is not intended to be comprehensive but is designed to be a supplement to the Community Health Toolkit Frequently Asked Questions (FAQ). It provides more in-depth information about topics included in the FAQ and is meant to complement other resources, such as the MAPP 2.0 (Mobilizing for Action through Planning and Partnerships) from the National Association of County and City Health Officials (NACCHO) and the free [Community Toolbox](#) from the University of Kansas. This Inventory includes additional information and data sources that are specific to Nebraska. A key focus was on highlighting data collection and analysis best practices, as that was noted as an area that Nebraska tribal and local health departments (T/LHDs) would like to build capacity for carrying out Community Health Assessments and Community Health Improvement Plans (CHAs/CHIPs). For questions about this document, please contact Niki.Kubiak@nebraska.gov

Inside the Resource Inventory

The information is organized under six areas, each containing a variety of topics:



Each topic area includes background and suggestions on how to carry out components of the CHA/CHIP. It also contains links to other resources and data, though please note that over time, some of the websites or hyperlinks may change. The following visuals are used throughout the Inventory to help people scan through the information.



Other resources to access



Tips and suggestions

[Return to Table of Contents](#)

Partnerships

The CHA/CHIP process is intended to be very collaborative. Although a tribal or local health department (T/LHD) is often the organization that leads or coordinates the efforts, it is meant to be done in partnership with a variety of organizations and stakeholders that represent the community.

Recruiting Partners

A diverse representation of partners is key to a successful CHA/CHIP process. Finding partners who are committed to the work, or who can carry out the work as part of their job, ensures the work will be completed. For example, there is a direct link between community health and safety. Highlighting how a healthier community can lead to reduced crime rates, fewer emergency calls related to mental health or substance abuse, and overall improved community-police relations may help with recruiting law enforcement partners.

Recruiting these partners may look different depending on the type of partner. Or stressing the impact of community health on the local economy, workforce productivity, and business stability to recruit private businesses as partners, as a healthy community can ensure a reliable workforce, reduce healthcare costs, and improve the overall business environment. The Community Toolbox offers suggestions on how to identify and recruit various types of partners, such as [People Most Affected by the Problem](#), [Those Who Can Benefit and Those Who Can Help](#), [Key Influentials of the Initiative](#), and [Diverse Participants](#).

Ensuring Equitable and Diverse Participation

Population health aims to understand the distribution, determinants, and changes in health status of populations. To do this, data collection from a diverse representation of the community is key towards assessing health disparities across various populations at risk of not thriving. Another step is to come into a relationship with those same populations to better understand the challenges, behaviors, and perceptions of possible practice-based interventions. A one-size-fits-all approach likely does not address the root causes of health disparities, and organizations must have relationships and partnerships with various populations to adapt and include the values and lifestyles of those respective populations.

Principles for community empowerment should be taken into consideration when developing authentic relationships. Many marginalized, underserved, and under-represented populations may have a long history of surface level or tokenized relationships, being short-lived with little impact. These experiences and perceptions may impact how organizations have relationships with those populations. Approaching community leaders, community-based organizations, or Tribal leadership may help to create initial interest, and organizations must be ready to include and move forward with community input. Sustainability, consistency, transparency, cultural sensitivity, and accountability are some of the competencies needed to create long-lasting and trusted relationships.

The following are resources that provide additional information about this topic:

- Pathways to Population Health Equity: <https://www.publichealthequity.org/>
- Strategies to Empower Communities to Reduce Health Disparities: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5554943/>
- World Health Organization – Community empowerment: <https://www.who.int/teams/health-promotion/enhanced-wellbeing/seventh-global-conference/community-empowerment#:~:text=It%20implies%20community%20ownership%20and,order%20to%20gain%20more%20control.>
- 4 Key Characteristics of an Empowered Community: <https://bloodwater.org/key-characteristics-of-an-empowered-community/>
- Health Equity Resource Library: <https://www.health.state.mn.us/communities/practice/resources/equitylibrary/index.html>
- Principles of Authentic Community Engagement: <https://www.health.state.mn.us/communities/practice/resources/phqitoolbox/docs/AuthenticPrinciplesCommEng.pdf>



Tribal Entities

One of the keys to building relationship with Tribes is understanding not all Tribes are the same, have a paternal relationship with the Federal government (Tribes are sovereign), have a long history of distrust with external non-Tribal stakeholders, and understanding the impacts of colonization leading to a complex and multifaceted *way of being* to include urban, reservation, governance, and community leadership entities.

Simply put, each Nebraska Tribal Nation has a Tribal council and approaching the council with a request to meet and work with a Tribal agency is the best approach. Another approach for LHD's is to work with the DHHS Tribal liaison group to introduce to needed agencies within the Tribe.

The following are resources that provide additional information about this topic:

- NDHHS Tribal Liaisons Reference: <https://dhhs.ne.gov/ICWA%20Documents/Tribal%20Liaisons.pdf>
- A Guide to Build Cultural Awareness – American Indian and Alaska Native: <https://store.samhsa.gov/sites/default/files/sma08-4354.pdf>
- Process of Decolonization: <https://sjsu.edu/people/marcos.pizarro/maestros/Laenui.pdf>
- Bureau of Indian Affairs FAQ: <https://www.bia.gov/frequently-asked-questions>
- National Indian Health Board Working with Tribes training: https://www.nihb.org/public_health/working_tribes_training.php



Project Management

Keeping partners engaged and accountable ensures the sustainability of CHIP efforts. Setting clear expectations from the start is an essential first step. A [RACI chart](#), which is a chart that defines each partner's involvement (Responsible, Accountable, Consulted, Informed), is a tool that can be used to clarify roles. There are other alternatives to the RACI chart, such as RASCI, which adds a Support role to indicate who may support those who are responsible for the activity. Other types of charts matrices may be beneficial, including [Gantt charts](#), [Work](#)

[Breakdown Structure \(WBS\) diagrams](#), and others. The project management tool(s) that are used may depend on how partners want to best clarify roles and see the progression of work anticipated for the CHIP.

Project management software can be used to help organize tasks, set deadlines, and track progress. There are a variety of platforms available that are user-friendly and allow for easy collaboration and communication among partners, keeping everyone on the same page. What you select may depend on what organizations already have and potential costs affiliated with the platform. The table below provides information about some common programs.

Tool	Cost ¹	Description
Trello	Free and Paid options	Web-based project management and collaboration tool using card-based system. It also has mobile apps.
Basecamp	\$15/user per month or unlimited users for \$299/month	Web-based project management and collaboration tool that includes project organization, to-do lists, messaging/communication, schedules/calendar, file sharing/storage, team collaboration.
Jira	Free for 10 users, Standard account is \$81.50/month	Project management and tracking software using for managing projects, tasks and workflows.
Kanban	Free and paid options starting at \$10.99/user per month	A Kanban board is a form of visual project management that allows users to plot out projects and workflows using columns and cards.

In addition, surveys or other tools can be used to gather feedback from partners on the project's progress, challenges, and what support they need. This helps ensure that all voices are heard and can guide the project's direction. It is likely that various documents will be generated as part of the collaborative efforts to implement the CHIP. Document sharing and collaboration tools, such as Basecamp, Google Workspace, and Microsoft Office 365 provide a suite of tools (e.g., Docs, Sheets, and Drive) that allow for real-time document collaboration and sharing. These are essential for keeping all partners informed and engaged by ensuring they have easy access to the latest information and resources.

In addition, providing project management or facilitation training to those implementing CHIP initiatives will enhance the skills needed to help partners steward the work. Contact NDHHS if interested in learning more about upcoming trainings recommended.

The following are resources that provide additional information about this topic:

- Boston University School of Public Health Project Management training (50 minutes): <https://www.phlearningnavigator.org/training/project-management-tools>
- RACI Training Powerpoint Slides: <https://racichart.org/raci-training-course/>



¹ Costs are as of November 2023.

[Return to Table of Contents](#)

Existing (Secondary) Data Sources

Existing data – known as [secondary data](#) – means the information is collected by another organization. Secondary data is usually free or low cost and may already be analyzed for you. Local level secondary data is often the hardest to find, as many data sources are only available at the regional, state, or national level. However, even if a data source is not available at the county level, it may be available at the local health departmental level or it may be possible to combine the data across multiple counties. Data, dashboards, and/or reports can be accessed from data aggregators (organizations that combine data across multiple sources) or from organizations responsible for collecting the data.

You can access this information from websites or by contacting these organizations directly. For example, you can request data directly from NDHHS, or some Nebraska T/LHDs noted they work with local hospitals and clinics to get aggregate data from their electronic health records (EHRs). See following section on [Requesting Data](#) to learn more about this process.

The tables on the following two pages identify data sources and/or data aggregators that provide data for Healthy People 2030 indicators that may be beneficial for your CHA/CHIP. **All sources listed provide data, dashboards, and/or reports with information available at the county or regional level.** Clicking on the name of the data source will take to a page with additional information about that data source, including information on how to access and use that data source (see the [glossary](#) for full names of data sources, as only acronyms are provided).

One recommendation is to start by reviewing data from the County Health Rankings. These rankings are based on a variety of national and state data sources and provide an overview of how Nebraska counties compare to one another.

Requesting Data

Many organizations provide an opportunity for people or agencies to submit data requests. This may be a formal request to a state agency, or an informal request to a local organization or hospital. Most requests will likely be a general use request where DHHS staff will take care of the analyses before releasing the data. Although it may vary by agency or program, it is typically best to request data as soon as you know you need the data to begin the request process with the state.

Data Use Agreements (DUA)

In some cases, a data use agreement (DUA) or something similar may be needed to get access to data that cannot be shared publicly. Those agreements outline what data you can get, how it can be used, and any requirements that need to be followed. It is important to keep in mind that not all data is available at the local level, so you may need to work with the agency to determine what is possible before developing a DUA. An example DUA is available in [Appendix B](#).

Data use agreements with tribal entities are crucial for respecting tribal data sovereignty and ensuring equitable access to and protection of data. Tribal Data Sharing Policies should prioritize Tribal control of their own data, ensure timely data access for Tribes and Tribal Epidemiology Centers (TECs), and establish clear procedures for protecting [Tribal data sovereignty](#). According to the U.S. Indigenous Data Sovereignty Network, *Indigenous Data Sovereignty* “is the right of a nation to govern the collection, ownership, and application of its own data”. Examples of DUAs with Tribal organizations can be found [here](#).

Indigenous Data Sovereignty is governed by [four principles](#): 1) Only a Tribe has the sovereign authority to determine how their data may or may not be used. 2) When a jurisdiction reports on or about American Indian or Alaska native peoples, it should meaningfully partner and consult with Tribal leaders on the analysis and interpretation of the data. 3) Tribes retain an ownership interest in data, even when the Tribe’s data are located in a state, federal, or other dataset. This interest remains when the Tribe’s data are aggregated with other data. 4) Tribes must have equitable access to data needed to perform their governmental duties.

[Return to Table of Contents](#)

Data Collection

Data collection is a key component of the CHA. In addition to the information in this section, you can find additional information on data collection from the following sources:

- ✓ Annie E. Casey Foundation’s [“A Handbook of Data Collection Tools”](#)
- ✓ The [American Association of Public Opinion Research](#) has webinars on various data collection topics that can be purchased
- ✓ [Coursera](#) offers many classes on data collection



Data Collection Methods

Data collection is the process of gathering the information (or data) you need to make decisions. The Community Toolbox has several sections on data collection, such as [collecting information](#), [evaluation](#), and [assessing community needs and resources](#). There are a variety of ways data can be collected, including surveys, interviews, focus groups, archival data, and other methods. The following provides a brief description of these methods, including a summary of the pros and cons to help in deciding which method is the best fit to meet your data collection needs.

Surveys

Many Nebraska LHDs and tribal entities utilize surveys as part of their CHA/CHIP process. Surveys can be done online, via paper, or both. This type of data collection often allows for the collection of quantitative (numbers) and qualitative (words) data, and generally from a range of individuals. Survey tools should be developed with the audience in mind. This means being mindful of the language that is being used and whether visual cues may help (this is especially helpful for surveying youth). Other tips for developing a user-friendly survey include putting demographic questions toward the end of the survey, minimizing open-ended questions, and starting with questions that are relatively quick and easy to answer. Additional tips and suggestions on developing high-quality surveys are available under the section on ensuring [data quality](#) when developing data collection instruments. The CDC provides a brief two-page overview on conducting surveys that is available [here](#).

Pros for Surveys	Cons for Surveys
<ul style="list-style-type: none">• Comparatively quick to analyze• Can be used to collect representative data from a large population (depends on sampling and response)• Everyone gets and answers the exact same questions• Can collect a lot of data in a short amount of time• Can possibly collect more sensitive data if the respondents are anonymous, as they may feel safer providing data if they know it cannot be connected back to them• Can be cheaper in cost than other methods	<ul style="list-style-type: none">• Can lack depth of information; there generally isn’t an opportunity to ask follow-up questions or dig deeper if something interesting comes up through the responses• Difficult to make changes once data collection has started• Answers are dependent on the response options provided• Participants “drop-off” (stop answering questions and quit the survey at some point)

Interviews

Most interviews are one-on-one discussions, though two people could be interviewed at once as appropriate. Interviews can be conducted in-person, online, or over the phone. It is often beneficial to develop an interview protocol or guide that outlines the questions that should be asked of interviewees. When creating the interview questions, it's important to keep them open-ended rather than asking yes or no questions. Yes/no questions are typically better suited for a survey.

This [General Guidelines for Conducting Research Interviews](#) offers suggestions on how to prepare for interviews and what to consider regarding the sequence and wording of the questions. To ensure accuracy, it is best to record the interview, though permission should be sought from the interviewee before recording. A two-page overview about conducting interviews available [here](#).

Pros for Interviews	Cons for Interviews
<ul style="list-style-type: none">• Can provide detailed, in-depth information• Provides opportunity to probe participants for further information• Increased rapport and trust• Can include non-verbal responses (e.g., body language, facial expressions)• Can explore unexpected information• Interview protocols can be flexible	<ul style="list-style-type: none">• Can be time consuming – for data collection and analysis• Can be costly (due to time and potentially the need for incentives)• Characteristics of interviewer can influence answers• People could be less likely to share sensitive information• Participants could be more agreeable than would be otherwise (social desirability)• Potential for skewed results (typically not designed to provide representative results)

Focus Groups

Focus groups are usually made up of 8 to 12 individuals. Ideally these are homogenous groups, meaning all the participants have similar experiences or situations that can draw them together. For example, it may not be beneficial to conduct a focus group that includes students, teachers, and school administrators. To have homogenous groups, there would be one focus group for students, one for teachers, and one for administrators.

A facilitator or moderator guides the discussion, which should last no more than two hours. The facilitator is meant to be a neutral person to keep the conversation going and ensure there is equal participation. Before starting the focus group, it is important to remind participants that there are no right or wrong answers and that their participation is voluntary. It is also important to keep in mind that the purpose of a focus group is not to gain consensus, but rather to allow people to share their experiences and opinions. Other tips include starting with introductions for people to get to know one another and starting with a question that all participants can answer easily and quickly. When doing focus groups online, it may be helpful to use slides and the chat function as well. This [Guidelines for Conducting a Focus Group](#) may also help with learning how to design focus group questions, recruit participants, and create the protocol.

In some cases, it may be helpful to have a note taker as well. Ideally the focus group is recorded so a transcript can be made available (see qualitative analysis section for transcription resources). A two-page overview about focus groups is available [here](#).

Pros for Focus Groups	Cons for Focus Groups
<ul style="list-style-type: none"> • Similar to interview (in-depth information, can probe, increased rapport/trust, can include non-verbal responses, can explore unexpected information, flexible protocols) • Creates a dialogue among participants which could lead to greater detail or ideas that may not be captured in interviews • Easier to quickly get a sense of points of agreement, areas of disagreement, and why • Can collect qualitative data in short amount of time 	<ul style="list-style-type: none"> • Similar to interviews (time consuming - but can be just for analysis, costly, interviewer influence, sharing of sensitive information, social desirability, skewed results) • May lose insights if people do not feel comfortable sharing points of disagreement or sensitive information • Can be difficult recruiting people and coordinating schedules • Lack of privacy • Requires skills to facilitate effectively (e.g., ensure all participants are engaged) and feel comfortable

Archival/Content Analysis

Content and archival analysis are qualitative approaches that involves systematically analyzing the content of text, visuals, and/or audio material to identify patterns, themes, and underlying meanings. These methods are commonly used to gain insights into the nature and characteristics of the content being examined. You start by defining specific categories or topics that capture relevant aspects of the content, and then systematically analyze the material by assigning labels to segments that fall into the predefined categories. This systematic coding process allows you to quantify and categorize [qualitative data](#), making it easier to analyze and interpret. Content analysis is a flexible and adaptable method that can be applied to a wide range of materials, making it a valuable tool for understanding the nuances and complexities of communication and documentation. A more detailed description of conducting content analysis is available [here](#).

Archival analysis is similar to content analysis but is particularly useful for examining historical data (i.e., data collected over time), helping to piece together trends, trace the evolution of ideas, and uncover connections within the available documentation. The Community Toolbox includes a [section on collecting and using archival data](#).

Pros for Content Analysis	Cons for Content Analysis
<ul style="list-style-type: none"> • Do not have to recruit participants • Data can come in many forms (photos, videos, files, records, objects, books, manuscripts, etc.) • Can capture historical data • It is a systematic process, often using pre-defined categories and labels 	<ul style="list-style-type: none"> • Time consuming – both in terms of data collection and analysis • Gaining access to materials may be hard • Limited to available and accessible content • Hard to determine if data is missing

- | | |
|---|--|
| <ul style="list-style-type: none"> • Easy to quantify the data and integrate with other quantitative data • Good for process information (how things are going, how things have been modified or changes from original plans) | <ul style="list-style-type: none"> • Tedious and time-consuming • Difficult to know how much data there will be • Risk of simplifying the context of the data |
|---|--|

Data Collection Best Practices

Most Nebraska LHDs and tribal entities collect some form of [primary data](#). It is important this data is collected using best practices to ensure it provides useful information to inform the CHIP. When collecting data, there are two important aspects to consider: representativeness and data quality.

Representativeness

Representation in your data **is making sure you hear from different voices**. How you get representative data depends on your data collection approach and how you are intending to use the results.

When [doing interviews or focus groups](#), you are typically not trying to generalize feedback to the entire population. In other words, you would not expect input from eight individuals in a focus group is how everyone in your service area feels about nutrition, physical activity, etc. With that being the case, it's not essential (or usually feasible) to gather data from all groups.

Keep in Mind:



- ◆ You may still want to gather information from a representative set of certain types of people. For example, as part of the MAPP 2.0 Community Context Assessment, you may want to interview key informants that represent a variety of sectors in your community, such as government, education, business, faith-based, etc. You would want to ensure interviews are conducted with each of the sectors you identified to ensure a variety of voices are heard.

When [conducting surveys](#), you may want to generalize the results to the population, at least as much as possible. If so, you will want to collect data from people who represent that population. If primarily middle-aged white women respond to a community survey, you might miss out on the opinions of other groups, such as young people or people from different ethnic backgrounds. To get accurate information, you need to hear from different kinds of people. To check for this, you should gather demographic information (such as age, sex, and race/ethnicity) to then compare to the population data to determine if your data similarly reflects the population.

Keep in Mind:



- ◆ If you want your survey data to reflect the general population of a county or region, you can use demographic data from the census to determine if your the data is representative. To use census data, go to <https://data.census.gov/>. For geographically specific data you will want to use the geography filters. Data may not be available for some areas, usually because there are too few cases from that area. You may be able to get around this by getting data from multiple years.
- ◆ In contrast, you may have a list of your entire population that you want to generalize (e.g., students in a school). You would then compare those who

responded to the list to ensure the data you received is representative. For example, if the list shows there are an equal number of students in each grade but you have no students from 10th grade who responded to the survey, you are lacking representation from 10th graders.

- ◆ When conducting surveys, you need a minimum number of people to participate to have what is called statistical power, which relates to the strength and reliability of your conclusions. To have enough statistical power, you need to gather data from enough people. If you're conducting a survey trying to understand the health needs of people in your community and you collect data from a good mix of 500 people, your findings may represent your community's needs. However, if you only collect data from 25 people and they all live in the same neighborhood, it's unlikely your results will be very reliable or powerful in describing how the whole community feels about the needs. Statistical power is about having enough information to confidently say something about the whole group based on the data collected. A tool to help you calculate the number of people you need to collect data from is available [here](#). To use this tool, you will need to enter the size of your population, which is the entire group you want the data to represent, such as your LHD region or a county. You will also need to enter a confidence level and margin of error. If you use a confidence level of 95% and a margin of error of 3%, that would mean you can be 95% confident that the results lie between x and y numbers, which vary by a margin of 3%.

If you determine there are differences between your respondents and the population, you may be able to 1) conduct additional data collection to get information from groups that are missing or underrepresented, or 2) use statistical methods like weighting (see more on [weighting](#) in the analysis section) to improve the representativeness in the data.

Getting enough people, especially people from some sub-groups, to participate in data collection efforts is a challenge many Nebraska LHDs and tribal entities experience. To increase participation, the following methods are recommended:



1 Use a representative sample frame when administering a survey.

- ◆ A common approach for administering [needs assessment](#) surveys relies on a convenience sample where a survey is shared by LHD staff and partners. The challenge is that it may not reach all groups in a community and may not result in representative data.
- ◆ Another approach is to obtain a sample that is purposely drawn to be representative of the community. These samples can be purchased from companies that gather information about people from public and private records. Below is a sampling of companies that provide samples for purchase:

Dynata	https://www.dynata.com/
Marketing Systems Group	https://www.m-s-g.com/Pages/genesys/
Verasight	https://www.verasight.io/academic-government-and-nonprofit-research?

2 Use a sub-group (minority) oversample.

- ♦ Samples obtained can be purposely augmented to include more people from specific groups that you anticipate will be underrepresented. If you believe the sample will not yield enough cases from a group you are interested in learning from, you may want to include an oversample of people from this group to ensure you will have enough representation.

3 Use a variety of distribution methods (if not using a sample frame).

- ♦ Putting up flyers or making announcements in places you are most familiar with may not result in representative data. For example, putting up flyers in laundry mats may be useful in reaching individuals who rent and/or those without laundry machines at home, but it will not be enough to reach the general population. You may have to use multiple methods, such as flyers, local papers, community announcements, public events, etc.

4 Enlist the help of partners.

- ♦ Asking your partners to help with recruitment and/or data collection may be a useful way to increase representation, especially if you are struggling to reach some sub-groups. Some key partners, such as cultural centers, may have relationships with the people you are hoping to hear from, and they may be able to help you in gaining trust and in addressing cultural barriers.

5 Use multiple languages.

- ♦ When appropriate, based on your community's demographics, surveys should be available in multiple languages. Likewise, interviews and focus groups should be conducted in different languages. The languages needed should be based on the languages spoken in your community.
- ♦ It is important to have the data collection instruments translated by qualified translators (*do not use google translate*). It is also best if interviews and focus groups are conducted by native language speakers. Not offering data collection in different languages eliminates the voices of non-English speakers from your assessment.

6 Offer incentives.

- ♦ It is not uncommon to offer interview or focus group participants a cash incentive or gift card. In addition, if you are conducting a focus group in-person, you may want to provide food/refreshments.
- ♦ When conducting surveys, a best practice is to offer an upfront cash incentive (can be as small as \$1), as research has shown this to be very effective. While this can be challenging to implement, a promised incentive upon completion of a survey or the chance to win an incentive are also options.

7 Use repeated contacts.

- ♦ When reaching out to potential interview or focus-group participants, it is recommended that multiple contacts be made to request participation, ideally using various modes of communication if possible (i.e., email and phone).

- ◆ If using a list for administering a survey, send multiple reminders to those who have not completed the survey. Ideally, contacting people on different days of the week is best.

8

Reduce burdens.

- ◆ People are more likely to participate if the ask is less, so be conscious of what you are asking them to do. Keep surveys, interviews, and focus groups as short as possible by only asking essential questions.
- ◆ When conducting focus groups, try to address any potential burdens. If you are asking them to attend during a meal time, have food available. If participants have small children they need to care for, provide childcare. If they have to travel, pay for travel costs.

9

Increase accessibility.

- ◆ If doing interviews or focus groups, schedule them based on what you know about your participants. If you are only scheduling interviews during standard business hours, it may make it difficult for some people to participate.
- ◆ Aim to collect data in different areas around the community to make it more accessible for those with limited transportation. Offering or assisting with transportation arrangements for the elderly or those with disabilities can help with this. Another option, depending on your population, is to administer your interviews or focus groups remotely, as this reduces transportation burdens.
- ◆ When doing surveys, using different modes (i.e., online, mail, phone) also increases accessibility and increases the likelihood that you will hear from a wider representation of people, as different groups of people tend to prefer different modes.

Sometimes, all you can do is report what you have, and that is okay; however, it is important to be transparent about the strengths and weaknesses of the data you are using. For example, it may be appropriate to explain the limitations on generalizations that can be made from the data.

Data quality

Data quality refers to how well the data serves its purpose. It is a process as well as a desired outcome and needs to be assessed on an ongoing basis. There are common data characteristics we can use to judge its quality:

Accuracy

Accurate data means the information is correct and reflective of the “real world.” This means that the data you collect is the actual (true) value – such as a date of birth, age, education level etc. Data that is accurate is free from errors and mistakes.



How to Check for it:

- ◆ Looking at past data to see if it's comparable.
- ◆ Try pre-testing your data collection.
- ◆ Review data for typos, redundancies, or outdated information.
- ◆ “Gut check” of whether data reflects the real world (for example, reporting more than 24 hours for a daily activity question).

Completeness

This refers to how comprehensive or complete the information is, which tells you how much of the data is available for analysis. Incomplete data may include: 1) completely missing records; 2) partially missing records (such as a blank spot for an email or date of birth where you expected there to be data); and 3) incomplete answers (such as when text is cut off). Missing information can introduce bias, which can lead to distorted results and incorrect conclusions.



How to Check for it:

- ◆ Review for missing data fields in the dataset.
- ◆ Review responses to ensure complete information is obtained. For example, if you are obtaining dates of birth but some are missing the year, that would be incomplete data.

Uniqueness

Having unique data means that there is only one record for each event, person, or entity. In some cases, a survey could be completed more than once by the same individual, meaning there is a duplicate in the data. Other data sources that capture customers or participants may capture the same individual more than once if the person goes by different names (such as Elizabeth and Beth).



How to Check for it:

- ◆ Review demographic and/or identifying information to check for potential duplicates. It can often be helpful to check a handful of data sources and response fields to verify whether the record is unique or not – such as name, date of birth, and county of residence.

Validity

This indicates whether the data fits within the expected values or rules. For example, when asking people for their age, some may enter “20” while others enter “twenty.” Unless a certain date format is required, there could also be a range of responses – January 1, 1/1/24, 01/01/2024, etc. The type of data would need to be consistent for analysis purposes, so it will require data cleaning (see next section).



How to Check for it:

- ◆ Ensure the data you have for a field match the type of data you should have – such a number, date, written text, or true/false.
- ◆ Review data to ensure it falls within a particular range, whether it is a number or date range. For example, check for a date of birth that occurs before 1900, which may indicate a typo.

Instrument Development

To ensure the data you collect is of high quality, you should develop data collection instruments that are designed in a way that will produce high quality data. The following are important aspects to consider when developing your instruments:



1

Use existing questions that have already been tested. The benefits of borrowing questions from some existing surveys, such as the BRFSS, is that we can trust the

items are valid and reliable because they've already been tested. As an added benefit, you can compare your data to the results from the survey you are borrowing from to see how similar or different it is.

2 Only ask questions that CAN and WILL be answered consistently. An important aspect of data quality is reliability – the ability to get consistent information. Thus, questions should be asked about things people know and can answer consistently. If you ask a question that is too difficult to answer (e.g., “How many times did you sneeze in the past year?”), a person may guess at an answer, but if they took the survey again the next day, they may guess a different answer (unreliable). In addition, people may be unwilling to share information that is too personal or they may not be honest in their responses due to social desirability, which is the tendency of people to present themselves favorably.

3 Use clear, concise complete sentences that avoid the use of jargon or acronyms. Questions should clearly communicate what you are asking and should be worded in sentence form (“What is your current age?” rather than “Age”). The general rule is to write questions at a sixth-grade reading level. Complicated words, jargon or acronyms should be avoided because respondents may not understand them.

4 Ask questions in a neutral way that does not suggest a particular point of view. For example, avoid a leading question such as “Do you agree with...” and replace with a neutral opening such as “What are your thoughts on...”.

5 Ask one question at a time. For example, do not ask if they use X, Y, and Z in one question when you really want to know yes or no for each. This is also to reduce confusion for the respondent as they might use one or two but not all three and could be confused on how to answer.

6 Ensure your response options are exhaustive and mutually exclusive. These are two important aspects to consider when asking multiple choice questions.

- Exhaustive means the list of response options covers all possible answers. For example, in the question provided to the right, many colors are missing. If you are unsure if your list covers all possible answers, you may want to add an “other” option.
- Mutually Exclusive means there is only one applicable answer. For example, in the question provided to the right, someone who is 25 falls into the first and second category.

What is your favorite color?

1. Blue
2. Green
3. Orange

What is your current age?



1. 25 or younger
2. 25-50
3. 50-75

- The exception to this is if you have a “select all that apply” question. However, rather than using select all that apply, it is recommended to use forced choice instead of select all that

apply. To use forced choice, you ask respondents to answer yes or no for each response option, as seen on the right.

Select all that apply	
Apples	<input type="checkbox"/>
Oranges	<input type="checkbox"/>
Bananas	<input type="checkbox"/>
Grapes	<input type="checkbox"/>

	Yes	No
Apples	<input type="checkbox"/>	<input type="checkbox"/>
Oranges	<input type="checkbox"/>	<input type="checkbox"/>
Bananas	<input type="checkbox"/>	<input type="checkbox"/>
Grapes	<input type="checkbox"/>	<input type="checkbox"/>

- 7** **Limit the use of open-ended questions.** These require significantly more burden on the respondent and should be kept to a minimum. They also require more analysis time.
- 8** **Think about how you will analyze your data.** The way you want your data to be structured will depend on how you will be analyzing your data. Think through how you plan to analyze your data from the beginning. If you are asking how much a person weighs, you could 1) ask for their exact weight or 2) ask them to select from response options with ranges (e.g., Less than 100, 100-125, etc.). If you wanted to calculate their BMI, you would be able to do that if you used the first method (assuming you also asked their exact height), but you would not be able to do that level of analysis if you used the second option. More information on the types of measurements and how you can analyze them is available [here](#). 
- 9** **Pretest or pilot your data collection instruments.** Whenever feasible, it is always a good idea to pretest your instruments with the type of people who will be participants. One way to test an instrument with a small number of people is to use cognitive interviewing, which allows you to go through the instrument with someone from the respondent pool and gain their feedback about each question to better understand how they are interpreting the questions. [Here](#) is a guide for doing cognitive interviews. 

[Return to Table of Contents](#)

Data Analysis

Before you begin analyzing your data, you will need to review your data and make any necessary corrections to ensure it is ready for analysis.

In addition to the information provided in this section, you can also find additional information on data analysis from the following sources:

- ✓ [Analyzing Qualitative Data](#) from The Pell Institute
- ✓ [Analyzing Quantitative Data](#) from The Pell Institute
- ✓ [Analyzing Qualitative Data](#) from the University of Wisconsin Extension office
- ✓ [Using Excel for Analyzing Survey Questionnaires](#) from the University of Wisconsin Extension office
- ✓ The National Conference of State Legislatures (NCSL) has [videos](#) on different analysis methods



Data cleaning

Data cleaning is the process of reviewing a dataset to look for mistakes and, depending on the cause of those errors or misinformation, correcting them. This allows you to have the most accurate data before doing analysis. Although this is especially important when using [primary data](#), it also applies to [secondary data](#). Secondary data usually has already been cleaned, at least up to a point, but you may need to take additional steps to make it work for you. Depending on the status of the secondary data you receive, you may want to review the following steps to ensure the data is clean.

Always save the original data first. Create a copy of the dataset and use that file to make changes to the data. That ensures you always have the original data file and can compare as needed. There may be instances where you need to recode variables, which involves manipulating the data to better fit your analysis needs. For example, you may have a variable that provides a respondent's age as an open-ended response, but you want to recode that into categories to help you categorize them as youth, young adults, adults, elderly, etc. A best practice when data cleaning or recoding is to keep the original variables and create a new variable for anything that is changed. That allows you to compare the old and new variables to make sure your changes worked as planned, and you have access to the original variable in case your analysis plans change.



Start by creating a table of the number/percentage of answers for each question and response option. In a statistical package, these are sometimes called summary or frequency tables, but there are tools in Excel that can produce the same thing. (An example is shown in #8 data transformations below.) One of the easiest ways is to use Excel's [Pivot Tables](#) feature, which creates tables for you depending on what you select. Once you have a table with for each question, you will want to look for anything that seems out of place, such as unexpected values. Common things to look for include:



1

Bots. A bot is a computer program that is designed to automatically complete tasks online. This is very common in online data collection, especially when online surveys are shared publicly. After identifying cases that are bots in the data, they should be deleted from the dataset and this information should be documented in the methodology. To identify signs that a case was entered by a bot in the data - look for the following red flags (especially those that have multiple).

- Surveys being completed in an impossible amount of time (“speeding”)
 - For example, your community survey may take about 15 minutes to complete. If someone completes it in two minutes, it may be a bot.
- Duplicate IP addresses
- Weird or suspicious open-ended answers (or multiple cases with identical open-ended answers)
- Contradictory answers that are illogical (e.g., person reported never drinking, but then reported drinking and driving)
- The same answers provided repeatedly
- Large clusters of answers happening within a short period of time, etc. This is especially alarming if surveys are completed at an odd time of day (e.g., 3am).

2

Impossible/improbable answers. In some instances, there may be answers to questions that do not make sense because they are impossible or improbable. For example, someone may have entered 30 for the total number of hours in a day that they do an activity (not possible). This could be that someone misinterpreted the question, or there was a flaw in the data collection tool. If there are only a few cases where the answers are impossible, treat those answers as missing data (deleting those answers or not counting them in the analysis). If you do not take this step, those cases can greatly impact your results because they may be drastically different from your valid answers. If there are a vast amount of cases with impossible answers, you may need to avoid using this variable in your analysis due to data quality concerns (better not to share something than to share bad data).

Another example is if someone says they have 30 aunts and uncles with alcoholism or saw a therapist 13 out of the last 14 days, those are possible answers, but they are uncommon. Someone with many improbable answers may need to be treated as answering in bad faith (see #9 below). However, in many cases, these answers can be dealt with as outliers (see #4 below).

4

Outliers. Outliers are values that are very different from most other cases. An example might be an individual who lives two hours away while all the other survey respondents live 30 minutes or less away. Outliers are a problem for data reporting for two main reasons: 1) it can identify a respondent (which we don’t want), and 2) outliers change our summary statistics, such as averages and standard errors (standard errors describe how similar values are for each question and are the basis for many statistical tests). There are many ways to deal with outliers, but common methods include 1) treating them as missing data (deleting those answers or not counting them in the analysis) or 2) recoding the values to a value that is just above or below a cutoff (such as 2 or 3 standard deviations above or below the mean). The second method of recoding to a new value allows you to still use that data, but limits

the impact the extreme high or low value has on your data. For example, if you have a question that asked how often a person went to the doctor in the past year and everyone fell between 0-20 times except for one person who reported 200 times, you may want to change their response to 21 times. Whatever you do, you will want to document your decision and note that in your methodology.

5 Units of scale. Sometimes people provide answers in different units. For example, someone may report their age in months instead of years, or list their height in centimeters/meters instead of inches/feet. If collecting your own data, you can add instructions to help direct people, but you still may need to recode some values to ensure all the data is reported consistently.

6 Skip patterns. Skip patterns are often used in surveys to help direct people to questions that are relevant to them. Question 78² in the image below includes a skip pattern, which allows people who have not smoked in the last six months to skip over question 79, which is about daily smoking habits. On paper surveys or if a web survey is not designed well, some people answer every question, even when it does not apply to them. As part of data cleaning, you need to decide what to do with those answers. It is common practice to take their first answer in good faith (that they have not smoked in the past six months), and then delete the answers that wouldn't apply to them (how many cigarettes they usually smoke in a day). Keeping the answer about the daily use could change the results of your analysis.

78. In the past 6 months, have you smoked cigarettes?
 Yes
 No → Go to #80

79. How many cigarettes do you usually smoke in a day?
 None
 Less than 1 cigarette a day
 1-5 cigarettes a day
 Half a pack a day
 A pack or more a day

7 Please specify write-ins (aka partial open-ends). Some survey questions may include an “Other (please specify): _____” response option. Whatever gets written in needs to be reviewed to make sure it doesn't fit within the provided response options. That ensures that the reporting of the percentage or number for each response option is accurate. For example, if you asked about mental health conditions, and one of them was PTSD, and someone chose other instead and wrote in “C-PTSD”, you would likely recode it to PTSD and remove the “other” selection. Also, if there are many common write-ins, you have the choice to add a new category to make reporting easier.

² This example is from the 2022 [Nebraska Annual Social Indicator Survey](#) conducted by the Bureau of Sociological Research at UNL

8

Data transformations. Sometimes you want to change some variables to fit your purposes. A common method is to collapse categories to either simplify information or to deal with skewed data. (Skewed data refers to when answers are lumped at one end of the answer range.) The 5-category response table below shows an example of skewed data, and the 2-category response table shows how that data could be transformed. The new 2-category option is easier to report on and will work better for some statistical tests than the 5-category because of those fewer categories. However, you may instead prefer to keep the neutral category as a separate category. It depends on what best fits your needs.

5 Category	N	%		2 Category	N	%
Strongly Disagree	35	3%	}	Neutral or disagree	291	23%
Disagree	42	3%		Agree	999	77%
Neutral	214	17%	}	Total	1290	100%
Agree	265	21%				
Strongly Agree	734	57%				
Total	1290	100%				


9

Bad faith answers. People who complete surveys generally want to be helpful. However, not all respondents may take the time to provide good answers, or decide to “have fun” at the expense of the data. The “fun” responses are the most likely culprit for bad faith answers. An example of this is someone who writes in “Huskers rule!” on all of the open ended questions and/or enters multiple impossible or improbable answers. You can choose to delete bad faith cases – just document that you did, and why. As a general rule, this is not common.

Quantitative Analysis

Quantitative analyses are based on numbers and completed with statistics. These analyses can be conducted using paid software packages (e.g., SPSS, SAS, STATA), or in some cases using free software, which may have slightly more limited capacity (i.e., PSPP) or require more advanced skills (i.e., R). In addition, some basic analyses can also be conducted in Microsoft Excel.

In addition to the information in this section, you can find additional information on [quantitative data](#) analysis from the following sources:

- ✓ [Cottage Health Evaluation Toolkit](#), which offers specific instructions as well as a table outlining when to use which type of analysis technique. 
- ✓ The MAPP 2.0 Community Status Assessment Step Seven “Organize, Analyze, and Interpret Data” (page 21) provides additional information to consider, including context on using a health equity lens when analyzing data.

There are many different types of quantitative analysis, but a lot can be done with some basic statistical methods. What method(s) you should use will depend on the characteristics of the data. A key characteristic is what type of answer you are working with: continuous or categorical. Continuous variables can hold any value within their range, such as age, weight, temperature, and number of days. Categorical variables have a set number of possible values,


such as yes/no, a five-point scale, and a list of possible services used. Categorical variables can be nominal (without an order, such as type of job) or ordinal (meaning each option is more or less than the next).

1 **Frequencies.** Frequencies, also known as descriptive statistics, are typically the first step in data analysis. Running frequencies for categorical variables results in a series of tables that show the number of cases for each answer (The tables shown in #8 Data transformations above are an example of this). All statistical software have this feature, but Excel's Pivot Table feature can do this as well. For continuous variables, you will be more interested in what we call measures of central tendency:

- **Mean:** Also known as the average, this is calculated by adding all of the values together and dividing the total by the number of values. The mean is sensitive to outliers (extreme values).
- **Median:** The median is the middle value when the data is ordered from greatest to least. This is reported more often than the mean when there are outliers, such as when reporting household income.
- **Mode:** The most common answer. This is not commonly reported for continuous variables.
- **Range:** The smallest (minimum) and largest (maximum) values. This can help you identify outliers, coding mistakes, and data you may not want to use. For example, if the respondents should have all been at least 19 years old, your minimum value should be 19.

Excel can calculate all these measures of central tendency.

2 **Correlation.** If you have continuous data, this is a way to see if two variables have an association. It basically says that the variables change at the same time. If they are associated, that does not mean that one causes the other. (See causation below.)

3 **Basic group differences.** If you want to know if there are differences between groups, there are many tests you can use. Which one is appropriate will depend on the structure of the data, such as question type and how answers are distributed. All statistical tests have underlying assumptions – expected characteristics of the data for the test to work. An example of this for test of group differences, the groups are independent: individual cases cannot be in both groups. UCLA has a [website](#) that can tell you which test you should use based on question type,  with instructions for different statistical software packages.

Two common tests for basic group differences are t-tests and chi-square tests, and both can be calculated in Excel (although there are a lot more steps than in a statistical package).

- **T-test:** A t-test is used when the outcome you are interested in is continuous. There are different types of t-tests, such as the Independent Samples t-test to compare groups with two levels, such as rural/urban, received a vaccine/didn't, male/female. If you have matched pre-/post-test data, you can do a Paired Samples t-test.
- **Chi-square:** A chi-square test tells you whether there is a relationship between two categorical variables. Each variable needs at least two independent groups,

but they can have more groups. (Please be aware as the number of groups increases, the likelihood of the test working decreases. The chi-square test assumes each cell has at least 5 cases – if the minimum expected count is lower than 5, the test did not work and the results should be rejected.)

- **ANOVA:** ANOVA stands for Analysis of Variance, and this test can be used when you have a continuous outcome but more than two groups.

4 Regression. This method is used to understand and quantify the relationship between two or more variables. This requires some advanced statistical knowledge but can show how changes in one variable are associated with changes in another. It allows for predictions of one thing on another by examining their statistical relationship.

Tools

In addition to Microsoft Excel, there are other analysis tools that can be used – many of which are free or low-cost.

Tool	Cost ³	Description
AM	FREE	A software package from the American Institute for Research (AIR) designed to analyze data from complex samples.
Epi Info	FREE	Open-source tool from the CDC that can help with health surveillance, data analysis, and data entry.
Jamovi	FREE	Open-source statistical platform.
Open Refine	FREE	A tool designed for cleaning and inspecting data. Its capabilities are quite impressive and a wealth of tutorials are available on YouTube to help you get started.
PSPP	FREE	Open-source statistical platform designed to be similar to SPSS, but with less “bells and whistles”
R	FREE	Free software for statistical computing and data visualization. Many different “packages” created by users for different purposes. Has a steeper learning curve.
Minitab	\$1,780 a yr	Statistical software. Has trial version, governmental and academic pricing options.
SPSS	\$99 a mo	Statistical software platform. Has trial version, and academic pricing options for perpetual licenses and subscriptions. Relatively easy to use with point and click or syntax options.
Stata	\$840 a yr for gov/ non-profit	Statistical software platform. Has trial version, governmental and academic pricing options for multi-year licenses and subscriptions. Utilizes syntax/coding to run data analysis, so there are not point and click options.
SAS	Request	Statistical software platform. Capable of managing millions of cases. Has a trial version and various options depending on need. There is also a free SAS University version for students.

³ Costs are as of November 2023.

XLSTAT	\$345 a yr	Excel add-on for data analysis. Different levels depending on need. Trial version and academic pricing options.
------------------------	------------	---

Dealing with Small Populations

Many Nebraska communities face challenges when accessing or reporting data at the local level because of the small sizes of our communities. Data often isn't available at the county level, especially for many of the sparsely populated counties. When there is not very much data, or the data is about a small community, it can be unethical to share it publicly. You'll often see in reports asterisks (*) or footnotes when data cannot be shared for some reason. This is primarily due to issues with:

1. **Confidentiality.** When collecting data, the people who participate are often assured of confidentiality, meaning their responses cannot be traced back to them. In a small community, it can be easier to identify who the data is from by looking at some of the data variables, such as geographic and demographic information. As a result, some of the information that may make them identifiable, such as their county, is removed.
2. **Representation.** Having a small number of cases from one area or a small number from a certain group could be used to draw conclusions that may be inaccurate. When analyzing data, we want to be assured that we have enough representation from the group we are reporting on to feel confident in making conclusions about that group.

To ensure you are protecting participants confidentiality and reducing errors in making inaccurate conclusions, it is recommended that you never share a finding with less than 10 cases in a subgroup (based on [guidance from the Institute of Education Sciences \(IES\) National Center for Education Statistics](#)). An example is provided in the table below (from the IES guidance brief), where students with individualized education plans are omitted from the results because less than 10 (n=7) were tested.

Table 2. School-level grade 4 mathematics assessment results in a state with a minimum reporting group size of 10

		Percent assessed	Tested	Below Basic	Basic	Proficient	Advanced
Total	%	100	100	12.5	31.3	34.4	21.9
	N	†	32	4	10	11	7
White	%	100	100	0.0	22.7	45.5	31.8
	N	†	22	0	5	10	7
Hispanic	%	100	100	40.0	50.0	10.0	0.0
	N	†	10	4	5	1	0
Individualized education plan	%	100	100	*	*	*	*
	N	†	7	*	*	*	*
No individualized education plan	%	100	100	0.0	28.0	44.0	28.0
	N	†	25	0	7	11	7
English language learner	%	100	100	40.0	50.0	10.0	0.0
	N	†	10	4	5	1	0
Not English language learner	%	100	100	0.0	22.7	45.5	31.8
	N	†	22	0	5	10	7

† Not applicable.
 * Not reported to protect subgroups with fewer than 10 students.
 NOTE: Details may not sum to totals because of rounding.

Another issue with small populations is something we call statistical power, which is described under ensuring representativeness when doing surveys. This refers to whether or not statistical tests will be able to show a difference that we are confident in and is less likely to be due to random chance. If there are not enough cases, even if we see there is a difference, statistical tests may not work. This [report](#) from the Washington State Department of Health explains more about reporting data with small numbers.



One of the most common methods of dealing with a small population is to combine multiple years of data to increase the number of people. This is an option when you have data from different people every year. (If data is from the same people in some years, their information is over-represented, so this method should not be used.) The American Community Survey regularly does this to report data for smaller population areas. (See [Using data.census.gov](#) for surveys in the [Representativeness section](#) for more on this.)

If you cannot combine years of data, or there is still not “enough” cases, you may need to suppress the data in shared documents. What this means is that some information is hidden to help protect the identities of those involved (protecting their confidentiality). The US Department of Health and Human Services has [guidance](#) on this, and the [IES guidance document](#) referenced above also provides more detail on how to make these decisions. Even though you may need to suppress data in public reports or documents, that doesn’t mean the data is unusable. It simply means that the data cannot be shared publicly – it can still be used internally.



Indexes and Scales

Rather than asking one question about a general concept that is difficult to measure, such as well-being, multiple questions can be asked about the topic. Those responses are then aggregated to create an overall measure. This is called a composite index or scale.

If you are using a [secondary data](#) source, the index or scale may already be calculated, so look for a variable that has the calculated measure. If not, you will need to calculate the index or scale. To do this, you will need to check the original source for instructions. It is also important to note that some scales include questions that must be reverse coded, which involves recoding your data (i.e., changing a 4-point scale to 1 to 4, 2 to 3, 3 to 2, 4 to 1). Reverse coding would be needed when most items are worded in way that a high score indicates a positive answer, but one of the questions is worded negatively. For example, “I like my job,” “I look forward to going to work,” and “I like my boss” are all positively worded, while “I dislike my coworkers” would need to be reverse coded because it is negatively worded (assuming all questions were asked with the same scale where 1=disagree, 2=neutral, 3=agree).

Some scales ask a series of yes/no questions and the total score is calculated by adding the number of items where the respondent reported yes. Another type of scale is one where math is required. An example of this is the short General Self-Efficacy Scale (GSE-6). It has six questions that are meant to get at different aspects of self-efficacy on a scale of 1 (not at all true) to 5 (exactly true). To score this scale, you take the mean of the answers. That means the highest possible value would be 5 (the mean of all the values from the 6 questions), not 30 (which would be adding all of the values from the 6 questions).

If you are creating a new scale, you will need to conduct a statistical test to see if individual measures are “holding together” (i.e., they all are measuring the same concept). To do this, you will need to do an [exploratory factor analysis](#). This requires advanced statistical skills, so if you do not have the capacity within your organization, you may want to seek additional help (reach out to NDHHS for guidance on available resources).

Weighting

Weighting is a statistical way to make the data you’ve collected more like the population you are trying to describe. This can help you adjust your data if you have a problem with an over- or under-representation of certain groups. For example, if you primarily received responses from middle aged white women and only a handful of young Latino men, the results likely wouldn’t be representative of your community. That’s because those results would be biased toward the experiences of middle-aged white women.

With weighting, you can use weights to increase the representativeness of the handful of young Latino men who participated in your survey. In essence, they are speaking on behalf of others who share their same demographics to ensure that demographic voice is represented in the results. How the weight is calculated depends on many factors, usually how the respondents were selected and/or who responded. Each case is given a value, and the analyses takes into account the weights (statistical software includes methods to account for the weights). Developing weights requires advanced statistical skills, so if you do not have the capacity within your organization, you may want to seek additional help (reach out to NDHHS for guidance on available resources).

Causation

We often want to know if one thing causes another, but we often do not have enough data to make that statement. You may have heard or seen the phrase “correlation does not equal causation” (or correlation \neq causation). Correlation refers to the relationship between two or more variables. Although things may change at the same time, it could be because they have the same cause or may not be related at all. A common example is seeing an increase in ice cream sales and shark attacks. These change at the same times of year. This is not because sharks like ice cream, but because when the temperature increases, people buy more ice cream, and more people are also in the ocean with the sharks. Tyler Vigen created a webpage called [Spurious Correlations](#) that shows many examples of things that change at the same time but are not related, like the divorce rate in Maine and margarine consumption in the US.

To establish causation, you need three things: 1) to show that Thing X happened before Thing Y, 2) that the relationship between X and Y is not by chance alone, and 3) that there is not another Thing that is actually responsible for the relationship (like the temperature in the example above). Randomized clinical trials are used to control for this, where participants are randomly assigned to either the intervention you are testing for or the control (no intervention); however, this is rarely feasible for local data collection efforts. Therefore, multiple regression analysis is used to control for confounding relationships. This type of analysis will separate a spurious association from a causal association. More information on this is available in this [chapter](#).



Subgroup analysis

Sometimes we want to know if an outcome we are interested in is the same for different groups in our data. We call this subgroup analysis. For example, do women go to the doctor more often than men? Is unemployment lower for people with more education? Are there more grocery stores in areas that have more White residents? Are rural schools more likely to have gardens than urban schools? It is interesting to know whether an outcome is significantly different between two groups. But it is also interesting to see whether there are differences within a group that you wouldn't see otherwise. Here are some tips for doing these kinds of analyses:



- 1** Make sure you have the indicators necessary for the analyses you plan to do. All of the subgroups in the examples above come from demographic questions.
- 2** You want your groupings to be meaningful – do your groups match other groups in the field? For example, age brackets vary a lot from place to place. If you ask people their age in years, you can construct whatever brackets make sense for your reporting and comparisons.
- 3** You don't want to compare across too many groups. How many is too many? It depends on how many cases there are overall. But the more groups you include, the smaller each one is. Smaller groups are more impacted by outliers – cases that are very different than the others, and this often leads to a lack of statistical differences.

Geography

A great deal of differences in public health are based on geography – the physical environment where you live and work, and how far it is from anything else. Measuring geography can be very difficult at the individual level. If we want to know what continent, country, or state a person is in, that can be easy for many to answer. Getting more specific than that can be harder, particularly if a survey respondent needs to provide the information. (If we get their location from another source, such as the post office address file or voting records, these next issues do not apply.) The biggest issue is what people do not know, or what they cannot be reasonably expected to know. The table below shows some geographic measures that can be difficult for people to answer.

Measure	Why It's Challenging	How to Fix
County	Not everyone knows what county they live in, and it may be different from the county where they work. Also, counties can be large and diverse so that people living in different parts of a county have an entirely different experience in terms of services and supports available to them.	On an online survey, you may have the option of adding a look-up feature, linking to an external website, or providing a map (although maps are difficult on mobile devices). You could ask for their zip code instead. Although it doesn't always identify a single county, it can often get close enough.
Zip code	It is easier for where people live, but maybe not if they move frequently. Zip codes are hard because they do not always give us the information we	Since zip codes cross county and state boundaries, we usually end up having to make a guess on which county to assign someone to in the data.

	want, such as a specific county, or rural vs urban or distance.	
Rural code	Most people do not know what a rural code is, but they are very helpful for classifying places on many characteristics. Matching the data to the codes has to be done after the data is collected, and you have to make sure you have the information needed to make a match.	The USDA has a lot of maps and classification types. The Rural-urban Continuum Code and County Typology Codes are by county, but the Rural-Urban Commuting Area Codes require an address lookup (the link is included in the file). Make sure to see what codes you want to use, so you ask the right questions. The Am I Rural? Tool can help people find out their official classification.
Location type	People define things differently, and some of it is relative. For example, if you live on a ranch in the Sandhills, you may describe Mullen as a “town”, but its official definition is village. This distinction may not matter to your data, but it’s something to keep in mind.	Ask people where they live, and code the location type on the back end. Like the rural codes, there are free, online resources that can help with this. It may be more useful to ask about distance, such as how long it takes someone to get to a hospital.
Census tract	This is another thing people don’t generally need to know. Census tracts are a small geographic area within a county used for more detailed information.	The Census Geocoder is a tool that will help you look up address characteristics – up to 10,000 addresses at a time.
Address	Privacy. Many people do not want to share where they live due to concerns about privacy and security.	Conducting a survey with an existing list of names and addresses is the best way to get address data. You can mail people paper surveys or give them directions on how to participate (such as a link, or telephone number). There are vendors that sell address lists.
Proximity	Asking people about their closest intersection, school, church, or hospital gets around the address problem. However, this works best for people who live in towns and cities. If they live in the country, their nearest school may be an hour away, which does not help identify the characteristics of where they live.	You can ask people how long it takes them to get to the identified place, or you can limit this method to data collections within towns and cities.

Qualitative analysis

Qualitative analyses are based on words as information and is often analyzed by looking for commonalities and/or themes across responses. You can do this using paid or free qualitative analysis software (see below), a spreadsheet (e.g., Microsoft Excel, Google Sheets), a Word processor, or by hand (e.g., color-coding transcripts).

There are a variety of ways to approach analyzing qualitative data, but some common approaches are:

- 1 Coding for themes.** This is a process where you thoroughly review transcripts or documents looking for common topics and lump them into broader categories. Each topic or category label is known as a code. Once all data has been coded, the codes are reviewed to see if there are larger themes (i.e., a word or phrase that summarizes what a broader understanding of the identified codes are about and/or mean).
- 2 Templated approach.** Otherwise known as a “rapid analysis” process, qualitative data can be analyzed by question rather than by overall themes. In this process, answers to each question are condensed into digestible snippets and entered into a broader matrix that covers questions by respondents. For example, each question is a column in the matrix, and each row is a respondent. Once all snippets are entered into the matrix, you can review the responses for each question quickly to come to a generalized answer.

Example:

Question Topics	Current Tools	Effectiveness of Tools	Concerns with Tools	Improvement Suggestions
Interview 1	Knows of tool, but hasn't seen or used it	Seems ok but not sure on accuracy	Might be too long	Shorten the tool
Interview 2	Trains on main tool, but uses secondary tool	Doesn't think it is effective	many questions that participants can't answer	Go back to [BRAND] tool
Interview 3	Shadowing implementer on how to use main tool	Not sure yet	Too long; A lot of terms to learn	"Are there sections that we can skip if they don't apply?"
Interview 4	Uses main tool because it is mandatory; "I use it because I have to"	Just asks the question they're told to	None	Shorten the tool
Interview 5	Continuously revising tool for better effectiveness. Wants it to replace other tools in field.	Thinks it has improved over time	Implementers not using correctly	Clear up language and terminology issues
Interview 6	Used to use [BRAND] tool, but paid for development of in-house tool to save money in the long run	Knows it has some way to go before it is competitive with [BRAND] tools	Updates roll out too often confusing implementers	Add additional features for new audiences

A [recent journal article](#) (March 2023) provides examples of how rapid qualitative analysis was used to evaluate health equity.

- 3 Quantifying the data (counts and percentages).** While this is not the most proper way to approach qualitative data – since qualitative data is comprised of words instead of numbers – many people condense the data down into quantitative measures such as counts (e.g., the number of people who mentioned a certain topic) or percentages

(e.g., the proportion of how much a certain topic was discussed in comparison to the rest of the identified topics).

You can also find more information about analyzing [qualitative methods in the Community Toolbox](#), and in the MAPP 2.0 Community Context Assessment Step 2.3 “Analyze and Reflect on Qualitative Data” (page 32).

Tools

Although it is possible to do qualitative analysis in Microsoft Word, there are tools available that can make the process more efficient. A summary of the strengths of various programs is available [here](#). In addition to the specific tools listed below, another emerging resource is artificial intelligence (AI), which can be used for this purpose.

Tool	Cost ⁴	Description
General Architecture for Text Engineering (GATE)	FREE	An open-source software used for text analysis. Website has many resources and trainings are available.
QDA Miner Lite	FREE	For analysis of text data or still images
Qualcoder	FREE	Open-source software to code text and images, including audio and video
RQDA	FREE	Open-source qualitative analysis package for use in R. Data must be plain text.
Taguette	FREE	Open-source qualitative analysis tool
Dedoose	\$8.95 a mo	For qualitative coding and mixed methods analysis
MAXQDA	\$890 for gov/non-profit	For qualitative and mixed methods analysis. Has levels with different features, and is available in subscription version, as well as 6-month or 24-month student version.
NVivo	\$1,449 for gov/non-profit	Qualitative software. Has a trial version, and 12-month student/academic license.

Another tool to consider with qualitative data is transcription services. In many cases, you may have the audio file or files as data. Transcriptions are easier to work with than the raw audio, but may be difficult to create your own, especially with limited time. There are services that can transcribe the audio for you.

Tool	Cost ⁵	Description
Temi	\$0.25 a min	Transcription based on AI analysis. Prices are charged by the minute. Best for smaller files with good quality audio.

⁴ Costs are as of November 2023.

⁵ Costs are as of November 2023.

Express Scribe	Varies (Free-\$129/license)	Software to assist with manual transcription. Allows you to control the audio playback and speed. Works with foot pedals.
Zoom	Varies (Free-\$250/year/user)	Video conferencing platform. Offers auto-transcription of recorded meetings (to the cloud). Limited by individual's level of plan.
Rev	Varied (\$0.25-\$12/min)	Multiple levels of transcription services offer. Prices are charged by the minute. Options include AI and human transcription.

Dealing with Small Populations

[Qualitative data](#) is often from a smaller number of participants and does not have the same expectations for a minimum number of cases that quantitative does. Generally, the goal is to get to the point of saturation, meaning you are not hearing anything new on the topic of interest. Most of the time, however, data is collected to the extent possible.

Regardless of the number of participants, it is important to protect the identity of those individuals. Common methods include:

- ✓ Removing all direct identifiers and proper nouns (locations, titles).
- ✓ Sharing data only in alphabetized tables by question (to avoid connecting information across answers).
- ✓ Member checking, which is where the participant is asked to review the results to verify that the conclusions are correct and they are fine with it being shared.



The Census Bureau released a [paper](#) (link opens a pdf) on public sharing of qualitative data that may be useful.

Mapping Tools

Mapping tools have become indispensable in various fields, including geography, public health, urban planning, environmental science, marketing, and more. These tools enable users to visualize, analyze, and interpret data to understand relationships, patterns, and trends in geographical contexts. Two prominent types of mapping tools are those provided by Microsoft Excel and Geographic Information Systems (GIS). Each serves different needs and comes with its own set of features.

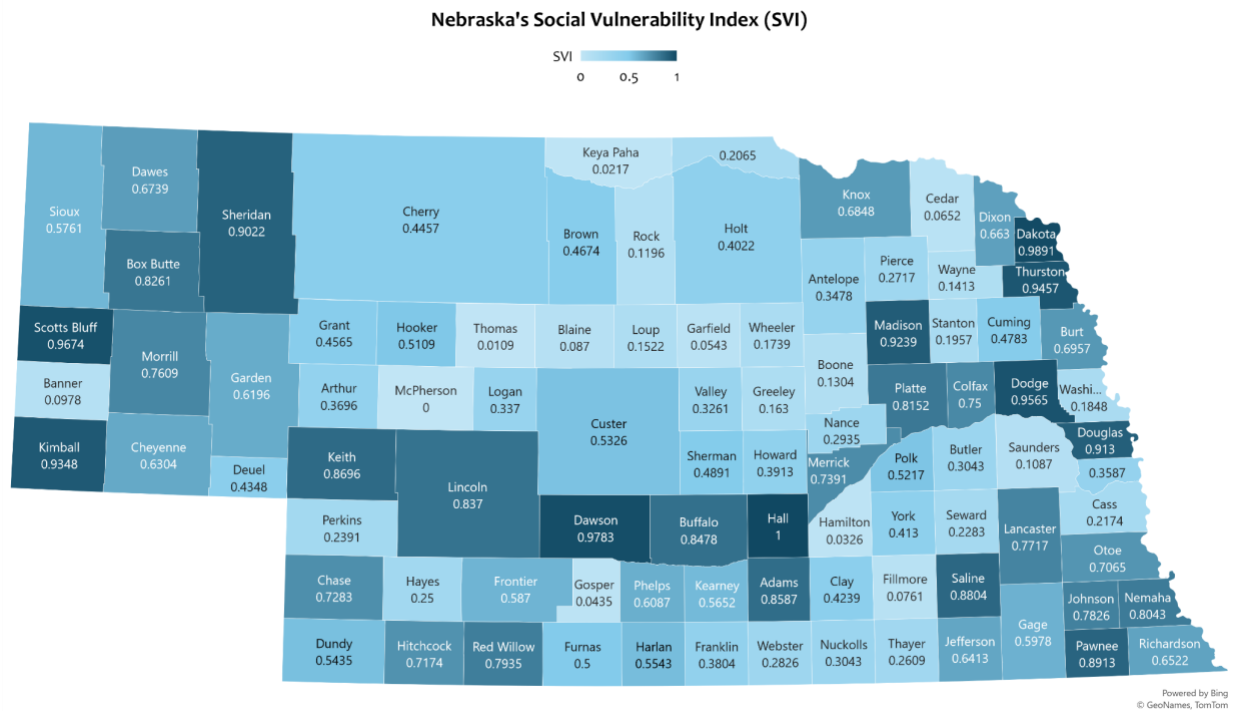
Microsoft Excel Mapping Tools

Microsoft Excel is widely recognized for its powerful data analysis capabilities, but it also offers mapping tools that can be quite useful for basic geographical visualizations for local health departments (LHDs). For instance, data users can select the set of counties that belong to an LHD, extract demographic data (e.g., population), and then create a choropleth map⁶. LHDs

⁶ A choropleth map is a type of statistical thematic map that uses color to represent an aggregate summary of a geographic characteristic within spatial enumeration units, such as population density or per-capita income.

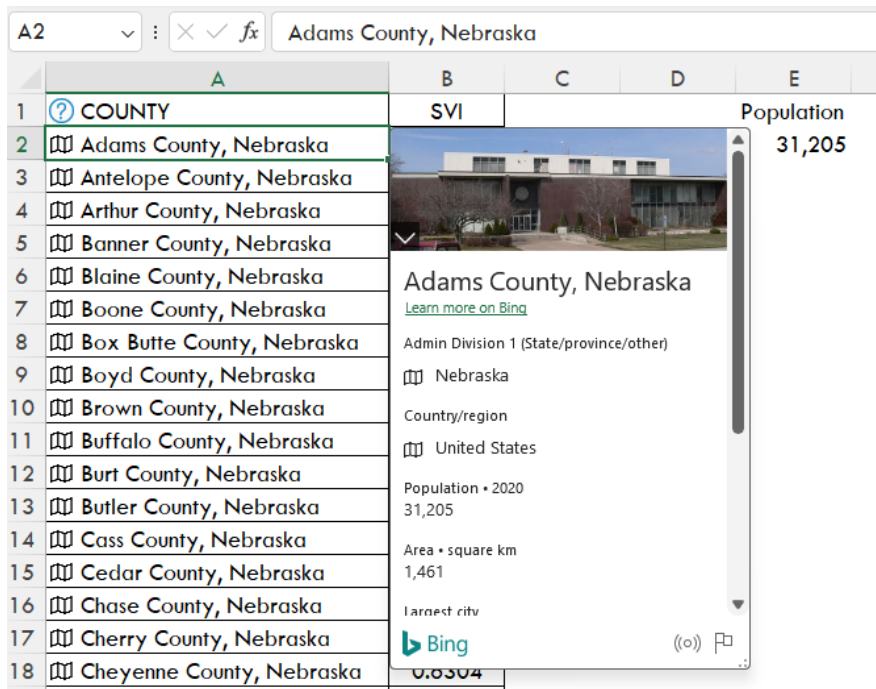
may have data from the CDC (e.g., behavioral health outcomes; [Social Vulnerability Index - SVI](#)) at the county/city level, and with the proper settings, Excel can create that map directly on a worksheet, as shown below.

Social Vulnerability Index map created in Excel.



In addition, as long as the data is set as “Geography” in Excel, demographic data can be extracted automatically and separated by columns (e.g., Column E. in the figure below), and from there, a map can be created.

Visuals and data extracted directly from a county in Excel.



Excel also allows users to create visually compelling maps by plotting geographic and temporal data onto a 3D globe or a custom map.

Limitations: While Excel's mapping capabilities are useful for basic mapping and visualization, they lack the depth, precision, and analysis features of dedicated GIS software. Excel is not suitable for detailed spatial analysis or for managing large datasets with complex geographic attributes.

Geographic Information Systems (GIS)

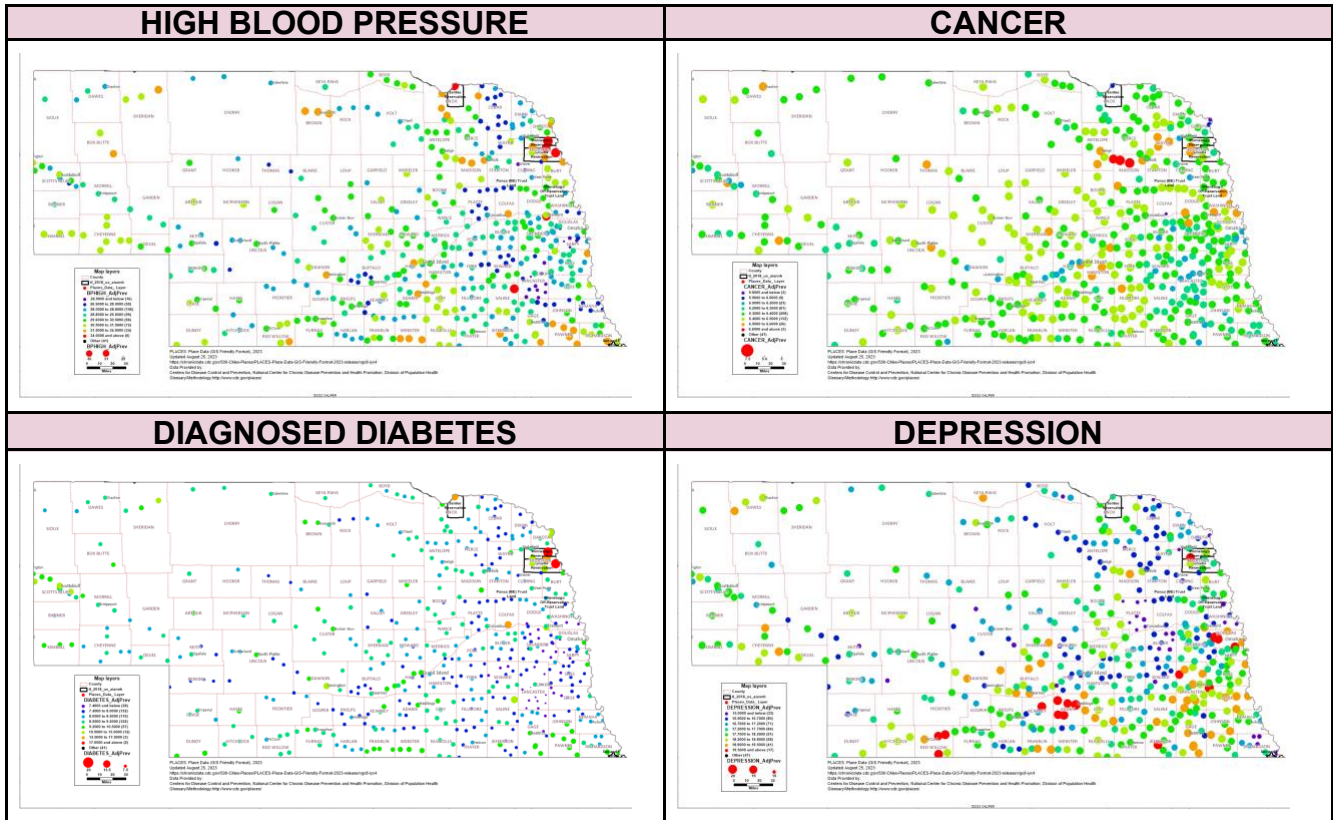
GIS is a framework for gathering, managing, and analyzing data rooted in the science of geography. It integrates many types of data. It analyzes spatial location and organizes layers of information into visualizations using maps and 3D scenes. With this unique capability, GIS reveals deeper insights into data, such as patterns, relationships, and situations, helping users make smarter decisions.

Software Examples: ArcGIS by [Esri](#), [QGIS](#), [Maptitude](#), and [Datum Workstation](#) (formerly known as 'TNTmips', which is headquartered in Lincoln, Nebraska) are among the most popular GIS software. They support various spatial data formats and offer tools for spatial analysis, data management, and complex cartographic capabilities. Figure xx shows selected chronic diseases from the [CDC PLACES](#)⁷ (Place Data 2023 release) using Maptitude software.

⁷ PLACES includes 36 measures for chronic disease related health outcomes (13), prevention measures (9), health risk behaviors (4), disability (7), and health status (3). Data sources used to generate these model-based estimates are Behavioral Risk Factor Surveillance System (BRFSS) 2021 or 2020 data, Census Bureau 2010 population estimates, and American Community Survey (ACS) 2015–2019 estimates. The 2023 release uses 2021 BRFSS data for 29 measures and 2020 BRFSS data for 7 measures (all teeth lost, dental visits, mammograms, cervical cancer screening, colorectal cancer

Maptitude capabilities to interact with spreadsheets with large datasets make it one of the most powerful GIS software to visualize public health data.

Selected chronic disease prevalence rates at the city level created by Maptitude mapping software.



Mapping Summary

Both Excel's mapping tools and GIS serve important roles in the world of spatial data analysis and visualization. Excel is best suited for users who need to create straightforward geographical visualizations for data analysis tasks. It offers an accessible entry point for those already familiar with Excel's interface. On the other hand, GIS provides a comprehensive suite of tools for more complex and detailed spatial analysis, capable of handling large datasets and providing deeper insights into spatial patterns and relationships. The choice between these tools depends on the specific needs, the complexity of the task, the level of detail required in the analysis, and the user's training and knowledge capabilities. The table below compares selected mapping software based on costs and learning curve difficulty.

screening, core preventive services among older adults, and sleeping less than 7 hours) that the survey collects data on every other year. Data released on July 2023.

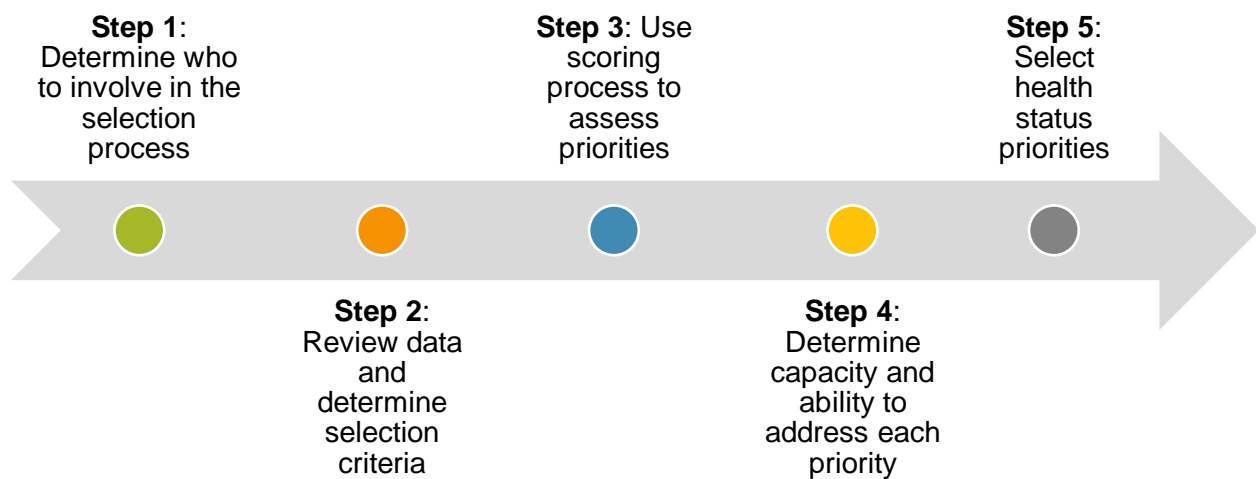
Software	Cost (as of last known data)	Learning Curve Difficulty
Excel Free Online Spreadsheet Software: Excel Microsoft 365	Included with Microsoft Office subscription; varies (\$70-\$100/year for personal use)	Low to moderate (for mapping)
ArcGIS Pro Free Trial of ArcGIS Pro Try for 21 Days - Esri	Subscription-based; Individual use starts at \$765/year	Moderate to high
QGIS Welcome to the QGIS project!	Free (Open Source)	Moderate to high
Datum Workshop (formerly TNTmips) Geospatial Software for Desktop and Cloud (microimages.com)	Free for small projects (Basic version), professional version cost \$1,500/year	High
Maptitude Custom Map Creator and Map Maker Maptitude Mapping Software (caliper.com)	One-time purchase cost is typically around \$695 (plus maintenance fees for updates)	Moderate to high

[Return to Table of Contents](#)

Choosing Priorities

To aid Nebraska in selecting statewide health status priorities as part of the SHIP, a Prioritization Guide was developed in 2023 that outlines five key steps. A similar approach can be taken at the local level to identify priorities for a CHIP. These steps and recommendations are based on a literature review and evaluation findings from the SHA/SHIP Redesign Project with the goal of creating a flexible approach for Nebraska.

A participatory planning process with explicit criteria and processes is encouraged. This helps improve transparency and collaboration by having a strategic and thoughtful selection process.



➔ **Step 1** is forming a diverse group, or utilizing an existing group, to guide and implement the priority selection process. Although this may be led by your organization, it is important to include a range of partners that represent different agencies and perspectives within your service area. The purpose for that group is to strategically narrow down the health priorities, as outlined in the figure above. Key entities to consider as part of the priority selection process include behavioral health entities, emergency management services, health care providers, hospitals, mental health agencies, non-profit organizations, and tribal entities.

➔ **Step 2** involves reviewing the CHA and determining what should be included in the decision-making process. Although other data sources or information could be considered – such as strategic plans from organizations in your service area – most of the data will come directly from the CHA. As part of this step, the group can determine to what degree or how the data will be factored into the decision-making process. It may be decided, for example, that some sources are not taken into consideration when selecting priorities, such as whether a topic is included in strategic plans for other organizations.

➔ **Step 3** is where the group determines how to review, score, and/or rank the data included in the priority selection. By implementing a scoring process, the group

should be able to identify a list of top priorities. This could be done using a range of approaches to score or rank priorities. See [Appendix C](#) for some examples.



Step 4 allows the group to better understand, among the initial list of priorities identified, what the community's capacity is to address each of those areas. This may include doing a survey with key staff or organizations who will be responsible for implementing the CHIP or collecting feedback via email or discussions. Another recommendation is to use a strengths, weaknesses, opportunities, and threats (SWOT) analysis or the PEARL test for each priority.



Step 5 is where the group can make an informed decision about which health status priority or priorities should be chosen for the CHIP.

This would take into account data collected as well as the capacity. It can also be important to think through how many priorities are selected and how long it will take to make progress on those priorities. PHAB requires that at least two priorities are selected, though Nebraska LHDs, on average, select four. Some T/LHDs are shifting to focus on fewer priorities to narrow their focus and hopefully have a bigger impact. Often the priorities selected for the CHIP are complex problems that cannot be adequately addressed within a 3-to-5-year CHIP cycle. Rather than starting from scratch every 3-5 years, communities could set priorities that they would work on for 10 or more years. To meet the 3-5 year CHIP requirement, partners could review progress and CHA data to reconfirm the priorities and/or add any emergent issues.

PEARL Test

Propriety: Is a program for the health problem suitable?

Economics: Does it make economic sense to address the problem? Are there economic consequences if a problem is not carried out?

Acceptability: Will a community accept the program? Is it wanted?

Resources: Is funding available or potentially available for a program?

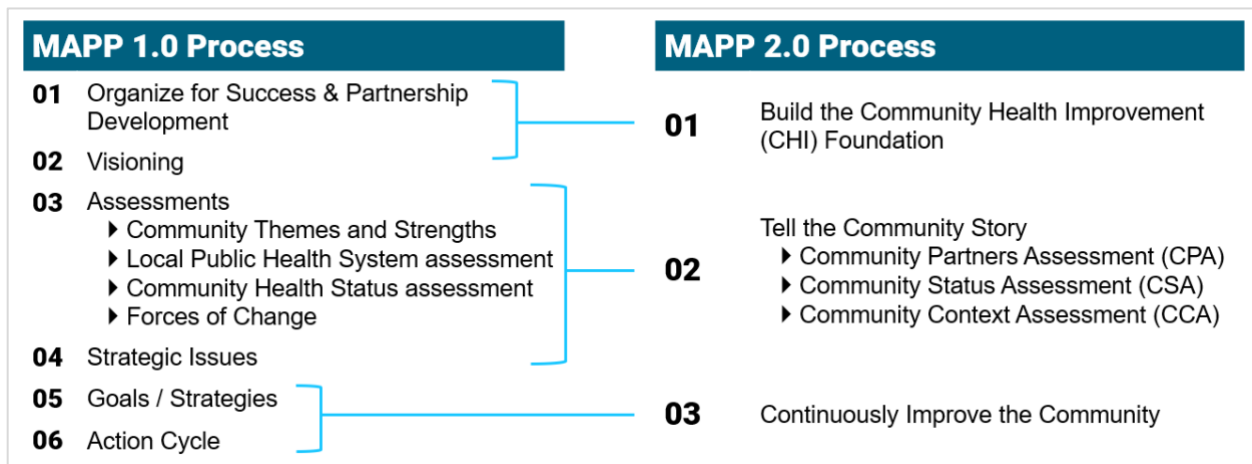
Legality: Do current laws allow program activities to be implemented?

[Return to Table of Contents](#)

General

CHA/CHIP Processes

The process(es) you use depends on a variety of factors. The MAPP ([Mobilizing for Action through Planning and Partnerships](#)) framework, created by the National Association of County and City Health Officials (NACCHO), is commonly used by Nebraska LHDs. An updated version of the framework (MAPP 2.0) was released in 2023. A brief description of MAPP 2.0 and how it differs from earlier iterations [is available here](#), though the key change is that it is more streamlined – from six phases into three phases (see figure below). Other changes were that one of the stand-alone assessments was integrated into the other three, that it has an increased emphasis on community engagement, assessment, and health equity, and while the original framework included a Health Equity Supplement, the updated version imbeds health inequity, social determinants of health, root causes of health inequity, and optimal health in Phases 2 and 3.



The MAPP process can be easy to understand but difficult to do in practice because it takes a lot of planning and effort, and many organizations may not have the time or capacity needed to carry out MAPP 2.0 in its entirety. If that is the case, organizations may decide to use a different process or approach or use the MAPP framework as a resource for how to do specific elements of a CHA/CHIP process. Because this is an evidence-based approach, there is no recommendation for how to change it; however, for those pursuing accreditation/reaccreditation, it is important to ensure that what you include in the process meets PHAB standards and measures for CHA and CHIP. (Reference: Version 2022 Measure 1.1.1 A, 1.1.2 A, 5.2.1 A, 5.2.2 A, and 5.2.3 A.)

Based on input from Nebraska LHDs and tribal entities, the following MAPP steps are essential to the CHA/CHIP process:

- **Phase 1, Step 3 – Engage and Orient the Steering Committee.** Many T/LHDs noted that having a steering committee to guide the overall CHA/CHIP process helped to ensure strong buy-in from partners and ultimately the community.

- **Phase 2, Step 3 – Do the Assessments.** The Community Status Assessment in particular is valuable for the CHIP process: *“Unless we hear from what the community’s telling us, we’re aiming in the dark. So it’s just very important for us to get a pulse on the community’s health status.”*
- **Phase 2, Step 4.3 – Organize Summary Data from the Assessment into Cross-Cutting Themes.** Nebraska T/LHDs noted that examining the themes related to social determinants of health (SDOH) was specifically a key aspect.
- **Phase 2, Step 6 – Share Findings.** *“Presenting the data, not only to our staff but also to the community so that we could engage them to demonstrate what some of the areas of improvement can be and allowing them to be a part of that whole process.”*
- **Phase 3, Step 1.1 – Review Issue Profiles and Determine Whom to Involve.** Having a variety of stakeholders involved in the decision-making process helps ensure there is consensus and buy-in on what the priorities will be and how they will be measured.

While most LHDs use the MAPP, PHAB does not require a specific framework or approach. Because of that, tribal entities and LHDs may use or modify any evidence-based processes. Some of those processes include:

Evidence-Based Process	Notes About Process
Planned Approach to Community Health (PATCH Model)	This model, developed by CDC, contains five phases, including 1) community participation and coalition development; 2) data collection; 3) problem identification and priority setting; 4) strategy or intervention planning; and 5) evaluation.
Community Health Assessment and Group Evaluation (CHANGE) Tool	This is another model from CDC. It involved eight steps and is estimated to take 3-5 months to complete.
Indian Community Health Profile Project Toolkit	This guide is design to assist tribal health departments or entities through a process for assessing their overall community health status. It has been used by a tribal entity in Nebraska.
Community Health Assessment Toolkit	This guide was developed by the American Hospital Association and provides nine steps for hospitals and health systems to collaborate with conducting the CHA/CHIP.
Community Assessment for Public Health Emergency Response (CASPER)	Another CDC model, CASPER is a Rapid Needs Assessment designed to provide household-level information to public health leaders. The toolkit walks you through the process.

Sharing Results

A key aspect for developing the CHIP is sharing the results of the CHA. Although it is an important step, it is a challenging one given the amount of data and information to present. The [PHAB Standard & Measures for Reaccreditation](#) includes guidance on data and progress sharing. The [MAPP 2.0 Handbook](#) recommends several methods of sharing the results of a CHA/CHIP (starting on page 129). If possible, an online data dashboard is best, but information

could also be shared on a webpage or various documents (such as a report, executive summary, or fact sheet).

Nebraska T/LHDs have also found effective ways to share out the CHA/CHIP efforts:

- Turn some of the key milestones – such as submitting the application for reaccreditation or completing the CHA/CHIP – into a community event. That can help the community rally around the effort and remind partners that it's not just a T/LHD priority or activity.
- Do a presentation to the community when the process is finished. It's also presented to any board of directors/board of health.

It may be helpful to think of yourself/your team as a guide: you know this information the best, but not all of the information is very interesting or meaningful. It can be helpful to add context that the audience may not be familiar with. Examples include:

- Describing the methods – how the data was collected, who from, and when. The how and the who are expected when discussing the data, but when is also important for understanding what was happening at that time. Things like political environment, the season, and whether a global pandemic was occurring can help us understand the information better.
- Using different types/sources of data – using both [qualitative and quantitative data](#) is a great way to add context, but even different sources of the same type of data can help a lot. For example, state/national statistics may be available, but a smaller local survey can provide a comparison.
- Comparison data – a single statistic is often not very meaningful. However, other sources of data can provide meaning: benchmarks or baselines, trends over time, a similar other, a nearest neighbor, and state/national averages. [Healthy People 2030](#) includes goals for a wide range of objectives, if you want to see examples.
- Historical information – sometimes past policy or data can help the audience understand why some information is important or meaningful.

Even smaller amounts of data can be overwhelming when not organized in a helpful way. Group information from similar topics together, connecting numbers, narrative, and context as you go. As the guide, you can direct the audience where you want them to go. But you can also to share pieces – highlight the most important parts, and put the rest in an appendix.

When sharing data, visualizations can be extremely helpful. That being said, not everything needs to be a graph or figure. You also want to be thoughtful with your design choices – the goal is communication, and sometimes design can overpower the point you are trying to make. There are some resources to help with data visualization, like data visualization professionals. [Stephanie Evergreen](#) and [Anne K. Emery](#) both have publicly available guidance on their blogs as well as other products for pay, such as books, workshops, and courses. If you need assistance with choosing colors, or finding icons, pictures, maps, etc., additional resources are listed in Appendix C

Other Resources

Public Health

Many professional organizations offer trainings, webinars, and short courses that may be relevant to your needs. Here are some:



- American Public Health Association (APHA) regularly offers [webinars](#) on various topics, as well as a [Continuing Education](#) credit program.
- Institute for Healthcare Advancement (IHS) [Health Literacy Specialist Certificate Program](#), independently, or with the [Nebraska Associate of Local Health Departments](#) (NALHD)
- [Massive Open Online Course \(MOOC\) List](#) is a directory of open courses on various topics
- National Association of County and City Health Officials (NACCHO) regularly offers [webinars](#), and hosts [NACCHO University](#)
- Public Health Communications Collaborative has [webinars](#) on communication
- United States Food & Drug Administration (FDA) presents [topics in public health](#), with recorded videos of past presentations. They also offer Continuing Education Credits

Evaluation/Data

- ◆ The National Science Foundation has produced a handbook for project evaluation. The [User-Friendly Handbook for Project Evaluation](#) was last updated in 2010.
- ◆ [The Evaluators' Institute](#) (TEI) offers courses and certifications around data
- ◆ Arizona State University has a [Data Literacy](#) series on YouTube

Survey Development

- KFF Survey Question Finder: <https://www.kff.org/interactive/survey-question-finder/>
- Likert scale response options: https://mwcc.edu/wp-content/uploads/2020/09/Likert-Scale-Response-Options_MWCC.pdf?fbclid=IwAR2w6mdNXrYNmhLFYlu11CD97yUOUeqWMPrcNf1SxYaNSQltShIBnvmPPdo

Reporting and Data Visualization

General reporting and data visualization suggestions and guidance

- Stephanie Evergreen: <https://stephanieevergreen.com/blog/>. Stephanie has a newsletter, a blog, the book based on the blog is in its second edition (as of 2023), a variety of courses and workshops available, and she typically appears in conferences several times a year. Some specific tools she has that are especially useful are the Data Visualization Checklist: https://stephanieevergreen.com/wp-content/uploads/2018/02/DataVizChecklist_Feb2018.pdf and the Chart Chooser: <https://tobaccoeval.ucdavis.edu/sites/g/files/dgvnsk5301/files/inline-files/QuantitativeChartChooser.pdf>
- Ann K Emery: <https://depictdatastudio.com/>. Ann has a newsletter, a blog, and a variety of courses and workshops available, and she typically appears in conferences several times a year.
- Introductory Guide to Data Visualization (will need to enter an email address): <https://www.publichealthprepared.org/data-visualization-guide/>
- Data Visualization Standards: <https://xdgov.github.io/data-design-standards/>

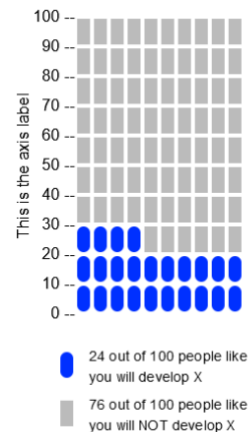
- Use the Demystifying 508 Compliance Resource Guide for guidance on creating content that is universally usable:
<https://static1.squarespace.com/static/5eb2bae2bb8af12ca7ab9f12/t/60143a23a97c136ebcc96bc5/1611938341124/2021-508ResourceDocument-TBITARC.pdf>

Color palette generators + accessibility

- Colors: <https://colors.co/> . Colors can create random color schemes, or specific colors can be entered to see how they look together. There is a built-in feature to see how your chosen color scheme will look for people with different types of color blindness.
- Data Color Picker: <https://www.learnui.design/tools/data-color-picker.html>. This page has multiple suggested color schemes, and can adapt to specific colors. Examples of how color will look in different contexts provided, as well as suggestions for use, and export options.
- ColorBrewer2: <https://colorbrewer2.org/#type=sequential&scheme=BuGn&n=3> . Originally built for coloring in maps, the page shows many alternatives for altering the provided color schemes (number of colors needed, gradients, diverging colors, etc.). It also includes accessibility options such as colorblind safe, printer friendly, and photocopy safe, and options for exporting the information.
- Viz Palette: <https://projects.susielu.com/viz-palette> . This site requires the inputting of selected colors (or editing of the starting set), but provides links to several tools to help. Demonstrates how the selected color choices look under a variety of types of data visualizations and under different colorblindness conditions as well as greyscale.

Imagery

- Flaticon: <https://flaticon.com> Over 14.2 million icons and stickers available in various formats and styles. Offers paid versions, or can be used with attributions of the creator.
- Icon Array: <https://iconarray.com> A tool from the University of Michigan to create an array (example on the right). The icons, colors, number of rows/columns, fonts, etc. are customizable.
- Pixabay: <https://pixabay.com> A collection of over 4.4 million royalty-free images, videos, music, sound effects, and gifs.
- The Noun Project: <https://thenounproject.com> Over 5 million icons and photos. Rules for use vary by image.
- EdWordle: <https://edwordle.net/> Word cloud generator with several customization options for editing.
- MapChart: <http://mapchart.net> Tool for free creating custom maps, including Nebraska at the county level.



Return to Table of Contents

Glossary

Acronyms

CDC: Centers for Disease Control and Prevention

CHA: Community Health Assessment

CHIP: Community Health Improvement Program

EHRs: Electronic Health Records

NDE: Nebraska Department of Education

NDHHS: Nebraska Department of Health and Human Services

LHD: Local health department

NACCHO: National Association of County and City Health Officials

NALHD: Nebraska Association of Local Health Departments

PHAB: Public Health Accreditation Board

SDOH: Social determinants of health

T/LHD: Tribal or local health department

UNMC: University of Nebraska Medical Center

Acronyms of Secondary Data Sources:

AGID: Aging, Independence, and Disability Program Data Portal

AHRF: Areas Health Resource Files

ACS: American Community Survey

BRFSS: Behavior Risk Factor Surveillance System

BLS: Bureau of Labor Statistics

CCD: Common Core of Data

CAP: Community Action Partnership

CCR&R: County Health Rankings & Roadmap

CPS: Current Population Survey

DART: Dartmouth Atlas

EJSMT: Environmental Justice Screening and Mapping Tool

FRS: Facility Registry Service

FARA: Food Access Research Atlas

FEA: Food Environment Atlas

GADC: Geographic Access to Dental Care
HDII: Health Dept Injury Indicator
H&HT: Heat & Health Tracker
IAHD: Interactive Atlas of Heart Disease
KDSS: Kidney Disease Surveillance System
MEPS: Medical Expenditure Panel Survey
MQoL: Mapping Quality of Life in NE: The Geographic Distribution of Poverty
NEPHT: National Environmental Public Health Tracking Network
NHANES: National Health & Nutrition Examination Survey
NHTSA: National Highway Traffic Safety Administration
NSDUH: National Survey on Drug Use & Health
NSFG: National Survey of Family Growth
NASIS: Nebraska Annual Social Indicators Survey
NDEE: Nebraska Dept of Environment & Energy
NEP: Nebraska Education Profile
NHW: Nebraska Healthcare Workforce
NODH: Nebraska Oral and Dental Health
NRPFSS: Nebraska Risk & Protective Factor Student Survey
NSSER: Nebraska Secretary of State Election Results: Voter Turnout
NYAAOS: Nebraska Young Adult Alcohol Opinion Survey
PHAB: Public Health Accreditation Board
SAHIE: Small Area Health Insurance Estimates
SAIPE: Small Area Income and Poverty Estimates
SDWIS: Safe Drinking Water Info System
SEMS: Superfund Enterprise Management System
TRI: Toxic Release Inventory
WISQARS: Web-based Injury Statistics Query and Reporting System
YRBS: Youth Risk Behavior Survey

Definitions

Primary data: this is data you collect yourself. This can be statistical, but also refers to things like interview or focus group notes or recordings, or observational records. Primary data is collected by you to answer your particular question(s).

Secondary data: this is data collected by others for their purposes. If we are lucky, their purposes align with yours, but a mismatch is common, which is a primary reason people collect

their own data. However, sometimes, secondary data is good enough, as primary data collection is usually much more expensive than using secondary data, especially when trying to collect a large amount of data. Surveillance and administrative data are examples of secondary data, as is data from the Census or other data repositories. If you do collect primary data, you can use secondary data as a comparison.

Qualitative data: this is data that is descriptive – it can be words, pictures, objects, symbols, etc., but it cannot be numbers. In public health, this data is most likely to be words, which are then analyzed for common types of answers. Qualitative data is valuable for when explanations or additional context is needed, as numerical or limited response options (typical of quantitative data) can lack larger understanding of answers. This type of data is typically collected via interviews and focus groups but can also come open-ended (write-in boxes) on surveys. For example, if we surveyed stakeholders about their perceptions of how things are going with a specific program or community effort, we may provide response options such as “excellent, good, fair, poor” but we will not know the reasoning behind which response is chosen. Whereas when we collect data via an interview, the participant can explain their perspective more fully.

Quantitative data: this is data that is countable and can be analyzed as numbers. This can be data that is meaningful as numbers (such as age, temperature, or distance), but is very often data that has been made to be numerical. For example, we often ask people how often they do something, and instead of asking them how many times in the past day/week/month they did it (which may be hard for them to remember), we may use a scale of never, rarely, sometimes, often, all the time, which is then coded as 1-5. In reporting, we would say what percentage of people gave each answer, or some combination of answers. Quantitative data is analyzed with statistical methods.

Surveillance data: typically data that is collected on an ongoing basis as part of monitoring population health. Examples include vital records (such as birth and death), notifiable diseases (which are usually infectious, such as hepatitis, Lyme disease, syphilis), administrative databases (such as Medicare) and registries or surveys (such as transplant recipients, or governmental surveys like the National Health Interview Survey (NHIS) or Behavioral Risk Factor Surveillance System (BRFSS)). Many types of surveillance data are publicly available.

Administrative data: data that is collected for recordkeeping and as part of doing business. This can include sign-in sheets, enrollment records, schedules, budgets, inspection results, tax records, etc. The great thing about administrative data is that you already have it. The not so great thing is that it may take a lot of time to assess what information is available and process it. The Community Toolbox includes a section on using public records and archival data that may be helpful.

Needs-assessment: A needs assessment looks at gaps and deficiencies from a situation, rather than aiming to contribute to a body of knowledge or improving a program. It is sometimes used in an evaluation as a first step, but more often is used as part of program planning. Needs assessments include systematically gathering, analyzing, and interpreting data to identify the unmet needs, priorities, and challenges of the community. It seeks to understand what services, programs, or interventions are required to address specific issues and improve the well-being of a community.

Appendix A: Existing (Secondary) Data Sources

Aging, Independence, and Disability (AGID) Program Data Portal

Data Source Details

- Population Included: Individuals aged 60 and older in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Mail and online surveys, telephone interviews
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Parents or Caregivers
 - People with Disabilities
-

Website

<https://agid.acl.gov/>

Managed by: Administration for Community Living

How to Access

National data can be found under the National Survey of Older Americans Act Participants section and downloaded as Excel files. To access state and county data, download the desired state zip folder under the American Community Survey (ACS) Special Tabulations and State Profiles sections.

Notes on Use

State data files have non-descriptive labels. You will have to open each file to find out the data topic.

American Community Survey (ACS)

Data Source Details

- Population Included: All individuals in the U.S. and Puerto Rico
 - Level(s) Available: International, National, State, County
 - Collection Method: Web and paper surveys, phone and in-person interviews
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Health Insurance
 - Housing and Homes
 - Infants
 - Neighborhood and Built Environment
 - People with Disabilities
 - Transportation
 - Workforce
-

Website

<https://www.census.gov/programs-surveys/acs>

Managed by: U.S. Census Bureau

How to Access

Click on the Data tab in the navigation menu on the left or on then American Community Survey Data link on the website to access data files.

Notes on Use

Conducted by the US Census on an ongoing basis. Used as the benchmark for population counts between decennial censuses.

Additional Tools Using ACS Data

SparkMap (<https://sparkmap.org/report/>) can help you create county-level reports from available ACS data.

Distressed Communities Index (<https://eig.org/distressed-communities/2022-dci-interactive-map/>) uses ACS and Census data to create a distressed communities index map. Includes information for zip codes, counties, congressional districts, and states.

Census Reporter (<https://censusreporter.org/>) creates graphics for available statistics for geographic areas.

Annual Reports and Information Staff (Annual Reports)

Data Source Details

- Population Included: Students aged 3-21 receiving special education and/or services under the Individuals with Disabilities Education Act (IDEA)
 - Level(s) Available: National and State
 - Collection Method: [Administrative data](#) from schools
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Economic Stability
 - Education Access and Quality
 - People with Disabilities
 - Schools
-

Website

<https://nces.ed.gov/programs/coe/indicator/cgg>

Managed by: National Center for Education Statistics

How to Access

Data is available on the webpage and can be downloaded as a PDF file.

Area Health Resource Files

Data Source Details

- Population Included: Varies by data source
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- Health Care
 - Health Insurance
 - Hospital and Emergency Services
 - Public Health Infrastructure
-

Website

<https://data.hrsa.gov/data/download>

Managed by: Health Resources and Services Administration

How to Access

Individual files, including technical documentation, can be downloaded directly from the webpage. The site also includes data dashboards for some topics, a data explorer portal, and fact sheets for some counties in Nebraska.

Behavioral Risk Factor Surveillance System (BRFSS)

Data Source Details

- Population Included: Individuals aged 18 and older in the U.S.
 - Level(s) Available: National, State, County
 - Collection Method: Telephone surveys
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Addiction
 - Arthritis
 - Cancer
 - Chronic Kidney Disease
 - Community
 - Dementia
 - Diabetes
 - Drug and Alcohol Use
 - Health Care
 - Health Care Access and Quality
 - Health Communication
 - Heart Disease and Stroke
 - Infectious Disease
 - Injury Prevention
 - Mental Health and Disorders
 - Nutrition and Healthy Eating
 - Older Adults
 - Oral conditions
 - Overweight and Obesity
 - People with Disabilities
 - Physical Activity
 - Preventative Care
 - Respiratory Disease
 - Sleep
 - Social and Community Context
 - Tobacco Use
 - Vaccination
 - Women
-

Websites

CDC website: <https://www.cdc.gov/brfss/>

CDC county-, city-, census-tract-, or zip code-level data: <https://www.cdc.gov/places/>

Nebraska BRFSS dashboard: <https://dhhs.ne.gov/Pages/Nebraska-Public-Health-Atlas.aspx>

Managed by: Centers for Disease Control and Prevention (CDC) and Nebraska Department of Health and Human Services (DHHS)

How to Access

To access BRFSS data, you can 1) click on the Prevalence Data & Data Analysis Tools or Survey Data & Documentation links on the CDC website, 2) click on the CDC's PLACES website to access county-, city-, census-tract-, or zip code-level data, or 3) click on Nebraska's ATLAS website, which is Nebraska's BRFSS dashboard. To use the ATLAS website - use the filters under the Dashboard tab to select the health topic, sub-health topic, health indicator, year type and year to view data. You can also further filter the results by demographic groups, geographic levels, or over time.

Notes on Use

Data is updated on the CDC websites annually and interactive maps are available. When using the ATLAS website, there may be a delay in data availability, county level data is not available using this site, and measures are limited. If you have additional Nebraska BRFSS data needs, contact Jeff Armitage at Jeff.Armitage@nebraska.gov

Bureau of Labor Statistics: Nebraska Data

Data Source Details

- Population Included: Residents of Nebraska
 - Level(s) Available: National, State, County
 - Collection Method: Reporting from agencies/companies, [surveillance data](#)
 - Timeline for Collection and/or Accessing: Varies by data source
-

Healthy People 2030 Objectives

- Economic Stability
-

Website

<https://www.bls.gov/regions/midwest/nebraska.htm#tab-2>

Managed by: U.S. Bureau of Labor Statistics (BLS)

How to Access

Click on a link on the webpage to view data for the topic. Some links of interest for this objective are Lincoln Area Economic Summary and Omaha Area Economic Summary.

Notes on Use

Data are available in a mix of PDF files and visualizations depending on the topic.

Cancer Statistics

Data Source Details

- Population Included: Individuals in the U.S. and Puerto Rico
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Cancer
 - Oral Conditions
 - Respiratory Disease
 - Tobacco Use
 - Men
 - Women
 - Health Care
 - Health Care Access and Quality
-

Website

US Cancer Statistics: <https://gis.cdc.gov/Cancer/USCS/#/AtAGlance/>

State Cancer Profiles: <https://www.statecancerprofiles.cancer.gov/index.html>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

To use the US Cancer Statistics - use the Area drop-down menu to select national or state statistics. Different types of cancer data can be viewed by selecting options from the New Cases (Incidence) or Deaths (Mortality) drop-down menu. County level data can be found by going to <https://gis.cdc.gov/Cancer/USCS/#/StateCountyTerritory/> and selecting the state, county, and type of cancer statistic from the drop-down menu on the webpage.

To use the State Cancer Profiles - Click on a state on the interactive map on the website to view state data. Use the Demographics, Screening & Risk Factors, Incidence, and Mortality tabs on the linked webpage to view data for various cancer topics. Data are available in map, table, and graph formats and can be exported as CSV files.

Notes on Use

To access the data - data-use agreements from the CDC's NPCR and NCI's SEER program must be signed because the data comes from both programs. The full details and instructions on how to get access to the data can be found on <https://www.cdc.gov/cancer/uscs/public-use/obtain-data.htm>

Common Core of Data (CCD)

Data Source Details

- Population Included: All public elementary and secondary schools in the U.S.
 - Level(s) Available: National and State
 - Collection Method: Census records
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objective

- Adolescents
-

Website

<https://nces.ed.gov/ccd/ccddata.asp>

Managed by: National Center for Education Statistics (NCES, Department of Education)

How to Access

Click on the CCD Data File Tool link on the webpage to view data available to download. Use the filters on the page to select desired data. Some data tables can be accessed by going to the About CC tab in the horizontal menu on the webpage and selecting the Data Tables link.

Notes on Use

Data files can be downloaded as flat or SAS files. Program files are available in SPSS and SAS (only for some years) formats.

Community Action Partnership (CAP)

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- Addiction
 - Chronic Kidney Disease
 - Mental Health and Mental Disorders
 - Pregnancy and Childbirth
 - Drug and Alcohol Use
 - Nutrition and Healthy Eating
 - Sleep
 - Vaccination
 - Adolescents
 - Infants
 - Health Insurance
 - Housing and Homes
 - Economic Stability
 - Cancer
 - Diabetes
 - Oral Conditions
 - Emergency Preparedness
 - Injury Prevention
 - Preventive Care
 - Tobacco Use
 - Violence Prevention
 - Children
 - Environmental Health
 - Hospital and Emergency Services
 - Transportation
 - Education Access and Quality
-

Website

<https://cap.engagementnetwork.org/map-my-community/cap-map-room/>

Managed by: Community Action

How to Access

Search for data by topic, keyword, or data source in the search bar. After selecting topics, you can view data at the county level either by manually selecting counties on the interactive map or using Query Data under the Tools menu. In Query Data, set the field to State in the dropdown menu, then enter the desired state in abbreviated form (e.g., NE). Once the system has highlighted the data on the map, you can download the data in PNG or PDF format.

County Health Rankings & Roadmap (CHR&R)

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: State and County
 - Collection Method: Multiple Sources
 - Timeline for Collection and/or Accessing: Continuous
-

Healthy People 2030 Objectives

- | | |
|--------------------------------------|--------------------------------------|
| • Mental Health and Mental Disorders | • Infants |
| • Overweight and Obesity | • Community |
| • Pregnancy and Childbirth | • Environmental Health |
| • Sexually Transmitted Infections | • Health Care |
| • Drug and Alcohol Use | • Health Insurance |
| • Family Planning | • Housing and Homes |
| • Injury Prevention | • Schools |
| • Nutrition and Healthy Eating | • Workforce |
| • Physical Activity | • Health Insurance |
| • Preventative Care | • Transportation |
| • Tobacco Use | • Economic Stability |
| • Vaccination | • Education Access and Quality |
| • Adolescents | • Health Care Access and Quality |
| • Children | • Neighborhood and Build Environment |
-

Website

<https://www.countyhealthrankings.org/>

Managed by: University of Wisconsin Population Health Institute (UWPHI)

How to Access

Use the Explore Health Rankings tab on the menu and select Find Data. You can then find data by location or topic.

Notes on Use

County health rankings are based on a variety of national and state data sources. The specific data source(s) used for each ranking measure can be accessed on the measure's webpage.

[Return to Table of Existing Data Sources](#)

Current Population Survey Annual Social and Economic Supplement (CPS-ASEC)

Data Source Details

- Population Included: Individuals aged 16 and older in the U.S.
 - Level(s) Available: County
 - Collection Method: In-person and phone interviews
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Adolescents
 - Infants
-

Website

<https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.html>

Managed by: U.S. Census Bureau (USCB, U.S. BLS)

How to Access

Datasets can be downloaded in ASCII, SAS, and CSV formats on the webpage under Data and Documents.

Notes on Use

Some variables require weighting. See Replicate Weight Data and Documents section on the webpage for instructions and relevant documents.

CyncHealth

Data Source Details

- Population Included: Patients in healthcare facilities and healthcare providers in Nebraska
 - Level(s) Available: State and County
 - Collection Method: Reporting from participating healthcare providers
 - Timeline for Collection and/or Accessing: Continuous
-

Healthy People 2030 Objectives

- Health Communication
 - Public Health Infrastructure
-

Website

<https://cynchealth.org/>

Managed by: CyncHealth

How to Access

You must be a healthcare provider to join CyncHealth and access its patient information database.

Dartmouth Atlas

Data Source Details

- Population Included: Medicare recipients ages 65-99
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- Older Adults
 - Health Care
 - Health Insurance
 - Hospital and Emergency Services
-

Website

<https://data.dartmouthatlas.org/>

Managed by: Dartmouth College

How to Access

The website provides different options for using their data, such as downloading the data (including longitudinal files, by year, and you can also make your own dataset), and using interactive maps and charts.

Dartmouth Atlas [reports](#) are also available through the National Library of Medicine.

Diabetes Data

Data Source Details

- Population Included: 18 and older in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Diabetes
-

Website

US Diabetes Surveillance System: <https://gis.cdc.gov/grasp/diabetes/diabetesatlas-surveillance.html>

National Diabetes Statistics Report: <https://www.cdc.gov/diabetes/data/statistics-report/index.html>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

To utilize the US Diabetes Surveillance System - view national, state, or county level data by selecting the respective geography level. Then select by topic and indicator to view specific diabetes data.

To utilize the National Diabetes Statistics Report - click on the sections listed under Results on the webpage.

Return to Table of Existing Data Sources

Drug Overdose Data

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Reporting from healthcare agencies and facilities
 - Timeline for Collection and/or Accessing: Continuous
-

Healthy People 2030 Objectives

- Addition
 - Drug and Alcohol Use
-

Website

<https://www.cdc.gov/drugoverdose/index.html>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Click on the Overdose Data link to access drug overdose data. On the webpage, data can be found by clicking on the Data Dashboards & Alerts and US Opioid Dispensing Rate Map tabs in the navigation menu on the left of the webpage.

Environmental Justice Screening and Mapping Tool (EJSMT)

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by data source
-

Healthy People 2030 Objectives

- Cancer
 - Heart Disease and Stroke
 - Respiratory Disease
 - Infants
 - People with Disabilities
 - Environmental Health
 - Health Care
-

Website

<https://www.epa.gov/ejscreen>

Managed by: United States Environmental Protection Agency (EPA)

How to Access

Click on the Launch the EJScreen Tool link on the website. Access data on the linked webpage by selecting the topic using the filters on the left then specifying the state/country in the map search bar on the top right of the map.

Return to Table of Existing Data Sources

Facility Registry Service (FRS)

Data Source Details

- Population Included: Facilities or sites subject to environmental regulations
 - Level(s) Available: National, State, and County
 - Collection Method: Reports from facilities or sites subject to environmental regulation
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Environmental Health
 - Neighborhood and Built Environment
-

Website

<https://www.epa.gov/frs/epa-frs-facilities-state-single-file-csv-download>

Managed by: United States Environmental Protection Agency (EPA)

How to Access

Click on a state on the interactive map to download state data in CSV format. Other data links are provided on the webpage.

Feeding America

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- Nutrition and Healthy Eating
-

Website

<https://map.feedingamerica.org/county/2020/overall/nebraska>

Managed by: Feeding America

How to Access

Select state or county using the dropdown menu of the search bar, then select demographic variable, map type, and year. Click on a county on the interactive map to view its data.

Data sets can also be requested by completing a data request form at <https://www.feedingamerica.org/research/map-the-meal-gap/by-county>

Return to Table of Existing Data Sources

Food Access Research Atlas

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Measurement of physical distance of household location to nearest food
 - Timeline for Collection and/or Accessing: Multiple schedules
-

Healthy People 2030 Objective

- Nutrition and Healthy Eating
-

Website

<https://www.ers.usda.gov/data-products/food-access-research-atlas/>

Managed by: U.S. Department of Agriculture (USDA)

How to Access

Click on the Enter the Atlas button on the website to access the interactive atlas. Alternatively, you can download the data in CSV file format by selecting the Download the Data tab in the navigation menu on the left of the website.

Food Environment Atlas

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by data source
-

Healthy People 2030 Objectives

- Diabetes
 - Overweight and Obesity
 - Nutrition and Healthy Eating
-

Website

<https://www.ers.usda.gov/data-products/food-environment-atlas/>

Managed by: U.S. Department of Agriculture (USDA)

How to Access

Click on the Enter the Map button on the website to access the interactive atlas. Alternatively, you can download the data in CSV file format by selecting the Data Access and Documentation Downloads tab in the navigation menu on the left of the website.

Return to Table of Existing Data Sources

Geographic Access to Dental Care

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Unknown
-

Healthy People 2030 Objective

- Health Insurance
-

Website

<https://www.ada.org/resources/research/health-policy-institute/coverage-access-outcomes/geographic-access-to-dental-care>

Managed by: American Dental Association (ADA)

How to Access

Click on a state on the map to view data.

Return to Table of Existing Data Sources

Health Department Injury Indicator

Data Source Details

- Population Included: Residents of Nebraska
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Older Adults
 - Hospital and Emergency Services
-

Website

<https://dhhs.ne.gov/Pages/Injury-Facts.aspx>

Managed by: Nebraska Department of Health and Human Services (DHHS)

How to Access

Click on the state report link under Injury Reports to view state injury data. Local health department injury profiles are available by clicking on the respective links on the website.

Notes on Use

Data are available in PDF reports.

Return to Table of Existing Data Sources

Heat & Health Tracker

Data Source Details

- Population Included: All U.S. States
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple Sources
 - Timeline for Collection and/or Accessing: Daily and weekly
-

Healthy People 2030 Objectives

- Environmental Health
 - Global Health
-

Website

<https://ephtracking.cdc.gov/Applications/heatTracker/>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Hover above counties on the interactive heat-related illness map to view data. You can view daily or weekly data and choose the date. Regional data for rate of emergency department visits for heat-related illness and state heat exposure data is also available on the webpage.

Interactive Atlas of Heart Disease

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Telephone surveys
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objective

- Heart Disease and Stroke
-

Website

<https://dhhs.ne.gov/Pages/Nebraska-Public-Health-Atlas.aspx>

Managed by: Division for Heart Disease and Stroke Prevention, CDC

How to Access

Select desired state in the Interactive Atlas widget. This will redirect you to a fullscreen map of the state by county. Use the filters on the left of the website to select state and desired heart disease data. Clicking on a country on the interactive map will show options to view the county profile, state table, and table of all counties. GIS data is available to download and data can be exported.

Kidney Disease Surveillance System

Data Source Details

- Population Included: Individuals aged 18 and older in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Biennial (NHANES survey) and continuous (VHA surveillance)
-

Healthy People 2030 Objective

- Chronic Kidney Disease
-

Website

<https://nccd.cdc.gov/CKD/default.aspx>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

View the different data by clicking on the respective tabs in the navigation menu on the webpage.

Kids Count Data Center

Data Source Details

- Population Included: Children and young adults in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by data source
-

Healthy People 2030 Objectives

- Adolescents
 - Children
 - Infants
-

Website

<https://datacenter.kidscount.org/>

Managed by: The Annie E. Casey Foundation

How to Access

View state data by selecting the state in the drop-down menu or on the interactive map. National data is also available for state-national comparisons. On the linked webpage, select by location for geographic-specific data and by topic.

Notes on Use

Kids Count provides data from multiple sources. More details can usually be found by accessing these data sources directly (see Definition and Source section on each topic's webpage for details). Raw data for topics can usually be downloaded as Excel files.

For additional guidance, there is a [Data 101](#) overview on YouTube (8:19 min) and a [series](#) that includes a walk-through of the Kids Count Data Center.

Mapping Quality of Life in Nebraska: The Geographic Distribution of Poverty

Data Source Details

- Population Included: Residents of Nebraska
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: 2000-2014
-

Healthy People 2030 Objective

- Economic Stability
-

Website

<https://digitalcommons.unl.edu/mapquallifene/1/>

Managed by: Community and Regional Planning Program; Department of Child, Youth, and Family Studies, University of Nebraska--Lincoln

Notes on Use

Data is a PDF summary of information specific to Nebraska. Most of the data is from the 2010-2014 American Community Survey, 5-year estimates.

Medical Expenditure Panel Survey

Data Source Details

- Population Included: Individuals, Families, and Medical Providers (all ages)
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Ongoing
-

Healthy People 2030 Objectives

- Addiction
 - Adolescents
 - Arthritis
 - Cancer
 - Diabetes
 - Drug and Alcohol Use
 - Children
 - Health Care
 - Health Care Access and Quality
 - Health Insurance
 - Heart Disease and Stroke
 - Hospitals and Emergency Services
 - Injury Prevention
 - Men
 - Mental Health and Mental Disorders
 - Obesity
 - Older Adults
 - People with Disabilities
 - Preventative Care
 - Respiratory Disease
 - Women
 - Workforce
-

Website: <https://meps.ahrq.gov/mepsweb/>

Managed by: The Agency for Healthcare Research and Quality

How to Access

The website provides access to some variables for national statistics (see [MEPS Data Tools](#)). More localized data is restricted, and there is an [application process](#) for gaining access. There are three options: 1) at the AHRG Data Center in Maryland, 2) at a Federal Statistical Research Data Center (Nebraska has the Central Plains Restricted Data Center at the University of Nebraska-Lincoln), or 3) using a SecureCloud remote access option with a limited number of variables.

Medicare Chronic Conditions Dashboards

Data Source Details

- Population Included: Individuals aged 65 and older, under age 65 with certain disabilities, any age with end-stage renal disease
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Continuous
-

Healthy People 2030 Objectives

- Addiction
 - Arthritis
 - Cancer
 - Chronic Kidney Disease
 - Dementia
 - Diabetes
 - Heart Disease and Stroke
 - Infectious Disease
 - Mental Health and Disorders
 - Osteoporosis
 - Respiratory Disease
 - Sexually Transmitted Infections
 - Men
 - Older Adults
 - Women
 - Health Care
-

Website

<https://data.cms.gov/medicare-chronic-conditions>

Managed by: U.S. Centers for Medicare & Medicaid Services

How to Access

Click on Dashboard in the navigation menu to access the regional, state, and county Medicare chronic conditions dashboards. You can also view the data with the Interactive Atlas of Chronic Conditions in the navigation menu.

Notes on Use

Additional datasets are available at <https://www.cms.gov/research-statistics-data-and-systems/research-statistics-data-and-systems>

Mortality Data

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Mandatory reporting of death information
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Cancer
-

Website

<https://seer.cancer.gov/mortality/>

Managed by: National Center for Health Statistics (NCHS)

How to Access

U.S. mortality data are only available to SEER* Stat users who access these data in client-server mode. A signed research data agreement is required to access the U.S. mortality and SEER data through SEER*Stat. You will be given a username and password within two business days of SEER receiving your signed SEER Research Data Use Agreement allowing you to access the data through SEER*Stat.

Notes on Use

This data includes all causes of death, not just cancer deaths.

mySidewalk

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- All
-

Website

<https://www.mysidewalk.com/>

Managed by: mySidewalk

How to Access

mySidewalk is a paid software platform. After purchase, users can access data by data source, category, time, and geographic level.

My Tribal Area

Data Source Details

- Population Included: American Indian and Alaska Native individuals in the U.S.
 - Level(s) Available: State tribal area
 - Collection Method: Online/paper survey, phone/in-person interview
 - Timeline for Collection and/or Accessing: Data collected annually, but is visible in 5-year estimates
-

Healthy People 2030 Objectives

- Housing and Homes
 - Education Access and Quality
 - Economic Stability
-

Website

<https://www.census.gov/tribal/>

Managed by: U.S. Census Bureau

How to Access

Search for data either by entering a specific tribal area or using the drop-down menus on the website.

Notes on Use

Data is from the 2018-2022 American Community Survey, 5-year estimates.

Return to Table of Existing Data Sources

My Water's Fluoride

Data Source Details

- Population Included: Water Systems
 - Level(s) Available: National, State, and County
 - Collection Method: State reporting
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Oral Conditions
 - Preventative Care
 - Health Policy
 - Neighborhood and Built Environment
-

Website

https://nccd.cdc.gov/doh_mwf/default/default.aspx

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Click on a state on the interactive map to view a list of counties, then click on each county to view data. You can also view reports in tabular format by clicking on the State Fluoridation Reports tab in the navigation menu on the left of the website.

National Environmental Public Health Tracking Network

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple Sources
 - Timeline for Collection and/or Accessing: Data collection schedule varies by data source
-

Healthy People 2030 Objectives

- Cancer
 - Heart Disease and Stroke
 - Overweight and Obesity
 - Pregnancy and Childbirth
 - Respiratory Disease
 - Physical Activity
 - Sleep
 - Tobacco Use
 - Infants
 - People with Disabilities
 - Environmental Health
 - Global Health
 - Health Policy
 - Neighborhood and Built Environment
-

Website

<https://ephtracking.cdc.gov/DataExplorer/>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Access data by selecting content area, indicator, measure, and geography using the filters on the website. Data is also available in tabular and chart formats and can be downloaded as CSV files.

National Health and Nutrition Examination Survey (NHANES)

Data Source Details

- Population Included: Individuals ages 2 months and older in the U.S.
 - Level(s) Available: National, State, and county
 - Collection Method: Phone interviews, physical measurements
 - Timeline for Collection and/or Accessing: Biennial
-

Healthy People 2030 Objectives

- Adolescents
 - Children
 - Chronic Kidney Disease
 - Environmental Health
 - Health Care
 - Infants
 - Neighborhood and Built Environment
 - Oral Conditions
 - Osteoporosis
 - Physical Activity
 - Preventive Care
 - Respiratory Disease
 - Sensory or Communication Disorders
 - Sexually Transmitted Infections
 - Tobacco Use
-

Website

https://www.cdc.gov/nchs/nhanes/about_nhanes.htm

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Access to the most recent results requires going through the National Center for Health Statistics Research Data Center (RDC). However, older data sets may be available directly from the website (<https://wwwn.cdc.gov/nchs/nhanes/Default.aspx>). Data from before 2009 may also be accessed through ICPSR (<https://www.icpsr.umich.edu/web/NACDA/series/39>).

Notes on Use

The About page includes a survey content brochure that shows all indicators included across various years of the NHANES and survey populations. For example, data on kidney conditions has been collected from people aged 20 years and older in every edition of the NHANES. Sample weights are required for some data variables (see estimation and weighting procedures for each survey at

<https://wwwn.cdc.gov/nchs/nhanes/analyticguidelines.aspx#estimation-and-weighting-procedures>).

[Return to Table of Existing Data Sources](#)

National Highway Traffic Safety Administration (NHTSA)

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and county
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Drug and Alcohol Use
 - Injury Prevention
 - Transportation
 - Sleep
-

Website

<https://cdan.dot.gov/>

Managed by: National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation

How to Access

Click on the various links on the website to access data and data visualizations. Data files are also available for download in CSV file format (in Zip folders) using the Data Download link on the website.

National Survey on Drug Use and Health (NSDUH)

Data Source Details

- Population Included: Individuals aged 12 and older in the U.S.
 - Level(s) Available: National, State and Regional
 - Collection Method: In-person interviews, web surveys
 - Timeline for Collection and/or Accessing: Annual, but data is available at a regional level (Regions 1-6) following a two year cycle
-

Healthy People 2030 Objectives

- Addiction
 - Adolescents
 - Child and Adolescent Development
 - Children
 - Chronic Pain
 - Drug and Alcohol Use
 - Education Access and Quality
 - Health Care
 - Health Care Access and Quality
 - Infants
 - LGBT
 - Mental Health and Mental Disorders
 - Women
-

Website

<https://www.samhsa.gov/data/data-we-collect/nsduh-national-survey-drug-use-and-health>

Managed by: U.S. Department of Health and Human Services (HHS)

How to Access

In the navigation menu, select NSDUH National Releases for national reports, NSDUH State Reports for reports by state, and NSDUH Substate Reports for reports by state regions. Each year's national release page includes the annual national report, detailed tables, and breakdown of report sections. Each year's state report page includes sections on state result data tables, comparison of state prevalence estimates across time, state result maps, and state and regional methodology reports. You can also use the Interactive NSDUH State Estimates tool to view state data.

Notes on Use

There are many links on each webpage. State reports can be found in the NSDUH State Result Data Tables section on each year's state report page. State reports for 2019-2020 and substate reports for 2018-2020 are not available due to methodological concerns caused by the COVID-19 pandemic.

There is also an interactive map-based tool that shows the prevalence of substance use disorders and mental health illnesses by state (some data indicators are also available by behavioral health region). <https://pdas.samhsa.gov/saes/state>

National Survey of Family Growth (NSFG)

Data Source Details

- Population Included: Individuals aged 15-49 in the U.S.
 - Level(s) Available: National, State, and county
 - Collection Method: In-person and audio computer-assisted self-administered interviews
 - Timeline for Collection and/or Accessing: Continuous, but by request through the RDC for State and County
-

Healthy People 2030 Objectives

- Adolescents
 - Family Planning
 - Health Care Access and Quality
 - Infants
 - Women
-

Website

https://www.cdc.gov/nchs/nsfg/nsfg_questionnaires.htm

Managed by: National Center for Health Statistics, CDC

How to Access

Select the desired data by 3-year period which will take you to the survey's documents and data. Data can be downloaded from the Downloadable Data Files Section on the webpage. The data is available in SAS, SPSS, and STATA formats. Regional data can be accessed through the NCHS or Census Research Data Centers (RDCs; see end of webpage for more details).

Notes on Use

Weighting is required for some data variables.

National Profile of Local Health Departments

Data Source Details

- Population Included: Local health departments in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Web survey
 - Timeline for Collection and/or Accessing: Data collected every 3 years
-

Healthy People 2030 Objectives

- Community
 - Workforce
-

Website

<https://www.naccho.org/resources/lhd-research/national-profile-of-local-health-departments#data-requests>

Managed by: National Association of County and City Health Officials (NACCHO)

How to Access

Data is available at no cost but must be requested by completing the online form on the webpage. The latest profile study can be accessed by clicking on the links to the report or dashboard on the webpage. However, the report has minimal state data.

Nebraska Annual Social Indicators Survey (NASIS)

Data Source Details

- Population Included: 19 and older in Nebraska
 - Level(s) Available: State and Behavioral Health Region (BHR)
 - Collection Method: Mail surveys
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Mental Health and Mental Disorders
 - Tobacco Use
 - Social and Community Context
-

Website

<https://bosr.unl.edu/nasis>

Managed by: Bureau of Sociological Research (BOSR, UNL)

How to Access

NASIS data become publicly available one year after the data are delivered to clients. Contact BOSR if you are interested in acquiring NASIS data. Researchers external to the University of Nebraska-Lincoln will need to sign a data agreement form before the data can be shared.

Notes on Use

NASIS questions vary each year depending on client needs, but every year a core group of items consisting of common demographics and quality of life measures are included.

Nebraska Childhood Lead Poisoning Prevention Program (NCLPPP)

Data Source Details

- Population Included: 6 and younger in Nebraska
 - Level(s) Available: State and County
 - Collection Method: Reports from health care providers
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Children
 - Housing and Homes
 - Neighborhood and Built Environment
-

Website

<https://dhhs.ne.gov/Pages/Lead-Data.aspx>

Managed by: Nebraska Department of Health and Human Services

How to Access

Click on the reports under the Blood Lead Level Surveillance Data section to view data. County level data can be accessed by clicking on the View Testing Results for Schools and Childcare Facilities link on the webpage that downloads an Excel file.

Nebraska Crime Commission: Data and Reports

Data Source Details

- Population Included: Residents of Nebraska
 - Level(s) Available: State and County
 - Collection Method: [Surveillance data](#)
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Neighborhood and Built Environment
-

Website

<https://ncc.nebraska.gov/data-and-reports>

Managed by: Nebraska Crime Commission

How to Access

Use the links on the webpage to view data on various crime topics.

Notes on Use

Data reported by law enforcement. Underreporting is common.

[Return to Table of Existing Data Sources](#)

Nebraska Department of Environment and Energy (NDEE) Publications, Grants, & Forms

Data Source Details

- Population Included: Counties in Nebraska
 - Level(s) Available: State and County (varies by report)
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Environmental Health
 - Health Policy
 - Neighborhood and Built Environment
-

Website

<http://dee.ne.gov/publica.nsf/Pubs.xsp>

Managed by: Nebraska Department of Environment and Energy (NDEE)

How to Access

Use the Air Publications, Water Publications and Land & Waste Publications tabs at the top of the website to select publications by program type. On the linked webpage, click on Annual Reports to access data.

Notes on Use

Data are available in PDF reports.

Nebraska Education Profile (NEP)

Data Source Details

- Population Included: Students attending public schools in Nebraska
 - Level(s) Available: State, County, School district, and school
 - Collection Method: Reports to Nebraska Department of Education
 - Timeline for Collection and/or Accessing: Annual
-

Healthy People 2030 Objectives

- Adolescents
 - Child and Adolescent Development
 - Children
 - Education Access and Quality
 - Nutrition and Healthy Eating
 - Schools
-

Website

<https://nep.education.ne.gov/>

Managed by: Nebraska Department of Education

How to Access

View state data by clicking on the State Data link on the website. View data for schools by using the District and School Data search filters on the website.

Notes on Use

District and individual school data collected by NDE. Includes student demographics, statewide assessments, and graduation rates. Data back to AY2019. Data can be downloaded as PDF files.

Nebraska Healthcare Workforce: Update 2022

Data Source Details

- Population Included: Healthcare professionals in Nebraska
 - Level(s) Available: State and County
 - Collection Method: Reporting
 - Timeline for Collection and/or Accessing: Continuous
-

Healthy People 2030 Objectives

- Health Care
 - Health Care Access and Quality
-

Website

https://www.unmc.edu/rural-health/_documents/healthcare_workforce_status_2022.pdf

Managed by: University of Nebraska Medical Center

How to Access

Data is a PDF report. Figure 20 of the report shows the number of licensed emergency medical technicians (EMT) per 100,000 population by county.

Nebraska Hospitals Data Request

Data Source Details

- Population Included: Nebraskans who used hospital services
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Hospital and Emergency Services
-

Website

https://www.nebraskahospitals.org/health_data/nha-data-request.html

Managed by: Nebraska Hospital Association (NHA)

How to Access

Hospital discharge data is available for purchase by submitting a data request form to NHA-Data-Support@NebraskaHospitals.org. Data can be ordered in Excel, CSV, PDF or other requested file formats.

Nebraska Opportunity Map

Data Source Details

- Population Included: Data related to children and families in Nebraska
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- Pregnancy and Childbirth
 - Children
 - Economic Stability
 - Adolescents
 - Infants
 - Education Access and Quality
-

Website

<https://www.neopportunitymap.org/>

Managed by: Casey Family Programs

How to Access

Click on a county on the interactive map to display data. To show trend data, select the Multiple Years option. You can also access select community data for each county. To combine data from multiple counties, use the Search and Select tab on the left of the website to select the desired counties. Use the Map Options tab to add demographic layer(s) for counties. Data can be downloaded as Excel files.

Nebraska Oral and Dental Health

Data Source Details

- Population Included: Residents of Nebraska
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by data source
-

Healthy People 2030 Objectives

- Adolescents
 - Children
 - Health Care
 - Oral Conditions
 - Preventive Care
 - Schools
-

Website

<https://dhhs.ne.gov/Pages/Dental-Health.aspx>

Managed by: Nebraska Department of Health and Human Services

How to Access

Click on the Reports link on the website to view links to various Nebraska oral health data reports.

Notes on Use

Data are available in PDF reports.

Nebraska Risk and Protective Factor Student Survey (NRPFSS)

Data Source Details

- Population Included: 8th, 10th and 12th grade students in Nebraska public and non-public schools
 - Level(s) Available: Local Health Department, Behavioral Health Region, County
 - Collection Method: Web and paper surveys
 - Timeline for Collection and/or Accessing: Biennial
-

Healthy People 2030 Objectives

- Adolescents
 - Drug and Alcohol Use
 - Mental Health and Mental Disorders
 - Nutrition and Healthy Eating
 - Tobacco Use
-

Website

<https://bosr.unl.edu/projects/sharp/nrpfss/>

Managed by: Bureau of Sociological Research (BOSR), UNL

How to Access

Scroll to the NRPFSS section on the website to access reports by county, health department, and behavioral health region levels.

Notes on Use

Data are available in PDF reports. The NRPFSS is used primarily for generating local and regional estimates for substance abuse and risk and protective measures related to substance abuse and problem behaviors. The NRPFSS is the only survey that allows the opportunity for schools to receive a school-specific, school district, and/or community report (ask schools for these reports).

Schools opt to participant in the NRPFSS, so **the survey is not designed to provide state level estimates**. Instead, the Youth Risk Behavior Survey provides state level estimates, which can be compared to NRPFSS; however, it is important to note the age differences. NRPFSS surveys 8th, 10th and 12th graders, while YRBS surveys 9th-12th graders. For direct comparisons, 10th and 12th graders can be compared statewide and locally.

Return to Table of Existing Data Sources

Nebraska Secretary of State Election Results: Voter Turnout

Data Source Details

- Population Included: Residents of voting age in Nebraska
 - Level(s) Available: State and County
 - Collection Method: Reporting from precincts
 - Timeline for Collection and/or Accessing: Every election
-

Healthy People 2030 Objectives

- Social and Community Context
-

Website

<https://electionresults.nebraska.gov/resultsVoterTurnout.aspx>

Managed by: Nebraska Secretary of State

How to Access

Data is available on the webpage and can be downloaded into an Excel file.

Return to Table of Existing Data Sources

Nebraska Title X Agencies & Clinics

Data Source Details

- Population Included: Title X agencies and clinics in Nebraska
 - Level(s) Available: State and County
 - Collection Method: N/A
 - Timeline for Collection and/or Accessing: N/A
-

Healthy People 2030 Objectives

- Family Planning
-

Website

<https://nefamilyplanning.org/>

Managed by: Nebraska Family Planning

How to Access

Click on the Clinic Locations tab to see a list and map of Title X agencies and clinics in Nebraska.

Return to Table of Existing Data Sources

Nebraska Young Adult Alcohol Opinion Survey (NYAAOS)

Data Source Details

- Population Included: Individuals age 19-25 in Nebraska
 - Level(s) Available: State
 - Collection Method: Mail surveys
 - Timeline for Collection and/or Accessing: Every 2-3 years depending on funding
-

Healthy People 2030 Objectives

- Drug and Alcohol Use
 - Tobacco Use
-

Website

<https://nepreventionalliance.org/data>

Managed by: Bureau of Sociological Research (BOSR), UNL

How to Access

Click on 2022 NYAAOS Survey Results or Nebraska Young Adult Alcohol Opinion Survey 2010 - 2016 State Summary Report to view data.

Notes on Use

Data is available in a PDF report.

Out of Reach

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: State and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- Housing and Homes
 - Economic Stability
-

Website

<https://nlihc.org/oor>

Managed by: National Low Income Housing Coalition

How to Access

Click on the Full Report tab to download a PDF containing housing cost information for all states and counties. To view housing cost by state, click on the View State Data tab on the website. Select a state in the dropdown menu on the left of the webpage. County data can be accessed on the same webpage by selecting up to two jurisdictions in the Compare Jurisdictions bar beneath the state data.

To view housing needs by state, click on the Housing Needs By State tab in the top ribbon of the website and select a state to view its data. The data can be downloaded as a PDF or JPG file by clicking on the Resources tab of the state data webpage.

Return to Table of Existing Data Sources

OpenFEMA

Data Source Details

- Population Included: All individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Emergency Preparedness
 - Global Health
-

Website

<https://www.fema.gov/about/reports-and-data/openfema>

Managed by: Federal Emergency Management Agency (FEMA)

How to Access

Click on the Data Sets link on the webpage to view available data sets. Datasets can be accessed either via the OpenFEMA API, downloaded as a CSV file, or both depending on the dataset.

Notes on Use

Some data visualizations can be found under the Data Visualizations tab on the webpage.

Percentage of People in Poverty by County: 2015-2019

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Online/paper survey, phone/in-person interview
 - Timeline for Collection and/or Accessing: Data collected annually, but is visible in 5-year estimates
-

Healthy People 2030 Objectives

- Economic Stability
-

Website

<https://www.census.gov/library/visualizations/interactive/acs-percentage-poverty-2015-2019.html>

Managed by: U.S. Census Bureau

How to Access

Click on link. This interactive image can also be downloaded.

Notes on Use

Data is from the 2010-2014 and 2015-2019 American Community Survey, 5-year estimates.

Personal Income by County, Metro, and Other Areas

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Federal agencies and private trade sources
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Economic Stability
-

Website

<https://www.bea.gov/data/income-saving/personal-income-county-metro-and-other-areas>

Managed by: Bureau of Economic Analysis (BEA)

How to Access

In the Current Release section on the webpage, click on Full Release & County Table for a report and County Table to download data in Excel format. You can also use the interactive data tables to view data. Use the Supplemental Information and Additional Data link on the webpage to view a list of data available for download.

Public Health Accreditation Board (PHAB)

Data Source Details

- Population Included: Health departments in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Accreditation documents from health departments
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Public Health Infrastructure
-

Website

<https://phaboard.org/accreditation-recognition/accreditation-activity/>

Managed by: Public Health Accreditation Board (PHAB)

How to Access

Click on a state on the interactive map to download data in an Excel file. A printable map is also available to download.

Provisional Drug Overdose Death Surveillance

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Drug and Alcohol Use
-

Website

<https://www.cdc.gov/nchs/nvss/vsrr/provisional-drug-overdose.htm>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Data for drug overdose deaths can be found under the Mortality Data and Vital Statistics Rapid Release tabs in the navigation menu on the left.

Small Area Health Insurance Estimates (SAHIE)

Data Source Details

- Population Included: 65 and older in the U.S.
 - Level(s) Available: National, State, County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Health Insurance
-

Website

<https://www.census.gov/data/datasets/time-series/demo/sahie/estimates-acs.html>

Managed by: U.S. Census Bureau

How to Access

Download data in Zip folders on the webpage by year. The data file is in CSV format. An interactive dashboard can be found at https://www.census.gov/data-tools/demo/sahie/#/?state_county=31000&s_searchtype=sc&s_measures=ic_snc

Notes on Use

Data source is the American Community Survey (ACS).

Small Area Income and Poverty Estimates (SAIPE) Program

Data Source Details

- Population Included: Children 18 and under in poverty in the U.S.
 - Level(s) Available: National, State, and County (only some counties)
 - Collection Method: American Community Survey
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Children and Adolescent Development
 - Economic Stability
-

Website

<https://www.census.gov/programs-surveys/saipe/guidance/tool-information.html>

Managed by: U.S. Census Bureau

How to Access

Click on the Income and Poverty Interactive Data Tool link on the website to access data. You can then filter data by state, county (if available) and school district.

Notes on Use

The details of the SAIPE methodology differ slightly from year to year. The most significant change was between 2004 and 2005, when SAIPE began using data from the American Community Survey, rather than from the Annual Social and Economic Supplement to the Current Population Survey.

Safe Drinking Water Information System (SDWIS) Federal Reports Search

Data Source Details

- Population Included: Individuals in the U.S. served by community water systems
 - Level(s) Available: National, State, and County
 - Collection Method: Reports on all public water systems from states, EPA regions, and public water systems
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Environmental Health
 - Health Policy
 - Neighborhood and Environment
-

Website

https://sdwis.epa.gov/ords/sfdw_pub/r/sfdw/sdwis_fed_reports_public/200

Managed by: United States Environmental Protection Agency (EPA)

How to Access

To view a list of public water systems, search via the interactive map on the webpage by clicking on a state or directly by entering your state, city, town, county, or water system name.

[Return to Table of Existing Data Sources](#)

Superfund Enterprise Management System (SEMS)

Data Source Details

- Population Included: Final and deleted Superfund National Priorities List sites and sites with Superfund Alternative Approach agreements
 - Level(s) Available: National, State, and County
 - Collection Method: [Administrative data](#) and site assessments
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Environmental Health
-

Website

<https://www.epa.gov/enviro/sems-overview>

Managed by: United States Environmental Protection Agency (EPA)

How to Access

Click on the SEMS Search link on the webpage to access the data explorer. You can search by facility or geography for specified contaminants using the drop-down filters.

Return to Table of Existing Data Sources

Short Sleep Duration Data

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County (county only available for adults)
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by data source
-

Healthy People 2030 Objectives

- Sleep
-

Website

https://www.cdc.gov/sleep/data_statistics.html

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Click on the Children, High School Students, and Adults links to view data for the respective age groups. Data can be downloaded as CSV files.

Toxic Release Inventory (TRI) Explorer

Data Source Details

- Population Included: U.S. facilities in TRI-covered industry sectors
 - Level(s) Available: National, State, and County
 - Collection Method: Reports from TRI-covered industry sectors
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Environmental Health
 - Neighborhood and Built Environment
-

Website

<https://www.epa.gov/toxics-release-inventory-tri-program/tri-data-and-tools>

Managed by: United States Environmental Protection Agency (EPA)

How to Access

Click on the TRI Explorer link on the webpage to search by chemical, location, industry sector, or tribal land. The Explorer focuses on chemical releases, waste transfers, or waste quantities. Links to other data tools are available on the webpage.

Tuberculosis in Nebraska Annual Report

Data Source Details

- Population Included: Individuals in Nebraska
 - Level(s) Available: State and County (county available in state regions)
 - Collection Method: NDHHS TB program collaborates with the Nebraska Public Health Laboratory (NPHL) to track tests
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Infectious Disease
-

Website

<https://dhhs.ne.gov/Pages/Tuberculosis.aspx>

Managed by: Nebraska Department of Health and Human Services

How to Access

Select the annual report under the Nebraska Reports and Data section on the website.

Notes on Use

Data is a PDF with graphs and tables that show tuberculosis data.

Return to Table of Existing Data Sources

USDA Local Food Directories

Data Source Details

- Population Included: Farms and food hubs in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Locations registered with the USDA
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Nutrition and Healthy Eating
-

Website

<https://www.usdalocalfoodportal.com/>

Managed by: Michigan State University, U.S. Department of Agriculture

How to Access

Search either using the general search bar on the website or scroll down to see link options to search by: agritourism, CSA, farmers market, food hub, and on-farm market. Each link will take you to page where you can search by location.

Notes on Use

This is a directory. Directories can also be downloaded by going to the Data Sharing tab on the website.

Vital Signs

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Drug and Alcohol Use
 - Tobacco Use
 - Adolescents
 - Infants
 - People with Disabilities
-

Website

<https://www.cdc.gov/vitalsigns/index.html>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Under the Vital Signs Issues section on the webpage, search issues using keywords (e.g., opioid) to retrieve data on the topic, then click on each link for more information.

Vital Statistics Report

Data Source Details

- Population Included: All individuals in Nebraska and the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Reports from health and state facilities
 - Timeline for Collection and/or Accessing: Data collected annually
-

Healthy People 2030 Objectives

- Mental Health and Mental Disorders
 - Oral Conditions
 - Pregnancy and Childbirth
 - Sexually Transmitted Infections
 - Drug and Alcohol Use
 - Preventive Care
 - Violence Prevention
 - Infants
 - LGBT
 - Men
 - Older Adults
 - Women
 - Health Care
 - Hospital and Emergency Services
 - Transportation
 - Workplace
 - Health Care Access and Quality
 - Neighborhood and Built Environment
-

Website

National: <https://www.cdc.gov/nchs/nvss/index.htm>

Nebraska: <https://dhhs.ne.gov/Pages/Vital-Statistics.aspx>

Managed by: National Center for Health Statistics, CDC and Nebraska Department of Health and Human Services (DHHS)

How to Access

Browse data either by clicking on the provisional mortality data link on the website or by topic in the middle section of the webpage.

Notes on Use

Provides data on births, deaths, and related topics (like prenatal care, low birth weight births, and types of death). Data back to 2016.

The National Center for Health Statistics has a [Data Visualization Gallery](#) that shows maps for some vital statistics at the county level.

[Return to Table of Existing Data Sources](#)

Voices for Children in Nebraska Data

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: State and County
 - Collection Method: Variety of national sources and [surveillance data](#)
 - Timeline for Collection and/or Accessing: Data collected continuously
-

Healthy People 2030 Objectives

- Mental Health and Mental Disorders
 - Pregnancy and Childbirth
 - Sexually Transmitted Infections
 - Drug and Alcohol Use
 - Vaccination
 - Violence Prevention
 - Children
 - Infants
 - Health Insurance
 - Transportation
 - Health Care Access and Quality
 - Neighborhood and Built Environment
-

Website

<https://kidscountnebraska.com/>

Managed by: Voices for Children in Nebraska

How to Access

Use the links at the top of the website to navigate to data for the respective topics. Data is displayed on the linked webpages.

Web-based Injury Statistics Query and Reporting System (WISQARS™)

Data Source Details

- Population Included: Individuals in the U.S.
 - Level(s) Available: National, State, and County
 - Collection Method: Multiple sources
 - Timeline for Collection and/or Accessing: Varies by source
-

Healthy People 2030 Objectives

- Injury Prevention
 - Hospital and Emergency Services
 - Violence Prevention
 - Transportation
-

Website

<https://www.cdc.gov/injury/wisqars/index.html>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Click on a tab on the website to view related data. Data at the county level is limited.

Youth Risk Behavior Survey (YRBS)

Data Source Details

- Population Included: 9th-12th grade students in the U.S.
 - Level(s) Available: National and State
 - Collection Method: Paper surveys
 - Timeline for Collection and/or Accessing: Data collected biennially
-

Healthy People 2030 Objectives

- | | |
|--------------------------------------|-----------------------|
| • Cancer | • Violence Prevention |
| • Mental Health and Mental Disorders | • Adolescents |
| • Child and Adolescent Development | • LGBT |
| • Drug and Alcohol Use | • Men |
| • Physical Activity | • Health Care |
| • Sleep | • Schools |
-

Website

<https://www.cdc.gov/healthyyouth/data/yrbs/index.htm>

Managed by: Centers for Disease Control and Prevention (CDC)

How to Access

Links to MMWR reports and supplementary tables can be found on the webpage or by clicking on the Reports tab in the navigation menu. Full reports can be found under the Full YRBS report section on the Reports webpage. Links to data visualization tools can be found under the Data Analysis Tools section on the webpage. The national YRBS dataset can be found at <https://www.cdc.gov/healthyyouth/data/yrbs/data.htm>. State, district, territory, or tribal government data files need to be requested by submitting the YRBS data request form.

Appendix B: Data Use Agreement Example

DATA USE AGREEMENT

This Data Use Agreement is entered into between the Nebraska Department of Health and Human Services, Division of Public Health (hereinafter "the Department") and «LHD» (hereinafter "the Data Recipient").

I. SCOPE AND PURPOSE

- a. The purpose of this Agreement is to provide Data Recipient with access to Department data extracts (hereinafter "data") for use in its public health syndromic surveillance activities. This Agreement sets forth the terms and conditions pursuant to which the Department will disclose data to the Data Recipient.
- b. Data Recipient represents and warrants that the data will solely be used by the Data Recipient in compliance with state and federal statutes and regulations.
- c. The term "data" is defined to include the data within the Department's ESSENCE system that Data Recipient will be granted access to.

II. RESPONSIBILITIES OF THE DATA RECIPIENT

Data Recipient agrees to:

- a. Use or disclose data only as permitted by this Agreement or as required by applicable state and federal statutes and regulations. Release of aggregate data at the city, county, or Local Public Health Department level is permissible, but not for any area with a population of 20,000 or fewer persons. Release of patient record level data at any level is not acceptable.
- b. Use appropriate safeguards including administrative, technical, and physical measures to safeguard the data from unauthorized use or disclosure other than as permitted by this Agreement or required by law. The Data Recipient shall ensure that no identifying information is transmitted through unsecured telecommunications, including any unsecured Internet connections.
- c. Report to the Department, within forty-eight (48) hours of its discovery, any use or disclosure of the data of which it becomes aware that is not permitted by this Agreement or required by state and federal statute and regulations.
- d. Require any of its employees that receive or have access to the data to agree to the same restrictions and conditions on the use and/or disclosure of the data that apply to the Data Recipient under this Agreement.
- e. Allow only the minimum necessary individuals to have access to the data to perform such work.
- f. The Department is the owner of the data and Data Recipient does not obtain any right, title, or interest in and of the data furnished by the Department pursuant to this Agreement.

III. TERM AND TERMINATION

- a. The term of this Agreement shall commence as of 2023 and will continue through 2027. This Agreement may be terminated at any time upon mutual written consent or by either party for any reason upon submission of written notice to the other party at least Thirty (30) days prior to the effective date of termination.
- b. The Department may terminate this Agreement and request the Data Recipient return all Data provided by the Department to Data Recipient at any time upon discovery or notification of a material breach or violation of the Agreement by Data Recipient. Data Recipient will certify in writing to such return within ten (10) business days.

IV. MISCELLANEOUS

- a. Assignment and Delegation. This Agreement is exclusive to the parties and may not be assigned nor duties delegated by Data Recipient except on prior written consent of the Department. Any attempted assignment without such approval shall be void and shall constitute a breach of this Agreement.
- b. No Third-Party Beneficiaries. There are no intended third-party beneficiaries to this Agreement. Nothing in this Agreement shall confer upon any person other than the parties and their respective successors or assigns, any rights, remedies, obligations, or liabilities whatsoever.
- c. Amendments. The parties agree to negotiate in good faith to amend this Agreement to comport with any changes in any applicable federal or state statutes and regulations that materially alters either or both parties' obligations under this Agreement. No alteration or variation of the terms and conditions of this Agreement shall be valid unless made in writing and signed by the parties hereto. Every amendment shall specify the date on which its provisions shall be effective.
- d. Severability. If any provision of this Agreement is determined by a court of competent jurisdiction to be in valid or otherwise unenforceable, that provision will be severed, and the remainder of this Agreement shall remain in full force and effect.
- e. Notices. All notices given under the terms of this Agreement shall be in writing and sent by United States mail, postage prepaid, to the party names and to the address listed immediately below, or to such other persons and addresses as the parties shall designate from time to time:

For the Department:

For the Data Requestor:

Appendix C: Prioritization Methods

Prioritization methods by system

Method	Systems			Pros	Cons
	Voting	Ranking	Weighting		
Nominal groups	X	X		Utilizes a deliberative and democratic process to work through priorities	May allow for some participants to dominate the discussion, making the alternatives chosen non-representative
Multi-choice	X	X		Can narrow down a list of items quickly and through consensus, may be used with other processes to narrow down alternatives further	May encourage strategic voting rather than consensus building
Prioritization matrix		X		Allows for criteria to be compared across alternatives	Requires agreement on criteria and their importance
Hanlon method		X	X	Structures a data-driven comparison of priorities	Resource intensive to collect data, requires agreement on rankings
Goeller scorecard		X		Structures a comparison of alternatives across criteria while leaving alternatives in their natural units	Requires agreement on rankings not included in the prioritization method
Goals achievement matrix		X	X	Structures a comparison of how much alternatives meet criteria, including how important the criteria is	Requires agreement on rankings not included in the prioritization method

Nominal Group Technique

Priority Health Indicator	1 st Choice Score = 3	2 nd Choice Score = 2	3 rd Choice Score = 1	Total Score
Improve communication and coordination between divisions and programs within health department	4	6	6	40
Engage policymakers and community to support health department initiatives	1	6	3	18
Promote understanding of public health in general and health department as an organization among stakeholders (may include internal and external stakeholders)	3	1	6	17
Better utilize data and best practices to inform health department program decisions and understanding of the health department's role and contribution to public health	2	4	6	20
Establish a health department presence and recognition at a level comparable to other major city departments	4	5	5	27

Source: National Association of County and City Health Officials (NACCHO). n.d. *Guide to Prioritization Techniques*.

Multi-voting Technique

Health Indicator	Round 1 Vote	Round 2 Vote	Round 3 Vote
Collect and maintain reliable, comparable, and valid data	✓✓✓✓	✓✓	
Evaluate public health processes, programs, and interventions	✓✓✓✓✓	✓✓✓✓	✓✓✓✓✓
Maintain competent public health workforce	✓✓		
Implement quality improvement of public health processes, programs, and interventions	✓✓✓✓	✓✓	
Analyze public health data to identify health problems	✓✓		
Conduct timely investigations of health problems in coordination with other government agencies and key stakeholders	✓✓		
Develop and implement a strategic plan	✓✓✓✓✓	✓✓✓✓	✓✓
Provide information on public health issues and functions through multiple methods to a variety of audiences	✓✓		
Identify and use evidence based and promising practices	✓✓		
Conduct and monitor enforcement activities for which the agency has the authority	✓✓		
Conduct a comprehensive planning process resulting in a community health improvement plan	✓✓✓✓✓	✓✓✓✓	✓✓
Identify and implement strategies to improve access to healthcare services	✓✓✓	✓✓	

Red = Round 1 Elimination

Green = Round 2 Elimination

Blue = Round 3 Elimination

Source: National Association of County and City Health Officials (NACCHO). n.d. *Guide to Prioritization Techniques*.

Hanlon Method - sampling criteria rating

Rating	Size of Health Problem (% of population w/ health problem)	Seriousness of Health Problem	Effectiveness of Interventions
9 or 10	> 25% (STDs)	Very serious (e.g. HIV/AIDS)	80% - 100 % effective (e.g. vaccination program)
7 or 8	10% - 24.9%	Relatively serious	60% - 80% effective
5 or 6	1% - 9.9%	Serious	40% - 60% effective
3 or 4	.1% - .9%	Moderately Serious	20% - 40% effective
1 or 2	.01% - .09%	Relatively Not Serious	5% - 20% effective
0	< .01% (Meningococcal Meningitis)	Not Serious (teen acne)	< 5% effective (access to care)
Guiding considerations when ranking health problem against the 3 criteria	<ul style="list-style-type: none"> Size of health problem should be based on baseline data collected from the individual community 	<ul style="list-style-type: none"> Does it require immediate attention? Is there public demand? What is the economic impact? What is the impact on quality of life? Is there a high hospitalization rate? 	<ul style="list-style-type: none"> Determine upper and low measured for effectiveness and rate health problems relative to those limits For more information on accessing effectiveness of interventions, visit https://www.thecommunityguide.org/index.html to view CDC's Guide to <i>Community Preventative Services</i>.
Source: National Association of County and City Health Officials (NACCHO). n.d. <i>Guide to Prioritization Techniques</i> .			

Prioritization Matrix from Wolk (2015)

	Low Priority-Frequency	Colorado Winnable Battle	Governor's Policy	CDC Winnable Battle	HP 2020 Leading Health Indicators Topics	EPA Priority
Obesity	43					
Mental Health	27					
Substance Abuse	22					
Clean Water	14					
Safe Food	13					
Clean Air	12					
Access to care	11					
Unintended Pregnancy	8					
Oral Health	6					
Injury Prevention	5					
Tobacco	5					
Infectious Disease Prevention	1					
Maternal and Child Health	1					

Source: Wolk, L. (2015). *Healthy Colorado: Shaping a State of Health – Colorado’s Plan for Improving Public Health and the Environment*. Colorado Department of Public Health and Environment.

Prioritization Matrix

Proposed Area for Improvement Based on LHD Self-Assessment	Evaluative Criteria					Total Score
	Linkage to Strategic Vision (.25)	Do we need to improve this area? (.25)	What change is there that changes we put into place will make a difference? (.5)	Likelihood of completion within the timeframe we have (.5)	Importance to Customer (customer is the one who would benefit, could be patient or community) (.75)	
Media Strategy & Communications to raise public health awareness	3 X (.25)	4 X (.25)	4 X (.5)	3 X (.5)	3 X (.75)	7.5
Work within network of stakeholders to gather and share data and information	2 X (.25)	3 X (.25)	2 X (.5)	1 X (.5)	1 X (.75)	3.5
Continuously develop current information on health issues that affect the community	4 X (.25)	2 X (.25)	3 X (.5)	1 X (.5)	2 X (.75)	5

Source: National Association of County and City Health Officials (NACCHO). n.d. *Guide to Prioritization Techniques*.

Goeller Scorecard Prioritization Matrix

Simplified Goeller Scorecard	Prospective Jobs			
	1	2	3	4
Salary	\$50,000	\$54,000	\$60,000	\$47,000
Days of sunshine	175	240	200	180
Minutes of Commute	35	30	20	40
Job Challenge	VB	VI	I	B
Advancement Possibilities	None	Good	Poor	None

Key: VB = Very Boring, B = Boring, I = Interesting, VI = Very Interesting

Note: These data were collapsed in the previous example to specify the mathematical computation

Source: Patton, C., Sawicki, D., & Clark, J. (2016). *Basic Methods of Policy Analysis and Planning*. Routledge.

Goal Achievement Matrix Scorecard Prioritization Matrix

Goal Achievement Matrix – Scoring						
	Goal a: Weight = 2			Goal b: Weight = 1		
	Group			Group		
	Weight	Plan A	Plan B	Weight	Plan A	Plan B
Group z	3	+6	-6	3	-3	0
Group y	1	-2	+2	2	0	-2
		+4	-4		-3	-2

Plan A's Score = $+4-3=1$

Plan B's Score = $-4-2 = -6$

Therefore, Plan A is preferable to Plan B

Source: Patton, C., Sawicki, D., & Clark, J. (2016). *Basic Methods of Policy Analysis and Planning*. Routledge.