

DATA COLLECTION

The collection and utilization of a comprehensive range of local data is the foundation for analyzing and understanding the health status of a community through the CHNA process, as well as assessing a community's health status compared to peer communities, state data, and national data. Data can help answer questions such as, "How healthy are the community residents?" and "What is the health of the community?" More importantly data collection provides information on local health, which can be a powerful channel to address and improve the health of a community.

"Local health information can help guide efforts to improve the health and health care of communities. It can identify local needs that may be obscured when data is generalized to a regional, state, or national level."¹ Accessing local data also helps stakeholders and partners involved in the CHNA process to determine health priorities, identify and activate local and state resources, as well as develop an action plan to implement opportunities to promote local public health.

Data collection and analysis are core steps in the CHNA process; steps which are often time-consuming and require a variety of resources (i.e. financial, data experts) to conduct. The method in which data is collected should relate to how it will be analyzed and used. Small community organizations/workgroups usually facilitate the majority of data collection for the CHNA process and their insight regarding the community is crucial to understanding the health of the community. Depending on the available resources to conduct data collection and analysis, consider some of the following strategies to help strengthen the process.

- Identify a professional with specialized knowledge and expertise regarding the CHNA process. A consultant can assist with the data collection methodology and/or data analysis. It is important to utilize a trained professional for quality data collection and to meet intended evaluation outcomes.
- Identify and train community volunteers willing to help with primary and secondary data collection.
- Leverage partners who have access to specific data resources and/or professionals with expertise to assist with data collection methodology.

DATA COLLECTION

Data regarding community health can be obtained from primary and secondary data collection methods – quantitative and qualitative. Primary data is original data that is collected firsthand for a specific goal, which can be collected through various methods, i.e. local survey of residents. Secondary data is available through existing data sources that was previously collected for a specific reason and can be reused, i.e. South Dakota Behavior Risk Factor Surveillance System Data.

Quantitative data is "the information that is collected as, or can be translated into, numbers, which can then be displayed and analyzed mathematically. This type of data includes things that can be counted and is sometimes referred to as "hard data." Quantitative data may best describe *why* a program is needed and *how* a program is functioning. Quantitative data collection often involves gathering information across a large target population(s).^{2, 3, 4}

There are different techniques or methods used to collect quantitative data from primary and secondary data sources, including:

- Surveys/Questionnaires
- Observations (i.e. counting the number of children in a schoolyard after school)
- Existing Secondary Data Resources (i.e. U.S. Census, County Health Rankings)

And a statistical analysis of the data is often performed to describe data collection results.

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Qualitative data, sometimes referred to as “soft data,” is data which may be interpreted in multiple ways, meaning it can’t always be reduced to something definite. This data “is designed to reveal a target audience’s range of behavior and the perceptions that drive it with reference to specific topics or issues.” While qualitative data is often collected in narrative form (through interviews, focus groups or document analysis), this data can be changed into numbers, such as by counting the number of times specific phrases occur in the course of an interview.

Gathering and analyzing qualitative data may be time-consuming as it often involves scheduling and interacting with other individuals in the data collection process. “Qualitative data may best explain the *what, who and when*, meaning the nuances of a particular program which cannot necessarily be captured through hard data collection, providing descriptive information such as *what* processes are occurring in a program, *who* is effected by the program, and *when* the program effects are taking place.” Qualitative data collection often involves gathering data from a smaller target population(s).^{2, 3, 5}

There are different techniques or methods used to collect qualitative data from primary and secondary data sources, including:

- Participant Observations (i.e. trained observer placed in a daycare takes notes on previously determined questions/themes throughout a day)
- Interviews (In-depth, Key Informant, Individual, Community Forum)
- Focus Groups

A themed analysis of the data is often performed to describe data collection results. The themed analysis may or may not be statistically analyzed.

There are strengths and weaknesses to qualitative and quantitative data collection methods²:

Method	Strengths	Weaknesses
Qualitative	Complement and refine quantitative data	Findings usually cannot be generalized beyond the study population or community
	Provide more detailed information to explain complex issues	Challenging to analyze as data does not fit neatly in prescribed categories
	Multiple methods may be utilized for gathering data on sensitive subjects	Data collection may be time consuming and costly depending upon chosen techniques
Quantitative	Findings can be generalized, if selection process is well-designed and sample is representative of study population	Related secondary data sometimes not available; or accessing available data is difficult/impossible due to the lack of specific data collection
	Relatively easy to analyze due to statistical nature of the data	Does not provide a complete view of a program/ intervention as data cannot describe the context of program activities
	Data can be very consistent, precise, reliable if analyzed properly	Data in and of itself may not be robust enough to explain complex issues related to the study
	Data collection is usually cost efficient as it can often rely on previously collected data sources	

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Different primary and secondary methods to collect quantitative and qualitative data are further discussed on the following pages. The method(s) you choose to collect data for your community health needs assessment will be determined by the goal(s) of your assessment process and the resources available to develop and conduct the identified method(s). "In practice, most researchers and evaluators agree that combining quantitative and qualitative techniques (sometimes called "mixed method" evaluations) produces a richer and more comprehensive understanding of a community's health status." ²

Quantitative and qualitative data, both of which have their strengths and weaknesses as discussed previously, is collected through primary and secondary data collection. Advantages to primary (original data collected firsthand) and secondary data (data obtained from existing data sources) collection are described below⁴:

Primary

- Control what and how the data is collected
- Have the ability to customize data collection for the community
- Data may be more recently collected than secondary data sources

Secondary

- Data is already collected saving the time and expense of collecting the data yourself
- Often available in multiple formats, including electronic formats
- Sample sizes for collecting data may be larger and may increase statistical validity
- Data may be more reliable based on the data collection methodologies utilized

DATA COLLECTION ISSUES TO CONSIDER

Using Single Versus Multiple (Mixed) Methods. Using multiple/mixed data collection methods to assess similar outcome measures allows for a stronger, comprehensive assessment of the community's health status as you are not relying on just one data source to determine your findings. ⁷

Selecting Data Sources. Select quality and valid data sources. Assessing what existing data your community workgroup members or partners already have can reduce the burden and cost of additional data collection. ⁷

Selecting a Sample of Individuals. The data collection method(s) chosen depends on the sample of people you are assessing. For example, a state-level health survey may contain a small number of respondents to be able to generalize the results at a local level; therefore a local survey may be necessary to gather information about a specific population. However, collecting secondary data from existing data sources regarding health behaviors of the county may be sufficient to provide a general overview of the population. ⁷

Cost Considerations. Quantitative and Qualitative data collection methods have cost implications. Determine the resources available to you (both financial and in-kind capacities) for the utilization of different data collection methods. ⁷

Which method should be used for needs assessment?

"The quality of information about a community is only as good as the technique or combination of techniques used. A single technique may be too narrow in the information it provides; using too many methods may be costly in terms of time and dollars. Different techniques are appropriate for different needs. Analyze the situation and the most significant questions being asked, then weigh the advantages and disadvantages of several techniques. Sometimes a combination of several techniques will provide a reasonable picture."

(Carter & Beaulieu, 1992)⁶

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Resources

Refer to the following resources for additional information about data collection methods.

Data Collection Methods

[Brief Overview of Data Collection Methods](#) Minnesota Department of Health

[Data Collection Methods](#). University of Wisconsin, Eau Claire

References

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