SPTAC
STRATEGIC PREVENTION
TECHNICAL ASSISTANCE CENTER

ADDRESSING RURAL SUBSTANCE USE DATA COLLECTION CHALLENGES

While many rural communities face disproportionately high rates of substance use and related behavioral health problems,[i] and many also lack the resources needed to address these problems.[ii] Data collection, analysis, and reporting are important tools for understanding and addressing the root causes of substance use and related problems, but data on rural communities tends to be hard to find or inadequate.[iii]

To fill existing data gaps, rural prevention practitioners often need to obtain and interpret additional data from unfamiliar sources or collect their own data. However, doing either comes with its own set of challenges.

This product provides a high-level overview of some of these challenges, accompanied by potential solutions. It is meant to serve as a starting point for improving rural data collection. Specifically, it explores:

- The implications of insufficient data on rural communities
- Common rural data challenges and possible solutions
- General tips and best practices for working with rural data

THE IMPLICATIONS OF INSUFFICIENT DATA

Reliable and robust data are the underpinning of effective strategic prevention planning. When data are insufficient, practitioners may struggle to identify and address priority community needs. Risks that can stem from insufficient data include:

- **Inadequate or misallocated resources:** Data helps decisionmakers decide which resources are most needed where and among whom. If data are insufficient,

practitioners may face challenges distributing resources in ways that adequately meet community needs.

- **Inappropriate interventions:** Prevention agencies need data to understand the factors influencing substance use in the community. Without data on these factors, they may be unable to determine which interventions would be most beneficial or feasible for rural communities.
- **Worsened behavioral health outcomes:** Incomplete or insufficient data may not provide a true picture of the behavioral health needs of the entire community. As a result, practitioners may accidentally overlook some community members who would benefit from prevention services.

COMMON RURAL DATA CHALLENGES AND SOLUTIONS

Whether seeking data that is quantitative (e.g., surveys) or qualitative (e.g., interviews or focus groups), data collection can be an intensive process. Rural communities face many of the same data challenges as other communities, such as:[iv]

- **Delays:** Significant time lags between when data are collected and when they become available hinder real-time analysis.
- **Data Scope:** Lack of data for subpopulations within a community can lead to an incomplete understanding of substance use priorities.
- **Organizational Capacity:** Limited access to staff with advanced statistical analysis skills can hinder the ability to draw conclusions from existing datasets.

But rural communities face additional challenges, as well. The unique characteristics of rural communities and the resource constraints that many rural organizations face drive many of these challenges.

The tables on the following pages present some examples of rural data challenges, accompanied by possible solutions. The first table presents challenges related to reviewing secondary data—existing data that has already been collected. The second table presents challenges related to primary data collection—new data that is collected for a specific purpose.

Secondary Data Challenges	Possible Solutions
Inconsistent definitions of rurality.[v] Many common data sources use different definitions of "rural." Common tools like the American Community Survey* and the National Survey on Drug Use and Health† determine what is or is not considered rural based on factors like population size or level of geographic isolation. Definitional inconsistency poses several challenges, including difficulty merging data sets and drawing conclusions from the data.	• **Be transparent about inconsistencies** when using and reporting the data. Accept that it will be a hindrance but not an insurmountable one! • **Pick one definition and stick with it.** In doing so, consider how you will use the data, who they are being shared with, and which definition best meet your needs.[vi] • **Explore how definitional changes impact key findings.** Analyzing changes in definitions of rurality can help identify whether your findings are robust across definitions. Some measures may be more sensitive to changes in the definitions. For example, access to behavioral health services data may change depending on whether population centers located within a rural region are being counted as "rural."
Existing data do not meet your needs.[vii] Secondary data sources may not adequately cover the specific rural areas or substance use issues you want to address. The data may also be too outdated or have sample sizes that are too small. While these data can still be useful for establishing context or understanding historical trends, they may not paint a full picture of everything going on in your community.	• **Collect your own data.**[viii] You can attempt to fill in gaps from secondary data sources by collecting your own data. Developing your own data collection instruments helps ensure that you are asking the right questions to best identify the needs of your specific rural community. Additionally, collecting your own data can also allow you to see the data as it's coming in and adjust your approach in real time as needed.

* The American Community Survey is an ongoing U.S. Census Bureau survey that collects demographic, social, economic, and housing data annually.

† The National Survey on Drug Use and Health is an annual SAMHSA survey that measures substance use, mental health, and related behaviors among the U.S. civilian population aged 12 and older.

Primary Data Challenges	Possible Solutions
Confidentiality and privacy concerns.[ix] [x] In small, close-knit rural communities, "everybody knows everybody"—making issues of confidentiality and privacy of utmost importance. Some people may not want to participate in data collection efforts because they believe that their responses will identify them.	• **Maintain high ethical standards.** Prioritizing ethics is crucial when collecting and reporting data in rural communities. Keep data safe and secure at all times. Be sure that any data you are using were collected ethically and responsibly, and that the data do not include any sensitive personal information.[xi] When collecting primary data, be transparent about how you will use the data and be sure to fully anonymize all data so as not to risk participant identification.[xii] • **Take time to build community trust.** If community members see you as trustworthy, they may be more willing to participate in your data collection efforts. Take time to meaningfully engage with the community and learn about what is important to them. Get involved in local activities, raise visibility around your work, and demonstrate your prevention expertise.[xiii] • **Identify and work with community champions.** Champions are trusted members of the community that can build support for your data collection efforts.[xiv] Identifying effective champions can be challenging due to complex community norms and interpersonal relationships. Learn about community attitudes and values before reaching out to potential champions.

Logistical barriers. Rural communities often face physical hindrances to data collection. In rural areas, there may be large distances between residences that make data collection more time consuming.[xv] Some rural residences do not appear on maps or have no visible mailboxes/signage from the road to identify them. Additionally, seasonal constraints—such as roads that become inaccessible during the winter—are of particular concern in some rural areas.[xvi] Residents who live in these seasonally isolated areas may be harder to reach with your data collection efforts.	• **Allow extra time and resources for primary data collection.** Build flexibility into your initial data collection plan, knowing that it may take longer than expected to reach your full sample. • **Work with partners who can address specific barriers.** For example, some rural residents lack typical mailing addresses, instead opting to use PO boxes.[xvii] Consider partnering with the local post office to leave your survey in or near the boxes. You can also ask mail carriers to distribute your survey along their routes. • **Use technology.** Many free or low-cost online options can facilitate data collection. If you are planning to distribute surveys, try using an online survey platform that people can access from their homes or phones. Video conferencing platforms are also becoming an increasingly common way to conduct remote interviews and focus groups securely.
Broadband internet limitations.[xviii] More than 14% of rural households lack broadband internet access (vs. just 3% of urban households),[xix] which can make collecting primary data in rural areas challenging. Additionally, older and low-income adults are less likely to have broadband internet than their younger and higher-income counterparts.[xx] [xxi] If you cannot reach people without internet, those populations will not be accurately represented in your data.	• **Meet people where they are.** Focus data collection efforts on places that are considered safe and already frequented by many people in rural communities, such as grocery stores, libraries, churches/houses of worship, pharmacies, or schools. Consider collecting data during community events like holiday parades or county fairs.

Small sample sizes.[xxii] [xxiii] A common characteristic of rural areas is low population density. This limits the number of participants in your data sets and can make data harder to analyze. Smaller sample sizes may not be representative of the wider population, meaning that your findings may not be generalizable or statistically significant.[xxiv]	• **Use strategies to increase your sample size.** Recruitment strategies like snowball sampling, which leverage community networks to obtain more participants through word of mouth or referrals, can be a useful way to increase your sample size.[xxv] If funding and ethical or legal requirements allow, providing financial incentives (e.g., gift cards) can also encourage participation.[xxvi] • **Request training and technical assistance (T/TA).** Even if you are not able to increase your sample size, your data are still usable! There are several statistical methods you can use to analyze smaller data sets. Reach out to your SPTAC T/TA provider or state epidemiological outcomes workgroup (SEOW)[xxvii] to get help with data analysis.

GENERAL TIPS AND BEST PRACTICES FOR WORKING WITH DATA

In addition to the tailored suggestions above, these general tips can help address rural data challenges—regardless of what the specific challenge may be.

- **Build partnerships to support data sharing.**[xxviii] Sharing data across organizations is an important way to access information and build relationships with community partners and with states, territories, and jurisdictions. Once relationships are established, they facilitate easier data sharing in the future. These relationships are especially important in rural communities, where relatively scant data may be spread across several community-based organizations or state agencies. Work with partners to establish data sharing agreements that stipulate how data are shared and used, by whom, and in what capacity.[xxix] These agreements can help you ensure that data are shared with partners across the behavioral health continuum to better meet the needs of rural community members. Data sharing agreements also prevent costly duplication of effort to re-collect data already held by partners.

- **Directly involve community members.**[xxx] [xxxi] To obtain buy-in and support the long-term sustainability of your efforts, consider asking community members to volunteer with your data collection efforts. They may have stronger rapports and greater access to their neighbors than you do, which can improve your efforts.[xxxii] Community members can also play important roles helping with the design and planning of your data collection plan as they are great sources of information on relevant issues and priorities in rural communities. They can also help with interpreting and translating your data to ensure it accurately reflects the rural context.[xxxiii]

- **Be flexible and use many types of data.**[xxxiv] When experiencing data gaps or encountering logistical challenges, consider including multiple types of data, such as quantitative, qualitative, and observational data. Also consider alternative forms of data collection, such as "windshield surveys," where you drive around an area and record what you see. Windshield surveys can be a great way to collect data about many physical aspects of a rural community, such as the number and locations of alcohol retail outlets.[xxxv]

- **Work with local researchers and universities.** Partnering with local researchers and institutions can expand your capacity for data collection and analysis. There are more than 500 colleges located in rural areas across the country, and many of their staff and students have experience living or conducting research in rural communities.[xxxvi] Partnering with colleges and universities is a mutually beneficial effort, too— you gain access to their resources and expertise, and they advance their own research.[xxxvii]

- **Seek additional funding to expand epidemiological surveillance.** Identifying additional funding opportunities can help build your data collection capacity. Federal agencies that serve rural communities, such as the U.S. Department of Agriculture and Health Resources and Services Administration, might offer new funding opportunities that may be relevant to you. Other federal funders also support epidemiological surveillance— though not always specifically for rural communities— including SAMHSA, the Department of Justice's Bureau of Justice Assistance, the National Institutes of Health, and the Centers for Disease Control and Prevention. You can also reach out to charitable foundations and other non-governmental funding sources.

- **Set realistic expectations.** The reality of data collection is that you might not end up with all the data you want or need, and that is okay— sometimes you just need to work with what you have. Be upfront and honest with your team, partners, and community members about your limitations and how they may affect your results. Soliciting

feedback on your process and findings can help you unpack your lessons learned and generate ideas to address challenges for future data collection.

CONCLUSION

Rural communities face many data challenges. Some are common to all communities and others are specific to rural America. Insufficient data can impede practitioners' ability to understand community problems and strengths, make data-informed decisions, effectively allocate resources, and ultimately provide needed services. But practitioners can start to address these challenges by understanding their causes, identifying potential opportunities to address them, collaborating with local partners, and maintaining a flexible approach.

RESOURCE LIST

Here are some data collection sources and resources relevant to rural communities.

- Rural Data Sources| USDA Economic Research Service
    - Describes federal primary and secondary rural data sources and geographic classifications
- Rural Classifications – Data for Rural Analysis| USDA Economic Research Service
    - Provides tools for determining rural status and links to socioeconomic data sources
- Finding Statistics and Data Related to Rural Health| Rural Health Information Hub
    - Answers frequently asked questions about which sources provide rural data and some considerations to be aware of when using rural data.
- Beyond the County Health Snapshot| County Health Rankings & Roadmaps
    - Links to state-specific data sources that include public health data and other community resources and partners across each state.
- The Rural Data Central| Housing Assistance Council
    - Interactive maps that contain demographic, social, and economic data accessible at the state or county level.
- Data Sources & Tools Relevant to Rural Health| Rural Health Information Hub
    - Data sources used to understand rural health needs, including each sources' geographic coverage, ease of use, and frequency updated.
- Research Publications| Rural Health Research Gateway
    - Published research (e.g., policy briefs, journal articles, fact sheets) from research projects related to rural health dating back from 1999.

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