

# ADHS-BTCD Tobacco Study

## Final Report



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### Common abbreviations found in this report

ADHS	Arizona Department of Health Services
AYS	Arizona Youth Survey
AYTS	Arizona Youth Tobacco Survey
BRFSS	Behavioral Risk Factor Surveillance System
BTCD	Bureau of Tobacco and Chronic Disease
CDC	Centers for Disease Control and Prevention
FDA	Food and Drug Administration
MTF	Monitoring the Future
NATS	National Adult Tobacco Survey
NSDUH	National Survey on Drug Use and Health
NYTS	National Youth Tobacco Survey
OSH	Office on Smoking and Health (CDC)
PPP	Pima Prevention Partnership
RWJF	Robert Wood Johnson Foundation
SAMHSA	Substance Abuse and Mental Health Services Administration
T/TA	training/technical assistance
TUS	Tobacco Use Supplement-Current Population Survey
YRBSS	Youth Risk Behavior Surveillance System

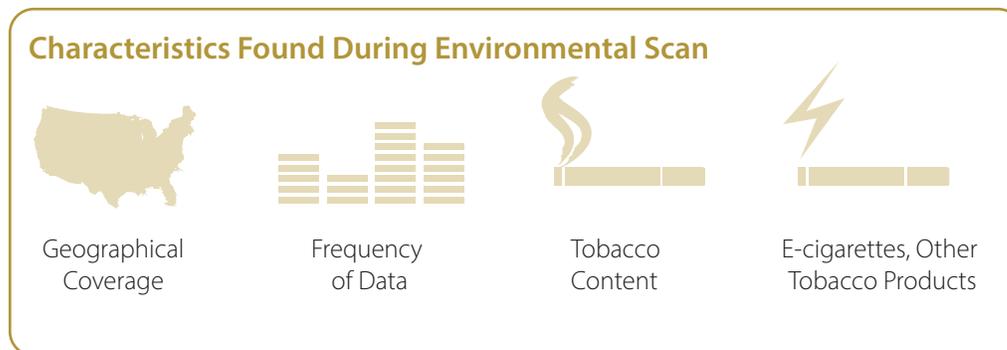
## Gap Analysis



RTI International, working on behalf of the Arizona Department of Health Services' Bureau of Tobacco and Chronic Disease (ADHS-BTCD), completed a gap analysis to identify existing tobacco-related data and data needs in the state of Arizona. Gaps in the data and data usage were revealed through three investigative processes: an environmental scan, a partner interview, and a literature review. The findings of each of these were synthesized, resulting in the identification of four substantive gaps: (1) Localization of Tobacco Data, (2) Standardization of the Content of Tobacco Data, (3) Accessibility of Tobacco Data, and (4) Training and Technical Assistance (T/TA).

### Environmental Scan

Twenty-three data sources were examined and included in the gap analysis (see Table 1). Data sources included national surveys such as the National Adult Tobacco Survey (NATS), the National Youth Tobacco Survey (NYTS), the National Survey on Drug Use and Health (NSDUH), and Monitoring the Future (MTF), as well as those that specifically targeted Arizona residents. Arizona tobacco-related data sources included the Arizona Youth Risk Behavioral Survey (YRBS), Arizona Youth Survey (AYS), Arizona Health Survey, and the Behavioral Risk Factor Surveillance System (BRFSS). Additionally, RTI looked at nonsurvey sources of data such as Arizona's statewide quitline program (Arizona Smokers Helpline, or ASHLine) and the statewide tobacco compliance check program led by the Arizona Attorney General's Office (Counter Strike).



The following are overall characteristics of the tobacco-related data sources found during the environmental scan.

- Geographical coverage
  - Although many large and robust data collection systems (e.g., NSDUH, AYS, and BRFSS) are available, very few provide localized (i.e., county-, city-, or neighborhood-level) data. Even for those that do, data collection methods, the ability to add new items to existing surveys, or both provide challenges.
- Frequency of data
  - Many national data collection systems are very robust and collected frequently, but researchers may have to wait for estimates for 1–2 years after data collection.

- National and state surveys typically are collected annually or biennially. These data collection efforts generally require complex data analysis, and thus the dissemination of results may take a significant amount of time.
- Local data from sources such as ASHLine, vital records, and Counter Strike are collected year-round and available upon request.
- Tobacco content
  - Most of the data collection systems include some tobacco/cigarette prevalence data; however, data sources vary in capturing other forms of tobacco-related data. Many sources try to include other forms of tobacco besides cigarettes, although these questions may be lumped into a “smokeless tobacco” category without providing much insight into current tobacco issues. Adding new items to these surveys tends to take considerable time and money.
  - E-cigarettes and other noncigarette tobacco products are being recognized as an emergent issue that has very little data. Many of the surveys discussed in this report have added these products into their current data collection instrument or intend to during the next wave of collection.

**Table 1. Data Sources for the Environmental Scan**

Data Source	Description
Arizona Health Survey	Telephone survey of adults and children
Arizona Vital Statistics	Administrative records
Arizona Youth Survey (AYS)	School-based survey of youth
Arizona Youth Tobacco Survey (AYTS)	School-based survey of youth
Arizona Smokers Helpline (ASHLine)	Administrative records and telephone interview
Behavioral Risk Factor Surveillance System (BRFSS)	Computer-assisted telephone survey (CATI) of adults
BRFSS—Arizona state module	Telephone survey during BRFSS (see above)
Selected Metropolitan/Micropolitan Area Risk Trends of BRFSS (SMART)	Online database
CDC Wide-ranging Online Data for Epidemiologic Research (WONDER)	Online collection of databases
Counter Strike	Compliance checks
Health Information National Trends Survey (HINTS)	Mailed survey
Monitoring the Future (MTF)	School-based survey of middle and high school students; follow-up mail survey for subsample
National Adult Tobacco Survey (NATS)	Landline and cell phone survey
National Health Interview Survey (NHIS)	Computer-assisted personal interviews (CAPI)
National Survey on Drug Use and Health (NSDUH)	Computer-aided instruction (CAI) questionnaires
National Survey of Parents and Youth (NSPY)	CAPI of youth and parents
National Youth Tobacco Survey (NYTS)	School-based, paper-and-pencil survey of youth
Population Assessment Tobacco and Health Study (PATH)	In-person household interviews and survey of youth
Pregnancy Risk Assessment Monitoring System (PRAMS)	Survey of pregnant women, by mail or telephone
Smoke-Free Arizona	Online database
State Tobacco Activities Tracking and Evaluation (STATE) System	Interactive Web site
Tobacco Use Supplement to the Current Population Survey (TUS-CPS)	In-person survey of adults
Youth Risk Behavior Surveillance System (YRBSS)	School-based, paper-and-pencil survey of youth

## Partner Interview

RTI interviewed 20 ADHS-BTCD tobacco partner organizations about the current tobacco-related data they use and explored what type of data are needed. Fifteen of the interviews were with county health organizations (1 from each of Arizona's 15 counties), 3 were with the Arizona branch of national health organizations (e.g., American Heart Association), and 2 were with contracted service providers (ASHLine and Pima Prevention Partnership [PPP]).



The following are some of the main findings from the partner interviews:

- Data used and data needed
  - The partners interviewed had a general familiarity with major data collection systems such as BRFSS, AYTS/NYTS, NATS, AYS, and YRBS.
  - Many partners used only data provided by ADHS-BTCD or conducted a general online search to find new estimates for their state or county. Fewer than half of the partners reported that they consistently use data sources beyond what is provided by ADHS-BTCD.
  - Many partners said they did not know enough about the existing data collection systems to suggest a new data collection tool as a replacement or supplement. Rather, many partners just provided suggestions on how to improve the current systems, requested more assistance with using the systems, or both.
  - The greatest data needs reported by the various partners were more localized data (county-, city-, or neighborhood-level), data on emerging tobacco issues such as e cigarettes, and greater transparency in how data are collected and how to use them.
  - Several partners mentioned needing more assistance with developing local surveys, interpreting data, understanding current data definitions/differences, and using results from data to inform programming decisions.
- Enhancing the tobacco data environment: The partners suggested a variety of ways to improve the existing environment of tobacco data.
  - Identify data collection methods most appropriate for the targeted population. Adults and those in more rural communities may have more difficulty with Web-based surveys. Low-income communities may have inconsistent telephone access.
  - Have access to data that are representative of the community and updated frequently.
  - Have more clarity in how the tobacco-related data are measured, collected, and analyzed.
  - Expand the content of tobacco-related data beyond cigarette use: More data are needed on other tobacco use, including emerging nicotine delivery systems (such as e-cigarettes and dissolvable tobacco). In addition to understanding the extent to which the population is using these products, partners want to know who specifically is using them (e.g., age groups, gender), how they are used as a cessation method, what perceived risks are associated with these products, and where they are purchased, as well as information about related behaviors and attitudes that are not currently measured.

## Literature Review

A literature review revealed several important topics to consider when examining tobacco use data. Numerous surveys have captured information on tobacco use in the United States.

Newburn, Remington, and Peppard (2003) point out that many tobacco-related surveys have not been conducted on a localized level, despite the **importance of local data** for understanding historic trends and influencing local programming. Several issues regarding localized data collection methods should be addressed. One emergent issue that affects many data collection methods, including existing and new instruments, is wireless substitution, or the use of cell phones instead of landline phones (Dal Grande & Taylor, 2010; Delnevo & Bauer, 2009). An alternative to telephone-based surveys is Web-based surveys, which do not require the presence of the researcher and can be cost-effective. Research has also investigated specific ways to reach rural populations, such as conducting research in local health clinics (Miyamoto et al., 2013). Given the distinct needs of different populations, including rural and urban, old and young, and low and high income, it may seem advisable to combine efforts by using a multifaceted approach, but there are significant problems with these methods (Galea & Tracy, 2007). One recommendation is to use a standard mode of data collection such as face-to-face or telephone interviews and offer a Web-based option for those who prefer it (Galea & Tracy, 2007).

**Language** is also a key issue mentioned by partners in partner interviews and in the literature. In Arizona, as many as 20.5% of residents speak Spanish, 1.4% speak Navajo, and 0.4% speak other Native North American languages (U.S. Census Bureau, 2013). Literature recommends that researchers collaborate with community leaders in minority communities to build survey instruments in their language and facilitate data collection (Baldwin, 1998; Miyamoto et al., 2013; Rayens et al., 2008; Weaver, 1997). Surveying special populations such as rural residents, Native Americans, and low-income groups is essential to ensuring the accuracy of tobacco-related data (Passey & Bonevski, 2014), especially given that their rates of smoking can be higher than those of other groups.



## Data Collection Methods



Face-to-Face



Wireless



Web

## Languages Spoken by Arizona Residents



Spanish



Navajo



Other Native North American Languages

Recent examination of needs in tobacco research suggests that **standardization of surveys** is needed, especially around how questions are asked about emerging tobacco products (Delnevo & Bauer, 2009). Data suggest that use of these products is becoming increasingly common (Dutra & Glantz, 2014), indicating a need for more rigorous study of their use. Many tobacco data collection tools examine only tobacco consumption, cessation attempts, or both, but risk and protective factors for tobacco use should also be included. Many of these factors are not surveyed on large-scale data collection tools (Baker et al., 2011). In the area of timeliness, some research suggests that yearly data collection may be too infrequent, especially for detecting moderate, short-term effects of cessation interventions (Baker et al., 2011). Collecting data in a timely and localized fashion can be quite expensive, especially given the unique data collection needs of an entire state. Research also suggests that local health departments benefit from receiving data synthesized in systematic reviews, executive summaries, and statements of implications (Dobbins, Jack, Thomas, & Kothari, 2007).

### Tobacco Research Needs



Standardization of Questions

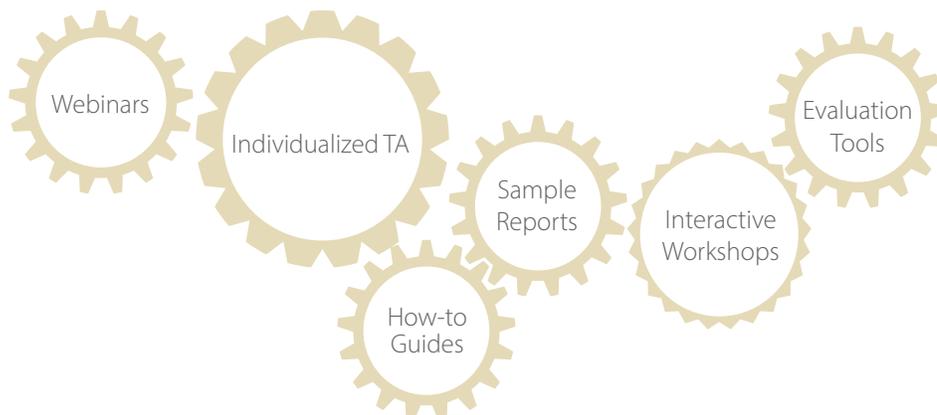


Data Collection Timeliness



Systematic Reporting

Research also indicates that **technical assistance** helps local entities, specifically those engaged in substance use prevention, provide measurable changes in their community beyond those that would be provided without TA (Watson-Thompson, Woods, Schober, & Schultz, 2013). The Tobacco Control Evaluation Center in California provided its 100 tobacco prevention centers with individualized TA, sample reports, how-to guides, evaluation tools, interactive training workshops, and webinars (Satterlund, Treiber, Kipke, Kwon, & Cassady, 2013). Their work resulted in an increase in requests for T/TA and in increased satisfaction with T/TA.



## Gaps Identified

On the basis of the results of the environmental scan, partner interviews, and a literature review, we identified four primary gaps in the current tobacco data collection systems: (1) Localization of Tobacco Data, (2) Standardization of the Content of Tobacco Data, (3) Accessibility of Tobacco Data, and (4) Training and Technical Assistance (T/TA). For each gap, we identified specific needs to bridge the gap, as well as expected outcomes if the gap is closed.

### The Gaps



Localization of Tobacco Data



Standardization of Content of Tobacco Data



Accessibility of Tobacco Data



Training and Technical Assistance (T/TA)

**For Gap 1, Localization of Tobacco Data**, data need to be available on the county level for all counties and on more localized levels for Pima and Maricopa counties. Data should also be representative of all citizens residing in the survey area, including certain special populations.

**For Gap 2, Standardization of the Content of Tobacco Data**, surveys need to have consistent language and definitions, a single focus on tobacco use, items asking about use of individual emerging and alternative tobacco products, and items asking about risk and protective factors for tobacco use and cessation.

**For Gap 3, Accessibility of Tobacco Data**, data need to be collected at least annually, capable of being integrated with other data collection systems, and capable of being easily queried and summarized.

**For Gap 4, Training and Technical Assistance, T/TA** should include a structured T/TA plan, training for partners on obtaining data from major data collection systems on tobacco use, assistance for partners on deciding which data source is most appropriate, data-driven planning, and assistance in using the data to report program outcomes.

## Activities and Feedback



In September 2014 and January 2015, RTI participated in two interactive presentations to Arizona BTCD partners to discuss the project and solicit feedback. The presentations took place at the Department of Health Services in Phoenix, Arizona.

In the first presentation, we provided partners with preliminary results from the environmental scan. Included in the presentation were the environmental scan methodology, frequently used data sources mentioned by the partners (from the partner interviews conducted in July and August 2014), strengths and limitations for each source, and suggested ways to use the current data sources. We also described next steps for the remainder of the project. At the end of the presentation, we held a question-and-answer session. While most of the partners did not have many questions, there were discussions regarding adding questions to BRFSS, concerns around new cell phone inclusion in BFRSS, ways to get county-level data, and the need for survey data surrounding emergent tobacco products (e.g., e-cigarettes).



In the second presentation, we presented partners with the outcomes of the gap analysis, summarizing the environmental scan and partner interviews. To facilitate use of the most pertinent survey data identified in the environmental scan, RTI provided partners with two fact sheets. The fact sheets provided brief information about adult and youth surveys, respectively, along with the pros and cons of each survey. The adult survey fact sheet described the four surveys with the most relevant tobacco data: the BRFSS, NATS, NSDUH, and the Tobacco Use Supplement to the Current Population Survey (TUS-CPS). The youth fact sheet presented the six most widely used surveys with youth tobacco data: the AYS, AYTS, MTF, NSDUH, NYTS, and the Youth Risk Behavior Surveillance System (YRBSS). Partners were asked for their feedback on the fact sheets and did not ask for any changes to be made.

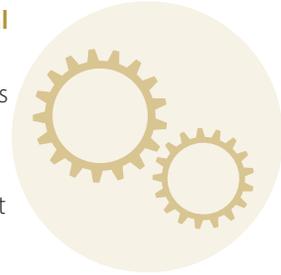
During the presentation, partners were asked to describe their use of data systems and how they could make use of future data collection. Many noted an interest in youth surveys and a focus on prevention programs for youth. One partner noted that she thought the AYS was a valuable tool but was concerned about the restrictions put on data usage. Specifically, she noted that it was difficult to work with schools completing the AYS to get school-level data or any data. Partners also explained that building partnerships and reaching out to the community are areas on which they want to focus. They added that doing so would assist in any future data collection. They described a need to be open-minded in thinking about methods of data collection. As an example, one partner stated people could be given free prepaid cell phones on which to take surveys. Overall, the partners showed a strong desire to collect and use valid and reliable data in their communities and expressed an interest in assistance with these endeavors.

## Recommendations



After completing a gap analysis, conducting partner interviews, and meeting with partners and staff at the Arizona Department of Health Services on two occasions, RTI has developed detailed recommendations to improve the tobacco data environment for the state of Arizona.

1. Our primary recommendation is to **provide enhanced training and technical assistance (T/TA)** to partnering organizations. Improved T/TA will provide the partners with a better understanding of how they can use existing data sources and allow them to better articulate their individual data needs. To determine what T/TA topics could be most helpful, a brief needs assessment should be completed by interviewing partners, perhaps by telephone, about their current knowledge, evaluation skills, and capacity for using data sources to address programming questions. The needs assessment would allow ADHS-BTCD to identify both common themes of training needs among multiple partners and needs specific to certain communities. These specific needs would be used to inform follow-up TA for the partners. Although the needs assessment could identify additional training topics, training is recommended in at least the following areas:



- selecting data sources based on the intended use of the data
- employing data-driven planning for selecting tobacco prevention and control programming
- using data to develop funding proposals
- using surveillance data to evaluate tobacco prevention and control programming
- communicating data about tobacco use to community partners
- developing evaluation methods such as surveys and focus groups or community conversations

Even with a thorough understanding of the data sources and evaluation process, partners will also need individualized TA to respond to unique difficulties in their own communities. We recommend that TA topics be open and flexible to the needs of partners. Topics may include the following or other identified needs:

- selecting data sources for their specific community
- improving the utility of current data collection tools
- seeking local data from community partners
- interpreting data to select tobacco prevention and control programming
- using data to evaluate programming outcomes

To ensure that T/TA needs are being met, BTCD should regularly survey the partners to determine whether they have existing T/TA needs, whether the T/TA provided to them was helpful, and how they are using T/TA to meet community tobacco use prevention goals.

2. Given the needs of partners, we recommend that BTCD work with partners to **improve current data collection systems**. Several data collection systems (both national and local) are in place throughout the state. Although these systems vary in data collection methods, populations targeted, and sample size, many of them collect only basic, yet similar, tobacco use questions. Only a limited number of questions can be asked about tobacco in these surveys, which are charged with gathering prevalence data for a number of health behaviors in addition to tobacco use. A solution to addressing current data gaps could be to work with the various data systems to improve the quantity and quality of tobacco-related data collected if possible. One challenge to modifying larger data collection systems such as AYT5 or BRFSS is that changing questions or data collection methods is often costly. Local and state governments may not have the budgets to implement this solution. Nevertheless, we encourage BTCD to find and use opportunities to enhance Arizona data collection systems.



If it is possible to add tobacco items, questions could address:

- Types of tobacco
  - emergent tobacco issues (e.g., e-cigarettes and dissolvable tobacco);
- Individual risk and protective factors
  - attitudes
  - peer, parental, and social norms regarding use
  - motivations to use or quit tobacco use
- Environmental risk factors
  - environmental exposure (e.g., secondhand smoke)
  - media advertisement
  - purchasing behaviors

Additionally, there may be opportunities to improve data collected by existing systems:

- Encourage greater community participation in surveys, including reaching out to
  - school districts to participate in school-based surveys such as the AYS.
  - other populations to complete existing data collection systems, such as targeting persons with mental illness; the lesbian, gay, bisexual, transgendered, and questioning (LGBTQ) community, or Native American tribes.

Determine whether new methods for collecting surveys are needed. For instance, many partners suggested moving away from paper-and-pencil surveys in school or among youth, whereas older adults and residents in rural communities may have more difficulty with Web-based or telephone surveys.

3. To enhance the usability of existing data, BTCD could **utilize a data dashboard or centralized database** that would collect data from a number of sources in one accessible place.

A centralized database should be designed to be easily queried so that counties can obtain timely, specific tobacco data that can be used in program evaluation and proposal development. Ideally, data would be input directly into the database or dashboard from commonly used sources such as ASHLine, the AYTS, or BRFSS. Data should be input when they are released, making them quickly available to partners online. An essential piece of a centralized dashboard is the querying method, which would allow partners to choose the age range and date range for which they would like to obtain data. Additional options could be added to allow partners to choose which types of questions they would like.

While a centralized database would be helpful for BTCD and partners, there are important barriers that should be considered before implementation. A centralized database may be significantly labor intensive and costly to implement, especially given the range of sources from which data comes. The information that would be available in the dashboard remains readily available on other websites for the use of the partners. The key to successfully using the various data sources may be in training users to find the appropriate data on the internet and determine how to interpret these data to meet their needs. Consolidating information about various data sources into a resource guide that is easily accessible to the partners and training may be important first steps in improving the usability of existing data.



4. Several recommendations have suggested the improvement of current data sources. If these sources and recommended improvements do not meet the needs of the Arizona BTCD and its partners, BTCD could **create a new data collection tool**.

Many of the gaps that are unable to be solved by improving current data collection systems may be addressed in a new data collection tool. If a new data tool is created, it should be developed in collaboration with local tobacco partners to determine any additional needs that are not being met with the current data available. In addition to the suggestions listed above, a new data collection tool should provide

- county-level estimates, or possibly community-level estimates;
- various demographic breakdowns (especially by age groups);
- information about special populations, including persons with mental illness, LGBTQ people, Native Americans, and African Americans;
- questions about emerging types of tobacco; and
- important risk or protective factors related to tobacco use.

Data should be collected annually, if not more frequently, with the results publicly published within a reasonable time frame (e.g., less than a year after data collection ends). The new data collection tool should improve tobacco monitoring and evaluation. There are many ways to develop a new tool. The next step for development is to discuss and determine capabilities available, top priorities, and overall goals of the tool.





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