Introduction

In the United States, tobacco use is the single most preventable cause of disease, disability, and death, according to the Centers for Disease Control and Prevention (CDC). Each year, an estimated 480,000 people die prematurely from smoking or exposure to secondhand smoke. In vulnerable populations, the inhalation of secondhand smoke increases rates of chronic diseases, such as coronary heart disease, stroke, lung cancer in adults, and increased asthma attacks and respiratory infections in children. Smoking is the primary causal factor for at least 80–90% of lung cancer deaths and for nearly 80% of deaths from chronic obstructive pulmonary disease (COPD). Each day, more than 3,200 people under the age of 18 smoke their first cigarette, and around 2,100 youth and young adults become daily cigarette smokers. In 2016, 4.7 million middle and high school students reported using at least one tobacco product, including e-cigarettes and electronic nicotine devices.

Throughout the U.S., the prevalence of tobacco use ranges geographically, with the South and Midwest regions having a higher rate of cigarette smoking compared to the rest of the country. Tobacco use in rural populations is a significant problem. According to the U.S. Census, the total population of rural (nonmetropolitan) counties was 46.2 million in 2015, representing 15% of the U.S. residents living in 72% of the country’s land area. Data from the National Survey on Drug Use and Health from 2012 states that 22.1% of the general population smoked cigarettes, whereas the rural population had a higher rate of 27.4%. As such, due to socioeconomic factors and lack of resources, the health of rural populations is disproportionately affected by tobacco use relative to urban populations.

Despite these risks and statistics, approximately 37.8 million Americans over the age of 18—or 15.5% of the adult population—smoke cigarettes. Millions of nonsmoking Americans, including children and adults, are regularly exposed to secondhand smoke, of which the Surgeon General has declared that there is no risk-free level of exposure. Due to the wealth of evidence-based practices for addressing this problem, reducing the burden of tobacco use and secondhand smoke has been identified by the CDC as a key public health priority.

Local health departments (LHDs) play a crucial role in strengthening tobacco control efforts in areas of the U.S. with the highest tobacco use prevalence within rural America. The National
Association of County and City Health Officials (NACCHO) works with LHDs throughout the country to build capacity for local-level tobacco prevention and control. NACCHO facilitates LHD understanding and implementation of best practices and evidence-informed tobacco control strategies specific to smoke-free air, tobacco and opioid associations, electronic nicotine delivery devices, and policies, systems, and environmental changes. LHDs also maintain and expand partnerships with national organizations, state health departments, and other interested agencies to coordinate tobacco control-related activities for specific community needs.

Because of the influential contribution of LHDs on rural tobacco initiatives, NACCHO conducted an environmental scan with rural LHDs to understand the landscape of tobacco control programs in these areas. The goals were to better understand what types of tobacco programs and policies they engage in, how LHDs evaluate them, key tobacco partnerships, and barriers to implementing tobacco programs and policies. In this Issue Brief, findings from the scan will be showcased along with recommendations from NACCHO to support rural LHDs with their tobacco efforts now and in the future.

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Research Methods

NACCHO distributed the environmental scan survey to 253 rural LHDs from January to February 2019. The sample was identified from LHDs in the 2016 National Profile of Local Health Departments (Profile) study population that were classified as rural and responded that they performed or contracted out tobacco prevention activities.5 In the 2016 Profile study, each LHD was assigned a Rural Urban Commuting Area Codes (RUCA) designation based on the zip code of their primary physical or mailing address. Each LHD has a single classification, even though some jurisdictions include census tracts with differing degrees of urbanization. LHDs classified as rural were located in zip codes with a RUCA of 7–10. To participate in the scan, these LHDs were asked to validate that they serve a predominantly rural jurisdiction and currently engage in tobacco control work.
Of the 253 rural LHDs surveyed, 87 completed the survey for a 34% response rate. A total of 22 states are represented in the participant responses. The scan was distributed online via Qualtrics Survey Software™ to collect both quantitative and qualitative data. This report illustrates descriptive statistics of the quantitative data, as well as common themes identified from the qualitative responses.

Findings from the survey are intended to provide a snapshot of the situation confronting many rural LHDs and may provide some insight into specific barriers or facilitators of LHD response to tobacco prevention and control efforts. The survey sample was not a statistically representative sample of rural LHDs, and these findings are not intended to be nationally representative. All data were self-reported, and NACCHO did not independently verify LHD data. Some detail may be lost in the figures due to rounding.

Tobacco Prevention and Control Programmatic Activities in Rural Local Health Departments

The survey data collected through NACCHO’s Tobacco Control Efforts in Rural America: Perspectives from Local Health Departments provides knowledge for understanding how LHDs carry out tobacco prevention and control activities and establishing priorities to enhance local implementation of these efforts.

Nearly all respondents (90%) reported engaging in tobacco and cessation activities and initiatives in the community. These activities include education, referrals to Quitlines, social marketing campaigns, cessation support groups, etc. A majority of LHDs participate in smoke-free air initiatives, electronic nicotine delivery device (i.e., e-cigarettes) services, and reducing the sale of tobacco to minors. (Figure 1). Furthermore, approximately one-third of respondents indicated they engage in work to coordinate tobacco and opioid programs, funding, and/or resources (i.e., tobacco and opioid connections). As the opioid epidemic continues to intensify, rural LHDs are beginning to provide resources, referrals, and prevention and cessation educational materials focused on the dual-use population.

Figure 1. Tobacco Control Areas in which Rural LHDs Engage
Percent of respondents, n=87

<table>
<thead>
<tr>
<th>Activity</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco prevention/cessation methods</td>
<td>90%</td>
</tr>
<tr>
<td>Smoke-free air</td>
<td>75%</td>
</tr>
<tr>
<td>Electronic nicotine delivery devices</td>
<td>64%</td>
</tr>
<tr>
<td>Reducing sale of tobacco to minors</td>
<td>56%</td>
</tr>
<tr>
<td>Tobacco and opioid connections</td>
<td>34%</td>
</tr>
<tr>
<td>Regulations on tobacco products</td>
<td>31%</td>
</tr>
<tr>
<td>Raising cigarette</td>
<td>16%</td>
</tr>
<tr>
<td>Tobacco 21</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
</tbody>
</table>
Results from the survey showed that rural health departments are slower to adopt some tobacco control policy issues, such as raising the cigarette taxes and Tobacco 21, as shown in Figure 1. Larger cities are leading the way for Tobacco 21 and opening opportunities and providing lessons learned for rural LHDs to take on this policy. The Tobacco 21 initiative will foreseeably become a bigger issue throughout the U.S., and as of June 2019, over 475 cities and counties in 29 states have currently raised the tobacco sales age to 21, and the movement continues to grow.\(^6\)

A total of 5% of respondents reported engaging in other activities, including changing school policy language around tobacco use and implementing a tobacco treatment specialist in an in-house Federally Qualified Health Center (FQHC).

**Spotlight on E-cigarettes**

Use of e-cigarettes has risen in recent years, and according to the CDC, the use of e-cigarettes is unsafe for kids, teens, and young adults. Nearly 1.5 million more youth are using e-cigarettes from 2017 to 2018. In 2018 alone, 3.6 million middle schoolers and high school adolescents started vaping within the past 30 days.\(^6\)

Not surprisingly, nearly 93% of the responding LHDs indicated that e-cigarettes were a threat in the community. The strategies that rural LHDs are using to address this threat include prevention programs in schools, educational and social media campaigns to address the facts, using national organization ads (e.g., CDC, TRUTH, FDA), including the use of e-cigarettes in community health assessments and smoke-free air policies, and reaching out to students and youth to address the problem on the ground. As more communities are affected by the increase in e-cigarette use, LHDs can play a significant part to disseminate educational materials, provide support to schools, and continue to promote evidence-based approaches to combat use among youth.

Through a partnership with the local school system and coordinated school health, the LHD health educator goes into classrooms and discusses tobacco education, which includes electronic cigarette use. Education is also provided through projects such as Tackle Tobacco Nights which include both parents and students together! We measure success of this program by the number of students who participate, those who pledge to be tobacco free, and the number of how many received education in the classroom.

**Program and Policy Implementation**

The environmental scan focused on four timely programmatic and policy topics related to tobacco control: general tobacco prevention and cessation methods, smoke-free air, e-cigarettes, and tobacco and opioid connections.

Across all topic areas, more respondents reported engaging in program implementation compared to policy development or implementation (Figure 2). Fewer than half of the responding LHDs engage in policy work to address these four topics areas. Furthermore, the results indicate the least
common area in which rural LHDs engage in policy work is in tobacco and opioid connections. Health departments are starting to develop programs that combat both tobacco and opioid use simultaneously as the relationship between these addictions intersect, as most substance use and abuse does. Some LHDs are seizing this opportunity to leverage funding to support the intersection of these programs and policies.

Measuring Impact

Measuring the impact of rural tobacco programs is essential in order to understand the needs of the community. Evaluating programs helps to ensure the effectiveness of the projects and prove that the goals are being met by the health department team. Based on the scan results, 51% of respondents stated that they measure the impact of their programs or policies. The majority of these rural LHDs measure the impact of their tobacco prevention and cessation methods (Figure 3). Less than one-fifth of respondents evaluated the impact of smoke-free air policies or e-cigarettes, and only 6% of the respondents indicated they monitor the impact of their work on tobacco and opioid connections. This relatively low proportion may be a result of the recent emergence of opioids as a public health issue associated with tobacco use.
How Rural LHDs Measure Program/Policy Impact

Local health departments play a key role in evaluating new and existing tobacco programs in order to determine if they are useful and successful in their communities. A series of qualitative questions asked respondents to elaborate on how they evaluate specific programs. Responding LHDs that measure the impact of their tobacco programs or policies were asked to share the methods and data sources they use to evaluate their work in each of the four topic areas.

Tobacco Prevention and Cessation Methods

In terms of monitoring general tobacco programs, how they monitor impact of Tobacco Prevention and Cessation initiatives include things such as:

- State Tobacco Coalitions monitor city and county level tobacco prevention efforts;
- Using publicly-available datasets and reports, including County Health Rankings, CDC’s Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Surveillance System (YRBSS), Campaign from Tobacco-Free Kids, and American Cancer Society;
- Conducting and monitoring the community health needs assessments;
- Examining state Tobacco Quitlines and providing follow-up surveys to patients with referrals;
- Data sharing with partner organizations, such as school districts, Women, Infants, and Children (WIC) clinics, and larger or state health departments; and
- Tracking participation in LHD cessation programs and conducting 3-, 6-, and 12-month follow-ups with participants to determine sustained abstinence.

“How we measure impact of tobacco cessation programs in Colorado varies but mainly, we use data tracking from cessation programs, such as the Colorado Quitline, and Baby and Me Tobacco Free from WIC.”

Figure 3. Tobacco Control Areas in which Rural LHDs Measure Program/Policy Impact

Percent of respondents, n=85
Smoke Free Air

Qualitative data showed that for smoke-free air policies, most LHDs monitor the number of policies passed and implemented in businesses, schools, organizations, and parks; conduct compliance checks to ensure that these places are still maintaining their smoke-free status; and perform their annual or bi-annual community needs assessments.

Tobacco/Opioid

While few LHDs measure the connection between tobacco and opioid programs, a few responding LHDs provided some interesting examples. In terms of measuring the connection with tobacco and opioids, one LHD in Oklahoma stated that they monitor the number of Medically Assisted Treatment (MAT) programs in the community and provide prevention and cessation educational materials to people in treatment. Others specified that they screen the State Quitline for referrals to MAT and nicotine replacement therapy and cessation treatments.

“Ask Alabama, we monitor and measure smoke-free air policies using the Tobacco Policy Tracking System (TPTS): a searchable data site that tracks smoke-free policies for cities, schools, universities and hospitals.”

Partnerships

Coordination and collaboration among rural LHDs, their multi-sector stakeholders, and community organizations are essential to implementing tobacco prevention and control programs at the local level. With that, more than 50% of respondents reported partnering with state health departments, local or state government agencies (other than the state health department), healthcare systems, schools, or community-based organizations (Figure 4). However, few of the responding LHDs collaborate with the media, business, or faith communities to advance tobacco programs and policies; only 3% indicated they partner with insurers.
Barriers

Rural LHDs face some unique barriers to implementing tobacco programs and policies in their jurisdictions. More than half reported no or limited dedicated funding to tobacco programs. Figure 5 highlights key barriers reported by LHDs. Another challenge for rural communities is the political landscape in their communities. One respondent indicated that their area is generally more politically conservative compared to urban areas, and tobacco farming is a substantial crop and money maker in these communities. The community is therefore resistant to hearing about new or emerging tobacco regulations, restrictions, and policies, because tobacco is engrained in the culture related to socioeconomic factors and these could be perceived as interfering on an individual’s freedoms.

Figure 5. Barriers Rural LHDs Experience to Advancing Tobacco Programs/Policies
Percent of respondents, n=84
Recommendations and Conclusion

The data collected through NACCHO’s Tobacco Control Efforts in Rural America: Perspectives from Local Health Departments provides context for understanding the role of rural LHDs in carrying out tobacco control and prevention activities. NACCHO will use this data and share it with its partners to guide LHDs in their tobacco prevention and control efforts.

Based on the assessment, there are several areas where rural LHDs can expand and enhance their tobacco initiatives. The following recommendations illustrate these potential focus areas.

1. **Expand type of programs and policies that LHDs champion in rural communities.**

   Most LHDs reported working on prevention and cessation programs, while fewer are working to regulate tobacco products, Tobacco 21, and tobacco/opioid connections. Future work could include developing materials that provide training and capacity building to rural health departments, in order to be able to implement and evaluate programs and policies that address emerging tobacco issues.

2. **Connect LHDs to existing resources on tobacco and rural health.**

   Several LHDs reported needing additional information on understanding emerging issues, training staff, and gathering data to understand the problem and potential solutions.

   LHDs need additional technical assistance to help them build skills to prioritize, select, implement, and evaluate interventions. Connecting LHDs to available information is essential and to better assist rural communities to complete more evaluations, the Rural Health Information Hub created a Rural Tobacco Control and Prevention Toolkit, which showcases and provides examples of common measures, along with helpful information for implementing programs and more. To learn more visit [https://www.ruralhealthinfo.org/toolkits/tobacco/about-this-toolkit](https://www.ruralhealthinfo.org/toolkits/tobacco/about-this-toolkit)

   Another recommendation is to create a rural learning community to discuss emerging tobacco control issues such as Tobacco 21, e-cigarettes, smoke-free air, and the tobacco-opioid intersection.

3. **Support evaluation efforts to help measure success of tobacco control initiatives.**

   LHDs in the survey reported not always measuring the impact of their programs. For example, many did not always measure the impact of the individual programs and policies in their jurisdiction, especially programs that address emerging issues. Future work could create training tools and provide assistance to rural LHDs to be able to implement and evaluate new initiatives such as Tobacco 21 and opioid connections.

4. **Celebrate success and foster dissemination of rural tobacco programs and policies.**

   Many LHDs have successfully implemented tobacco control programs and policies and have valuable lessons to share. Disseminating success stories from LHDs who have implemented or evaluated a tobacco program or policy would help others looking to do the same.
Footnotes


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NACCHO Tobacco Control and Prevention Site: https://www.naccho.org/programs/community-health/chronic-disease/tobacco
The mission of the National Association of County and City Health Officials (NACCHO) is to improve the health of communities by strengthening and advocating for local health departments.

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