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## Commentary

# We are in This Together: Promoting Health Equity, Diversity, and Inclusion in Tobacco Research for Sexual and Gender Minority Populations

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## Abstract

**Introduction:** Sexual and gender minority (SGM) individuals have higher tobacco use prevalence and consequently higher burden of tobacco-caused diseases, including cancer and cardiovascular disease compared with their heterosexual or cisgender counterparts. Yet, there is a critical gap in research focused on measuring SGM tobacco-related health disparities and addressing unmet needs of SGM individuals in the context of nicotine and tobacco research.

**Aims and Methods:** In this commentary, we summarize recommendations discussed during a pre-conference workshop focused on challenges and opportunities in conducting SGM tobacco control research at the 2019 Society for Research on Nicotine and Tobacco Annual Meeting.

**Results:** Specifically, we recommend defining and measuring SGM identity in all nicotine and tobacco research routinely, using novel methods to engage a demographically diverse sample of the SGM population, and eliciting SGM community voices in tobacco control research.

**Conclusions:** Addressing these critical research gaps will enable the scientific community to generate the data to fully understand and support SGM individuals in tobacco use prevention and cessation.

**Implications:** Tobacco use and its consequences have become increasingly concentrated in disadvantaged groups, including sexual and gender minority (SGM) populations. Through concrete recommendations in this commentary, we aimed to promote health equity, diversity, and inclusion in tobacco research for SGM populations by urging the scientific community to consider expanding efforts to monitor and address tobacco-related health disparities of SGM populations within their respective research programs.

## Introduction

Disproportionate effects of tobacco use on disadvantaged populations have propelled many efforts to reduce tobacco-related health disparities<sup>1</sup> (ie, differences in tobacco use, exposure, prevention, risks, and outcomes). Despite high tobacco use prevalence among sexual and gender minority (SGM) individuals<sup>2</sup> and consequently higher burden of tobacco-related diseases,<sup>3</sup> published research addressing SGM tobacco-related health disparities is sparse. Furthermore, holding multiple minority identities (eg, SGM persons of color) is associated with even higher tobacco use prevalence.<sup>4</sup> Reasons for SGM tobacco-related health disparities are multifaceted and include SGM stigma and discrimination at the individual, interpersonal, community, and policy levels.<sup>5</sup> Moreover, the tobacco industry has deliberately targeted the SGM community via advertising and event sponsorship.<sup>5</sup>

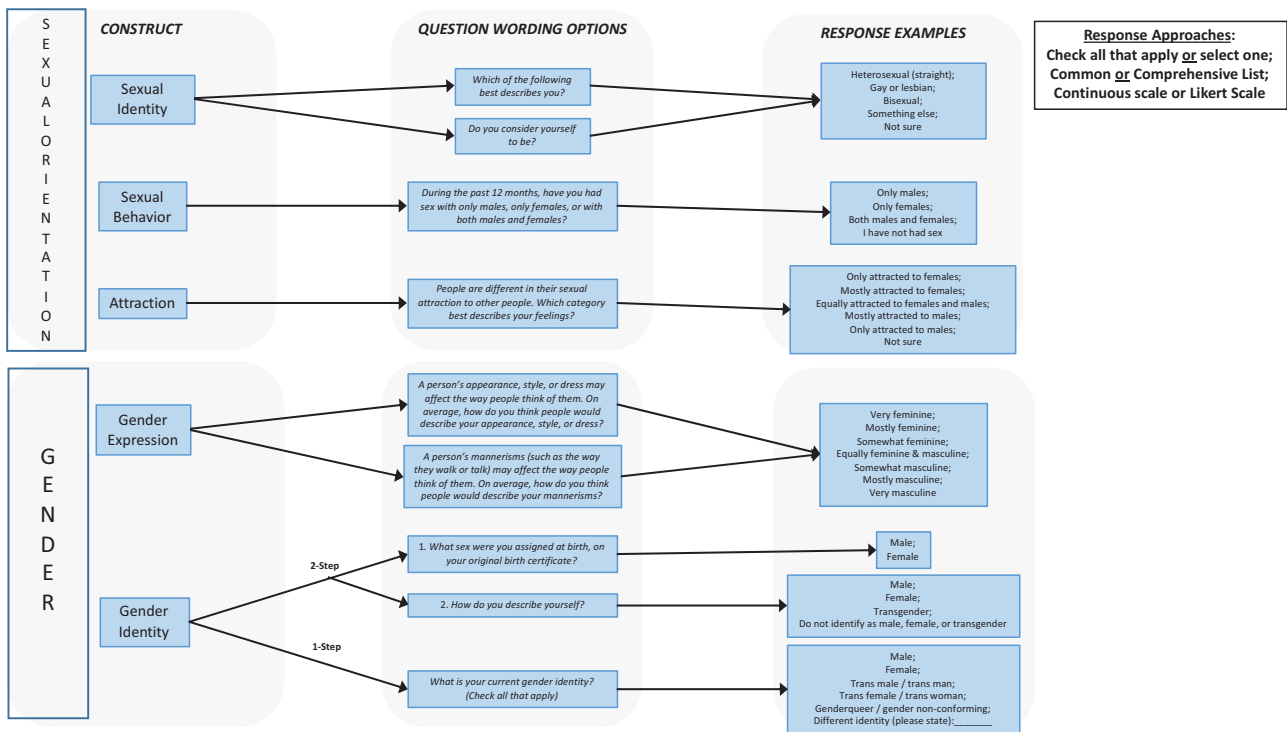
In this commentary, we summarize recommendations and rationales to define and measure SGM identity, sample SGM populations, and elicit SGM community voices in tobacco control research. These recommendations are based on a pre-conference workshop focused on challenges and opportunities in conducting SGM tobacco control research at the 2019 Society for Research on Nicotine and Tobacco Annual Meeting. We offer these recommendations to encourage tobacco-related health disparities researchers to consider integrating SGM populations within their respective research programs. We further urge the broader nicotine and tobacco scientific community to abandon the “don’t ask, don’t know mantra”<sup>1</sup> and to include SGM identity as a routinely measured sociodemographic characteristic. Working together as a scientific community, we can generate data

to fully understand and support SGM individuals in tobacco use prevention and cessation—a call to action supported by the recent designation of SGM populations as a health disparity population by the US National Institutes of Health and a Notice of Special Interest (NOT-MD-19-001) calling for SGM health research.

## Defining and Measuring SGM

SGM assessment in survey research has recently increased, yet its measurement remains inconsistent, hindering the ability to integrate findings.<sup>6</sup> To promote consistent and widespread adoption of SGM measures as standard demographic information, we discuss scientific and practical considerations and recommend measurement strategies based on current standard practices for sexual orientation and gender identity (SOGI) assessment.<sup>6-8</sup> We also consider our assessment experiences, as some “best practice” guidelines produced within the last 5–10 years<sup>7-9</sup> are already outdated, given rapidly evolving SOGI-related cultural norms and language.<sup>6</sup> Therefore, we suggest adaptations of the guidelines where appropriate.

Sexual orientation assessment spans three dimensions: attraction, behavior, and identity.<sup>7</sup> Gender identity is assessed using sex, gender identity, and transgender status.<sup>7</sup> Figure 1 includes current suggestions for measuring SOGI. At minimum, SOGI assessments should include at least one sexual orientation and one gender identity item (bolded items in Figure 1), as these are separate constructs. Ideally, all dimensions of SOGI should be measured, to increase sensitivity and specificity.<sup>7</sup> Practical considerations, however, may influence the breadth of SOGI assessment. Item choice should be determined by



**Figure 1.** Recommended response and answer terminology for measuring dimensions of sexual orientation and gender. At minimum, a measure of sexual orientation and a measure of gender should be included as standard demographic items across research modalities. Note, however, that research questions involving the sexual and gender minority (SGM) community may require more advanced questions and/or response options to allow more specificity. For example, the response options used here may be too binary for some SGM community members. “Male sexual partners” could be interpreted as “partners who identify as men,” “partners assigned male at birth,” or a combination of the above. Measures should be chosen and adapted to suit the research question and to be appropriate for the target population.

the research question and appropriateness for the sampled population. For example, studies involving adolescents may focus on attraction and/or identity rather than sexual behavior, given that adolescents may not yet have initiated sexual behavior. For studies assessing sexual health, behavior may be more relevant than attraction or identity.

Response options are important considerations. Some items may contain options that are not mutually exclusive. Forcing one choice (eg, “Which best describes...”) is more practical and reduces the risk of researchers incorrectly categorizing participants for analysis.<sup>9</sup> In contrast, “select all that apply” formats and write-in options allow respondents to fully express their identities. Write-in options can advance measurement development by eliciting participants’ own terminology within the evolving landscape of SOGI. SGM community perspectives on the measurement of SOGI are critical to inform the development of assessment items that are acceptable and valid for use in different cultures and SGM subpopulations (eg, adolescents and young adults, racial and ethnic minorities). Any response option of “something else” should be followed by a write-in option for individuals who identify with unlisted identities (eg, pansexual, queer, and asexual) and to ensure inclusion of all identities as terminology develops and advances.

### Sampling Practices

Tobacco research paradigm innovations may further improve engagement with SGM populations by implementing sampling practices that are both effective at reaching SGM individuals from diverse demographic backgrounds (including based on race, ethnicity, socioeconomic position, and other traditionally marginalized backgrounds) and are culturally sensitive, ensuring that participants can safely express themselves. While national probability-based surveys (eg, BRFSS, NHANES, NHIS, and PATH) do enroll SGM participants, the cell sizes are often inadequate for conducting stratified detailed analyses. National surveys could oversample SGM individuals and utilize sampling weights in analyses to obtain unbiased and more precise estimates of tobacco-related behaviors and health outcomes among SGM populations.

More frequently, studies have relied on targeted non-probability sampling of SGM participants via social venues (eg, street fairs, pride parades, bars)<sup>10</sup> and on social media platforms such as Facebook. Venue-based and social media samples are not representative of the national SGM population (eg, individuals who frequent SGM venues are more likely to be gay men, have higher rates of tobacco and alcohol use, and have higher educational level; social media users tend to be younger, and different age groups prefer different social media platforms). Findings from non-probability samples may not be generalizable to understanding the patterns of tobacco use, underlying causes, and effects of tobacco prevention or treatment among SGM populations nationally. However, venue-based sampling enables reaching SGM individuals in contexts where tobacco use is more prevalent. Social media permits recruiting a geographically and demographically diverse sample of SGM participants quickly and effectively,<sup>11,12</sup> especially given that SGM individuals use social media at higher rates than non-SGM individuals.<sup>13</sup> Studies utilizing “secret” groups on social media provide increased privacy and confidentiality for SGM individuals who live in rural or conservative communities to participate in research where they might otherwise decline for fear of being “outed.”<sup>14</sup> Clearly, there is no “one size fits all” approach

and the tradeoffs (eg, generalizability, targeting SGM individuals who use tobacco, geographic and demographic diversity of the sample, privacy, and confidentiality) should be carefully considered depending on the research goals.

Approaches that aim to build trust by engaging SGM community organizations and leaders are critical when conducting SGM community-based research offline. Health systems-based sampling (eg, among enrolled patient populations) could facilitate the identification of health disparities between SGM and non-SGM populations. For instance, the availability of SOGI, tobacco use, and disease diagnoses data within electronic health records of patient populations would provide the ability to compare the prevalence of tobacco-related illnesses between SGM and non-SGM populations. Although healthcare organizations that receive CMS reimbursements are required to provide the capability to collect SOGI data, they are not required to enforce routine collection of SOGI data by clinicians, which poses a major impediment to understanding and addressing SGM tobacco-related health disparities.<sup>15</sup> To bridge this gap, programs could use the Meaningful Use initiatives to incentivize routine collection of SOGI data, along with tobacco use data, by clinicians and organizations.

### Methods for Eliciting SGM Community Voices to Inform Tobacco Control

Improved identification and sampling of SGM individuals will help enhance theories of tobacco-related health disparities by facilitating examination of SGM lived experiences. This can be supported by further employing community-engaged and participant-centered methods among SGM populations. Research on SGM lived experiences with tobacco has explored motivations for tobacco use<sup>16</sup> and perceptions of tobacco control policies.<sup>17</sup> Moving forward, eliciting SGM perspectives in tobacco research with other vulnerable populations will provide valuable insight into the intersectional influences of multiple marginalized social identities (eg, SOGI, race/ethnicity) and structural inequities (eg, housing instability; health care access) on tobacco-related health disparities.<sup>18</sup>

Qualitative methods are well-suited for in-depth exploration of the processes that perpetuate SGM tobacco-related health disparities. Significant research gaps remain regarding the roles of minority stressors, resilience factors that mitigate the negative effects of minority and general life stressors, and other social determinants and mechanisms underlying tobacco-related disparities for SGM populations. Several qualitative studies have invoked the Minority Stress Model to interpret SGM accounts related to tobacco use.<sup>19</sup> Other work has applied Borderland Theory and geographies of sexuality to understand bisexual smoking,<sup>16</sup> critical drug scholarship, and youth cultural practice to explore agency among young SGM smokers,<sup>20</sup> and the Social Resistance Framework and queer theory to interpret SGM experiences of tobacco denormalization.<sup>17</sup> Further engagement with theories of health behavior (eg, Social Practice Theory) and research frameworks specific to SGM and other minority groups (eg, Health Equity Promotion Model or asset-based frameworks) would enrich research design and data interpretation.

### Conclusions

While the science of SGM tobacco use is evolving, there remains a dearth of research on the underlying causes and mechanisms of SGM tobacco-related health disparities, and tobacco use patterns

among gender minority populations. First, we recommend that SOGI measures be incorporated in all nicotine/tobacco research. Adequately and consistently assessing SGM status will improve SGM health surveillance and facilitate future data harmonization across studies. Second, sampling practices should employ novel methods for engaging a demographically diverse sample of the SGM population (eg, social media) alongside more traditional methods like random venue-based, community-based, and health systems-based sampling, while accounting for cultural sensitivity and privacy concerns.

Finally, it is crucial to go beyond simply describing the presence of SGM tobacco use and related health disparities. Our third recommendation is that qualitative (and quantitative) research examine the root causes of these disparities (eg, mechanisms, intersecting identities, and risk or protective factors) and begin to address these factors via prevention and intervention. As tobacco use and its consequences have become increasingly concentrated in disadvantaged groups,<sup>1</sup> the scientific community has an important role to play in monitoring and addressing tobacco-related health disparities, including among SGM individuals. As a society of tobacco researchers, clinicians, and public health professionals that values equity and inclusion, we are all in this together and have a collective responsibility to act.

## Supplementary Material

A Contributorship Form detailing each author's specific involvement with this content, as well as any supplementary data, are available online at <https://academic.oup.com/ntr>.

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## Declaration of Interests

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