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## LGBTQ+ Cancer: Priority or Lip Service? A Qualitative Content Analysis of LGBTQ+ Considerations in U.S. State, Jurisdiction, and Tribal Comprehensive Cancer Control Plans

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## Abstract

The National Comprehensive Cancer Control Program, a Centers for Disease Control and Prevention funded program, supports cancer coalitions across the United States (US) in efforts to prevent and control cancer including development of comprehensive cancer control (CCC) plans. CCC plans often focus health equity within their priorities, but it is unclear to what extent lesbian, gay, bisexual, transgender, queer/questioning, plus (LGBTQ+) populations are considered in CCC plans. We qualitatively examined to what extent LGBTQ+ populations were referenced in 64 US state, jurisdiction, tribes, and tribal organization CCC plans. A total of 55% of CCC plans mentioned LGBTQ+ populations, however, only one in three CCC plans mentioned any kind of LGBTQ+ inequity or LGBTQ+ specific recommendations. Even fewer plans included mention of LGBTQ+ specific resources, organizations, or citations. At the same time almost three fourths of plans conflated sex and gender throughout their CCC plans. The findings of this study highlight the lack of prioritization of LGBTQ+ populations in CCC plans broadly while highlighting exemplar plans that can serve as a roadmap to more inclusive future CCC plans. Comprehensive cancer control plans can serve as a key policy and advocacy structure to promote a focus on LGBTQ+ cancer prevention and control.

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## Introduction

Funded and supported by the Centers for Disease Control and Prevention (CDC), the National Comprehensive Cancer Control Program (NCCCP) supports cancer coalitions across all 50 states and the District of Columbia, eight US-associated islands and jurisdictions, and seven tribes and tribal organizations. The NCCCP provides both funding

and technical assistance to each of the 65 cancer coalitions with the goal of facilitating implementation of effective and sustainable initiatives to prevent and control cancer. As a centerpiece of cancer control efforts, each coalition is responsible for developing a comprehensive cancer control (CCC) plan. These comprehensive plans characterize the cancer burden experienced by the communities geographically encompassed by the coalition (e.g., states, tribal areas, jurisdictions), prioritize goals, and outline plans to reduce cancer burden through evidence-based risk reduction, early detection, diagnosis, treatment, and survivorship efforts.<sup>1</sup>

The NCCCP has identified “achieving health equity” as a cross-cutting priority for all CCC plans. Funded coalitions are encouraged to address health equity through developing a culturally competent workforce, promoting equitable access to cancer screening, treatment, and care, and improving the measurement and use of data to guide their cancer prevention and control plans. Best practices for plan development and modification include engagement with key stakeholders affected by disparities in the state, jurisdiction, or tribe.<sup>2,3</sup>

Lesbian, gay, bisexual, transgender, queer/questioning, other identities outside of cisgender and heterosexual or plus (LGBTQ+) people make up at least 7.1% of the United States (US) population and face substantial inequities inside and outside of the cancer context.<sup>4,5</sup> Inequities that disproportionately burden LGBTQ+ populations are largely driven by multi-level LGBTQ+ identity-related structural stigma and intersecting systems of oppression, which uphold the persistence and harmful effects of cisheteronormativity (i.e., cultural and societal belief that heterosexuality and cisgender identities are the norm, natural, or superior), including systematic and widespread exclusion, stereotyping, discrimination, violence, homophobia, and transphobia.<sup>6,7</sup> As a result of identity-related structural stigma and discrimination, LGBTQ+ individuals are more likely to struggle with mental health issues including anxiety, depression, and suicidal ideation; they may also exhibit negative coping behaviors that may increase cancer risk such as binge drinking and cigarette smoking more often than non-LGBTQ+ individuals.<sup>8,9</sup>

Beyond health behaviors, LGBTQ+ individuals are also less likely to have access to safe, culturally competent, and affirming health care in general, resulting in diminished health care utilization and lack of access to timely and appropriate cancer screenings and treatments.<sup>10–12</sup> In the cancer context, LGBTQ+ cancer populations experience provider-based discrimination and unwelcoming cisheteronormative clinic spaces and have recorded higher rates and recurrence of certain cancers (e.g. breast, ovarian, lung).<sup>5,11,13–16</sup> There are very few interventions that have appropriately understood and addressed these challenges and many often do not include perspectives of the individuals affected.<sup>17,18</sup> Moreover, absence of comprehensive sexual orientation and gender identity (SOGI) data collection and data equity can further exacerbate and mask inequities, hindering a comprehensive understanding of LGBTQ+ unmet needs and impeding the development, monitoring, and evaluation of targeted interventions.<sup>19,20</sup>

In response to the growing literature surrounding LGBTQ+ inequities, national organizations including the National Institute on Minority Health and Health Disparities, the American Society of Clinical Oncology, and the Institute of Medicine have called

on researchers, clinicians, community organizations, and policymakers to address cancer-related inequities in LGBTQ+ populations.<sup>20–22</sup> CCC plans can serve as a key policy and advocacy structure to promote a focus on LGBTQ+ cancer prevention and control. However, it is unclear to what extent NCCCP state, jurisdiction, and tribal CCC plans include content focused on LGBTQ+ populations and cancer inequities. Thus, this study aimed to systematically and qualitatively assess the extent to which LGBTQ+ considerations are included and how they were discussed in each cancer coalition's CCC plan.

## Methods

This study was conducted by the LGBTQ+ Interest Group of the Cancer Prevention and Control Research Network (CPCRN), a national network of academic, public health, and community partners.<sup>23</sup> CPCRN is a CDC-funded thematic research network of the Prevention Research Centers—a flagship program for preventing and controlling chronic illness.<sup>23</sup> The LGBTQ+ Interest Group was established in April 2023 by ARW and ML with the purpose of bringing together CPCRN members interested in working to address the inequities faced by LGBTQ+ populations in cancer prevention and control. The LGBTQ+ interest group is led by four researchers who all identify as part of the LGBTQ+ community. The CPCRN LGBTQ+ Interest Group, which includes individuals across the LGBTQ+ spectrums and allied members, conducted a content analysis of all available CCC plans focusing on the inclusion of LGBTQ+ specific content, the conflation of sex and gender, and mention of non-LGBTQ+ specific disparities and inequities. All CCC plan content was pulled from the CDC's website in May 2023. Qualitative coding was conducted by CPCRN members and affiliates from 11 institutions across the U.S. between June and October 2023. This study was deemed non-human subjects research and exempt by the University of North Carolina at Chapel Hill Institutional Review Board (IRB#23-1518).

## Qualitative Analysis

This project and the analytic approach were conceptualized over multiple CPCRN LGBTQ+ Interest Group meetings in-person (e.g., CPCRN Annual Winter Meeting in February 2023) and online by LGBTQ+ interest group members. First the analytic lead and experienced qualitative researcher, ARW, read through a dozen CCC plans for LGBTQ+ specific content, taking note of how the LGBTQ+ population was being referenced. The analytic team which included students, staff, and faculty with ranging experience with qualitative research (MHB, MW, MM, MW, MM, MO, ML, MIF, RH, RF, RS, SN, SA, LS) then constructed an LGBTQ+ term list to aid in the identification of plans with LGBTQ+ specific content (i.e., sexual orientation, gender identity, LGBT, lesbian, gay, bisexual, transgender, queer, two-spirit, sexual and gender minority, SGM, gender affirming care).

Once the term list was compiled and defined by the analytic team, ARW applied the term list to six plans (California, District of Columbia, American Indian Cancer Foundation, Mississippi, West Virginia, Marshall Islands) to pilot test the identification LGBTQ+ content and to begin the formation of a deductive coding matrix. The initial coding matrix was then refined during multiple CPCRN LGBTQ+ Interest Group meetings resulting in nine domains for coding including: 1) any reference to LGBTQ+ populations, 2) appropriate

use of LGBTQ+ language, 3) mention of LGBTQ+ inequities, 4) mention of LGBTQ+ specific recommendations, 5) mention of the collection of sexual orientation and gender identity (SOGI) data, 6) mention of LGBTQ+ specific resources or organizations, 7) LGBTQ+ specific citations, 8) any conflation of sex and gender, and 9) mention of other non-LGBTQ+ specific disparities or inequities. Definitions and coding rules for each domain can be found in Table 1.

Once the deductive coding matrix was finalized, ARW led a training via Zoom focused on deductive qualitative coding specific to the current study which was recorded for team members who were not able to join the live training. All available CCC plans (n=64) were then coded by two analytic team members into the matrix (no plan from the Virgin Islands was available online). Members of the analytic team (MHB, MW, MM, MW, MM, MO, ML, MIF, RH, RF, RS, SN, SA, LS) divided up the 64 plans and coded them into the matrix, while ARW coded all 64 plans into the matrix independently from the rest of the analytic team. Two meetings then occurred to discuss discordance between codes applied by ARW compared to the double coder from the analytic team. Group consensus was used to reach agreement on each code within each domain. Any alterations to domain definitions or codes were agreed upon by the group and the final definitions are reflected in Table 1.

To comprehensively understand the current landscape of inclusion of LGBTQ+ populations in each coalition's CCC plan, frequencies of each qualitative content domain were visualized using a bar chart (Figure 1). LGBTQ+ specific domains (domains 1–7) were then summed and visualized in a heat map to understand geographical clustering of different LGBTQ+ content domains (Figure 2A). Further, to understand the geographical distribution of the conflation of sex and gender, a map was created to visualize the plans that conflated sex and gender and those that did not (Figure 2B).

## Results

Overall, 35 (54.7%) of the 64 CCC plans mentioned LGBTQ+ populations (Figure 1). Of those that referenced LGBTQ+ populations, 34 (97.1%) used appropriate language to describe the population. However, only 21 of the 35 plans (60.0%) that referenced LGBTQ+ populations provided any discussion of LGBTQ+ inequities or LGBTQ+ specific recommendations (e.g., some plans briefly mentioned LGBTQ+ people in one section but then did not elaborate any specific cancer inequities or make specific recommendations). Further, only 13 plans (37.1%) recommended collection of SOGI data in any context. Even fewer plans mentioned any LGBTQ+ resources or organizations (n=10, 28.6%) or provided any LGBTQ+ specific citations (n=11, 31.4%). Over two thirds of plans conflated sex and gender (defined in Table 1) throughout their plan content (n=46, 71.9%) – for example, displaying a figure referring to incidence or mortality rates by “gender” but only having two lines labeled “females” and “males.” At the same time, however, a vast majority of plans (n=59, 92.2%) discussed disparities and inequities in other populations (e.g., race, ethnicity, socioeconomic status, disability, immigration status). Figure 1 provides an overview of the frequency of each content domain. Figure 2 shows the geographic distribution of domains 1–7 (i.e., LGBTQ+ specific content domains) and illustrates the geographic distribution of domain 8 (i.e., any conflation of sex and gender).

### Reference to LGBTQ+ populations and appropriate use of LGBTQ+ language

Overall, 35 (54.7%) of the CCC plans included any reference to LGBTQ+ populations. References to LGBTQ+ populations ranged substantially from some plans only mentioning sexual orientation and/or gender identity once within a definition of cancer disparities, to other plans devoting whole sections or pages to the LGBTQ+ population. Visualized using a map of the U.S. in Figure 2A, plans that did not have any reference to the LGBTQ+ population clustered throughout the great plains and deep south regions of the U.S. as well as among U.S. jurisdiction and tribal plans. Overall, a vast majority of plans that referenced the LGBTQ+ population referred to the population appropriately (34, 97.1%). Only one plan referred to LGBTQ+ populations inappropriately when the label “men who have sex with men (MSM),” a common behavioral label used in the HIV/STI literature, was used as an identity label within the plan.

### LGBTQ+ inequities and LGBTQ+ specific recommendations

While 21 (32.8%) plans mentioned LGBTQ+ inequities and 21 (32.8%) plans mentioned LGBTQ+ specific recommendations, the same 21 plans did not necessarily mention both concepts. In fact, only 18 mentioned both inequities and recommendations, while 3 mentioned LGBTQ+ inequities but did not provide LGBTQ+ specific recommendations and 3 plans did not mention LGBTQ+ inequities but provided LGBTQ+ specific recommendations. Commonly cited LGBTQ+ inequities included: higher prevalence of some cancers, lower rates of cancer screening, higher rates of HPV infection, and higher rates of risk behaviors linked to some cancers including smoking.

LGBTQ+ recommendations fell into 10 thematic categories: cancer prevention, training, education campaigns, diversity of workforce, access to and quality of care, LGBTQ+ welcoming clinics, cancer screening, LGBTQ+ research, engaging the LGBTQ+ community, and SOGI data collection. While recommendations mostly revolved around the LGBTQ+ population as a whole, some plans did provide specific recommendations for certain groups (e.g., gender affirming cancer care recommendations). A summarized list of CCC plans' LGBTQ+ recommendations and the corresponding state, jurisdiction, tribe, or tribal organization can be found in Table 2. Plans that provided the highest number of varying LGBTQ+ specific recommendations included California, Connecticut, Illinois, Iowa, Louisiana, Rhode Island, and Vermont.

### Collection of sexual orientation and gender identity (SOGI) data

The collection of SOGI data was mentioned by 13 (20.3%) CCC plans. Most references were in the context of recommending that health systems systematically collect SOGI data to track disparities among LGBTQ+ populations. Among the plans that recommended SOGI data collection, few mentioned the standardization of measures, integration into state-wide cancer registries, and statements of nondiscrimination accompanying SOGI questions on intake forms. Further, a few plans also recommended that national surveys or state programs begin collecting robust SOGI data, including gender identity options outside of the binary (only “man”/“woman”).



### **LGBTQ+ specific resources, organizations, or citations**

Of the plans that included LGBTQ+ specific resources and organizations (10, 15.6%), most listed national organizations such as LGBT Health Link or the National LGBT Cancer Network. However, some plans included local LGBTQ+ organizations as collaborators on their plans such as Identity Inc. in Alaska. Plans that included an LGBTQ+ organization as a collaborator much more frequently included substantial and robust LGBTQ+ content. Further, few plans included LGBTQ+ specific citations in their plans (11, 17.2%), with the most common citations coming from national organizations such as the CDC or National LGBT Cancer Network. Far fewer LGBTQ+ specific citations were from the scientific literature.

### **Any conflation of sex and gender**

Figure 2B illustrates that most plans conflated sex and gender at least once in their plan (46, 71.9%). Most commonly, plans presented vital statistics such as cancer mortality stratified by sex using sex labels (“female”/“male”), then discussed these statistics within the same section using gender labels (“women”/“men”). Further, some plans conflated sex and gender by presenting sex-stratified vital statistics using gender labels. Regardless of explicit conflation of sex and gender, very few plans explicitly defined sex and gender. When plans did not have conflation, they were often coded as such because sex and gender were very sparsely mentioned or not mentioned at all. Additionally, a vast majority of plans did not use gender inclusive language throughout their plans often using unnecessarily gendered language (e.g., “men and women”). A few plans used inclusive language and/or included statements acknowledging the diversity of identity (e.g., “While some of the action steps and data measures refer to “women”, the Iowa Cancer Consortium understands that not everyone with internal reproductive organs/a uterus identifies as woman or female” – Iowa Comprehensive Cancer Control Plan).

### **Mention of other non-LGBTQ+ specific disparities or inequities**

While 24 (32.8%) of CCC plans mentioned LGBTQ+ specific inequities or recommendations, 59 (92.2%) mentioned inequities or disparities experienced by other marginalized populations—meaning that 35 (54.7%) plans that mentioned non-LGBTQ+ inequities or disparities did not mention LGBTQ+ inequities. Eleven (17.2%) plans mentioned the LGBTQ+ population once in the definition of health disparities or inequities but did not provide any mention of LGBTQ+ inequities or recommendations. Most plans that included non-LGBTQ+ disparities or inequities primarily focused on minoritized racialized and ethnicized groups, and low socioeconomic status populations.

### **Discussion**

NCCCP comprehensive cancer control (CCC) plans provide decision makers in U.S. states, jurisdictions, tribes, and tribal organizations with crucial cancer information, priorities, and goals to reduce the burden of cancer. Within the context of increasing evidence of cancer-related LGBTQ+ inequities, the inclusion of LGBTQ+ populations in CCC plans is of utmost importance as we work towards eliminating existing LGBTQ+ inequities and sustaining future LGBTQ+ health equity.<sup>2</sup> Four overarching recommendations have

been identified from the findings of this study including using existing plans with robust LGBTQ+ content as a roadmap, collecting SOGI data, disentangling sex and gender, and increasing community engagement.

### **1. Leverage Existing Exemplar Plans as a Roadmap to Develop, Improve, and Expand on LGBTQ+ Content**

A total of 54.6% of CCC plans already mention LGBTQ+ populations, with a vast majority of plans (>97%) referencing populations appropriately. Further, the 21 plans that provided LGBTQ+ specific recommendations provided over 60 unique LGBTQ+ specific recommendations across 10 thematic areas. Our findings suggest that the plans that include LGBTQ+ specific recommendations provide a content roadmap for states that have yet to fully consider LGBTQ+ populations in their plans to follow as they work to do so. This finding is important as it has the potential to minimize the “fear of saying the wrong thing” regarding LGBTQ+ populations, a fear that is commonly expressed by non-LGBTQ+ healthcare providers and which may be mirrored by cancer coalitions.<sup>24</sup> Future research should gather perspectives from program officials and other coalition members involved in plan development to investigate and highlight the motivations, resources, and strategies that generated plans that can serve as exemplars regarding LGBTQ+ specific content.

### **2. Emphasize the Need for Comprehensive and Protected SOGI Data to Advance and Sustain LGBTQ+ Cancer Equity**

Roughly 1 in 6 CCC plans mentioned the collection of sexual orientation and gender identity (SOGI) data. This finding aligns with existing literature that overwhelmingly recommends the need for systematic and comprehensive SOGI data collection, as well as statements and funding announcements from national organizations that support the collection of higher quality longitudinal SOGI data.<sup>25–28</sup> Further, while SOGI data collection is crucial for unveiling and monitoring LGBTQ+ cancer inequities, only one plan discussed protecting SOGI data after it is collected. Addressing this gap is critical to ensuring LGBTQ+ patient safety in the context of historical and current misuse of LGBTQ+ healthcare data (e.g., external requests for medical records for transgender patients and youth).<sup>29,30</sup> Cancer coalitions would benefit from recommending that SOGI data collection be accompanied with nondiscrimination policies that protect SOGI data from being used for harm.

At the same time, longitudinal collection of comprehensive SOGI data in national surveys such as the Behavioral Risk Factor Surveillance System (BRFSS), the most common data source used for vital statistics in CCC plans, would allow cancer coalitions to better tailor their content and recommendations to align with the roadmap provided by plans with exemplar LGBTQ+ content. According to the National LGBT Cancer Network, as of 2022, 42 states collect some SOGI data via BRFSS either through the standardized but optional SOGI module or through state-specific SOGI items. Highlighting that most cancer coalitions currently have access to some higher quality and geographically specific data to assess LGBTQ+ inequities but may be either underutilizing or not utilizing those data at all.<sup>31</sup> All states should ensure that comprehensive SOGI items are incorporated in routine BRFSS data collection and other ongoing surveillance data efforts.



### **3. Eliminate the Conflation of Sex and Gender in All Comprehensive Cancer Control Plans**

Nearly three quarters (72%) of CCC plans conflated sex and gender throughout their content, and very few plans discussed sex and gender in ways that were inclusive and recognized the concepts as separate. The conflation of sex and gender within CCC plans is particularly problematic as it can effectively erase transgender and intersex people with a cancer history. Further, such conflation is not uncommon throughout oncology from gendering certain cancers (e.g., breast and other cancers being referred to as “women’s cancers”), to gendering certain screenings (e.g., only offering or recommending cervical cancer screenings for women as opposed to anyone with a cervix), to epidemiological analyses (e.g., only examining testicular cancer screening or incidence among those who identified as men as opposed to anyone with testes). In fact, recent literature has begun to suggest that disentangling sex and gender only through training on these concepts and language used is ineffective and that larger system-wide changes are needed to produce oncology settings that do not erase transgender and intersex individuals—specifically, degendering oncology.<sup>32,33</sup> Cancer coalitions have the opportunity to follow the lead of LGBTQ+ cancer researchers in degendering their CCC plans. Degendering could be operationalized in a variety of ways including the reporting of cancer incidence and mortality statistics not based on sex but on biological factors such as anatomy (example: organ inventories in clinical practice), as well as using non-gendered or gender neutral language whenever possible.<sup>34–36</sup> Further, plans could degender their discussion of specific cancers and avoid language that suggests sex and gender are either the same or interchangeable.

### **4. Prioritize Meaningful and Sustained Engagement of LGBTQ+ Communities and Organizations in Plan Development and Implementation**

Finally, very few cancer coalitions listed LGBTQ+ community organizations as key contributors to their CCC plans. Meaningful engagement with LGBTQ+ community leaders and organizations over time is a core component of LGBTQ+ health research and practice to reduce marginalization and prioritize inclusiveness, and should be mirrored in official documents that seek to inform policy and clinical practice, such as CCC plans.<sup>11,17,37</sup> The recommendations outlined above by the study team, while generated by LGBTQ+ and allied researchers, were produced by researchers and should be vetted by the communities in which they are to be implemented prior to doing so. While there are growing understandings of how to better engage LGBTQ+ populations in research from conception to implementation, a greater understanding of how to meaningfully engage LGBTQ+ populations in the creation and dissemination of official and policy-relevant documents such as CCC plans is needed. Further, careful consideration needs to be taken to engage LGBTQ+ community members broadly (e.g., not just for sections in plans that are designated to be LGBTQ+ focused, but rather recognizing that these considerations are cross-cutting, multi-dimensional, and intersectional across all areas), and not engagement limit to those who are highly educated and already engaged in health systems (e.g., not just centering the margins, but ensuring reach and relevance to the margins of the margins in LGBTQ+ communities).<sup>38–40</sup> Strategies to ensure broad and equitable reach using population-based

surveys, in order to advance data equity and data justice, can serve as critical tools to engage and understand LGBTQ+ communities.<sup>41–43</sup>

### Limitations

This study has several limitations. First, the cross-sectional nature of this study limited our ability to assess how LGBTQ+ content has changed over time. At the time of analysis, not all CCC plans were up to date. Relatedly, this was also a single time point analysis, which does not account for the fact that many of these plans are changing and the next iteration of plans may have different information. Further, our review also is not informed by and did not collect data directly on perspectives from plan developers and committee members, and thus does not necessarily capture the dynamics of how these plans were planned, written, and disseminated. As noted earlier, it would be crucial for future research to systematically examine these dynamics for existing and future plans.

### Conclusions

Comprehensive cancer control plans reflect the priorities and goals of states, jurisdictions, tribes, and tribal organizations in terms of cancer prevention and control and are an important resource that can inform policy and funding decisions across agencies and systems. With the NCCCP identifying health equity as a cross-cutting priority for all CCC plans, there is a need for all plans moving forward to explicitly acknowledge and comprehensively address LGBTQ+ equity as a key dimension of that stated priority. As a growing population in the U.S. and with increasing recognition of cancer disparities among LGBTQ+ communities, it is imperative for future plans to meaningfully include, recommend, and prioritize cancer prevention and control activities that not just acknowledge and are inclusive of LGBTQ+ populations, but are actionable and will have sustainable impact. The findings and recommendations detailed in this paper highlight key opportunities to continue improving plans beyond just lip service towards actually moving the dial on advancing cancer health equity for all communities.

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#### Conflict of Interest:

Mayuko Ito Fukunaga currently serves as a member of the Massachusetts Comprehensive Cancer Coalition but was not involved in development of the previous state cancer plan. Sarah H. Nash participated in the creation of the Alaska and Iowa comprehensive cancer control plans. Lisa Spees has received unrelated salary support for an unrelated project paid to her institution from AstraZeneca. Stephanie B Wheeler has received unrelated grant funding paid to her institution from Pfizer and Astra Zeneca in the last three years. Jamie L. Studts has provided consultation to Genentech and J&J Lung Cancer Initiative regarding implementation of lung cancer screening, and the advising efforts are unrelated to the current initiative.

#### Availability of Data and Materials:

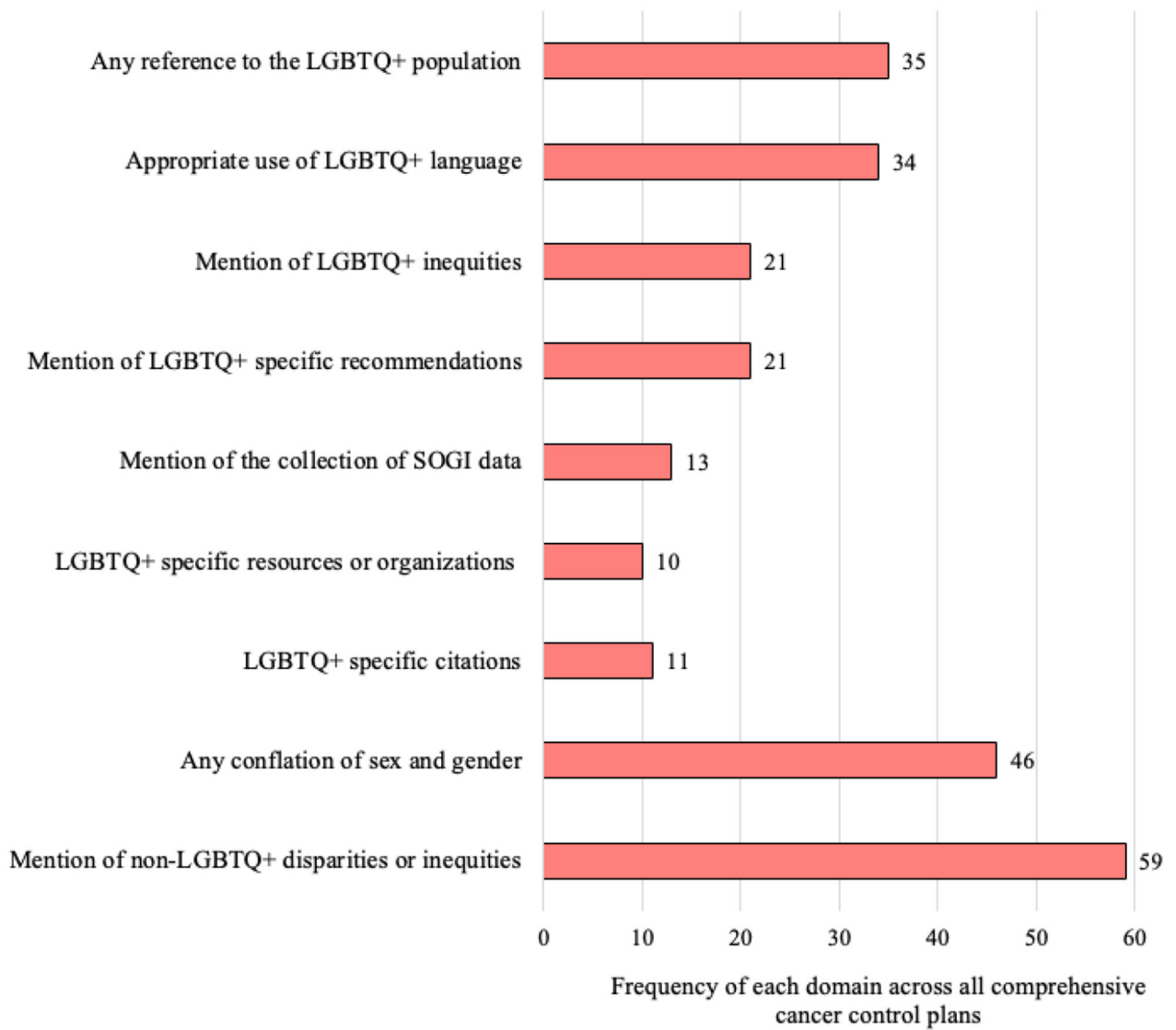
The data that support the findings of this study are available upon reasonable request to the corresponding author, ARW. Raw comprehensive cancer control plan data can be found on the CDC website ([https://www.cdc.gov/cancer/ncccp/ccc\\_plans.htm](https://www.cdc.gov/cancer/ncccp/ccc_plans.htm)).

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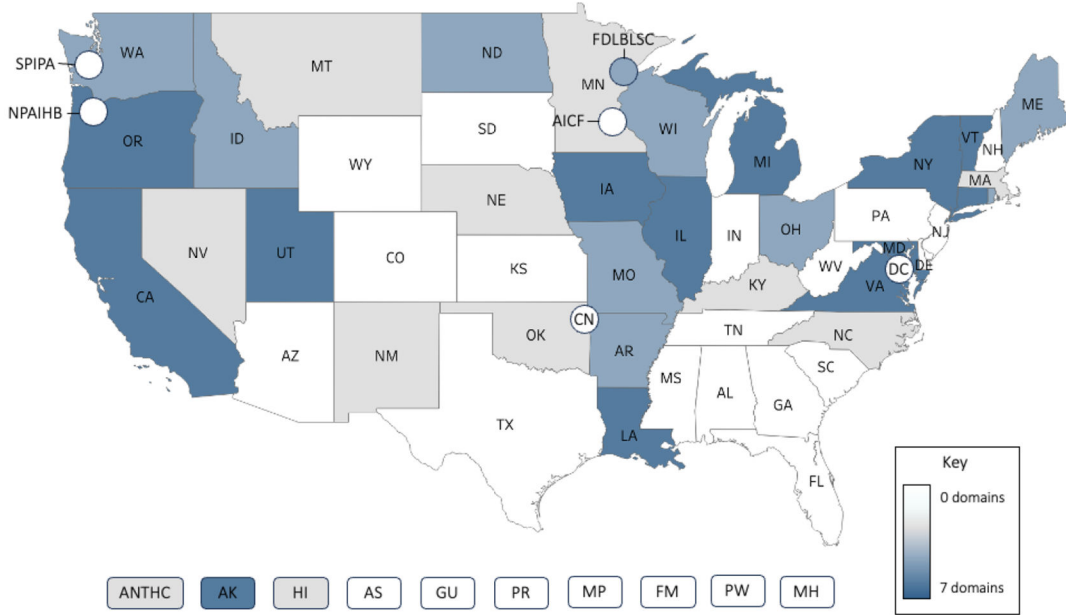


**Figure 1. Frequency of Each Content Domain Across All Comprehensive Cancer Control Plans (N=64)**

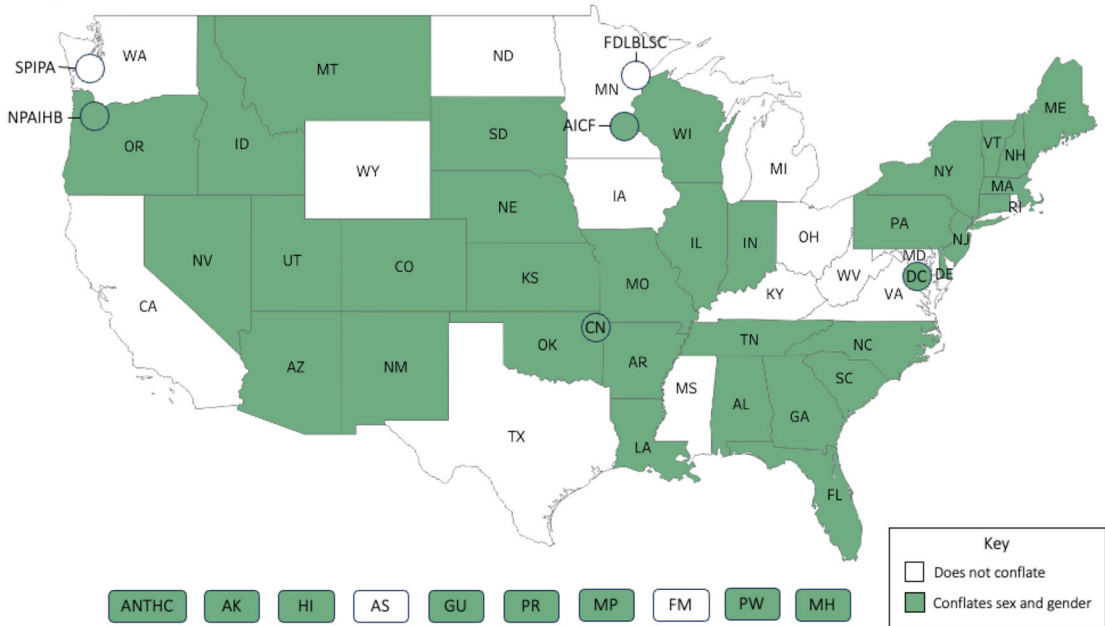
Footnote: SOGI: sexual orientation and gender identity



A) Number of LGBTQ+ Domains Mentioned in each CCC Plan



B) Conflation of Sex and Gender in each CCC Plan



**Figure 2. Map of A) Number of LGBTQ+ Domains Mentioned and B) Conflation of Sex and Gender in each Comprehensive Cancer Control (CCC) Plan**

The 7 domains include: 1. Any reference to the LGBTQ+ population, 2. Appropriate use of LGBTQ+ language, 3. Mention of LGBTQ+ inequities, 4. Mention of LGBTQ+ specific recommendations, 5. Mention of the collection of SOGI data, 6. LGBTQ+ specific resources or organization, 7. LGBTQ+ specific citations.

0 domains indicates no reference to the LGBTQ+ population.

SPIPA: South Puget Intertribal Planning Agency; NPAIHB: Northwest Portland Area Indian Health Board; CN: Cherokee Nation; AICF: American Indian Cancer Foundation;

FDLBLS: Fond du Lac Band of Lake Superior Chippewa; PR: Puerto Rico; AS: American Samoa; GU: Guam; MP: Northern Marianas; FM: Federated States of Micronesia; PW: Republic of Palau; MH: Marshall Islands; [insert definition of conflation from Table 1]

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**Table 1.**

**Qualitative Coding Matrix Domains, Definitions, and Salient Examples**

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**Domain 1: Any reference to the LGBTQ+ population**

Definition: Any reference to the LGBTQ+ population. Any acknowledgment of sexual orientation and gender identity in the context of cancer prevention and control.

Example: *“Including lesbian, gay, bisexual, transgender, queer, intersex, gender nonconforming people, and other populations whose sexual orientation or gender identity and reproductive development is considered outside cultural, societal, or physiological norms.”*

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**Domain 2: Appropriate use of LGBTQ+ language**

Definition: Use of any commonly accepted identity terms to describe the LGBTQ+ population.

Example: *“The national transgender discrimination survey of 6450 transgender and nonconforming participants also provides extensive data on the challenges faced by transgender individuals.”*

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**Domain 3: Mention of LGBTQ+ inequities**

Definition: Mention of a specific difference regarding a specific outcome between LGBTQ+ and non-LGBTQ+ individuals in the context of cancer prevention and control.

Example: *“The American Society of Clinical Oncology (ASCO) states LGBTQ communities are disproportionately affected by seven types of cancer: anal, breast, cervical, colorectal, lung, prostate, and uterine.”*

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**Domain 4: Mention of LGBTQ+ specific recommendations**

Definition: Mention of recommendations to improve the health of the LGBTQ+ population.

Recommendations must specifically mention the LGBTQ+ population.

Example: *“Empower LGBTQ+ coalitions and organizations to offer tailored outreach and education on cancer screening to Iowans.”*

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**Domain 5: Mention of the collection of SOGI (sexual orientation and gender identity) data**

Definition: Mention of recommendations specific to increasing the collection of SOGI data in any form.

Example: *“Develop systematic and consistent methods of collecting SOGI information in health care settings and cancer registries.”*

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**Domain 6: LGBTQ+ specific resources or organizations**

Definition: Any inclusion of resources or collaborating organizations that are LGBTQ+ specific.

Example: *“Identity Inc.”* or

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**Domain 7: LGBTQ+ specific citations**

Definition: Any inclusion of citations that are LGBTQ+ specific.

Example: *“Quinn GP, Sanchez JA, Sutton SK, Vadaparampil ST, et al. Cancer and Lesbian, Gay, Bisexual, Transgender/ Transsexual, and Queer/Questioning (LGBTQ) Populations. CA: A Cancer Journal for Clinicians. 2015 Sep-Oct; 65(5): 384-400.”*

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**Domain 8: Any conflation of sex and gender**

Definition: Plans that explicitly conflate sex and gender including using terms such as male/female and man/woman interchangeably when talking about the same concept or statistic.

Example of conflation: *“The word women here refers to Vermonters who were assigned female at birth.”*

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**Domain 9: Mention of non-LGBTQ+ disparities or inequities**

Definition: Plans that mention inequities or disparities among other marginalized populations.

Example: *“Closing these gaps in outcomes involves reducing the differences in incidence and mortality rates of cancer within population groups defined by gender, race and ethnicity, education, income, and geography.”*

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**Table 2.**

Summary of Comprehensive Cancer Control Plans' LGBTQ+ Specific Recommendations

<b>LGBTQ+ Specific Recommendations</b>	<b>CCC Plan</b>
<b>SOGI Data Collection</b>	
Improve and standardize measurement of SOGI	California, Louisiana, New York, Ohio
Develop systematic methods of SOGI data collection in health systems and cancer registries	California, Louisiana, Ohio
Collect SOGI data to monitor outcomes such as mentally unhealthy days	Alaska
Add SOGI measures to statewide surveys, health system intake forms, and state programs	Rhode Island, Washington
<b>Cancer Prevention</b>	
Increase engagement in evidence-based tobacco cessation interventions	Idaho, Iowa, Maryland, Vermont
Increase HPV vaccination among men who have sex with men and LGBTQ+ populations	Kentucky, Maryland, Vermont
Promote evidence-based tobacco treatment services including Quitline and local health department programs	Iowa, Maryland
Reduce proportion of LGBTQ+ youth who use tobacco	Maryland, Michigan
Reduce proportion of LGBTQ+ youth with excessive alcohol use	Michigan
<b>Training</b>	
Develop Continuing Medical Education courses on cultural competency to provide patient-centered care to LGBTQ+ populations	California, Rhode Island
Provider training on stigma-related minority stress	Illinois
Mandatory training on cultural competency and strategies to provide inclusive and affirming services across the health care treatment workforce (including clerical, technicians, patient navigator, pharmacy, housekeeping, food service)	Illinois, Iowa, Louisiana, New York, Utah, Vermont
Adopt innovative healthcare delivery models and critically examine existing processes and algorithms	Utah
<b>Cancer Education for the LGBTQ+ Population</b>	
Education about cancer screening and prevention	Connecticut, D.C., Iowa, Maryland, Rhode Island, Virginia
Education about selecting a cancer doctor	Connecticut
Education about surviving cancer	Connecticut
<b>Diversify Health System and Cancer Consortium Workforce</b>	
Support development of programs to advocate for and facilitate LGBTQ+ diversity in the cancer workforce	Connecticut, Utah
Include LGBTQ+ leaders on community advisory bodies	Illinois, Iowa
Recruit LGBTQ+ members to the Cancer Consortium	Vermont
Establish and support incentive programs that address LGBTQ+ health care provider shortages.	Iowa
<b>Access to and Quality of Care</b>	
Enhance the provision of care through an intersectional lens	California
Allocation of funds to local health centers that are already focused on LGBTQ+ care	Connecticut
Create and/or expand culturally affirming LGBTQ+ provider registries	Iowa
Integrate LGBTQ+ issues within survivorship care plans	Iowa
Access to culturally competent support services including LGBTQ+ specific support groups	Iowa
Development of LGBTQ+ specific patient navigation	Iowa

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<b>LGBTQ+ Specific Recommendations</b>	<b>CCC Plan</b>
Cultural and age-appropriate cancer services for LGBTQ+ youth	Iowa
Support policies and systems changes that increase availability of culturally competent end-of-life and palliative care	Iowa
Ensure dignified death including consideration of continuation of hormone therapy for transgender patients	Iowa
Address the complex spiritual needs of LGBTQ+ patients and families of choice	Iowa
Decrease uninsurance rates	Michigan
Increase awareness of and access to survivorship resources	Vermont
<b>Create LGBTQ+ Welcoming Clinics</b>	
Health systems and clinics should actively convey LGBTQ+ welcoming behavior	Illinois
Promote and display LGBTQ+ welcoming nature of health system and clinic including results of Human Rights Campaign Healthcare Equality Index report card	Illinois
Zero-tolerance environment for any discriminatory behavior on the part of staff	Illinois
Include nondiscrimination statements on intake forms	Illinois
<b>Cancer Screening</b>	
Create programs that provide free/low-cost prevention, screening, diagnostic services	California
Empower LGBTQ+ organizations to offer tailored outreach and education on cancer screening	Iowa
Eliminate discriminatory exclusion practices related to cancer screening based on gender	Iowa
Train staff to provide inclusive and affirming cancer screening services	Iowa, Louisiana, Virginia
Follow National Breast and Cervical Cancer Early Detection Program (NBCCEDP) breast cancer screening recommendations regarding transgender women	Louisiana
Promote shared decision making between transgender individuals and primary care providers to decide what cancer screening is right for the individual	Iowa, Virginia
Increase availability and accessibility of cancer screening services	Vermont
<b>Increase LGBTQ+ Research</b>	
Encourage the development of LGBTQ+ focused research programs within universities	California
Develop an LGBTQ study group	Illinois
Ensure the inclusion of LGBTQ+ individuals in all human subjects cancer research	Iowa
Conduct a needs assessment of LGBTQ+ populations impacted by pediatric and AYA cancers	Iowa
Conduct ongoing needs assessments of barriers and successes in LGBTQ+ patients accessing survivorship resources	Vermont
Support research to increase the availability of culturally competent end-of-life and palliative care	Iowa
Conduct research on the end-of-life experiences of LGBTQ+ patients and their caregivers	Iowa
Conduct research on culturally appropriate cancer prevention strategies	Louisiana
Work with research to create study protocols that incentivize underrepresented groups to participate in cancer-related clinical research	Utah, Wisconsin
Support research to reduce health disparities	New York, Ohio
<b>Engagement with LGBTQ+ Community</b>	
Work with LGBTQ+ organizations to identify and reduce regional and state-specific barriers to cancer screening	Iowa, Rhode Island
Increase engagement with LGBTQ+ cancer survivors to provide training for welcoming oncology clinics	Iowa
Create and foster new partnerships with LGBTQ+ community organizations to improve genetic counseling practices and outreach	Ohio
Increase coordination between Cancer Consortium and LGBTQ+ individuals and organizations	Iowa, Rhode Island, Vermont

<b><u>LGBTQ+ Specific Recommendations</u></b>	<b><u>CCC Plan</u></b>
Partner with local LGBTQ community-based organizations for public events	Illinois

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