Cancer Health and Indigenous Sexual and Gender Minorities

Josie Raphaelito, Lenny Hayes, and Dornell Pete

Abstract In this chapter, you will learn about the current and developing cancer health landscape as it intersects with Indigenous sexual and gender minority (SGM) populations, including Two-Spirit and Indigenous lesbian, gay, bisexual, transgender, queer, and another identity (LGBTQ+) communities. Background information and Indigenous Knowledge sharing is provided to build understanding of Indigenous gender spectrums, cancer health disparities among Indigenous populations, LGBTQ+ cancer health disparities, and Indigenous SGM health and cancer health disparities. The chapter is authored by Indigenous community leaders and researchers who identify in the Two-Spirit and Native LGBTQ+ communities and provides perspectives on challenges faced by SGM populations, emerging efforts to address SGM cancer health as well as recommendations for building equity and fairness for Indigenous SGM populations for future generations.

Keywords Two-Spirit · Sexual and gender minority cancer health · Indigenous · American Indian · Alaska Native · Native American · Native LGBTQ+ · Sexual and gender minority populations · Lesbian · Gay · Bisexual · Transgender · Queer · Intersex · Asexual · Sexual and gender minority health

J. Raphaelito (✉)
Department of Indigenous Cancer Health, Roswell Park Comprehensive Cancer Center, Buffalo, NY, USA
e-mail: Josie.Raphaelito@RoswellPark.org

L. Hayes
Tate Topa Consulting, LLC, Mounds View, MN, USA

D. Pete
Epidemiology Program, Public Health Sciences Division, Fred Hutchinson Cancer Center, Seattle, WA, USA

© The Author(s) 2026

R. C. Haring (ed.), *Indigenous Genetics, Biobanking, Chemistry, and Cancer Research*, Cancer Health Disparities, https://doi.org/10.1007/978-3-032-17296-9_4

1 Foreword

Before colonization, Two-Spirit and Native LGBTQ+ individuals were honored, respected, and regarded as sacred beings due to the important roles they played within Native American communities. These roles included being name-givers, matchmakers, dreamers, and individuals who could foresee the future and others. However, history shows that the effects of colonization, historical and intergenerational trauma have led to the ostracization of these once-respected individuals within tribal communities. Today, they often represent a forgotten and underserved population.

Evidence indicates a significant lack of data regarding health disparities that affect the Two-Spirit and Native LGBTQ+ community. Often, when data are collected, findings are presented from the perspective of those who do not identify as Two-Spirit or Native LGBTQ+. This disconnect can deter individuals from coming forward to share their health experiences or issues. Therefore, it is crucial to include individuals who identify as Two-Spirit or Native LGBTQ+ in collecting, analyzing, and communicating the results of any health data—including data related to cancer health. It is also important to create safer spaces when asking Two-Spirit and Native LGBTQ+ to participate in any data collection. We must work as community members to be role models for our youth and future generations. Non-Native individuals will not truly understand the impact of historical and intergenerational trauma on the community, but they must work toward a better understanding. Ultimately, Two-Spirit and Native LGBTQ+ leaders and communities work individually and collectively to restore balance, beauty, and acceptance within our tribal communities.

2 Introduction

Two-Spirit is a contemporary umbrella term that was created and defined in the 1990s during Gay American Indian (GAI) organizing among American Indians and Alaska Natives (AI/AN). These Indigenous individuals identified in the mainstream Lesbian, Gay, Bisexual, Transgender, Queer/Questioning community (LGBTQ+), but also understood the notion of more traditional or precontact notions of gender and community roles. This term was created by Indigenous peoples for Indigenous peoples. More specifically, those who identify as Two-Spirit have an understanding and connection to their Indigenous identity, spirituality, and language as it relates to their Native Nation's teachings on diverse gender and sexuality identity spectrums (Fixico, 2020). It should also be noted that not all Indigenous people who identify as LGBTQ+ would also identify as Two-Spirit, and similarly, not all Two-Spirit identifying people would identify as LGBTQ+. It is important to respect an individual's perspective and teachings on Indigenous genders and intersectionality of identities. *Terminology:* Native American, American Indian (AI), and Indigenous

are used interchangeably in this chapter. The chapter will also use Two-Spirit and Native LGBTQ+ to acknowledge both Two-Spirit and Native Americans who identify within LGBTQ+ communities.

What is equally important to know is that Two-Spirit and Indigenous LGBTQ+ individuals have always been part of Indigenous communities and have even been documented in settler contact records. Indigenous communities are healing from external and lateral violence that specifically targets Two-Spirit (2S) and Native LGBTQ+ community members. Healing often begins with learning about Two-Spirit ancestors, acknowledging Indigenous Knowledge as it relates to genders, and building an understanding of today's Two-Spirit and Native LGBTQ+ relatives. We know there is strength in culture and language reclamation across Indian Country, including recovering and/or rebuilding teachings and understandings of traditional gender roles, gender spectrums, and acknowledging that individuals who identify in today's lesbian, gay, bisexual, transgender, queer, intersex communities were present and resilient in precolonial existence.

These traditional gender and sexual orientation spectrums vary across Native Nations. When aiming for health equity across Indigenous communities (from children to elders), we should also consider and actively engage relatives who identify on these spectrums, so we can build a more fair and accessible healthcare system for everyone. Historically, Two-Spirit and LGBTQI+ (I, intersex) populations have reported higher discrimination than non-LGBTQI individuals (Parker, 2017). Two-Spirit and Native LGBTQ+ relatives continue to face systemic challenges, including policies specifically targeting trans and gender nonconforming individuals that pose risks to health and well-being, intensifying the challenges our Two-Spirit and Native LGBTQ+ relatives endure—ranging from violence and trauma to rejection and denial of critical healthcare services. In this chapter, you will learn about the current and developing cancer health landscape as it intersects with Two-Spirit and Indigenous LGBTQ+ communities.

On the Navajo Nation and in Albuquerque, NM, Diné/Native LGBTQ2S+ relatives gathered around meals, sharing laughter, stories, and reflections as they had for generations. In these moments of connection, we discussed our identities and the often painful challenges—family rejection, discrimination in healthcare, and unrelenting struggles for acceptance. Words once considered taboo—'Transgender,' 'Queer,' 'Same-sex marriage,' and 'Nadleeh'—now flowed freely as part of our shared dialogue in our Native LGBTQA2S+ support group.

As the stories brought laughter and tears, they brought to light a general avoidance of healthcare use and timely treatment due to a lack of safe, culturally appropriate, and affirming healthcare. One transwoman joked that one way to get healthcare was to just go to jail or prison. Transgender people overall have higher rates of incarceration and transgender people of color have even higher rates. However, the correctional system is highly gender segregated and a quarter of transgender inmates are denied access to healthcare. This experience can be found among many of our Native LGBTQA2S+ relatives.—Personal story and observation from Dr. Dornell Pete, Diné

3 Cancer Health Disparities Among AI/AN People

Through a public health framework, this chapter considers drivers of cancer disparities as key indicators for cancer health outcomes among AI/AN who identify in the Two-Spirit and LGBTQIA+ communities. In an effort to communicate the people and specific areas in need of support, the US public health system measures factors related to *Social Drivers of Health (SDOH)*, for which data are collected on the following topics: education level; income; employment; housing; transportation; and access to healthy food, clean air, water, and healthcare services. Additional considerations for drivers of health include lived experience (including lack of trust with medical institutions) and various other biological and environmental factors (American Association for Cancer Research, 2024). The 2024 Cancer Disparities report from the American Association for Cancer Research provides a great overview and description of contributing factors for cancer disparities, which include racism, discrimination, structural inequities, and social injustices; all of which could have a double impact on Indigenous people who also identify as Two-Spirit and/or within the LGBTQ+ communities.

When evaluating SDOH indicators across communities and Tribal Nations, apparent disparities can be identified when comparing AI/AN populations to non-Hispanic, White people (NHW). When we look at life expectancy between both populations, we see that the life expectancy of AI/AN people is lower than NWH people (65.6 years vs. 76.7 years) (Arias et al., 2023). The highest mortality rates include unintentional injuries, heart disease, and cancer for AI/AN people across the United States (Arias et al., 2023).

As cancer is the second leading cause of death for AI/AN people in the United States, a better understanding of cancer in Indigenous communities is imperative. A 2024 article, the Landmark Series: Surgical Oncology Care in Native Americans—The Indian Health Service (Huyser, 2025), provides an overview of cancer incidence and cancer-related mortality among AI/ANs while also providing historical context to the Indian Health Service as an important healthcare delivery system for AI/ANs here in the United States. Major cancer health disparities highlighted in this article include:

- AI/ANs have the highest overall cancer incidence and highest cancer mortality compared with all races.
- When diagnosed with cancer at the same stage as NHW patients, AI/ANs patients have a 10% lower 5-year survival rate.
- Lung, liver, stomach, kidney, uterine, and colorectal cancer incidence rates are twice as high among AI/ANs compared with NHWs.
- Risk of cancer death is 51% higher for AI/ANs than NHWs when adjusting for stage, sex, and age.

Major risk factors contributing to high cancer incidence and mortality rates among AI/ANs include lack of access to cancer care and screening, limited transportation to access prevention and intervention services, increased environmental

exposures to carcinogens, and lack of trust in health systems due to historical and intergenerational traumas, among others.

4 Intersectionality and Health Disparities

Why would we look at cancer disparities as it relates to race, gender, and sexuality? Because a person's sexual orientation and gender identity can influence or compound an individual's cancer risk factors. Understanding the intersections of Indigenous, sexual orientation, and gender helps public health professionals, healthcare providers, and researchers to tailor health promotion and prevention efforts that speak to the Two-Spirit and Indigenous LGBTQ+ population, provide patient-centered quality healthcare, and create research space that builds cancer health knowledge as it relates to an often-invisible population.

Intersectionality is a theoretical framework developed by Kimberle Crenshaw to understand how multiple social identities, such as race, gender, sexual orientation, and disability, intersect at the individual level, reflecting systems of privilege and oppression (Cho, 2013). Through this framework, race, gender, and sexual orientation interact to share the multiple dimensions of Two-Spirit and Indigenous LGBTQ+ health experiences. Intersectionality makes it clear that people of intersectional identities experience outcomes like cancer that are distinct from a single identity. And if we ignore this intersection, we lose understanding of important differences in the experiences of adverse health outcomes.

Homophobia, racism, and heterosexism are the resulting systems of the intersection we speak about for Two-Spirit and Indigenous LGBTQ+, creating complex layers of oppression that must be understood together. Public health professionals, providers, and researchers must use an intersectionality framework to understand health inequities and challenge single and binary paradigms, i.e., "those working through an intersectional lens illustrate how identity is linked to multiple vectors of power." (Balestrery, 2012). This approach is holistic in identifying root causes to ill-health, including cancer, as well as achieving wellness for the Two-Spirit and Native LGBTQ+ population. We must also make efforts in our work to understand how colonialism is linked to cancer risk, as Indigenous people are living in a legacy of centuries of colonialism.

The rich history of Two-Spirit and Native LGBTQ+ people, woven through generations of storytelling, is a testament to our strength, survival, and cultural significance. Despite centuries of erasure, our identities continue to thrive, supported by the resilience of our ancestors and elders. According to the Williams Institute, there are an estimated 285,000 AI/AN adults in the United States who identify as LGBTQ, which is about 6% of the total AI/AN population. We know these numbers will grow over generations as people accept and feel comfortable with their identities. Many still speak their language and practice their cultural ways and traditions. They depend on generations of teachings and stories for survival and living in harmony with the land and one another.

5 Sexual and Gender Minority Health

There is developing research and data available to more accurately describe health disparities among sexual and gender minority (SGM) populations when compared to heterosexual and cisgender populations, but more work to collect data on the health of SGM people is needed. The most recent Gallup Poll for population estimates showed that individuals who identify with LGBTQ+ communities increased in the United States, and the value now stands at 7.6% (up from 5.6% in 2020). The Gallup Poll (n = 12,000 Americans aged 18+) also found that more than one in five adults who are from Generation Z (born in the late 1990s) identify as LGBTQ+ (Jones, 2024). Gallup's first poll measuring sexual orientation and transgender identity was in 2012. These data trends suggest that younger generations are twice as likely as the previous generations to identify as LGBTQ+. This growing population will require more out of a public health system, such as cultural competency training for clinical and patient facing staff; adapted and targeted education materials; group focused outreach and engagement initiatives; clarifications for cancer screening eligibility criteria with inclusive language; representation at policy and decision-making levels; and inclusive career pathways to public health and STEAM (science, technology, engineering, arts, and mathematics) fields.

> *Lifetime exposure to interpersonal stressors like stigma, discrimination, and violence as well as structural stressors like anti-LGBTQ+ public policies engender poor health outcomes among LGBTQ+ adults.* (Fredriksen-Goldsen et al., 2014; Fredriksen-Goldsen & de Vries, 2019; Lampe et al., 2024)

Resources such as the Behavioral Risk Factor Surveillance System (BRFSS) collect state data about the health behaviors and status of US adults, including adults who identify as LGBTQ+. Highlights include the following:

- BRFSS data from 2014 to 2017 found that LGBTQ+ adults have higher rates of poverty compared with their counterparts. Bisexual cisgender women and transgender people had the highest poverty rates.
- BRFSS data from 2015 to 2018 found that older LGBTQ+ adults (45 years and older) were more likely to report subjective cognitive decline (i.e., Alzheimer's disease and related dementias), which has been connected to chronic minority stress experienced over a lifetime.
- Other chronic health conditions such as cardiovascular disease and some cancers can be correlated to high levels of substance and alcohol misuse among SGM populations.

A 2021 national LGBTQ+ survey with Black, Indigenous, and People of Color (BIPOC) respondents found similar to BRFSS results. Cancer-related behaviors such as alcohol consumption (52% BIPOC vs. 45% White) and poor mental health (92% BIPOC vs. 83% White) were found to be higher among BIPOC survey respondents than those in White respondents. Respondents stated that LGBTQ+ tailored resources (health education brochures, visibility, acknowledgment in media campaigns, etc.) are very important to address risky health behaviors.

To capture the perspectives of healthcare providers, an annual report created by the National Coalition for LGBTQ Health engaged more than 1000 providers to explore the state of LGBTQ+ health through a national survey (National Coalition for LGBTQ Health, 2023). Major findings from the report are outlined as follows:

- Providers understand the barriers LGBTQ individuals face in accessing healthcare to be linked to pervasive stigma, a lack of trust in the healthcare system, healthcare costs, and challenges to accessing health insurance.
- There is a need for more training to help providers understand the stigma experienced by LGBTQ patients and create more inclusive spaces.
- Providers identified advocacy priorities centered on LGBTQ equality, stronger gender-affirming care protections, and identifying affordable housing for LGBTQ patients.
- Providers also recognized the importance of recruiting compassionate staff, providing comprehensive and inclusive training, and coordinating and learning from providers experienced in working with LBGTQ patients.

SGM Cancer Health Data Many organizations, institutes, and local and regional entities now collect and organize SGM cancer health data. Advocates and SGM health leaders have hosted multitudes of trainings and technical assistance to build understanding and provide tools for cancer hospitals and care coordinators to better serve SGM patients and families. Although January 2025 Executive Orders have begun to strip away SGM patient's rights to accessing care and have removed SGM data from portals such as the National Institutes of Health and the Centers for Disease Control and Prevention, organizations such as the National LGBT Cancer Network continue to organize and fight for strategies to archive SGM cancer datasets, reports, manuscripts, and other SGM cancer research work from the past few decades. With support from the SGM cancer researcher field, this important work will prevail and SGM populations will not be erased.

The National LGBT Cancer Network is also responsible for the 2021 national report titled, "Out: The National Cancer Survey." Data were collected from 1200 cancer survivors to deepen understanding among healthcare leaders of LGBT experiences with cancer. A supplemental report specific to the LGBTQ+ BIPOC cancer journey builds further knowledge needed within cancer care networks. Key findings from that BIPOC survey include:

- The top five cancers among respondents were breast cancer, prostate, colorectal, anal, and skin cancer.
- The median age at diagnosis was 49, and 30% of respondents were diagnosed at 51–60.
- Respondents were more likely to experience negative encounters during cancer diagnosis, care, and treatment. Accessing culturally competent providers was reported as more difficult.
- Respondents were two times as likely to be dissatisfied with cancer treatment experiences compared with White and Latinx respondents.

- Health settings were described as less welcoming after disclosing LGBTQ+ identity compared with White respondents.

6 Two-Spirit and Native LGBTQ Populations and Cancer Health

Research consistently shows that LGBTQ individuals, particularly those who are uninsured or marginalized, face significant barriers to cancer screenings and care. For Two-Spirit and Native LGBTQ+ relatives, these disparities are even more pronounced, with historical trauma, mistrust of healthcare systems, and lack of culturally relevant care creating compounding obstacles. In addition, the absence of sexual orientation and gender identity (SOGI) data for Two-Spirit and Native LGBTQ+ people masks the inequities and prevents us from understanding their unmet needs; additionally, this hinders the development, monitoring, and evaluation of healthcare systems and targeted interventions.

Unfortunately, data on the health and healthcare experiences of Two-Spirit and Native LGBTQ+ populations are extremely limited, particularly when it comes to cancer prevention, screening, and care. The limited research available indicates that Two-Spirit and Native LGBTQ+ community members encounter more challenges when seeking cancer care (Kamen et al., 2019; Boehmer et al., 2014). There is a lack of representation of Two-Spirit and Native LGBTQ+ people in cancer education research among the SGM population, which needs to be addressed with outreach and inclusion efforts. Inclusion of Two-Spirit and Native LGBTQ+ people is not only vitally important in the community outreach setting, but it is also considered an emerging area of importance within the SGM cancer health realm.

Upon further analysis of cancer health data and Indigenous SGM landscapes, we see that there is a lack of Indigenous SGM awareness among cancer health providers and community health outreach specialists. A study conducted in 2023 via online surveys identified barriers to care among LGBTQ+ and Two-Spirit American Indians and Alaska Natives (Hoover, 2023). This study showed that gender-diverse individuals in particular encountered barriers to care at a greater proportion than their cisgender counterparts, such as higher reports of providers refusing care (48.2% vs. 31.0%: $P = 0.006$), providers being inadequately trained in Two-Spirit care, fear of negative community perceptions of gender diverse individuals, and greater financial insecurity. In addition, all groups of Two-Spirit and LGBTQ+ individuals faced difficulties in accessing care due to traveling long distances and faced higher barriers to access to care compared with the general AI/AN population.

Moreover, research with the LGBTQ+ population more broadly indicates that there is reason to believe that Two-Spirit and Native LGBTQ+ people are at greater risk for developing cancer, as well as experiencing suboptimal engagement with cancer education and screening to reduce their risks. Roswell Park Comprehensive Cancer Center's Department of Indigenous Cancer Health led a quality

improvement project engaging Two-Spirit and Native LGBTQ+ community members in virtual roundtable discussions to receive feedback and guidance on adaptations needed to cancer health education materials. Themes around the importance of representation in outreach materials; gender diverse language, communal health, and sincere acknowledgment of heritage and identity emerged from these discussions. This feedback continues to be utilized during education material development within the department and shared with partners to promote inclusion and respect for SGM relatives.

With careful maneuvering around anti-diversity, equity, and inclusion (DEI) federal policies and executive orders, many cancer health outreach and engagement initiatives are continuing to expand their community reach to best meet the needs of their service area. This book and this chapter provide insightful background and rational around the need to not only engage Indigenous partners to strengthen cancer health outreach efforts but also the opportunities to support Indigenous SGM populations. We need to continue listening and learning about barriers to cancer healthcare for Indigenous SGM communities, including intergenerational and historical traumas stemming from structural systems that continue to infiltrate their healthcare needs.

Decolonize the Cancer Research Approach We need to decolonize our approach to collect more meaningful data to understand the disparities and resiliencies in Two-Spirit and Native LGBTQ+ people. The first step is understanding that our current health metrics were established within dominant frameworks. Maggie Walter and Chris Anderson posit, "many of these data, as they currently exist, tend to constitute Indigenous peoples as deficient and that these portrayals can, and do, restrict and inhibit other ways of understanding or using statistical data by, and for, Indigenous peoples." (Walter & Andersen, 2013). Deficit-based approaches misrepresent groups and perpetuate negative stereotypes and racism.

How do we decolonize this approach? We can utilize Indigenous Health Frameworks such as cultural value-based systems, seventh generation philosophy to create long-lasting impact into future generations, and connections to land environment to introduce and define more meaningful, measurable ways to understand cancer risk among our Two-Spirit and Native LGBTQ+ relatives. These frameworks inform how to center our knowledge systems, worldviews, and context to bring change in our health outcomes.

Dr. Dornell Pete's research relied heavily on the Diné concept of Ké (Navajo translation: kinship) to identify data that measures the relationality between the person (including SOGI data), kin, and environment. For example, in Dr. Pete's Navajo Stomach Study, she/they developed questions to ask study participants about modifiable factors related to stomach cancer, such as consuming traditional foods, practicing traditional ways, participating in tribal ceremonies, and living off the land. The study ensured that these data had input from the community and aligned with tribal values related to connectedness to land, cultural continuity, and identity, which represents an important strengths-based approach to quantifying the degree Diné people are connected to their culture and how that we may identify positive

aspects of their health to counter stomach cancer risk. These data were not only meaningful to the tribe when Dr. Pete disseminated results back to the community, but it allowed her/them to change the narrative through her/their writing and speaking about stomach cancer risk among Diné people. This example highlights a path to decolonize the data and cancer research approach.

Data on the strengths and resilience of Two-Spirit and Native LGBTQ+ people is scarce. Therefore, this is the time for tribes and Native researchers, programming, and healthcare systems to collect Native health data based on their traditional knowledge systems and histories and the impact on health and well-being.

7 Emerging Efforts in Cancer Health and SGM

This chapter was drafted in the Fall of 2024. Since then, many things have changed in the United States for SGMs and individuals from the expansive LGBTQ+ communities. Most notably, there is a national effort being led by the federal government to roll back decades of advocacy, human rights policy and law, and inclusion efforts to build health equity for SGM populations. This section will provide an update on the current landscape and impact of White House executive orders on SGM health. More importantly, this section will also provide a brief description of foundational work that will continue in the wake of attempts to dismantle and erase a proud and strong LGBTQ+ population in the United States, including Two-Spirit and Native LGBTQ+ communities.

Provided below is a general timeline and summary of major directives made to federal agencies because of US Presidential Executive Orders issued in January 2025.

- January 29, 2025, federal agencies such as the Centers for Disease Control and Prevention (CDC) received notice to implement executive orders entitled *Ending Radical and Wasteful Government DEI Programs and Preferencing and Initial Rescissions of Harmful Executive Orders and Action*—including immediate termination of all programs, personnel, activities, or contracts promoting diversity, equity, and inclusion.
- January 31, 2025, the US Department of Health and Human Services received notice to implement executive orders entitled *Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government*—essentially, this was an anti-trans and anti-SGM push from the federal government as it relates to programs, personnel, activities, contracts, and research supported by federal funds.
- January 31, 2025 is the deadline issued by the US Office of Personnel Management to comply with "Defending Women" executive orders by terminating any programs that promote gender ideology; taking down all outward facing media that promotes gender ideology; removing pronouns from email signature lines; cancelling training promoting SGM inclusion; updating all agency forms to list male

or female only and not gender identity or option to enter "sex"; and removal of SGM data from federal agency websites.

Foundational SGM Health Efforts Prior to January 2025, the US health systems were expanding inclusion efforts to better serve the growing SGM populations. Although federal policy and the dismantling of diversity, equity, and inclusion efforts make health equity strategies more difficult, there are many foundational frameworks in place to support SGM populations moving forward. Examples of foundational SGM health efforts through a public health lens that help meet the cancer health needs of LGBTQ+ populations are provided as follows.

- *Policy and advocacy*: Organizing and network building have strengthened over the past few decades and strong advocacy efforts continue to emerge. National, regional, local, and tribal advocates are proving their allyship and joining or even leading policy and advocacy efforts to ensure Two-Spirit and LGBTQ+ communities are not erased. Policy and laws such as New York State's Civil rights laws prohibit discrimination on the basis of sex, sexual orientation, gender identity, gender expression, or disability. Collectively, policy and law makers and advocates will continue to take action and utilize existing frameworks and pathways to protect LGBTQ+ rights.
- *Health protection*: SGM health certifications are available across North America for hospitals and clinics to denote when their teams (from receptionists to healthcare providers) are trained in health equity and inclusion and when their institute is designated as "safe." For example, Roswell Park Comprehensive Cancer Center—an NCI-designated Cancer Center—located on traditional Haudenosaunee land in Buffalo, NY, has been designated as a leader on the Health Equity Index from the Human Rights Campaign to amplify their cancer center's efforts to build understanding and a safer space for SGM communities to access cancer healthcare.
- *Health improvement*: The development and implementation of cultural competency training made available to health systems and organizations is an ongoing strategy to create safer spaces and understanding of SGM health needs. Additionally, cultural competency training specific to Indigenous populations that draws connections to the intersection of identities and identifies opportunities to create more fair and accessible healthcare services for Two-Spirit and Native LGBTQ+ populations is available/needed.
- *Assessment and surveillance*: Leaders in cancer research and cancer disparities such as the American Association of Cancer Research recognize the lack of SOGI data but also encourage national cancer registries and other health records to routinely collect and document SOGI data to develop a more comprehensive snapshot of cancer incidence and mortality among SGM individuals. Yet, there are realistic fears that SOGI data could be used for harm. Protection of SOGI data should consider the concerns of the small Native LGBTQ+ population, and if patients or participants opt in for sharing their SOGI data, their information must be secured through HIPAA/state/tribal data privacy laws that require disclosure of the patient to share information with federal and outside entities.

- *Research*: Research goes hand in hand with SOGI data. The lack of population-level SOGI data prevents researchers from understanding the health disparities in the SGM population and identifying strategies or interventions to target. Research on SGM health across the lifespan has shown high burdens of HIV, sexually transmitted infections (STI), STI-related cancers, and mental health conditions (Lampe, 2023). Yet, more SGM health research is needed on the causes of these disease burdens, such as tobacco, alcohol, and substance use, as well as on barriers to accessing healthcare and public health interventions. Prior to 2024, the National Institutes of Health (NIH) designated the SGM population as a group with health disparities and, therefore, a group to focus on. As a result, NIH established the Sexual and Gender Minority Research Office to support and coordinate SGM research across multiple institutes. However, this new administration terminated this office and federal funding for the SGM population. These major setbacks have led to private foundations filling this funding gap, which can be found within an academic or research institution or from donors or private corporations.

Promising Two-Spirit and Native LGBTQ+ Endeavors The resources provided below may be limited, unavailable, or terminated due to the 2025 Executive Orders from the White House. This chapter applauds their efforts and presents them as promising endeavors for Tribal Nations to support. These resources could be revitalized by Tribal Nations and their cancer health systems as an act of tribal sovereignty and meeting the needs of all their Tribal Nation's citizens.

- *Tribal data sovereignty*: Data can drive change, inform critical decisions, and direct the allocation of resources—yet for many Native communities, data have often been used to reinforce colonial frameworks and perpetuate harm. Fortunately, Tribes are becoming knowledgeable about this. This has empowered Tribes to exert their tribal sovereign right to critique, collect, and own data. Many tribes are taking steps to understand what health metrics are needed to describe the health of their population, determine health priorities, set health policies, and protect their people. Native researchers are also theorizing and employing innovative approaches to characterize Native health through quantitative and qualitative methods founded on empirical, traditional, and revealed knowledge systems (LaFrance & Nichols, 2008).
- *Tribal health programs and tribal organizations*: The Northwest Portland Area Indian Health Board launched a second addition to their toolkit titled "Celebrating Our Magic" in early 2025. This resource is designed to support Two-Spirit, Native transgender, and gender diverse youth, families, and healthcare providers. The toolkit helps identify strategies to increase access to care, create better gender-affirming clinical environments, and support positive mental health outcomes. This type of resource can be shared with other clinical settings, such as cancer care environments and cancer centers, to further support Two-Spirit and Native LBGTQ+ patients and families. Additionally, tribes are developing their own cancer control plans, which aim to reduce cancer rates by setting goals and

identifying strategies for intervention. Addressing Two-Spirit and Native LGBTQ+ equity as a key dimension in these plans is essential.

- *Networking and gathering*: The "Science of Cancer Health Equity in Sexual and Gender Minority Communities" gathering is an annual cancer health research summit hosted by SGM cancer leaders from across the country. This space was created to highlight SGM cancer health work (research, data collection, community engagement, etc.) and promote networking and develop expertise. Research specific to Two-Spirit and Native LGBTQ+ cancer health have been included in these gatherings and will continue to be part of this gathering.
- *Culturally competent education material*: The American Indian Cancer Foundation developed and continues to distribute cancer health-specific materials with and for Two-Spirit and Native LGBTQ+ communities. Cancer education and screening language has been adapted to meet the needs of gender diverse populations and can be used during any cancer health community outreach and engagement efforts.
- *Inclusive SOGI data*: Various data collection methods and language are developing across healthcare settings as these relate to including SOGI data collection upon patient intake and registration processes. For SOGI data collection, CDISC (Clinical Data Interchange Standards Consortium) is a trusted entity with new recommendations provided in Fall of 2024. For example, CDISC provides templates and guidance on demographic and SOGI questionnaire development for patients to be utilized in healthcare settings. The questionnaire, however, leaves out "Two-Spirit" as an option in gender and sexual orientation and offers a "I use a different term" option.

  Data collected through CDISC is used by the healthcare clinical team to better understand the patient, possible barriers to trust, and help support healthcare equity throughout the process. Depending on tribal, state, and private healthcare policies and law, as well as funding mechanisms (federally, state, tribally, privately run clinics and hospitals), SOGI data from healthcare institutes may be provided to the North American Association of Central Cancer Registries (NAACCR) where data can be accessed and analyzed to understand health disparities of Two-Spirit and Native LGBTQ+ people.
- *National LGBTQ+ collaboration*: The National LGBTQ Cancer Network is a national leader and is organized around educating, training, and advocating for LGBT cancer survivors and those at risk. They are collecting and organizing a compendium of LGBT promising practices across the cancer care continuum, including resources to support cross-cutting issues such as data, workforce, systems, information, and diversity. Their team is traveling out to healthcare settings across the country to educate and inform clinicians, researchers, and community leaders about LGBTQ+ cancer health, as well as national priorities and advocacy efforts. Their leadership is actively involved in national and international discussions related to SGM cancer health, data, research, and health equity. They welcome engagement opportunities with Two-Spirit and Native LGBTQIA+ cancer health initiatives.

- *Emerging ECHO use in the healthcare field*: Prior to the 2025 Executive Orders, the Northwest Portland Area Indian Health Board led an initiative called Indian Country ECHO (Extension for Community Healthcare Outcomes), which creates a community of healthcare professionals practicing in Indian Country. Specifically, ECHO offers telehealth training to build networks, collaborate on case consultations, and create mentorship opportunities with clinical experts serving Indigenous populations. They developed a Trans and Gender Confirming ECHO series with providers in the field working with gender diverse adult patients. Ultimately, Indian Country ECHO helps increase access to specialty care, including trans and gender confirming healthcare needs. This type of ECHO series could expand to include support around cancer screening needs among Two-Spirit and Native LGBTQ+ populations. This is a powerful resource that, if revitalized, could continue to have a positive impact in transgender and gender affirming healthcare practices. https://www.nativehealthresources.org/resource/celebrating-our-magic-toolkit-2/

8 Recommendations for Indigenous SGM and Cancer Health

In addition to rescinding executive orders and anti-SGM practices at the federal level, the following recommendations are provided to continue advancing support for SGM populations and creating safer healthcare settings for all patients. Tribal Nations can utilize tribal sovereignty to maintain or develop policies and law to protect Indigenous SGM populations, and LGBTQ+ protective state laws can also be considered to maintain and build support for SGM cancer health.

- Maintain a momentum of inclusion efforts throughout anticipated SGM health policy changes. When health equity and inclusion are challenged by politics, there is an opportunity to revisit values and missions of cancer health initiatives and services. Align your work with shared values with health organizations and entities that commit to maintaining healthcare services to SGM populations.
- Build understanding of Indigenous populations:
  - Educate your team(s) about Native Nations in your region. Acknowledge the Indigenous lands you occupy, and support efforts to engage within Native Nations. Create meaningful engagement to build trust with Native Nations that fosters outreach, opportunities to learn from one another, support for reciprocity, and pathways to STEAM education and careers.
  - Review and share publications such as "Tribal Nations & the United States: An Introduction" from the National Congress of American Indians to understand the distinct relationships between Native Nations and the Federal Government, especially as it relates to healthcare.

- Institutional policy:
  - Require cultural competency training among all staff.
  - Require collection of SOGI data that includes Two-Spirit as an option.
  - Utilize existing data collection tools such as CDISC for inclusive SOGI data intake forms.
- Epidemiology:
  - Create inclusive community profiles to better measure Social Determinants of Health among SGM populations.
- Outreach and engagement:
  - Partner with Indigenous health experts to develop Indigenous SGM outreach efforts.
  - Invite leaders from Indigenous SGM communities to participate in your institute's "Community Advisory Boards" or other advisory groups to support your work and expand your perspectives.
  - Engage, listen, and learn from existing resources to support SGM populations.
  - Train healthcare providers and staff about how to collect and ethically use SOGI data to better inform healthcare needs.
- Health administration:
  - Promote patient-centered care as a valuable framework to help build trust between patients and healthcare providers.
  - Develop compliance and evaluation processes and procedures to ensure high standards of inclusion of SGM people.
- Health promotion:
  - Encourage simulation training of gender-affirming care for healthcare workers (oncology-specific content).

9 Reflections and Conclusion

The dominant models of delivery of healthcare services in tribal communities are inconsistent with many Native cultures and concepts of health. The United States conceptualizes health linearly. Native concepts of health are circular and focus on at least four domains of well-being, including spirit, body, mind, and context. When these domains interact in balance, health and well-being are the results: "when in harmony, people thrive, are resilient beyond expectation, and contributes synergistically to those around them with their energy." (Hodge et al., 2009; Lavallee & Poole, 2010). Health and wellness involve the person and the balance in tribal communities.

Health, culture, and identity are important at the individual and collective levels. Yet there needs to be openness for restoring health, culture, and identity because a one-size-fits-all does not work when tribal cultures, languages, and identities are unique.

Since time immemorial, tribes have relied on ancestral knowledge, sacred land, traditional foods, medicines, and skills not just to survive but to thrive in the face of adversity. It is frightening to think that healthcare as a public good may not be accessible to everyone, as this far-right administration considers cuts to Medicaid and health research. How certain are we that the responsibility of the United States to provide healthcare to Native people will not disappear?

As Two-Spirit and Queer Indigenous authors and cancer researchers, we have identified ways to be more strategic and respectful in approaches to measure and understand Two-Spirit and Native LGBTQ+ health. We have the opportunity to encourage other Native researchers to break down the cycle of homophobia, heteronormativity, sexism, and racism in our research. We must also recognize unjust processes and practices in institutional and government structures through critical inquiry and questioning and take action.

While we do not have a true understanding of the cancer disparities among Two-Spirit and Native LGBTQ+ populations, these individuals are decolonizing their place in tribal societies by being present in the spaces that exclude them, rooted in culture and associated with their traditions that honor multiple genders. We are excited about where we will go next.

Cancer is preventable and will require creative and innovative steps. In the thoughts of Billy-Ray Belcourt (Driftpil Cree Nation, Poet) (Belcourt, 2016), I am intrigued by going beyond the norm. As Belcourt ingeniously asks, "What would happen if we went wild, if we refused domestication and instead chose lawlessness? When our backs are against the wall, we do not have many options from which to choose. Tradition does biopolitical work: it operates at the level of autonomy, not only reifying gender's collapse into biology but also training our bodies into thinking that we have finally found something that feels like something. I'm not buying it, and I think that queer identity is the point of departure decolonization has been waiting for. It's your move."

Two-Spirit and Native LGBTQ+ people deserve health and wellness
Two-Spirit and Native LGBTQ+ people deserve health and wellness
Two-Spirit and Native LGBTQ+ people deserve health and wellness
Two-Spirit and Native LGBTQ+ people deserve health and wellness….

Acknowledgments The lead author acknowledges past and present Two-Spirit and Native LGBTQ+ relatives who continue to fight for recognition, inclusion, and health equity both within Indigenous and outside of Indigenous communities. She also acknowledges that this chapter contributes to the ever-growing efforts of other Two-Spirit and Native LGBTQ+ relatives whose work is aimed at building inclusive and understanding spaces for generations to come. This work was supported by Roswell Park Comprehensive Cancer Center and National Cancer Institute (NCI) grant P30CA016056; Bristol Meyers Squibb Foundation, Roswell Park Department of Indigenous Cancer Health, Indigenous/Rural Patient Navigation, Fred Hutchinson Cancer Center.

References

American Association for Cancer Research. (2024). *AACR cancer disparities progress report 2024*. Retrieved May 5, 2025 from https://cancerprogressreport.aacr.org/wp-content/uploads/sites/2/2024/05/AACR_CDPR__2024.pdf

Arias, E., Xu, J., & Kochanek, K. (2023). United States Life Tables, 2021. *National vital statistics* reports: *From the Centers for Disease Control and Prevention, National Center* for *Health Statistics*. *National Vital Statistics System, 72*(12), 1–64.

Balestrery, J. E. (2012). Intersecting discourses on race and sexuality: Compounded colonization among LGBTTQ American Indians/Alaska Natives. *Journal of Homosexuality, 59*(5), 633–655. https://doi.org/10.1080/00918369.2012.673901

Belcourt, B.-R. (2016). A poltergeist manifesto. *Feral Feminisms, 6*(6), 22–32. https://feralfeminisms.com/a-poltergeist-manifesto/

Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, applications, and praxis. *Signs: Journal of Women in Culture and Society, 38*(4), 785–810.

Fredriksen-Goldsen, K. I., Cook-Daniels, L., Kim, H. J., Erosheva, E. A., Emlet, C. A., Hoy-Ellis, C. P., et al. (2014). Physical and mental health of transgender older adults: An at-risk and underserved population. *Gerontologist, 54*(3), 488–500. https://doi.org/10.1093/geront/gnt021

Hodge, D. R., Limb, G. E., & Cross, T. L. (2009). Moving from colonization toward balance and harmony: A Native American perspective on wellness. *Social Work, 54*(3), 211–219. https://doi.org/10.1093/sw/54.3.211

Huyser, M. R. (2025). The landmark series: Surgical oncology care in Native Americans-the Indian Health Service. *Annals of Surgical Oncology, 32*(4), 2379–2392. https://doi.org/10.1245/s10434-024-16655-1

Jones, J. M. (2024). LGBTQ+ Identification in US Now at 7.6%: more than one in five Gen Z adults identify as LGBTQ+. *Gallup*. https://news.gallup.com/poll/611864/lgbtq-identification.aspx

LaFrance, J., & Nichols, R. (2008). Reframing evaluation: Defining an indigenous evaluation framework. *Canadian Journal of Program Evaluation, 23*(2), 13–31. https://doi.org/10.3138/cjpe.23.003

Lampe, N. M., Barbee, H., Tran, N. M., Bastow, S., & McKay, T. (2024). Health disparities among lesbian, gay, bisexual, transgender, and queer older adults: A structural competency approach. *International Journal of Aging & Human Development, 98*(1), 39–55. https://doi.org/10.1177/00914150231171838

Lavallee, L. F., & Poole, J. M. (2010). Beyond recovery: Colonization, health and healing for indigenous people in Canada. *International Journal of Mental Health and Addiction, 8*(2), 271–281. https://doi.org/10.1007/s11469-009-9239-8

National Coalition for LGBTQ Health. (2023). *State of LGBTQ Health™ Second Annual National Survey*. Retrieved May 5, 2025 from https://healthlgbtq.org/stateof/lgbtqhealth/#introduction

Walter, M., & Andersen, C. (2013). *Indigenous statistics: A quantitative research methodology*. Left Coast Press. https://doi.org/10.4324/9781315426570

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.