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REDUCING LGBTQIA+ HEALTH DISPARITIES

CREATING A WELCOMING, INCLUSIVE, AND AFFIRMING PRIMARY CARE
ENVIRONMENT FOR LESBIAN, GAY, BISEXUAL, TRANSGENDER, QUEER,
QUESTIONING, INTERSEX AND ASEXUAL PATIENTS

Submitted to the Faculty
Yale University School of Nursing

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Nursing Practice

Samantha Korbey, MSN, APRN, FNP-BC

May 23, 2022

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This DNP Project is accepted in partial fulfillment of the requirements for the degree Doctor of Nursing Practice.

Date: _____

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Acknowledgements

Dedicated to my wife

Special thanks to my advisor, Dr. LaRon E. Nelson, as well as Dr. Joan Kearney, Dr. Joanne DeSanto Iennaco, and Dr. Jane Dixon whose guidance, wisdom, and foresight helped me to bring life to this project that for many years was only an inkling in my mind.

REDUCING LGBTQIA+ HEALTH DISPARITIES

Abstract

The LGBTQIA+ community has long faced disparities in healthcare which have had significant consequences including increased cancer risk factors and poorer health outcomes when compared to the cisgender, heterosexual community. Interventions are needed to increase the knowledge and cultural competency of providers, to create welcoming and safe spaces for LGBTQIA+ patients, and to encourage disclosure of sexual orientation and gender identity (SOGI).

The purpose of this DNP project was to adapt, implement, and evaluate an evidence-based model for creating an affirming, inclusive, culturally competent, and safe primary care environment for LGBTQIA+ patients within a family practice center. This quality improvement project involved care protocol adjustments including modifications to clinic physical/digital infrastructure, revised intake procedures and documentation, and provider/staff trainings. Evaluation included pre-implementation chart review, staff self-efficacy and implementation outcome surveys, and post-intervention demographic assessment of intake forms. Analysis included paired t-tests for comparison of survey responses, and descriptive statistics and chi square analysis for patient intake form responses.

Results suggest that a majority of staff were supportive of the interventions, and overall showed improved self-efficacy. A majority of patients engaged well with the new intake protocol, willingly disclosing SOGI information and providing valuable information not previously known or documented.

By adapting a multimodal model for implementation in a family practice setting, this project offers a roadmap for any practice to create a welcoming and safe healthcare environment for LGBTQIA+ patients. Through consistent, positive, and affirming engagement with this population, these healthcare disparities can be addressed in concrete and meaningful ways.

REDUCING LGBTQIA+ HEALTH DISPARITIES

Adapted LGBTQIA+ Glossary of Terms for Health Care Teams (National LGBTQIA+ Health Education Center, 2020)	
Term	Definition
Asexual	(adj) – Describes a person who experiences little or no sexual attraction to others. Asexual people may still engage in sexual activity.
Bisexual	(adj) – A sexual orientation that describes a person who is emotionally and sexually attracted to women/females and men/males. Some people define bisexuality as attraction to all genders.
Cisgender	(adj) – A person whose gender identity is consistent in a traditional sense with their sex assigned at birth; for example, a person assigned female sex at birth whose gender identity is woman/female. The term cisgender comes from the Latin prefix cis, meaning “on the same side of.”
Gender-affirming hormone therapy	(n) – Feminizing and masculinizing hormone treatment to align secondary sex characteristics with gender identity.
Gay	(adj) – A sexual orientation describing people who are primarily emotionally and sexually attracted to people of the same sex and/or gender as themselves. Commonly used to describe men who are primarily attracted to men but can also describe women attracted to women.
Gender	(n) – The characteristics and roles of women and men according to social norms. While sex is described as female, male, and intersex, gender can be described as feminine, masculine, androgynous, and much more.
Gender affirmation	(n) – The process of making social, legal, and/or medical changes to recognize, accept, and express one’s gender identity. Social changes can include changing one’s pronouns, name, clothing, and hairstyle. Legal changes can include changing one’s name, sex designation, and gender markers on legal documents. Medical changes can include receiving gender-affirming hormones and/or surgeries. Although this process is sometimes referred to as transition, the term gender affirmation is recommended.
Gender-affirming surgery (GAS)	(n) – Surgeries to modify a person’s body to be more aligned with that person’s gender identity. Types of GAS include chest and genital surgeries, facial feminization, body sculpting, and hair removal.
Gender binary structure	(n) – The idea that there are only two genders (girl/woman and boy/man), and that a person must strictly fit into one category or the other.
Gender dysphoria	(n) – Distress experienced by some people whose gender identity does not correspond with their sex assigned at birth. The Diagnostic and Statistical Manual of Mental Disorders (DSM-5) includes gender dysphoria as a diagnosis for people whose distress is clinically significant and impairs social, occupational, or other important areas of

REDUCING LGBTQIA+ HEALTH DISPARITIES

	functioning. The degree and severity of gender dysphoria is highly variable among transgender and gender-diverse people.
Gender identity	(n) – A person’s inner sense of being a girl/woman/female, boy/man/male, something else, or having no gender.
Genderqueer or gender queer	(adj) – An umbrella term that describes a person whose gender identity falls outside the traditional gender binary of male and female. Some people use the term gender expansive.
Heteronormativity	(n) - The assumption that everyone is heterosexual, or that only heterosexuality is “normal.” Also refers to societal pressure for everyone to look and act in a stereotypically heterosexual way. Heteronormativity can manifest as heterosexism, the biased belief that heterosexuality is superior to all other sexualities.
Heterosexual	(adj) – A sexual orientation that describes women who are primarily emotionally and sexually attracted to men, and men who are primarily emotionally and sexually attracted to women. Also referred to as straight.
Intersex	(adj) – Describes a group of congenital conditions in which the reproductive organs, genitals, and/or other sexual anatomy do not develop according to traditional expectations for females or males. Intersex can also be used as an identity term for someone with one of these conditions. The medical community sometimes uses the term differences of sex development (DSD) to describe intersex conditions; however, the term intersex is recommended by several intersex community members and groups.
Lesbian	(adj, n) – A sexual orientation that describes a woman who is primarily emotionally and sexually attracted to other women.
Misgender	(v) – To refer to a person by a pronoun or other gendered term (e.g., Ms./Mr.) that incorrectly indicates that person’s gender identity.
Non-binary	(adj) – Describes a person whose gender identity falls outside of the traditional gender binary structure of girl/woman and boy/man. Sometimes abbreviated as NB or “enby.”
Pansexual	(adj) – A sexual orientation that describes a person who is emotionally and sexually attracted to people of all gender identities, or whose attractions are not related to other people’s gender.
Queer	(adj) – An umbrella term describing people who think of their sexual orientation or gender identity as outside of societal norms. Some people view the term queer as more fluid and inclusive than traditional categories for sexual orientation and gender identity. Although queer was historically used as a slur, it has been reclaimed by many as a term of empowerment. Nonetheless, some still find the term offensive.
Questioning	(adj) – Describes a person who is unsure about or is exploring their sexual orientation and/or gender identity.
Sex assigned at birth	(n) – The sex (male or female) assigned to an infant, most often based on the infant’s anatomical and other biological characteristics.

REDUCING LGBTQIA+ HEALTH DISPARITIES

	Sometimes referred to as birth sex, natal sex, biological sex, or sex; however, sex assigned at birth is the recommended term.
Sexual orientation	(n) – How a person characterizes their emotional and sexual attraction to others.
Transgender	(adj) – Describes a person whose gender identity and sex assigned at birth do not correspond based on traditional expectations; for example, a person assigned female sex at birth who identifies as a man; or a person assigned male sex at birth who identifies as a woman. Transgender can also include people with gender identities outside the girl/woman and boy/man gender binary structure; for example, people who are gender fluid or non-binary. Sometimes abbreviated as trans.
Trans man/ Transgender man	(n) – A transgender person whose gender identity is man/male may use these terms to describe themselves. Some will use the term man.
Trans woman/ transgender woman	(n) – A transgender person whose gender identity is female may use these terms to describe themselves. Some will use the term woman.
Transfeminine	(adj) – Describes a person who was assigned male sex at birth but identifies with femininity to a greater extent than with masculinity.
Transmasculine	(adj) – Describes a person who was assigned female sex at birth but identifies with masculinity to a greater extent than with femininity.



Table of Contents

Chapter 1

Introduction..... [1](#)
Problem Statement [2](#)
Significance [3](#)

Chapter 2

Review of the Literature [5](#)
Project Model [16](#)
Additional Theoretical/Prescriptive Model [17](#)
Description of the System [18](#)
Setting [18](#)
Need [19](#)
SWOT (Strengths, Weaknesses, Opportunities, Threats) [19](#)
Goal and Aims of Project [20](#)

Chapter 3

Methods [22](#)
Aim 1 [22](#)
Aim 2 [25](#)
Aim 3 [28](#)
Project Timeline [29](#)
Human Subjects Statement [30](#)
Systems Considerations and Implications [30](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

Chapter 4

Results [34](#)

Chapter 5

Discussion [39](#)

Review or Modifications for Sustainability [45](#)

Recommendations for Scalability [46](#)

Policy and Broader Healthcare Systems Implications [46](#)

Conclusion [47](#)

References [49](#)

Appendices [61](#)

Chapter 1

Introduction

Throughout the history of modern healthcare, sexual and gender minorities (lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual, plus – LGBTQIA+) have faced disparities in healthcare that have resulted in suboptimal primary and preventative care practices, increased cancer risk factors, and poorer health outcomes when compared to the cisgender, heterosexual community (Jackson et al., 2016; Kachen & Pharr, 2020; Smith & Turell, 2017; Tabaac et al., 2020). Fear of discrimination is a key factor that contributes to how members of these groups engage with the healthcare system, particularly for transgender patients who have reported estimates as high as 71% experiencing discrimination, mistreatment and even abuse in their lifetime when seeking healthcare (Casey et al., 2019; James et al., 2016; Kachen & Pharr, 2020; Kattari & Hasche, 2016; Kosenko et al., 2013). This fear is often rooted in the ubiquitous cultural assumption of heteronormativity, as well as in experiences of harassment, microaggressions (subtle and often unintentional discrimination), and provider inexperience with the needs of these patients (Casey et al., 2019; Smith & Turell, 2017). In addition, cost, insurance issues, and the burden of having to “come out” to healthcare providers have resulted in LGBTQIA+ patients delaying needed healthcare, inadequate cancer screenings, higher proportions of certain cancer diagnoses, and subpar preventative primary care (Jackson et al., 2016; MacApagal et al., 2016; Pharr et al., 2019; Tabaac et al., 2020).

A lack of cultural competence and awareness, as well as provider inexperience with the unique needs and risk factors of LGBTQIA+ individuals also contribute to the fears and attitudes that are held by these patients towards the current healthcare system (Goldhammer et al., 2018; Greene et al., 2018; Paradiso & Lally, 2018). Additionally, recent research has shown that the

REDUCING LGBTQIA+ HEALTH DISPARITIES

health disparities differ for each of the subsections of the LGBTQIA+ community (the lesbian, gay, bisexual, etc. communities) and as such they should be considered individually (Gonzales & Henning-Smith, 2017; Jackson et al., 2016; Pharr et al., 2019). For example, while some of the healthcare disparities have improved in the LGBQ groups, for the transgender and gender nonconforming communities, the disparities are still very present and damaging and as such still require much needed research and attention (MacApagal et al., 2016; Newcomb et al., 2020).

Problem Statement

The healthcare disparities that LGBTQIA+ individuals have faced have only recently started to be addressed in meaningful ways, and even then, only for certain communities (Gonzales & Henning-Smith, 2017; Jackson et al., 2016; Pharr et al., 2019; Tabaac et al., 2020). With approximately 7.1% of the US population (roughly 23,636,970 people) identifying as LGB and 0.7% of the US population (about 2,330,405 people) identifying as transgender (Jones, 2021) this population of individuals is substantial. On the part of providers, clinics, and healthcare organizations, tangible factors that contribute to these disparities include a lack of cultural competence or experience, a lack of clear communication that a healthcare environment is a safe and welcoming space, and a lack of collection of relevant data such as sexual orientation and gender identity (SOGI) data (Dichter et al., 2018; Goldhammer et al., 2018; Greene et al., 2018; Nadler et al., 2019; Paradiso & Lally, 2018; Smith & Turell, 2017; Tabaac et al., 2020). On the part of patients, avoidance, or delay of needed medical care, and nondisclosure of their sexual orientation/gender identity because of experiences with (or fear of) discrimination, harassment, or microaggressions, also contribute to this sizeable healthcare gap (Casey et al., 2019; James et al., 2016; Kachen & Pharr, 2020; Kattari & Hasche, 2016; MacApagal et al., 2016; Rossman et al., 2017; Smith & Turell, 2017; Tabaac et al., 2020).

REDUCING LGBTQIA+ HEALTH DISPARITIES

Primary care has the unique advantage of being able to build a relationship with a patient over time. As such, primary care providers are well positioned to be able to provide excellent care to LGBTQIA+ patients. Thus, this DNP project will evaluate the implementation of an evidence-based model for creating an affirming, inclusive, culturally competent, and safe primary care environment for LGBTQIA+ patients within a family practice medical center, with the intended outcomes of increased patient disclosure of sexual orientation and gender identity, and improved staff self-efficacy with and improved attitudes towards implementing the interventions.

Significance

Studies have shown that LGBTQ+ individuals are at increased risk for cardiovascular and cancer diagnoses, obesity, alcohol abuse, depression, and suicide, in addition to delaying medical care for countless other disorders and ailments for both themselves and family members (Gonzales & Henning-Smith, 2017; Jackson et al., 2016; James et al., 2016; Reiter & McRee, 2017; Tabaac et al., 2020). It has been shown that individuals in these communities can be up to two times more likely to have heart disease, 1.3 times more likely to have a cancer diagnosis, 2.8 times more likely to have diabetes and almost twice as likely to have chronic obstructive pulmonary disease (COPD) (Blosnich et al., 2016; Gonzales & Henning-Smith, 2017). Furthermore, particularly with regards to mental health, certain subsets of the LGBTQIA+ community have been shown to be more than five times more likely to experience major depression and to attempt suicide than their heterosexual/cisgender counterparts (Chaudhry & Reisner, 2019; Horwitz et al., 2020). Primary care is where screening for cancer, cardiovascular disease and other risk factors occurs, where depression can be assessed, and suicidal ideation can be monitored for. However, to be able to accurately assess a patient and provide them with the

REDUCING LGBTQIA+ HEALTH DISPARITIES

best, most precise preventative/primary care, a provider must first know their patient's risk factors. This requires both that the patient feels comfortable and safe enough to disclose their sexual and gender identity, and also that the provider knows what to do with that information.

One recent study showed that 55.4% of providers rarely/never brought up sexual orientation and 71.9% rarely/never brought up gender identity with their patients (Goldhammer et al., 2018). Another showed that <50% of providers surveyed had any formal preparation in LGBTQ+ healthcare in their graduate curriculum (Greene et al., 2018). Rossman et al. (2017) likewise showed that almost 40% of surveyed LGBTQ adults did not disclose their sexual orientation and/or gender identity to their healthcare provider for reasons including not being asked, and fearing the possible stigma attached to their disclosure. With statistics such as 33-71% of transgender patients reporting having experienced discrimination or harassment in a healthcare setting, it is clear that there is still much to be done (James et al., 2016; Kosenko et al., 2013). Thus, interventions are needed to increase both the knowledge base and cultural competency of providers, to create welcoming and safe healthcare spaces for LGBTQIA+ individuals, and to encourage disclosure of sexual orientation and gender identity so that progress can be made towards reducing these healthcare disparities.

Chapter 2

Review of the Literature

The review of the literature was broken into two major questions, each requiring two separate search strategies. Both searches used the databases PubMed, Ovid Medline, Scopus, and GenderWatch and the key terms LGBTQIA OR lesbian OR gay OR bisexual OR transgender OR trans, OR queer, OR asexual, OR intersex OR gender minority. The first search was based on the question: “What are the healthcare disparities faced by the LGBTQIA+ community?” Electronic databases were searched using the aforementioned key terms AND healthcare disparity. After removal of duplicates, and title and abstract review, 78 articles were selected for full-text review, 40 of which were kept for the final review of the literature. The second search was based on the question: “What interventions are currently recommended for reducing the healthcare disparities faced by the LGBTQIA+ community?” The same electronic databases were searched using the aforementioned key terms AND healthcare disparity AND interventions, OR solutions, OR strategy. After removal of duplicates and title and abstract review, 45 articles were selected for full-text review, 24 of which were kept for the final review of the literature. Inclusion and exclusion criteria were the same for both searches. Inclusion criteria included peer reviewed articles published within the last 10 years, in English, and based in the United States (US). Exclusion criteria included articles about elder care, school curriculum overhaul, studies of healthcare systems outside of the US, studies that did not pertain to primary care, human immunodeficiency virus (HIV) specific studies, studies about research, cancer care, VA studies, palliative care, studies with very narrow samples (such as participants from a particular neighborhood of a city), studies with small sample sizes (N<10) and studies that did not pertain to LGBTQIA+ healthcare. Of the 64 total articles, only 2 overlapped between matrices. Results

REDUCING LGBTQIA+ HEALTH DISPARITIES

of both searches are provided in PRISMA flow charts and evidence matrices in [Appendix A](#) and [Appendix B](#) respectively.

This review of the literature will begin by outlining the more general disparities experienced by the LGBTQIA+ community. From there it will briefly delve into the different subgroups (lesbian, gay, bisexual, etc.) and the risk factors pertaining to each group. Finally, it will examine the most recent recommended interventions as found in the current literature.

Healthcare Disparities Faced by the LGBTQIA+ Community

General Healthcare Disparities Faced by the LGBTQIA+ Community. LGBTQIA+ patients experience discrimination and harassment in healthcare at disproportionate rates compared to the cisgender and heterosexual community (James et al., 2016; Kattari & Hasche, 2016; MacApagal et al., 2016). A 2019 study showed that actual experience of discrimination in a healthcare setting was found in 16% of LGBTQ adults surveyed (Casey et al., 2019).

Furthermore, in 2020 it was estimated that nationwide, nearly 30% of the US transgender population (roughly 500,000 individuals) were still affected by healthcare disparities in the form of discrimination, mistreatment, denial of care, delaying care, and provider inexperience (Kachen & Pharr, 2020). Compounding overt discrimination and harassment, are microaggressions including non-welcoming environments, misuse of names and pronouns, the need to self-advocate, and the ubiquitous cultural assumption of heteronormativity (Dean et al., 2016; Smith & Turell, 2017). In response to these experiences, sexual and gender minorities often delay care, and as many as 18% of LGB and 23% of transgender individuals have reported that they did not pursue the medical attention that they or a family member required in an attempt to avoid potential discrimination (Casey et al., 2019; James et al., 2016; MacApagal et al., 2016; Tabaac et al., 2020). However, the notion that LGBTQIA+ is a single unit is no longer viable as each

REDUCING LGBTQIA+ HEALTH DISPARITIES

subgroup interacts uniquely with the healthcare system and is subject to diverse risk factors (Gonzales & Henning-Smith, 2017; Jackson et al., 2016; Tabaac et al., 2020). As such, each group will be briefly addressed in turn.

Lesbian/Women Who Have Sex with Women (Including Bisexual Females). A total of 9 cross-sectional studies pertaining to this area of inquiry were included in this section of the review of the literature. Compared to heterosexual women, lesbian-identifying and other women who have sex with women have been shown to have significantly higher rates of heart disease (aOR: 2.59), high cholesterol (aOR:1.89), stroke (aOR:1.96), and diabetes (aOR: 2.75) (see Appendix C, [Table C1](#)) (Blosnich et al., 2016; Jackson et al., 2016). In addition, lesbian and bisexual women reported 25%-99% more obesity, asthma, COPD, and arthritis and 52% fewer annual physicals when compared to females in opposite-sex relationships (see Appendix C, [Table C2](#)) (Blosnich et al., 2014; Gonzales & Henning-Smith, 2017; Strutz et al., 2015). Of note, lesbian and bisexual women reported significantly higher rates of moderate to heavy drinking (aOR: 1.6 to 2.6) and smoking (aOR: 1.6 to 2.3) compared to heterosexual women (see Appendix C, [Table C3](#)) (Blosnich et al., 2014; Gonzales et al., 2016; Pharr et al., 2019). With regards to cancer surveillance and prevention, lesbian and bisexual women report significantly lower rates of pap testing (41-87%) and higher risk of human papilloma virus (HPV) infection (44-52%) (see Appendix C, [Table C4](#)) (Charlton et al., 2011; Pharr et al., 2019; Reiter & McRee, 2017). In addition, bisexual women had significantly lower breast cancer screening rates (39%-46%) when compared to heterosexual and lesbian women (see Appendix C, [Table C5](#)) (Bazzi et al., 2015; Pharr et al., 2019). Lastly, 7 cross-sectional studies found that with regards to mental health, lesbian and bisexual women have been shown to be at significantly higher risk for frequent and moderate mental distress (aOR 1.3 to 1.5 and 2.1 to 2.2 respectively), depression with at least

REDUCING LGBTQIA+ HEALTH DISPARITIES

one lifetime major depressive episode (aOR: 1.4 to 2.9), anxiety (aOR: 2.2), suicidal ideation (aOR: 2.5 to 3.9) and suicide attempt (aOR: 3.9 to 4.5) with sexual minority female youth being at particularly high risk for suicidal ideation (aOR: 4.93) and self-harm (aOR: 7.20) (see Appendix C, [Table C10](#)) (Blosnich et al., 2014; Blosnich et al., 2016; Chaudhry & Reisner, 2019; Gonzales & Henning-Smith, 2017; Gonzales et al., 2016; Horwitz et al., 2020; Marshal et al., 2012; Pharr et al., 2019; Strutz et al., 2015). Of note, bisexual women have also been shown to be at a significantly increased risk for severe psychological distress (aOR: 3.7) as well as a major depressive episode in the previous 12 months (aOR: 3.0) (see Appendix C, [Table C10](#)) (Chaudhry & Reisner, 2019; Gonzales et al., 2016).

Gay/Men Who Have Sex with Men (Including Bisexual Males). Since the beginning of the HIV epidemic, men who have sex with men have been at increased risk for HIV, and still remain at the highest risk for infection in the United States, making up 70% (roughly 24,500) of new HIV diagnoses in 2019 (CDC, 2021b). Likewise, as of data collected in 2019, men who have sex with men account for higher proportions of certain sexually transmitted infections (STIs), including syphilis and gonorrhea, and are at high risk for HPV related anal cancers (CDC, 2019, 2021a). Furthermore, four large cross-sectional studies found that compared to heterosexual men, gay men are significantly more likely to have hypertension (aOR: 1.2), heart disease (aOR: 1.4), cancer (aOR: 1.3), and COPD (aOR: 1.9), while gay and bisexual men are significantly more likely to have increased odds of excessive alcohol use (aOR: 2.0 to 3.2) smoking (aOR: 1.3 to 2.1) and migraines (aOR: 2.3) (see Appendix C, [Table C6](#)) (Blosnich et al., 2014; Gonzales & Henning-Smith, 2017; Gonzales et al., 2016; Jackson et al., 2016; Strutz et al., 2015). As such, preventative screening needs to consider not only issues of a sexual nature, but also cardiac, cancer, and substance related risk factors. Finally, seven cross-sectional studies

REDUCING LGBTQIA+ HEALTH DISPARITIES

found that gay and bisexual men have also been shown to experience significantly disproportionate levels of psychological distress (aOR: 1.7 to 4.7), anxiety (aOR: 2.7) major depression (aOR: 2.2 to 5.8), suicidal ideation (aOR: 2.5 to 3.9), and suicide attempt (aOR: 3.9 to 4.5) when compared to heterosexual individuals, with pansexual and bisexual individuals being at the highest risk for depression (aOR: 2.7 to 3.4), suicidal ideation (aOR: 3.9 to 4.6), and suicide attempt (aOR: 4.5 to 5.5) overall (see Appendix C, [Table C10](#)) (Blosnich et al., 2014; Blosnich et al., 2016; Chaudhry & Reisner, 2019; Gonzales & Henning-Smith, 2017; Gonzales et al., 2016; Horwitz et al., 2020; Pharr et al., 2019; Strutz et al., 2015).

Transgender Individuals. Even though there have been increases in research into sexual minority health and wellness in recent years, there are still few publications on gender minority (transgender, queer-gender, non-binary, etc.) health. However, five cross-sectional and one retrospective study showed that while transmasculine individuals generally recognize the importance of surveillance, rates of cervical cancer screening among transgender men are significantly lower than those of cisgender females (49.5-63% vs 69.4-89.8%) with binary transmasculine adults having the lowest rates of all (aOR: 0.09) (see Appendix C, [Table C7](#)) (Agénor et al., 2018; Rahman et al., 2019; Seay et al., 2017). Additionally, transwomen taking estrogen and preoperative transmen were shown to be 47% less likely to receive recommended mammography screening when compared to cisgender women (N=904, aOR: 0.53; 95% CI, 0.31-0.91, $p<0.05$) (Bazzi et al., 2015). Similarly, despite still being at risk for prostate cancer, transgender women have been shown to have significantly lower rates of PSA testing than heterosexual, cisgender men (N=164,370, OR: 0.23; 95% CI, 0.22-0.24, $p<0.05$) (Ma et al., 2020). Furthermore, in 2018, transgender individuals made up nearly 2% of all people with new HIV diagnoses (roughly 758 new infections) in the United States, 92% of whom were

REDUCING LGBTQIA+ HEALTH DISPARITIES

transwomen (CDC, 2018). Compounding these issues, 1 in 10 health insurance providers offer no coverage for gender-affirming therapies (such as hormone replacement and gender affirming surgery), and many other private and governmental health insurances make receiving any services extremely difficult (Ngaage et al., 2021).

Relative to other less thoroughly studied areas, the mental health status of gender minorities has received more attention. With statistics such as 40% of the 27,715 transgender individuals surveyed for the 2015 US Transgender Survey admitting to having attempted suicide at least once, this is an area that deserves ample attention (James et al., 2016). Three large cross-sectional studies additionally found that when taken as a whole, transgender individuals report significantly higher rates of mental distress (aOR: 1.5) and depressive disorders (aOR: 1.8) than cisgender individuals, but when broken down into subcategories, gender non-conforming and transgender men report significantly higher rates of mental distress (aOR: 1.93 to 2.1), and depressive disorders (aOR: 2.6-3.0) when compared to cisgender individuals (see Appendix C, [Table C8](#)) (Crissman et al., 2019). Additionally, when compared to their cisgender counterparts, risk and frequency of depression (RR: 3.95 and 29.9% - 39.4% vs 13.3% - 17.0%), suicidal ideation (RR: 3.61 and 36.4% - 46.4% vs 10.4% to 13.5%), suicidal attempt (RR: 3.20 and 24.2% to 30.9% vs 3.7% to 6.6%), and self-harm (RR: 4.30) are found in disproportionately significant levels in transgender youth (see Appendix C, [Table C9](#)) (Horwitz et al., 2020; Reisner et al., 2015).

Intersex and Asexual Individuals. Unfortunately, there is a dearth of research that has been done on the health disparities and epidemiological trends of intersex and asexual individuals. While there have been limited studies done abroad, the United States has yet to engage these communities in meaningful research. This being said, limited research from one

REDUCING LGBTQIA+ HEALTH DISPARITIES

recent US national study has shown that intersex individuals reported overall poorer self-rated health (43% vs 17.7%) and greater functional limitations including running errands by themselves (30.9% vs 7.24%), going up and down stairs (22.8% vs 14.1%) and problems with concentration (56.6% vs 11.31%) when compared to national data, though it was not made clear in the study if these findings were significant (Rosenwohl-Mack et al., 2020). In addition, it has also been shown that intersex individuals report a lifetime rate of suicide attempt as high as about 31% (Rosenwohl-Mack et al., 2020). On the other hand, asexual individuals often experience the pathologization of their sexual identity as providers try to find mental or physical explanations for them. As such they often evade disclosing their identity to avoid unnecessary and inaccurate diagnoses (Flanagan & Peters, 2020). With regards to mental health, limited research has shown that asexual individuals are at a significantly higher risk for depression (aOR: 2.8) and suicidal ideation (aOR: 2.7) when compared to heterosexual individuals (See Appendix C, [Table C10](#)) (Horwitz et al., 2020).

Other Contributors to LGBTQIA+ Healthcare Disparities: Education and SOGI Data Gaps. Current studies show that most medical and nursing schools still lack any kind of official or substantive LGBTQIA+ healthcare curriculum (Greene et al., 2018; Nguyen, 2020). Though providers generally report feeling positively towards LGBTQIA+ patients, a lack of formal education while in school, particularly in transgender healthcare, has been found to contribute to feelings of uncertainty and even awkwardness when treating and interacting with this population (Greene et al., 2018; Paradiso & Lally, 2018). As an extension of this, despite acknowledging that knowing SOGI information is important, providers report not regularly collecting SOGI data citing inexperience, discomfort with asking, and worry that patients would also be uncomfortable or offended (Dichter et al., 2018; Goldhammer et al., 2018; Maragh-Bass

REDUCING LGBTQIA+ HEALTH DISPARITIES

et al., 2017; Nadler et al., 2019). From the patient perspective, one study found that reasons for not disclosing SOGI included that the patient was never asked, a lack of a good relationship with their provider, fear that it could adversely affect their medical treatment, and a lack of understanding of how that information is necessary for good healthcare (Rossman et al., 2017). Even when SOGI data is obtained, electronic medical records (EMRs) often are not able to efficiently and effectively process, use, and display these data (Dichter et al., 2018; Nadler et al., 2019).

Interventions Currently Recommended for Reducing the Healthcare Disparities Faced by the LGBTQIA+ Community

The remainder of this review of the literature will address the current suggested interventions that have been proposed to address many of the aforementioned healthcare disparities that the LGBTQIA+ community faces. Of the 24 studies included in this inquiry, a majority (11 out of 24) were qualitative or qualitative/cross-sectional mixed method studies that consisted of surveys, focus groups and semi-structured interviews that explored the healthcare experiences and suggestions of sexual and gender minorities. Beyond these studies, 7 out of the 24 were literature reviews, 1 was a purely cross-sectional study, and 5 were expert opinion.

Clinical Environments, and Collection and Proper Usage of SOGI Data. One of the most common themes with regards to addressing LGBTQIA+ healthcare disparities is that of the physical clinical environment. In developing a welcoming clinical environment, identifying decals on the door/front window, gender neutral bathrooms, representative print and digital media, and a prominently posted nondiscrimination policy are all key elements in providing sexual orientation and gender-affirming care (Baldwin et al., 2018; Hayon & Stevenson, 2019; McClain et al., 2016; Nisly et al., 2018; TJC, 2011). An inclusive intake form that asks about

REDUCING LGBTQIA+ HEALTH DISPARITIES

sexual orientation and gender identity along with correct pronouns, sex assigned at birth, legal name, chosen name, and partner status is one of the most important and useful tools in creating this environment (Lambrou et al., 2020; Smith & Turell, 2017; TJC, 2011; Waryold & Kornahrens, 2020). Additionally, having the ability to also write in their sexual orientation and/or gender identity if their chosen identity is not listed on the form, often results in more accurate engagement, rather than having to check an, “other” box or to decline answering altogether (Scheffey et al., 2019). By updating intake forms to be inclusive, it helps to avoid some of the cisgender, heteronormative microaggressions that regularly affect the LGBTQIA+ community (Alpert et al., 2017; Dean et al., 2016).

The regular collection and proper usage of SOGI data is a key element in providing gender-affirming care that communicates safety and respect, and contributes to an overall more positive healthcare experience for LGBTQIA+ patients (Baldwin et al., 2018; Eckstrand et al., 2017; Eisenberg et al., 2020; Hayon & Stevenson, 2019; Smith & Turell, 2017). Though many providers worry that collection of SOGI data would be considered offensive to patients, it has been consistently shown that patients generally feel oppositely, and instead support the idea (Bjarnadottir et al., 2017; Eisenberg et al., 2020; Maragh-Bass et al., 2017). One particular study that differed from the others in this section as it consisted of both a random assignment experimental design and a qualitative analysis, found that even amongst cisgender, heterosexual patients, an overwhelming majority (97%) had no issues with answering questions about SOGI on intake forms (although it should be noted that the clinical environment was simulated and as such the participants knew they were being evaluated (Rullo et al., 2018).

Once SOGI is disclosed, what is done with that information is as important as having asked for it in the first place, as some patients, though aware that disclosure can be important,

REDUCING LGBTQIA+ HEALTH DISPARITIES

worry that knowledge of such information could result in subpar medical treatment (Ogden et al., 2020). As such, confidentiality and an EMR that can easily and efficiently alert providers of chosen names and correct pronouns are important parts of this process (Hadland et al., 2016; Hayon & Stevenson, 2019; Hudak & Bates, 2019). Equally as important are providers that demonstrate knowledge with the health and risk factors faced by LGBTQIA+ patients, as well as fluency in gender neutral language and correct and consistent utilization of chosen names and correct pronouns (Eisenberg et al., 2020; Hadland et al., 2016; McClain et al., 2016; Nisly et al., 2018; Rossman et al., 2017; Salway et al., 2020; TJC, 2011). Using correct pronouns and gender-neutral language when referring to relationships, medical procedures, and physical anatomy communicates respect to patients and adds to a generally more positive and affirming experience (Baldwin et al., 2018; Hadland et al., 2016; McClain et al., 2016; Nisly et al., 2018).

Education and Training for Providers and Staff. It should never be the responsibility of the patient to teach the provider about how best to care for them (Baldwin et al., 2018). When providers take the initiative to educate themselves on the needs of their LGBTQIA+ patients rather than expecting the patients to teach them, it helps to increase their cultural competence and foster a more trusting patient/provider relationship (Alpert et al., 2017; Lambrou et al., 2020). Formal trainings offered to providers and staff in healthcare settings have been recommended as an integral part in bringing about organizational change toward LGBTQIA+ healthcare equity (Eckstrand et al., 2017; Nguyen, 2020; Nisly et al., 2018). Part of this process also requires inclusion of specific education on microaggressions and implicit bias so that providers and staff learn how to recognize both overt and subtle discriminatory practices (in themselves and within their organization) and begin the process of relearning as well as developing their cultural

REDUCING LGBTQIA+ HEALTH DISPARITIES

competency (Dean et al., 2016; Eckstrand et al., 2017; TJC, 2011; Waryold & Kornahrens, 2020).

Additional Suggestions from the Literature. In addition to the aforementioned interventions, from a combination of cross-sectional studies, literature reviews, and one qualitative study, the following additional strategies were highlighted as key elements in LGBTQIA+ affirming care: Providers and staff should always avoid cisgender, heteronormative assumptions about patients (Alpert et al., 2017). Additionally, providers should avoid pathologizing diverse sexual orientations and gender identities, especially people of asexual orientation (Flanagan & Peters, 2020). Providers should offer alternative and culturally sensitive options for treatments and cancer screening, such as self-swab Pap/HPV screening for transmasculine/transgender male patients (Dhillon et al., 2020; Seay et al., 2017). It is also necessary to ensure that all team members are on-board with sexual and gender affirming policies within an organization as change will only occur if all staff and providers do their part to make LGBTQIA+ patients feel welcome. Likewise, staff and providers should be comfortable with apologizing for mistakes freely and humbly when they occur. Additionally, being up front about being an LGBTQIA+ affirming provider helps patients to know unequivocally that they are in a safe space without having to guess or worry about outing themselves to someone who is not safe (Hadland et al., 2016). Finally, once ready, healthcare providers should consider registering with the Gay and Lesbian Medical Association (GLMA) provider directory which helps patients find welcoming, culturally competent and safe healthcare providers (Waryold & Kornahrens, 2020). Taken together, these elements combine to create a solid foundation on which significant progress can be made towards effectually reducing the healthcare disparities experienced by the LGBTQIA+ community.

REDUCING LGBTQIA+ HEALTH DISPARITIES

Project Model

Kotter's Model for Change roots itself in an eight-step process that an organization must move through for permanent change to occur. Step 1: *Establishing a sense of urgency* involved examining if there was complacency amongst providers and staff that had led to tolerance of the healthcare disparities faced by LGBTQIA+ patients, and then, creating a sense of urgency to overcome this complacency and prompt the need for change. Step 2: *Creating the guiding coalition* with both leaders and managers was the next stage. This involved recruiting individuals from each of the clinic departments (providers, nursing, front desk, billing, and lab) to form a team of champions to propel the clinic towards change. Step 3: *Developing a vision and strategy* involved helping the guiding coalition to envision a welcoming, inclusive, and safe primary care office for LGBTQIA+ patients as something that was desirable, actionable, clear in scope, and easily and succinctly communicated to others. Step 4: *Communicating the change vision* involved repeatedly disseminating the vision through the guiding coalition to the providers and staff so that they too developed the sense of urgency for change and the understanding that their participation was crucial in this process. Step 5: *Empowering employees for broad based action* required assessment of any structural barriers that may have inhibited full engagement in the vision by employees including providing adequate training in LGBTQIA+ healthcare, and adjustments to the EMR for efficient and effective usage by providers and staff. Step 6: *Generating short-term wins* involved creating smaller benchmarks towards the vision such as formally recognizing staff for consistent proper pronoun usage or gender-neutral language. This helped to provide the team with positive reinforcement along the way as they achieved smaller, but essential goals. Step 7: *Consolidating gains and producing more change* included combining all the smaller successes achieved along the way to help propel the clinic towards even more

REDUCING LGBTQIA+ HEALTH DISPARITIES

profound change. Finally, Step 8: *Anchoring new approaches in the culture* will only come once the team has seen these successes repeatedly, and there has been a consistent reinforcement of a culture that is welcoming and inclusive of LGBTQIA+ patients (Kotter, 2012). See Appendix D, [Figure D1](#) for a graphic representation of these eight steps.

Additional Theoretical/Prescriptive Model

In addition to Kotter's Model for Change, Nisly et al. (2018) has published an LGBTQ inclusive healthcare model for developing an inclusive and welcoming LGBTQ clinic that is easily adapted to a primary care environment and integrates well with Kotter's 8 steps. Kotter begins with establishing a sense of urgency. Likewise, the LGBTQ inclusive model suggests identifying what services and programs are lacking for LGBTQ patients, acquiring buy-in from the leadership within the clinic, and identifying champions/a team of both LGBTQ-identified providers and allies to address the needs of the clinic, trainings that will be essential, and the overarching vision of the project (analogous to Kotter's guiding coalition and developing a vision and a strategy). Next, Kotter's model communicates the change vision and empowers broad based action. To this end the LGBTQ inclusive model suggests identifying the barriers that exist and solutions for removing them and training all staff and providers in collection of SOGI data, gender identities, sexual orientations, gender neutral language, and proper name and pronoun usage. It also suggests addressing any personal biases within the clinic through education and open dialogue. Designating and clearly marking gender neutral/inclusive bathrooms within the clinic, and training billing staff in proper billing and coding to avoid denial of coverage for routinely covered visits, medications, and procedures (especially for transgender patients) are also essential components of the LGBTQ inclusive healthcare model. Finally, forming alliances with nearby specialists and mental health providers experienced in the needs of

REDUCING LGBTQIA+ HEALTH DISPARITIES

sexual and gender minorities will ensure safe referrals for patients. Once these steps have been taken, the final 3 steps in Kotter's Change Model (generating short-term wins, consolidating gains and producing more change, and anchoring new approaches in the culture, can be implemented to ensure the interventions endure in a consistent and effective manner See Appendix D, [Figure D2](#) for a graphic representation of the integration of these steps and Kotter's Change Model.

Description of the System

The medical center where this project was implemented was a small, private, family practice medical center in New England located about 35 miles from the next major city to the north or south. At the time, said medical center was serving about 19,000 active patients from the surrounding communities. The center included an in-house laboratory and pharmacy and was staffed by about 26 people including 5 providers (4 MDs and 1 APRN), 3 nurses, 5 medical assistants, 3 laboratory staff, 5 front desk staff, 4 billing staff, and an office manager.

Setting

Prior to implementation of this project, the website, waiting room, and exam rooms of the medical center all contained print and digital media that consistently displayed only heteronormative and cisgender imagery. The bathrooms were single stall and did not designate gender. Additionally, the intake form queried name and gender (male or female), and marital status only. Finally, the EMR and exam templates did not contain dedicated fields beyond those gathered in the pre-implementation intake form (i.e., name and the binary gender).

While very often articles on creating a welcoming healthcare environment for LGBTQIA+ individuals have largely been published from within and targeted towards larger institutions (Eckstrand et al., 2017; Furness et al., 2020), the model proposed by Nisly et al.

REDUCING LGBTQIA+ HEALTH DISPARITIES

(2018), though published within a larger academic medical center, has reportedly been successfully implemented in private practice settings and was easily adapted to this smaller scale center. Targeted modifications included having to adapt for a less sophisticated EMR than the one described by Nisly, et al. (2018), a lack of a dedicated LGBTQIA+ pharmacist, and a lack of a legal counseling center.

Need

Within the medical center, the providers and staff lacked a basic awareness of how sexual orientation and gender identity has developed far beyond their original definitions, the myriad of ways in which this community has specific healthcare needs, and even the basic terminology and gender-neutral language skills that are necessary to provide an inclusive and safe space for their LGBTQIA+ patients. In addition, as mentioned previously, the physical office space as well as the website contained no visual representation or communication to the LGBTQIA+ community that they were welcome, safe, and a valued part of this family practice medical center. Finally, the intake form and EMR lacked additional fields that queried about preferred name, correct pronouns, sex assigned at birth, and partner status. As such, the need for interventions was both present and significant.

SWOT Analysis

The internal strengths that were present within the medical center included a good reputation within the community, an on-site laboratory that could be used to monitor hormone levels, an on-site pharmacy that could carry medications that aid in gender affirmation, evidence-based clinicians, and an enthusiastic nursing and front desk staff that were interested in this project. The internal weaknesses that were present within the center and represented potential barriers to this project included a lack of specific LGBTQIA+ representation within the

REDUCING LGBTQIA+ HEALTH DISPARITIES

infrastructure of the center, a lack of preparation and experience on the part of the providers and staff, providers who had been practicing for decades, were accustomed to practicing in a certain way, and could have refused to make changes, very busy providers and staff resulting in a lack of time for LGBTQIA+ focused trainings and meetings, and a lack of any major financial resources to invest in these changes.

Externally, opportunities that represented potential facilitators for this project included very few LGBTQIA+ experienced primary care providers within 25 miles of the medical center (thus presenting a gap that needed filling), and the fact that opening to this patient population had the potential to bring in many new patients and contribute to the profitability of the center. Additionally, as society moves towards increased LGBTQIA+ visibility and inclusivity, creating a welcoming, inclusive, and affirming primary care medical center had the potential to elevate this medical center as a local innovator in the cultural movement. Finally, external threats that could have presented potential barriers to this DNP project included negative patient/community perception in a somewhat conservative surrounding community, and insurance coverage restrictions for gender affirming treatments or procedures. A graphic representation of this SWOT analysis can be found in Appendix D, [Figure D3](#).

Goal and Aims

This DNP project evaluated the implementation of an evidence-based model for creating an affirming, inclusive, culturally competent, and safe primary care environment for LGBTQIA+ patients within a family practice medical center, with the intended outcomes of increased patient disclosure of sexual orientation and gender identity, and improved staff self-efficacy with and improved attitudes towards implementing the interventions. This project had the following aims:

REDUCING LGBTQIA+ HEALTH DISPARITIES

1. Develop a program to adapt an LGBTQ inclusive healthcare model for a small primary care medical center through changes to the physical/digital infrastructure of the clinic, collection of SOGI data via a revised intake form, and trainings for providers and staff.
2. Implement the adapted LGBTQ inclusive healthcare model and evaluate engagement with the revised intake form, patient disclosure of sexual orientation and/or gender identity, provider and staff self-efficacy in implementing the model, and 3 implementation outcome measures.
3. Make recommendations for scaling and sustainability of changes as a part of the cultural expectation within the medical center through monitoring of increased patient SOGI disclosure and staff self-efficacy in implementing the model, and later expanding the intervention to include the medical center's sister businesses.

Chapter 3

Methods

Though health care disparities disproportionately affect LGBTQIA+ patients, engagement with this population through primary care provides an avenue to begin to address some of these inequalities in a tangible and concrete way. As such, this DNP project evaluated the implementation of an evidence-based model for creating an affirming, inclusive, culturally competent, and safe primary care environment for LGBTQIA+ patients within a family practice medical center, with the intended outcomes of increased patient disclosure of sexual orientation and gender identity, and improved staff self-efficacy with and improved attitudes towards implementing the interventions. This project was quality improvement in design and included adjustments made to the physical/digital infrastructure of the medical center, a revised intake form and workflow to collect SOGI data, and trainings for providers and staff. Once staff completed their respective trainings, every patient at the center was given the revised intake form upon arrival to collect SOGI data, preferred names, and correct pronouns. Evaluation of these interventions took the form of a pre-implementation chart review to garner demographic information about the center's current LGBTQIA+ patient population, staff self-efficacy surveys, an implementation outcome measure, and a post-intervention assessment of SOGI disclosure and patient engagement with the revised intake form.

Aim 1: *Develop a program to adapt an LGBTQ inclusive healthcare model for a small primary care medical center through changes to the physical/digital infrastructure of the clinic, collection of SOGI data via a revised intake form, and trainings for providers and staff.*

As supported by the review of the literature and the inclusive healthcare model, the following 6 areas required development: clinic physical and digital infrastructure, social

REDUCING LGBTQIA+ HEALTH DISPARITIES

constructs, the intake form and intake process, education/training for providers and staff, data collection, and implementation monitoring.

1. Clinic Physical/Digital Infrastructure

- Examined the state of the clinic with regards to LGBTQIA+ inclusivity. This included:
 - A pre-implementation chart review that was conducted to ascertain an estimate of the medical center's LGBTQIA+ patient population. See [Appendix E.1.a](#) for breakdown of the chart review process.
 - Assessment of clinic physical and digital infrastructure (waiting room, exam rooms, bathrooms, and website) for areas where improvement in LGBTQIA+ affirmation and inclusivity was needed. See [Appendix E.1.b](#) for assessment work breakdown.
- Examined clinic EMR and developed solutions for integration and usage of SOGI data, preferred names, correct pronouns, and patient confidentiality. See [Appendix E.1.c](#) for the EMR assessment. See [Appendix E.1.d](#) for SOGI integration into EMR interface development.

2. Social Constructs

- Identified champions for LGBTQIA+ healthcare inclusivity within the clinic and put together a guiding coalition for the project. See [Appendix E.2.a](#) for a list of champions.
- Obtained buy-in from clinic leadership. See [Appendix E.2.b](#) for a full stakeholder analysis.

3. Intake Form/Process

- Developed an intake form adapted from the National LGBTQIA+ Health Education Center sample intake form to collect SOGI data as well as sex assigned at birth, legal

REDUCING LGBTQIA+ HEALTH DISPARITIES

name, chosen name, correct pronouns, and partner status. See [Appendix E.3.a](#) for the adapted sample intake forms for both new and existing patients.

- Developed a new front desk workflow for incorporating preferred names and correct pronouns collected via the revised intake forms into the practice manager pop-up and communicating pertinent information to providers and staff. See [Appendix E.3.b](#) for new workflow breakdown.
- Developed a new clinical staff workflow for incorporating disclosed SOGI information collected via the revised intake forms into the EMR in a systematic and consistent fashion. See [Appendix E.3.c](#) for new workflow breakdown.

4. Education/Training for Providers and Staff

- Developed staff and provider trainings that covered:
 - LGBTQIA+ health care disparities
 - gender identities
 - sexual orientations
 - collection of SOGI data
 - gender neutral language
 - proper name and pronoun usage
 - proper billing codes
 - microaggressions/implicit bias
- Trainings included:
 - Online training modules
 - In-person practice sessions in which staff worked through the principles they learned in the training modules

REDUCING LGBTQIA+ HEALTH DISPARITIES

- Printed handouts
- See [Appendix E.4.a](#) for a breakdown of department trainings, modules, and handouts.

5. Data Collection

- Adapted the validated Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM), and Feasibility of Intervention Measure (FIM) (Weiner et al., 2017) to assess implementation outcomes.
- Developed a Likert-style self-efficacy survey with a 0-100 rating as outlined by Albert Bandura (Bandura, 2006) for providers and staff.
- Both surveys were administered before training and again 8 weeks after implementation once providers and staff had some experience with the interventions.
 - Surveys were anonymous and identified only by a number that was used for observation of departmental trends. See [Appendix E.5.a](#) for sample of both surveys.

6. Implementation Monitoring

- Adapted the monitoring process as outlined by Angus et al., 2003 to include interviews with department managers, observations, and field notes to ascertain how the implementation was proceeding, if there were external factors in the environment and work climate that were factoring into the implementation process, and if there were any issues that needed to be addressed in real time. See [Appendix E.6.a](#) for a sample of the interview worksheet for department managers.

Aim 2: *Implement the adapted LGBTQ inclusive healthcare model and evaluate engagement with the revised intake form, patient disclosure of sexual orientation and/or gender identity,*

REDUCING LGBTQIA+ HEALTH DISPARITIES

provider and staff self-efficacy in implementing the model, and 3 implementation outcome measures.

Implementation

Aim 2 implementation involved a 6-step process:

- Step 1: Training of providers and staff. See [Appendix F.1.a](#) for a detailed breakdown of center departments and their applicable training modules and schedules.
- Step 2: Changes to physical infrastructure in the clinic. See [Appendix F.1.b](#) for work breakdown of changeover.
- Step 3: All patients (new and existing) receive the revised intake form upon arrival. *
- Step 4: Implementation of the newly developed front desk workflow to enter preferred names and correct pronouns acquired from the intake form into the EMR/practice manager.*
- Step 5: Implementation of the newly developed clinical staff workflow to enter SOGI data acquired from the intake form into the EMR.*
- Step 6: Demonstration of cultural competency by staff and providers which include addressing patients by their preferred name and correct pronouns and communicating using gender neutral language when possible.*

*Steps 3, 4 and 5 and 6 were implemented simultaneously.

Evaluation

- Self-efficacy survey for staff: A 0-100 rating Likert-style based survey (see [Appendix E.5.a](#)) administered immediately prior to trainings, and again after the providers and staff had worked with the intervention for 8 weeks to ascertain the progression of self-efficacy

REDUCING LGBTQIA+ HEALTH DISPARITIES

as the implementation rolled out. Survey responses were analyzed using a paired t-test analysis to assess if any significant changes occurred over time.

- Implementation Outcome Survey: 3-part validated scale adapted from Weiner et al. (2017) ([Appendix E.5.a](#))
 1. Acceptability of Intervention Measure (AIM)
 2. Intervention Appropriateness Measure (IAM)
 3. Feasibility of Intervention Measure (FIM)
 - Survey responses were analyzed using descriptive statistics to calculate scores for each measure.
- Intake Form Engagement Review: A once weekly review of engagement with the SOGI fields in the revised intake form was done to ascertain:
 1. If the form was engaged with (yes or no)
 2. If a preferred name was given (yes or no)
 3. If pronouns were designated (yes or no)
 4. Patient demographic data (sexual orientation, gender identity, patient percentages, age groups, and new vs existing patient).
 - At the end of the measurement period, descriptive statistics and Chi Square analyses were used to analyze these data and to ascertain if any trends or significant differences were revealed.
- Implementation Monitoring
 - Twice monthly check-in meetings/interviews with department managers to ascertain how the implementation roll-out was proceeding, to uncover any

REDUCING LGBTQIA+ HEALTH DISPARITIES

evolving issues, and to strategize adjustments to the roll-out accordingly. See [Appendix E.6.a](#) for the sample interview worksheet.

- Regular observations and field notes were taken to provide context and understanding of the surrounding environment and work climate as these external factors could significantly affect the level of success achieved with any implementation (Angus et al., 2003).

Aim 3: *Make recommendations for scaling and sustainability of changes as a part of the cultural expectation within the medical center through monitoring of increased patient SOGI disclosure and staff self-efficacy in implementing the model, and later expanding the intervention to include the medical center's sister businesses.*

Sustainability:

- Aim 3 will involve quarterly progress reports to providers and staff that will detail trends in patient disclosure with the desired outcome of demonstrating to the staff the impact that they are having.
- Consistent positive reinforcement will also be used to bring attention to providers and staff who make the desired changes, communicate in gender neutral language, and use correct names and pronouns. Department managers/project champions will be tasked with observing their staff for these changes and delivering the positive reinforcement.

Scalability

- Next steps for this project include introducing these improvements to the medical center's sister-businesses.

REDUCING LGBTQIA+ HEALTH DISPARITIES

- Future scaling can also include offering gender-affirming treatments (hormone therapy, referral for gender-affirming surgeries etc.) to applicable patients. This will start with the project lead but can scale up to the other providers as they become more comfortable.

Dissemination Plan

Dissemination of this project will include abstract submission and poster presentation at the 34th Annual Scientific Sessions of the Eastern Nursing Research Society. Additionally, this project manuscript will be submitted to the peer reviewed journal, *LGBT Health*, for possible publication. Finally, guest lecturing at universities to bring awareness to LGBTQIA+ health care disparities and provide guidance to students on how to start making changes early in their training/careers will also be a key element in disseminating this information and working towards further reducing the disparities that the LGBTQIA+ community faces.

Project Timeline

During the summer of 2021 (6/1/21-8/31/21) development took place within the areas of clinic physical and digital infrastructure, social constructs, the intake form and intake process, and the education/training for providers and staff. Additionally, development of the staff self-efficacy survey, adaptation of the implementation outcome survey, and the pre-intervention chart review were also completed. Then, on 9/1/21, staff and providers were asked to complete the first of two self-efficacy and implementation outcome surveys. Then, 9/1/21-9/30/21 staff and providers completed the online training modules, followed by in-person practice sessions for front desk and clinical staff. The weekend of 9/25/21, designated adjustments were made to the clinic infrastructure. Starting 10/4/21, all patients that came to the clinic were given the revised intake form, the front desk staff began employing the new intake workflow, and the clinical staff

REDUCING LGBTQIA+ HEALTH DISPARITIES

the new SOGI documentation workflow. On 11/29/21 the providers and staff completed a second (identical) self-efficacy and implementation outcome survey. Lastly, the final demographic data collection occurred on 12/17/21. See [Appendix G](#) for a Gantt chart display of this timeline.

Statement Related to Human Subjects

This project was deemed “exempt” from IRB approval by the Yale University IRB. Ethical considerations included upholding the highest confidentiality standards, and respect for patient privacy and safety.

Systems Considerations and Implications

Leadership and Stakeholder Engagement

The medical center where this project was implemented is separated into five specific departments (nursing, reception/front desk, lab, billing, and HEDIS) with one of the physicians as the owner and medical director of the center overall. Project sponsorship, final decisions and approvals were all at the behest said physician. From there, the chain of command followed to the office manager, and then to the respective department managers. While the owner’s sponsorship, support and approval were all necessary to the success of this project, the equal support of the other department managers was also of vital importance, as they possessed control over the concrete and specific changes occurring at the patient level, as well as the ability to reinforce changes or address issues with implementation or compliance within the staff. A third essential element in the success of this quality improvement project was that of the project lead (and this author). As project lead, roles and responsibilities included infrastructure changeover, intake form revision, EMR workaround development, training facilitation, provider liaison, department manager coordinator, data collection and analysis, and sustainability and

REDUCING LGBTQIA+ HEALTH DISPARITIES

dissemination oversight. See [Appendix E.2.a](#) and [E.2.b](#) for a project champions/guiding coalition outline and full stakeholder analysis respectively.

Business/Financial Considerations

The overall budget for this DNP project was approximately \$1,575. This included overtime salary for the staff practice sessions, startup costs including signage, printing materials, and pamphlets, and incentives for staff participation (approximately \$970). It also included an investment that the practice made to the project in allowing for 1.5 hours of training for 21 staff members during work hours totaling approximately \$605.

Cost Benefit Analysis

Rather than a cost avoidance or reduced cost outcome, this intervention is projected to generate revenue over the course of the next 1-2 years. Though it is outside of the scope of this dissertation to evaluate true revenue increases, this intervention has helped to create a resource for the surrounding LGBTQIA+ community in this town. Thus, it is the hope, that LGBTQIA+ community members will begin establishing as patients in greater numbers in the coming years. While these effects will not be seen immediately, with time, this project has the potential to add real financial benefit to the practice overall. Additionally, though cost savings were not the main objective of this project, by possibly retaining more patients who might have otherwise left due to feelings of insecurity, or not feeling welcome, this project has the potential to help reduce losses as well. However, given that these estimates cannot be evaluated for a number of years, these results will not be forthcoming for quite some time.

Potential Benefits to Patients

In addition to revenue generation, it is anticipated that this project will also have a positive effect on patient outcomes. When LGBTQIA+ patients come to know that they have a

REDUCING LGBTQIA+ HEALTH DISPARITIES

medical office where they are welcome, safe, valued, and affirmed, it is anticipated that they will be more likely to visit the office on a more regular basis, to be more compliant with their visits and preventative care, and to seek medical care when they need it (rather than delaying seeking care out of fear of discrimination or rejection). This would then lend itself to patients taking a more active role in their own care, increased patient satisfaction, increased patient safety, and, over time, improved patient outcomes. Improved outcomes could include but are not limited to blood pressure, diabetes and cholesterol under good control, thyroid regulation, and mental health management. In addition to managing these medical conditions, an increase in preventative care including yearly cancer and STI screenings will also have the potential to lead to improved patient outcomes. With mental health in particular, having a more open, trusting, and affirming relationship between patient and provider/clinic, makes it significantly easier to accurately screen for depression, anxiety, and most importantly, suicidal ideation.

Potential Benefits to Staff

It should be noted that though there was not a financial investment, there was a significant emotional/psychological investment on the part of the staff in the process of this implementation. In addition to the workflow being new and slightly more complex than their previous workflow, it required that the staff overcome some of their own biases in the process to help create a welcoming and affirming atmosphere for LGBTQIA+ patients. It involved them becoming more comfortable discussing sexual orientation and/or gender identity with patients, a subject that for many was/is taboo. However, this was also a benefit to the staff as it provided them with the education, awareness, and tools that they need to overcome these biases and feelings of discomfort. As a result of the trainings and work, this project helped them to become

REDUCING LGBTQIA+ HEALTH DISPARITIES

a part of the solution for elevating this underserved patient population, as well as part of the solution as a member of society in general

Chapter 4

Results

Implementation of this quality improvement project occurred over a total of 4 months. In the course of the first month, a non-discrimination policy was posted on the entrance door to the center, on a bulletin board in the waiting room, and also at the check-in window. Additionally, a decal of the “Progress Pride Flag” was also placed on the front door. Each of the bathrooms had their signs replaced with a gender-neutral bathroom plaque, and each of the exam rooms had a “Do Ask Do Tell” poster from the National LGBTQIA+ Health Education Center hung in clear view. At the front desk, two new intake forms were implemented into the workflow (one for new patients and one for existing patients) that inquired about SOGI information, correct pronouns, and preferred names. Pamphlets were also made available in English and Spanish that explained what the new SOGI questions meant and why they were being asked. The new patient intake form was also uploaded to the center’s website for new patients to download and fill out before coming to the office. In addition to the changes to the clinic physical and digital infrastructure, during the first month, all staff and providers completed the trainings that were designated to their respective departments. All staff members completed their trainings during normal work hours with the exception of those who voluntarily brought them home for better focus. Finally, front desk and clinical staff attended a 1 hour, after hours practice session to go over case studies and were paid overtime for their participation.

Throughout the course of the following three months, the front desk and clinical staff successfully implemented the project, providing the new SOGI intake forms to all patients, recording preferred names and correct pronouns into the EMR, and using the designated names and pronouns when indicated. Providers were additionally able to make use of the info with

REDUCING LGBTQIA+ HEALTH DISPARITIES

patients to help them assess risk factors and proper screening based on patients' disclosure of their sexual orientation and/or gender identity information.

A total N of 29 staff members completed the pre implementation intervention outcome and staff self-efficacy survey and a total of 26 completed the post implementation survey (due to a loss of 3 staff members during the same time period). This sampling included the participation of all on-sight staff and providers at the clinic. Overall, staff showed improved scores on all intervention outcome measures from pre-to-post implementation: acceptability (78-83%), appropriateness (79-85%), and feasibility (79-84%) (See [Figure 1](#)). Additionally, staff showed improved self-efficacy with significant differences observed particularly in staff confidence in understanding LGBTQIA+ terminology ($t(25) = -4.4, p = <.001$), confidence in the use of correct designated names and pronouns ($t(25) = -3.1, p = .005$), confidence in the use of gender-neutral language ($t(25) = -3.3, p = .003$), and understanding their respective roles in the project ($t(25) = -3.1, p = .005$) (see [Table 1](#)).

Demographic data was acquired via a convenience sample of patients (N = 371) surveyed over an 11-week period via the revised intake form to collect SOGI information. In general, a majority of patients engaged with the new form (76%), and willingly disclosed sexual orientation (69%) and gender identity (72%) (see [Table 2](#)). Additionally, while there was no relationship found between age group and engagement with the revised intake form ($\chi^2(5, N=371) = 8.2, p = .144$), a relationship was found between age group and the disclosure of pronouns ($\chi^2(5, N=371) = 19.9, p = .001$) with the age group 13-45 years old being more likely to disclose (see [Table 3](#)). Finally, via the pre-implementation chart review (also a convenience sample of patients (N = 588) surveyed over an 11-week period) it was estimated that the LGBTQIA+ patient

REDUCING LGBTQIA+ HEALTH DISPARITIES

population at the medical center was approximately 1.7%. Post-implementation, the LGBTQIA+ patient population was estimated to be 4.9% (see [Table 4](#)).

Figure 1

Implementation Outcome Measure Scores Pre- and Post-Implementation

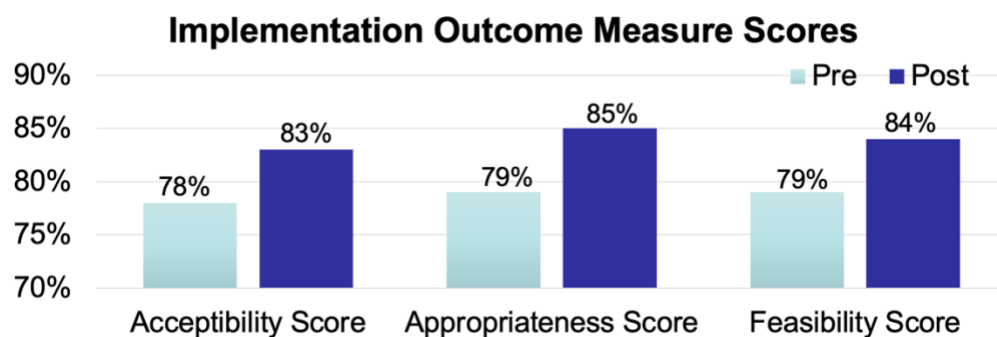


Table 1

Staff Self-Efficacy Scores, Pre- and Post-Intervention

Variable	Pre (mean)	Post (mean)	Mean (difference)	SD	T-score	DF	Two-sided p
Confident in understanding terminology	57.50	79.23	-21.731	25.414	-4.360	25	<.001
Know where to find answers	83.85	89.42	-5.577	20.510	-1.386	25	.178
Confident in use of Names and Pronouns	76.15	92.69	-16.538	27.414	-3.076	25	.005
Confident in Use of Gender-Neutral Language	70.00	86.92	-16.923	26.041	-3.314	25	.003
Understands Role	80.00	93.27	-13.269	21.861	-3.095	25	.005
Every team member is essential for success	88.85	94.62	-5.769	15.277	-1.926	25	.066

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Table 2

Post Intervention Demographic Statistics (N=371)

Demographic Category	Frequency (n)	Valid Percent (%)
Age Groups		
≤12	7	1.9
13-29	50	13.5
30-45	44	11.9
46-62	132	35.6
63-78	119	32.1
79+	19	5.1
Engaged with Intake Form		
No	90	24.3
Yes	281	75.7
Indicated a Preferred Name		
No	130	35.0
Yes	241	65.0
Indicated Pronouns		
No	165	44.5
Yes	206	55.5
Pronouns		
He/Him	93	45.1
She/Her	111	53.9
They/Them	2	1.0
Sex Assigned at Birth		
Male	120	48.2
Female	129	51.8
Legal Sex		
Male	65	46.4
Female	75	53.6
Marital Status		
Married	162	60.2
Partnered	8	3.0
Single	66	24.5
Divorced	27	10.0
Widowed	5	1.9
Engaged	1	0.4
Sexual Orientation		
Straight/Heterosexual	242	91.7
Lesbian/Gay/Homosexual	7	2.7
Bisexual	5	1.9
Asexual	1	0.3
Choose not to answer	9	3.4
Gender Identity		
Male	134	49.8

REDUCING LGBTQIA+ HEALTH DISPARITIES

Female	131	48.7
Nonbinary/Queergender	2	0.7
Choose not to disclose	2	0.7
Patient Status		
New Patient	4	1.1
Existing Patient	367	98.9

Table 3

Relationship Between Age Group and Engagement with Intake Form and Pronoun Disclosure

Age Group	Engaged with Form		Disclosed Pronouns	
	Yes	Yes	Yes	No
≤12	4	3	4	3
13-29	43	7	39	11
30-45	35	9	31	13
46-62	97	35	68	64
63-78	91	28	56	63
79+	11	8	8	11
Pearson Chi Square Analysis	$\chi^2 = 8.222$ N = 371 df= 5 p value = .144		$\chi^2 = 19.905$ N = 371 df= 5 p value = .001	

Table 4

Pre-Implementation Versus Post-Implementation LGBTQIA+ Patient Population Data.

Demographic Category	Pre-Implementation Chart Review (N=588)		Post-Implementation Data Collection (N=371)	
	Frequency (n)	Valid Percent (%)	Frequency (n)	Valid Percent (%)
Sexual Orientation/Gender Identity				
Straight/Heterosexual	588	98.2	242	91.7
Lesbian/Gay/Homosexual	5	0.85	7	2.7
Bisexual	5	0.85	5	1.9
Asexual	0	0	1	0.3
Choose not to disclose	n/a	n/a	9	3.4
Gender Identity				
Male	295	50.2	134	49.8
Female	293	49.8	131	48.7
Nonbinary/Queergender	0	0	2	0.7
Choose not to disclose	n/a	n/a	2	0.7

Chapter 5

Discussion

This project endeavored to create a welcoming, inclusive, and affirming primary care environment for LGBTQIA+ individuals in a small family practice medical center. Through the adaptation of an LGBTQ inclusive healthcare model, this quality improvement project was able to demonstrate positive change towards addressing the healthcare disparities that so disproportionately affect the LGBTQIA+ population in the local community.

Development and Adaptation of the Intervention

Through the review of the literature, it became apparent that while there were numerous examples of health centers collecting SOGI information and implementing more LGBTQIA+ inclusive protocols, by and large most clinics that have outlined the process and published results have been larger FQHC and educational/university institutions with more resources, funding, and more advanced EMRs. As such, this project was implemented to understand if these protocols and models could be adapted in a much smaller, private practice setting with fewer staff and financial resources, and how those outcomes in SOGI data collection would compare to the larger institutions.

Initial development and adaptation of the LGBT healthcare model as outlined by Nisly et al., 2018 began by selecting a team of champions to form a guiding coalition for the project. This team principally consisted of the departmental managers and one provider liaison. Trainings for providers and staff were largely selected from the National LGBTQIA+ Health Education Center (a program of the Fenway Institute in Boston, MA), both because of their ease of use, as well as their offering of CME/CNE credits for the clinical staff (adding further incentive for participation). In addition to being a pioneer in LGBTQIA+ healthcare and sponsoring multiple

REDUCING LGBTQIA+ HEALTH DISPARITIES

annual conferences, the National LGBTQIA+ Health Education center offers an extensive library of continuing education, informational pamphlets, training modules, and other resources towards addressing healthcare disparities for LGBTQIA+ individuals. As such, many of the signs, posters, and informational pamphlets used for this project were also selected from the National LGBTQIA+ Health Education Center's available resources. Additionally, the new intake forms were modeled after those developed, tested, and promoted by the Fenway Institute itself.

Front desk and clinical workflows were ultimately developed via a combination of initial planning and regular feedback from the staff until a more efficient and smooth process was settled on. While it was initially thought that the front desk staff would input the newly collected SOGI data into the EMR, it quickly became apparent that patients were not finishing the intake forms in time for this. As such, the nursing staff was tasked with inputting this information when they were rooming the patient. Even further modifications to this process eventually occurred where now one medical assistant is assigned to review the forms at the end of each day to ensure that all SOGI data was entered correctly to ensure efficiency and accuracy. Additionally, while it was thought that every patient would also fill out a name and pronoun form upon arrival, the front desk developed a way to use the new SOGI intake form to collect and display this information, thereby reducing redundancy and paper usage, and further streamlining the process.

Demographic Findings

Despite misgivings that being located in a relatively conservative area would negatively impact engagement with the new intake form, more than three quarters of patients engaged voluntarily (either filling out all or part of the form), and similarly a majority of patients also willingly disclosed their sexual orientation and gender identity. While the overwhelming majority of patients were heterosexual and cisgender (91.7% and 98.5% respectively), the formal

REDUCING LGBTQIA+ HEALTH DISPARITIES

collection of SOGI information via the new intake form revealed that the LGBTQIA+ patient population was larger than the pre-implementation chart review demonstrated. As previously mentioned, the LGBTQIA+ community comprises approximately 7.1% of the US population and about 4.7% of the New Hampshire population (Conron & Goldberg, 2020; Jones, 2021). While the pre-implementation chart review revealed an LGBTQIA+ patient population of about 1.7%, post intervention, formal SOGI collection revealed the LGBTQIA+ population to be closer to 4.9%, which is comparable with estimates on the state level and much closer to the national level than before. Of note, only 1.1% of the 371 patients surveyed were new patients to the medical center. Thus, through these interventions, SOGI information that was previously unknown or not documented about existing patients was able to be collected and documented in a systematic, functional, and confidential manner in the EMR. Interestingly, of all the intake form questions, the least answered was the declaration of legal sex, with only 37.7% of respondents answering this question. It is hypothesized that this is perhaps because patients felt this question was redundant if their sex assigned at birth aligned with their gender identity. Regardless, the question remained important, for example, in determining insurance coverage for a transgender patient who had changed their name, pronouns, and gender identity, but had not legally changed their sex. By using the form, the clinic billing staff was able to quickly ascertain the legal sex of the patient to properly submit the insurance claim without having to subject the patient to invasive or possibly uncomfortable questioning.

It was initially hypothesized that age would be a determining factor for whether an individual willingly engaged with the new intake form, however Chi Square analysis showed that age did not significantly impact engagement. Interestingly, it did more significantly affect pronoun disclosure with ages 13-45 being more likely to disclose their pronouns, than age >45 or

REDUCING LGBTQIA+ HEALTH DISPARITIES

<13. While the youngest patients' disclosures must be interpreted with caution as many of their forms were likely filled out by their parent/guardian, further study could include investigating why the 13-45 age group was more likely to disclose this information and if this had to do with generational cultural norms, confusion over what the question was asking, or something else entirely.

Implementation Outcomes

The overall success of the intervention was largely predicted by the scores of the intervention outcome measures with scores increasing from pre to post implementation for all three measures (acceptability, appropriateness, and feasibility) and with final scores all being well over 80%. Even though participants periodically saw a decrease in scores on individual sub measures, it should be noted that with only one exception on one sub measure, no individual recorded a score lower than a 3 (“neither agree nor disagree”) thus making even the lower scores quite favorable towards the intervention. Though no cut off scores for interpretation have been made available by Weiner et al. (2017), it was suggested that higher scores should be interpreted as being indicative of more favorable implementation outcomes.

Though staff were generally supportive of the interventions, overcoming personal biases proved critical to the success of the project. This was achieved by maintaining open dialogue, and through teamwork to consistently reinforce the new culture, workflows, and expectations. Regardless of personally held biases, staff were generally able to overcome their feelings of discomfort and began to understand that the interventions represented a permanent change in the cultural expectation of the center rather than a temporary experiment. Even if full acceptance was not achieved in all instances, staff were able to maintain professionalism and operate within

REDUCING LGBTQIA+ HEALTH DISPARITIES

the new cultural expectations and did not derail the implementation of the project once addressed.

Staff Self-Efficacy Outcomes

In general, staff showed improved self-efficacy overall with four out of six measures showing significantly improved scores (including confidence in understanding LGBTQIA+ terminology, confidence in using preferred names and correct pronouns, confidence in using gender-neutral language, and having a good understanding in their individual role in the project). Of the two measures where a significant difference was not observed (knowledge of where to find definitions of LGBTQIA+ terms or concepts and understanding that each team member is essential to the success of the project), it should be noted that the pre-implementation mean scores for these two measures were already very high (83.85 and 88.85 respectively) and were markedly higher than any of the other four measures that saw significant increases. Thus, the lack of a significant increase needs to be interpreted within the context that the staff already felt a substantial amount of self-efficacy in these two measures even prior to the intervention.

Implementation Contextual Elements and Limitations

It should be noted that a number of contextual elements also may have factored into the staff's feelings about the implementation outcome measures as well as their own self-efficacy. In particular, this quality improvement project occurred more than a year into the Covid19 pandemic when both staff and patients alike were feeling the strain and overall fatigue from many months of masking, quarantining, isolation, sickness, and in some cases, death. These factors contributed to the overall impatience and sometimes abuse from the patients, and a significant healthcare worker shortage. These worker shortages and subsequent new hires further exacerbated the difficulties in implementing new workflows as staff struggled to maintain even

REDUCING LGBTQIA+ HEALTH DISPARITIES

the basic functions of the center. Additionally, the staff had to overcome any personal biases or feelings of discomfort as they handed out and had to explain the new intake forms to sometimes resistant and abrasive patients. Aside from merely performing a new workflow, this intervention required them to participate in inquiring about sexual orientation and gender identity, which was considered very taboo to some of them just weeks prior. However, as the staff gained more experience with the new workflow, this became less and less of an issue. Additionally, all new hires have learned this workflow immediately as part of their initial training, and thus, having never done it another way, have accepted it as a normal part of the culture and job.

Comparative Intervention Outcomes

While Nisly et al. (2018) states that their LGBTQ inclusive healthcare model has been successfully implemented in private practice settings, few details of these implementations were offered or found in the process of the review of the literature. This quality improvement project can thus add to the literature by providing details, data, and discussion of how a model initially designed for larger, more complex healthcare systems, can be adapted to smaller, simpler settings irrespective of special resources, large amounts of funding, or advanced EMRs.

Regardless of the relative dearth of published examples of similar interventions in smaller medical settings, there are a number of larger medical centers that have implemented similar programs and published data of their findings. One such publication, entitled “Transforming Primary Care for LGBT People,” detailed the implementation of a quality improvement initiative in 10 federally qualified health centers (FQHCs) in 9 states (Furness et al., 2020). Similarly, this quality improvement initiative included team trainings, usage of resources from the National LGBTQIA+ Health Education Center, the creation of welcoming healthcare spaces, increased SOGI data collection, and increased cancer and STI screening for LGBTQIA+ patients. Overall,

REDUCING LGBTQIA+ HEALTH DISPARITIES

as the result of their efforts, they found a 42.9% increase in pronoun disclosure, and ultimately were able to collect SOGI information on 50.8% of patients (Furness et al., 2020). Similarly, a second quality improvement initiative was also undertaken by the San Francisco Health Network whose interventions also included developing a SOGI steering committee, online and in-person staff trainings, and collection of SOGI data (also via non-mandatory, patient self-administered paper forms). This initiative found that 61.9% of their staff completed the online trainings, and that SOGI data was able to be collected on 35% of the primary care patients in the system (Rosendale et al., 2020). Though it is difficult to compare these two initiatives to the one undertaken in this quality improvement project as the size and scope of each of the two healthcare systems are considerably larger and more complex, given that this project showed 100% on-site employee completion of trainings, disclosure of pronouns by 55.5% of patients, and collection of sexual orientation and gender identity data in 68.7% and 71.9% of patients respectively, these outcomes are at least on par with if not more favorable than these other initiatives in terms of measurable initiation of change.

Review or Modifications for Sustainability

Sustainability of this project will entail continuous monitoring of the implementation to ensure that patients are getting the SOGI intake forms, preferred names and correct pronouns are being put into the practice management program, and that staff are consistently utilizing these prompts. While feedback from the staff helped to form the workflow as it currently stands, periodic check-ins will welcome future suggestions for further efficiency and accuracy. In addition, every newly hired staff member will undergo the same training modules as the staff involved in this project to sustain the forward motion of this initiative. Finally, an examination of

REDUCING LGBTQIA+ HEALTH DISPARITIES

EMR alternatives that can better collect, process, and utilize SOGI information will also be a future consideration for sustainability going forward.

Recommendations for Scalability

In addition to a change in EMR allowing for even better utilization of the SOGI information, as a result of creating a welcoming and safe space for LGBTQIA+ patients and specifically for transgender and gender non-conforming patients, next steps will entail beginning to offer gender affirming care and treatments to patients in search of these resources, as well as beginning to offer lab services for hormone monitoring through the onsite laboratory. Additionally, through dissemination and networking, this project could be implemented in other similarly sized practices looking to create welcoming and affirming spaces for their LGBTQIA+ patients. In such cases, in addition to acting as a model for the implementation, next steps for this project could entail offering assistance and recommendations to practices looking to make similar changes.

Policy and Broader Healthcare Systems Implications

In terms of health policy, as there is still no federal standard for collecting SOGI data, there still exist sizeable gaps in public health data regarding LGBTQIA+ populations (Presidential COVID-19 Health Equity Task Force, 2021). This lack of data thus translates to less visibility, resources, or advocacy for addressing the healthcare disparities confronting this community. Though larger FQHC, and university-based medical centers are beginning to implement these interventions, these institutions are largely located in more urban locations (Furness et al., 2020; Nisly et al., 2018; Rosendale et al., 2020). By increasing the number of smaller centers and practices in suburban and rural settings that offer welcoming LGBTQIA+ healthcare spaces with the regular collection of SOGI data, these interventions can begin to reach

REDUCING LGBTQIA+ HEALTH DISPARITIES

a larger proportion of the country. As more practices start collecting SOGI data and utilizing infrastructure through which public health data can be ascertained and analyzed, we will begin to be able to address LGBTQIA+ healthcare disparities at the more macro, population health level rather than only at the individual/micro level. Furthermore, this will also give greater incentive for legislation to support the standardization and requirement of these measures to further bolster public health data to support disparity reducing measures.

Conclusion

Through the adaptation of a multimodal model for implementation in a private family practice setting, this project offers a roadmap for any practice to create a welcoming, inclusive, and safe healthcare environment for LGBTQIA+ patients regardless of small practice size or limited resources. By demonstrating implementation outcome measures, self-efficacy measures, and demographic data, this quality improvement project details different aspects of the process that can aid in other successful implementations. With positive results including improved scores on all intervention outcome measures (acceptability, appropriateness, and feasibility) and improved staff self-efficacy from pre to post implementation despite the Covid19 pandemic, significant staff shortages, a relatively conservative surrounding community, and any personal feelings of discomfort or bias, this project provides an example of how change can occur even amongst less-than-ideal circumstances. Additionally, this project demonstrates that through the collection of SOGI information, clinics can learn much about their existing patient panels, and how to serve them better. Future interventions based on this project will include an improved EMR system to better collect, store, and utilize SOGI data, and eventually offering gender affirming therapies for transgender and gender non-conforming patients.

REDUCING LGBTQIA+ HEALTH DISPARITIES

Through detailing the processes and results of these interventions, other similarly sized healthcare centers can begin to understand the steps necessary to provide welcoming, inclusive, and safe healthcare spaces. Thus, it is the intention that through consistent, positive, and affirming engagement with this population at all levels of healthcare, and the incorporation of public health data to address the direction of resources, funding, and programs, that the healthcare disparities long faced by the LGBTQIA+ communities can finally begin to be addressed in concrete and substantive ways.

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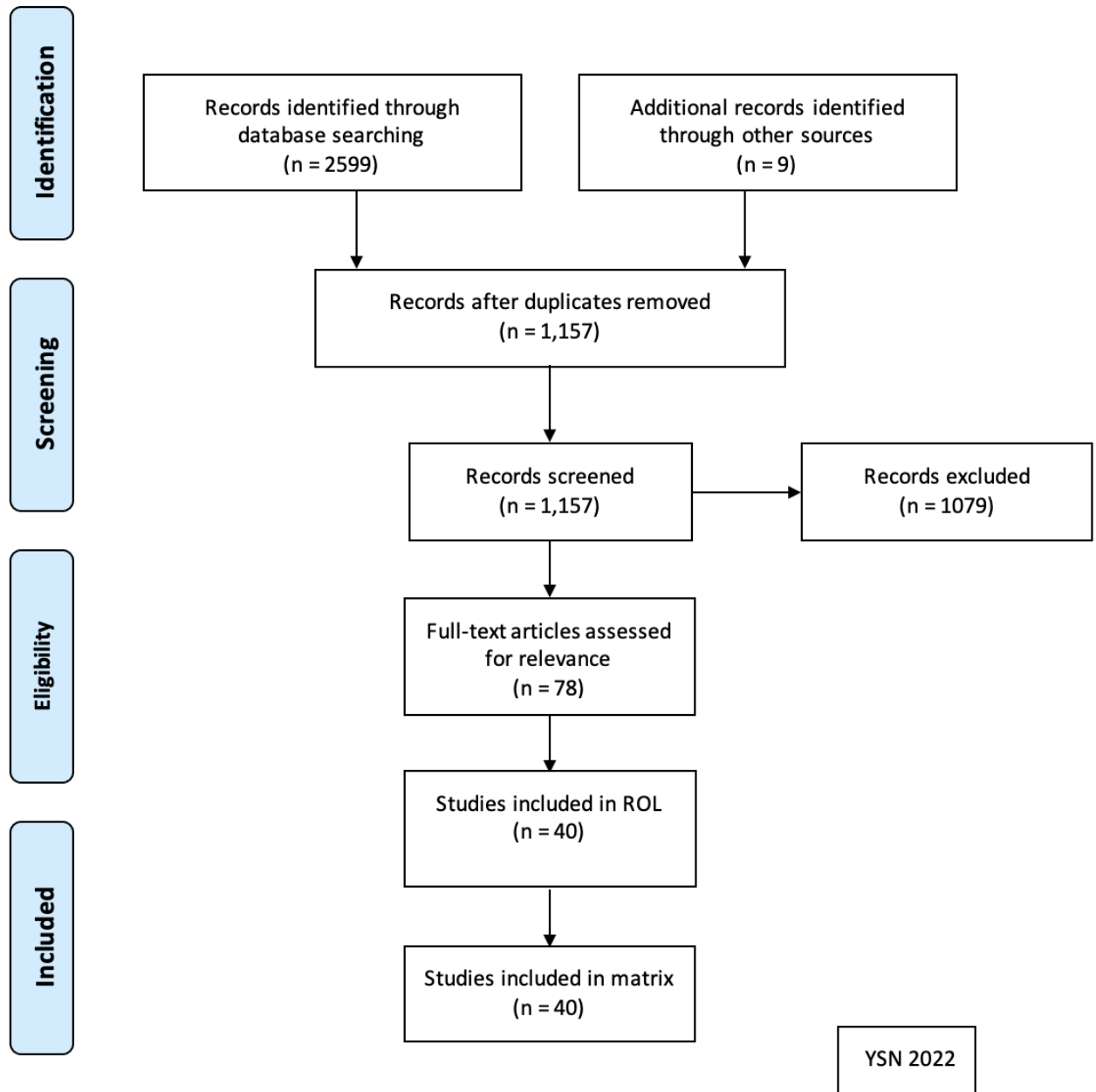
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Appendix A

Prisma (2009) Diagram 1

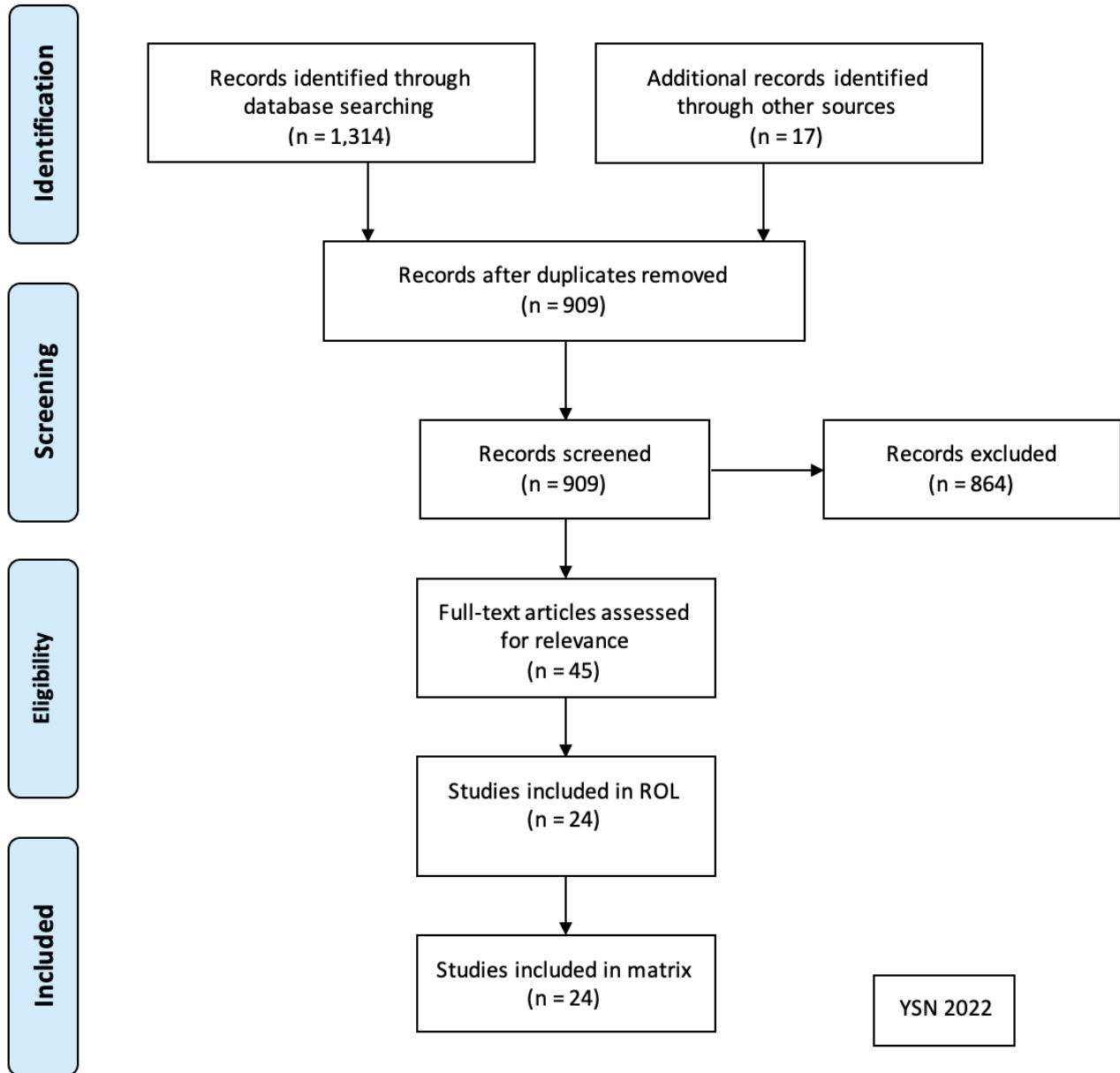
Question: What are the healthcare disparities faced by the LGBTQIA+ community?



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Prisma (2009) Diagram 2

Question: What interventions are currently recommended for reducing the healthcare disparities faced by the LGBTQIA+ community?



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Appendix B

Evidence Matrix 1

Question: What are the healthcare disparities faced by the LGBTQIA+ community?						
Article #	Author & Date	Evidence Type	Sample Size	Study findings that help answer the question	Limitations	JBI Level of Evidence
1	Agénor et al., 2018	Cross-sectional survey	N=150	<ul style="list-style-type: none"> While transgender men were found to have similar, if not better rates of cervical cancer screening when compared to cisgender women, binary transmasculine patients are far less likely to receive cervical cancer screening than non-binary. 	<ul style="list-style-type: none"> Though this study did not explicitly state their limitations, which is suspect, the observable limitations are that it was a cross-sectional study that surveyed mostly white, college-educated, and insured individuals. 	4B
2	Bazzi et al., 2015	Cross-sectional	N=1263	<ul style="list-style-type: none"> Transwomen taking estrogen and preoperative trans men were less likely to receive recommended mammography screening when compared to cisgender women. Bisexual women also had lower breast cancer screening rates when compared to heterosexual and lesbian women. 	<ul style="list-style-type: none"> Data was cross-sectional and cannot speak to causality. Data was self-reported and sometimes incomplete. 	4B
3	Blosnich et al., 2014	Cross-sectional survey	N=93,414	<ul style="list-style-type: none"> When compared to heterosexual women, lesbian and bisexual identifying individuals were more likely to be smokers and binge drinkers. When compared to heterosexual men, gay and bisexual identifying individuals were more likely to be smokers, had significantly more mental distress. 	<ul style="list-style-type: none"> Terminology across the surveys was not standardized. Sample only accounted for 10 states. Relatively small size could have affected power. Some survey measures were vague (i.e., Mental distress). 	4B
4	Blosnich et al., 2016	Cross-sectional, observational analysis	N=988	<ul style="list-style-type: none"> Females in relationships with other women were more than 2.5 times more likely to have heart disease or diabetes and generally had significantly higher rates of obesity, high cholesterol, and asthma when compared to females in opposite-sex relationships. Men in relationships with other men were almost 4 times more likely to have a mood disorder than men in opposite sex relationships. 	<ul style="list-style-type: none"> Used unweighted matched comparison design that could reduce the ability to be a nationally representative sample. Used same sex partnership to identify participants not self-identity (likely resulting in underrepresentation) Does not include unpartnered adults. Does not parse out bisexual from sexual “minority” 	4B
5	Casey et al., 2019	Cross-sectional	N=489	<ul style="list-style-type: none"> 18% of lesbian, gay, and bisexual adults surveyed did not pursue the healthcare they or a family member needed out of fear of discrimination. 	<ul style="list-style-type: none"> Doesn't represent all kinds of discrimination. Does not quantify the severity of the discrimination. 	4B

REDUCING LGBTQIA+ HEALTH DISPARITIES

				<ul style="list-style-type: none"> • 22% of transgender adults did not pursue the healthcare they or a family member needed out of fear of discrimination. • Actual experience of discrimination in a healthcare setting was found in 16% of LGBTQ adults surveyed. 	<ul style="list-style-type: none"> • Does not specify the type of discrimination and if it could be related to other factors as well. • Low response rate 	
6	Charlton et al, 2011	Cross-sectional survey	N = 4,224	<ul style="list-style-type: none"> • Compared to heterosexual females, lesbian-identifying individuals were far less likely to have had a pap smear in the previous 12 months or in their lifetime. 	<ul style="list-style-type: none"> • Sample was not racially/ethnically diverse • Sample was all children of nurses. • Data was all self-reported. 	4B
7	Chaudhry & Reisner, 2019	Cross-sectional	<p>N (Past 12-month major depressive episode): 42,483.</p> <p>N (Past 12-month alcohol/drug dependence): 50,951</p>	<ul style="list-style-type: none"> • Both sexual minority males and females experience significantly greater odds of both a major depressive episode (MDE) in their lifetime, as well as in the past 12 months when compared to heterosexuals. • Bisexual and lesbian females, and gay males also had much higher odds of drug abuse/dependence when compared to their heterosexual counterparts. • When comparing between SM groups, bisexual adults were more at risk for an MDE and to have drug abuse/dependence. 	<ul style="list-style-type: none"> • Used DSM-IV criteria for an MDE. • The abuse and dependence variable were combined. • Excluded people who did not know or refused to respond about their sexual orientation • ≥ 35 years old was combined into one category. 	4B
8	Crissman et al., 2019	Cross-sectional survey based.	N=518,986	<ul style="list-style-type: none"> • While transgender individuals in general report higher rates of mental distress and depressive disorders than cisgender individuals when taken as a whole, when broken down into subcategories, transmasculine individuals report higher rates of mental distress than transfeminine individuals. 	<ul style="list-style-type: none"> • Data is cross-sectional and cannot be used to infer causality. • Only 26 states out of 50 included the question about gender identity reducing generalizability. 	4B
9	Dean et al, 2016	Literature review + Expert Opinion	n/a	<ul style="list-style-type: none"> • Diversity training, though helpful in bringing one's attention to overt biases and discriminatory behavior or practices, does little to address microaggressions that people are often not aware of, especially when these microaggressions are ingrained in a culture. 	<ul style="list-style-type: none"> • Expert opinion is subject to the biases and experiences of the authors and as such should be considered carefully. 	5B
10	Dichter et al., 2019	Qualitative (thematic analysis and principles of grounded theory)	N=25	<ul style="list-style-type: none"> • Most providers agree that knowing GI and organs present is important. • Many providers do not generally ask about GI, current pronouns, or sex assigned at birth expressing feelings of discomfort or insecurity around the topic. • Some were worried that asking about GI may be offensive (to both cisgender and transgender patients). • Even when SOGI data was obtained, EMRs have yet to catch up to efficiently and effectively process and display these data. 	<ul style="list-style-type: none"> • All participant providers were from the same healthcare institution and used the same EMR. • This health center is also located on the East Coast where there are significant LGBTQ resources. • Providers may have biased their responses to appear more "socially desirable" 	3

REDUCING LGBTQIA+ HEALTH DISPARITIES

11	Flanagan & Peters, 2020	Cross-sectional	N=136	<ul style="list-style-type: none"> • Asexual individuals often experience pathologization of their sexual identity as providers try to find a mental or physical explanation for them. • Asexual individuals often avoid talking about or disclosing their identity altogether to avoid unnecessary and inaccurate diagnoses. • Healthcare providers' lack of knowledge and experience with this sexual minority can have damaging consequences. 	<ul style="list-style-type: none"> • This study is cross-sectional and as such causal assumptions cannot be made. • Study is susceptible to self-report bias. • Study did not collect other demographic info. • Did not take romantic orientation into account. 	4B
12	Goldhammer et al., 2018	Cross-sectional design	N=6618	<ul style="list-style-type: none"> • Though percentages have improved, a large number of providers still reported not being familiar with LGBT care and services, and even larger numbers are not even addressing SOGI in their visits at all. • 55.4% of clinicians rarely/never brought up sexual orientation and 71.9% rarely/ never addressed gender identity feeling it was not relevant, might be offensive, for fear of using wrong terms, and/or due to inexperience. 	<ul style="list-style-type: none"> • This study had lots of limitations including geographic homogeneity, and non-standard data collection between centers, however, as there is a dearth of good research on this topic, this study cannot be ignored. 	4B
13	Gonzales & Henning-Smith, 2017	Cross-sectional design using survey data.	N=308,546	<ul style="list-style-type: none"> • Compared to heterosexual men, gay men were more likely to have a cancer or COPD diagnosis and were more likely to smoke. • Compared to heterosexual women, lesbian and bisexual women reported more arthritis, asthma, COPD and obesity, and reported higher rates of smoking, and binge drinking. • LGB respondents were much more likely to have experienced worse depression and mental distress than heterosexual respondents. • Makes a case for individualized and targeted interventions to mitigate these enduring gaps in current healthcare. 	<ul style="list-style-type: none"> • Responses are subject to self-report bias. • There may have been selection bias because participants had to be non-institutionalized, have a landline/cellphone, and be willing to talk about the sexual orientation. • Also, not all states participating in the Behavioral Risk Factor Surveillance System included the questions about sexual orientation thus reducing generalizability. 	4B
14	Gonzales et al., 2016	Cross-sectional design using survey data.	N=68,814	<ul style="list-style-type: none"> • Gay and bisexual men were at higher risk of experiencing moderate to severe psychological distress, excessive alcohol use and increased odds of smoking than heterosexual men. • Lesbian and bisexual women were more likely to have excessive alcohol use, increased odds of smoking and moderate (lesbian) to severe (bisexual) psychological distress, than heterosexual women. • Overall, bisexual adults were found to be the most likely to experience psychological distress. 	<ul style="list-style-type: none"> • All survey responses were self-reported. • There could have been selection bias with regards to sexual orientation. • In-person interviews might have discouraged true candor depending on the area of the country. • This data lacks any trans data. • Cross-sectional, so no causation can be inferred. 	4B
15	Greene et al., 2018	Cross-sectional survey design	N=1,010	<ul style="list-style-type: none"> • In a survey of medical, dental, and nursing students, though possessing overall very positive attitudes towards LGBTQ patients, respondents felt far less 	<ul style="list-style-type: none"> • Sample was taken from one university in the northeast. • Survey was not validated. 	4B

REDUCING LGBTQIA+ HEALTH DISPARITIES

				<p>prepared to treat trans patients as compared to LGBTQ patients.</p> <ul style="list-style-type: none"> • Regardless of positive attitudes, <50% of respondents reported any formal preparation for LGBTQ care in their curriculum. 	<ul style="list-style-type: none"> • Social desirability bias could have affected responses. • Small proportion of the sample was actually LGBTQ 	
16	Horwitz et al., 2020	Cross-sectional design using survey data	N=41,412	<ul style="list-style-type: none"> • When compared to cisgender, heterosexual college students, students identifying as a sexual or gender minority were far more likely to have depression, suicidal ideation, and to have attempted suicide. • When compared to other sexual minorities, pansexual and bisexual students were most likely to have suicidal ideation with pansexual students also having the highest likelihood of suicide attempt in their lifetime. 	<ul style="list-style-type: none"> • Low participation rate (regardless of sample size) • Sample is not nationally representative. 	4B
17	Jackson et al., 2016	Cross-sectional	N = 69,270	<ul style="list-style-type: none"> • Compared to heterosexual women, lesbians had higher rates of obesity, stroke, and functional limitations. • Compared to heterosexual men, gay men were more likely to have HTN and heart disease. 	<ul style="list-style-type: none"> • Study is cross-sectional and thus only gives a snapshot in time while sexual orientation identity can be fluid and dynamic. • Data is self-reported and may be subject to bias. 	4B
18	James et al., 2016	Cross-sectional design using survey data	N=27,715	<ul style="list-style-type: none"> • 33% of trans patients experienced one or more of the following in the last year in a healthcare setting: refusal of care, verbal harassment, physical or sexual assault, or having to teach their provider about trans people. • 23% did not pursue healthcare when needed due to fear of being treated poorly. • Respondents had disproportionately high rates of attempted suicide with 40% responding that they had tried at least once in their lifetime. 	<ul style="list-style-type: none"> • Participants were not randomly sampled and thus cannot be generalized to all trans people. • Required access to a computer to participate. 	4B
19	Kachen & Pharr, 2020	Cross-sectional national survey	N=27,715	<ul style="list-style-type: none"> • Nationwide, it is estimated that nearly 500,000 transgender individuals are affected by healthcare disparities in the form of discrimination, mistreatment, denial of care, delaying care, and provider inexperience. • 1/3 of those surveyed (all transgender participants) reported having experienced discrimination in a healthcare setting in their lifetime, with transfeminine participants experiencing the highest rates. • Over 1/3 of nonbinary participants reported delaying needed medical care due to not being able to afford it. • Fearing discrimination, 27.6% of transmasculine respondents reported delaying needed medical care. 	<ul style="list-style-type: none"> • Data in this study were weighted based on estimates of the overall national transgender population which could be inaccurate without a more accurate population estimate. • This study does not include intersex individuals. • Also lacks generalizability because of potential recall and sampling bias. 	4B

REDUCING LGBTQIA+ HEALTH DISPARITIES

20	Kattari & Hasche, 2016	Cross-sectional secondary data analysis	n = 5,885	<ul style="list-style-type: none"> • 1 in 5 of the participants experienced discrimination and harassment when in a healthcare setting regardless of age. • Older age was not associated with reporting harassment and victimization and was less likely to be associated with discrimination. This was possibly due to generational differences in what was considered discrimination. 	<ul style="list-style-type: none"> • Data are cross-sectional and thus cannot help to determine causality. • Questions were about lifetime experiences not frequency of experiences. • Participants needed internet access. • Older age group lacked racial/cultural diversity. 	4B
21	Kosenko et al., 2013	Mixed Methods: Cross-sectional survey and qualitative design	N = 152	<ul style="list-style-type: none"> • 71% of transgender identifying individuals experienced mistreatment in a healthcare setting including being verbally abused, denial of care, and even compulsory treatment. • 23% reported having experienced more than 1 experience of maltreatment in a healthcare setting. 	<ul style="list-style-type: none"> • Used non-probability sampling. • Did not query <i>when</i> mistreatment occurred, so could not follow trends. 	3E
22	Ma et al., 2020	Cross-sectional analysis	N=164,370	<ul style="list-style-type: none"> • Despite still being at risk for prostate cancer, transgender women have lower rates of PSA tests than heterosexual, cisgender men. 	<ul style="list-style-type: none"> • Study is cross-sectional and thus cannot speak to causality. • The transgender sample in this study was quite small. 	4B
23	MacApagal et al., 2016	Cross sectional data pulled from within a longitudinal study.	N=206	<ul style="list-style-type: none"> • This study compared experiences within the LGBT community, rather than between the LGBT and heterosexual community • Trans and queer/questioning study participants were more likely to experience verbal harassment and disrespect when compared to LGB. • Trans and queer/questioning study participants were more likely to delay needed healthcare • Trans and queer/questioning study participants were more likely to report negative outcomes after identity disclosure 	<ul style="list-style-type: none"> • Participants all came from a single, urban location reducing result generalizability. • Sample size was too small to allow for analysis between sexual orientation or gender identities. • Study was based on perceptions rather than objective measures. 	4B
24	Marshal et al., 2012	Cross-sectional	N=527	<ul style="list-style-type: none"> • Sexual minority girls reported significantly more depression, anxiety, borderline personality disorder, suicidal ideation and self-harm when compared to heterosexual girls. 	<ul style="list-style-type: none"> • Limited to the city of Pittsburgh and thus results are not generalizable. • Sexual minorities only made up 6% of the total N. 	4B
25	Nadler et al., 2019	Qualitative interview design	N=25	<ul style="list-style-type: none"> • Despite acknowledging that SOGI data can be useful, providers reported not regularly collecting SOGI data citing inexperience, discomfort with asking, and worry that patients would also be uncomfortable. • Current EMRs are generally not set up for easy input and efficient usage of SOGI data. 	<ul style="list-style-type: none"> • All participants were from the same health center, using the same EMR. • Possibility of social desirability bias 	3

REDUCING LGBTQIA+ HEALTH DISPARITIES

26	Newcomb et al., 2020	Cross-sectional data pulled from two survey studies	N=214	<ul style="list-style-type: none"> • Transgender youth were much more likely to have depression and experience suicidal ideation/suicide attempt when compared to cisgender and sexual minority youth. 	<ul style="list-style-type: none"> • Data is cross-sectional and thus cannot explain causation. • Low representation of certain gender identities. • Increased likelihood of a Type I error due to large number of analyses. 	4B
27	Ngaage et al., 2021	Retrospective web-based study.	N=92	<ul style="list-style-type: none"> • Many private and government health insurances have complicated policies with difficult to achieve medical necessity criteria and frequently do not cover all gender-affirming therapies needed by transgender patients. • 1 in 10 health insurance providers still do not offer coverage for gender affirming therapies. 	<ul style="list-style-type: none"> • Study was retrospective in nature • Stated policies may not reflect actual coverage provided. 	3E
28	Nguyen, 2020	Literature Review	n/a	<ul style="list-style-type: none"> • Medical and nursing schools are still very lacking in offering any kind of official LGBTQIA+ curriculum • Trainings in LGBTQIA+ healthcare for healthcare staff and providers have been shown to be effective. • Health insurances still do not cover many of the gender affirming therapies needed by transgender patients. 	<ul style="list-style-type: none"> • Though this is a literature review, it was not systematic, there was no indication of how many articles were reviewed and how the information was selected, and as such the results should be considered carefully. 	5
29	Paradiso & Lally, 2018	Qualitative Descriptive Design	N=11	<ul style="list-style-type: none"> • Though generally feeling positive towards transgender patients, a lack of formal education in transgender healthcare while in school contributed to feelings of uncertainty and even awkwardness when treating and interacting with this population. 	<ul style="list-style-type: none"> • All participants came from the northeast, and a majority from NYC • Possibility of social acceptability bias. 	3
30	Pharr et al., 2019	Cross-sectional design	N=9016	<ul style="list-style-type: none"> • Lesbian and bisexual women were more likely to smoke cigarettes/E-cigarettes and more likely to drink heavily/binge drink when compared to straight women. • Lesbian and bisexual women reported lower rates of pap testing compared to straight women • Compared to lesbian and straight women, bisexual women ≥ 40 years old were less likely to report having had a mammogram. • Lesbian and bisexual women are more likely to demonstrate higher risk health behaviors, have higher rates of depression and receive less preventative care when compared to straight women. 	<ul style="list-style-type: none"> • Because this data is cross-sectional, causation cannot be inferred. • Study participants needed to have access to a phone, and to not be institutionalized at the time of the survey. • Self-reported information could be biased. • Only 26 states included the sexual orientation question on their survey. • Possible self-selection bias to participate in the study. 	4B
31	Rahman et al., 2019	Cross-sectional design	N=148	<ul style="list-style-type: none"> • Bisexual transmen and women were found to have much lower levels of education on HPV than cisgender women. • Bisexual transmen were found to have significantly lower rates of cervical cancer screening than the 	<ul style="list-style-type: none"> • Study was cross-sectional • Possible recall-bias for participants • Convenience sampling was used, and ability to use the internet was required. 	4B

REDUCING LGBTQIA+ HEALTH DISPARITIES

				<p>bisexual cisgender women in the study, though their HPV vaccine rate was similar.</p> <ul style="list-style-type: none"> • Bisexual transwomen had significantly lower rates of HPV vaccination as compared to bisexual cisgender women. 	<ul style="list-style-type: none"> • Rating scales were shown to be reliable but were not externally validated. • The sample lacked racial and ethnic diversity 	
32	Reisner et al., 2015	Retrospective cohort study of electronic health record (EHR) data	360	<ul style="list-style-type: none"> • When compared to their cisgender counterparts, depression, suicidal ideation, suicide attempt, and self-harm, are found disproportionately in transgender youth. 	<ul style="list-style-type: none"> • Trans youth are more likely to access mental health services thus making them more likely to be given DSM diagnoses • Retrospective chart review is subject to incomplete documentation, unrecorded information, and differences in information quality. • Samples were not always perfectly matched. • Due to the urban setting of the study, results may not be generalizable. 	3C
33	Reiter & McRee, 2017	Cross sectional study	N=7132	<ul style="list-style-type: none"> • Sexual minority women had a greater risk of HPV infection than heterosexual women surveyed. • Overall, bisexual women had disproportionately higher rates of HPV infection when compared to lesbian women. 	<ul style="list-style-type: none"> • There was no way to test lifetime exposure to HPV, so these results are likely not representative. • Because SO & behavior was self-reported, it could contain bias. • Did not assess for vaccine status. • Few participants had been with only same sex partners for their entire lifetime. 	4B
34	Rosenwohl-Mack, 2020	Cross-sectional, survey-based design.	N=179	<ul style="list-style-type: none"> • Intersex: Compared to national data, the participants in this study reported overall poorer self-rated health, greater functional limitations, and a rate of suicide attempts comparable to that of the transgender community. 	<ul style="list-style-type: none"> • Non-probability sampling • Sample does not represent the entire US intersex population. • Lack of racial/ethnic diversity in sample. • Self-report nature can introduce recall bias as well as unofficial diagnoses. 	4B
35	Rossmann et al., 2017	Mixed methods cross sectional and qualitative thematic analysis	N=206	<ul style="list-style-type: none"> • Reasons why LGBTQ young adults do not disclose SOGI: they were never asked, lack of a good relationship with their provider, fear that it could adversely affect their medical treatment, a lack of understanding of how it is necessary for good healthcare • When disclosure did occur, participants most often noted that providers had “no reaction” which often communicated to the patients that the provider didn’t care, or their disclosure didn’t matter. 	<ul style="list-style-type: none"> • Participants all lived in a large city which contained substantial LGBTQ resources which could reduce generalizability to other populations. • Though the study was both quantitative and qualitative, the N was not large enough to yield quantitative analysis of disclosure experiences. 	3E

REDUCING LGBTQIA+ HEALTH DISPARITIES

				<ul style="list-style-type: none"> • When disclosure was met with affirmation from the provider, it helped to build a better patient/provider relationship. 		
36	Seay et al., 2017	Cross-sectional, survey based	N=91	<ul style="list-style-type: none"> • While most participants (transgender men) recognized the importance of cervical cancer screening, <50% of participants had received proper screening within the last 3 years. • The average rate of HPV screening over the same previous 3-year interval for the US population was over 20% higher. • HPV self-sampling was viewed as the preferred option compared to pap testing by 57.1% of participants, further emphasizing that offering multiple cervical cancer screening methods should be included in gender-affirming care. 	<ul style="list-style-type: none"> • Sample was not nationally representative or randomly selected. • Nonbinary individuals were not included • Self-reporting could introduce bias. • Did not ask about HPV co-testing – which would extend the testing interval to 5 years instead of 3. 	4B
37	Smith & Turell, 2017	Qualitative exploratory descriptive study	N=26	<ul style="list-style-type: none"> • The burden of sexual orientation and/or gender identity disclosure to healthcare providers contributed to participants attitudes towards the current healthcare system. • Micro-aggressions included non-welcoming environments, lack of provider knowledge, misuse of terms, and heteronormative assumptions. • Most participants experienced needing to self-advocate to make sure that they received the proper healthcare. 	<ul style="list-style-type: none"> • Participant self-selection limits the generalizability and could introduce bias. • The sample lacked representation of transmen, bisexual individuals, or anyone of color. 	3
38	Solazzo et al, 2019	Cross-sectional	N = 17,675	<ul style="list-style-type: none"> • Sexual minorities were more likely to be encouraged to get the HPV vaccine when compared to heterosexual participants. • However, providers were less likely to recommend the HPV vaccine or pap smears to lesbian women when compared to heterosexual females. 	<ul style="list-style-type: none"> • All participants were affiliated with the medical field. • Limited racial, ethnic, and class diversity. • No information was gathered on anal paps for males. 	4B
39	Strutz et al, 2015	Cross-sectional	N = 13,088	<ul style="list-style-type: none"> • Disorders shown to disproportionately affect sexual minority women when compared to heterosexuals included asthma, ADHD, depression, anxiety, and STIs. • Sexual minority women were much less likely to have had an annual physical when compared to heterosexual women. • Disorders shown to disproportionately affect sexual minority men when compared to heterosexuals included STIs, anxiety, depression, and migraines. 	<ul style="list-style-type: none"> • Possible reporting bias. • Self-reporting nature of the study could have resulted in the possibility of lack of knowledge of undiagnosed health issues. • Relatively small sample sizes possibly affected the power of the study. 	4B
40	Tabaac et al., 2020	Cross-sectional	N= 31,172	<ul style="list-style-type: none"> • Sexual minorities were less likely to report insurance coverage in the past year when compared to heterosexuals. 	<ul style="list-style-type: none"> • Data are cross-sectional and cannot speak to causality. 	4B

REDUCING LGBTQIA+ HEALTH DISPARITIES

				<ul style="list-style-type: none">• Sexual minorities were more likely to defer pursuing medical attention for reasons including cost, bad experiences in the past, problems with scheduling, and fear of bothering the provider.• Sexual minority women were more often found to have insurance coverage gaps and not have had a physical in over a year, with gay/lesbian women being more likely to delay care in general.	<ul style="list-style-type: none">• Participants were a convenience sample of nursing affiliated individuals which reduces generalizability.• The sample lacked cultural or racial diversity.• The types and cost of insurance included in this study may make it less generalizable to other populations.	
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[Return to text](#)

Evidence Matrix 2

Question: What interventions are currently recommended for reducing the healthcare disparities faced by the LGBTQIA+ community?						
Article #	Author & Date	Evidence Type	N	Study findings that help answer the question	Limitations	JBI Level of Evidence
1	Alpert et al., 2017	Qualitative Focus group design	N=48	<ul style="list-style-type: none"> • Provider comfort with providing care to LGBTQIA patients is paramount. If a provider is uncomfortable, patients know it, and it affects the patient provider relationship substantially. Providers need to take the initiative to educate themselves in LGBTQIA healthcare needs and risk factors and familiarize themselves with the community. • Do not act as a gate keeper to needed treatments. Sexual orientation and gender identity do not fit into any particular box and requiring patients to look or act a certain way to “prove” their gender dysphoria does not foster trust between patient and provider. • Do not make cisgender heteronormative assumptions about people. 	<ul style="list-style-type: none"> • Though not absent, participants of African and Asian descent were under-represented in this study • Intersex participants were also under-represented. • Focus groups occurred largely on the east coast and in urban locations. • Participation required access to email and a computer. 	3
2	Baldwin et al., 2018	Mixed methods: cross-sectional and qualitative	N=119	<ul style="list-style-type: none"> • Using correct pronouns and gender-neutral language when referring to relationships, medical procedures, and physical anatomy communicated respect to patients. • Making disclosure of gender identity a matter of regular protocol and demonstrating experience with transgender and gender nonconforming (TGNC) patients also contributed to overall more positive experiences for patients. • Patients reported more negative experiences when they were misgendered, when the provider did not have experience working with TGNC patients, when they felt pathologized by the provider, and when they were denied care or were referred elsewhere. • Increasing knowledge about TGNC patients should be the responsibility of the provider, and not of the patient to teach them. • Changing the environment of the office to be more welcoming and inclusive. 	<ul style="list-style-type: none"> • Participants were a recruited, non-probability sample. • The sample lacks racial and ethnic diversity. • Participants may have had recall bias. 	3E

REDUCING LGBTQIA+ HEALTH DISPARITIES

3	Bjarnadottir et al., 2016	Integrative review	N=21 studies	<ul style="list-style-type: none"> • In general, people (straight or otherwise) do not mind being asked about their SO/GI. • Most people also seem to understand that this information could prove useful in a healthcare setting. 	<ul style="list-style-type: none"> • Possible publication bias as all of the studies included had been published. • Only 1 acute care setting was represented. • Did not address types of questions or phrasing that is more acceptable. 	4A
4	Dean et al, 2016	Literature review + Expert Opinion	n/a	<ul style="list-style-type: none"> • Suggested interventions: remove microaggressions as much as possible from forms, and make sure there are also inclusive posters, handouts etc. • Training needs to include specific education on microaggressions so that providers and staff can learn how to recognize them in themselves and others and begin the process of relearning. 	<ul style="list-style-type: none"> • Expert opinion is subject to the biases and experiences of the authors and as such should be considered carefully. 	5B
5	Dhillon et al, 2020	Scoping review	N=15 studies	<ul style="list-style-type: none"> • Transmen, overall, prefer to use self-sampling swabs to test for HPV as compared to having a provider do it. • Self-swabbing helped them to feel more in control of the situation, was less traumatic, and resulted in less incongruence between their gender and experience. • Inserting a speculum and taking of the sample can cause increased physical pain in transmen which is thought to be a result of the effects of testosterone on those tissues over time. • A positive patient-provider relationship helped to increase rates of cervical cancer screening in transmen. Part of this is being prepared to offer cervical cancer screening in multiple forms. 	<ul style="list-style-type: none"> • Did not specifically discuss its limitations which is suspect in and of itself. However, there is such little literature on this topic, for the time being, these results cannot be ignored. 	3E
6	Eisenburg et al., 2020	Qualitative study using semi-structured interviews and inductive thematic analysis	N=12	<ul style="list-style-type: none"> • Transgender youth supported the idea that asking about gender and pronouns was important in a healthcare setting, and as their adult counterparts have indicated, communicates respect. • Being asked about gender and pronouns also communicated that it was safe to disclose this information and required less guessing and anxiety on the part of the patient. • When inquiring about gender and pronouns becomes routine for all patients, it normalizes the process, and makes transgender youth feel less singled out. • Beyond knowing gender identity and pronouns, it was necessary for providers to have the proper training and experience to know what to <i>do</i> with this information. 	<ul style="list-style-type: none"> • Almost all participants (11 out of 12) were FTM. • All participants came from a single state. • None of the participants were closeted. 	3

REDUCING LGBTQIA+ HEALTH DISPARITIES

7	Eckstrand et al., 2017	Expert Opinion	n/a	<ul style="list-style-type: none"> • Key elements in instituting organizational change within a healthcare setting include identifying current discriminatory practices within the organization, identifying champions within the organization (including LGBT providers), prioritizing nondiscrimination policies, requirement of training and continuing education in LGBT health for providers and staff, and implementation of SO/GI data collection from all patients. • Incremental implementation of these elements helps to not overwhelm the organization thereby reducing noncompliance. • Positive reinforcement when members start incorporating these elements into their practice is also key to keeping momentum going towards organizational change. 	<ul style="list-style-type: none"> • Though based on expert opinion and other existing change models, this proposed framework is untested and conceptual. 	5B
8	Flanagan & Peters, 2020	Cross-sectional	N=136	<ul style="list-style-type: none"> • Providers should be cautious not to pathologize the asexual identity, by trying to medically treat or diagnose a mental or sexual “problem.” • Providers need to also realize that people who identify as asexual may still have sex, and as such need to be properly screened for risk factors. 	<ul style="list-style-type: none"> • This study is cross-sectional and as such causation cannot be inferred. • Study is susceptible to self-report bias. • Study did not collect other demographic info. • Did not take romantic orientation into account. 	4B
9	Hadland et al., 2016	Literature Review	n/a	<ul style="list-style-type: none"> • When providing healthcare to LGBTQ youth, choice of affirmative, gender-neutral language is essential. • Being up front about being an LGBTQ friendly provider and emphasizing confidentiality (both verbal and in the EMR) can help youth that have had negative experiences in the past to feel more comfortable. • Programming EMRs to notify providers of chosen name and current pronouns is also important. • Apologize for mistakes freely and humbly. • Change will only occur if all staff and faculty do their part to make LGBTQ youth feel welcome (including correct pronoun and name usage). 	<ul style="list-style-type: none"> • Though this is a literature review, it was not systematic, there was no indication of how many articles were reviewed and how the information was selected, and as such the results should be considered carefully. 	5
10	Hayon & Stevenson, 2019	Literature Review	n/a	<ul style="list-style-type: none"> • Providing gender-affirming care includes: <ul style="list-style-type: none"> • Developing a clinical environment that is welcoming inclusive of identifying decals on the door/window, gender neutral bathrooms, representative print media, inclusive intake forms and a posted nondiscrimination policy. 	<ul style="list-style-type: none"> • Though this is a literature review, it was not systematic, there was no indication of how many articles were reviewed and how the information was selected, and as such the results should be considered carefully. 	5B

REDUCING LGBTQIA+ HEALTH DISPARITIES

11	Hudak & Bates, 2019	Qualitative study using in-depth interviews	N=20	<ul style="list-style-type: none"> • LGBTQ+ patients seek care provided by queer friendly providers. • Confidentiality is important, and patients feared sharing of their sexual identity on forms outside of the EMR. • Having more queer-friendly providers available locally without having to travel long distances is also an advantage. 	<ul style="list-style-type: none"> • Sample was more heavily represented by mid-Atlantic participants. • Sample lacked racial diversity. • Males were heavily represented in the sample. 	3
12	Lambrou et al., 2019	Qualitative study using Interpretive phenomenological analysis (IPA).	N=12	<ul style="list-style-type: none"> • While a diagnosis of gender dysphoria may be necessary for the initiation of hormone therapy, providers should be cautious to not pathologize this diagnosis and to avoid acting as a “gatekeeper” to the treatment that a patient seeks. Not all trans patients want surgery or even hormones. • When providers take the initiative to educate themselves on the needs of their trans patients, rather than expecting the patients to teach them, it helps to foster a trust with their patients. • Adjustments towards more positive experiences include representative posters and signs, inclusive medical forms, and staff and provider usage of correct names, pronouns, and gender-neutral language. 	<ul style="list-style-type: none"> • Small sample size of mostly college educated, transmasculine participants, all age 18-35, from the same midwestern location may reduce generalizability to the general population. 	3
13	Maragh-Bass et al., 2017	Mixed methods cross sectional and qualitative design	Quant: Patient N=1516 Provider N=429 Qual: Patient N=715 Provider N=428	<ul style="list-style-type: none"> • A large majority of providers felt that collection of SOGI data would be considered offensive to patients, however patients by a large majority felt oppositely. 	<ul style="list-style-type: none"> • Data was cross-sectional and exploratory. • Transgender opinions were not included as they could not recruit enough for the sample • Limited to ED and primary care settings. 	3E
14	McClain et al, 2016	Expert Opinion	n/a	<ul style="list-style-type: none"> • Ways to communicate that a healthcare setting or provider is LGBTQIA+ friendly or competent: <ul style="list-style-type: none"> • Messages on the organization website or in provider biographies • Accessories to clothing that identify them as a safe person (such as a rainbow or pronoun identifying pin) • Inclusive posters and pamphlets around the office space. • Gender neutral bathrooms 	<ul style="list-style-type: none"> • Expert opinion is subject to the biases and experiences of the authors and as such should be considered carefully. 	5B

REDUCING LGBTQIA+ HEALTH DISPARITIES

				<ul style="list-style-type: none"> • Open and non-judgmental providers who demonstrate knowledge in LGBTQIA+ healthcare and use gender neutral language fluidly. 		
15	Nisly et al., 2018	Expert Opinion	n/a	<ul style="list-style-type: none"> • Steps to for “Developing a Welcoming and Inclusive LGBTQ Clinic” <ul style="list-style-type: none"> • Create a team of champions that represents all major department of your organization including LGBT people. • Obtain buy-in from executive managerial levels of your organization. • Training for providers and staff • Collection of SOGI data • Consistent use of preferred name and correct pronouns. • Transform the physical space to include gender neutral bathrooms. 	<ul style="list-style-type: none"> • Expert opinion is subject to the biases and experiences of the authors and as such should be considered carefully. 	5B
16	Nguyen, 2020	Literature Review	n/a	<ul style="list-style-type: none"> • Trainings in LGBTQIA+ healthcare for healthcare staff and providers have been shown to be effective. 	<ul style="list-style-type: none"> • Though this is a literature review, it was not systematic, there was no indication of how many articles were reviewed and how the information was selected, and as such the results should be considered carefully. 	5
17	Ogden et al, 2019	Qualitative focus group methodology	N=34	<ul style="list-style-type: none"> • Participants were far more likely to disclose their SO/GI if they felt it would inform their healthcare somehow. • People were more likely to share SO/GI if they had a good relationship with their provider but were hesitant about it going into the EMR for <i>all</i> providers to see. However, chosen names, and current pronouns should be visible to all staff and providers. • Some worried that disclosing their SO/GI would result in subpar medical treatment. 	<ul style="list-style-type: none"> • The study was done in a city with significant legal protections for SGM populations. • Because this is qualitative, these data may not be applicable to all populations. • Focus groups might inhibit true feelings if they were different than the majority. 	3E
18	Rossmann et al., 2017	Both cross sectional and qualitative thematic analysis	N=206	<ul style="list-style-type: none"> • When disclosure was met with affirmation from the provider, it helped to build a better patient/provider relationship. • Post disclosure, patients found that providers that demonstrated knowledge with the health and risk factors faced by LGBTQ patients, as well as a fluency with gender identities in general were the ones that fostered a more affirmative experience. 	<ul style="list-style-type: none"> • Participants all lived in a large city which contained substantial LGBTQ resources which could reduce generalizability to other populations. • Though the study was both quantitative and qualitative, the N was not large enough to yield quantitative analysis of disclosure experiences. 	3E
19	Rullo et al., 2018	Mixed methods, random	N=491 & N=7	<ul style="list-style-type: none"> • An overwhelming majority (97%) of heterosexual, cisgender participants had no issues with answering questions about SO/GI on intake forms. 	<ul style="list-style-type: none"> • Questionnaire was in an artificial experimental environment and not their clinical environment which possibly 	2C/3

REDUCING LGBTQIA+ HEALTH DISPARITIES

		assignment experimental design + qualitative analysis			influenced their likelihood to answer the questions about SO/GI. <ul style="list-style-type: none"> • They did not query if participants were “offended” by the questions, only if they were acceptable. 	
20	Seay et al., 2017	Cross-sectional, survey based	N=91	<ul style="list-style-type: none"> • While most participants (transgender men) recognized the importance of cervical cancer screening, <50% of participants had received proper screening within the last 3 years. • The average rate of HPV screening over the same previous 3-year interval for the US population was over 20% higher. • HPV self-sampling was viewed as the preferred option compared to pap testing by 57.1% of participants, further emphasizing that offering more multiple cervical cancer screening methods should be included in gender-affirming care. 	<ul style="list-style-type: none"> • Sample was not nationally representative or randomly selected. • Nonbinary individuals were not included • Self-reporting could introduce bias. • Did not ask about HPV co-testing – which would extend the testing interval to 5 years instead of 3. 	4B
21	Scheffey et al, 2019	Mixed methods (cross-sectional and qualitative)	N=34	<ul style="list-style-type: none"> • Participants often felt restricted when there were only a few options to describe SO/GI and much preferred a free-text option to indicate their gender identity rather than having to check off an “other” box. • Providing a space for patients to write in their identity often results in more accurate engagement, rather than fitting themselves into a box, or declining to answer altogether. 	<ul style="list-style-type: none"> • Sample was comprised of undergrad and grad students from the same East Coast city. • Self-selecting convenience sample. • Social desirability bias possible with focus group method. 	3E
22	Smith & Turell, 2017	Qualitative exploratory descriptive	N=26	<ul style="list-style-type: none"> • Contributing to an overall more positive experience for LGBT patient was making the collection of SO/GI a more universal process amongst all patients, respect and validation for same-sex relationships, and providers who demonstrated knowledge and experience with the needs of LGBT patients. • Provide a safe and welcoming environment with inclusive intake forms. 	<ul style="list-style-type: none"> • Participant self-selection limits the generalizability and could introduce bias. • The sample lacked representation of transmen, bisexual individuals, or anyone of color. 	3
23	The Joint Commission	Field Guide/ Expert Opinion	N/A	<p>Suggested best practices:</p> <ul style="list-style-type: none"> • Inclusive signage and LGBT symbols in clinic • Gender neutral bathrooms • Posted non-discrimination policy • Create an atmosphere where all and their families feel welcome. • Address biases and microaggressions • Address discrimination when it occurs. • Encourage disclosure and collection of SOGI data. • Gender neutral language 	<ul style="list-style-type: none"> • Expert opinion is subject to the biases and experiences of the authors and as such should be considered carefully. 	5B

REDUCING LGBTQIA+ HEALTH DISPARITIES

24	Waryold & Kornahrens, 2020	Literature review/ Expert Opinion	n/a	<ul style="list-style-type: none"> • Elements involved in reducing LGBTQ+ healthcare disparities in an organization <ul style="list-style-type: none"> • Assess for and address implicit bias both at the provider level, and at the organizational level. • Create a welcoming and inclusive clinical environment including a visible nondiscrimination policy, representative decals on the entrance door, gender neutral restrooms, faculty and staff wearing rainbow or pronoun pins, and inclusive intake and medical forms. • Consider registering with the Gay and Lesbian Medical Provider Directory. 	<ul style="list-style-type: none"> • Though this is a literature review, it was not systematic, there was no indication of how many articles were reviewed and how the information was selected, and as such the results should be considered carefully. • Expert opinion is subject to the biases and experiences of the authors and as such should be considered carefully. 	5
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[Return to text](#)

Appendix C

Evidence Tables

Table C1

Risk Factors for Lesbian-Identified and Other Women Who Have Sex with Women

Study	Design	N	Sample Description	Metric	Odds Ratio
Blosnich et al., 2016	Cross-sectional/observational	988	Same-sex partnered women compared to opposite-sex partnered women	Heart disease	aOR: 2.59 (95% CI, 1.19-5.62), p<0.05
				High cholesterol	aOR: 1.89 (95% CI, 1.03-3.50), p<0.05
				Diabetes	aOR 2.75 (95% CI, 1.10-6.90), p<0.05
Jackson et al, 2016	Cross-sectional	38,309	Lesbian women compared to heterosexual women	Stroke	aOR 1.96 (95% CI, 1.14-3.39), p<0.05

[Back to text](#)

Table C2

Risk Factors for Lesbian-Identified and Other Women Who Have Sex with Women

Study	Design	N	Sample Description	Metric	Odds Ratio
Blosnich et al., 2014	Cross-sectional	93,414	Lesbian women compared to heterosexual women	Asthma	aOR: 1.50 (95% CI,1.04-2.16). p<0.05
			Bisexual women compared to heterosexual women	Asthma	aOR: 1.68 (95% CI,1.07-2.63). p<0.05
Gonzales & Henning-Smith, 2017	Cross-sectional	179,203	Lesbian women compared to heterosexual women	Arthritis	aOR: 1.58 (95% CI,1.30-1.91). p<0.001
				Asthma	aOR: 1.33 (95% CI,1.04-1.72). p=0.03
				COPD	aOR: 1.54 (95% CI,1.11-2.16). p=0.01
				Obesity	aOR: 1.25 (95% CI,1.04-1.51). p=0.02
			Bisexual women compared to heterosexual women.	Arthritis	aOR: 1.49 (95% CI,1.24-1.80). p<0.001
				Asthma	aOR: 1.99 (95% CI,1.65-2.40). p<0.001
				COPD	aOR: 1.83 (95% CI,1.40-2.39). p<0.001
				Obesity	aOR: 1.83 (95% CI,1.55-2.16). p<0.001

REDUCING LGBTQIA+ HEALTH DISPARITIES

Strutz et al, 2015	Cross-sectional	13,088	Sexual minority women compared to heterosexual women	Asthma	aOR: 1.53 (95% CI,1.07-2.18). p<0.05
				Physical exam in previous year	aOR: 0.48 (95% CI, 0.35-0.67). p<0.05

[Back to text](#)

Table C3

Risk Factors for Lesbian-Identified and Other Women Who Have Sex with Women

Study	Design	N	Sample Description	Metric	Odds Ratio
Blosnich et al., 2014	Cross-sectional	93,414	Lesbian women compared to heterosexual women	Current Smoker	aOR: 1.91 (95% CI,1.26-2.91). p<0.05
				Binge Drinking	aOR: 1.64 (95% CI,1.04-2.61). p<0.05
			Bisexual women compared to heterosexual women	Current Smoker	aOR: 2.13 (95% CI,1.33-3.42). p<0.05
				Binge Drinking	aOR: 1.71 (95% CI,1.02-2.87). p<0.05
Gonzales et al., 2016	Cross-sectional	38,063	Lesbian women compared to heterosexual women	Heavy smoking	aOR: 2.29 (95% CI,1.36-3.88). p<0.002
				Heavy drinking	aOR: 2.63 (95% CI,1.54-4.56). p<0.001
			Bisexual women compared to heterosexual women	Moderate smoking	aOR: 1.60 (95% CI,1.05-2.44). p=0.03
				Heavy drinking	aOR: 2.07 (95% CI,1.20-3.59). p=0.01
Pharr et al., 2019	Cross-sectional	9016	Lesbian women compared to straight women	Current smoker	aOR: 1.814 (95% CI,1.249-2.636). p≤0.05
				Heavy drinker	aOR: 2.338 (95% CI,1.581-3.457). p≤0.05
			Bisexual women compared to straight women	Current smoker	aOR: 2.106 (95% CI,1.652-2.685). p≤0.05
				Heavy drinker	aOR: 2.487 (95% CI,1.762-3.510). p≤0.05

[Back to text](#)

Table C4

HPV Risk Factors for Lesbian-Identified and Other Women Who Have Sex with Women

Study	Design	N	Sample Description	Metric	Odds Ratio
Charlton et al, 2011	Cross-sectional survey	N = 4,224	Lesbian-identifying individuals compared to heterosexual females.	Pap test in previous 12 months	aOR: 0.25 (95% CI, 0.12-0.52). p=0.0002
				Pap test in lifetime	aOR: 0.13 (95% CI, 0.06-0.27). p<0.0001

REDUCING LGBTQIA+ HEALTH DISPARITIES

Pharr et al., 2019	Cross-sectional	9016	Lesbian women compared to straight women	Pap test, past 3 years	aOR: 0.418 (95% CI, 0.279-0.625). p≤0.05
			Bisexual women compared to straight women	Pap test, past 3 years	aOR: 0.585 (95% CI, 0.421-0.813). p≤0.05
Reiter & McRee, 2018	Cross-sectional	7132	Non-heterosexual women compared to heterosexual women	Odds of any HPV infection	OR: 1.44 (95% CI, 1.16-1.78). p=0.001
				Odds of high-risk HPV infection	OR: 1.52 (95% CI, 1.20-1.93). p<0.001

[Back to text](#)

Table C5

Risk Factors for Bisexual-Identified Women

Study	Design	N	Sample Description	Metric	Odds Ratio
Bazzi et al., 2015	Cross-sectional	1263	Bisexual women compared to heterosexual and lesbian women	Adherence to mammography screening guidelines	aOR: 0.56 (95% CI, 0.34-0.92). p<0.05
Pharr et al., 2019	Cross-sectional	9016	Bisexual women compared to straight women	Mammogram age 40+	aOR: 0.611 (95% CI, 0.444-0.848). p≤0.05
			Bisexual women compared to lesbian women	Mammogram age 40+	aOR: 0.535 (95% CI, 0.350-0.819). p≤0.05

[Back to text](#)

Table C6

Risk Factors for Gay-Identified and Other Men Who Have Sex with Men

Study	Design	N	Sample Description	Metric	Odds Ratio
Blosnich et al., 2014	Cross-sectional	93,414	Gay men compared to heterosexual men	Current smoker	aOR: 1.93 (95% CI, 1.27-2.93). p<0.05
			Bisexual men compared to heterosexual men	Current smoker	aOR: 1.92 (95% CI, 1.04-3.53). p<0.05
Gonzales & Henning-Smith, 2017	Cross-sectional	129,347	Gay men compared to heterosexual men	Cancer	aOR: 1.30 (95% CI, 1.02-1.67). p=0.04
				COPD	aOR: 1.85 (95% CI, 1.36-2.54). p<0.001
				Current Smoker	aOR: 1.66 (95% CI, 1.38-2.00). p<0.001
			Bisexual men compared to heterosexual men	Current smoker	aOR: 1.28 (95% CI, 1.00-1.64). p=0.05

REDUCING LGBTQIA+ HEALTH DISPARITIES

Gonzales et al., 2016	Cross-sectional	30,742	Gay men compared to heterosexual men	Heavy current drinker	aOR: 1.97 (95% CI, 1.08-3.58). p=0.03
				Moderate current smoker	aOR: 1.98 (95% CI, 1.39-2.81). p<0.001
			Bisexual men compared to heterosexual men	Heavy current drinker	aOR: 3.15 (95% CI, 1.22-8.16). p=0.02
				Heavy current smoker	aOR: 2.10 (95% CI, 1.08-4.10). p=0.03
Jackson et al., 2016	Cross-sectional	30,961	Gay men compared to heterosexual men	Hypertension	aOR 1.21 (95% CI, 1.03-1.43), p<0.05
				Heart disease	aOR 1.39 (95% CI, 1.02-1.88), p<0.05
Strutz et al., 2015	Cross-sectional	n = 13,088	Sexual minority men compared to heterosexual men	Migraines	aOR 2.29 (95% CI, 1.26-4.14), p<0.05

[Back to text](#)

Table C7

Risk Factors for Transgender Individuals

Study	Design	N	Sample Description	Metric	Odds Ratio
Agénor et al., 2018	Cross-sectional	122	Binary transmasculine adults compared to non-binary transmasculine adults	Pap testing	OR: 0.09 (95% CI, 0.01-0.71), p=0.05
Study	Design	N	Sample Description	Metric	Chi Squared/ANOVA
Rahman et al., 2019	Cross-sectional	148	Bisexual transmen compared to bisexual cisgender women.	Having never received a cervical pap smear	37.04% vs 10.23% ($\chi^2(2) = 87.99, R^2 = .46, p<0.001$)
Study	Design	N	Sample Description	Metric	Descriptive Statistics
Seay et al., 2017	Cross-sectional	91	Transgender men compared to the overall US population	Pap smear screening within the past 3 years	49.5% vs 69.4%

[Back to text](#)

Table C8

Mental Health Risk Factors Associated with Transgender Adults

Study	Design	N	Sample Description	Metric	Odds Ratio
Crissman et al., 2019	Cross-sectional	337,886	Transgender individuals overall compared to non-transgender males.	Frequent mental distress	aOR: 1.49 (95% CI, 1.14-1.96), p=0.004
		340,168	Transgender individuals overall compared to non-transgender males.	Depression disorder diagnosis	aOR: 1.80 (95% CI, 1.44-2.25), p<0.001

REDUCING LGBTQIA+ HEALTH DISPARITIES

		338,391	Female to male transgender compared to non-transgender males	Frequent mental distress	aOR: 1.93 (95% CI, 1.26-2.95), p=0.003
				Depression disorder diagnosis	aOR: 2.55 (95% CI, 1.67-3.89), p<0.001
			Male to female transgender compared to non-transgender males	Frequent mental distress	aOR: 1.31 (95% CI, 0.85-2.03), p=0.225* *Not significant
				Depression disorder diagnosis	aOR: 1.64 (95% CI, 1.20-2.34), p=0.008
			Gender non-conforming individuals compared to non-transgender males	Frequent mental distress	aOR: 2.05 (95% CI, 1.20-3.50), p=0.003
				Depression disorder diagnosis	aOR: 3.03 (95% CI, 1.93-4.74), p<0.001

[Back to text](#)

Table C9

Mental Health Risk Factors Associated with Transgender Youth

Study	Design	N	Sample Description	Frequency of Suicide Risk Factors by Gender	Depression %	Suicidal Ideation %	Suicide Attempt %
Horowitz et al., 2020	Cross-sectional	41,412	College students at 4 US universities	Female	17.0	13.5	6.6
				Male	13.3	10.4	3.7
				FTM Trans	29.9	46.4	30.9
				MTF Trans	39.4	36.4	24.2
				*All Chi-square analyses were significant at p<0.001			
Study	Design	N	Sample Description	Metric	Relative Risk Ratio		
Reisner et al., 2015	Retrospective cohort study of EHR data	360	Transgender youth compared to matched sample of cisgender youth	Depression	RR: 3.95 (95% CI, 2.60-5.99), p<0.0001		
				Suicidal Ideation	RR: 3.61 (95% CI, 2.17-6.03), p<0.0001		
				Suicide Attempt	RR: 3.20 (95% CI, 1.53-6.70), p=0.002		
				Self-Harm without lethal intent	RR: 4.30 (95% CI, 1.95-9.51), p=0.0003		

[Back to text](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

Table C10

Mental Health Risk Factors Associated with LGBQA Individuals

Study	Design	N	Sample Description	Metric	Odds Ratio
Blosnich et al., 2014	Cross-sectional	93,414	Gay men compared to heterosexual men	Mental distress	aOR: 1.78 (95% CI, 1.18-2.69), p<0.05
			Bisexual men compared to heterosexual men	Mental distress	aOR: 2.85 (95% CI, 1.64-4.95), p<0.05
Blonsche et al., 2016	Cross-sectional/observational	988	Individuals in a same-sex partnership compared to those in opposite-sex partnerships	Mood disorder	aOR: 2.01 (95% CI, 1.26-3.22), p<0.01
Chaudhry & Reisner, 2019	Cross-sectional	42,545	Gay males compared to heterosexual males	Lifetime major depressive episode	aOR: 2.38 (95% CI, 1.70-3.33), p=0.05
			Bisexual males compared to heterosexual males		aOR: 4.22 (95% CI, 2.99-5.96), p=0.05
			Lesbian women compared to heterosexual women		aOR: 1.43 (95% CI, 1.05-1.96), p=0.05
			Bisexual women compared to heterosexual women		aOR: 2.74 (95% CI, 2.31-3.26), p=0.05
		42,483	Gay males compared to heterosexual males	Major depressive episode (past 12 months)	aOR: 2.24 (95% CI, 1.56-3.75), p=0.05
			Bisexual males compared to heterosexual males		aOR: 5.82 (95% CI, 3.87-8.74), p=0.05
			Lesbian women compared to heterosexual women		aOR: 1.33 (95% CI, 0.93-1.91), p=0.05* *Not significant
			Bisexual women compared to heterosexual women		aOR: 2.97 (95% CI, 2.44-3.62), p=0.05
Gonzales & Henning-Smith, 2017	Cross-sectional	129,347	Gay men compared to heterosexual men	Frequent mental distress	aOR: 1.71 (95% CI, 1.34-2.18), p<0.001
				Depression	aOR: 2.91 (95% CI, 2.42-3.50), p<0.001
			Bisexual men compared to heterosexual men	Frequent mental distress	aOR: 2.33 (95% CI, 1.81-3.01), p<0.001
				Depression	aOR: 2.41 (95% CI, 1.96-2.96), p<0.001
		179,203	Lesbians compared to heterosexual women	Frequent mental distress	aOR: 1.53 (95% CI, 1.22-1.93), p<0.001
				Depression	aOR: 1.93 (95% CI, 1.60-2.33), p<0.001
			Bisexual women compared to heterosexual women.	Frequent mental distress	aOR: 2.08 (95% CI, 1.73-2.49), p<0.001
				Depression	aOR: 3.15 (95% CI, 2.69-3.68), p<0.001

REDUCING LGBTQIA+ HEALTH DISPARITIES

Gonzales et al., 2016	Cross-sectional	30,742	Gay men compared to heterosexual men	Moderate Psychological distress	aOR: 1.45 (95% CI, 1.08-1.96), p=0.02
				Severe psychological distress	aOR: 2.82 (95% CI, 1.55-5.14), p=0.001
			Bisexual men compared to heterosexual men	Moderate Psychological distress	aOR: 2.60 (95% CI, 1.62-4.18), p<0.001
				Severe psychological distress	aOR: 4.70 (95% CI, 1.77-12.52), p=0.002
		38,063	Lesbian women compared to heterosexual women	Moderate Psychological distress	aOR: 1.34 (95% CI, 1.02-1.76), p=0.04
				Severe psychological distress	aOR: 1.45 (95% CI, 0.91-2.29), p=0.12 *Not significant
			Bisexual Women compared to heterosexual women	Moderate Psychological distress	aOR: 2.17 (95% CI, 1.48-3.19), p<0.001
				Severe psychological distress	aOR: 3.69 (95% CI, 2.19-6.22), p<0.001
Horowitz et al., 2020	Cross-sectional	41,412	Gay/Lesbian compared to heterosexual	Depression	aOR: 1.87 (95% CI, 1.55-2.25), p<0.01
				Suicidal ideation	aOR: 2.52 (95% CI, 2.08-3.06), p<0.01
				Suicide attempt	aOR: 3.88 (95% CI, 3.03-4.96), p<0.01
			Bisexual compared to heterosexual	Depression	aOR: 2.66 (95% CI, 2.33-3.04), p<0.01
				Suicidal ideation	aOR: 3.86 (95% CI, 3.36-4.42), p<0.01
				Suicide attempt	aOR: 4.51 (95% CI, 3.78-5.38), p<0.01
			Pansexual compared to heterosexual	Depression	aOR: 3.35 (95% CI, 2.70-4.16), p<0.01
				Suicidal ideation	aOR: 4.59 (95% CI, 3.68-5.72), p<0.01
				Suicide attempt	aOR: 5.46 (95% CI, 4.20-7.10), p<0.01
			Queer compared to heterosexual	Depression	aOR: 2.75 (95% CI, 1.97-3.84), p<0.01
				Suicidal ideation	aOR: 3.58 (95% CI, 2.54-5.05), p<0.01
				Suicide attempt	aOR: 5.19 (95% CI, 3.44-7.81), p<0.01
			Asexual compared to heterosexual	Depression	aOR: 2.79 (95% CI, 2.10-3.70), p<0.01
				Suicidal ideation	aOR: 2.69 (95% CI, 1.97-3.65), p<0.01
				Suicide attempt	aOR: 1.58 (95% CI, 0.93-2.67), p<0.01 *Not significant

REDUCING LGBTQIA+ HEALTH DISPARITIES

Marshal et al., 2012	Cross-sectional	527	Sexual minority girls compared to heterosexual girls	Suicidal ideation (previous year)	OR: 4.93 (95% CI, 2.12-11.46), p<0.001
				Self-harm (Previous year)	OR: 7.20 (95% CI, 2.12-24.45), p<0.001
Pharr et al., 2019	Cross-sectional	9016	Lesbian women compared to straight women	Depression	aOR: 2.214 (95% CI, 1.495-3.278), p≤0.05
			Bisexual women compared to straight women	Depression	aOR: 3.647 (95% CI, 2.813-4.730), p≤0.05
Strutz et al, 2015	Cross-sectional	13,088	Sexual minority women compared to heterosexual women	Anxiety	aOR: 2.24 (95% CI, 1.45-3.46), p<0.05
				Depression	aOR: 2.60 (95% CI, 1.80-3.76), p<0.05
			Sexual minority men compared to heterosexual men	Anxiety	aOR: 2.70 (95% CI, 1.66-4.39), p<0.05
				Depression	aOR: 3.87 (95% CI, 2.28-6.57), p<0.05

[Back to lesbian/women who have sex with women text](#)
[Back to gay/men who have sex with men text](#)
[Back to intersex/asexual text](#)

APPENDIX D

Figures

Figure D1

Kotter's Change Model as Applied to a Small Primary Care Family Medical Center

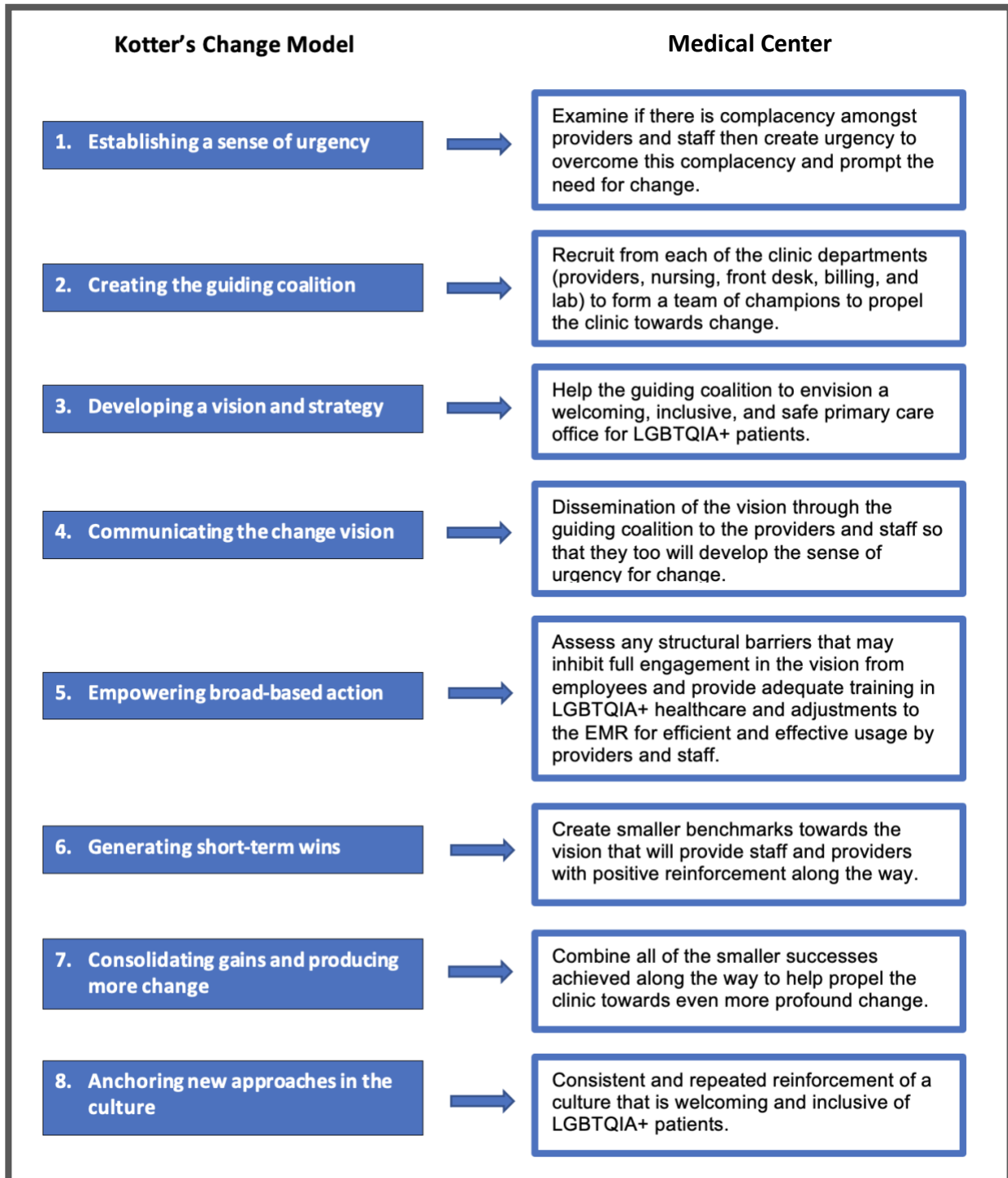
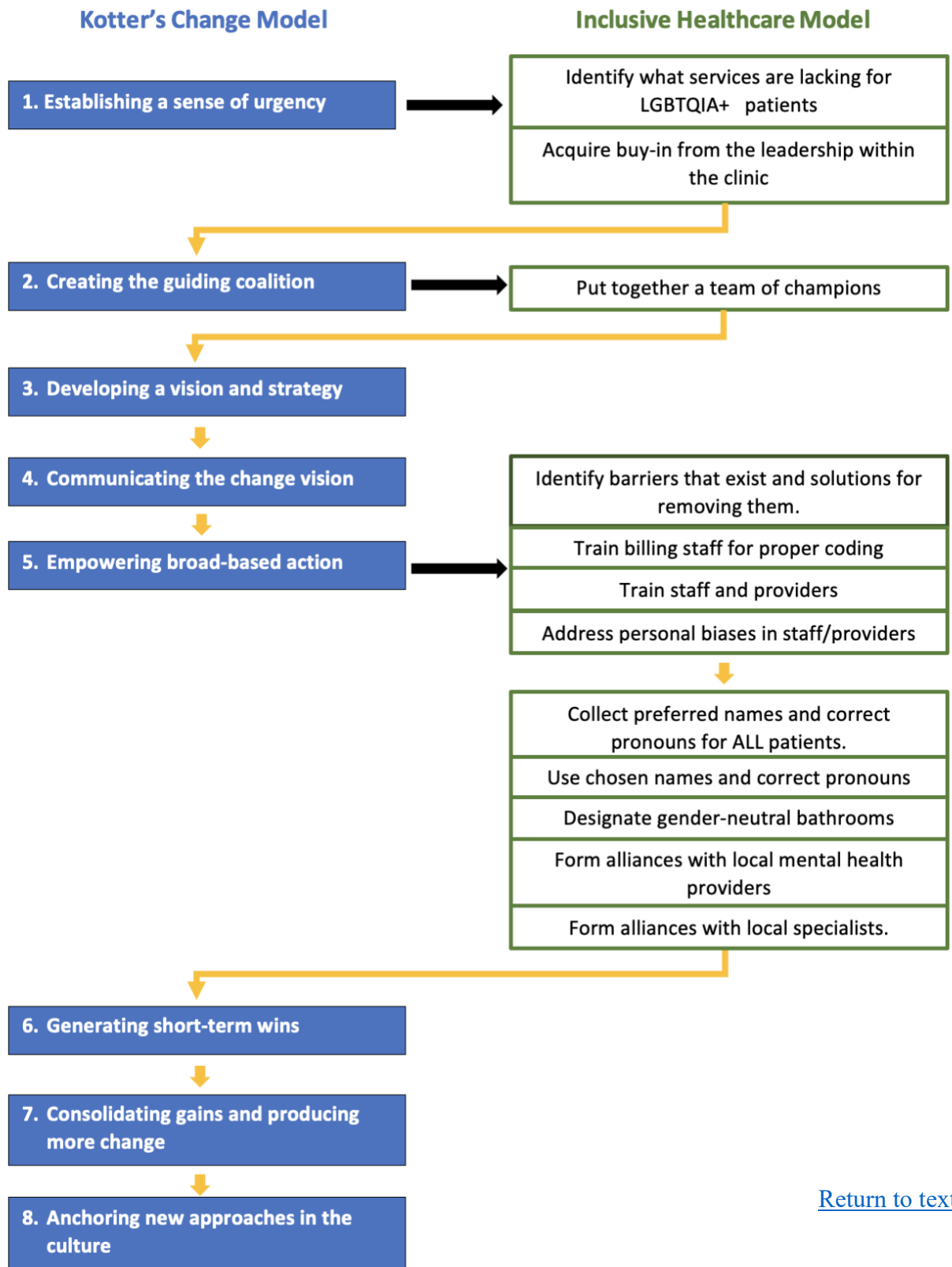


Figure D2

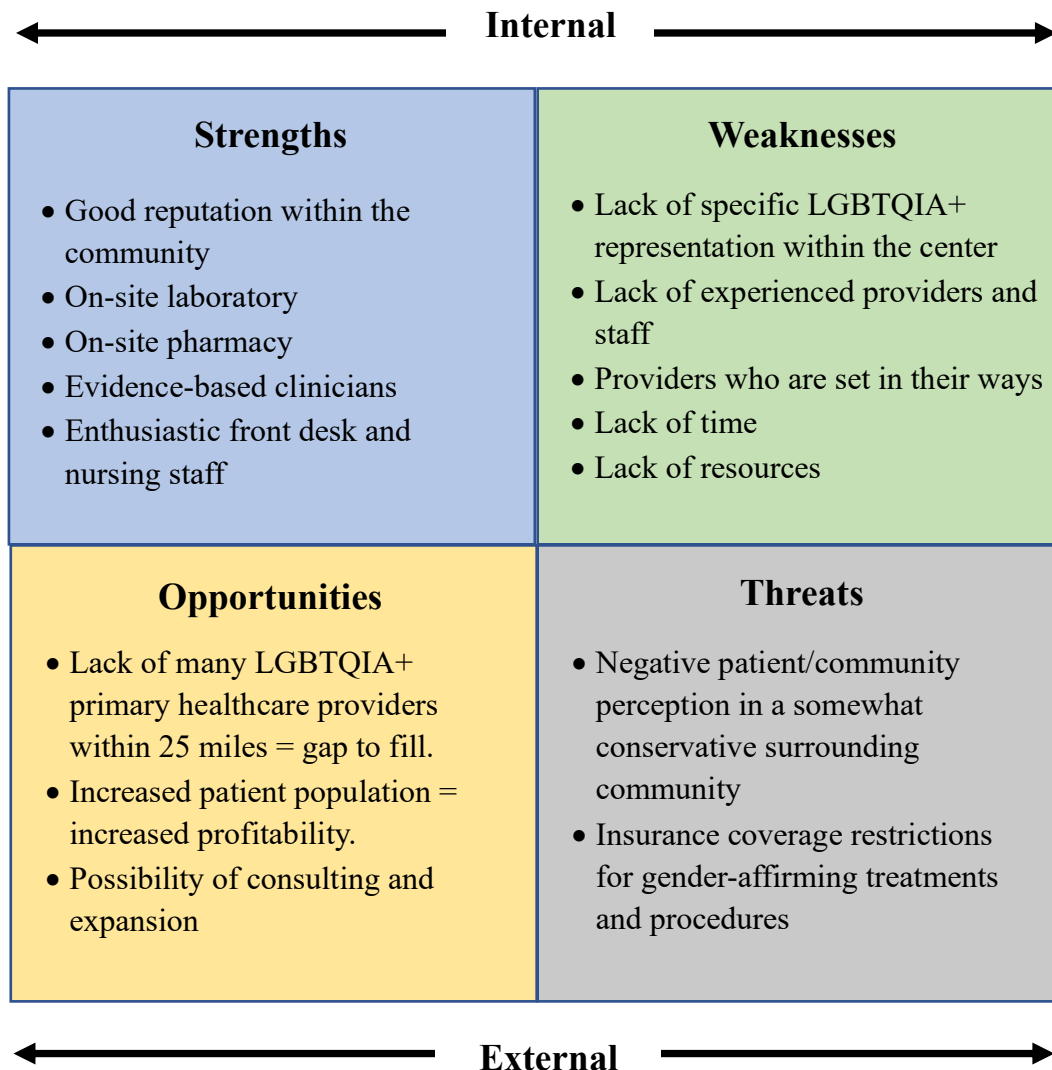
Kotter's Change Model + Nisly et al. (2018) LGBTQ Inclusive Healthcare Model



[Return to text](#)

Figure D3

SWOT Diagram of the Medical Center's Provision of Healthcare to LGBTQIA+ Individuals



[Return to text](#)

APPENDIX E


Outline of Development Procedures

E.1.a: Chart Review Process:


- Chart review occurred once weekly for 16 weeks, rotating through the days of the week.
- Chart review consisted of reviewing the chart of every patient that came into the clinic on that particular day of the week.
- Chart review consisted of investigating the social history and doctor’s notes/confidential information section of the charts as these were the two areas where providers listed sexual orientation and/or gender identity if they recorded it at all.
- If a patient was found to be of a sexual or gender minority identity (LGBTQIA+), a tally of the chart as well as the sexual or gender identity was recorded.
 - No identifying information on the patient was recorded.

[Back to text](#)

E.1.b: Assessment of Clinic Physical and Digital Infrastructure:

# Needed	Pre-Implementation	Post-Implementation
Front Door		
2	<ul style="list-style-type: none"> • No decals or LGBTQIA+ welcoming signage 	<div style="text-align: center;">  </div> <ul style="list-style-type: none"> • PRIDE Progress Static Cling • Available on: Etsy • Price: \$5 for set of two. • Shipping: Free • Shipping Time: 5-10 days

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# Needed	Pre-Implementation	Post-Implementation
Exam Rooms		
13	<ul style="list-style-type: none"> Lack of any LGBTQIA+ signage Exclusively cisgender/heteronormative signage 	<ul style="list-style-type: none"> National LGBTQIA+ Health Education Center Do Ask Do Tell Poster Available for download on: https://www.lgbtqihealtheducation.org/ Price: Free Shipping: N/A
Waiting Rooms		
2	<ul style="list-style-type: none"> Lack of any non-discrimination policy 	<div style="border: 1px solid black; padding: 10px; width: fit-content; margin: auto;"> <p>In this center, we value the diversity of all our patients, and do not discriminate based on race, religion, sex, sexual orientation, gender identity, age, or ability.</p> <p><u>ALL ARE WELCOME</u></p> </div>
Bathrooms		
7	<ul style="list-style-type: none"> Single-use unmarked bathrooms 	<ul style="list-style-type: none"> Tablecraft-695653 Gender Neutral, Handicap Accessible Sign Plastic, White on Black-Braille, 6x9" - Black and White Available On: Amazon Price: \$4.59 Shipping: Free with Amazon Prime Shipping Time: 1 day 
Website		
<ul style="list-style-type: none"> Strictly cisgender/heteronormative imagery (especially when referring to “family”). 	<ul style="list-style-type: none"> Included an LGBT (rainbow) and trans flag on the website with a statement that this is a “welcoming and affirming practice.” 	

[Back to text](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

E.1.c: Electronic Medical Record Assessment:

ATTRIBUTE	DETAILS
EMR	ChartLogic
EMR Version	8
SOGI DATA DISPLAY CAPABILITIES	
Banners	No
Sticky Notes	No
Pop-up Notes	No
Customizable SOGI Data Fields	No
Flowsheets	Yes

Initial Assessment of the Demographic Fields that are Available on ChartLogic 8:

FIELDS AVAILABLE		ADEQUATE?
Gender	<ul style="list-style-type: none"> • Male • Female • Unknown 	<ul style="list-style-type: none"> • No – should be labeled: Sex assigned at birth and should contain intersex as an option.
Sexual Orientation	<ul style="list-style-type: none"> • Straight or heterosexual • Lesbian, Gay, or Homosexual • Bisexual • Other 	<ul style="list-style-type: none"> • No – should include the ability to write in a sexual orientation not listed here. • “Other” is generally not used anymore.
Gender Identity	<ul style="list-style-type: none"> • Female • Male • Female-to-Male (FTM)/Transgender Male/Trans Man • Male-to-Female (MTF)/Transgender Female/Trans Woman • Other 	<ul style="list-style-type: none"> • No – should include Nonbinary as an option as well as the ability to write in a gender identity not listed here. • “Other” is generally not used anymore.
FIELDS STILL NEEDED		
<p>Correct Pronouns Sex assigned at birth Preferred Name</p>		
OTHER ISSUES THAT REQUIRED ATTENTION		
<p>Because there were no stickies or banners available, any information that was about sexual or gender identity that was listed in the social history or imported using smart phrases to pull from patient information, would be permanently sealed in the encounter once the chart was signed. This was deemed problematic for confidentiality if the patient had disclosed their sexual or gender identity to our office, but not, for example, to the specialist to whom they were being referred.</p>		

[Back to text](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

E.1.d: Solution for Confidential Integration of SOGI Data into the Chart:

A flow sheet was designed around the SOGI questions that can be imported into the “Confidential Information” section of the chart. By staying in the Confidential Information section of the chart, it will not be included in referrals to specialists, nor will it be included with records requested for transfer out of the practice.

Sample Flow Sheet

SOGI INFORMATION

DATE	PREFERRED NAME	CORRECT PRONOUNS	GENDER IDENTITY	SEXUAL ORIENTATION	SEX ASSIGNED AT BIRTH	STAFF INITIALS

[Back to text](#)

E.2.a: Project Champions/Guiding Coalition

Title	Project Role
Project Lead/Primary Care Provider	<ul style="list-style-type: none"> • Project Lead • Provider Liaison • Infrastructure changeover • Intake form revision • EMR workaround development • Training facilitator • Data collection and analysis • Sustainability Oversight
Owner of Center/Primary Care Provider	<ul style="list-style-type: none"> • Project Sponsor
Owner of Center/HEDIS Manager	<ul style="list-style-type: none"> • Facilitation and reinforcement of vision and objectives overall.
Nurse Manager	<ul style="list-style-type: none"> • Facilitation and reinforcement of vision and objectives to the nursing staff
Front Desk Manager	<ul style="list-style-type: none"> • Facilitation and reinforcement of vision and objectives to the front desk staff
Office Manager	<ul style="list-style-type: none"> • Infrastructure change oversight • Financial coordinator • Meeting coordinator

[Back to Development Text](#)
[Back to Systems Considerations](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

E.2.b: Stakeholder Analysis

Name	Title	Characteristics/ Interest	Project Engagement	Estimated Priority
Physician 1	<ul style="list-style-type: none"> Owner Project Sponsor Provider MD 	<ul style="list-style-type: none"> Family practice Bottom line Innovation 	Moderate	Top
HEDIS manager	<ul style="list-style-type: none"> Owner HEDIS manager 	<ul style="list-style-type: none"> Equitable care Extensive knowledge of office and office dynamics Enthusiastic about project 	High	Moderate
Physician 2	Provider MD	<ul style="list-style-type: none"> Family Practice Efficient Evidence-based practice Time management is key 	Low	Moderate
Physician 3	Provider MD	<ul style="list-style-type: none"> Larger pediatric patient panel Already prescribes PrEP Interested in practice being able to provide trans care 	Moderate	Moderate
Physician 4	Provider MD	<ul style="list-style-type: none"> Evidence-based practice Interested in providing a safe environment for LGBTQIA+ patients. Shows general interest in this project. 	Moderate	High
Front Desk Manager	N/A	<ul style="list-style-type: none"> Equitable care Very organized Little LGBTQIA+ knowledge or experience. 	Moderate	High
Nurse Manager	RN	<ul style="list-style-type: none"> Efficiency Organization Excellent manager Very little LGBTQIA+ knowledge or experience prior to intervention. 	Moderate	High
Office Manager	N/A	<ul style="list-style-type: none"> Organized Extensive knowledge of the office Already had some experience with the LGBTQIA+ community 	Moderate	Moderate

REDUCING LGBTQIA+ HEALTH DISPARITIES

		<ul style="list-style-type: none"> • Very enthusiastic about this project. 		
The Patient	N/A	<ul style="list-style-type: none"> • With few LGBTQIA+ providers in the area, this project could be a valuable resource for them. 	Low	Top
Nursing Staff	RN, LPN, and MAs	<ul style="list-style-type: none"> • Young staff • Eager to provide inclusive care. • Varying levels of experience with the LGBTQIA+ community 	Moderate	High
Front Desk Staff	N/A	<ul style="list-style-type: none"> • Eager to provide inclusive care. • Varying levels of experience with the LGBTQIA+ community • Lots of ideas on how to modify EMR to help process SOGI data. 	Moderate	High

[Back to Development Text](#)
[Back to Systems Considerations](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

E.3.a: Sample New Patient Revised Intake Form

GENERAL INFORMATION			
Name on Legal Documents* Last First Middle Initial			Name you would like us to use:
Sex on Legal Documents* <input type="checkbox"/> Female <input type="checkbox"/> Male <small>Please be aware that the name and sex you have listed on your insurance must be used on documents pertaining to insurance, billing and correspondence. If your name and pronouns are different from these, please let us know.</small>		What are your pronouns? (e.g., he/him, she/her, they/them)	
Date of Birth Month Day Year		Social Security #	
Home Phone ()	Cell Phone ()	Email:	
Street Address City		State	ZIP
Employer		Work Phone ()	
DEMOGRAPHIC INFORMATION: <i>This and all other parts of this form are subject to HIPAA compliance and will be kept confidential.</i>			
Marital Status <input type="checkbox"/> Married <input type="checkbox"/> Partnered <input type="checkbox"/> Single <input type="checkbox"/> Divorced <input type="checkbox"/> Other _____		Veteran Status <input type="checkbox"/> Veteran <input type="checkbox"/> Not a Veteran	
		Language _____ Race _____ Ethnicity _____	
Do you think of yourself as: (Check one) <input type="checkbox"/> Straight or heterosexual <input type="checkbox"/> Lesbian, gay, or homosexual <input type="checkbox"/> Bisexual <input type="checkbox"/> Something else: _____ <input type="checkbox"/> Don't know <input type="checkbox"/> Choose not to disclose		What is your current gender identity? (Check one): <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Transgender Male/Trans Man/ Female-to-Male (FTM) <input type="checkbox"/> Transgender Female/Trans Woman/ Male-to-Female (MTF) <input type="checkbox"/> Nonbinary/Genderqueer/neither exclusively male nor female <input type="checkbox"/> Additional gender category, please specify: _____ <input type="checkbox"/> Choose not to disclose	
What sex were you assigned at birth? <input type="checkbox"/> Female <input type="checkbox"/> Male			
INSURANCE INFORMATION			
Primary Insurance			
Address (Claims) City		State	ZIP
Insurance ID #		Group #	
Subscriber's Name:		Subscriber's Employer	
Subscriber's Date of Birth Month Day Year		Subscriber's Social Security #:	
Patient's Relationship to Subscriber:			
Secondary Insurance		ID	Group #:
Subscriber's Name:		Subscriber's Date of Birth Month Day Year	
Patient's Relationship to Subscriber:			
PERSON RESPONSIBLE FOR BILLS (Name)			
Address (Claims)		Phone ()	

[Back to text](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

Sample existing patient revised intake form

SOGI INFORMATION

NOTE: WHILE YOUR PARTICIPATION IS APPRECIATED, THIS FORM IS NOT MANDATORY.

All parts of this form are subject to HIPAA compliance and will be kept strictly confidential.

Chart #: Provider:

Patient Legal Name: DOB:

Name on Legal Documents:	Name you would like us to use:	What are your pronouns? (eg he/him, she/her, they/them)
Sex assigned at birth:	Sex on legal documents: (Please be aware that the name and sex you have listed on your insurance must be used on documents pertaining to insurance, billing and correspondence. If your name and pronouns are different from these, please let us know.)	
Marital Status: <input type="checkbox"/> Married <input type="checkbox"/> Partnered <input type="checkbox"/> Single <input type="checkbox"/> Divorced <input type="checkbox"/> Other _____	Do you think of yourself as: <input type="checkbox"/> Straight or heterosexual <input type="checkbox"/> Lesbian, gay, or homosexual <input type="checkbox"/> Bisexual <input type="checkbox"/> Something else: _____ <input type="checkbox"/> Don't know <input type="checkbox"/> Choose not to disclose	What is your current gender identity? <input type="checkbox"/> Male <input type="checkbox"/> Female <input type="checkbox"/> Transgender Male/Trans Man/Female-to-Male (FTM) <input type="checkbox"/> Transgender Female/Trans Woman/Male-to-Female (MTF) <input type="checkbox"/> Nonbinary/Genderqueer/neither exclusively male or female <input type="checkbox"/> Additional gender category, please specify _____ <input type="checkbox"/> Choose not to disclose

[Back to text](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

E.3.b: Development of Front Desk Workflow

1. Starting on 10/4/21, every patient was given either the new patient or the existing patient revised intake form.
 - a. New patients could either download the form off the website ahead of their first appointment or be handed the form upon their arrival.
2. Once completed by the patient, front desk took the form and quickly scanned the SOGI questions to ascertain if a sexual and/or gender identity was disclosed, what the patient's preferred name was, and what their correct pronouns were.
3. Front Desk then opened the Practice Manager Software and entered in the relevant data (preferred name, correct pronouns) into the pop-up memo.
4. Front Desk then made sure that the SOGI intake form was attached to the top of the paperwork that was handed off to the clinical staff so that preferred names and correct pronouns were clearly visible at the top.
 - a. If the patient disclosed a sexual or gender minority identity, the Front Desk also added a red sticker to the top of the form which served to alert the nursing staff to input the SOGI information into the confidential information section of the chart and alert the provider to open the Confidential Information section of the chart when they entered the room.
 - b. This also allowed anyone entering the room (MA, nurse, or provider) to immediately be alerted to the patient's preferred name and correct pronouns before they ever opened the computer.
5. If the patient requested clarification on any of the new terms or questions on the intake form, the front desk offered them a pamphlet which was created by the National

REDUCING LGBTQIA+ HEALTH DISPARITIES

LGBTQIA+ Health Education Center that outlined the terms, their definitions, and why the questions are important.

[Back to text](#)

E.3.c: Development of Clinical Staff Workflow

1. In addition to addressing the patient by their preferred name and correct pronouns when calling them in from the waiting room, when rooming a patient, the nurse/MA took the SOGI form and entered the relevant data (preferred name, correct pronouns, sexual orientation, gender identity, and sex assigned at birth) into the SOGI flowsheet at the top of the Confidential Information section of the chart.
2. This flowsheet serves as a quick reference for any providers or staff who need to confirm a patient's SOGI information going forward.

[Back to text](#)

E.4.a: Training Modules, Module Break Down, and Handouts

Previous to start of training, every staff member was set up with a learning account with the National LGBTQIA+ Health Education Center using their respective email addresses.

Module #	Details
MODULE 1	<ul style="list-style-type: none">• Target Audience: All Staff and Providers• Content covered:<ul style="list-style-type: none">○ 7 personal accounts of the healthcare disparities faced by LGBTQIA+ patients<ul style="list-style-type: none">• Eligible for CME: No• Time for completion: Approximately 13 minutes
National LGBTQIA+ Health Education Center Video: <i>LGBT Voices: Perspectives on Healthcare</i>	

REDUCING LGBTQIA+ HEALTH DISPARITIES

<p>MODULE 2</p>	<ul style="list-style-type: none"> • Target Audience: All staff and providers • Content covered: <ul style="list-style-type: none"> ○ LGBTQIA+ terminology and definitions ○ Health care disparities ○ Best practices <ul style="list-style-type: none"> ▪ Gender neutral language ▪ Correct pronoun usage ▪ SOGI data collection ▪ Creating an inclusive clinical environment • Eligible for CME: Yes - 1.0 credits from the American Academy of Family Physicians (AAFP). Time for completion: Approximately 48 minutes.
<p>National LGBTQIA+ Health Education Center Recorded Webinar: Achieving Health Equity for LGBTQIA+ People (2020).</p>	<ul style="list-style-type: none"> • Target Audience: Providers • Content covered: <ul style="list-style-type: none"> ○ Primary care of LGBTQIA+ patients <ul style="list-style-type: none"> ▪ Differences between cisgender/heterosexual care and gender minority care ▪ Targeted preventative care • Eligible for CME: Yes - 1.0 credits from the American Academy of Family Physicians (AAFP) • Time for completion: Approximately 54 minutes
<p>MODULE 3</p>	
<p>National LGBTQIA+ Health Education Center Recorded Webinar: Primary and Preventative Care for Sexual and Gender Minority Patients (2020).</p>	<ul style="list-style-type: none"> • Target Audience: All staff and providers • Content covered <ul style="list-style-type: none"> ○ Defines microaggressions ○ Covers common microaggressions in clinical settings ○ Offers steps for recognizing and addressing microaggressions • Eligible for CME: No • Time for completion: Approximately 18 minutes. <p>*Though this webinar was intended for psychologists/ therapists, the content is still applicable. Team members were asked to merely substitute the word “therapist” or “psychologist” with “clinical staff” or “providers.”</p>
<p>MODULE 4:</p>	
<p>American Psychological Association Training Video: Sexual Orientation and Gender Identity Microaggressions Recommendations for Clinical Work</p>	

REDUCING LGBTQIA+ HEALTH DISPARITIES

<p>MODULE 5:</p>	<ul style="list-style-type: none"> • Target Audience: Front Desk • Content covered: <ul style="list-style-type: none"> ○ Helping a patient who does not understand why he is being asked about his sexual orientation (1:59 min) ○ Helping a transgender person who has changed her name (2:39 min) ○ Talking with a teen who comes from a family with two dads (1:17 min). • Available for CME: No • Time for completion: Approximately 6 minutes
<p>National LGBTQIA+ Health Education Center SO/GI Data Collection Demonstration Videos: Registration Staff.</p>	
<p>MODULE 6:</p>	<ul style="list-style-type: none"> • Target Audience: Nursing Staff • Content covered: <ul style="list-style-type: none"> ○ Talking about pronouns with a patient who has a nonbinary identification (1:25 min) ○ Properly addressing a sexual minority patient. (2:13 min) ○ Speaking respectfully and using correct names and pronouns even when the patient is not present. (00:51 min) • Available for CME: No • Time for completion: Approximately 4.5 minutes
<p>National LGBTQIA+ Health Education Center SO/GI Data Collection Demonstration Videos: Clinical Staff.</p>	
<p>MODULE 7:</p>	<ul style="list-style-type: none"> • Target Audience: Providers • Content covered: <ul style="list-style-type: none"> ○ Asking a patient about sexual orientation and gender identity (3:15 min). ○ Asking an adolescent patient about sexual orientation and gender identity (2:04 min) ○ Talking about pronouns with a patient who has a non-binary identification (1:25 min) ○ Properly addressing a sexual minority patient (2:13 min) ○ Talking about preventative care and family planning with a sexual minority female patient (1:25 min) ○ Clinical care for transgender and gender non-conforming patients (3:06 min) ○ Speaking respectfully and using correct names and pronouns even when the patient is not present. (00:51 min) ○ Talking with a parent and child about gender identity (2:12)
<p>National LGBTQIA+ Health Education Center SO/GI Data Collection Demonstration Videos: Clinical Staff.</p>	

REDUCING LGBTQIA+ HEALTH DISPARITIES

	<ul style="list-style-type: none"> • Available for CME: No • Time for completion: Approximately 16.5 minutes
MODULE 8	<ul style="list-style-type: none"> • Done <u>after</u> completion of online modules • Available for CME: No • Time for completion: Approximately 1 hour • See next page for practice session breakdown.
In-Person Practice Session for <u>Front Desk Staff</u>	
MODULE 9	<ul style="list-style-type: none"> • Done <u>after</u> completion of online modules • Available for CME: No • Time for completion: Approximately 1 hour • See next page for practice session breakdown. <p>*This practice session was also open to the providers if they felt they wanted the opportunity to practice</p>
In-Person Practice Session for <u>Clinical Staff</u>	

Handouts Included with Online Trainings:

- National LGBTQIA+ Health Education Center LGBTQIA+ Glossary for Health Care Teams
- PowerPoint note sheets to accompany the online trainings when available.
- Supplementary billing codes for Billing Staff

Practice Session Breakdown for Front Desk Staff

Patient (portrayed by project lead) comes to the front desk window for check in		
Scenario 1 “Jax”	<ul style="list-style-type: none"> • Jax indicates on the intake form that they are a nonbinary person who uses they/them pronouns. • Jax also indicates on the intake form that they are attracted to cisgender men. • Their name, Jax, also differs from the name on their insurance card, which is Sophia. 	<p>The front desk staff member was given the opportunity to practice:</p> <ul style="list-style-type: none"> • Greeting and interacting with the patient with gender neutral language

REDUCING LGBTQIA+ HEALTH DISPARITIES

<p>Scenario 2 “Linette”</p>	<ul style="list-style-type: none"> Linette indicates on the intake form that she is a transgender woman who uses she/her and they/them pronouns. Linette also indicates on the intake form that she is heterosexual. Her name, Linette, is the same as her insurance card and license. 	<ul style="list-style-type: none"> Fielding any questions the patient may have about the revised intake form Navigating when chosen name and legal name do not match Inputting the proper name, pronouns, sexual orientation, and gender identity into the SOGI flowsheet Importing the flowsheet into the Confidential Information section of the EMR Affixing a red sticker to the top right corner of the intake form and attaching it to the superbill before handing it off to the medical staff.
<p>Scenario 3 “Julius”</p>	<ul style="list-style-type: none"> Julius indicates on the intake form that he is a cisgender man who uses he/him pronouns. Julius also indicates on the intake form that he is bisexual and polyamorous. 	
<p>Scenario 4 “John”</p>	<ul style="list-style-type: none"> John is an older gentleman who finds the new questions on the intake form confusing and requires some simple education on how to fill in the form. 	
<p>Scenario 5 “Sam”</p>	<ul style="list-style-type: none"> Sam indicates on the intake form that he is a transgender man who uses he/him pronouns. Sam also indicates on the intake form that he is gay. His name, Sam, is similar to his name on his insurance card (Samantha) but not identical. 	

<p>Practice Session Breakdown for Clinical Staff</p>		
<p>Patient (portrayed by project lead) will be seated in an exam room.</p>		
<p>Scenario 1 “Jax”</p>	<ul style="list-style-type: none"> Intake form on top of superbill has a red sticker and indicates that the patient’s preferred name is Jax, and the correct pronouns are they/them. Nursing staff enters the room and takes vitals and elicits the chief complaint which is, “Inquiring about birth control.” Providers check the confidential information upon entering the room and then discuss the chief complaint with Jax. 	<p>The clinical staff member will be given the opportunity to practice:</p> <ul style="list-style-type: none"> Greeting and interacting with the patient with gender neutral language

REDUCING LGBTQIA+ HEALTH DISPARITIES

<p>Scenario 2 “Linette”</p>	<ul style="list-style-type: none"> • Intake form on top of superbill has a red sticker and indicates that the patient’s preferred name is Linette, and the correct pronouns are she/her and they/them. • While taking vitals, Linette informs the nursing staff member that she would like to make a change to her pronouns and is no longer using they/them and would like to be referred to exclusively as she/her. • Nursing staff needs to change the name at the top of the superbill and in the Confidential Information section and alert the provider to the change. 	<ul style="list-style-type: none"> • Fielding any questions patient may have about the revised intake form • Navigating when chosen name and legal name do not match • Inputting the proper name, pronouns, sexual orientation, and gender identity into the SOGI flowsheet • Notifying the provider of any last-minute disclosures of names, pronouns, gender identities, or sexual orientations.
<p>Scenario 3 “Julius”</p>	<ul style="list-style-type: none"> • Intake form on top of superbill has a red sticker and indicates that the patient’s preferred name is Julius, and the correct pronouns are he/him. • Nursing staff enters the room and takes vitals and elicits the chief complaint which is, “Inquiring about PrEP.” • Providers check the confidential information upon entering the room and then discuss the chief complaint with Jax. 	
<p>Scenario 4 “John”</p>	<ul style="list-style-type: none"> • John is an older gentleman who is still filling out his intake form and is confused about the new gender identity and sexual orientation questions and would like some help filling it out. 	
<p>Scenario 5 “Sam”</p>	<ul style="list-style-type: none"> • Intake form on top of superbill has a red sticker and indicates that the patient’s preferred name is Sam, and the correct pronouns are he/him. • Sam will be in for blood work • Sam’s preferred name and the name on his insurance and at the lab do not match. 	

Training Module Breakdown

PROVIDERS			
Module 1	LGBT Voices: Perspectives on Healthcare	13 min	<ul style="list-style-type: none"> • Total Estimated Time: 2.5 hours • 2 CMEs possible
Module 2	Achieving Health Equity for LGBTQIA+ People (2020)	48 min	
Module 3	Primary and Preventative Care for Sexual and Gender Minority Patients (2020)	54 min	
Module 4	Sexual Orientation and Gender Identity Microaggressions: Recommendations for Clinical Work	18 min	

REDUCING LGBTQIA+ HEALTH DISPARITIES

Module 7	SO/GI Data Collection Demonstration Videos: Clinical Staff.	16.5 min	
Module 9	In-person practice session (optional)	60 min	• 60 min
FRONT DESK			
Module 1	LGBT Voices: Perspectives on Healthcare	13 min	<ul style="list-style-type: none"> • Total Estimated Time: 2.5 hours • CMEs: N/A
Module 2	Achieving Health Equity for LGBTQIA+ People (2020)	48 min	
Module 4	Sexual Orientation and Gender Identity Microaggressions: Recommendations for Clinical Work	18 min	
Module 5	SO/GI Data Collection Demonstration Videos: Registration Staff.	6 min	
Module 8	In-person practice session	60 min	
NURSING STAFF			
Module 1	LGBT Voices: Perspectives on Healthcare	13 min	<ul style="list-style-type: none"> • Total Estimated Time: 2.5 hours • 1 CME possible
Module 2	Achieving Health Equity for LGBTQIA+ People (2020)	48 min	
Module 4	Sexual Orientation and Gender Identity Microaggressions: Recommendations for Clinical Work	18 min	
Module 6	SO/GI Data Collection Demonstration Videos: Clinical Staff.	4.5 min	
Module 9	In-person practice session	60 min	
BILLING AND LABORATORY STAFF (not patient facing)			
Module 1	LGBT Voices: Perspectives on Healthcare	13 min	<ul style="list-style-type: none"> • Total Estimated Time: 1.25 hours • CMEs: N/A
Module 2	Achieving Health Equity for LGBTQIA+ People (2020)	48 min	
Module 4	Sexual Orientation and Gender Identity Microaggressions: Recommendations for Clinical Work	18 min	
Module 8/9	In-person practice session (optional)	60 min	

Training Completion Worksheet:

- Worksheet was initially filled out by project lead, to indicate which trainings were required for each staff member.
- As staff members and providers completed trainings, they filled out the training completion worksheet, and turned it in to their respective managers when finished.

REDUCING LGBTQIA+ HEALTH DISPARITIES

See below for sample of training completion worksheet

LGBTQIA+ Training Completion Worksheet

Staff Member Name: _____

Department: _____

Module #	Name	Required	Completed (initial)
1	LGBT Voices: Perspectives on Healthcare		
2	Achieving Health Equity for LGBTQIA+ People (2020)		
3	Primary and Preventative Care for Sexual and Gender Minority Patients (2020)		
4	Sexual Orientation and Gender Identity Microaggressions: Recommendations for Clinical Work		
5	SO/GI Data Collection Demonstration Videos: Registration Staff.		
6	SO/GI Data Collection Demonstration Videos: Clinical Staff.		
7	SO/GI Data Collection Demonstration Videos: Clinical Staff.		
8	In-person practice session (Front Desk)		
9	In-person practice session (Nursing)		

[Back to text](#)

REDUCING LGBTQIA+ HEALTH DISPARITIES

E.5.a – Intervention Outcome and Staff Self-Efficacy Survey

Project Staff Implementation Outcome Survey - adapted from Weiner et al. (2017)

Acceptability of Intervention Measure (AIM)

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
1. The project meets my approval.	①	②	③	④	⑤
2. The project is appealing to me.	①	②	③	④	⑤
3. I like the project	①	②	③	④	⑤
4. I welcome the project	①	②	③	④	⑤

Intervention Appropriateness Measure (IAM)

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
1. The project seems fitting.	①	②	③	④	⑤
2. The project seems suitable.	①	②	③	④	⑤
3. The project seems applicable.	①	②	③	④	⑤
4. The project seems like a good match.	①	②	③	④	⑤

Feasibility of Intervention Measure (FIM)

	Completely disagree	Disagree	Neither agree nor disagree	Agree	Completely agree
1. The project seems implementable.	①	②	③	④	⑤
2. The project seems possible.	①	②	③	④	⑤
3. The project seems doable.	①	②	③	④	⑤
4. The project seems easy to use.	①	②	③	④	⑤

Project Staff Self-Efficacy Survey: - adapted from Bandura (2006)

Please rate in each of the blanks in the column below on the right how confident you are in each area below:

Rate your degree of confidence by recording a number from 0 to 100 using the scale given below:

0 10 20 30 40 50 60 70 80 90 100
 Cannot Moderately Highly certain
 do at all can do can do

How confident are you:

Rating

I feel confident in my understanding of LGBTQIA+ terminology and definitions.	
I feel confident that if I do not know certain LGBTQIA+ terms or definitions, that I know where I can go to find the answers.	
I feel confident in my ability to address patients using the name and pronouns that they disclose.	
I feel confident in my ability to speak using gender-neutral language.	
I understand my role in the project and am confident in executing my part.	
I feel that every team member is integral in the success of this project.	

[Back to development text](#)
[Back to evaluation text](#)

E.6.a – Intervention Monitoring Interview Worksheet for Department Managers

QUESTION	ANSWER
How do you feel the project roll-out is going?	
What is going well about the roll out?	
Are there any areas of the roll-out that are not going well? If so, what are they?	
Why do you feel these issues are occurring?	
You are a valuable member of this practice. What are your ideas for how we can improve this roll out and address the issues you have brought to our attention?	

[Back to development text](#)
[Back to evaluation text](#)

APPENDIX F

Outline of Implementation Procedure

F.1.a: Training Breakdown and Schedule for Providers and Staff:

Date	Department	Modules	Details
9/1/21-9/30/21	Providers	1,2,3,4,7 (approx. 2.5 hours)	Completion at their own discretion
9/1/21-9/10/21	Front Desk	1,2,4,5 (approx. 1.5 hours)	Scheduling at discretion of Front Desk Manager
	Nursing Staff	1,2,4,6 (approx. 1.5 hours)	Scheduling at discretion of Nursing Manager
	Billing and Lab Staff	1,2,4 (approx. 1.25 hours)	Scheduling at own discretion
9/17/21	Front Desk	8 (approx. 1 hour)	In person training immediately following work (5-6pm)
9/24/21	Nursing Staff	9 (approx. 1 hour)	In person training immediately following work (5-6pm)
<p>Upon completion of modules, staff filled out their Training Completion Worksheet and turned it in to their respective managers.</p> <ul style="list-style-type: none"> • All trainings were done during normal business hours except for the practice sessions. • Department managers arranged times for their respective staff to complete trainings. • In-person practice session occurred during the hour immediately after close of business and one hour of overtime was applied to each eligible staff member. 			

F.1.b: Physical/Digital Infrastructure Changeover:

Date	Step	Task
The weekend of 9/25/21:	1	Placed selected LGBTQIA+ decals on both front doors.
	2	Hung National LGBTQIA+ Health Education Center “Do Ask Do Tell” 8.5x11” poster in all exam rooms.
	3	Installed gender neutral bathroom placards outside of the bathrooms.
	4	Hung the Non-Discrimination Policy at the check-in/check-out windows
	5	Printed copies of the revised intake form (100 to start) for new patients.
	6	Provided each front desk check-in station with a roll of alert stickers.
	7	Printed out and displayed the National LGBTQIA+ Health Education Center Sexual Orientation and Gender Identity Questions: Information for Patients pamphlet at the front desk check-in station (100 pamphlets to start)

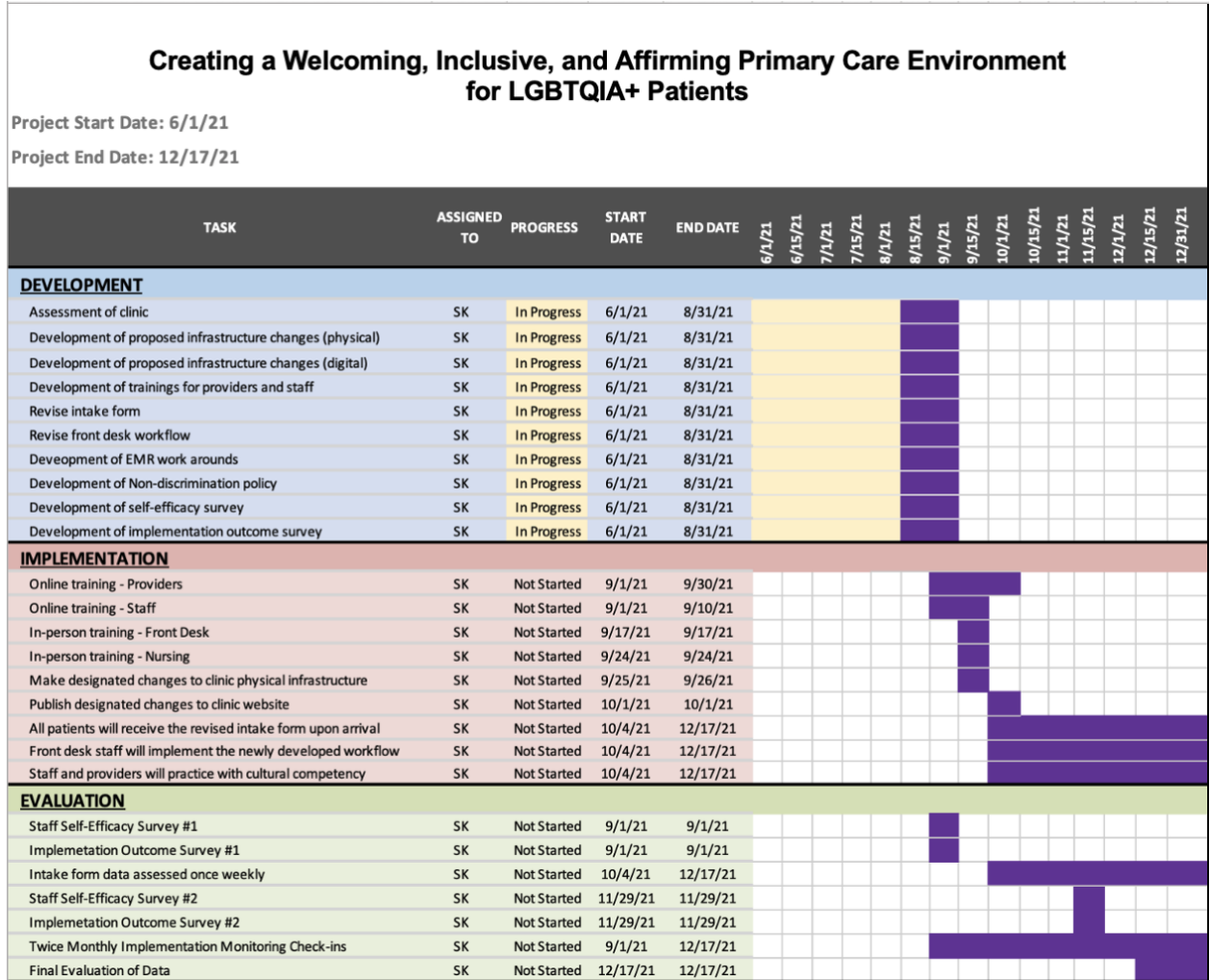
REDUCING LGBTQIA+ HEALTH DISPARITIES

	8	Ensured the individual SOGI intake forms for each scheduled patient were printed and prepared for day 1 of implementation.
	9	Coordinated with webmaster for website adjustments to go live.

[Return to text](#)

APPENDIX G

Project Timeline Gantt Chart



[Back to text](#)