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To:	Jee, Lauren (HHS/OCR) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dc5a273e16824884903f0d2afc8cb225-Jee, Lauren <Lauren.Jee1@hhs.gov>
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Subject:	FOR FRIDAY - Background memo on Florida's General Medicaid Policy proposed rule (limiting gender affirming care)
Date:	2022/07/27 12:56:00
Priority:	Normal
Type:	Note

Hi Lauren,

In anticipation of our call with CMS regarding proposed amendments to Florida's General Medicaid Policy to limit coverage of gender dysphoria treatment, I am sharing the attached informational memo for the Director prepared by Vatsala Kumar. The memo provides a summary of the rule and its current status. The memo itself is five pages, and the following 12 pages provide a summary of the July 8, 2022 public hearing on the proposed rule.

Please let us know if you have any questions.

Best,
(b)(6)

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Sent Date:	2022/07/27 12:56:01
Delivered Date:	2022/07/27 12:56:00

DELIBERATIVE

DATE: July 22, 2022

TO: Melanie Fontes Rainer, Director, Office for Civil Rights

THROUGH: (b)(6), Section Chief

FROM: Vatsala Kumar, Intern

SUBJECT: INFORMATION MEMO – Florida Proposed Rule 59G-1.050

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1. Background

In June 2022, the Florida Agency for Health Care Administration proposed amendments to Florida Administrative Code Rule 59G-1.050, the General Medicaid Policy. 48 Fla. Admin. Reg. 2461–62 (June 17, 2022). The proposed rule states that certain gender-affirming procedures are not covered under Florida Medicare. *Id.*

This memorandum will first detail the content and timeline of the proposed rule, as well as the report used to justify promulgation. It will then explore the current status of the proposed rule and developments since its original publication. It will also note the work of Florida organizations on this rule, before turning to next steps on the proposed rule.

a. Timeline and Contents

The Florida Agency for Health Care Administration proposed an amendment to the Florida General Medicaid Policy in June 2022. The proposed amendment adds the following text:

> (7) Gender Dysphoria
> (a) Florida Medicaid does not cover the following services for the treatment of gender dysphoria:
> 1. Puberty blockers;
> 2. Hormones and hormone antagonists;
> 3. Sex reassignment surgeries; and
> 4. Any other procedures that alter primary or secondary sexual characteristics.
> (b) For the purpose of determining medical necessity, including Early and Periodic Screening, Diagnosis, and Treatment (EPSDT), the services listed in subparagraph (7)(a) do not meet the definition of medical necessity in accordance with Rule 59G-1.010, F.A.C.

48 Fla. Admin. Reg. 2461–62 (June 17, 2022). As rulemaking authority for promulgating this amendment, the agency cites Florida Statute § 409.919 and § 409.961, which some commenters have challenged as being insufficient for this proposal. *See infra* Appendix. Sections 409.919 and 409.961 both include the same language surrounding agency rulemaking. Both state that the agency "shall adopt any rules necessary to comply with or administer" Medicaid "and all rules necessary to comply with federal requirements." Fla. Stat. § 409.919 (2021); Fla. Stat. § 409.961

(2021).

The Florida Agency for Health Care Administration held a hearing on this proposed rule on July 8, 2022. Written comments were due to the agency on July 11, 2022, and they reportedly received approximately 1,200 total public comments. Forrest Saunders, *Agency for Health Care Administration Set to Decide on Medicaid Coverage of Gender Dysphoria Therapies*, WPTV (July 11, 2022). No further developments have yet ensued on the rule.

b. Florida Medicaid Report

In order for services to be covered under Florida Medicaid, they must be "medically necessary." Agency for Health Care Admin., *Florida Medicaid: Definitions Policy* 7 (2017). Part of this definition includes being "consistent with generally accepted professional medical standards" and not being "experimental or investigational." *Id.*

Shortly before the proposed rule was published, the Division of Florida Medicaid issued a report ("Florida Medicaid Report") concluding that gender-affirming care is not medically necessary because it is not "consistent with generally accepted professional medical standards" and it is "experimental or investigational." *See* Div. of Fla. Medicaid, *Florida Medicaid: Generally Accepted Professional Medical Standards Determination on the Treatment of Gender Dysphoria* (June 2022). In making this conclusion, the report opened the door for the Medicaid exclusion. The Florida Medicaid Report incorporates literature reviews on the etiology of gender dysphoria, desistance of gender dysphoria and puberty suppression, cross-sex hormones as a treatment for gender dysphoria, sex reassignment surgery, and the quality of available evidence and bioethical questions. *Id.* at 1. It also explores coverage policies domestically and in western Europe, and includes several attachments, including articles in support. *Id.* at 1–2.

The Florida Medicaid Report claims that "[a]vailable medical literature provides insufficient evidence that sex reassignment through medical intervention is a safe and effective treatment for gender dysphoria" and that studies focusing on the benefits "are either low or very low quality and rely on unreliable methods." *Id.* at 2. It claims that current evidence around gender-affirming care shows that it "cause[s] irreversible physical changes and side effects that can affect long-term health." *Id.* From the literature reviews conducted, the report states that "Florida Medicaid has determined that the research supporting sex reassignment treatment is insufficient to demonstrate efficacy and safety." *Id.* at 3.

Numerous critiques have been levied against the Florida Medicaid Report, both in public comments as described *infra* Part 2 and in external documents. Most comprehensively, faculty members from Yale and other universities[1] drafted a report reviewing the Florida Medicaid Report ("Critical Review"). *See* Meredithe McNamara et al., (July 8, 2022). The Critical Review

[1] Faculty members were from Yale Law School, Yale School of Medicine Child Study Center, Yale School of Medicine Department of Psychiatry, Yale School of Medicine Department of Pediatrics, University of Texas Southwestern, and University of Alabama at Birmingham. *See* Meredithe McNamara et al., *A Critical Review of the June 2022 Florida Medicaid Report on the Medical Treatment of Gender Dysphoria* (July 8, 2022), https://medicine.yale.edu/lgbtqi/research/gender-affirming-care/florida%20report%20final%20july%208%202022%20accessible_443048_284_55174_v3.pdf.

states that the Florida Medicaid Report "purports to be a review of the scientific and medical evidence but is, in fact, fundamentally unscientific" as it "makes false statements and contains glaring errors regarding science, statistical methods, and medicine." *Id.* at 2. The Critical Review is structured in five parts. It argues that "medical care for gender dysphoria is supported by a robust scientific consensus, meets generally accepted professional medical standards, and is neither experimental nor investigational"; that the Florida Medicaid Report is "a flawed analysis that ignores the scientific evidence and relies instead on pseudo-science" including experts who have been disqualified in court; that the Florida Medicaid Report "makes unfounded criticisms of robust and well-regarded clinical research and . . . cites sources with little or no scientific merit"; that the Florida Medicaid Report's "linchpin" is an analysis which is "extremely narrow in scope, inexpert, and so flawed it merits no scientific weight at all"; and that the Florida Medicaid Report "erroneously dismisses solid studies as 'low quality,'" which if followed regularly would mean that widely-used medications and common medical procedures would also have to be denied coverage. *Id.* at 3.

The Agency for Health Care Administration responded to the Critical Review, stating that it is "another example of the left-wing academia propaganda machine arrogantly demanding you follow their words and not the clear evidence-based science sitting right in front of you" and that it is a "hodgepodge of baseless claims" without authority or credibility. Dara Kam, *Expert Report Condemns Florida's Plan to Ban Medicaid Coverage for Transgender Care*, Palm Coast Observer (July 17, 2022).

2. Current Status

a. July 8, 2022 Hearing

The Florida Agency for Health Care Administration held a lively public hearing on July 8, 2022 on the proposed rule. The hearing consisted mostly of public comments, a comprehensive summary of which is attached in the Appendix. The full hearing can be viewed online. 7/8/22 Agency for Health Care Administration Hearing on General Medicaid Policy Rule, Fla. Channel (July 8, 2022).

The hearing included a "panel of experts" consisting of Dr. Andre Van Mol, Dr. Quentin Van Meter, and Dr. Miriam Grossman. Dr. Van Meter has been found by a court unqualified to be an expert on the subject of gender-affirming care. *See* Stephen Caruso, *A Texas Judge Ruled This Doctor was Not an Expert. A Pennsylvania Republican Invited Him to Testify on Trans Health Care*, Penn. Capital-Star (Sept. 15, 2020). He is also the president of the American College of Pediatricians, an advocacy group whose primary focus is to advocate for conservative policies in medicine, which has been categorized by the Southern Poverty Law Center as a hate group. *See American College of Pediatricians*, Southern Poverty L. Ctr. (last visited July 22, 2022). Dr. Van Mol is also a member. *Andre Van Mol*, Pub. Discourse (last visited July 22, 2022). The panelists spoke at several times during the hearing, primarily to point the audience towards the Florida Medicaid Report. *See* Appendix.

Over the two-hour hearing period, fifty public commenters spoke. Forty-two of those commenters supported the proposed rule and eight opposed it. Of the forty-two in support, two

formerly identified as transgender but have since detransitioned, eight were representatives of the Christian Family Coalition, and at least ten mentioned God or the Bible as part of their rationale. Many supporters also raised concerns that children and teenagers are not mature or knowledgeable enough to choose these procedures, or that they are being unduly influenced by their peers and may later regret transitioning. Notably, the proposed rule would apply to gender-affirming care for individuals of all ages, not only youth. 48 Fla. Admin. Reg. 2461–62 (June 17, 2022). Several supporters also cited the Florida Medicaid Report as being well-researched and providing a strong basis for the rule; some opponents of the rule noted criticisms of the report including those raised by the Critical Review.

b. Florida Organizations and Individuals

The university faculty who wrote the Critical Review also wrote a significant public comment on the proposed rule. *See* Letter from Anne L. Alstott et al. to Simone Marstiller & Tom Wallace re Rule No. 59G-1.050: General Medicaid Policy (July 8, 2022). The letter highlights similar concerns, noting that the "complete absence of scientific foundation for the Proposed Rule renders it an arbitrary and capricious use of rulemaking power" and that it "cannot [be] characterize[d] . . . as a valid interpretation of the existing Florida regulations on generally accepted professional medical standards, because the [Florida Medicaid] Report fails to satisfy Florida's own regulatory requirements for scientific review." *Id.* at 2. It reiterates concerns about the Florida Medicaid Report, including the cited experts' bias and lack of expertise, errors about scientific research and medical regulation, and lack of scientific weight. *Id.* passim, 20.

Disability Rights Florida submitted a comment also opposing the proposed rule. *See* Letter from Peter P. Sleasman to Simone Marstiller re Proposed Amendments to Rule 59G-1.050. The letter focuses primarily on how this proposed rule "will cause unnecessary and disproportionate harm to individuals with disabilities living in Florida," especially those who are low-income. *Id.* at 1. It notes that transgender individuals "are more than twice as likely as the general population to live in poverty," and transgender individuals with disabilities are four times as likely. *Id.* at 2. Disability Rights Florida goes on to raise concerns about the agency's "apparent failure to take even minimal steps to ensure that the rulemaking workshop . . . is accessible to the very people with disabilities it will directly impact," citing to the lack of accommodations, contact information for seeking accommodations, and response regarding livestreaming. *Id.* at 3.

As did the Endocrine Society. *See* Letter from Ursula Kaiser to Agency for Health Care Administration re 59G-1.050: General Medicaid Policy (July 8, 2022). They note that their guidelines, "while not standards of care that clinicians are legally bound to follow, . . . provide a framework for best practices, and deviations must be justified." *Id.* at 1–2. They expound on how their guidelines were developed—using a "robust and rigorous process that adheres to the highest standards of trustworthiness and transparency" and with a "systematic review of the evidence that supports [clinical] questions"—in contrast to the Florida Medicaid Report, which "did not include endocrinologists with expertise in transgender medicine," "makes sweeping statements against gender affirming medical care that are not supported by evidence or references provided," and "does not acknowledge the data showing harm reduction and improvements in behavioral health issues" that result from gender affirming care. *Id.* at 2–3. The letter goes on to state that this proposed rule would cause irreparable harm to transgender youth,

including putting their lives at risk. *Id.* at 6.

Equality Florida advocated against the rule as well. Equality Florida, Press Release, Equality Florida Decries Proposed Rule to Eliminate Medicaid Coverage for Gender Affirming Care (June 17, 2022). They note that this will affect approximately 9,000 transgender Floridians insured with Medicaid, and that "major medical and mental health associations recognize the critical importance of gender affirming care." *Id.*

The Florida Coalition for Trans Liberation has also put together a short policy brief around the proposed rule. *See* Fla. Coal. for Trans Liberation, *Stop Rule 59G-1.050* (2022). They note that this proposed rule contravenes all major medical advice, pushes a political agenda, and can be life-threatening. *Id.*

Florida Policy Institute also submitted a comment. *See* Letter from Anne Swerlick to Thomas Wallace re Proposed Rule 59G-1.050, Florida Administrative Code (July 7, 2022). They note that the proposed rule would "bar transgender patients from accessing essential care and reverse current Medicaid policies which have been in effect for years. *Id.* at 1. They also point out that this is counter to established standards of care, inconsistent with antidiscrimination laws, and exacerbates the challenges that transgender individuals already face. *Id.* It closes by noting that this rule seems to be "weaponiz[ing] [the Medicare program] as a tool for promoting a particular political agenda." *Id.*

While the majority of public comments during the July 8 hearing were in support of the rule, few comments posted online seem to be, and Florida Medicaid has not made all of the comments publicly available. Christian Family Coalition, who was also heavily represented at the July 8 hearing, did make a public statement, stating that this rule was "important and necessary" to protect Floridians, "especially minors, from harmful transgender surgeries, hormone blockers, and other unnatural therapies." *CFC Florida to Testify in Support of DeSantis Administration Rule Banning Medicaid Funding for Transgender Surgeries and Puberty Blockers*, Best Things Fla. (July 8, 2022).

3. Next Steps

Several nonprofit groups in Florida are prepared to push back against the proposed rule. Lambda Legal, the National Health Law Program, the Florida Health Justice Project, and Southern Legal Counsel issued a statement criticizing the Florida Medicaid Report and stating that they "stand ready to defend the rights of transgender people in Florida." *LGBTQ Groups to Fight Florida Over Medicaid Ban for Trans Treatments*, CBS Miami (June 6, 2022).

One potential avenue for doing so may be seeking an administrative determination. Florida law says that any person "substantially affected by a . . . proposed rule may seek an administrative determination of the invalidity of the rule on the ground that the rule is an invalid exercise of delegated legislative authority. Fla. Stat. § 120.56 (2022). If a complaint is properly filed, the state must assign an administrative law judge (ALJ) to conduct a hearing within thirty days. *Id.* at (1)(c). The ALJ may declare the proposed rule wholly or partially invalid, and the rule then may not be adopted unless the judgment is reversed on appeal. *Id.* at (2)(b).

Appendix: Summary from July 8, 2022 Hearing

This appendix will detail the public comments made at the July 8 hearing regarding the proposed changes to 59G-1.050. There is no readily available transcript of the proceedings, so please note that names below may be missing or misspelled. Each speaker was met with audience applause at the end of their remarks, but any audience reactions during remarks are noted below.

The meeting opened with introductions of the panelists and representatives and a brief summary of the rule before opening the floor for public comments. Public commenters were asked to state their name and organization and to limit comments to two minutes, focusing only on the proposed rule language. The agency also noted that comments could be submitted via email.

The first speaker was Chloe Cole, a 17-year-old detransitioner from California. Cole began medical transition at the age of 13. In retrospect, she states that she was not becoming a man, but was just "fleeing from the uncomfortable feeling of being [a] wom[a]n." Chloe states that she "really didn't understand all of the ramifications of any of the medical decisions that [she] was making" when she chose to undergo a double mastectomy at the age of 15. She lamented that she will never be able to breastfeed, has blood clots in her urine, cannot fully empty her bladder, and does not know if she can ever give birth.[2]

The next speaker was Sophia Galvin, also a detransitioner. She states that she had a history of mental illness, including self-harm and suicidal ideation, and that her desire to transition was "all in an effort to escape the fear of being a woman in this society." Galvin stated that she had no support when she chose to detransition; her doctor told her to stop taking hormones but she did not see a mental health counselor. She said that "this is not good for children" and she "was harmed by this, and it should not be covered under Medicaid."

Next, the mother of a transgender boy spoke. She said that a physician gave her son testosterone at the age of 16 without her consent or knowledge, and that Medicaid covered her son's double mastectomy, hysterectomy, and vaginoplasty. She states that her son had private insurance but it was bypassed. She said that it is "impossible to change one's biological sex" and that doctors should not be affirming the "lie that biological sex is changeable." She characterized these lies as "child abuse," at which point the crowd began to applaud, and said that "amputating the healthy body parts of a child whose brain has not reached full decision-making maturity is simply criminal." This lead to more applause. She further characterized gender-affirming care as a "medical experiment."

The next speaker, Jeanette Cooper, spoke on behalf of Partners for Ethical Care. Cooper stated that "we need to make space in the public sphere for ethical therapists by removing the medical treatment option" and characterized gender identity affirmation as a "poisoned bandage on the

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[2] Several news sources also reported on Chloe and her testimony. *See, e.g.*, Tyler O'Neil, *California Ex-Trans Teen Backs Florida Ban on Medicaid Funds for Transgender Medical Interventions*, Fox News (July 10, 2022), https://www.foxnews.com/health/california-ex-trans-teen-backs-florida-ban-medicaid-funds-transgender-medical-interventions. In one article, she urged individuals to "wait until you are a fully developed adult" prior to transitioning. *Id.* Notably, the Florida proposed rule is not only a prohibition on gender-affirming procedures for minors, but prohibits Medicaid funding for any gender-affirming procedures regardless of age.

skin of children causing permanent psychological and physical harm." The audience applauded when Cooper said "everyone knows what a woman is, but some people are afraid to say it." Cooper went on to state that "the state has no business using taxpayer funding to turn children into permanent medical patients" and "assisting doctors in selling disabilities to vulnerable suffering children." She further said that gender-affirming care is "not real healthcare" and that the state should instead fund "legitimate care" that addresses trans children's "actual needs." She likened the satisfaction children get from gender-affirming care to "a street drug that needs to be injected every day." Cooper closed by stating that the medical is "failing these families" and that her organization supports the proposed rule.

Donna Lambert, on behalf of Concerned Parents, also supported the rule. She said that "the healthcare professionals are presenting many [parents] with a false and painful choice: accept what we know will permanently harm our children, or lose them to suicide." She stated that "there is no data to prove that medically transitioning minors prevents suicide" and that parents lose their children down this "dangerous medical path permanently harming their healthy bodies with off-label drugs and experimental surgeries." Lambert said that transgender children "become angry and hostile and resentful; they begin lashing out at anyone who will not agree with their newfound identity." She described this as a "destructive social phenomenon" which "cuts parents out of the equation."

A Christian pastor spoke next, stating that the Bible teaches that "God makes people made and female" and to try and transition people "is a sin" and "should be a criminal abuse of children, especially when they're not at the age when they can properly process what they're doing to themselves." He said that the "one goal" of doctors who provide gender-affirming care is to "cut[ ] back on the birth rate." He supported the proposed rule and said Florida should "go further" and classify aiding in this case as "extreme child abuse."

Brandy Hendricks stated that gender-affirming procedures "have been shown to be extremely harmful, especially to minors." She lamented that children are being allowed to "change their genders before they've even reached puberty or shortly after." She said that pharmaceutical companies are advertising puberty blockers to children and unethically enriching themselves. She too characterized gender-affirming care as "child abuse" and as "experimental."

Sabrina Hartsfield, an alumna of Florida State University and a born-again Christian, spoke against the rule. Hartsfield said that "without gender-affirming healthcare, transgender and gender nonconforming individuals will die." She said that, "according to every major legitimate medical organization, gender-affirming care is the treatment for gender dysphoria." She said gender affirming care is "medically necessary and lifesaving treatment" that should not be decided by big government overreach. An audience member shouted something indiscernible at this point in Hartsfield's comment. Hartsfield went on to state that the proposed rule violates the Affordable Care Act and Medicaid Act's nondiscrimination provisions. She noted that denying gender-affirming care can be life-threatening.

Simone Chris, an attorney and the director of the Transgender Rights Initiative at Southern Legal Council, "vehemently oppose[d]" the proposed rule. She stated that her organization's experience working with hundreds of transgender individuals has evinced "the tremendous

benefits that access to [gender-affirming] care provides." Chris went on to state that "the insidiousness of this rule is exacerbated by the fact that it places in its crosshairs the individuals in our state who are already disproportionately likely" to face poverty, homelessness, poor health outcomes, and limited access to healthcare. She noted that every major medical association supports gender-affirming care, and that the proposed changes would "cause significant harm" by depriving individuals of "critical, lifesaving medical care." Chris went on to state that the changes to the rule substitute the state's judgment for that of the patient and their doctor, and that it is a "shameful waste of state resources." She cited to nationwide litigation which has struck down similar laws as inconsistent with the guarantees provided by the Medicaid Act, the Equal Protection Clause of the Fourteenth Amendment, and the Affordable Care Act, and noted that Florida will undoubtedly face similar challenges, wasting taxpayer money.

The next speaker, Matthew Benson, a pediatrician and pediatric endocrinologist, agreed with the proposed changes, stating that the data used to support gender-affirming care "is not scientific." He cited to a Swedish study from 2016 which found that the mortality rates of transgender individuals who received gender-affirming care were three times that of the general population, and that they attempted suicide five times more often than the general population. He also cited a similar study from Denmark wherein 10 percent of the study population died over the 20-year study period. Benson said we need better data and longer-term trials "to justify these kinds of very aggressive therapies."

Karen Schoen, a former teacher, spoke on behalf of Florida Citizens Alliance. She opened by stating that she would like to know "why 0.03 percent of the population is dictating to 99.97 percent of the population" that their elective surgeries should be paid for. This was met with audience applause. Schoen said that "kids change their minds" and that they become fearful of maturing. She lamented that thirteen-year-olds cannot drive a car, have a drink, or shoot a gun, but are "in charge" when it comes to changing their gender. This was met with audience laughter and applause.

The next speaker was Bill Snyder. Snyder first told a story about "reality disease," stating that "the further we move from reality, the further we move from morality" and that "the further we move from virtue, the more secular we become." Secularity leads to less freedom, he said, and then urged Florida to approve the changes to the rule.

Avery Fork with Christian Family Coalition, a college counselor, also spoke in support of the proposed rule. She characterized gender-affirming procedures as "unnatural therapies being promoted by radical gender ideals and with no basis in science." She said the proposed rule would prevent taxpayers from having to pay for "highly unethical and dangerous procedures."

Richard Carlins also spoke in support of the rule. He said that our Constitution was founded on "biblical principles." Carlins said children are being indoctrinated through commercials, Disney World, Coca-Cola commercials, and restaurants, and that gender-affirming procedures are a "horrendous evil." He said that "God raises up nations and he brings down nations," which was met with audience vocal support, and that this is a recent phenomenon. He said we've been "living in Judeo Christian principles" for 1500 years, and "it's just recently that we're throwing any mention of God [or] the Bible under the bus."

Amber Hand with the Body of Christ grew up with two queer parents. She said she had been considering gender transition for most of her life, but that "we have to teach these kids right from wrong" and that it is wrong to teach children they can make these decisions. Hand said that she is glad she never transitioned because she recently realized she wanted children. She went on to quote the Bible and that it's "not okay to change your identity."

The next speaker, Ms. Hazen, also supported the rule. She said that children are being pressured at a young age to identify as transgender, and that much of the pressure comes from the internet. She cited a follow-up study of individuals who transitioned, which found that the suicide rate in those individuals was twenty times the general population. She said that this evinces the "deep regret" they face after "mutilating" their bodies. She said that children "don't understand that they will never be able to procreate ever again" when we "mutilate these children's bodies at an early age."

Leonard Lord also spoke in favor of the proposed changes. He said that he was also uncomfortable in his body as a child but was able to get comfortable by becoming closer with God. The audience murmured in approval. He said that "either we're playing games, or we really believe there's a God and the Bible is true," and that this "problem" happens because we don't believe in God. Lord said that, with regard to mental health issues, "God's spirit is the answer to what's missing in their lives," again leading to audience applause and cheers. He said that by taking God, the Bible, and prayer out of schools, we are removing ourselves of power, love, and a sound mind. The audience again applauded. He said the "devil is the author of confusion" (the audience cheered) and that "if you spend your life trying to figure out if you're a man or a woman you'll never know why you're here" (again, audience applause).

The next speaker, Pam, also supported "stopping Medicaid from paying for children and teenagers to have such changes." She said that children are "confused" and likened gender-affirming procedures to "paying for [children] to have furry animal body parts," to which the audience cheered. She said she is thankful that Florida will "stop the madness" for "the sake of the children."

Jon Harris Maurer, the public policy director for Equality Florida, spoke next against the proposed rule. Maurer said that the proposed changes are without scientific or legal basis and are "clearly discriminatory." He cited to numerous experts and organizations who endorse gender-affirming care. Maurer also said that the agency "lacks the specific delegated rule-making authority to adopt the proposed rule" and that the statute cited "grants no authority" for the agency to usurp the role of healthcare providers. He said the rule is discriminatory and targets the transgender community, and that it would harm the 9,000 transgender Floridians on Medicaid. An audience member began to shout, and the audience began to speak over Maurer. He said that the proposed rule is politically calculated and urged them to reject the rule.

Anthony Verdugo spoke on behalf of the Christian Family Coalition as the Executive Director. Verdugo supported the rule. He said that "they call it gender-affirming care" but "they don't care, and it's not affirming." He called Chloe Cole and Sophia Galvin "heroes," and said that this is a "war on children and this is a crime against humanity." Verdugo said that "groomers" are pressuring children to undergo gender-affirming procedures. He cites to the warning label on a

package of hormones which states that emotional instability is a side effect. He said that the organizations Maurer listed "have been discredited" and cited to "more renowned" organizations who believe that "the suppression of normal puberty, the use of disease-causing cross sex hormones, and the surgical mutilation and sterilization of children" are "atrocities" and "not health care."

The next speaker, a veteran and police officer, said that doctors, parents, teachers, and scientists have been wrong before, but that detransitioners are the "evidence" we need. He said we need to "stop being ignorant" and that churches are bigger than any organization and in support of the proposed change. The audience met this with cheers and applause throughout.

Michael Haller, a doctor and professor of medicine at the University of Florida, spoke on his own behalf. After establishing himself as an expert, he said that this proposed rule makes "numerous false claims, uses biased reviews of the literature, and relies on more so-called experts who actually lack actual expertise" in caring for transgender youth. He said that the state's assertion that gender-affirming care is not safe or effective is "patently false" and that nearly every major medical organization supports this care. He says the state is "either unwilling or willfully chooses to ignore the totality of evidence for gender-affirming care." He said that the state's experts are unqualified. Haller noted that the proposal is "poorly-conceived," likely to cause harm, and should be rejected.

At this point, a member of the panel, Dr. Van Meter, made a comment. He said that the Endocrine Society guidelines are not standards of care, but merely guidelines, drafted by "ideologues" from the World Professional Association for Transgender Health. He said that this group excluded "world renowned experts in the field" and did not include their input "on purpose." He said that we "have to stop using the term 'standards of care' when there are absolutely no standards of care in this instance that have been addressed."

Robert Youelis spoke next, lamenting that gender-affirming care was not on anyone's radar even five years ago. He said that this is man "proclaim[ing] himself as God" and that there is only one truth. Youelis said we are "philosophically and morally" going down a slippery slope when we start considering gender-affirming care. He said that brains are not fully developed until the age of twenty-five, and children cannot make other decisions in life, so we should not be educating anyone about gender identities until they are in twelfth grade.

The next speaker, Keith Claw of Florida Citizens Alliance, spoke next. He said that children in public schools are "purposefully confused, desensitized, and even pressured into abnormal sexual behavior" and that "gender idealogues are coaching kids to be into this dysphoria." He said that there is ongoing debate as to whether gender dysphoria is biological or psychological. He said that taxpayers should not have to pay for gender-affirming care.

Robert Roper spoke next, also in support of the rule. He said that it "serves to protect the children." He said "gender confusion is the only disorder that comes with a false assertion that a child can be born in the wrong body" and that it is "impossible" to become the opposite gender. He went on to say that gender dysphoria is the only "disorder [where] the body is mangled to conform to the thoughts of the mind" and where "the child actually dictates his or her medical

care . . . instead of the other way around." He called this a "social media epidemic manufactured by social media influencers making a lot of money off the very vulnerable element of our society." He likened gender-affirming procedures to giving drugs to a drug addict or alcohol to an alcoholic and cited to a Reddit post where 35,000 individuals expressed regret of transitioning.

Karl Charles of Lambda Legal spoke against the proposed rule. He said that this care is "essential and in some cases lifesaving," "clinically effective," "evidence based," and "widely accepted." Charles said that exclusions such as this one cause "serious immediate and irreparable harm" to those who already experience "well-documented and pervasive stigma" and barriers to healthcare. He said that he is particularly concerned by the agency's characterization of this care as "experimental and ineffective," and that this is contrary to available medical evidence and misrepresents studies. He notes that the so-called experts relied on have been discredited and do not treat transgender patients. He noted that no one on the panel was a transgender Medicaid recipient in Florida, and that singling out transgender Medicaid participants violates Equal Protection and ACA § 1557.

A panelist at this point referred everyone to the appendices to the Florida Medicaid Report, including Dr. Cantor's reports cited to on page thirty-nine, which discusses each organization that has supported gender-affirming care.

Ed Wilson spoke in support of the proposed rule, saying that it would "protect children who are not mature enough to be comfortable in their own bodies" from "making mistakes that will destroy their lives." He said that taxpayer money should "never be used to destroy innocent lives" and that gender-affirming care "never actually succeed[s]" but does cause harm. He characterized it as "mutilation" and an "atrocit[y]" to be banned, "not healthcare."

Suzanne Zimmerman, a relative of a gender dysphoric youth, spoke next. She "pray[ed]" that the state "not make it easy" for this youth's parents to be persuaded towards gender-affirming care. She pointed to the testimony of detransitioners to state that "God doesn't make mistakes" (the audience said "amen"). She urged them to support the changes.

Jean Halloran also supports the changes. She said that Medicaid should not be supporting or paying for gender-affirming care. She likened gender-affirming care to cosmetic changes to make her look younger, receiving audience applause and laughter.

Ezra Stone, a clinical social worker, pointed to research that medical transition is safe and effective. They pointed to clients who have "expressed tremendous relief" and an increased sense of safety when they are able to access medical care. They said that "understanding and being seen as [one's] true sel[f] creates a sense of belonging, which is a fundamental human need." They pointed to the political climate in Florida as causing harm and anxiety to "transgender, nonbinary, questioning, and gender-diverse Floridians." Their patients "worry about their access to medical care" and experience fear of violence daily, which supports the minority stress model that says that expecting harm and violence has a negative impact on mental health and well-being. They said that this proposed change will create an atmosphere of fear and take away medically necessary care.

Peggy Joseph shared the thoughts of Ryan T. Anderson, author of *When Harry Became Sally*. She cited to the Obama Administration's refusal to mandate coverage of gender-affirming surgeries under Medicaid, which said that there was "not enough evidence" to determine whether it improved health outcomes. She said that studies with positive outcomes were exploratory, without follow-up, which "could be pointing to suicide." She cited to the Swedish study regarding suicide rates, as well. She said the "minimal standard of care should be with a standard of normality" and that gender dysphoric thoughts are "misguided and cause harm."

A panelist again interjected to note that the report on pages 35–36 and 42–45 discusses the international consensus.

Jack Walton with the Christian Family Coalition is a pastor. He said he has counseled queer individuals for thirty-seven years. He believes that "gender dysphoria should be labeled as child abuse" and the doctors who prescribe gender-affirming care are "tear[ing] the child apart and call[ing] it health care." Walton says that gender-affirming care is "not science" and that any such procedures "should be labeled criminal." He said that "nearly 90 percent of those that escape from that life do it by the time they reach the end of puberty because they come back to their senses that they were created male and female by God." Walton expressed that suicide happens when a transgender person transitions but "still do[es]n't find the completion that they thought they felt." He said that many individuals transition because of child abuse they faced as children or because they were not accepted by others. He closed by saying there are "two genders, male and female; women bear children, women breastfeed, women have menstrual cycles, men do not." He said he "would not provide the anorexic with food and [he] would not say give money to do something that would harm a child."

Another member of the Christian Family Coalition, Jose, also supported the changes. He characterized gender-affirming care as "mutilation" and said that transgender individuals need "counseling" and should not be given a "destructive choice." He said that everyone will have to "stand before our living God and give account for where we stand on this and other issues." He thanked Chloe Cole and Sophia Galvin for their testimonies.

The panel then asked that members of the same organization be mindful of their time.

Bob Johnson, an attorney, spoke next. He thanked the agency for putting together the report, noting that it is "thorough," and said the "case is compelling." He strongly supports the rule change, and this is in large part due to the report making the case. He noted that the "FDA does not approve any medication as clinically indicated for gender dysphoria" and lamented the lack of randomized controlled trials and long-term data for puberty suppression medication.

Sandy Westad also spoke on behalf of Christian Family Coalition. She said that her heart is "breaking for what these kids are going through" and that "the parents need to stay in control." She said that kids "play house" and "pretend," but they "don't want to be or understand or even know what it is to change from one sex to another." She said, "children cannot make those kinds of decisions" and "cannot decide who they are."

Gayle Carlins also spoke from Christian Family Coalition. She said her beliefs are based on the

Bible, which is "the only truth that there is," and which says that "God created male and female." She went on to "bring science into it," stating that females have two X chromosomes and males have an X and a Y chromosome, and that "it's an impossibility to change from one to the other" "no matter what kind of mutilation or anything is done to a person."

Dorothy Barron spoke next, also from Christian Family Coalition. She first thanked Florida's "great governor," eliciting audience cheers and applause, and thanked Chloe Cole and Sophia Galvin for not "going along with what you were trying to be brainwashed into" (also eliciting audience cheers and applause). She said "they're definitely targeting our youngest," and lamented that "we can't seem to find baby formula anywhere but yet Medicaid can fund this nonsense." Barron said it "has to be left up to the parents," and that "whatever you choose to practice in the privacy of your own home is your business"; she is "not discriminating against any genders or whatever." She said that it needs to be "taken out of the schools." She said Michael Haller's testimony was "shameful" and is "why we're in this bloody mess right now," to which the audience also cheered and applauded.

The panel reminded the public to be focused on the rule and respectful of other speakers.

Troy Peterson, the president of Warriors of Faith, supported Christian Family Coalition, and came from the Tampa Bay area. He said that he represents "thousands that stand in agreement" with the proposed change. He thanked the doctors for the report and said that "when [he] saw the evidence, [he] could clearly see that we need this rule." He quoted from Genesis and said that God created male and female, and he is opposed to Michael Haller as well. He said that "if [he] had any authority in the medical field, [he] would have [Michael Haller's] license revoked." The audience whistled and verbally approved. He said that the most thorough follow-up of transgender individuals in Sweden said that "the suicide rate is twenty times that of the comparable peers" and that "50 percent of the gender identity confused children have thoughts of suicide."

Janet Rath spoke next. She said that "fifty years ago, as parents, we were smarter than what's going on today," and that parents are being left out of their children's lives. She said some of this is the fault of parents and some is the fault of teachers. She said her granddaughter, a teacher, has told her that "if she has a child that comes in and identifies as a cat, she must have a litterbox there and a bowl of water." Rath said that our country is going "absolutely insane," and the audience murmured in agreement. She said that Dr. Fauci is "nothing but a money-grabbing liar" and "we have been hoodwinked ever since." Rath went on to say that "Chinese children in third grade are learning advanced calculus" but "our third graders are learning which bathroom to use."

Gerald Lomer drove 3.5 hours to attend the hearing. He supported the proposed rule and "the best governor in the United States," to which the audience cheered and applauded. He told "stories" of a girl who wanted to spend more time with her father and thought that being a boy was the best way to do so and a boy who wanted to spend more time with his mother and thought that being a girl was the best way to do so. He said that thirteen-year-olds cannot drive a car, drink a beer, or smoke a cigarette, but are able to take hormones and obtain surgeries for gender-affirming care. He characterized gender-affirming surgeries as "mutilating."

A pastor from Florida spoke next on behalf of Protect Our Children Project, Duval Country Charter House, and Christian Family Coalition. She supported the rule prohibiting funding for "unnatural therapies" and does not want taxpayers to subsidize transgender care. She said that "transgenderism is driven by unethical pharmaceutical companies enriching themselves with puberty blockers" and that this is child abuse. She cited to Swedish psychiatrist Dr. Christopher Gillberg, who has said that "pediatric transition is possibly one of the greatest scandals in medical history."

Paul Aarons, a physician, spoke next. He said he has transgender patients and friends. He said that he opposes the proposed change, because it "conflicts with the preponderance of medical science and practice and would do irreparable harm" to transgender Floridians of all ages. He said that the American Academy of Pediatrics and its Florida chapter have directly refuted the agency's report. Aarons said that, "contrary to an earlier comment, the Endocrine Society has stated, 'medical intervention for transgender youth and adults, including puberty suppression hormone therapy, and medically indicated surgery, has been established as their standard of care. Federal and private insurers should cover such interventions as prescribed by a physician.'" He said gender dysphoria is "very real" and that people should meet and speak to transgender individuals, which will help them realize that denial of care "at any age would be inhumane and a violation of human rights." He said that gender-affirming care is "generally accepted professional medical standards" and that this rule would put the health and lives of transgender people in danger. He said that "it feels like Medicaid is crossing into a political lane by seeking to preempt provider/patient/family decision-making." He said that, if the agency still wants to address this topic, they should "at least convene an appropriate panel of experts including transgender community members to inform yourselves and the public about the overwhelming evidence against denying coverage for gender affirming care."

A doctor on the panel then encouraged everyone to read the report and its attachments. He said that the report focuses on studies which have been brought up, and "specifically the flaws" in those studies. He also encouraged audience members not to interrupt when others are speaking. He went on to say that the Endocrine Society's 2017 guidelines "are guidelines, just that," and they "do not guarantee an outcome" and "do not establish a standard of care." He also referred to international reviews which "all came to the same conclusion" that "this should not be going on in minors at all," to which the audience applauded. He said that children need "strong psychological support" and that four decades of literature point to the "overwhelming probability of mental health problems after these childhood events" and "problems like autism spectrum disorder." He said that in other nations, having "psychological instability . . . blocks you from the transition pathway" and that "those things be taken care of first because transition simply won't fix them." He said that the report is a "very well-researched document" and addresses a lot of the concerns raised in comment letters.

Another panelist then referred everyone to Attachment C of the report and Dr. Hruz's *Deficiencies in Scientific Evidence for Medical Management of Gender Dysphoria*.

January Littlejohn, a mental health counselor, spoke next. Her child expressed that they were experiencing gender dysphoria in 2020, shortly after three of their friends had started identifying as transgender. She said that the middle school had "socially transitioned [her child] without

their knowledge or consent"[3] and that her child's "mental health spiraled." She said that she has worked with a psychologist to help address her child's low self-esteem and anxiety, and has "given [her child] more one-on-one time, in-person activities away from trans influences, limited [her child's] internet use, and declined to affirm [her child's] newly-chosen name and pronouns." She said that they set "appropriate boundaries" and allowed her child to choose hairstyle and clothing but "denied harmful requests such as breast binders, puberty blockers, cross-sex hormones, and surgeries." She said it was "clear from [their] conversations" that her child was uncomfortable with their developing body and had "an intense fear of being sexualized." Littlejohn said that her child was "filled with self-loathing and was in true emotional pain," but "had been led by peers and influencers to believe that gender was the source of [their] pain." She said that her child needed to be "remind[ed] that hormones and surgeries can never change [their] sex or resolve [their] issues." She said that she "shudder[s] to think what could have happened if [they] had affirmed [her child's] false identity and consented to medical treatment" as opposed to "lovingly affirm [her child] as [they are], beautifully unique and irreplaceable and undeniably female." She said that her child has "desisted and is on a path to self-love" but unfortunately gender dysphoric children are "being encouraged to activism peer pressure to disassociate from their bodies and to believe their body parts can be simply removed, modified, or replaced." Littlejohn said that "the irreversible consequences of medically transitioning, including loss of sexual and reproductive function, cannot be fully understood by children or teens who lack the necessary maturity or experience."

Kendra Barris, a mental health attorney, spoke next. She first addressed the comment about the lack of peer-reviewed standards of care, saying that this lack means that "a lot of people who are harmed or experience bad outcomes from these surgeries or other interventions have no ability to sue." She said that "they have had decades to create peer-reviewed standards of care and they have not," and she suspects that some people do not want to standards because it would open them up to lawsuits, which is not currently happening. She went on to say that "when you put a female on testosterone, within about five years [they are] going to have to have a hysterectomy," which for teens could mean a potential hysterectomy before the age of twenty. She said that "hysterectomy is correlated with negative mental health outcomes and cognitive decline" and that this is worse the earlier a hysterectomy is performed. She said that "essentially, the earlier you do the hysterectomy, the earlier the onset of dementia." She is "very concerned about" how in a few decades "we're going to have an absolute wave of young females, 40–50 years old, with early-onset cognitive decline" in assisted-living facilities. She said that "some people who are trans and have dementia forget that they're trans" and if they don't have written consent to continue their transition, they "might be cut off." She worries that "we have not considered all of the implications of this."

The next speaker was Nathan Bruemmer, Florida's LGBTQ Consumer Advocate. He opposed the proposed rule "on behalf of healthcare consumers," saying that consumers "must be provided with accurate information, education, choice, safety, representation, and regress." He said that

[3] Note that news organizations have reported that Ms. Littlejohn was aware of her child's choice to change names and pronouns at school and told the school she would not stop them from doing so. She later filed a lawsuit against the school. *See, e.g.*, Leyla Santiago, *Fact Check: Emails Show One of Desantis's Stories Backing the Rationale for So-Called 'Don't Say Gay' Law Didn't Happen as the Governor Says*, CNN Politics (Apr. 6, 2022), https://www.cnn.com/2022/04/06/politics/fact-check-desantis-dont-say-gay-family-narrative/index.html.

"documented, well-researched standards of care have been established, are based on a wide range of evidence, and conclude that gender-affirming medical care is medically necessary and safe and effective." In other words, "gender-affirming care *is* the standard of care." Bruemmer said that the proposed rule would "deny health care consumers . . . access to the standard of care." He said that agencies must defend the rights of all Floridians, including transgender Floridians, and that this includes the right to non-discriminatory healthcare coverage. He said we should work to increase access to healthcare, not lessen or remove it. Bruemmer said that he is "one of . . . tens of thousands of transgender Floridians" who have had access to gender-affirming care, and who are "happy, and successful, and thriving." He said that transgender Floridians "deserve the rights and benefits afforded to all."

The next speaker's name was inaudible, but he also spoke in support of the proposed rule. He told examples of his fifteen-year-old son making bad decisions, including speeding on his dirt bike and wanting to leave home, as proof that "these kids can['t] make a decision on what they want that's going to be with them for the rest of life." He said that the doctors who spoke previously "are despicable," "need to have their licenses taken away," and "are a disgrace to the human race."

A panelist thanked him for his comment and said, "we respect everybody's comments, including the doctors that you referenced."

Dottie McPherson spoke next on behalf of the Florida Federation of Republican Women. She said that even at the age of eighteen "children don't have the maturity to handle certain responsibilities given them" like driving and alcohol, and that "even older adults don't." She said that state programs include "programs for abused and neglected children, but not gender decisions." She urged the panel to "prevent funding the destruction of children's genitalia and hormonal balance." McPherson urged the panel to consider unintended consequences, such as "taxpayer money that will need to be used for lawsuits by those whose lives were ruined from surgeries that they got while they were immature or too young to understand," parents whose "parental rights were denied to protect their children's future." She said that "life isn't fair" and we have to "stop giving in to the 'poor pitiful me' syndrome." McPherson said that government "has no business funding these things."

Maria Caulkins spoke next in support of the proposed rule. She said that taxpayer money should not be spent on funding surgeries that are "unnecessarily and tremendously harmful." She said that there is "a war on our children" and that we need to "protect our children" and "support our governor" by being on the "right side" of this war.

James Caulkins also spoke in support of the rule, saying that we're "in a battle in this country." He said that the people of Florida "have spoken" by electing "the greatest governor in the United States," to which the audience cheered and applauded. Caulkins said that we "don't need this stuff, this evil, this Medicaid funding for transgender surgery" and that Florida should lead other states against "this evil."

The final speaker, whose name was also inaudible, spoke in support of the proposed rule. She said that, years ago, she was told by a doctor that she needed to undergo hormone therapy, but

she "saw the risks involved." She said that hormone therapy is an attempt to "prevent . . . natural things from occurring," such as menstruation, and we can't expect it not to have any problems. She cited to Bill Maher, who pointed out that transgender procedures were only occurring in major cities where "social engineering is happening and where people are being influenced" but not in the rest of the country. She lamented that she can't go to the media and say anything against transgender individuals because it will be "criticized and condemned" which "isn't fair." She said that "the government should not be involved in supporting any kind of procedure to these young kids."

A panelist thanked everyone for their comments and then clarified the purpose of the rule. He said that it is *not* "a ban on treatment for gender dysphoria," but rather lack of Medicaid coverage for services mentioned in the proposed rule. He also said that "there are other comprehensive coverage of services for gender dysphoria currently in the Florida Medicaid program" before reading some of those services (community-based services, psychiatric services, emergency services and inpatient services, and behavioral health services in schools).

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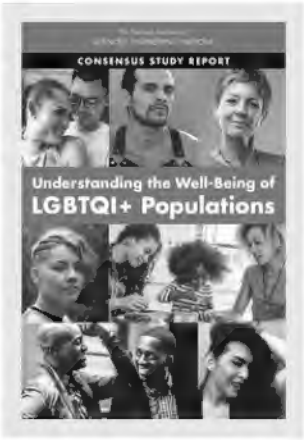

Understanding the Well-Being of LGBTQI+ Populations (2020)

DETAILS

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11

Physical and Mental Health

Since the Institute of Medicine report, *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding* (2011), the published literature on the physical and mental health of sexual and gender diverse (SGD) populations has expanded substantially. Recent research emphasizes the complexity of the multilevel and intersecting factors that influence the well-being of SGD people and drive disparities in health status, health care access, and health outcomes in SGD populations. These drivers include stigma; minority stress exposures, such as discrimination; and other behavioral, environmental, and structural risk factors. The intensity and effects of drivers of disparities can vary across the life course and among different SGD communities on the basis of factors such as race, age, and gender. Research has also begun to underscore, however, the degree to which resilience and effective interventions can mitigate health risks and help reduce these disparities.

This chapter reviews the literature on physical and mental health in SGD populations in the United States, identifies major group differences, describes drivers of disparities, and highlights opportunities for interventions to address these disparities. It is outside the scope of this report to assess SGD population health in international contexts, though this is an important area of scholarship. The chapter covers physical health, with a focus on general well-being, health behaviors, cardiovascular disease, and cancer; reproductive and sexual health, including fertility; violence and victimization; and mental and behavioral health. Although these topics are addressed individually to highlight the specific evidence for each, it is important to note that they are deeply intertwined and share cross-cutting

influences, such as minority stress and systemic barriers to health care services. Research and interventions to understand and improve the health and well-being of SGD populations need to reflect these complex relationships while also seeking to clarify how both disparities and resilience uniquely manifest in specific groups within the SGD population.

Following this chapter, Chapter 12 looks at SGD population health in the United States in the context of health care access and utilization, with a focus on the importance of SGD people having access to adequate insurance coverage; culturally competent providers; and high-quality, evidence-based health care services, including gender-affirming care for transgender and non-binary people. It also discusses the challenges posed by the continued prevalence of two medical approaches to SGD populations that are not evidence based: unnecessary genital surgeries for children with intersex traits and conversion therapy targeting sexual orientation or gender identity.

The information presented in these two chapters reflects both the current body of research and a multidimensional understanding of health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization [WHO], 1948). Health is central to well-being and quality of life for all people, but it is not equally distributed across populations. Health disparities are preventable differences in the burden of disease, morbidity, mortality, or opportunities to achieve optimal health. They are associated with a range of social, economic, and political determinants that are dynamic manifestations of the systems that distribute resources, protection, and power across society (Braveman et al., 2017). These determinants affect health by conferring social, economic, or political advantage on certain population groups, while limiting the resources available to members of disadvantaged groups for maintaining and improving their health and well-being. These determinants also mediate exposure to physical and mental health hazards, such as stigma, violence, discrimination, unhealthy environments, and inadequate medical care (Marmot et al., 2008; WHO, 2008). Health disparities thus represent the human embodiment of disadvantage and inequality in the daily conditions in which SGD people grow up, form families, work, age, and die (WHO, 2011).

Consideration of the social determinants of health introduces a moral and ethical dimension, frequently termed "health equity," into discussions of disparities. Health equity means that everyone should have a fair and just opportunity to be as healthy as possible, and it underscores that health disparities are avoidable and, therefore, unjust and unjustifiable (Braveman et al., 2017). Achieving health equity requires eliminating disparities by removing obstacles to good health such as discrimination, stigma, and their consequences. Health equity thus places an implicit

responsibility on policy makers, researchers, health care providers, advocates, and other stakeholders for accountable efforts to improve the health and well-being of populations experiencing disparities.

PHYSICAL HEALTH

General Health and Well-Being

Studies of general health and well-being have revealed that LGBTI adults tend to report worse health, lower health-related quality of life, and greater prevalence of disabilities than non-LGBTI people (Baker, 2019; Charlton et al., 2018; Fredriksen-Goldsen et al., 2013; Gates, 2014; James et al., 2016; Lett, Dowshen, and Baker, 2020; Meyer et al., 2017; Potter and Patterson, 2019; Rapp et al., 2018; Streed et al., 2017; Ward et al., 2014). Disparities in overall health have been found to be particularly substantial for bisexual and transgender people, especially non-binary people (Downing and Przedworski, 2018; Dyar et al., 2019, 2020; Lefevor et al., 2019). Emerging identity groups, such as asexual and pansexual populations, also appear to experience disparities in overall health and well-being (Borgogna et al., 2019; Yule, Brotto, and Gorzalka, 2013). In terms of mortality, there are only a few studies that focus on sexual orientation or gender identity, and none on intersex status. The studies that exist, however, report that mortality may be higher in LGBT than in non-LGBT populations (Asscheman et al., 2011; Asscheman, Gooren, and Eklund, 1989; Blosnich et al., 2014; Cochran, Björkenstam, and Mays, 2016; Cochran and Mays, 2011; Cochran and Mays, 2015; Dhejne et al., 2011; van Kesteren et al., 1997; Wiepjes et al., 2020).

Drivers of General Health and Mortality Disparities

The literature around both general well-being and mortality in SGD populations emphasizes the degree to which stigma and minority stress related to sexual orientation and gender identity (and presumably intersex status as well, though there is no research in this area) are important influences on these disparities (Gonzales and Ehrenfeld, 2018; Russo et al., 2012; Solazzo, Brown, and Gorman, 2018; Streed, McCarthy, and Haas, 2017). Physiologically, minority stress exposures contribute to the dysregulation of cortisol, which adversely affects metabolism, immune function, cardiovascular health, cognition, and mood (Berger and Sarnyai, 2015; DuBois et al., 2017). Minority stress is also associated with higher prevalence of unhealthy behaviors, such as tobacco use and binge drinking, and it is a risk factor for causes of mortality that include HIV and suicide. More research is needed to accurately measure minority stress exposures in SGD

populations and to investigate the origins, pathways, and consequences of minority stress for all aspects of health and life expectancy.

Bisexual health disparities, like other SGD health disparities, are often driven by stigma and minority stress (Doan Van et al., 2019; Friedman et al., 2014; Katz-Wise, Mereish, and Woulfe, 2017). While disparities related to minority stress can be buffered by social support, bisexual individuals report lower access to such support both within and outside of sexual minority communities, and they often report feeling socially isolated, invisible, and marginalized in both heterosexual and LGB communities (Meckler et al., 2006; Mulick and Wright, 2011; Saewyc et al., 2009; Yost and Thomas, 2012). Studies have found unfavorable attitudes toward bisexual people among gay and lesbian people as well as among heterosexual people (Dodge et al., 2016). A study using a feeling thermometer technique found that heterosexuals viewed bisexual people less favorably than all other comparison populations (including gays and lesbians and various religious, racial, and political groups) except for injection drug users (Herek, 2002).

For SGD Native American, Black, and other people of color, general health and mortality are additionally affected by exposure to racism. Native Americans, Native Hawaiians and other Pacific Islanders, and Alaska Natives, for example, have experienced centuries of trauma that includes affronts to their cultures and the systematic disruption and destruction of their communities through massacres, transmission of non-Indigenous infectious diseases, and forced migration and assimilation (Brave Heart and Debruyn, 1998; Kirmayer, Gone, and Moses, 2014; Walters and Simoni, 2002; Walters et al., 2011). Trauma from historical slavery and current structural violence, such as police brutality and high rates of incarceration, has similarly had pervasive negative effects on the physical and mental health of Black people (Chae et al., 2020; Williams, 2018). Historical trauma can transmit risk for poorer health and well-being to future generations by depleting psychological resilience and eroding supportive family, community, and economic structures.

Transgenerational transmission of stress- and trauma-related health risks can also occur through inherited epigenetic DNA modifications or in utero maternal-fetal exposure (Conching and Thayer, 2019; Walters et al., 2011). SGD people of color may experience the unique stressors of both racism and ethnocentrism in white SGD communities and rejection of their sexual orientation or gender identity by their racially or ethnically congruent families and communities (Hatzenbuehler, Phelan, and Link, 2013; Isasi et al., 2015; Pascoe and Smart Richman, 2009; Valdiserri et al., 2018; Worthen, 2018). They may therefore face health risks and disparities that differ from and may exceed those facing either white SGD communities or heterosexual and cisgender communities of color (Lett, Dowshen, and Baker, 2020; Tuthill, Denney, and Gorman, 2020).

Interventions to Improve Overall Health and Resilience

Resilience, a process that confers the ability to recover from or adjust to adversity, is an important counterweight to the effects of minority stress on general health and mortality in SGD populations. Studies conducted with a variety of SGD populations indicate that identity affirmation (Fredriksen-Goldsen et al., 2017; Matsuno and Israel, 2018), social support (Baratz, Sharp, and Sandberg, 2014; Sani et al., 2019; Schweizer et al., 2017), family acceptance (Katz-Wise, Rosario, and Tsappis, 2016), and protective laws and policies (Hatzenbuehler and Keyes, 2013; Hatzenbuehler et al., 2014) are associated with positive coping and resilience. Most of the research on resilience interventions has focused on youth. This research provides strong evidence for the role of school-based gay-straight alliances in promoting resilience among LGBTQ youth (Davis, Royne Stafford, and Pullig, 2014; Johns et al., 2019a; Poteat, Calzo, and Yoshikawa, 2016; also see Chapter 9). As of this writing, at least one comparative effectiveness research trial is under way to assess resilience to depression among racial and ethnic minority SGD populations (Vargas et al., 2019). More research is needed to identify effective interventions to promote SGD population resilience.

Health-Related Behaviors

Behavior patterns related to sleep, diet, exercise, and smoking are important determinants of health and well-being. When sleep is inadequate, for instance, people have more illnesses and accidents, and they suffer more chronic mental and physical health problems (Grandner and Pack, 2011; Walker, 2017). Results of recent studies suggest that sleep difficulties, such as reduced sleep duration and lower sleep quality, are more common among LGBT people than among heterosexual and cisgender people (Chen and Shiu, 2017; Cunningham, Dai and Hao, 2017; Harry-Hernandez et al., 2020; Kann et al., 2016; Patterson and Potter, 2019; Patterson et al., 2018; Xu, and Town, 2018). These findings are not completely consistent, however, suggesting that important patterns of disparities may be elucidated by more research on specific groups such as youth and transgender people. There is no evidence about sleep health among people with intersex traits.

Similarly, the evidence about diet and exercise in SGD populations is not entirely consistent. Some studies have found that sexual minority boys and girls were more likely than heterosexual youth to report low intake of fruit and vegetables (Rosario et al., 2014). Others have found no differences by sexual orientation (Boehmer et al., 2012; Laska et al., 2015), and some data suggest that the diets of sexual minority adults are as good as or pos-

sibly better than those of heterosexual individuals (VanKim et al., 2017). Likewise, a number of studies have found that sexual minority youth of all genders are less likely than their heterosexual peers to participate in team sports or regular physical activity (Calzo et al., 2014; Laska et al., 2015; Mereish and Poteat, 2015), while other studies show disparities in exercise habits for some gender or age groups but not for all (Boehmer et al., 2012; Rosario et al., 2014).

Cigarette smoking, by contrast, is clearly elevated among LGBT populations. The National Health Interview Survey found that 21 percent of lesbian, gay, or bisexual adults reported being current cigarette smokers, compared with 15 percent of heterosexual adults (Jamal et al., 2018). Smoking prevalence is also higher among transgender populations (Buchting et al., 2017; Hoffman et al., 2018). Smoking is a major risk factor for numerous diseases and conditions, including pulmonary and cardiovascular diseases, cancer, type 2 diabetes, periodontal disease, adverse pregnancy outcomes, and visual loss and blindness (Centers for Disease Control and Prevention [CDC], n.d.).

Drivers of Health Behavior Disparities

The minority stress theory suggests that disparities in sleep, diet, exercise, and smoking among SGD populations are related to experiences of chronic stress due to stigma and discrimination. It is well known that stress exacerbates sleep difficulties, such as insomnia (Akerstedt, 2006). Peer bullying and structural discrimination, such as laws barring transgender youth from participating in school sports, may discourage adolescents from participating in organized sports (Buzuvis, 2016; Cunningham, Buzuvis, and Mosier, 2018; Douall et al., 2018). Consumption of healthy foods, such as fruits and vegetables, is related to access to economic resources at both the household and neighborhood levels, making poverty and employment discrimination key covariates in investigations of diet among SGD populations (French et al., 2019). In addition to stigma and discrimination, risk factors for cigarette smoking among LGBT people include targeted tobacco marketing, lack of access to smoking cessation programs and treatments due to poverty and lack of health insurance, and a lack of cultural competency in smoking cessation programs (Jamal et al., 2018). For transgender people, a lack of access to gender affirmation is also associated with smoking and other health risk behaviors (Menino et al., 2018). Further study is needed on the drivers of health behaviors related to sleep, diet, exercise, and smoking, especially among SGD adolescents and older adults, transgender people, and people with intersex traits.

Interventions to Improve Health Behaviors

A variety of tailored 12- to 16-week interventions for overweight lesbian and bisexual women have included weekly group meetings, nutrition education, and physical activity support, with or without additional components of mindfulness, gym membership, and pedometer use. These tailored interventions have resulted in significant improvements in multiple health behaviors and health indicators, including physical activity, weight, and waist-to-hip ratio (Rizer et al., 2015). Key characteristics of health behavior interventions for sexual minority women include social support, education and goal setting, peer facilitation, and LGBT-friendly environments (Berger and Mooney-Somers, 2017).

Evidence of the efficacy of smoking cessation interventions for LGBT adults exists for community-wide smoke-free policies (Wintemberg et al., 2017), quit-smoking group-based interventions with or without pharmaceutical components (Eliason et al., 2012; Matthews et al., 2019), web-based interventions (Heffner et al., 2020), and social branding campaigns (Fallin et al., 2015). While LGBT-tailored programs are often preferred hy LGBT participants, non-tailored programs can demonstrate similar efficacy (Grady et al., 2014). Promising interventions currently under study include tailored social media and app-based smoking cessation interventions for sexual and gender minority youth (Baskerville et al., 2016; Vogel et al., 2019).

Cross-sectional studies suggest that increased access to legal (e.g., gender-congruent identity documents) and medical (e.g., hormone therapy) gender affirmation and decreased exposure to structural discrimination may reduce smoking and increase physical activity among transgender adults (Jones et al., 2018; Myers and Safer, 2017; Shires and Jaffee, 2016). More research is needed into effective interventions to optimize health behaviors among SGD populations, particularly since interventions designed to improve such health behaviors as sleep, diet, exercise, and smoking have important influences on other areas of health that are discussed in more detail below, such as cardiovascular disease and cancer.

Cardiovascular Disease

Some studies have found no difference between groups such as heterosexual adults and gay and bisexual men in cardiovascular disease (CVD) (Fredriksen-Goldsen et al., 2013). A growing body of evidence, however, indicates that LGBTI populations do experience CVD disparities, including elevated prevalence of coronary artery disease and angina and greater incidence of myocardial infarction and stroke (Alzahrani et al., 2019; Caceres, Veldhuis, and Hughes, 2019;

Caceres et al., 2017, 2018, 2019a, 2019b; Donato and Ferreira, 2018; Falhammar et al., 2018; Gonzales and Henning-Smith, 2017; Gonzales, Przedworski, and Henning-Smith, 2016; Hatzenbuehler, McLaughlin, and Slopen, 2013; Lagos, 2018; Lunn et al., 2017; Meads et al., 2018; Operario et al., 2015; Reisner et al., 2016a; Salzano et al., 2016, 2018; Silberbach et al., 2018; Streed et al., 2017). These disparities are greatest among bisexual compared to monosexual people, transgender compared to cisgender people, and Black compared with white lesbian women (Caceres, Veldhuis, and Hughes, 2019). One study also reported that gender-nonconforming individuals may have higher prevalence of coronary artery disease and greater incidence of myocardial infarction than either cisgender or transgender men and women (Downing and Przedworski, 2018).

Drivers of Cardiovascular Disparities

Disparities in CVD are driven by the greater prevalence in SGD populations of risk factors that include smoking, high blood pressure, and elevated levels of C-reactive protein, a biomarker of stress-related inflammation important in the pathogenesis of CVD (Hatzenbuehler, McLaughlin, and Slopen, 2013). Among sexual minority women and bisexual men, metabolic syndrome, which can include signs of insulin resistance, is also a common CVD risk factor (Caceres et al., 2018; Cunningham, Xu, and Town, 2018). As is the case for general health and mortality, many CVD risk factors in SGD populations are related to trauma and other minority stress exposures (Caceres et al., 2019a, 2019b; Rosengren et al., 2004; Sinclair and Wallston, 2004; Yusuf et al., 2004).

CVD risk among people with intersex traits varies by type of intersex trait as well as by experiences with hormonal and surgical therapies (El-Maouche, Arlt, and Merke, 2017; Los et al., 2016 Mooij et al., 2017). The cardiovascular effects of long-term hormones prescribed after gonadectomy are poorly understood (Gomez-Lobo and Amies Oelschlager, 2016). Hormone therapy similarly effects CVD risk among transgender people. Transgender women on estrogen therapy have increased risk of venous thromboembolism compared with cisgender people and transgender men (Dutra et al., 2019; Getahun et al., 2018; Gooren and T'Sjoen, 2018; Irwig, 2018; Quinn et al., 2017), and some studies suggest increased risk for myocardial infarction as well (Connelly et al., 2019). In transgender men, testosterone therapy is associated with elevated prevalence of CVD risk factors such as hypertension, insulin resistance, and dyslipidemia, though not with increases in CVD or mortality (Streed et al., 2017).

Interventions to Improve Cardiovascular Health

Most intervention research on prevention of CVD among SGD populations has focused on smoking cessation among LGBT adults, weight management among sexual minority women, and the benefits versus risks of hormonal therapies among people with intersex traits. Weight management and smoking interventions are discussed above in the section on health behaviors. Data on efficacy of CVD interventions for people with intersex traits are sparse, but several studies suggest early and regular screening and treatment for CVD risk factors such as hypertension and pre-diabetes among groups with elevated risk (Davis and Geffner, 2019; Los et al., 2016; Tamhane et al., 2018).

Cardiovascular health research priorities for SGD populations include the routine use of standardized measures of sexual orientation, gender identity, and intersex status in CVD research studies, especially longitudinal studies; studies that use objective measures of CVD (e.g., biomarkers and electronic health record data) rather than purely self-reported data; and rigorous study designs to investigate the relationship between hormone therapy and CVD risk and outcomes for transgender people and people with intersex traits (Caceres, Brody, and Chyun, 2016). Research is also needed into the impact of and interventions to address intersectional minority stress exposures as risk factors for CVD in SGD populations (Veenstra, 2013).

Cancer

In 2019, the American Cancer Society estimated that 130,000 LGBTQ people were newly diagnosed with cancer, and 45,000 died of cancer. These estimates were derived by applying the estimated percentage of the U.S. population that is LGBTQ to the 2019 projected cancer incidence in the general population. More accurate statistics about the overall prevalence and incidence of cancers among LGBT, intersex, and other SGD populations are precluded by the fact that health care systems, cancer registries, and national repositories of cancer data do not yet routinely capture demographic information about sexual orientation, gender identity, or intersex status (Gomez et al., 2019). Also lacking are population-based prospective studies evaluating cancer-specific risks, mortality, and survivorship issues facing SGD populations (Boehmer, 2018; Kent et al., 2019).

Existing data do suggest, however, that the incidence of certain cancers may be elevated in specific LGBTI populations. These include, for example, anal cancer in gay and bisexual men and breast cancer in lesbian and bisexual women (Quinn et al., 2015). The lifetime risk of germ cell tumors varies considerably across intersex conditions (Pyle and Nathanson, 2017), and gonadal cancers have been associated with

a variety of intersex conditions (Gomez-Lobo and Amies Oelschlager, 2016). Despite a low risk of gonadal malignancy before puberty, many intersex people have unnecessary gonadectomy in childhood (see discussion in Chapter 12), which means the risks for some cancers in people with intersex traits are unknown.

Drivers of Cancer Disparities

Elevated rates of cancer in SGD populations result from complex interacting risk factors. These factors can be sociodemographic, such as education and age; economic, such as employment and insurance coverage; environmental, such as food, second-hand smoke exposure, and environmental pollution related to health services, such as access to recommended care and providers' levels of cultural and clinical competency in caring for SGD populations; and individual, such as genetics, birth parity, alcohol and tobacco use, and history of sexually transmitted infections. For example, use of alcohol and tobacco, as well as rates of HIV, human papilloma virus (HPV), and hepatitis C infections, are higher in some LGBT populations than non-LGBT populations, which increases the risk of lung, breast, colorectal, and other cancers associated with these exposures (Herbst et al., 2008; Hughes et al., 2017; Lee, Griffin, and Melvin, 2009).

Evidence also indicates that access to cancer-related preventive services is lower in LGBT populations than other populations, which leads to many missed opportunities for primary and secondary cancer prevention (Cathcart-Rake, 2018; Ceres et al., 2018). For example, lesbian and bisexual women are less likely to receive mammograms than heterosexual women and, if diagnosed with breast cancer, are less likely to be engaged in treatment (Malone et al., 2019). Lesbians are less likely to receive HPV vaccinations for cancer prevention than heterosexual women, and cisgender sexual minority women and transgender people with a cervix are less likely to receive cervical cancer screening than cisgender heterosexual women (Agénor et al., 2018; Braun et al., 2017; Porsch et al., 2019). Rates of routine cancer screening among intersex populations have not been studied (Gomez-Lobo and Amies Oelschlager, 2016).

These missed opportunities for prevention are often associated with systemic barriers, which include provider misinformation (e.g., the mistaken perception that lesbians do not need Pap smears) and previous patient experiences with and fear of medical maltreatment, which results in reluctance to seek care (Boehmer, 2018). For sexual minority women and transgender men in particular, a lack of access to gender-affirming practices and spaces around breast and cervical cancer screening can be a formidable barrier (Taylor and Bryson, 2015). These spaces are often socially marked as feminine, with pink color schemes, floral gowns, and

women's magazines in the waiting rooms. Staff and other patients at such sites are often not prepared to see transgender men or masculine-presenting women, and responses to their presence may range from ignorant to hostile (Kamen et al., 2019). Similarly, health plans or providers may make incorrect assumptions about transgender people's bodies when assessing risk and medical necessity for specific cancer screenings. They also may not be aware that transgender men and non-binary people who retain a cervix require regular Pap tests; transgender women and non-binary people who retain a prostate may require prostate exams, and all people with breast tissue, including transgender men who have had chest reconstruction, may need mammograms (Deutsch, 2016; Pratt-Chapman and Ward, 2020). Barriers to appropriate cancer screenings may be particularly salient for SGD people of color, who may face barriers based on race and ethnicity as well as sexual orientation, gender identity, and intersex status (Malone et al., 2019).

Interventions to Improve Cancer Prevention and Outcomes

Positive, destigmatizing, gender-affirming relationships with health care providers increase acceptance of cervical cancer screening (Agénor et al., 2015; Dhillon et al., 2020) and HPV vaccination (Apaydin et al., 2018) among LGBT people. Sexual minority women and trans-masculine people often prefer self-collected swabs for cervical cancer screening and HPV testing (Goldstein et al., 2020; Johnson et al., 2016; McDowell et al., 2017; Reisner et al., 2018). There is no consensus or national recommendation around screening for anal cancer among gay and bisexual men; however, shared decision making about anal pap smears is recommended for men who have sex with men who are living with HIV (Margolies and Goeren, n.d.; Medical Care Criteria Committee and Brown, 2020).

A brief web-based intervention that provided tailored HPV information and monthly text reminders for gay and bisexual men was associated with increased HPV vaccinations among young sexual minority men (Reiter et al., 2018). Other recommendations for increasing HPV vaccination rates among young sexual minority men include creative use of mobile technology, bundling HPV vaccination with other health services, and increasing vaccine awareness (Fontenot et al., 2016).

The committee found few recent studies of breast cancer interventions for SGD populations. The most recent study described a community-engaged process of developing a culturally tailored breast cancer education program for LGBTQ individuals (Fung et al., 2019). Older studies included a culturally adapted intervention designed to improve breast cancer screening among Black sexual minority women; this intervention trained Black lesbians to be role models and lay health advisors for their community, but no efficacy data from this program have been reported (Washington and

Murray, 2005). Other intervention research included largely white samples: a tailored education intervention increased breast cancer screening in lesbians (Dibble and Roberts, 2003), and a risk counseling intervention with mostly white sexual minority women increased breast cancer screening rates at 24 months (Bowen, Powers, and Greenlee, 2006).

Data suggest that oncology providers could benefit from more education about SGD populations (Lisy et al., 2018; Schabath et al., 2019). A systematic review of LGBTQ anti-bias training for health care providers found that education was effective at increasing knowledge of LGBTQ health issues, experiential learning was effective at increasing comfort levels with LGBTQ patients, and intergroup contact was effective at promoting more tolerant attitudes toward LGBTQ patients (Morris et al., 2019). More research is needed into interventions to improve the full spectrum of cancer prevention, care, and outcomes for SGD populations, including transgender people and people with intersex traits.

SEXUAL AND REPRODUCTIVE HEALTH

HIV and Other Sexually Transmitted Infections

Historically, much of the research on the health of LGBT populations has focused on HIV and other sexually transmitted infections (STIs) (Coulter et al., 2014). This evidence shows that cisgender gay and bisexual men and other men who have sex with men are overrepresented among people living with HIV and represent the largest proportion of new HIV diagnoses every year in the United States (CDC, 2020). Of all the men living with HIV in the United States, 76 percent are gay, bisexual, and other men who have sex with men, and 26,000 men who have sex with men acquire HIV each year (CDC, 2020). Young Black and Latinx men are overrepresented in these numbers (CDC, 2020). Similarly, men who have sex with men are overrepresented among STI incidence and prevalence figures overall (CDC, 2019).

Transgender people, particularly Black and Latina transgender women, are also heavily affected by HIV: a recent meta-analysis found that one in seven transgender women is living with HIV (Becasen et al., 2019). The rates are 44 percent for Black transgender women and 25 percent for Latina transgender women. Data are limited on HIV among transgender men and non-binary people; however, emerging data suggest that transgender men who have sex with men face similar risks for HIV as their cisgender male counterparts (Golub et al., 2019; Reisner et al., 2019). There are fewer and often poorer quality studies of the prevalence of other STIs among transgender people, with estimates that vary substantially by geography, type of STI, and study population (McNulty and Bourne, 2017).

Sexual minority women who inject drugs or have sex with cisgender men face a higher risk for HIV than heterosexual women with the same risk factors (German and Latkin, 2015; Owen et al., 2020). Data on other STIs among sexual minority women are sparse and often low quality; however, they indicate that STI transmission between women does take place (Takemoto et al., 2019). As with many other health conditions, the committee found no published data on HIV or other STIs among intersex people.

Drivers of HIV/STI Disparities

Stigma, violence, and discrimination across multiple axes of identity converge in the lives of LGBT and other SGD people, leading to higher rates of HIV/STI risk behavior and reduced access to and engagement in prevention (e.g., pre-exposure prophylaxis, condoms) and care services (e.g., anti-retroviral therapy) (Earnshaw et al., 2013; McNulty and Bourne, 2017; Mimiaga et al., 2019a; Mustanski et al., 2017; Nuttbrock et al., 2015; Poteat et al., 2016; Reisner et al., 2016b, 2020a; Sevelius et al., 2020a). Reduced access to protective structural assets, such as stable housing, employment opportunities, and affirming health care, are some of the mechanisms linking stigma to HIV/STI disparities for LGBT populations. For example, employment discrimination limits income-generating opportunities for many transgender women (James et al., 2016). As a result, survival sex work is common and, in the context of criminalization, is associated with increased vulnerability to contracting HIV (Becasen et al., 2019). A lack of access to gender-affirming care has also been identified as an HIV risk factor among transgender women (Sevelius et al., 2019).

Interventions to Address HIV and Other STIs

The magnitude of the burden of HIV and other STIs on LGBT populations has generated substantial research into effective interventions to eliminate these disparities. A growing body of data suggests that stigma-reduction interventions may be effective in reducing sexual risk behavior and improving engagement in HIV care (Mimiaga et al., 2018; White Hughto, Reisner, and Pachankis, 2015; Yang et al., 2018). A recent systematic review of multiple stigma reduction interventions to improve HIV prevention and care outcomes among men who have sex with men identified three main approaches: (1) education and mobile health strategies that reduce internalized and anticipated stigma by promoting self-acceptance, leadership, and motivation for behavior change; (2) peer support and training of health care providers to increase social support, knowledge sharing, and empowerment; and (3) community leader sensitization to reduce enacted and anticipated stigma (Dunbar et al., 2020).

There is strong evidence for the efficacy of group- and community-level behavioral interventions to reduce sexual risk behavior among men who have sex with men (Lorimer et al., 2013). Among a review of more than 100 studies, interventions that were based on a theoretical framework, delivered by trained professionals, and focused on skills building were the most consistently effective (Lorimer et al., 2013). HIV/STI prevention research with sexual minority men has increasingly focused on e-health interventions, including web-based, text-based, online-video, computer-assisted, multimedia, social network virtual simulation, and smartphone applications (Nguyen et al., 2019). A recent systematic review (Henny et al., 2018) identified 55 interventions, of which 49 achieved short-term risk-reduction behavior change; however, of the 4 studies with 12-month follow-up, only 1 of them maintained behavior change over this period. In a review of 45 e-health interventions that addressed the HIV care continuum, mobile texting was the technology most commonly reported (44%) (Henny et al., 2018). Medication adherence (60%) was the most common outcome measured, and 20 percent of interventions measured HIV viral suppression. Approximately 75 percent of studies showed preliminary or proven efficacy. Many of them relied on mobile technology and integrated knowledge or cognition as behavior change mechanisms.

HIV pre-exposure prophylaxis (PrEP) has been a particularly powerful innovation in HIV prevention, capable of reducing HIV risk by more than 90 percent for individuals who adhere to prescribed regimens (Fonner et al., 2016). However, PrEP uptake and adherence has been low, particularly among Black and Latinx transgender women and men who have sex with men (Kanny et al., 2019; Poteat et al., 2019). Existing data suggest that addressing intersectional economic, institutional, interpersonal, and psychosocial barriers to PrEP is critical for effective HIV prevention in these populations (Cahill et al., 2017; Poteat et al., 2017). Employment and other structural intervention studies are currently under study to test their efficacy to reduce HIV/STI vulnerability among transgender women (Benotsch and Zimmerman, 2017; HIV Prevention Trials Network, n.d.) and gay and bisexual men (Hill et al., 2020).

Multiple studies with serodiscordant male sexual partners have demonstrated that HIV transmission does not occur when the partner living with HIV is engaged in effective antiretroviral treatment (Yombi and Mertes, 2018). Advocates have led an education campaign using the slogan "U = U"—"undetectable equals untransmittable"—which has been endorsed by multiple organizations, including the Centers for Disease Control and Prevention (Lancet HIV, 2017). Ensuring that SGD people living with HIV have access to affirming health care from providers who are knowledgeable about current best practices in HIV prevention and treatment is critical both to increasing PrEP uptake and to the success of U = U.

The committee identified only one STI intervention designed for cisgender sexual minority women. A group-based, six-session, psychoeducational intervention with cisgender lesbian, bisexual, and queer women significantly increased sexual risk-reduction practices, STI knowledge, and self-efficacy for barrier use six weeks after the intervention ended (Logie et al., 2015). Similarly, the committee found only one intervention tailored specifically for transgender men: LifeSkills for Men, which adapted a small group-based behavioral HIV prevention intervention originally designed for young transgender women to address the unique needs of young transgender men who have sex with men (Reisner et al., 2016c). A pilot test found the intervention to be feasible and acceptable, with trends suggesting reduced HIV/STI risk behaviors across four months of follow-up.

Multiple group-based behavioral HIV prevention interventions developed for transgender women have shown some evidence of efficacy (Poteat et al., 2017). However, most were limited by less rigorous pre-post designs, short follow-up periods, or lack of any outcome evaluation. The only published full-scale behavioral HIV prevention randomized controlled trial for transgender women to date has been Project LifeSkills for young transgender women (Garofalo et al., 2018). This empowerment-based group intervention was delivered in six 2-hour sessions over 3 weeks, and intervention participants reduced condomless sex acts by 40 percent over 12 months of follow-up when compared with participants in a control group. One "status-neutral" peer-led group intervention, Sheroes, has demonstrated high feasibility, acceptability, and preliminary efficacy (Sevelius et al., 2020b). In another study of a couples-based HIV prevention intervention, transgender women and their primary cisgender male partners were randomized to a couples-based HIV prevention intervention comprised of three counseling sessions (two couples-focused sessions, which discussed relationship dynamics, communication, and HIV risk, and one individual-focused session on HIV prevention concerns) or a control condition (one session on general HIV prevention delivered to both partners together). At 3-month follow-up, participants in the intervention condition had 50 percent reduced odds of condomless sex with primary partners and 30 percent reduction with casual partners relative to the control condition (Operario et al., 2017). As part of a Special Project of National Significance, the Health Resources and Services Administration in the Department of Health and Human Services recently funded nine sites across the country to implement and evaluate interventions to improve care engagement for HIV-positive transgender women of color (Rebchook et al., 2017). While each intervention was different, common elements included community outreach, peer navigation, access to gender-affirming medical care (e.g., hormone therapy), case management, and transgender-competent HIV care (Chapter 12 discusses the lessons learned from this project).

Sexual Function

Most sexual health research with SGD populations, particularly transgender women and gay men, has focused on HIV/STIs, with less attention to other sexual health domains, such as desire, arousal, orgasm, pleasure, and other aspects of sexual function (Stephenson et al., 2017; Wade and Harper, 2017). However, evidence indicates that sexual minority men may report lower orgasm frequency, pleasure, and satisfaction than heterosexual men, and bisexual women report greater physical discomfort during sex and fewer orgasms than lesbians (Flynn, Lin, and Weinfurt, 2017). In an online convenience sample of almost 53,000 adults, heterosexual men were most likely to report that they usually or always orgasmed when sexually intimate (95%), followed by gay men (89%), bisexual men (88%), lesbian women (86%), bisexual women (66%), and heterosexual women (65%) (Frederick et al., 2018).

The study of sexual function among transgender people has focused on genital sensation after gender-affirming surgeries (Frey et al., 2017). Though limited by convenience sampling and small sample sizes, existing studies indicate that most transgender adults retain the ability to achieve orgasm and report satisfaction with their sexual functioning after gender-affirming surgeries (Sigurjonsson et al., 2017; Stephenson et al., 2017). A large European study of transgender adults found increases in sexual desire and arousal after surgery (Kerckhof et al., 2019). Data on sexual function among transgender people who have not had gender-affirming surgeries are limited.

Studies on sexuality among people with intersex traits have focused disproportionately on sexual function as an outcome of childhood genital surgery (see Chapter 12). High rates of sexual dissatisfaction, sexual inhibition, and sexual problems have been found across variables of gender, genital difference, specific intersex condition, or having undergone prior surgery (Kreukels et al., 2019). Studies have consistently linked prior history of clitoral surgery with decreased genital sensation and anorgasmia in comparison with intersex individuals who had not undergone clitoral surgery. With or without surgical intervention, concerns about genital appearance may affect sexual function for some intersex people (Gomez-Lobo and Amies Oelschlager, 2016; Meyer-Bahlburg et al., 2018; van der Horst and de Wall, 2017). Multiple studies have found reports of dissatisfaction with genital appearance and satisfaction with genital function among intersex adults (Kreukels et al., 2019). Overall, concerns about long-term effects on sexual function from surgery performed in infancy support arguments to delay surgical intervention until the patient can provide informed consent. Ethical and other considerations around early genital surgeries for infants with intersex traits are discussed in more detail in Chapter 12.

Published studies assessing influences on sexual function among SGD populations are rare, and large gaps remain in understanding the relationship between minority stress and sexual function (Grabski and Kasparek, 2017; Grabski et al., 2018). Research on sexual function among LGBT and intersex people has been limited by the degree to which existing measures center and normalize cisgender, heterosexual, and non-intersex experiences of anatomy, desire, and sexual behavior, as well as researchers' failure to develop and use research instruments that have been validated among SGD populations (McDonagh et al., 2014; Reisner et al., 2020b). Better research tools to assess all domains of sexual health for LGBT, intersex, and other SGD people are needed (Barone et al., 2017; Sobecki-Rausch, Brown, and Gaupp, 2017). Given this lack of basic information about sexual function among SGD people, it is not surprising that no SGD-specific or SGD-inclusive interventions to improve sexual function were identified in the published literature.

Fertility and Contraception

Technological advances have greatly increased reproductive options for SGD populations. However, data on the prevalence and success rates of assisted reproduction among these populations are sparse. A systematic review of donor intrauterine insemination, in vitro fertilization, and gestational surrogacy among sexual minorities suggests that same-sex couples have higher success rates with assisted reproduction than their heterosexual counterparts (Tarin, Garcia-Perez, and Cano, 2015). However, studies have been limited by sampling bias, small sample sizes, and failure to control for influential covariates, such as age, smoking, reproductive history, and variation in intervention protocols.

Young sexual minority women, particularly bisexual women, have a higher rate of unintended pregnancy than their heterosexual peers, but there has been little study of their fertility behaviors (Ela and Budnick, 2017). In a recent longitudinal study of pregnancy risk among sexual minority women that examined possible reasons for this higher rate, which followed participants for 30 months, investigators found that sexual minority women had more partners, more sexual intercourse with men, less frequent contraceptive use, less use of a dual method of contraception (condom plus hormonal method), and more gaps in contraception use than heterosexual women. These findings highlight the importance of counseling on contraception and family planning for sexual minority women (Ela and Budnick, 2017).

Gender-affirming medical or surgical therapies for transgender individuals may result in reduced or complete lack of fertility (Cheng et al., 2019). Suppression of puberty with gonadotropin-releasing hormone

analogs can pause the maturation of germ cells and thus affect fertility potential. Testosterone therapy can suppress ovulation and alter ovarian histology, while estrogen therapy can lead to impaired spermatogenesis and testicular atrophy. The effect of hormone therapy on fertility is potentially reversible, but the extent is unclear. Gender-affirming surgery that includes oophorectomy or orchiectomy results in permanent sterility; see Chapter 12.

Research indicates that clinicians should counsel transgender patients on fertility preservation options prior to initiation of gender-affirming therapy (Cheng et al., 2019). A narrative review of fertility preservation among gender minorities found that many transgender adults want the option of fertility preservation (Rowlands and Amy, 2018). The current fertility preservation options for transgender people with ovaries and a uterus are embryo cryopreservation, oocyte cryopreservation, and ovarian tissue cryopreservation. For transgender people with testes, sperm cryopreservation, surgical sperm extraction, and testicular tissue cryopreservation are available. Transgender people face many barriers to fertility care, such as provider discrimination; lack of information; lack of insurance coverage; legal barriers, such as heterosexist and gendered requirements in state fertility coverage mandates; scarcity of fertility centers; financial burden; and emotional cost (Cheng et al., 2019). These barriers mean that all transgender people need to be informed of available fertility preservation options (De Roo et al., 2016; Knudson and De Sutter, 2017).

Data suggest that transgender men have limited access to reproductive health services and information, even if they are able to become pregnant (Cipres et al., 2017). One study of almost 200 transgender men found that many used contraception and had experienced pregnancy and abortion, even after social and hormonal gender affirmation (Light et al., 2018). Some contraceptive options may be undesirable to transgender men due to exposure to gender-incongruent hormones, like progestins or estrogens, or the requirement of pelvic exams for placement of intrauterine devices. Transgender men need gender-affirming counseling and care regarding reproductive health, and systems- and provider-level interventions are needed to create gender-affirming and inclusive reproductive health care environments and services (Hahn et al., 2019). Discrimination and other barriers to clinically appropriate and culturally responsive health care for transgender people are discussed in detail in Chapter 12.

Infertility is a common feature of some, but not all, intersex conditions (El-Maouche et al., 2017; Mooij et al., 2017). At the same time, intersex adolescents and adults who have a uterus and no or infrequent menstrual bleeding may erroneously assume that they do not need contraception and may thus be at risk for an unintended pregnancy. Unplanned pregnancies among people with intersex traits may be associated with higher rates of

spontaneous abortions, fetal malformation, and chromosomal abnormalities than among people without intersex traits. Very few data exist on the efficacy of cryopreservation in intersex individuals with viable gametes (Schleedoorn et al., 2019). Even when there has been evidence of efficacy, follow-up data are lacking. Discussion of parenting desires and options, including through adoption, donor gametes, and gestational surrogacy, is an important part of informed consent for hormonal and surgical interventions for individuals with intersex traits (Van Batavia and Kolon, 2016). Access to reproductive health specialists who are knowledgeable about intersex traits and who can discuss options for contraception, fertility preservation, and pregnancy is essential (Gomez-Lobo and Amies Oelschlager, 2016), as is further research on fertility options for intersex individuals.

VIOLENCE AND VICTIMIZATION

Numerous studies show that LGBTQ people experience high rates of violence and victimization that begin early in the life course and persist into adulthood. Specific types of violence documented against LGBTQ people include family violence (McGeough and Sterzing, 2018); intimate partner violence (Edwards, Sylaska, and Neal, 2015; Finneran and Stephenson, 2013; Peitzmeier et al., 2020); sexual violence (Chen et al., 2020; Langenderfer-Magruder et al., 2016); police violence (DeVylder et al., 2017, 2018); and structural violence, such as exclusion and discrimination in health care, employment, education, public accommodations, and other areas of everyday life (Casey et al., 2019). Hate crimes, including physical assault and other forms of bias-motivated violence, are also a serious concern for SGD people (Boynton et al., 2020; Burks et al., 2018; Coston, 2018; Cramer et al., 2018; Herek, 2008; Herek, Gillis, and Cogan, 1999; Katz-Wise and Hyde, 2012; Mills, 2019). Violence and victimization affecting people with intersex traits is an understudied issue, though interviews with families reveal that potential bullying on the basis of intersex traits is often cited by clinicians as a reason to have genital surgery in childhood (Human Rights Watch, 2017).

Evidence indicates that LGBTQ youth disproportionately encounter violence and victimization relative to heterosexual and cisgender youth (Edwards, 2018; Johns et al., 2018, 2019b; Olsen et al., 2017; Poteat et al., 2020; Rostad et al., 2019). These experiences include being bullied electronically or at school, being threatened or injured with a weapon at school, experiencing sexual or physical dating violence, and feeling unsafe at or traveling to or from school. Elevated rates of adverse childhood experiences, including physical and sexual abuse, have also been found in LGBTQ populations (Baams, 2018; Merrick et al., 2018). LGBTQ adolescents have increased rates of polyvictimization—experiencing multiple

forms of victimization—relative to their non-LGBTQ peers (Baams, 2018; Schwab-Reese et al., 2018).

SGD people may also experience unique forms of victimization, such as identity abuse (Woulfe and Goodman, 2018), in which perpetrators leverage systems of structural oppression to harm individuals. For instance, perpetrators may use aspects of transphobia, such as withholding gender affirmation or using the threat of "outing," as a form of blackmail to assert power and control over a transgender person (Peitzmeier et al., 2019). So-called "gay panic" or "transgender panic" defenses, in which defendants, typically cisgender men, leverage societal homophobia or transphobia to escape punishment in criminal cases involving the assault or murder of a gay, lesbian, bisexual, or transgender person, are also related to identity abuse (Woods, Sears, and Mallory, 2016). Few studies have characterized perpetrators of violence and victimization against LGBT people (Coston, 2018).

Drivers of Violence and Victimization

The elevated rates of violence and victimization experienced by SGD people are rooted in societal oppression, stigma, and bias against LGBT and other SGD people. There are different patterns of violence and victimization on the basis of gender (i.e., identity as male, female, or non-binary) and transgender status. For example, youth who are both LGBQ and transgender have been shown to be at highest risk of past-year intimate partner violence, indicating that stigmatized sexual orientation and gender identity interact to structure risk of exposure to violence (Walls et al., 2019). Similarly, childhood gender nonconformity (i.e., having a gender expression that differs from societal expectations for feminine or masculine appearance and behavior) is associated with greater violence and victimization, independent of sexual orientation or gender identity (Adhia et al., 2018; Baams, 2018; Gordon et al., 2018; Klemmer et al., 2019; Roberts et al., 2012a, 2013).

Violence and victimization that target people because of their sexual orientation, gender identity, or intersex status are often exacerbated by racism, sexism, and xenophobia. For instance, high homicide rates for Black transgender women reveal increased vulnerability to gender-based violence at the intersection of race and gender identity (Dinno, 2017; Wirtz et al., 2020).

Interventions to Address Violence and Victimization

A systematic review of peer-reviewed literature from 2000 to 2019 on interventions and their effectiveness in preventing or reducing violence and victimization for LGBT youth identified only one intervention, anti-bullying laws (Coulter et al., 2019). These laws have been shown to help reduce

bullying victimization, particularly for sexual minority boys (Seelman and Walker, 2018). Protective laws that specifically include sexual orientation reduce the risk of suicide attempts, forced sexual intercourse, and feeling unsafe at school or on the way to or from school among all youth, regardless of sexual orientation (Meyer et al., 2019). In a meta-analysis of 15 primary studies with 62,923 participants, gay-straight alliances were associated with significantly lower levels of self-reported homophobic victimization, safety fears, and hearing homophobic remarks (Marx and Kettrey, 2016; see also Chapter 9). A recent cluster randomized control trial that tested the efficacy of a bystander intervention to reduce violence and violence acceptance for sexual minority male and female high school students in Kentucky was effective at reducing violence for heterosexual students but was less effective for sexual minority youth, particularly sexual minority males (Coker et al., 2020). This outcome points to the need for ongoing research to develop, design, and test interventions to address violence and victimization against LGBTQ youth.

In addition to anti-bullying laws, other structural interventions at the state and federal levels have sought to address violence and victimization against LGBTQ people. As of 2020, 11 states have banned gay and transgender panic defenses (Movement Advancement Project, 2020). Legal equality in the form of state policies for same-sex partnerships, employment nondiscrimination, and hate crimes laws has been shown to decrease the incidence of hate crimes based on sexual orientation (Levy and Levy, 2017). Sexual orientation and gender identity are included in the federal hate crimes law, which provides for enhanced criminal penalties in cases of bias-motivated violence and also requires improved tracking of hate crimes perpetrated against LGBTQ people (Mattson, 2018). Hate crimes laws are controversial, however, because of their potential to be misused against defendants from poor communities or communities of color, which are already over-policed and disproportionately represented in the criminal justice system (Swiffen, 2018).

Trauma-informed interventions are critical to address violence and victimization among LGBTQ people, but these interventions remain underdeveloped (Niolon et al., 2017; Peitzmeier et al., 2020). A recent scoping review found no SGD-specific programs to prevent or address intimate partner violence in SGD people (Subirana-Malaret, Gahagan, and Parker, 2019). However, interventions to mitigate the health-related sequelae of violence for SGD people are being developed and tested. For example, an intervention for HIV-negative men who have sex with men who have history of childhood sexual abuse was developed to address HIV acquisition risk and posttraumatic stress by integrating HIV risk reduction with modified cognitive and behavioral therapy for posttraumatic stress, trauma, and self-care (CBT-TSC). A randomized study of men who have sex with men found that

those who were assigned to CBT-TSC had reduced odds of condomless sex with an HIV-positive or unknown status partner; they also had reduced odds of posttraumatic stress disorder (PTSD) and avoidance symptoms relative to those in the control condition assigned only to HIV voluntary counseling and testing (O'Cleirigh et al., 2019). Additional interventional research is needed to prevent and address violence in SGD populations.

MENTAL AND BEHAVIORAL HEALTH

Mental Health

Much of the early literature on the health of LGBT populations centered on mental health disparities and existed in tension with the misuse of mental health diagnoses to justify discrimination against and social exclusion of LGBT people. Since the release of the Institute of Medicine (2011) report, there has been a surge in research empirically evaluating determinants of and interventions for improving the mental health of LGBT and other SGD populations. Research indicates that disparities in SGD population mental health compared with the non-SGD population appear as early as adolescence and may persist even into older adulthood (Fredriksen-Goldsen et al., 2015).

Adolescence is a vulnerable time for the development of mental health symptoms. Studies have consistently found that higher rates of mood and anxiety disorders, PTSD, eating disorders, and substance use disorders emerge in adolescence for LGBT populations (Plöderi and Tremblay, 2015; Russell and Fish, 2016). Suicide is the second leading cause of death for youth aged 10 to 24 (Heron, 2019), and a recent systematic review and meta-analysis of population-based longitudinal studies found a significantly higher risk of suicide attempts for LGB youth relative to same-age heterosexual controls (Haas et al., 2011; Miranda-Mendizábal et al., 2017).

Mental health disparities that begin in adolescence can persist far into adulthood (Fredriksen-Goldsen et al., 2013). LGBT adults are at higher risk than non-LGBT adults for mental health problems, such as depression, anxiety, anorexia nervosa, and bulimia nervosa (Hottes et al., 2016; McClain and Peebles, 2016; Plöderi and Tremblay, 2015). On a spectrum of suicidality anchored at one end by suicide attempts, research has produced evidence identifying increased risk in LGBT populations of other suicidal symptoms, such as non-suicidal self-injury and suicidal ideation (Jackman, Honig, and Bockting, 2016; Liu and Mustanski, 2012). There is also some evidence that severe mental illness—defined by the requirement of extensive psychiatric treatment in inpatient and outpatient settings and resulting in significant disability in one or more major life domains (Parabiaghi et al., 2006)—may occur at higher rates among LGBT populations.

Mental health risks vary among SGD groups. For instance, there is some evidence of higher rates of depression, eating disorders, and suicidality among bisexual people relative to lesbian and gay people (Plöderl and Tremblay, 2015; Pompili et al., 2014). In comparison with cisgender adults, transgender adults report elevated rates of psychiatric diagnoses, such as major depressive disorder, anxiety disorders, PTSD, and eating disorders (Connolly et al., 2016; Dhejne et al., 2016; Fredriksen-Goldsen et al., 2014; James et al., 2016; Marshall et al., 2016; Mueller, De Cuypere, and T'Sjoen, 2017). Among military veterans, there is evidence of higher rates of suicidality for both LGB and transgender people and higher rates of depression, PTSD, serious mental illness, and sexual trauma among transgender people (Blosnich, Bossarte, and Silenzio, 2012; Brown and Jones, 2015).

Less is known about the epidemiology of mental health problems among intersex populations in the United States, as no population surveys currently assess intersex status (Tamar-Mattis et al., 2018). Research is often limited to a primary variable of surgical or medical treatment with identified outcomes of gender dysphoria and general health-related quality of life (Sandberg, Gardner, and Cohen-Kettenis, 2012). When particular psychiatric and neurocognitive outcomes are evaluated, it is generally in the context of a specific intersex condition (differences of sex development [DSD]). For instance, congenital adrenal hyperplasia and Kleinfelter and Turner syndromes have been associated with attention deficit hyperactivity disorder and autism (de Vries et al., 2019).

There has been much more research into the mental health and well-being of parents of infants and children with intersex traits than for people with intersex traits themselves, and much of this research has been in the context of making decisions regarding early genital surgery (Wisniewski, 2017). The dsd-LIFE Group, a multicenter European study that looked at mental health and quality of life among people with intersex traits, is a notable exception that has no current correlate in the United States (de Vries et al., 2019). Among the 1,022 participants in the dsd-LIFE study, all males and some females with specific DSDs reported increased rates of depression and anxiety relative to country-specific reference populations.

Research regarding the mental health of SGD populations of color has yielded mixed findings. For instance, among respondents to the American College Health Association National College Health Assessment-II surveys from 2008 and 2009, there were lower rates of depression for Asian, Black, and Latinx LGB students than for white LGB students (Lytle, De Luca, and Blosnich, 2014). In contrast, relative to white students, Black and multiracial students reported significantly higher rates of suicide attempts, while Latinx students reported lower rates of suicidal ideation and attempts, though this difference was not statistically significant. The 2015 U.S. Transgender Survey (USTS) found that Black, Native American, Asian,

Latinx, Middle Eastern, and multiracial transgender adults reported higher rates of past-year and lifetime suicide attempt than white respondents, with the highest rates for Native American and multiracial respondents (James et al., 2016). An analysis of the Aging with Pride: National Health, Aging, and Sexuality/Gender Study population found decreased mental health-related quality of life for the older LGBT participants who were Black and Hispanic relative to white participants (Kim, Jen, and Fredriksen-Goldsen, 2017).

Drivers of Mental Health Disparities

Mental health disparities among LGBT and other SGD populations are consistent with stress responses to external factors, such as stigma, discrimination, and violence (Clements-Nolle et al., 2018; James et al., 2016; Nuttbrock et al., 2014; Perez-Brumer et al., 2017; Reisner et al., 2016d; Whitton et al., 2016). Bias-motivated violence, such as hate crimes based on sexual orientation or gender identity, may have particularly severe psychological consequences for LGBT people (Herek, Gillis, and Cogan, 1999). Internalized stigma and attempts to conceal one's identity to avoid stigma have been associated with psychiatric symptoms and psychological distress among LGBT populations and with suicide attempts among transgender adults (Gevonden et al., 2014; Hatzenbuehler and Pachankis, 2016). Conversion therapy that attempts to change sexual orientation or gender identity is also a mental health stressor for LGBT people: LGBT populations are at risk for exposure to conversion therapy, and exposure to conversion therapy is a risk factor for mental health problems. This topic is discussed in detail in Chapter 12.

Among LGBTQ youth, victimization on the basis of sexual orientation or gender identity is associated with worse depression, more anxiety, lower self-esteem, less school belonging, and higher prevalence of suicidality than for non-LGBTQ youth (Kosciw et al., 2018). Negative mental health symptoms, suicidal ideation and attempts, and risky behaviors among youth have been correlated with living in areas with higher rates of assault-based hate crimes against LGBT people or higher scores on composite indices of structural stigma (Hatzenbuehler and Pachankis, 2016). For example, in a population-based sample of 9th- through 12th-graders in Boston public schools, sexual minority youth residing in neighborhoods with higher rates of LGBT assault hate crimes were significantly more likely to report suicidal ideation and suicide attempts than those living in neighborhoods with lower rates of LGBT assault hate crimes (Duncan and Hatzenbuehler, 2014). No similar associations were found between LGBT assault hate crimes and either suicide ideation or attempt in heterosexual students, indicating that the results were specific to sexual minority adolescents. Furthermore, there

were no significant associations for non-LGBT crimes and suicidality in sexual minority adolescents, indicating the specificity of results to LGBT assault hate crimes.

Retrospective reports of adverse childhood experiences are also correlated with negative mental health outcomes and psychiatric illness in LGBT populations (Blosnich and Andersen, 2015; Hughes et al., 2017). A systematic review and meta-analysis of 73 studies that included more than 47,000 LGBT adults found high rates of such events, including interpersonal stigma and victimization, among LGBT participants (Schneeberger et al., 2014). Thus, exposure to higher numbers of adverse childhood experiences may contribute to the elevated rates of negative mental health outcomes found among LGBT people (McLaughlin et al., 2012; Roberts et al., 2012b).

Among SGD populations, some associations between mental health outcomes and exposure to stressors, stigma, and victimization are unique to specific groups. Bisexual women, for example, have a higher lifetime prevalence of rape and sexual assault than lesbian or heterosexual women, which may correlate with poorer mental health outcomes (Schulman and Erickson-Schroth, 2019). LGBT individuals with serious mental illness experience intersecting heterosexism and cisgenderism in psychiatric settings and ableism in LGBT spaces, which may exacerbate disparities (Kidd et al., 2016; Wong et al., 2014).

Though there are no studies of minority stress specifically among intersex populations, the dsd-LIFE study in Europe found that mediating factors for mental health disparities affecting people with intersex traits included self-esteem, openness, and shame (de Vries et al., 2019), which are consistent with experiences of minority stress. Similarly, experiences of social, sexual, and medical stigma have been found to occur among individuals with intersex traits (Ediati et al., 2017; Meyer-Bahlburg et al., 2017a, 2017b, 2018). There are as yet no studies specifically exploring the ways in which structural or interpersonal stigma or minority stressors might influence intersex health disparities.

Military service may confer both risks and benefits to mental health. There is some evidence that LGBT people may be at higher risk of victimization than non-LGBT people while serving (Goldbach and Castro, 2016), though data are limited. Of the 3 percent of 2015 USTS respondents who were on active duty military, nearly 50 percent reported support from their commanding officers in social transition, though only 36 percent reported support in medical transition (James et al., 2016). However, there may also be a benefit to feeling a sense of belonging in a military or veteran population (Matarazzo et al., 2014). Respondents in the 2015 USTS reported nearly twice the rate of prior military service as the general population (15% and 8%, respectively), and despite higher rates of unemployment, serious psychological distress, and suicide attempts relative to the general

population, all rates were lower than those reported by nonveteran respondents (James et al., 2016). These findings are consistent with data from a 2014 survey of 183 transgender older adults, for whom prior military service predicted fewer depressive symptoms and greater health-related quality of life (Hoy-Ellis et al., 2017).

SGD populations of color may also experience minority stressors and stigma on the basis of their racial or ethnic identity, which may contribute to some findings of elevated mental health risk. Among older LGBT people of color, mediators of mental health quality of life included markers of stigma and stress, such as income, education, identity affirmation, social support, and discrimination (Kim, Jen, and Fredriksen-Goldsen, 2017). Similarly, disparate rates of mental health problems among respondents of color to the USTS were mediated by victimization events (James et al., 2016).

Interventions to Address Mental Health Disparities

Emerging evidence has revealed interventions that improve mental health outcomes among SGD populations. Among adults, psychotherapies specifically created for LGBT individuals have been associated with improved mental health (Diamond et al., 2012; Hatzenbuehler and Pachankis, 2016; Lucassen et al., 2015). Additional interventional research is under way, including a transdiagnostic treatment approach to specifically address the cognitive, affective, and behavioral effects of minority stress processes for young adult sexual minority men (Pachankis et al., 2019). There are few data to guide interventions for LGBT people with serious mental illness (Evans et al., 2016). Training emphasizing cultural competency in relation to sexual orientation, gender identity, and intersex status for mental health providers and mental illness training for LGBT- and intersex-oriented service providers may be useful in improving care and outcomes, especially if such training results in LGBTI individuals feeling safe in disclosing more aspects of their identity to their providers (Kidd et al., 2016). Robust work has found that supportive home environments, affirming school climates, and laws and policies advancing marriage equality and prohibiting discrimination and bullying correlate with lower rates of suicide ideation and attempts in large, population-based analyses of LGBT youth (Hatzenbuehler and Pachankis, 2016; Raifman et al., 2017).

For transgender individuals, gender-affirming medical treatment and interventions targeted at building self-esteem and resilience through clinical care, support groups, activism, and family support have consistently been associated with improvements in mental health outcomes (Costa et al., 2015; de Vries et al., 2011, 2014; Hughto, Reisner, and Pachankis, 2015).

Family support was strongly associated with lower rates of psychological distress and lifetime suicide attempt in 2015 USTS respondents (James et al., 2016). Peer support has also been associated with improved psychosocial well-being for adults with intersex traits and has been recommended as a routine and essential part of intersex care (Krege et al., 2019; Lee et al., 2016). Unfortunately, there appears to be a relative absence of research on interventions targeted specifically at improving mental health among LGBT older adults, bisexual people, LGBT military personnel and veterans, LGBT people of color, and intersex adults.

Substance Use and Behavioral Health

SGD populations are disproportionately burdened by substance use disorders across the life course, including use of tobacco, alcohol, and other drugs (Azagba, Latham, and Shan, 2019; Azagba et al., 2020; Boyd et al., 2019; Dai and Meyer, 2019; Gattamorta, Salerno, and Castro, 2019; Gonzales and Henning-Smith, 2017; Gonzales, Przedworski, and Henning-Smith, 2016; Hoffman et al., 2018; Kerridge et al., 2017; Krueger, Fish, and Upchurch, 2020; McCabe et al., 2019a, 2019b; Schuler et al., 2018). Substance use rates are consistently high for sexual minorities regardless of whether sexual orientation is measured as sexual identity, sexual attraction, or sexual behavior (Kerridge et al., 2017). There is substantial heterogeneity by gender identity and expression in substance use behaviors among the transgender population (Azagba et al., 2019; Buchting et al., 2017; Hoffman et al., 2018; Lowry et al., 2018; Newcomb et al., 2019; Watson et al., 2020). There is as yet no research on substance use among intersex populations.

Substance use disparities begin early for LGBT populations, with evidence showing that LGBT adolescents are at greater risk of substance use and misuse when compared with their heterosexual and cisgender peers (Day et al., 2017; Johns et al., 2018, 2019b; Johnson et al., 2019; Lowry et al., 2017; McCabe et al., 2013; Mereish, 2019; Phillips et al., 2019; Schuler and Collins, 2019). These substance use disparities may continue into young adulthood (Coulter et al., 2015; Jun et al., 2019) and persist well into older adulthood (Dai and Meyer, 2019).

It is important to consider subgroup differences when assessing substance use among SGD populations. For instance, prevalence and patterns of substance use behaviors, substance use disorders, and substance use morbidities are particularly heightened for bisexual people (Boyd et al., 2019; McCabe et al., 2019a, 2019b) and sexual minority women (Cochran, Björkenstam, and Mays, 2017; Fish, Hughes, and Russell, 2018; Kerridge et al., 2017; Krueger, Fish, and Upchurch, 2020; McCabe et al., 2019a, 2019b; Schuler et al., 2018).

Drivers of Substance Use and Behavioral Health Disparities

Substance use morbidity for LGBT people may result from exposure to high levels of minority stress from their disadvantaged social status; homophobic, biphobic, or transphobic bullying; or maladaptive coping to stressful life events. For example, in the 2013–2014 California Healthy Kids Survey of 316,766 students in 1,500 middle and high schools (grades 7, 9, and 11), gender- and sexuality-based harassment at school was higher for LGB youth relative to heterosexual youth, was independently associated with greater odds of substance use in every grade, and explained many disparities in substance use between LGB and heterosexual youth (Coulter et al., 2018).

In a nationally representative study using data from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC)-III, sexual minorities were at substantially higher risk of severe alcohol use disorder than their heterosexual counterparts, and higher levels of sexual orientation discrimination increased the odds of alcohol use disorder in sexual minorities (McCabe et al., 2019b). This finding suggests that substance abuse prevention and treatment strategies should address sexual minority-specific vulnerabilities. Another study using NESARC-III data found that sexual orientation discrimination and stressful life events each accounted for substance use disorder disparities between sexual minority subgroups and heterosexual adults (Krueger, Fish, and Upchurch, 2020). These findings also suggest that pathways to substance use disorder disparities may differ for different sexual minority subgroups. The age at which exposure to social stressors occurs is also relevant for risk of substance use disorders. A nationally representative sample of non-heterosexual adults found that discrimination based on sexual orientation was most prevalent in early young adulthood, but it increased the odds of substance use disorders only if people were exposed to discrimination at older ages (Evans-Polce et al., 2020).

Due to the lack of gender identity data in U.S. health surveillance systems, population data are limited on pathways to social stress-related substance use disparities for transgender people compared to cisgender people. In nonprobability samples of transgender people, however, social stressors such as discrimination, family rejection, a lack of gender affirmation, and bullying and violence victimization are associated with substance use (Day et al., 2017; Gamarel et al., 2016, 2020; Gilbert et al., 2018; Jannat-Khah et al., 2018; Kidd et al., 2019; Klein and Golub, 2016; Menino et al., 2018; Reisner et al., 2015).

Social norms, social networks, and social support have also been implicated in sexual orientation disparities in substance use. With regard

to social norms, in a probability study of 3,012 middle and high school students (aged 11 to 18) in a mid-sized school district in the southern United States, sexual minority adolescents had higher perceptions of others' substance use behavior and more permissive perceptions of whether a substance use behavior is approved by others than heterosexual adolescents. These perceptions partially explained disparities for sexual minority youth in both lifetime and current substance use risk (Mereish et al., 2017). The National Longitudinal Study of Adolescent to Adult Health (Add Health) study found that social network factors, including higher frequency or quantity of tobacco use and drinking to intoxication, reflected sexual orientation disparities in alcohol misuse (Hatzenbuehler, McLaughlin, and Xuan, 2015). An analysis of NESARC-III data found that functional support was associated with lower rates of alcohol use disorder for some sexual minorities, while structural support (type and frequency of kin and non-kin contact) increased the risk for other groups (Kahle et al., 2019).

Interventions to Address Substance Use and Behavioral Health Disparities

A review of LGBT substance use research between 2013 and 2017 found an emphasis on individual-level risk factors and a need for additional studies of protective factors and group differences by race and ethnicity, sex assigned at birth, sexual orientation, and gender identity (Kidd et al., 2018). Also needed are nationally representative samples and translation of findings into interventions to prevent and treat substance use for LGBT people. Research on substance abuse treatment utilization is underdeveloped and relies heavily on nonprobability samples (Flentje et al., 2015; Glynn and van den Berg, 2017). In a nationally representative study of adults, among those with any lifetime substance use disorder, some sexual minority adult groups had higher odds of lifetime substance abuse treatment utilization than others (McCabe et al., 2013). Nonetheless, many SGD persons who need substance use treatment do not access it due to stigma and other barriers to care (Allen and Mowbray, 2016) (see Chapter 12). Protective factors for reducing substance use among transgender and gender diverse youth are parent connectedness and higher levels of teacher connectedness (Gower et al., 2018).

There is a dearth of programs and treatments to prevent or intervene on substance use disparities in LGBT populations. In a systematic review of the peer-reviewed literature from 2000 to 2019 on interventions and their effectiveness in preventing or reducing substance use, mental health problems, and violence victimization in LGBT youth, only 12 interventions were identified, of which 2 were for substance use (Coulter et al.,

2019). Another review identified large research gaps in the area of tobacco prevention and cessation interventions for SGD youth and young adults (Baskerville et al., 2017). Some interventional research has addressed substance use in the context of sexual risk for HIV acquisition or transmission in gay and bisexual men (Mimiaga et al., 2019b; Parsons et al., 2014). For example, a randomized controlled trial of a tailored, culturally sensitive intervention for homeless gay and bisexual men found significant reductions in stimulant use over time for men assigned to a nurse case management plus contingency management or to a standard education plus contingency management program (Nyamathi et al., 2017). More rigorous research is needed, including studies to determine if adaptations of evidence-based interventions that include minority stress and other SGD-specific concerns are more effective than treatment as usual (Bochicchio et al., 2020). Additional interventional research is needed to understand and mitigate the substance use inequities found in LGBT populations. Research is also needed into the epidemiology, etiology, and treatment of substance use disorders among people with intersex traits.

SUMMARY AND CONCLUSIONS

The physical and mental health of SGD populations, such as lesbian, gay, bisexual, transgender, queer, and intersex people, is substantially affected by external influences that include discrimination, stigma, prejudice, and other social, political, and economic determinants of health. Thus, SGD populations experience both physical and mental health inequities.

In addition to health disparities related to sexual orientation, gender identity, and intersex status, many SGD people also experience health disparities related to intersecting aspects of identity that include but are not limited to race and ethnicity. The associations between stress, stigma, social determinants of health, and health outcomes hold across multiple health conditions. Different social and individual risks may intersect to compound adverse health effects. Cross-cutting resiliency factors appear to mitigate some of these risks and can form the basis for interventions.

CONCLUSION 11-1: Sexual and gender diverse populations experience numerous disparities in physical and mental health. These disparities are unevenly distributed in relation to such factors as race and gender.

In comparison with heterosexual and cisgender populations, SGD populations have less favorable overall health and higher rates of cardiovascular disease, certain cancers, exposure to violence, and HIV and other STIs. Among sexual minority women, lesbian and bisexual women have higher

odds of risk factors for cardiovascular disease, such as hypertension and diabetes, as well as more risk factors for breast cancer. Transgender adults may have elevated rates of cardiovascular disease and myocardial infarction compared with their cisgender counterparts.

LGBT people and people with intersex traits are at risk of violence from family members, peers, intimate partners, and strangers as a result of their sexual orientation, gender identity, or intersex status. Some of the highest risks of violence affect bisexual women and transgender people, particularly transgender women of color. Black transgender women are also disproportionately affected by HIV, as are cisgender gay and bisexual men and other men who have sex with men, who are overrepresented among people living with HIV and represent the largest proportion of new HIV diagnoses every year in the United States.

Mental health disparities in SGD populations include heightened anxiety and depressive symptoms and greater suicidality among LGBT people as compared to heterosexual or cisgender individuals. Substance use and behavioral health disparities include greater use of tobacco, alcohol, and other drugs among LGBT people than among heterosexual or cisgender individuals. Sexual minority individuals are also less likely than their heterosexual counterparts to report healthy sleep, and similar disparities may exist for transgender people.

CONCLUSION 11-2: Health disparities affecting sexual and gender diverse populations are often poorly understood due to gaps in research and data collection relevant to sexual orientation, gender identity, and intersex status.

Because both clinical and population research studies rarely include measures of sexual orientation, gender identity, and intersex status, the full scope and magnitude of physical and mental health disparities and their differential effects across and within SGD populations is not known. There is a particular lack of longitudinal research, representative population surveys, experimental trials, and quasi-experimental studies that collect, analyze, and report health-related data in the context of sexual orientation, gender identity, and intersex status.

Examples of health conditions and risks that are understudied in SGD populations include chronic diseases, such as dementia, cardiovascular disease, and cancer; health behaviors, such as diet, exercise, and sleep; suicidality; all-cause and specific mortality; quality of life; the physical, emotional, and sexual health and well-being of people with intersex traits across conditions and across the lifespan, especially among adolescents and adults who did not have genital surgery; and the physical and mental health of transgender people, including non-binary people. In many of these

areas, reliable instruments and scales validated for use with SGD populations have not yet been developed. There is also a relative dearth of data on intersections with other aspects of identity such as race, ethnicity, age, and disability. Groups for which research is especially lacking include Black, Indigenous, and other people of color; people with intersex traits; asexual, bisexual, and non-monosexual people; and non-binary people.

CONCLUSION 11-3: The physical and mental health disparities experienced by sexual and gender diverse populations are driven by social forces, such as stigma, prejudice, and discrimination; they are not intrinsic personal characteristics related to sexual orientation, gender identity, or intersex status. They may also be compounded by intersecting stressors, such as racism, sexism, and xenophobia.

There is no innate disorder associated with being an SGD individual. Rather, the disparities affecting SGD populations are driven by experiences of minority stress, which include both structural and interpersonal stigma, prejudice, discrimination, violence, and trauma. Minority stress exposures have many mental and physical consequences. Another important concept in relation to minority stress is resilience, which is the ability to maintain normal physical and psychological functioning when stress and trauma occur. More research is needed to elucidate the origins, pathways, and health consequences of minority stress and the factors that support resilience among SGD populations.

The consequences of minority stress are particularly severe for SGD Black, Indigenous, and other people of color, who are affected by exposure to compounded levels of racism, race-related stress, and trauma from multiple sources. They may therefore face stressors that adversely affect their health in ways that differ from and may exceed the disparities facing white SGD populations or heterosexual and cisgender populations of color. A specific focus on intersecting experiences of minority stress associated with both anti-LGBT bias and other forces of structural oppression is lacking in the minority stress literature.

CONCLUSION 11-4: Although a substantial amount of intervention research has been done in some areas of sexual and gender diverse population health (e.g., HIV among gay and bisexual men), there are notable gaps in research on interventions that address the influences of stigma, discrimination, and intersectional minority stress.

Interventional research in SGD health remains in its infancy. Evidence-based interventions are needed to prevent and address health inequities. These interventions need to address the root causes and multilevel fac-

tors driving SGD health disparities. These factors include vulnerabilities uniquely experienced by SGD people, such as stigma, discrimination, and other sexual and gender minority stressors, as well as intersectional stressors experienced by SGD people living at the intersection of multiple marginalized populations (e.g., racism experienced by Black SGD people). Interventions that address individual, interpersonal, and structural determinants of health are necessary to close SGD health disparities. Developing interventions tailored for specific SGD subgroups, including those targeting risks and harmful exposures specific to those groups (e.g., biphobia, transphobia, racism), and testing whether these tailored interventions are more effective than treatment as usual can help improve SGD population health.

Methodologically rigorous approaches are needed to move interventional research forward for SGD populations. This needed work includes implementing randomized controlled trials for intervention efficacy testing, as well as less traditional methods, such as pragmatic trials, natural experiments, and community-level randomization. In addition, rigorous scientific evaluation of existing and new programs, clinical care and service delivery, and policy and legal changes can help inform future opportunities to improve SGD population health. Leveraging resilience, including building upon strategies SGD people have used to resist societal oppression, is an important part of optimizing SGD health and well-being.

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MEMORANDUM

To: Melanie Fontes Rainer, Director, Office for Civil Rights

Through: (b)(6) Senior Advisor, Office for Civil Rights

From: Vatsala Kumar, Intern, Office for Civil Rights

Date: August 19, 2022

Re: **Florida Agency for Health Care Administration**

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