Trends in Secondary Schools' Practices to Support Lesbian, Gay, Bisexual, Transgender, and Questioning Students, 2008–2014

Zewditu Demissie, PhD, MPH, Catherine N. Rasberry, PhD, Riley J. Steiner, MPH, Nancy Brener, PhD, and Tim McManus, MS

Objectives. To examine trends in the percentage of US secondary schools that implemented practices related to the support of lesbian, gay, bisexual, transgender, and questioning (LGBTQ) students.

Methods. This analysis used data from 4 cycles (2008–2014) of School Health Profiles, a surveillance system that provides results representative of secondary schools in each state. Each school completed 2 self-administered questionnaires (principal and teacher) per cycle. We used logistic regression models to examine linear trends.

Results. Of 8 examined practices to support LGBTQ youths, only 1—identifying safe spaces for LGBTQ youths—increased in most states (72%) from 2010 to 2014. Among the remaining 7, only 1—prohibiting harassment based on a student's perceived or actual sexual orientation or gender identity—had relatively high rates of adoption (a median of 90.3% of schools in 2014) across states.

Conclusions. Many states have seen no change in the implementation of school practices associated with LGBTQ students' health and well-being. (*Am J Public Health.* 2018;108: 557–564. doi:10.2105/AJPH.2017.304296)

See also Coulter and Miller, p. 443.

Lesbian, gay, bisexual, transgender, and questioning (LGBTQ) youths are at disproportionate risk for negative health and other social and educational outcomes that affect well-being. The first national prevalence estimates of health risk behaviors among lesbian, gay, and bisexual (LGB) high school students provided in 2015 Youth Risk Behavior Survey data demonstrated that these students are at significantly higher risk than their heterosexual peers for various negative behaviors, such as substance use, poor nutrition habits, lack of physical activity, sexual risk behaviors, bullying, dating violence, and suicide attempts.[1] For example, in 2015, 42.8% of LGB high school students seriously considered suicide during the 12 months before the survey, compared with 14.8% of heterosexual students, and 29.4% of LGB students attempted suicide during the 12 months before the survey, compared with 6.4% of heterosexual students.[1] Although substantially less data are available on transgender youths, the existing evidence suggests that these youths are also at disproportionate risk for poor mental health outcomes,[2] substance use,[3] HIV,[4] bullying,[5] and suicide.[5]

Such alarming statistics push health professionals to better understand factors contributing to these disparities and develop strategies for addressing them. A growing body of literature points to social and structural factors, such as discrimination, stigma, and victimization—including in the school environment—as underlying causes.[6–8] For LGBT youths, school victimization has been associated with risk for HIV and other sexually transmitted diseases (STDs), depression, and suicidal ideation.[8] Given that sexual orientation disparities in school safety persist,[9] national education organizations have recently committed to protecting LGBTQ students.[10,11]

Policies that prohibit bullying and harassment in schools have been linked to positive student outcomes, such as less bullying[12] and fewer suicide attempts.[13] The importance of providing a safe and supportive school climate and supportive policies for LGBTQ youths is highlighted in a new adolescent health objective in Healthy People 2020 to "Increase the proportion of middle and high schools that prohibit harassment based on a student's sexual orientation or gender identity,"[14] and a number of states specify sexual orientation as a protected characteristic in state-level antibullying laws and policies.[15] Studies have investigated promising school-based policies and practices to prevent victimization and related health consequences among this population.[15] Specific practices to support LGBTQ youths include gay–straight alliances (GSAs) and safe spaces, both of which are associated with reduced risk of suicide ideation, alcohol and other drug use, prescription drug misuse, and poor academic outcomes.[16–22] Support for LGBTQ students also involves providing or linking to services that are LGBTQ-friendly and providing education, including sexual health education, in a manner that is inclusive of and relevant for these youths.[23]

ABOUT THE AUTHORS

Zewditu Demissie, Catherine N. Rasberry, Riley J. Steiner, Nancy Brener, and Tim McManus are with the Division of Adolescent and School Health, National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Centers for Disease Control and Prevention, Atlanta, GA. Zewditu Demissie is also with the US Public Health Service Commissioned Corps, Rockville, MD.

Correspondence should be sent to Zewditu Demissie, Centers for Disease Control and Prevention, 1600 Clifton Rd NE, MS E-75, Atlanta, GA 30329 (e-mail: izj5@cdc.gov). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints" link.

This article was accepted December 16, 2017.

Note. *The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or the US Public Health Service Commissioned Corps.*

doi: 10.2105/AJPH.2017.304296

To date, it is unclear to what extent these school policies and practices have been implemented. Accordingly, we sought to examine trends from 2008 to 2014 in the percentage of secondary schools across states implementing policies and practices to support LGBTQ students. Given changing norms related to sexual orientation and gender identity, greater attention to the LGBTQ population,[6] and increased public support for state- and local-level policies that support and protect LGBT individuals,[24] we hypothesized there would be increases in schools' implementation of supportive policies and practices.

METHODS

Data for this analysis came from 4 cycles (2008, 2010, 2012, and 2014) of School Health Profiles (hereafter called Profiles), a surveillance system developed by the Centers for Disease Control and Prevention (CDC).[25] Since 1996, Profiles has assessed school health policies and practices in US states, large urban school districts, and territories. Profiles monitors characteristics of and trends in school health education; physical education and physical activity; practices related to bullying and harassment; school health policies related to tobacco-use prevention and nutrition; school-based health services; family engagement; community involvement; and school health coordination.[26] Health or education agencies in each jurisdiction are funded by the CDC to conduct the surveys biennially using standardized questionnaires, sampling methods, data collection procedures, and data analysis. Profiles produces data representative of secondary schools that enroll students in any of grades 6 through 12 in each jurisdiction. Profiles is conducted in a repeated cross-sectional manner, and each cycle's sample is independent of previous samples. Most jurisdictions employ sampling frames that consist of all regular secondary public schools. Some jurisdictions invite all secondary schools, rather than just a sample, to participate.

Although Profiles currently collects data from representative samples of schools in states, large urban school districts, and territories, this analysis was limited to state data. In states conducting paper-and-pencil surveys, 2 self-administered questionnaires (principal and teacher) were mailed to each school in the sample, and the principal and lead health education teacher recorded their responses in computer-scannable questionnaire booklets. In states conducting online surveys, a unique link was e-mailed directly to respondents, who completed and submitted their responses via a secure Web site. The lead health education teacher was a person at the school who the principal designated as the most knowledgeable about health education. Participation in Profiles is confidential and voluntary. Additional information about Profiles methods has been published previously.[25]

Study Measures

Profiles collects data on several practices to support LGBTQ students, including aspects of the school environment, health services, and health education.[26] Questions measuring these practices have been included on the Profiles survey since 2010 unless otherwise noted. From the principal survey, Profiles assessed the following:

1. presence of a student-led club that aims to create a safe, welcoming, and accepting school environment for all youths, regardless of sexual orientation or gender identity (e.g., GSA or similar club; measured since 2008);
2. identification of "safe spaces" (e.g., a counselor's office, designated classroom, or student organization) where LGBTQ youths can receive support from administrators, teachers, or other school staff;
3. prohibition of harassment based on a student's perceived or actual sexual orientation or gender identity;
4. encouragement of staff to attend professional development on safe and supportive school environments for all students, regardless of sexual orientation or gender identity;
5. facilitation of access to providers not on school property who have experience in providing health services—including testing and counseling for HIV and other STDs—to LGBTQ youths; and
6. facilitation of access to providers not on school property who have experience in providing social and psychological services to LGBTQ youths.

From the lead health education teacher survey, Profiles assessed the percentage of schools (1) in which the lead health education teacher received professional development during the two years before the survey on teaching students of different sexual orientations or gender identities and (2) that provided curricula or supplementary materials that included HIV, STD, or pregnancy prevention information relevant to LGBTQ youths. Each question was answered yes or no.

Statistical Analysis

Following standard practice for Profiles,[25] states that had response rates of 70% or greater were weighted and included in analyses. Weighting reduces bias by compensating for differing patterns of nonresponse and improves precision by making school sample distributions conform to known population distributions. For states that drew samples, we weighted results to account for likelihood of school selection and nonresponse. For states that used a census, we weighted results to account for nonresponse. To be included in the analysis, states must have collected data on the study measures for at least 3 years so that we could calculate linear trends. For the GSA question, states had to have collected data in 2014 and at least 2 other years since 2008. For all remaining questions, states must have collected data for 2010, 2012, and 2014, as these questions were not introduced until 2010. In total, we included in the analysis principal survey data from 37 states and lead health education teacher survey data from 33 states. In 2014, across the 37 states from which we used principal survey data, sample sizes ranged from 64 to 654; across the 33 states from which we used lead health education survey data, sample sizes ranged from 66 to 660. Response rates ranged from 70% to 91% for principal surveys and 70% to 89% for teacher surveys. Unadjusted logistic regression models, run separately for each practice, examined linear trends in the percentage of secondary schools that engaged in the 8 practices to support LGBTQ youths. Practices served as the dependent variable, and a linear time component was the independent variable. We considered a trend to be significant if the *P* value for the B was less than .05.

TABLE 1—Observed Increases and Decreases in 8 Practices Related to Support of Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) Youths, by State: United States, 2008–2014

State	Practices That Increased (No.)	Practices That Decreased (No.)
Alabama	Safe spaces, Prohibit harassment, Encourage PD, Health services, Social and psychological services (5)	Teacher PD, Curricula or materials (2)
Alaska	None (0)	None (0)
Arizona	None (0)	None (0)
Arkansas	Safe spaces, Prohibit harassment (2)	None (0)
California	GSA, Safe spaces, Prohibit harassment, Encourage PD (4)	None (0)
Colorado	Safe spaces, Prohibit harassment (2)	None (0)
Delaware	GSA, Safe spaces, Prohibit harassment, Encourage PD (4)	Curricula or materials (1)
Georgia	Safe spaces, Social and psychological services, Curricula or materials (3)	None (0)
Hawaii	None (0)	GSA, Safe spaces, Prohibit harassment, Encourage PD, Health services, Social and psychological services, Teacher PD, Curricula or materials (8)
Idaho	Curricula or materials (1)	None (0)
Indiana	GSA, Safe spaces, Encourage PD, Curricula or materials (4)	None (0)
Kentucky	GSA (1)	None (0)
Maine	GSA, Safe spaces, Prohibit harassment, Social and psychological services, Curricula or materials (5)	Teacher PD (1)
Maryland	Safe spaces, Teacher PD (2)	None (0)
Massachusetts	GSA, Safe spaces, Prohibit harassment, Encourage PD, Health services, Social and psychological services, Teacher PD, Curricula or materials (8)	None (0)
Michigan	GSA, Safe spaces, Prohibit harassment, Encourage PD, Teacher PD (5)	None (0)
Minnesota	GSA, Safe spaces (2)	None (0)
Mississippi	None (0)	None (0)
Missouri	Safe spaces (1)	None (0)
Montana	Safe spaces, Health services, Curricula or materials (3)	Teacher PD (1)
Nebraska	None (0)	None (0)
Nevada	GSA, Safe spaces, Prohibit harassment, Encourage PD, Health services, Social and psychological services, Teacher PD (7)	None (0)
New Hampshire	GSA, Safe spaces, Prohibit harassment, Encourage PD, Health services, Social and psychological services, Teacher PD, Curricula or materials (8)	None (0)
New Jersey	GSA, Safe spaces, Encourage PD, Curricula or materials (4)	None (0)
New York	GSA (1)	None (0)
Ohio	Safe spaces (1)	None (0)
Oklahoma	GSA, Safe spaces, Social and psychological services (3)	None (0)
Oregon	Safe spaces, Teacher PD, Curricula or materials (3)	None (0)
Pennsylvania	Curricula or materials (1)	None (0)
Rhode Island	Safe spaces, Encourage PD, Teacher PD (3)	Health services (1)
South Carolina	Safe spaces (1)	Teacher PD (1)

Continued

TABLE 1—*Continued*

State	Practices That Increased (No.)	Practices That Decreased (No.)
Utah	None (0)	None (0)
Vermont	GSA, Safe spaces, Health services, Social and psychological services, Teacher PD, Curricula or materials (6)	None (0)
Virginia	None (0)	Encourage PD (1)
Washington	Safe spaces (1)	
West Virginia	Safe spaces (1)	None (0)
Wisconsin	GSA, Prohibit harassment, Curricula or materials (3)	None (0)
Wyoming	Safe spaces, Encourage PD, Teacher PD, Curricula or materials (4)	GSA (1)

Note. GSA = gay–straight alliance; PD = professional development. The 8 practices are (1) GSA: having a student-led club that aims to create a safe, welcoming, and accepting school environment for all youths, regardless of sexual orientation or gender identity; (2) Safe spaces: identifying safe spaces (e.g., a counselor's office, designated classroom, or student organization) where LGBTQ youths can receive support from administrators, teachers, or other school staff; (3) Prohibit harassment: prohibiting harassment based on a student's perceived or actual sexual orientation or gender identity; (4) Encourage PD: encouraging staff to attend professional development on safe and supportive school environments for all students, regardless of sexual orientation or gender identity; (5) Health services: facilitating access to providers not on school property who have experience in providing health services to LGBTQ youths; (6) Social and psychological services: facilitating access to providers not on school property who have experience in providing social and psychological services to LGBTQ youths; (7) Teacher PD: lead health education teacher received professional development during the two years before the survey on teaching students of different sexual orientations or gender identities; (8) Curricula or materials: school provided curricula or supplementary materials that included HIV, sexually transmitted disease, or pregnancy prevention information that is relevant to LGBTQ youths. Neither principal nor teacher questionnaire data are presented for Connecticut, Florida, Illinois, Iowa, Kansas, Louisiana, New Mexico, North Carolina, North Dakota, South Dakota, Tennessee, and Texas. Principal data are not presented for Utah. Teacher data are not presented for Alaska, Colorado, New York, Oklahoma, and Washington.

RESULTS

Table 1 presents summary data on whether states experienced significant increases or decreases in the engagement of the 8 practices to support LGBTQ youths. Most states experienced some mix of increases, decreases, and no changes over time. However, 2 states (Massachusetts and New Hampshire) experienced significant linear increases across all 8 variables, whereas 1 state (Hawaii) experienced significant linear decreases across all variables. Tables showing the percentage of schools in each state that engaged in the practices to support LGBTQ youths, and the resulting trends, are available as a supplement to the online version of this article at http://www.ajph.org.

A summary of the linear time effects in the percentage of schools that engaged in practices to support LGBTQ youths is presented in Table 2. Overall, across all principal variables, the number of significant linear increases (n = 77) was considerably greater than the number of significant linear decreases (n = 9); however, it was most common for there to be no change over time (n = 131). Only identifying safe spaces where LGBTQ youths can receive support from administrators, teachers, or other staff increased over time among more than half (72.2%) of the states. Overall, across all lead health education variables, the number of significant linear increases (n = 22) was greater than the number of significant linear decreases (n = 8). However, as with the principal survey variables, it was most common for there to be no change over time (n = 35). No practices increased or decreased in more than half of the states over time.

Table 3 presents the overall medians and ranges for the percentages of schools in each state that reported each of the practices to support LGBTQ students. The highest medians for percentage of schools reporting a practice were for the practice of prohibiting harassment based on a student's perceived or actual sexual orientation or gender identity (2010 median = 88.3%, range = 71.9%–98.9%; 2012 median = 88.8, range = 61.9%–95.5%; 2014 median = 90.3%, range = 73.2%–97.1%). The lowest medians were for the practice of having a lead health education teacher who received professional development on teaching students of different sexual orientations or gender identities (2010 median = 11.8%, range = 3.4%–25.6%; 2012 median = 12.8%, range = 7.5%–29.5%; 2014 median = 13.0%, range = 5.3%–28.8%).

DISCUSSION

This study examined state-level trends in the implementation of school-based practices to support LGBTQ students. Given growing public acceptance of LGBTQ individuals,[12] we hypothesized that schools would increase implementation of practices that promote safety and inclusion for this population. However, our findings were mostly inconsistent with this hypothesis. Only 1 practice—identifying safe spaces—increased in the majority of states (72.2%) from 2008 to 2014. Although we observed more increases than decreases in the 8 practices included in the study, it was most common to observe no linear change. In 50% or more of the states, 7 of the 8 practices did not change. Among those 7 practices, only 1—prohibiting harassment based on a student's perceived or actual sexual orientation or gender identity—was found to have relatively high rates of adoption (a median of 90.3% of schools in 2014) across the states.

Several potential reasons may explain why so many states reported increases in identifying safe spaces. One possibility is that strategies and tools for implementation are readily available to school staff at low or no cost, as safe space programs often use posters, door signs, stickers, or even staff badges to create visible reminders of people with whom and areas in which LGBTQ students can find nonjudgmental support.[27,28] It is worth noting that although use of this practice did increase in most states from 2010 to 2014,

TABLE 2—Summary of Linear Time Effects in the Percentage of Secondary Schools That Engaged in Practices Related to Support of Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) Youths: United States, 2008–2014

Practice or Characteristic (No. of States)	States With Significant Linear Decreases, No. (%)	States With Significant Linear Increases, No. (%)	States With No Significant Linear Change, No. (%)
Principal questions			
Had a gay–straight alliance or similar club[a] (n = 37)	2 (5.4)	15 (40.5)	20 (54.1)
Identified safe spaces[b] (n = 36)	1 (2.8)	26 (72.2)	9 (25.0)
Prohibited harassment[c] (n = 36)	1 (2.8)	11 (30.6)	24 (66.7)
Encouraged staff to attend professional development on SSE[d] (n = 36)	2 (5.6)	11 (30.6)	23 (63.9)
Facilitated access to providers not on school property who had experience in providing health services to LGBTQ youths (n = 36)	2 (5.6)	6 (16.7)	28 (77.8)
Facilitated access to providers not on school property who had experience in providing social and psychological services to LGBTQ youths (n = 36)	1 (2.8)	8 (22.2)	27 (75.0)
Total	9	77	131
Teacher questions			
Lead health education teacher received professional development[e] (n = 33)	5 (15.2)	9 (27.3)	19 (57.6)
School provided curricula or supplementary materials that included HIV, STD, or pregnancy prevention information relevant to LGBTQ youths (n = 32)	3 (9.4)	13 (40.6)	16 (50.0)
Total	8	22	35

Note. SSE = safe and supportive environments; STD = sexually transmitted disease. Percentages may not total to 100% because of rounding.

[a]A student-led club that aims to create a safe, welcoming, and accepting school environment for all youths, regardless of sexual orientation or gender identity.

[b]For example, a counselor's office, designated classroom, or student organization where LGBTQ youths can receive support from administrators, teachers, or other school staff.

[c]Based on a student's perceived or actual sexual orientation or gender identity.

[d]For all students, regardless of sexual orientation or gender identity.

[e]During the two years before the survey on teaching students of different sexual orientations or gender identities.

the median of 61.5% (in 2014) of schools across states reporting the practice indicates that many states still have room for improvement. Resources such as the Safe Spaces Kit from GLSEN and Out For Safe School Badges from the Los Angeles LGBT Center and Genders and Sexualities Alliance Network can perhaps facilitate implementation.[27,28] Given that this was the only practice that increased in Missouri, Ohio, South Carolina, Washington, and West Virginia, identifying factors contributing to improvement in these states could potentially inform implementation in other contexts.

Prohibiting harassment based on a student's perceived or actual sexual orientation or gender identity had the highest median of all the practices examined in the study in 2010, 2012, and 2014 (88.3%, 88.8%, and 90.3%, respectively), which may help explain why so many states saw no change. High levels of this practice are encouraging, although all US states currently have policies or laws to prohibit bullying and harassment of students. In theory, such policies are expected to provide protections for all youths, including LGBTQ youths who may be harassed on the basis of perceived or actual sexual orientation or gender identity. It is thus reasonable to question why 100% of schools were not able to answer this question in the affirmative.

With regard to the other practices examined, our findings point to a need for more concerted efforts to increase support for LGBTQ youths in schools. Only 40.5% of states saw increases in having a GSA or similar club; the presence of such clubs has been associated with lower levels of homophobic victimization and safety-related fears[20] and better social and educational outcomes.[21,22] No-cost, practical resources for establishing GSAs are easily accessible[29] and can facilitate implementation in schools.

Prohibiting harassment and bullying and implementing GSAs and safe spaces programs work in concert to positively affect the school environment. However, ensuring that schools are safe and supportive for students also requires appropriate training of school staff, and we found that only 30.6% of states saw increases in the practice of encouraging staff to attend professional development on safe and supportive environments. Furthermore, only 27.3% of states had significant increases in the percentage of schools in which the lead health education teacher received professional development during the 2 years before the survey on teaching students of different sexual orientations or gender identities. This may not reflect the overall percentage of lead health education teachers who may have ever received this type of training or who may be well prepared to teach students of different sexual orientations or gender identities. The median across states for this practice was the lowest of any variable included in this study (13.0% in 2014). Even so, this may represent a missed

TABLE 3—Medians and Ranges of Percentages of Secondary Schools in Each State That Engaged in Practices Related to Support of Lesbian, Gay, Bisexual, Transgender, and Questioning (LGBTQ) Youths: United States, 2008–2014

Practice or Characteristic (No. of States)	2008, Median % (Range)	2010, Median % (Range)	2012, Median % (Range)	2014, Median % (Range)
Principal questions				
Had a gay–straight alliance or similar club[a] (n = 37)	22.7 (12.3–48.7)	26.8 (11.4–50.1)	26.7 (12.2–53.2)	28.8 (12.6–55.7)
Identified safe spaces[b] (n = 36)		51.2 (32.6–71.5)	53.3 (29.3–79.1)	61.5 (39.2–84.7)
Prohibited harassment[c] (n = 36)		88.3 (71.9–98.9)	88.8 (61.9–95.5)	90.3 (73.2–97.1)
Encouraged staff to attend professional development on SSE[d] (n = 36)		54.0 (38.4–80.2)	54.9 (41.5–77.5)	59.1 (45.0–82.4)
Facilitated access to providers not on school property who had experience in providing health services to LGBTQ youths (n = 36)		44.1 (34.0–65.3)	43.9 (32.0–63.2)	46.4 (30.1–69.0)
Facilitated access to providers not on school property who had experience in providing social and psychological services to LGBTQ youths (n = 36)		45.4 (30.0–65.6)	44.6 (33.4–69.8)	49.6 (32.4–72.9)
Teacher questions				
Lead health education teacher received professional development[e] (n = 33)		11.8 (3.4–25.6)	12.8 (7.5–29.5)	13.0 (5.3–28.8)
School provided curricula or supplementary materials that included HIV, STD, or pregnancy prevention information relevant to LGBTQ youths (n = 32)		22.2 (7.1–50.8)	22.8 (8.0–43.8)	24.4 (11.1–52.6)

Note. SSE = safe and supportive environments; STD = sexually transmitted disease.

[a]A student-led club that aims to create a safe, welcoming, and accepting school environment for all youths, regardless of sexual orientation or gender identity.

[b]For example, a counselor's office, designated classroom, or student organization where LGBTQ youths can receive support from administrators, teachers, or other school staff.

[c]Based on a student's perceived or actual sexual orientation or gender identity.

[d]For all students, regardless of sexual orientation or gender identity.

[e]During the two years before the survey on teaching students of different sexual orientations or gender identities.

opportunity given that professional development can be helpful in increasing the self-efficacy of school staff to promote inclusive environments for their LGBTQ students.[30] Several nonprofit and professional organizations have developed learning modules to support school staff in working with LGBTQ youths and young adults[31,32]; such modules could serve as valuable implementation resources for schools.

Another important aspect of education for LGBTQ youths is ensuring that the course content both represents them and speaks to them. In the current study, 40.6% of states had increases in the percentage of schools that provided curricula or supplementary materials that include HIV, STD, or pregnancy prevention information that is relevant for LGBTQ youths. Although such increases are promising, half of states had no change in this practice. This is problematic given concerns that heterosexual biases within adolescent sexual health education curricula have excluded and even stigmatized LGBTQ youths.[23] Including representation of LGBTQ youths and speaking to their unique needs is an essential part of providing students with the skills and information to make safe choices. There appears to be growing interest in ensuring greater LGBTQ inclusivity in sexual health education,[33] which may facilitate future increases in the practice.

In 2014, the median percentage of schools across states that facilitated access to providers with experience in providing services to LGBTQ youths was less than 50% for both health services (46.4% in 2014) and social and psychological services (49.6% in 2014). Between 2010 and 2014, increases were observed in less than a quarter of states. Such findings may reflect challenges inherent in connecting all youths to services, as making such connections can be complex and resource intensive. Typical models include direct provision of services or referral to community providers when schools do not have appropriate staffing and infrastructure (e.g., school nurses, school based health centers) for on-site service delivery. That said, our findings could point to challenges meeting the needs of LGBTQ youths specifically. Effective referrals warrant consideration of students' unique needs, including their sexual orientation and gender identity,[34] given that LGBTQ individuals face unique barriers to accessing quality health care.[35]

In summary, the majority of states did not have increases in 7 of the 8 school-based practices examined. This overarching finding is somewhat surprising given recent increases in public support for LGBT individuals. Although future work is needed to explain this apparent disconnect between public opinion and implementation of relevant practices in schools, we posit several potential explanations. First, voicing support for LGBTQ individuals requires less effort and fewer resources than actually implementing specific policies and practices. School administrators face many competing demands, and finding the time and resources to address this issue,

though vitally important, may not be a top priority. Relatedly, the extent to which a school prioritizes implementation of these practices may largely depend on a handful of individuals in positions of influence (e.g., principals, school board members, and vocal parents); community support for LGBTQ youths may be less important. It is also possible that some supportive leaders feel constrained by the presence of a vocal minority in opposition to these practices.

Limitations

This study is subject to several limitations. First, Profiles data apply to public middle and high schools; the results are not generalizable to private schools or elementary schools. Additionally, the data are combined for middle and high schools. There is no clear pattern of results, but percentages and trends might differ by school level. Third, not all US states are included in this analysis; several states did not achieve weighted data for at least 3 Profiles cycles. These states, however, were from all regions of the country and varied in population size. Fourth, the data are self-reported by school principals and lead health education teachers; therefore, results rely on respondent knowledge and interpretation of existing policies and practices, and over- and underreporting is possible. Also, Profiles does not assess the quality of policies and practices measured or how well they are implemented. For example, a school may have policies to prohibit harassment based on perceived or actual sexual orientation or gender identity, but the extent to which students and staff are aware of the policy or the degree to which is it appropriately enforced remains unknown. Furthermore, only linear trends were examined in this analysis; with data from future Profiles cycles, nonlinear trends can also be examined. Lastly, Profiles does not provide data on characteristics that might explain increases, decreases, or lack of change across certain policies and practices; as a result, additional research is needed to better understand why particular trends have emerged in the data. Despite these limitations, this study allowed an examination of multiple domains relevant to the health and well-being of LGBTQ students, providing useful information for schools.

Public Health Implications

Contrary to the initial hypothesis, this study found that implementation of many school-based practices to support LGBTQ youths did not significantly increase between 2008 and 2014 in the majority of states. Two practices had encouraging findings: (1) prohibiting harassment, although lacking increased implementation in the majority of states, was implemented at relatively high levels across the states, and (2) implementation of safe spaces programs increased in the majority of states. Together, these 2 practices represent important foundational components to creating a base level of safety and support for LGBTQ students in schools. However, lower levels of and lack of increases in implementation across the other practices is concerning. These practices represent areas in which schools can strengthen their efforts to support the health of LGBTQ youths. Future research to explore why there were few increases in key practices to support LGBTQ youths in schools, and to better understand the barriers and facilitators for implementing such practices, could provide health and education professionals with additional insight into how to increase school support for LGBTQ youths. Given growing public support for LGBTQ individuals, ongoing assessment of the extent to which such normative change is translating into the implementation of supportive practices is warranted. Public health professionals can work across settings, including schools, to facilitate the implementation of practices that support the health and well-being of LGBTQ youths. AJPH

CONTRIBUTORS

Z. Demissie conceptualized the study and led the writing of the article. T. McManus analyzed the data. C. N. Rasberry, R. J. Steiner, and N. Brener helped interpret the data and contributed to the writing and editing of the article. All authors approved the final version of the article.

HUMAN PARTICIPANT PROTECTION

As a surveillance system, School Health Profiles has been determined to be exempt from review by the Centers for Disease Control and Prevention institutional review board. However, some individual states and school districts have chosen to submit their Profiles surveys for review; approval has been granted in all of these cases.

REFERENCES

1. Kann L, O'Malley Olsen E, McManus T, et al. Sexual identity, sex of sexual contacts, and health-related behaviors among students in grades 9-12—United States and selected sites, 2015. *MMWR Surveill Summ*. 2016; 65(SS-9):1–202.

2. Reisner SL, Vetters R, Leclerc M, et al. Mental health of transgender youth in care at an adolescent urban community health center: a matched retrospective cohort study. *J Adolesc Health*. 2015;56(3):274–279.

3. Reisner SL, Greytak EA, Parsons JT, Ybarra ML. Gender minority social stress in adolescence: disparities in adolescent bullying and substance use by gender identity. *J Sex Res*. 2015;52(3):243–256.

4. Wilson EC, Chen Y-H, Arayasirikul S, et al. Differential HIV risk for racial/ethnic minority trans*female youths and socioeconomic disparities in housing, residential stability, and education. *Am J Public Health*. 2015; 105(suppl 3):e41–e47.

5. Eisenberg ME, Gower AL, McMorris BJ, Rider GN, Shea G, Coleman E. Risk and protective factors in the lives of transgender/gender nonconforming adolescents. *J Adolesc Health*. 2017;61(4):521–526.

6. Institute of Medicine. *The Health of Lesbian, Gay, Bisexual, and Transgender People: Building a Foundation for Better Understanding*. Washington, DC: National Academies Press; 2011.

7. Hatzenbuehler ML, Phelan JC, Link BG. Stigma as a fundamental cause of population health inequalities. *Am J Public Health*. 2013;103(5):813–821.

8. Russell ST, Ryan C, Toomey RB, Diaz RM, Sanchez J. Lesbian, gay, bisexual, and transgender adolescent school victimization: implications for young adult health and adjustment. *J Sch Health*. 2011;81(5):223–230.

9. Goodenow C, Homma Y, Watson RJ, Adjei J, Saewyc E. Sexual orientation trends and disparities in school bullying and violence-related experiences, 1999–2013. *Psychol Sex Orientat Gend Divers*. 2016;3(4):386–396.

10. National PTA. Resolution on the recognition of lesbian, gay, bisexual, transgender, and queer/questioning (LGBTQ) individuals as a protected class. Available at: http://www.pta.org/advocacy/content.cfm?ItemNumber=4783. Accessed October 4, 2016.

11. National Education Association. Educators double down on protecting rights of LGBTQ students and members. Available at: http://www.nea.org/home/67590.htm. Accessed October 4, 2016.

12. Hatzenbuehler ML, Schwab-Reese L, Ranapurwala SI, Hertz MF, Ramirez MR. Associations between antibullying policies and bullying in 25 states. *JAMA Pediatr*. 2015;169(10):e152411.

13. Hatzenbuehler ML. Inclusive anti-bullying policies and reduced risk of suicide attempts in lesbian and gay youth. *J Adolesc Health*. 2013;53(1):S21–S26.

14. US Dept of Health and Human Services. Healthy People 2020. 2010. Available at: http://www.healthypeople.gov/2020. Accessed October 5, 2016.

15. *Analysis of State Bullying Laws and Policies*. Washington, DC: US Dept of Education, Office of Planning, Evaluation, and Policy Development, Policy and Program Studies Services; 2011.

16. Hatzenbuehler ML, Birkett M, Van Wagenen A, Meyer IH. Protective school climates and reduced risk for suicide ideation in sexual minority youths. *Am J Public Health*. 2014;104(2):279–286.

17. Coulter RWS, Birkett M, Corliss HL, Hatzenbuehler ML, Mustanski B, Stall RD. Associations between LGBTQ-affirmative school climate and adolescent drinking behaviors. *Drug Alcohol Depend*. 2016;161:340–347.

18. Heck NC, Livingston NA, Flentje A, Oost K, Stewart BT, Cochran BN. Reducing risk for illicit drug use and prescription drug misuse: high school gay–straight

alliances and lesbian, gay, bisexual, and transgender youth. *Addict Behav*. 2014;39(4):824–828.

19. Poteat VP, Scheer JR, Mereish EH. Factors affecting academic achievement among sexual minority and gender-variant youth. *Adv Child Dev Behav*. 2014;47: 261–300.

20. Marx RA, Kettrey HH. Gay–straight alliances are associated with lower levels of school-based victimization of LGBTQ+ youth: a systematic review and meta-analysis. *J Youth Adolesc*. 2016;45(7):1269–1282.

21. Walls NE, Kane SB, Wisnewski H. Gay–straight alliances and school experiences of sexual minority youth. *Youth Soc*. 2010;41(3):307–332.

22. Toomey RB, Russell ST. Gay–straight alliances, social justice involvement, and school victimization of lesbian, gay, bisexual, and queer youth: implications for school well-being and plans to vote. *Youth Soc*. 2013;45(4): 500–522.

23. Schalet AT, Santelli JS, Russell ST, et al. Invited commentary: broadening the evidence for adolescent sexual and reproductive health and education in the United States. *J Youth Adolesc*. 2014;43(10):1595–1610.

24. Flores AR. *National Trends in Public Opinion on LGBT Rights in the United States*. Los Angeles: Williams Institute, University of California School of Law; 2014.

25. Demissie Z, Brener ND, McManus T, Shanklin SL, Hawkins J, Kann L. *School Health Profiles 2014: Characteristics of Health Programs Among Secondary Schools*. Atlanta, GA: Centers for Disease Control and Prevention; 2015.

26. Division of Adolescent and School Health. School Health Profiles. Available at: https://www.cdc.gov/healthyyouth/data/profiles. Accessed September 18, 2017.

27. GLSEN. GLSEN's safe space kit: be an ally to LGBT youth. Available at: http://www.glsen.org/safespace. Accessed November 8, 2016.

28. Los Angeles LGBT Center. Out for safe schools. Available at: https://lalgbtcenter.org/out-for-safe-schools. Accessed September 18, 2017.

29. GSA Network. 10 steps for starting a GSA. 2009. Available at: https://gsanetwork.org/resources/building-your-gsa/10-steps-starting-gsa. Accessed February 9, 2017.

30. Greytak EA, Kosciw JG, Boesen MJ. Educating the educator: creating supportive school personnel through professional development. *J Sch Violence*. 2013;12(1): 80–97.

31. American Counseling Association. Lessons. Available at: http://aca.digitellinc.com/aca/lessons/1. Accessed October 4, 2016.

32. Human Rights Campaign Foundation. Professional development training. 2016. Available at: http://www.welcomingschools.org/training. Accessed December 14, 2016.

33. *Furthering the Adaptation and Implementation of LGBTQ-Inclusive Sexuality Education*. Washington, DC: Trust for America's Health; 2016.

34. Cicatelli Associates Inc, National Coalition of STD Directors. *Developing a Referral System for Sexual Health Services: An Implementation Kit for Education Agencies*. Washington, DC; 2015.

35. Mayer KH, Bradford JB, Makadon HJ, Stall R, Goldhammer H, Landers S. Sexual and gender minority health: what we know and what needs to be done. *Am J Public Health*. 2008;98(6):989–995.