LGBTQ+ Youth Tobacco Prevention Project

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Acknowledgements

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Cover photo courtesy of Lin Gould.

Introduction

This LGBTQ+ Youth Tobacco Prevention Project (LGBTQ+ YTPP) Needs Assessment (referred to as the Needs Assessment in this document), produced by project partners OUT Maine and Healthy Communities of the Capital Area (HCCA), provides a snapshot of conditions and secondary data related to tobacco use among LGBTQ+ youth who are primarily of high school age in three counties in Maine -- Kennebec, Knox and Waldo. A current Maine LGBTQ+ Health Needs Assessment from the past five years does not exist.

The Needs Assessment was conducted in partnership with the LGBTQ+ YTPP Advisory Council, a community-based coalition of representatives that support LGBTQ+ youth, including representatives of schools, other youth-serving organizations, a behavioral health agency, substance use prevention coalitions and organizations, tobacco prevention programs, community development, a representative to Maine's state legislature, as well as youth and adult members of the LGBTQ+ community. The council's deliberations reinforced the need to not rely only on a geographic-based definition of community, but to center the work on the LGBTQ+ youths' shared life experiences and identities. A Needs Assessment Committee met weekly for eight weeks and input was provided at two Advisory Council Meetings. Two Advisory Council meetings were dedicated to review, discussion, and recommendations for the Needs Assessment held in March and April 2021.

This Needs Assessment serves two purposes: to describe the local conditions for LGBTQ+ youth, and to provide adequate information to develop policies, systems, and environmental strategies to effectively address tobacco use among LGBTQ+ youth in Maine.

Although the primary focus of the project is to reduce tobacco use among these youth, supporting LGBTQ+ youth and building resilience also will reduce other high-risk behaviors such as use of other substances. It also will improve overall mental health and wellbeing. There are references to protective factors within the Maine Integrated Youth Health Survey (MIYHS) data discussion, as well as a literature review centering resilience in LGBTQ+ youth programming, which are considered vital elements of any project designed to reduce the impact of stigma, discrimination and trauma on LGBTQ+ youth.

This Needs Assessment focuses on three counties in Maine -- the geographic communities of the project's current work -- with the understanding that the Needs Assessment, including recommendations, could provide a basis for future statewide work based on the key findings, particularly since the LGBT data is primarily statewide totals. Yet it is important to distinguish the more traditional geographic definition of "community" in tobacco prevention work -- a school, neighborhood, town, region, or a county -- from a different community definition that is required to work effectively with LGBTQ+ youth. The community of LGBTQ+ youth is not primarily geographic in nature, even though some

resources and conditions are specific to these parts of the state. LGBTQ+ youth are a community beyond geographic borders -- bound by shared experiences and identity. In addition, the identity of LGBTQ+ people generally is embedded in a multi-layered set of identities that include race and economic status. The term intersectionality -- a framework for understanding how aspects of a person's physical, social and political identities combine to create different experiences of discrimination and privilege -- also helps to understand the realities faced by the LGBTQ+ community.

LGBTQ+ youth face the same challenges as their non-LGBTQ+ peers related to physical and emotional development; high reliance on peer relationships; the need to separate themselves from their parents, families and authority figures; experimentation with new experiences on a variety of fronts; a lens of personal invulnerability; and the need to develop their own sense of self as they step into adulthood. Yet LGBTQ+ youth face additional layers of challenges -- bullying, harassment and isolation based on their LGBTQ+ identity (real or perceived); significant lack of support from many of their families for their LGBTQ+ identity; religious doctrine denigration; increased mental health challenges and misuse of substances; increased risk of homelessness; and higher incidences of Adverse Childhood Experiences (ACEs) that exacerbate their struggles.

As a result, young LGBTQ+ youth often turn to each other to find support and build a sense of community within the youth demographic. For many, this LGBTQ+ youth community of shared identity and experience provides a sense of belonging that might not exist in any other aspect of the young person’s life. This coping strategy, developed as a useful survival tactic for LGBTQ+ youth, can provide a social network prevention strategy entry point as well.

This Needs Assessment posits the concept of LGBTQ+ community as key to future prevention work. The LGBTQ+ YTPP relies on actively weaving together the traditional concept of geographic community with the frame of the LGBTQ+ community linked by shared experience and identity to maximize the effectiveness of our intervention strategies. For example, educating LGBTQ+ young people that they are being targeted by "Big Tobacco" marketing strengthens their sense of “queer” community as they band together against the “aggressor.”

The Needs Assessment provides a summary of local demographics, conditions, and health data in the first three chapters. The fourth chapter provides summaries of the literature reviews on LGBTQ+ youth vaping/use of electronic cigarettes, youth health priorities, resilience-building with LGBTQ+ youth as prevention, and references to documented effective tobacco prevention. The full literature review is available in Appendix B. Chapter five provides observations from Advisory Council members not documented elsewhere, as well as next steps.

- Chapter 1 covers the general demographics and adult health status in the three counties.
- Chapter 2 provides a snapshot of schools and other youth-serving entities in these counties, including LGBTQ+ related policies and programs.
- Chapter 3 covers youth-specific tobacco use, as well as risk and protective factors data gathered by the Maine Integrated Youth Health Survey (MIYHS 2019), with comparisons between all high school youth who participated in the MIYHS and those who identify as LGBT.

- Chapter 4 provides summaries of four areas of research to support LGBTQ+ YTPP: a literature review of youth vaping; a review of health concerns of LGBTQ+ youth; a review of building resilience among LGBTQ+ youth as a core strategy to support LGBTQ+ prevention programming and health outcomes. The final review of documents and resources provides a brief overview of best practices in tobacco prevention and control and responds to a need for broader understanding of tobacco prevention among community members of the Advisory Council.
- Chapter 5 provides Advisory Council observations on MIYHS data and resilience literature review. This chapter also provides recommendations for future plans.

OUT Maine and Healthy Communities of the Capital Area (HCCA) are uniquely positioned partners to combine knowledge, skills, and experiences to lead a successful LGBTQ+ YTTP.

OUT Maine's mission is to build welcoming and affirming communities for Maine's LGBTQ+ youth. As the only statewide organization focused exclusively on LGBTQ+ youth for the last 25 years, its strong, trusting relationships with LGBTQ+ youth, their allies, families, and service providers will greatly contribute to the implementation of this project's strategies. OUT Maine brings its expertise in direct LGBTQ+ youth engagement; its strong reputation in collaborating with schools to enhance school safety and support for these youth; a network of trained providers -- health/mental health providers, clergy, schools and youth-serving organizations; and a cadre of supportive allies, parents and families ready to support efforts to improve LGBTQ+ youth physical and mental health. For more information about OUT Maine, go to www.outmaine.org.

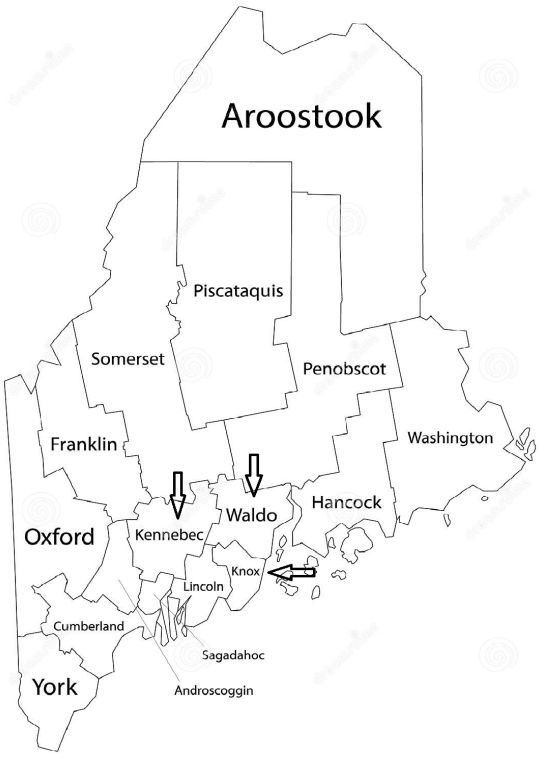
Healthy Communities of the Capital Area (HCCA) is a public health nonprofit that partners with community members to improve the health and quality of life locally, throughout Kennebec County, Maine's Central Public Health District, and across the state, with a focus on tobacco, substance use, and obesity as primary prevention. To find out more about HCCA, visit www.hccame.org. HCCA has been implementing tobacco prevention and control efforts since 2001, with a particular focus on engaging and co-planning effective tobacco prevention and control efforts with populations experiencing higher tobacco use and discrimination.

There will be an annual review and update of the Needs Assessment as strategic planning, programming and quality assurance require.

Chapter 1. Summary of Demographics of the Three Counties

There are many ways to describe the three counties of this project, including the geography. Two counties are considered coastal (Knox and Waldo), although they both include many inland towns in addition to the communities along the coast and on the islands. Knox County has four unbridged islands with year-round communities and Waldo County has one. There is a range in island populations (from <1000 to >50), as well as accessibility of transportation and services. Because of both the physical and social isolation, it can be challenging for islanders, particularly island youth, to access needed health care services and support. The islands vary in distance from the mainland from about 3 miles (Islesboro) to 20 miles (Matinicus). Miles from the mainland gives context to our term -- social isolation. Kennebec County is inland and home to the state capital of Augusta and the larger communities developed along the Kennebec River and on the lakesides. The population of Kennebec County is greater than the other two combined.

The arrows point to the three counties of Kennebec, Knos, and Waldo in the map below to help orient the reader to their locations within the state borders.



Differences are also evident in the demographics. Below are descriptions of the population numbers, including race and education, as well as income inequality, from census summary data, and overall adult health status from the County Health Rankings. The report also relies on additional reports to further paint the picture of the three counties in Maine, including Maine's Community Health Needs Assessments (CHNA's) county reports.

The Tobacco-Free/Smoke-Free Policies of Maine are robust. Smoking and tobacco state laws include related products such as rolling papers and vape paraphernalia. All schools are required by law to be free of tobacco products around the clock on all school property and at all school events by adults and youth. All state parks, beaches and places of interest such as forts and museums are also smoke-free and tobacco-free. Many communities have also designated their parks and other non-school recreation areas as tobacco-free areas. Many healthcare and mental health care sites have tobacco-free or smoke-free campuses. Multi-unit housing smoke-free policies are common. Workplace and public place laws prohibit smoking, which by definition includes all tobacco use, within 20 feet of all doors, windows, and vents of these locations, and at all locations where work occurs (i.e. both indoor and outdoor spaces).

Across Maine, and in the three counties of focus, there have been many new, updated, and enhanced tobacco policies between 2016 and 2020. The various sites for these policies include clinical settings, higher education campuses, multi-unit housing, land governance sites, lodging establishments, and workplaces, as well as schools. A collection of maps, published in March 2021, indicate the general locations of policy changes that resulted from policy initiatives that were supported by District Tobacco Prevention Partners funded by Maine Prevention Services (MPS) tobacco prevention projects. One map indicating policy changes in school settings can be found in Chapter 2 of the Needs Assessment where Kennebec, Knox and Waldo Counties are indicated by stars. For more information, see all seven maps of tobacco policies from 2016-2020 in Appendix D.

The LGBTQ+ YTPP Advisory Council members provided valuable observations from living and working in communities across the three counties, and also informed by their relationships with LGBTQ+ youth. Advisory Council members contributed direction, insights and recommendations throughout the process. Final recommendations can be found in Chapter 5, section 5.2 Additional input will be gathered over time from LGBTQ+ youth.

1.1 Description of the General Population

Kennebec County's population is 40,000 more than Knox and Waldo combined, and has a lower percentage of individuals who attained no higher than a high school/GED diploma. Knox and Waldo Counties' median income does not capture the extremes between those living below the poverty level, people who perform seasonal work of fishing and hospitality and other tourist positions, and people who have attained wealth both here in Maine and elsewhere, yet now live on the coast of Maine. (See Table 1)

There is relatively no difference in racial or ethnic percentages and while the range is from 95-96% white, over 8,000 individuals of color live in these three counties. Of note is a community of approximately 250 Arabic-speaking families from Iraq and Syria who live in the greater Augusta area. To find out more, please visit the Capital Area New Mainers Project at www.newmainersproject.org. (See Table 2)

Table 1: Comparison of population, education, income

	Population 2019 Census	Educational Attainment (Not all education categories are included)			Income	
	Total Population	Less than High School	High School Graduates	Bachelor's Degree & More	% Poverty Rate Children under 18	Median Household Income
	2019	2019	2019	2019	2019	2019
Maine	1,344,212	6.8%	31.4%	33.2%	12.8%	$57,918
Kennebec	122,302	7.5%	32.7%	28.1%	17.2%	$55,365
Knox	39,759	6.4%	32.9%	33.6%	15.7%	$57,751
Waldo	39,539	7.8%	32.2%	31.4%	18.0%	$51,931

Total Population, Race, Education, and Median Income by county for Kennebec, Knox, Waldo Counties, 2019 estimates from U.S. Census at censusreporter.org. Profiles. The Category of 'Some college and Associate's Degree" are not included in this table which accounts for the differences between the totals and 100%.

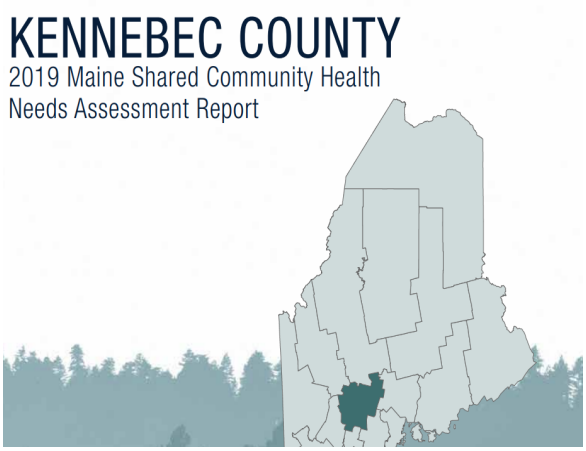
Table 2: Comparison of race and ethnicity

	Total Population	White Alone	Hispanic or Latino	Not Hispanic or Latino	Black or African American Alone	American Indian/Alaska Native Alone	Asian Alone
	2019	2019	2019	2019	2019	2019	2019
Maine	1,344,212	1,259,522	22,100	1,313,392	18,468	8,660	15,109
Kennebec	122,302	116,530	1,900	119,853	1,039	661	1,108
Knox	39,759	38,200	600	39,159	205	201	201
Waldo	39,539	38,044	586	38,953	234	176	182

These population estimates are from 2019 census data from Source: censusreporter.org. The data was provided on the reference site as numbers and not as percentages as in the prior table.

1.2 Overall Health in Kennebec, Knox, and Waldo Counties

Two primary resources were reviewed to create a snapshot of the health in the three counties.



Maine's county-level Community Health Needs Assessments (CHNAs) are part of the Maine Shared CHNA. The state-level partners, MaineGeneral Health (Kennebec County), MaineHealth (Southern Maine with affiliates in Central, Western and Coastal Maine), Northern Light Health (Northern and Downeast Maine), Central Maine Healthcare (Androscoggin County), and Maine Center for Disease Control (Maine CDC) have a formal Memorandum of Understanding to create the Maine Shared CHNA statewide report and individual reports for each county. The county reports do not prioritize tobacco prevention and control or the health of LGBTQ+ populations in general. One reason that tobacco prevention and control was not prioritized is that the planners were instructed to focus on gaps in services. Due to the Master Tobacco Settlement Agreement (MSA) dollars (known in Maine as the Fund for a Healthy Maine (FHM), which has funded tobacco prevention and control in Maine since 2001) LGBTQ+ populations were not considered to be a priority. Additionally, the health needs of older Mainers were prioritized over populations with health disparities. Of note, substance use and mental health were priorities in all three reports. The role of smoking and other tobacco use is strongly tied to the use of substances and as self-medication for stress, anxiety and depression.

The reports were issued in 2018 (Knox County) and 2019 (Kennebec and Waldo Counties) and can be found at www.maine.gov/dhhs/mecdc/phdata/MaineCHNA/final-CHNA-reports.shtml .

The County Health Rankings & Roadmaps (generally referred to as the County Health Rankings, a program of the University of Wisconsin Population Health Institute) works to improve health outcomes

for all and to close the health disparities between those with the most and least opportunities for good health. This work is rooted in a belief in health equity -- the idea that everyone has a fair and just opportunity to be as healthy as possible, regardless of race, ethnicity, gender, income, location, or any other factor.

The goals of the program are to:

- Build awareness of the multiple factors that influence health.
- Provide a reliable, sustainable source of local data and evidence to communities to help them identify opportunities to improve their health.
- Engage and activate local leaders from many sectors in creating sustainable community change.
- Connect & empower community leaders working to improve health. *https://www.countyhealthrankings.org/about-us*

2020 County Health Rankings for the 16 Ranked Counties in Maine

County	Health Outcomes	Health Factors
Androscoggin	11	10
Aroostook	13	12
Cumberland	1	1
Franklin	10	7
Hancock	4	5
Kennebec	6	8

County	Health Outcomes	Health Factors
Knox	3	3
Lincoln	8	6
Oxford	9	14
Penobscot	12	9
Piscataquis	15	13
Sagadahoc	2	2

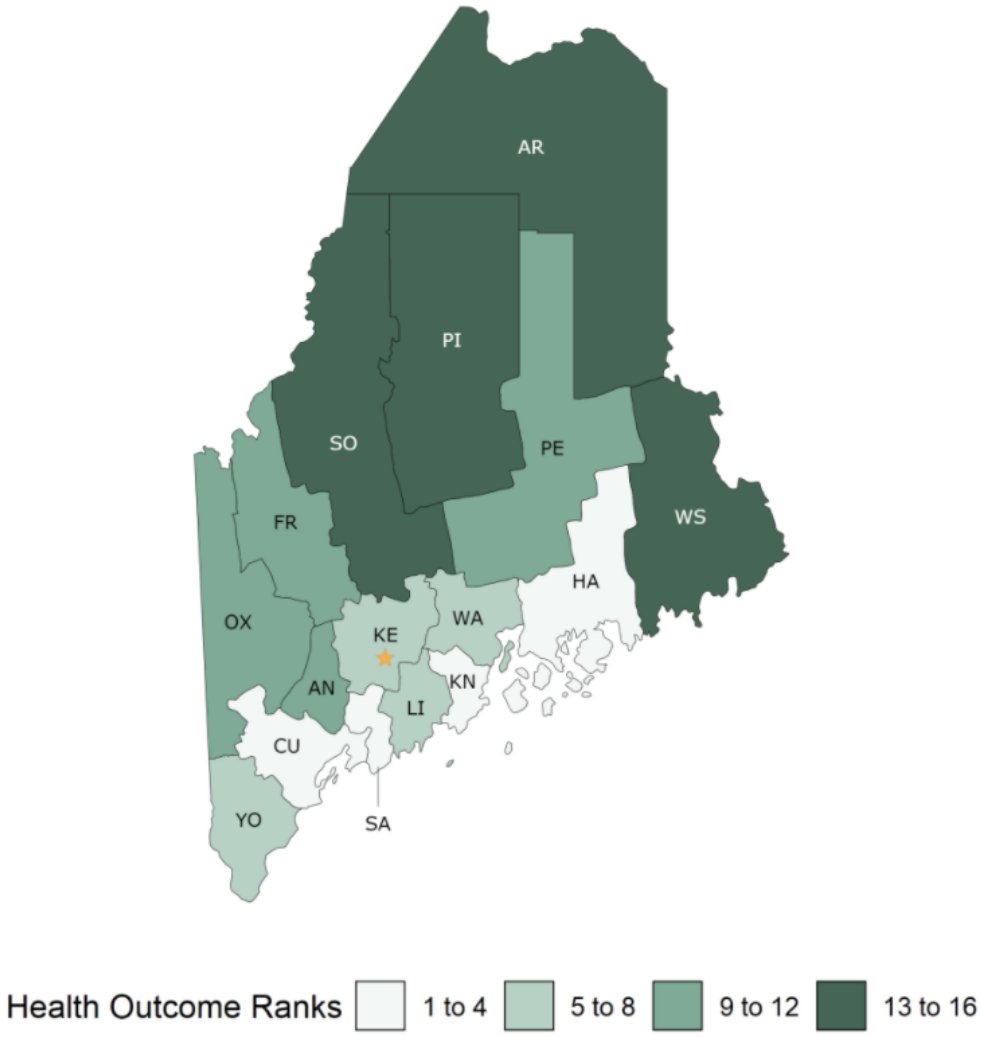
County	Health Outcomes	Health Factors
Somerset	14	15
Waldo	7	11
Washington	16	16
York	5	4

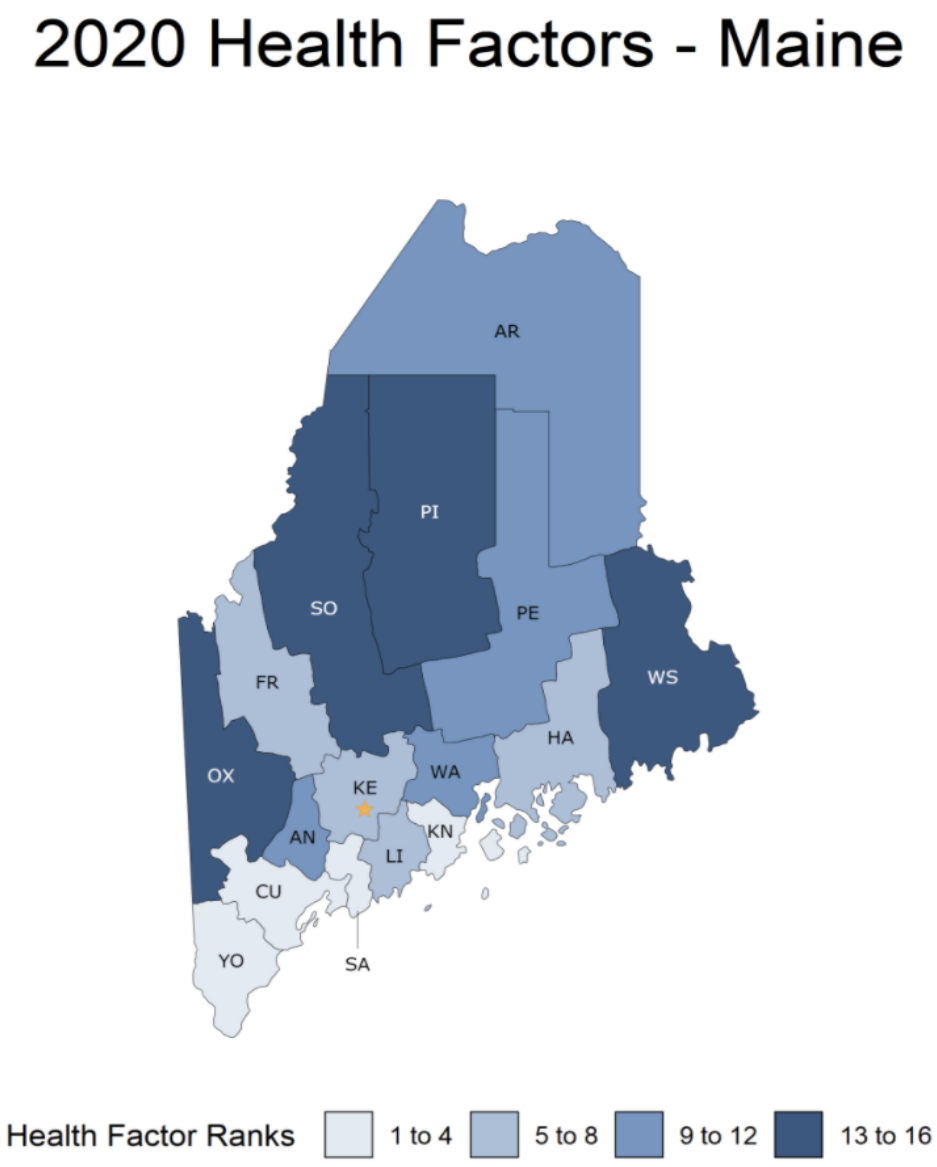
Maine's 2020 report can be found at
https://www.countyhealthrankings.org/reports/state-reports/2020-maine-report .

The maps below group the counties into four levels and show the relative rankings compared to all counties in Maine. Knox County is the only county in the top tier.

For Health Outcome rankings, Knox (KN) is 3 of 16, Kennebec (KE) is 6 of 16, and Waldo (WA) is 7 of 16. The Health Factor rankings are in the same order with variations. Knox has the same rank on both scales, 3 of 16, falling in the category of healthiest counties. Kennebec drops to 8 of 16, and Waldo County shows the greatest drop, landing at 11 of 16. The maps below indicate by color shades the rankings of the three counties.

2020 Health Outcomes - Maine



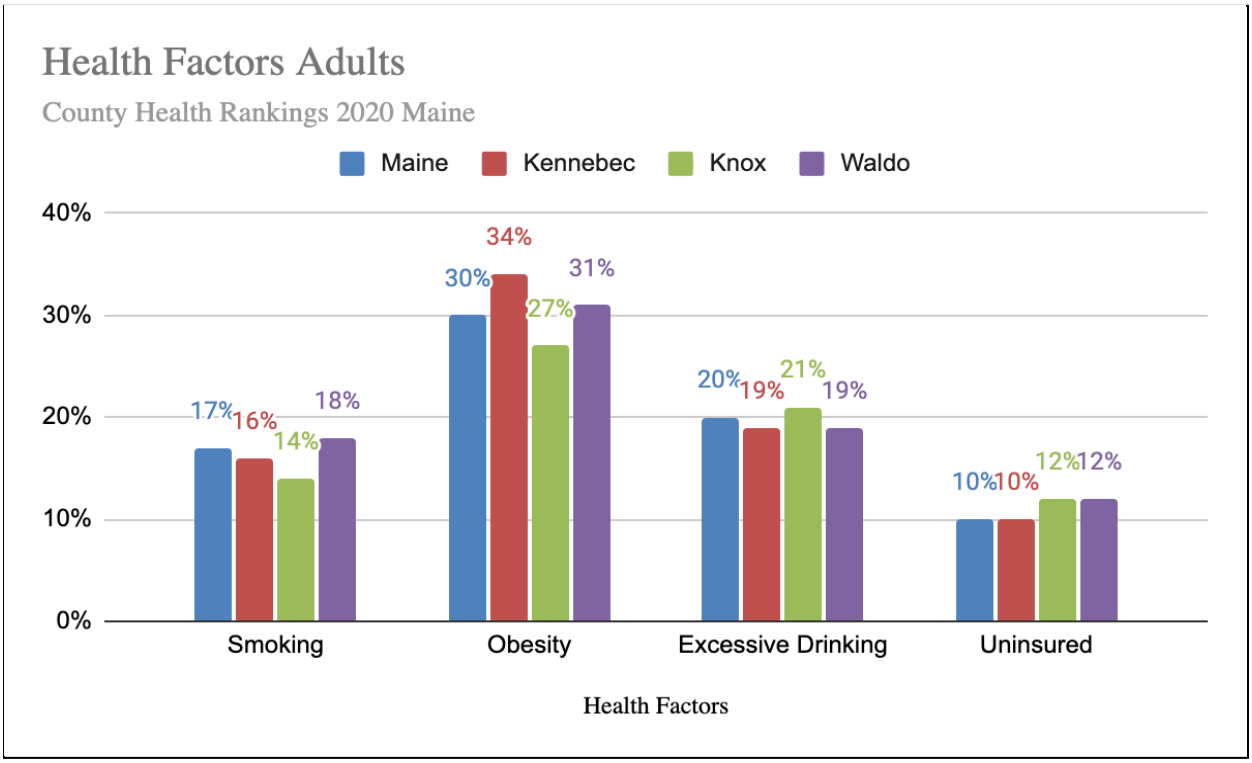


The following three graphs display select data points from the County Health Rankings at https://www.countyhealthrankings.org/reports/state-reports/2020-maine-report .

The rates of smoking range from a low of 14% in Knox to a high of 18% in Waldo County. Obesity, while not directly related to smoking rates, is a strong predictor of overall health in the community and ranges from 27% in Knox to a high of 34% in Kennebec County. Excessive drinking, which has been linked to higher tobacco use, shows rates from 19% to 21%, which are all close to the state rate of 20%.

In Knox and Waldo counties, 12% are uninsured, leaving 9,500 without access to healthcare. The uninsured rate is an indicator of lower-income, single-member families, as well as employment in industries that do not routinely offer health insurance such as Maine's tourist-related services and fishing/fisheries.

Graph 1: Comparisons of Health Factors among Adults: Maine, Kennebec, Knox, and Waldo Counties.

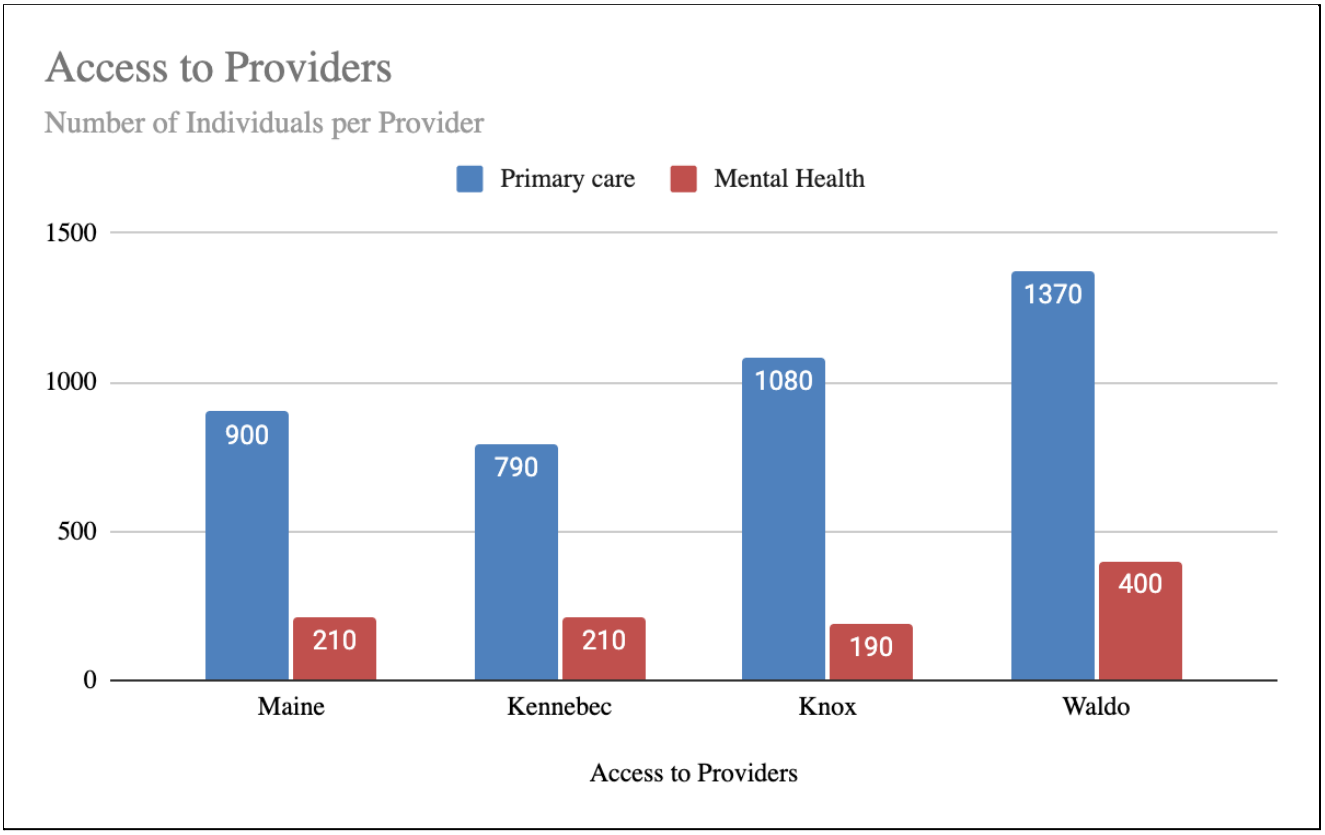


Graph 2 provides a look at two broad indicators of access to care, specifically access to primary care providers and mental health providers in relation to the population. The higher the bar, the more people per provider, and therefore the less theoretical access.

Assumed access to care does not include factors that contribute to actual individual abilities to use the services, such as hours of services, out-of-pocket costs, available transportation, childcare, stigma, etc. In addition, for youth in general, and in particular for LGBTQ+ youth as well as LGBTQ+ adults, it cannot be assumed that because the services are located nearby, members of the LGBTQ+ community use those services. Providers of informal and more formal LGBTQ+ support across Maine anecdotally report that many LGBTQ+ individuals use healthcare or mental health care at rates less than their age and income peers. Stigma, lack of cultural competence among providers, and unintended and intended discrimination, whether current or in the past, continue to prevent LGBTQ+ individuals of all ages from accessing healthcare.

The Needs Assessment service area has four hospitals; Kennebec County is served by MaineGeneral Medical Center as well as Inland Hospital, an affiliate of Northern Light Health. Waldo County is home to Waldo County General Hospital and Knox County is home to Pen Bay Medical Center, both affiliates of MaineHealth. There are both mental health systems as well as individual mental health practices that serve the three counties, but none serve LGBTQ+ people specifically.

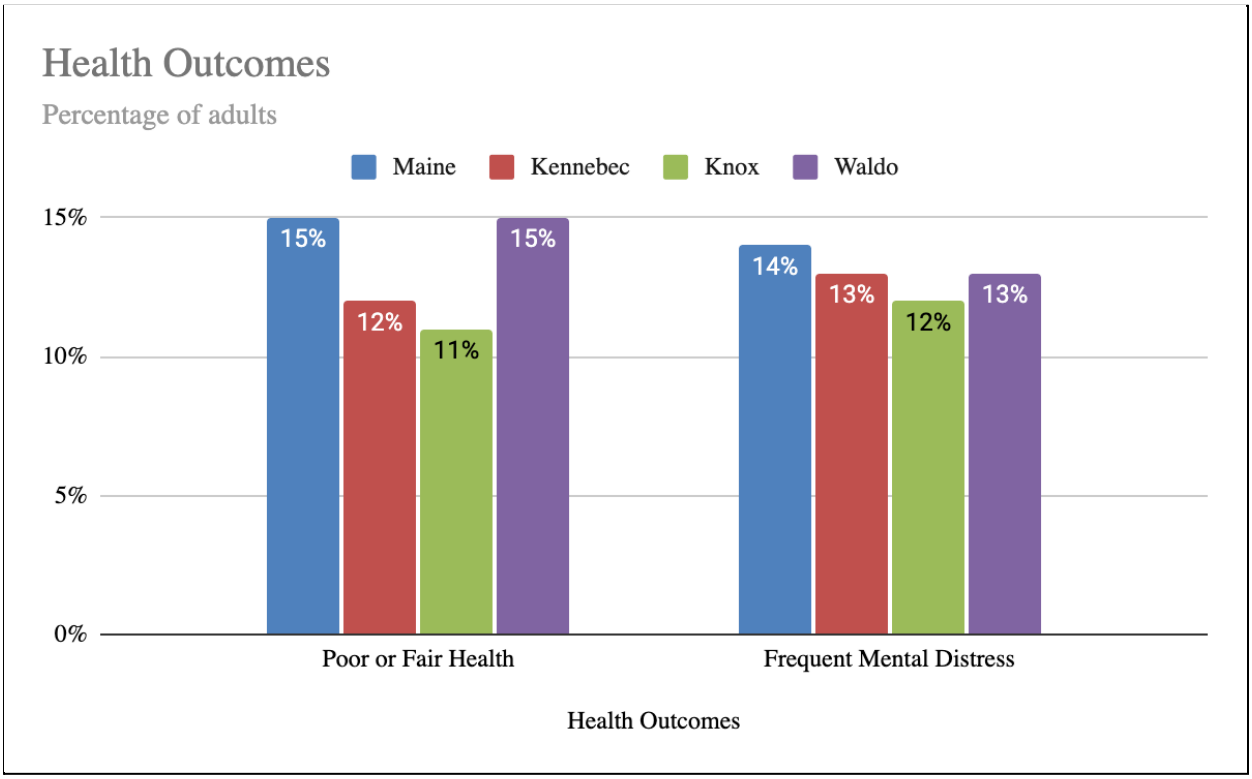
Graph 2: Comparisons of Two Types of Access to Care in Maine, Kennebec, Knox, and Waldo Counties. Ratio of population to providers for Primary Care Providers and Mental Health Providers.



Kennebec County has three Federally Qualified Health Center (FQHC) sites in Albion, Belgrade and Monmouth. In Knox County, the only FQHC is on the island of Vinalhaven, however there is a free clinic staffed by volunteers in Rockland and a free dental clinic in Rockport. Both have very limited access and strict income criteria. There are two FQHC sites in Waldo County in Winterport and Belfast.

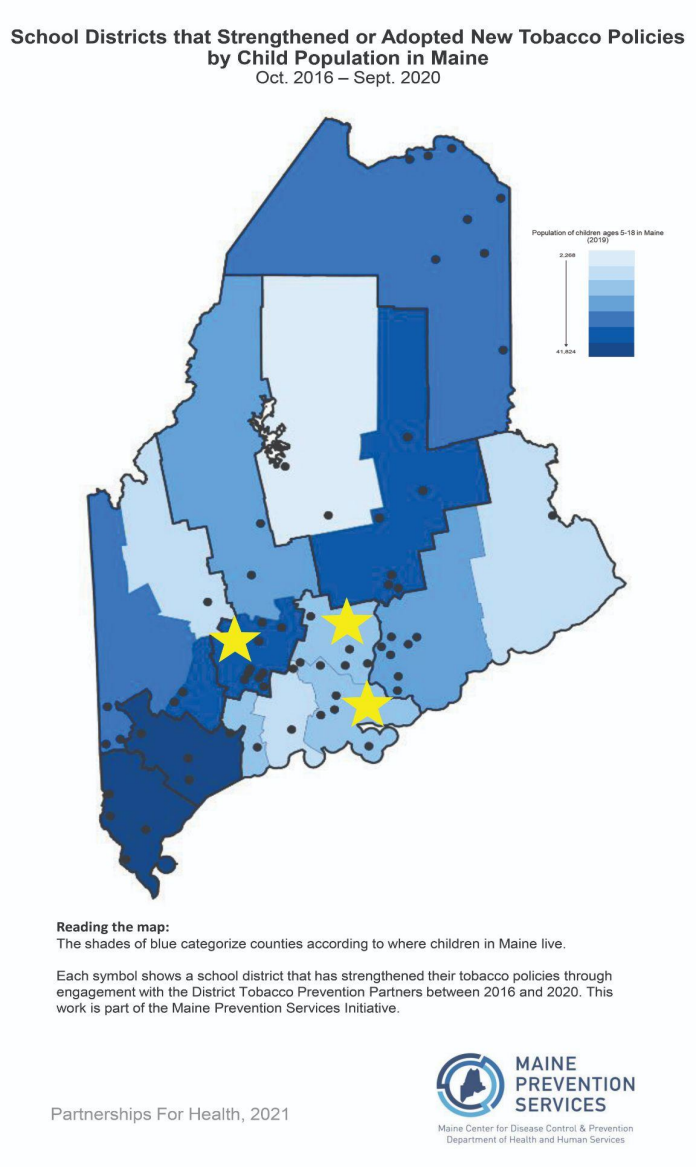
Graph 3 provides a comparison of reported poor/fair health and frequent mental distress. Both Kennebec and Knox counties reported better health with lower rates of poor/fair health at 12% and 11% respectively. Waldo County rates were the same as the state at 15%. Frequent mental stress rates ranked lower than the state average of 14%, with Kennebec and Waldo both at 13%, and Knox slightly lower at 12%.

Graph 3: Comparisons of Reported Health and Mental Health Outcomes, Maine, Kennebec, Knox and Waldo Counties



The data represented in the prior three graphs describes health-related conditions of adults in the counties in which LGBTQ+ youth live. There is no way for this data to draw direct connections between the general health conditions of adults in the counties and the specific conditions of the lives of individual LGBTQ+ youth. However, the data does provide a basis for questions to explore over time, such as relationships between the adult smoking rates in the three counties and rates of youth use as well. The youth data will be explored further in Chapter 3.

Chapter 2: Schools and Youth-Serving Organizations of Kennebec, Knox, and Waldo Counties



A series of law changes over the past few years have strengthened the protections at Maine schools to: prohibit possession and use of tobacco products on all school grounds at all times by everyone (adults and youth); to raise the legal age to purchase tobacco products to age 21; and to strengthen prohibitions for adults to provide tobacco products to all individuals under the age of 21. The laws have been enacted over time and are noted in different sections of the Maine statutes.

Schools in Maine that have updated tobacco policies over the past five years are represented in the map shown here, which is part of the March 2021 report, *Engagement with MPS (Maine Prevention Services) that Resulted in New or Strengthened Tobacco Policies*. The report includes additional maps of Maine where tobacco policies have been updated, strengthened, or adopted in the past five years and include clinical sites, higher education institutions, housing properties, land governance sites, lodging establishments, and workplaces. The full set of maps can be found in Appendix D. The counties included in this Needs Assessment are starred.

The majority of LGBTQ+ youth attend public schools in Maine. Some are also connected with LGBTQ+ youth-serving organizations and other support systems that serve all youth. The following provides a snapshot of the school systems, enrollment, and policies related to both tobacco and to school climate.

There are thirty-four public school districts, private schools, or charter schools across the three counties: fourteen in Kennebec, thirteen in Knox, and seven in Waldo.

2.1 Schools

Table 3: District Enrollment: Number of youth enrolled in public, private and charter schools in Maine, Kennebec, Knox, and Waldo Counties.

	Number of public school districts, 2021	Total Enrollment All levels. 2021	High School Enrollment. 2021	2019 Graduation Rate	Student Teacher Ratio,2021
Maine	303	175,788	55,318	87.4%	12:1
Kennebec	14	16,700	5,201	85.4%	13:1
Knox	13	4,507	1,409	90.2%	10:1
Waldo	7	4,499	1,150	85.4%	11:1

Source: Public School Review at https://www.publicschoolreview.com/

https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/Quick%20Facts%202020-21.pdf

Kennebec County has ten public school districts, three private or quasi-private schools and one charter school with a total of 16,700 students. Knox County has thirteen school districts with 4,507 students. Four of these are island specific school districts that operate for year-round residents. Enrollment for each island, as of fall 2020, is as follows: Isle Au Haut – 6 students, Matinicus – 0 students, North Haven – 54 students, Vinalhaven - 174 students. Waldo County has seven public school districts with 4,499 students. It, too, has one island specific school district, Islesboro School – 62 students.

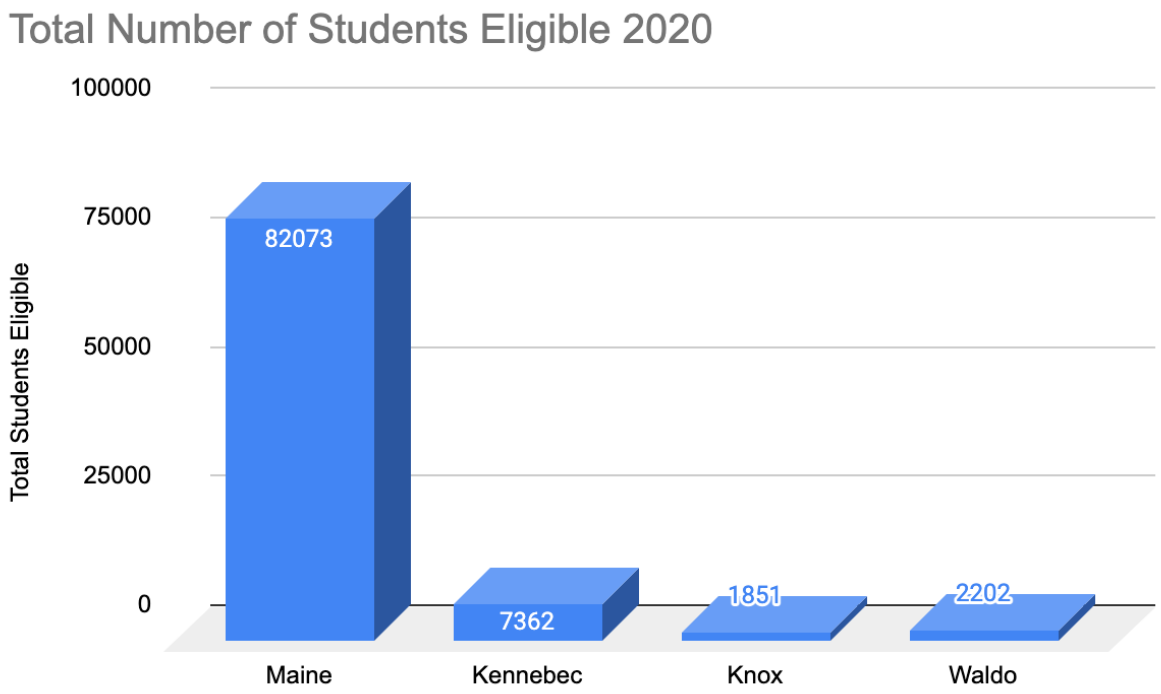
Kennebec County has a higher student-teacher ratio than the state average and the student-teacher ratio of Knox and Waldo counties. The graduation rate in Kennebec and Waldo are both 85.4%; graduation rate in Knox is 90.2%, which is almost 5% higher than Kennebec and Waldo counties. While it cannot be determined that the student-teacher ratio is the only factor related to graduation rates, it is noteworthy that Knox County has a 10:1 student ratio, which is lowest among the three counties.

Students who graduate from high school have higher wages, lower unemployment and are less likely to need public assistance than those who do not graduate. Their long-term physical and mental health is also better if they graduate from high school.

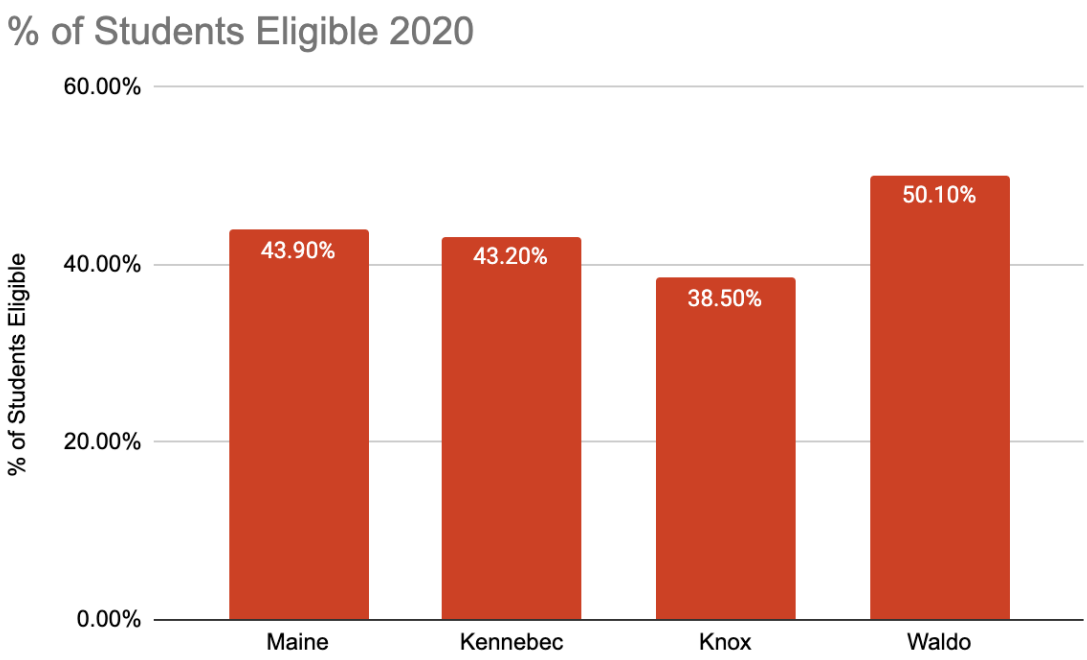
There are 68,729 economically disadvantaged students, 1,335 homeless students and 1,021 foster care students in Maine as reported in the *Maine Department of Education: Publicly-Funded Student Populations* report from October 2020. Approximately 40% of Maine's homeless teens and foster care youth identify as LGBTQ+, as noted in the *2017 Maine Homeless Youth Risk Behavior Survey Report*.

Free and reduced lunch rates are another measure of income levels and poverty rates. Waldo County has the highest free and reduced lunch rates at 50.1% -- 6.2 percentage points higher than the state average of 43.9% -- while Knox County has the lowest rate at 38.5%, which is 5 percentage points lower than the state average and approximately 12 percentage points lower than Waldo County. Of note, the rate of completion of forms by parents that are needed to identify eligibility is not 100%, so these rates are based on the completed forms.

Graph 4: Free and Reduced Lunch Student Eligibility County by County



Graph 5: Free and Reduced Lunch Student Eligibility Percentage by County



Source:
https://datacenter.kidscount.org/data/tables/1566-school-children-eligible-for-subsidized-school-lunch#detailed/2/any/false/574,1729,37,871,870,573,869,36,868,867/any/12834,3339

2.2 Protective Factors, Including School Policies and Gay Straight Trans Alliances (GSTAs)

School District Tobacco and LGBTQ+ Protective Policies
Maine and federal laws and regulations require local school boards to adopt certain written policies. In addition, there are policies which, though not specifically mandated, are essential for demonstrating compliance with laws and regulations affecting the governance or administration of schools. Tobacco use and possession, harassment and sexual harassment, and non-discrimination policies are required for all school districts under Maine law. More information on required policies can be found at https://www.msmaweb.com/o/msma/page/required-policies.

All school districts are required by law to have a tobacco-free policy (TF), yet some districts have outdated policies as tobacco-related laws have continued to change over time. In Kennebec County, three public school districts have policies that were adopted prior to 2015. In Knox County, there are thirteen school districts, five of which are small island schools. One island school did not have a policy available on the web; the other four have policies but none have updated them since 2010. Waldo County has seven public school districts. One district policy was updated in 2015; all other districts have more recently updated their TF policies.

While all schools are required to have non-discrimination and comprehensive anti-bullying policies, the exact content is not prescribed. Therefore, the content of the non-discrimination and anti-bullying policies varies by district. While gender identity has been included under sexual orientation in the Maine Human Rights Act for many years, gender identity became a protected class in the Maine Human Rights Act during the 2019 Maine Legislative Session. All non-discrimination and anti-bullying policies should be updated to include sexual orientation and gender identity as protected classes in conformity with the state of Maine's non-discrimination policy and all other applicable state and federal laws.

In addition to policies required by law, some districts adopt policies to provide additional clarity of protection and support for students. A transgender and gender-expansive student policy is an example of a policy to provide clarity of protection and support for students. Two school districts in Kennebec County and one school district in Waldo County have adopted transgender and gender-expansive student policies. The Maine Department of Education (DOE) recommends that all districts adopt a transgender and gender-expansive policy that includes clear guidelines for supporting transgender and gender-expansive students. Gender-expansive refers to gender identities and expressions that differ from the expectations and identities consistent with their sex assigned at birth or the gender binary.

Maine DOE also recommends that all school districts should ensure privacy and confidentiality policies that provide clear guidance to administrators and school staff regarding personally identifiable information. School districts should review specific policies applicable to Individualized Education Plans (IEPs) and Section 504 plans.

Handbooks and other written materials should include sexual orientation, gender identity and gender expression in conformity with the state of Maine's non-discrimination law, the school's non-discrimination policy and all other applicable state and federal laws. More information on the foundational practices for schools to support LGBTQ+ youth in Maine can be found on the Maine Department of Education website. https://www.maine.gov/doe/LGBTQ/staff.

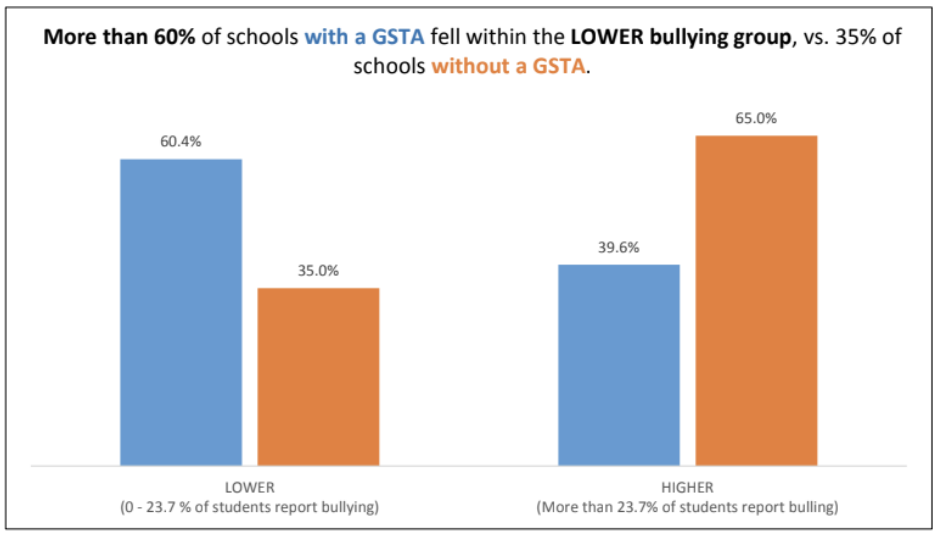
For a comparison of all school districts in the three counties of Kennebec, Knox and Waldo Counties by county, tobacco policy and Gay Straight Trans Alliances (GSTAs), please review the chart in Appendix A: school districts by county, tobacco policy data, GSTAs. This cross-walk shows six school districts in the three-county area that have a combination of good tobacco policies, alternatives to suspension, and groups that are supportive of LGBTQ+ students (GSTAs or others). This cross-walk of information is not available for schools statewide.

School Districts with active GSTAs.
Source: OUT Maine Data, 2020 (data collected annually of school districts)

Having a Gay Straight Trans Alliance (GSTA) in a school helps change school climate. Studies show that any school that has a GSTA for three or more years significantly reduces the odds of homophobic bullying and harassment for all students and suicidal thoughts were reduced by more than half among lesbian, gay, and bisexual youth compared to schools with no GSTA.

https://news.ubc.ca/2014/01/20/gay-straight-alliances-in-schools-reduce-suicide-risk-for-all-students/

The 2019 Maine Integrated Youth Health Survey (MIYHS) showed that all students attending schools with a GSTA were significantly less likely to experience bullying than all students who attended schools with no GSTA.



In Kennebec County, all ten public high schools have a GSTA. In Knox County, four of five high schools and four middle schools have a GSTA. In Waldo County, three of four high schools and two middle schools have a GSTA.

Source: [2019 MIYHS GSTA Status and Bullying on School Property]

2.3 Snapshot of Support for LGBTQ+ Youth - Youth-Services in the Communities of Kennebec, Knox, and Waldo Counties

All members of the Advisory Council were contacted for their knowledge, observations and experiences related to youth-serving organizations and groups outside of school. Snapshots of community-level support for LGBTQ+ youth were gained via telephone interviews and written summaries provided by members of the Advisory Council, which is made up of fourteen participants plus three staff members of HCCA and OUT Maine.

The summary is not intended to be a complete inventory of all youth-serving programs, but a snapshot provided primarily through the lens of the Advisory Council members and specifically about known LGBTQ+ youth opportunities and support. While there are a few LGBTQ+ organizations in some of the more urban areas of the state, their focus is primarily on adults. Many youth-serving organizations have good reputations for serving all youth, including LGBTQ+ youth, but the knowledge of actual policies or practices is very low among the Advisory Council members. Organizations may not have LGBTQ+-related policies. Engagement or support of LGBTQ+ youth may rely on particular staff members, rather than a systemwide specific organizational plan or practice. While there may be written policies, the support for LGBTQ+ youth is not obvious to our Advisory Council Members. More information is needed from LGBTQ+ youth regarding their experiences of inclusion and support from youth programs in their geographic communities.

Many of the programs have a focus on serving youth who live in low-income families/settings. LGBTQ+ youth may be served, but programming is not generally specific to their identity. Boys and Girls Clubs work to meet the needs of low-income youth and who are at higher risks for substance use, dropping out of school, etc.

Kennebec County has three separate Boys and Girls Clubs. The Boys and Girls Club of Kennebec Valley serves as Gardiner's out-of-school recreation program. The Alfond Youth Center combines elements of a YMCA and a Boys and Girls Club and serves youth in Waterville. Lastly, the Augusta Teen Center also serves Cony High School as the alternative-to-suspension program and has recently agreed to use a tobacco education program, INDEPTH from the American Lung Association, as part of the alternatives-to-suspension programming.

There are four YMCAs, one each in Kennebec and Waldo and two in Knox County. The YMCAs, as non-profit organizations, follow state and federal civil rights laws and policies and have clearly stated LGBT non-discrimination policies that cover discrimination in employment, housing, public accommodations, credit and education. The YMCAs have articulated their non-discrimination as welcoming employees and members of all ages, genders, faiths, economic backgrounds, and orientations without discriminating and without being judgmental. All of the YMCAs serve children and adults of all ages, including early childcare, afterschool programming and youth summer day camps. The YMCA policies have not led to LGBTQ+ programming for youth or adults.

A future review of policies for other youth-serving organizations will include a review of non-discrimination policies and programming.

There are many other youth-serving organizations in Kennebec and Knox Counties, and fewer in Waldo County. Some are located in low-income neighborhoods, providing support for homeless and at-risk-for-homelessness youth. They typically offer cultural opportunities, leadership in environmental stewardship, future career exploration, and mentoring in a variety of settings.

The Snapshot of LGBTQ+-specific programming and support found that some libraries offer LGBTQ+ youth programming, space for group meetings, and other resources to LGBTQ+ youth and their families. The three known to have LGBTQ+ programs are located in southern Kennebec County -- Lithgow Library in Augusta, Gardiner Public Library in Gardiner, and Bailey Public Library in Winthrop.

Overall, there are more resources for all youth in the communities that function as service centers (Augusta and Waterville in Kennebec County, Camden and Rockland in Knox County, and Belfast in Waldo County) than in the more rural areas for afterschool and other community support. Living outside of these service centers, including living on islands, combined with lack of transportation and other resources, leaves many LGBTQ+ youth trying to figure out their lives by themselves.

Although virtual meetings and resources have expanded during COVID-19, including those for LGBTQ+ youth in particular, there are a number of challenges to accessing these resources. Internet access is inconsistent in all three counties and across Maine. Not all youth and families have the necessary resources of computers, phones, or tablets. Some LGBTQ+ youth are not out to their family members and may not have family support or good options for privacy while online. The generic youth opportunities in most communities are generally after-school programming with a focus on sports as well as other after-school options. LGBTQ+ youth-affirming policies or practices are unknown at this time in any of the generic after-school options. There are no legal requirements for LGBTQ+-affirming policies, just those for non-discrimination policies and practices.

Resources that reach statewide that serve the LGBTQ+ youth community are few, but their combined reach, information and resources are continuing to expand. The following three resources are the most robust and aligned with this Needs Assessment.

1. OUT Maine, Rockland-based but working statewide, is the only organization in the three counties and across the state of Maine that is dedicated to the support of LGBTQ+ youth. OUT Maine's mission is to build welcoming and affirming communities for Maine's LGBTQ+ youth. As the only statewide organization focused exclusively on LGBTQ+ youth for the last 25 years, its strong, trusting relationships with LGBTQ+ youth, their allies, families and service providers will greatly contribute to the implementation of this LGBTQ+ YTTP project's strategies. OUT Maine brings its expertise in direct LGBTQ+ youth engagement; its strong reputation in collaborating with schools to enhance school safety and support for these youth; a network of trained health care and mental health care providers, clergy, schools and youth-serving organizations; and a cadre of supportive allies, parents and families ready to support efforts to improve LGBTQ+ youth physical and mental health.

2. *Best Practices for LGBTQ+ Inclusive Youth Programming,* was published in 2020 by OUT Maine and is called out here, in addition to the organization as a whole. This resource provides guidance to other organizations serving LGBTQ+ youth. Since its publication less than 12 months ago, it has been used by organizations across New England and other parts of the country. There are samples of action steps that large or small organizations can adopt, in addition to ways to think through potential challenges. Inclusive pronouns, bathrooms, language and images, facilitation and curricula, policies, procedures and training are also topics that are covered. If an organization hosts overnight opportunities, there is even guidance for sleeping arrangements. To wrap up these resources, the *Best Practices Guide* also includes current terminology. A copy can be downloaded at outmaine.org .

3. The LGBTQ+ Youth Support ME Network is a virtual statewide group. The members primarily work in the fields of tobacco prevention, substance use prevention, and youth engagement. The goal is to increase resources for adults to better serve LGBTQ+ youth. Their website is www.LGBTQSupportME.org. Other LGBTQ+-related organizations are listed there as well.

Chapter 3: Youth Health Data from Maine Integrated Youth Health Survey (MIYHS 2019)

Maine has a robust youth health survey -- the Maine Integrated Youth Health Survey (MIYHS) -- a confidential self-report survey conducted in most middle and high schools in Maine on a biennial basis since 2009 with strict protocols to assure confidentiality and protect the validity and integrity of the data. The MIYHS combines required elements of the Youth Risk Behavior Survey (YRBS) that the US CDC uses nationally, with added questions to provide a more complete picture of youth lives in Maine. Questions about Adverse Childhood Experiences (ACEs), mental health and health risk factors are asked, as are others about school climate, family and community factors. Since 2015, high school students have been asked to indicate their sexual orientation as Lesbian/Gay or Bisexual or not sure. In 2017, the MIYHS added a gender-identity question with three options -- not transgender, transgender, not sure if I am transgender. In the past three surveys, questions about using electronic delivery systems (ENDS)/vaping were asked, but the vaping questions were not asked of all students in the participating schools. All middle and high school students will be asked about vaping in fall of 2021, an important question for this Needs Assessment and the results of the 2021 MIYHS will continue to provide additional insight in these areas.

Existing summary reports of tobacco use, risk and protective factors, mental health, school and community climates have used the data from youth who affirmatively identified as Lesbian/Gay, Bisexual, and/or Transgender. Since the High School datasets from 2017 and 2019 also include the two categories of “not sure” of sexual orientation and “not sure if I am transgender” identities, the LGBTQ+ YTPP requested that the MIYHS analysis include the two “not sure” categories in a deeper analysis with cross-tabs of LGBT and “not sure” categories with a range of risk and protective factors, tobacco use and exposure, and Adverse Childhood Experiences, etc. This analysis will inform the strategic plan. The informal and non-scientific Q+ generally indicates individuals who question sexual orientation/gender identity and/or have gender-expansive self-identities. The MIYHS does not ask questions that are the same as Q+. However, in 2019, 4.4% of all students that participated in the MIYHS indicated not sure of sexual orientation and 1.6 % responded I am not sure if I am transgender. Additionally, youth who are served by LGBTQ+ programming and supports self-describe their identities in a range of ways in addition to Lesbian/Gay, Bisexual, and Transgender.

The Center for Tobacco Independence at MaineHealth contracted with Market Decisions Research, a data analysis organization, to provide a cross tab analysis of the 2017-2019 MIYHS data to provide deeper understandings of correlations between and among various data points. The Advisory Council will again review the deeper cross-tabs in future to help refine strategies and inform programming to be culturally responsive.

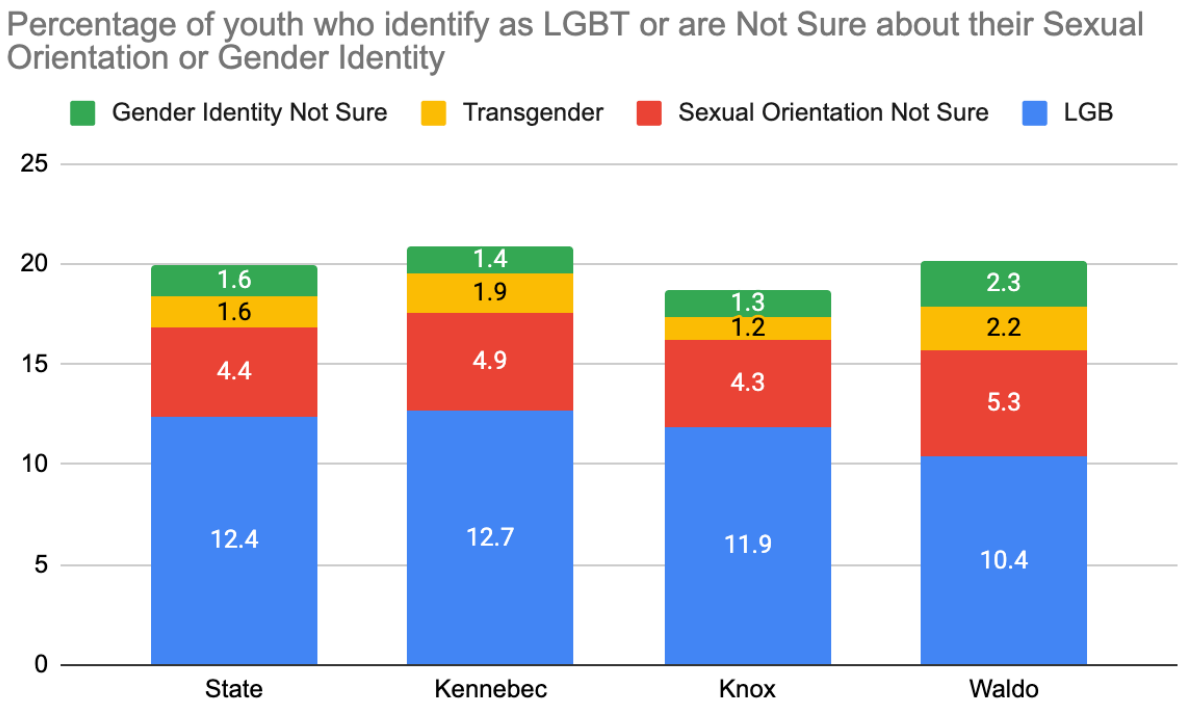
It is important to again point out that, although this Needs Assessment focuses on a defined geographic area of three counties, the LGBTQ+ youth community is largely defined by shared experiences and shared identities and the datasets are statewide counts.

3.1 LGBTQ+ Youth

The MIYHS Summary Fact Sheets found at 2019MIYHSLGBTInfographic.pdf (mainepublichealth.gov) report on findings of youth who affirmatively responded to being Lesbian/Gay, Bisexual and Transgender. The Advisory Council recommends inclusion of the MIYHS responses for the two "not sure" categories in program planning. The LGBT Infographic does not include students identified as "not sure" of their sexual orientation or gender identity because conclusions cannot be made about the intentions of the youth who selected the "not sure" responses.

The MIYHS data in this Needs Assessment includes the youth who reported as "not sure" and are noted in the tables and narrative. The decision to include the "not sure"s for the final assessment and planning for this project rests with the anecdotal reports of youth who are being served by LGBTQ+ services but do not identify as Lesbian/Gay, Bisexual or Transgender. The two ways of reporting the data could cause confusion to the reader, therefore the inclusion of the not sure categories is well documented. Although the graph below treats the categories as additive, there is no way to tell if the not sure about sexual orientation and the not sure I am transgender are the same or different individuals. The total percentage of all youth who fit under the LGBTQ+ umbrella then cannot be estimated as exactly as the graph portrays. It is useful however, to visually represent the two not sure categories to imagine the differences between the youth who clearly identify as LGBT or those who for any number of reasons, do not.

Graph 6: Percent of Maine High School Youth who Identify as Lesbian, Gay, Bisexual, Transgender, and Questioning. Source: 2019 MIYHS data



Source: 2019 MIYHS data

The data in the chart above includes the "not sure" categories which may or may not have some respondents who answered not sure to for both sexual orientation and gender identity.

Approximately 1 in 5 or 20% of Maine's High School teens did not identify as heterosexual or cisgender on the 2019 Maine Integrated Youth Health Survey. By including the "not sure" categories with the LGBT rates, the percentages of youth we are including in the data for this assessment are increased by 4.9 and 1.4 percentage points in Kennebec; 4.3 and 1.3 percentage points in Knox; 5.3 and 2.3 percentage points in Waldo; and 4.4 and 1.6 percentage points statewide. These youth identified as lesbian, gay, bisexual, transgender (LGBT) or selected "not sure" when answering the question "Which of the following best describes you? Heterosexual, Gay/Lesbian, Bisexual, or Not Sure" and/or when answering the question "Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender? No, I am not transgender; Yes, I am transgender; I am not sure if I am transgender; I do not know what this question is asking.

These percentages represent approximately 11,000 Maine high school students. Sexual orientation and gender identity are not identified at any grade level other than high school. There are 175,788 students enrolled in Maine. There is an unknown percentage of youth in middle and elementary schools who also identify as LGBT or are questioning their gender identity or sexual orientation, but there is no way to measure the numbers at this time.

OUT Maine has received increased requests over the past several years for support to start Gay Straight Trans Alliances (GSTAs) and similar organizations at the middle school level as one indicator for the middle school age group. A second indicator is the increasing requests for professional development and educational resources at both the middle school and elementary school levels. Locations of GSTAs are noted in Appendix A: Characteristics of School Districts by County including Tobacco Policies and GSTAs.

3.2 Youth Tobacco Use Rates (2019)

There are a range of MIYHS questions that ask about tobacco use and exposure and related risk factors. Responses to eight of those questions by Maine high school students are found below in Table 5 with comparisons of rates between the state of Maine and the three counties. An attempt has been made to label each category with elements of each actual question, although they are abbreviated due to space constraints. The full questions and responses are found in the MIYHS 2019 full statewide report at www.maine.gov/miyhs. The link to the full report is also found below each of the MIYHS data tables.

Youth in Waldo County report higher rates of use and exposure than students in Maine overall, and Kennebec and Knox Counties. The increased exposure to secondhand smoke for youth in Waldo County is concerning and may be related to increased use rates. 43.1% of youth in Waldo who smoked in the past 30 days started smoking before age 13. It would be reasonable to assume that tobacco prevention and cessation work with adults in Waldo County would be beneficial, in addition to prevention work with youth under the age of 13.

Table 5: Percentage of Maine High School Students (2019) who used Tobacco Products or were Exposed to Tobacco Smoke; State of Maine, Kennebec, Knox, and Waldo Counties

	Smoked at least 1 day: past 30 days	Started before age 13: Of those who smoked: past 30 days	Used chew, snuff, dip, etc. at least 1 day: past 30 days *(not vaping)*	Smoked cigars, cigarillos, little cigars at least 1 day: past 30 days	Would smoke a cigarette if offered by a best friend	Someone in home besides youth who smokes	In same room with someone smoking: past 7 days	In same car with someone smoking: past 7 days
Maine	7.1%	32.6%	4.5%	5.7%	31.0%	29.6%	27.0%	19.6%
Kennebec	6.4%	30.1%	4.7%	5.7%	32.8%	32.3%	27.8%	20.5%
Knox	8.5%	28.2%	5.6%	5.5%	42.3%	23.7%	24.4%	17.3%
Waldo	10.3%	43.1%	5.8%	7.1%	36.8%	41.5%	40.9%	32.0%

Source: *2019 MIYHS High School Detailed Report*
https://data.mainepublichealth.gov/miyhs/2019_reports_results

Table 6 below shows the statewide data for high school students who participated in the 2019 MIYHS survey in the same tobacco use, exposure and risk categories as presented in Table 5. The Maine high school student rate is compared to responses by sexual orientation and gender identity minority high school students in five categories, Gay/Lesbian, Bisexual,"not sure" of sexual orientation (SO), Transgender, and "not sure" if transgender (GI). the MIYHS survey does not ask for responses under a heading of Q (Queer or Questioning) or + (other gender expressions). The two "not sure" answers (SO and GI) cannot be added together, as there may be individuals who answered both questions affirmatively. The inclusion of the "not sure" categories may not count all of the youth who are developing their minority sexual orientations and gender identities. The "not sure" are included because many LGBTQ+ youth self-describe in a variety of ways such as non-binary, gender fluid, asexual, and pansexual, which are not part of the MIYHS set of questions or answers. To approximate the tobacco use and risks, it is important to include the "not sure" youth. Of note, the MIYHS does not collect data separately for gay and lesbian Maine youth, but lump the two into once category which als may need further examination.

Table 6: Percentage of Maine High School Students (2019), by Sexual Orientation and Gender Identity, who used Tobacco Products or were Exposed to Tobacco Smoke

	Smoked at least 1 day: past 30 days	Used chew, snuff, dip, etc. at least 1 day: past 30 days *(not vaping)*	Smoked cigars, cigarillos, little cigars at least 1 day: past 30 days	Would smoke a cigarette if offered by a best friend	Someone in home besides youth smokes	In same room with someone smoking: past 7 days	In same car with someone smoking: past 7 days
Maine HS Students	7.1%	4.5%	5.7%	31.0%	29.6%	27.0%	19.6%
Gay/Lesbian	12.5%	7.6%	9.4%	41.3%	36.6%	35.4%	26.1%
Bisexual	12.9%	3.7%	5.9%	45.9%	43.2%	39.5%	30.4%
Not Sure - SO	11.1%	8.7%	10.0%	34.9%	28.6%	30.3%	22.1%
Transgender	20.3%	11.8%	14.5%	48.8%	43.9%	41.5%	32.6%
Not Sure if I am Transgender - GI	20.1%	14.3%	16.8%	47.2%	39.5%	44.5%	37.2%

Note: SO=Sexual Orientation, GI=Gender Identity
https://data.mainepublichealth.gov/miyhs/2019_reports_results

The rates of tobacco use and exposure among youth who identify as Gay/Lesbian (GL), Bisexual (B) Not sure of Sexual Orientation (SO); and Transgender (T), and Not Sure if Transgender vary between two to three times the rate of Maine high school students. Transgender youth rates are among the highest across use, risk and exposure categories statewide.

3.3 Factors that Influence Safety and Good Mental Health

Risks for tobacco use, substance use, and other unhealthy coping skills are impacted by a number of factors. Six risk indicators self-reported in MIYHS are provided in the table below. It is clear that LGBT youth experience considerably higher numbers of events that contribute to increased stress, anxiety, and depression. It is also clear that strategies and activities to support LGBT youth are needed to increase resilience.

Increasing resilience is becoming a more common strategy to counteract high rates of Adverse Childhood Experiences (ACEs) and childhood trauma as well as current stress, anxiety and depression in counseling, ischools, and programming. The LGBTQ+ Youth Tobacco Prevention Project is also grounded in the idea of building resilience through a range of strategies.

The statewide rates of the experiences listed below are concerning for all of our high school age youth. The data, however, again highlights the higher rates of experiences that contribute to more acute challenges/stressors experienced by LGBT youth.

Table 7: Statewide Comparisons (2019) between Maine High School Students and LGBTQ+ Youth who Experienced Family Violence, Bullying, Depression, Were Suicidal, Experienced Homelessness, and Four or More Adverse Childhood Experiences (ACEs)

	Wanted to leave home, even just for a short time due to violence in their home, or the threat of violence, lifetime	Bullied on school property, past 12 months	Sad or hopeless almost daily for 2 or more weeks, past 12 months	Seriously considered suicide, past 12 months	Slept anywhere other than parents/guardians home or school housing, past 30 days	Reported 4 or more Adverse Childhood Experiences (ACEs), lifetime
Maine HS Students	21.0%	23.3%	32.1%	16.4%	3.3%	21.3%
Gay/Lesbian	34.0%	37.2%	57.6%	35.1%	8.4%	37.8%
Bisexual	39.6%	36.5%	66.6%	43.3%	5.2%	46.0%
Not Sure - SO	27.4%	26.7%	41.8%	23.6%	10.1%	24.4%
Transgender	49.1%	44.4%	71.7%	52.4%	17.1%	52.5%
Not Sure if I am Transgender - GI	43.7%	42.4%	64.6%	41.6%	17.4%	39.3%

Note: SO=Sexual Orientation, GI=Gender Identity https://data.mainepublichealth.gov/miyhs/2019_reports_results

LGBT youth experience violence, bullying and other Adverse Childhood Experiences (ACEs) at a higher rate than non-LGBT youth. Overall 21.3% of Maine high school students have experienced four or more ACEs, while 37.8% of gay or lesbian teens, 46% of bisexual teens, and 52.5% transgender teens have four or more ACEs.

ACEs have a significant impact on future victimization, violence and perpetration, and lifelong health and opportunity. Maine youth with four or more ACEs are significantly more likely to experience depression (3x) and consider suicide (4x) than those with less than four ACEs. They are also 3x more likely to smoke cigarettes, 2x more likely to be bullied at school, 2x more likely to drink alcohol, and 2x more likely to smoke marijuana. 2019 MIYHS ACEs Snapshot https://data.mainepublichealth.gov/miyhs/files/Snapshot/2019MIYHSACEsInfographic.pdf

ACEs scores are based on traumatic experiences before the age of 18 and include physical abuse, emotional abuse, physical neglect, parental separation or divorce, witnessing domestic violence, incarceration of a household member, living with someone with mental health concerns, and exposure to a household member abusing substances. More information about ACEs scores and the impact they can have on a child and their future can be found at https://www.cdc.gov/violenceprevention/aces/index.html.

ACEs and their associated harms are preventable. Creating and sustaining safe, stable, nurturing relationships and environments for all children and families can prevent ACEs and help all children reach their full health and life potential. More information about preventing ACEs can be found in the following publication *Preventing Adverse Childhood Experiences (ACEs): Leveraging the Best Available Evidence* https://www.cdc.gov/violenceprevention/pdf/preventingACES.pdf.

Maine youth, with four or more ACEs, that have indicated strong support from their family and school report less suicidal ideation and marijuana use, as compared to others with four or more ACEs and less support. Those who said their parents help them succeed were less likely to consider suicide in the past year (32% compared to 43%) or to have used marijuana in the past thirty days (33% compared to 42%). Students who said they have another trusted adult other than parents were less likely to consider suicide in the past year (30% compared to 41%) or to have used marijuana in the past thirty days (32% compared to 39%). Students with a caring school environment were less likely to consider suicide in the past year (29% compared to 41%) or to have used marijuana in the past thirty days (20% to 40%). 2019 MIYHS ACEs Snapshot
https://data.mainepublichealth.gov/miyhs/files/Snapshot/2019MIYHSACEsInfographic.pdf

Table 8: Percentage of Maine High School Students (2019) who asked for help from an adult, teacher or school staff or believed they mattered.

	Percentage of students who reported feeling sad or hopeless, answered that they got help from an adult, past 12 months	Percentage of students who reported feeling sad or hopeless, answered that they got help from a teacher or other school staff, past 12 months	Felt they matter to people in their community
Maine HS Students	25.2%	3.7%	56.6%
Gay/Lesbian	25.9%	5.2%	43.0%
Bisexual	23.4%	4.4%	35.0%
Not Sure - SO	28.0%	5.3%	45.2%
Transgender	26.5%	6.5%	32.0%
Not Sure if I am Transgender - GI	24.1%	6.9%	33.6%

Note: SO=Sexual Orientation, GI=Gender Identity
https://data.mainepublichealth.gov/miyhs/2019_reports_results

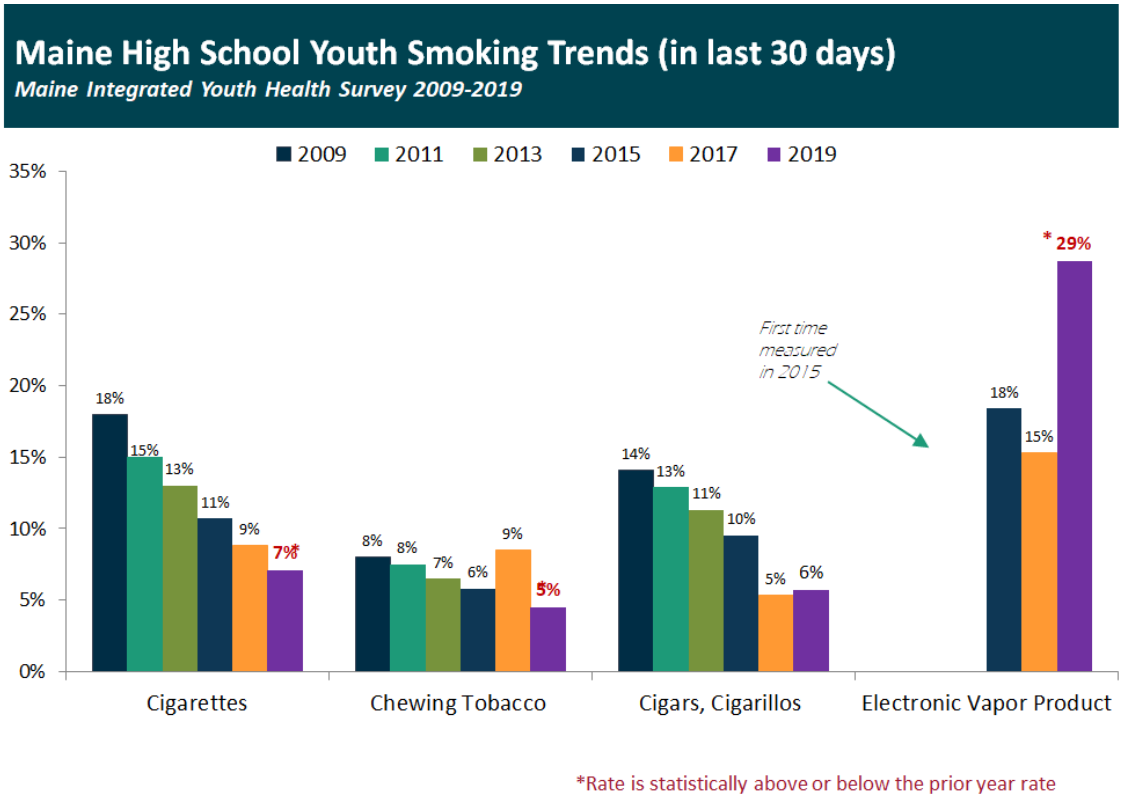
The percentage of Maine high school students who reported experiencing depression, regardless of sexual orientation or gender identity, said they seek help from an adult at about the same rate. However, LGBT teens are significantly more likely to seek help from a teacher or other school staff than non-LGBT teens. LGBT teens are less likely to feel they matter to people in their community.

Chapter 4: Literature Review (Appendix B)

The Advisory Council had many questions from the first phone call, the first Zoom meeting, and the first education session. The higher rates of use of tobacco itself was new information to most members. The experienced tobacco prevention folks offered presentations with data in tables, graphs, charts, and pointed to reliable websites and research to build a basic understanding of the issues. The prevention resources generally available through the Maine Prevention Services and the Center to Tobacco Independence at Maine Health were shared. The need for not only prevention but effective cessation and treatment for youth already addicted were noted. The questions as well as gaps in the research informed the four areas of deeper inquiry.

This chapter contains summaries of the literature reviews with each full review found in Appendix B.

Vaping: "Have use patterns changed during COVID-19?" As of the 2019 MIYHS data collection, LGBTQ+ youth reported using ENDS (electronic nicotine delivery devices) at the same rates as their non-LGBTQ+ peers.



Although the literature review did not identify LGBTQ+-specific changes in ENDs use during the pandemic, it provides insights into vaping during COVID-19.

The original question posed by the Advisory Council was framed loosely as "*what health related issues do LGBTQ+ youth care about?*" It has been shown that 'health' in general is a longer term consideration for most teens in general. The discussions ranged from "what do they care about" and "what would engage them", to what they were thinking when they started any tobacco use. The last three areas of inquiry were set aside for future dates when more LGBTQ+ youth were members of the Advisory Council and other groups engaged by the LGBTQ+ YTPP efforts.

Research on health priorities among LGBTQ+ youth is missing. The original search found peer reviewed journal research articles on adult health concerns, but not on youth. The one area of LGBTQ+ youth and health that yielded multiple research articles was related to satisfaction with physicians by LGBTQ+ youth, but the questions were asked of the providers and not the youth. *The general conclusions were that LGBT youth do not trust their medical providers and/or the presence of parents/guardians at the appointment prevented information being shared about identity and related health needs*. Look for Appendix B: B.2 for the review.

The question, *"What does the research say about integrating resilience with prevention strategies for LGBTQ+ youth?"* evolved as a cohesive area of inquiry over time. The theories of the 40 Developmental Assets presented by the Search Institute starting in the 1980s and the Risk and Protective Factors enumerated by SAMHSA (Substance Abuse and Mental Health Services Administration) to consider in all substance use prevention programs were examined and set aside as not the right fit. Protective factors asked in the Maine Integrated Youth Health Survey (MIYHS) -- being supported and loved by family, that at least one teacher really cares, or that they matter to their community -- are reported at lower rates by LGBTQ+ youth than by their non-LGBTQ+ peers. Trauma research, including rates of adverse childhood experiences, were not quite the right fit for LGBTQ+ programming either, although many of these youth experience trauma and about 1 in 3 LGBTQ+ high school youth report 4 or more ACEs.

Both lead partners, OUT Maine and HCCA, use the strengths-based term "resilience" in programming and in descriptions of their work. They use the simple picture of a ball bouncing as the visual, with the core concept being the ability to bounce back from adversity. The search for peer-reviewed journal articles that paired resilience and LGBTQ+ youth has provided a range of results from responses to cyberbullying and media's influence, to longer-term health outcomes. One of the first resources that used resilience as a goal for LGBTQ+ youth was a policy brief of The Trevor Project, a suicide prevention helpline for LGBTQ+ youth. Their model of moving youth from suicide to being resilient spoke to the project leads, and the literature review began.

Although resilience is defined in many ways, the body of reviewed research examines the ideas of both building individual skills and supportive environments, and connects resilience to better mental health, reduced risky behaviors, and better overall health outcomes. It suggests resilience as a framework in a number of prevention, health and social service and social work contexts. One recommendation is that the LGBTQ+ Youth Tobacco Prevention Program would benefit from a model of action similar to The Trevor Project a successful suicide prevention effort. Find the Literature Review on Resilience in Appendix B: B.3, and a PDF of The Trevor Project Model at Appendix C:

The question, *"What is effective tobacco prevention and control?"* prompted the inclusion of a brief overview of best practices in tobacco prevention and control and responds to a need for broader understanding of tobacco prevention among community members of the Advisory Council. Although the primary audience for this Needs Assessment includes tobacco prevention experts, in order for the Advisory Council and community members to effectively support this work, they also need to understand the science-based tobacco prevention research. Read more in Appendix B: B.4.

Chapter 5: Advisory Council Observations and Recommendations

5.1 Advisory Council Observations

Three areas of observations are presented below. They are responses to 1) the MIYHS data cross-tab analysis of risk and protective factors with LGBT identity; 2) the findings of the resilience literature review; and 3) general observations within and across the three counties.

Maine Integrated Youth Health Survey (MIYHS 2015-2019)

At the August 29, 2021 Advisory Council Meeting, Market Decisions Research made a presentation that provided a cross-tab analysis of MIYHS data (2015, 2017, and 2019) specific to LGBT youth and a variety of behaviors and risk and protective factors. The data included indicators of depression, anxiety, suicidality, experiences with violence, feeling cared for and whether they felt they mattered, as well as rates of Adverse Childhood Experiences. The data that indicated higher rates of tobacco use and exposure had been shared during several prior meetings and was reviewed and discussed in this presentation as well.

During the Advisory Council discussions, six themes emerged. Below each theme statement are details from discussions and the first analysis of the data by the members at that meeting.

Theme 1: When all of this data is presented at one time, the realities of the lives of LGBTQ+ youth are more fully revealed.

- There are deeper issues. Many youth reported not feeling safe at school. With most students in public schools, the school environment is an important area to address. “We need to get to the root of these results.”
- The absence of family, school, community support, and general acceptance are clear from the data, as are the increased experiences of violence, bullying, and other ACEs.

Theme 2: Tobacco use (and marijuana use, as over 70% of tobacco users also use marijuana and co-use is common) are ways to feel you belong.

- It is not about the knowledge that tobacco use is addictive or unhealthy, or how it affects brain development. (Observation shared by members who provide services to youth).
- Higher rates of LGBT youth report that if offered a cigarette by a friend, they would smoke; that their friends would not think it was wrong for them to smoke; and more of their friends are currently smoking. These factors suggest peer interventions and social norms of not using tobacco have promise.
- Higher rates of exposure to smoke within families, and highest rates in Waldo County as compared to Maine, Kennebec and Knox Counties, are conditions to consider for prevention efforts.

Theme 3: Mental health resources are needed.

- Tobacco and other substance use are used as coping strategies.
- Start with support; increase a sense of mattering and self-esteem; and build resilience.

Theme 4: Increase existing LGBTQ+-specific support and resources as soon as possible, integrating tobacco prevention with strategies to increase resilience.

- Members identified specific existing opportunities, including Trekkers, a Rockland-based youth mentorship organization; create an LGBTQ+ only group; Lithgow Library in August increased LGBTQ+ summer programming; Augusta Teen Center/Boys and Girls Club, create an LGBTQ+ group; OUT Maine, engage youth in peer discussions and projects to increase ability to say no to tobacco product use.
- LGBTQ+ youth want to tell their stories. Increase opportunities for authentic storytelling, and integrate practical strategies to say no.
- Modify existing tobacco prevention resources for youth as possible and practical to use with LGBTQ+ youth. Assure LGBTQ+ youth that their voice is central to the process.

Theme 5: Increase awareness of policies as well as ways to help modify policies and practices regarding both LGBTQ+ youth inclusion and safety, and tobacco use.

- Provide awareness of, access to, and training for *Best Practices for LGBTQ+ inclusive Youth Programming* created and provided by OUT Maine.
- Promote tobacco-free policies, support strategies to enforce while still supporting LGBTQ+ youth, including alternatives to suspension and restorative practices.

Theme 6: Continue gathering more data and analyzing the MIYHS data to inform prevention strategies.

- Conduct focus groups with youth and adults that serve them, informed by the MIYHS data.
- Conduct surveys informed by the MIYHS data.

Literature Review on Connections between LGBTQ+ Youth and Young Adults, Resilience, and Prevention

Also at the April 29, 2021 Advisory Council meeting, Joanne Joy presented findings of the literature review on LGBTQ+ youth, resilience and prevention that focused on three themes.

- LGBTQ+ youth experience minority stress
- Resilience is located at multiple levels and although defined somewhat differently over time and by different researchers, generally is described in three levels -- 1) individual characteristics and skills; 2) interpersonal, based in relationships; and 3) external factors located in systems, the greater community, schools, culture and policy.
- LGBTQ+ community, identity, pride, out-ness, social support and similar factors contribute to mental health, physical health/health promotion in the absence of other protective factors.

The minority stress theory or model provides context for the higher rates of mental health, substance use and other risk factors. It describes the higher levels of stress, above and beyond those experienced by non-LGBTQ+ peers, and was originally designed to help explain and make sense of LGBTQ+ higher rates of negative experiences and conditions broadly. The minority stress model helps to explain the

disparate health risks not only of LGBTQ+ people, but also for members of racial minorities. Much research has been conducted over the past 20-plus years.

The model is based on three conditions -- 1) the stress is unique in that it is directly related to LGBTQ+ identity or perceived identity; 2) is chronic and not specific to one person, place, experience, or time period; and 3) is socially based, not based on the individual person. The experiences of minority stress are stigma, discrimination, violence, homophobia, biphobia, transphobia, rejection and other specific experiences that are well-documented in the MIYHS data.

The Advisory Council observation themes.

Theme 1: The combination of the three findings provides hope for change. There are a number of opportunities for interventions and strategies that align with the findings, etc. to enhance the overall well-being and resilience of LGBTQ+ youth.

- GSTAs and other school-based support systems provide opportunities to build individual skills and support interpersonal relationships, as well as providing a setting for LGBTQ+ community
- Out-of-school programming and settings can provide similar opportunities. An early and ongoing effort of the LGBTQ+ tobacco prevention programming should focus on connecting with more YMCA's, Boys and Girls Clubs, after-school programs, etc., both on programming and policy.
- Expand positive youth connections to Pride events, including reducing the impact of tobacco and other substances to support LGBTQ+ youth participation, such as tobacco-free Pride policies. Engage LGBTQ+ youth in these LGBTQ+ positive environments.

Theme 2: There is a lot of work to do to educate both LGBTQ+ and non-LGBTQ+ to understand the unique challenges of LGBTQ+ youth.

- The unique experiences and challenges of LGBTQ+ youth are not common knowledge and not understood. Educating tobacco prevention partners, schools, and programs that serve LGBTQ+ youth about these three findings is an important effort.
- Even in welcoming settings, individuals and programs can benefit from this broader perspective identified in the findings.

Theme 3: Interventions need to be multi-pronged.

- OUT Maine currently works to support youth and increase their skills; provide parent support and resources; and train school staff and others on LGBTQ culture and best practices. Integrating tobacco prevention as appropriate at these levels can be integrated into an overall strategic plan and implementation plans.
- Expand the reach of training by OUT Maine such as training volunteers to be trainers.

Theme 4: Tobacco prevention resources specifically for LGBTQ+ youth are needed.

- *This Free Life* is an example of what a tobacco-prevention campaign for LGBTQ+ youth looks like. It includes social media messages and videos for LGBTQ+ young adults. That campaign is available on Facebook and YouTube.
- The LGBTQ Cancer Coalition has free LGBTQ tobacco resources. Logos and program names can be added to some, but these are designed for adult audiences.
- Engage local LGBTQ+ youth to review prevention materials, provide feedback.

Theme 5: Promote LGBTQ+ equity to the broader community.

- Develop a protocol of non-intrusive, brief statements to share the LGBTQ+ minority stress model that provides context for higher risk factors, including the use of tobacco among LGBTQ+ youth. This strategy is comparable to conferences and meetings starting with an acknowledgement of the land being originally occupied by the Wabanaki or other original people.
- Identify existing events/settings to use the above protocol such as the Tobacco Conference, workshop days for school staff.

General Observations

The following are additional observations from Advisory Council members of factors that affect tobacco use, resources and partnership potential. These observations are believed to have potential influences on conditions that affect tobacco use and tobacco treatment, and should be considered in a strategic plan and interventions.

Kennebec County has two cities, Augusta and Waterville, that serve as the overall service centers for the county. Both have distinct low-income communities. Shared services include the Sheriff's Office, and MaineGeneral Medical Center. There are extremes in income across communities. The Belgrade Lakes area has expensive homes, summer residences, summer residential youth camps and the like, with both year-round and summer wealth influencing local conditions. There are also post-secondary schools -- Colby College, Thomas College in Waterville, the University of Maine at Augusta and a Purdue University Global site in Augusta.

Knox County calls for the understanding that “the Midcoast you see driving along the coast is not the Midcoast 10 miles inland” informs ongoing recommendations. Interventions may benefit from further exploration between income levels in Knox County such as pockets of wealth in Camden/Rockport versus the rest of Knox County. There are a lot of services and many engaged people, yet there are also communities with very low average incomes. Suggestions for working with schools, youth-serving organizations, and social services include offering strategies to take something off of their plates, or participate within existing projects.

The Knox County data leaves out some very significant information such as that there are a relatively high number of dentists in the county, but not one accepts MaineCare and some accept cash only.

The post-secondary schools in Knox County include the University of Maine at Augusta Rockland Center and Maine Media Workshops and College.

Waldo County. At the time of the Needs Assessment development, there were no members from Waldo County on the Advisory Council, although there had been outreach over the prior nine months. This lack of local input makes it more difficult to understand the local conditions.

There are GSTAs and other in-school support for LGBTQ+ youth, but a lack of other LGBTQ+-specific support by youth-serving entities outside of school hours.

The post-secondary schools in Waldo County are the University of Maine Hutchinson Center and Unity College.

Island Communities are unique and have their own ecosystems. There will be barriers to providing LGBTQ+ youth support and tobacco prevention efforts. There is an association of island school counselors and surveys conducted through those partners may provide input.

5.2 Recommendations from the Advisory Committee

In order to successfully reduce LGBTQ+ youth use of tobacco in all forms, it is important to integrate evidence-based tobacco prevention strategies tailored to the LGBTQ+ youth, while increasing support to build resilience and the youths' assets. The observations listed above are largely in response to the LGBTQ+-specific disparities.

Continue gathering information.

1. Engage in original research through focus groups and surveys to provide current input from LGBTQ+ youth in all three counties on 1) tobacco use; 2) how they gain information related to tobacco; 3) ways they manage stress; 4) how they find support; and 5) how to build resilience. Finalize focus group scripts and survey questions after the deeper analysis of 2017-2019 MIYHS data for LGBT, and when the two "not sure" tobacco use and risk and protective factors are available. Conduct focus groups when conditions allow for in-person sessions. Conduct surveys after school returns to in-person sessions.

2. Explore the possibility of conducting summer programming that also could explore youth perspectives on the ways they manage stress, find support, build resilience and avoid tobacco use. These efforts also could help inform questions for focus groups and surveys, as well as ongoing programming.

3. Develop and implement island-specific methods to gather information, such as a survey, and methods to educate and engage adult allies such as island school counselors. It will be important to pay attention to the extreme isolation of the island communities.

4. Continue to examine the income/education disparities in each county through town comparisons to better understand the community dynamics and to ground specific prevention efforts.

Develop LGBTQ+ Youth Programming and Resources for Tobacco Prevention.

5. Center all tobacco prevention and control interventions using the definition of LGBTQ+ youth community as shared identity and shared experience. This approach is different from traditional tobacco interventions that have considered 'community' to be primarily geographic in nature.
    a. Some tobacco-free policies and other environmental strategies will, by nature, be location-based (school, municipality, outdoor recreation).
    b. Other interventions, such as media campaigns, cessation resources and education opportunities, need to be tailored to LGBTQ+ youth community members.
6. Combine increasing protective factors and increasing resilience with specific tobacco prevention efforts. An example may be working with small existing groups to identify and express their experiences, while also working on refusal skills when offered tobacco/vaping by friends.
7. Plan for a higher intensity of tobacco prevention efforts to be focused on Waldo County (maybe 50%) given the higher tobacco use rates at all levels. Increase recruitment efforts of program staff and Advisory Council members from Waldo County. Continue and increase opportunities to collaborate with DTPPS in each county.
8. Create and use a model/ guidance document for tobacco prevention that integrates elements of resilience-building with effective tobacco prevention and control strategies. Use The Trevor Project's document in Appendix C as a model.
9. Identify, develop, and provide LGBTQ+ youth-specific tobacco treatment, opportunities, and supports.
    a. Tobacco treatment may be particularly important as MIYHS data indicates LGBT youth have higher rates of using tobacco when it is offered by a friend. Reducing the use of tobacco by peers is an important prevention strategy. for LGBTQ+ youth.
10. Engage LGBTQ+ youth in a range of interest areas related to reducing tobacco use and exposure.
    a. Explore issues that engage youth activism, such as the environment/clean air/climate change, marketing/becoming targets of corporate greed, fairness/equity that are also linked to tobacco.

Environmental Strategies

11. Provide technical assistance and support to review, create and/or update tobacco policies of organizations that serve LGBTQ+ youth, as well as organizations that are LGBTQ+ friendly, in collaboration with the DTPPs in each county.
    a. Assess enforcement of existing policies and identify if there are LGBTQ+-specific barriers.
    b. Provide support and technical assistance to assist with enforcement of tobacco-free policies that include LGBTQ+-specific strategies or materials.

12. Provide training about LGBTQ+ youth risk and protective factors, minority stress, and best practices to support them. Provide LGBTQ+ youth policy and practice recommendations to youth-serving entities that serve all youth.
    a. Integrate tobacco prevention strategies and education into all training.
13. Include state and federal legislation-related education and advocacy in policy and environmental strategies.

Miscellaneous

1. Programming should take into consideration the impacts of COVID-19 on mental health and substance use, income and educational disparities, etc., for as long as those impacts continue to be experienced.
2. The co-use of tobacco and marijuana is well documented. Integrate the overlaps in prevention, related to the use of the two substances to the furthest extent possible.

Appendix A: School Districts by County, Tobacco Policy Data, GSTAs

Please see Chapter 2.2 for more information and a discussion of the relevance of these policies. Some policies updated between 2016-2020.

District	County	Grade Level	GSTA	Tobacco Policy	Policy Adoption	CTI Policy Rating	Includes Ends	On Person A&Y	On Grounds	Alternative to Suspension	What is the Alternative?
Augusta Public Schools include Capital Area Tech	Kennebec	PK-12	Yes	Yes	8/10/2016		Yes	Yes	Yes	Yes	Students shall be referred to a substance abuse counselor, participate in an educational experience, and Alternative to Suspension Program or if refused, may receive up to three days of suspension.
Erskine Academy (Quasi Private) - China	Kennebec	9-12	Yes	Yes	6/1/1985		Yes	Yes	Yes	No	
Fayette Central School	Kennebec	PK-8	No	Yes	4/1/1999		Yes	Yes	Yes		
Maine Arts Academy (Charter) - Hallowell	Kennebec	9-12	Yes	Yes	10/4/2018	Good	Yes	Yes	Yes	Yes	Tobacco education and referral to treatment
Mount Merci Academy (Private) - Waterville	Kennebec	PK-8	No	N/A	N/A		N/A	N/A	N/A	N/A	
MSAD 11 - Gardiner	Kennebec	PK-12	Yes	Yes	9/5/2019	Below Good	Yes	Yes	Yes	Yes	Participating in a smoking/e-cigarette cessation program.
RSU 02 - HallDale	Kennebec	PK-12	Yes	Yes	10/4/2018	Good	Yes	Yes	Yes	Yes	Mandatory tobacco prevention education
RSU 18\Messalonskee	Kennebec	PK-12	Yes	Yes	6/1/2018	Good	Yes	Yes	Yes	No	
RSU 38\Maranacook	Kennebec	PK-12	Yes	Yes	3/5/2020		Yes	Yes	Yes		
St Michael's School (Private)	Kennebec	PK-8	No	Yes	8/24/2020		No	Yes	Yes	No	
Vassalboro Community School	Kennebec	PK-8	No	Yes	3/7/2005		No	Yes	Yes	Yes	Tobacco prevention education component (cessation program
Waterville Public Schools	Kennebec	PK-12	Yes	Yes	11/1/2010		N/A	N/A	N/A	N/A	
Winslow Public Schools	Kennebec	PK-12	Yes	Yes	1/27/2020	Good	Yes	Yes	Yes	Yes	Tobacco prevention education component (cessation program

Winthrop Public Schools	Kennebec	PK-12	Yes	Yes	1/20/2021		Yes	Yes	Yes		
Appleton Village School Union 69 FiveTown	Knox	PK-8	No	Yes	5/14/2020	Good	Yes				
Five Town CSD	Knox	9-12	Yes	Yes	12/4/2019	Below Good	Yes	No	Yes	No	
Isle Au Haut Rural School	Knox	PK-8	No	Yes	7/12/1995		No	No	Yes	No	
Matinicus Island School	Knox	PK-8	No	N/A	N/A						
Midcoast School of Technology (Region 8) *462	Knox	9-12	No	Yes	6/27/2018	Good	Yes	Yes	Yes	No	
Monhegan Island School	Knox	PK-8	No	Yes	Prior to 1996		No	Yes	Yes	No	
RSU 07 - North Haven Island	Knox	PK-12	Yes	Yes	5/4/2010		No	No	Yes	No	
RSU 08 - Vinalhaven Island	Knox	PK-12	No	Yes	6/26/2006						
RSU 28 - Camden/Rockport	Knox	PK-8	No	Yes	11/14/2018	Good	Yes	No	Yes	No	
RSU 13 - Rockland	Knox	PK-12	Yes	Yes	1/7/2016	Good	Yes	No	Yes	No	
St. George - Tenants Harbor	Knox	PK-8	Yes	Yes	9/9/2015		Yes	Yes	Yes	No	
Edna Drinkwater School - Northport	Waldo	PK-8	No	Yes	2/23/2015	Below Good	Yes	Yes	Yes	No	
Islesboro Central School	Waldo	PK-12	No	Yes	8/8/2017	Good	No	Yes	Yes	Yes	Tobacco Education
Lincolnville Central School	Waldo	PK-8	No	Yes	5/4/2020	Good	Yes	Yes	Yes	Yes	Tobacco Education
RSU 03 - Mt View	Waldo	PK-12	Yes	Yes	11/9/2019	Best	Yes	Yes	Yes		
RSU 20 - Searsport	Waldo	PK-12	Yes	Yes	4/1/2015	Below Good	Yes		Yes	No	
RSU 71 - Belfast	Waldo	PK-12	Yes	Yes	3/30/2020	Better	Yes	Yes	Yes	Yes	Providing tobacco education and referral to tobacco treatment.
Waldo County Tech (Region 7)	Waldo	9-12	No	Yes	5/31/2018	Good	Yes	No	Yes	No	

Appendix B: Literature Review

B.1 Vaping During COVID-19

How has vaping behavior changed in youth and young adults since the COVID-19 pandemic began about a year ago?

As expected, there are few studies about how vaping has changed in youth and young adults since the COVID-19 pandemic began. The research team found two articles (Gaiha, *et al*., 2020; Sokolovsky, *et al*., 2021) and one commentary (Stokes, 2020) related to one of the articles that specifically focused on vaping changes in youth and young adults in the United States. There were some articles that studied young adults in other countries (Caponnetto *et al.*, 2020; Dumas *et al.*, 2020), and a letter from researchers highlighting the necessity of more resources for doctors in primary care settings to address vaping with adolescent patients in Canada (Bandara *et al.*, 2020). This section of the review will focus specifically on the two papers that studied vaping changes in the United States and the commentary.

Both studies sought to determine whether there had been changes in vaping rates since the start of the pandemic and what may be driving those changes, but they focused on different populations. The Sokolovsky, *et al*. paper was a small (n=69) study based on a survey (conducted in May and June 2020) of college students' behaviors before and after campus closed in the spring. It looked at both smoking cigarettes and vaping (Sokolovsky, *et al*., 2021). The Gaiha, *et al.* paper looked at the vaping behaviors of youth ages 13-24 and used data from a cross-sectional survey with 2167 participants (this study did not consider smoking cigarettes). The survey asked participants to retrospectively assess their vaping habits before the pandemic started, as well as at the time of the survey in May 2020 (Gaiha, *et al.*, 2020). The commentary by Stokes is about this second, larger study and interprets its results into recommendations for possible interventions to reduce vaping in this population (Stokes, 2020).

In the Sokolovsky, *et al.* study of college students, the researchers found that both smoking and vaping frequency decreased after campuses closed. The number of cartridges used per week was not statistically different from before and among those who still smoked. The number of cigarettes per day also was not statistically different from before the pandemic. Variables that were predictive of pausing smoking or vaping were symptoms of anxiety and moving to a residence with family or a friend's family (not independent). Variables that were associated with continuing to smoke or vape were higher nicotine addiction scores and exposure to COVID-19 news. Overall, a quarter of students in this study who smoked or vaped in the week before campuses closed did not smoke or vape during the week before the survey. One implication of this result is that a "contextual change," such as if a student lives with their family again during summer break, could be a good intervention point for cessation (Sokolovsky, *et al.*, 2021).

In the Gaiha, *et al.* study of adolescents and young adults, researchers also found a reduction in use from before the pandemic started. Of those who vaped before the pandemic started, more than half (56.4%) reported a change in current use. Of those who changed their vaping habits, a third quit vaping; a third reduced their use of vaping products; and the final third either increased their use of vaping products, switched to another form of tobacco, or switched to another form of cannabis. Among those who either quit vaping or reduced use, the most cited reasons for these changes were being at home/parents knowing (15%); difficulty accessing products (20%); the perception that vaping is bad for lungs (25%); or more than one of these factors (32%) (Gaiha, *et al.,* 2020). In his study commentary, Stokes identifies the factor of youth being increasingly concerned about the health effects of vaping in the context of COVID-19 as a potential topic for future education campaigns (Stokes, 2020). Among those who increased vaping since the start of the pandemic, the main reasons cited were boredom (21%), stress (20%), the need for a distraction (8%), or two or more of these factors (48%) (Gaiha, *et al.*, 2020).

Gaiha, *et al.* also explored whether and how access to vaping products changed as a result of the pandemic. The study found that since the pandemic began, about 20% of the study population switched from buying products in a retail store to purchasing online. Factors that made it more difficult to access vape products were: not being able to go to the vape shop, grocery store, or gas station; longer shipping times; and desired products not available online. Factors that made it easier to access products were: direct delivery from a vape shop; delivery to a friend; and buying online. Among those who were underage, 28% reported not having their age verified at the time of purchase (Gaiha, *et al.*, 2020). Both the commentary and the paper itself recommend that the FDA and/or states increase regulations for online sales of vaping products (Gaiha, *et al.*, 2020; Stokes, 2020).

A strength of the Gaiha, *et al* study in the context of the Needs Assessment is that both gender identity and sexual orientation were asked on the survey. Gender had three categories: male, female, and nonbinary or other, while LGBTQ+ identity was coded as binary. Of the overall study population of ever-users of vaping products, 20.2% identified as LGBTQ+. Of those who were underage (<21), 22.8% identified as LGBTQ+; of those who were 21 or older, only 15% identified as LGBTQ+ (Gaiha, *et al*., 2020). This issue was not specifically addressed in the paper, but is relevant to the Needs Assessment.

Both studies found that youth or young adults who had higher levels of nicotine dependence were more likely to continue vaping (both studies) or smoking (Sokolovsky, *et al*) at similar or higher levels during the pandemic (Gaiha, *et al.*, 2020; Sokolovsky, *et al.*, 2021). Gaiha, *et al* suggested that this correlation is indicative of either the lack of vaping-specific resources or a lack of awareness of addiction services in general (Gaiha, *et al.*, 2020).

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B.2 Health Priority Perceptions of LGTBQ+ Youth and Young Adults

Literature Review: Health Priority Perceptions of LGTBQ+ Youth and Young Adults

We restricted this review to literature published within the past 5 years. Overall, we found few recent studies about LGBTQ+ youth and young adult perceptions of health issues and priorities. Those that we did find evaluated perceptions of primary care providers (PCPs). The studies were all small (n=535 or fewer) and a key limitation of most were that they were specific to a geographical area (Fuzzell, *et al.*, 2016; Luk, *et al*., 2020; Snyder, *et al.*, 2016). None can be generalized.
In our literature search, we used the following terms and their derivatives: LGBTQ, gender minority, sexual minority, sexual orientation, perceptions, health, priority, adolescent, youth, young adult, lesbian, gay, bisexual, transgender.

LGBTQ+ youth and young adults were hesitant to disclose sexuality or gender identity to PCPs (Fisher, *et al*., 2018; Fuzzell, *et al*., 2016; Snyder, *et al.*, 2016). The Fisher, *et al.* study that surveyed transgender youth and young adults found that almost half had not disclosed their gender identity to their PCP. Youth were primarily concerned about confidentiality if they discussed gender identity or sexuality with their PCP. Additionally, 25% of transgender youth in the study were worried about parental disclosure. In the focus groups of sexual and gender minority youth and young adults conducted in the Fuzzell, *et al.* study, researchers found that most participants were concerned about confidentiality. Many times, parents were present during the entire exam, so youth did not feel comfortable bringing up gender or sexuality or truthfully answering questions. Youth suggested that PCPs ask parents to leave the room for part of the visit and let youth know what is confidential so they feel more comfortably asking or answering sensitive questions (Fisher, *et al.*, 2018; Fuzzell, *et al.,* 2016; Snyder, *et al.,* 2016).

LGBTQ+ youth and young adults reported that PCPs often did not ask about gender identity or sexuality during visits. In the Snyder, *et al.* study, only 17% of participants' PCPs asked about gender or sexuality, and in the Fuzzell, *et al.* study, most participants in a series of focus groups reported the same. Both studies also found that many youth and young adults reported that PCPs made assumptions about heterosexuality and that there was a lack of gender and sexual minority-inclusive materials in waiting rooms and exam rooms. Youth in these studies and in the Fisher, *et al.* study also perceived PCPs as being uncomfortable, judgmental, or not knowledgeable about GSM-specific sexual health issues.

The Luk, *et al.* paper also evaluated LGBTQ+ youth perceptions of primary care, but it focused more on satisfaction with PCPs as well as perceptions of self-efficacy as it relates to health. Because of these differences from the other papers, it is best to evaluate it on its own. This study was the largest (n=535) and sampled from the Seattle area. It did not include gender identity.

The study found that LGBQA youth and heterosexual youth were similarly satisfied with their PCPs. However, there were disparities in self-efficacy, with LGBQA youth reporting lower levels than their heterosexual peers. Sexual minority males were less likely to feel that they were able to meet goals to improve their health. Sexual minority females had less confidence in being able to have a positive effect on their own health; were more likely to feel that they weren't able to set health goals; and were less likely to be actively working to improve their health. The conclusion of the study was that additional support from PCPs may improve health and self-efficacy among sexual minority youth (Luk, *et al.*, 2020).

Though there are few recent studies that have looked at LGBTQ+ youth and young adult health perceptions, most have found that this population tends to perceive their PCPs as unaccepting or not knowledgeable about gender and sexual minority-specific topics (Fisher, *et al.*, 2018; Fuzzell, *et al.,* 2016; Snyder, *et al.,* 2016). However, one study found that LGBQA and heterosexual youth had similar levels of satisfaction with their PCP, but this study did not include transgender youth (Luk, *et al.,* 2020). There is much room for improvement in the comfort of LGBTQ+ youth and young adults in the primary care setting. These improvements include LGBTQ-specific training for providers; having providers ask parents to leave the room for confidentiality; and providers asking relevant questions about sexuality and gender identity either directly (verbally) or indirectly (on a form, etc.)(Fisher, *et al.*, 2018; Fuzzell, *et al*., 2016; Snyder, *et al.*, 2016). These improvements are especially important due to the health disparities that exist between LGBTQ+ youth/young adults and their heterosexual peers.

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B.3 Increasing Resilience of LGBTQ Youth as a Prevention Strategy

How is resilience among LGBTQ+ youth understood to support prevention of high risk behavior such as tobacco use?

Background

The 1990's initiated the consideration of risk and protective factors as a framework for assessing risk for adolescent use of substances, including tobacco use, as well as anxiety, depression, suicidality, etc. This period also birthed the approach of creating interventions to decrease risk and increase protective factors. The Search Institute developed the 40 Developmental Assets Framework built on work starting in the late 1980s and published their list of 20 external and 20 internal factors in 1997. A version in 2011 provided the percentage of youth that achieved each asset in a large study Microsoft Word - 40 Developmental Assets 2010updated.doc (search-institute.org) (The Developmental Assets Framework, 2019).

Identifying specific links between risk and protective factors for tobacco use also developed in the late 1990s (Flay, *et al,* 1999). The Risk and Protective Factors framework continues to be integrated into youth risk surveys, including the Youth Risk Behavior Surveillance System (YRBSS) (used since 1990 across the United States Overview | YRBSS | Adolescent and School Health | CDC), and Maine's version -- the Maine Integrated Youth Health Survey (MIYHS) -- first administered in 2009 Home | MIYHS (mainepublichealth.gov). The MIYHS is the primary source of data of Maine youth use of tobacco and other health-related behaviors, as well as risk and protective factors, including family, school, community connections; anxiety, depression, suicidal ideation; experiences of violence; Adverse Childhood Experiences (ACEs); and others. It is administered in Maine every other year. The 2017 and 2019 MIYHS versions provided options of Lesbian/Gay, Bisexual, and Transgender (LGBT) self-defined identity, as well as "not sure" of sexual orientation or gender identity The Questioning (Q) and Other (+) identities also were options, allowing high school youth who did not understand the question or are still developing their identities to choose from broader categories.

The survey results provide the data in the Needs Assessment for the percentage of Maine high school youth who self-identify within the LGBTQ+ community(ies), as well as their tobacco use and risk and protective factors. More information about the 2019 MIYHS can be found at 2019 Reports and Results | MIYHS (mainepublichealth.gov).

Also in the late 1990s, researchers proposed that prevention (referred to at the time as demand-reduction approaches to reducing youth tobacco use (Flay, 1999)), should identify and consider three factors in the lives of the youth. In addition to reducing access to tobacco, these categories included biology and personality; social context; and cultural environment. At the same time, Braverman (1999) recommended increased research on resilience as a set of factors for youth who experienced adverse conditions but did not use tobacco. These foundational frameworks attempt to make order from the complexity of factors that influence individual behaviors, and, in fact, have continued to guide prevention efforts for over three decades.

Yet, this Needs Assessment and other sources document that the social context and the cultural environment for LGBTQ+ youth in Maine is largely different from those of their non-LGBTQ+ peers.

Selection of Resilience and LGBTQ+ Youth

The Needs Assessment guidance recommended that existing LGBTQ+-health-related Needs Assessments or reports from the prior five years be considered, but no such report on the health of LGBTQ+ youth or adults for Maine is available. The research team searched for current (past 5 years) peer-reviewed articles on LGBTQ+ youth, tobacco prevention, and risk and protective factors, with no results.

The body of this Needs Assessment describes the current LGBTQ+ and community conditions related to risk factors for tobacco use and exposure. The identities and experiences of the six members of the Community Advisory Council's Needs Assessment Committee, all members of the LGBTQ+ community, provided context for the selection of resilience as a factor to explore. Two of the committee members provide direct service to LGBTQ+ youth; two are under the age of 25; and one has 20 years of experience in tobacco prevention.

This literature review recommends that LGBTQ+ youth-specific prevention strategies be integrated with evidence-based and promising practice tobacco use and exposure prevention. The research provides a basis for a theory of change specific to LGBTQ+ youth.

Discussions and expanded literature searches supported the focus on resilience as related to LGBTQ+ youth, health and mental health, and the experiences of resilience specific to LGBTQ+ youth and young adults. The team examined peer-reviewed journal articles, governmental reports, reports by expert bodies, and findings from a LGBT Health Symposium that fit within the five year time period of 2015 to 2020 and focused on the intersection of resilience and LGBTQ+ youth. One exception to the LGBTQ+ criteria was the report, *Balancing Adverse Childhood Experiences (ACEs) with HOPE* (Sage, *et al,* 2017), which was strongly recommended by an Advisory Council member who works with schools to reduce the impacts of trauma. The report provides a general population view of trauma/resilience, as well as insights and strategies for building resilience for all youth. It will be used as a foundational document and reviewed for opportunities to adapt the universal strategies to fit with the unique experiences of LGBTQ+ youth.

No research articles were found to directly link promoting or increasing resilience among LGBTQ+ youth and tobacco use prevention. The research team found two articles (Colpitts, *et al.*, 2016, Jones, *et al.,* 2019) that proposed connections between LGBTQ+ youth, resilience and health specifically. Another article linked LGBTQ+ youth, resilience and mental health (Heck, 2015), while a minority-strengths model linked resilience to both mental health and positive health behaviors. Two articles discussed the utility of promoting LGBTQ+ youth resilience, first within schools (Johns, *et al.* 2019) and second to use resilience as a framework for promoting and understanding health of LGBTQ youth (Colpitts, *et al.* 2016).

The Trevor Project, a successful LGBTQ+ suicide prevention project (The Trevor Project — Saving Young LGBTQ Lives), provided a model and specific actions to prevent suicide based on increasing the resilience

of LGBTQ+ youth (*see,* a research brief for Mental Health Awareness Month, 2019, Research Brief: Fostering the Mental Health of LGBTQ Youth – The Trevor Project. The model is based on understanding frequently experienced risks for LGBTQ+ youth (stigma, discrimination, victimization, rejection, etc.) and LGBTQ+-specific protective factors (social supports, LGBTQ+ role models, inclusive policies). The model states the benefits of increasing LGBTQ+-specific resilience to decrease suicidality, and could serve as a model to explain LGBTQ+ tobacco prevention-resilience connections. It seems that the protective factors for reducing suicidality and preventing substance use, including tobacco use, are generally the same.

Definitions and descriptions of resilience are a challenge to the research, as these range from the ability of individual LGBTQ+ people to reframe their own life challenges as positive experiences (Schmitz, *et al.* 2018) to the findings of a review of 105 published articles that identified multi-level factors that contribute to resilience (from Canada, the United States, New Zealand, United Kingdom, and Australia). In this review, the factors are framed broadly as individual skills and abilities, external resources and conditions in which they live, and interpersonal relationships (Colpitts, *et al.* 2016). These broad categories are similar to the much earlier work cited above (Braverman, 1999).

Another article reported on original research designed to quantify LGBTQ+ resilience factors (Perrin *et al*., 2019). Recommendations included a focus on minority strengths versus the commonly used minority stress theory/model. It incorporated social supports and (LGBTQ) community connectedness as inputs, and added identity pride and self-esteem as factors that contribute significantly to resilience. This framework, in turn, supported mental health and positive health behaviors. (Perrin, *et. al,* 2019).

A brief overview of minority stress and the LGB community can be found at What is Minority Stress?. Minority stress is an overlay to other common stressors, and results from minority experiences of discrimination, stigma, etc. It is unique, chronic, and socially-based.

Given the range of definitions and descriptions, this review uses the generic definition of resilience as "the ability to withstand or overcome significant stress or adversity" (Colpitts, *et al.*, 2016), when no reference to another definition is otherwise noted. OUT Maine operationalizes resilience as the ability to bounce back.

Three themes were found that build on the commonly-used risk and protective factors and define and support the addition of resilience as a frame for LGBTQ+ youth prevention. These themes should be integrated with and assist in modifying tobacco use prevention efforts.

1. LGBTQ+ youth and young adults experience minority stress specific to their sexual orientation and gender identity or expression. LGBTQ+ minority stress is unique to LGBTQ+ identity; is chronic; and is socially-based in culture, institutions, systems, etc.. *Note: Minority stress also affects the health of people of color and other minorities. This review only looked at minority stress related to sexual orientation and gender identity but intersectional realities should be considered.*
2. Resilience is affected at multiple levels that are generally clustered into three arenas -- individual-level characteristics and skills; interpersonal, at the level of relationships and

experiences with peers, family, teachers, mentors, etc.; and external, at the level of greater community, school, culture, and policy.

3. LGBTQ+ community, identity, pride, out-ness, social support and other LGBTQ+ positive factors and relationships contribute to resilience.

LGBTQ+ minority stress is specific to their sexual orientation and gender identity or expression. Stressors include issues of family acceptance; social marginalization in schools and community (Asakura, 2016a); stigma; discrimination; prejudice (Perrin, *et al.* 2019); hostile social environments in general (Asakura 2016b); internalized homophobia/biphobia/transphobia; expectations of rejection; and resulting identity concealment (Johns, *et al.* 2019). It is important to acknowledge that the intersections of LGBTQ+ identity and race, ethnicity, income, and all other experiences of discrimination and childhood trauma also are present in individually lived experiences. Minority stressors go beyond the usual challenges and stressors experienced by most people. The constant nature of some or all of these adversity factors must be considered in addition to the concepts of protective factors.

While the responses to trauma and Adverse Childhood Experiences (ACEs) are outside the scope of this review, prevention strategies and resilience-building efforts also will need to take into consideration the growing body of work on effectively supporting people who have experienced trauma.

Two recent articles (Asakura, 2016a, Johns 2019) and one foundational article (Flay, 1999) provide their interpretations of the multiple levels that affect resilience. The early tobacco prevention-specific levels of influence included biology and personality, social context, and cultural environment (Flay, 1999). A framework for social work practitioners to improve the lives and resilience of LGBTQ+ youth were presented as three levels of scope of practice -- micro-practice: working with individuals; mezzo practice: working with families, schools, relevant systems; and macro-practice: working with social institutions and systems (Asakura 2016a). A symposium on LGBTQ health, organized by Northwestern University and held in Chicago in June 2017, produced a call to increase research on ways to strengthen strategies within the school environment to promote resilience of LGBTQ+ youth. This review of existing practices that have been found effective through prior and emerging research, when combined with recommendations for further research and action in schools, identify three levels of intervention. These levels include: the individual level of intersectionality, individual characteristics, safety and inclusivity; the interpersonal level of supportive adults in schools, peers, parents/families; and the third level of school focus, targeting in-school programs, curricula and policies and resources (Johns, 2019).

When LGBTQ+ youth resilience is measured by standardized survey questions such as those found in the YRBSS or MIYHS, including connections to and acceptance by family, school, and (location specific) community, the LGBTQ+ youth scores are lower (MIYHS 2019). Family, school, and community are sites of ongoing and well-documented stressors and adversity for LGBTQ+ youth (Asakura, 2016a). By analyzing connections of LGBTQ+ young adults (n. 317) to LGBTQ+-specific social supports and LGBTQ+ positive identity, pride, etc., resilience was found to lead to positive mental health and to health-promoting behaviors. (Perrin, 2019)

This LGBQ+ strengths-based model, an alternative to the deficit-based minority stress model, includes personal attributes within the context of belonging in or identifying with the LGBTQ+ community. The LGBTQ+ community-belonging helps fill the gap in acceptance generated by friends, family and (general) community who may have discriminated against, been violent toward, or otherwise rejected LGBTQ+ individuals.

A scoping review of 105 English language peer reviewed articles (Colpitts, *et al.* 2016) explored a conceptual framework of resilience to understand health and health-promoting behaviors. This approach was intended as an alternative to deficit-based research and focus. Resilience was shown to be a process that evolves over time. It was defined differently in the articles that were reviewed and many had a primary focus on the individual person's inherent traits. Yet others included social and cultural capacities and resources, and some others added supportive environments and protective interpersonal relationships. (Colpitts, 2016) The various descriptions of the factors that affect resilience do present a challenge for research, while also providing the flexibility to re-imagine the levels of influence specific to the LGBTQ+ youth related to tobacco-use prevention. It is important to note that the Colpitts scoping review was not LGBTQ+-youth specific, however. In fact, it did not identify youth in the article. The framework of resilience and LGBTQ health, however, was found relevant to this review and project.

Integrating the Literature Review

The three factors defined above contribute to developing a cohesive strategic plan to reduce the impact of tobacco on LGBTQ+ youth. Minority stress and strengths; the role of resilience in mental and physical health; and connections to LGBTQ+ community all must be considered as the LGBTQ+ YTPP creates strategies and interventions to prevent and reduce tobacco use. The plan will combine increasing individual skills and connections with LGBTQ+ youth community. It also supports creating strategies beyond individual skills and must include tobacco-use prevention education. The focus on the three levels of influence on resilience also highlights the need for ongoing training of schools and other youth-serving entities about LGBTQ+ cultural awareness and competence; creating supportive environments; and policies that restrict access to tobacco.

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B.4 Effective Tobacco Prevention Strategies and Resources

In 2014, the US CDC, National Center for Chronic Disease Prevention and Health Promotion, Office of Smoking and Health released *Best Practices for Comprehensive Tobacco Control Programs* that lists five areas needed for the best outcomes. The five components are listed below, with examples of possible efforts to reduce LGBTQ+ tobacco use added. These are not planned strategies, but examples for consideration. More information can be found about each category in the document, and related user guides at Best Practices for Comprehensive Tobacco Control Programs—2014 | CDC

1. State and Community Interventions
    a. The LGBTQ+ Youth Tobacco Prevention Project will identify interventions based on the findings of the Needs Assessment and data gathered through future focus groups, surveys, and a deeper analysis of the Maine Integrated Youth Health Surveys 2015-2019.
    b. Existing statewide efforts such as SideKicks, which teaches youth to talk to each other about tobacco, could be tailored for the LGBTQ+ youth community.
2. Mass-Reach Health Communication Interventions
    a. Social media, print, television, and radio are all venues for disseminating information about tobacco use. A current statewide example is the Vape Free Maine campaign found at Home - Maine Vaping Prevention (vapefreemaine.com)
    b. Maine CDC and Center for Tobacco Independence are also in the process of creating a campaign for LGBTQ+ adults to reach out to TheQuitlink.
    c. Mass-Reach can also be designed for different levels of reach. As the LGBTQ+ YTPP considers LGBTQ+ youth to be a community of shared experience and identity, the communications could be directed accordingly.
3. Cessation Interventions
    a. In Maine, the Quit Link connects people to telephone-based counseling, online support, and text messages in order to meet individual preferences for engagement. A youth-focused “this is quitting” text option is also available, as are focused services for behavioral health clients. These services are free and available to all Mainers. Nicotine Replacement Therapy is also available to persons over the age of 18.
    b. Schools and after-school programs may also use national youth-specific programming for information and treatment, such as the American Lung Association's 4 session INDEPTH program, as an alternative to suspension with a NOT (Not on Tobacco) cessation program following.
        i. For either of these options, the LGBTQ+ YTPP may recommend ways to integrate LGBTQ+ youth community examples or references, or identify settings that are LGBTQ+ youth-specific or welcoming.
4. Surveillance and Evaluation
    a. Surveillance is a method of monitoring attitudes and behaviors as well as outcomes. The Maine Integrated Youth Health Survey (MIYHS) is a robust youth surveillance tool that collects LGBT and questioning identities as well as other health-related data. This data allows the project to be more targeted in planning for interventions, as well as able to track effectiveness over time.
    b. The focus group and survey results will add to the body of information from a qualitative perspective.

5. Infrastructure, Administration, and Management
    a. The infrastructure in Maine includes a need for adequate funding, Maine CDC guidance and oversight and contracts with appropriate partners, Center for Tobacco Independence at MaineHealth management of prevention efforts, training and The Quit Link.

Implementing Best Practices for Comprehensive Tobacco Control Programs

Evidence-based, statewide tobacco control programs that are comprehensive, sustained, and accountable have been shown to reduce smoking rates as well as tobacco-related diseases and deaths.

- A comprehensive statewide tobacco control program is a coordinated effort to:
    - Prevent initiation of tobacco use among youth and young adults
    - Promote quitting among adults and youth
    - Eliminate exposure to secondhand smoke, and
    - Identify and eliminate tobacco-related disparities among population groups *(page 11* **Best Practices for Comprehensive Tobacco Control Programs—2014 | CDC)**

The Community Guide is an online resource providing evidence-based effective tobacco use prevention and secondhand smoke exposure prevention, as well as cessation programming. The research is sorted by the categories of Recommended with Strong Evidence of Effectiveness, Recommended with Sufficient Evidence, Insufficient Evidence, and Recommended Against. This guidance and literature review will be considered as LGBTQ+ interventions are designed. The *Community Guide for Tobacco* can be found at https://www.thecommunityguide.org/topic/tobacco.

Only one recent article, placed in Ontario, Canada, addressed effective tobacco interventions for LGBTQ+ youth. The results identified eight areas to consider when working with LGBTQ+ youth and young adults, whether the interventions were to prevent use initiation, exposure to secondhand smoke, or cessation supports.

1. Be LGBTQ+-specific
2. Be accessible with locations, times, availability and cost
3. Be inclusive, relatable, and highlight diversity
4. Incorporate LGBTQ+ peer support and counseling
5. Integrate other activities beyond those related to tobacco use
6. Be positive, motivational, uplifting and empowering
7. Provide concrete coping mechanisms
8. Integrate rewards and incentives (Baskerville, *et al,* 2017)

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Appendix C: Trevor Project Model

Link to Trevor Project Research Brief on fostering mental health of LGBTQ+ youth

Research Brief: Fostering the Mental Health of LGBTQ Youth – The Trevor Project

Appendix D: Tobacco Policy Maps

https://drive.google.com/file/d/1D0_slzixsxKjDzboO5eTDOaO-GdGZYyX/view?usp=sharing