

Trends and Demographic Differences in Mental Health among California Secondary Students – Key Findings from the Biennial State CHKS, 2017/19

Mental health is an important and salient topic for students and educators in U.S. middle and high schools. National data suggest that thirteen percent of children ages 12 to 17 experience a major depressive episode each year, and suicide is the second leading cause of death for young people ages 10 to 24 in the United States.^{1,2} Even prior to the pandemic, the percentage of adolescents in the U.S. who have experienced mental health problems has increased substantially.^{3,4} The CDC's Youth Risk Behavior Surveillance data indicate that one in three high school students experienced persistent feelings of sadness and hopelessness – up 40 percent from 2009. Preliminary CHKS data suggest that adolescent mental health has further deteriorated during the pandemic.⁵

This factsheet describes trends in students' self-reported incapacitating sadness/hopelessness and suicidal thoughts in California between 2011/13 and 2017/19 – the eight-year period that proceeded the COVID-19 pandemic. It also describes the substantial disparities in chronic sadness and suicide ideation across gender, gender identity, sexual orientation, and living situation groups. The analysis draws on data provided by representative state samples of students in grades 7, 9, and 11 that participated in the Biennial State California Healthy Kids Survey (Biennial State CHKS).⁶

Key Takeaways

- Feelings of incapacitating, chronic sadness or hopelessness increased substantially in 2017/19—reported by 30% of 7th, 33% of 9th, and 37% of 11th graders. In 2017/19, prior to the onset of the pandemic, chronic sadness was at the highest levels since the item was added to the survey in 2003/04.
- Contemplating suicide changed little in 2017/19 at 17% and 16% among 9th and 11th graders but remains at disturbingly high levels.⁷
- Substantial differences in chronic sadness and suicide ideation are evident across demographic groups, with the most pronounced disparities across gender, gender identity, sexual orientation, and living situation (foster and homeless).

Trends

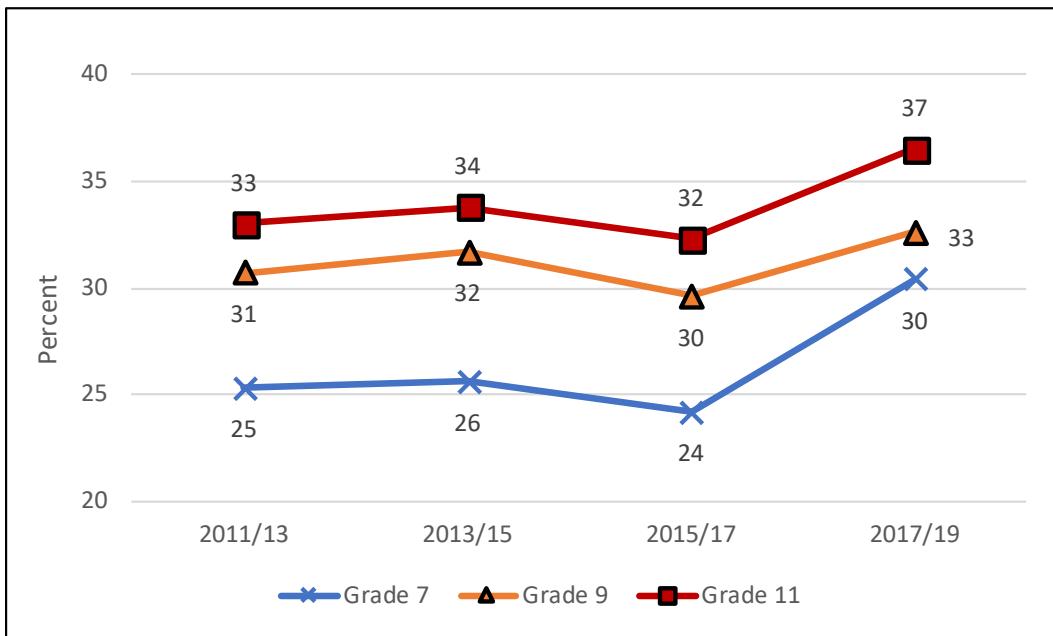
The survey contains two indicators of mental health risk—chronic sadness and suicide ideation. There were marked increases in rates of chronic sadness in all grades (Table A1). Suicide ideation among high school students changed little but remains at high levels.

- **Chronic Sadness.** Feelings of incapacitating, chronic sadness or hopelessness were reported by 30% of 7th, 33% of 9th, and 37% of 11th graders, representing increases of six, three, and four percentage point points after 2015/17. These are the highest reported levels of sadness since the question was added to the survey in 2003/04.

- Suicide Ideation.** The percentage of students contemplating suicide changed little at 17% and 16% among 9th and 11th graders, whereas in 2015/17 there were decreases of three points in both grades.

EXHIBIT 1.

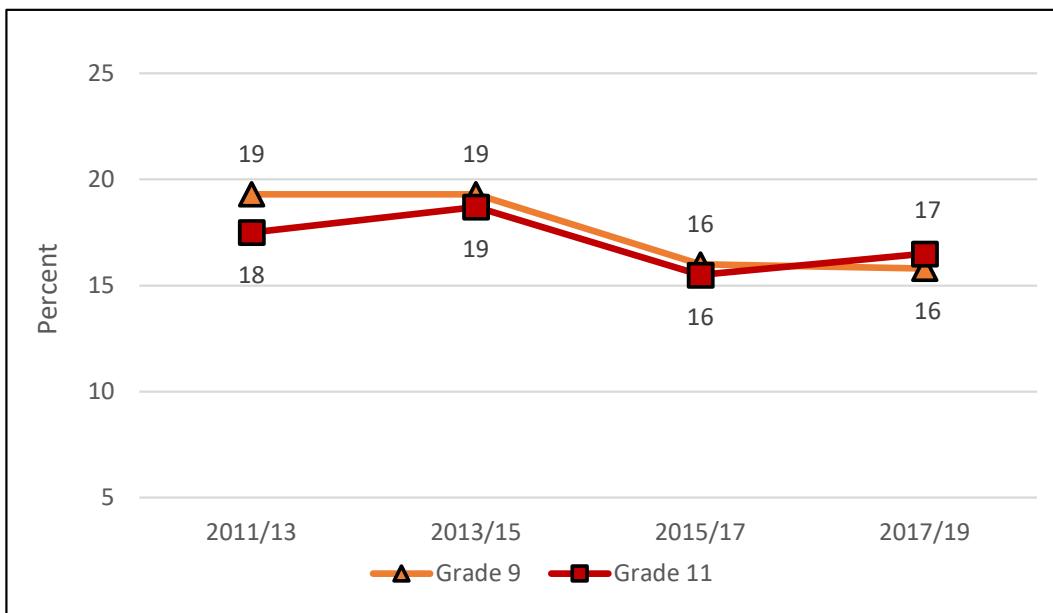
Chronic Sadness/Hopelessness by Survey Year



Source: Biennial State California Healthy Kids Survey Data, 2013/15, 2015/17, and 2017/19.

EXHIBIT 2.

Suicide Contemplations by Survey Year



Source: Biennial State California Healthy Kids Survey Data, 2011/13, 2013/15, 2015/17, and 2017/19

Group Differences

Substantial differences in chronic sadness and suicide ideation are evident across demographic groups. The most pronounced disparities were across gender, gender identity, sexual orientation, and living situation. These disparities are described below.

Gender. As reported in Factsheet 16, females have a far greater risk of chronic sadness and suicide ideation. For example, among 9th graders, 42% of females report chronic sadness and 21% report contemplating suicide. This compares to 23% and 11%, respectively, among males. (Exhibit 3 and 4).

Gender Identity. The Biennial CHKS includes a question asking students whether they consider themselves to be transgender (see Table A1). Transgender students are twice as likely to have experienced chronic sadness as students who indicate they are not transgender. Among transgender students, 62% of 7th graders, 66% of 9th graders, and 63% of 11th graders report feelings of incapacitating, chronic sadness or hopelessness. This compares to 30%, 32%, and 36%, respectively, among students who report they are not transgender. Students who report that they don't know if they are transgender report levels of chronic sadness similar to that of transgender students. (Exhibit 5)

Transgender students are three times more likely than students who are not transgender to report contemplating suicide. Among transgender students, 47% of 9th graders and 50% of 11th graders report contemplating suicide, compared to 15% and 16% among students who are not transgender. Students who report that they are unsure if they are transgender are also at elevated risk of suicide ideation (39% and 43%). (Exhibit 6)

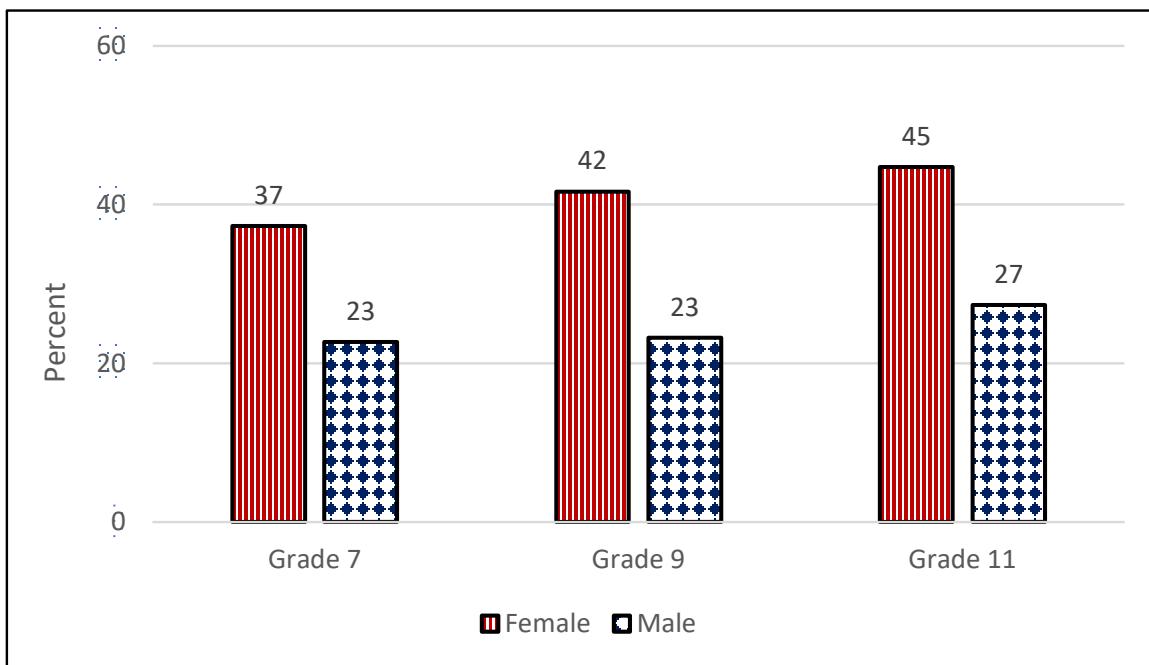
Sexual Orientation. Gay/lesbian and bisexual students reported rates of chronic sadness that were twice as high as those of straight students. Bisexual students reported the highest rates of any subgroup identified on the survey. Approximately 70% of bisexual students experienced chronic sadness, compared to 60–64% of gay/lesbian students, 45–55% of students who report that they are “not sure yet” about their sexual orientation, and 27–32% of students who identified as straight. (Exhibit 7)

Disparities in suicide ideation were even more pronounced. Gay/lesbian and bisexual students were four times more likely to have contemplated suicide than straight students in 9th grade (46% and 48% vs 12%), and three times more likely to do so in 11th grade (36% and 42% vs 13%). (Exhibit 8)

Living Situation. Homeless students, students who live in foster homes, and students who live with one or two parents in a conventional residence were identified based on responses to a question asking students where they live (Table A1). Homeless students and students who live in foster homes were at elevated risk of mental health problems. Among students from foster homes, 54% of 7th graders, 51% of 9th graders, and 61% of 11th graders reported feeling chronically sad, compared to 48%, 42%, and 40%, respectively, of homeless students and 30%, 32%, and 36% of students who live with a parent in a conventional home. Among 9th graders, students who live in foster homes reported the highest level of suicide ideation (38%), followed by homeless students (26%), and students who live with a parent in a conventional residence (15%). However, among 11th graders, homeless students report the highest rates of contemplating suicide (35% vs 27% and 16%). (Exhibit 9 and 10)

EXHIBIT 3.

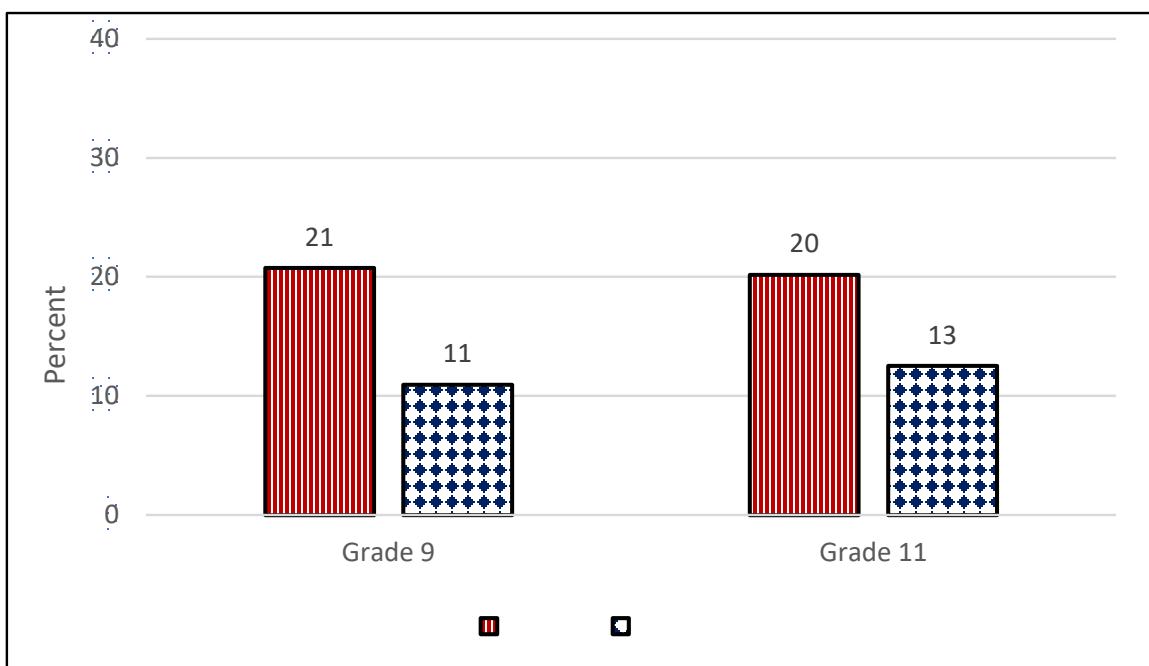
Chronic Sadness by Gender



Source: Biennial State California Healthy Kids Survey Data, 2017/19

EXHIBIT 4.

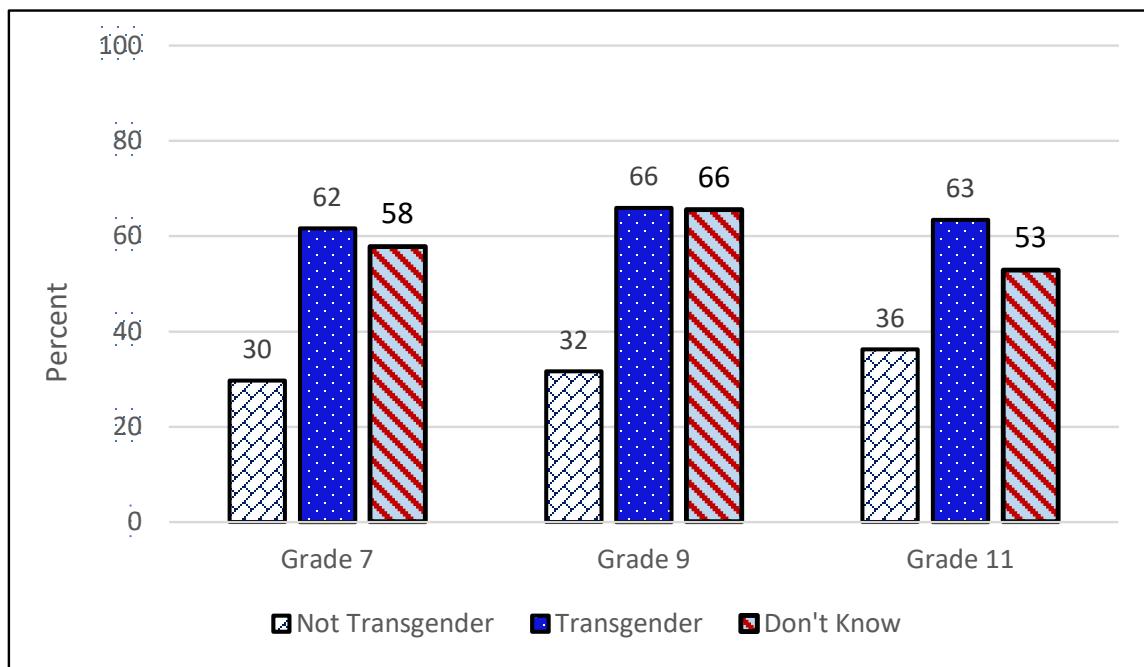
Suicide Ideation by Gender



Source: Biennial State California Healthy Kids Survey Data, 2017/19

EXHIBIT 5.

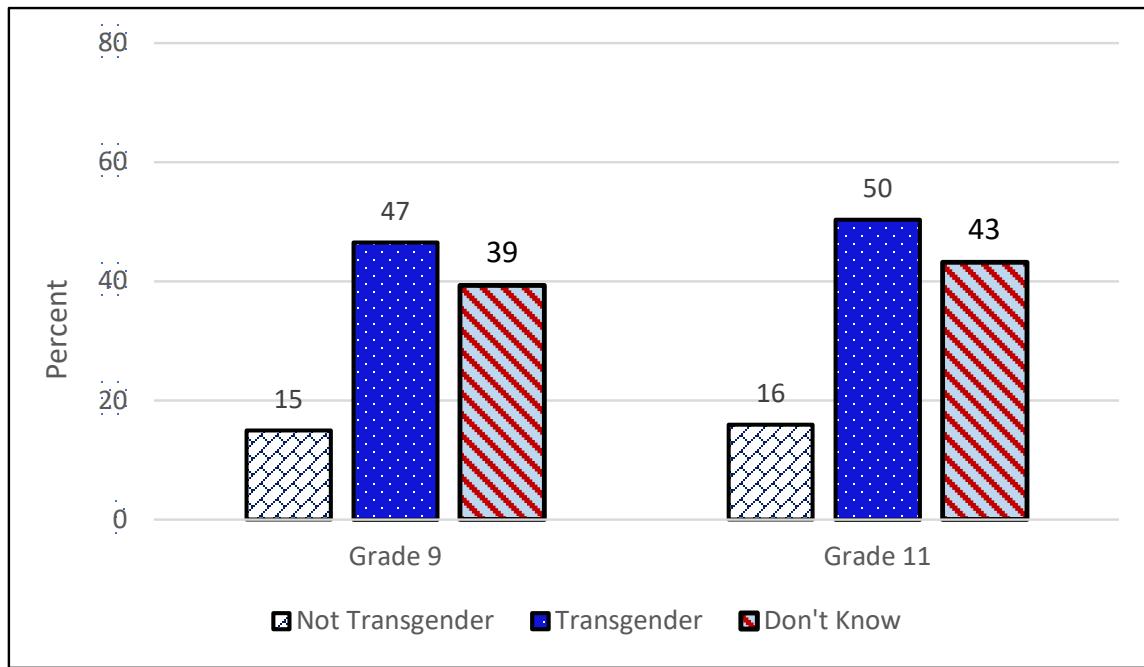
Chronic Sadness by Gender Identity



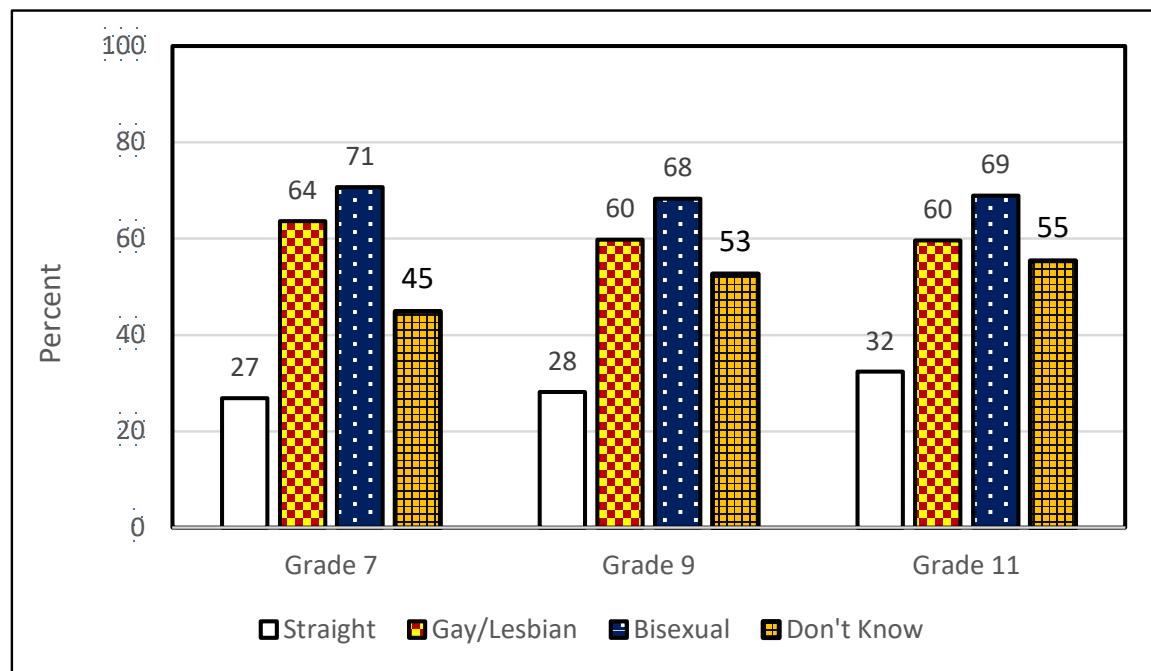
Source: Biennial State California Healthy Kids Survey Data, 2017/19

EXHIBIT 6.

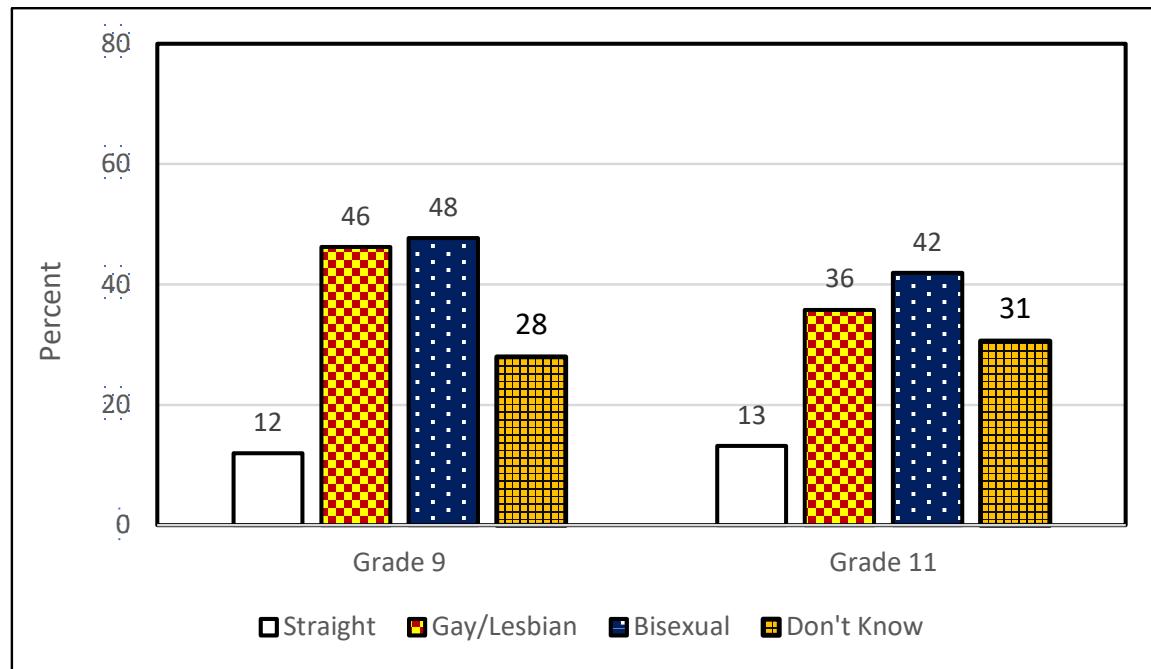
Suicide Ideation by Gender Identity



Source: Biennial State California Healthy Kids Survey Data, 2017/19

EXHIBIT 7.**Chronic Sadness by Sexual Orientation**

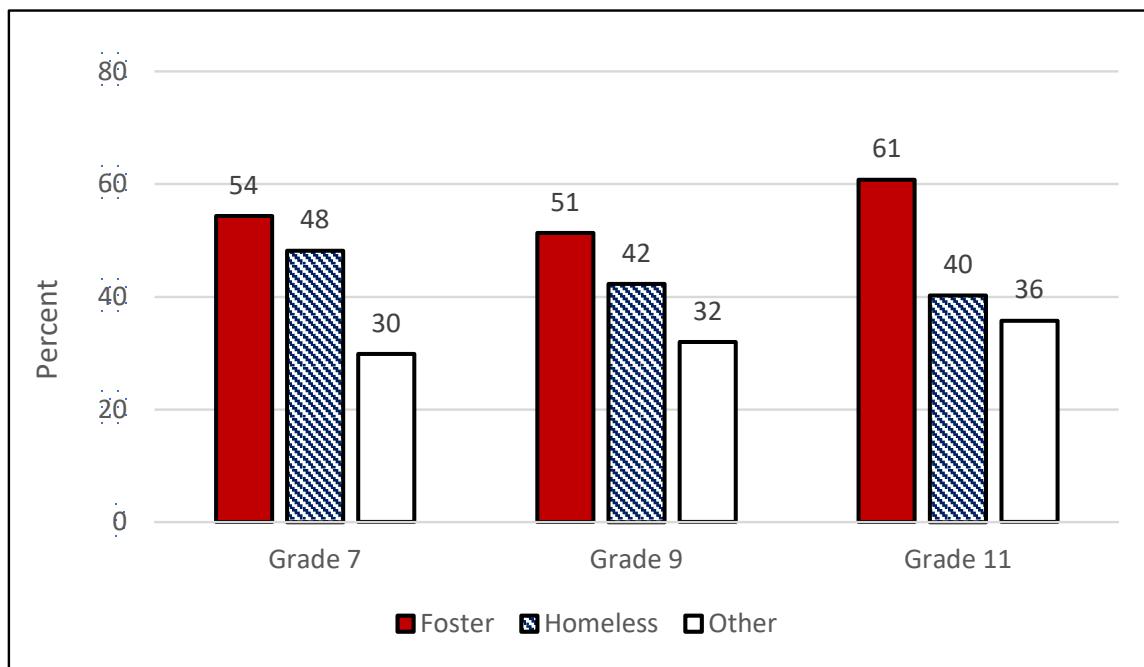
Source: Biennial State California Healthy Kids Survey Data, 2017/19

EXHIBIT 8.**Suicide Ideation by Sexual Orientation**

Source: Biennial State California Healthy Kids Survey Data, 2017/19

EXHIBIT 9.

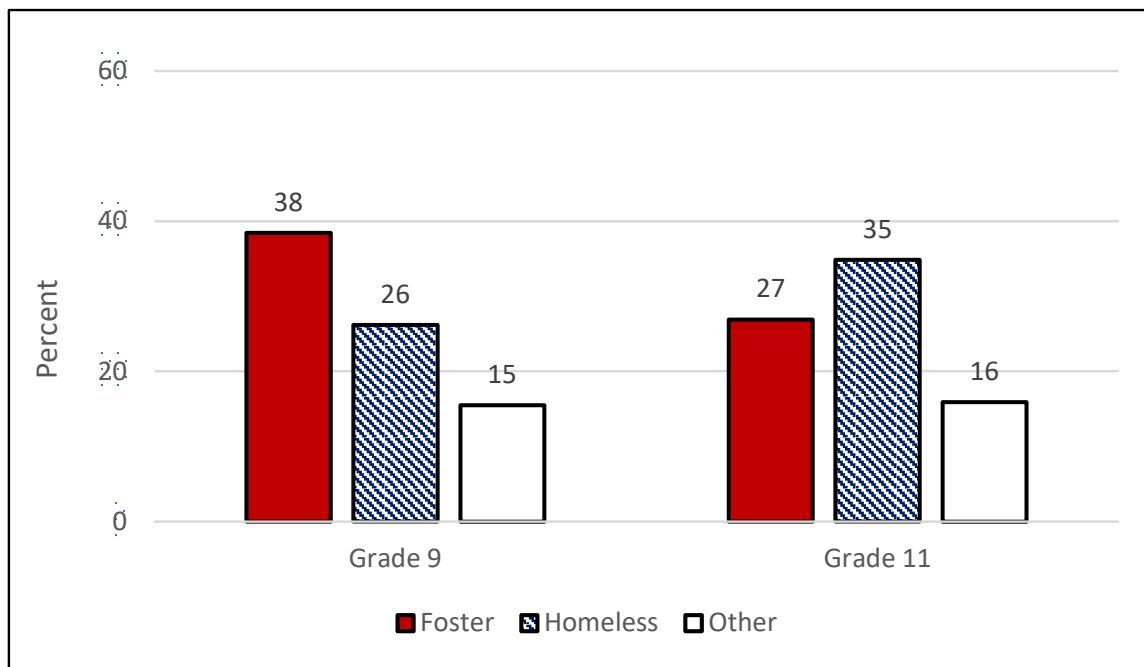
Chronic Sadness by Living Situation



Source: Biennial State California Healthy Kids Survey Data, 2017/19

EXHIBIT 10.

Suicide Ideation by Living Situation



Source: Biennial State California Healthy Kids Survey Data, 2017/19

Summary

Biennial CHKS data indicate that Increasing percentages of students experienced incapacitating, chronic sadness over the six-year period that preceded the onset of the pandemic. Chronic sadness was reported by 30% of 7th graders, 33% of 9th graders, and 37% of 11th grades in 2017/19. Fortunately, suicide ideation rates changed little during this period (16% to 17%), but still were at disturbingly high levels. In addition, the most pronounced disparities in chronic sadness and suicide ideation are evident across gender, gender identity, sexual orientation, and living situation, with females

Overall, far too many students experienced incapacitating sadness and contemplated suicide in the period prior to the pandemic. Adolescent mental health has likely further deteriorated since then.⁵ Educators and school personnel are in an ideal position to address risk factors associated with the development of mental health problems and to connect students to evidence-based interventions when appropriate.

Suggested citation: Hanson, T., Austin, G., Zhang, G., and Zheng, C. (2021) *Trends and Demographic Differences in Mental Health among California Secondary Students – Key Findings from the Biennial State CHKS, 2017/19. CHKS Factsheet #20.* San Francisco, CA. WestEd.

Appendix

Data – Biennial State California Healthy Kids Surveys

The surveys were administered over two-year periods to randomly-selected, representative state samples of secondary students (grades 7, 9, and 11). Sample selection and data collection was embedded within the process of local CHKS administration by school districts under the sponsorship of the California Department of Education. Approximately 110 schools participated in each administration – 50 traditional high schools, 50 feeder middle schools, and 10 continuation schools. The surveys were conducted under conditions of strict anonymity and confidentiality. Results are weighted to reflect the sampling design, state student enrollment, and enrollment composition by race/ethnicity. The California Department of Health Care Services provides financial support for the statewide survey. The state's Committee for the Protection of Human Subjects, Office of Statewide Health Planning and Development, approved the survey protocols.

Table A1. List of Selected Measures

Construct	Item(s)	Operationalization
Chronic Sadness	In the past 12 months, did you ever feel so sad and hopeless almost every day for two weeks or more that you stopped doing some usual activities?	The average percent of students responding yes.
Suicide Ideation	In the past 12 months, did you ever seriously consider attempting suicide?	The average percent of students responding yes.
Gender	What is your sex?	Male Female
Gender Identity	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?"	Not transgender Transgender Not sure if transgender
Sexual Orientation	Which of the following best describes you? Straight (not gay), gay or lesbian, bisexual, not sure yet, something else, decline to respond	Straight Gay/Lesbian Bisexual Don't know yet

Construct	Item(s)	Operationalization
Living Situation	What best describes where you live? A home includes a house, apartment, trailer, or mobile home. A home with one or more parent or guardian; other relative's home; a home with more than one family; friend's home; foster home, group home, or waiting placement; hotel or motel; shelter, car, campground, or other transitional or temporary housing; other living arrangement	Foster home Homeless Other (home with one or two parents)
Parental Military Status	Is your father, mother, or guardian currently in the military (Army, Navy, Marines, Air Force, National Guard, or Reserves)?	No Yes

¹ Substance Abuse and Mental Health Services Administration (2018). 2016-2017 NSDUH State Prevalence Estimates. Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health. Retrieved from <https://www.samhsa.gov/data/nsduh/state-reports-NSDUH-2017>

² Heron, M. (2018). *Deaths: Leading causes for 2016*. National Vital Statistics Reports, 67(6). Hyattsville, MD: National Center for Health Statistics. Retrieved from https://www.cdc.gov/nchs/data/nvsr/nvsr67/nvsr67_06.pdf

³ Centers for Disease Control. (2021). Youth Risk Behavior Survey: Data Summary and Trends Report 2009-2019.

⁴ Twenge, J.M., Cooper, A., Bell, J., Thomas, E., & Duffy, M.E. 2019, Age, period, and cohort trends in mood disorder indicators and suicide-related outcomes in a nationally representative dataset, 2005-2017.

⁵ California Student Mental Health and Wellness Project. (2021). COVID-Related School Closures and Student Mental Health and Wellness: Preliminary Data. Retrieved from <https://calschls.org/docs/covidrelatedschoolclosuresmh.pdf>

⁶ For all of the latest Biennial State CHKS results compared to the previous three surveys, see Austin, G., Hanson, T., Zhang, G., & Zheng, C. (2020), *School climate, substance use, and student well-being in California, 2017-2019. Results of the seventeenth Biennial Statewide Student Survey, Grades 7, 9, and 11* (San Francisco: WestEd Health & Human Development Program). Download at <http://calschls.org/reports-data>.

⁷ The suicide ideation question was not asked of 7th graders in 2017/19 but has subsequently been added to the survey.