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Nearly 1 in 3 Adolescents in California Reports Serious Psychological Distress

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“One in 2 adolescents is affected by a mental health problem.”

SUMMARY: National estimates show that 1 of every 2 adolescents ages 12 to 17 is affected by a mental health disorder. This brief uses data from the 2019 California Health Interview Survey (CHIS) to identify adolescents who are most vulnerable to moderate and serious psychological distress, both measures of mental health status. Results indicate that in 2019, approximately 1 in 3 adolescents in California, or 29.3%, reported symptoms that meet the criteria for serious psychological distress (SPD), while 1 in 7 adolescents, or 15.7%, reported symptoms of moderate psychological distress (MPD).

Guided by the World Health Organization’s conceptual framework on the structural determinants of health inequities, analysis of CHIS data shows high rates of SPD among adolescents who were female, gender-

nonconforming, and multiracial; among adolescents who had poor health, poor nutrition, and sedentary behavior; and among adolescents who engaged in binge drinking and marijuana, hashish, and e-cigarette/cigarette use.

To ensure the best mental health outcomes for adolescents, families, communities, and society, the structural, political, and systemic issues that create socioeconomic inequities must be addressed, and there must be increased access to and improvement of mental health services. Policy recommendations for federal, state, and local policymakers and stakeholders include reducing socioeconomic inequities, establishing universal service access in schools, increasing mental health literacy among caregivers, and adopting integrated care models.

According to the World Health Organization (WHO), mental health problems are among the leading causes of illness and disability for children and adolescents ages 10–19.¹ Approximately 1 in 2 adolescents is affected by a mental health disorder, and almost half of all mental illnesses first manifest before individuals are 14 years of age.^{2,3} If not treated early and properly, adolescent mental health problems can impair a youth’s academic and social functioning and have long-lasting negative consequences in adulthood.⁴ As such, it is imperative to identify important socioeconomic determinants of adolescent mental health problems. In addition,

identifying correlates of mental health problems, including health and health behaviors, can inform key areas for prevention and intervention.⁵

Using 2019 California Health Interview Survey (CHIS) data, this policy brief examines serious and moderate psychological distress among adolescents. Descriptive analyses and policy recommendations are guided by the WHO’s conceptual framework on the social determinants of health inequities (SDHI). The WHO’s framework of SDHI shows how a society’s social and political context produces a set of economic and social conditions in which populations are positioned in a social

DEFINITIONS

Serious Psychological Distress (SPD)

Based on the number and frequency of symptoms reported in the past year, an estimate of adolescents with serious, diagnosable mental health disorders that warrant mental health treatment within a population.⁷

Moderate Psychological Distress (MPD)

Based on the number and frequency of symptoms reported in the past year, an estimate of adolescents with moderate mental distress—i.e., distress that is clinically relevant and warrants early mental health intervention—within a population.⁸

hierarchy by factors such as income, education, occupation, gender, race and ethnicity, and citizenship status. The sociopolitical context and the resulting socioeconomic status of individuals, combined, are considered the structural determinants of health inequities. This framework further posits that SDHI operate through intermediate determinants of health, such as behavioral health factors, that can either improve or exacerbate mental health outcomes.⁶

This policy brief examines family poverty level, insurance type, gender, gender identity, race and ethnicity, and citizenship status as proxies for the structural determinants of mental health inequities, and health status, nutrition, physical activity, use of social media, binge drinking, marijuana use, and cigarette use as intermediate behavioral determinants.

Adolescent Mental Health in California

In 2019, nearly 1 in 3 adolescents (29.3%) reported having serious psychological distress (SPD) in the past year. An additional 1 in 7 adolescents (15.7%) reported having moderate psychological distress (MPD) in the past year. Older adolescents, ages 15–17, were 1.5 times more likely to report SPD (35.9%) than younger adolescents, ages 12–14 (22.9%). Reports of MPD were similar in both age groups (15% and 16.3%, respectively). Beyond age, adolescents in various socioeconomic contexts disproportionately reported psychological distress.

Structural Determinants of Mental Health Inequities

The structural determinants of mental health inequities highlight socioeconomic injustices and the differential vulnerability some populations have for poor mental health outcomes. This section examines economic status indicators, which include family poverty level and insurance status, and social status indicators, which include gender, gender identity, race and ethnicity, and citizenship status.

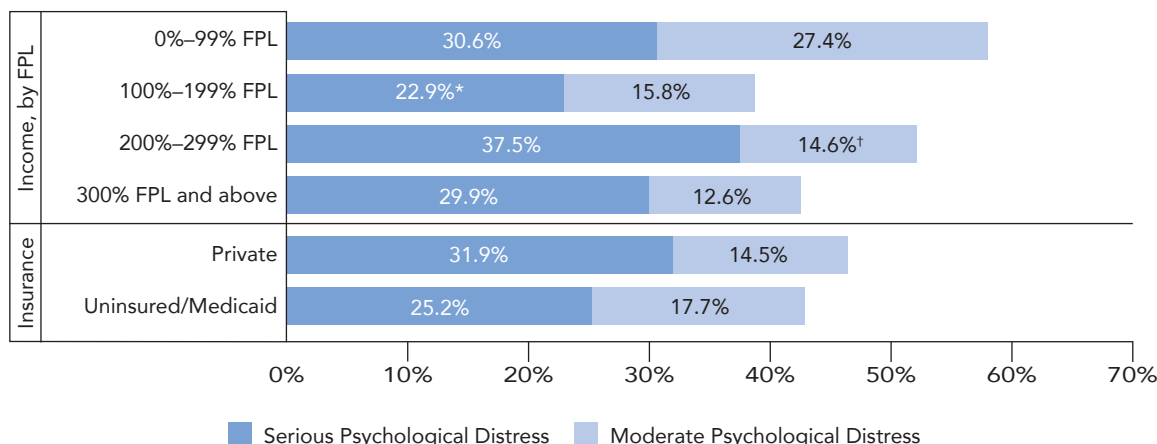
Economic Status Indicators

Reports of psychological distress varied by economic status. Nearly two-thirds of adolescents in families with incomes below the federal poverty level (FPL) reported moderate to serious psychological distress, with 27.4% reporting MPD and an additional 30.6% reporting SPD (Exhibit 1). Adolescents from families with incomes of 200%–299% FPL were 1.5 times more likely to report SPD (37.5%) than their counterparts with family incomes of 100%–199% FPL (22.9%). Nearly one-third of adolescents with private health

“Nearly two-thirds of adolescents in families with incomes below the FPL reported MPD or SPD.”

Structural Determinants (Economic Status Indicators) of Mental Health Inequities, Adolescents Ages 12–17, California, 2019

Exhibit 1



Source: 2019 California Health Interview Survey

*Statistically significant difference between groups at p <.05.
 For FPL, all groups were compared to 200%–299% FPL.
 † Unstable estimate

insurance and one-quarter of those with public or no health insurance reported SPD.

Social Status Indicators

Reports of MPD and SPD varied by social status. As shown in Exhibit 2, adolescent females were 1.5 times more likely to report SPD (36.6%) than their male counterparts (22.4%). Nearly 2 in 5 adolescents who identified as gender-nonconforming reported SPD (36.4%), and nearly 1 in 6 reported MPD (15.7%). Approximately 2 in 5 adolescents who self-identified as multiracial reported SPD (42.9%). Non-Latinx white adolescents were more likely to report SPD (36.6%) when compared to Latinx (27.1%) and non-Latinx Asian (20.9%) adolescents. Adolescents from diverse racial and ethnic backgrounds reported MPD at similar rates. Foreign-born adolescents were more likely than U.S.-born adolescents to report SPD (37.7% vs. 28.8%).

Intermediary Determinants of Mental Health

According to the WHO framework, structural determinants of mental health inequities operate through a set of intermediate determinants, such as health and behavioral factors, that can either improve or exacerbate mental health outcomes. The following section examines SPD and MPD by health status, nutrition, physical activity, and social media use as health behaviors, and binge drinking, use of marijuana, hashish, e-cigarettes, and cigarettes as risky health behaviors.

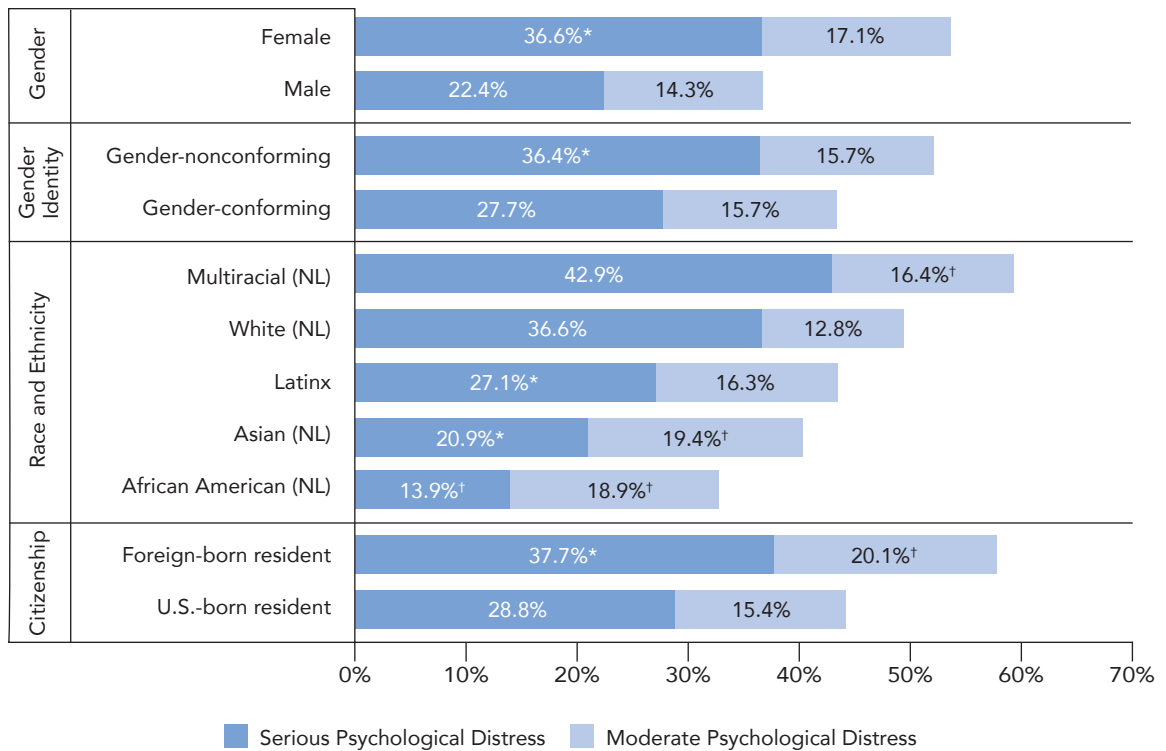
Health Status and Health Behaviors

Reports of SPD were higher among adolescents with poor health and poor health behaviors. As shown in Exhibit 3, 1 in 2 adolescents who reported their health as fair or poor reported SPD (49.9%). These individuals were three times more likely to report SPD than adolescents in excellent

“Approximately 2 in 5 adolescents who self-identified as multiracial reported SPD.”

Exhibit 2

Structural Determinants (Social Status Indicators) of Mental Health Inequities, Adolescents Ages 12–17, California, 2019



Source: 2019 California Health Interview Survey

Note: For race and ethnicity, all groups were compared to non-Latinx (NL) white.

*Statistically significant difference between groups at $p < .05$.

†Unstable estimate

“Reports of SPD were higher among adolescents who engaged in risky health behaviors.”

health (16.0%). Adolescents who ate less than five servings of fruits and vegetables daily were 1.5 times more likely to report SPD (32.2%) than adolescents who ate five or more servings a day (21.2%). Adolescents who were sedentary for five or more hours on a typical weekend were nearly twice as likely to report SPD (34.6%) as adolescents who were sedentary less than three hours (19.0%). Reports of MPD were nearly twice as high among adolescents who were sedentary for five hours or more (17.7%) compared to adolescents who were sedentary from three to less than five hours. Adolescents who reported they used their computer or mobile device for social media almost constantly were twice as likely to report SPD (39.1%) as adolescents who were on social media less than a few times a day (18.7%).

Risky Health Behaviors

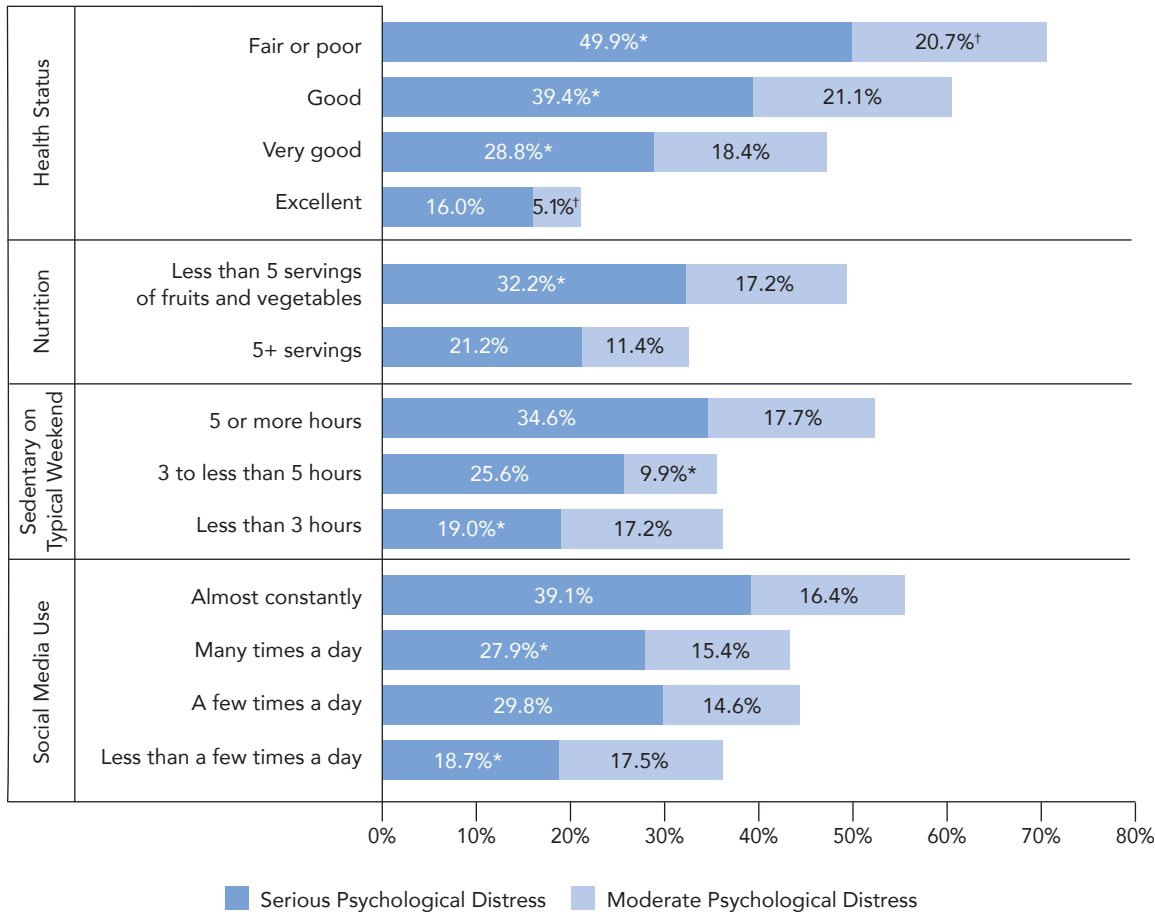
Reports of SPD were higher among adolescents who engaged in risky health behaviors. Adolescents who had ever tried marijuana or hashish were nearly twice as likely to report SPD (47.6%) as adolescents who had not (26.0%) (Exhibit 4). Adolescents who had ever smoked cigarettes or e-cigarettes were nearly twice as likely to report SPD (45.1%) as adolescents who had not smoked (26.0%). Additionally, approximately 2 in 5 adolescents who had engaged in binge drinking in the past month reported SPD (41.3%).

Conclusions and Recommendations

In 2019, more than 45% of adolescents in California experienced moderate to serious psychological distress, and rates varied by

Intermediary Health Status and Health Behaviors, Adolescents Ages 12–17, California, 2019

Exhibit 3



Source: 2019 California Health Interview Survey

Notes: For health status, all groups are compared to those who reported “excellent health.” For sedentary, all groups are compared to those who reported “five or more hours.” For social media use, all groups are compared to those who reported “almost constantly.”

* Statistically significant difference between groups at $p < .05$.

† Unstable estimate

determinants of mental health inequities. The proportion of California adolescents experiencing psychological distress is comparable to national estimates.³ In alignment with WHO, current findings underscore the need for socioeconomic equality, universal prevention of adolescent mental illness, and universally delivered psychosocial interventions that have been shown to be effective in improving adolescent mental health.^{5,9} These data highlight that poverty, gender, gender identity, and being multiracial or an immigrant are key structural determinants of adolescent psychological distress. The data also show that poor health, poor nutrition, sedentary

behavior, excessive use of social media, and use of marijuana, hashish, e-cigarettes, and cigarettes are important intermediate determinants that may exacerbate psychological distress.

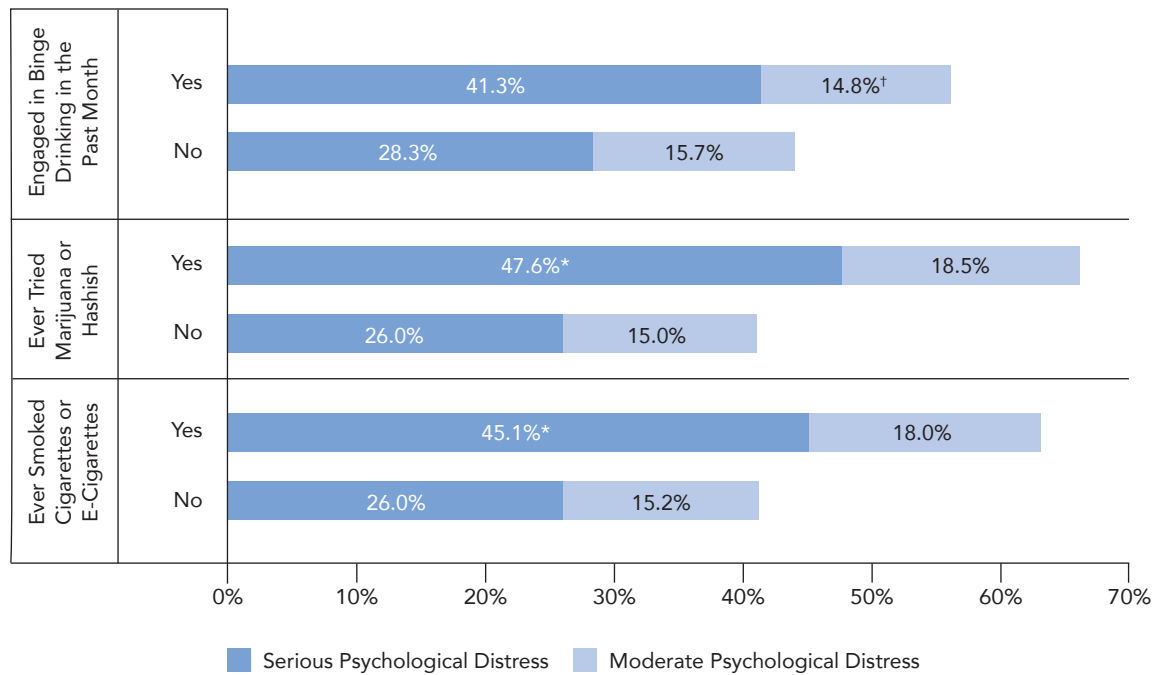
To safeguard the psychological and emotional well-being of adolescents, the following recommendations are offered to federal, state, and local policymakers and stakeholders who work with adolescents and their families.

- **Reduce socioeconomic inequities.** To ensure the best mental health outcomes for adolescents, the structural, political, and systemic issues that create socioeconomic

“Poverty, gender, gender identity, and being multiracial or an immigrant are key structural determinants of adolescent psychological distress.”

Exhibit 4

Intermediary Risky Health Behaviors, Adolescents Ages 12–17, California, 2019



Source: 2019 California Health Interview Survey

[†] Unstable estimate* Statistically significant difference between groups at $p < .05$.

“Policymakers and stakeholders must take specific steps to safeguard the psychological and emotional well-being of adolescents.”

inequities must be addressed. Federal, state, and local policymakers can work with disadvantaged and marginalized communities to critically evaluate current policies with an equity-based lens. Communities such as racial, ethnic, immigrant, and LGBTQ can help to inform the development and implementation of equity-based policies in areas such as (but not limited to) economic security, education, the labor market, housing, health care, and social welfare and protection. Advocacy efforts to reduce socioeconomic inequities via expansion of government benefits and employment-related actions (e.g., increasing the minimum wage) require stakeholder support for implementation, as reducing inequities directly benefits the well-being of youth.¹⁰

- **Establish universal access to health and mental health services in schools.** Organizations that provide evidence-based mental health care, especially those that are federally funded, could partner with

school districts to establish universal prevention programming (i.e., screening, intervention delivery) that addresses adolescent physical health, mental health, and substance use. Federal, state, and local agencies can help promote school-based mental health workforce development with incentives such as implementing loan repayment programs. Workforce development can include hiring more school psychologists and training teachers in mental health screening and classroom-based interventions.

- **Continue telehealth service-delivery model.** The rapid adoption of telehealth during COVID-19 proved to be valuable for improving treatment engagement, with increases in session attendance.¹¹ As such, telehealth delivery can be retained in primary and specialty mental health care settings and schools, with continued efforts to ensure technology access for adolescents facing socioeconomic inequities.

- **Increase parent mental health literacy.** Public health, schools, and health care organizations can increase outreach initiatives (e.g., media campaigns) to educate parents on signs of distress and effective treatments, since they are key gatekeepers for access to care for youth.¹² Tailored and increased educational and service outreach for parents of multiracial, female, gender-nonconforming, and immigrant adolescents is warranted. Readily available translated information is critically important for non-English speaking immigrant families. Health care organizations can help every family access services by ensuring that a mental health care navigator is available, as understanding insurance benefits and obtaining effective care may be challenging.
- **Adopt integrated care models.** The strong link between psychological distress and poor physical health and health behaviors warrants a more rapid adoption of integrated care models to help address the holistic needs of adolescents. Federal, state, and local funding is needed to develop the infrastructure for large-scale adoption, such as establishing a universal electronic health record to streamline coordination in treatment plans between primary care providers (e.g., doctors, nurse practitioners) and mental health professionals. Federal, state, and local support is needed to broaden Medicaid insurance reimbursement for same-day primary care and mental health services. Additionally, screening for mental health and substance use needs to be routinely implemented in health care visits.
- **Increase mental health training for those in law enforcement.** Members of law enforcement need training to ensure that adolescents engaging in substance use are linked to appropriate mental health services. Cross-system coordination with providers of mental health care is needed, including further investment in mobile teams to support law enforcement during acute crisis situations involving adolescents.

Implementation of these policy recommendations can help mitigate adolescent mental health problems by investing in actions that reduce socioeconomic inequities, raise awareness about adolescent mental health, and increase access to and improve treatment for adolescents. To ensure the best mental health outcomes for adolescents, families, communities, and society as a whole, the structural, political, and systemic issues that create socioeconomic inequities for some populations and not others must be addressed in conjunction with increasing access to and improving mental health services.

Data Source and Methods

This policy brief presents data from the 2019 California Health Interview Survey (CHIS), conducted by the UCLA Center for Health Policy Research. We used data collected in interviews with adolescents sampled from every county in the state. Beginning in 2019, following the successful implementation of two field experiments to test a new sample design and data collection methodology, CHIS transitioned to a mixed-mode survey (web and telephone) using a random sample of California addresses. Households with eligible adolescents (ages 12 to 17) were invited to have one randomly selected adolescent complete the survey online or by telephone, with a parent's permission. A total of 847 adolescents completed the interviews, a number nearly double that in 2018 (432 adolescents). Interviews were conducted in English, Spanish, Chinese (both Mandarin and Cantonese), Vietnamese, Korean, and Tagalog.

CHIS is designed with complex survey methods, requiring analysts to use complex survey weights in order to provide accurate variance estimates and statistical testing. All analyses presented in this brief include replicate weights to provide corrected confidence interval estimates and statistical tests.

For analyses in this brief, serious psychological distress (SPD) in the past year was measured using a cutoff score of 13 to 24 on the Kessler-6 (K6), a validated measure designed to estimate the prevalence of diagnosable mental disorders within a population.⁷ Moderate psychological distress (MPD) in the past year was measured using a K6 score of 9 through 12—a conservative cutoff on the lower score, as one validation study found a cutoff of 5 or 6 to be a clinically relevant level.⁸



The California Health Interview Survey (CHIS) covers a wide array of health-related topics, including health insurance coverage, health status and behaviors, and access to health care. It is based on interviews conducted continuously throughout the year with respondents from more than 20,000 California households.

CHIS is a collaboration among the UCLA Center for Health Policy Research, California Department of Public Health, California Department of Health Care Services, and the Public Health Institute. For more information about CHIS, please visit chis.ucla.edu.

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