Serious Psychological Distress on the Rise Among Adults in California

D. Imelda Padilla-Frausto, Firooz Kabir, Blanche Wright, Safa Salem, Ann Crawford-Roberts, and Hin Wing Tse

SUMMARY: Serious psychological distress (SPD), an indicator of mental illness, is on the rise in California. From 2014 to 2018, the percentage of adults in California with SPD increased by 41.6%, from 7.7% to 10.9%. To understand the upward trend of SPD in California, this brief evaluates the impact of the social determinants of mental health inequities across a five-year period. Upticks in SPD were largest among adults who were ages 18–24, male, employed part-time, Asian, and identifying as LGB. Persistently high percentages of SPD across all years were found among those ages 18–24, female, unemployed and looking for work, with less formal education, low income, publicly insured, and identifying as LGB. These findings support the need for equity-based policies, programs, and services that reduce inequities in education, employment, income, and health insurance coverage. Investment in supports and services for young adults, the LGBTQ community, and communities at risk for lower socioeconomic status are crucial.

According to the Centers for Disease Control and Prevention (CDC), mental health is as important as physical health for overall health and well-being. Mental health includes emotional, psychological, and social well-being at every stage of life, from childhood through adulthood. Mental illnesses are among the most common causes of disability and can lead to harmful and long-lasting psychosocial and economic costs. These costs impact not only the individual with the illness, but also their families, schools, workplaces, and communities. Although greater efforts have been made toward prevention and early intervention, a recent national study found a statistically significant increase in mental illness among adults ages 18 and over between 2008 and 2018, with the percentage of those suffering from mental illness during that time period rising from 17.7% to 19.1%.

Serious psychological distress (SPD), based on the number and frequency of symptoms reported in the past year, is an estimate of adults within a population who have serious, diagnosable mental health disorders that warrant mental health treatment. This policy brief reports on data from the California Health Interview Survey (CHIS) to examine the trends in SPD among California adults ages 18 and older between 2014 and 2018. Descriptive analyses and policy recommendations are guided by the conceptual framework on the social determinants of health inequities (SDHI) by the World Health Organization (WHO). SDHI is made up of the structural determinants of education, income, and employment and the resulting socioeconomic status of individuals. We examined education, income, employment, and
Exhibit 1

Percentage of California Adults Ages 18 and Over With Serious Psychological Distress, by Structural Determinants of Mental Health, 2014–2018

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>Percent Increase from 2014 to 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Adults, Ages 18 and Over</td>
<td>7.7%*</td>
<td>8.6%*</td>
<td>8.0%*</td>
<td>10.0%</td>
<td>10.9%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than high school</td>
<td>10.0%</td>
<td>9.9%</td>
<td>8.7%</td>
<td>9.4%</td>
<td>9.7%</td>
<td>N/A</td>
</tr>
<tr>
<td>High school</td>
<td>7.8%*</td>
<td>10.2%</td>
<td>8.9%*</td>
<td>11.2%</td>
<td>12.3%</td>
<td>57.7%</td>
</tr>
<tr>
<td>Some college</td>
<td>9.7%*</td>
<td>10.7%*</td>
<td>10.5%*</td>
<td>13.7%</td>
<td>14.7%</td>
<td>51.5%</td>
</tr>
<tr>
<td>College graduate or higher</td>
<td>5.1%*</td>
<td>5.8%*</td>
<td>5.8%*</td>
<td>7.4%</td>
<td>8.4%</td>
<td>64.7%</td>
</tr>
<tr>
<td>Poverty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%–99% FPL</td>
<td>12.1%</td>
<td>13.9%</td>
<td>12.5%</td>
<td>13.4%</td>
<td>15.8%</td>
<td>N/A</td>
</tr>
<tr>
<td>100%–199% FPL</td>
<td>11.3%</td>
<td>10.6%</td>
<td>10.5%</td>
<td>12.3%</td>
<td>12.8%</td>
<td>N/A</td>
</tr>
<tr>
<td>200%–299% FPL</td>
<td>6.8%*</td>
<td>8.8%</td>
<td>7.8%</td>
<td>11.5%</td>
<td>11.8%</td>
<td>73.5%</td>
</tr>
<tr>
<td>300% FPL and higher</td>
<td>4.8%*</td>
<td>5.9%*</td>
<td>5.7%*</td>
<td>7.9%</td>
<td>8.6%</td>
<td>79.2%</td>
</tr>
<tr>
<td>Insurance Type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public</td>
<td>14.1%</td>
<td>15.3%</td>
<td>13.7%</td>
<td>15.2%</td>
<td>16.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>Uninsured</td>
<td>7.9%*</td>
<td>8.3%*</td>
<td>7.8%</td>
<td>11.8%</td>
<td>12.7%</td>
<td>60.8%</td>
</tr>
<tr>
<td>Private</td>
<td>6.4%</td>
<td>6.2%*</td>
<td>5.7%*</td>
<td>8.6%</td>
<td>9.6%</td>
<td>N/A</td>
</tr>
<tr>
<td>Medicare</td>
<td>2.5%</td>
<td>3.7%</td>
<td>4.1%</td>
<td>3.5%</td>
<td>3.7%</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes: Difference from 2018 estimates is statistically significant at *p<.05. Estimates without an * are similar to 2018.

Source: California Health Interview Survey (CHIS) 2014–2018

保险状态作为结构决定因素，同时考虑年龄组、性别、性别身份、性取向和种族和民族等因素，被视作处于较低社会经济地位的人群，因此更容易受到心理健康不平等的影响。

从2014年到2018年，加州18岁及以上成年人中严重心理疾患（SPD）的比例增加了41.6%，从2014年的7.7%增加到2018年的10.9%（表1）。对心理健康结构决定因素的分析显示，某些成人组在所有时间内报告的严重心理疾患比例较高，而其他组在五年期间内的严重心理疾患比例增加较大。

教育

成人18岁及以上者中，拥有包括大学在内的教育程度较高的人群严重心理疾患（SPD）的比例从2014年的5.1%增加到2018年的8.4%，增长率为64.7%，紧随其后的是高中教育程度（57.7%）和一些高等教育程度（51.5%）（表1）。然而，严重心理疾患比率在缺乏高等教育背景的成年人中保持较高。

从2014年到2018年，加州18岁及以上成年人中拥有大学教育或更高的严重心理疾患（SPD）的比例从5.1%增加到8.4%，增加了41.6%，从7.7%增加到10.9%（表1）。分析显示，心理健康结构决定因素的数据显示，某些成人组在整个期间内严重心理疾患（SPD）的百分比高于其他成人组，而其他组在五年期间内的严重心理疾患比例增加较大。

贫困

虽然成年人中收入低于联邦贫困线（FPL）的收入较高，但200% FPL或更高的收入在2018年期间的严重心理疾患（SPD）的最大增长。严重心理疾患（SPD）从2014年的4.8%增加到2018年的8.6%。

虽然成年人中收入低于联邦贫困线（FPL）的收入较高，但200% FPL或更高的收入在2018年期间的严重心理疾患（SPD）的最大增长。严重心理疾患（SPD）从2014年的4.8%增加到2018年的8.6%。

教育

从2014年到2018年，具有大学教育或更高的严重心理疾患（SPD）的比例从5.1%增加到8.4%，从7.7%提高到10.9%（表1）。分析显示，心理健康结构决定因素的数据显示，某些成人组在整个期间内严重心理疾患（SPD）的百分比高于其他成人组，而其他组在五年期间内的严重心理疾患比例增加较大。

贫困水平

虽然成年人中收入低于联邦贫困线（FPL）的收入较高，但200% FPL或更高的收入在2018年期间的严重心理疾患（SPD）的最大增长。严重心理疾患（SPD）从2014年的4.8%增加到2018年的8.6%。
The increase in SPD among adults based on employment status was highest among part-time workers.

<table>
<thead>
<tr>
<th>Employment Status</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time</td>
<td>9.7%</td>
<td>10.5%</td>
<td>11.6%</td>
<td>9.3%</td>
<td>10.2%</td>
</tr>
<tr>
<td>Unemployed and looking for work</td>
<td>6.0%*</td>
<td>7.0%*</td>
<td>6.5%*</td>
<td>9.0%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Part-time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed and not looking for work</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Difference from 2018 estimates is statistically significant at *p<.05. Estimates without an * are similar to 2018.

SPD by Age, Gender, Gender Identity, Sexual Orientation, and Race and Ethnicity

Analyses by populations at risk of having a lower socioeconomic status and inequities in mental health outcomes show that there were...
some adult groups with a higher percentage of SPD across all years, and others that had larger increases in SPD from 2014 to 2018.

**Age**
Young adults ages 18–24 had the largest increase in SPD from 2014 to 2018. The percentage of those with SPD in this age group more than doubled, from 11.3% in 2014 to 23.0% in 2018 (Exhibit 3). Young adults also had a persistently high percentage of SPD in each year.

**Gender**
Among adults ages 18 and over, males experienced a large increase in SPD from 2014 to 2018, while females had a persistently high percentage of SPD in every year. The percentage of adult males reporting SPD increased by 68.4%, from 5.7% in 2014 to 9.6% in 2018 (Exhibit 4). Adult females ages 18 and over showed a 26.0% increase in reported SPD.

**Gender Identity**
In 2018, adults who self-identified as transgender or gender nonconforming were almost five times more likely to report SPD than adults who did not self-identify as such.

**Sexual Orientation**
Adults who self-identified as gay, lesbian, homosexual, or bisexual reported higher overall proportions of SPD, and they had the largest increase in SPD from 2015 to 2018 when compared with adults who
self-identified as straight or heterosexual. Among adults who identified as gay, lesbian, homosexual, or bisexual, the percentage of reported SPD was 21.5% in 2015 and 31.0% in 2018, a 44.2% increase (Exhibit 4).

Race and Ethnicity
Asian adults experienced the largest increase in SPD (170.6%) from 2014 to 2018, although they had the lowest percentages of SPD during this period (3.4%–9.2%) (Exhibit 4). The percentage of non-Latino White adults with SPD increased by 47.2%, from 7.2% in 2014 to 10.6% in 2018. Latino adults showed persistently high percentages of SPD across most years.

Summary and Policy Recommendations
Between 2014 and 2018, there were both increases in serious psychological distress (SPD) and persistently high percentages of SPD for some populations in California. The following section is framed around the World Health Organization’s conceptual framework for addressing the social determinants of health inequities. This section provides a brief summary of the results and policy recommendations for each indicator examined. These indicators are separated into the structural determinants—that is, the interplay between the sociopolitical context and the structural and institutional mechanisms that results in the socioeconomic status of individuals—and the populations at risk of lower socioeconomic status and of mental health inequities.6

Support Equity-Based Policy Interventions to Address the Social Determinants of Mental Health Inequities
Equity-based policies seek to understand and address the root causes and intersection of inequities in education, employment, income, and health insurance coverage.7 It is imperative that policymakers take a multidisciplinary approach to intervene in the social determinants of mental health inequities.

Notes: Difference from 2018 estimates is statistically significant at *p<.05. Estimates without an * indicates estimates are similar to 2018.
NL = Non-Latino
† The two categories for “Sexual Orientation” show the percent increase from 2015 to 2018; there were no data for 2014.
Source: California Health Interview Survey (CHIS) 2014-2018

[Exhibit 4]

Percentage of California Adults Ages 18 and Over With Serious Psychological Distress, by Year and Groups Vulnerable to Structural Determinants of Mental Health Inequities, 2014–2018

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>Percent Increase from 2014 to 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Adults, Ages 18 and Over</td>
<td>7.7%*</td>
<td>8.6%*</td>
<td>8.0%*</td>
<td>10.0%</td>
<td>10.9%</td>
<td>41.6%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>9.6%*</td>
<td>9.4%*</td>
<td>9.2%*</td>
<td>11.4%</td>
<td>12.1%</td>
<td>26.0%</td>
</tr>
<tr>
<td>Male</td>
<td>5.7%*</td>
<td>7.8%*</td>
<td>6.8%*</td>
<td>8.4%*</td>
<td>9.6%*</td>
<td>68.4%</td>
</tr>
<tr>
<td>Sexual Orientation†</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gay, lesbian, homosexual, or bisexual</td>
<td>N/A</td>
<td>21.5%*</td>
<td>19.2%*</td>
<td>29.0%</td>
<td>31.0%</td>
<td>44.2%</td>
</tr>
<tr>
<td>Straight or heterosexual</td>
<td>N/A</td>
<td>7.9%*</td>
<td>7.5%*</td>
<td>8.8%*</td>
<td>9.4%*</td>
<td>19.0%</td>
</tr>
<tr>
<td>Race and Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Latino</td>
<td>9.8%</td>
<td>9.6%</td>
<td>7.0%*</td>
<td>11.2%</td>
<td>11.6%</td>
<td>N/A</td>
</tr>
<tr>
<td>African American (NL)</td>
<td>5.7%</td>
<td>9.1%</td>
<td>13.7%</td>
<td>8.9%</td>
<td>9.1%</td>
<td>N/A</td>
</tr>
<tr>
<td>White (NL)</td>
<td>7.2%*</td>
<td>8.3%*</td>
<td>8.5%*</td>
<td>9.4%</td>
<td>10.6%</td>
<td>47.2%</td>
</tr>
<tr>
<td>Asian (NL)</td>
<td>3.4%*</td>
<td>6.6%</td>
<td>6.3%</td>
<td>7.1%</td>
<td>9.2%</td>
<td>170.6%</td>
</tr>
</tbody>
</table>

Notes: Difference from 2018 estimates is statistically significant at *p<.05. Estimates without an * indicates estimates are similar to 2018.

NL = Non-Latino

† The two categories for “Sexual Orientation” show the percent increase from 2015 to 2018; there were no data for 2014.
Source: California Health Interview Survey (CHIS) 2014-2018

Asian adults had the largest increase in SPD compared with other racial and ethnic groups.
Structural Determinants

**Education**

Adults with less than a college education had a persistently high percentage of SPD between 2014 and 2018. At the same time, adults with a college education or higher had an increase in SPD larger than that of adults without a college education. Policy recommendations include the following:

- Reduce inequities in higher education by reducing inequities in:
  - Quality primary and secondary education
  - School and district funding
  - High school graduation rates
  - College counseling for middle and high school students
  - The affordability of college and graduate school
  - Student loans
- Reduce inequities in access to mental health care in colleges and universities.
- Reduce inequities in continuity of care or preventive care following college and graduate school.

**Income and Employment**

Adults with incomes less than 200% FPL had a persistently higher percentage of SPD between 2014 and 2018, as did adults who were unemployed and working part time. In addition, adults working part time had a large increase in SPD from 2014 to 2018. Policy recommendations include:

- Reducing inequities in:
  - Income
  - Unemployment and underemployment
  - Living wages and salaries
  - Access to care and preventive care for adults who are unemployed, work part time, or have incomes less than 200% FPL

- Supporting policies that target services and access to services—in particular, therapeutic services and supports—to adults who are recently unemployed and looking for work

**Insurance Coverage**

Adults with no health insurance had the largest increase in SPD from 2014 to 2018. Adults with public or no insurance had a persistently higher percentage of SPD in all years. Policy recommendations include:

- Reducing inequities in:
  - Health care coverage
  - Quality and coverage of mental health services
  - Access to care and preventive care for adults with no health insurance
  - Access to care that is based on insurance type
  - Health care coverage due to job loss

**Populations at risk of lower socioeconomic status and mental health inequities**

**Age Group**

From 2014 to 2018, the largest increases in SPD were seen among young adults ages 18–24. This group also had a persistently high percentage of SPD compared to all other age groups across the five-year time period. Policy recommendations include the following:

- Reduce socioeconomic inequities among young adults by reducing inequities in access to higher education, affordable housing, and employment opportunities.
- Reduce inequities in access to care, particularly preventive and early intervention care, for young adults.
- Support policies that target services and access to services, particularly therapeutic services and supports, for young adults.
Gender
While male adults had the largest increase in SPD from 2014 to 2018, female adults had a persistently high percentage of SPD in every year. Policy recommendations include:

- Reduce inequities in socioeconomic status among females by:
  - Reducing inequities in wages and salaries
  - Creating policies that support family caregivers
  - Supporting policies that provide a living wage for family caregivers
  - Supporting policies that provide health care and retirement benefits for family caregivers
- Reduce inequities in access to care and preventive care for men.

Sexual Orientation and Gender Identity
Between 2014 and 2018, a large increase in SPD was seen among adults who identified as lesbian, gay, homosexual, or bisexual. In 2018, nearly half of adults who identified as transgender or gender nonconforming reported having SPD—almost five times the percentage of adults who identified as cisgender. Policy recommendations include:

- Reduce stigma and discrimination against Californians who identify as LGBTQ.
- Reduce bullying and hate crimes against LGBTQ populations.
- Reduce inequities in socioeconomic status among LGBTQ Californians.
- Mandate services, supports, and safe spaces for LGBTQ Californians, especially youth.
- Promote and support an LGBTQ mental health workforce and culturally competent care.
- Support policies that provide therapeutic services and supports for LGBTQ groups.

Race and Ethnicity
Asian adults had the largest increase in SPD from 2014 to 2018. Latino adults had persistently high percentages of SPD in four of the five years. Policy recommendations include:

- Reduce inequities in socioeconomic status (SES) for Latino and Asian populations.
- Reduce discrimination and hate crimes against Latino and Asian populations.
- Reduce inequities in access to care and preventive services.
- Support policies that target services and access to services—in particular, therapeutic services and supports—for Latinos and Asians.

The data presented in this brief were collected before the COVID-19 pandemic, but the pandemic has likely exacerbated both the proportion experiencing SPD as well as disparities in the social determinants of mental health inequities. In a March 2020 study, 45% of adults reported that the pandemic had negatively affected their mental health. Even before the pandemic, 3.3 million California households—predominantly African American, Latino, single female households, and households with children—were economically insecure and unable to meet basic living expenses. Since the start of the COVID crisis in mid-March, nearly one-third of California workers have filed for unemployment, with claims higher among females, younger adults, and African Americans. Policymakers will need to focus on equity-based economic recovery policies that will help to reduce the negative psychological and economic impacts of COVID.

The increases and persistently high percentages of SPD for various groups over the past few years warrant a closer look at the economic, social, and environmental
conditions that can negatively impact population-level mental health. Policy is an important tool for intervening in the structural determinants and the resulting socioeconomic status of individuals that can lead to mental health inequities. Equity-based policies are needed that will reduce inequities in the socioeconomic status of Californians and invest in communities at risk of lower educational attainment, underemployment or unemployment, having low income or being employed in sectors that do not provide a living wage to cover basic living expenses. Communities at risk of these social determinants are predominantly African American, Latino, Asian, and other marginalized populations, such as women and adults who identify as LGBTQ.

Public policies and social norms are central elements intertwined with the structural determinants that result in socioeconomic and mental health inequities; these factors, too, must be considered by policymakers so that mental health outcomes in California can be improved.

Data Source and Methods
This policy brief presents data from the 2014 through 2018 California Health Interview Survey (CHIS), conducted by the UCLA Center for Health Policy Research. We used data collected in interviews with adults sampled from every county in the state. Interviews were conducted in English, Spanish, Chinese (both Mandarin and Cantonese), Vietnamese, Korean, and Tagalog. CHIS uses a dual-frame, multistage sample design using a random-digit-dial (RDD) technique. The use of traditional landline RDD and cellphone RDD sampling frames ensured that the respondents were representative of the state’s population. CHIS is designed with complex survey methods that require 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 more information on CHIS methods, see: [http://healthpolicy.ucla.edu/chis/design/Pages/methodology.aspx](http://healthpolicy.ucla.edu/chis/design/Pages/methodology.aspx).

For analyses in this brief, serious psychological distress (SPD) in the past year was measured by 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.

CHIS data is cross-sectional, so inferences in causation cannot be made. Descriptive analyses were conducted; therefore, hypotheses testing informed by WHO’s conceptual model on the social determinants of mental health inequities were not performed. In addition, it is well documented that having lower educational attainment, having a low income, and being uninsured are social determinants of mental health inequities. However, this study found increases in SPD among adults with a college education or higher, with incomes of 200% FPL or greater, and with private insurance coverage. Further research is needed to ascertain the extent to which these increases are due to an actual increase in psychological distress or to prevention efforts to reduce stigma and increase awareness, which have made more people aware of the symptoms of SPD and more willing to report these.

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Endnotes
6 After controlling for age, these trends remained the same.