

# The Community Wellness Outcomes Project: Reporting on Outcomes that Matter for Communities

## Deliverable 3.

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The Mental Health Services Oversight and Accountability Commission  
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## Table of Contents

<b>Preface</b>	<b>2</b>
<b>Abbreviations</b>	<b>9</b>
<b>Project Overview</b>	<b>14</b>
Report Objective	15
<b>INTRODUCTION</b>	<b>16</b>
Importance of a California Mental Health Surveillance System	16
Mental Health in California	16
Disparities in Mental Health Need and Care	17
Outcomes of Unmet Mental Health Need	20
Suicide	21
Incarceration	21
School Failure	21
Unemployment	22
Prolonged Suffering	22
Homelessness	23
Removal from Home	23
<b>Project Methodology</b>	<b>24</b>
Literature Review Methodology	24
Purpose	24
Abstraction of Articles	24
Identification of Data Sources	24
Event Observations Methodology	25
Purpose	25
Event and County Selection	25
Data Collection	25
Qualitative Data Analysis	26
Environmental Scan Methodology	27
Purpose	27
Defining Data Collection Systems	27
Data Collection	27
Geographic Representation	27
Data Analysis	28
Focus Group and Phone Interview Methodology	28
Purpose	28
Focus Group Structure	28
Interview Structure	29
Participant Recruitment	29

Data Analysis	29
<b>Chapter 1: Suicide</b>	<b>31</b>
Defining Suicide and Suicidal Behaviors	31
What Do We Know About Suicide and Suicidal Behavior?	32
Risk Factors & Indicators for Suicide and Suicidal Behavior	32
Data Sources for Suicide Outcomes	34
National Data Sources on Suicide	34
National Data Sources on Suicide Behaviors	35
California Data Sources on Suicide	37
California Data Sources on Suicide Behaviors	39
California Data Source on Both Suicide and Suicide Behaviors	43
Surveillance and Monitoring of Suicide Outcomes	43
Global and International Examples	43
U.S. National Dashboard Examples	44
Examples in Other States	45
Example Programs for Native American Communities	46
California Statewide Efforts	47
California County Reports and Dashboards	47
Recommendations	49
Category 1 Recommendations	49
Category 2 Recommendations	52
Category 3 Recommendations	53
Category 4 Recommendations	53
Conclusions	55
<b>Chapter 2: Incarceration</b>	<b>59</b>
What Do We Know About Incarceration?	59
Defining Terms Related to Incarceration	60
Mental Health-Related Risk Factors & Indicators of Incarceration	61
Criminal Justice Pathway and Diversion into Mental Health Care	62
Vulnerable Populations	63
Data Sources for Incarceration and Mental Health-Related Outcomes	64
National Data Sources for General Populations and those with Mental Health Problems	64
National Data Sources for General Populations Only (No Mental Health Indicator)	68
California Data Sources for General Populations and those with Mental Health Problems	71
California Data Sources for General Populations only	73
Surveillance and Monitoring for Incarceration Outcomes	74
Prison Policy Initiative	74
Data Tools that Include Mental Health Variables	75
Health Care Services Dashboard – California Correctional Health Care Services	75
Data Tools without Mental Health Variables	76
California Department of Corrections and Rehabilitation	76

Juvenile Justice	76
Office of Juvenile Justice and Delinquency Prevention	76
Office of Research – California Department of Corrections and Rehabilitation (CDCR)	76
Recommendations	76
Category 1 Recommendations	77
Category 2 Recommendations	77
Category 3 Recommendations	80
Category 4 Recommendations	80
Conclusions	83
<b>Chapter 3: School Failure</b>	<b>84</b>
Defining School Failure	85
What Do We Know About School Failure?	86
Risk Factors & Indicators for School Failure	87
Data Sources for School Failure Outcomes	88
National Data Sources for General Populations and those with Mental Health Problems	89
National Data Sources for General Population Only (No Mental Health Indicator)	95
California Data Sources for General Populations and those with Mental Health Problems	101
California Data Sources for General Populations Only (No Indicator of Mental Health)	107
Surveillance and Monitoring for School Failure Outcomes	109
National Examples of School Failure Data Tools Without Mental Health Indicators	109
California Examples	110
Data Linkage Examples	111
Summary of California County Dashboards	112
Data Tools for School Failure Outcomes	113
Recommendations	113
Category 1 Recommendations	114
Category 2 Recommendations	114
Category 3 Recommendations	117
Category 4 Recommendations	117
Conclusion	119
<b>Chapter 4: Unemployment</b>	<b>120</b>
Defining Unemployment	120
What Do We Know About Unemployment?	121
Unemployment: Impact of Mental Illness	121
Unemployment and Mental Illness: A Negative Cycle	121
Risk Factors & Indicators for Unemployment	122
Workplace Risk Factors for Mental Health Need Potentially Leading to Unemployment	123
Data Sources for Unemployment and Mental Health-Related Outcomes	124
National Data Sources	124
National Data Sources on Employee Absenteeism	127
California Data Sources	128

Unemployment Surveillance and Monitoring _____	130
Global and International Examples _____	130
National Examples _____	131
National Dashboard Examples _____	131
LiveStories: Statistics (LiveStats) _____	133
California Examples _____	133
Recommendations _____	133
Category 1 Recommendations _____	134
Category 2 Recommendations _____	135
Category 3 Recommendations _____	136
Category 4 Recommendations _____	136
Conclusions _____	138
<b>Chapter 5: Prolonged Suffering _____</b>	<b>141</b>
Defining Prolonged Suffering _____	141
What Do We Know About Prolonged Suffering? _____	143
Risk Factors & Indicators of Prolonged Suffering _____	143
Data Sources for Prolonged Suffering Outcomes _____	149
National Data Sources for General Populations and those with Mental Health Problems _____	149
California Data Sources for General Populations and those with Mental Health Problems _____	150
Surveillance & Monitoring for Prolonged Suffering Outcomes _____	154
National Examples _____	154
California Examples _____	155
Recommendations _____	156
Category 1 Recommendations _____	157
Category 2 Recommendations _____	158
Category 3 Recommendations _____	159
Category 4 Recommendations _____	160
Conclusion _____	162
<b>Chapter 6: Homelessness _____</b>	<b>163</b>
Defining Homelessness _____	163
What Do We Know About Homelessness? _____	164
Risk Factors & Indicators of Homelessness _____	165
Data Sources for Homelessness and Mental Health-Related Outcomes _____	169
National Data Sources for General Populations and those with Mental Health Problems _____	169
National Data Sources for Risk of Homelessness for General Populations (No Indicator of Mental Health) _____	171
California Data Sources for General Populations and those with Mental Health Problems _____	173
California Data Sources for Risk of Homelessness (No Indicator of Mental Health) _____	175
Surveillance and Monitoring for Homelessness Outcomes _____	176
National Examples _____	176
Examples in Other States _____	178

California Examples _____	178
Recommendations _____	179
Category 1 Recommendations _____	179
Category 2 Recommendations _____	180
Category 3 Recommendations _____	181
Category 4 Recommendations _____	181
Conclusion _____	182
<b>Chapter 7: Removal of Children from their Homes _____</b>	<b>184</b>
Defining Removal from Home _____	184
Why Measure Removal from Home? _____	184
Risk Factors & Indicators for Removal from Home _____	186
Data Sources for Child Welfare Outcomes _____	187
National Data Sources on Child Welfare Outcomes _____	187
California Data Sources on Identified Child Welfare Outcomes _____	189
Surveillance and Monitoring for Child Welfare Outcomes _____	190
Global and International Example _____	190
National Examples _____	191
National Dashboard Examples _____	192
Casey Family Programs _____	192
Examples in Other States _____	193
California Examples of Dashboards with Mental Health Indicators _____	193
California Examples of Dashboards with no Mental Health Indicators _____	194
Recommendations _____	196
Category 1 Recommendations _____	197
Category 2 Recommendations _____	198
Category 3 Recommendations _____	198
Category 4 Recommendations _____	199
Conclusions _____	200
<b>Conclusion _____</b>	<b>204</b>
Overview _____	204
Recommended Data Sources by Outcome _____	204
Recommended Data Sources for More than One Outcome _____	207
Summary _____	207
<b>Glossary of Definitions _____</b>	<b>208</b>
<b>Tables _____</b>	<b>213</b>
Table 1: Suicide or Suicidal Behavior Data Source Characteristics _____	213
Table 2. Incarceration Data Source Ratings and Characteristics _____	214
Table 3: Incarceration National and California Data Sources _____	221

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Table 4. School Failure Data Source Ratings and Characteristics for General Populations and those with Mental Health Problems: _____	222
Table 5. School Failure Data Source Ratings and Characteristics for General Populations (Without Mental Health Indicators) _____	225
Table 6. School Failure National and California Data Sources _____	228
Table 7: Unemployment Data Source Characteristics National and Statewide Data Sources for Unemployment and Mental Health _____	229
Table 8. Prolonged Suffering Data Source Ratings and Characteristics _____	230
Table 9: Prolonged Suffering National and California Data Source Characteristics _____	233
Table 10: Homelessness Data Source Ratings and Characteristics _____	234
Table 11: Homelessness National and California Data Source Characteristics _____	239
Table 12: Removal from Home Data Source Characteristics: National _____	240
Table 13: Removal from Home Data Source Characteristics: California _____	241
Table 14. Main characteristics of recommended data sources by outcome _____	242
Table 15. Distribution of key outcomes assessed by data source _____	246
<b>References _____</b>	<b>247</b>



## Abbreviations

ACA – Affordable Care Act

ACF – Administration for Children and Families

ACS – American Community Survey

ADHD – Attention Deficit Hyperactivity Disorder

AFCARS— Adoption and Foster Care Analysis and Reporting System

AI/AN – American Indian/Alaska Native

ALICE – Asset Limited, Income Constrained, Employed

API – Application Programming Interface

APS – Annual Parole Survey

ASJ – Annual Survey of Jails

ASPE – Assistant Secretary for Planning and Evaluation

BJS – Bureau of Justice Statistics

BLS – Bureau of Labor Statistics

BRFSS – Behavioral Risk Factor Surveillance System

CAASPP – California Assessment of Student Performance and Progress

CalEQRO – California External Quality Review Organization

CalEVDRS – California Electronic Violent Death Reporting System

CalMHSA – California Mental Health Services Authority

CalSCHLS – California School Climate, Health and Learning Survey system

CA-PAMR – California Pregnancy-Associated Mortality Review

CARES – Center for Applied Research and Engagement

CBHDA – California Behavioral Health Directors Association

C-CFSR – California-Child and Family Service Review

CCHSC – California Correctional Health Care Services

CCWIP – California Child Welfare Indicators Project

CDC – Centers for Disease Control and Prevention

CDCR – California Department of Corrections and Rehabilitation

CDN – Children’s Data Network

CDPH – California Department of Public Health

CDPH-VR – California Department of Public Health Vital Records

CFSR— Child Family and Services Review

CHALENG – Community Homelessness Assessment, Local Education and Networking Groups

CHHS – California Health and Human Services

CHIS – California Health Interview Survey

CHKS – California Healthy Kids Survey

CJSC – Criminal Justice Statistics Center

CMF – California Medical Facility

CMHC – Community Mental Health Centers

CMI – Child Maltreatment Incidence

CoC – Continuum of Care

CPAG – Community Partnered Advisory Group

CPPR – Community Partnered Participatory Research

CPS— Child Protective Services

CPS – Current Population Survey

CRU – Community Response Unit

CSA – County Self-Assessment

CSAT – Corrections Statistical Analysis Tool

CSHCN – Children with Special Health Care Needs

CSI – Client & Service Information

CWIG— Child Welfare Information Gateway

CWS/CMS – Child Welfare Services/Case Management System

DAC – Data Access Center

DBHDID – Department for Behavioral Health, Development, and Intellectual Disabilities

DCR – Data Collection Reporting

DER – Data Estimate Request

DHCS – Department of Health Care Services

DHCS-MHSD – DHCS Mental Health Services Division

DHHS – Department of Health and Human Services

DMH – Department of Mental Health

EAP – Employee Assistance Programs

EDD – Employment Development Department

ELA – English language Arts/literacy

FSP – Full-Service Partnerships

FTP – File Transfer Protocol

GUIDES – Government User Integrated Diversion Enhancement Systems

HCVP – Housing Choice Voucher Program

HMIS – Homeless Management Information System

HRSU – Health Research and Statistics Unit

HUD – Housing and Urban Development

HUD-VASH – Housing and Urban Development Veterans Affairs Supportive Housing

ICE – Immigrations and Customs Enforcement

ILO – International Labour Organization

IST – Incompetent-to-Stand-Trial

LAUS – Local Area Unemployment Statistics

LGBTQ – Lesbian, Gay, Bisexual, Transgender and Queer

LHD – Local Health Department

MAX – Medicaid Analytic eXtract

MDE – Major Depressive Episode

MEPS – Medical Expenditure Panel Survey

MHSA – Mental Health Services Act  
MHSA-OP – Mental Health Services Act Outcomes Project  
MHSOAC – Mental Health Services Oversight and Accountability Commission  
NCHS – National Center for Health Statistics  
NCANDS – National Child Abuse and Neglect Data System  
NCHE – National Center for Homeless Education  
NDACAN – National Data Archive on Child Abuse and Neglect  
NHIS – National Health Interview Survey  
NIBRS – National Incident-Based Reporting System  
NOMS – National Outcome Measures  
NPS – National Prisoner Statistics  
NSCH – National Survey of Children’s Health  
NSDUH – National Survey on Drug Use and Health  
N-SSATS – National Survey of Substance Abuse Treatment Services  
NVDRS – National Violent Death Reporting System  
NYTD – National Youth in Transition Database  
OCAT – Online CalWORKs Appraisal Tool  
OHE – Office of Health Equity  
OPRE – Office of Planning, Research, and Evaluation  
OSHPD – California Office of Statewide Health Planning and Development  
PHAC – Public Health Agency of Canada  
PIH – Public and Indian Housing  
PIT – Point-in-Time  
PPR – Persons Per Room  
PTSD – Post-traumatic Stress Disorder  
PUFs – Public Use Files  
PUMS – Public Use Microdata Sample

RAD – Restricted Access Database

SACWIS – Statewide Automated Child Welfare Information System

SAE – Small Area Estimation

SAMHSA – Substance Abuse and Mental health Administration

SAMHSA-URS – Substance Abuse Mental Health Services Administration Uniform Reporting System

SES – socioeconomic status

SIP – System Improvement Plan

SLI – Sign language Interpreter

SMHA – State Mental Health Agency

SOII – Survey of Occupational Injuries and Illnesses

SPRC – Suicide Prevention Resource Center

SRS – Summary Reporting System

SURF – Special Use Research File

TAY – Transitional Aged Youth

TRACS – Tenant Rental Assistance Certification System

UCR – Uniform Crime Reporting

URS – Uniform Reporting System

US HUD – United States Department of Housing and Urban Development

WHO – World Health Organization

WISQARS – Web-based Injury Statistics Query and Reporting Systems

WMAT – White Mountain Apache Tribe

YRBS – Youth Risk Behavior Survey

## Project Overview

This report is part of the **Community Wellness and Outcomes Project**, conducted by a research team at the UCLA Center for Health Services and Society (HSS) and contracted by the Mental Health Services Oversight and Accountability Commission (MHSOAC). The central objective of this project is to identify freely accessible data sources that will allow MHSOAC to develop a statewide dashboard to monitor county-level estimates on the 7 negative outcomes (Homelessness, Incarceration, Prolonged Suffering, Removal from Home, School Failure, Suicide, and Unemployment) outlined in the Mental Health Services Act (MHSA) of California. This dashboard is envisioned as an initial step to improve the measurement and reporting of mental health service needs, the services delivered to meet those needs, and the outcomes of those services.

In addition to this report, the products of the Community Wellness and Outcomes Project will include:

- Data library
- Data management plan, with suggested data visualizations
- Report of the Statewide Survey
- 10 data briefs
- 10 fact sheets

The **Outcomes Report** is designed to be the technical reference for the dashboard and will describe the methods and findings of the project. The primary audience for the report will be MHSOAC research and evaluation division, county administrators, mental health researchers, and others interested in the methodology and reasoning behind the dashboard indicator and data source selections.

The **Statewide Survey** provides results from participating counties on data collection methods and data sources already in use by California counties.

The **data library, management plan, and visualizations** of the recommended indicators and data sources will assist MHSOAC in creating, maintaining, and updating the dashboard.

The **data fact sheets and briefs** will inform the general public about these population-level outcomes associated with mental health challenges and unmet needs. These documents serve as the public-facing references for this project and will explain how we can monitor outcomes to assess program impact to preventing the seven negative outcomes of the MHSA.

## Report Objective

The objective of this report is to identify key metrics that measure the 7 negative outcomes listed in the Mental Health Services Act (MHSA) and evaluate data sources that could assess those metrics. make recommendations of key indicators and data sources. This report is informed by: data from a statewide survey of county administrators, focus groups and qualitative data of diverse stakeholders from across California, environmental scan of dashboards from California counties and nationally, and literature reviews of each outcome.

In each chapter, we briefly define each of these outcomes, and then we provide examples of how they have been measured in counties in California and states across the country, as well as at the federal level. In defining these outcomes, we also examine the measurement of risk factors for each of these outcomes. Each chapter concludes with recommendations for state- and county-level metrics to monitor each outcome connected to mental health need in the general population, with an emphasis on recommendations for publicly and freely available data sources and key data elements. This report covers data sources that have: 1) ongoing and reliable data collection, 2) recent data, and 3) estimates at the state-level and, in some cases, at the county-level or smaller geographic levels like city, census, congressional districts, etc. A synthesis of the top recommended data sources by outcome is then provided as a blueprint for a statewide standardized system of measurement of the seven MHSA key outcomes at the state and county level. Using these recommended data sources, trends in the key outcomes and disparities can be compared across counties to support the state and local leaders' ability to pinpoint areas of need, stimulate specific programs and services, and address disparities.

## INTRODUCTION

### Importance of a California Mental Health Surveillance System

Public health surveillance systems are a critical function of every community, from local regions to worldwide. Supported by technological advancements, public health systems collect vast amounts of data that are used to inform policy, identify risk factors and need for services, and improve health outcomes. Timely, accurate, and thorough surveillance can achieve:

1. Evidence-based policy
2. Program planning
3. Evaluation of programs
4. Oversight and accountability
5. Improved public health outcomes

Collecting and monitoring population-level data on outcomes of mental health are imperative to preventing mental health conditions and improving health and wellbeing for all Californians. The following sections discuss the state of mental health in California, describe populations who experience disparities in mental health conditions and services, and explain outcomes that could result from untreated or inappropriately treated mental illness. Developing a California mental health surveillance system that can provide county-level data and monitor these outcomes over time will provide a more complete and accurate understanding of mental health outcomes by county and state, offer important insights into best practices to detect mental health risk factors, reduce prevalence of the negative outcomes of mental illness, and alleviate pain and suffering caused by mental health problems conditions, ultimately improving well-being for all Californians.

### Mental Health in California

The World Health Organization (WHO) defines mental health as “a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community (WHO, 2004). Mental health disorders are among the most common health conditions experienced by Californians: nearly 1 in 6 California adults suffer from any mental illness (AMI), 1 in 24 have a serious mental illness (SMI) that limits one or more major life activities, and 1 in 13 children experience serious emotional disturbances (SEDs) that limit their participation in daily activities within their family, school, or community (California Health Care Foundation [CHCF], 2018). Yet there are a number of Californians who do not receive treatment for their conditions: one-third of adults with serious mental illness (SMI), two-thirds of adults with any mental illness, and two thirds of adolescents who experience a major depressive episode (MDE) do not



receive treatment (Substance Abuse and Mental Health Services Administration [SAMHSA], 2019; SAMHSA, 2018a).

## Disparities in Mental Health Need and Care

Additional funding, legislation, and insurance coverage have increased the number of mental health services and preventive programs available to Californians, and efforts from universities, community organizations, and local agencies have resulted in deeper understanding of mental health issues and reduction of mental illness stigma. For example, the expansion of Medi-Cal eligibility resulted in a 50% increase of individuals receiving specialty mental health treatment in California from 2012 to 2015 (California Department of Health Care Services [DHCS], 2016). However, an increase in health care coverage and access does not guarantee reduction of the disparities found in mental health outcomes. Recent literature and public health reporting show that varying outcomes among California communities can be explained by inequity of mental health service provision and access, stigma toward mental illness, and a lack of resources and personnel to provide appropriate treatment (Eberhart et al., 2019; Brown et al., 2015).

Below, we discuss populations that often experience disparities and list possible contributors to disparities. This is by no means a complete list; there are other communities who experience inequity and would benefit from strong data to identify service gaps and improve mental health outcomes.

### Groups Living in Poverty

Poverty cuts across many factors that drive mental health need, such as income inequality, unemployment, lack of health insurance, and educational under-attainment, which are all key drivers of disparities in mental health need and service provision (Burns, 2015; Burns, Tomita, & Kapadia, 2014; SAMHSA, 2019; Weich, Lewis, & Jenkins, 2001). In California, rates of SMI are highest among the poorest, affecting nearly 1 in 10 adults living below the federal poverty level (FPL) compared to 1 in 24 of the overall state population (Holzer & Nguyen, 2014; SAMHSA, 2019), and children living below the poverty level experience high rates of SED (CHCF, 2018). While the relationship between poverty and mental health need is well-established, it must be noted that poverty does not cause mental illness (Lund et al., 2010).

### Age Groups

Major depressive episodes (MDE) are a rising issue among youth aged 12-17; in 2017, 13.3% of youth in the US (3.2 million) had at least one MDE in the past year, but less than half (41.5%) of these youth received care for their depression (SAMHSA, 2018a). Youth groups vulnerable to unmet mental health need include sexual minority groups; current and former foster youth; Black (35.1%) and Latino (32.7%) youth, who have lower rates of receipt than the national average; and children who live in poverty (SAMHSA, 2018a; Hodgkinson, Godoy, Beers, & Lewin, 2017).

Among community dwelling older adults, 8-16% experience depressive symptoms and 3-14% meet diagnostic criteria for anxiety disorders; among institutionalized older adults, estimates are likely higher (Damron-Rodriguez & Carmel, 2014; Older Americans Behavioral Health Technical Assistance Center & SAMHSA, 2013). Although older adults have higher rates of utilization of health care services for preexisting chronic conditions, many go undiagnosed and undertreated for their mental health conditions due to a shortage of trained geriatric behavioral health providers, stigma around mental health and treatment, barriers to access such as transportation, and inadequate insurance coverage (Frank, Keitzman, & Palimaru, 2019; Solway, Estes, Goldberg, & Berry, 2010).

### Racial and Ethnic Minority Groups

In a state where over 200 different languages are spoken and the majority of residents live in communities of color (American Community Survey [ACS], 2018), it is more important than ever to collect and report data that can support culturally and linguistically appropriate mental health services in California. Rates of mental illness among African American, Latino, Native American, and multi-racial Californian adults are above the state average (CHCF, 2018), and Asian Pacific Islander and Latino adults have consistently lower mental health penetration rates and less access to specialty mental health services (California DHCS, 2017). Additionally, American Indian/Alaskan Native adults experience past-month serious psychological distress at twice the rate of White Americans and are more likely to experience a MDE than any other racial group in the nation (National Center for Health Statistics [NCHS], 2014, Table 55; NCHS, 2012, Table 59; US Department of Health and Human Services [US DHHS], 2014). Latino, African American, and Native American children experience higher rates of SED than White, Asian, multi-racial, and Pacific Islander children (CHCF, 2018).

### Sexual Orientation and Gender Identification Minority Groups

Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) individuals are 2.5 times more likely to experience depression, anxiety, and substance misuse in their lifetime and have higher rates of mental health service use compared with heterosexual individuals (Platt, Wolf, & Scheitle, 2018). LGBTQ individuals are at higher risk of other factors that are associated with mental health need, such as stigma, discrimination, and violence (Sutter & Perrin, 2016; Safer et al., 2016). Rates of violence are even higher for undocumented and racial and ethnic minority LGBTQ (National Coalition of Anti-Violence Programs, 2018). Victimization is a major contributor to high rates of depression and anxiety in LGBTQ adolescents and adolescents with high gender nonconformity (Russell & Fish, 2016; Martin-Storey, 2016; Meyer, 2003).

American Indian sexual minorities and two-spirit individuals experience disproportionate rates of mental health needs and substance use disorders (Frazer & Pruden, 2010; Yuan et al., 2014). Two-spirit is a contemporary, intertribal, and unifying term adopted

by some Native American, First Nations, and Aboriginal peoples to reflect their spiritual, sexual, cultural, gender, and community identities (Wilson, 1996; Jacobs, Thomas, & Lang, 1997; Walters, Evans-Campbell, Simoni, Ronquillo, & Bhuyan, 2006). Services geared toward LGBTQ communities might not serve the needs of Two-Spirit individuals, either due to a lack of knowledge or experience, or racism (Frazer & Pruden, 2010).

### Veterans

Veterans are at elevated risk of mental health need and suicidal ideation compared to the general national and California population (Lazar, 2014; Rozanov & Carli, 2012). Over three quarters of veterans in California do not receive minimally adequate treatment to address their needs (Tran, Grant, & Aydin, 2016).

### Rural Groups

Rural communities face unique obstacles in mental health care. Limited access to mental healthcare specialty resources, geographic isolation, shortage of mental health providers, and poverty have contributed to high rates of death by suicide (Ivey-Stephenson, Crosby, Jack, Haileyesus, & Kresno-Sedacca, 2017). In addition to a shortage of behavioral health professionals, rural populations also experience staff and administrative shortages which affects timely reporting, effective programming, and continuity of care (Frank et al., 2019; Kietzman et al., 2018).

### Persons with Intellectual Disabilities

People with intellectual disabilities have high rates of SMI and are more likely to encounter barriers to accessing mental health treatment, especially among nonwhite groups, rural inhabitants, and individuals without dual eligibility for Medicare (Balogh, Brownell, Ouellette-Kuntz, & Colantonio, 2010; Chaplin, 2011; Slayter, 2010).

### Foreign-Born Groups

Recent immigrants have been found to have better mental health outcomes than U.S. born individuals, described as the “immigrant paradox” since immigrants generally have fewer socioeconomic resources, which is usually associated with poorer mental health outcomes (Marks, Ejesi, & Garcia, 2014). However, length of time lived in the United States has been linked to higher risk for psychiatric disorders than U.S. born groups (Breslau et al., 2007; Borges, Orozco, Rafful, Miller, & Breslau, 2012), which may be due to increased exposure to discrimination, social exclusion, and acculturative stress (Singh, Schulz, Neighbors, & Griffith, 2017; Lai, Li, & Daoust, 2016; Kiang, Grzywacz, Marin, Arcury, & Quandt, 2010). First generation immigrants have lower rates of mental health care utilization than U.S. natives with varying rates within immigrant groups (Derr, 2015; Bauldry & Szaflarski, 2017; Alegria et al., 2007). Disparities among utilization rates can be attributed to socioeconomic factors – such as income, education, and health insurance – and cultural barriers, such as limited English language proficiency, stigma associated with mental illness, and a lack of cultural sensitivity

among mental health service providers (Abe-Kim, Takeuchi, Hung, & Alegria 2007; Sentell, Shumway, & Snowden, 2007).

## Refugees

Refugees and persons who are displaced from their home country experience higher risk for developing mental health problems due to exposure to war-related trauma and violence (Kirmayer et al., 2011; Steel, 2009). This exposure often co-occurs with traumatic loss, separation or bereavement, and exposure to community violence (Betancourt et al., 2012). Once resettled, mental health problems can stem from and be exacerbated by factors such as everyday discrimination, unemployment, lack of community support, and limited access to healthcare service (Kim, 2016). Compared to the immigrant and migrant populations in their country of resettlement, refugees are more likely to develop post-traumatic stress disorders (PTSD); compared to the general population, refugees are ten times more likely to develop PTSD (Fazel, Wheeler, & Danesh, 2005; Kirmayer et al., 2011; Lindert et al., 2009; Rasmussen et al., 2012). Barriers for accessing mental health services include: lack of knowledge about mental health and mental health services; stigma around mental health and symptoms; and fear of alienation from their new community and the loss of resources (Shannon, Wieling, Simmelink-McCleary, & Becher, 2015). If left untreated, mental health of refugee adults and children could worsen toward the 7 outcomes outlined in the MHSA: suicide, incarceration, homelessness, unemployment, prolonged suffering, removal of children from their homes, and school failure.

Monitoring mental health outcomes for these and other vulnerable groups over time could lead to improved prevention efforts and targeted services for individuals experiencing mental illness.

## Outcomes of Unmet Mental Health Need

When mental health issues go untreated or are inappropriately treated, there can be serious consequences for individuals and their families. Severe mental illness can impair a child or adult's ability to learn, work, and maintain relationships. The Mental Health Services Act (MHSA) states that untreated mental illness may result in seven negative outcomes:

- 1) Suicide
- 2) Incarcerations
- 3) School failure
- 4) Unemployment
- 5) Prolonged suffering
- 6) Homelessness
- 7) Removal of children from their homes

We briefly review each outcome below and go into additional detail in the subsequent chapters of this report.

## Suicide

In 2016, suicide was the 10th leading cause of death in the United States (Kochanek, Murphy, Xu, & Arias, 2017). Rates of suicide continue to rise: from 2000 through 2016, the age-adjusted suicide rate increased 30%, from 10.4 per 100,000 standard population to 13.5 (Curtin & Hedegaard, 2019). The rate increased on average by about 1% per year from 2000 through 2006 and by 2% per year from 2006 through 2016 (Hedegaard, Curtin, & Warner, 2018). Groups that are at disproportionate risk for dying by suicide include veterans, Whites, Native Americans, rural residents, LGBTQ youth and adults, and criminal justice-involved populations.

## Incarceration

Adults with mental health issues are over-represented in the criminal justice system: almost two-thirds (64%) of individuals in the criminal justice system have symptoms of a mental health conditions. Indicators and risk factors for incarceration due to untreated mental health need in adults includes: homelessness, sex work, school dropout, and poor access to health care services. Risk factors for incarceration in youth include: low academic achievement, history of trauma and abuse, parental incarceration, and foster care (King & Sider, 2018; Kondrat, Linhorst, Dirks-linhorst, & Horning, 2018; Pyle, Flower, Fall, & Williams, 2016; Stokes, Mccoy, Abram, Byck, & Teplin, 2015; Wylie & Rufino, 2018). Racial and ethnic minorities, sexual and gender minorities, individuals who have exited the criminal justice, veterans, foster youth, and crossover youth are more likely to experience greater involvement with the criminal justice system for a variety of social and economic factors, such as poverty (Marrast, Himmelstein, Woolhandler, 2016; Wilson et al., 2017; Pager, Wester, & Sugie, 2009; Eriksson, 2018).

## School Failure

School failure encompasses a broad range of indicators, from missed school days, chronic absenteeism, and dropout from school, as well as poor social and academic performance while in school (Doll, Spies, & Champion, 2012). School failure is associated with an array of consequences that play out across different stages of the life course and on multiple levels: individual, institutional, and population level (Henry, Knight, & Thornberry, 2012). Institutionalized and structural racism disproportionately impacts certain groups of students and their families (Blaisdell, 2016). As such, higher rates of school failure are seen among students who are male, Black or Latino, identify as a sexual minority, experience homelessness, or are from low socioeconomic status (SES) backgrounds (Jozefowicz-Simbeni, 2008; Lamb, Markussen, Teese, Polesel, & Sandberg, 2011; Richman, Bowen, & Woolley., 2004).

Youth experiencing social-emotional or mental health conditions are at increased risk for school failure as are those with educational disabilities (Freeman & Simonsen, 2015; Jozefowicz-Simbeni, 2008). Family, school, and community factors can also contribute to students' experiences with school failure. Youth in single-parent families and step-families are at higher risk for school failure (Bradshaw, O'Brennan, & McNeely, 2008; Lamb et al., 2011; Needham, Crosnoe, & Muller, 2004). Individuals who have experienced school failure are more likely to report physical and mental health issues (Christle, Jolivette, & Nelson, 2007; Rumberger, 2011).

## Unemployment

Untreated or inadequately treated mental health issues can impact an individual's ability to find and hold down a job and can lead to chronic or periodic cycles of unemployment or under-employment (Landsbergis, Grzywacs, & LaMontagne, 2014). For those already working, work stress can lead to unemployment. Approximately one-third of workers in the United States report high levels of stress, putting them at high risk for psychological disorders, maladaptive behaviors, and cognitive behaviors which may cause them to miss more days at work, experience burnout, or perform poorly at work (Friedland & Price, 2003). According to Hendriks, having a history of or having current anxiety and/or depressive disorders was associated with increasing work disability and absenteeism compared to those without a history of these disorders (2015). Individuals who are employed but cannot afford their most basic needs represent a hidden at-risk segment of the employed population, often composed of workers in lower socioeconomic positions, racial and ethnic minorities, and immigrants (Landsbergis et al., 2014). The stress and frustration of economic insecurity, puts such individuals at higher risk for unemployment and need for mental health services (Dooley, Prause, & Ham-Rowbottom, 2000; Friedland & Price, 2003).

## Prolonged Suffering

Prolonged suffering occurs as the result of untreated mental health need and when solutions that can reduce suffering are lacking. Even when care is available, awareness of resources and the means to access them can prevent vulnerable groups from achieving sufficient and timely treatment (Villatoro, Mays, Ponce, & Aneshensel, 2018). Mental illness-related stigma, which also exists in the healthcare system and among healthcare providers, has been identified as a major barrier to access treatment and recovery, as well as poorer quality physical care for persons with mental illnesses (Anderson, Howarth, Vainre, Jones, & Humphrey, 2017). Racial and ethnic minorities, immigrants and refugees, LGBTQ individuals, individuals diagnosed with Autism (ASD), Limited English Proficiency and non-fluent individuals (including d/Deaf and hard of hearing), and individuals with intellectual disabilities (ID) receive less adequate mental health treatment in a less timely manner compared to other populations and are less

likely to seek out treatment (Aguilar-Gaxiola et al., 2012; Añez, Paris, Bedregal, Davidson, & Grilo, 2005; Kataoka, Zhang, & Wells, 2002).

## Homelessness

Homelessness in adults is a byproduct of inequities in mental health services, education, criminal justice, housing, health care, and employment (Los Angeles Homeless Services Authority, 2018).

In California, African Americans and Native American populations are disproportionately affected by homelessness: the number of African Americans and American Indian/Alaskan Native individuals experiencing homelessness is more than four times that of the state proportion (ACS, 2018; US HUD, 2019). Other groups at risk include veterans, whose time in the military may have resulted in disability, trauma, or mental health and substance use disorders. A study of homeless veterans found that two thirds had a mental health comorbidity and over 80% met criteria for substance abuse and dependence (O'Toole, Conde-Martle, Gibbon, Hanusa, & Fine, 2003).

Youth are also a vulnerable population. Youth who experience homelessness tend to have poorer academic, mental, and physical health outcomes than their peers (Edidin, Ganim, Hunter, & Karnik, 2012). Within youth groups, LGB individuals are at elevated risk for homelessness (Cutuli et al., 2019). A study utilizing data from the Youth Risk Behavior Survey conducted in eight states found that nearly 7% of teenagers who identify as LGB experience homelessness (Cutuli, Treglia, & Herbers, 2019).

## Removal from Home

When there are safety concerns for the child that cannot be addressed by implementing a safety plan and there is significant risk of child maltreatment, the child is removed from the home and placed in out-of-home or substitute care. Foster care can range from placement with a relative (sometimes also known as kinship care), to placement with a foster family, to placement in a group setting or in residential treatment (Pellegrin & Wagner, 1990). In 2017, 7 children per 1000 were reported to be victims of neglect, 2 for physical abuse, 1 for sexual abuse, and 1 for psychological or emotional abuse (US DHHS, 2002-2019).

The need for a comprehensive surveillance system is more urgent than ever: as more and more Californians experience mental health need, a comprehensive surveillance system would improve state and local leaders' ability to pinpoint areas of need, stimulate programs and services, and address disparities to prevent these 7 negative outcomes that can result from untreated or inappropriately treated mental illness. This report represents the first step toward building such a surveillance system and utilizes findings from an environmental scan of current surveillance efforts and data sources, a statewide survey of county administrators, literature reviews of each outcome, and

focus groups and key informant interviews of stakeholders across the state in order to identify and recommend metrics that could assess the 7 negative outcomes.

In the following chapters, we define each of these outcomes as they relate to mental health, explore their risk factors, and describe ways they have been measured in county-, state-, and federal-level data sources. Each chapter concludes with recommendations for state- and county-level metrics, including recommendations for publicly available data sources and key data elements to be used in a statewide, county-level dashboard that would increase knowledge and programming around local mental health outcomes.

## Project Methodology

### Literature Review Methodology

#### Purpose

A comprehensive search of scientific peer-reviewed literature was conducted for each of the seven negative outcomes to identify data sources and tools that measured the outcome or relevant factors related to the outcome. Search criteria include accessibility through the UCLA library, US-based study, and published within the past 5 years (2014-2019 for Suicide, Unemployment, and Removal from Home chapters; 2015-2020 for Homelessness, School Failure, Prolonged Suffering, and Incarceration). The searches were conducted in PubMed, Web of Science, and Google Scholar.

#### Abstraction of Articles

Each paper title and abstract are reviewed to determine whether:

- The study included a data source relating to the outcome.
  - *Data sources* include online databases and surveys containing population level data.
- The study was conducted in the United States.
- The study focus was not an intervention or randomized clinical trial, indicating that the study utilized a sample, and not a population.

#### Identification of Data Sources

In order to identify data sources that could be used to monitor county-level outcomes, the following baseline criteria were established:

- 1) Includes a measure of the outcome at the population level
- 2) Ongoing survey with at least three recent data collection events, and
- 3) Publicly available data or data that had been analyzed in a reviewed study.



## Event Observations Methodology

### Purpose

The aim of these observations was to gain insight into the diversity of county-level practices across the state of California, including: evaluation of program performance; engagement of stakeholders in mental health program decision-making; and discussion of salient concerns and issues.

This was an exploratory study designed to elicit insights into different issues faced by different counties in order to better contextualize the data received from the other sources. Our goal was to sample a diverse range of counties and events in order to provide a breadth of observations that would inform other parts of the project.

### Event and County Selection

Information about events was obtained from a variety of sources including: examination of county websites and online calendars; subscribing to relevant mailing lists; web searches; and word-of-mouth recommendations.

**County diversity** was reflected in:

- Population (from 200k to 10m, including both rural and urban areas)
- Geography (northern, central, and southern California)
- Racial and ethnic diversity (demographics ranged from 27-66% White, 24-57% Hispanic, and included two diverse counties that ranked in the top 20% for African Americans and/or Asian Americans).

**Event diversity** included:

- Both monthly board/commission meetings and yearly or one-time public engagement events.
- One event with a narrow focus (student mental health) while the others covered a broad range of mental health concerns.
- Both detailed in-person observations of individual events and analyses of activities over an entire year (via published online minutes).

### Data Collection

- **In-Person Attendance:** Four events were observed in person. Two research assistants (initials of Marti and Tran) attended together and independently took detailed notes which were compared afterwards for accuracy.
- **Analysis of Meeting Minutes:** We selected 2 county commissions that had detailed meeting minutes available online. A year's worth of minutes for each county were downloaded and analyzed in order to observe the breadth of activities the commissions were involved in and to follow their progress over time.
- **Additional Data Collection:** Meeting notes and observations were supplemented by internet searches for background on participants, projects or published reports mentioned during the meetings.

## Qualitative Data Analysis

All materials were coded for topic (the 7 targeted negative outcomes as well as more general discussion of mental health and community wellness) and type of discussion (conceptualization of topic, presentation of an ongoing program, or presentation of outcome metrics). Materials were also inductively coded according to themes that were of particular salience in each event.

When analyzing the meeting minutes, we also monitored themes or projects that were referenced across multiple sessions in order to examine development over time.

Each event was analyzed individually, and a holistic analysis was conducted across all the data. Two reports were compiled: Report 1 covers Los Angeles, Riverside and Santa Barbara; Report 2 covers Merced, Mendocino and Yolo.

## Environmental Scan Methodology

### Purpose

The purpose of the environmental scan is to conduct a comprehensive search online for any global, national, state, county or local efforts on measuring and monitoring data related to the 7 MHSA outcomes, including how data indicators are being measured, where data is being collected, where data may be displayed or accessed, and where data are being shared, such as in public-facing reports or presentations.

### Defining Data Collection Systems

There are multiple types of data collection systems, from raw data collection to collecting data from multiple sources. For the purposes of this study, the following data collection systems types and definitions are used.

- Data Source – entity that collects the raw data and may or may not have public use files to download (e.g. Vital Statistics, CHIS, CHKS, etc.)
- Data Resource – entity that uses raw data from one or more data sources and provides the raw data in a downloadable user-friendly format (e.g. EpiCenter, etc.)
- Data Dashboard – a visual display of raw data from one or more data sources. A dashboard may or may not provide a way to download the data (e.g. kidsdata.org, county dashboards, etc.)
- Data Reports – reports that use and analyze raw data from one or more data sources and provide results in a document or pdf (e.g. county assessment reports, etc.).

### Data Collection

Google searches were used to identify any of the following:

- Outcome surveillance systems
- Efforts to create a surveillance system
- Efforts to collect and use data to inform public health initiatives
- Outcome data used and displayed in data resources, reports or dashboards
- Outcome data sources

Data collection included the measures for the outcome indicators, their data source and URL, if applicable for future downloading. For data resources, dashboards and reports, information about whether or not indicators could be examined by socioeconomic factors and vulnerable populations was also collected, and their respective URLs.

### Geographic Representation

The environmental scan was geographically comprehensive and included google searches in each of the following geographic levels.

- Global and International

- U.S. National and State
- California Statewide

## Data Analysis

All materials were analyzed to ascertain the following:

- Any similarities or differences in outcome measures and data sources.
- The number of data sources used across different data collection systems and any similarities or differences in data sources or outcome measures.
- Capacity to analyze data source on outcome indicator by key socioeconomic demographics.
- Capacity to analyzed data source on outcome indicator by vulnerable populations.

## Focus Group and Phone Interview Methodology

### Purpose

The purpose of the focus groups and interviews is to meet with individuals with different types of experiences with mental health care to learn how they understand, measure, and make decisions regarding community wellness. While discussions focused on the 7 outcomes listed in the MHSA, we also sought feedback about other key underlying factors that participants considered important; some topics that emerged were systemic racism, social isolation, and lack of long-term follow-up care for clients. This research received IRB approval from the UCLA Office of Research Administration (IRB#19-000632).

### Focus Group Structure

- The facilitator writes the 7 outcomes on a whiteboard before the focus group begins.
- The facilitator introduces herself and provides a brief explanation of the project, followed by inviting participants to introduce themselves.
- The facilitator begins discussion.

### Focus group discussion prompts for each outcome

- How would you tell whether [outcome] is getting better/worse in your community?
- How does that information affect your own actions in your work or personal life?
- We've noticed that different people have different definitions of prolonged suffering. How would you define it and how would you measure whether it's improving or worsening in your community?
- To understand community wellness, what other issues apart from these 7 outcomes need to be measured and monitored?
- What other information do you want us to bring back for this project?

## Interview Structure

- Interviews were conducted over the phone and audio recorded.
- Interviews were semi-structured and person-centered (Bernard 2002; Hollan 2005). Interviewer used a notes sheet listing which of the 7 outcomes participants had checked off in their screening questionnaire in order to make sure that all topics were discussed.
- Depending on the interviewee's profession and location, other prompted topics might include:
  - experiences with aggregate data sets for their community
  - significant barriers to care for the individuals they served
  - disparities in care (e.g. by ethnicity, sexual orientation or gender identity)
  - issues or barriers specific to their community (especially for interviewees working in rural areas)

## Participant Recruitment

The project was advertised through mailing lists and word of mouth. Individuals were screened for recent suicidality and were selected to ensure a diversity of different experiences and perspectives.

The screening criteria for the qualitative data activities were:

1. At least 18 years of age
2. All participants had experience with one or more of the seven MHSA-targeted outcomes, either:
  - Professional (including mental health care, housing or employment assistance, etc.) OR
  - Impacted community member (including teacher, pastor, etc.) OR
  - Personal (self or family member). This option is only included for participants in focus groups.

Focus groups included a mix of all three types of experiences. To ensure the safety of research participants and prevent emotional triggering, the phone interviews were only conducted with professionals and impacted community members. received a gift card as a thank you for their time.

## Data Analysis

Focus groups and interviews were audio recorded. During focus group discussions, a member of the research team (Tran) also took live notes. All notes and transcripts were coded according to topic (the 7 targeted outcomes and additional codes based on key topics that emerged during the discussion). Conversational extracts were collected and inductively categorized into collections based on emerging theme or subtopic, for example "prolonged suffering: barriers to accessing services" or "removal from home: adult outcomes." (See Ryan & Bernard 2003 for more on qualitative thematic coding.) Participant discussion about interconnection between multiple outcomes were also

coded (e.g. school failure due to family homelessness). Themes are included in the outcome chapters under the recommendations sections, in order to provide community voice to definitions of these outcomes.

# Chapter 1: Suicide

According to the Centers for Disease Control and Prevention (CDC), **“Suicide is a serious public health problem that can have lasting harmful effects on individuals, families, and communities”** (CDC, 2019b).

The goal of this chapter is to provide a brief overview of the importance of measuring suicide for population health surveillance. We briefly define suicide and then provide ways that suicide has been measured in counties and states, as well as at the federal and international levels. The chapter concludes with recommendations for state- and county-level surveillance of suicide in the general population, including recommendations for publicly available data sources and key data elements. This chapter presents the preliminary findings of a mixed methods study of suicide measurement in California. Data consist of a literature review, observations of mental wellness events in six California counties, a survey of county administrators, and an environmental scan of surveillance of suicide at the global, national, state, and local levels.

## Defining Suicide and Suicidal Behaviors

Suicidality exists on a continuum of outcomes based on the severity of suicidal thoughts and actions, intent to die, and the types of ideation experienced. Many definitions of suicidality exist (see *Striving for Zero: California’s Strategic Plan for Suicide Prevention 2020-2025*, MHSOAC, 2019), which adds to the complexity of monitoring suicidality. In this report, we focus on the following suicide-related thoughts and behaviors as they were the ones most commonly identified by our literature review, environmental scan, and observations:

1. **Behaviors:** to be consistent with other work by the MHSOAC (MHSOAC, 2019), we will use the CDC’s uniform definitions (see Crosby, Ortega, & Melanson, 2011:21-23):
  - **Suicide** “is defined as death caused by self-directed injurious behavior with any intent to die as a result of the behavior.”
  - **Suicide attempt:** “a non-fatal, self-directed, potentially injurious behavior with intent to die as a result of the behavior. A suicide attempt may or may not result in injury.”
2. **Suicidal ideation** refers to any thoughts or plans focused on suicide:

- **Active suicide ideation** describes thoughts about taking action to end one's life, including identifying a method, having a plan, or having intent to act. (Turecki & Brent, 2016)
- **Passive suicide ideation** describes thoughts about death or wanting to be dead without any plan or intent. (Turecki & Brent, 2016)

## What Do We Know About Suicide and Suicidal Behavior?

Suicide is one of the most devastating, yet preventable, negative outcomes that can result from serious mental health needs. More than 47,000 people in the United States died by suicide in 2017 (CDC), and in 2015, 46% of those who died by suicide in the United States had a known mental health condition (CDC, 2018). Although research strongly suggests that serious mental health needs, especially when untreated or inappropriately treated, is a significant risk factor for suicidal behaviors (Trout, Hernandez, Kleiman, & Liu, 2017; Blanco et al., 2008; Chesney, Goodwin, & Fazel, 2014), access to mental health care is remarkably low for those experiencing mental health conditions. For example, only 41% of adults in the United States who have any mental health issues and 63% of those with severe mental health needs receive care, according to a 2017 Substance Abuse and Mental Health Services Administration survey (SAMHSA, 2018a). A systematic review of deaths by suicide in Europe, Australia, and the United States revealed that approximately 19% of individuals had mental health care contact in the month before their death and that lifetime rates of contact with mental health services averaged 53% for those who ultimately died by suicide (Luoma, Martin, & Pearson, 2002).

As the tenth leading cause of death in the United States and second leading cause of death in those aged 10 to 34 years old, suicide is a major public health issue affecting every age, racial, and socioeconomic demographic population. From 1999 to 2017, the national suicide rate grew by 33%, increasing from 10.5 to 14.0 per 100,000 (Hedegaard, Curtin, & Warner, 2018). While the California suicide rate is lower than the current national rate at 10.9 per 100,000 (CDC & National Center for Health Statistics [NCHS], 2019), certain populations are more significantly impacted. The following section describes the prevalence of suicidality in populations that experience higher rates of suicidality than national or state averages.

## Risk Factors & Indicators for Suicide and Suicidal Behavior

Findings from the literature review, county observation events, and focus groups indicate that key measures related to suicide are: completed suicides, suicide attempt, and suicidal ideation. Several vulnerable populations that are known to have elevated risk for suicide and suicidal behaviors include:

- **Veterans** - In 2016, the Veteran suicide rate was 30.1 per 100,000, which is 1.5 times greater than non-Veteran adults after adjusting for age and gender.



Veteran suicide rates are continuing to rise alarmingly, with rates for female veterans increasing twice as fast as that of males (62.4% versus 29.7%) (Department of Veterans Affairs, 2017, 2018).

- **Rural populations** - The disparity between suicide rates in rural versus urban California counties (20.1 versus 11.1 per 100,000 in 2017) has grown since 1999 (Hedegaard et al., 2018).
- **Males** - In the United States, male suicide mortality rates are disproportionately greater than female rates (22.38 and 6.12 per 100,000). However, females have a greater rate of suicide attempts across all age groups (SAMHSA 2018b).
- **Native and White populations** - In 2016, non-Hispanic American Indians/Alaskan Natives and non-Hispanic Whites had the highest suicide rates of any racial or ethnic groups in California (20.1 per 100,000 for AI/AN and 18.4 for Whites), over double that of African Americans (7.0), Asian Pacific Islanders (6.7), Hispanic Whites (5.8), and Hispanic American Indians/Alaska Natives (1.8). (CDC & NCHS, 2019).
- **Lesbian, gay, bisexual, transgender and queer (LGBTQ) and Two-Spirit<sup>1</sup> individuals** - There are very little data on population-level rates of suicide mortality among Two-Spirit and LGBTQ populations, in part because much of the general mortality research uses death records, which do not always indicate sexual orientation and gender identification . Suicide rates among Two-Spirit and LGBT First Nations people are not known, but rates of risk factors indicate that they are more vulnerable to suicide risk than heterosexual First Nation people (Suicide Prevention Resource Center [SPRC], 2012). Gay and bisexual men are three to six times more likely to have at least one lifetime suicide attempt compared to heterosexual men, while lesbian and bisexual women are twice as likely as heterosexual women (Haas et al., 2011). In 2016, 42.8% of lesbian, gay, or bisexual students and 31.9% of “not sure” students had considered suicide in the previous year, compared to 14.8% of heterosexual students (CDC, 2016). These data demonstrate a marked disparity for Two-Spirit and LGBTQ populations.

**Transgender youth and adults are particularly vulnerable.** Compared to cisgender adults, transgender adults are more than 3 times as likely (34% versus 10%) to have ever considered suicide and nearly six times as likely (22% versus

<sup>1</sup> Traditionally, Native American Two Spirit people are male, female, and sometimes intersexed individuals who combine activities of both men and women with traits unique to their status as Two Spirited. There are important variations of Two Spirit roles across North America. Although Two Spirit is included in the umbrella of LGBTQ, it is important to note that the term does not simply mean someone who is Native American and LGBTQ (Indian Health Service, accessed 2020)

4%) to have ever attempted suicide (Herman, Wilson & Becker, 2017). A quarter to a half of transgender and non-binary adolescents said they had attempted suicide at least once, with the highest rate (50.8%) being female to male adolescents (Toomey, Syvertsen, & Shramko, 2018). Discrimination is a major contributing factor: in one study, 60% of respondents who were refused medical care due to anti-transgender bias reported a lifetime suicide attempt (Haas, Rodgers, & Herman, 2014).

- **Criminal justice-involved populations** – Rates of inmate and jail suicides are significantly higher than national averages (National Institute of Corrections [NIC], 2019), with jails experiencing far higher rates than prisons (46 versus 15 per 100,000 in 2013) (Noonan, Rohloff, & Ginder, 2015). In the juvenile justice system, greater justice involvement was found to be associated with increased suicidal ideation and behavior (Stokes et al., 2015).
- **Individuals with medical illnesses** – Rates of suicide ideation and attempted suicide are higher among persons with medical conditions than persons without self-reported conditions. The elderly, who experience more medical conditions than other ages, are especially at risk for suicide (Juurlink, Hermann, Szalai, Kopp, & Redelmeier, 2004). Among all age groups, the number of medical conditions experienced is directly correlated with increasing suicidal behavior (Druss & Pincus, 2000; Stickley et al., 2019).
- **Individuals with substance use disorders** – In the United States, a high proportion of suicides were related to substance use disorders (Schneider, 2009). Depression and alcoholism have strong links to suicide (Cho, Na, Cho, Im, & Kang, 2016).

## Data Sources for Suicide Outcomes

Please see Table 1 for more detailed data source characteristics.

### National Data Sources on Suicide

#### CDC National Center for Health Statistics Compressed Mortality File (NCHS Compressed Mortality File)

The CMF contains a county-level national mortality database with a record for each death of a United States resident which can be compared to overall population estimates from the US Census. Counts and rates of death can be examined by age, race, sex, and year.

**Data Access:** All years of the CMF (1968-2016) are accessible through CDC WONDER, an online interactive query database. <https://wonder.cdc.gov/mortSQL.html>

**Geographic Level:** National, Census regions and divisions, state, and county

**Frequency:** Annual

**Variables:**

- Rates of death by suicide
- Counts of death by suicide

**Strengths & Limitations:** CDC WONDER suppresses any counts fewer than 10 for confidentiality reasons, which affects users' ability to estimate accurate rates for rural and minority populations (Quick, 2019).

### CDC National Violent Death Reporting System (NVDRS)

The NVDRS is a state-based surveillance system that is currently implemented in 40 states including California, as well as the District of Columbia and Puerto Rico (Stone et al., 2017). It aims to cover all 50 states in 2019 (CDC, 2019a). The NVDRS combines data from death certificates, law enforcement reports, and coroner or medical reports to provide detailed information about the circumstances of violent deaths, including homicides and suicides, for all age groups. For more information on NVDRS:

<https://www.cdc.gov/violenceprevention/datasources/nvdrs/faqs.html>

**Data Access:** Descriptive data can be accessed using CDC Web-based Injury Statistics Query and Reporting Systems ([WISQARS](#)) for free. Researchers who meet specific criteria can access restricted data through the Restricted Access Database ([RAD](#)).

**Geographic Level:** National and state

**Frequency:** Annual

**Variables:**

- Circumstances of violent deaths, such as suicide/undetermined intent
- Mechanisms leading to fatal injury

**Strengths & Limitations:** NVDRS provides timely, accurate, and comprehensive data on mortality, and collects data from a multitude of sources. The use of NVDRS data has aided the creation of prevention programs for numerous vulnerable populations. However, NVDRS lacks standardized data on mental health and substance use history, which could influence surveillance statistics. (Kaplan et al., 2017).

### National Data Sources on Suicide Behaviors

#### National Survey on Drug Use and Health (NSDUH)

Each year, NSDUH interviews 70,000 participants age 12 and older, providing real-time information on mental health, substance use, and other health-related issues in the United States. State and county data are reported using small area estimation (SAE) methodology in which state-level NSDUH data are combined with county and

subcounty-level census data; sub-state estimates are calculated by combining county and census block group/tract-level data from the state.

**Data Access:** NSDUH data can be accessed through the Public-Use Data Analysis System (PDAS) on the SAMHSA website.

**Geographic Level:** State, county, census block group/tract-level

**Frequency:** Annual. Data are available every year up to 2018.

**Variables:**

- Past year suicidal ideation
- Past year suicide plans
- Past year suicide attempts

**Strengths & Limitations:**

NSDUH does not survey individuals who are living in jails, emergency shelters, long-term hospitals, or who are in the military. These populations may experience significantly different outcomes related to prolonged suffering compared to the general population. Strengths of NSDUH include its large sample size and wide range of domains that allow users to compare across groups.

### Youth Risk Behavior Surveillance System (YRBSS)

YRBSS monitors behaviors that contribute to unintentional injuries and violence, alcohol, and other drug use, and tobacco use. The YRBSS includes the Youth Risk Behavior Survey (YRBS), a national school-based survey conducted by state, territorial, and local education, and health agencies and tribal governments. The national survey conducted by the CDC contain data representative of 9<sup>th</sup> through 12 grade students in public and private schools. YRBS surveys conducted by state, territorial, tribal government, and local surveys provide data representative of mostly public high school students in each jurisdiction.

**Data Access:**

- The availability of YRBSS data depends on YRBS participation, data quality, and data sharing policies. For instance, statewide data are not released if there are low response rates. For the 2017 High School YRBS, the State of California has weighted state results. The **large urban school districts** in California who participated in the 2017 High School YRBS are: Oakland, San Francisco, Los Angeles, and San Diego. Only San Francisco and Los Angeles participated in the 2017 Middle School YRBS. In past years, San Bernardino participated in the High School YRBS, but stopped after 2013. See more survey participation [here](#).
- The combined YRBS dataset, which includes national, state, and large urban school district data, can be downloaded via ASCII, SAS, and SPSS. This dataset

does not have state identifiers; users must submit a request. See all combined and national datasets here: <https://www.cdc.gov/healthyyouth/data/yrbs/data.htm>

- In order to get state, large urban school district, territory, or tribal government YRBSS data, users must complete the YRBSS Data Request Form. If the jurisdiction has not given CDC distribution permission, users must contact the jurisdiction directly to discuss the data request.
- [Youth Online](#) is a tool that allows analysis of national, state, and local YRBSS data from high school and middle school surveys conducted from 1991 to 2017. YRBSS data can be filtered and sorted by race and ethnicity, sex, academic grade, and sexual orientation. School failure-related data for the general population or those with mental illness are not displayed in this tool.

**Geographic level:** National, State, and specifically funded large urban school districts or counties.

**Frequency:** Biennial. Most recent data are available from 2013, 2015, and 2017.

**Variables:**

- Sadness and hopeless (recent)
- Past year suicide ideation
- Past year suicide plan
- Past year suicide attempt

**Strengths & Limitations:** The YRBSS includes multiple risk behaviors of youth. These data can compare California results to other states across the country. This dataset also has several indicators of risk for suicide. However, the YRBSS is only available at the state level, and is not available for each county.

## California Data Sources on Suicide

The following California data sources on suicide are maintained by the California Department of Public Health ([CDPH](#)), the state's public health agency. Its Office of Health Equity (OHE) includes the Health Research and Statistics Unit ([HRSU](#)), which collects and disseminates information regarding health and mental health disparities and inequities in California. CDPH-Vital Records ([CDPH-VR](#)) maintains death certificates for California; records can be requested online.

### [EpiCenter](#) – California Injury Data Online

The EpiCenter provides data from several injury-related searchable databases for California, including the CalEVDRS (described below) and substance-use related injury data, and includes data from death certificates, hospitalizations and emergency department admissions. Population-level data are available by county, year, gender,

age, and race and ethnicity. Injury data are available by cause and age, top five causes of injuries, and injury trends, including self-inflicted injury and suicide attempts.

**Data Access:** Data can be downloaded by Excel or PDF.

**Geographic Level:** State, county

**Frequency:** Annual. Most recent data are from 2015.

**Variables:**

- Death by suicide
- Non-fatal hospitalization by self-inflicted injury
- Non-fatal emergency department visit by self-inflicted injury

**Strengths & Limitations:** The EpiCenter is easy to use and allows users to create custom data tables for desired variables. The limited number of variables does not include any mental health indicators that could place self-inflicted injuries in context, but the EpiCenter is a good starting point for describing or comparing data across counties.

### California Electronic Violent Death Reporting System ([CalEVDRS](#))

The California Electronic Violent Death Reporting System (CalEVDRS) is modeled after the CDC's NVDRS. CalEVDRS links data from the CA Department of Justice homicide reports, vital statistics death files, and coroner reports to provide detailed information on violent deaths, including death type (homicide, suicide, undetermined intent, legal intervention, or unintentional firearm death). Currently, data from 2005 to 2009 are available for 14 counties. CalEVDRS also monitors method of suicide, which includes hanging/suffocation, sharp instrument, firearms, poison, and fall/jump.

**Data Access:** Data from CalEVDRS are available on [EpiCenter, California Injury Data Online](#). Data are only available from 2005 to 2009. Although data were not collected after 2009, utilization of this data source is a planned objective outlined in California's Strategic Plan for Suicide Prevention 2020-2025 (MHSAAC, 2019).

**Geographic Level:** State, county

**Frequency:** Currently, data are not being reported.

**Variables:**

- Death by suicide
  - Single victim incidents
  - Multiple victim incidents
  - Homicide/suicide
- Death by undetermined intent

**Strengths & Limitations:** Data can be described by sex, age groups, marital status, veteran status, and race and ethnicity. However, CalEVDRS is currently not collecting or reporting data, and not all counties participated during the last period of data collection (2005-2009). MHSOAC has recommended the State of California and the Department of Public Health expand CalEVDRS to collect and analyze local and state suicide data by December 31, 2021 (MHSOAC, 2019).

### California Pregnancy-Associated Mortality Review (CA-PAMR)

The CA-PAMR aims to reduce preventable pregnancy-related deaths and associated health disparities. It comprises a comprehensive statewide maternal mortality examination that identifies deaths during pregnancy or within one year of the end of pregnancy and describes the causes, contributing factors, and opportunities to improve maternity care and support. The most recent [CA-PAMR report](#) is based on data from linked administrative data sets from 2002 to 2012.

**Data Access:** Data can be accessed through CA-PAMR reports via PDF.

**Geographic Level:** State

**Frequency:** Data are available from 2002 to 2012. A subsequent phase of CA-PAMR is underway to surveil causes and trends in pregnancy-associated mortality.

**Variables:**

- Numbers of pregnancy-associated suicide

**Strengths & Limitations:** CA-PAMR measures a highly vulnerable population. Data are not easily accessible and may not be reported regularly.

## California Data Sources on Suicide Behaviors

### California Health Interview Survey (CHIS)

CHIS is the nation's largest state health survey, asking questions on a wide range of health topics. More than 20,000 adults, teenagers, and children are interviewed via random-dial telephone surveys each year in all 58 counties. In addition to immigration health, health insurance coverage, and physical and mental health, CHIS covers mental health status; perceived need, access, and utilization of mental health services; functional impairment; stigma; and *suicide ideation and attempts*. Data and visualizations can be accessed free of charge through AskCHIS and AskCHIS Neighborhood Edition (AskCHIS-NE) by state, county, or service planning area (SPA). Public use data, confidential data, and technical assistance are also available. Confidential CHIS data files contain information on detailed geographic identifiers for

survey respondents, sexual behaviors, mental health treatment, and other highly sensitive information.

CHIS data can be analyzed at the county level for California's 41 most populated counties. The remaining 17 counties are organized into three different groups. CHIS samples from children (0-11 years), adolescents (12-17 years), and adults (18 years and older)

### **Data Access:**

#### *CHIS Publicly Available Data*

There are many ways to publicly access CHIS data:

- **Route 1: Public Use Data Files (PUF)** allow researchers to customize and run their own statistical code. The files are available in a variety of formats, including SAS, SPSS, and STATA.
- **Route 2: AskCHIS** is a free, web-based data query system that allows users to search for data at the county, region, and state level.
- **Route 3: AskCHIS Neighborhood Edition (AskCHIS NE)** allows users to search for top health topics at granular levels of geography (zip code, city, county, and legislative district), and produce data visualizations.
- **Route 4: AskCHIS NE Application Programming Interface (API)** gives web developers, programmers, and data analysts programmatic access to estimates essential for data portals, visualizations, and clinical applications. These data can be merged with outside data for a more layered research and analysis.

#### *CHIS Data by Request*

There are also a number of ways to access confidential CHIS data by request:

- **Route 5: The Data Access Center Project (DAC)** allows researchers to analyze confidential CHIS data, data sensitive variables and/or geo-coded data. DAC requires a research application, renewal, and approval. The minimum cost is \$1000. More info on rates can be found [here](#).
- **Route 6: Data Estimate Request (DER)** is available for government agencies, the media, and nonprofit organizations interested in specific health issues. The request must be estimate driven and cannot be used for the purposes of research.
- **Route 7: The Special Use Research File (SURF)** contains non-publicly available CHIS variables that can merge with CHIS PUF depending on the confidentiality and sensitivity of the variables requested.
- **Route 8: Local health department (LHD) files** contain data at the county level for the CHIS sample in a specific county and can be requested by local health departments.

**Geographic level:** State, County

**Frequency:** Annual.



**Variables:**

- Past year suicide ideation
- Past year suicide attempts

**Strengths & Limitations:**

CHIS is very comprehensive and collects a number of sociodemographic variables that can be used to measure disparities within counties and across the state. Data are collected on age, gender, race and ethnicity, birth country, immigration status, and language spoken at home. CHIS collects data from a large sample and rigorously reviews and tests new survey items. In addition to English, CHIS is conducted in Spanish, Chinese, Korean, Vietnamese, and Tagalog. Data are available for most counties in California. However, CHIS cannot be used to compare California data with other states unless other states collect similar variables. For the service use outcomes, data would need to be requested. Partial data are available through the askCHIS web interface, additionally a data request can be submitted for more details.

**California Healthy Kids Survey (CHKS)**

The CHKS is a confidential, anonymous survey administered to students at grades five, seven, nine, and eleven measuring health risks and behaviors, school climate, protective factors, school connectedness, and school violence. Supplementary modules allow individual schools to ask in-depth questions about social emotional health, alcohol and other drug use, or LGBT school experiences. For example, Oakland includes questions on various trauma indicators (C. Sarikey, personal communication). CHKS is not a mandatory survey; the CA Department of Education (CDE) encourages schools and districts with students in 5-12 grades to administer CHKS. CHKS has separate elementary, middle, and high school versions. Three regional centers provide comprehensive technical assistance on survey administration and use of findings. In addition to school failure, CHKS also measures substance use, suicide behavior, and nutrition and physical health. State and district CHKS data is accessible through the [CalSCHLS dashboard](#), [kidsdata.org](#), and [Query CHKS](#).

**Data Access:** Through the California Department of Education, [CalSCHLS](#) is a query tool that allows for public access to selected items from CHKS, which is **collected in 73% of districts in California**. Below is a description of CalSCHLS:

*The CalSCHLS system was created by the California Department of Education (CDE) in 1997 to efficiently and cost-effectively provide school districts and their partner communities with quality local data which can be used to improve student academic performance and social-emotional, behavioral, and physical health of all youth. It assesses key indicators linked to success in school, career, and life. The majority of districts in California now use CalSCHLS data as Local Control and Accountability Plan (LCAP) indicators.*

The complete CHKS data are not publicly available. Researchers and educators can request data after submitting a Memorandum of Understanding. More information can be found [here](#).

**Geographic Level:** State, County, some Districts and Schools

**Frequency:** Annual/Biannual

**Variables:**

- Suicidal ideation

**Strengths & Limitations:** CHKS is a comprehensive set of surveys that characterize children in California, and can be compared across participating counties. Query tools can be used to access the data. However, CHKS is not a mandatory survey for all schools in California, which may limit comparisons across all counties.

### [California Office of Statewide Health Planning and Development \(OSHPD\)](#)

CA OSHPD is the leading office in collecting and reporting data about California's healthcare infrastructure and outcomes. Data are submitted by nearly 6000 hospitals, primary care clinics, specialty clinics, hospices, long-term care facilities, and home health agencies. A number of counties in California utilize OSHPD data to report ER and hospital visit rates due to suicide, intentional self-inflicted injury, and mental health.

**Data Access:** Standardized data are publicly available through the [CHHS Open Data Portal](#). California health departments can request limited data, and non-profit universities can request non-public datasets.

**Geographic Level:** State, county

**Frequency:** Annual

**Variables:**

- [Hospital emergency department discharge](#)/transferred to psychiatric unit, (patient county of residence)
- [Hospital inpatient diagnosis and external cause code](#), state-level, including suicide attempt (initial encounter, subsequent encounter, or sequela), intentional self-harm (Statewide)
- [Patient discharge data by principal cause of injury](#), including self-inflicted injury (Statewide and county)

**Strengths & Limitations:** OSHPD provides freely available data that are formatted to national technical standards that encourages reuse of published data. These health and

human services data provide a different frame of reference compared to population data.

## California Data Source on Both Suicide and Suicide Behaviors

### [Kidsdata.org](http://kidsdata.org)

Kidsdata.org is a California based database that compiles data from trusted public sources such as the California Child Welfare Indicators Project, the CA Departments of Education, Justice, and Health Care Services, the Centers for Medicare and Medicaid Services, the U.S. Census Bureau and more. Data are also drawn from a number of surveys such as the California Health Interview Survey, California Healthy Kids Survey, and the American Community Survey. Kidsdata.org includes youth suicide and self-inflicted injury data. Data usage and reproduction of data visualizations are free of charge.

**Data Access:** Tables, graphs, or maps can be reproduced and cited.

**Geographic Level:** Nation, State, county, city, school district

**Frequency:** Annual, since 1993.

#### **Variables:**

- Youth suicide and self-inflicted injury

**Strengths & Limitations:** Data cover many demographic descriptors, such as age, race and ethnicity, and family income. One limitation of relying on this query tool as a data source is that it is a secondary source and therefore does not have as up-to-date data as the primary data sources.

## Surveillance and Monitoring of Suicide Outcomes

Efforts in suicide surveillance and monitoring have taken several forms. Data sources describe both death by suicide as well as suicidal behaviors. Dashboards provide stakeholders with a broad range of policy-relevant data in easy-to-interpret formats that allow for quick comparisons and assessment of change over time. In the following sections, we present projects and dashboards and monitoring project at the national level, statewide level, and those specific to California.

## Global and International Examples

**Global Efforts:** Surveillance and monitoring of suicide and suicidal behaviors are required for improved suicide prevention strategies. According to the World Health Organization (WHO), setting up a public health surveillance system is a core element of suicide prevention that is needed in all countries (2016). Quality data needs to be

comprehensive, timely, and must include: data from vital statistics, hospital-based registries of suicide attempts, and nationally representative surveys collecting information about self-reported suicidality (WHO, 2018).

**Canada:** As an example of a comprehensive international effort, the Public Health Agency of Canada (PHAC) passed into law the *Federal Framework on Suicide Prevention* (“[the Framework](#)”) in December 2012. This Framework includes a set of indicators that were deemed necessary for comprehensive suicide surveillance to inform suicide prevention efforts. These indicators include measures of outcomes, risk, and protective factors at the individual, family, community, and societal levels (Skinner et al., 2017). Suicide-related outcomes being monitored include: mortality, hospitalizations and ER visits from self-inflicted injuries, as well as 12 month and lifetime metrics for suicidal thoughts, plans, and attempts. In addition, PHAC utilizes indicators of positive mental health such as psychological well-being, spirituality, social support, and community involvement. This framework, [the Positive Mental Health Surveillance Indicator Framework](#), provides important data on positive outcomes and associated risk and protective factors that inform the implementation of wellness programs.

PHAC found that comprehensive suicide surveillance requires continuous collaboration with and strong connections to other agencies in Canada, such as the Canadian Pediatric Surveillance Program, Veterans Affairs, and Indigenous Service. The data yielded from these collaborations have formed the basis of a strong network of suicide prevention and life promotion activities. These findings demonstrate the importance of active collaboration among California agencies.

## U.S. National Dashboard Examples

National dashboards can be important resources for suicide surveillance and monitoring both across and within states. Dashboards eliminate the need for agencies to search for and analyze reliable, relevant, and up-to-date data. Dashboards enhance systems-level understanding of an outcome by comparing measures across populations, and help promote awareness of an issue by offering a usable, interactive interface that is available to the public. Here, we provide some examples of existing dashboards to inform MHSOAC’s goal of creating a live, user-friendly dashboard. *Table 4* compares demographic information that is available for each dashboard.

### [CARES Engagement Network](#)

The Center for Applied Research and Engagement Systems (CARES) is a national data and reporting platform for communities, which includes California-wide data as well as data for each county. It provides surveillance data from the CDC on suicide mortality for all states and counties as well as customizable maps and reports. Outcomes by county, the state, and the nation can be compared. Data can be stratified by age, disability,

urban vs. rural populations, race and ethnicity, SES, unemployment, poverty, educational attainment, food and housing insecurity, and other health behaviors and outcomes. Data can be downloaded or exported. While this dashboard succeeds in presenting the data in an interactive and clear manner, the data are not live.

### [Live Stories: Statistics](#)

This interactive dashboard collects and analyzes data from trusted and reliable sources such as the U.S. Census, the CDC, and the Bureau of Labor Statistics. However, data on only age, race, and sex are provided for suicide. Furthermore, users cannot download data into a file.

### [Kids Count Data Center](#)

A project of the Annie E. Casey Foundation, the Kids Count Data Center provides data on children and families, including data on teen death caused by accidents, homicide and suicide. In addition to providing national and state level data, the Kids Count Data Center also provides data by city and congressional district. While data on suicide attempt, ideation, and plan are available for certain states (Alaska and Montana), data is not provided for California.

## Examples in Other States

The [Suicide Prevention Resource Center](#), a federally supported resource center funded by SAMHSA, highlights several states, two Indian reservations, and one California corrections facility that all have successfully pursued efforts in suicide surveillance to help inform their own suicide prevention efforts.

The **California** Department of Corrections and Rehabilitation (CDCR) is a large state prison system, housing more than 120,000 male and female inmates in 35 facilities. By standardizing definitions of self-harm across facilities and creating a centralized monitoring system of suicidal behaviors, CDCR is able to assess shared risk factors, improve prevention strategies for specific populations, and create an early warning system to identify at-risk inmates. (Suicide Prevention Resource Center [SPRC], 2017a)

**Ohio** used data from death certificates and records from state hospitals and mental health clinics and found that more than 67% of people who died by suicide in the state had visited a public behavioral health provider in the year prior to their death and 29% had done so in the month prior but that this percentage was significantly lower for individuals who were uninsured, lived in a rural area, had a substance abuse disorder or used a firearm as the suicide method. (SPRC, 2015b) They used this information to develop an inter-agency task force to address specific areas of need including developing new treatment and outreach programs and mapping suicide rates geographically to determine which communities had highest need.

**Vermont** matches data from vital records office with information from their Department of Mental Health's Management Information System database to better understand the unmet mental health need for service members and veterans. They found that they needed to expand current funding from their Garrett Lee Smith (GLS) grant to include suicide prevention across the lifespan. (SPRC, 2016b)

**Kentucky** linked data between their Department for Behavioral Health, Development, and Intellectual Disabilities (DBHDID) and the Office of Vital Statistics to obtain a more accurate picture of suicide deaths by patients who had received services from their community mental health centers (CMHC) and psychiatric hospitals. They found that both service providers were serving very high risk populations: CMHC clients died by suicide at a rate of 80 per 100,000 and clients with at least one state psychiatric hospitalization admission had a rate of 340 (compared to the national average of 12). These findings led Kentucky to address gaps in suicide prevention and increase suicide care within these systems of care. (SPRC, 2015a)

**Montana** has had some of the highest suicide rates for four decades. To inform suicide prevention efforts, they examined data from death certificates, coroner and medical examiner reports, and health and behavioral health care records for every suicide death in the state. They found that 85% of suicide victims had a diagnosable mental health condition, within this population 70% were diagnosed with depression. This prompted a number of interventions such as gatekeeper trainings for first responders, depression screenings in community centers, and financial support toward culturally relevant prevention efforts. (SPRC, 2017b)

Centerstone is one of the nation's largest providers of prevention and treatment services for mental and substance use disorders. Centerstone of **Tennessee** combined data from their medical records with data from death certificates and coroner reports on deaths by suicide to better understand clients at risk of suicide and to ensure they are appropriately identified, treated, and monitored. From these efforts they were able to reduce suicide rates among their clients by 55% in one year. (SPRC, 2018)

**The District of Columbia Syndromic Surveillance System** provides daily information on emergency department (ED) visits at 8 hospitals in Washington D.C. and is able to detect suicide-related visits (a visit in which the patient presented with suicide ideation or attempt). A study found that the reporting of suicide-related terms in the chief complaint assessment alone would result in the underestimation of suicide-related ED visits. Incorporating the report of suicide-related behaviors into the discharge diagnosis could help improve detection. (Kuramoto-Crawford, Spies, & Davies-Cole, 2017)

## Example Programs for Native American Communities

As stated earlier, Non-Hispanic, American Indian/Alaska Natives currently have high suicide rates and are the ethnicity with the greatest increase in suicides between 1997

and 2017 for both genders, particularly between the ages of 15 and 44. (Curtin & Hedegaard, 2019). Below are two examples of suicide surveillance programs implemented within and benefitting Native American communities.

The **Fort Peck Indian Reservation** in **Montana** experienced a cluster of suicides in 2010, prompting a collaboration with the local hospital, research centers, the Sheriff's office, and Indian Health Services. Weekly data were compiled from each department and cross-walked to match contextual data with diagnostic details. Findings have led to modifications in surveillance, patient education, and service delivery, resulting in the steady decline of deaths by suicide and suicide attempts in adults and juveniles for this population. (SPRC, 2016a)

The **White Mountain Apache Tribe** (WMAT) Suicide Surveillance and Prevention System in **Arizona** is a unique database that gathers rich, in-depth data from community and clinical settings. Community members are trained and expected to report suicidal behaviors, resulting in growing participation of the surveillance system and spurring successful interventions. (SPRC, 2016c)

## California Statewide Efforts

In August 2019, MHSOAC released the second draft of Striving for Zero: California's Strategic Plan for Suicide Prevention 2020-2025, which includes a plan to advance data monitoring and evaluation of suicidal behaviors in order to establish a suicide prevention infrastructure (MHSOAC, 2019). Their aims include:

- Short-term Target: By 2025, 80% of all suicide deaths will be electronically entered into CalEVDRS, with communities using publicly available timely aggregated data to strengthen suicide prevention strategies. Currently, data from 14 out of 58 counties are available on the CalEVDRS.
- Long-term Outcome: Increase the use of standardized data to guide suicide prevention state and local policy and planning, resource management, and investment.

## California County Reports and Dashboards

County agencies in over half of California counties (36 counties) currently provide data on suicide rates and suicidal behaviors in their county reports or county dashboards (see *Table 5*). Most of these counties (89%) monitored suicide deaths, while a third monitored suicidal thoughts, one fourth monitored suicide attempts and 39% monitored self-harm or self-injury. The most common breakdowns of the data were by age (67%), gender (31%), and race or ethnicity (25%). Over one-quarter of California counties have population-level community health-related dashboards that provide a surveillance system for multiple health indicators including deaths due to suicide and suicidal behaviors (see *Table 6*). Three counties had zip-code level statistics and

two counties included veteran metrics (death rates or suicide lifeline calls) on their dashboards. All but one of the county dashboards were made in partnership with and maintained by Conduent Healthy Communities Institute, an information system that helps local public health departments, hospitals, and community coalitions to measure community health indicators, assess community needs, and to inform community health improvement efforts (Conduent, [no date]). The one exception is Solano County, which created and continues to maintain their own community health dashboard.

Solano's efforts were initiated when the Director of Solano's County Health and Social Services Department needed accessible data to monitor changes and any potential negative impacts in seven program areas – Employment and Eligibility, Child Welfare Services, Mental Health, Public Health, Older Disabled Adult Services, Substance Abuse, and the Special Investigations program – and three administrative units. The dashboard facilitated much needed communication between and within the seven program areas and three administrative units to better understand program results – both strengths and areas of growth – and also allowed them to monitor progress in relation to strategic plan initiatives and provide essential data on areas needing improvement (Harrison, 2012).

All of the California county dashboards provide data on age-adjusted death rates due to suicide. All use the same data source, the California Department of Public Health, except for King's County, who provides similar data from the Centers for Disease Control and Prevention (see *Table 7*). Half of these counties utilize the California Health Interview Survey (CHIS) to provide data on suicidal ideation among adults. In addition, these counties also use data from the California Office of Statewide Health Planning and Development (OSHPD) to monitor rates of hospitalization and ER visits due to suicide and intentional self-injury. Many of these dashboards provide death rates, suicidal ideation, and suicide and intentional self-injury in medical settings, and disaggregate by age, gender, and race and ethnicity.

We identified five counties that were monitoring suicidality (see *Table 7*). King, Orange and Placer have the most comprehensive data which includes suicidal ideation among adults, rates of ER visits and hospitalizations due to suicide or intentional self-injury, and age-adjusted rates of death due to suicide. They are available at:

- [Kings Partnership for Prevention](#)
- [Orange County's Healthier Together](#)
- [Be Well Placer](#)

El Dorado and Riverside provide the same data as the other three counties but do not include rates of hospitalizations due to suicide or intentional self-injury. They are available at:



- [WELL Dorado: Wellness Happens Here](#)
- [SHAPE Riverside County \(Strategic Health Alliance Pursuing Equity\)](#)

## Recommendations

The following are four sets of recommendations. Each category is determined by the accessibility of the data from a particular data source. The ideal, pie in the sky, accessibility would be one in which current data can be accessed or shared immediately to display in a future dashboard and in a format that would help streamline the process for updating this dashboard. For the scope of this project, the UCLA team will provide MHSOAC with a data library that consists of three years of data for each indicator in each of the 7 MHSA outcomes – suicide, unemployment, homelessness, incarceration, removal from home, school failure or dropout, and prolonged suffering. As such, the ideal accessibility would be to have publicly available data in which a complete data set with multiple indicators for a particular outcome or multiple outcomes can be downloaded at one time without a data request or data use agreement.

Recommendations of data sources and their related data elements are organized into four categories:

**Category 1** describes data sources that meet four criteria: 1) publicly accessible and free; (2) accurate measure of the MHSA key outcome; (3) measure of the outcome in the context of mental health; and (4) available at the state and county levels. More detail is provided for the #1 recommended Category 1 data source.

**Category 2** describes data sources that meet one or more of the four criteria above.

**Category 3** describes options for pairing recommended data sources in either Category 1 or 2 that have the potential to contextualize suicide and suicidal behavior at the county level.

**Category 4** describes data elements that are not currently being measured in a standardized setting, but may be of interest and useful to collect. The recommendations in this section have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

## Category 1 Recommendations

### a) For Suicide Rates

#### Recommendation #1:

According to the CDC, death by suicide is the second leading cause of death for those age 10 through 34 and the fourth leading cause for those 35 to 54. Given the age group

association with death by suicide, it is recommended that suicide rates in California be assessed by age groups. The **California Injury Data Online (EpiCenter)** is the recommended data source to provide estimates on **suicide rates** by age groups for California and for each county.

The EpiCenter collects data on Self-Inflicted/Suicide deaths by Cut/Pierce, Firearm, Hanging/Suffocation, Jump, and Other. Preset output format options can be used to examine differences by: year, age subgroups, race/ethnicity, gender and cause of injury. A limitation of the EpiCenter is that statistical analyses were not available on the public query tool and could not be conducted with this data source.

For the purposes of monitoring by MHSOAC, the EpiCenter can be used to answer the following questions:

- How have suicide rates in California changed over time?
- What are the most frequent ways that people die by suicide?
- Does suicide vary by age groups?
- Does suicide vary by sex?
- Does suicide differ by race and ethnicity?

## b) For Suicidal Ideation (SI) by Adult Age Groups

### Recommendation #1:

For suicide behaviors, the **California Health Interview Survey (CHIS) via AskCHIS** is the recommended data source to provide estimates on suicidal ideation in the past year for California and for counties where reliable estimates are provided. AskCHIS users can compare estimates of suicidal ideation with mental and emotional health topics, such as past-year serious psychological distress or whether the respondent sought or needed mental health care services. For the purposes of this project, the AskCHIS tool is the best way to access CHIS data immediately because the data tool is publicly available and includes psychological distress (objective measure of need), self-reported need for mental health services (subjective measure of need), use of prescription medication for mental health, use of mental health services, and number of visits.

For the purposes of monitoring by MHSOAC, CHIS data obtained through AskCHIS can be used to answer the following questions:

- What percentage of adults, age 18 and over, self-reported ever having SI?
- What percentage of MHSA-eligible adults self-reported ever having SI?

By mental health-related outcomes (can also be subset to MHSA-eligible adults):

- How does adult self-reported SI differ by serious psychological distress (SPD) compared to adults with no, mild, and moderate psychological distress?

- How does self-reported SI differ by adults who self-reported a need for help with an emotional/mental health problem or use of alcohol or drugs compared to adults who did not report a need for help?
- Among adults who self-reported a need for mental health services, how does SI differ by adults who did not receive treatment compared to those who did?

By work and life impairment (can also be subset to MHSA-eligible adults):

- Among adults with moderate to serious psychological distress:
  - How does self-reported SI differ by social life impairment?
  - How does self-reported SI differ by number of days unable to work due to mental health problems?
  - How does self-reported SI differ by work impairment?
  - How does self-reported SI differ by family life impairment?
  - How does self-reported suicidal ideation differ by household chore impairment?

By illicit drug use: How does self-reported SI differ by:

- Adults who have ever tried marijuana or hashish?
- Last time used marijuana?
- Adults who have ever misused a prescription pain killer?
- Adults who have ever used heroin in the past 12 months?

By socioeconomic characteristics: How does self-reported SI differ by:

- Race and ethnicity?
- Gender?
- Age groups?
- Sexual orientation?
- Gender identification?
- Poverty level?
- Educational attainment?

For the purposes of monitoring by MHSOAC, CHIS data obtained through Data Access Center can be used to answer all of the above questions for adults who self-reported suicidal ideation in the past year.

### c) Suicidal Ideation (SI) by Adolescence

#### Recommendation #1:

To measure suicidal ideation among school-aged children, the **California Health Kids Survey (CHKS) using [kidsdata.org](http://kidsdata.org)** is the recommended data source. CHKS provides data on the estimated percentage of public school students in grades 9, 11, and non-traditional programs who seriously considered attempting suicide in the previous year.

CHKS is not a mandatory survey; the CA Department of Education (CDE) encourages schools and districts with students in 5-12 grades to administer CHKS. With only 73% of districts in California participating in CHKS, data may not be representative of all students. State-level CHKS estimates on suicide ideation, although derived from the Biennial State CHKS, may differ from data published in Biennial State CHKS reports due to differences in grade-level classification of students in continuation high schools. Non-traditional schools (i.e., community day schools or continuation education) had unstable estimates and are not included in current data brief. The CHKS query tool provides percentages, but does not provide sample size, weighted population, confidence intervals, or tests of statistical significance.

For the purposes of monitoring by MHSOAC, CHKS can be used to answer the following questions:

- What proportion of adolescents self-reported having suicidal ideation?
- How does self-reported suicidal ideation differ by youth grade level?
- How do adolescents with self-reported suicidal ideation vary by sex and grade level?
- How does suicidal ideation in youth vary by race and ethnicity?
- How do adolescents with suicidal ideation vary by sexual orientation?

## Category 2 Recommendations

### For Suicide Rates

#### Recommendation #1:

For Category 2 recommendations on suicide rates, we recommend that MHSOAC establish a data use agreement with the **California Department of Public Health (CDPH)** to share vital statistics data in real time. A data use agreement between these two entities would greatly streamline the process to access the data and update the dashboard.

#### Recommendation #2:

In addition, we recommend a data use/share agreement between MHSOAC and the **California Pregnancy-Associated Mortality Review (CA-PAMR)** as this data would get at a highly vulnerable population and could be used to tailor outreach and services to this population.

### For Suicide Behaviors

#### Recommendation #1:

For Category 2 recommendations on suicide behaviors, we recommend MHSOAC establish a data use/share agreement with the **California Office of Statewide Health Planning and Development (OSHPD)** to provide administrative data on a particularly high-risk population which includes those who have been hospitalized or had an ER visit due to a non-fatal self-inflicted injury.

### **Recommendation #2:**

For more comprehensive indicators on suicide ideation, plans, and attempts, we recommend data from the **National Survey on Drug Use and Health (NSDUH)**. To obtain data from NSDUH, a data request must be submitted and there may be applicable fees.

## **Category 3 Recommendations**

Other findings from this project suggest that suicide prevention efforts for particular populations could be better informed by linking data from suicide deaths with data from other departments, in order to gain a better understanding of training needs and inform better suicide prevention and care efforts. For example, individual death records could be linked to behavioral health care information, academic records, or unemployment records. Suicide data can also be linked to other local data such as child welfare, criminal and juvenile justice, and medical care systems to better understand the risk and needs of vulnerable populations.

**Linking suicide to behavioral health care:** Individual death records could be linked to records from state hospitals, ER visits, and mental health clinics - efforts similar to what Ohio, Kentucky and Montana have accomplished.

**Linking suicide to school context:** Another opportunity to link data would involve connecting student deaths records with school records to better understand the academic context of these suicidal behavior in students. Additional circumstantial data regarding events such as visits to the school nurse or counselor, absences from school, behavioral problems and suspension or expulsions, academic achievement, etc. could better inform suicide prevention programs at the school level.

**Linking suicides to unemployment context:** Similarly, death records could be linked to employment and unemployment records to better understand any employment-related or unemployment-related outcomes such as unemployment rates or data regarding discouraged workers. This data could be obtained from the Bureau of Labor Statistics and the Current Population Survey (CPS) (Liu, 2017).

## **Category 4 Recommendations**

Of all the data sources identified on suicide rates, the CDC National Violent Death Reporting System (NVDRS) and/or California Violent Death Reporting System were found to be the most comprehensive data sets as these provide more contextual

information about those who have died by suicide. In alignment with the MHSOAC Suicide Prevention plan, we recommend that more efforts be made to extend the CVDRS to all 58 counties in California.

In addition to OSHPD data, we recommend that OSPHD data be linked with data from CA Department of Behavioral Health in order to ascertain the extent to which clients in the public mental health system are or are not being seen in hospital and ER settings for self-inflicted injuries.

Based on preliminary analysis of county and local ethnographic observations (including attending MHSA events and conducting focus groups and interviews), these are some suggestions for other metrics which would be relevant in understanding the “health” of a county with regards to suicide prevention.

### 1. Measurement of general population awareness and understanding

Public awareness and education are keys components in local, county and state level suicide prevention campaigns which focus on breaking the taboo against talking about suicide and increasing understanding of its causes, warning signs, and available resources.

Metrics that could serve as indicators for a county’s overall health in this domain might include the proportion of the general population who report:

- Confidence in being able to recognize warning signs of suicidality (or other risk factors such as depression)
- Comfortability with talking about suicide to someone who may be exhibiting warning signs
- Knowledge of how to obtain help for themselves or a loved one
- Awareness of any public education program (i.e. noticing billboards, having a presenter come to their school, etc.)

Such metrics could be further broken down by sub-population including:

- Populations who are known to be at higher risk e.g. Native Americans, White males, LGBTQ youth, veterans.
- Groups who would be in close contact with high-risk individuals and are not mental health professionals e.g. high-school and college students, teachers, social workers.

### 2. Measuring suicide’s interconnection with the other negative outcomes

Suicides, suicide attempts, and suicidal ideation are extreme outcomes of un/under treated mental illness, which is known to be exacerbated by other factors including homelessness, unemployment, incarceration, child removal from home, and other forms of prolonged suffering. Additionally, suicidal thoughts and behaviors are of growing

concern among children and youth and may occur in tandem with school failure. Finally, the degree to which mental illness is stigmatized (versus normalized) in a community strongly impacts both the likelihood that at-risk individuals will seek professional help and the ability of peers and family to recognize early warning signs, which is why many suicide prevention programs have a strong public outreach component.

Improvements (or worsening) in one domain can be expected to have a delayed downstream effect on the others and should be monitored accordingly. For example, greater involvement in the juvenile justice system is known to be associated with increased suicide ideation and behavior (Stokes et al., 2015). Therefore, countywide programs that redirect youth with mental health issues into treatment rather than convictions would also contribute to a reduction in youth suicides.

## Conclusions

Suicide and suicidal behaviors are an important public health concern in California and nationally, which demonstrates the need for evidence-based suicide prevention, intervention, and care. Collecting surveillance data on suicide and suicidal behaviors at the county and local-levels are crucial to understanding the well-being and needs of a community. Additionally, the methods of data collection are also relevant in order to account for and reduce under/mis-reporting for vulnerable populations.

There is need for a statewide standardized system to monitor and measure suicide behaviors and mortality and to provide data that can be compared across populations and communities, over time and linked to mental health care data. The benefits of such a system would include: improved state and local leadership ability to identify areas of need, stimulate specific programs and services, and address disparities; insights into best practices to detect suicide risk and prevent suicidal behavior; and more general insights into strategies to alleviate the suffering caused by undiagnosed, misdiagnosed, or under-treated mental health needs that can lead to suicidality.

This report examined the currently available data sources on death by suicide and suicidal behavior internationally, within the U.S. and within California, as well as presenting some examples of existing county-level suicide prevention and outreach efforts.

### National:

- Suicide mortality data: CMF and NVDRS are both surveillance systems that collect state-level mortality statistics across the US.
- Suicidal behavior data: NSDUH and YRBS use surveys to monitor suicide attempts, ideation and thoughts. NSDUH samples across all ages, while YRBS focuses on youth and only aggregates by school.

### California:

- Suicide mortality data: CalEVDRS (14 counties), EpiCenter (statewide) and CDPH monitor deaths by suicide by drawing from a variety of different data bases such as death certificates, coroner reports, and hospital records. All can aggregate by gender, race and ethnicity, and type of death. CA-PAMR focuses specifically on pregnancy-related mortality, while KidsData focuses specifically on children.
- Suicidal behavior data: CHIS and CHKS are both surveys that include information about suicide ideation and attempts. KidsData compiles information from multiple California Databases. While CHIS is all-ages, CHKS and KidsData both focus specifically on children and youth.

In contrast to searchable databases, which provide valuable research data, public dashboards provide aggregate information in a clear format that allows comparison of measures across populations and can facilitate promoting awareness of an issue among the general public.

**National dashboards:** CARES provides CDC data while Live Stories: Statistics and Kids Count Data Center combine data from multiple sources.

**State dashboards outside of California:** In addition to general population data or mental health care data, we found examples that focused specifically on inmates (California), service members and veterans (Vermont), as well as two dashboards focusing on Native American communities Assiniboine and Sioux (Fort Peck reservation, Montana), and Apache (White Mountain, Arizona), as well as dashboards that connected suicide deaths with mental health care services. These dashboards are being used to by the state to identify contexts or populations of high risk, in order to develop targeted suicide prevention interventions.

**State dashboards within California:** Within California, over half the counties have publicly available reports or dashboards that include suicide-related indicators. One quarter of counties have surveillance systems that monitor health indicators including deaths by suicide and suicidal behaviors; most of these systems are maintained by an outside contractor.

**Examples of prevention and outreach efforts in California** include: suicide prevention training programs for mental and physical healthcare providers; school, university, and workplace staff; and the community; outreach and awareness programs, particularly in schools; and resources specifically intended for individuals who are at risk (such as older adults) or in crisis.

Common barriers to successful surveillance and reporting include the possibility of misclassification when reports are filled out by a third party (e.g. for death records), community lack of trust in the data gathering institution, mental health and suicide



stigma, and lack of a centralized source of data or robust data sharing system. Regardless of the dashboard or database selected, awareness of these factors is crucial in being able to understand and use the reported data.

Of the dashboards and databases we examined, three model counties stood out as having the most comprehensive data: Kings, Orange and Placer. Additionally, the [CARES Engagement Network](#) looks to be a promising dashboard, as it provides data on suicide rates for 100% of California counties (CARES 2019). Data are age-adjusted death rates by gender, age, and race and ethnicity per year and this interface provides data in tables, maps, charts, and graphs over time.

### Barriers to Suicide Surveillance

Common barriers to successful suicide surveillance include inconsistent and inaccurate reporting (e.g. of ethnicity or gender identity) by third parties for suicide deaths, community lack of trust in the data collection institutions, stigma, lack of standardization and uniformity across counties, and lack of a central reporting system with standardized measures. These factors affect timeliness of data entry, analysis, and reporting of suicide and suicidal behaviors. Accurate analysis of the data is further complicated by the fact that there are no baselines available, for example the US Census does not ask about gender identity or sexual orientation and this information is often not entered into death records, so there is no county level baseline to which metrics can be compared.

**Inaccurate third-party reporting:** Suicide surveillance based on death certificates runs the risk of under-reporting certain demographics if the individual recording the cause of death does not know or agree with the deceased individual's identity (e.g. families of transgender individuals). Additionally, the ethnicities of Hispanics, Native Americans and Asian/Pacific Islanders are sometimes misreported on death certificates (Arias, Heron, & Hakes, 2016), resulting in a possible underestimation of suicides among these ethnic groups.

**Lack of trust** in governments or institutions, particularly for immigrant and Native American communities, can make individuals reluctant to divulge personal or family information (or even to seek care) due to concern that such information might be used against them. A California county administrator described a sense of "historical trauma" for local Native American community members because of past cases of "data being collected to benefit the government but not the people served" (Personal communication, 2019).

**Stigma** related to mental health and suicide can negatively impact the reporting and recording of suicidal outcomes (WHO, 2018). For example, a family member may choose to report a different cause of death.

**Lack of central source of data** on suicide and suicidal behaviors was mentioned as a barrier to proper suicide surveillance in a 2018 Fresno County report on their suicide prevention strategic plan (Lezine & Whitaker, 2018). Their data workgroup highlighted this lack as one of the barriers to suicide surveillance and suicide prevention efforts in their county, and has identified goals and objectives to improve data-collect capabilities by obtaining legal interpretation of data-sharing capabilities as it pertains to HIPAA, FERPA, etc. and creating a system that allows data sharing to improve suicide care and outcomes. Additionally, many counties still use paper death records and information must be entered manually into state databases, delaying accurate and timely reporting of suicide rates (Ashley Mills, personal communication).

## Chapter 2: Incarceration

The goal of this chapter is to provide a brief overview of **incarceration** related to unmet mental health need and the importance of measuring this outcome at the county and state level. We briefly define incarceration and the stages leading up to it, with specific focus on the role played by unmet mental health need, and then provide ways that incarceration has been measured in counties and states, as well as at the federal level. In defining this outcome, we examine ways of measuring incarcerations and, when relevant, detentions resulting from unmet mental health need, as well as recommendations for state- and county-level metrics, including recommendations for publicly available data sources and key data elements. This chapter presents the preliminary findings of a mixed methods study of incarceration measurement in California.

### What Do We Know About Incarceration?

It has been estimated that 80 billion dollars are spent annually on correctional facilities (jails, prisons, other detention centers) in the United States (Kearney, 2014). In FY 2018-19, California allocated approximately \$14 billion to the State's judicial and criminal justice budget; 83% (\$11.9 billion) supported the Department of Corrections and Rehabilitation (Legislative Analyst's Office, 2019). However, the total cost of incarceration to U.S. society and the national economy is estimated to be much higher, with estimates as high as one trillion dollars per year, roughly 6% of the GDP (McLaughlin, Pettus-Davis, Brown, Veeh, & Renn, 2016). This number includes lost labor productivity of individuals while in prison, decreased lifetime wages after release, increased mortality, and costs borne by family members such as eviction, criminal justice debt, child welfare, and the long-term second-generation costs on children (McLaughlin et. al, 2016).

Incarceration also has nonmonetary social and psychological burdens on society (Andersen, 2016; Barnert et al., 2017; Turanovic, Rodriguez, & Pratt, 2012; McLaughlin et al. 2016; Sugie & Turnkey, 2017; Streisel & Bachman, 2020), for example:

- Unemployment, as released individuals face hiring discrimination, job restrictions because of their criminal record, and weak professional networks.
- Financial and emotional burdens placed upon families such as debt, eviction or discrimination.
- Negative outcomes to children of incarcerated parents, including school failure, increased risk of engaging in criminal activity themselves, and potential child welfare involvement.
- Negative outcomes for family members and caregivers of children whose parents become incarcerated.

- Negative mental health outcomes, as arrest and incarceration are both correlated with poor mental health across racial and ethnic groups. This impact is stronger for individuals from disadvantaged backgrounds.
- Recidivism and cycles of repeated incarceration and/or hospitalization if underlying mental health issues are not addressed.
- Recovery process for drug use and addiction and successful reintegration into the community.

The intergenerational effects of parental incarceration are especially impactful for their children, who experience familial financial instability, social exclusion, loss of contact with the incarcerated parent, and the stigma of parental imprisonment (Dallaire, 2007; Eddy & Poehlmann, 2010; Foster & Hagan, 2007; & Murraray, Farrington, Sekol, & Olsen, 2009). Research has consistently found that having an incarcerated parent is linked to high rates of externalizing (e.g. physical aggression and delinquent behavior) and internalizing (e.g. depression and anxiety) behavior in their children (Wakefield & Wildeman, 2011). Attention problems, poorer health outcomes, early substance use, school disciplinary issues, and teacher stigmatization place children at risk for school failure, an MHS outcome (Geller, Cooper, Garfinkel, Schwartz-Soicher, & Mincy, 2012; Lee, Xiangming, & Luo, 2013; Kinner, Alati, Najman, & Williams, 2007; Dallaire, Ciccone, & Wilson, 2010).

These outcomes continue into adulthood, putting children at risk for future poor mental health, educational under-attainment, and receipt of public assistance (Miller & Barnes, 2015).

Addressing the mental health needs that lead to arrests and ultimately incarceration not only decreases these negative impacts, it also contributes positively to the lives of at-risk or affected individuals, their families, and their communities. For example, peer and youth support programs for at-risk youth decrease criminal activity while at the same time fostering skills that allow youth to become leaders in their communities (Griggs, 2019).

It is important to not only monitor changes in the number or type of individuals who are in prison and jails, but also monitor metrics for mental health need in the community at earlier stages potentially leading to incarceration, including: arrests, detentions, court appearance and sentencing, as well as release and reintegration into society in order to prevent repeat incarcerations.

## Defining Terms Related to Incarceration

For this report, we examined measurements of incarceration rates in both jails and prisons, as well as other forms of detention:

- **Arrests:** to take or hold a suspected criminal with legal authority, as by a law enforcement officer. An arrest may be made legally based on a warrant issued by

a court after receiving a sworn statement of probable cause to believe there has been a crime committed by this person, for an apparent crime committed in the presence of the arresting officer, or upon probable cause to believe a crime has been committed by that person.

- **Misdemeanor:** a lesser crime punishable by a fine and/or county jail time for up to one year. Misdemeanors are tried in the lowest local court, such as municipal, police, or justice courts.
- **Felony:** a crime sufficiently serious to be punishable by a term in state or federal prison or punishable by death, as distinguished from a misdemeanor which is only punishable by confinement to county or local jail and/or a fine.
- **Jail:** county-run, used for individuals awaiting trial, short-term misdemeanor sentences or temporary holding before being transferred to another facility.
- **Prison:** state- and federally-run, used after conviction for felonies or multi-year sentences.
- **Juvenile detention/correctional centers:** separate facilities for convicted minors that also include schooling and family visits. Recent research and policy have favored reducing an emphasis on detention in favor of community-based programs (McCarthy, Schiraldi & Shark, 2016; NCSL, 2017).
- **Other detention facilities:** for example, two national datasets in this report monitor information on U.S. Immigrations and Customs Enforcement (ICE) detentions. Depending on the type of facility, detained individuals may or may not have received a trial or been convicted of a crime.

## Mental Health-Related Risk Factors & Indicators of Incarceration

Individuals with mental health issues are over-represented in the criminal justice system. Almost two-thirds (64%) of individuals in the criminal justice system have symptoms of a mental health condition, while 17% experience a serious mental illness (Docherty, 2017). Indicators and risk factors for incarceration due to untreated mental health needs or for cycles of repeat incarceration include:

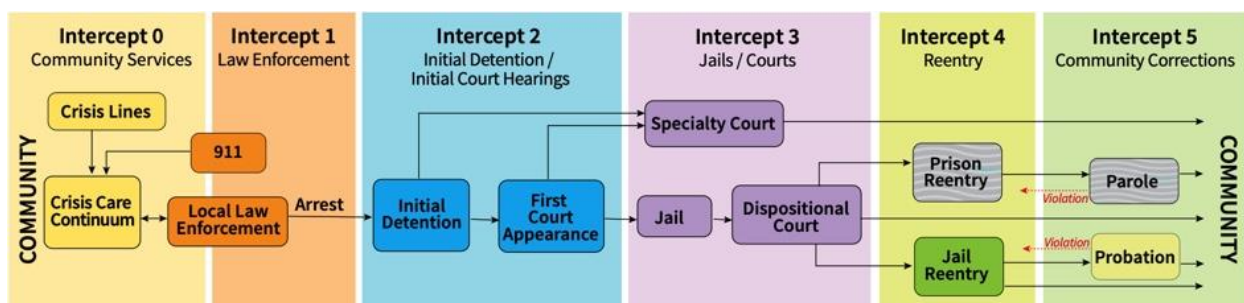
- Previously diagnosed mental health problems and substance use disorders (King & Sider, 2018; Kondrat et al., 2018; Pyle et al., 2016; Stokes et al., 2015)
- Recidivism, defined as prior involvement in the justice system, including number of prior arrests (Wylie & Rufino, 2018; Alarid & Rubin, 2018)
- For youth (Huang, Ryan, Sappelton, & Chiuc, 2015; Hughto et al., 2019; Mallett, 2016; Spinney et al., 2016):
  - Low academic achievement (also see our chapter on School Failure)
  - History of trauma, abuse or maltreatment
  - Parental incarceration
  - Foster care
  - Detention or prior arrests – in contrast, youth who were sent to mental health diversion programs or received community after-care showed lower rates of recidivism
- For adults (Hughto et al., 2019; Trotter et al., 2018; Tyler & Brockman, 2017):

- School drop-out
- Poor access to health care services
- Homelessness or marginal living conditions
- Sex work

## Criminal Justice Pathway and Diversion into Mental Health Care

Incarceration is conceptualized across the continuum. Consistent with our conceptual model, the **Sequential Intercept Model** (SIM; Figure 1) highlights key stages during which individuals with mental health needs could be redirected into care (Griffin, Heilbrun, Mulvey, DeMatteo, & Shubert, 2015; Kennedy-Hendricks, Huskamp, Rutkow, & Barry, 2016; Munetz & Griffin, 2006). In addition, the SIM is expanded to include vulnerable neighborhoods to enhance capacity to identify communities at greater risk for mental health problems and exposure to violent crime. To that end, the data source section below describes one federal and one California-based data source for crime statistics. Arrest data is particularly important to utilize when describing adverse environments that need more support protecting vulnerable communities. For example, high rates of drug offense rates may indicate a need for health-based rather than punitive approaches to combat substance use, and violent crime rates may signal a need for mental health services to support those experiencing trauma in conjunction with violence prevention strategies.

Figure 1 The Sequential Intercept Model



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- **Identifying vulnerable communities:** for example, high crime rates are an influential contextual factor when considering risk for exposure to trauma, which in turn is associated with higher rates of need for mental health care (Curran, Adamson, Rosato, De Cock, & Leavey, 2018; Choi, McCreary, Ford, Koushkaki, Kenan, & Zima, 2019).
- **Early intervention (Intercept 0):** Working in the community to support crises, such as providing (1) mobile crises outreach teams and co-responders, (2) Emergency Department diversions, and (3) police-friendly crisis services.

- **Prior to arrests (Intercept 1):** training law enforcement officers to recognize and de-escalate behaviors stemming from mental illness, incorporating behavioral health specialists on police or first-responder teams, or providing a system for admitting individuals directly into mental health or emergency care.
- **During detention and initial court hearings (Intercept 2):** mental illness screening, Incompetent-to-Stand-Trial (IST) declaration, pretrial diversion, or sentencing that includes social services and mental health care, and transfer of youth from detention to community supervision.
- **Within the courts, jails or prison (Intercept 3):** jail/prison-based mental health and substance use treatment or mental health courts.
- **During re-entry after release (Intercept 4):** discharge planning, transitioning individuals into mental health care benefits before release in order to prevent relapses or recidivism.
- **Within community corrections (Intercept 5):** supported housing, employment services, and specialty care for individuals in probation or on parole.

## Vulnerable Populations

Populations that are disproportionately impacted by poverty, trauma, and discrimination are more likely to experience greater involvement with the criminal justice system for a variety of social and economic factors. The following is not an exhaustive list of vulnerable groups.

- **Racial and ethnic minorities** are at higher risk for contact with police, arrests, and entry into the criminal justice system rather than referral to mental health care.
  - Minority children and youth with school behavior problems are frequently subjected to school punishment or incarceration rather than referred to mental health services (Marrast, 2016). Black youth are less likely than White to self-report mental health problems (including trauma) or to seek help. Reasons include: stigma and shame, fear of negative repercussions (including social stigma or legal action), lack of trust in clinicians or in the effectiveness of mental health treatment, and normalization of trauma (Zeola, 2016).
  - Racial disparities exist at all stages of the juvenile justice process, with African American, Native American and Latino youth being disproportionately affected (Spinney, 2016).
  - Minority adults who experienced incarceration are less likely to successfully reintegrate into their community or find jobs, leading to recidivism. Reasons include: returning to economically depressed or racially segregated communities (Walker, Spohn, & Delone 2007), discrimination on the job market (Pager, Western, & Sugie, 2009), and individuals' own expectation that they will be stigmatized by the community (Benson, Alarid, Burton, & Cullen, 2011).
- **Sexual and gender minorities** are disproportionately represented in the criminal justice system, and the disparity is far greater for young women: with 20-40% in

the juvenile justice system identifying as LGB, compared to 12% of the general population (Wilson et al., 2017). LGBTQ and particularly transgender youth of color are at even higher risk for criminal justice involvement (Mountz, 2019).

- **Individuals who have exited the criminal justice system** are at high risk for recidivism, particularly if they are racial and ethnic minorities or have untreated mental health need.
- **Current or former foster youth**, especially those with placement instability (Huang et al., 2015).
- **Juvenile justice involvement** increases the likelihood of adult incarceration. Additionally, a comparison of juvenile offenders found that those who were sentenced to incarceration were 23 percentage points more likely to end up in prison by the age of 25 than those who received a more lenient sentence (Aizer & Doyle, 2015).
- **Crossover youth** are those who are involved in both the child welfare and the juvenile justice system; they have higher recidivism rates (Huang et al., 2015) and many comorbid difficulties (Mallett, 2016).
- **Veterans** who are justice involved have higher rates of mental health problems than other veterans (Blodgett et al., 2015).

## Data Sources for Incarceration and Mental Health-Related Outcomes

Please see Tables 2 and 3 for more detailed data source characteristics.

### National Data Sources for General Populations and those with Mental Health Problems

#### National Health Interview Survey

<https://www.cdc.gov/nchs/nhis/index.htm>

The National Health Interview Survey (NHIS) has monitored the health of the nation since 1957. NHIS data on a broad range of health topics are collected through personal household interviews by the U.S. Census Bureau. Survey results have been instrumental in providing data to monitor health status, health care access, and progress toward achieving national health objectives.

**Data Access:** A data request is needed to access NHIS data. This includes a fee.

**Geographic Level:** Data are collected for States and Counties in the United States.

**Frequency:** Data are collected annually. Most recent data are from 2018.

#### Variables:

- Family member with a history of incarceration
- Mental Health Indicators



- Depression (Annual Core)
- Anxiety (Annual Core)
- PHQ-8 Depression (Rotating Core)
- GAD-7 Anxiety (Rotating Core)

**Strengths & Limitations:** Although NHIS does not directly measure criminal justice involvement of the respondent, the survey data could be used to study mental health need for those whose family member has a history of incarceration. NHIS can also be used to compare general population data with population-level data from those involved in the criminal justice system.

## National Survey of Children's Health (NSCH)

<https://mchb.hrsa.gov/data/national-surveys>

The National Survey of Children's Health (NSCH) is sponsored by the [Maternal and Child Health Bureau](#) of the Health Resources and Services Administration, an agency in the U.S. Department of Health and Human Services. In 2018, the total California sample was 3000 interviews. The NSCH examines the physical and emotional health of children ages 0-17 years of age. Special emphasis is placed on factors related to the well-being of children. These factors include access to and quality of health care, family interactions, parental health, neighborhood characteristics, as well as school and after-school experiences.

The NSCH is also designed to assess the prevalence and impact of special health care needs among children in the US and explores the extent to which children with special health care needs (CSHCN) have medical homes, adequate health insurance, access to needed services, and adequate care coordination. Other topics may include functional difficulties, transition services, shared decision-making, and satisfaction with care. Information is collected from parents or guardians who know about the child's health.

**Data Access:** Datasets can be downloaded at the Data Resource Center for Child and Adolescent Health (DRC) website ([www.childhealthdata.org](http://www.childhealthdata.org)). The DRC interactive data query allows users compare national and state-level findings among ages, race and ethnicity, income levels, and other subgroups. Cleaned and labeled datasets are available in SAS, Stata, and SPSS formats at no cost. Datasets can also be accessed via the [Census Bureau](#).

**Geographic Level:** Estimates are available at the state level and for some counties.

**Frequency:** Data are collected annually. Most recent data are from 2018.

**Variables:**

- Incarceration of family member
- Lifetime and current anxiety problems
- Lifetime and current depression
- Lifetime and current mental health condition
- Lifetime and current substance use disorder
- Past year receipt of treatment or counseling from a mental health professional

**Strengths & Limitations:** NSCH is a publicly available data source that can measure mental health and incarceration-related outcomes. However, public data are only accessible at the state level and not at the county level.

### National Survey on Drug Use and Health

<https://nsduhweb.rti.org/respweb/homepage.cfm>

The National Survey on Drug Use and Health (NSDUH) provides up-to-date information on recent and lifetime criminal justice involvement, tobacco, alcohol, and drug use, mental health and other health-related issues in the United States. Persons aged 12 years or older are identified using a cross-sectional sampling of households and interviewed. NSDUH began in 1971 and is conducted every year in all 50 states and the District of Columbia. The sample design aims for 4,560 completed interviews from California each year. Information from NSDUH is used to support prevention and treatment programs, monitor substance use trends, estimate the need for treatment and inform public health policy.

NSDUH is directed by the [Substance Abuse and Mental Health Services Administration](#) (SAMHSA), an agency in the U.S. [Department of Health and Human Services](#) (DHHS). The study is being conducted by [RTI International](#), a nonprofit research organization based in Research Triangle Park, North Carolina. RTI has conducted the study since 1988.

**Data Access:** A data request is needed to access the data. This requires a fee.

**Geographic Level:** National, State, County, and Census Tract

**Frequency:** Data are collected annually. Most recent data available are from 2004-2018.

#### **Variables:**

- Adult
  - Not counting minor traffic violations, have you ever been arrested and booked for breaking the law?

- Not counting minor traffic violations, how many times during the past 12 months have you been arrested and booked for breaking a law?
- In the past 12 months, were you arrested and booked for [crime]?
- In the past 12 months, were you arrested and booked for some other offense besides these that have been named?
- Please type one of the offenses for which you were arrested and booked during the past 12 months.
- Were you on probation at any time during the past 12 months?
- Were you on parole, supervised release, or other conditional release from prison at any time during the past 12 months?
- During the past 12 months, have you received treatment for your [alcohol use, drug use, or both] in a prison or jail?
- Was the treatment you received in a prison or jail for your alcohol use, your drug use, or both?
- What is the main place where you are currently receiving treatment for your alcohol or other drug use, not counting cigarettes? [Option: a prison or jail]
- Juvenile Incarceration
  - Received treatment in a jail or prison (Alcohol Use/Drug Use/Both; Emotional or Behavioral Problems not caused by Alcohol or Drugs;
  - Duration (Overnight or longer/Number of nights)
  - Arrested (Taken into custody/On probation/On parole)
  - Type of Offense
- Mental Health Indicators
  - Adult mental health service utilization
  - Adult mental health problems
  - Adult depression
  - Youth mental health service utilization
  - Adolescent depression

**Strengths & Limitations:** The NSDUH sampling population (12 years and older) captures a wider range of age groups than the other data sources. The survey assesses lifetime experience with arrest or booking and collects 12-month data in: arrest/booking, type of offense, probation, parole/supervised/other conditional release, treatment for alcohol or drug use while incarcerated, and incarceration.

Previous studies have used NSDUH data to examine the following research questions:

1. Is the relationship between serious mental illness and lifetime arrest mediated by substance use? (Swartz & Lurigio, 2007)

2. How does recent justice involvement affect hospitalization and emergency department use among adults and juveniles? (Frank et al., 2014; Winkelman et al., 2017; Winkelman et al., 2017)
3. What were the trends in insurance coverage and access to behavioral health care among justice-involved adults before and after the Affordable Care Act? (Winkelman et al., 2016)

## National Data Sources for General Populations Only (No Mental Health Indicator)

The [United States Bureau of Justice Statistics](#) (BJS) collects, analyzes, and reports data relating to crime in the United States. Corrections, courts, crime type, federal, law enforcement, and victims data are gathered from roughly 50,000 agencies that make up the U.S. justice system. The Annual Probation Survey, Annual Parole Survey, and Annual Survey of Jails (below) are BJS data collections that contain data of individuals already detained (Intercept 3). We have also included the Uniform Crime Reporting (UCR) program from the BJS, which collects data at Intercept 1, prior to arrest. Additional BJS data and information can be found on their website or at the BJS [Data and Product Finder](#) tool.

### Annual Probation Survey and Annual Parole Survey (APS)

<https://www.bjs.gov/index.cfm?ty=dcdetail&iid=271>

These surveys collect administrative data from probation and parole agencies in the United States. Data collected include the total number of adults on state and federal probation and parole on January 1 and December 31 of each year; the number of adults entering and exiting probation and parole supervision each year; and the characteristics of adults under the supervision of probation and parole agencies. Published data include both national- and state-level data. The surveys cover all 50 states, the federal system, and the District of Columbia. The surveys began in 1980 and are conducted annually. Probation data are available from 1977 through BJS's National Probation Reports. Parole data are available from 1975 through BJS's Uniform Parole Reports.

**Data Access:** Complete datasets are not available for APS. Data are available through publications and products on the [APS webpage](#).

**Geographic Level:** Estimates are found at the state level and are provided for some counties.

**Frequency:** Data are collected annually. The most recent data are from 2016, 2015, and 2014.

**Variables:**

- Offense (Most serious offense/Felony offense/Misdemeanor offense/“Other” offense)
- How many held for U.S. Immigrations and Customs Enforcement (ICE)
- How many in alcohol/drug treatment programs
- Parole supervision
- Location (Local jails/State or Federal prison/Community-based correctional facility)

**Strengths & Limitations:** APS collects data on individuals already involved in the criminal justice system, allowing for future linkages to client-level data should the individual utilize public mental health services. APS cannot be used to assess factors that indicate risk of arrest or incarceration. Furthermore, APS does not contain measures of mental health for the individual.

### Annual Survey of Jails (ASJ)

<https://www.bjs.gov/index.cfm?ty=dcdetail&iid=261>

Collects data from a nationally representative sample of local jails on jail inmate populations, jail capacity, and related information. The collection began in 1982 and has been conducted annually, except for years 1983, 1988, 1993, 1999, and 2005, during which a complete census of U.S. local jails was conducted.

**Data Access:** Data are available through Public Use Files (PUFs) on the [NACHD webpage](#).

**Geographic Level:** Estimates are found at the National, Census Tract, and County levels.

**Frequency:** Data are collected annually. The most recent data are from 2017, 2016, and 2015.

#### **Variables:**

- Number of convicted/unconvicted individuals, stratified by felony offense, misdemeanor offense, or ‘other’ offense
- Number of individuals held for U.S. Immigration and Customs Enforcement (ICE)
- Number of individuals participating in alcohol/drug treatment programs

**Strengths & Limitations:** Similar to APS, ASJ only captures data from individuals already in the criminal justice system. The target population of ASJ is even more specific; data are only from individuals in local jails. Again, this data source does not

capture mental health-related measures. Thus, ASJ may be a useful source for data linkages in the future.

### National Prisoner Statistics (NPS) Program

<https://www.bjs.gov/index.cfm?ty=dcdetail&iid=269>

The NPS Program produces annual national- and state-level data on the number of prisoners in state and federal prison facilities. Aggregate data are collected on race and sex of prison inmates, inmates held in private facilities and local jails, system capacity, noncitizens, and persons age 17 or younger. Findings are released in the [Prisoners series](#) and the [Corrections Statistical Analysis Tool \(CSAT\) - Prisoners](#). Data are from the 50 state departments of correction, the Federal Bureau of Prisons, and until 2001, from the District of Columbia (after 2001, individuals sentenced under the District of Columbia criminal code were housed in federal facilities).

**Data Access:** Data are available through [Public Use Files](#) and the [Corrections Statistical Analysis Tool \(CSAT\) - Prisoners](#).

**Geographic Level:** Estimates are available at the state level and for some counties.

**Frequency:** Data are collected annually. Most recent data are from 2017.

#### **Variables:**

- Incarceration Rates

**Strengths & Limitations:** The NPS Program can be used to compare incarceration rates across states or with national estimates. However, county-level data is not readily available for California. Furthermore, the NPS Program does not collect any mental health outcomes.

### Uniform Crime Reporting (UCR) Program

<https://www.fbi.gov/services/cjis/ucr/>

The UCR program compiles official data on crime in the United States and is a “nationwide, cooperative statistical effort of nearly 18,000 city, university and college, county, state, tribal, and federal law enforcement agencies voluntarily reporting data on crimes brought to their attention” (Federal Bureau of Investigation [FBI], 2009). UCR collects offense and arrest data in the Summary Reporting System (SRS), which provides a monthly tally of crimes, and the National Incident-Based Reporting System (NIBRS), which captures details on each crime incident including offenses, arrests, victim information, known offender information, arrestees, and relationships between victims and offenders. Currently, UCR is working with BJS to transition the UCR program to a NIBRS-only data collection by 2021.

**Data Access:** Data can be found on the SRS and the [NIBRS](#). Users can also access UCR data using the FBI's [Crime Data Explorer](#) tool to access charts and graphs.

**Geographic Level:** State, County, City

**Frequency:** Data are annually reported. Most recent data available are from 2018.

**Incarceration-related variables:**

- Offenses
- Arrests
- Victim information
- Known offender information
- Arrestees
- Relationships between victims and offenders

**Strengths & Limitations:** UCR is versatile when seeking crime and arrests data by county or city, allowing for examination of many neighborhoods. SRS produces a monthly aggregated tally of crimes, and the NIBRS provides deeper circumstantial and contextual information on the crime, such as location, time of day, and whether the incident was cleared. One limitation is that UCR data reflects crime reports by police, and not later adjudication.

## California Data Sources for General Populations and those with Mental Health Problems

### California Sentencing Institute – Center on Juvenile and Criminal Justice

The Center on Juvenile and Criminal Justice (CJCJ) is a nonprofit nonpartisan organization that conducts research and policy analyses to improve criminal and juvenile justice policies. CJCJ utilizes the most up-to-date criminal justice data available from the California Department of Justice, Criminal Justice Statistics Center; California Department of Corrections and Rehabilitation, Office of Research; California Board of State and Community Corrections; and the Chief Probation Officers of California, California Realignment Dashboard. Developed by CJCJ, the [California Sentencing Institute](#) reports population-adjusted rates of adult and juvenile criminal justice outcomes in California and all 58 counties.

For more information: <http://www.cjcj.org/Policy-analysis/Transparency-and-Accountability.html>

**Data Access:** Excel files for adults and juveniles can be downloaded from 2009 to 2016 on the [CJCJ website](#).

**Geographic Level:** Estimates are available at the state and county levels.

**Frequency:** Data are reported annually. The most recent data are from 2016.

**Variables:**

- Total adult imprisonments age 18-69 by
  - Sex
  - Race and Ethnicity (White, Latino, Black, Asian/other)
- County jail populations by sex
- Total adult population incarcerated, males and females
- Incarceration rate by sex
- Juvenile incarceration

**Strengths & Limitations:** The California Sentencing Institute data base has many strengths. It has the capacity to measure numerous criminal justice indicators at the county level and can stratify by sex and racial and ethnic groups. For each county, and statewide, this data source provides aggregated data on number of adults ages 18-69 years in prison and in jail, and number of youth ages 10-17 years in a state or local correctional facility (e.g., California Youth Authority) and juvenile halls or probation camps. In addition, adult incarceration rates by type can be stratified by race and ethnicity as well as by sex. Standardized rates per 100,000 persons from the same sociodemographic group are also provided. For youth, incarceration rates by type can be stratified by sex and are standardized to rate per 100,000 of males or females.

The main limitation of this data source is that it lacks robust indicators of need for mental health services. This omission is likely because the purpose of this data source is to improve criminal and juvenile justice policies. For adults, however, there is a study variable for past year treatment for alcohol use, drug use, or both in a prison or jail. Reliability and validity are not reported. For youth, there is one study variable for “open mental health cases” however the denominator is not defined making it problematic to assess whether the youth is in a correctional facility, juvenile hall or probation camp, or under supervision while probation. An “open case” may underestimate need for mental health care and be confounded by selection effects related to detection and variation in program capacity, policies and procedures related to opening a “mental health case”. Details of data elements are summarized in Table 2 in the Appendix.

[KidsData.org](http://kidsdata.org)

Kidsdata.org is a California-based database that compiles data from trusted public sources such as the California Child Welfare Indicators Project, the CA Departments of Education, Justice, and Health Care Services, the Centers for Medicare and Medicaid Services, the U.S. Census Bureau and more. Data are also drawn from a number of surveys such as the California Health Interview Survey (CHIS), California Healthy Kids Survey (CHKS), and the American Community Survey (ACS). Data usage and reproduction of data visualizations are free of charge. Incarceration-related indicators include juvenile felony arrests by county.



**Data Access:** Data are downloadable through KidsData.org as Excel or CSV files.

**Geographic Level:** Estimates are available at the state and county levels.

**Frequency:** Annually. Data are available every year.

**Variables:**

- Juvenile felony arrest rates, by gender and race and ethnicity
- Juvenile felony arrests, by gender, race and ethnicity, and type of offense
- Hospitalizations for mental health issues, by age group
- Depression-related feelings
- Youth needing help for emotional or mental health problems
- Substance abuse or disorder

**Strengths & Limitations:** One limitation of relying on this query tool as a data source is that it is a secondary source and therefore does not have as up-to-date data as the primary data sources may have. Additionally, the KidsData.org website does not allow users to cross-tabulate by criminal justice outcomes and mental health outcomes.

## California Data Sources for General Populations only

### [Criminal Justice Statistics Center](#) – California Department of Justice

The California Criminal Justice Statistics Center (CJSC) collects and reports statistical data from various components of the criminal justice system. The California CJSC maintains several statewide data systems containing specific data that are published annual at the [Attorney General's OpenJustice website](#).

**Data Access:** CJSC data can be accessed a number of ways through the OpenJustice website. Users can access data sets with arrest and crime data, create data tables specific to their inquiries, and view data stories on criminal justice topics through visuals and narratives.

**Geographic Level:** Estimates are available at the state and county levels.

**Frequency:** Data are collected and published annually.

**Variables:** Datasets on adult probation, arrests, crimes and clearances, hate crimes, hate crime prosecution, juvenile court and probation, and others can be found at the [OpenJustice Dataset page](#).

**Strengths & Limitations:** The California CJSC provides timely, concerted data at the state and county levels on incarceration and related criminal justice outcomes. However, it does not collect data on mental health outcomes.

## Surveillance and Monitoring for Incarceration Outcomes Prison Policy Initiative

[www.prisonpolicy.org/](http://www.prisonpolicy.org/)

The Prison Policy Initiative (PPI) is a national effort to monitor incarceration- and criminal justice- related data on a wide range of issues within the criminal justice system. Their data toolbox contains a wealth of data collected from various data sources, including the US Bureau of Justice Statistics. The Prison Policy Initiative utilizes these public data sources to produce user-friendly and downloadable reports, fact sheets, and visualizations, some of which capture the intersectionality of mental health and criminal justice.

The PPI research library contains a number of publications on the policy and practice of mental health, such as a brief on [statewide policies relating to Intercept 0 of the Sequential Intercept Model](#), crises response. Their annual report describes incarceration indicators for each state and includes numbers of those **pre-trial evaluation, not guilty by reason of insanity and incompetent to stand trial** ([Appendix: State of Incarceration: The Global Context 2018](#)). These indicators are especially relevant to MHSA-related work and are from the NRI report, [Forensic Patients in State Psychiatric Hospitals, 1999-2016](#). Examples of other state-level indicators are below:

### State-level criminal justice data (all states)

- [Incarcerated populations by race and ethnicity and gender for each state](#) with comparative total population counts and incarceration rate per 100,000 calculations [xlsx]
- Total confined population: [Confined populations by state, type of confinement, and gender \(2018\)](#)
- Total population under correctional control (including probation and parole): [Incarceration and supervision populations and rates by state \(2018\)](#)
- Jails: [Jail incarceration trends by state](#). Includes jail incarceration rates, jail growth from 1983-2013, percent held pre-trial, and use of jails to hold people for other state and federal agencies, using 2013 data.
- Jails - Pre-trial detention: [Jail population by state and conviction status, 1978-2013](#)
- Jails and Prisons - Over time (annual data from 1978-2015):
  - [Incarceration rates](#)
  - [Incarcerated population counts](#)

- Prisons - Gender: [Changes in state prison populations 2009-2015, by gender](#)
- Prisons - Fees:
  - [Medical co-pays charged, 2017 survey](#)
  - [State co-pay policies and sourcing](#)
- Parole: [populations, growth, returns to incarceration, technical violations, and release decisions](#), by state
- Releases: [Annual releases from state prisons and local jails, by gender and by state](#) using 2013-2016 data [xlsx]

## Data Tools that Include Mental Health Variables

### Health Care Services Dashboard – California Correctional Health Care Services

California Correctional Health Care Services ([CCHSC](#)) publishes a data dashboard each month to report on statewide performance trends, compare performance across institutions, and provide information on patient outcomes, access to care, and utilization and cost. These data tables can be adopted to a future dashboard facilitated by the MHSOAC. Data elements related to mental health outcomes and disparities are described below and reported by six-month trends and statewide percentages. Visit the [September 2019 dashboard](#) to learn about other measures.

- Scheduling and access to care
  - Access to mental health services
  - Appointments completed as scheduled
  - Appointments cancelled due to custody
  - Effective communication provided
  - Sign language interpreter (SLI) provided
- Medication management
  - All medications received timely
  - Formulary management by psychiatrists
- Continuity of clinicians and services
  - Mental health primary clinician
  - Psychiatrist
- Other trends
  - Hospital admissions
  - ED visits
  - Specialty care referrals

## Data Tools without Mental Health Variables

### California Department of Corrections and Rehabilitation

The California Department of Corrections and Rehabilitation ([CDCR](#)) oversees four efforts to collect, analyze, and report data for the state. The COMPSTAT Operational Performance Measures is not mentioned here because its unit of analysis is facilities. The other three are listed below.

#### Juvenile Justice

The [Division of Juvenile Justice Research and Data Analytics](#) produces reports, research, and analytics. Currently, these are not available online.

#### Office of Juvenile Justice and Delinquency Prevention

The [Office of Juvenile Justice and Delinquency Prevention](#) provides access to national, state and county-level population data on juvenile populations and characteristics of juvenile offenders in custody. Data are detailed by age, sex, race, and Hispanic ethnicity.

#### Office of Research – California Department of Corrections and Rehabilitation (CDCR)

The [CDCR Office of Research](#) reports weekly and monthly statistical summaries of CDCR populations, annual juvenile and adult recidivism rates, and biannual projections of adult, parole, and juvenile populations.

## Recommendations

The following are four sets of recommendations. Each category is determined by the accessibility of the data from a particular data source. The ideal, pie in the sky, accessibility would be one in which current data can be accessed or shared immediately to display in a future dashboard and in a format that would help streamline the process for updating this dashboard. For the scope of this project, the UCLA team will provide MHSOAC with a data library that consists of three years of data for each indicator in each of the 7 MHSA outcomes – suicide, unemployment, homelessness, incarceration, removal from home, school failure or dropout, and prolonged suffering. As such, the ideal accessibility would be to have publicly available data in which a complete data set with multiple indicators for a particular outcome or multiple outcomes can be downloaded at one time without a data request or data use agreement.

Recommendations of data sources and their related data elements are organized into four categories:

Category 1 describes data sources that meet four criteria: 1) publicly accessible and free; (2) accurate measure of the MHSA key outcome; (3) measure of the outcome in the context of mental health; and (4) available at the state and county levels.

Category 2 describes data sources that meet one or more of the four criteria above.

Category 3 describes options for pairing recommended data sources in either Category 1 or 2 that have the potential to contextualize incarceration at the county level.

Category 4 describes data elements that are not currently being measured in a standardized setting, but may be of interest and useful to collect. The recommendations in this section have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

## Category 1 Recommendations

### Recommendations #1:

The California Sentencing Initiative (CSI) is the recommended data source for incarceration for adults and youth. For adults, incarceration is measured as the number and percent of individuals in prison or jail. For youth, incarceration is measured as the number and percent of youth in state or local correctional facilities, juvenile hall, or probation camp. Disparities by sex can be examined across ages, and disparities by race and ethnicity can be monitored for adults. CSI contains one potentially relevant mental health variable related to the number of open mental health cases for youth, although the data does not specify whether youth were in prison, juvenile hall or camp, on house arrest, or alternate supervision.

For the purposes of monitoring by MHSOAC, CSI can be used to answer the following questions:

- How many adults were incarcerated in a year or in a range of years?
- What proportion of incarcerated adults were in jail or prison?
- How many youths in California were incarcerated in a year or in a range of years?
- What proportion of incarcerated youth are in a state or local correctional facility versus juvenile hall or probation camp?
- Do adult incarceration rates vary by race and ethnicity?
- Do adult or youth incarceration rates vary by sex?
- Do juvenile imprisonment rates vary by sex?

## Category 2 Recommendations

### Recommendation #1:

**The National Survey on Drug Use and Health (NSDUH)** is the best source among data sources that would require additional funding, resources or time to access the data. The target population is the general U.S. population ages 12 years or older. Strengths include the capacity to stratify by State, county and census tract, age (12-

65+years), gender, and race and ethnicity beyond census groups. Given that this data source focuses on tobacco, alcohol, and drug use, mental health and other health-related issues it is also a rich data source for more detailed information. Legal characteristics include past year mental health treatment in jail, alcohol/drug/or both treatments, at least overnight stay in juvenile hall, jail or prison and, if so, number of nights and receipt of any mental health treatment, number of arrests and bookings, type of offense, and past year probation. The NSDUH has the capacity to estimate the proportion of persons who have a mental health problem, serious emotional disturbance, serious mental illness, clinical severity, more than one disorder, substance abuse or disorder, and physical health problem due to substance use. Among vulnerable populations, the NSDUH has the capacity to estimate the proportion of persons who are poor, in the military, pregnant, and have a disability. Social determinants, such as educational attainment, housing insecurity, and financial insecurity can be identified. Of note, this data source also includes the capacity to monitor other related MHSA outcomes; namely child welfare involved, justice involved, unemployment, and school absenteeism.

### **Recommendation #2:**

**Data from the KidsData.org** is the second choice. The main limitations of this data source are that it is restricted to children and adolescents, ranging from birth to 19 years of age, and the main outcome related to incarceration focuses only on juvenile arrest rates. Strengths include the capacity to stratify age groups (0-9 years, 10-19 years), gender, race and ethnicity, poverty level, vulnerable populations (LGBTQ, immigrants, undocumented), disability, and urban/rural region. Clinical characteristics include reported mental health problem, serious emotional disturbance, clinical severity, substance abuse/disorder and physical health status and problems. Social determinants that can be identified are housing, financial and food insecurity as well as trauma exposure. Of note, this data source includes four data elements related to other MHSA key outcomes, namely child welfare involvement, unemployment, homelessness, and school failure or drop-out.

### **Recommendation #3:**

**The National Health Interview Survey (NHIS)** is the third best choice. The main limitation is that the only data element related to incarceration is whether the respondent has a family member with a history of incarceration. Strengths include the capacity to stratify by State, county and census tracts, all age groups, gender and race and ethnicity. Given that this is an annual household survey to describe a broad range of health topics, it is also a rich data source for detailed information, as seen in *Table 1*. Clinically, this data source can estimate the proportion with a self-identified mental health problem, clinical severity, more than one disorder and physical health status and problem. Social determinants that can be detected are educational attainment, housing insecurity, financial insecurity, school absenteeism, and food insecurity. Of note, this

data source also detects two related MHSA outcomes, specifically child welfare involved and unemployment.

#### **Recommendation #4:**

**The National Survey of Children's Health (NSCH)** is the third best choice. The main limitations of the NSCH are: (1) the only data element related to incarceration is whether the respondent has a family member with a history of incarceration and (2) data collection is restricted to children and adolescents. Strengths include the capacity to stratify by gender and a wide breadth of race and ethnicity groups. The NSCH can identify the proportion of children and youth who are poor, pregnant or have a disability. Data can be used to assess how current and lifetime family member incarceration could impact the academic performance and wellness of children. Clinical characteristics include reported mental health problem, serious mental illness, substance abuse or disorder and physical health status and problems. Social determinants that can be detected are educational attainment, housing insecurity, and food insecurity. Of note, the data source can identify three related MHSA outcomes, namely child welfare involved, unemployment, and school failure or dropout.

#### **Recommendation #5:**

**The Annual Probation Survey and Annual Parole Survey (APS)**. The APS is the fourth best choice for data sources in Category 2. Although rich in detailed information about legal characteristics, it did not make the cut-off for Category 1 because data are available only through publications and other existing reports. The APS has the capacity to stratify by gender and race and ethnicity, but not by age groups. Legal characteristics include type of serious offense among adult probationers, number with felony/misdemeanor/or other offense, and number of persons confined in jail who are held for U.S. Immigrations and Customs Enforcement. Legal disposition types include among unconfined persons under supervision the proportion of persons participating in alcohol or drug treatment programs, number in parole supervision, number in local jails, number in state or federal prison, and number in a community-based correctional facility.

#### **Recommendation #6:**

**The Annual Survey of Jails (ASJ)** is the fifth best choice because it does not have the capacity to measure mental health outcomes; it measures only substance use. The target population is the general population within jails. Strengths include capacity to stratify data by county and census tracts, legal characteristics (i.e., number convicted versus unconvicted, type of offense [felony, misdemeanor, other], held for ICE), proportion of unconfined persons under supervision who participate in an alcohol or drug treatment program, age groups (i.e., 10-65+ years), gender, and race and ethnicity. In addition, the ASJ has the capacity to estimate the prevalence of persons treated for substance abuse or disorder while in jail.

### Category 3 Recommendations

Both the UCR and CJSC have the capacity to identify California counties with relatively high crime rates, possibly signaling a greater need for mental health services (Intercepts 0 and 1). These data sources also provide data on numbers of arrests by county (Intercept 2) which can be used as a potential proxy variable to indicate a need for diversion programs, in addition to estimated proportion of persons arrested who have a mental health problem and/or substance abuse disorder. The national data sources reviewed (e.g., NHIS, NSCH, NSDUH) provide general population estimates of broad need for mental health care by county (some counties may be missing for NSCH), but not among persons with a history of arrest. An option may be to abstract study variables related to incarceration (e.g., history of arrest, incarceration) from mental health agency client-level data, but the denominator would be restricted to only persons who access and use mental health services, and duration of the episode of care may widely vary. Together, the data sources on county-level crime rates have the potential to supplement county-level data on number of persons in jail (ASJ) and in prison (NPS). A challenge for combining information from data sources across different intercepts includes the lack of a common identifier (or access to it, i.e., SSN, which is personal health information), which may impede the capacity to individually link data sources to monitor a person's pathway across the continuum of incarceration and relationship to need for mental health care and use of mental health services over time. Other challenges in pairing data sources are the time lag for public data reporting and differences in reporting years.

### Category 4 Recommendations

Based on preliminary analysis of county and local ethnographic observations (including attending MHSA events and conducting focus groups and interviews), these are some suggestions for other metrics which would be relevant in understanding the health of a county with regards to reducing incarceration and arrests/convictions leading to incarceration due to criminal offenses caused by unmet mental health need.

#### Monitoring prevention throughout the criminal justice process

There are multiple stages in the criminal justice process during which mental health need can be addressed in order to prevent ultimate incarceration. Measuring countywide success or failure at reducing ultimate incarceration could involve comparing metrics at each stage, for instance:

- IST determinations, convictions, mental health service receipts while in prison, mental health service receipts after release, and repeat incarcerations. Number of mental health-related arrests or law enforcement contacts due to behavioral problems, would also be a useful metric, although this may be more difficult to collect in practice.



- As noted above, the relative proportion of a particular group at different stages of the process would be another important measure. For example, a drop off in frequency for arrests versus ultimate incarcerations could indicate that this group is being successfully diverted into treatment.

### Monitoring and accounting for racial and ethnic bias

Minority racial and ethnic groups have higher law enforcement contact and higher arrest rates. Additionally, minority youth with behavioral problems (especially African American boys) are more likely to be punished as trouble-makers rather than referred to behavioral health services, increasing their risk for both school failure and later incarceration.

Suggested metrics for monitoring and accounting for racial bias in both incarceration and mental health service receipt include:

- Comparing relative proportions of vulnerable populations at each of stages. For example, does the proportion of mental-health related arrests who are African American match the proportion of mental-health related inmates who are African American?
- Cross-referencing incarceration data, mental health service use data, and household or school survey data on unmet mental health need across different populations.
- Comparing mental-health related criminal justice involvement for each subpopulation with:
  - All criminal justice involvement for that group
  - Mental health need in the general community for that group, measured through household or school surveys
  - Mental health service receipt in the general community for that group

### Accounting for intersectionality<sup>2</sup> in incarceration

Similar to racial and ethnic minorities noted above, LGBTQ+ individuals, particularly youth, are also disproportionately represented in the criminal justice system.

A metric to measure county-level health would be to specifically examine intersectionality across multiple high-risk populations.

- The same metrics mentioned in the previous section (monitoring racial and ethnic bias) also apply here: comparing metrics within the justice system versus the overall community; cross referencing incarceration and mental health need/service; examining mental health need versus service receipt.

<sup>2</sup> Intersectionality describes the overlap of various social identities, such as race and ethnicity, sexuality, and class, that can result in overlapping systems of disadvantage (Seng et al., 2012).

- Below are a few examples of intersectional identities who are known to be at higher risk of mental health issues, social stigma, and criminal justice involvement:
  - transgender youth of color
  - sexual/gender minority (LGBTQ+) youth in foster care as well as LGBTQ+ adults who have aged out of foster care.
  - LGB girls and young women, as well as transgender women.

### Monitoring repeat or cyclical incarceration due to unmet mental health need

People with multiple offenses and unmet mental health need are a smaller subpopulation who are disproportionately affected and disproportionately burdened by the criminal justice system. Such individuals cycle through patterns of arrest followed by incarceration, difficulties linking with recommended follow-up mental health care, and subsequent re-entry into the criminal justice system.

Suggested metrics to measure county level health in this domain include:

- Number of arrests/incarcerations that are first-timers versus repeated incidents.
- Monitoring individuals' history of criminal justice involvement to count both the number of cyclical cases and average number of repeat arrests.

### Measuring incarceration's connection to other negative outcomes

Incarceration and the stages leading up to it are known to be correlated with a variety of other MHSAs targeted negative outcomes. For youth, risk factors for criminal activity and incarceration include **school failure** and behavioral problems, **incarceration of a parent**, and growing up in the foster care system (**removal from home**). Youth who have been involved in the justice system show higher rates of **suicidal behavior and ideation**. For adults, **unemployment** and **homelessness** are both risk factors for and outcomes of criminal justice involvement (including arrest, conviction, or incarceration).

**Race** and **social class** are heavily correlated with contact with law enforcement, likelihood of arrest, and likelihood of referral to or acceptance of mental health services versus legal punishment. Similarly, a child's **ethnicity, culture or class**, strongly impact whether school behavioral issues are seen as a sign of mental health need or are punished as misbehavior. Even if arrests or punishments do not lead to court trials, racism itself is a known stressor with negative mental health consequences (Williams & Mohammed 2009)

Finally, the degree to which mental illness is **stigmatized** versus normalized in a community affect access to and acceptance of mental health care resources, while the degree to which prior incarceration is stigmatized in a community affects ease of re-integration after release, also impacting mental health.

Because these domains are interconnected, improvements or worsening in one domain can be expected to have a delayed downstream effect on the others and should be monitored accordingly. For example, as already discussed, parental incarceration increases the likelihood of children's school failure and criminal involvement later in life as well as children's risk for mental health problems. Therefore, programs that divert adults into needed mental care at early stages of the criminal justice process would be expected to positively impact outcomes for the next generation.

## Conclusions

Overall, incarceration is conceptualized across the continuum consistent with the Sequential Intercept Model. This continuum ranges from risk for mental health problems due to exposure to crime, to incarceration in the most restrictive setting (i.e. prison). An estimated eighty billion dollars are spent per year on correctional facilities, with estimates of total costs as high as one trillion dollars annually. In California, nearly 12 billion dollars were allocated to correctional facilities (Legislative Analyst's Office, 2019). The negative impacts of incarceration span the individual, family, community and societal levels. Persons who have been incarcerated are at higher risk for poor educational attainment, unemployment, reduced wages over their lifetime, and decreased lifespan. Children of parents serving time are at greater risk for school failure, entry into foster care, and involvement in the juvenile justice system. Burdens to family members include criminal justice debt, eviction, and caring for additional children while a parent is incarcerated. Societal outcomes include lost labor productivity and the immeasurable negative toll of lost potential of contributions by individuals, their families and future generations that could strengthen communities and reduce costs.

The risk for poor mental health is transactional, perpetuating a negative cycle characterized by higher risk for mental health problems in vulnerable communities prior to detainment (i.e. high community crime rates) as well as incarceration across multiple stages. Stages include higher risk for contact with law enforcement for signs of potential need for mental health services, higher risk for developing a mental health problem given the stressors of incarceration, and higher risk for exacerbating mental health problems following release related to the negative consequences of having a history of incarceration. Together this cycle is particularly detrimental to persons who are poor, with limited social supports, from minority race and ethnic backgrounds and socially marginalized.

Nevertheless, throughout these cycles, there are also opportunities for diversion to reduce the risk of incarceration while increasing opportunities for early detection of mental health problems and access to mental health care. Key points for intervention based on the Sequential Intercept Model are: 1) during arrests; 2) during detention and initial court hearings; 3) within the courts, jails or prison; 4) during re-entry after release; and 5) within community corrections such as supported housing, employment, and specialty care for person on probation or parole. In addition, this model is expanded to

also include persons at risk for mental health problems in vulnerable communities as indicated by crime rate data.

Both the UCR and CJSC have the capacity to identify California counties with relatively high crime rates to identify vulnerable counties that are likely to have greater need for mental health services (Intercepts 0 and 1). These data sources provide important contextual data for national data sources that provide county-level estimates of incarceration. To monitor rates of incarceration at the State and county levels, the recommended data source is the ASJ. At the county level, the number of persons in jail by type of offense can be estimated. The ASJ also has the capacity to monitor trends over time. Beginning in 1982, the ASJ provides an annual source of data on local jails and jail inmates with data collected by the Bureau of the Census. Further, the ASJ has the capacity to provide estimates of need for and use of alcohol or drug treatment programs among persons in jail.

## Chapter 3: School Failure

The goal of this chapter is to provide a brief overview of the importance of measuring ***school failure*** as part of a surveillance effort for each county population. We briefly define school failure and examine ways of measuring risk for school failure as well as school failure itself. This chapter concludes with recommendations for state- and

county-level surveillance of school failure in the general population of California public schools, including recommendations for publicly available data sources and key data elements.

## Defining School Failure

School failure encompasses both early school leaving (i.e., dropout) and poor social and academic performance while in school (Doll, Spies, & Champion, 2012; Hargreaves, 2004; Richman, Bowen, & Woolley, 2004). School failure prior to dropping out is indicated by poor attendance, low achievement, and low psychological investment or engagement in school (Archambault, Janosz, Fallu, & Pagani, 2009; Richman et al., 2004); all three of these indicators frequently co-occur and can have lasting negative effects on youth development (Bradshaw, O'Brennan, & McNeely, 2008).

***Being physically present in school contributes to school success*** by helping students keep pace academically and by preventing engagement in anti-social or risky behaviors outside of the school setting (McConnell & Kubina, 2014). School attendance can be monitored by examining absenteeism, or excusable or inexcusable absences from school, as well as tardiness (Kearney, 2008). There is also a disciplinary dimension to school attendance through the use of exclusionary discipline practices (i.e., suspension and expulsion), which remove students from the school temporarily or permanently, respectively.

***Academic achievement*** is conceptualized in several different ways, and is commonly assessed by grades, grade level promotion, standardized test scores, or on-time graduation. Examples of key academic milestones include learning to read, entering school (also referred to as school readiness), and high school graduation (Kern & Friedman, 2009). ***Investment and engagement in school*** are broad terms used variously to refer to behavioral factors (e.g., on-task behavior, compliance with rules and teacher requests), cognitive factors (e.g., interest in learning and classroom work, persistence, effort), and psychosocial factors (e.g., belongingness, placing value on school; Archambault et al., 2009; Doll et al., 2012). Students who are engaged in school, and those with consistent, on-time attendance, earn higher grades and meet academic milestones more promptly than their disengaged peers (Doll et al., 2012).

Chronic school failure, or absenteeism, low achievement, and disengagement that persists or builds over time, often culminates in dropout (Jozefowicz-Simbeni, 2008; Lamb, Markussen, Teese, Polesel, & Sandberg, 2011; Richman et al., 2004). As such, ***school failure is viewed as a process rather than a discrete event***. For example, a school failure trajectory might proceed as follows: early disengagement from school can negatively impact achievement, potentially causing a student to fall further and further behind academically. Falling behind can in turn contribute to further disengagement and a pattern of behavior that results in exclusionary disciplinary practices. Ultimately, the

student may decide to formalize their withdrawal from school in the form of dropping out. Dropout can also occur because of non-academic reasons, such as pregnancy, financial need to work full-time, and school refusal or phobia (Kearney, 2008; Lamb et al., 2011).

Because school failure is a process that occurs across multiple developmental stages, **strategies to recognize early school failure**, such as early warning systems, have been proposed (Henry, Knight, & Thornberry, 2012). Different indicators may be more or less salient depending on the developmental stage. For example, the ability to self-regulate emotions and behavior is believed to be particularly relevant for preventing early disengagement from school (Bradshaw et al., 2008).

**Structural and institutional factors also contribute significantly to the process of school failure**, including structural and institutionalized racism, implicit bias, and discrimination. For example, exclusionary discipline practices, which can put students on a trajectory towards dropout, are disproportionately used with students of color and students with disabilities (Steinberg and Lacoé, 2017; U.S. Department of Education Office for Civil Rights, 2014). In fact, racial disparities in these practices begin as early as preschool, with almost half (48%) of black preschool children experiencing a suspension while making up only 18% of the preschool population (Steinberg and Lacoé, 2017; U.S. Department of Education Office for Civil Rights, 2014).

**Schools may also have varying levels of resources** available for interventions to prevent school failure or re-enroll students who have dropped out. Moreover, the emphasis on high-stakes testing may inadvertently incentivize schools to overlook students at risk for school failure as these students may be seen as “a necessary loss in an effort to raise the pass rate of the end-of-the-year test” and the overall academic rating of the school (Richman et al., 2004, p. 135). Although beyond the scope of this chapter, there is a long history of schools providing the range of student social emotional supports ranging from health promotion and universal prevention, selected and indicated prevention, and treatment and recovery services (Benningfield & Stephan, 2015; Ijadi-Maghsoudi et al., 2017; Kang-Yi et al., 2018; Sanchez et al., 2017). National educational policies such as the 2015 Every Student Succeeds Act (ESSA) allows for states to set their own accountability targets using indicators of academic proficiency as well as other measures such as school climate and student engagement (U.S. Department of Education, n.d.).

## What Do We Know About School Failure?

**School failure is associated with an array of consequences that play out across different stages of the life course and on multiple levels.** For individuals, school failure results in considerably lower earnings as adults, fewer options for employment, greater dependence on public assistance, and a higher likelihood of involvement with

the criminal justice system (Christle, Jolivet, & Nelson, 2007; Henry et al., 2012; Rumberger, 2011). Individuals who have experienced school failure are also more likely to report physical and mental health issues (Christle et al., 2007; Rumberger, 2011). In addition, school failure has been associated with institutional and population-level consequences. For example, academic issues among students can undermine the general mission of schools by creating disorder (Steinberg, Brown, & Dornbusch, 2005). Moreover, school failure is associated on the state and national level with reduced national income and lost tax revenues, increased crime and antisocial behavior, higher unemployment rates, and higher mortality rates (Christle et al., 2007; Krueger, Tran, Hummer, & Chang, 2015).

The growing recognition of the **“school-to-prison pipeline”** provides another motivation for monitoring school failure. The “school-to-prison pipeline” refers to a collection of policies and practices that disproportionately result in ethnic minority children, primarily African American males, to be “pushed out” of public schools and into the juvenile and criminal justice systems (American Civil Liberties Union, 2019). For example, national policies such as the use of “zero tolerance” disciplinary policies disproportionately affect students of color and those from economically disadvantaged backgrounds. From 1975 to 2018, the proportion of public schools reporting police presence in their school grew from 1% to 48%, with some concluding that this has made it easier to process minor offenses as crimes and to outsource discipline to the juvenile justice system (Whitaker et al., 2019). At the same time, students suspended or expelled as a result of zero tolerance policies are more likely to drop out of school, creating an “indirect” school-to-prison pipeline because students who drop out are more likely to go to jail or prison later in life (Whitaker et al., 2019). Ultimately, measuring school failure as part of county surveillance efforts is an important step towards informing school and discipline reform efforts and mitigating the detrimental impact of the “school-to-prison pipeline” and other school failure processes.

## Risk Factors & Indicators for School Failure

Understanding **populations who are at-risk for school failure** is a key part of addressing this issue. Institutionalized and structural racism disproportionately impacts certain groups of students and their families (Blanchet et al, 2005, Blaisdell, 2016). As such, higher rates of school failure are seen among students who are male, Black or Latino, identify as a sexual minority, experience homelessness, or are from low socioeconomic status (SES) backgrounds (Jozefowicz-Simbeni, 2008; Lamb et al., 2011; Needham, Crosnoe, & Muller, 2004; Richman et al., 2004).

In addition, **youth experiencing social-emotional or mental health problems** are at increased risk for school failure, as are those with educational disabilities (Freeman & Simonsen, 2015; French & Conrad, 2001; Jozefowicz-Simbeni, 2008). These students may be more likely to be identified as exhibiting behavior problems that lead to

suspension and expulsion (Jozefowicz-Simbeni, 2008). On the other hand, the availability of mental health services that can intervene early to strengthen students' psychological wellness can support students' success in school (Doll et al., 2012). Being male, Black, Latino, a sexual minority, or disabled are not risk factors in and of themselves; however, as described in the previous section, ethnic minority students (particularly Black and Latino males), students who are sexual minorities, and students with disabilities disproportionately receive exclusionary discipline that can put students on the path to school failure (Whitaker et al., 2019).

**Family, school, and community factors** can also contribute to students' experiences with school failure. Youth in single-parent families and step-families are at higher risk for school failure, as are those who experience higher than average levels of stressful change in the home (e.g., parental divorce or death; Bradshaw et al., 2008; Lamb et al., 2011; Needham et al., 2004). Children in foster care are also at high risk for school failure, as foster youth have higher rates of absenteeism, disciplinary referrals, grade retention, residential mobility, and dropout than non-foster youth (Zetlin & Weinberg, 2004). School characteristics, such as size, student/teacher ratios, teacher quality, and school climate influence school failure rates even after controlling for individual-level confounders (Lamb et al., 2011). Neighborhood poverty and having friends who have dropped out of school also increase the likelihood of school failure (Lamb et al., 2011). Lastly, factors such as school violence, gang involvement, and teenage pregnancy also contribute to school failure processes (Lamb et al., 2011). It is also important to note that the likelihood of school failure increases when multiple risk factors are present (Freeman & Simonsen, 2015).

**Some behaviors also predict school failure, namely absenteeism, misbehavior in school, and poor academic performance**, including lack of early academic achievement and engagement in elementary and middle school (Lamb et al., 2011). Indeed, early school failure is a well-established predictor of later school dropout (Balfanz, Herzog, & Mac Iver, 2007; Lamb et al., 2011). Finally, distal risk factors such as grade retention and student mobility can negatively affect students' engagement with school, also increasing the likelihood of school failure (Lamb et al., 2011).

## Data Sources for School Failure Outcomes

In this next section, we present data sources that can be used to monitor school failure.

We first characterize **national data sources** that provide data at the national and/or state level, with some that can be used to compare California outcomes to other states. For the most part, these data sources do not provide consistent comparison data across all counties within California. For these data sources we present two types:



- 1) National Data Sources for General Population and those with Mental Health Problems (data sources that include both indicators of school failure and mental health problems) and
- 2) National Data Sources for General Populations Only (No Mental Health Indicator)

Next, we characterize **California data sources** that all provide at least an indicator of school failure. We again describe two types of data sources:

- 1) California Data Sources for General Populations and those with Mental Health Problems and
- 2) California Data Sources for General Populations Only (No Indicator of Mental Health Problems)

Overall, we found several data sources that monitor school failure for the general population of public school students. The ones highlighted in this report have the following characteristics: 1) ongoing and reliable data collection, 2) recent data available, and 3) estimates at the state-level and county-level, with most of these sources also available at smaller geographic levels like school, district, city, census, or congressional districts. Table 1 lists additional characteristics and vulnerable populations that are measured in each data source.

Please see Tables 4-6 for more detailed data source characteristics.

## National Data Sources for General Populations and those with Mental Health Problems

### National Health Interview Survey (NHIS)

The NHIS is a nationally representative survey of the civilian noninstitutionalized population and is used widely throughout the Department of Health and Human Services (DHHS) to track trends in illness and disability. Due to its small sample size, state-level data are not available for each state, but selected estimates for most states may be obtained by combining data years.

Given that this is an annual household survey to describe a broad range of health topics, it is also a rich data source for detailed information. The NHIS has the capacity to stratify by age groups, gender, race and ethnicity, poverty, LGBTQ, immigration status, including refugee, pregnancy, and disability status. Clinically, this data source can estimate the proportion of adults or children with a self-identified mental health problem, clinical severity, more than one disorder and physical health status and problem. The NHIS Child Core Questionnaire measures health status, functioning and disability, schooling, demographics, mental health service utilization, and mental health.

### Data Access:

NHIS data are accessible through two methods:

- **Route 1: Public use files**, which are downloadable through the [Data and Documentation page](#). These data cannot be stratified by state unless multiple data years are pooled together.
- **Route 2: Restricted Variables by request**, which include: country/state/year of birth, related immigration variables, detailed race and Hispanic origin, and current state/county code. More information can be found [here](#).

**Geographic level:** National only

**Frequency:** Annual. Data are currently available 1964-2018.

### **Variables:**

Characteristics of Route 1 are described below:

- **Risk of School Failure Indicator for those with Mental Health Concerns:**
  - For children with difficulties in emotions, concentration, behavior, or being able to get along with others (minor/definite/severe) – do these issues affect classroom learning?
  - Absenteeism: number of days of school missed in past year due to illness, injury, or disability (children age 5-17 and adults going to school)
- **Mental health service use indicators** (for children age 5-17 and adults):
  - Past year treatment with medication to help with emotions, concentration, behavior, or mental health
  - Past 3-month treatment with talk therapy such as cognitive behavioral therapy (CBT)
  - Past year receipt of mental health services

NHIS can also stratify by sexual orientation, veteran status, families receiving free/reduced school breakfasts, IEP/special education, and others. Here are detailed outline of topics in the [Child Core Questionnaire](#) and [Adult Core Questionnaire](#).

**Strengths & Limitations:** This dataset includes risk for school failure for those with mental health concerns, and also has variables for those who are receiving mental health care. It also has an extensive list of characteristics that describe the individual and family as well as relevant school supports such as an IEP. Although NHIS is a rich data source with detailed information, the inability to stratify the public use data set by state makes it a weaker candidate for this project's purposes.

### **National Survey of Children's Health (NSCH)**

The NSCH is fielded by the US Census Bureau and provides nationally representative national and state-level data on children's physical and mental health, access to care, and their school, neighborhood, and family context. The sample population is non-institutionalized children in the United States ages 0-17 years. The survey is available in

English and Spanish. The survey oversamples children with special health care needs and children 0-5 years of age. The NSCH can identify the proportion of children and youth who are poor, pregnant or have a disability. Clinical characteristics include reported mental health problem, serious mental illness, substance abuse or disorder and physical health status and problems. Social determinants that are described include educational attainment, housing insecurity, and food insecurity. Of note, the data source can identify three related MHSOAC outcomes, namely out of home placement, unemployment, and school failure or dropout.

**Data Access:**

- Free public access: The DRC's interactive [data query tool](#) allows users to instantly access and compare national and state-level findings among children of different ages, income levels, health status, race and ethnicity, and other subgroups. In the figure below, school absenteeism due to illness or injury is cross-tabulated with the subgroup: emotional, behavior or developmental problems for which treatment or counseling is needed. These children are identified by the answers to two questions on the validated Children with Special Health Care Needs (CSHCN) Screener.
- Data by request: NSCH data can be publicly accessed through the **Data Resource Center for Child Adolescent Health (DRC)** website. Cleaned and labeled datasets in SAS, Stata, and SPSS are available at no charge. These datasets can be requested [here](#). The process usually takes less than 2 business days.

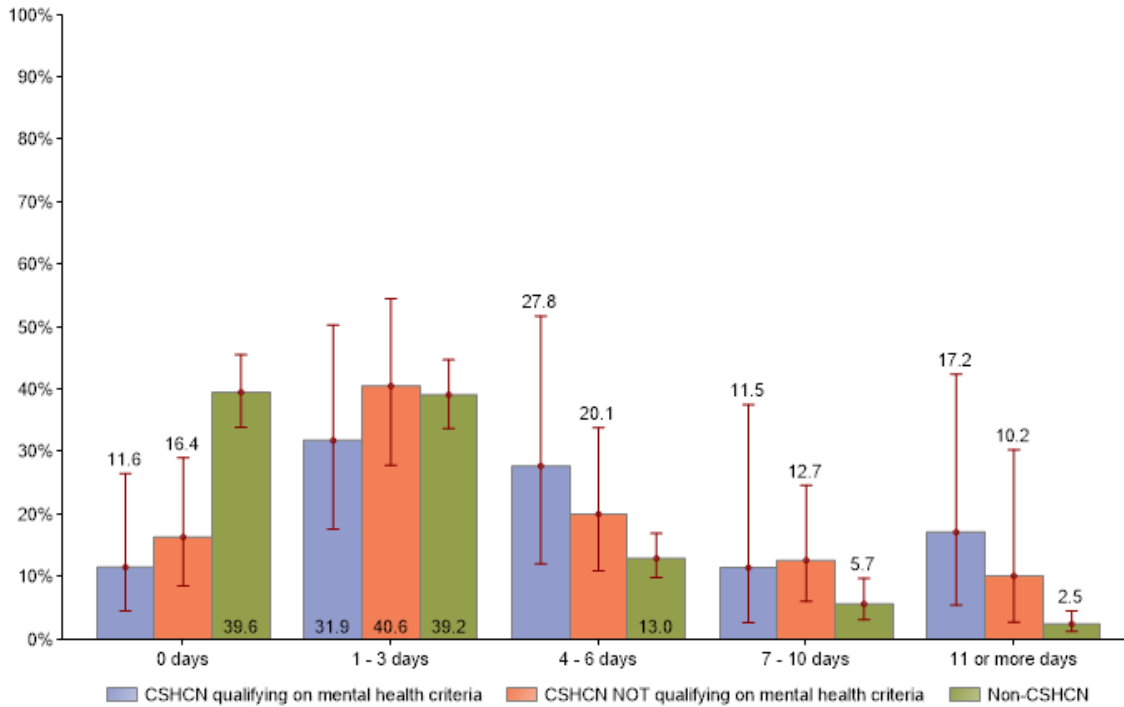
**Geographic Level:** National and State-level data

**Frequency:** Annual. Data are available from 2016 to 2018.

**Variables:**

- **School failure indicators:**
  - School absenteeism, ages 6-17
  - Repeated grades
  - Past year contact from school about problems student is having
- **Mental health indicators:**
  - Emotional, developmental, or behavioral problem where child needs treatment or counseling
  - Child ever diagnosed with anxiety problems/ Current anxiety problems
  - Child ever diagnosed with depression/ Current depression
  - Past year receipt of treatment or counseling from a mental health professional
  - Level of difficulty to get the mental health treatment or counseling that child needed (Likert scale)
  - How often does this child's health insurance offer benefits or cover services that meet behavioral or mental health needs? (Likert scale)

Figure 1. Number of school days missed due to illness or injury during the past 12 months, children age 6-17 years, California



SOURCE: 2017-2018 National Survey of Children's Health, more information [here](#)

**Strengths & Limitations:** This data source has several strengths including its design for data collection specifically concerning children, its range of school failure indicators, and diagnosed mental health problems as well as treatment indicators. The NSCH query site can serve as an example of an interactive, user-friendly tool that can cross-tab among many subgroups. Although it provides a wealth of information on school failure-related outcomes and mental health, NSCH cannot provide county-level measurement.

### National Survey on Drug Use and Health (NSDUH)

The National Survey on Drug Use and Health (NSDUH) provides nationally representative monitoring data on tobacco, alcohol, and drug use, mental health and other health-related issues in the United States. NSDUH collects information from the civilian, noninstitutionalized population of the United States 12 years or older. Given that this data source focuses on tobacco, alcohol, and drug use, mental health and other health-related issues, it is also a rich data source for more detailed information. The survey is conducted for English- and Spanish-speaking populations. Latest report: <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf>

### Data Access:

NSDUH data are accessible through three methods:

- **Route 1: Public Use Files** downloadable (SAS, SPSS, Stata, ASCII, R) through the [Substance Abuse & Mental Health Data Archive](#) (SAMHDA)
- **Route 2: Restricted Use Files**, which include certain geographic indicators.
- **Route 2: Data hosting, by request.** Proposals are submitted to the National Center for Health Statistics and review will take 12 weeks. The estimated cost is at least \$3000. More information on this [webpage](#) and this [guide](#).

SAMHDA provides two online analysis tools to access NSDUH data:

- **Public-use Data Analysis System (PDAS)**, which allows users to explore the study variables, run crosstab analyses, and download the results as an image or a CSV data file format.
- **Restricted-used Data Analysis System (RDAS)**, which allows users to explore data over multiple survey years or year-pairs, and includes surveys with location-based information, such as rural codes. RDAS can produce state estimates for 2 or more years of pooled NSDUH data.

While NSDUH collects data at the county, census block group, and tract-level, these data are not reported in the public data files or data tools. They are used to create sub-state estimates, which may or may not be useful to the MHSOAC. Methodology can be found [here](#). Therefore, county-level data must be requested.

**Geographic level:** State and sub-state estimates

**Frequency:** Annual. Public use data are currently available 2002-2018

**Variables:**

- **School failure indicators:**
  - Grade average during past school year
  - Problems at work/home/school because of substance use
  - Days missed from school due to illness
  - School enrollment in past year
- **Mental health indicators**
  - Youth mental health service utilization
  - Kessler-6 total score in past month
  - Past month and past year serious psychological distress
  - Past year suicide ideation
  - Major depressive episode / treatment: adolescents: past year
  - Mental health service use for problems NOT caused by substance use past 12 months
    - Adolescents: by setting (includes education, child welfare, juvenile justice)

- Co-occurring MI and SUD for adolescents.

**Strengths & Limitations:** Strengths include the capacity to stratify by age (12-65+), gender, and race and ethnicity beyond census groups. Although publicly available data is not available at the county-level, NSDUH contains a wide range of data that can be used to examine the relationship between mental health and school failure in youth. It also stands out for its inclusion of a suicide risk indicator and for extensive substance use items. If resources allow, data hosting may be a worthwhile endeavor in the future to monitor county-level outcomes. However, county-level data would need to be requested.

### Youth Risk Behavior Surveillance System (YRBSS)

<https://www.cdc.gov/healthyyouth/data/yrbs/data.htm>

YRBSS monitors behaviors that contribute to unintentional injuries and violence, alcohol, and other drug use, and tobacco use. The YRBSS includes the Youth Risk Behavior Survey (YRBS), a national school-based survey conducted by state, territorial, and local education, and health agencies and tribal governments. The national survey conducted by the CDC contain data representative of 9<sup>th</sup> through 12 grade students in public and private schools. YRBS surveys conducted by state, territorial, tribal government, and local surveys provide data representative of mostly public high school students in each jurisdiction.

#### **Data Access:**

- The availability of YRBSS data depends on YRBS participation, data quality, and data sharing policies. For the 2017 High School YRBS, the State of California has weighted state results. The **large urban school districts** in California who participated in the 2017 High School YRBS are: Oakland, San Francisco, Los Angeles, and San Diego. Only San Francisco and Los Angeles participated in the 2017 Middle School YRBS. In past years, San Bernardino participated in the High School YRBS, but stopped after 2013. See more survey participation [here](#).
- The combined YRBS dataset, which includes national, state, and large urban school district data, can be downloaded via ASCII, SAS, and SPSS. This dataset does not have state identifiers; users must submit a request. See all combined and national datasets here: <https://www.cdc.gov/healthyyouth/data/yrbs/data.htm>
- In order to get state, large urban school district, territory, or tribal government YRBSS data, users must complete the YRBSS Data Request Form. If the jurisdiction has not given CDC distribution permission, users must contact the jurisdiction directly to discuss the data request.
- [Youth Online](#) is a tool that allows analysis of national, state, and local YRBSS data from high school and middle school surveys conducted from 1991 to 2017. YRBSS data can be filtered and sorted by race and ethnicity, sex, academic grade, and sexual orientation. School failure-related data for the general population or those with mental illness are not displayed in this tool.

**Geographic Level:** National, State, and specifically funded large urban school districts or counties.

**Frequency:** Biennial. Most recent data are available from 2013, 2015, and 2017.

**Variables:**

- **School failure indicators:**
  - Did not go to school because they felt unsafe at school or on their way to or from school
  - Past year self-reported grades (Mostly, As, Bs, Cs, Ds, Fs, none, not sure)
- **Mental health indicators:**
  - Sadness and hopeless (recent)
  - Past year suicide ideation
  - Past year suicide plan
  - Past year suicide attempt

**Strengths & Limitations:** The YRBSS includes multiple risk behaviors of youth. These data can compare California results to other states across the country. This dataset also has several indicators of risk for suicide. However, the YRBSS is only available at the state level, but is not representative of the state in that it focuses on large school districts, and not available for each county. The YRBSS is very limited in its indicators of school failure, with only two identified risk indicators.

## National Data Sources for General Population Only (No Mental Health Indicator)

### American Community Survey (ACS)

The Census Bureau's American Community Survey collects vital information on a broad range of topics including housing, educational attainment, and demographics. ACS collects data from noninstitutionalized and institutionalized individuals.

**Data Access:** Data are available through a number of routes: publicly downloadable via Public Use Microdata Sample (PUMS) files on the Census Bureau's file transfer protocol (FTP) server or accessible through data tools like the [data.census.gov](http://data.census.gov); or by request of Custom Tables. However, each route has different characteristics that affect how users attain school failure data.

- Route 1: PUMS files through FTP server or IPUMS.org
  - Contains state-level data only, but has school failure data
- Route 2: PUMS files through [data.census.gov](http://data.census.gov)
  - Contains county- and district-level data, but has no school failure data
- Route 3: Data by request through Census Bureau
  - Contains county- and district-level school failure data

For this project, Route 1 would be the most useful. Therefore, we describe it in detail below. Route 2 is the least useful since there is no school-failure data. However, we have included it in case ACS adds school failure data to data.census.gov in the future. Route 3 is a costly option, but it is worth noting.

### ACS Publicly Available Data Sources

**Route 1: Public Use Microdata Sample (PUMS) files** are available through the [FTP server](#) and [IPUMS.org](#). The PUMS files allow data users to create estimates for user-defined characteristics. The files contain a sample of responses to the ACS and includes variables for nearly every question on the ACS survey. The PUMS files for one year contain data on about 1% of the United States population. The PUMS files limits geographic detail below the state level; the only sub-state geography provided is the Public Use Microdata Area, or PUMA. Counties are not identified in PUMS, and PUMAs are not representative of counties.

**Geographic Level:** National and State

**Frequency:** Annual. Data available 2005-2018.

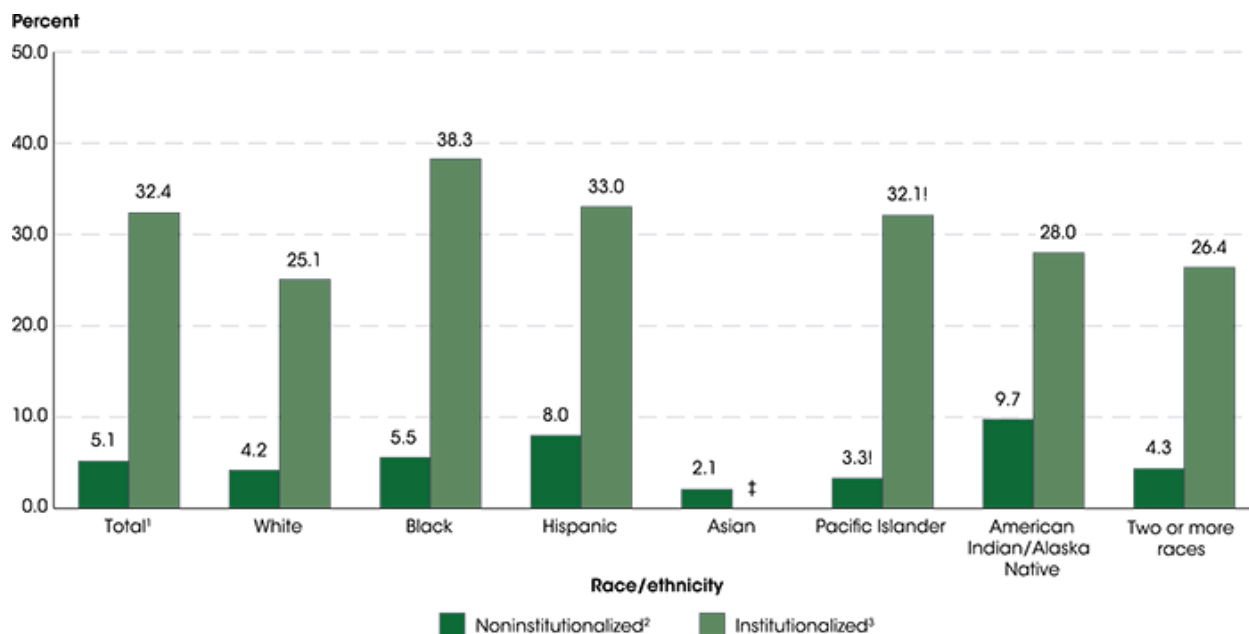
#### **Variables:**

- Data publicly available for **School Failure Indicators** (risk for school failure) include:
  - The **status dropout rate** is the number of 16- to 24-year-olds who are not enrolled in school and have not earned a high school credential as a percentage of the total number of the 16- to 24-year-old population.
    - By race and ethnicity and their subgroups
    - By sex
    - By nativity
    - By age
    - By state
  - Lack of attendance in preschool (school failure risk)

Since the ACS sample includes the noninstitutionalized and the institutionalized population (which includes individuals in adult and juvenile correctional facilities, nursing facilities, and other health care facilities), dropout rates can be compared between the two populations. For example, the status dropout rate in 2016 was 5.5% for the noninstitutionalized population and 33.7% for the institutionalized (ACS, 2017). Below is a data visualization using ACS data from a report produced by the National Center for Education Statistics, [Trends in High School Dropout and Completion Rates in the United States](#).

*Figure 2. Status dropout rates of 16- to 24-year-olds, by race and ethnicity and noninstitutionalized or institutionalized status: 2017*





SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2017. See *Digest of Education Statistics 2018*, [table 219.80](#).

## Route 2: [Data.census.gov](https://data.census.gov)

Data.census.gov contains PUMS files and is the primary platform for accessing data from the US Census Bureau and the ACS. The site allows to drill down to the county level, download data files, and create customized maps. The school failure indicators listed above are not available through published tables at American FactFinder or data.census.gov. However, this tool may be useful when examining additional factors that could affect school failure in a county.

## ACS Data Sources by Request

### Route 3: Custom Tables

If data needs for measuring school failure using ACS cannot be met by PUMS files, users can request a custom tabulation from the Census Bureau. The minimum cost is \$3000, and the minimum timeframe is 8 weeks. Additionally, requests must be reviewed by the Disclosure Review Board. The Census Bureau does not approve requests for special tabulations involving sub-state geographies unless the data are protected by strengthened disclosure avoidance methods. This route may be worth exploring if ACS adds mental health indicators in the future.

One limitation of ACS is that it does not currently collect data on mental health need and service use. However, the ACS is still a useful source of data to monitor behaviors and trends that could inform efforts to prevent school failure.

**Strengths & Limitations:** ACS includes institutionalized as well as non-institutionalized individuals. However, this data is only at the state level and has no mental health indicators.

### Current Population Survey (CPS)

The Current Population Survey is the United States government's monthly survey of unemployment and labor force participation; domains measured include poverty, health insurance, and school enrollment. The CPS has been collected for decades, allowing for the analysis of longitudinal trends. CPS is a household survey for noninstitutionalized individuals age 15 or over.

#### Data Access:

CPS school-related data are publicly accessible in a few ways.

- **Route 1: Microdata**
  - Public Use Microdata Files can be downloaded free of charge from the Census Bureau's DataWeb [FTP](#) page
- **Route 2: Data Tools**
  - [Data.census.gov](http://Data.census.gov)

**Geographic level:** National and State

**Frequency:** Monthly (some supplemental questions collected annually/biannually, see the [supplemental surveys](#) list for frequencies)

#### Variables:

School failure indicators

- The **event dropout rate** is the percentage of 15- to 24-year-olds in grades 10 through 12 who leave high school between the beginning of one school year and the beginning of the next without earning a high school diploma or an alternative credential such as a GED. The event dropout rate provides information about the rate at which U.S. high school students are leaving school without receiving a high school credential.
  - By sex
  - By family income
  - By disability status
  - By age
  - By region (South, West, Midwest, or Northeast)
- The **status dropout rate** is the number of 16- to 24-year-olds who are not enrolled in school and have not earned a high school credential as a percentage of the total number of civilian, noninstitutionalized 16- to 24-year-olds.
  - By race and ethnicity (census group)
  - By sex
  - By family income quarter

- By disability status (physical, mental, or emotional condition)
- By recency of immigration
- By age
- By region
- By labor force status
- By years of school completed
- The **status completion rate** is the percentage of 18- to 24-year-olds not enrolled in high school (also referred to as “young adults” in this indicator) who hold a high school diploma or an alternative credential, such as a GED.
  - By race and ethnicity
  - By sex
  - By disability status
  - By recency of immigration
  - By region

**Strengths & Limitations:** Core information is collected on a monthly basis. Data source includes several key high risk populations that can help describe school failure. However, many of the event dropout rate estimates are based on responses from a relatively small number of survey respondents. As a result, some differences that seem substantial are not statistically significant.

### Monitoring the Future (MTF)

<http://monitoringthefuture.org/>

Monitoring the Future (MTF) is an ongoing, nationally representative study of the behaviors, values, and attitudes of United States high school students, college students, and young adults that focuses on drug use and attitudes. MTF surveys a sample of 8<sup>th</sup> graders, 10<sup>th</sup> graders, and 12<sup>th</sup> graders in public and private schools in the United States. The survey is facilitated by the National Institutes of Health, National Institute on Drug Abuse. MTF measures a variety of useful indicators, such as absenteeism, mental health services receipt, and substance use related to mental health.

#### Data Access:

- [Public-Use Cross-Sectional Datasets](#) are available for Stata, R, SPSS, SAS, Delimited, or ASCII. Related to documentation are also available online.

**Geographic Level:** National

**Frequency:** Annual. Data are available 1991-present for all grades.

#### Variables:

- **School Failure Indicators:**
  - Self-rated school ability (Likert scale)
  - Past month school absenteeism
  - Grade average

- **Mental health or mental-health related variables:**
  - Would you say you're very, pretty, not too happy these days?
  - Past year, how many times have you seen a doctor or other professional for some emotional or psychological problem or symptom?
- **Other variables:**
  - Hours worked per week in paid or unpaid job
  - Substance use (lifetime, past month, 2 weeks)
  - Reason for using substances (to get away from my problems or troubles; because of anger or frustration)
  - Did your use of alcohol/marijuana/other illicit drugs cause you to be less stable emotionally in the last 12 months?

**Strengths & Limitations:** MTF has extensive substance use items, along with some risk for school failure and mental health indicators. Estimates of substance use among youth based on the MTF are not comparable with data from other surveys (e.g. MSDUH and YRBSS) because of differences in populations covered, sample design, interview setting, and questionnaire. MTF does not provide state- or county-level data. Therefore, it is a weak candidate for this project.

## National Center for Education Statistics (NCES)

<https://nces.ed.gov/>

The NCES is the primary federal agency for collecting and analyzing education-related data from prekindergarten to graduate school. Data from public schools are collected annually from State Education Agencies (SEAs).

### Data Access:

- NCES includes a number of data tools. The [DataLab](#) features data from more than thirty federal education datasets. DataLab aids in the creation of data visualizations and analyses with its three tools: QuickStats for simple visualizations, PowerStats for complex regressions and tables, and TrendStats for complex tables spanning multiple years of data collection.
- The NCES also annually produces the [Digest of Education Statistics](#) and publishes statistics on educational outcomes such as academic performance, graduation rates, dropout rates, and course-taking patterns in high school.
- School failure data from the NCES can be publicly accessed via the Common Core of Data (CCD) files, which are produced annually and include the [Local Education Agency \(School District\) Universe Survey Data](#) files, which provide basic information about all education agencies and the students for whose education the agencies are responsible. CCD files are available on the NCES website as [data tables](#) and can be downloaded through Excel (for limited dates up through 2009-2010).

**Geographic Level:** State, national

**Frequency:** Annual. Years data are available are below, by indicator.

**Variables:**

- **School Failure Indicators:**
  - Averaged freshman graduation rate (AFGR), currently available 2007-08 through 2011-12
    - By race and ethnicity
  - Adjusted cohort graduation rate (ACGR), currently available 2010-11 through 2015-16
    - By race and ethnicity
    - By economically disadvantaged
    - By limited English proficiency
    - By disability status

**Strengths & Limitations:** These data provide school-reported outcomes that can be easily compared to other states. Data is only available at the state level, with some delay in years available. NCES data files do not contain any mental health indicators.

## California Data Sources for General Populations and those with Mental Health Problems

### California Health Interview Survey (CHIS)

<http://healthpolicy.ucla.edu/chis/data/Pages/GetCHISData.aspx>

CHIS is the nation's largest state health survey, asking questions on a wide range of health topics. More than 20,000 adults, teenagers, and children are interviewed via random-dial telephone surveys each year in all 58 counties. In addition to immigration health, health insurance coverage, and physical and mental health, CHIS contains data on mental health status; perceived need, access, and utilization of mental health services; functional impairment; stigma; and suicide ideation and attempts.

CHIS data can be analyzed at the county level for California's 41 most populated counties. The remaining 17 counties are organized into three different groups. CHIS samples from children (0-11 years), adolescents (12-17 years), and adults (18 years and older)

**Data Access:**

CHIS Publicly Available Data

There are many ways to publicly access CHIS data:

- **Route 1: Public Use Data Files (PUF)** allow researchers to customize and run their own statistical code. The files are available in a variety of formats, including SAS, SPSS, and STATA.

- **Route 2: AskCHIS** is a free, web-based data query system that allows users to search for data at the county, region, and state level.
- **Route 3: AskCHIS Neighborhood Edition (AskCHIS NE)** allows users to search for top health topics at granular levels of geography (zip code, city, county, and legislative district), and produce data visualizations.
- **Route 4: AskCHIS NE Application Programming Interface (API)** gives web developers, programmers, and data analysts programmatic access to estimates essential for data portals, visualizations, and clinical applications. These data can be merged with outside data for a more layered research and analysis.

### CHIS Data by Request

There are also a number of ways to access confidential CHIS data by request:

- **Route 5: The Data Access Center Project (DAC)** allows researchers to analyze confidential CHIS data, data sensitive variables and/or geo-coded data. DAC requires a research application, renewal, and approval. The minimum cost is \$1000. More info on rates can be found [here](#).
- **Route 6: Data Estimate Request (DER)** is available for government agencies, the media, and nonprofit organizations interested in specific health issues. The request must be estimate driven and cannot be used for the purposes of research.
- **Route 7: The Special Use Research File (SURF)** contains non-publicly available CHIS variables that can merge with CHIS PUF depending on the confidentiality and sensitivity of the variables requested.
- **Route 8: Local health department (LHD) files** contain data at the county level for the CHIS sample in a specific county and can be requested by local health departments.

We have included all of these methods to illustrate the various options CHIS offers for accessing more granulated data and of the user-friendly data tools that can be used to create data visualizations. For the purposes of this project, Route 1, Public Use Data Files, is the best way to access CHIS data immediately because the dataset is publicly available and includes school failure and mental health related indicators.

**Geographic level:** State, County

**Frequency:** Annual

**Variables: (by request)**

- **School Failure Indicators**
  - Missed days from school due because of a health problem
  - Missed days from school due because of feeling unsafe

- **Mental Health Indicators:**
  - Psychological distress (Kessler-6), adolescents
  - Suicide ideation and attempts, adolescents
- **Service Use Indicators:**
  - Psychological or emotional counseling
  - Primary care, emergency room use
- **Sociodemographic characteristics:**
  - Age, gender, race and ethnicity, birth country, immigration status, and language spoken at home.

**Strengths & Limitations:** CHIS is very comprehensive and collects a number of sociodemographic variables that can be used to measure disparities within counties and across the state. Data are collected from children on Age, gender, race and ethnicity, birth country, immigration status, and language spoken at home. Data is available for most counties in California. However, CHIS cannot be used to compare California data with other states. For the school failure outcomes, data would need to be requested and is not available on the publicly available portal AskCHIS.

## California Healthy Kids Survey (CHKS)

<https://calschls.org/>

The CHKS is a confidential, anonymous survey administered to students at grades five, seven, nine, and eleven measuring health risks and behaviors, school climate, protective factors, school connectedness, and school violence. CHKS is not a mandatory survey; the CA Department of Education (CDE) encourages schools and districts with students in 5-12 grades to administer CHKS. CHKS has separate elementary, middle, and high school versions. Three regional centers provide comprehensive technical assistance on survey administration and use of findings. In addition to school failure, CHKS also measures substance use, suicide behavior, and nutrition and physical health.

**Data Access:** Through the California Department of Education, [CalSCHLS](#) is a query tool that allows for public access to selected items from CHKS, which is **collected in 73% of districts in California**. Below is a description of CalSCHLS:

*The CalSCHLS system was created by the California Department of Education (CDE) in 1997 to efficiently and cost-effectively provide school districts and their partner communities with quality local data which can be used to improve student academic performance and social-emotional, behavioral, and physical health of all youth. It assesses key indicators linked to success in school, career, and life. The majority of districts in California now use CalSCHLS data as Local Control and Accountability Plan (LCAP) indicators.*

The complete CHKS data are not publicly available. Researchers and educators can request data after submitting a Memorandum of Understanding. More information can be found [here](#).

During 2019/2020 school closure due to COVID-19, the California Department of Education has provided a new online **Learning from Home Survey** to assess the remote learning experience of students. The survey measures educational routines, quality of relationships with teachers and peers, engagement and motivation in educational activities, and social emotional well-being. Data will be displayed on the online dashboard listed below. For more information on this survey: <https://calschls.org/survey-administration/learning-from-home-survey/>.

**Geographic level:** State, County, some Districts and Schools

**Frequency:** Annual/Biannual

**Variables:**

- **School Failure and Mental Health/Substance Use Indicators:**
  - Missed school due to feeling very sad, hopeless, anxious, stressed or angry
  - Missed school due to wanting to use drugs or alcohol
  - Risk factor for school failure (low school connectedness) for students with depression-related feelings in previous year
  - Risk factor for school failure (low school connectedness) for students with suicidal ideation
  - Risk factor for school failure (low school connectedness) for students with alcohol or drug or e-cigarette use in past month/lifetime
- **School Failure Indicator + Without Mental Health/Substance Use Indicator:**
  - Truancy (frequency)
- **School Climate:**
  - School climate as measured by could be used as a proximal outcome for identifying counties with schools who have more negative school climate, which has been found extensively in the literature to relate

*Missed school* and *truancy* indicators can be examined by:

- By Grade (7<sup>th</sup>, 9<sup>th</sup>, 11<sup>th</sup>, non-traditional)
- By Gender (Male, Female)
- By level of school connectedness
- By parent education
- By race and ethnicity
- By sexual orientation



Data tools display data from the CHKS and the California School Staff Survey (CSSS).

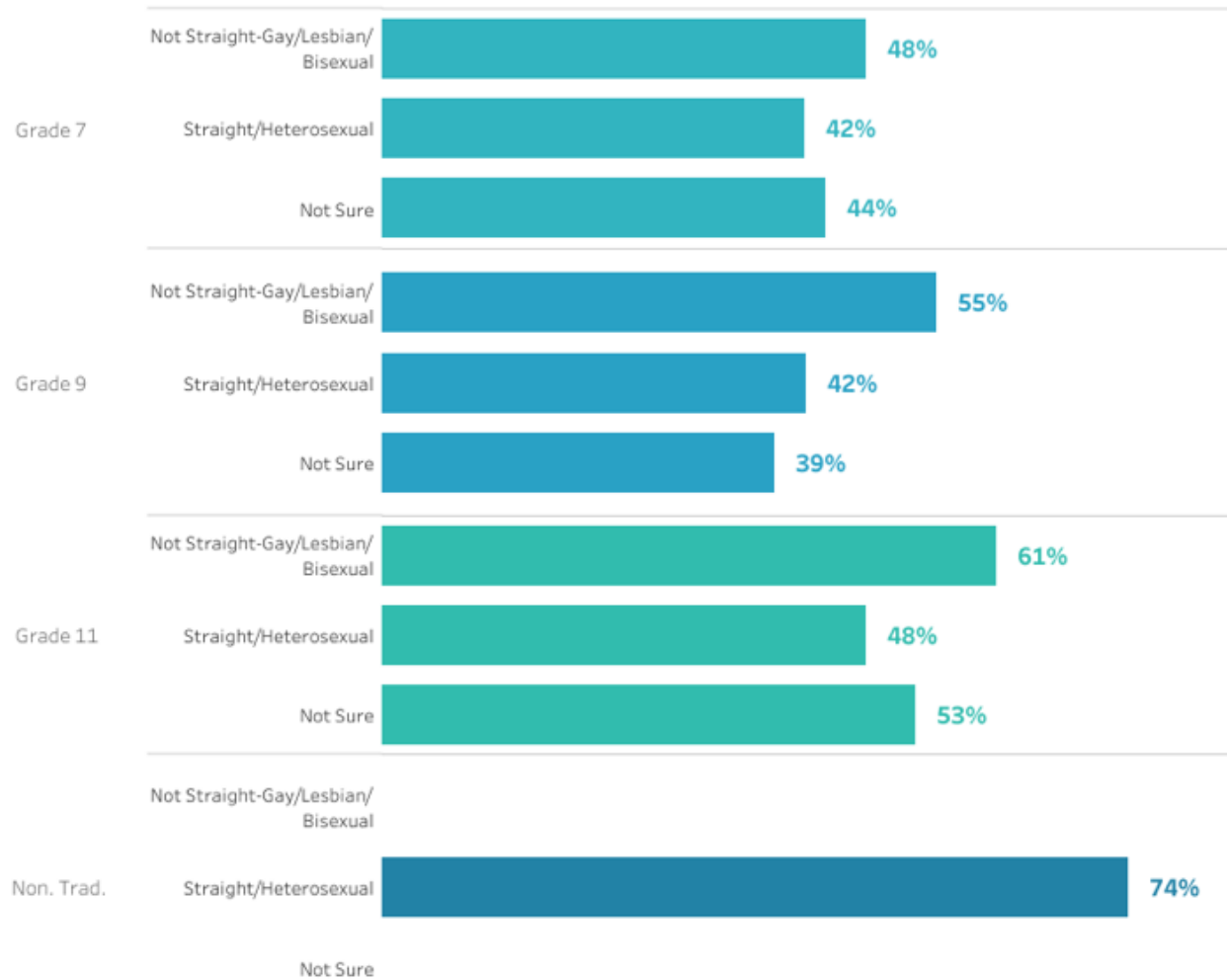
- **Tool 1:** The [CalSCHLS Public Dashboards](#) displays 21 indicators from elementary schools and 23 indicators from secondary schools. Secondary school results can be examined across 11 subgroups. It is possible to examine trends over time and disparities across subgroups. Below is an example of truancy cross-tabulated with sexual orientation (Figure 3). Other subgroups include ELP, free/reduced-price meal eligibility, gender, gender identity, living situation, migrant education, parent/guardian military status, parental education, and race and ethnicity.

*Figure 3. Past year truancy based on sexual orientation: Anaheim Union High, 2017-2018*

## Anaheim Union High | Most Recent Data (2017-18)

Any truancy | One or more times in the past 12 months

Results based on: **Sexual Orientation**



SOURCE: WestEd, California Healthy Kids Survey, California Department of Education (2017-2018).

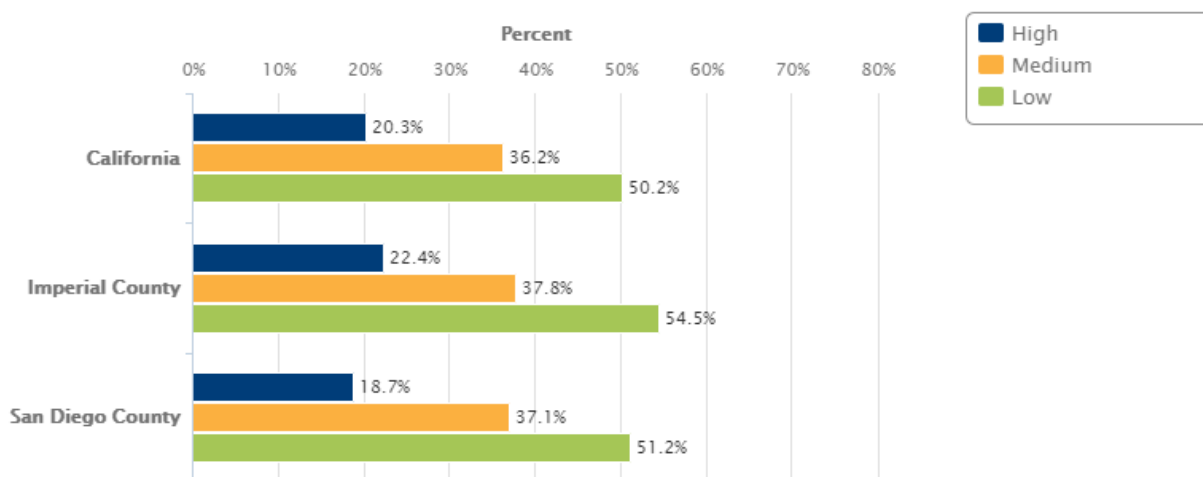
- **Tool 2: [Query CalSCHLS](#)** is an interactive query tool where statewide data are organized by gender, grade level, race and ethnicity, and level of connectedness to the school. Data can be compared across counties. For an example of what can be generated, see Figure 4.

Figure 4. Depression-Related Feelings, by Level of School Connectedness, 2013-2015

## Depression-Related Feelings, by Level of School Connectedness

[Related Data](#) | [Why This Topic Is Important](#) | [How Children Are Faring](#) | [Policy Implications](#) | [Research & Links](#)

Year(s): 2013-2015 | Student Response: Yes



SOURCE: WestEd, California Healthy Kids Survey, California Department of Education (Jul. 2017).

**Strengths & Limitations:** CHKS is a comprehensive set of surveys that characterize children in California, and can be compared across participating counties. Query tools can be used to access the data. However, CHKS is not a mandatory survey for all schools in California, which may limit comparisons across all counties.

## California Data Sources for General Populations Only (No Indicator of Mental Health)

California Department of Education via Data Quest

<https://www.cde.ca.gov/ds/>

The California Department of Education (CDE) contains a wealth of public data on the state's students and schools, including data on enrollment, academic performance, student poverty, expulsion and suspension, absenteeism, truancy, graduation, and dropout. These data are readily available on the website above and include Public Schools and Districts Data Files, a Data Resource Guide, and Ed-Data, which collects

fiscal, demographic, attendance, and student performance data from local educational agencies.

**Data Access:** Since the existence of the publicly accessible data files are widely known throughout the state, we would like to highlight [DataQuest](#), a data tool that allows access to wide variety of reports on school performance, test results, enrollment, expulsion, dropouts, student demographics, course enrollment and student misconduct and intervention. Survey data are from CHKS, the California School Climate Survey, and others. Users can generate reports for the State, specific counties, or select schools and districts. DataQuest is not the most user-friendly tool, but its integration of multiple surveys could be a useful example when designing the new dashboard.

**Geographic level:** State, County, District, School, and Special Education Local Plan Areas (SELPAs)

**Frequency:** Annual

**Variables:** The following describes each indicator of School Failure along with the data elements available for each indicator:

- **4-year Cohort Graduation Rate**, by Race and ethnicity, by County, District, School  
By Year (2009-2010 to 2017-2018)
- **One Year Graduation Rate** (number of grade 12 graduates), by Race and ethnicity by County, District, or School  
By year (2007-2008 to 2016-17)  
By gender  
By English learner  
By migrant  
By Socioeconomically disadvantaged
- **Dropout rate**, by grade (7-12), by Race and ethnicity by County, District, or School  
By year (2016-17)  
By gender  
By English learner  
By migrant
- **Chronic Absenteeism Rate** by County, District, or School  
By Race and ethnicity  
By academic year (AY) (2016-17 to 2017-18)
- **Truancy Rate** by County and District (only)  
By Year (2011-12 to 2015-16)
- **Suspension Rate**, by County, District, or School  
By Race and ethnicity  
By type (with one suspension, with multiple suspensions)

By comparison of percent cumulative enrollment vs Percent Suspended by Race and ethnicity  
By type of most serious offense

- **Expulsion Rate**, by County, District, or School  
By Race and ethnicity  
By type of most serious offense
- **Students in Foster Care, by English Language Arts Test Results** by grade by County, District, or School  
By year (2014-15 to 2017-18)
- **Students in Foster Care, by English Language Arts Test Results** by Race and ethnicity by County, District, or School  
By year (2014-15 to 2017-18)
- **Students in Foster Care, by Mathematics Test Results** by grade by County, District, or School  
By year (2014-15 to 2017-18)
- **Students in Foster Care, by Mathematics Test Results** by Race and ethnicity by County, District, or School  
By year (2014-15 to 2017-18)

**Strengths & Limitations:** Data on school-reported school failure are freely accessible at the school and county levels. The data can also be viewed for specific at-risk populations such as students in foster care. However, this data source does not have any mental health information, so it can only characterize the general population of students, not those who have mental illness or are at risk for mental health concerns.

## Surveillance and Monitoring for School Failure Outcomes

This next section provides examples of existing surveillance and monitoring of the outcome of School Failure. We include both national and state examples, and those that are limited to data only on school failure (general population) as well as those with data on both school failure and mental health (population with mental health concerns).

## National Examples of School Failure Data Tools Without Mental Health Indicators

The *EDFacts* Initiative

<https://www2.ed.gov/about/inits/ed/edfacts/index.html>

Data files include: Assessment Data, Adjusted Cohort Graduation Rates, Homeless Enrolled

## National Assessment of Educational Progress (NAEP) and the NAEP Data Explorer

<https://www.nationsreportcard.gov/ndecore/landing>

Since 1969, the NAEP has measured student performance in various subjects across the nation, states, and select urban districts. The NAEP is a congressionally mandated project facilitated by the NCES and is administered to a representative sample of students across the country. The NAEP Data Explorer allows researchers to create charts, maps, and statistical tables.

The [National Indian Education Study](#), one of the NAEP's projects, provides data on academic performance for grades 4 and 8 for American Indian and Alaska Native students. These data can be used to monitor education-related disparities for this racial population.

## California Examples

### California School Dashboard

<https://www.cde.ca.gov/ta/ac/cm/index.asp>

This dashboard displays data on the performance of local educational agencies (LEAs), schools, and student groups on a set of state and local measures. The dashboard is part of the state's System of Support and is a powerful online tool to help districts and schools identify their strengths and weaknesses and improve student outcomes. The School Dashboard provides access to the following reports: the District Performance by County Report, the Student Groups Report, the Participation Rate Report, the Five-by-Five Placement Reports, and the College/Career Measures Report.

Data for the dashboard come from the California Department of Education. The dashboard is accessible in Spanish. The dashboard also displays information on the school's enrollment, proportion of foster youth, proportion of English learners, and proportion of socioeconomically disadvantaged students. Schools and districts can be searched by state, county, or city.

Indicators from the California School Dashboard include:

- Chronic absenteeism
- Suspension rate
- English learner progress
- Graduation rate
- Academic performance (Grades 3-8 and 11)
- College/career

## California School Dashboard Navigator

<https://www.arcgis.com/apps/opsdashboard/index.html#/c1ab918656a84316aeebf2629172266a>

The California School Dashboard Navigator is an interactive mapping tool for visualizing school and student performance for each of the above indicators. Student groups characterized in this map include racial and ethnic groups, English learners, foster youth, homeless youth, socioeconomically disadvantaged youth, and students with disabilities. Data are from the California Department of Education.

## Ed-Data: Education Data Partnership

<https://www.ed-data.org/>

Ed-Data is a collaboration among the California Department of Education (CDE), EdSource, and the Fiscal Crisis and Management Assistance Team/California School Information Services (FCMAT/CSIS). Ed-Data provides public access to timely and comprehensive data about K-12 education in California, such as rates of chronic absenteeism, suspensions, and expulsions. Student demographics and academic performance data are also accessible. State, county, district, and school data are available.

## Data Linkage Examples

Although outside the scope of this project, we provide brief examples of what local school districts are doing internally with their own data. Due to privacy concerns, access to this data is typically restricted to those who need to know (school administrators and staff) and would need to be requested from the specific district or entity linking such data. Multiple examples exist at individual district and county levels of data linkage for use by school administrators and school staff. Below are two such examples:

### Los Angeles Unified School District (LAUSD) Whole Child Integrated Data

<https://achieve.lausd.net/Page/15682>

*Whole Child Integrated Data*, a web-based platform, provides a complete picture of each child, including their grades, attendance, physical and mental health, special needs, and more. As a District, LAUSD currently refers to over 80 different data sources to find information about the whole child. Whole Child Integrated Data aims to integrate all the data needed to support the whole child in one platform so that users spend less time pulling data together. The following information are available:

- Aggregated data for student subgroups to personalize learning and differentiate instruction
- Detailed data for a student roster without needing to drill down to each individual Student Profile
- Student Profile for individual children

## Silicon Valley Regional Data Trust (SVRDT)

<https://www.svrdt.org/about-svrdt/>

The SVRDT is a collaborative research organization that supports data sharing among school districts, count agencies, educational technology firms, and non-profit organizations to inform regional research, policy, and practice. These data may be useful for MHSOAC surveillance of the 7 MHSA outcomes in the Silicon Valley to compare across variables. The goal of SVRDT is to improve services and educational outcomes, particularly among children experiencing poverty. Counties involved in the SVRDT are San Mateo, Santa Cruz, and Santa Clara Counties. As of the publication of this report, the Data Trust has not been launched.

## Summary of California County Dashboards

The ability to disaggregate data by socioeconomic and demographic characteristics is important for understanding inequities in school failure related outcomes. Many county dashboards provide the opportunity to understand these inequities – See Table 2 for more information.

This study found that 21 out of the 58 California counties were monitoring school failure related indicators in their dashboards, many of which were created by Conduent Healthy Communities. Out of eight identified indicators, the following were the most frequently measured: academic performance (95%), high school graduation rates (86%), and school enrollment (24%). Dropout rates and school climate were measured by 2 county dashboards, and truancy, suspensions, and absenteeism were measured by only one county dashboard. See Table 2 for more information.

Two thirds of county dashboards monitor gender disparities for disconnected youth (youth who are not in school or working), and gender and racial and ethnic disparities in academic performance. There were no dashboards who could monitor disparities in truancy, suspension, or absenteeism, three critical school failure indicators.

Dashboards listed their data sources, which are compiled below

- California Department of Education: academic performance, high school graduation rates, dropout rates, absenteeism, truancy, and suspension
- American Community Survey: data on disconnected youth
- ChildrenNow.org: school enrollment
- KidsData.org: academic performance
- County Health Rankings and Roadmaps: high school graduation rates



## Data Tools for School Failure Outcomes

This section describes tools that can be used to access school failure and related data from the sources described in the previous section of the chapter. While they may not have the capability to download complete datasets, data and cross-tabulations from these tools are easily accessible and free to use. Please note that cross-tabulations for relevant data elements and variables may be limited.

### CHKS Tools – Data Dashboard and Query CHKS

<https://calschls.org/>

The [CalSCHLS dashboard](#) contains state and district data collected by the California School Staff Survey (CSSS), California School Parent Survey (CSPS), and CHKS. The query tool shows elementary and secondary school data on truancy, absences, and suspensions.

### KidsData.org

<https://www.kidsdata.org/topic#cat=18,27>

Kidsdata.org is a California based database that compiles data from trusted public sources such as the California Child Welfare Indicators Project, the CA Departments of Education, Justice, and Health Care Services, the Centers for Medicare and Medicaid Services, the U.S. Census Bureau and more. Data are also drawn from a number of surveys such as the California Health Interview Survey, California Healthy Kids Survey (CHKS), and the American Community Survey (ACS). Data usage and reproduction of data visualizations are free of charge. One limitation of relying on this query tool as a data source is that it is a secondary source and therefore does not have as up-to-date data as the primary data sources may have. School Failure indicators include dropout rate, truancy, and not meeting educational standards.

## Recommendations

The following are four sets of recommendations. Each category is determined by the accessibility of the data from a particular data source. The ideal, pie in the sky, accessibility would be one in which current data can be accessed or shared immediately to display in a future dashboard and in a format that would help streamline the process for updating this dashboard. For the scope of this project, the UCLA team will provide MHSOAC with a data library that consists of three years of data for each indicator in each of the 7 MHSA outcomes – suicide, unemployment, homelessness, incarceration, removal from home, school failure or dropout, and prolonged suffering. As such, the ideal accessibility would be to have publicly available data in which a complete data set with multiple indicators for a particular outcome or multiple outcomes can be downloaded at one time without a data request or data use agreement.

Recommendations of data sources and their related data elements are organized into four categories:

**Category 1** describes data sources that meet four criteria: 1) publicly accessible and free; (2) accurate measure of the MHSA key outcome; (3) measure of the outcome in the context of mental health; and (4) available at the state and county levels.

**Category 2** describes data sources that meet one or more of the four criteria above.

**Category 3** describes options for pairing recommended data sources in either Category 1 or 2 that have the potential to contextualize school failure at the county level.

**Category 4** describes data elements that are not currently being measured in a standardized setting, but may be of interest and useful to collect. The recommendations in this section have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

Data sources that cannot be used even at the state level (Monitoring the Future and the National Health Interview Survey) are excluded from these final recommendations and conclusions.

## Category 1 Recommendations

### Recommendation #1:

The California Department of Education's (CDE) provides the **California Healthy Kids Survey through their CalSCHLS query** tools by county and for the State of California, for multiple "reasons for school absence" including due to mental health concerns.

Although this item is available, it is of limited use for monitoring, given that the frequency of responses for missed days due to emotional concerns is low (less than 4% listed emotional problems as reason for missing school). Truancy is also available as a measure of school failure, however not for those with mental health needs specifically.

Overall, this data source stands out as the only Category 1 data source meeting our 4 criteria, although is fairly limited. We recommend that Category 2 data sources be considered for monitoring at the state level or those with county-level data be requested. Please see below for our recommended data source for school failure and mental health needs.

## Category 2 Recommendations

### **Recommendations for State Level Data Sources with Measures of School Failure and Mental Health Needs**

#### Recommendation #1:

The U.S. Census fields the **National Survey of Children's Health (NSCH)**, which has an advantage that it is a data source specific to children, freely accessible for data representing the state of California, and has school failure indicators of absenteeism and repeating grade. It also includes multiple indicators of mental health concerns and treatment. However, this data source is only available at the state level and does not have the ability to compare at the county level.

The number of missed school days is collapsed into two categories, 0-3 school days missed and 4 or more school days missed. An indicator of mental health need for children ages 3-17 was used, the Mental, Emotional, Developmental, and Behavioral Problems (MEDB), which is a measure derived from a parent report about 10 conditions affecting their child (Tourette Syndrome (3-17 years), anxiety problems (3-17 years), depression (3-17 years), behavioral and conduct problem (3-17 years), developmental delay (3-17 years), intellectual disability (3-17 years), speech or other language disorder (3-17 years), learning disability (also known as mental retardation) (3-17 years), Autism or Autism Spectrum Disorder (ASD) (3-17 years), Attention Deficit Disorder or Attention-Deficit/Hyperactivity Disorder (ADD or ADHD) (3-17 years). Children were coded as having a MEDB if their parent confirmed that the child currently had any one of the 10 conditions.

For the purposes of monitoring by MHSOAC, NSCH can be used to answer the following questions:

- How do missed days of school vary by demographic characteristics?
- Do missed days of school vary by mental health status?
- Do missed school days vary by adverse childhood experiences (ACEs)?

### **Recommendation for State and County Level Data Source that Measures School Failure and Mental Health Needs, Requiring Request for Access**

#### **Recommendation #1:**

Although the public access query tool AskCHIS does not provide a current school failure indicator, the **California Health Interview Survey (CHIS)** data source can be requested for analysis and does have data on school attendance. For children, the CHIS survey asks about school attendance as well as children with behavioral problems and developmental delays. Similarly, for adolescents, the CHIS survey asks about missed days from school due to health problems, and this questionnaire also asks about psychological distress (Kessler 6).

#### **Recommendation #2:**

The Substance Abuse and Mental Health Services Administration (SAMHSA) directs the National Survey on Drug Use and Health (NSDUH) and can provide state level data on missed days of school due to illness and problems in school due to substance use.

We suggest this as a possible data source due to its specificity with those with mental health / substance use concern. Although public use files do not have state or county identifiers, county level data can be requested.

### **Recommendations for State and County Level Data Sources that Measure School Failure, Without Mental Health Indicators**

#### **Recommendation #1:**

The California Department of Education has an easy to use query tool, **Data Quest**, which has a rich source of school failure indicators at the state, county, district, and school levels. This data is also as reported by the schools and districts. However, like all the following data sources in this section, it doesn't have any mental health indicator.

#### **Recommendation #2:**

*The California Assessment of Student Performance and Progress (CAASPP)* is a summative evaluation system that provides information about academic assessments of all public-school students in California at the state, county, district, and school levels as recent as AY2018-2019. A broad array of student characteristics is available, including age, gender, race and ethnicity, disability status, economically disadvantaged, English learner status, and migrant status. Parent/family characteristics are also available such as parental education, military status, and homelessness.

#### **Recommendation #3:**

The **American Community Survey, ACS (United States Census Bureau)** reports on status dropout rates and by sociodemographic characteristics. An additional measure of early signs of risk for later school failure is lack of attendance in preschool.

#### **Recommendation #4:**

The U.S. Census Bureau administers the **Current Population Survey (CPS)** as a household survey and has interesting and unique data included for the outcome "status dropout rate" such as disability status, family income, immigration, and labor force status. However, given that this is a household survey estimating about the general population based on few respondents, this is not as accurate as the California Department of Education data sources.

#### **Recommendation #5:**

The United States Department of Education's National Center for Education Statistics (NCES) administers the **DataLab** as a way to access data from multiple data sources. However, data freely accessible is for the most part not as current as can be accessed by the California Department of Education query tools.

### Category 3 Recommendations

The California Department of Education supports the administration of the California Healthy Kids Survey for schools and districts and helps to display the results. Although there is currently a wealth of information available on the CDE public website, the complete data source has the capacity to examine students with depressive symptoms and suicidal ideation by multiple school outcomes (grades, truancy) and to examine some peer and environmental factors that influence both mental health and school outcomes (such as bullying and school connectedness). In addition, potentially special populations could be assessed for their risk of both school and mental health outcomes (students who are LGBTQ, receiving special education services, immigrants, English Learners, and who live in households with unemployed parents, housing and food insecurity, and living in communities with concentrated poverty).

Linkage of data collected by the CDE such as chronic absenteeism, dropout and graduation rates, and out-of-school discipline (available on Dataquest), with survey data such as CHKS would provide an even richer data source for counties and the state to monitor over time and use for decision-making for service needs. Examples at the district level of such linkage of school data is described in our report (Data Linkage Examples). Some districts may also collect data on students regarding other outcomes identified by MHSAs such as removal from home and incarceration and special populations such as being in a military-connected family.

### Category 4 Recommendations

The following data elements currently are not being measured in a standardized data source, but have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

**Environmental factors contributing to mental health issues and lead to school failure:** External stressors can cause or exacerbate mental health issues and school failure.

- Possible examples include: factors in the school / neighborhood environment (discrimination based on race or sexual orientation, neighborhood crime/violence, lack of resources), stressors in the home environment (parental domestic violence, abuse, parental mental health and substance use, housing instability, poverty).
- As in other data sources (such as the National Survey of Children's Health), having an ACES measure of these adverse events/situations would also be helpful, given the association of ACES to mental health outcomes and school outcomes.

**Academic as well as mental health resources to prevent school failure:** Children with mental health issues often also need academic support in order to achieve school success. Metrics for a county's health in preventing school failure or drop/out include:

- Examining the proportion of students who have mental health needs and school failure and who receive school mental health and academic services.
- Examining how frequently students who are flagged as at-risk academically (due to poor grades or frequent absences) are also being screened for possible mental health need.

**School failure as one symptom of a greater problem:** The behavioral or emotional issues leading to school failure are also correlated with a host of other negative outcomes, including foster care and criminal justice involvement. Monitoring the correlations between these outcomes can pinpoint the health of a county in addressing youth at risk for multiple negative outcomes and determine whether and which county programs are successful in improving youth wellbeing overall.

**Measuring school failure's connection to other negative outcomes:**

School failure is a risk factor contributing to criminal activity that can lead to juvenile and adult **incarceration** (the "school to prison pipeline") as well as adult **unemployment and underemployment**. While school failure can be related to untreated or undertreated mental or behavioral health problems, it can also be interconnected with other risk factors include **incarceration of a parent, homelessness, removal from home**, and other forms of **prolonged suffering**. Additionally, **suicidal thoughts and behaviors** are of growing concern among children and youth that can occur in tandem with school failure and have the same root causes.

**Race** and **social class** are also correlated with school failure and mental health need. Behavioral problems in minority children (particularly African American boys) are more likely to result in punishment rather than referral for mental health care.

Finally, the degree to which mental illness is stigmatized (versus normalized) in a community can influence access to and acceptance of mental health care resources. This is particularly true for school failure where children and parents may feel that the child just needs to study harder, rather than acknowledging mental health issues (e.g. ADHD or emotional distress) that prevent the child from excelling.

Because these domains are interconnected, improvements (or worsening) in one domain can be expected to have a delayed downstream effect on the others, and should be monitored accordingly. For example, child and youth school failure is related to negative outcomes in adulthood (such as unemployment). Similarly, parents' unmet mental health needs negatively impact their children; for example preventing the need

for a child being removed from their home will lead to better outcomes in school. Finally, programs designed to support youth academically and emotionally can simultaneously impact multiple negative outcomes including school drop-out, criminal activity (leading to incarceration), and suicidal ideation.

## Conclusion

Monitoring School Failure for the those at risk for mental illness is one of the highest priority outcomes for childhood surveillance. As discussed in this report, school failure has been well-documented as being strongly associated with adverse outcomes in childhood and adulthood and across multiple domains of development. We document that there is a broad continuum of School Failure indicators freely available for immediate query and download, many of which are not only available at the county level but down to the individual district or school level.

In our list of recommendations, we recommend one Category 1 data source, the California Healthy Kids Survey (CHKS), as a self-report data source that provides School Failure indicators for those youth with mental health concerns. This data source has outstanding potential in its full form (only certain data elements are available free and immediately accessible), as well as even greater potential linked to key data already collected by schools and the CDE. We highly recommend that all schools participate in the CHKS. Currently 73% of schools participate. A partnership between MHSOAC and CDE to create a data dashboard focused on the population of students at risk for mental health conditions using the broad array of CDE data would be a major contribution to the existing data that counties currently can access online.

To examine the general population of youth in California, we also suggest that the school-reported data sources such as from the California Department of Education can provide an important surveillance tool for counties to monitor key education indicators for populations overall.

We also note that the data sources listed in this report represent indicators ranging from preventive early signs of school failure (such as lack of attendance in preschool) to moderate signs of school failure (not meeting academic standards, school suspension), to end stage failure (such as lack of high school graduation within ones 4-year cohort, or dropout from school altogether). In addition, students in foster care, a high-risk population, can be monitored in terms of early signs of school failure by monitoring lack of meeting academic standards.

## Chapter 4: Unemployment

This is the fourth chapter in a series aimed at exploring the data measurement for the 7 negative outcomes of unmet mental health need targeted by the California Mental Health Services Act: suicide, incarceration, school failure/dropout, unemployment, prolonged suffering, homelessness, and removal of children from their homes.

The goal of this chapter is to provide a brief overview of **unemployment** as well as to explore the different ways that this outcome has been measured at county, state, federal, and international levels. The chapter concludes with recommendations for state-level and county level surveillance of this outcome, including recommendations for publicly available data sources and key data elements. The results of this chapter will inform the development of a statewide data dashboard to monitor county-level estimates on the MHSA targeted outcomes and ultimately build capacity to improve the measurement and reporting of mental health care needs, the services delivered to meet those needs, and the outcomes of those services.

### Defining Unemployment

For national metrics, the term “unemployment” only includes individuals who are actively seeking jobs and excludes those who are unable or choose not to seek employment for a variety of reasons (e.g. in order to raise children full-time or due to serious mental or physical health issues).

The three categories standardized by the Bureau of Labor Statistics (BLS) for their monthly Current Population Survey (US Census Bureau, 2006 pp 5-1 to 5-6) are:

Category	Definition
<b>Employed</b>	At least 1 hour of paid work within the past week, on temporary leave from such work (e.g. maternity), or working at least 15 hours/week in a family business.
<b>Full-time</b>	More than 35 hours/week
<b>Part-time for economic reasons (involuntary)</b>	Available for full-time work, but currently working under 35 hours/week (due to inability to find a job, seasonal demand, etc.)
<b>Part-time for non-economic reasons (voluntary)</b>	Not available for full-time work for any other reason (e.g. medical limitations, childcare, school) or personal preference.
<b>Unemployed</b>	Actively seeking work within the past 4 weeks, or waiting to be recalled to a previous job. <sup>3</sup>

<sup>3</sup> For example, furloughed government employees may be eligible to apply for unemployment benefits during a shutdown (Weichart, 2019).



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<b>Not in the labor force</b>	Not employed and have not sought work in the past 4 weeks.
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BLS also include metrics for two types of individuals who are not in the labor force but have searched for jobs within the past 12 months:

- **Discouraged workers:** those who stopped job-seeking due to lack of success or because they feel there are no jobs they qualify for
- **Marginally attached:** workers who have stopped job-seeking for other reasons (e.g. illness, family responsibility, school).

## What Do We Know About Unemployment?

Unemployment is both an outcome of and a risk factor for mental health issues: those with serious mental illnesses are disproportionately unemployed, and prolonged unemployment itself has been correlated with stress, depression, social isolation and substance abuse.

In our examination of available data sources on unemployment, we also discovered a strong concern with mental health in the workplace (see e.g. CDC 2018), including prevention, accommodation, and reducing missed work days due to mental health concerns. Data on the effectiveness of such accommodations in preventing mental health related unemployment are worth examining.

## Unemployment: Impact of Mental Illness

Untreated or inadequately treated mental health issues can impact an individual's ability to find and hold down a job and can lead to chronic or periodic cycles of unemployment or under-employment. According to a Substance Abuse and Mental Health Services Administration (SAMHSA) report, only 21.6% of State Mental Health Agency (SMHA) clients were employed in 2015 (Knettlar, Lutterman, Slaton-Hodges, & Hollen, 2016). Yet 6 out of 10 individuals with severe mental illness (SMI) are capable of employment if given adequate support and most of them want and are willing to work (Diehl, Douglas, & Honberg, 2014), suggesting potential loss of human capital. Data from a national survey also suggests that impact of SMI on unemployment may worsen with age. Rise in unemployment rates was found to align with increases in mental illness severity and persons with SMI were less likely to be employed after age 49 compared to persons with no, mild, or moderate mental illness (Luciano & Meara, 2014).

## Unemployment and Mental Illness: A Negative Cycle

The transactional and interdependent relationship between unemployment and mental illness is also cyclical, similar to homelessness or incarceration as discussed in other chapters. Impacted individuals are at risk for entering into repeated cycles of chronic or

periodic unemployment if they are not able to access adequate resources. In such cases, the outcome (being unemployed, homeless, or in prison) itself becomes a source of emotional distress that can increase the risk of future cycles occurring. In addition, involuntary unemployment can worsen mental health and wellbeing, leading to a sense of helplessness, low self-esteem, anxiety (including financial anxiety) and depression (Eisenberg & Lazarsfield, 1938; Goldsmith & Diette, 2012). This vulnerability increases with prolonged unemployment.

Understanding the link between unemployment and mental health at the population level is also complicated by the fact that point-in-time surveys do not reveal whether mental health issues are the cause of unemployment or its result. For example, a 2014 Gallup poll showed that individuals who had been unemployed for more than 27 weeks (a group classified as “long term unemployed” by the Bureau of Labor Statistics) were nearly twice as likely to suffer from depression as the general population (19% versus 10%) (Crabtree, 2014). This finding raises awareness of the public health significance of unemployment. However, these statistics do not explain whether individuals developed depression as a result of their inability to find work, whether their depression had prevented them from being hired, extent depression worsened with long-term unemployment, or potential positive impact of receiving mental health services. To assess the direction of the relationship between unemployment and mental health and explore the moderating effect of mental health need and service use, the data source should include prior history of unemployment, standardized indicators of mental health service need and use, and have the capacity to monitor unique individuals over time. .

## **Risk Factors & Indicators for Unemployment**

In order to narrow the focus to unemployment that is associated with unmet mental health service need, we recommend examining the following metrics:

- Employed individuals who are receiving or have expressed need for either mental health care or workplace accommodations
- Individuals with mental illness (or mental health service need) who are unemployed and seeking work
- Individuals who are not in the labor force due to mental illness or emotional distress

The latter two categories would include both individuals who are diagnosed with mental illness and those with unmet and undiagnosed mental health need or emotional distress. While diagnosed individuals can be monitored through clinical records, those who are not formally diagnosed would require population level surveys that ask questions about both employment history and emotional distress (e.g. CHIS).

Additional indicators that will help to illuminate changes in county-level unemployment resulting from program implementation are:

- Statewide or countywide (un)employment rates by general population to serve as a baseline
  - Disaggregation by vulnerable populations (e.g. individuals with diagnosed SMI)
- Employee absenteeism (e.g. number of days in the past year missed work) due to mental illness or emotional distress
- Level of psychological distress among the employed, unemployed and not in the labor force populations

## Workplace Risk Factors for Mental Health Need Potentially Leading to Unemployment

### Work Stress

In the continuum of employment, those at risk of needing mental health services include employed individuals experiencing high levels of stress, signaling a critical stage at which to provide services that prevent unemployment. Approximately one-third of workers in the United States report high levels of stress, putting them at high risk for psychological disorders, maladaptive behaviors, and cognitive behaviors which may cause them to miss more days at work, experience burnout, or perform poorly at work (Sauter, 2007).

### Employee Absenteeism

Experiences of personal or work-related stress can often lead to mental health problems which can then lead to employee absenteeism. In a longitudinal study, having a history of or having current anxiety and/or depressive disorders was associated with increasing work disability and absenteeism compared to those without a history of these disorders (Hendriks et al., 2015). Targeted efforts to promote and enhance Employee Assistance Programs (EAP) can reduce the number of days away from work due to mental health-related problems (Nunes, Richmond, Pampel, & Wood, 2018). As such, it is potentially important to measure and monitor data on the number of work days missed due to mental health problems to monitor efforts in programs such as EAP.

### Economic Insecurity

Individuals who are employed but cannot afford their most basic needs represent a hidden at-risk segment of the employed population, often composed of workers in lower socioeconomic positions, racial and ethnic minorities, and immigrants (Landsbergis, Grzywacz, & LaMontagne, 2014). The stress and frustration of economic insecurity, puts such individuals at higher risk for unemployment and need for mental health services (Dooley, Prause, & Ham-Rowbottom, 2000; Friedland & Price, 2003).

## Data Sources for Unemployment and Mental Health-Related Outcomes

Please see Table 7 for more detailed data source characteristics.

### National Data Sources

#### Behavioral Risk Factor Surveillance System (BRFSS)

<https://www.cdc.gov/brfss/index.html>

The BRFSS assesses health risk behaviors of the noninstitutionalized US adult population via a repeated cross-sectional telephone survey conducted annually and stratified to provide state- and nationally representative samples. BRFSS data have been used by the CDC to study the relationship between depression and unemployment in emerging adults. In the past, BRFSS has administered the Veterans Health Module (VHM, 2010-2012) across 10 states to study risk factors in veterans.

**Data Access:** Most recent data are from 2018. While BRFSS data can be downloaded for free into SAS or ASCII formats, datasets do not contain geo-level identifiers.

**Geographic Level:** National, state, county and city

**Frequency:** Annual

#### **Variables:**

- Unemployment rate
- Employment status (employed, self-employed, unemployed, unable to work, or retired/homemaker/student)
- Days per month of self-rated good mental health
- Lifetime diagnoses of mental illnesses
- Past 12-month suicidal ideation and/or attempt

**Strengths & Limitations:** BRFSS is a comprehensive survey covering numerous vulnerable populations and areas of study. However, the lack of geo-level identifiers in public datasets severely limit agencies' ability to identify disparities within counties or monitor county-level outcomes. In addition, BRFSS interviews are only conducted in English and Spanish in California, possibly resulting in a misrepresentation of the state's diverse population.

#### National Health Interview Survey (NHIS)

<https://www.cdc.gov/nchs/nhis/index.htm>

The NHIS is a nationally representative, cross-sectional survey conducted annually by the National Center for Health Statistics since 1957. NHIS data on a broad range of health topics are collected through personal household interviews by the U.S. Census

Bureau. Survey results have been instrumental in providing data to monitor health status, health care access, and progress toward achieving national health objectives.

**Data Access:** A data request is needed to access NHIS data. This includes a fee.

**Geographic Level:** Data are collected for States and Counties in the United States.

**Frequency:** Data are collected annually. Most recent data are from 2018.

**Variables:**

- Employment status (employed, not in labor force, or unemployed)
  - BLS and the Current Population Survey define labor force as all persons classified as employed or unemployed. Those who are unemployed and are not looking for a job are counted as NOT in the labor force.
- Ongoing chronic presence of depression, anxiety, or emotional problem severe enough to generate activity limitation(s) in a respondent
- Ability to afford mental health counseling in the past year
- Seeing a mental health professional in the past 12 months

**Strengths & Limitations:** Strengths of NHIS data include its wide range of variables, large sample size, and its ability to link to other population-level datasets. Outcomes can be described for many sociodemographic characteristics.

### National Survey on Drug Use and Health (NSDUH)

<https://nsduhweb.rti.org/respweb/homepage.cfm> and <https://pdas.samhsa.gov/#/>

The National Survey on Drug Use and Health (NSDUH) provides up-to-date information on recent and lifetime criminal justice involvement, tobacco, alcohol, and drug use, mental health and other health-related issues in the United States. Persons aged 12 years or older are identified using a cross-sectional sampling of households and interviewed. NSDUH began in 1971 and is conducted every year in all 50 states and the District of Columbia. The sample design aims for 4,560 completed interviews from California each year. Information from NSDUH is used to support prevention and treatment programs, monitor substance use trends, estimate the need for treatment and inform public health policy.

NSDUH is directed by the [Substance Abuse and Mental Health Services Administration](#) (SAMHSA), an agency in the U.S. [Department of Health and Human Services](#) (DHHS). The study is being conducted by [RTI International](#), a nonprofit research organization based in Research Triangle Park, North Carolina. RTI has conducted the study since 1988.

**Data Access:** A data request is needed to access the data. This requires a fee.

**Geographic Level:** National, State, County, and Census Tract

**Frequency:** Data are collected annually. Most recent data available are from 2004-2018.

**Variables:**

- Respondent without a job
- Respondent actively looking for a job in the past 4 weeks
- Respondent available for work at the time of interview
- Full-time worker
- Part-time worker
- Mental Health Indicators
  - Adult mental health service utilization
  - Adult mental health problems
  - Adult depression
  - Youth mental health service utilization
  - Adolescent depression

**Strengths & Limitations:** Data from NSDUH have previously been used to describe rates of employment by severity of mental illness. Results showed employment rates decrease with increasing severity of mental illness (Luciano & Maeda, 2014). These findings suggest that efforts to decrease the severity of mental illnesses could lead to higher rates of employment. However, data are not readily available to be used by California and its counties. Additional access requirements include submitting a proposal of which review could take up to 12 weeks, completing a Confidentiality orientation to become designated agents, and submitting output for review.

### Medical Expenditure Panel Survey (MEPS)

<https://www.meps.ahrq.gov/mepsweb/>

The MEPS has two major components: the Household and Insurance Components. Respondents for the household component are drawn from a nationally representative subsample of households that participated in the prior year's **National Health Interview Survey**. Data from this survey includes U.S. non-institutionalized civilian population health outcomes, health insurance coverage, and health utilization. MEPS utilizes a complex national probability sampling methodology which includes stratification, clustering, and oversampling of certain population subgroups such as African Americans, Hispanics, Asians, and policy-relevant subgroups such as low-income respondents.

- Geographic level: National and state
- Frequency: Annual

- Data are available: Yes, up to 2018
- Unemployment- and mental health-related outcomes measured:
  - Employment status (FT, PT, self-employment, or unemployment)
  - Involuntary job loss (job ended; business dissolved or sold, or laid-off)
  - Perceived mental health

## National Data Sources on Employee Absenteeism

### Bureau of Labor Statistics (BLS)

As the nation's primary source of data on unemployment, BLS also collects information on employment and employment projections, pay and benefits, productivity, occupational requirements, regional resources, and workplace injuries. One of the ways BLS data are available is through Local Area Unemployment Statistics (LAUS), which provides monthly and annual unemployment, employment, and labor force data for Census regions and divisions, States, counties, metropolitan areas, and some cities. In the literature, BLS data has often been linked to other data sources to study the relationship between mental health and unemployment. For example, LAUS data are often linked to other data sources such as the National Survey of Substance Abuse Treatment Services (N-SSATS) and the National Violent Death Reporting System (NVDRS): Schiff et al found that rates of suicide were predicted by job and financial issues (2015), while Kerr et al. assessed the independent effects of poverty and unemployment on suicide rates, finding that poverty was more predictive of suicide than unemployment (2017).

BLS publishes monthly unemployment estimates based on the Current Population Survey, a nationally representative sample of 60,000 households [Link: [https://www.bls.gov/cps/cps\\_htgm.pdf](https://www.bls.gov/cps/cps_htgm.pdf)] Data tools can help create State and County maps of unemployment rates, 12-month change in employment, 12-month change in average weekly wage, and 12-month percent change in average weekly wage. These data are able to be stratified by industry.

The BLS site includes a number of data tools that allow users to quickly find county-level data on unemployment. Data tools link: <https://www.bls.gov/data/> Data retrieval tools include a series report, a data finder, maps, and calculators, as well as top picks by the agency. These data also capture occupation, gender, race, age, industry, state, weekday, and time.

Data intersecting mental health and employment are available by State. For instance, one of the databases "Nonfatal cases involving days away from work: select characteristics (2011 forward) uses **data from the Survey of Occupational Injuries and Illnesses (SOII) program** to monitor nonfatal cases involving days away from work and their selected characteristics, including mental disorders and syndromes; anxiety,

stress; post-traumatic stress disorder; adjustment disorder; anxiety or panic disorder; and depression or depressive episode.

According to 2017 national data from SOII, 70% of those who missed work due to unspecified mental disorders and syndromes missed 31 or more days – 6<sup>th</sup> in the top leading injury or illnesses leading to most missed days at work. (Calculations done with table R67 from <https://www.bls.gov/iif/soii-data.htm#dafw>) BLS monitors nonfatal cases involving days away from work and their selected characteristics, including mental disorders and syndromes; anxiety, stress; post-traumatic stress disorder; adjustment disorder; anxiety or panic disorder; and depression or depressive episode.

## California Data Sources

### California Health Interview Survey (CHIS)

<http://healthpolicy.ucla.edu/chis/Pages/default.aspx>

CHIS is the nation's largest state health survey, asking questions on a wide range of health topics in multiple languages. CHIS provides estimates at the state- and county-levels. More than 20,000 adults, teenagers, and children are interviewed via random-dial telephone surveys each year in all 58 counties.

**Data access:** AskCHIS is a free, web-based data query system that allows users to search for data at the county, region, and state level.

**Geographic Level:** State, County

**Frequency:** Annual

CHIS data and visualizations can be accessed free of charge through AskCHIS and AskCHIS Neighborhood Edition (AskCHIS-NE) by state, county, or service planning area (SPA). Public use data, confidential data, and technical assistance are also available.

**Strengths and Limitations:** CHIS is very comprehensive and collects a number of sociodemographic variables that can be used to measure disparities within counties and across the state. Data are collected from children on age, gender, race and ethnicity, birth country, immigration status, and language spoken at home. Data is available for most counties in California. However, CHIS cannot be used to compare California data with other states. Public data are available only through AskCHIS, which may be limited in variables compared to the full CHIS dataset.

In addition to immigration health, health insurance coverage, and self-reported physical health status, CHIS covers:

- Severe Psychological Distress using the Kessler-6
- Self-reported perceived need for mental health services



- Self-reported used of mental health services
- Functional impairment due to mental health problems (including in the work place)
- Stigma
- Suicide ideation
- Suicide attempts

CHIS data also captures employment status:

- Employed full-time
- Employed part-time
- Employed but missed the last week of work
- Unemployed and looking for work
- Unemployed and out of the work force

For data on the intersectionality of employment and mental health, CHIS includes:

- Number of days unable to work due to mental health problems in the past year (asked of adults with serious psychological distress (Kessler 6  $\geq$  13) in the past year)

Data from 2017 shows that only about a quarter of adults with serious psychological distress were able to work all days in the past year (Figure 2), and over half missed eight or more days (Figure 3).

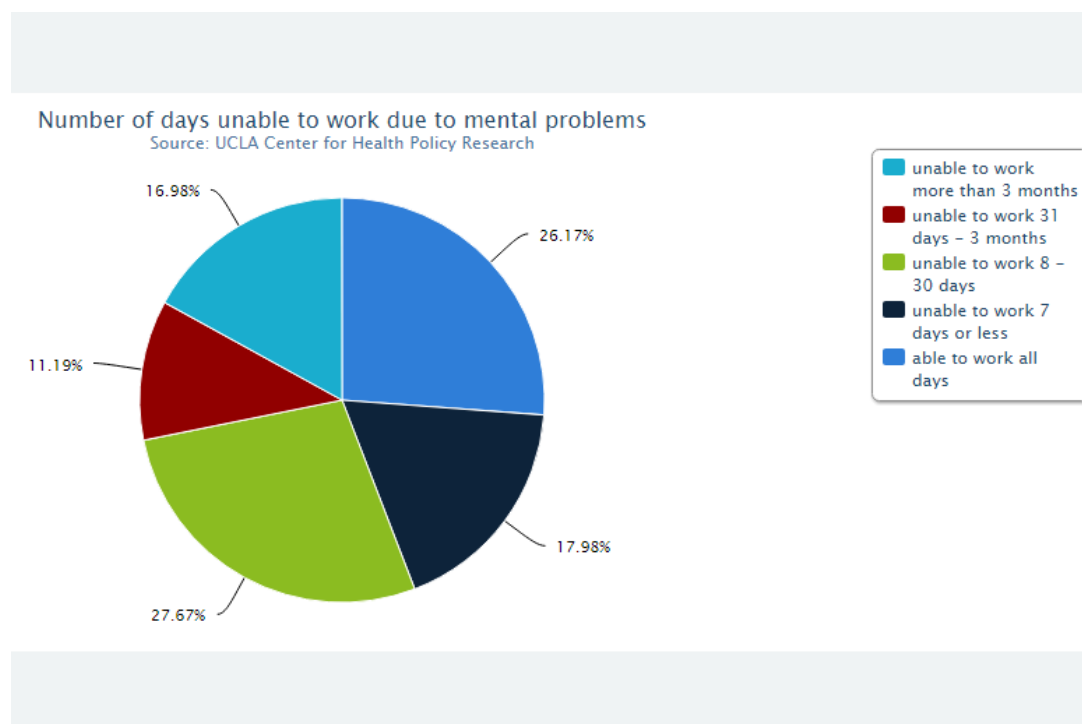


Figure 2 Number of Days Unable to Work due to Mental Problems

Source: CHIS, 2017

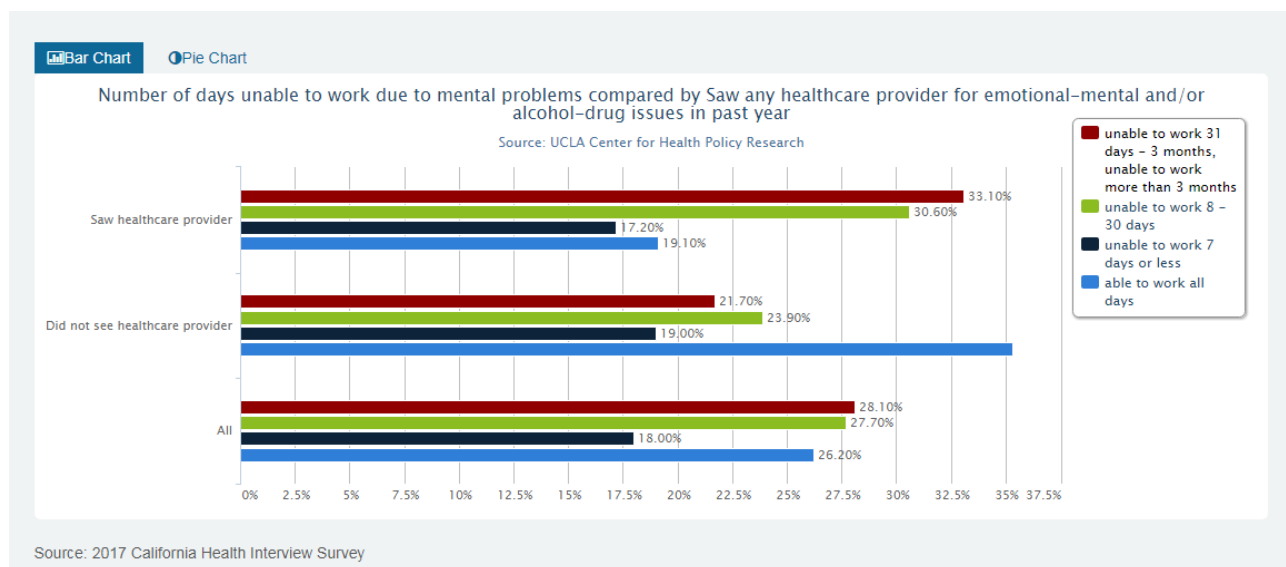


Figure 3 Number of days unable to work due to mental problems compared by health care provider visits in the past year

Source: CHIS, 2017

CHIS data and visualizations can be accessed free of charge through AskCHIS and AskCHIS Neighborhood Edition (AskCHIS-NE) by state, county, or service planning area (SPA). Public use data, confidential data, and technical assistance are also available.

## Unemployment Surveillance and Monitoring Global and International Examples

Two United Nations agencies address the importance of vocational rehabilitation and employment for those with mental health problems and also address issues of mental health in the workplace.

World Health Organization (WHO) and International Labour Organization (ILO):

<http://www.ilo.org/global/lang--en/index.htm>

WHO primarily address issues related to mental health and ILO address issues related to employment. In a collaborative effort, WHO and ILO produced a book “Mental health and work: impact, issues and good practices” that address both of these issues. In this book they identify that the unemployment rate is almost double for people with a serious psychiatric background compared to those with physical or sensorial disabilities. In other words, these findings mean that only 10% of those with a serious mental illness who wish to work are able to work.

## Canada's Community Health Survey: Mental Health and Well-Being

Canada's nationwide effort to research and educate the public on the relationship between unemployment and mental health is impressive. The [Canadian Mental Health Association](#) and Institute for Work & Health produce articles and briefs discussing the adverse impact of unemployment on mental health.

In addition, the Institute for Work & Health has studied the management and programs for mental health problems caused by the workplace in the workplace and strategies for preventing mental health-related work disabilities. The Workforce Mental Health Collaborative, directed by the Canadian Mental Health Association, helps employers "address and improve psychological health and safety in the workplace." Surveys like the Canadian Community Health Survey: Mental Health and Well-being assess mental health, mental health service utilization, and employment variates, such as unemployment status and reason (emotional or mental health, physical health, or substance use), work pattern in the last 12 months, work stress, working conditions, hours of work, ability to work at a job, and whether they have a mental health condition that reduces the amount or kind of activity they can do at work. The survey also measures whether the respondent has sought mental health services to obtain help with employment status or work situation. Work stress is further analyzed by psychological job demand, job insecurity, social support at work, and job satisfaction.

- [Survey information](#)
- [Survey data document](#)

## National Examples

United for ALICE (Asset Limited, Income Constrained, Employed)

<https://www.unitedforalice.org/home>

ALICE, which stands for Asset Limited, Income Constrained, Employed, represents individuals and families who are employed but unable to afford basic housing, child care, transportation, food, and health care. United for ALICE produces high quality reports on economic factors by state and nationally, including employment opportunities, housing affordability, and demographics. ALICE is used by numerous counties in California on their interactive dashboards to understand rates of employed individuals experiencing financial hardship. These data reflect a population of California who are facing financial stressors and who may be at risk for mental health problems and unemployment. ALICE does not include any data on mental health.

## National Dashboard Examples

Dashboards eliminate the need for agencies to search for reliable, relevant, and up-to-date data. Dashboards enhance systems-level understanding of an outcome by comparing measures across populations and help promote awareness of an issue by

offering a usable, interactive interface. National dashboards can be important resources for unemployment surveillance and monitoring across states and within states. In this study, several national dashboards were found that use the data sources identified to provide visualizations for unemployment related indicators. (See Table 2)

Table 2 also helps to identify dashboards that provide socioeconomic and demographic characteristics to help identify inequities in unemployment outcomes for vulnerable populations such as by age, gender, sexual orientation, veteran status, etc.

**CARES Engagement Network** is a national data and reporting platform. It uses data from the American Community Survey (ACS) to provide estimates on a number of unemployment-related indicators for communities, which includes California-wide and county-level data. In addition to monthly and annual unemployment rates for all states and counties, CARES provides customizable maps and reports. Data includes age-adjusted rates and comparisons provided by gender, race, ethnicity, and by years. Rates can be compared to State and national rates. CARES displays data on employment but does not include any data on mental health.

### KIDS COUNT Data Center

<https://datacenter.kidscount.org/topics>

This dashboard monitors the well-being of children in the United States, drawing from more than 50 KIDS COUNT state organizations for state and local data. In addition to outcomes related to economic well-being, KIDS COUNT provides estimates for outcomes related to Education, Family & Community, Health, Safety & Risky Behaviors, Race & Ethnicity, and Demographics. This tool could be used to study the effect of parental unemployment on a child.

Employment-related indicators include:

- Children under 6 with all available parents in the labor force
- Children ages 6 to 12 with all available parents in the labor force
- Unemployment rate of parents
- Children with at least one unemployed parent
- Children whose parents lack secure employment
- Children under age 6 with no parent in the labor force
- Children living in low-income households where no adults work
- Unemployed teens age 16 to 19

Mental health indicators include:

- Children who have one or more emotional, behavioral, or developmental conditions

## LiveStories: Statistics (LiveStats)

<https://www.livestories.com/statistics>

LiveStats collects and analyzes data from trusted and reliable sources such as the U.S. Census, the CDC, and the Bureau of Labor Statistics and provides an interactive dashboard to examine age-adjusted rates across years, by age, gender, and race and ethnicity. Live Stories: Statistics displays data on employment but does not include any data on mental health.

## California Examples

The Employment Development Department (EDD) of California

<https://www.labormarketinfo.edd.ca.gov/data/unemployment-and-labor-force.html>

Each month, the EDD releases unemployment rates, industry employment, and preliminary civilian labor force data for metropolitan areas, counties, and sub-county areas in California. As of this document, the latest data release was July 2019. Data are displayed as interactive maps, interactive tables, and summaries. However, this system does not measure mental health outcomes. Further investigation is required to assess possibilities of data linkage to a system that contains mental health data.

## MHSA County Performance Outcomes

Employment Outcomes for Full-Service Partnerships (FSP) Clients

As part of their MHSA performance outcomes, all counties collect data on employment outcomes for FSP clients - both adult and for transitional aged youth (TAY).

In addition to employment, other outcomes are measured for FSP clients: reduced incarceration/interactions with law enforcement, education for TAY, employment, housing, access to healthcare. While these data are useful to assess changes in several key outcomes among FSP clients, data on outcomes is limited to persons who receive on-going specialty mental health care. For example, one cannot detect or differentiate change in outcome among clients who receive brief treatment and clinically improve (e.g. effective care) or prematurely drop-out of recommended care and are at greater risk for poor outcomes.

For a full list of county reports and page listing for their performance outcomes, please visit California Department of Health Care Service:

## Recommendations

The following are four sets of recommendations. Each category is determined by the accessibility of the data from a particular data source. The ideal, pie in the sky, accessibility would be one in which current data can be accessed or shared immediately to display in a future dashboard and in a format that would help streamline the process for updating this dashboard. For the scope of this project, the UCLA team will provide

MHSOAC with a data library that consists of three years of data for each indicator in each of the 7 MHSA outcomes – suicide, unemployment, homelessness, incarceration, removal from home, school failure or dropout, and prolonged suffering. As such, the ideal accessibility would be to have publicly available data in which a complete data set with multiple indicators for a particular outcome or multiple outcomes can be downloaded at one time without a data request or data use agreement.

Recommendations of data sources and their related data elements are organized into four categories:

**Category 1** describes data sources that meet four criteria: 1) publicly accessible and free; (2) accurate measure of the MHSA key outcome; (3) measure of the outcome in the context of mental health; and (4) available at the state and county levels.

**Category 2** describes data sources that meet one or more of the four criteria above.

**Category 3** describes options for pairing recommended data sources in either Category 1 or 2 that have the potential to contextualize unemployment at the county level.

**Category 4** describes data elements that are not currently being measured in a standardized setting, but may be of interest and useful to collect. The recommendations in this section have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

## Category 1 Recommendations

For data sources that are publicly accessible and ready to use by MHSOAC, the following data sources are recommended:

### Recommendation #1:

The **California Health Interview Survey (CHIS)** is the best data source for state-wide and county estimates for the general population and can be stratified by three important sub-populations: 1) those with self-reported need for mental health services and who have public insurance, and among this population, 2) those receiving services, and 3) those with unmet need for mental health services. CHIS includes a range of unemployment indicators and demographic variables. Indicators include state and county unemployment rate, employee absenteeism due to mental illness or emotional distress, and the level of psychological distress among the employed, unemployed, and those not in the labor force. It is able to measure high risk populations, disparities by race and ethnicity, income, education, sexual orientation, etc., and take into account clinical and social circumstances that are particularly important for the outcome. CHIS is a household survey and as such does not capture information on individuals who are institutionalized or homeless. Nevertheless, CHIS captures data on a broad range of

health topics and demographics across California which can be generalized at the state and county levels.

For the purposes of monitoring by MHSOAC, CHIS can be used to answer the following questions:

- Do unemployment rates vary among persons with and without serious psychological distress (SPD)?
- How do unemployment rates among California adults with and without SPD change over time?
- How does employment status among adults with SPD change over time?

## Category 2 Recommendations

For slightly more robust data sources that require funds, resources, and time to access and utilize, the following data sources are recommended:

### Recommendation #1:

The **National Survey on Drug Use and Health (NSDUH)** is the most complete data source and is able to measure 4 recommended data elements, the most out of all identified sources: 1) state and county level unemployment rates, 2) employee absenteeism due to mental illness or emotional distress, 3) level of psychological distress among employed, unemployed, and those not in the labor force, and 4) individuals with mental health need who are unemployed and seeking work. Data are measured for a wide range of target populations and clinical and social circumstances. Use of NSDUH would yield a comprehensive understanding of unemployment and mental health need as well as provide detailed analyses of disparities.

### Recommendation #2:

The **National Health Interview Survey (NHIS)** is the second best data source. While a wide range of demographic populations and clinical and social circumstances are measured, and state and county level unemployment rates are measured, NHIS variables are not as extensive as NSDUH, such as measuring employee absenteeism or those who are unemployed and looking for work.

### Recommendation #3:

The **Medical Expenditure Panel Survey (MEPS)** is the third best data source. Outcome-related data and demographic data are similar to NHIS. However, the measurement of target populations and clinical and social circumstances are limited in range.

### Category 3 Recommendations

An ideal surveillance system for unemployment and mental health would link data from multiple sources to assess the direction of the relationship between unemployment and unmet mental health need over time. This capacity is necessary to begin to separate cause and outcome in order to monitor both un-/underemployment due to untreated mental illness as well as mental health issues (particularly depression and anxiety) caused by prolonged unemployment or inability to meet basic financial needs. If the data source included standardized indicators of clinical severity and was of sufficient sample size, there could also be capacity to examine moderator effects of severity of mental illness on unemployment trajectories. Such a system would link across data sources to connect employment status and history, mental health status, and history of mental health care receipt prior to or just after becoming unemployed. Because financial insecurity is another risk factor leading to depression, data linkages between household income and individual un/under-employment status would also be useful.

For data linkages that require data use agreements, possible funds, resources, and time to access, link, and utilize, the following data linkage is recommended:

- Data from the **Bureau of Labor Statistics** has been linked to national and state data sources, such as the National Survey of Substance Abuse Treatment Services (N-SSATS) and the National Violent Death Reporting System (NVDRS) to look at rates of suicide by industry and occupation (Peterson et al., 2020). For more detailed information on client-level outcomes data from CalWorks, and unemployment, disability, and family leave claims data from California Employment Development Department could be linked to client data from the CA Department of Mental Health to monitor employment-related outcomes for clients receiving services through the public mental health system.

### Category 4 Recommendations

Based on preliminary analysis of county and local ethnographic observations (including attending MHSA events and conducting focus groups and interviews), these are some suggestions for other metrics which would be relevant in understanding the “health” of a county with regards to reducing unemployment due to SMI or unmet mental health need.

#### Measurements of agency access to job networks

Individuals who are receiving proper mental health care and are able and willing to work may still have difficulty finding and applying to jobs. Particularly individuals whose SMI has kept them out of the workforce for some time may not have adequate networks or knowledge of how to find the types of jobs they are seeking.



Metrics that could serve as county-level indicators of strength in connecting individuals with mental health needs to employment resources include:

- For the population of individuals with SMI/at risk who are receiving mental health services:
  - Average number of jobs applied to before receiving an offer
  - Proportion who are aware of employment resources available through their mental health care
  - Proportion who made use of such resources (these data can be collected either as self-reports from clients or from the job assistance agencies or departments themselves)
- For the population of mental health service providers in the county:
  - Proportion who have job seeking or job application resources within their agency OR have an established way of referring clients to an outside agency
  - Rate of successful referrals
  - Employment success rate of clients who use those services

### Measurements of general population (employer) stigma against mental illness

Individuals who are successfully receiving mental health services and are competent to work may still have trouble obtaining jobs due to stigma against their mental health condition, especially in cases where such a condition must be disclosed (for example, if the individual requires special accommodations or has been incarcerated). This may also be exacerbated by racism or other forms of discrimination.

There are a number of state, county and local mental health campaigns devoted to decreasing stigma against mental illness (including increasing the social acceptance of asking for help and normalizing individuals with mental illness in the eyes of the larger community). Measurements of the overall impact and success of such campaigns would also be relevant when examining county-level unemployment rates.

**Separating mental illness stigma from other forms of discrimination** by comparing overall rates of unemployment for marginalized populations (ethnicity, LGBT, etc.) with rates for individuals with the same demographic characteristics who have SMI.

**Comparison of hiring, retention, and job accommodation rates** in order to determine whether unemployment levels are due to un/under treated SMI (preventing an individual from being able to work) or mental illness stigma (preventing a capable individual from being hired).

- Low hiring rates may suggest that employers are negatively perceiving the job candidate in part due to their SMI.

- However, high hiring rates and low retention rates may suggest that the individuals' SMI (or their need for special accommodations) are preventing them from carrying out the job or that the workplace does not provide sufficient accommodations for individuals experiencing SMI.

## Measuring unemployment's interconnection with the other negative outcomes

Unemployment is known to be impacted by prior incarcerations and homelessness. It is also a risk factor that contributes to homelessness, further negative mental health outcomes, and – in extreme cases – suicidality. Finally, the degree to which mental illness is stigmatized (versus normalized) in a community affect both employer perceptions and employee willingness to ask for needed accommodations, which can contribute to job hiring and job retention.

Improvements (or worsening) in one domain can be expected to have a delayed downstream effect on the others, and should be monitored accordingly. For example: a prior incarceration is a barrier to obtaining a job. Therefore, countywide programs that reduce mental health related convictions, such as diversion programs, would also contribute to a delayed reduction in unemployment for the same population.

## Conclusions

Unemployment can be devastating, and persons with SMI are particularly vulnerable for the negative impacts of unemployment as well as greater risk of re-entry into the transactional cycling between unemployment and unmet need for mental health care. National unemployment statistics potentially underestimate rates of unemployment among persons with SMI due to unemployment categories that do not differentiate choice to work and may over-represent persons with unmet need for mental health care who are labeled as “discouraged” or “marginally attached”.

In addition, unemployment can be an outcome of mental illness, and mental illness can be directly related to unemployment. Across this continuum, severity of mental illness and use of mental health services may moderate a person's unemployment trajectory in different directions over time. Among persons who are employed, work-related stress may be high and economic security may be chronically low, increasing the risk for mental disorders, such as depression and anxiety. The bidirectional nature of the relationship between unemployment and mental illness, and underlying mechanisms perpetuating the negative cycle, is thus important to understand to identify target areas for more effective interventions.

Although there are a number of data sources and surveillance systems that monitor unemployment and mental health independently, there are few that monitor rates of unemployment in all those who experience mental illness or mental illness in all those

unemployed. Often, studies examining the relationship between mental illness and unemployment are only able to include those who are in the mental health care service system, which leaves out a population of individuals who may be experiencing unmet mental health need (Diehl et al., 2014). In addition, our ability to study the relationship between unemployment and mental health is further impeded by stigma toward mental health and seeking help. Working individuals experiencing mental illness may not request supports that would allow them to continue working safely and effectively in fear of stigma. Furthermore, the unemployed who are mentally ill are unlikely to seek mental health care services; common barriers are mental health literacy, stigma and discrimination, and the complicated structures of the health care system (Staiger, Waldmann, Rusch, & Krumm, 2017).

Nevertheless, several national and statewide data sources include broad indicators of unemployment and mental health, and CHIS has the capacity to examine the relationship between unemployment status, multiple indicators of need for mental health care, and unmet need for mental health care among Californians. These data sources can provide data on the extent of unemployment among persons with need for mental health care as well as trends to continue to advocate for improved access and quality of mental health care. In addition, interpretation of these data within the context of existing data source limitations can be used to support funding to improve national and state Medicaid agency data infrastructure. Together these efforts can further strengthen the evidence to support health policies that invest in the prevention, early identification, and treatment of mental illness.

### Limitations of Unemployment Data: Implications for Data Interpretation

Looking solely at the “unemployment” statistics runs the risk of underestimating the impact of mental or physical health issues on employment status. Individuals with serious or untreated mental health issues who are not job-seeking because they cannot work would be classified as “not in the labor force” while those who can only work reduced hours would be classified as “voluntary part-time.” Unemployment among persons with need for mental health services is thus underestimated because both unemployment categories include individuals whose unemployment is by choice (e.g. staying home to raise children or quitting work to go back to school). Additionally, part-time employees who are unable to find full-time work are vulnerable to the same mental health issues as those who are unemployed. Depression (Dooley et al., 2000) as well as anxiety and helplessness are often exacerbated if unable to cover one’s financial needs, especially if also bearing the burden of supporting a family.

Unemployment statistics also do not explicitly capture changes in mental health status that may influence the type of unemployment reported. This is particularly relevant when monitoring individuals who have recently changed employment-seeking habits, such as persons who are identified as “discouraged” or “marginally” attached workers who

stopped job-seeking within the past year. These unemployment indicators are likely correlated with new or worsening mental health issues related to prolonged unemployment as well as other factors.

To address these limitations, it is therefore important to examine connections between unemployment and unmet mental health need in both directions. This approach would build capacity to examine the extent of prolonged suffering (mental, emotional and economic) of individuals and families due to prolonged or periodic unemployment as well as the positive impact of supporting individuals with existing mental health needs in obtaining financially sustainable and fulfilling jobs.

## Chapter 5: Prolonged Suffering

The goal of this chapter is to provide a brief overview of the importance of measuring **prolonged suffering** as part of a surveillance effort for each county population. For the purposes of this chapter, we refer to “prolonged suffering” as involving chronic suffering that results from untreated mental health need. We briefly review the literature regarding this concept and examine ways of measuring risk of prolonged suffering as well as measuring prolonged suffering itself. This chapter concludes with recommendations for state- and county-level surveillance of prolonged suffering in the general population, including recommendations for publicly available data sources and key data elements.

### Defining Prolonged Suffering

In defining “prolonged suffering”, we first considered what each of these words mean separately in the context of mental illness. The word “prolonged” connotes that the measurement cannot be a single point in time; it requires examining the length of time during which an individual is suffering with mental illness. “Suffering” with mental illness suggests that an individual’s mental health needs are not being met and solutions that can be implemented to reduce this suffering are lacking.

For this project, we define **prolonged suffering** in terms of four key indicators that emerged in our analyses of county-level events and focus group discussions with mental health clients and service providers. Further discussion of each indicator can be found in the next sections. Each indicator reduces or contributes to the delays during which individuals are not receiving appropriate needed care and are therefore experiencing prolongation of mental health suffering. Sample quotes from professional and community participants are included to illustrate the in-practice effects of each of the indicators:

- **Access:** The degree of access or barriers to resources, including access to treatment itself, as well as access to knowledge about how to recognize a problem, what resources are available, and how to go about applying for or requesting them.
  - *“You can apply for services if you have a smartphone, which I thought was interesting. If you’re homeless you ain’t got a phone, you can’t apply for services on a phone. So who are these services for?” – Mental health clinician<sup>4</sup>*
  - *“He has mental health problems. He doesn’t know how to go and fill out his paperwork, he doesn’t.” “Why not? he’s been incarcerated his whole life. So he doesn’t know any of that stuff. He has not been in school since he was like 14 and now he’s 61. So his whole life he’s been incarcerated, so he has no skills. He doesn’t even know where to start to fill out those*

<sup>4</sup> Some quotes have been edited and shortened for readability.

*things for services” “No, now that he's released, it's like what does he do? He'd stuck in the 70s.” – Family members*

- **Timeliness:** The timeliness in which mental health needs are being met, which may include: delay in an individual’s recognition that they need help, delay in referral (e.g. by a child’s teacher), delay between the recognition, diagnosis and receipt of services, or delay in transitioning between different types of services as need changes, among others.
  - *“What happened to my son was he was IST and was - just sat in jail until a hospital bed became available. That was the worst-case scenario. It would've been nice if he had gone to hospital and then been evaluated and gotten treatment, but that didn't happen for 6 months.” – Parent*
- **Sufficiency and appropriateness** of care. Inadequate care (e.g. infrequent, short duration) or inappropriate care (e.g. misdiagnosis, underuse of first-line treatments and evidence-based care, criminalization, etc.) both contribute to prolonging mental-health-induced suffering.
  - *“We know that people prefer ethnic services that match. So the whole thing in my county what we're dealing with is we have a huge turnover rate. After assessment there's no black clients who stay. What's happening in that assessment process? And it's like ‘Well, you're assessing them for a delusional disorder because they said they're afraid of law enforcement and there's no basis for it.’ But this is a norm in the community, let's talk about it! [...] I should be having this conversation to you as clinician to clinician, but I worry about the clients because they shouldn't be having to educate you on why this is a cultural norm. That is not their job, that's not what they came for.” – Mental health clinician*
- **Ongoing (or periodic) care over time.** While short term care or hospitalization can address a crisis or reduce immediate symptoms, mental health care is an ongoing process. Individuals are particularly vulnerable to drop out (e.g. poor continuity) or not being able to access prescribed medication when they experience changes in life status (e.g. due to homelessness, unemployment, transition from prison to community, or a foster child reaching age of majority), especially when those changes impact insurance or eligibility for certain programs. Another vulnerable time point is when an individual’s level of need changes, for example, if they graduate out of an intensive program but still needing ambulatory care.
  - *“We always are healing. Healing doesn't stop just because you feel better today. Healing is a long-term process. And we're healing for something that we've gone through, scars, trauma, all those things.” – Community organizer*
  - *“The average client with co-occurring disorders? Three to five years of episodic and long-term engagement. That's what it's going to take. And I teach my team. [...] The system's not built to look at episodic long-term for 3 to 5 years.” – Mental health clinician*
  - *“If I'm at somebody's house, it's because they're in crisis. I've been called out by family, by PD. One of the problems that I see in [...] is the revolving door. And the helplessness, because every single person that I have dealt*

*with in the field tells me ‘Well I don’t want to go to [hospital] because all they do for me is put a band-aid on it and send me back out the other door.’ And that is a really big problem. I think that we are getting better at it, because there is a lot of inter-agency coordination.” – Mental health emergency responder*

## What Do We Know About Prolonged Suffering?

Prolonged suffering is the result of untreated mental health need. It underlies all of the other MHSA targeted outcomes and increases over time if mental health needs are not addressed.

It is important to note that while the phrase “prolonged suffering” is drawn from MHSA legislation, it is not the most common term used to encompass this outcome. In our ethnographic observation of county events and focus group discussions, we found a strong concern for improving timeliness of care and reducing delays or gaps in service during which an individual was needlessly suffering without receiving care, but the specific phrase “prolonged suffering” was not used to describe these issues.

Finally, the outcome, prolonged suffering, can interrelate with all six of the other MHSA outcomes (homelessness, school failure, incarceration, out of home placement, unemployment, and suicide).

## Risk Factors & Indicators of Prolonged Suffering

The four factors we use to define prolonged suffering (barriers to access, delays in care, insufficient/inappropriate care, and gaps in care) and their converses (access, timeliness, quality, and continuous care over time) are important indicators of county mental health in general. These indicators are discussed below.

### Access

Forty-one percent of adults in the United States with mental health issues and 63% of those with severe mental health issues receive care (SAMHSA, 2018). Fifty-six percent of adults in the U.S. have sought or wanted to seek mental health treatment either for themselves or a loved one (Cohen Veterans’ Network & NCBR, 2018).

Barriers to accessing care can be categorized using Penchansky and Thomas’ (1981) 5 A’s model: affordability (financial barriers), accommodation (especially for individuals with work/family obligations that do not allow a flexible schedule, or those with physical mobility issues), acceptability (cultural or social factors such as stigma or mistrust), and availability and accessibility, both of which include system-level factors such as a lack of specialist providers in a geographic area or inability to refer a patient from one system to another (Halfon, Inkleas & Wood, 1995; Ojeda & Bergstresser 2008).

Public stigma against mental illness can also be a barrier to accessing other needed resources such as primary care and preventative care (Mittal et al., 2019). Internalized

self-stigma can lead to low self-worth – which discourages individuals from seeking care – as well as social avoidance, segregation, and, in some cases, coercive mandatory treatment (Corrigan & Watson, 2002). A recent survey conducted by the Anxiety and Depression Association of America suggests that mental illness stigma may be decreasing generationally in the US: 60% of college-age adults considered seeing a mental health professional as a sign of strength compared to 35% of older adults (ADAA, 2015). The same year, a RAND evaluation of a California-based stigma reduction documentary showed short term positive benefits, particularly in reducing social distance towards individuals with mental illness (Cerully et al., 2015), and a review of 34 published randomized controlled trials of stigma reduction interventions showed overall positive results for reducing personal stigma and social distance, but not for reducing self-stigma (Griffiths, Carron-Arthur, Parsons, & Reid, 2014). In 2016, the California Mental Health Services Authority (CalMHSA) compiled an overview of stigma reduction programs across California and their key accomplishments (CalMHSA, 2016).

A national 2018 survey listed costs, limited insurance coverage, and long waits as the main perceived barriers to mental health care, and 17% of respondents said their insurance policy made them choose between treatment for a physical condition versus mental health. Additionally, individuals who are low income, low education or live in rural areas are less likely to seek care, have accessible care, or have knowledge about how to access care if they want it (Wang, Lane, & Olfson, 2005; Mohatt, Bradley, & Adams, 2005; Hodgkinson et al., 2017).

### **Vulnerable populations that lack access to mental health services:**

Even when care is available to the larger population, a lack of awareness of resources and the means to access them can prevent vulnerable groups from achieving sufficient and timely treatment to prevent prolonged unmet suffering (Villatoro et al., 2018). The groups listed below are some salient examples but obviously do not constitute a complete list.

#### ***Race and Ethnicity***

- **Latinos** receive less adequate mental health treatment than other populations and are less likely to seek out treatment, which is partly attributed to a lack of trust for medical authorities (Aguilar-Gaxiola et al., 2012; Añez et al., 2005; Kataoka et al., 2002). Other factors contributing to low rates of access among Latinos are language barriers, privacy concerns, lack of health insurance, lack of information or stigma about mental health (Kouyoumdjian, Zamboanga, & Hansen, 2003). Cultural congruence (Costantino, Malgady, & Primavera, 2009) and shared paradigms of illness and normalcy (Ojeda, Flores, Mexa, & Morales, 2011) are key factors in successful care.
- **African Americans** are more likely than majority populations to receive inappropriate care, for example care provided in coercive or restrictive settings



such as in the criminal justice, emergency, and child welfare departments (Pescosolido, Gardner, & Lubell, 1998). A study of low-income African American women found that they did not seek mental health care for themselves due to fear of losing their children, negative perceptions of the health care system, and economic stressors (Copeland & Snyder, 2011). Stigma, low rates of coverage, and lack of a usual source of healthcare are also factors that affect the help-seeking behaviors of African Americans (Snowden, 2001).

- While **Asian Americans** have the lowest rate of self-perceived need and mental health service use (Bloom & Black, 2016; Garland et al., 2005; SAMHSA, 2015) this is not necessarily an indicator of higher levels of mental health. Factors contributing to low self-report of mental health need include: cultural stigma against disclosing mental illness, lack of education regarding mental health resources, culturally incongruent models of mental wellness, and relying on self-reports which underestimate emotional distress compared to other forms of diagnosis (e.g. interviews) (Hu, 2019; Kramer, Kwong, Lee, & Chung, 2002; Okazaki, 2002; Sue, Ka Yang Cheng, Saad, & Chu, 2012).
  - The “model minority” stereotype also de-emphasizes the level of psychological distress faced by Asian-Americans compared to other ethnicities, as well as erasing the significant differences in culture, immigrant experience, and mental health impacts for immigrants from different Asian countries. (Chang, 2019; Paik, Kula, Saito, & Rahman, 2014).

**Immigrants and refugees** face substantial barriers to access, including lack of knowledge about available resources and how to request them, limited English proficiency (see below), lack of access to culturally competent providers, and financial burdens due to inadequate insurance (Derose, Escarce, & Lurie, 2007; US Department of Health and Human Services, 2012; Salami, Salma, & Hegadoren, 2019). Additionally, governmental immigration policies and anti-immigrant rhetoric have increased fears of deportation even on the part of immigrants who are legally in the U.S. (Callaghan et al. 2019; Kennedy, 2018) and have led to families avoiding necessary or preventative care and even disenrolling from programs to which they are legally entitled such as Women, Infants, and Children (WIC) programs (Alameda County Public Health Department, 2017), Medi-Cal (California Healthline, 2017) or ACA-provided insurance (Page & Polk, 2017).

**Limited English Proficiency and non-fluent individuals (including d/Deaf and hard of hearing)**, who require communicative accommodations such as interpreters, bilingual providers, etc. face additional barriers to access, including low health literacy, longer hospital stays due to insufficiency of staff or resources, misdiagnosis by providers who are not culturally trained, sub-par interpreting by ad-hoc bilingual staff who are not trained as medical interpreters, and decreased likelihood of seeking out services for these reasons (Derose et al., 2007; Elderkin-Thompson, Silver, & Waitzkin, 2001; Fellingner, Holzinger, & Pollard, 2012). These persons include immigrants and refugees. When d/Deaf patients are given access to interpreters rather than relying solely on note-writing, they are more likely to use preventative services and receive

psychiatric care (Fellinger et al., 2012; MacKinney, Walters, Bird, & Nattinger, 1995). Older deaf adults prefer sign-proficient providers rather than communicating through an interpreter (Feldman & Gum, 2007) and LEP immigrants also report highest levels of satisfaction and understanding of their medical situation when able to communicate directly with the provider (Derose et al., 2007).

**LGBTQ:** Barriers to care include individuals' lack of knowledge about services, how to access them, and what rights they have regarding non-discriminatory care; lack of sufficient services and providers who specialize in LGBTQ-related issues; and past experience with stigma or discrimination from providers (Romanelli & Hudson, 2017; Smith, Altman, Meeks, & Hinrichs, 2018). In one interview study, clients felt that the service-providing agencies themselves were not doing an adequate job of publicizing their existence to the communities who needed them (Romanelli & Hudson, 2017). Stigma and discrimination are also high barriers to adequate care, particularly for transgendered individuals, and have been correlated with worsening of mental health issues and even suicidality (Haas et al., 2014; Romanelli & Hudson, 2017)

- Different sub-populations also have different level and types of unmet need, for example long-term care providers for older LGBTQ adults cited the need for more training and evidence-based treatments are focused on LGBTQ-specific mental health issues within this population (Smith et al., 2018), while a Canadian survey found that cisgender bisexual women reported higher unmet need than to cisgender lesbian or heterosexual women (Steele et al., 2017).

**Autism (ASD):** Individuals diagnosed with ASD are at increased risk for emotional and behavioral problems in both childhood and adulthood (Weiss et al., 2016). Caregivers of autistic children face greater difficulty accessing services, inadequate insurance coverage, and lack of coordination between different types of care, when compared to caregivers of children with developmental disabilities or neurotypical children (Vohra, Madhavan, Sambamoorthi, & St. Peter, 2014).

- Lack of provider training related to ASD is one key barrier, there are insufficient numbers of mental health professionals trained to work with autistic patients and insufficient training for first responders and emergency room staff in how to work with autistic youth and adults in crisis (Kalb, 2017; Autism Speaks, 2018). Additionally, community mental health centers do not always admit autistic patients because they do not have staff who can assist them (Maddox et al., 2019).
- Parents, patients and even psychiatrists may also be reluctant to call 911 in a crisis due to fear of how police or emergency departments will treat the individual in crisis, for example using physical violence or chemical restraints (Kalb, 2017).

**Individuals with intellectual disabilities (ID):** When individuals with ID are not able to adequately articulate their emotional or psychological distress, it is their caregivers who have the responsibility of identifying problems and seeking out help (Costello, Bouras, &

<sup>5</sup> We use the term “autistic individual” rather than “individual with autism” as this is in line with the preferences of self-advocates. See Brown 2011 for a good comparison of these terms.

Davis, 2007). Lack of mental health training for professional caregivers (Costello et al., 2007) as well as concerns about or negative attitudes toward the type of mental health care provided to individuals with ID (Werner & Stawski, 2011) thus become barriers to accessing appropriate care. As with autism, insufficient specialized training of nurses and emergency department staff can also prevent individuals from receiving appropriate care, for example overmedication or ignoring symptoms of behavioral or emotional problems because they are assumed to be symptoms of the intellectual impairment (Weiss et al., 2009).

### Timeliness

Delays in beginning treatment extend the individual's suffering, can worsen their current mental health condition, and can even negatively impact treatment outcomes down the line. A British study showed that longer wait times to be accepted into treatment had negative effects for psychosis patients up to 12 months after starting the program (Reichert & Jacobs, 2013), and a national study of measures of quality of care found that the degree to which they were being met varied widely across states but, on average, adherence measures for timeliness were below 50% (Zima, Edgcomb, & Shugarman, 2019).

Delays in care can also contribute to treatment drop-outs: it is estimated that a medical center loses 1% of their patients for every additional day of wait time (Dampier, 2019). A 2016 study revealed that 29% of doctors reported emergency room wait times of over 2 days for psychiatric patients, with some patients waiting up to 5 days (NAMI, 2016), and a 2010 eighteen-month study of children diagnosed with ADHD showed that 39% did not have a single psychiatric-related visit within the first 6 months (Zima et al., 2010).

To increase timeliness of care, the U.S. Department of Veterans Affairs created a web-dashboard that allows individuals to compare wait times at different VA clinics and display availability same-day services (US Dept of Veterans' Affairs, 2019). Average wait times for California mental health clinics ranged from no wait in Susanville to 94 days in Auburn (data retrieved Dec 1, 2019). The VA's benchmark is an initial evaluation within 24 hours, comprehensive exam within 14 days, and ongoing care within 30 days of a preferred date (National Academies of Sciences, Engineering and Medicine et al., 2018).

### Appropriateness

Appropriateness of care is another factor in reducing or increasing prolonged suffering. As discussed above, cultural congruence between provider and patient can impact both quality of care and likelihood of patients continuing with care over time (Costantino et al., 2009; Ojeda et al., 2011) for both immigrant and minority patients (Horn, Mitchell, Joseph, & Wissow, 2011). For limited English proficiency immigrants, availability of trained medical interpreters can also be a barrier to care; using untrained bilingual staff

as ad hoc interpreters can result not only in miscommunication but also in negative judgments due to the interpreter's cultural bias, leading to poor quality or inappropriate care and patient drop-out (Elderkin-Thompson et al., 2001; Hsieh, 2006).

### Ongoing mental health care over time

Having a regular provider is associated with more frequent preventative visits, greater patient satisfaction, and quality of care (Halfon, Inkleas, & Wood, 1995).

If individuals do not receive follow-ups or some sort of ongoing care, they can experience relapses, and high-need individuals can fall into a pattern of cycling through mental health clinics and emergency rooms, receiving short term care only to later relapse and return. These “superutilizers” (Dickens, Weitzel, & Brown, 2016) or “revolving door patients” (Barron, 2016) use a disproportionate amount of medical resources without receiving any long-term benefit or improvement in their suffering.

Repeat admissions can be seen as an indicator of inadequate care. For example, the Hospital Readmissions Reduction Program, part of the Affordable Care Act, penalizes hospitals whose readmission rates exceed specific targets (Zuckerman, Sheingold, Orav, Ruhter, & Epstein, 2016). However, this can also be a barrier to care for individuals with complex diagnoses that may include mental health issues, homelessness or former incarceration (Dickens, Weitzel, & Brown, 2016). On a more local level, Fresno County implemented a program to reduce calls from “super users” by examining the root causes and health care needs of their top 50 users, who had collectively logged over 4,000 trips in one year (Hess, 2017).

Individuals who do not have stable health insurance are particularly at risk for drop-out (Edlund et al., 2002), including those who are unemployed, homeless, or have placement instability, as well as children in foster care, whose insurance are often linked to their placement stability (Raghavan et al., 2009). In contrast, having health insurance (for example, through ACA) correlates with higher likelihood of having a usual source of care, better access to preventative care and testing, better medication adherence, and other positive health outcomes including patients' own self-reports of their quality of health (Sommers, Gawande, & Baicker, 2017).

### Elements of Prolonged Suffering within the MHSA

The four elements listed above are highlighted within the text of the MHSA itself:

- There were over 15 references to improving **access to services**, including reducing racial and ethnic disparities in access and improving access for vulnerable populations.
- There were 6 references to **timely treatment** or access to mental health services as a focal point for MHSA-funded California programs and a key part of improving mental health outcomes including: “Failure to provide **timely** treatment can destroy individuals and families” 2(b). “California can do a better job saving

lives and saving money by making a firm commitment to providing **timely**, adequate mental health services” 2(f). Additionally, there were over 15 references to **expanding programs** or expanding access to programs (which would also reduce treatment delays).

- **Quality and appropriateness** were described in various ways, including: “expand[ing] the provision of high quality” programs and ensuring adequate treatment.
- Although **continuing or long-term care** was not specifically covered in the Act itself, there were mention of improvements of long-term outcomes. Additionally, the county event organizers and focus group participants we spoke with placed strong emphasis on the importance of consistent ongoing care without gaps or drop-outs as a key component for reducing the other six negative outcomes.

## Data Sources for Prolonged Suffering Outcomes

We found very few data sources in California that monitor prolonged suffering directly. However, it can be argued that the data sources for the other six negative outcomes also capture aspects of prolonged suffering when those with a mental illness are disproportionately represented in one or more of these outcomes. Tables 8 and 9 lists additional characteristics and vulnerable populations that are measured in each data source.

## National Data Sources for General Populations and those with Mental Health Problems

### National Health Interview Survey (NHIS)

<https://www.cdc.gov/nchs/nhis/index.htm>

The NHIS is a nationally representative, cross-sectional survey conducted annually by the National Center for Health Statistics.

**Data Access:** Survey data are de-identified and available through the CDC NCHS website.

**Geographic level:** National

**Frequency:** Annual. Data are available every year up to 2018.

### **Variables:**

- Seeing a mental health professional in the past 12 months
- Ability to afford mental health counseling in the past year (including insurance status)
- Timeliness of care
- Ongoing chronic presence of depression, anxiety, or emotional problem severe enough to generate activity limitation(s) in a respondent

**Strengths & Limitations:** NHIS measures mental health outcomes and timeliness of care, which we have identified as a measure of prolonged suffering. Data are not available at the state or county-level.

### National Survey on Drug Use and Health

<https://nsduhweb.rti.org/respweb/homepage.cfm> and <https://pdas.samhsa.gov/#/>

Data request information at: <https://www.cdc.gov/rdc/b1datatype/nsduh.htm>

The NSDUH is an ongoing annual national survey that assesses tobacco use, alcohol use and disorders, illicit drug use and disorders, and mental health symptoms in the United States. Respondents are a nationally representative sample of the noninstitutionalized citizen population age 12 and older.

**Data Access:** NSDUH data can be accessed through the Public-Use Data Analysis System (PDAS) on the SAMHSA website.

**Geographic Level:** National and state estimates

**Frequency:** Annual. Data are available every year up to 2018.

#### **Variables:**

- Mental health service use by age and type of service
  - Separate metrics for all-community, individuals with mental illness, and individuals with a substance use disorder.
- Need for substance use treatment
- Whether and how recently substance use treatment was received
- Mental illness within past year
- Major depressive disorder within past year
- Suicidal thoughts, plans or behaviors within past year

#### **Strengths & Limitations:**

NSDUH does not survey individuals who are living in jails, emergency shelters, long-term hospitals, or who are in the military. These populations may experience significantly different outcomes related to prolonged suffering compared to the general population. Strengths of NSDUH include its large sample size and wide range of domains that allow users to compare across groups.

## California Data Sources for General Populations and those with Mental Health Problems

California Health Interview Survey (CHIS)

<http://healthpolicy.ucla.edu/chis/data/Pages/GetCHISData.aspx>

CHIS is the nation's largest state health survey, asking questions on a wide range of health topics. More than 20,000 adults, teenagers, and children are interviewed via random-dial telephone surveys each year in all 58 counties. In addition to immigration health, health insurance coverage, and physical and mental health, CHIS covers mental health status; perceived need, access, and utilization of mental health services; functional impairment; stigma; and suicide ideation and attempts. CHIS provides data at the state and county level and surveys these populations annually.

CHIS data can be analyzed at the county level for California's 41 most populated counties. The remaining 17 counties are organized into three different groups. CHIS samples from children (0-11 years), adolescents (12-17 years), and adults (18 years and older).

### **Data Access:**

#### *CHIS Publicly Available Data*

There are many ways to publicly access CHIS data:

- **Route 1: Public Use Data Files (PUF)** allow researchers to customize and run their own statistical code. The files are available in a variety of formats, including SAS, SPSS, and STATA.
- **Route 2: AskCHIS** is a free, web-based data query system that allows users to search for data at the county, region, and state level.
- **Route 3: AskCHIS Neighborhood Edition (AskCHIS NE)** allows users to search for top health topics at granular levels of geography (zip code, city, county, and legislative district), and produce data visualizations.
- **Route 4: AskCHIS NE Application Programming Interface (API)** gives web developers, programmers, and data analysts programmatic access to estimates essential for data portals, visualizations, and clinical applications. These data can be merged with outside data for a more layered research and analysis.

#### *CHIS Data by Request*

There are also a number of ways to access confidential CHIS data by request:

- **Route 5: The Data Access Center Project (DAC)** allows researchers to analyze confidential CHIS data, data sensitive variables and/or geo-coded data. DAC requires a research application, renewal, and approval. The minimum cost is \$1000. More info on rates can be found [here](#).
- **Route 6: Data Estimate Request (DER)** is available for government agencies, the media, and nonprofit organizations interested in specific health issues. The request must be estimate driven and cannot be used for the purposes of research.
- **Route 7: The Special Use Research File (SURF)** contains non-publicly available CHIS variables that can merge with CHIS PUF depending on the confidentiality and sensitivity of the variables requested.
- **Route 8: Local health department (LHD) files** contain data at the county level for the CHIS sample in a specific county and can be requested by local health departments.

We have included all of these methods to illustrate the various options CHIS offers for accessing more granulated data and of the user-friendly data tools that can be used to create data visualizations. For the purposes of this project, Route 2, the AskCHIS tool, is the best way to access CHIS data immediately because the data tool is publicly available and includes psychological distress (objective measure of need), self-reported need for mental health services (subjective measure of need), use of prescription medication for mental health, use of mental health services, and number of visits.<sup>6</sup>

**Geographic Level:** State, County

**Frequency:** Annual. Data on prolonged suffering are available for 2012, 2014, 2016, and 2018.

**Variables:**

- Self-reported perceived need for mental health services
- Self-reported use of mental health services, including frequency of use and reason for drop-out
- Access to services, including issues with cost and insurance coverage
- Delay in receiving services (last asked in 2005)
- Past year and past month likelihood of serious psychological distress using the Kessler-6
- Functional impairment due to mental health problems, including in the work place

**Strengths & Limitations:**

CHIS is very comprehensive and collects a number of sociodemographic variables that can be used to measure disparities within counties and across the state. Data are collected from children on age, gender, race and ethnicity, birth country, immigration status, and language spoken at home. Data is available for most counties in California. However, CHIS cannot be used to compare California data with other states. For the service use outcomes, data would need to be requested. Partial data are available through the askCHIS web interface, additionally a data request can be submitted for more details.

<sup>6</sup> Due to confidentiality service use is considered sensitive data and is not included in Public Use Files (PUF). For a complete data set that includes these data indicators, Routes 5-8 are available with additional application process and fees.



## Substance Abuse and Mental Health Services Agency (SAMHSA) Uniform Reporting System (URS) - California Data

<https://www.samhsa.gov/data/data-we-collect/urs-uniform-reporting-system>

The SAMHSA URS is a state, national, and territories data reporting system that supports the Community Mental Health Services Block Grant program. State mental health authorities provide annual overviews of state mental health delivery programs by reporting on the National Outcome Measures (NOMS), evidence-based practices, and utilization measures. SAMHSA URS provides client-level administrative data. Data can be accessed by PDF and saved by Excel.

**Data access:** Data can be accessed by PDF and saved into Excel.

**Geographic Level:** State only

**Frequency:** Data are annually collected. The three most recent years data are available are 2016-2018.

### **Variables:**

- Consumer Survey Measures (adult and child/family)
  - Access to substance abuse and mental health services (by race and ethnicity)
  - Quality and appropriateness of substance abuse and mental health services (adult only) (by race and ethnicity)
  - General satisfaction with care (by race and ethnicity)
  - Outcome from Services
  - Improved functioning (by race and ethnicity)
  - Participation in treatment planning (by race and ethnicity)
  - Cultural sensitivity of provider (child/family) (by race and ethnicity)
- Adult and Child Evidence-Based Practices
- Hospital Readmissions (by age, gender, race and ethnicity)
- Change in social connectedness (adults and child/family) (by race and ethnicity)
- Unemployment (by age, gender, and diagnosis)
- Living Situation (by age group)
  - Homeless/Shelter (by age, gender, race and ethnicity)
  - Jail/Correctional Facility
  - Foster Home
  - Residential Care
  - Crisis Residence
  - Residential Treatment Center
  - Institutional Setting
- Adult Criminal Justice Contacts
- Juvenile Justice Contacts
- School Attendance (Improved)

### **Strengths & Limitations:**

The uniform reporting across all states makes SAMHSA URS a strong data source for making state and national comparisons on outcomes of prolonged suffering for those receiving state mental health services. In addition, since these data are reported directly from the state, the state must collect these data from each county which means that there must also be uniform reporting across California counties and these data could be used for county comparisons.

However, since SAMHSA URS is admin/client-level data, one of the major limitations in terms of this project is that it only captures data for those who are receiving services and not for those with a mental health need who are not or are unable to receive appropriate services. Moreover, these data may only be capturing a subset of those who are receiving state mental health services such as those with more severe symptomology who meet criteria for FSP services and may not capture outcomes for those with less severe symptomology who may get other types of services such as CSS and PEI. Nevertheless, the uniform reporting system for FSP clients could be adopted and used to capture similar outcomes for CSS and PEI clients.

## **Surveillance & Monitoring for Prolonged Suffering Outcomes**

Our environmental scan of other data sources and surveillance for prolonged suffering relied on our operationalization of the outcome: access, timeliness, and quality of mental health services. Thus, the following examples describe projects and studies that examine these factors. This is not an exhaustive list.

### **National Examples**

#### **America's Mental Health 2018**

America's Mental Health 2018 is a comprehensive research study in collaboration with the Cohen Veterans Network, the National Council for Behavior Health, and Ketchum Analytics that monitors access and quality of mental health services, two factors of prolonged suffering. The project strived to answer: 1) What is the current state of access to mental health services in America?; 2) What is keeping Americans from seeking treatment to mental health issues?; 3) How do Americans perceive both mental health services and mental health in general?; and 4) What do we need to do to improve both access to and overall quality of mental health services?

Research methods included a nationally representative survey of 5000 Americans and a custom index ranking of each state according to its mental health service access based on its providers, facilities, funding, and satisfaction. Data was aggregated and averaged to each state, resulting in a score between 0 and 100 where 100 indicated the greatest access to mental health services. Special populations included Veterans and those who have sought mental health treatment. The study revealed that mental health services are insufficient due to lack of access and identified barriers to and disparities in access.

Additional information can be found on the [National Council for Behavioral Health](#) website or on the [report summary](#).

## The State of Mental Health in America: Mental Health America

[Mental Health America](#) uses national survey data and state rankings to monitor changes in access to mental health care and prevalence of mental health issues. Using data from SAMHSA, NSDUH, and the Center for Behavioral Health Statistics and Quality, the [report](#) describes mental health needs, access to care, and outcomes among states. The Access to Care section provides state rankings of nine measures, including youth with major depressive episode (MDE) who did not receive mental health services; youth with severe MDE who received some consistent treatment; adults with any mental illness (AMI) reporting unmet need; and mental health workforce availability. This surveillance example does not touch up quality or timeliness of care, but does expound on access and barriers to access.

## California Examples

### California External Quality Review Organization (CalEQRO)

The U.S. Department of Health and Human Services (DHHS) requires an annual, independent external evaluation of state Medicaid managed care programs by an EQRO. Each fiscal year, Behavioral Health Concepts, Inc. (BHC) reports their findings of an external quality review of each county Medi-Cal mental health plan (MHP), which is “the analysis and evaluations of aggregate information on quality, timeliness, and access to health care services” ([2018-19 BHC-CalEQRO Statewide Annual Report](#), 2019). The 56 MHPs provide Medi-Cal-covered specialty mental health services (SMHS) to Medi-Cal beneficiaries. CalEQRO reports on factors that we have identified as contributors to prolonged suffering: access, timeliness, and continuity of care. These indicators can be measured by racial and ethnic characteristics, age groups (youth, adult, and older adult), and homelessness status, among others. CalEQRO provides information on the Healthcare Effectiveness Data and Information Set (HEDIS) measures, including:

- Timeliness: data monitoring capabilities
- Timeliness reporting rates
- First offered appointment timeliness
- First kept appointment timeliness
- Urgent appointment timeliness
- Availability of services and written materials in preferred language
- Access: top strengths and challenges
- Quality: top strengths and challenges
- Percentage of MHPs reporting on outpatient follow-up
- Outpatient follow-up timeliness after inpatient discharge
- Mental health professional (Psychiatrist or Clinician) no-show rates

- Availability of Spanish telehealth services
- Access subcomponents ratings
- Timeliness subcomponents ratings
- Quality subcomponents ratings

## Performance Outcomes System

<https://www.dhcs.ca.gov/provgovpart/pos/Pages/Performance-Outcomes-System-Reports-and-Measures-Catalog.aspx>

The Performance Outcomes System of the Department of Health Care Services (DHCS) measures the effectiveness of adult specialty mental health services and services for children and youth receiving Medi-Cal. It is used to evaluate domains of access, service appropriateness to need, service effectiveness, linkages, satisfaction, engagement, and cost effectiveness. Breakdowns are provided by age, gender, and race and ethnicity. In addition to statewide aggregate reports, the Performance Outcomes System produces population-based aggregate reports by large, medium, small, and rural counties and children/youth and adults. County-level reports on foster care and child welfare service populations are available for 2018.

## Recommendations

The following are four sets of recommendations. Each category is determined by the accessibility of the data from a particular data source. The ideal, pie in the sky, accessibility would be one in which current data can be accessed or shared immediately to display in a future dashboard and in a format that would help streamline the process for updating this dashboard. For the scope of this project, the UCLA team will provide MHSOAC with a data library that consists of three years of data for each indicator in each of the 7 MHSA outcomes – suicide, unemployment, homelessness, incarceration, removal from home, school failure or dropout, and prolonged suffering. As such, the ideal accessibility would be to have publicly available data in which a complete data set with multiple indicators for a particular outcome or multiple outcomes can be downloaded at one time without a data request or data use agreement.

Recommendations of data sources and their related data elements are organized into four categories:

Category 1 describes data sources that meet four criteria: 1) publicly accessible and free; (2) accurate measure of the MHSA key outcome; (3) measure of the outcome in the context of mental health; and (4) available at the state and county levels.

Category 2 describes data sources that meet one or more of the four criteria above.

Category 3 describes options for pairing recommended data sources in either Category 1 or 2 that have the potential to contextualize prolonged suffering at the county level.

Category 4 describes data elements that are not currently being measured in a standardized setting, but may be of interest and useful to collect. The recommendations in this section have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

## Category 1 Recommendations

Below are the recommended data sources that have the capacity to capture indicators of prolonged suffering and mental health at the county level, and are publicly accessible and free.

### Recommendation #1:

**The California Health Interview Survey (CHIS) using the AskCHIS query tool** is the best data source available for population-level data for this key outcome. The AskCHIS query tool will allow the user to download a report or partial dataset. The target population is the California general population, ranging from age 12 to more than 65 years, which can be further stratified by those who are DMH-eligible and/or those who receive services. Other strengths include the capacity to stratify data by counties and assess reported difficulties of accessing specialty care among adults and general services among children and adolescents, although specialty care could include any care needed, not just mental health. An additional advantage is that CHIS has the capacity to stratify race and ethnicity groups beyond U.S. census group categories, thus identifying indicators of prolonged suffering among often under-reported race and ethnicity groups. This data source can also stratify by the following vulnerable populations: poor, LGBTQ, immigrant, undocumented, military, pregnant, and disabled. Clinical characteristics identified by CHIS are serious psychological distress, life and work impairments due to emotional and mental health issues, substance abuse or disorder, and physical health status. Social circumstances examined by CHIS are discrimination, educational attainment, and financial insecurity.

CHIS is a household survey and as such does not capture information on individuals who are institutionalized or homeless. Nevertheless, CHIS captures data on a broad range of health topics and demographics across California which can be generalized at the state and county levels.

CHIS uses the Kessler-6 (K6) as a measure of psychological distress drawing from depressive and anxiety related symptoms for the past year. The AskCHIS query tool has a constructed measure that provides population weighted estimates for individuals who “likely have had serious psychological distress during the past year,” with individuals coded as “likely” versus “not likely” to have serious psychological distress (K6 score of 13 or higher indicating serious psychological distress). Individuals identified

as “not likely to have serious psychological distress in the past year” include those who report symptoms associated with mild to moderate psychological distress (K6 score = 1 to 12) and those who reported no symptoms in the past year (K6 score = 0).

AskCHIS also has a constructed measure that provides estimates for individuals who “sought help for self-reported mental/emotional and/or alcohol-drug issues in the past year,” coded as “needed help but did not receive treatment” or “needed help and received treatment.” These estimates only include individuals with a self-reported need for mental health services in the past year. The following two questions were used to construct this measure:

1. "Was there ever a time during the past 12 months when you felt that you might need to see a professional because of problems with your mental health emotions or nerves or your use of alcohol or drugs?"
2. If yes, the respondent is asked “In the past 12 months have you seen your primary care physician or any other professional, such as a counselor, psychiatrist, or social worker for problems with your mental health, emotions, nerves or your use of alcohol or drugs?"

Those who respond “yes” to having a need and “no” to being seen for mental health problems are coded as having an unmet need for mental health care.

For the purposes of monitoring by MHSOAC, CHIS can be used to answer the following questions:

- How does unmet need for mental health care for persons with serious psychological distress (SPD) change over time?
- Does unmet need for mental health care among persons with SPD vary by age, race and ethnicity, or education?

## Category 2 Recommendations

Below are the recommended data sources that have the capacity to capture indicators of prolonged suffering but are not publicly accessible and would require funds, resources, and time to access and utilize.

### Recommendation #1:

**The California Health Interview Survey (CHIS) using a formal data request** is the best California-specific data source that would require additional funding, resources or time to access the data. Although a data request requires additional time, it will yield the actual data files. The strengths of this data source are summarized in the first recommendation in Category 1.

**Recommendation #2:**

**The National Survey on Drug Use and Health (NSDUH)** is recommended to capture and compare national data. Access to these data requires a data request and fee. All population levels (general, DMH eligible, DMH eligible + service use) are assessed, but children ages 0-9 are not included. Sociodemographic characteristics that can be examined are age, gender and race and ethnicity that extend beyond U.S. census groups. Strengths of the NSDUH include the capacity to stratify by county and census tracts. Indicators of prolonged suffering are limited to access to services for adults and children. The vulnerable populations that can be assessed are persons who are poor, child welfare involved, justice involved, unemployed, experienced school failure or drop-out, in the military, pregnant, and disabled. Clinical characteristics that can be examined are mental health problems, serious emotional disturbances, serious mental illness, clinical severity, comorbidity, substance abuse/disorders, and physical health status. Social circumstances that are assessed are educational attainment, housing insecurity, and food insecurity.

**Recommendation #3:**

**The National Health Interview Survey (NHIS)** is another recommended national data set. Access to these data requires a data request and fee for state and county data. All population levels (general, DMH eligible, DMH eligible + service use) are assessed across all age groups. An additional advantage is that this data source has the capacity to stratify by county and census tract. The indicators of prolonged suffering that can be assessed are difficulty finding specialty care (adult), access to services (children), and delayed or did not receive other medical care (all ages). The sociodemographic characteristics that can be examined are age, gender and race and ethnicity using U.S. census categories. The vulnerable populations that can be assessed are persons who are poor, LGBTQ, immigrant, undocumented, child welfare involved, unemployed, in the military, pregnant, and disabled. Clinical characteristics that can be examined are mental health problems, clinical severity, comorbidity, and physical health status. Social circumstances that are assessed are educational attainment, housing insecurity, financial insecurity and food insecurity. Of note, the NHIS includes two related MHA outcomes, namely involvement in the child welfare system and unemployment.

### Category 3 Recommendations

Overall, data sources in Categories 1 and 2 capture the domains of prolonged suffering and their intersection with mental health-related factors. To contextualize findings, the NHIS has the capacity to provide a national benchmark of a broad indicator of unmet need for mental health care. Similarly, the NSDUH could generate estimates of unmet need for mental health care by state, and comparison states could be purposefully

selected to match on a shared demographic characteristic (e.g. relatively large proportion of immigrants). In addition, client service user data sources, such as the Client and Service Information (CSI) system and Data Collection and Reporting (DCR) system, have the potential to monitor patterns of service use (e.g., continuity of care vs. poor continuity of care) and relationship to documented rates of other key outcomes (e.g., homelessness, incarceration, foster care, school failure). If these data sources include standardized measures of symptoms and/or impairment over time within a person's episode of care, there could be capacity to also describe the proportion of persons receiving care who remain symptomatic--an indicator of prolonged suffering as well as continued need for care. In addition, CSI and DCR data allow for the examination of gaps service utilization, delays in service delivery, and disparities in access to care.

## Category 4 Recommendations

Based on preliminary analyses of county and local ethnographic observations (including attending MHSA events and conducting focus groups and interviews), these are some suggestions for other metrics which would be relevant in understanding the health of a county with regards to reducing prolonged suffering due to unmet mental health need.

### **Measuring unrecognized or normalized prolonged suffering:**

In our qualitative research, multiple service providers brought up the normalization of suffering due to lack of knowledge or intergenerational trauma as an obstacle to addressing and alleviating unmet mental health need.

Normalization can occur in a variety of ways:

- Poor or minority communities where children grow up with the same discrimination, lack of resources, and mistrust of institutions faced by their parents and grandparents see certain types of suffering or trauma as something that must be borne rather than solved.
- If mental illness is not publicly discussed, an individual may feel there is "something wrong" with themselves or a loved one but not be able to recognize it as specifically a mental illness.
- Finally, in communities where mental illness is stigmatized, individuals (or parents) may see their children's issues or their own issues as being a personal failing or punishment rather than a condition that can and should be treated.

Metrics for measuring the health of a county in alleviating this sort of suffering may include:

- Measurements of community-level acceptance or stigma toward mental illness.
- Measurements of community-level knowledge about mental illness, available resources, and how to access them.



- Collecting survey data about specific forms of emotional distress by asking not only about the individuals' own experiences (how long, how often, how severe) but their perception of how common or how normal these experiences are for people as a whole.
- Measurements of how many people in the community know someone with a mental health condition (e.g. depression, anxiety, suicidal thoughts) and comparing these to county or state level averages to see whether these conditions are being recognized.

### **Measuring care over time:**

Consistent care over time is important for alleviating prolonged suffering due to unmet mental health need. Data that count the number of individuals at a particular point in time (e.g. in a day, in a year) do not accurately capture this domain.

Possible metrics for measuring a county's health in this domain include:

- Monitoring how long individuals are typically in care (county-wide averages and ranges), including those who transition across multiple programs.
- For those who experience gaps in care, monitoring the typical length and number of such gaps.
- The percent of service recipients who had more than a benchmark number of gaps in care (or had gaps over a certain length of time).
- Monitoring individuals' histories of hospitalization or crisis care to determine the proportion of "revolving door" cases in a county as well as the average length of time individuals remain these cycles before receiving stable care.

Most of these metrics involve being able to collect ongoing or historical data on individual service recipients over a period of time.

### **Measuring prolonged suffering's interconnection with the other negative outcomes:**

As noted earlier, prolonged suffering is closely connected to all six of the other MHSA-targeted outcomes and the degree and length to which an individual is left suffering untreated mental health issues influences the ultimate severity of their situation when they do receive help. Suicidality, homelessness, unemployment, removal from home, incarceration, and school failure are all outcomes of prolonged suffering.

The degree to which mental illness is stigmatized versus normalized in the local community affects the degree to which individuals feel comfortable asking for help as opposed to suffering in silence. It also affects the degree to which individuals consider their mental health need to be something that they can control and improve rather than a character flaw or punishment.

Culture, class, and ethnicity will impact the ways in which individuals recognize and deal with mental health related suffering, as well as the ways and timeliness in which outside

institutions (schools, justice system, child welfare) recognize and respond to unmet mental health need. For example: low income families are more likely to be scrutinized by the child welfare system (see *Removal from Home* chapter), minority children's behavior problems are more likely to result in punishment rather than mental health referrals (see *School Failure* chapter) and minority and low-income offenders have a harder time re-integrating into society after they are released from prison (see *Incarceration* chapter).

Because these domains are interconnected, improvements (or worsening) in one domain can be expected to have a delayed downstream effect on the others, and should be monitored accordingly. For example, increasing early access to resources and timeliness of care not only reduces prolonged suffering, but also prevents an individual's situation from deteriorating to the end point of e.g. a child failing out of school, a parent losing custody of their child, or a youth attempting suicide. Additionally, parent mental health issues have a strong impact on the environment and mental health of their children, so programs to reduce the time during which parents are suffering with untreated mental illness will also benefit the next generation.

## Conclusion

For this project, prolonged suffering is defined as a time period during which an individual is experiencing distress due to their mental health needs not being adequately met. Using qualitative data, four key indicators of prolonged suffering within this context emerged: 1) poor access to tangible (i.e., services) and intangible resources (i.e., knowledge); 2) lack of timely care; 3) insufficient or inappropriate care; and 4) poor continuity of care. Together, these components align with Donabedian's (1968) well-established quality of care model that conceptualizes access to care as separate from quality of care. These components of prolonged suffering are also validated in the scientific literature, providing consistent evidence that a substantial proportion of persons have unmet need for mental health care, and of those that receive any mental health services, care may be delayed, ineffective, inappropriate or inconsistent. In addition to the personal toll, inadequate care is costly, as evidenced by greater risk for frequent hospital readmissions for mental health crisis which are potentially avoidable.

Prolonged suffering is the only MHSA key outcome that is not measured at one point in time. This outcome is measured within a person's episode of prolonged suffering and lifetime patterns of prolonged suffering which uniquely vary. Nevertheless, prolonged suffering encompasses all six other MHSA negative key outcomes and is influenced by similar social determinants, such as stigma, poverty, and minority race and ethnicity, further validating the significance of monitoring this outcome.

## Chapter 6: Homelessness

The goal of this chapter is to provide a brief overview of the importance of measuring **homelessness** as part of a surveillance effort for each county population. We briefly define homelessness, and then provide ways that it has been measured in counties and states, as well as at the federal level. In defining this outcome, we also examine ways of measuring risk for homelessness. This chapter concludes with recommendations for state- and county-level metrics used to monitor homelessness connected to mental health need in the general population, including recommendations for publicly available data sources and key data elements.

### Defining Homelessness

The United States Department of Housing and Urban Development (US HUD) defines **homelessness** as individuals that “lack a fixed, regular, and adequate nighttime residence.” The US HUD definition of homelessness includes individuals and families who will imminently lose their primary nighttime residence; unaccompanied youth and families with children; and individuals and families who are fleeing dangerous or life-threatening conditions that relate to violence against the family member or a family member. The McKinney-Vento Act specifically defines homelessness for children and youth in broader terms to ensure that children experiencing homelessness in any way are identified and can be referred to supportive programs. According to Section 11434a of the McKinney-Vento Homeless Assistance Act, children and youth who are homeless are described as:

- (i) Children and youths who are sharing the housing of other persons due to loss of housing, economic hardship, or a similar reason; are living in motels, hotels, trailer parks, or camping grounds due to the lack of alternative adequate accommodations; are living in emergency or transitional shelters; or are abandoned in hospitals;
- (ii) Children and youths who have a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings;
- (iii) Children and youths who are living in cars, parks, public spaces, abandoned buildings, substandard housing, bus or train stations, or similar settings; and
- (iv) Migratory children (as such term is defined in section 1309 of the Elementary and Secondary Education Act of 1965) who qualify as homeless for the purposes of this subtitle because the children are living in circumstances described in clauses (i) through (iii).

The National Coalition for the Homeless defines three types of homelessness as (2019):

- **Chronically homelessness individuals** are those with a disability who have been continuously homeless for one year or more, or those who have experienced at least four episodes of homelessness in the last three years where the combined length of time homeless is at least 12 months.
- **Transitional homeless individuals** enter shelters or become homeless through a catastrophic event. They are likely to be younger and will spend only a short period of time homeless before transitioning into stable housing.
- **Episodically homeless individuals** frequently shuttle in and out of homelessness. They are often unemployed and experience substance abuse, medical, or mental health problems.

US HUD further classifies homeless individuals as unsheltered or sheltered and designates whether homeless youth are unaccompanied.

- **Sheltered homeless families and individuals** live in emergency shelters, transitional housing programs, or safe havens.
- **Unsheltered homeless families and individuals** spend nights in public or private places that are not designated for regular sleeping accommodation, such as sidewalks, cars, parks, or abandoned buildings. Unsheltered homeless make up 69% of the State's homeless population.
- **Unaccompanied homeless youth** are individuals under 18 who are not accompanied by their parent or guardian during their episode of homelessness or are part of households with only children.

Risk factors for homelessness include housing cost burdens and percent of household overcrowding. The Office of Health Equity (2017) defines these by:

- Households experiencing **housing burden** are paying more than 30% and more than 50% of monthly household income toward monthly housing costs - rent and utilities or mortgage, utilities, property tax, insurance, home association fees, etc.
- **Household overcrowding** is defined as >1.0 persons per room (PPR) and severe overcrowding as >1.5 PPR.

## What Do We Know About Homelessness?

**Homelessness is one of the nation's most pervasive problems**, with one-quarter of individuals who experience homelessness also having a mental illness (SAMHSA, 2011). Rates of homelessness continue to rise as a result of unsustainable living wages, housing unavailability, and poverty (US HUD, 2019; National Law Center on Homelessness & Poverty, 2015). In addition, thousands are displaced every year due to natural disasters (Internal Displacement Monitoring Centre, 2018; California Commission on Access to Justice, 2019). Those experiencing homelessness often suffer from discrimination, malnourishment, inadequate or no medical or mental health

care, exposure to harsh weather, and threats to their safety (National Coalition for the Homeless, 2019). To prevent homelessness, we need to monitor populations at risk and monitor disparities.

## Risk Factors & Indicators of Homelessness

According to the National Coalition for the Homeless, the leading causes of homelessness include lack of affordable housing, limited scale of housing assistance programs, and poverty, which may be associated with broader policy and community issues such as lack of employment opportunities and decline in available public assistance (National Coalition for the Homeless, 2019). California's high cost of living combined with low housing availability make it difficult for families and individuals to afford housing in addition to costs associated with basic needs such as healthcare, education, transportation, and food (Block, Gascon & Manzo, 2019). In California, there are nearly 130,000 individuals who are homeless, which is one quarter of the national total (US HUD, 2018). Since 2014, the total number of people experiencing homelessness in the state has risen by 14%, driven by increasing numbers of unsheltered people who now make up 69% of the state's homeless population (US HUD, 2018). The number of individuals who experience chronic homelessness has risen from 2018 to 2019 by 9%, representing 7501 individuals (US HUD, 2019).

The table below compares population estimates by racial group in California versus those experiencing homelessness in California. African Americans and Native American populations are disproportionately affected by homelessness: the number of African Americans and American Indian/Alaska Native individuals experiencing homelessness is more than four times that of the state proportion. Not included in the table are people of Hispanic ethnic origin, who constitute 39.3% of California; 31.4% of individuals experiencing homelessness have reported Hispanic origin (ACS, 2018; US HUD, 2018). A recent report by the Los Angeles Homeless Services Authority describes the over-representation of people of color, especially African Americans, in homelessness as a byproduct of racial inequities in education, criminal justice, housing, health care, and employment (2018).

*Table 1 Racial and Ethnic Disparities among Homeless Populations in California*

<i>RACIAL GROUPS</i>	<b>IN CALIFORNIA</b>	<b>HOMELESS IN CA</b>
<b>WHITE</b>	<b>59.5%</b>	<b>54.3%</b>
<b>BLACK OR AFRICAN-AMERICAN</b>	<b>5.8%</b>	<b>29.1%</b>
<b>AMERICAN INDIAN OR ALASKA NATIVE</b>	<b>0.8%</b>	<b>4.5%</b>
<b>NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER</b>	<b>0.4%</b>	<b>1.4%</b>
<b>ASIAN</b>	<b>14.7%</b>	<b>1.7%</b>
<b>MULTIPLE RACES</b>	<b>5.1%</b>	<b>8.9%</b>
<i>ETHNIC GROUPS</i>		
<b>HISPANIC/LATINO</b>	<b>39.3%</b>	<b>46.8%</b>
<b>NON-HISPANIC / NON-LATINO</b>	<b>60.7%</b>	<b>53.2%</b>

*Table 1 Source: American Community Survey 1-Year Estimates, 2018; US Department of Housing and Urban Development, 2018*

Other groups at risk include Veterans, whose time in the military may have resulted in disability, trauma, or mental health and substance use disorders. Although Veterans constitute 5.1% of the total population in California (American Community Survey, 2018), they comprise 8.3% of individuals experiencing homelessness (or 10,836 homeless Veterans) (US HUD, 2018). A study of homeless veterans found that two thirds had a mental health comorbidity and over 80% met criteria for substance abuse and dependence (O'Toole et al., 2003).

Youth are also a vulnerable population. Youth who experience homelessness tend to have poorer academic, mental, and physical health outcomes than their peers (Edidin, Ganim, Hunter, & Karnik, 2012). In SY 2017-18, there were 1,508,265 enrolled students experiencing homelessness, an increase of 15% since SY 2015-16 (National Center for Homeless Education [NCHE], 2020). During this period, there was a 30% increase in students who are also English language learners and a 15% increase in students with a disability experiencing homelessness (NCHE, 2020). LGBT youth and youth who have been involved in the foster care system are particularly vulnerable to experiencing homelessness (Fowler, Toro, & Miles, 2009). Many youth who are aging out of foster care do not have adequate resources to afford basic expenses and independent housing (Hyde, 2005). Family conflict can result in LGBT youth leaving home and living in unhoused conditions (Ray, 2006). A study utilizing data from the Youth Risk Behavior Survey conducted in eight states found that nearly 7% of teenagers who identify as LGB experience homelessness (Cutuli, Treglia, & Herbers, 2019).

Vulnerable populations are often those who live in poverty, have limited access to services, or experience a combination of the structural issues listed by the National Coalition for the Homeless. Lack of affordable health care, mental illness, substance

abuse and addiction, and domestic violence are also related factors to homelessness (National Coalition for the Homeless). Out of the total population in California experiencing homeless, 17.5% live with chronic substance abuse and 23.1% live with a severe mental illness (US HUD, 2019). These estimates are based on the PIT Count and may be an underestimation of the actual proportion of adults who experience substance abuse and SMI. Alternatively, the National Coalition for the Homeless found that 38% experience alcohol abuse disorders and 26% experience substance abuse disorders (2009), and other research finds that a third of homeless individuals experience alcohol and drug issues (Gillis, Dickerson, & Hanson, 2010). We must stress that mental illness and addiction are not causes of homelessness; the majority of people experiencing mental health problems never become homeless. However, severe mental illness can exacerbate conditions that lead to homelessness (National Coalition for the Homeless, 2009). Mental illness can disrupt the ability to carry out essential aspects of daily life, such as self-care and employment, as well as household and financial management, leading to unemployment, depletion of savings to afford basic necessities, and potential eviction. The symptoms of severe mental disorders can also impact the ability to access social support systems that could prevent homelessness. Individuals below the poverty level are at even higher risk for homelessness if circumstances force them to prioritize one basic necessity over another. Once homeless, individuals and families are at higher risk for arrest, involvement in the child welfare system, and mental health need (Greenberg & Rosenheck, 2008).

In addition to mental illness, substance abuse is another disorder that both contributes to and results from homelessness. Addictive disorders can cause people to lose their jobs and disrupt relationships with family and friends (National Coalition for the Homeless, 2009). For those who already struggle to afford basic expenses, substance abuse disorders may cause them to lose their housing and become homeless. Didenko and Pankratz found that two thirds of those who experience homelessness reported that drugs and/or alcohol were major factors for their situation (2007). In other instances, substance abuse may arise as a coping mechanism for those who become homeless, exacerbating their current situation and decreasing the likelihood of achieving employment stability and qualifying for housing services. For many individuals experiencing homelessness, substance abuse and mental health need are co-occurring (Shinn, Baumohl, & Hopper, 2001; O'Toole et al., 2003; Padgett, Stanhope, Henwood, & Stefancic, 2010). Individuals who are homeless and have co-occurring disorders are more likely to experience barriers to accessing treatment, especially if they belong to groups who are underrepresented in mental health services (Priester et al., 2016). They are also likely to experience additional obstacles to recovery and housing, such as violence, victimization, incarceration, and health crises (National Coalition for the Homeless, 2009). Therefore, it is important that this project consider substance abuse indicators when monitoring outcomes related to homelessness and mental health need.

### ***Monitoring Homelessness for those with, or at risk for, Mental Illness***

As we have seen in previous chapters, the MHSA outcomes are inextricably connected, and homelessness exists as a risk factor or outcome for many mental health related issues. Coordinated efforts to monitor prevalence of homelessness and related disparities are foundational to improving existing data infrastructure, implementing programs, and alleviating suffering associated with homelessness. In addition, assessing possible risk factors is critical to preventing homelessness. For example, residential crowding has been linked to increased vulnerability to homelessness as well as higher risk of infection from communicable diseases and prevalence of respiratory ailments. Older adult immigrant and refugee communities, low income families, and renter-occupied households are more likely to experience crowding as result of economic reasons (Clark, Deurloo, & Dieleman, 2002). Housing cost burden, which refers to households paying more than 30% or 50% of their monthly household income towards housing costs, is due to the lack of affordable, quality housing. Families experiencing housing burden have less income for health care, education, transportation, nutrition, and other needs. Low income families and minority communities are disproportionately affected by housing and rent burden (Robert Wood Johnson Foundation, 2008). One period of time that has been identified as high risk for homelessness for those with mental illness is after a hospital discharge, with possible reasons including ongoing psychiatric symptoms and barriers to connecting with treatment and support in the community (Herman, 2011).

Some key indicators to consider when monitoring homelessness include ones that measure both early risk factors of homelessness as well as characteristics of those already experiencing homelessness. The literature points to a tiered prevention framework for considering factors important in primary, secondary and tertiary prevention of homelessness for those experiencing mental illness (Montgomery, Metraux, & Culhane, 2013). Measures that can be used for monitoring those at risk for homelessness include housing cost burden, living in overcrowded dwellings, and linkage to housing and case management following hospital discharge. For those experiencing homelessness, as discussed above, monitoring both chronicity (chronically, transitionally, or episodically homeless), and housing status (sharing housing due to hardship or living in motels, sheltered in shelter or transitional housing, unsheltered) is important.

This chapter will identify data sources that are able to measure the prevalence and risk factors of homelessness, with a focus on homelessness for those with mental illness and at risk for mental illness.



## Data Sources for Homelessness and Mental Health-Related Outcomes

Tables 10 and 11 list additional characteristics and vulnerable populations that are measured in each data source.

### National Data Sources for General Populations and those with Mental Health Problems

#### Point-in-Time Count: U.S. Department of Housing and Urban Development

One of the most frequently cited estimates of homeless individuals in the United States are the Point-in-Time (PIT) Counts. PIT Counts are conducted by Continuum of Care (CoCs), local planning bodies responsible for coordinating homelessness services in their geographic area (a state, group of counties, a single county, or a city). On a single night during the last ten days of January, CoC volunteers and staff record numbers, demographic characteristics, and other aspects of sheltered and unsheltered individuals who are homeless. PIT Counts also include Housing Inventory County (HIC) data.

**Data Access:** Raw data sets are available in Excel format.

**Geographic Level:** By State and Continuums of Care (CoCs). In California, CoCs are most often made up of one county or a group of counties. There are 43 CoCs in California.

**Frequency:** Annual. Data are available from 2007 to 2018. Estimates of homeless veterans are provided from 2011 to 2018.

#### **Variables:**

- Chronically homeless estimates
- Sheltered (Emergency Shelter, Transitional Housing) vs. Unsheltered
- Demographics
  - Race and ethnicity
  - Gender (male, female, transgender, gender non-conforming)
  - Household (without children, with at least one adult and one child, with only children)
- Severely Mentally Ill, defined by US HUD as a severe and persistent mental illness or emotional impairment that limits the ability of the individual to live independently.
- Chronic Substance Abuse
- Veterans
- HIV/AIDS
- Victims of Domestic Violence

- Unaccompanied Youth (Under 18, those 18-24 years old)
- Parenting Youth (Under 18, those 18-24 years old)
- Children of Parenting Youth

**Strengths & Limitations:** As a widely implemented nationwide system to collect data on those experiencing homelessness, the PIT Count provides useful estimations that can allow for comparison across geographic levels and analysis of disparities in vulnerable populations. Furthermore, PIT Counts take into consideration mental illness indicators such as SMI. The PIT count represents the best available data of the homeless population at one point in time.

However, it is likely that these counts underestimate the number of homeless community members because 1) the season of its occurrence may produce higher sheltered counts than unsheltered; 2) demographic characteristics of individuals may not be accurately recorded in cases where the volunteer must guess, such as when the individual is sleeping; and 3) the nature of the count does not include individuals who are homeless but not living in the street or in shelters. Furthermore, prior work has found that the year-to-year comparability of the count is not reliable due to three reasons: 1) the demographic survey of unsheltered residents is not statistically reliable, 2) inconsistent surveying methods, and 3) measurement error, including the lack of statistical tools to identify and correct errors (Flaming & Burns, 2017; National Law Center on Homelessness and Poverty, 2017).

### Substance Abuse and Mental Health Services Administration Uniform Reporting System (SAMHSA URS)

The SAMHSA URS is a data reporting system at the state, national, and territory level that supports the Community Mental Health Services Block Grant program. State mental health authorities provide annual overviews of state mental health delivery programs by reporting on the National Outcome Measures (NOMS), evidence-based practices, and utilization measures. SAMHSA URS provides client-level administrative data, such as service utilization rates of adults with SMI and children with SED. For a complete list of measures for California:

<https://www.samhsa.gov/data/sites/default/files/cbhsq-reports/California-2018.pdf>

**Data Access:** Data can be accessed by PDF and saved into Excel.

**Geographic Level:** State only

**Frequency:** Data are annually collected. The three most recent years data available are 2016-2018.

#### **Variables:**

- Lifetime homelessness
- Chronically homeless estimates

- Sheltered vs. Unsheltered

### **Strengths and Limitations:**

The uniform reporting across all states makes SAMHSA URS a strong data source for making state and national comparisons on outcomes of homelessness for those receiving state mental health services. In addition, since these data are reported directly from the state, the state must collect these data from each county which means that there must also be uniform reporting across California counties and these data could be used for county comparisons.

However, since SAMHSA URS is admin/client-level data, one of the major limitations in terms of this project is that it only captures data for those who are receiving services and not for those with a mental health need who are not or are unable to receive appropriate services. Moreover, these data may only be capturing a subset of those who are receiving state mental health services such as those with more severe symptomology who meet criteria for FSP services and may not capture outcomes for those with less severe symptomology who may get other types of services such as CSS and PEI. Nevertheless, the uniform reporting system for FSP clients could be adopted and used to capture similar outcomes for CSS and PEI clients.

## **National Data Sources for Risk of Homelessness for General Populations (No Indicator of Mental Health)**

### **American Community Survey (ACS)**

The Census Bureau's American Community Survey collects vital information on a broad range of topics including housing, educational attainment, and demographics. ACS collects data from noninstitutionalized and institutionalized individuals.

**Data Access:** Data are available through a number of routes: publicly downloadable via Public Use Microdata Sample (PUMS) files on the Census Bureau's file transfer protocol (FTP) server or accessible through data tools like the [data.census.gov](http://data.census.gov); or by request of Custom Tables. However, each route has different characteristics that affect how users attain school failure data.

- Route 1: PUMS files through FTP server or IPUMS.org
  - Contains state-level data only, but has school failure data
- Route 2: PUMS files through [data.census.gov](http://data.census.gov)
  - Contains county- and district-level data, but has no school failure data
- Route 3: Data by request through Census Bureau
  - Contains county- and district-level school failure data

For this project, Route 1 would be the most useful. Therefore, we describe it in detail below. Route 2 is the least useful since there is no school-failure data. However, we

have included it in case ACS adds school failure data to data.census.gov in the future. Route 3 is a costly option, but it is worth noting.

### ACS Publicly Available Data Sources

**Route 1: Public Use Microdata Sample (PUMS) files** are available through the [FTP server](#) and [IPUMS.org](#). The PUMS files allow data users to create estimates for user-defined characteristics. The files contain a sample of responses to the ACS and includes variables for nearly every question on the ACS survey. The PUMS files for one year contain data on about 1% of the United States population. The PUMS files limits geographic detail below the state level; the only sub-state geography provided is the Public Use Microdata Area, or PUMA. Counties are not identified in PUMS, and PUMAs are not representative of counties.

### Route 2: [Data.census.gov](#)

Data.census.gov contains PUMS files and is the primary platform for accessing data from the US Census Bureau and the ACS. The site allows you to drill down to the county level, download data files, and create customized maps.

### ACS Data Sources by Request

#### Route 3: **Custom Tables**

If data needs for measuring housing burden using ACS cannot be met by PUMS files, users can request a custom tabulation from the Census Bureau. The minimum cost is \$3000, and the minimum timeframe is 8 weeks. Additionally, requests must be reviewed by the Disclosure Review Board. The Census Bureau does not approve requests for special tabulations involving sub-state geographies unless the data are protected by strengthened disclosure avoidance methods. This route may be worth exploring if ACS adds mental health indicators in the future.

**Geographic level:** National, State, and County levels

**Frequency:** Annual. Data available 2005-2018.

#### **Variables:**

ACS does not include homelessness indicators, but does include **housing burden**, which is a risk factor for homelessness.

**Strengths & Limitations:** ACS includes institutionalized as well as non-institutionalized individuals, but currently measures only at the state level. One limitation of ACS is that it does not currently collect data on mental health need and service use. However, the ACS is still a useful source of data to monitor behaviors and trends that could inform efforts to prevent homelessness at state and regional levels.

## California Data Sources for General Populations and those with Mental Health Problems

### California Healthy Kids Survey (CHKS)

<https://calschls.org/>

The CHKS is a confidential, anonymous survey administered to students at grades five, seven, nine, and eleven measuring health risks and behaviors, school climate, protective factors, school connectedness, and school violence. CHKS data are accessible through the [CalSCHLS dashboard](#) and [KidsData.org](#), and represent state level estimates as well as including most counties.

Please refer to page 100 for information on CHKS during the 2019/2020 school closure due to COVID-19.

**Data Access:** Through the California Department of Education, [CalSCHLS](#) is a query tool that allows for public access to selected items from CHKS, which is **collected in 73% of districts in California**. Below is a description of CalSCHLS:

*The CalSCHLS system was created by the California Department of Education (CDE) in 1997 to efficiently and cost-effectively provide school districts and their partner communities with quality local data which can be used to improve student academic performance and social-emotional, behavioral, and physical health of all youth. It assesses key indicators linked to success in school, career, and life. The majority of districts in California now use CalSCHLS data as Local Control and Accountability Plan (LCAP) indicators.*

The complete CHKS data are not publicly available. Researchers and educators can request data after submitting a Memorandum of Understanding. More information can be found [here](#).

**Geographic Level:** State, County, some Districts and Schools

**Frequency:** Annual/Biannual. Data are available: 2015-2017, 2013-2015, 2011-2013

**Variables:**

The CHKS core survey module for Secondary School (middle and high school students) measures homelessness as living arrangements that include living in a:

- Hotel or motel
- Shelter, car, campground, or other transitional or temporary housing

**Strengths and Limitations:**

The publicly accessible data through the Query CalSCHLS and the Data Dashboard (Tableau) have limited data available on homeless children and mainly include it as a student characteristic in relationship to main domains of School Engagement/Supports, School Safety, and Substance Use and Mental Health. Within the domain of Substance

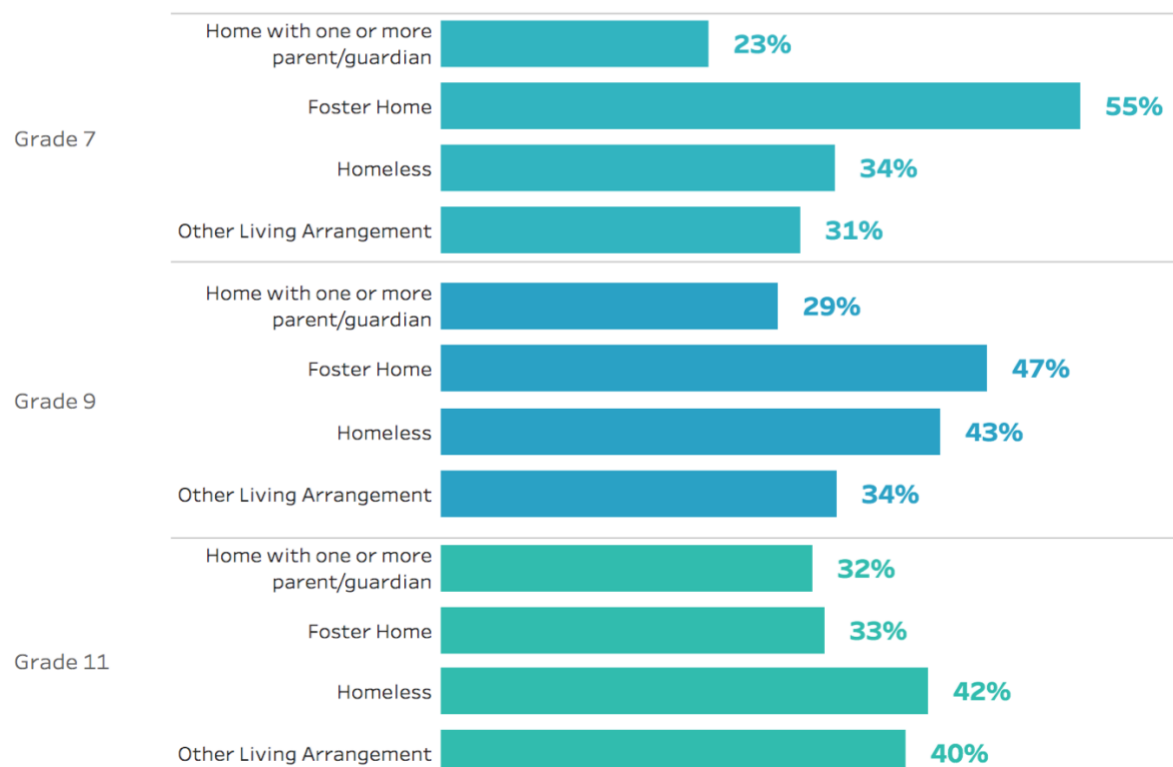
Use, one can query about alcohol and drug use and within Mental Health one can examine items about “considered suicide” and “experienced chronic sadness/hopelessness”. In this query, state level data for homelessness appear to be available but not district level data. For example, one can query homelessness over time for those students who report feeling suicidal.

*Figure 1. Living situation and Past-year experience of chronic sadness/hopelessness, 2015-2017 (CHKS)*

### State | Most Recent Data (2015-17)

Experienced chronic sadness/hopelessness | Past 12 months

Results based on: Living Situation

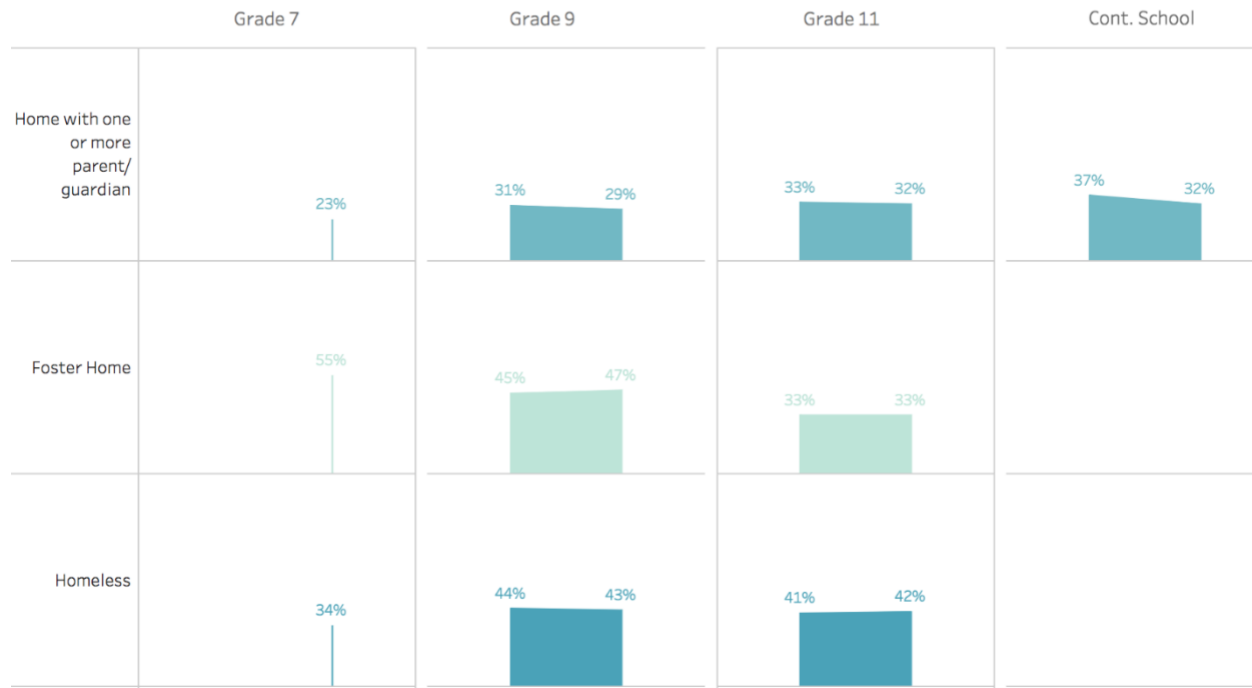


*Figure 2. Living situation and Past-year experience of chronic sadness/hopelessness, 2015-2017 (CHKS)*

## State | Trends Over Time

Experienced chronic sadness/hopelessness | Past 12 months

Results based on: Living Situation



## California Data Sources for Risk of Homelessness (No Indicator of Mental Health)

California Health and Human Services Open Data Portal

<https://data.chhs.ca.gov/>

The CHHS Open Data Portal is a collection of non-confidential health and human services data from 16 California agencies. This data portal has several housing related data tables. However, it does not have an indicator of mental health problems.

Housing indicators include:

- Housing Cost Burden**, defined as the percent of households paying more than 30% or 50% of their monthly household income on housing. Data are available for regions and counties, and comes from the U.S. Department of Housing and Urban Development, Consolidated Planning Comprehensive Housing Affordability Strategy, and the U.S. Census Bureau, American Community Survey, covering 2006-2010.

- **Percent of Household Overcrowding and Severe Overcrowding**, defined as over 1.0 persons per room and 1.5 persons per room, respectively. Overcrowding has been shown to be risk factor for homelessness among the poor. Data are available for regions and counties, and comes from the U.S. Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy, and the U.S. Census Bureau, American Community Survey, covering 2006-2015.

## Surveillance and Monitoring for Homelessness Outcomes

This next section provides examples of existing surveillance and monitoring of the outcomes of homelessness. This is by no means an exhaustive list. We include both national and state examples, and those that are limited to data only on homelessness (general population) as well as those with data on both homelessness and mental health (population with mental health concerns).

### National Examples

#### Community Homelessness Assessment, Local Education and Networking Groups (CHALENG) – U.S. Department of Veterans Affairs

Project CHALENG was developed in 1994 to unite providers, advocates, Veterans, and other concerned citizens to identify and address the needs of homeless Veterans. Every year, Project CHALENG conducts the CHALENG survey to measure the needs of homeless Veterans in local communities, including services for emotional or psychiatric problems. Participants include homeless veterans, providers, and other stakeholders. Results are used to identify unmet needs and encourage new partnership development to meet those needs. Data have been used to develop new services for Veterans such as the [Veterans Justice Outreach Program](#), [Supportive Services for Veteran Families](#), and [VA Supportive Housing](#).

Among homeless veterans, top unmet needs include family reconciliation assistance, housing, and legal assistance. Top met needs include services for emotional or psychiatric problems, health and wellness, and, for female homeless veterans, substance abuse treatment. Data can be stratified by sex, age, race and ethnicity. The survey also collects information on housing status at the time of survey (sheltered, unsheltered, etc.). Other needs measured in the survey include finding employment and re-entry services for incarcerated veterans. Project CHALENG's model allows researchers, policymakers, and stakeholders access to more granular data on homeless Veterans than what can be gained from the PIT Count. More information can be found in the [Project CHALENG 2019 Fact Sheet](#).



## HUDStat – Department of Housing and Urban Development

<https://www.huduser.gov/portal/periodicals/em/summer12/highlight1.html#title>

HUDStat is a data-driven performance management tool designed to evaluate the effectiveness of its programs by promoting a focus on evidence and increased initiative in the Office of Strategic Planning and Management. The tool provides a framework for monitoring progress toward the agency's priority goals and allows for data sharing and collaboration across departments and agencies, program administrators, and staff. Staff use HUDStat to analyze performance data to understand trends, identify best practices, and prioritize the actions needed to reduce homelessness among Veterans. HUDStat serves as a model planning tool for the purposes of this project.

Los Angeles County used HUDStat data to improve voucher distribution from the HUD-Veterans Affairs Supportive Housing (HUD-VASH) program, leading to more veterans being able to access housing and services.

## Voices of Youth Count – Chapin Hall, University of Chicago

[Voices of Youth Count](#) is a national research initiative that studies the following aspects of youth homelessness: reasons youth become homeless; prevalence and characteristics of homeless youth; services and strategies used to survive; and federal policies and programs that enable communities and service providers to address needs of the homeless youth population. Voices of Youth Count is a collaboration between Chapin Hall, national research experts, youth, implementation partners, and stakeholders across the United States. The main research components are a national survey; youth counts & brief youth survey; continuums of care & provider survey; in-depth interviews; administrative data analysis; systematic evidence review, and policy & fiscal review analysis.

Recent research has focused on issues experienced by LGBTQ youth, pregnant and parenting youth, youth in rural areas, and youth pathways through homelessness. In their assessments, Voices of Youth Count explores the intersection between homelessness and mental health among youth. For example, their data show that 69% had mental health difficulties while experiencing homelessness (Morton, Dworsky, & Samuels, 2017); 25% of LGBTQ homeless youth harmed themselves compared to 15% of youth who did not identify as LGBTQ (Morton, Dworsky, & Samuels, 2018); as well as a number of findings using qualitative data from interviews and focus groups with youth. In addition, Voices of Youth Count gather data on education and employment disparities for youth experiencing homelessness in rural areas and data on the pathway to homelessness for foster youth.

## Examples in Other States

### Clarity Cards – Las Vegas, NV

In Las Vegas, NV, police officers issue “Clarity Cards” to individuals experiencing homelessness that they can use to access services like meals, housing, clothing, and haircuts from providers and local organizations. These Clarity Cards are connected with the Homeless Management Information System (HMIS), which helps officials monitor the specific services that individuals access and larger service use patterns. HMIS is used to collect client-level data and data on the provision of housing and services to homeless individuals, families, and people at risk of homelessness. Each Continuum of Care is required to have an HMIS that complies with HUD's data collection, management, and reporting standards. Clarity Cards help organizations and agencies plan their programs and improve assistance.

## California Examples

### California Policy Lab

The [California Policy Lab](#) partners researchers at UCLA and UC Berkeley with policymakers in California’s state and local governments to evaluate and improve public programs through research and technical assistance; create safe and secure data infrastructures to link administrative data within and across agencies; and build capacity for trainings and resource development for government agencies. The California Policy Lab specializes in areas such as criminal justice, education, labor and employment, homelessness and high-need populations, and health equity, that align with the 7 negative outcomes of untreated mental illness as specified in MHSA. For homelessness, the California Policy Lab has investigated health conditions among unsheltered adults in the United States and identified predictors of homelessness among single adults receiving County services in Los Angeles.

### Enhanced Homeless Community Survey – Vacaville, CA

Community Response Unit (CRU) police officers utilize a 21-question survey on their smartphones to collect information about individuals experiencing homelessness, such as how long the person has been homeless, what factors led to homelessness, and past experiences with law enforcement and service providers. The survey is completely voluntary and provides a detailed profile for each homeless person. The data is not static and can be accessed by every member of the team, allow for continual updates. Mental health status is assessed by two survey questions: “Have you ever been diagnosed with a mental health disorder? If yes, can you tell us what disorders?” Please see pages 64-65 in the [Police Response to Homelessness Report](#) for more information.

## Recommendations

The following are four sets of recommendations, listed by category below, and based on the data sources level of accessibility, geographic characteristics, strength of the indicator for each MHSA key outcome, and the ability to examine that outcome by a mental health indicator, the main population of interest. The ideal data sources are those that can be accessed or shared immediately to display in a future dashboard and that can be monitored over time.

For the scope of this project, the UCLA team will provide MHSOAC with a data library that consists of three years of data for each indicator in each of the 7 MHSA outcomes – suicide, unemployment, homelessness, incarceration, removal from home, school failure or dropout, and prolonged suffering for those data sources that are publicly available data in which a complete data set with multiple indicators for a particular outcome or multiple outcomes can be downloaded at one time without a data request or data use agreement (See *Deliverable 4: Data Library and Data Management Report* for details).

Recommendations of data sources and their related data elements are organized into four categories:

Category 1 describes data sources that meet four criteria: 1) publicly accessible and free; (2) accurate measure of the MHSA key outcome; (3) measure of the outcome in the context of mental health; and (4) available at the state and county levels.

Category 2 describes data sources that meet one or more of the four criteria above.

Category 3 describes options for pairing recommended data sources in either Category 1 or 2 that have the potential to contextualize homelessness at the county level.

Category 4 describes data elements that are not currently being measured in a standardized setting, but may be of interest and useful to collect. The recommendations in this section have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

### Category 1 Recommendations

#### Recommendation #1:

The most complete publicly accessible data come from the U.S. Department of Housing and Urban Development's **Point in Time (PIT) Count**, which is the best estimate we have for the state and counties regarding estimates of homelessness as defined as: 1) Sheltered homeless families and Individuals, 2) Unsheltered homeless families and individuals, and 3) Unaccompanied homeless youth. This data source provides data for both general population of homeless individuals with a few sociodemographic

characteristics and provides a count of those with severe mental illness, with chronic substance use, and populations at risk for mental illness such as those who have experienced domestic violence, veterans, and unaccompanied minors. However, this data source is not available in a format that allows one to examine intersectionality<sup>7</sup> of these populations, such as cross-tabulating the number of homeless persons experiencing both chronic substance use and severe mental illness. Despite the limitations of this count, which include a potential underestimation of the number of homeless individuals, it is currently the best estimate of those meeting the HUD definition of homelessness in the U.S.

For the purposes of monitoring by MHSOAC, PIT Count can be used to answer the following questions:

- How has the number of people experiencing homelessness changed over time?
- How many people experiencing homelessness in California have severe mental illness?
- How many homeless persons in California experience chronic substance abuse?
- How many homeless persons in California are veterans?

#### **Recommendation #2:**

For child populations, the California Healthy Kids Survey has the **Query CalSCHLS**, which has limited data available freely accessible for the state of California and counties. The student population can be monitored over time with this tool for those students who are homeless and have either depressive symptoms, suicidality, or substance use.

## **Category 2 Recommendations**

#### **Recommendation #1:**

To examine housing indicators that are precursors to homelessness, we recommend the **CHHS Open Data Portal** which provides data from the ACS on the percent of households paying more than 30% of their monthly household income on housing. This data source also includes a measure of overcrowding which may estimate early risk for homelessness.

#### **Recommendation #2:**

As another option, data from SAMHSA's **Uniform Reporting System (URS)** provides state-level client data on rates of service utilization, hospital readmissions, percent of adults with SMI, percent of children with SED, and consumer living situations including

<sup>7</sup> Intersectionality describes the overlap of various social identities, such as race and ethnicity, sexuality, and class, that can result in overlapping systems of disadvantage (Seng et al., 2012).

chronic homelessness and being sheltered or unsheltered while homeless. URS data files are not easily downloadable as they are reported on PDF files, however these can be converted or saved to Excel.

### Category 3 Recommendations

The Category 1 and 2 data sources provide a range of indicators for monitoring being at risk for homelessness to indicators of chronic homelessness. One strategy for examining the population of those at risk for both mental illness and homelessness would be to contextualize findings from the ACS which measures populations living in poverty and has indicators of risk for homelessness such as housing and rent burden and the California Health Interview Survey (CHIS) which measures psychological distress in the general population.

### Category 4 Recommendations

Based on preliminary analysis of county and local ethnographic observations (including attending MHSA events and conducting focus groups and interviews), these are some suggestions for other metrics which would be relevant in understanding the “health” of a county with regards to reducing homelessness due unmet mental health need.

#### Recommendation #1. Monitoring unrecognized homelessness (especially temporary or periodic):

Individuals may not self-identify as homeless due to shame or stigma. This is especially the case for individuals who are living transiently with friends or family (or temporarily in hotels). Community or household surveys, or surveys of mental health service clients Using other descriptors that avoid the word “homeless” may reveal more accurate data, especially if surveying the general community, households, or mental health service clients. Example language could include “living in a friend’s home,” “number of different places you have lived in the last year” or “temporarily between homes.” One option for measuring this type of preventive data could include adding a question to a standard interview schedule such as the California Health Interview Survey (CHIS). A set of questions similar to the broad definition of housing insecurity used in schools could inquire about sharing the housing of others due to economic hardship or for other similar reasons or living in motels or hotels.

In addition to monitoring chronic or long-term homelessness, repeated periods of short-term homelessness are also a metric of a county’s health in this domain: for example, youth runaways, individuals who lose a home due to eviction or fire or other cases when an individual experience homelessness frequently but for short periods of time.

## Recommendation #2. Monitoring homelessness and hospitalizations of those with mental illness

Individuals with mental illness who are chronically or frequently homeless often “cycle” through patterns of homelessness and hospitalization (or ER admission) and discharge without receiving needed long-term care or stable and permanent housing.

Client service data sources, such as the Client and Service Information (CSI) system and Data Collection and Reporting (DCR) system, have the potential to monitor patterns of service use (e.g. discharges following psychiatric hospitalization or emergency room visits) for those with mental illness and examine the relationship of this service use and homelessness. Patterns of chronic homelessness associated with transitions from hospitalized settings could be examined and monitored over time.

## Recommendation #3. Measuring the connection between homelessness and other negative outcomes

Homelessness is known to be correlated with a variety of other MHSA targeted negative outcomes. For youth, risk factors for homelessness include **parental unemployment**, and parental untreated mental illness, while housing instability itself can cause **school failure**. Youth who have been involved in foster care (removal from home) show higher rates of homelessness as adults. For adults, **unemployment** and **homelessness** are closely linked, and both of these are risk factors for and outcomes of **criminal justice involvement** (including arrest, conviction, or incarceration). Because homeless individuals are less likely to receive ongoing mental health care, they are also at higher risk for **suicidal ideation or behaviors**. Finally, the degree to which mental illness is **stigmatized** (versus normalized) in a community affect access to and acceptance of mental health care resources and housing.

Because these domains are interconnected, improvements (or worsening) in one domain can be expected to have a delayed downstream effect on the others, and should be monitored accordingly. As already discussed, foster care involvement is a contributor to adult homelessness, therefore programs that prevent removal from home would be expected to positively impact outcomes for the next generation.

## Conclusion

In this chapter, we evaluate surveillance of a range of homelessness indicators from at risk (overcrowding, percent of income used for housing, rent burden) to chronic homelessness for the state of California as a whole and for each county. In our assessment of publicly available data to monitor homelessness across the counties and the state, we find that data is quite limited for those with mental illness and in the general population.

There are two data sources that provide information for homelessness surveillance specifically for those individuals who have mental illness or are at risk for mental illness.

The PIT Count provides a count of individuals with severe mental illness and those with chronic substance abuse who are homeless. For children, the CHKS data can be accessed for data related to homelessness for youth who experience symptoms of depression or substance use.

## Chapter 7: Removal of Children from their Homes

The goal of this chapter is to provide a brief overview of the importance of measuring **removal from home** as part of a surveillance effort for each county population. We briefly define removal from home and then provide ways that removal from home has been measured in counties and states, as well as at the federal and international levels. In defining this outcome, we examine ways of measuring risk for removal as well as removal from home itself. It is beyond the scope of this project to include surveillance of children once they have been removed from home. This chapter concludes with recommendations for state- and county-level surveillance of removal from home in the general population, including recommendations for publicly available data sources and key data elements. This chapter presents the preliminary findings of a mixed methods study of removal from home measurement in California. Data consist of a literature review, observations of mental wellness events in six California counties, a survey of county administrators, and an environmental scan of surveillance of removal from home at the global, national, state, and local levels.

### Defining Removal from Home

Removal from home is a key outcome that signals likely need for more prevention and early intervention as well as treatment services. Removal from home occurs when there are substantial risks for child maltreatment and/or neglect. Some of the common reasons for removal from home include physical and/or sexual abuse, and neglect. Removal of a child from their home signifies the beginning of out-of-home care, described by the Child Welfare Information Gateway as “a court-monitored process that encompasses the placements and services provided to children and families when children are removed from their home due to abuse or neglect.” (Child Welfare Information Gateway [CWIG], 2019).

### Why Measure Removal from Home?

In 2017, 7 children per 1000 were reported to be victims of neglect, 2 for physical abuse, 1 for sexual abuse, and 1 for psychological or emotional abuse (US DHHS, 2002-2019). Of the 3.5 million children who were the subject of an investigation regarding allegations of maltreatment, approximately 674,000 were substantiated to be victims of maltreatment (19%) (US DHS, ACF, Children’s Bureau, 2019). About 270,000 children are removed from their homes every year (Children’s Bureau, 2018). The World Health Organization (WHO) defines child maltreatment to include all forms of physical and emotional maltreatment, sexual abuse, neglect, and exploitation that results in potential or actual harm to the child’s health, dignity, or development (2019). Maltreatment includes physical abuse, sexual abuse, emotional abuse, exploitation, and neglect and negligent treatment. Certain characteristics of maltreatment (type, severity, and frequency) can significantly influence rates of mental and behavioral disorders



(Cantos, Gries, & Slis, 1996; Gabrielli, Jackson, & Brown, 2016; Maaskant, van Rooji, & Hermanns, 2014; Shin, 2005; Steele & Buchi, 2008).

According to the Centers for Disease Control (CDC), there are a number of risk factors for child abuse and neglect that span individual, family, and system/community level factors.

At the **individual level**, child characteristics such as age and having a special health care need (physical, mental, developmental) can place children at increased risk for abuse and neglect.

- Younger children are most vulnerable to maltreatment: children aged 0-3 had the highest rate of substantiated victimization at 15 per 1000 children of the same age in the general population, followed by each older age group; children age 4-7 (10 per 1000) and age 8-11 (8 per 1000).
- Children with emotional problems can be at increased risk for victimization. In one nationally representative study, children with internalizing disorders (Depression, Anxiety, PTSD) were found to experience greater sexual victimization from non-caregivers and maltreatment (caregiver physical, emotional, and sexual abuse and neglect), controlling for sociodemographic factors and parental substance use and mental illness (Turner, Vanderminden, Finkelhor, Hamby, & Shattuck, 2011). Similar results were not found for children with ADHD and developmental disorders.

Several **parent and family level characteristics** have also been found to predict maltreatment, when controlling for other variables (Turner et al., 2011), including:

- Children living with a biological mother who has a diagnosis of a mental or substance use disorder
- Children living with a single parent or a stepparent or partner

In addition, the CDC has listed social isolation, family disorganization, and parenting stress as key family risk factors for victimization due to child maltreatment. Community risk factors include high rates of community violence and concentrated neighborhood disadvantage.

Although race and ethnicity does not predict maltreatment by parent (Turner et al., 2011), it has been well-documented that certain racial and ethnic children and families are disproportionately represented in the rates of removal from home, due in part to their disproportionate exposure to adversity as well as the role of bias. African American and American Indian/Alaska Native children are removed from their homes and placed into the child welfare system at nearly twice the rate of White children (US DHHS, ACF, Children's Bureau, 2019). The literature suggests that the disproportionate representation of ethnic minorities in the foster care system is due to geographic

location, high rates of concentrated poverty, racism, the biases of individual workers, and embedded discrimination in the child welfare and judicial systems (Johnson, Antle, & Barbee, 2009; Shaw, Putnam-Hornstein, Magruder, & Needell, 2008). Visibility biases has also been suggested as a factor in the overrepresentation of African American and Native American children respectively, as well as that of high poverty families in general (Drake, Lee, & Jonson-Reid, 2009; Sinha, Trocme, Fallon, & Maclaurin, 2013). Visibility bias is the theory that, because certain populations (e.g. poor families on welfare) have more frequent contact with and scrutiny from institutional authorities, these groups are more likely to be reported and will therefore appear at higher rates than other, less scrutinized populations.

When scanning for existing data systems and literature that measure child welfare outcomes, it was important to us to assess their ability to measure inequities among disproportionately impacted populations in child welfare. In this chapter, we present indicators that were identified in the literature, statewide survey, and qualitative data to be linked to need for mental health services and data sources that measure these indicators.

## **Risk Factors & Indicators for Removal from Home**

In order to prevent removal from home and support the mental health of families and children at risk for removal from home, it is imperative to measure and understand the breadth of factors that lead to removal. As such, we used the following research question to help guide the selection of indicators of risk that precede removal from home, examine surveillance and monitoring efforts, and identify data sources that can be used to measure the indicators.

### **What are the indicators that should be measured to help service providers identify and assist families and children at risk for out of home placement?**

Although the child welfare system measures a whole host of indicators once a child is in the foster care system, we are focusing for this evaluation on those indicators that assess being at risk for removal from home with the ultimate indicator being entry into the foster care system:

- Allegations
- Repeat referrals due to recurrence of maltreatment
- Substantiations
- Entry into the foster care system

In FY 2017, the national rate of screened-in allegations was 31.8 per 1000 children (US DHHS, ACF, Children's Bureau, 2019). These rates are indicative of the need for support services such as parenting skills needed.

A national Child Family and Services Review (CFSR) indicator, **repeat referrals** occur when children are referred to child protective services (CPS) on multiple occasions. Specifically, the Administration for Children and Families seek to reduce “the percentage of children with substantiated or indicated reports of maltreatment who have a repeated substantiated or indicated report of maltreatment within six months” (US DHHS, ACF, Children’s Bureau, 2019). Possible repeated victimization is associated with a wide range of short- and long-term negative outcomes, such as delayed cognitive development and mental illnesses that could extend into adulthood (Thompson & Wiley, 2009).

**Substantiated allegations** of maltreatment are also a risk factor for removal from home, during which CPS has determined that an incident of child abuse or neglect has occurred. Once allegations have been substantiated and a case has been opened, the agency will determine the safest course of action for the child.

If the child is at high risk of serious harm or has been seriously harmed, the child will be **removed from the home** by court order. Removal of the child from their home may include legal termination of the parent(s)’s rights to the control, custody, and care of the child (CWIG, 2019). The child may be placed into a continuum of foster care placements, group homes, or kinship care (CWIG, 2019). Removal is often a culmination of a series of stressors for a child and the family, and entry into the foster care system is preceded by uncertainty and loss (Forkey & Szilagyi, 2014). When maltreatment is followed by removal from home, higher rates of behavioral health issues can occur. (Hambrick, Oppenheim-Weller, N’zi, & Taussig, 2016; Ryan & Testa, 2005).

In light of these findings, we have examined data sources that can be used for surveillance efforts early in the course of concerns of child maltreatment.

## Data Sources for Child Welfare Outcomes

Please see Tables 12 and 13 for more detailed data source characteristics.

### National Data Sources on Child Welfare Outcomes

#### National Data Archive on Child Abuse and Neglect (NDACAN)

<https://www.ndacan.acf.hhs.gov/>

Data, codebooks, and additional information for the following national data sources are available in the National Data Archive on Child Abuse and Neglect (NDACAN), a data archive of child abuse data in the United States. Data is distributed to researchers free of charge. Datasets include the Adoption and Foster Care Analysis and Reporting System (AFCARS), the National Child Abuse and Neglect Data System (NCANDS), and the National Youth in Transition Database (NYTD), all of which are described below.

## Adoption and Foster Care Analysis and Reporting System (AFCARS)

<https://www.acf.hhs.gov/cb/research-data-technology/reporting-systems/afcars>

AFCARS is a mandatory reporting system that contains data on the characteristics and circumstances associated with removal from home. State, county, and tribal Title IV-E agencies are required to submit case-level information twice a year on all children for whom they provide placement, care, or supervision through child welfare agencies.

**Data Access:** Data are publicly available upon request. Data are distributed by NDACAN. <https://www.ndacan.acf.hhs.gov/datasets/datasets-list.cfm>

**Geographic Level:** National, state, and child welfare agency

**Frequency:** Annual.

### **Variables:**

- Removal from home
- Total number of removals from home
- Removal reasons (sexual, physical, emotional abuse, neglect, parent with drug or alcohol abuse, etc.)
- Sociodemographic variables:
  - Age, race and ethnicity, gender
  - Child welfare and justice involvement
  - Homelessness
- Child characteristics:
  - Child emotionally disturbed (includes emotional and behavioral problems)
  - Mental retardation
  - Other medically diagnosed condition (includes Autistic Spectrum Disorder)

### **Strengths & Limitations:**

*From Recommendations section written by BZ:* The **Adoption and Foster Care Analysis and Reporting System (AFCARS)** is the second-best data source but for only the one removal from home outcome of entry into the system. This data source similarly to NCANDS has variables that include child and parent factors.

## National Child Abuse and Neglect Data System (NCANDS)

<https://www.acf.hhs.gov/cb/research-data-technology/reporting-systems/ncands>

NCANDS is a voluntary data collection system that annually collects case-level data on child maltreatment known to Child Protective Services agencies in all 50 states, DC, and Puerto Rico. The case-level Child File is supplemented by an agency-level data

submission called the Agency File. NCANDS data is used for the annual Child Maltreatment reports, which summarize the major national and state-by-state findings in child welfare outcomes.

**Data Access:** Publicly available upon request and with IRB approval. Distributed by NDACAN. <https://www.acf.hhs.gov/cb/research-data-technology/reporting-systems/ncands>

**Geographic Level:** National, state, and child welfare agency

**Frequency:** Annual

**Variables:**

- Referrals
- Repeat referrals
- Substantiated allegations
- Removal from home
- Maltreatment type: (abuse, neglect, etc)
- Sociodemographic variables:
  - Age, race and ethnicity, gender
  - Child welfare and justice involvement
  - Homelessness
- Child characteristics:
  - Emotional disturbance (DSM diagnosis)
  - Behavior problem (at school or community, includes running away)
- Family characteristics:
  - Single parent household, etc
  - Caregiver characteristics (drug or alcohol abuse, intellectual disability, emotional disturbance)
  - Financial problems
- Service use

**Strengths & Limitations:** NCANDS data provide insights into key policy issues around child welfare. However, data are not publicly available.

## California Data Sources on Identified Child Welfare Outcomes

California Child Welfare Indicators Project (CCWIP)

<https://www.hwcws.cahwnet.gov> and [http://cssr.berkeley.edu/ucb\\_childwelfare/](http://cssr.berkeley.edu/ucb_childwelfare/)

The CCWIP provides measures of California child welfare outcomes by county and topic as a collaboration between the California Department of Social Services and the University of California, Berkeley. Data comes from the Child Welfare Services/Case Management System (CWS/CMS). Each state is mandated to have a Statewide Automated Child Welfare Information System (SACWIS) to support case management and data collection of child welfare case management practices. As California's model of the SACWIS, CWS/CMS provides policymakers with the necessary information to manage child welfare services. CWS/CMS will soon be replaced by CWS-CARES, the California Automated Response and Engagement System. CCWIP configures CWS/CMS information longitudinally and produces publicly available outcome reports and data visualizations.

**Data Access:** Publicly available via a query tool.

[http://cssr.berkeley.edu/ucb\\_childwelfare/](http://cssr.berkeley.edu/ucb_childwelfare/)

**Geographic Level:** State and county

**Frequency:** Quarterly, from the CWS/CMS

**Variables:**

- Allegations
- Substantiations
- Entries
- Maltreatment type: (abuse, neglect, etc)
- Placement stability
- Sociodemographic variables:
  - Age, race and ethnicity, gender

**Strengths & Limitations:** CCWIP has a broad range of removal from home and sociodemographic variables, but does not contain mental health indicators.

## Surveillance and Monitoring for Child Welfare Outcomes Global and International Example

World Health Organization: Child Maltreatment

[https://www.who.int/violence\\_injury\\_prevention/violence/child/en/](https://www.who.int/violence_injury_prevention/violence/child/en/)

The World Health Organization monitors child maltreatment worldwide. Their site on violence prevention offers key publications and resources, advocacy materials, data briefs and reports, and prevention and response strategies. By working with government and community partners, their efforts form interventions that promote non-violent norms

and values, support parents and caregivers, create and sustain safe environments for children, and offer response and support services. Please refer to their 'Partners' section for more information on international efforts.

## National Examples

### The Children's Bureau

<https://www.all4kids.org/>

The Children's Bureau monitors State child welfare services through:

- The Adoption and Foster Care Analysis and Reporting System (AFCARS)
- Title IV-E Foster Care Eligibility Reviews
- Child and Family Services Reviews (CFSRs)
- The State Automated Child Welfare Information System (SACWIS) Assessment reviews

These efforts help the nation and States continuously improve practices to achieve the core set of national goals for child welfare: safety, permanency, and well-being. Systematic data gathering describes the achievement of these outcomes, identifies the gaps in performance, and enables agencies to address the gaps and other needs. The Children's Bureau also conducts the [AFCARS Assessment Review](#), which is technical assistance process to understand the accuracy and reliability of the States' foster care and adoption data, and the effectiveness of the States' data collection and reporting processes.

### Child and Family Services Review (CFSR)

CFSRs are periodic reviews of state child welfare systems to 1) ensure conformity with federal child welfare policies and requirements, 2) identify what is actually happening to children and families when they are involved in the system, and 3) help states with supporting children and families to achieve positive outcomes. California's CFSR is described in a later section of the chapter.

Reports from rounds 1 and 2 of the review are available at

[https://library.childwelfare.gov/cwig/ws/cwmd/docs/cb\\_web/SearchForm](https://library.childwelfare.gov/cwig/ws/cwmd/docs/cb_web/SearchForm)

<https://www.acf.hhs.gov/cb/monitoring/child-family-services-reviews>

<https://www.acf.hhs.gov/cb/research-data-technology/reporting-systems/nytd>

Several reports from round 3 are available at:

<https://www.acf.hhs.gov/cb/monitoring/child-family-services-reviews/round3>

## National Dashboard Examples

### Casey Family Programs

<https://www.casey.org/state-data/>

Utilizes data from AFCARS and NCANDS to display estimates state-by-state and nationally. Indicators include rate of kids in care, number of children involved in investigations versus number who enter foster care and why, and rate of repeat maltreatment.

### Child Welfare Outcomes Report Data Dashboard

<https://cwoutcomes.acf.hhs.gov/cwodatasite/>

The Children's Bureau provides state-level performance data in seven categories of outcomes that are primary objectives for child welfare practice. The dashboard utilizes AFCARS and NCANDS data, which must be reviewed and approved by each state before inclusion. The site also provides contextual data regarding child maltreatment, caseworker visits, and race and ethnicity breakdowns. Data are available for download in multiple formats.

A full list and breakdown of each outcome and its measures is available at:

<https://cwoutcomes.acf.hhs.gov/cwodatasite/pdf/Outcomes%20and%20Measures.pdf>

### Live Stories: Statistics

<https://www.livestories.com/statistics/us-children>

Collects and analyzes data from trusted and reliable sources such as the U.S. Census, the CDC, and the Bureau of Labor Statistics and provides an interactive dashboard to examine age-adjusted rates across years, by age, gender, and race and ethnicity. In child outcomes, household data, such as relationship to head of household or household type, are provided.

### Kids Count Data Center

<https://datacenter.kidscount.org/topics>

A project of the Annie E. Casey Foundation, this site uses data from multiple data source to provide estimates on various outcomes for children and families by state and county. The following indicators and data source for child abuse and neglect and out of home placement are:

- National and State data for 7 child abuse and neglect indicators from NCANDS include:
  - Children who are subject to investigated report



- Children who are confirmed by child protective services as victims of maltreatment
  - By age group
  - By gender
  - By maltreatment type
  - By race and Latino ethnicity
- Children who are confirmed by child protective services as victims of maltreatment who receive post-investigation services
- Customized reports can be created that have California county data for 2 indicators on child abuse and neglect and 4 indicators on out of home placement from CCWIP include:
  - Rate of substantiated child abuse (per 1,000)
  - Percent of young children, ages 0-3, who do not experience recurring neglect or abuse
    - By race and Latino ethnicity

## Examples in Other States

### Wake County Child Maltreatment Surveillance System (North Carolina)

Wake County, North Carolina, piloted a surveillance system that linked individual child records from Child Protective Services, the Raleigh Police Department, and the Office of the Chief Medical Examiner. While the pilot did identify more cases than CPS alone, the increase was not substantial (about 1.8 per 10,000 children, or less than 20%). However, the combined system also identified over twice as many possible child maltreatment cases that had not been substantiated by CPS. Shanahan et al argue that because a high burden of proof is needed to substantiate a case with CPS, these possible cases also indicate high family and child need and should be considered when making decisions about programs and policy.

## California Examples of Dashboards with Mental Health Indicators

Kidsdata.org

<https://www.kidsdata.org/>

Kidsdata.org is a California based database that compiles data from trusted public sources such as the California Child Welfare Indicators Project, CA Departments of Education, Justice, and Health Care Services, Centers for Medicare and Medicaid Services, U.S. Census Bureau and more. Data is also drawn from a number of surveys such as the California Health Interview Survey, California Healthy Kids Survey, and the American Community Survey. Data usage and reproduction of data visualizations are free of charge.

Outcomes include:

- Reports of child abuse and neglect
- Substantiated cases of child abuse and neglect
- Adverse childhood experiences, such as parental substance abuse
- Foster care entry

### Project: State Medicaid and Child Welfare Data Linkages for Outcomes Research, 2019-2021

Two offices from the Administration for Children and Families, the Office of Planning, Research, and Evaluation (OPRE) and the Office of the Assistant Secretary for Planning and Evaluation (ASPE), are partnering to develop state-level capacity to examine outcomes for children and parents in the child welfare system who may have behavioral health issues, especially for families experiencing substance use disorders. By developing new linked data infrastructure, leveraging existing data, and promoting the use of data to the larger research community, the project aims to become a model of data sharing and linking within and across states while minimizing burden to state agencies. The project is funded by the Patient Centered Outcomes Trust Fund and the work contract has been awarded to RTI International. For more information on this project and contact information: <https://www.acf.hhs.gov/opre/resource/state-medicaid-and-child-welfare-data-linkages-for-outcomes-research-2019-2021-overview>

### California Examples of Dashboards with no Mental Health Indicators

The California Child Welfare Indicators Project (CCWIP) Dashboard  
<https://ccwip.berkeley.edu/>

The CCWIP dashboard provides county-level data on child population, allegations, substantiations, entries, exits, and count of children in care and in probation. Data tools allow users to examine measures by topic and has the option to stratify according to age, race, and gender.

The CCWIP Dashboard contains a wide range of measures on child welfare, including maltreatment in foster care, recurrence of maltreatment, permanency, placement stability, and re-entry into foster care. Data is available for each county in California. Using the data analysis tool, variables can be stratified by age, race, or gender and compared among counties or the State. Below, placement stability among ethnic groups is compared between California and Los Angeles from 2018 to 2019 (Webster et al., 2019).

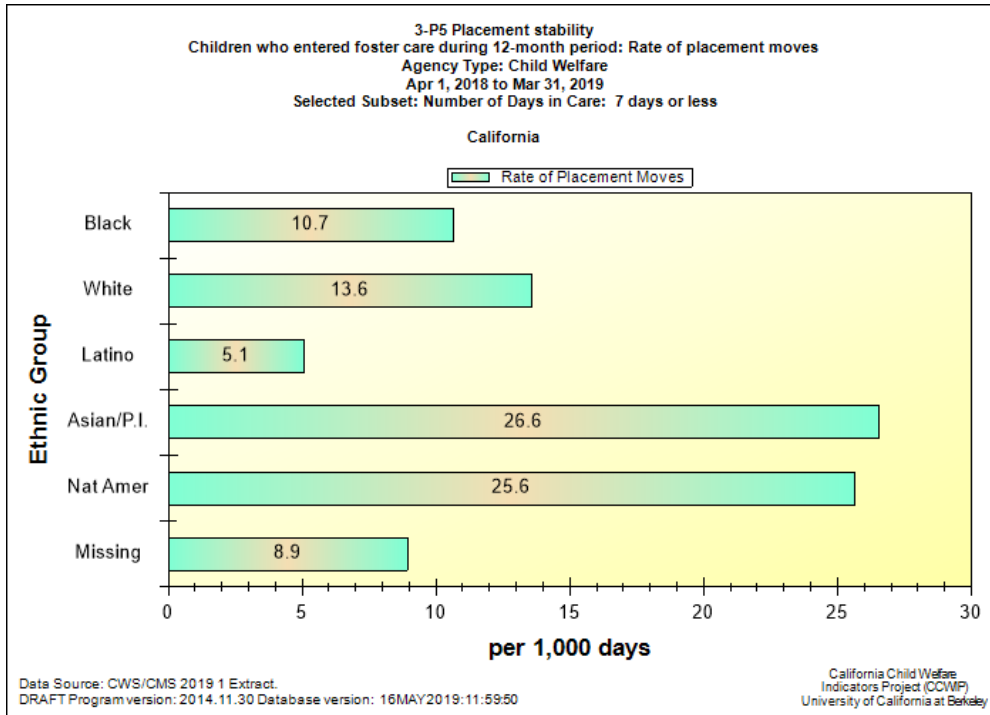


Figure 4 Children who entered foster care during 12-month period: California

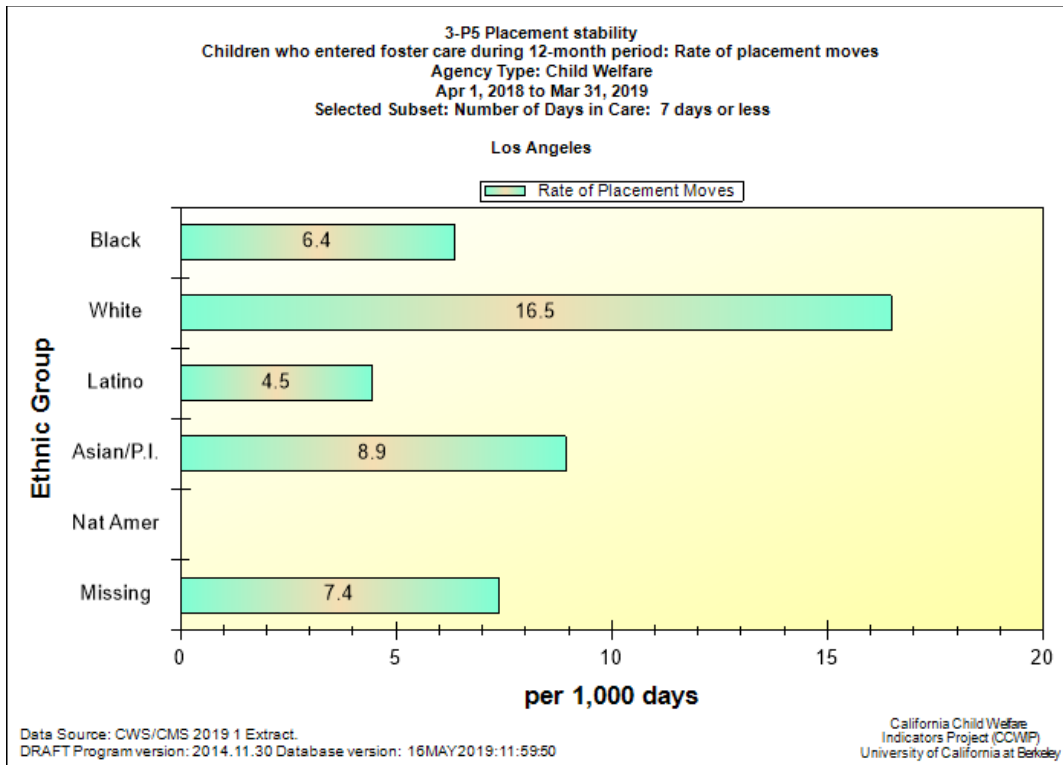


Figure 5 Children who entered foster care during 12-month period: Los Angeles

## California Child and Family Services Review (C-CFSR)

<https://www.cdss.ca.gov/inforesources/Child-Welfare-Program-Improvement/Federal-Child-and-Family-Services-Review>

The C-CFSR improves child welfare outcomes by holding county and state agencies accountable for the outcomes achieved. This statewide accountability system includes the completion of a County Self-Assessment (CSA) which includes a peer review, development of a five-year System Improvement Plan (SIP), the submission of annual SIP Progress Reports, and quarterly monitoring of SIP strategies and the effects on child welfare outcomes.

## The Children's Movement of California

<https://www.childrennow.org/thechildrensmovement/>

Children Now, an advocacy, research, and policy development organization, leads the Children's Movement of California effort to advocate on behalf of children, which includes producing the [2018 California Children's Report Card](#). This report grades the state's ability to invest in issues affecting children including mental health and describes the state's progress. Child welfare outcomes include child abuse and neglect prevention, placement stability, and permanent connections.

## County Prevention Data Dashboard – CA Department of Social Services

<https://www.cdss.ca.gov/inforesources/OCAP/Data-Dashboards>

The Child Welfare data dashboard provides annual county-level information on child welfare indicators. The latest data points are from 2017. Indicators include: number of children with child welfare involvement; disposition types of children with the first allegation; child welfare outcomes per 1000 children for allegation, substantiation, and entry rates; outcomes among children with a prior stage of involvement; and children with allegations in 12 months following the first allegation. Other domains include health, violence, service access, and racial disproportionality. No mental health outcomes are included in the dashboard's analyses of child welfare outcomes.

## Recommendations

The following are four sets of recommendations. Each category is determined by the accessibility of the data from a particular data source. The ideal, pie in the sky, accessibility would be one in which current data can be accessed or shared immediately to display in a future dashboard and in a format that would help streamline the process for updating this dashboard. For the scope of this project, the UCLA team will provide MHSOAC with a data library that consists of three years of data for each indicator in each of the 7 MHSA outcomes – suicide, unemployment, homelessness, incarceration, removal from home, school failure or dropout, and prolonged suffering. As such, the

ideal accessibility would be to have publicly available data in which a complete data set with multiple indicators for a particular outcome or multiple outcomes can be downloaded at one time without a data request or data use agreement.

Recommendations of data sources and their related data elements are organized into four categories:

Category 1 describes data sources that meet four criteria: 1) publicly accessible and free; (2) accurate measure of the MHSA key outcome; (3) measure of the outcome in the context of mental health; and (4) available at the state and county levels.

Category 2 describes data sources that meet one or more of the four criteria above.

Category 3 describes options for pairing recommended data sources in either Category 1 or 2 that have the potential to contextualize removal from home at the county level.

Category 4 describes data elements that are not currently being measured in a standardized setting, but may be of interest and useful to collect. The recommendations in this section have been identified through our environmental scans, literature reviews, and qualitative investigation (focus groups, interviews, ethnographic observation) from counties in California.

## Category 1 Recommendations

### Recommendation #1:

The recommended data source for removal of children from home is the **California Child Welfare Indicators Project (CCWIP)**, a collaboration between University of California at Berkeley and the California Department of Social Services. The CCWIP provides measures on California child welfare outcomes by county, including topics such as entries and placement stability. Foster care entry data can be subdivided by year, age group, race and ethnicity, and removal reason (e.g., type of maltreatment). Standardized rates of placement moves (per 1,000 days in foster care) can be subdivided by year, age groups, and race and ethnicity.

For the purposes of monitoring by MHSOAC, CCWIP can be used to answer the following questions:

- How has the number of children entering foster care changed during the past decade?
- What proportion of children entered foster care due to neglect or abuse?
- How do rates of entry into foster care differ by age group, or race and ethnicity?
- How do rates of foster care placement moves vary by age group, or race and ethnicity?

## Category 2 Recommendations

### Recommendation #1:

The **National Child Abuse and Neglect Data System (NCANDS)** is the most complete data source, including a wide range of removal from home indicators and a broad number of child and family variables. This data source not only allows for surveillance of more proximal outcomes, but also has important variables to monitor high risk populations such as those children with emotional disturbance and behavioral problems, and parent and family factors.

### Recommendation #2:

The **Adoption and Foster Care Analysis and Reporting System (AFCARS)** is the second-best data source but for only the one removal from home outcome of entry into the system. This data source similarly to NCANDS has variables that include child and parent factors.

### Recommendation #3:

The **California Child Welfare Indicators Project** is the third best data source. It has the advantage of having the broad number of removal from home indicators and sociodemographic variables, but it lacks information about child and parent characteristics.

## Category 3 Recommendations

We identified a number of existing data linkage projects within and outside of California. These examples indicate future directions for other project development to better link and centralize data on key indicators.

- In 2019, the Administration for Children and Families initiated a new project called the **Child Maltreatment Incidence Data Linkages (CMI Data Linkages)**, which will identify and enhance existing administrative data linkages to more accurately survey incidence of child abuse and neglect.
- **Medicaid Analytic eXtract (MAX) files** (maintained by CMS): Medicaid eligibility files list the reason for eligibility, one of which is foster care. Examining this data source and linking it with a national dataset could allow closer study of foster populations, such as children with disabilities (Cidav et al., 2018; Leckman-Westin et al., 2018).
- **The Client & Service Information (CSI) and the Data Collection Reporting (DCR) Systems** collect client-level service utilization data from California's county mental health programs. This data has been linked to foster care data from kidsdata.org to improve FSP programming (Cordell et al., 2017). Future

linkages could yield exploration of crisis service use and mental health service use in foster care youth.

- **The CCWIP** collaborates with the Children’s Data Network (CDN, University of Southern California) to link CCWIP data to population-based data sources, such as birth or death records.
- Outside of California, **Wake County, North Carolina** implemented a pilot program to merge CPS, Police, and Office of the Chief Medical Examiner data in order to create individual family records of both substantiated and alleged child maltreatment cases.
- Both of these programs indicate future directions for other project development to better link and centralize data on key indicators.

## Category 4 Recommendations

Based on preliminary analysis of county and local ethnographic observations (including attending MHSA events and conducting focus groups and interviews), these are some suggestions for other metrics which would be relevant in understanding the “health” of a county with regards to reducing children’s removal from their homes due to parents SMI or other unmet mental health need.

### Disconnecting parent neglect/abuse from poverty, racism and economic precarity

A topic of high concern with community members we talked to is the fact that minority and low-income families are disproportionately vulnerable to child abuse allegations and possible child removal from home. Cited reasons include racism, cultural differences in child rearing, poverty, and parents’ lack of access to or knowledge about institutional sources of support that could help them. This concern is also supported by our literature review which revealed that ethnic minority children are not at increased risk for experiencing maltreatment when all other pertinent factors are controlled, yet it is well-documented that ethnic minority children are at increased risk for removal from home. Greater specificity of ethnic subgroups would be helpful to add to future surveillance questionnaires.

In addition, asking parents about the number of Adverse Childhood Experiences that their child has experienced could be important surveillance in identifying populations at risk for removal from home and who would benefit from prevention and early intervention (PEI) services.

### Measuring the success of family maintenance programs (prevented potential removals)

A child’s removal from home is an end outcome after the failure of several preventive steps (i.e. parent mental health treatment, parenting education, and family maintenance

services). For this reason, it is important to not only measure a decrease in actual removals but also an increase in the success of these intermediate stages that prevented the need for such a removal.

Metrics that could serve as county-level indicators would have to monitor family progress over time. Some examples include:

- Proportion of substantiated allegations that led to families receiving various types of services (family therapy, parenting education, etc.)
- Proportion of families who received such services and did not result in a repeated allegation within the next year.
- Number of one-time allegations versus repeated allegations in a county's child welfare system.

### Measuring removal from home's interconnection with the other negative outcomes

Removal from home, and the investigations leading up to it, are known to be impacted by a variety of factors including: parent mental illness, poverty, unemployment and homelessness. Children who are placed in foster care are also more likely to have mental health problems, **school failure**, adult **homelessness**, and **suicide**. The degree to which mental illness is **stigmatized** (versus normalized) in the local community affects parents' access to and acceptance of mental health resources. Finally, **culture**, **class**, and **ethnicity** will impact whether a parent's behavior is seen as out of line, or even the likelihood that abuse or neglect are noticed by institutional authorities.

Because these domains are interconnected, improvements (or worsening) in one domain can be expected to have a delayed downstream effect on the others, and should be monitored accordingly. For example, there is a known connection between youth experiences in foster care and a number of adult negative outcomes -- therefore, family maintenance programs that reduce the need for child removal from home may also contribute to reduced homelessness, unemployment, and even suicide years or decades later.

### Conclusions

Removal from home occurs when there are safety concerns for the child and substantial risk of maltreatment or abuse that cannot be addressed within the family. About 270,000 children are removed from their homes every year and CPS has reported a 12% increase in suspected child maltreatment referrals since 2013, indicating a strong need for mental and behavioral health support for both the adults and the children involved.

Ethnic minorities and low-income families are at increased risk of being targeted for allegations due to a variety of systemic factors including geographic location, concentrated poverty, racial bias, visibility bias due to already being under scrutiny by



government institutions, and even discrimination embedded within the child welfare and juvenile justice systems.

Child maltreatment can impair cognitive development and mental and behavioral health and put children at high risk for lifelong mental illness. Subsequent removal from home causes stress and uncertainty for children and puts them at further risk for mental or behavioral health problems. For this reason, a statewide data monitoring system should include not only actual rates of children removed from their homes, but also monitor indicators of risk or service need at earlier stages in order to prevent the family situation from escalating to the point where removal is necessary.

This report examined the currently available data sources on child maltreatment and removal from home internationally, within the U.S. and within California, as well as presenting some examples of existing county-level prevention and outreach efforts.

We recommend monitoring the following indicators at all stages of the process: referrals/allegations, substantiation, receipt of family maintenance services and the ultimate removal from home if those services fail, as well as monitoring repeated patterns of maltreatment or neglect (repeat referrals or repeat removals). Indicators of removal prevention (e.g. cases where family maintenance services were successful) would also be of high value but may be more complicated to collect.

In addition to measuring risk factors that predict vulnerability, it is also important to assess factors that predict resilience in families, such as:

- Concrete support for parents (basic resources; services for family-specific needs; and social services, such as for mental health and substance abuse treatment)
- Social connections
- Knowledge of parenting and child development
- Social and emotional competence of children
- Nurturing and attachment

### Summary of California County Reports and Dashboards

The ability to disaggregate data by socioeconomic and demographic characteristics is important for understanding inequities in child welfare related outcomes. Many of these national and state dashboards provide the opportunity to understand these inequities – See Table 4 for more information.

This study found that 30 out of the 58 counties were monitoring child welfare related indicators in either county reports or county dashboards, many of which were through the county departments of public health. Of these 38 counties, 40% were monitoring foster care related indicators and 60% were monitoring indicators related to child abuse

and neglect. About half of these indicators could be examined by age groups, gender, race and ethnicity. See Table 5 for more information.

Twenty out of the 58 CA counties have at least one dashboard monitoring at least one child welfare-related indicator. Nine counties (Alameda, El Dorado, Kern, Napa, Placer, Sacramento, San Francisco, Santa Clara, and Yolo) have dashboard specifically for "Child Adversity and Well-Being". These dashboards are a product of the Shared Data and Outcomes Workgroup of the California Essentials for Childhood (EfC) Initiative, a CDC-funded child maltreatment prevention project hosted by the California Departments of Public Health and Social Services. All 24 county dashboards use data from the California Child Welfare Dynamic Report System (CCWIP). See Table 6 for more information on which child-welfare related indicators being monitored in each dashboard.

### Limitations in Monitoring Data

- Data sources that count the number of abuse reports (e.g. ED visits [Shanahan, Fliss, & Proescholdbell, 2018]) do not give an accurate picture of the number of individual affected children.
- Difficulty of monitoring success of in-home preventative services (i.e. cases in which service receipt successfully prevented the need for removing the child from the home). In contrast, failure of such programs is easier to monitor by linking history of services received with history of out of home placement. (Courtney & Collins, 1994)
- Substantiated child maltreatment or child removal from home are the more extreme cases in the child welfare spectrum. Focusing on these metrics runs the risk of overlooking many high-need families who have not yet reached that point or who could be successfully assisted before removal from home becomes necessary (Shanahan et al., 2018).

### Limitations on data collection for American Indian / Alaska Native populations:

While indigenous children account for a small proportion of the national population in the US, Canada and Australia, they are over-represented in the reporting and investigation stages of the child welfare process (Sinha et al., 2013). Some researchers have argued that this may be due to institutionalized historic racial bias in access to other services that would have replaced the need for child welfare (Roberts, 2002), as well as visibility bias (see below). Data collected on these populations are limited for the following reasons:

- The Native American status of children are inconsistently reported in child welfare databases (Magruder & Shaw, 2008).

- Native Americans comprise a smaller proportion of the national population. Therefore, nationally representative data sets have small sample sizes that are not sufficient enough to properly look at inequities.(Sinha et al., 2013)
- National data collection efforts such as NCANDS and AFCARS focus primarily on state-run child welfare agencies and have limited inclusion of data from independent tribal-run agencies (Sinha et al., 2013).

## Conclusion

### Overview

The goal of this final chapter is to provide a synthesis of the top recommended data sources for each MHS key outcome and their capacity to: identify target populations, stratify by state and California counties, monitor key indicators, and examine disparities. Only the data sources with the highest ranking among Category 1 data sources are summarized. Criteria for Category 1 data sources are: 1) publicly accessible and free; 2) accurately measure the outcome at the county level; 3) measure the outcome in the context of mental health; and 4) approximate the mental health outcome. The main characteristics of each data source is summarized, followed by an analysis of the data sources that cover multiple key outcomes.

### Recommended Data Sources by Outcome

The top recommended data sources for each outcome, and their characteristics are summarized in Table 14.

- For target population, a data source is identified as being suitable for examining outcomes among children if the target population includes persons within the range of 0-17 years.
- Capacity to identify disparities: includes stratification by sociodemographic characteristics as well as by type of vulnerable population.
- Mental health context variables are reported only if: 1) highly feasible (e.g., easy to cross tab with a key outcome); 2) data are easily interpretable (e.g., mental health need or use of mental health care is clearly defined); and 3) meaningful (e.g., stable estimates with little missing data).

### Suicide

To capture the continuum of suicidality across the lifespan, three data sources are recommended depending on type of suicide indicator and age group. For suicide rates by age groups among adults and children, the recommended data source is the California Injury Data Online (EpiCenter). For suicidal ideation in the past year by adult age groups, the recommended data source is the California Health Interview Survey (CHIS) using the AskCHIS query tool. Among adolescents, the recommended data source to monitor suicidal ideation is the California Health Kids Survey (CHKS) using kidsdata.org.

### Incarceration

The California Sentencing Initiative is the recommended data source for incarceration. It compiles data on incarceration among adults and youth. It includes number of adults incarcerated in jails and prisons and youths incarcerated in juvenile halls or camps and imprisoned. For both adults and youth, disparities by sex can be examined. Disparities

by race and ethnicity are only available for adults. This data source included one potentially relevant mental health contextual variable related to number of open mental health cases among youth. This variable did not meet our criteria, however, as the data could not be easily interpreted because it did not specify whether youth were in prison, juvenile hall or camp, on house arrest or alternative supervision. In addition, having an open mental health case may be biased by detection and workforce capacity for mental health care within the juvenile justice system. Therefore, it may not be a reliable indicator of need for prevention, early intervention or treatment of a mental disorder.

### School failure or dropout

The California Healthy Kids Survey (CHKS) accessed through CalSCHLS (California Department of Education) is the recommended data source to monitor school failure or drop out. The California Department of Education (CDE) provides the California Healthy Kids Survey data through their CalSCHLS query tools, and allows county-level data to be compared to the State of California. Relevant variables include both truancy rates and “reasons for school absence,” which includes multiple reasons related to mental health concerns. In addition, CHKS provides multiple items on school climate both from student and staff report. Although school climate is not a direct measure of school failure, negative school climate can serve as an early indicator of risk for school failure. Further, this data source has the capacity to examine disparities by child age, sex, and race and ethnicity as well as by a child’s sexual orientation and parent’s level of education.

### Unemployment

The California Health Interview Survey (CHIS) is the best data source for state-wide and county estimates for unemployment in the general population and can be stratified by three important sub-populations related to mental health: 1) those with self-reported need for mental health services and who have public insurance, and among this population, 2) those receiving services, and 3) those with unmet need for mental health services. CHIS includes a range of unemployment indicators and demographic variables such as state and county unemployment rate; employee absenteeism due to mental illness or emotional distress; and the level of psychological distress among the employed, unemployed, and those not in the labor force. It is able to measure high risk populations, disparities by race and ethnicity, income, education, and sexual orientation, and takes into account clinical and social circumstances that are particularly important for the outcome.

### Prolonged Suffering

The California Health Interview Survey (CHIS) using the AskCHIS query tool is the best data source available for population-level data for prolonged suffering. The AskCHIS query tool will allow the user to download a report or partial dataset. It includes the

capacity to stratify data by counties and assess reported difficulties of accessing specialty care among adults and general services among children and adolescents, although specialty care could include any care needed, not just mental health. The target population is the California general population, ranging from age 12 to more than 65 years, which can be further stratified into the following-relevant sub-populations: DMH-eligible and/or receiving services, low-income, LGBTQ, immigrant, undocumented, military, pregnant, and disabled. An additional advantage is that CHIS has the capacity to stratify race and ethnicity groups beyond U.S. census group categories, thus identifying indicators of prolonged suffering among often under-reported race and ethnicity groups. Clinical characteristics identified by CHIS are: serious psychological distress, life and work impairments due to emotional and mental health issues, substance abuse or disorder, and physical health status. Social circumstances examined by CHIS are discrimination, educational attainment, and financial insecurity.

### Homelessness

The most complete publicly accessible data for homelessness comes from the U.S. Department of Housing and Urban Development's Point in Time Count. This data source provides the best state and county estimates available for homelessness, encompassing: 1) sheltered homeless families and Individuals, 2) unsheltered homeless families and individuals, and 3) unaccompanied homeless youth. This data source provides data for the general population of homeless individuals with a few sociodemographic characteristics and includes counts of those with severe mental illness, with chronic substance use, or risk for mental illness such as those who have experienced domestic violence, veterans, and unaccompanied minors. However, this data source is not available in a format that allows one to examine intersectionality of these populations. Despite the limitations of this count, which include a potential underestimation of the number of homeless individuals, it is currently the best estimate of those meeting the HUD definition of homelessness in the U.S.

### Removal of children from their home

The recommended data source for removal of children from home is the California Child Welfare Indicators Project (CCWIP), a collaboration between University of California at Berkeley and the California Department of Social Services. The CCWIP provides measures on California child welfare outcomes by county, including topics such as entries and placement stability. Foster care entry data can be subdivided by year, age group, race and ethnicity, and removal reason (e.g., type of maltreatment). Standardized rates of placement moves (per 1,000 days in foster care) can be subdivided by year, age groups, and race and ethnicity.

## Recommended Data Sources for More than One Outcome

The distribution of outcomes by recommended data source is summarized in Table 15. Of the six unique recommended data sources, two were recommended for multiple MHSA outcomes: the CHIS was recommended for three of the seven key outcomes (suicide, unemployment, prolonged suffering) and the CHKS was recommended for two (school failure or drop out, suicidal ideation for youth only). These two California statewide surveys encompassed four of the seven key outcomes, and they had the richest data for contextual variables for mental health and mental health care. The remaining four data sources assessed only one outcome each (suicide, incarceration, homelessness, removal from home) and focused on the outcome that fit well within their agency's mission.

### Summary

This report recommends six unique data sources that each monitor at least one MHSA key outcome. They span a variety of formats including statewide household and student surveys, compilation of aggregate number of persons incarcerated, person counts within an annual 10-day window, and national aggregate data from child welfare reports. The number of indicators for different key outcomes also varied. Additionally, indicators reflect different points on the continuum of an outcome (for example, suicide ideation and suicide mortality).

The capacity to assess variables related to mental health emerge strongest among the two California statewide surveys. The most frequently recommended data source was the California Health Interview Survey, followed by the California Healthy Kids Survey. These statewide surveys had the greatest depth to examine variables related to mental health or mental health service use for the key outcome assessed. In contrast, the remaining four data sources focused only on one key outcome with fewer mental health variables. This limitation is likely because the primary purpose was public surveillance and reporting of the outcome, rather than as an indicator of the impact of unmet need for mental health care.

In conclusion, the findings of this report were based upon a comprehensive review of the literature, environmental scan, statewide MHSA coordinator survey, and qualitative data from multiple stakeholders. A synthesis from these sources provides a blueprint for a statewide standardized system of measurement of the seven MHSA key outcomes at the state and county level. Using these recommended data sources, trends in the key outcomes and disparities can be compared across counties to support state and local leaders' ability to pinpoint areas of need, stimulate specific programs and services, and address disparities.

## Glossary of Definitions

### **Administration for Children and Families (ACF)**

A Federal agency within the U.S. Department of Health and Human Services that funds State, territory, local, and Tribal organizations to provide family assistance (welfare), child support, child care, Head Start, child welfare, and other programs relating to children and families. Actual services are provided by State, county, city, and Tribal governments and by public and private local agencies. ACF assists these organizations through funding, policy direction, and information services. (Adapted from the [Administration for Children and Families](#).)

### **AOT – Assisted Outpatient Treatment, also known as Laura’s Law**

Laura’s Law is a California state law that allows for assisted outpatient treatment (AOT), which is court-supervised treatment within the community. To be a candidate for AOT, a person must meet specific criteria, such as a prior history of repeated hospitalizations or arrest. AOT laws have been shown to reduce hospitalization, arrest and incarceration, homelessness, victimization, and to prevent violent acts associated with mental illness, including suicide and violence against others. Also known as “involuntary outpatient treatment” or “outpatient commitment,” AOT commits local mental health systems to serve participants at the same time it commits participants to adhere to their treatment plans.

<https://www.treatmentadvocacycenter.org/fixing-the-system/promoting-assisted-outpatient-treatment>

### **ASIST - Applied Suicide Intervention Skills Training**

ASIST is a two-day suicide first-aid workshop that teaches participants how to recognize thoughts of suicide in others and how to support their safety. The workshop is intended for anyone over the age of sixteen; formal healthcare training is not required.

### **California Behavioral Health Planning Council**

The California Behavioral Health Planning Council is mandated by [federal](#) and [state statute](#) to advocate for children with serious emotional disturbances and adults and older adults with serious mental illness; to review and report on the public behavioral health system; participate in statewide planning, and to advise the Legislature on priority issues.

<https://www.dhcs.ca.gov/services/MH/Pages/CBHPC%20Overview.aspx>

### **CES – Coordinated Entry System**

A Coordinated Entry System (CES) is a community-wide system to standardize and expedite the process by which people experiencing homelessness, or who are at risk of homelessness, access housing and homeless resources. It connects the community's



network of homeless services and housing resources while streamlining, standardizing, and coordinating the homeless intake, assessment, and referral processes. Through CES, people experiencing homelessness will be matched to services and housing based on their preferences and level of need.

<https://www.countyofsb.org/housing/coordinated.sbc>

### **Clay Hunt Suicide Prevention Act**

Named in honor of Marine Corporal Clay Hunt – an Iraq and Afghanistan War veteran and dedicated suicide prevention advocate who tragically took his own life – this bill expands access to mental health services for US veterans and increases the capacity and efficiency of VA care to deal with the more than one million veterans returning from war.

[https://castor.house.gov/uploadedfiles/clay\\_hunt\\_suicide\\_prevention\\_for\\_american\\_veterans\\_act.pdf](https://castor.house.gov/uploadedfiles/clay_hunt_suicide_prevention_for_american_veterans_act.pdf)

### **DDP - Dual Diagnosis Program**

The DDP is an evidence-based treatment program for people with coexisting mental illness and drug and/or alcohol abuse in Merced County.

### **Garrett Lee Smith Grant**

### **HIPAA – Health Insurance Portability and Accountability Act of 1996**

HIPAA is federal legislation that enforces data privacy and security provisions for medical information.

### **Friday Night Live (*not needed since it's in the report. Oops!*)**

The Friday Night Live (FNL) program is designed for high school-aged young people and is motivated by youth-adult partnerships that create essential and powerful opportunities that enhance and improve local communities. The California Friday Night Live Partnership (CFNLP) was developed in 1984 by the California Department of Alcohol and Drug Programs (ADP), now the [California Department of Health Care Services \(DHCS\)](#), and the [California Office of Traffic Safety \(OTS\)](#).

<https://fridaynightlive.tcoe.org/our-programs/friday-night-live>

### **IST – Incompetent to Stand Trial**

Under California law, a defendant is mentally incompetent to stand trial if, as a result of a mental disorder or developmental disability, he cannot: (1) understand the nature of the criminal proceedings, or (2) assist counsel in the conduct of a defense in a rational manner. Penal Code 1367(a).

The United States Supreme Court has defined mental competence to stand trial as a defendant's "sufficient present ability to consult with his lawyer with a reasonable degree of rational understanding" and have "a rational as well as factual understanding of the proceedings against him." Dusky v. United States (1960) 362 U.S. 402.

One cannot assert incompetency to stand trial solely because a defendant is being uncooperative, displays poor behavior in the courtroom, or appears odd or bizarre. People v. Smith (2003) 110 Cal.App.4th 492; People v. Medina (1965) 11 Cal.4th 694; People v. Superior Court (Campbell) (1975) 51 Cal.App.3d.459.  
[https://www.disabilityrightscalifornia.org/system/files/file-attachments/507701\\_Chapter\\_1.pdf](https://www.disabilityrightscalifornia.org/system/files/file-attachments/507701_Chapter_1.pdf)

### **LEP – Limited English Proficiency**

According to the US Census, individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English can be limited English proficient, or "LEP." These individuals may be entitled language assistance with respect to a particular type or service, benefit, or encounter. Outside of the Census definition, individuals who self-report that they are less than fluent in the English language are considered LEP.

<https://www.census.gov/topics/population/language-use/about.html>

### **MHSA – Mental Health Services Act**

The passage of Proposition 63 (now known as the [Mental Health Services Act](#) or MHSA) in November 2004, provides increased funding, personnel and other resources to support county mental health programs and monitor progress toward statewide goals for children, transition age youth, adults, older adults and families. The Act addresses a broad continuum of prevention, early intervention and service needs and the necessary infrastructure, technology and training elements that will effectively support this system. This Act imposes a 1% income tax on personal income in excess of \$1 million.

[https://www.dhcs.ca.gov/services/mh/Pages/MH\\_Prop63.aspx](https://www.dhcs.ca.gov/services/mh/Pages/MH_Prop63.aspx)

### **No Place Like Home Program**

On July 1, 2016, Governor Brown signed landmark legislation enacting the No Place Like Home program to dedicate up to \$2 billion in bond proceeds to invest in the development of permanent supportive housing for persons who are in need of mental health services and are experiencing homelessness, chronic homelessness, or who are at risk of chronic homelessness. The bonds are repaid by funding from the Mental Health Services Act (MHSA).

<http://www.hcd.ca.gov/grants-funding/active-funding/nplh.shtml>

### **ODS – Organized Delivery System**

An ODS is a legal entity that contracts with a carrier for the purpose of providing or arranging for the provision of health care services to those persons covered under a

carrier's health benefits plan, but which is not a licensed health care facility or other health care provider.

The Drug Medi-Cal Organized Delivery System (DMC-ODS) provides a continuum of care modeled after the American Society of Addiction Medicine Criteria for substance use disorder treatment services. It enables more local control and accountability, provides greater administrative oversight, creates utilization controls to improve care and efficient use of resources, implements evidenced based practices in substance abuse treatment, and coordinates with other systems of care.

<https://www.dhcs.ca.gov/provgovpart/pages/drug-medi-cal-organized-delivery-system.aspx>

### **PHF – Psychiatric Health Facility**

The Santa Barbara County PHF is a 16-bed facility that provides 24-hour inpatient care to individuals requiring psychiatric hospitalization. It is licensed both as a Psychiatric Health Facility by the CA Department of Health Care Services (DHCS) and as an Acute Psychiatric Hospital by the Centers for Medicare and Medicaid Services (CMS)

<https://www.countyofsb.org/behavioral-wellness/phfboard.sbc>

### **PIT Count – Point-in-Time Count**

The Point-in-Time count is a county of sheltered and unsheltered homeless persons on a single night in January. The US Department of Housing and Urban Development (HUD) requires that Continuums of Care (CoCs) conduct an annual count of homeless persons who are sheltered in emergency shelter, transitional housing, and Safe Havens on a single night. CoCs also must conduct a count of unsheltered homeless persons every other year (odd numbered years). Each count is planned, coordinated, and carried out locally.

These data are used to measure homelessness on a local and national level and are published annually on HUD's HUD Exchange website, which can be viewed by CoCs and the general public. PIT count data are also provided annually to Congress as part of the Annual Homeless Assessment Report (AHAR). The AHAR is used by Congress, HUD, other federal departments, and the general public to understand the nature and extent of homelessness

<https://www.hudexchange.info/programs/hdx/guides/pit-hic/#general-pit-guides-and-tools>

<https://www.hudexchange.info/resources/documents/PIT-Count-Methodology-Guide.pdf>

### **safeTALK – Suicide Alertness for Everyone**

SafeTALK is a training program that prepares individuals 15 and older to become a suicide-alert helper. Participants learn how to apply the TALK steps: Tell, Ask, Listen, and KeepSafe.

### **Snapchat**

Snapchat is a multimedia messaging app. In addition to messaging and photo sharing, Snapchat also serves as a news and ad-supported content platform.

### **START – School Threat Assessment Response Team**

The Los Angeles County Department of Mental Health START addresses the need for a comprehensive threat prevention and management program. START provides educational and training programs for select audiences that are designed to increase situational awareness among school administrators, faculty, parents, students, campus security, and local law enforcement, as well as to improve understanding about the dynamics of school shooters and the importance of timely identification, assessment, and monitoring. [Click here for more information on START.](#)

### [Suicide Prevention Resource Center](#)

The Suicide Prevention Resource Center (SPRC) strives to improve suicide prevention infrastructure and capacity building across states, health systems, and other institutions that serve individuals at-risk for suicide. SPRC is the only federally supported organization striving to implement the [National Strategy for Suicide Prevention](#).

### **U.S. Veteran’s Initiative (U.S. VETS)**

The U.S. Veterans Initiative is a private non-profit organization providing housing, employment, and counseling services to veterans. With 20 residential sites and 9 service centers in 13 cities across 5 states, the District of Columbia and the territory of Guam, U.S.VETS personnel go into the local community to find homeless veterans and guide them to crucial services that might help alleviate the challenges they face. The range of services includes housing and employment assistance, as well as access to veterans’ benefits and treatment for mental and physical health problems and substance abuse.

<https://www.usvetsinc.org/>

## Tables

**Table 1: Suicide or Suicidal Behavior Data Source Characteristics**

Data source	Level of Detail	Age range	Age group	Race and ethnicity	Hispanic origin	Gender	SES	Immigrant status	LGBTQ identity	Justice-related	MH need/svs use	Subs. use	Other variables
National Violent Death Reporting System	Nat'l, State (27 states)	Lifespan	✓	✓	✓	✓			✓	✓	✓	✓	Foster care, homelessness, unemployment
Compressed Mortality File	Nat'l, State, County	Lifespan	✓	✓	✓	✓				✓			
National Survey on Drug Use and Health	Nat'l, Sub-states	Lifespan (12yo+)	✓	✓			✓	✓	✓		✓	✓	
Youth Risk Behavior Surveillance System	Nat'l, State, schools	Middle/high school	✓	✓		✓			✓			✓	
CA Health Interview Survey	County; SPA	Lifespan	✓	✓	✓	✓	✓	✓	✓		✓	✓	
CA Healthy Kids Survey	School	Grade 5, 7-11	✓	✓		✓	✓	✓	✓		✓	✓	Parent education; school connectedness
CA Electronic Violent Death Reporting System	14 counties	Lifespan	✓	✓		✓							Veterans, marital status
CA Injury Data Online (CDPH, EpiCenter)	County	Lifespan	✓	✓		✓							Injury cause
CA Pregnancy-Associated Mortality Review	State only	15-49		✓									
Kidsdata.org	County	0-17	✓	✓		✓	✓	✓	✓				Urban/rural, Special health care needs

**Table 2. Incarceration Data Source Ratings and Characteristics**

Data Source	ASJ	APS	CSI	CJSC – CA DOJ	KidsData .org	NHIS	NPS	NSCH	NSDUH	UCR
<b>Category</b>	2	2	1	2	2	2	2	2	2	2
<b>Population Classification</b> General Pop DMH eligible DMH eligible + service use All of the above	General Pop	General Pop	General Pop	General Pop	General Pop	General Pop	General Pop	General Pop	General Pop	General Pop
<b>Years Available</b>	Annual: 2017, 2016, 2015	Annual: 2016, 2015, 2014	Annual: 2009-2016	Annual: 2018, 2017, etc.	Annual: 2015, 2014, 2013	Annual: 2018, 2017, 2016	Annual: 2017, 2016, 2015	Annual: 2018, 2017, 2016	Annual: 2018, 2017, 2016	Annual: 2018, 2017, etc.
<b>Type of Data Access</b>	Public Use Files	Publications & Products	XLS	PDF, XLSX, and CSV Files	Excel and CSV Files	Data Request + Fee for state & county data	Public Use Files & Query Tool	SAS and STATA data files + Query Tool	Data Request + Fee <a href="https://www.cdc.gov/rdc/b1/datatype/nsduh.htm">https://www.cdc.gov/rdc/b1/datatype/nsduh.htm</a>	Excel and PDF files

<sup>8</sup> Does not include state-level data for confidentiality reasons. Uses Small Area Estimates for state and substate statistics.

<sup>9</sup> Data are organized by individual school, not by county. Has capacity to oversample in specific geographic areas.

Data Source	ASJ	APS	CSI	CJSC – CA DOJ	KidsData .org	NHIS	NPS	NSCH	NSDUH	UCR
<b>Geographic Level</b> County & Census Tract - 1.5 State & All Counties - 1 State & some counties - .5 State Only - .25	1.5	0.5	1	1	1	1.5	0.5	0.5	1.5	1.5
<b>Data Updates</b> > Annual - 1.5 Annual - 1 < Annual - .5	1	1	1	1	1	1	1	1	1	1
<b>Indicator</b> Incarceration rate			1				1			
Arrest rate			1	1						1
Juvenile arrest rate			1	1	1					1
Adult probation information		1		1						
Rates of convicted	1									
Rates of unconvicted	1									
Rates of individuals with felony offense	1	1	1							
Rates of individuals with misdemeanor offense	1	1	1							
Rates of persons with 'other' offense	1	1								

Data Source	ASJ	APS	CSI	CJSC – CA DOJ	KidsData .org	NHIS	NPS	NSCH	NSDUH	UCR
Rates of jailed persons held for ICE	1	1								
Rates of unconfined persons under supervision participating in alcohol/drug treatment	1	1								
Rates of individuals under parole supervision		1	1							
Rates of individuals in local jails		1	1							
Rates of individuals in state or federal prisons		1	1							
Rates of individuals in community-based correctional facility		1								
Past year receipt of treatment in a prison or jail									1	
Past year treatment for									1	



Data Source	ASJ	APS	CSI	CJSC – CA DOJ	KidsData .org	NHIS	NPS	NSCH	NSDUH	UCR
your alcohol use, drug use, or both in a prison or jail										
Past year overnight stay or longer in any type of juvie, prison or jail									1	
Past year number of nights in any type of juvenile detention, prison, or jail									1	
Past year receipt of treatment or counseling for emotional or behavioral problems in juvenile detention center, prison or jail									1	
Past year number of arrests									1	
Type of offense (self-reported)			1						1	1
Violent crime rate			1							

Data Source	ASJ	APS	CSI	CJSC – CA DOJ	KidsData .org	NHIS	NPS	NSCH	NSDUH	UCR
Past year probation status			1	1					1	
Past year status of parole, supervised release, or other conditional release from prison									1	
Family history incarceration						1		1		
Children 0-9 - .2					0.2			0.2		
Adolescents (10-19) - .2	0.2				0.2			0.2	0.2	
TAY (16-24) - .2	0.2		0.2	0.2						0.2
Adult (18-64) - .2	0.2		0.2	0.2					0.2	0.2
Older Adults (65+) - .2	0.2		0.2	0.2					0.2	0.2
All age groups - 1						1	1			
Gender - 1	1	1	1	1	1	1	1	1	1	1
Race and ethnicity				0.5						
> Census Groups - 1.5	1	1	1		1	1	1	1.5	1.5	1
Census Groups - 1										

Data Source	ASJ	APS	CSI	CJSC – CA DOJ	KidsData .org	NHIS	NPS	NSCH	NSDUH	UCR
<b>otherwise noted</b>										
< Census Groups - .5										
Poor & Near Poor (0-200% FPL ) - 1.5			1		1	1		1	1	
Poor (0-99% FPL)- 1										
LGTBQ					1	1				1
Immigrants					1	1				
Undocumented					1	1	1			
Refugees										
Child Welfare Involved			1		1	1		1	1	
Justice Involved					1				1	
Employment Status					1	1		1	1	
Housing Status					1					
School Failure/Drop Out					1			1	1	
Military Status						1		1	1	
Pregnancy Status						1			1	
Disability					1	1		1	1	1
Urban/Rural					1					
Mental Health Problem			1		1	1		1	1	
Serious Emotional Disturbance					1				1	

Data Source	ASJ	APS	CSI	CJSC – CA DOJ	KidsData .org	NHIS	NPS	NSCH	NSDUH	UCR
Serious Mental Illness								1	1	
<b>Clinical Circumstances - 1 for each</b>					1	1				1
More than one disorder						1				1
Substance abuse/disorder	1		1		1		1	1	1	
Physical health					1	1		1	1	
<b>Social Circumstances - 1 for each</b>								1		
Discrimination								1		
Educational Attainment						1		1	1	
Housing Insecurity					1	1		1	1	
Trauma Exposure					1			1		
Financial Insecurity					1	1		1		
Food Insecurity					1	1		1	1	
<b>Total Score</b>	13.3	13.5	19.6	8.1	25.4	23.5	7.5	21.4	32.6	10.1

**Table 3: Incarceration National and California Data Sources**

Data source	Level of Detail	Age range	Age group	Race and ethnicity	Hispanic origin	Gender	SES	Immigrant status	LGBTQ identity	Justice-related	MH need/svs use	Subs. use
Annual Survey of Jails	National; State; County	Lifespan (juvenile & adult)	✓	✓		✓						✓
Annual Probation and Annual Parole Survey	State, Some Counties	<i>unknown</i>		✓		✓						
Criminal Justice Statistics Center (CA DOJ)	State, Counties	Lifespan (juvenile & adult)		✓		✓						
KidsData.org	State, Counties	0-18	✓	✓		✓	✓	✓	✓	✓	✓	✓
National Health Interview Survey (NHIS)	Nat'l, State	Lifespan	✓	✓		✓	✓	✓	✓		✓	✓
National Prisoner Statistics (NPS) Program	State, Some Counties	Lifespan	✓	✓		✓		✓				✓
National Survey of Children's Health (NSCH)	State, Some Counties	0-18		✓		✓	✓				✓	✓
National Survey on Drug Use and Health	Nat'l, State, County	12+	✓	✓		✓	✓			✓	✓	✓
Uniform Crime Reporting Program (UCR)	Nat'l, State, County	Lifespan (juvenile & adult)		✓		✓			✓			

**Table 4. School Failure Data Source Ratings and Characteristics for General Populations and those with Mental Health Problems:**

		National		California
		National Survey of Children's Health (NSCH)	National Survey on Drug Use and Health (NSDUH)	California Healthy Kids Survey
<b>Data Source</b>				
<b>Category</b>		2 (state level only)	2 (county level data by request)	1 (school, district, county)
<b>Population Classification</b>	General Pop Mental Health Pop MH Pop + service use All of the above	General Pop MH Pop	General Pop MH Pop	General pop MH Pop MH+svc
<b>Type of Data Access</b>		Query Tool Downloadable dataset	Data request, fee required	Query CalSCHLS and Data Dashboards
<b>Years Available</b>		Annual 2016-2018	Annual; 2002-2018	Biennial: 2011-2013, 2013-2015, 2015-2017
<b>Geographic Level</b>	1.5 - State, County, & Census Tract 1 - State & County 0.5 - State Only	0.5	1.5	1.5
<b>Data Updates</b>	> Annual - 1.5 Annual - 1 < Annual - .5	1	1	1
<b>Measure of School Indicators</b>	Dropouts			
	School grades/proficiency		1	
	Repeat grades	1		
	Expulsions			
	Child having problems at school	1	1	
	Suspension			1
	Truancy			1
	Absenteeism	1	1	1
<b>Demographics</b>	Children (0-9) - .2	0.2	0	0.2
	Adolescents (10-19) - .2	0.2	0.2	0.2

Data Source	National		California
	National Survey of Children's Health (NSCH)	National Survey on Drug Use and Health (NSDUH)	California Healthy Kids Survey
TAY (16-24) - .2		0.2	
Adult (18-64) - .2		0.2	
Older Adults (65+) - .2		0.2	
All age groups - 1			
Gender - 1	1	1	
Race and ethnicity > Census Groups - 1.5	1	1.5	1.5
Census Groups - 1 < Census Groups - .5			
Poor & Near Poor (0-200% FPL ) - 1.5	1.5	1	
Poor (0-99% FPL)- 1			
LGTBQ			1
Immigrants	1		1
Undocumented			
Refugees			
Child Welfare Involved		1	1
Justice Involved		1	1
Employment Status	1	1	
Housing Status	1		1
School Failure/Drop Out	1	1	1
Military Status			1
Pregnancy Status			1
Disability	1		1
Urban/Rural		1	
Mental Health Problem (e.g. depression, anxiety, etc.)	1	1	1
Serious Emotional Disturbance		1	1
Serious Mental Illness		1	

**Vulnerable Populations - 1 for each unless otherwise noted**

Data Source		National		California
		National Survey of Children's Health (NSCH)	National Survey on Drug Use and Health (NSDUH)	California Healthy Kids Survey
<b>Clinical Circumstances - 1 for each</b>	Clinical Severity	1	1	1
	More than one disorder	1	1	
	Substance abuse/disorder		1	1
	Physical health	1	1	1
<b>Social Circumstances - 1 for each</b>	Discrimination			1
	Housing Insecurity	1	1	1
	Trauma Exposure	1		1
	Financial Insecurity	1		
	Food Insecurity	1	1	1
<b>System Characteristics</b>	School climate (safety, etc.)			1
<b>Total Score</b>		22.4	24.8	26.4



**Table 5. School Failure Data Source Ratings and Characteristics for General Populations (Without Mental Health Indicators)**

Data Source	American Community Survey (ACS)	Current Population Survey (CPS)	National Center for Education Statistics (NCES)	California Department of Education - Data Quest
<b>Category</b>	<b>2 (additional data by request)</b>	<b>2</b>	<b>2</b>	<b>2</b>
<b>Population Classification</b>	General Pop DMH eligible DMH eligible + service use All of the above	General Pop DMH eligible	General Pop	General Pop
<b>Type of Data Access</b>	Query Tool and PUF	Query Tool	Query Tool and Downloadable	Query Tool
<b>Years Available</b>	Annual; 2017, 2016, 2015	Monthly	Annual; 2011-2019	Annual: 2015-2016, 2016-2017, 2017-2018
<b>Geographic Level</b>	1.5 - State, County, & Census Tract 1 - State & County 0.5 - State Only	1.5	0.5	1.5
<b>Data Updates</b>	> Annual - 1.5 Annual - 1 < Annual - .5	1.5	1.5	1
<b>Measure of School Indicators</b>	Dropouts	1	1	1
	School grades/proficiency			
	Repeat grades			
	Expulsions			1
	Child having problems at school			
	Suspension			1
	Truancy			1
Absenteeism			1	

Data Source	American Community Survey (ACS)	Current Population Survey (CPS)	National Center for Education Statistics (NCES)	California Department of Education - Data Quest
<b>Demographics</b>	Children (0-9) - .2			0.2
	Adolescents (10-19) - .2		0.2	0.2
	TAY (16-24) - .2		0.2	0.2
	Adult (18-64) - .2		0.2	
	Older Adults (65+) - .2		0.2	
	All age groups - 1	1		
	Gender - 1	1	1	1
<b>Vulnerable Populations - 1 for each unless otherwise noted</b>	Race and ethnicity > Census Groups - 1.5 Census Groups - 1 < Census Groups - .5	1	1.5	1
	Poor & Near Poor (0-200% FPL ) - 1.5 Poor (0-99% FPL)- 1	1	1.5	1
	LGTBQ			
	Immigrants	1	1	1
	Undocumented			
	Refugees			
	Child Welfare Involved			1
	Justice Involved			
	Employment Status	1		
	Housing Status			
	School Failure/Drop Out	1		1
	Military Status	1	1	
	Pregnancy Status			
	Disability		1	1
	Urban/Rural			

Data Source		American Community Survey (ACS)	Current Population Survey (CPS)	National Center for Education Statistics (NCES)	California Department of Education - Data Quest
	Mental Health Problem				
	Serious Emotional Disturbance				
	Serious Mental Illness				
<b>Clinical Circumstances - 1 for each</b>	Clinical Severity				
	More than one disorder				
	Substance abuse/disorder				
	Physical health				
<b>Social Circumstances - 1 for each</b>	Discrimination				
	Housing Insecurity				
	Trauma Exposure				
	Financial Insecurity				
<b>System Characteristics</b>	Food Insecurity				1
	School climate (safety, etc.)				1
<b>Total Score</b>		12.5	10.6	7.7	17.1

**Table 6. School Failure National and California Data Sources<sup>10</sup>**

Data Source	Level of Detail	Age range	Age group	Race & ethnicity	Hispanic origin	Gender	SES	Immigrant status	LGBTQ identity	Justice-related	MH need/ service use	Subs. use
NHIS-National Health Interview Survey	Nat'l	5+	✓	✓	✓	✓	✓		✓		✓	✓
NSCH-National Survey of Children's Health	Nat'l, State	0 to 19 yo	✓	✓	✓	✓		✓			✓	
NSDUH-National Survey on Drug Use and Health	Nat'l, State	Lifespan (10yo+)	✓	✓	✓	✓				✓	✓	✓
ACS-American Community Survey	Nat'l, State, County, & Census Tract	Lifespan	✓	✓	✓	✓		✓				
CPS-Current Population Survey	Nat'l, State	Lifespan (16yo+)	✓	✓	✓	✓		✓				
MTF-Monitoring the Future	Nat'l	0 to 24 yo	✓	✓	✓	✓					✓	
NCES-National Center for Education Statistics	Nat'l, State	10 to 19 yo	✓	✓	✓	✓		✓				
CHKS-California Healthy Kids Survey	State, County, & Census Tract	0 to 19 yo	✓	✓	✓	✓		✓	✓	✓	✓	✓
CDE-California Department of Education via Data Quest	State, County, & Census Tract	0 to 24 yo	✓	✓	✓	✓	✓	✓				

<sup>10</sup> Data were collected in December 2019 and are subject to change.

**Table 7: Unemployment Data Source Characteristics National and Statewide Data Sources for Unemployment and Mental Health**

Data Source	Level	Age Range	Gender	Race & ethnicity	Sexual orientation	Education	SES	MH or MH svcs need	Immigrant/citizenship	Phys health/	Veteran/military	Other
Behavioral Risk Factor Surveillance System	Nat'l; State	18yo+	✓	✓	✓			✓		✓		Gender identity
Bureau of Labor Statistics / Current Population Survey	Nat'l; State; County	16yo+	✓	✓		✓			✓	✓	✓	
Medical Expenditure Panel Survey	Nat'l	Household	✓	✓		✓		✓		✓		
National Health Interview Survey	Nat'l; State	Household	✓	✓	✓	✓	✓	✓	✓	✓	✓	
National Survey on Drug Use and Health	Nat'l, Sub-state <sup>a</sup>	12yo+	✓	✓	✓		✓	✓	✓			
Survey of Income and Program Participation; US Census Bureau	Nat'l	Household	✓	✓	✓	✓	✓		✓	✓	✓	Health insurance
California Health Interview Survey	CA; County; SPA	18yo+	✓	✓	✓	✓	✓	✓	✓	✓	✓	

<sup>a</sup> Does not include state-level data for confidentiality reasons. Uses Small Area Estimates for state and substate statistics.

**Table 8. Prolonged Suffering Data Source Ratings and Characteristics**

		National		California		
		National Health Interview Survey	National Survey on Drug Use and Health	SAMHSA URS - California Data	California Health Interview Survey (CHIS) (age 12+)	California Health Interview Survey (CHIS) (age 12+) (askCHIS)
<b>Category</b>		2	2	1	2	1
<b>Population Classification</b>	General Pop DMH eligible DMH eligible + service use All of the above	All of the above	All of the above	DMH eligible + service use	All of the above	All of the above
<b>Type of Data Access</b>		Data Request + Fee for state & county data	Data Request + Fee	Downloadable PDF	Data Request	AskCHIS (web interface)
<b>Accessibility of geo-level data</b>	Download complete dataset (e.g. Excel, ASCII, etc.) - 1 Need data request - .5 Data request + IRB - .25 Download report or partial dataset - .25	0.5	0.5	0.25	0.5	0.25
<b>Geographic Level</b>	Census Tract & County - 1.5 All Counties & State - 1 Some counties & State - .5 State Only - .25	1.5	1.5	0.25	1	1
<b>Data Updates</b>	< Annual - 1.5 Annual - 1 > Annual - .5	1	1	1	1	1
<b>Measure of Indicators</b>	Access to services - Difficulty finding specialty care (adult)	1	1	1	1	1

	National		California		
	National Health Interview Survey	National Survey on Drug Use and Health	SAMHSA URS - California Data	California Health Interview Survey (CHIS) (age 12+)	California Health Interview Survey (CHIS) (age 12+) (askCHIS)
Access to services (children & adolescents)	1	1	1	1	1
Timeliness of care - Delayed or didn't get other medical care (all ages)	1			1	1
Quality/Appropriateness of services			1		
<b>Demographics</b>					
Children (0-9) - .2					
Adolescents (10-19) - .2		0.2			
TAY (16-24) - .2				0.2	0.2
Adult (18-64) - .2		0.2		0.2	0.2
Older Adults (65+) - .2		0.2		0.2	0.2
All age groups - 1	1		1		
Gender - 1	1	1	1	1	1
<b>Vulnerable Populations - 1 for each unless otherwise noted</b>					
Race and ethnicity > Census Groups - 1.5	1	1.5	1	1.5	1.5
Census Groups - 1 < Census Groups - .5					
Poor & Near Poor (0-200% FPL) - 1.5	1	1		1	1
Poor (0-99% FPL)- 1					
LGBTQ	1			1	1
Immigrants	1			1	1
Undocumented	1			1	1
Refugees					
Child Welfare Involved	1	1	1		
Justice Involved		1	1		
Employment Status	1	1	1		

	National		California		
	National Health Interview Survey	National Survey on Drug Use and Health	SAMHSA URS - California Data	California Health Interview Survey (CHIS) (age 12+)	California Health Interview Survey (CHIS) (age 12+) (askCHIS)
Housing Status			1		
School Failure/Drop out		1			
Military Status	1	1		1	1
Pregnancy Status	1	1		1	1
Disability	1	1		1	1
Urban/Rural					
Mental Health Problem (e.g. depression, anxiety, etc.)	1	1		1	1
Serious Emotional Disturbance		1	1	1	1
Serious Mental Illness		1	1	1	1
<b>Clinical Circumstances - 1 for each</b>					
Clinical Severity	1	1	1	1	1
More than one disorder	1	1	1		
Substance abuse/disorder		1	1	1	1
Physical health	1	1		1	1
<b>Social Circumstances - 1 for each</b>					
Discrimination				1	1
Educational Attainment	1	1		1	1
Housing Insecurity	1	1	1		
Trauma Exposure					
Financial Insecurity	1			1	1
Food Insecurity	1	1			
<b>Total Score</b>	26	26.1	17.5	24.6	24.35



**Table 9: Prolonged Suffering National and California Data Source Characteristics**

Data source	Level of Detail	Age range	Age group	Race & ethnicity	Hispanic origin	Gender	SES	Immigrant status	LGBTQ identity	Justice-related	MH need/svs use	Subs. use	Other variables
National Health Interview Survey (NHIS)	Nat'l, State	Lifespan	✓			✓	✓	✓	✓		✓	✓	
National Survey on Drug Use and Health	Nat'l, State, County	Lifespan	✓	✓		✓	✓			✓	✓	✓	
Substance Abuse and Mental Health Services Agency (SAMHSA) Uniform Reporting System (URS)	Nat'l, State <sup>11</sup>	Lifespan	✓	✓		✓	✓			✓	✓	✓	
California Health Interview Survey (CHIS) (age 12 +)	State, school <sup>12</sup>	Lifespan (10yo+)	✓	✓		✓	✓	✓	✓		✓	✓	
California Health Interview Survey (CHIS) (age 12 +) (askCHIS)	State	Lifespan (10yo+)	✓	✓		✓	✓	✓	✓		✓	✓	

<sup>11</sup>Does not include state-level data for confidentiality reasons. Uses Small Area Estimates for state and substate statistics.

<sup>12</sup>Data are organized by individual school, not by county. Has capacity to oversample in specific geographic areas.

**Table 10: Homelessness Data Source Ratings and Characteristics**

Data Source	HUD Point-in-Time estimates	American Community Survey (ACS)	SAMHSA Uniform Reporting System (URS)	California Healthy Kids Survey (CHKS)	California Health and Human Services Open Data Portal
<b>Category</b>	1	2	2	1	2
<b>Population Classification</b> General Pop DMH eligible DMH eligible + service use All of the above	General Pop DMH eligible	General Pop DMH eligible	DMH eligible	School-age population	DMH eligible
<b>Type of Data</b>	National Survey	National Survey	Client-level admin data	California School-Age Survey	Service level data
<b>Type of Data Access</b>	PDF	Stata	PDF saved as Excel	Query Tool	CSV, PDF, and Excel
<b>Years Available</b>	Annual: 2018, 2017, 2016	Annual: 2017, 2016, 2015	Annual: 2018, 2017, 2016	Biennial: 2015-2017, 2013-2015, 2011-2013	5-year intervals: 2011-2015, 2009-2013, 2006-2010

Data Source	HUD Point-in-Time estimates	American Community Survey (ACS)	SAMHSA Uniform Reporting System (URS)	California Healthy Kids Survey (CHKS)	California Health and Human Services Open Data Portal
<b>Accessibility of geo-level data</b> Download complete dataset (e.g. Excel, ASCII, etc.) - 1 Need data request - .5 Data request + IRB - .25 Download report or partial dataset - .25	1	1	1	0.25	1
<b>Geographic Level</b> County & Census Tract - 1.5 State & All Counties - 1 State & some counties - .5 State Only - .25	1	1.5	0.25	1.5	1
<b>Data Updates</b> > Annual - 1.5 Annual - 1 < Annual - .5	1	1	1	1	0.5
<b>Measure of Indicators</b> Lifetime homelessness			1		
Household overcrowding and severe overcrowding					1
Rent Burden		1			1
Chronically homeless estimates	1		1		

Data Source	HUD Point-in-Time estimates	American Community Survey (ACS)	SAMHSA Uniform Reporting System (URS)	California Healthy Kids Survey (CHKS)	California Health and Human Services Open Data Portal
Sheltered v. unsheltered	1		1		
# of individuals in emergency shelters					
# of individuals in transitional housing				1	
Household type					
Inventory of beds					
Inventory of beds for specific pops					
Children (0-9) - .2				0.2	
Adolescents (10-19) - .2				0.2	
TAY (16-24) - .2					
<b>Demographics</b> Adult (18-64) - .2		0.2			
Older Adults (65+) - .2		0.2			
All age groups - 1	1		1		
Sex - 1	1	1		1	
<b>Vulnerable Populations - 1 for each unless otherwise noted</b> Race and ethnicity > Census Groups - 1.5	1	1		1.5	1
Census Groups - 1					
< Census Groups - .5					

Data Source	HUD Point-in-Time estimates	American Community Survey (ACS)	SAMHSA Uniform Reporting System (URS)	California Healthy Kids Survey (CHKS)	California Health and Human Services Open Data Portal
Poor & Near Poor (0-200% FPL) - 1.5 Poor (0-99% FPL)- 1		1.5			
LGTBQ	1			1	
Immigrants		1		1	
Undocumented					
Refugees					
Child Welfare Involved				1	
Justice Involved			1	1	
Employment Status		1	1		
School Failure/Drop out		1		1	
Military Status	1	1		1	
Pregnancy Status				1	
Disability		1		1	
Urban/Rural					
Mental Health Problem (e.g. depression, anxiety, etc.)				1	
Serious Emotional Disturbance				1	

Data Source		HUD Point-in-Time estimates	American Community Survey (ACS)	SAMHSA Uniform Reporting System (URS)	California Healthy Kids Survey (CHKS)	California Health and Human Services Open Data Portal
	Serious Mental Illness	1				
<b>Clinical Circumstances - 1 for each</b>	Clinical Severity				1	
	More than one disorder			1		
	Substance abuse/disorder	1		1	1	
	Physical health				1	
<b>Social Circumstances - 1 for each</b>	Discrimination				1	
	Educational Attainment				1	1
	Housing Insecurity				1	
	Trauma Exposure				1	
	Financial Insecurity					
	Food Insecurity				1	
<b>Total Score</b>		12	13.4	10.25	25.65	6.5

**Table 11: Homelessness National and California Data Source Characteristics**

Data source	Level of Detail	Age range	Age group	Race & ethnicity	Hispanic origin	Gender	SES	Immigrant status	LGBTQ identity	Justice-related	MH need/svs use	Subs. use	Other variables
HUD Point-in-Time Estimates	National, State, Counties	Lifespan	✓	✓	✓	✓			✓		✓	✓	
HUD Housing Assistance	State and Some Counties	Lifespan		✓	✓	✓	✓						Disability, urban/rural status
American Community Survey (ACS)	National, State, Counties, Census Tracts	Adult	✓	✓	✓	✓	✓	✓					Unemployed, disability
SAMHSA Uniform Reporting System (URS)	State Only	Lifespan	✓	✓	✓	✓				✓	✓	✓	Unemployed
California Healthy Kids Survey (CHKS)	National, State, Counties, Census Tracts	School-aged	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
CAASPP – CA Dept. of Education	State, County, Census Tract	School-aged	✓	✓	✓	✓	✓	✓					
CA Health and Human Services Open Data Portal	State, County			✓			✓						

**Table 12: Removal from Home Data Source Characteristics: National**

Data source	Level of Detail	Maltreatment <sup>13</sup>	Foster care <sup>14</sup>	Age group	Child v. adolescent	Race & ethnicity	Gender	SES/ poverty	Phys. health /disability	MH need/ service use	Other variables
Adoption and Foster Care Analysis and Reporting System	Nat'l; State; County	✓	✓	C <sup>3</sup> A		C A	C A	A	C A	C	Immigrant status; substance use; prior relationship with adoptive parents; urban/rural
National Child Abuse and Neglect Data System	Nat'l; State	✓	✓	C A		C A	C A		C A	C A	Substance use; military family member
National Youth in Transition Database	Nat'l; State		✓	✓		✓	✓				Incarceration; substance abuse; employment status; education level; health insurance; homelessness
Child and Family Services Review	Nat'l	✓	✓	✓	✓	✓			✓	✓	

<sup>13</sup> Abuse, maltreatment or neglect; may include substantiated or investigated cases.

<sup>14</sup> May include entrance, exit, type of placement, time to permanency, or placement stability.

<sup>3</sup> C = Child data; A = adult (parent/guardian) data.



**Table 13: Removal from Home Data Source Characteristics: California**

Data source	Level of Detail	Maltreatment <sup>15</sup>	Foster care <sup>16</sup>	Age group	Child v. adolescent	Race & ethnicity	Gender	SES/ poverty	Phys. health /disability	MH need/ svcs use	Other variables
California Child Welfare Indicators Project (CCWIP)	CA; County	✓	✓	✓	✓	✓					
Kidsdata.org	CA; County	✓	✓	✓	✓	✓	✓	✓	✓		Urban/rural; Immigrant status; LGBTQ identity
The California Child Welfare Indicators Project ( <a href="#">CCWIP</a> )	<i>(see under “California – Child Welfare Data Sources”)</i>										
County Prevention Dashboards (CA Dept of Social Services)	CA, County	✓	✓			✓		✓	✓		
State Medicaid and Child Welfare Data Linkages	Nat'l; State	<i>In development</i>									link parent Medicaid records with child welfare system records; substance use; foster care
Let's Get Healthy California	CA	✓				✓					

**Table 14. Main characteristics of recommended data sources by outcome**

Recommended Data Source	Indicators	Target Age <sup>a</sup>	Disparities and Demographics	Other Mental Health Variables
<b>SUICIDE</b>				
California Injury Data Online (EpiCenter)	Death by suicide  Non-fatal hospitalization by self-inflicted injury  Non-fatal emergency department visit by self-inflicted injury	Adults & children	Age, sex, race and ethnicity	
California Health Interview Survey	Suicidal ideation in past year	Adults & children	Age, sex, race and ethnicity  Poor, LGBTQ, immigrant, undocumented, military, pregnant, disabled, unemployed	Serious psychological distress (Kessler-6 $\geq$ 13) in past year  Self-reported perceived need for mental health care services in past year  Self-reported mental health care in past year  Functional impairment due to mental health problems  Stigma

<sup>15</sup> Abuse, maltreatment or neglect; may include substantiated or investigated cases.

<sup>16</sup> May include entrance, exit, type of placement, time to permanency, or placement stability.

Recommended Data Source	Indicators	Target Age <sup>a</sup>	Disparities and Demographics	Other Mental Health Variables
California Healthy Kids Survey	Suicidal ideation	Children only	Age, gender, race and ethnicity	
<b>INCARCERATION</b>				
California Sentencing Initiative	Adult incarceration in jails and prisons Youth incarceration in juvenile halls/camps or prison	Adults & children	For adults: gender, race and ethnicity For youth: gender	
<b>SCHOOL FAILURE OR DROP OUT</b>				
California Healthy Kids Survey	Missed school days Truancy School climate	Children only	Age, gender, race and ethnicity, sexual orientation Parent education	Missed school due to: <ul style="list-style-type: none"> <li>• feeling very sad, hopeless, anxious, stressed or angry</li> <li>• wanting to use drugs or alcohol</li> </ul> Risk factor for school failure (low school connectedness) for: <ul style="list-style-type: none"> <li>• students with depression-related feelings in past year</li> <li>• students with suicidal ideation</li> <li>• students with alcohol or drug or e-cigarette use in past month and lifetime</li> </ul>
<b>UNEMPLOYMENT</b>				

Recommended Data Source	Indicators	Target Age <sup>a</sup>	Disparities and Demographics	Other Mental Health Variables
California Health Interview Survey	Employed full-time Employed part-time Employed but missed the last week of work Unemployed and looking for work Unemployed and out of the work force	Adults only <sup>b</sup>	Age, gender, race and ethnicity  Poor, LGBTQ, immigrant, undocumented, military, pregnant, disabled, unemployed	Serious psychological distress in past year  Self-reported perceived need for mental health services in past year  Self-reported mental health care in past year  Functional impairment due to mental health problems  Stigma  Suicidal ideation & attempts  For adults with serious psychological distress (Kessler-6 $\geq$ 13 in past year): Number of days unable to work due to mental health problems in the past year
<b>PROLONGED SUFFERING</b>				
California Health Interview Survey	Unmet mental health need in past year (by combining self-reported perceived need for mental health services + no mental health care received)	Adults & children	Age, gender, race and ethnicity  Poor, LGBTQ, immigrant, undocumented, military,	Serious psychological distress(Kessler-6 $\geq$ 13) in past year  Self-reported perceived need for mental health services in past year

Recommended Data Source	Indicators	Target Age <sup>a</sup>	Disparities and Demographics	Other Mental Health Variables
			pregnant, disabled, unemployed.	Self-reported mental health care in past year  Functional impairment due to mental health problems  Stigma  Suicidal ideation & attempts
<b>HOMELESSNESS</b>				
HUD Point in Time Count	Sheltered homeless families and Individuals  Unsheltered homeless families and individuals  Unaccompanied homeless youth	Adults & children	Age, gender  Veterans, persons living with HIV/AIDS, victims of domestic violence, unaccompanied youth (under 18; 18-24 years old), parenting youth (under 18; 18-24 years old), children of parenting youth	Severe mental illness  Chronic substance use
<b>REMOVAL FROM HOME</b>				
California Child Welfare Indicators Project	Entry into foster care  Placement moves (per 1,000 days in foster care)	Children only	Age, gender, race and ethnicity	Type of maltreatment  Placement instability

Recommended Data Source	Indicators	Target Age <sup>a</sup>	Disparities and Demographics	Other Mental Health Variables
<sup>a</sup> Children includes persons within the range of 0-17 years; <sup>b</sup> The CHIS adolescent and child interviews do not include questions about employment..				

**Table 15. Distribution of key outcomes assessed by data source**

Recommended Data Source	Number of MHSAs Outcomes	MHSA Outcome
California Health Interview Survey	3	Suicide Unemployment Prolonged Suffering
California Healthy Kids Survey	2	Suicidal ideation (youth) School failure or drop-out
California Injury Data Online (EpiCenter)	1	Suicide
California Sentencing Initiative	1	Incarceration
HUD Point in Time Count	1	Homelessness
California Child Welfare Indicators Project	1	Removal from home

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