



CHILDREN AND FAMILIES  
EDUCATION AND THE ARTS  
ENERGY AND ENVIRONMENT  
HEALTH AND HEALTH CARE  
INFRASTRUCTURE AND  
TRANSPORTATION  
INTERNATIONAL AFFAIRS  
LAW AND BUSINESS  
NATIONAL SECURITY  
POPULATION AND AGING  
PUBLIC SAFETY  
SCIENCE AND TECHNOLOGY  
TERRORISM AND  
HOMELAND SECURITY

The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis.

This electronic document was made available from [www.rand.org](http://www.rand.org) as a public service of the RAND Corporation.

Skip all front matter: [Jump to Page 1](#) ▼

## Support RAND

[Browse Reports & Bookstore](#)

[Make a charitable contribution](#)

## For More Information

Visit RAND at [www.rand.org](http://www.rand.org)

Explore the [RAND Corporation](#)

View [document details](#)

## Limited Electronic Distribution Rights

This document and trademark(s) contained herein are protected by law as indicated in a notice appearing later in this work. This electronic representation of RAND intellectual property is provided for non-commercial use only. Unauthorized posting of RAND electronic documents to a non-RAND website is prohibited. RAND electronic documents are protected under copyright law. Permission is required from RAND to reproduce, or reuse in another form, any of our research documents for commercial use. For information on reprint and linking permissions, please see [RAND Permissions](#).

This report is part of the RAND Corporation research report series. RAND reports present research findings and objective analysis that address the challenges facing the public and private sectors. All RAND reports undergo rigorous peer review to ensure high standards for research quality and objectivity.



# CalMHSA Student Mental Health Campus-Wide Survey

## 2013 Summary Report

*Lisa Sontag-Padilla, Elizabeth Roth, Michelle W. Woodbridge, Courtney Ann Kase, Karen Chan Osilla, Elizabeth D'Amico, Lisa H. Jaycox, Bradley D. Stein*

**M**ental health problems among college and university students represent a significant public health issue in the United States. Mental disorders account for nearly one-half of the disease burden for young adults in the United States (World Health Organization, 2008), and most lifetime mental disorders have first onset by age 24 (Kessler et al., 2005; Merikangas et al., 2010). Given that more than 68 percent of American high school graduates attend postsecondary education (U.S. Department of Education, 2013), untreated mental illness during the college years may result in a developmentally challenging transition to adulthood, with significant implications for academic success (Kessler et al., 1995), productivity (Wang et al., 2007), substance use (Angst, 1996; Weitzman, 2004), and social relationships (Druss et al., 2009).

In the past decade, colleges and universities have also been playing an increasingly important role in addressing the mental health needs of youth. College represents the only time in many people's lives when a single integrated setting encompasses their main activities—both career-related and social—as well as health and other support services. In turn, campus mental health services, staff, and faculty are often uniquely positioned to identify students at risk for mental health problems and to help intervene when problems arise. Campus faculty and staff are well positioned to serve as an initial point of contact for many student mental health prevention and intervention strategies by educating students, identifying at-risk behaviors, and referring students for mental health services. To support higher education staff and faculty in these important gatekeeping roles and to significantly impact student mental health, a deeper understanding of student mental health needs, supports, and service utilization in the college and university populations is critical.

As part of the California Mental Health Services Authority (CalMHSA) Statewide Evaluation of the Prevention and Early Intervention (PEI) Initiatives, RAND conducted campus-wide online surveys of California college and university faculty, staff, and students during the spring and fall of 2013. The purpose of these surveys was to understand (1) experiences and attitudes

related to student mental health, (2) perceptions of how campuses are serving students' mental health needs, and (3) perceptions of the overall campus climate toward student mental health and well-being. In this report, we present findings from the University of California (UC), California State University (CSU), and California Community Colleges (CCC) campuses that participated in the survey.

## Method

### Sample

As part of a larger evaluation of the CalMHSA Student Mental Health Activities in higher education institutions, we conducted a voluntary and confidential web-based survey of students and faculty/staff on UC, CSU, and CCC campuses. UC and CSU invited all of their campuses to participate. CCC invited a subset (30 campus-based grantees [CBGs] with CalMHSA funding and 30 campuses without campus-based grants) of their campuses to participate. Between April 2013 and December 2013, participating campuses emailed invitations to complete the online survey to students, staff, and faculty. Some campuses chose to send invitations to all students, staff, and faculty via email blasts, while other campuses sent invitations to a random sample of students, staff, and faculty, with a goal of generating a minimum of 150 student and 150 staff and faculty responses per campus. Reminder emails were sent once a week for three weeks to encourage participation in the survey. The study was approved by the RAND Institutional Review Board (IRB) and the respective IRBs of participating institutions, as needed.

### Measures

RAND developed the surveys in collaboration with the CalMHSA program partners of the higher education programs (UC, CSU, and CCC). RAND derived the majority of the items from standardized and valid measures of student mental health (e.g., U.S. National Health Interview Survey [NHIS] and Kessler [K6] and Psychological Distress Scale [Pratt, 2009]), as well as measures currently utilized in the California higher education

systems (e.g., National College Health Assessment). Each campus had the opportunity to include campus-specific information about how to contact mental health services at the end of the survey.

## Results

### Student Survey

A total of 39,262 students completed the higher education survey—15,872 students participated across eight UC campuses; 7,386 students participated across nine CSU campuses, and 15,926 students participated across 34 CCC campuses (including 18 CBG and 16 non-CBG campuses). Seventy-eight students did not report which higher education system they attend. Key demographic information is presented in Table 1. We excluded the 1,119 students with missing information on campus or higher education system, and conducted analyses on the remaining 38,143 students.

**Table 1. Student Mental Health Student Survey Respondent Demographics**

	N	Percentage
<b>Age</b>		
16–25	28,154	73
26–59	10,195	26
60–84	421	1
85+	7	<1
<b>Gender</b>		
Male	13,674	36
Female	24,023	63
Other (e.g., transgender)	179	<1
Latino or Hispanic origin	9,671	26
English as primary language	25,956	83
Undergraduate student	30,973	83

### Student Mental Health Status

#### Student reports of general distress and functioning

Students reported their general level of distress and functioning over the past 30 days (Table 2). Using a recommended cutoff score indicating probable psychological distress (Kessler et al., 2003), approximately 19 percent of students ( $n = 7,203$ ) met or exceeded the established threshold for probable psychological distress during the 30 days prior to the survey, which is comparable to rates reported in other studies of higher education students (Hunt and Eisenberg, 2010). However, as illustrated in Table 2, rates indicative of probable psychological distress varied substantially across campuses within each system. When asked about symptoms commonly related to depression, 10 to 12 percent of students across all systems reported feeling hopeless most or all of the time, and 8 to 10 percent reported feeling so depressed nothing could cheer them up all or most of the time.

**Table 2. Rates of Probable Psychological Distress Among Students**

	Probable psychological distress	
	Average (%)	Range across campuses (%)
UC	19	14–24
CSU	18	12–23
CCC	19	5–27
Total	19	–

#### Impact of mental health issues on academic performance

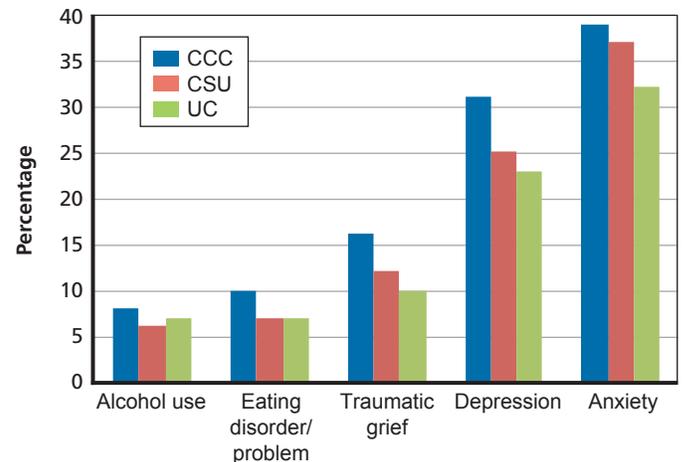
Students also reported whether various symptoms, behaviors, or stressful situations had impacted their academic performance in the 12 months prior to the survey. Impairment for each mental health issue was assessed separately, allowing students to report impairment due to multiple issues. As illustrated in Figure 1, students across all higher education systems reported academic performance impairment from anxiety or depression in very high numbers. Once again, there was variation across campuses within each higher education system. For instance, average rates of anxiety-related impairment reported by students ranged from 21 percent to 37 percent across UC campuses, from 33 percent to 43 percent across CSU campuses, and from 10 percent to 50 percent across CCC campuses.

### Use of Student Counseling Services

#### Rates of referral and use of counseling or mental health services on campus

On average, 17 percent of students ( $n = 6,451$ ) had either (1) used counseling or mental health services provided by their cur-

**Figure 1. Percentage of Students Who Reported Impairment to Academic Performance, by Mental Health Issue**



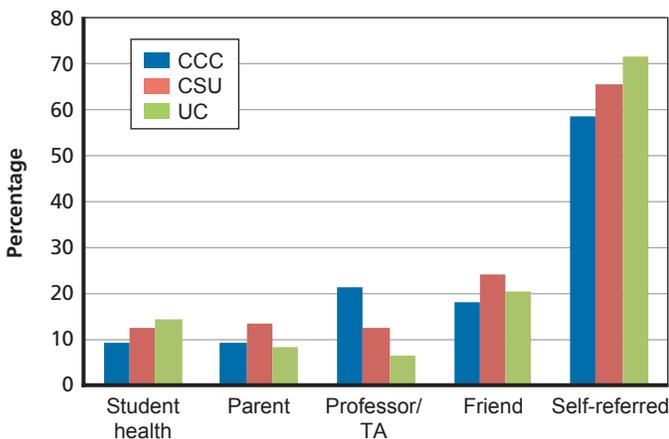
Note: Impairment reported independently for each mental health issue.

rent college/university campus' Counseling or Health Service Center, or (2) been referred to such services. Approximately one out of five students in the UC system (23 percent) and the CSU system (19 percent) reported using or receiving referrals for these services, while approximately one of ten CCC students (10 percent) reported using or receiving referrals for these services. Rates of use and referral also varied substantially across campuses within higher education systems, with rates of use or referral for services ranging from 18 percent to 44 percent on UC campuses, 14 percent to 24 percent on CSU campuses, and 2 percent to 22 percent on CCC campuses.

The survey format permitted students to report any and all sources of referrals they may have received for counseling or mental health services, even multiple sources. The most common sources of referral among students who either used or were referred for counseling or mental health services ( $n = 6,451$ ) were self-referrals (i.e., the individual student initiated the process of seeking services) and referrals by friends, professors, or teaching assistants (TAs). In the UC and CSU systems, friends were the most common source of referral second to self-referral. In the CCC system, professors/TAs were the second most common source of referral second to self-referral. Figure 2 illustrates the referral sources across the three higher education systems.

Among those students who sought or were referred for mental health services or counseling ( $n = 6,451$ ), approximately 67 percent ( $n = 4,341$ ) sought services on campus. The rate of accessing services on campus varied across the systems, with an average of 77 percent of UC students ( $n = 2,760$ ), 71 percent of CSU students ( $n = 553$ ), and 41 percent ( $n = 622$ ) of CCC students receiving such services on campus. Although the range of rates was somewhat comparable across the UC and CSU campuses (68 percent to 91 percent of UC students and 61 percent to 77 percent of CSU students), there was substantial campus variability in the percentage of CCC students who received services

**Figure 2.**  
**Sources of Referrals for Student Counseling Services**



Note: Multiple responses permitted per respondent.

RAND RR685-2

on campus, ranging from 12 percent to 63 percent across CCC campuses.

For those students who received services on campus, 75 percent of UC students rated the quality of service received (e.g., delivery, usefulness) as good or excellent, and 66 percent of CSU and CCC students rated the quality as good or excellent. There was substantial variation in this rating for campuses within each system, ranging from 67 percent to 81 percent for UC campuses, 53 percent to 79 percent for CSU campuses, and 55 percent to 82 percent for CCC campuses.

**Reasons for not accessing services**

For students who did not receive referrals for services ( $n = 31,597$ ; 83 percent of all respondents) or did not use services on campus ( $n = 2,043$ ), the most common reasons for not accessing services was feeling the services were not necessary (73 percent), not having enough time (30 percent), not knowing they were offered (26 percent), and not knowing how to access them (24 percent). As illustrated by Table 3, however, there was substantial variation across the higher education systems in student responses, with students permitted to select multiple reasons for not accessing services.

**Table 3. Reasons Students Did Not Access Services**

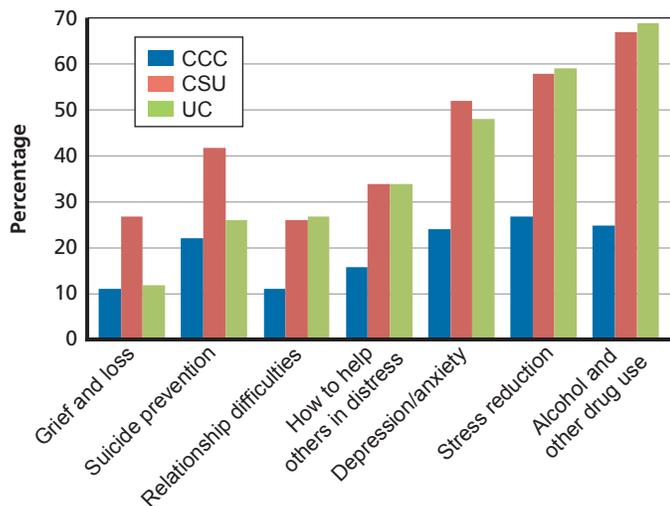
Reason for not accessing services	Percentage of UC respondents endorsing reason	Percentage of CSU respondents endorsing reason	Percentage of CCC respondents endorsing reason
I didn't feel I needed services.	77	75	69
I didn't have enough time.	34	34	26
I didn't know what it offered.	18	21	33
I didn't know how to access it.	18	20	29
I didn't think it would help.	28	24	21
I was embarrassed to use it.	22	23	21
I had concerns about possible costs.	22	18	22
I didn't know if I was eligible.	14	17	25
I had never heard of it.	7	10	25

NOTE: Multiple responses permitted per respondent.

**Receiving information from campuses about student mental health issues**

As illustrated by Figure 3, over 40 percent of students in the UC and CSU systems reported receiving information from their campuses about alcohol and other drugs, stress reduction, and depression/anxiety. For none of the topics we assessed did more than 30 percent of CCC students report having received infor-

**Figure 3.**  
**Student Mental Health Information Received from Campus, by Topic**



RAND RR685-3

mation from their campuses. Reported rates of receiving information was comparable among UC and CSU students for many of the topics assessed, with the exception of suicide prevention and grief and loss—topics for which over 40 percent and 25 percent of CSU students reported receiving information, respectively, while approximately 25 percent and 12 percent of UC students reported receiving information about those topics, respectively.

### Faculty and Staff Survey

A total of 14,979 faculty and staff completed the higher education survey; 9,915 faculty and staff participated across eight UC campuses; 2,926 faculty and staff participated across nine CSU campuses; 2,108 faculty and staff participated across 21 CCC campuses (including 11 CBGs and 10 non-CBGs); and 30 respondents are missing data on their higher education system. Analyses exclude these 30 respondents, along with 493 who did not report their campuses. The majority of respondents for the faculty/staff survey (81 percent) were between 26 and 59 years of age ( $n = 11,667$ ). Sixty-seven percent of respondents identified themselves as female, 33 percent as male, and <1 percent as other (e.g., transgender). Fifteen percent were Latino. Respondents reported an array of roles at their campuses and a variety of educational backgrounds.

Faculty/staff answered questions about the extent to which they believed their campuses provided adequate services and programs to address student mental health needs. Most faculty and staff (57 percent) reported that support, resources, or programs for students with mental health needs were in place. Findings were generally comparable across the higher education systems, with the exception of one item (see Table 4). When asked about the adequacy of services for students with unique needs (including students from diverse ethnic, language, cultural, and socio-

economic groups), CCC faculty/staff were somewhat less likely to believe that their campuses provided adequate services for these students (51 percent at CCC versus 56 percent and 59 percent at CSU and UC campuses, respectively).

### Faculty and Staff Activities to Support Student Mental Health

In addition to faculty/staff perceptions about campus climate and campus services/programs for students, we assessed faculty and staff efforts to support student mental health.

#### Talking with students about mental health problems

Forty-three percent of UC faculty/staff ( $n = 3,857$ ), 59 percent of CSU faculty/staff ( $n = 1,718$ ), and 71 percent of CCC faculty/staff ( $n = 1,482$ ) reported talking to students about mental health problems at least once in the six months prior to the survey. Rates of faculty/staff reporting recent conversations with students varied substantially across campuses within each system, with rates ranging from 31 percent to 61 percent on UC campuses, 52 percent to 66 percent on CSU campuses, and 55 percent to 84 percent on CCC campuses.

#### Participating in trainings to help better support students with mental health problems

All higher education systems launched campus-wide campaigns to engage staff and faculty in trainings to support students with mental health problems. These trainings were offered throughout the academic year, at no cost, and in various locations. Twelve percent of UC faculty/staff ( $n = 1,115$ ), 20 percent of CSU faculty/staff ( $n = 589$ ), and 29 percent of CCC faculty/staff ( $n = 606$ ) reported that they had participated in trainings in the preceding six months to learn how to support students with mental health problems. Participation rates in such trainings varied

**Table 4. Extent to Which Faculty/Staff Feel Campuses Provide Adequate Services and Programs**

Item	Percentage of UC respondents agreeing	Percentage of CSU respondents agreeing	Percentage of CCC respondents agreeing
Campus provides adequate services for unique-needs students	59	56	51
Campus provides effective support for depression, stress, drug use	57	58	57
Campus provides adequate mental health services for students	57	57	54
Campus emphasizes helping students with emotional/social/behavioral needs	55	58	56

substantially across campuses within each system, however, with the rates of training ranging from 8 percent to 22 percent on UC campuses, 14 percent to 44 percent on CSU campuses, and 5 percent to 57 percent on CCC campuses. Among those faculty/staff not attending trainings, the most common reason provided was that they did not know trainings were offered; however, this reason was reported by 64 percent of staff and faculty from the UC system, 64 percent of staff and faculty from the CSU (52 percent) system, and only 35 percent of staff and faculty from the CCC system.

**Accessing online resources to be prepared to support students with mental health issues**

Faculty/staff were also asked whether they accessed information or online resources about student mental health issues through their universities' or campuses' websites in the past six months. The percentage of faculty/staff who accessed information online varied across the higher education systems, with 16 percent of UC faculty/staff (*n* = 1,412), 19 percent of CSU faculty/staff (*n* = 558), and 23 percent of CCC faculty/staff (*n* = 484) reportedly accessing the websites. There was substantial variation within each system, with the rates of faculty/staff reporting accessing information online ranging from 8 percent to 26 percent on UC campuses, 16 percent to 29 percent on CSU campuses, and 4 percent to 57 percent on CCC campuses.

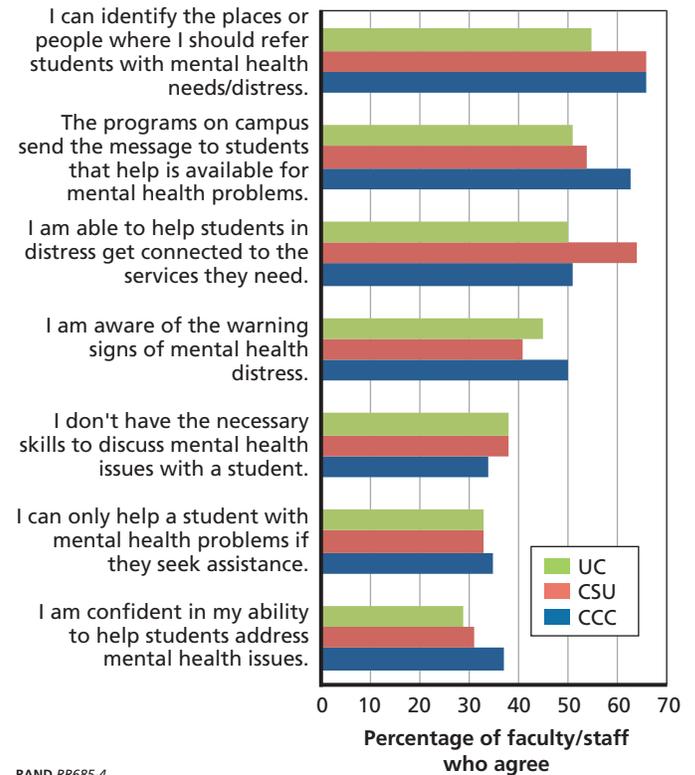
**Supporting students with mental health problems by helping them identify and access help**

Faculty and staff reported confidence in using a variety of approaches to support students with mental health problems (see Figure 4). The majority of faculty and staff across the higher education systems reported that they can identify resources for students with mental health needs, with 55 percent of UC faculty/staff, 66 percent of CSU faculty/staff, and 66 percent of CCC faculty/staff reporting that they can identify places or people to which they should refer students to receive support for mental health needs or distress; however, less than 40 percent of faculty/staff believed that they have the skills to directly help students with mental health problems.

**Discussion**

The 19 percent rate of psychological distress reported by students was substantially higher than the 3.5 percent rate commonly reported for the general population (Ward, Schiller, and Freeman, 2013) but comparable to rates reported in other studies of higher education populations (Hunt and Eisenberg, 2010). We also found that substantial numbers of students reported impaired academic functioning due to mental health symptoms, such as anxiety and depression. Rates of anxiety-related impairment reported by students varied widely among campuses within the three different higher education systems, from 21 percent to 37 percent on UC campuses, from 33 percent to 43 percent on

**Figure 4. Faculty/Staff Preparedness to Address Student Mental Health Issues**



RAND RR685-4

CSU campuses, and from 10 percent to 50 percent on CCC campuses. These numbers were greater than those reported by Keyes et al. (2012) in their study of college populations (e.g., 11 percent of students reported academic impairment of six or more days in the prior four weeks); however, differences may be due to differences in assessing impairment (Keyes et al., 2012). We are unable to tell from our survey the reason why CCC students report greater levels of academic impairment from comparable rates of mental health issues; so we do not know if students on CCC campuses experience more severe or impairing symptoms, more comorbid disorders, less access to supports and interventions to assist in their functioning, or were systematically different than participating students from the UC and CSU systems. Still, the findings from the CCC student surveys may indicate an increased need for the provision of more supports in California Community Colleges than what students are typically receiving across campuses.

Despite experiencing comparable levels of psychological distress, the rates at which students in the UC system (23 percent) and the CSU system (19 percent) reported using or receiving referrals for counseling or mental health services were approximately double those rates reported by CCC students (10 percent). We found that self-referral was the most common way that students sought services, with being referred by a friend the second most common, highlighting the importance

of educating students to recognize mental health problems in their friends and supporting those friends in getting help. We also found that CCC students were substantially more likely to report being referred for mental health services by a professor or TA than were UC or CSU students, consistent with higher rates of CCC faculty and staff reporting talking with students about their mental health problems than UC and CSU faculty and staff. However, less than half the faculty and staff in all three systems reported being aware of the warning signs of psychological distress, or felt they had the necessary skills to discuss mental health issues with students or were confident in their ability to help students address mental health issues.

In contrast to the UC and CSU systems, which have mental health clinics on all campuses across the system, in the CCC system decisions about whether to have a mental health clinic are made on a campus-by-campus basis. This difference may have contributed to the much higher rates of receiving services on campus reported by UC and CSU students compared to the rates reported by CCC students, and may also contribute to the higher rates reported by CCC faculty/staff regarding talking to students about mental health problems compared with UC and CSU faculty/staff. Additionally, the differences in rates of receiving services on campus do not appear to be compensated by use of services off campus. It is important to understand the extent to which needs for mental health services are not being met and why, for CCC students as well as for UC and CSU students. Addressing unmet needs for mental health services may help reduce levels of mental health–related impairment.

Although there are some differences between the systems of higher education, it is important to note that we found a wide range of variation across campuses within systems in response to most of the questions. This information will allow the UC, CSU, and CCC systems to not only identify campuses facing the greatest challenges in addressing student mental health issues, but also to identify exemplary campuses who have been more successful than the majority in addressing some of these challenges. Many of these exemplary campuses may have developed processes or strategies that can be shared more widely within and across systems through the collaborative structures that have been developed as part of the CalMHSA Student Mental Health PEI Initiative efforts. Furthermore, for campuses that have a sufficient sample and confidence in the generalizability of their findings, evaluating their results in comparison to these exemplary campuses has the potential to help identify priorities for policies and actions related to addressing student mental health issues on campus.

Interpretation of our findings must occur within the context of the limitations of our survey and analysis. Although almost all the reported differences between higher education systems are statistically significant, we decline to interpret these differences given that the systems are quite different from one another

and our analyses do not control for a variety of factors that may have contributed to the differences we found. As such, we present descriptive findings only, with the goal of presenting a snapshot of student mental health in the higher education systems.

In addition, not all UC, CSU, and CCC campuses participated in the survey (80 percent, 39 percent, and 30 percent, respectively), nor were levels of participation by members of the campus community comparable across all campuses. Furthermore, as a result of our use of a convenience sample, we cannot assume that our findings generalize to all members of the campus community of participating campuses, nor can we assume they generalize to nonparticipating campuses. Additionally, when interpreting differences observed between systems, it is important to consider factors that may impact campuses' abilities to provide access to information and services for students with mental health needs. For instance, the systems may differ in terms of the percentage of students residing on campus, the extent to which faculty are interacting with students, and the extent to which services are available. Any interpretation of findings should be made within these contexts and with consideration of other important differences that exist between the systems. In this report, we present straightforward bivariate analyses, which do not control for characteristics of survey respondents (such as gender and age) that may be associated with many findings. We plan to conduct more complex analyses that will control for these factors, but given our large sample size and the magnitude of many of our findings, we do not anticipate that such analyses will result in substantively meaningful changes in our results.

Supported by the CalMHSA PEI Initiative, all three higher educational systems are making substantial efforts to enhance awareness of and knowledge about student mental health issues and resources on their campuses. Additionally, the higher education systems made substantial efforts to improve the ability of faculty, staff, and students to effectively respond to student mental health issues—such as by referring students to services or seeking available services for themselves. For instance, some campuses offer workshops on stress and lifestyle that focus on informing students and faculty/staff how to seek help and use the counseling center. These efforts have the potential to enhance the ability of individuals to more quickly identify and intervene with students suffering from mental health problems.

This report presents findings from surveys conducted in the spring and fall semesters of 2013, at a time when the CalMHSA Student Mental Health Initiative Program Partners were implementing a wide range of training and other initiative activities to enhance the climate with respect to mental health on campuses throughout California. We anticipate that findings from a survey of campuses conducted in the spring of 2014 will provide important information regarding the impact of those programs on students and faculty/staff on campuses throughout the UC, CSU, and CCC systems.

## References

- Angst, J., "Comorbidity of mood disorders: A longitudinal prospective study," *The British Journal of Psychiatry*, No. 30, 1996, pp. 31–37.
- Druss, B. G., I. Hwang, M. Petukhova, N. A. Sampson, P. S. Wang, and R. C. Kessler, "Impairment in role functioning in mental and chronic medical disorders in the United States: Results from the National Comorbidity Survey Replication," *Molecular Psychiatry*, Vol. 14, No. 7, 2009, pp. 728–737.
- Hunt, J., and D. Eisenberg, "Mental health problems and help-seeking behavior among college students," *Journal of Adolescent Health*, Vol. 46, No. 1, 2010, pp. 3–10.
- Kessler, R. C., P. R. Barker, L. J. Colpe, J. F. Epstein, J. C. Gfroerer, E. Hiripi, M. J. Howes, S. T. Normand, R. W. Manderscheid, E. E. Walters, and A. M. Zaslavsky, "Screening for serious mental illness in the general population," *Archives of General Psychiatry*, Vol. 60, No. 2, 2003, pp. 184–189.
- Kessler, R. C., P. Berglund, O. Demler, R. Jin, K. R. Merikangas, and E. E. Walters, "Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication," *Archives of General Psychiatry*, Vol. 62, No. 6, 2005, pp. 593–602.
- Kessler, R. C., C. L. Foster, W. B. Saunders, and P. E. Stang, "Social consequences of psychiatric disorders, I: Educational attainment," *American Journal of Psychiatry*, Vol. 152, No. 7, 1995, pp. 1026–1032.
- Keyes, C. L., D. Eisenberg, G. S. Perry, S. R. Dube, K. Kroenke, and S. S. Dhingra, "The relationship of level of positive mental health with current mental disorders in predicting suicidal behavior and academic impairment in college students," *Journal of American College Health*, Vol. 60, No. 2, 2012, pp. 126–133.
- Merikangas, K. R., J. He, M. Burstein, S. A. Swanson, S. Avenevoli, L. Cui, C. Benjet, K. Georgiades, and J. Swendsen, "Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Survey Replication–Adolescent Supplement (NCS-A)," *Journal of the American Academy of Child & Adolescent Psychiatry*, Vol. 49, No. 10, 2010, pp. 980–989.
- Pratt, L. A., "Serious psychological distress, as measured by the K6, and mortality," *Annals of Epidemiology*, Vol. 19, No. 3, 2009, pp. 202–209.
- U.S. Department of Education, *The Condition of Education*, Washington, D.C., 2013.
- Wang, P. S., G. E. Simon, J. Avorn, F. Azocar, E. J. Ludman, J. McCulloch, M. Z. Petukhova, and R. C. Kessler, "Telephone screening, outreach, and care management for depressed workers and impact on clinical and work productivity outcomes: A randomized controlled trial," *JAMA*, Vol. 298, No. 12, 2007, pp. 1401–1411.
- Ward, B. W., J. S. Schiller, and G. Freeman, *Early Release of Selected Estimates Based on Data from the January–March 2013 National Health Interview Survey*, National Center for Health Statistics, 2013.
- Weitzman, E. R., "Poor mental health, depression, and associations with alcohol consumption, harm, and abuse in a national sample of young adults in college," *The Journal of Nervous and Mental Disease*, Vol. 192, No. 4, 2004, pp. 269–277.
- World Health Organization, *Global Burden of Disease: 2004 Update*, Geneva, 2008.

## Acknowledgments

The RAND Health Quality Assurance process employs peer reviewers. This document benefited from the rigorous technical reviews of Donna Farley and Joshua Breslau, which served to improve the quality of this report. In addition, members of the Statewide Evaluation Experts (SEE) Team, a diverse group of California stakeholders, provided valuable feedback on a draft of the report.

## RAND Health

This research was conducted in RAND Health, a division of the RAND Corporation. A profile of RAND Health, abstracts of its publications, and ordering information can be found at <http://www.rand.org/health>.

## CalMHSA

The California Mental Health Services Authority (CalMHSA) is an organization of county governments working to improve mental health outcomes for individuals, families, and communities. Prevention and Early Intervention programs implemented by CalMHSA are funded by counties through the voter-approved Mental Health Services Act (Prop. 63). Prop. 63 provides the funding and framework needed to expand mental health services to previously underserved populations and all of California's diverse communities.

Regarding the document authors listed: Lisa Sontag-Padilla, Elizabeth Roth, Courtney Ann Kase, Karen Chan Osilla, Elizabeth D'Amico, Lisa H. Jaycox, and Bradley D. Stein are affiliated with RAND, while Michelle W. Woodbridge is affiliated with SRI International.

© Copyright 2014 RAND Corporation

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



The RAND Corporation is a nonprofit institution that helps improve policy and decisionmaking through research and analysis. RAND focuses on the issues that matter most, such as health, education, national security, international affairs, law and business, the environment, and more. As a nonpartisan organization, RAND operates independent of political and commercial pressures. We serve the public interest by helping lawmakers reach informed decisions on the nation's pressing challenges. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

RR-685-CMHSA