Online supplement for 10.1176/appi.ps. 202100059

Supplemental Table S1. State and year respondent contributions to current study.

| State | 2014 | 2015 | 2016 | 2017 | 2018 | Total \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AZ | 0 | 0 | 0 | 0 | 100 | 100 |
| CA | 0 | 0 | 55.94 | 44.06 | 0 | 100 |
| CO | 0 | 100 | 0 | 0 | 0 | 100 |
| CT | 0 | 25.99 | 25.77 | 23.13 | 25.11 | 100 |
| DE | 21.61 | 18.36 | 19.05 | 17.79 | 23.18 | 100 |
| FL | 0 | 0 | 0 | 58.89 | 41.11 | 100 |
| GA | 0 | 30.41 | 34.18 | 35.41 | 0 | 100 |
| HI | 18.73 | 18.25 | 21.1 | 21.06 | 20.85 | 100 |
| ID | 27.6 | 28.15 | 26.54 | 0 | 17.7 | 100 |
| IL | 0 | 26.39 | 23.08 | 26.1 | 24.44 | 100 |
| IN | 27.27 | 13.6 | 26.16 | 32.97 | 0 | 100 |
| IA | 32.33 | 11.38 | 27.64 | 28.65 | 0 | 100 |
| KS | 29.82 | 46.5 | 0 | 0 | 23.67 | 100 |
| KY | 50.89 | 0 | 49.11 | 0 | 0 | 100 |
| LA | 32.88 | 0 | 23.39 | 20.79 | 22.95 | 100 |
| MD | 31.14 | 27.34 | 0 | 0 | 41.51 | 100 |
| MA | 0 | 38.97 | 32.83 | 28.19 | 0 | 100 |
| MN | 20.48 | 19.61 | 20.16 | 19 | 20.76 | 100 |
| MS | 0 | 0 | 37.84 | 38.05 | 24.1 | 100 |
| MO | 0 | 35.08 | 35.76 | 0 | 29.16 | 100 |
| MT | 41.59 | 0 | 0 | 31.77 | 26.64 | 100 |
| NV | 22.31 | 15.38 | 23.96 | 20.72 | 17.63 | 100 |
| NY | 6.63 | 11.52 | 35.78 | 11.6 | 34.47 | 100 |
| NC | 0 | 0 | 0 | 51.5 | 48.5 | 100 |
| OH | 18.88 | 18.35 | 20.83 | 19.99 | 21.95 | 100 |
| OK | 0 | 0 | 0 | 52.89 | 47.11 | 100 |
| PA | 31.41 | 14.91 | 19.35 | 18.07 | 16.26 | 100 |
| RI | 0 | 0 | 32.95 | 32.59 | 34.46 | 100 |
| SC | 0 | 0 | 0 | 50.05 | 49.95 | 100 |
| TN | 0 | 0 | 0 | 0 | 100 | 100 |
| TX | 0 | 28.98 | 24.8 | 25.21 | 21.02 | 100 |
| VT | 26.01 | 0 | 24.96 | 23.91 | 25.11 | 100 |
| VA | 21.76 | 18.92 | 18.9 | 19.86 | 20.56 | 100 |
| WA | 0 | 0 | 36.51 | 32.31 | 31.18 | 100 |
| WV | 0 | 52.42 | 0 | 0 | 47.58 | 100 |
| WI | 25.63 | 20.67 | 17.93 | 18.86 | 16.91 | 100 |
| WY | 100 | 0 | 0 | 0 | 0 | 100 |
| Total \% | 16.29 | 17.63 | 21.54 | 21.09 | 23.44 | 100 |

## Supplemental Table S2. Description of variables used in the current analysis.

| Feature | Definition |
| :---: | :---: |
| Sexual orientation and gender identity | 1. HET\&CIS [heterosexual, cis-gendered] <br> 2. LG\&CIS [lesbian or gay, cis-gendered] <br> 3. B\&CIS [bisexual, cis-gendered] <br> 4. GD [male-to-female, female-to-female, or gender nonconforming, regardless of sexual orientation] <br> Note: Response of "Other/Something else" to sexual orientation resulted in participant omission. |
| Age | 1. 18-24 <br> 2. $25-34$ <br> 3. $35-44$ <br> 4. $45-54$ <br> 5. 55-64 <br> 6. $\geq 65+$ |
| Sex | 1. Male <br> 2. Female |
| Race/ethnicity | 1. White, Non-Hispanic <br> 2. Black, Non-Hispanic <br> 3. Other or Multiracial, Non-Hispanic <br> 4. Hispanic |
| Education level | 1. Did not graduate high school <br> 2. Graduated high school <br> 3. Attended college or technical school <br> 4. Graduated college or technical school |
| Relationship status | 1. Married or unmarried couple <br> 2. Single [widowed, divorced, separated, and never married] |
| Employment status | 1. Employed or self-employed <br> 2. Unemployed or unable to work <br> 3. Student/homemaker <br> 4. Retired |
| Annual income | 1. Less than $\$ 15,000$ <br> 2. $\$ 15,000$ to less than $\$ 25,000$ <br> 3. $\$ 25,000$ to less than $\$ 35,000$ <br> 4. $\$ 35,000$ to less than $\$ 50,000$ <br> 5. $\$ 50,000$ and above |
| Healthcare coverage | 1. Insured <br> 2. Uninsured <br> Note: Any coverage, including private health insurance, prepaid plans (e.g., HMOs), government (e.g., Medicare), or Indian Health Service |
| Multiple chronic conditions | 1. 0 or 1 condition(s) <br> 2. $2+$ conditions <br> Note: Chronic medical conditions included prior diagnosis of angina/coronary artery disease, arthritis, asthma, cancer, chronic obstructive pulmonary disease, diabetes, chronic kidney disease as well as history of myocardial infarction or stroke |
| Mental distress, last 30 days | Continuous, 0 to 30 days <br> Note: Includes stress, depression, and problems with emotion. |
| Frequent mental distress, last 30 days | 1. 0-13 days <br> 2. $\geq 14$ days |

## Supplemental Figure S1. Study sample selection.



## Final sample size

$\mathrm{n}=762,541$
${ }^{\text {a }}$ Missing $=$ Don't Know/Not Sure/Refused/Missing/Not Asked

Supplemental Table S3. Regression models of mean days of mental distress and percentage of frequent mental distress.

|  | Mental distress ${ }^{1,2}$ <br> OR [95\% Confidence Interval] | Frequent mental distress ${ }^{1,3}$ OR [95\% Confidence Interval] |
| :---: | :---: | :---: |
| SOGI |  |  |
| HET | REF | REF |
| LG | $1.258^{* * *}[1.11,1.43]$ | $2.132^{* * *}[1.56,2.92]$ |
| B | $1.434^{* * *}[1.31,1.57]$ | $2.673^{* * *}[2.20,3.25]$ |
| GD | $1.685^{* * *}$ [1.45,1.97] | $3.561^{* * *}[2.33,5.45]$ |
| Age |  |  |
| 18 to 24 | REF | REF |
| 25 to 34 | $1.098^{* * *}[1.05,1.15]$ | 1.037 [0.95,1.13] |
| 35 to 44 | $1.051^{*}$ [1.00,1.10] | 0.957 [0.88,1.05] |
| 45 to 54 | 0.981 [0.94,1.03] | $0.827^{* * *}$ [0.76,0.90] |
| 55 to 64 | $0.924^{* * *}[0.88,0.97]$ | $0.648^{* * *}[0.59,0.71]$ |
| 65+ | $0.748^{* * *}$ [0.71,0.79] | $0.360^{* * *}$ [0.32,0.40] |
| SOGI X Age |  |  |
| HET\# 18 to 24 | REF | REF |
| HET\# 25 to 34 | REF | REF |
| HET\# 35 to 44 | REF | REF |
| HET\# 45 to 54 | REF | REF |
| HET\# 55 to 64 | REF | REF |
| HET\# 65+ | 0.882 [0.74,1.05] | 0.815 [0.52,1.28] |
| LG\# 18 to 24 | 0.879* [0.78,0.99] | $0.758^{*}$ [0.59,0.98] |
| LG\# 25 to 34 | 0.980 [0.69,1.38] | 0.738 [0.34,1.61] |
| LG\# 35 to 44 | REF | REF |
| LG\# 45 to 54 | 0.839 [0.69,1.02] | 0.696 [0.45,1.08] |
| LG\# 55 to 64 | $0.865^{*}$ [0.76,0.98] | 0.747 [0.55,1.01] |
| LG\# 65+ | $0.598^{* * *}$ [0.45, 0.79$]$ | $0.317^{* *}$ [0.15,0.68] |
| B\# 18 to 24 | REF | REF |
| B\# 25 to 34 | 0.926 [0.76,1.13] | $0.652^{*}$ [0.43, 1.00$]$ |
| B\# 35 to 44 | 0.843 [0.70,1.02] | $0.630^{*}$ [0.44, 0.91$]$ |
| B\# 45 to 54 | $0.644^{* *}$ [0.49, 0.84$]$ | $0.386^{* *}$ [0.19, 0.78$]$ |
| B\# 55 to 64 | REF | REF |
| B\# 65+ | 0.868 [0.73,1.03] | $0.571^{* *}[0.39,0.85]$ |
| GD \# 18 to 24 | $0.777^{* * *}[0.65,0.92]$ | $0.434^{* * *}[0.30,0.62]$ |
| GD \# 25 to 34 | $0.626^{* * *}$ [0.48, 0.81$]$ | $0.383^{* *}$ [0.21,0.70] |
| GD \# 35 to 44 | REF | REF |
| GD \# 45 to 54 | 0.939 [0.76,1.16] | 0.664 [0.43,1.03] |
| GD \# 55 to 64 | 0.804 [0.64,1.01] | $0.530^{* *}[0.33,0.84]$ |
| GD \# 65+ | $0.667^{*}$ [0.49,0.91] | $0.361^{* *}$ [0.19,0.69] |
| Sex |  |  |
| Male | REF | REF |
| Female | $1.022^{*}$ [1.00, 1.04$]$ | $1.351^{* * *}$ [1.30,1.40] |
| Race/ethnicity |  |  |
| White, Non-Hispanic | REF | REF |
| Black, Non-Hispanic | $0.936^{* * *}$ [0.91,0.97] | $0.716^{* * *}$ [0.67, 0.76$]$ |
| Other, Non-Hispanic | 0.950** [0.91, 1.00$]$ | $0.857^{* * *}$ [0.78, 0.94$]$ |
| Hispanic | $0.885^{* * *}$ [0.85, 0.92$]$ | $0.639^{* * *}[0.59,0.69]$ |
| Education level |  |  |
| Did not graduate high school | REF | REF |
| Graduated high school | $0.947^{* *}$ [0.91,0.98] | $0.868^{* * *}$ [0.81, 0.93$]$ |
| Attended college/technical school | $0.897^{* * *}$ [0.87, 0.93$]$ | $0.923 *$ [0.86,0.99] |
| Graduated college/technical school | $0.710^{* * *}$ [0.68,0.74] | $0.638^{* * *}$ [0.59,0.69] |
| Relationship status |  |  |


| Married or unmarried couple Single | $\begin{gathered} \text { REF } \\ 1.043^{* * *}[1.02,1.07] \end{gathered}$ | $\begin{gathered} \text { REF } \\ 1.262^{* * *}[1.21,1.32] \end{gathered}$ |
| :---: | :---: | :---: |
| Employment status |  |  |
| Employed/Self-employed | REF | REF |
| Unemployed or unable to work | $1.553^{* * *}[1.51,1.60]$ | $2.926^{* * *}$ [2.78,3.08] |
| Homemaker/Student | 0.973 [0.94,1.01] | 1.052 [0.98,1.13] |
| Retired | $1.289^{* * *}[1.24,1.34]$ | $1.083^{*}[1.00,1.17]$ |
| Annual income |  |  |
| Less than \$15K | REF | REF |
| \$15K to $<\$ 25 \mathrm{~K}$ | 0.950 *** [0.92,0.98] | $0.834^{* * *}[0.78,0.89]$ |
| \$25K to <\$35K | $0.868^{* * *}[0.83,0.90]$ | $0.679^{* * *}[0.63,0.73]$ |
| \$35K to < $<50 \mathrm{~K}$ | 0.854*** [0.82,0.89] | $0.643^{* * *}[0.60,0.69]$ |
| >\$50K | $0.756^{* * *}[0.73,0.78]$ | $0.499^{* * *}[0.46,0.54]$ |
| Healthcare coverage |  |  |
| Yes | REF | REF |
| No | $1.034^{*}[1.00,1.07]$ | 1.018 [0.96,1.08] |
| Multiple chronic conditions |  |  |
| No | REF | REF |
| Yes | $1.243^{* * *}$ [1.22,1.27] | $1.908^{* * *}[1.83,1.99]$ |
| Observations | 762541 | 762541 |

${ }^{1}$ Adjusted for the survey design. Strata with single sampling unit centered at overall mean. Models additionally adjusted for state of residence and year of participation fixed effects (not shown). Exponentiated coefficients; 95\% confidence intervals in brackets. ${ }^{*} p<0.05,{ }^{* *} p<0.01,{ }^{* * *} p<0.001$.
${ }^{2}$ Mental distress $=$ mean number of days in the last month in which participants experienced stress, depression, and problems with emotion (0-30).
${ }^{3}$ Frequent mental distress = percentage of participants experiencing 14 or more days of stress, depression, and problems with emotion in the last month.
Abbreviations: HET: Heterosexual, cis-gendered; LG: Lesbian or gay, cis-gendered; B: Bisexual, cis-gendered;
GD: Gender diverse; SOGI: Sexual orientation and gender identity.

