

# The Mental Health of Hispanic/Latino Americans Following National Immigration Policy Changes: United States, 2014–2018

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**Objectives.** To examine the relationship between aggressive enforcement of anti-immigration policies and mental health among Hispanics/Latinos in the United States before and after major national immigration policy changes.

**Methods.** Data were drawn from Behavioral Risk Factor Surveillance System surveys administered from 2014 to 2018. The exposure was the rate of immigration arrests in the 2 months before the survey date within the respondent's state of residence. Outcomes included past-month reporting of (1) number of days of poor mental health, (2) at least 1 day of poor mental health, and (3) frequent mental distress.

**Results.** There was no relationship between arrest rates and mental health among Hispanic/Latino respondents across the overall period. After consideration of policy changes, however, a 1-percentage-point increase in a state's immigration arrest rate in the postpolicy period was significantly associated with each mental health morbidity outcome.

**Conclusions.** We found evidence supporting an association between worsening mental health among Hispanics/Latinos and increased arrest rates following the announcement of several restrictive immigration policies. The potential public health effects of aggressive immigration enforcement must be better acknowledged and addressed in immigration debates. (*Am J Public Health.* 2019;109:1786–1788. doi:10.2105/AJPH.2019.305337)

Immigration and Customs Enforcement (ICE) has arrested more than 2 million immigrants living without authorization in the United States since 2008.<sup>1</sup> Evidence suggests that immigration-related anxiety could have a detrimental impact on mental health, particularly among racial/ethnic groups that have been disproportionately targeted.<sup>2</sup> In January and February 2017, a series of anti-immigration executive orders were announced that authorized a border wall with Mexico, banned US entry for people from several predominantly Muslim countries, and modified ICE policies, sparking a period of increased immigration arrests, heightened anti-immigration sociopolitical rhetoric, and greater public awareness regarding deportation.<sup>3</sup>

We theorized that, in this ensuing climate, immigration arrests could be associated with poor mental health by increasing

deportation fears among undocumented individuals and their social or familial networks directly<sup>4</sup> and by increasing discriminatory or exclusionary experiences among Hispanics/Latinos more generally.<sup>5</sup> We therefore sought to determine whether aggressive anti-immigration enforcement targeting undocumented immigrants worsens the mental health of Hispanic/Latino Americans in the general population and whether the highly publicized anti-immigration policies announced in early 2017 affected that relationship.

## ABOUT THE AUTHORS

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## METHODS

Outcome and covariate data were drawn from the Behavioral Risk Factor Surveillance System (BRFSS), an annual telephone survey of noninstitutionalized adults. In our primary analyses, we focused on participants who completed surveys between October 2014 and March 2018 ( $n = 1\,055\,088$ ) and, in response to the question "Are you Hispanic, Latino/a, or Spanish origin?" self-identified as being of Hispanic/Latino ethnicity, regardless of race ( $n = 118\,883$  [17% after the survey design had been taken into account]). Mental health outcomes were based on the question "Now, thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?" We operationalized mental health status as follows: (1) number of poor mental health days, (2) any indication of poor mental health (1 or more days), and (3) frequent mental distress (on 14 or more days).<sup>6</sup>

Using interview dates, we matched survey responses to monthly state-level ICE arrest rates. Arrest counts were obtained from Transactional Records Access Clearinghouse<sup>1</sup> data made public following Freedom of Information Act requests. This clearinghouse compiles data on "interior arrests," which exclude arrests at US borders. We calculated arrest rates by dividing states' monthly arrest counts by corresponding census denominators.

We used quasi-Poisson regression to test the association between arrest rates in a

respondent's state of residence during the 2 months preceding the interview date and self-reported mental health outcomes. We then refit the models, incorporating an interaction between arrest rates and a post-2017 policy indicator. We adjusted for established mental health risk factors including seasonality, age, gender, marital status, education, income, and employment. Models further included year-fixed effects (in addition to the binary post-2017 indicator) as well as state-fixed effects. All analyses accounted for the complex survey design of the BRFSS. Respondents with missing outcome ( $n = 2344$ ) or covariate ( $n = 41\,732$ ) data were excluded.

We conducted several robustness checks to examine the sensitivity of the results (see appendix tables and figures, available as a supplement to the online version of this article at <http://www.ajph.org>). First, we included all BRFSS respondents and specified a 3-way interaction between Hispanic/Latino ethnicity, arrest rate, and a postpolicy indicator. Second, we repeated the analyses after restricting the sample to respondents who completed the interview in a language other than English. Third, we explored heterogeneity by state sanctuary laws.

## RESULTS

More than a third of Hispanic/Latino respondents (34.08%) reported at least 1 poor mental health day in the preceding month, and 11.38% reported frequent mental distress. The mean number of past-month poor mental health days was 3.62 ( $SD = 0.05$ ; Table A, available as a supplement to the online version of this article at <http://www.ajph.org>). During the observation period, ICE made 440 601 arrests. Arrests increased sharply after the 2017 policy announcements (Figure A, available as a supplement to the online version of this article at <http://www.ajph.org>), with changes in arrest rates varying across states (Figure B, available as a supplement to the online version of this article at <http://www.ajph.org>).

Mental health outcomes among Hispanic/Latino respondents in states with higher arrest rates were similar to those among Hispanic/Latino respondents in states with lower rates (Table 1, models 3, 7, and 11, and Table B, available as a supplement to the online version

of this article at <http://www.ajph.org>). However, the association between arrest rates and each mental health outcome was significant in a comparison of the postpolicy and prepolicy periods (Table 1, models 4, 8, and 12). Relative to the prepolicy period, a 1-percentage-point increase in the arrest rate in the postpolicy period was associated with worse mental health (poor mental health days, relative risk [RR] = 1.13; 95% confidence interval [CI] = 1.03, 1.22; any indication of poor mental health, RR = 1.11; 95% CI = 1.04, 1.17; frequent mental distress, RR = 1.14; 95% CI = 1.02, 1.26).

In sensitivity analyses in which a 3-way interaction model was used and the sample was restricted to respondents who completed the interview in a language other than English or lived in states with antisantuary laws, results were consistent with or larger in

magnitude and direction than the primary results were but not consistently significant (Tables C–E, available as a supplement to the online version of this article at <http://www.ajph.org>). Of note, the statistical power of these tests was lower than that of our primary analysis.

## DISCUSSION

Comparing changes in mental health after versus before anti-immigration policies, we found evidence that Hispanic/Latino Americans' mental health worsened more in states with larger increases in arrest rates. In models that did not account for these policies, arrest rates did not correlate with Hispanic/Latino respondents' mental health. Although the magnitudes of the associations were

**TABLE 1—Relative Risks for Associations Between State-Level Immigration Arrest Rates and Poor Mental Health Among Hispanic/Latino Respondents Before and After Enactment of Anti-Immigration Policies: Behavioral Risk Factor Surveillance System, United States, 2014–2018**

Model	Arrest Rate, RR (95% CI)	Post-2017 Policies, RR (95% CI)	Arrest Rate × Post-2017 Policies, RR (95% CI)
<b>No. of poor mental health days</b>			
		0.87 (0.69, 1.04)	1.13 (1.03, 1.22)
Model 1	0.86 (0.73, 1.01)		
Model 2	1.13 (0.94, 1.38)		
Model 3	1.01 (0.92, 1.11)		
Model 4	0.91 (0.79, 1.04)		
<b>Any indication of poor mental health</b>			
		0.93 (0.82, 1.05)	1.11 (1.04, 1.17)
Model 5	0.90 (0.81, 1.01)		
Model 6	1.12 (0.98, 1.28)		
Model 7	1.03 (0.96, 1.09)		
Model 8	0.93 (0.85, 1.02)		
<b>Frequent mental distress</b>			
		0.86 (0.64, 1.09)	1.14 (1.02, 1.26)
Model 9	0.83 (0.67, 1.03)		
Model 10	1.13 (0.89, 1.44)		
Model 11	1.01 (0.88, 1.13)		
Model 12	0.90 (0.73, 1.06)		

*Note.* CI = confidence interval; RR = relative risk. All models present exponentiated results of quasi-Poisson regression models with robust variance estimations, interpretable as relative risks. Models 1, 5, and 9 present results for the pre-2017 period; models 2, 6, and 10 present results for the post-2017 period; and models 3, 4, 7, 8, 11, and 12 present results for the entire observation period (October 2014 to March 2018). All models controlled for season, age group, gender, marital status, education, income, and employment and included separate survey-year fixed effects and state-fixed effects with errors clustered at the state level. Additional analyses involving negative binomial regression to account for potential overdispersion (for each of the 3 outcomes) and logistic regression (for frequent mental distress) produced similar results. Placebo tests incorporating a 24-month lagged arrest rate variable were nonsignificant (results are available on request). As a result of the way the BRFSS is administered, some individuals in the 2017 wave were actually interviewed in 2018.

relatively small, it is important to note that our results captured aggregate associations. We probably underestimated the impact of arrest rates on mental health among those directly targeted by anti-immigration policies and those living in states where the salience of national anti-immigration rhetoric may have been especially pronounced.

Our overall findings are consistent with emerging evidence documenting the adverse effects of restrictive immigration policies. Studies examining Arizona Senate Bill 1070, a measure allowing law enforcement personnel to arrest individuals suspected to be undocumented, showed that self-reported health<sup>7</sup> and use of health care services<sup>8</sup> declined in response to the bill's enactment, whereas adverse birth outcomes increased.<sup>9</sup> Analyses of single ICE raids have further revealed that the health effects of raids can extend beyond noncitizens. Similar to the results of our study, in which we did not restrict analyses according to citizenship or nativity, previous research has shown that living in a community that has been targeted by ICE can increase the risk of poor physical and mental health among US-born Hispanics/Latinos.<sup>10,11</sup>

Several limitations should be considered when interpreting our results. For example, we relied on pooled cross-sectional data and cannot rule out unmeasured confounding, especially given that the confidence intervals were close to null. Within-state changes in immigration arrest rates may be correlated with changes in a state's proportion of undocumented residents or other policies affecting mental health,<sup>12</sup> but we were unable to control for these factors.

Another important issue we could not address is the mechanisms through which immigration arrests may influence mental health. For instance, we do not know the extent to which respondents experienced immigration-related discrimination; also, we do not have information on whether they were aware of immigration arrests and whether this awareness increased stress related to immigration status.

Further research is needed to examine these possibilities directly, preferably with more granular geographical measures of exposure (e.g., neighborhood or county) that can support quasi-experimental methods such as interrupted time-series designs. Research

that either directly measures immigration-related anxiety and discrimination experiences or better captures regional anti-immigration contexts is needed to examine plausible mechanisms and inform potential interventions.

## PUBLIC HEALTH IMPLICATIONS

Additional research and, more important, public health action are urgently needed to mitigate the damaging effects of intensified anti-immigration enforcement measures and restrictive immigration policies on health. Given that immigration policy continues to be a deeply contested topic, ensuring that the health and social consequences of aggressive enforcement are identified and acknowledged within national debates is a key priority. **AJPH**

### CONTRIBUTORS

Both authors contributed equally to this article.

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### CONFLICTS OF INTEREST

The authors declare no conflicts of interest.

### HUMAN PARTICIPANT PROTECTION

No protocol approval was needed for this study because de-identified public data sets were used.

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