

Project
RE [FOCUS]

Racial Ethnic Framing of Community-Informed and Unifying Surveillance

Data Documentation

Prepared by

UCLA Center for the Study of Racism, Social Justice & Health

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Abbreviations

Abbreviation	Description
ACS	American Community Survey
AI	Artificial intelligence
APHA	The American Public Health Association
BOP	The Federal Bureau of Prisons
CCVI	The COVID-19 Community Vulnerability Index
CDC	The Centers for Disease Control and Prevention
CFPB	The Consumer Financial Protection Bureau
COVID-NET	Coronavirus Disease 2019 Associated Hospitalization Surveillance Network
CRE	Community Resilience Estimates
CRMS	Crisis Monitoring Response System
CUSP	The COVID-19 U.S. State Policies
DEFC	Disaster Emergency Fund Codes
EJSCREEN	Environmental Justice Screening Map & Data
EPA	The U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FBI	The Federal Bureau of Investigation
HMDA	The Home Mortgage Disclosure Act
HRSA	The Health Resources and Services Administration
ICE	U.S. Immigration and Customs Enforcement
KFF	The Kaiser Family Foundation
MA	Metropolitan areas
ML	Machine learning
MMWR	Morbidity and Mortality Weekly Report
OSHA	The Occupational Safety and Health Administration
PHCRP	Public Health Critical Race Praxis
SPLC	The Southern Poverty Law Center
SQL	Structured Query Language

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Introduction

The U.S. Centers for Disease Control and Prevention (CDC) seeks to address the concern that “Racism—both interpersonal and structural—negatively affects the mental and physical health of millions of people, preventing them from attaining their highest level of health, and consequently, affecting the health of our nation.” As the COVID pandemic is revealing, the ability of the nation to promote optimal health for all can only be accomplished by addressing the health implications of racism and social stigma.

Mitigating COVID inequities necessitates novel tools that bolster the capacity of public health practitioners and community advocates to identify relevant information sources, monitor social stigma and COVID trends concurrently, detect key signals, interpret data through a health equity frame, and take action based on the available evidence. Project REFOCUS is a community-informed, technology-driven response to this need.

Project Overview

Project REFOCUS was launched in October 2020 with funding from the CDC Foundation and a charge to address the impact of stigma in the COVID pandemic. The Department of Communication, Culture and Media Studies at Howard University, one of the nation’s leading historically Black institutions of higher learning, and the Center for the Study of Racism, Social Justice & Health in the UCLA Fielding School of Public Health, jointly co-lead the project.

Project REFOCUS was developed to bolster the capacity of public health practitioners and community advocates to identify, respond, and reach historically marginalized, racialized, and vulnerable populations during health crises.

Aims and Scope

Project REFOCUS aims to provide a real-time crisis monitoring system and educational resources for public health practitioners. These tools are necessary to adequately monitor the presence of racialized social stigma and to support historically marginalized and disproportionately affected populations in responding to inequities in the COVID pandemic and other public health crises.

Project REFOCUS comprises two sets of tools, technology support and crisis communications resources:

1. **Technology:** Project REFOCUS offers a crisis monitoring system, also known as the dashboard, for public health practitioners. This dashboard provides the comprehensive data needed to monitor social stigma and support disproportionately affected populations during public health crises.

2. **Communications and Education:** Project REFOCUS provides tools and resources so that public health practitioners, journalists, and community leaders can better understand the drivers, or root causes, of social stigma.

Guiding Process

The development of the Project REFOCUS crisis monitoring system, referred to as the dashboard, was guided by:

1. Public Health Critical Race Praxis (PHCRP), which draws on Critical Race Theory to address health equity problems. PHCRP informed the conceptual model, decisions regarding the types of information to include and exclude in the crisis monitoring response system (CMRS) and the process used to develop it.
2. Environmental scans of existing surveillance systems to identify best practices and reviews of the literature to identify appropriate and, where available, validated measures of social stigma and racism.
3. The development of protocols for an anti-racism crisis monitoring system
4. Focus groups and individual interviews with an expert panel, as well as consultations with CDC advisors

How to Use This Document

The Project REFOCUS dashboard is intended for use by public health professionals who work in health departments or other settings (e.g., non-profit organizations), other health professionals (e.g., pharmacists, social workers, healthcare providers), researchers, students, educators and the media. It is also intended for use by community-based organizations, community organizers, community activists and community members working to address social injustices, as well as members of the general public and other health equity champions.

Audience

This document was written for:

- any user of the Project REFOCUS dashboard seeking more detailed information about the system than what is readily available on the dashboard interface.
- any user of the Project REFOCUS dashboard seeking assistance regarding a specific question related to using the dashboard.
- anyone interested in learning more about the technology portion of the Project REFOCUS intervention.

This document provides information about the data included in the Project REFOCUS dashboard. It indicates the sources from which the data were obtained; the approaches used to integrate the data into the dashboard; and other information needed to use the dashboard features appropriately and fully.

Document overview

This document is divided into three core sections. The first section provides a brief overview of Project REFOCUS, which is the larger project of which the crisis monitoring system (i.e., dashboard) is one part. The section introduces the dashboard's development and includes the conceptual framework on which the dashboard is based. This part of the document describes the methods and processes used to build the dashboard and presents the dashboard components. Next it provides information about the data sources, data sets, and select measures included in the dashboard. It also presents the rationale underlying determinations about, for instance, which indicators to include vs. exclude. The document highlights any limitations or cautions that may be associated with using specific datasets and variables. The third section describes the data sources and datasets that make up the dashboard. Information about the metrics and indicators that appear on the dashboard are also provided here.

A reference list as well as information about how to access the detailed online version of the Project REFOCUS codebook is provided at the end of this document.

Dashboard Development

This section describes the conceptual framework on which the Project REFOCUS CRMS is based. It summarizes the methods, the components that make up the system and key processes by which the dashboard was developed. Detailed information about the data sources and measures upon which the dashboard relies are outlined in the data section. Following our conceptual model, the system includes measures from a wide-range of data sources to enable community leaders, researchers, practitioners, and policymakers to track the co-occurrence of COVID related outcomes, racism, stigma, and other racialized determinants of health.

Conceptual Model

As with all other parts of Project REFOCUS, the selection, use, and organization of the information in the dashboard reflects the conceptual model of the crisis monitoring system (Figure 1).

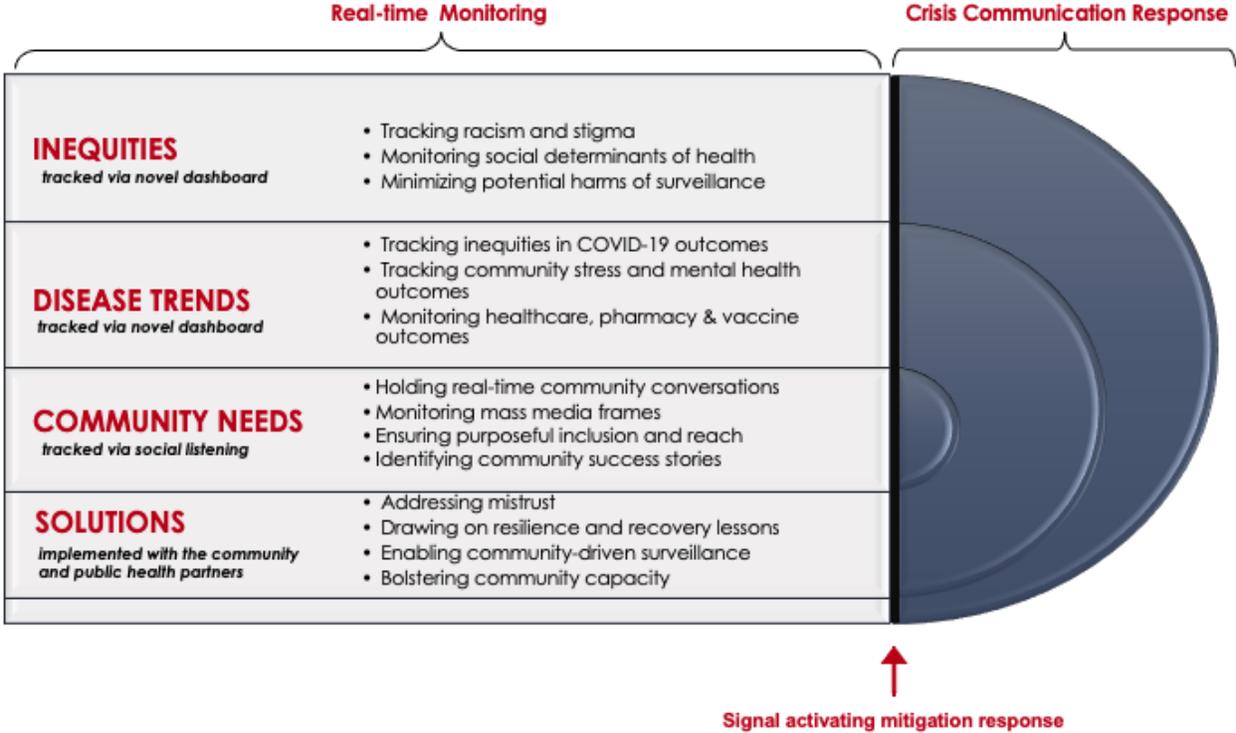


Figure 1. Conceptual Framework. Integrated Real-Time Public Health Monitoring and Community-Informed Response

Dashboard Components

The conceptual model proposes a system that integrates real-time public health monitoring with community informed listening and response. The real-time monitoring tracks inequities, disease trends, community needs and solutions. Indicators reaching specified levels trigger a crisis communication response. Project REFOCUS has

determined that these key inputs are critical for detecting co-occurring crises, such as racism and COVID and for optimizing communication about health crises in diverse impacted communities. The real-time monitoring is coupled with input that reflects community knowledge, which can be obtained from social media or mass media and directly from communities who experience health disparities. Together these approaches can help to identify solutions that address the intersectional impacts of racism and social stigma on COVID and other health crises or disasters.

The Project REFOCUS crisis monitoring system comprises a database, an integrated system where data are stored and processed and the dashboard, a user-friendly interface for querying the system and generating reports. The next section provides an overview of the technology undergirding the dashboard. The system processes and dashboard schematic are outlined below in Figure 2 and Figure 3, respectively.

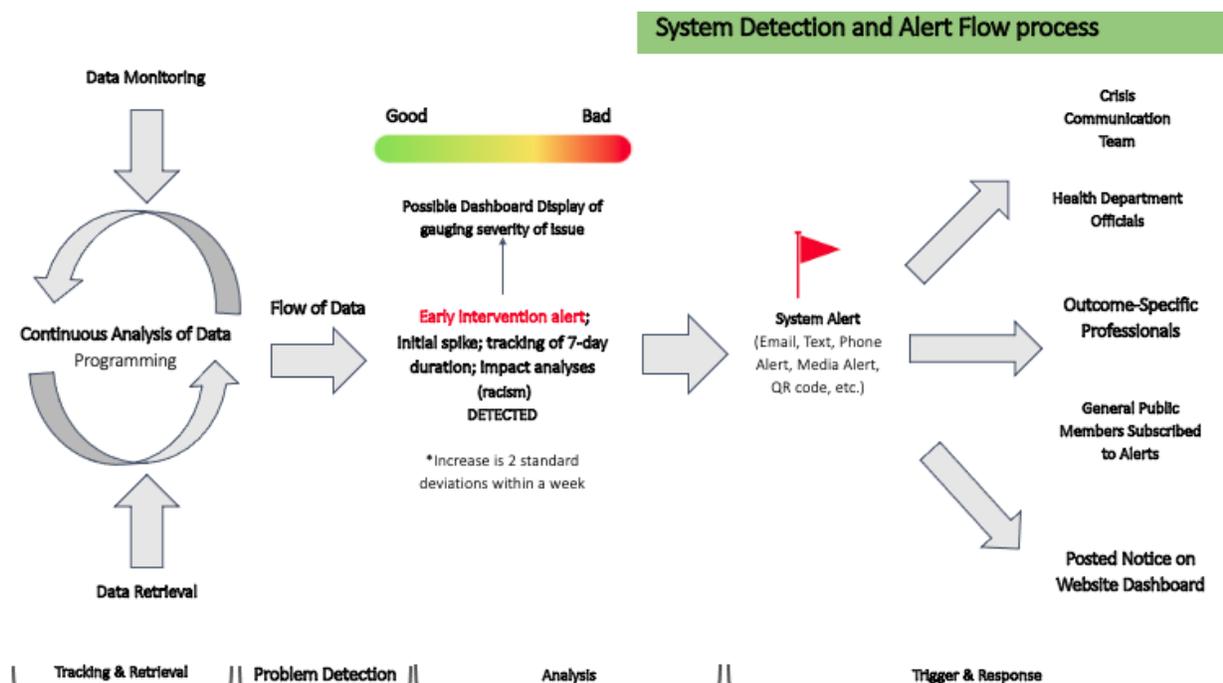


Figure 2. COVID Stigma Monitoring System Mechanics

The dashboard responds to the rapid and dynamic nature of the COVID pandemic and incorporates machine learning (ML), artificial intelligence (AI) and big data. The integration of such approaches extends the timeliness and flexibility of traditional public health surveillance systems, and enable the system to document racism and other social injustices in co-occurring with COVID in communities.

The dashboard is a standalone platform that relies on intelligent monitoring of COVID-19 health outcomes, racism, social stigma, resilience as well as social and political determinants of health in near real-time. The menu at the top of the dashboard screen

organizes COVID-related outcomes information into five major categories of outcomes: cases, deaths, tests, vaccinations, and hospitalizations. Cases are COVID infections that have been diagnosed and reported to local public health agencies.

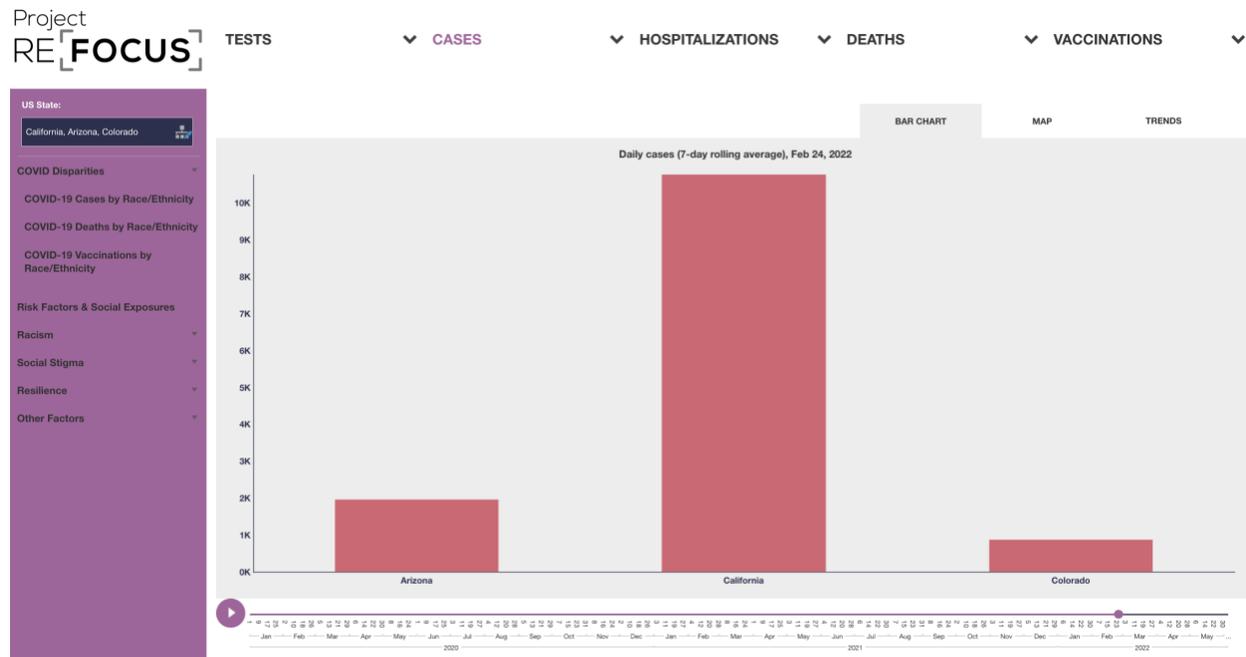


Figure 3. Dashboard (dashboard.projectrefocus.com)

From the column on the left side of the screen, users may select risk factors/social exposures related to social stigma (e.g., measures from the COVID-19 Community Vulnerability Index and the EPA environmental justice community screener) and racism (e.g., hate crimes, hate groups, and residential segregation indicators). Resilience indices are also included to support efforts to use surveillance tools to highlight the strengths that exist among historically marginalized communities. Additional social and political determinants (e.g., police shootings, weekly evictions) are available under the “other factors” tab.

To generate univariate reports, end users must query the system from the tab or for risk factors/social exposures (e.g., racism, stigma), resilience and other factors in relation to a select COVID-related outcome (e.g., cases, deaths, hospitalizations, tests, vaccinations).

The dashboard exhibits characteristics that enable it to present actionable results and is composed of two main components that together simplify a layered design.

The Database

The database in which the dashboard relies is fast, reliable, secure, and frequently backed up, which is useful for storage and retrieval of a large volume of data. The “database” refers to the SQL and NoSQL databases that provide the capacity for storing

large amounts of data that are available from the sources upon which Project REFOCUS draws. The database also provides space for the incoming data from dynamic sources.

Key characteristics of the dashboard processing core include:

1. Performing high-speed interactions with the database. In the first phase of processing, the dashboard retrieves information from different parts of the database that are likely associated with various domains (e.g., text data, tabular data). To adopt the optimal strategy for combining data extracted from different data sources, the issue of late vs. early fusion is closely investigated. This means that in addition to semantically connecting each data source to the requested outcome (e.g., classifying hate), the dashboard will determine at what stage it is empirically optimal to join the information resulting from its internal processing of different data sources.
2. Given the sensitivity of public health objectives, it is important for the dashboard to provide *accurate* and *actionable* reports that can help with decision making, such as enforcing a policy. This may help to alleviate adverse effects of negative events (e.g., the manifestation of a specific type of racial disparity).

The key aspects of the dashboard are explained according to CDC guidelines (table 1). These dashboard attributes guided all phases of system design.

Table 1. Guidelines that inform dashboard development

Guideline	Dashboard attributes
Simplicity	<ul style="list-style-type: none"> • The dashboard follows the simplicity guidelines in terms of structure and ease of operation. • The dashboard includes multiple levels of reporting (e.g., person-level/county-level/state-level/country-level). • The dashboard may include follow up surveys with users to ensure its simplicity.
Flexibility	<ul style="list-style-type: none"> • It is crucial for the dashboard to adapt to new requirements as they are shown to be essential for the monitoring outcomes. If more data become available from the same or new data sources, the dashboard will adapt with minimal changes to incorporate their information and investigate the impacts of such fusion on its overall performance.
Data Quality	<ul style="list-style-type: none"> • Investigating missing data is a critical in surveillance systems. Project REFOCUS is assessing each data source’s amount of missing information, as this might contribute to problems with the degree of certainty in approximations.

Guideline	Dashboard attributes
Acceptability	<ul style="list-style-type: none"> • Data distributions are monitored through time and shifts in distributions are reported as they might be indicators of changes in data source behaviors and/or errors. • The dashboard should provide incentives for users to encourage widespread and frequent use between different populations. If one considers various social media platforms as spaces for online activities, they would realize that topics, biases, and general online behavior of users are noticeably different across these spaces (e.g., Twitter tends to be more political, Reddit encourages more honest responses by providing further anonymity measures). • Anonymity is substantially important due to the impacts of stigmatization and racialization of pandemic-related events, which might lead to the refusal of minority groups to use such a system. • Monitoring conspiracy theories related to the dashboard is also important, and proper measures must be taken (e.g., by media) to help to maintain trust in the system.
Sensitivity	<ul style="list-style-type: none"> • The dashboard includes many different data sources contributing to its database. Therefore, it is important to inspect each one's impact (and jointly between different sources) to ensure that the dashboard retains a high and relatively constant sensitivity.
Predictive Value Positive	<ul style="list-style-type: none"> • The different contact tracing and at-home testing efforts, in addition to information about other healthcare and testing facilities, can help to better target those most impacted. Such information will ensure that any deployed resources are not misdirected.
Representativeness	<ul style="list-style-type: none"> • The dashboard aims to provide subject-matter experts with enough information in reports to enable informed assessments. • Different data sources are leveraged for the same objective to allow outcome comparison as another test for system representativeness. • The dashboard prioritizes reporting actionable knowledge that can lead to the prevention of adverse effects.
Timeliness	<ul style="list-style-type: none"> • The models and methodologies are optimized to use minimal data required for efficient performance. • Design details such as model complexity are closely inspected to ensure computational resources are being used efficiently.
Stability	<ul style="list-style-type: none"> • On-going tests are conducted using the dashboard to ensure the stability of processing and information retrieval mechanisms.

Guideline	Dashboard attributes
	<ul style="list-style-type: none"> Experiencing down-times may significantly impact the dashboard’s “acceptability.” Therefore, Project REFOCUS will take care to ensure optimal up-times during testing.

Note: The detailed guidelines for evaluating public health surveillance systems are available with this link: <https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5013a1.htm>

Data

The data that populate the crisis monitoring system are obtained from public health agencies, non-profit organizations (e.g., Southern Poverty Law Center), government agencies (e.g., The U.S. Environmental Protection Agency), academic institutions (e.g., Boston University School of Public Health) or other entities who generate primary data. Project REFOCUS identifies and retrieves the information, modifies it as needed, then integrates it into a dedicated database. The primary aim of Project REFOCUS is not primary data collection, but identifying and meaningfully compiling already existing data, then integrating the data based on PHCRP and prior evidence and input from community members.

The data contained in the Project REFOCUS dashboard are subject to the same constraints and limitations as the primary data sources from which they are drawn. For instance, the data on COVID diagnoses, deaths and other pandemic outcomes that are available via CDC are sent to CDC from state health departments; however, they have variable levels of missing and incomplete information on race and ethnicity. These issues persist in the Project REFOCUS dashboard. Therefore, any visualizations based on these data will reflect the levels of missing or incompleteness on race/ethnicity that are in the original data source. The footnotes provided on affected dashboard screens and in the measures section of this document describe the key considerations for using information obtained from the Project REFOCUS dashboard properly.

The remainder of this section describes the data sources and COVID, social stigma, racism, resilience, and other determinants of health measures that make up the Project REFOCUS dashboard.

Data Sources

1. Advancement Project

The Institution: RACE COUNTS is led by Advancement Project with state-wide coalitions and partnerships. The Advancement Project is a California-based a multiracial civil rights organization that works towards racial and socioeconomic equity. The organization developed the RACE COUNTS California Social Vulnerability Index using ZIP Code-level data to identify California communities most in need of immediate and long-term pandemic and economic support.

The dataset(s): RACE COUNTS measures performance, disparity, and impact in California counties to understand racial equity across seven key issue areas: crime and justice, democracy, economic opportunity, education, health access, healthy built environments, and housing. Indicators for each area were selected after reviewing literature and meeting with community advocates and stakeholders. Communities with higher index scores of risk, severity, and recovery need face a greater risk of COVID-19 infection and death and a longer uphill economic recovery. Conversely, those with lower scores are less vulnerable.

Data retrieval and cleaning: We renamed original variables for use in the dashboard. The RACE COUNTS dataset cells that combined percentage and percentile values into one column were split into two.

Measures: The RACE COUNTS California Social Vulnerability Index includes information about community risks and vulnerabilities.

Access the original data source and dataset(s) with the following link(s):
<https://www.racecounts.org/about/indicators/>

2. Boston University School of Public Health and Johns Hopkins School of Public Health

The Institution: Researchers at the Boston University School of Public Health and Johns Hopkins Bloomberg School of Public Health worked with student volunteers to develop the [COVID-19 U.S. State Policies \(CUSP\) database](#). The CUSP documents the dates that states implemented health and social policies in response to the COVID-19 pandemic and its economic ramifications.

The dataset(s): The CUSP is a free and publicly accessible dataset designed to track when states implemented policies during the COVID-19 pandemic. The CUSP aims to help researchers, policymakers, the media, and the public better understand policy impacts on population health. The data are updated at least biweekly.

Data retrieval and cleaning: We downloaded the CUSP dataset on July 30, 2021. Since the CUSP variable names were not intuitive, we renamed the variables to aid with data interpretation. For instance, “COVIDpolicy” was added to “FMFINE,” so that it became “COVIDpolicy_FMFINE,” allowing use to identify COVID-related policy variables within the Project REFOCUS database.

Measures: The CUSP includes the dates when states implemented or ended specific COVID-19- related policies; whether state policies contained established requirements; if states enacted policies prior to COVID-19; states’ vaccine allocation phases; and state characteristics.

Access the original data source and dataset(s) with the following link(s):
<https://statepolicies.com> and <https://github.com/USCOVIDpolicy/COVID-19-US-State-Policy-Database>

3. Centers for Disease Control and Prevention

The Institution: The Centers for Disease Control and Prevention (CDC) is a federal public health agency whose mission is to ensure the health and safety of the nation. The CDC monitors the overall health of the U.S. population, conducts scientific research, and provides health information to protect and improve health. The Project REFOCUS dashboard uses a variety of datasets from the CDC.

1. The Laboratory-Confirmed COVID-19-Associated Hospitalizations

The dataset(s): The Laboratory-Confirmed COVID-19-Associated Hospitalizations, is provided by the CDC and covers the Coronavirus Disease 2019 Associated Hospitalization Surveillance Network (COVID-NET). CDC notes that these data are preliminary and subject to change. The updates are weekly.

Data retrieval and cleaning: The Morbidity and Mortality Weekly Report (MMWR) date format which is used in the original dataset is converted to “yyyy-mm-dd”, and stored in a separate “date” column. The data fetching/processing is handled by the olivia-dataset software library.

Measures: The CDC COVID-19 Hospitalizations dataset includes information about COVID-19 associated hospitalizations by age, sex, and race and ethnicity. **Access the original data source and dataset(s) with the following link(s):**
CDC Dashboard: https://gis.cdc.gov/grasp/covidnet/COVID19_5.html

2. United States COVID-19 Cases and Deaths by State over Time

The dataset(s): The data on COVID-19 cases and death by state over time are daily aggregate counts of COVID-19 cases and deaths as reported by states, territories, and other jurisdictions. CDC cautions that these data reflect each jurisdiction’s timely and accurate reporting. CDC also notes that death counts are based on death certificates that use information reported by physicians, medical examiners, or coroners in the cause-of-death section of each certificate. These data are provided by the CDC Case Task Force.

Data retrieval and cleaning: Data cleaning is in progress. Data are updated twice daily by CDC.

Measures: This dataset includes information about the total number of confirmed, probable, new, and new probable cases and deaths. These data are available by U.S. state.

Access the original data source and dataset(s) with the following link(s):

<https://data.cdc.gov/Case-Surveillance/United-States-COVID-19-Cases-and-Deaths-by-State-o/9mfq-cb36>

3. COVID-19 Vaccinations in the United States (Jurisdictions)

The dataset(s): This dataset includes U.S. COVID-19 vaccine deliveries and administration data. Data are compiled with information from jurisdictional partner clinics, retail pharmacies, long-term care facilities, dialysis centers, Federal Emergency Management Agency (FEMA) and HRSA partner sites, and federal entity facilities.

Data retrieval and cleaning: Data cleaning is in progress. Data are updated daily by CDC.

Measures: This dataset includes information about the total number of distributed vaccine doses, the type of vaccines delivered and administered, and the total number of people across different age groups who are fully vaccinated. These data are provided by state, territory, or federal entity.

Access the original data source and dataset(s) with the following link(s):

<https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-Jurisd/uns-k-b7fc>

4. COVID-19 Vaccinations in the United States (County)

The dataset(s): This dataset includes U.S. COVID-19 vaccine administration and vaccine equity data at the county level. Data are compiled with information from jurisdictional partner clinics, retail pharmacies, long-term care facilities, dialysis centers, FEMA and HRSA partner sites, and federal entity facilities.

Data retrieval and cleaning: Data cleaning is in progress. Data are updated daily by CDC.

Measures: This dataset includes information about the total number of people across different age groups who are fully vaccinated, including those who have received booster doses. These data are provided by state and county of residence, including metro and non-metro area.

Access the original data source and dataset(s) with the following link(s):

<https://data.cdc.gov/Vaccinations/COVID-19-Vaccinations-in-the-United-States-County/8xkx-amqh>

5. COVID-19 Vaccination Demographics in the United States (National)

The dataset(s): This dataset provides the demographic characteristics of people receiving COVID-19 vaccinations in the U.S. These data are provided at a national level.

Data retrieval and cleaning: Data cleaning is continuous. Data are updated daily by CDC.

Measures: The demographic information contained in this dataset includes indicators like age, sex or race/ethnicity of the person who received a COVID-19 vaccination, and the total count of vaccinated individuals that fall in each demographic category. These data are provided on a national level and are not available by U.S. state or county.

Access the original data source and dataset(s) with the following link(s):
<https://data.cdc.gov/Vaccinations/COVID-19-Vaccination-Demographics-in-the-United-St/km4m-vcsb>

4. Google LLC

The Institution: Google LLC, a global technology company, provides the report of movement trends over time based on its extensive network of surveillance strategies that operate across a myriad of platforms with a range of goals (e.g., mapping, information searching online, etc.) to help combat COVID-19. Rearc, a cloud-based software and solutions firm, provides these data in the AWS Marketplace.

The dataset(s): The data was provided by Google LLC early in the pandemic to help with strategies focused on combating COVID-19. The data covers the entire time-range of the COVID pandemic and is updated almost daily.

Data retrieval and cleaning: The data cleaning process involves removing data with location tags outside of the United States, as well as filtering relevant columns (percentages of change from base-line for different categories of mobility, state, and county). The state-level information is also present as fields with no value for county.

Measures: The Google COVID-19 Community Mobility data includes information about visits to grocery stores and parks for each geographic region and how movement has change during the course of the pandemic.

Access the original data source and dataset(s) with the following link(s): The Rearc compiled dataset and Google's original page are at:

<https://aws.amazon.com/marketplace/pp/prodview-crrq42gujge3k#offers> and <https://www.google.com/covid19/mobility/>

5. Occupational Safety and Health Administration

The Institution: The Occupational Safety and Health Administration (OSHA) is a U.S. regulatory agency that works to ensure safe working conditions for all workers.

The dataset(s): COVID-19 related complaints by U.S. workers are submitted to OSHA. Since April 2020, OSHA has updated the open, closed, and whistleblower complaint data on a monthly basis.

Data retrieval and cleaning: We used the COVID-19 open, closed, and whistleblower complaint data that was available through July 30, 2021. The open, closed, and whistleblower complaint datasets were combined and all variables were renamed. The primary industry sector and site of complaint industry sector numbers were converted to the sector names. OSHA region numbers were converted to the states covered in each region. A variable calculating the number of inspections conducted related to a complaint was generated.

Measures: OSHA includes information about the industry sector, the hazard, and the description of the location of the exposure.

Access the original data source and dataset(s) with the following link(s):

<https://www.osha.gov/foia# covid-19>

6. Southern Poverty Law Center

The Institution: The Southern Poverty Law Center (SPLC) is a legal advocacy law organization that works with communities to dismantle white supremacy and advance the human rights of all people. The organization specializes in lawsuits aimed at protecting the civil rights of individuals and groups who face discrimination, abuse, or exploitation.

The dataset(s): Since 1990, the SPLC has published data about the number of hate groups operating in the U.S. The SPLC hate map includes the group's approximate locations and is based on consultations with analysts and researchers. These data are cross-sectional and represent hate group activity during the previous year.

Data retrieval and cleaning: We downloaded the 2020 Hate Map data on May 27, 2021. This represented the latest dataset at the time. The variables year, group, and city were removed and others were renamed. Year was removed as it indicated the year of the dataset. Group was similar to the title/hate group name. City was removed from this version of the dashboard due to difficulties with combining the different cities where a hate group operates within a state. Future updates to the dashboard will include city-level information.

Measures: The 2020 hate map includes the total number of hate groups in operation within the previous year for respective states.

Access the original data source and dataset(s) with the following link(s):

Information about the SPLC and the hate map are available with <https://www.splcenter.org/> and <https://www.splcenter.org/hate-map>

7. Surgo Ventures

The Institution: Surgo Ventures is a nonprofit research organization that uses the tools of behavioral science, data science, and artificial intelligence to improve population health. By partnering with other nonprofits, global health policy stakeholders, private investors, corporations, and foundations, Surgo Ventures generates datasets related to a variety of health outcomes in the US and globally.

The dataset(s): Surgo Ventures developed the COVID-19 Community Vulnerability Index (CCVI) to assess community-level vulnerability during the COVID pandemic. CCVI data is available at the national, state, county, and census tract levels. To understand vulnerability in the context of the coronavirus pandemic, COVID-specific epidemiological risk factors, public health system capacity, and variables capturing specific high-risk environments known to facilitate the spread of COVID-19 were combined with CDC Social Vulnerability Index sociodemographic variables. Surgo Ventures data come from sources like, the CDC, Centers for Medicare & Medicaid Services, the US Bureau of Labor Statistics, the US Census Bureau, the National Cancer Institute, Kaiser Health News, the Vera Institute for Justice, and the Association of Public Health Laboratories.

The 40 variables cover seven core social vulnerability and COVID-specific themes to account for factors that make communities or individuals susceptible to COVID. The composite CCVI metric ranks states, counties, or census tracts relative to one another on a 0 to 1 scale (0 = least vulnerable, 1 = most vulnerable).

Data retrieval and cleaning: We downloaded the most up-to-date CCVI data file from September 7, 2021. As the original names of the CCVI variables were not readily interpretable, we renamed each variable using a more informative name (e.g., “ms_EP_MNRTY” to “MS_Minority”) and replaced all missing values with “N/A,” to remain consistent with data cleaning procedures and streamline data analysis.

Measures: The CCVI is a modular index built to capture the multi-dimensional construct of vulnerability, spanning health, economic, and social disadvantages at the neighborhood level (Surgo Ventures, 2020). The seven core social vulnerability and COVID-specific themes include: 1) Socioeconomic Status; 2) Minority Status & Language, 3) Housing type, Transportation, Household Composition, & Disability; 4) Epidemiological Factors; 5) Healthcare System Factors; 6) High Risk Environments; and 7) Population Density.

Access the original data source and dataset(s) with the following link(s):

<https://surgoventures.org/covid-19-tools>

8. The American Public Health Association

The Institution: The American Public Health Association (APHA) is the flagship professional society for the field of public health. APHA members work in a wide range of public health settings, including but not limited to public health departments, schools, healthcare organizations, and research institutes. In addition to providing professional development, the society works to raise public awareness about health issues and influence public policy.

The dataset(s): APHA collects information on entities making public declarations that racism is a public health crisis, noting whether the declaration is made by a city/town council, county board, governor/mayor, educational board (e.g., school boards), health association or public health department. The declarations are self-reported by the declarative body through a link on the APHA website; therefore, the data may not include declarations not reported to APHA. How frequently APHA updates this database is unclear. In addition to information on the entity making the declaration, and the data of the declaration, the data include geocodes that indicate where the declaration was made. This allows the data to be linked to census and other data based on the geographic location of the declaration. As of September 2021, the dataset includes 218 declarations.

Data retrieval and cleaning: Since data were in form of a map, we manually input data from the APHA Declarations of Racism as a Public Health Crisis [website](#) and created variables, value labels, and codes, for use in the dashboard.

Measures: The APHA Map includes three main types of information: the date the declaration was made; the type of institution or entity that declared racism a public health crisis; the verbiage of the statement, the date the declaration was made and where it was made.

Access the original data source and dataset(s) with the following link(s):
<https://www.apha.org/topics-and-issues/health-equity/racism-and-health/racism-declarations>

9. The Consumer Financial Protection Bureau

The Institution: The Home Mortgage Disclosure Act (HMDA), enacted in 1975, is a U.S. federal law that requires financial institutions (e.g., banks and credit unions) that meet certain reporting criteria to publicly report their mortgage loan data.^{1, 2} Reporting criteria change over time and are described in the most recent HMDA Regulation C (12 CFR 1003).³ For example, the financial institutions that were required to report HMDA data in 2019 and 2020 are described in the final rules issued on Oct. 10, 2019 and April 16, 2020, respectively.^{3, 4}

These data are used to monitor the lending behavior of financial institutions in order to identify patterns of racial discrimination in mortgage lending. HMDA data and reporting requirements are maintained by the Consumer Financial Protection Bureau (CFPB), a federal agency within the Federal Reserve.¹ The CFPB works to ensure that consumers receive fair treatment by banks, lenders, and other financial firms.

The dataset(s): HMDA provides annual loan-level data (i.e., per each loan) with information about the loan (e.g., loan amount, purpose, and decision), the applicant (e.g., applicant race, ethnicity, and sex), and the property (e.g., census tract and total population size).⁵

Data retrieval and cleaning: We obtained mortgage loan-level data for 2020 from the HMDA database and used these data to calculate annual rates of mortgage loan denials (credit refusal) for all applicants and by primary applicant race/ethnicity. *Racialized* neighborhood credit refusal is a ratio of neighborhood credit refusal for racial/ethnic minority applicants by neighborhood credit refusal for all applicants, where neighborhood credit refusal equals the number of denied loans divided by the total number of loans.⁶ Consistent with previous studies, we excluded: incomplete and withdrawn loan applications and applications for non-owner-occupied units (properties for business purposes), multifamily units, and home improvement & refinancing (e.g., loans not for the purchase of a home).⁷⁻⁹

Measures: The HMDA dataset includes information about mortgage loans (e.g., the census tract of the loan, the purpose of the loan, the race/ethnicity of the loan applicant, and whether the loan was denied) used to measure housing discrimination (e.g., neighborhood credit refusal and racialized neighborhood credit refusal).

Access the original data source and dataset(s) with the following link(s): The original 2020 HMDA data is available at: <https://ffiec.cfpb.gov/data-browser/data/2020?category=states>. Data field information (i.e., a list of variable names and definitions) is available at: <https://ffiec.cfpb.gov/documentation/2020/lar-data-fields/>

10. The County Health Rankings & Roadmaps

The Institution: [The County Health Rankings & Roadmaps](#) (CHR&R) is a program of the University of Wisconsin Population Health Institute.

The dataset(s): The CHR&R provides data, evidence, and guidance to communities and local leaders. The purpose of this resource is to facilitate community learning and support action to promote health. The CHR&R collates information on health outcomes (length of life, quality of life) and health factors (health behaviors, clinical care, social and economic factors, physical environment) for U.S. counties.

Data are pulled from the National Center for Health Statistics, the CDC Behavioral Risk Factor Surveillance System, the American Community Survey, 5-year estimates and many other sources. The data are updated annually but are based on the frequency of reports by the original sources from which the County Health Rankings & Roadmaps relies upon.

Data retrieval and cleaning: Data on residential segregation were retrieved from the 2021 County Health Rankings. The CHR&R calculates the degree of segregation, with the dissimilarity index (evenness), between Black and white residents and Non-white and white residents using data from the American Community Survey 5-year estimates (2015-2019). The raw values for Black/white and non-white/white residential segregation were maintained and a variable indicating if the index was measured at the national, state, or county level was generated.

Measures: The CHR&R includes residential segregation measures.

Access the original data source and dataset(s) with the following link(s): The County Health Rankings & Roadmaps: <https://www.countyhealthrankings.org/> and the data source: <https://www.countyhealthrankings.org/explore-health-rankings/rankings-data-documentation>

11. The Environmental Protection Agency

The Institution: [The U.S. Environmental Protection Agency \(EPA\)](#) is the federal agency tasked with “protect[ing] human health and the environment.” The organization works to ensure that the U.S. populace has access to clean air, land, and water and uses science-based information to enforce laws that reduce environmental risks. The EPA is the environmental Stewart of “U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade” and considers these factors in administering and enforcing environmental policy.

The dataset(s): The EPA developed EJSCREEN: Environmental Justice Screening Map & Data in 2010 and made it available to the public in 2015. EJSCREEN is a web-based mapper that EPA uses “as a preliminary step when considering environmental justice.” For instance, EPA may use the mapper EJScreen to determine if particular areas need additional outreach or programs. EJScreen is updated annually.

Data retrieval and cleaning: We downloaded the 2020 EJSCREEN data, the latest dataset at the time, on September 13, 2021. Variables were renamed to aid with data management.

Measures: The EJSCREEN includes details about environmental and demographic indicators.

Access the original data source and dataset(s) with the following link(s):
<https://www.epa.gov/ejscreen> and <https://gaftp.epa.gov/EJSCREEN/>

12. The Federal Bureau of Investigation

The Institution: [The Federal Bureau of Investigation \(FBI\)](#) is "an intelligence-driven and threat-focused national security organization with both intelligence and law enforcement responsibilities." Agency staff work across the globe to protect the U.S. from terrorist attacks; foreign intelligence, espionage, and cyber operations; and to protect civil rights. The FBI combats cyber-criminal activity; public corruption at all levels; transnational criminal enterprises; white-collar crime; and violent crime.

The dataset(s): Data on hate crimes are collected by the FBI's Criminal Justice Information Services Division and published annually for the previous year. The FBI updates its Hate Crime Statistics data annually.

Data retrieval and cleaning: We retrieved the 2019 Hate Crime Statistics data on August 20, 2021. This reflected the latest dataset available at the time. We merged all state files and renamed variables. We manually searched each reporting agency to determine the city and county in which they are located.

Measures: The 2019 Hate Crime Statistics dataset includes information about the agency reporting an incident, the number of hate incidents, and hate crimes motivated by race, religion, sexual orientation, disability, sex, or gender.

Access the original data source and dataset(s) with the following link(s):

<https://ucr.fbi.gov/hate-crime/2019/downloads/downloads> and
<https://ucr.fbi.gov/hate-crime/2019>

13. The Health Resources and Services Administration

The Institution: The Health Resources and Services Administration (HRSA) is a U.S. federal agency within the Department of Health and Human Services responsible for improving access to health care among underserved populations through federally funded grants and programs including the Health Center Program. HRSA-funded health centers are organizations that deliver primary health care to medically underserved areas/populations. Health center look-alikes are HRSA-designated health centers that provide care consistent with the Health Center Program requirements, but do not receive Health Center Program funding.¹⁰ Health center organizations may have multiple health center sites where care is delivered.

1. The Health Center COVID-19 Vaccinations Among Racial and Ethnic Minority Patients Dashboard

The dataset(s): The Health Center COVID-19 Vaccinations Among Racial and Ethnic Minority Patients Dashboard provides information on the number of COVID-19 vaccinations administered at HRSA-funded health centers nationally; by geographic location (e.g., state, US territory and freely associated state); and among racial and ethnic minority patients. The data is updated every two weeks based on the Health Center COVID-19 Survey.¹¹

Data retrieval and cleaning: The Project REFOCUS team last downloaded data from the Health Center COVID-19 Vaccinations Among Racial and Ethnic Minority Patients Dashboard on October 18, 2021

2. The Health Center COVID-19 Vaccine Program

The dataset(s): On February 9, 2021, HRSA and the CDC launched the Health Center COVID-19 Vaccine Program to directly send COVID-19 vaccines to HRSA-supported health centers.^{12, 13} As of April 7, 2021, HRSA and CDC had invited all health centers and look-alikes to participate in the program.¹³ It is unclear how often the list of participants is updated, but as of December 2, 2021, HRSA last updated the list on November 19, 2021.¹⁴

Data retrieval and cleaning: The Project REFOCUS team downloaded an initial dataset from the Health Center COVID-19 Vaccine Program source on September 9, 2021. Data are currently retrieved on a daily basis using an automated daily query.

Measures: These data provide the total number of vaccinations and the percent of total vaccinations administered to racial/ethnic minority patients at health centers. Data from all sources are limited to COVID vaccinations administered at HRSA-

funded health centers. Data from the Health Center COVID-19 Vaccine Program are provided for HRSA-funded health centers and look-alike health centers.

Access the original data source and dataset(s) with the following link(s):

<https://data.hrsa.gov/topics/health-centers/covid-vaccination> and

<https://www.hrsa.gov/coronavirus/health-center-program/participants>

14. The Kaiser Family Foundation

The Institution: KFF ([Kaiser Family Foundation](https://www.kff.org/)) is a nonprofit organization focusing on national health issues, as well as the U.S. role in global health policy. KFF develops and runs its own policy analysis, journalism and communications programs, sometimes in partnership with major news organizations.

The dataset(s): KFF's state COVID-19 Data and Policy Actions Data provides state-level data on COVID-19 outcomes, metrics, and trends. The included indicators have changed over time. On June 10th, 2020, KFF made the data available for public use via a public repository on GitHub, which allows access to the raw data and tables that their dashboard uses. Updates on the state trends data is regular (~daily). The data on race/ethnicity breakdown for cases/ deaths/vaccines is updated less frequently (there are gaps in between months). The first files were published in March 2021.

Data retrieval and cleaning: As new data on race-ethnicity breakdowns of COVID cases, deaths, and vaccines is made available by KFF, our dashboard fetches them and integrates their content into the dashboard. The cleaning involves parsing the corresponding date information from filenames and adding it as data fields to our system.

Measures: KFF data on COVID is composed of several key subsets. For monitoring COVID outcomes (cases, deaths, vaccines, hospitalizations, and tests) as time-series, we are using the "State Trends Data" subset. The information on race/ethnicity percentages per US regions comes from the "Race Ethnicity COVID-19 Data" subset.

Access the original data source and dataset(s) with the following link(s): The main repository is available at <https://github.com/KFFData/COVID-19-Data> and the State COVID-19 Data and Policy Actions: <https://www.kff.org/coronavirus-covid-19/issue-brief/state-covid-19-data-and-policy-actions/>

15. The Princeton Eviction Lab

The Institution: [The Eviction Lab](#) at Princeton University creates data, interactive tools, and research to help community members and policymakers understand “the prevalence, causes, and consequences of housing insecurity and the eviction crisis.”

The dataset(s): Since 2000, the Eviction Lab has compiled a database that “represents the largest accumulation of U.S. court records related to eviction.” Data collected comprised formal eviction records across U.S. states. These data include defendant and plaintiff names, the defendant’s address, monetary judgment information, and the outcome of the case. The Eviction Lab combines these data with information from the Census to generate its eviction map. State-reported county-level data on landlord-tenant cases are also available for 27 states, New York City, and the District of Columbia.

Data retrieval and cleaning: State-level data on weekly eviction filings were downloaded from the Eviction Lab. Using the GEOIDS, numeric codes that identify particular geographic areas (embedded in each data point,) were used to match census tracts to their counties and states. The initial datasets, which are from December 29, 2019 to March 28, 2021, were entered into the dashboard manually. For data following that date, a program was written to automate the data retrieval on a daily basis.

Measures: The weekly date, aggregated counts of eviction judgments in 2020, aggregated average eviction judgments in 2020, state abbreviation, and filing week were are incorporated into the Project REFOCUS dashboard.

Access the original data source and dataset(s) with the following link(s):
<https://evictionlab.org> and <https://evictionlab.org/eviction-tracking/get-the-data/>

16. The U.S. Census Bureau

The Institution: The U.S. Census Bureau provides up to date information about the U.S. population and economy. The census is conducted every ten years, in addition to ongoing surveys, like the American Community Survey (ACS). The ACS produces estimates of the population living at a given time in the U.S. and Puerto Rico.

1. Data on U.S. housing patterns and residential segregation

The dataset(s): We merged data from two sources: 1) the U.S. Census Housing Patterns Files and 2) the U.S. Census Historical Delineation Files. The Census Bureau reports segregation indices for selected metropolitan areas (MAs). The selected MAs vary for each racial/ethnic group based on the following criteria:¹⁵

- AIAN segregation indices are reported for 13 Metropolitan Areas with 3% or 20,000 or more American Indians and Alaska Natives in 1980.
- API segregation indices are reported for 20 Metropolitan Areas with at least 10 tracts and 3% or 20,000 or more Asians and Pacific Islanders in 1980.
- Black segregation indices are reported for 43 Metropolitan Areas with 3% or 20,000 or more Blacks or African Americans and 1,000,000 or more total population in 1980;
- Hispanic/Latino segregation indices are reported for 36 Metropolitan Areas with 3 percent or 20,000 or more Hispanics or Latinos and 1,000,000 or more total population in 1980.

The comparison group for all segregation measures is non-Hispanic White Americans and the boundaries for metropolitan areas are based on definitions from June 30, 1999.¹⁶

Data retrieval and cleaning: We downloaded the “Residential Segregation in Selected Metropolitan Areas: 1980, 1990, and 2000” data for each racial/ethnic group from the Housing Patterns Files¹⁵ and the June 30, 1999 “Metropolitan Areas and Components” data from the Historical Delineation Files.¹⁷ The historical delineation file was used to identify the counties in each metropolitan area. Each county was assigned the segregation score of its metropolitan area. We created a binary (yes/no) hypersegregation variable for each decade. An area is hypersegregated (hypersegregation = yes) if it scores at least 0.60 on four of five segregation indices.

Measures: This data source includes the following segregation indices (and dimensions): the dissimilarity index (evenness), the isolation index (exposure), the

delta index (concentration), the absolute centralization index (centralization), and the spatial proximity index (clustering).

Access the original data source and dataset(s) with the following link(s):

<https://www.census.gov/data/tables/time-series/demo/housing-patterns/housing-patterns-tables.html>

2. The 2019 Community Resilience Estimates (CRE)

The dataset(s): Resilience to a disaster is partly determined by the vulnerabilities within a community. The CREs are population estimates based on individual and household level risk factors that are used to measure vulnerabilities and construct community resilience estimates. The risk factors are binary components that add up to 10 possible risks (and three categories of risk, including Low, Medium, and High) using data from the 2019 American Community Survey (ACS). CREs also utilize auxiliary data from the Census Bureau's Population Estimates Program (PEP). Once the weighted estimates are tabulated, small area modeling techniques are used to create CRE estimates. CREs for 2018 and 2019 are available. We downloaded the CREs for 2019, which are based on the 2019 ACS, in September 2021.

Data retrieval and cleaning: The original CRE variables were retained and used.

Measures: The CRE includes three categories of risk, including Low, Medium, and High, for population and rate measures across US census tracts, counties, and states. These categories of risk indicate communities' susceptibility to public health crises and resilience, which refers to the capacity of individuals and households within a community to absorb the external stresses of a disaster (U.S. Census Bureau, 2019).

Access the original data source and dataset(s) with the following link(s):

<https://www.census.gov/programs-surveys/community-resilience-estimates/data/datasets.html>

17. The Washington Post

The Institution: The Washington Post is an American newspaper that publishes domestic and national news and analysis on politics, business, and other topics.

The dataset(s): The Washington Post has documented every fatal shooting by an on-duty U.S. police officer since 2015. These data are obtained through continuous review of news outlets, social media postings, and police reports. The database is updated as new findings emerge about each incident.

Data retrieval and cleaning: The Project REFOCUS dashboard integrates the Washington Post variables without making any changes to them.

Measures: The Washington Post data includes information about the total number of fatal shootings for each state by date. For each killing, the database provides the date of the shooting; the city and state where the shooting occurred, name, race, gender and age of the deceased; manner of death; threat level; if the officer was wearing a body camera; if the deceased was fleeing; and whether the person was experiencing a mental-health crisis, or armed at the time of the shooting.

Access the original data source and dataset(s) with the following link(s): The Washington Post: <https://www.washingtonpost.com> and the data source <https://www.washingtonpost.com/graphics/investigations/police-shootings-database/>

18. UCLA School of Law

The Institution: The UCLA Law COVID-19 Behind Bars Data Project, launched in March 2020 and tracks the spread and impact of COVID-19 in American carceral facilities. The project advocates for greater transparency and accountability around the pandemic response of the carceral system.

The dataset(s): Using custom web scrapers, data is collected twice weekly from all 50 state carceral agencies, the District of Columbia's Department of Corrections, the Federal Bureau of Prisons (BOP), U.S. Immigration and Customs Enforcement (ICE), along with several county jail systems, youth detention centers, and state psychiatric hospitals.

Data retrieval and cleaning: We used the most updated data scrape available at time of data cleaning, September 10, 2021, which included data from March 20, 2021 to September 20, 2021. Variables were not manipulated.

Measures: The UCLA Law COVID Behind Bars Data Project includes information about the total cumulative cases and deaths among incarcerated people and staff.

Access the original data source and dataset(s) with the following link(s):

<https://uclacovidbehindbars.org/>

19. USAspending.gov

The Institution: USAspending.gov provides information about U.S. Government spending. These data include how much the federal government spends every year and how it spends the money.

The dataset(s): USAspending.gov uses Disaster Emergency Fund Codes (DEFC) to track data on U.S. government COVID-19-related spending and categorizes these data into three groups: (1) the Agencies authorizing the funds to be spent; (2) the Federal Accounts from which agencies authorize spending; and (3) the object classes of the goods and services purchased with the Disaster Emergency Fund. The data provided are aggregates of records tagged with a COVID-19 DEFC.

Data retrieval and cleaning: Data cleaning is in progress. As of April 2020, these data have been updated monthly.

Measures: Data from USAspending.gov includes information (e.g., total budgetary, resources, total obligations, total outlays) on COVID-19 spending by federal agencies. Information about whether funds were in the form of direct payments, loans, grants, contracts, or other financial assistance are also provided.

Access the original data source and dataset(s) with the following link(s):
<https://www.usaspending.gov/> and <https://www.usaspending.gov/disaster/covid-19?publicLaw=all>

Geographic Level of Datasets

Data source	Dataset	National	Regional	Voting District	State	County	City	Census tract	Zip code	Address
CDC	Laboratory-Confirmed COVID-19-Associated Hospitalizations				X					
CDC	United States COVID-19 Cases and Deaths by State over Time				X					
CDC	COVID-19 Vaccinations in the United States (Jurisdictions)				X					
CDC	COVID-19 Vaccinations in the United States (County)				X	X				
CDC	COVID-19 Vaccination Demographics in the United States (National)	X								
HRSA	Health Center COVID-19 Vaccinations Among Racial and Ethnic Minority Patients	X			X					
HRSA	Health Center COVID-19 Vaccine Program Participants	X			X					
KFF	COVID Data, Metrics, and Trends				X					
APHA	Places that have declared racism a public health issue				X	X	X			
CFPB	Home Mortgage Disclosure Act Data				X	X		X		
County Health Rankings	Residential Segregation (2015-2019 U.S. Census data)	X			X	X				
FBI	Hate Crime Statistics				X	X	X			
SPLC	Hate Groups				X		X			
U.S. Census	1980-2000 Segregation Data					X				
Advancement Project	Social Vulnerability Index				X	X				
EPA	Environmental Justice Screening Map & Data				X	X	X	X		
Surgo Ventures	COVID-19 Community Vulnerability Index				X	X		X		
UCLA School of Law	COVID-19 Behind Bars Data Project				X	X				

U.S. Census Bureau	Community Resilience Estimates	X			X	X		X		
BU SPH and JH BSPH	COVID U.S. State Policy Database				X					
Google LLC	COVID-19 Community Mobility	X			X	X				
OSHA	COVID-19 Complaints (open, closed, and whistleblower complaints)				X	X	X		X	X
The Princeton Eviction Lab	Evictions				X	X	X	X	X	
The Washington Post	Fatal Police Shootings				X		X			

*Notes. To remain consistent across different levels of geography, the Project REFOCUS dashboard displays state and some county-level data.

Measures

Each of the aforementioned data sources supplies one or more of the indicators that Project REFOCUS uses to help capture COVID-related outcomes, social stigma, racism, resilience, and other determinants of health inequities. To visualize a univariate distribution on the dashboard, select the COVID-related indicator from the main drop-down menu at the top of the screen. Once selected COVID, users may examine it alongside disparities (in COVID diagnoses, deaths, or vaccinations) or in relation to indicators of racism, social stigma, resilience or other factors (e.g., police shootings).

Dashboard users may also access a complete list of variables, including key considerations for using each metric and data source [online](#).

1. COVID Outcomes

To improve the flexibility and usefulness of the system, the dashboard includes a range of COVID-related indicators that encompass the COVID care continuum. The continuum is a heuristic that outlines the different points at which individuals must engage with the healthcare system to minimize risk of severe disease or death and maximize the possibility of achieving optimal outcomes. Though still evolving, it includes vaccination of all persons to reduce the risk of severe COVID, and among those infected with SARS CoV-2 early diagnosis of COVID infection, entry to COVID care as appropriate, retention in care as appropriate and adherence to prescribed regimens.

Cases

Metric	Key considerations for using this metric	Datasource
Percent change in cases over 14 days	None	KFF, COVID-19 Data, Metrics, and Trends Update frequency: Almost daily
Percent change in cases over 7 days	None	
Percent change in positivity rate over 14 days	None	
Percent change in positivity rate over 7 days	None	
Percent of cases with Known Race	See note	
Percent of cases with Unknown Race	See note	
American Indian or Alaska Native percent of cases	See note	
Asian percent of cases	See note	

Metric	Key considerations for using this metric	Datasource
Asian percent of cases (by population distribution)	See note	
Black percent of cases	See note	
Black percent of cases (by population distribution)	See note	
Cumulative cases	None	
Daily cases (7-day rolling average)	None	
Daily cases per million population	None	
Daily change in cumulative cases	None	
Daily change in cumulative tests	None	
Hispanic percent of cases	None	
Hispanic percent of cases (by population distribution)	None	
Native Hawaiian or Other Pacific Islander percent of cases	See note	
Other percent of cases	See note	
Percentage point change in positivity rate over 7 days	None	
Positivity rate (7-day rolling average)	None	
White percent of cases	See note	
White percent of cases (by population distribution)	See note	
Cumulative number of incarcerated individuals infected with COVID	The COVID-19 Behind Bars Data Project cautions that this figure may change as people are transferred or released. Testing practices may also vary by carceral agency.	UCLA School of Law, COVID-19 Behind Bars Data Project Update frequency: Not specified
Cumulative number of staff infected with COVID	The COVID-19 Behind Bars Data Project cautions that not all agencies report data on COVID-19 outcomes among staff and that these figures may be artificially low.	
Number of incarcerated individuals currently infected with COVID	The COVID-19 Behind Bars Data Project cautions that testing data are not always available and testing practices varies by carceral agency. As a result, true case counts are likely higher than reported, and the extent of this under detection is extremely variable.	
Number of staff currently infected with COVID	The COVID-19 Behind Bars Data Project cautions that not all agencies report data on staff COVID-19 cases. In addition, some jurisdictions allow self-reports. As a result, the number of staff	

Metric	Key considerations for using this metric	Datasource
	cases reported may be lower than the number detected by testing.	

***Note:** According to KFF, percent of cases in each state may not sum to 100% due to rounding. Percentages are based on a total of all probable and confirmed cases for which race/ethnicity is known. Some states do not update race/ethnicity information as frequently as the count of total cases for that state, which may increase the % of Cases Missing Race/Ethnicity Data. Persons of Hispanic origin may be of any race

Deaths

Metric	Key considerations for using this metric	Data source
Percent change in deaths over 14 days	None	Update frequency: Almost daily
Percent change in deaths over 7 days	None	
American Indian or Alaska Native Percent of deaths	None	
Asian percent of deaths	See note	
Asian percent (by population distribution)	See note	
Black percent of deaths	See note	
Black percent of deaths (by population distribution)	See note	
Cumulative deaths	None	
Daily change in cumulative deaths	None	
Daily deaths (7-day rolling average)	None	
Daily deaths per million population	None	
Hispanic percent of deaths	See note	
Hispanic percent of deaths (by population distribution)	See note	
Native Hawaiian or Other Pacific Islander Percent of deaths	See note	
Other Percent of deaths	See note	
White percent of deaths	See note	
White percent of deaths (by population distribution)	See note	
Cumulative number of incarcerated individuals who died from COVID	The COVID-19 Behind Bars Data Project cautions that this variable may include undercounts of COVID-19-related deaths because agencies differ in the categories of deaths they report as COVID-19-related.	UCLA School of Law, COVID-19 Behind Bars Data Project
Cumulative number of staff who died from COVID		

***Note:** Persons of Hispanic origin may be of any race

Hospitalizations

Metric	Key considerations for using this metric	Data source
Age group	None	CDC, COVID-19 Hospitalizations Update frequency: Weekly
Cumulative rate	None	
Date component	None	
Race category	None	
Sex group	None	
Weekly rate	None	
Cumulative number of individuals in the hospital due to COVID-19	US total includes territories.	KFF, COVID-19 Data, Metrics, and Trends Update frequency: Almost daily
Current number of individuals in the hospital due to COVID-19	US total includes territories.	

Tests

Metric	Key considerations for using this metric	Data source
Percent change in tests over 14 days	None	KFF, COVID-19 Data, Metrics, and Trends Update frequency: Almost daily
Percent change in tests over 7 days	None	
Cumulative tests	US total includes territories.	
Daily tests (7-day rolling average)	None	
Daily tests per million population	None	
Testing units	None	
Cumulative number of COVID tests administered to incarcerated individuals	The COVID-19 Behind Bars Data Project cautions that some agencies report only the number of people tested, rather than the total number of tests administered.	UCLA School of Law, COVID-19 Behind Bars Data Project Update frequency: Not specified
Cumulative number of incarcerated individuals tested for COVID	The COVID-19 Behind Bars Data Project cautions that some agencies report only the number of people tested, rather than the total number of tests administered.	

Vaccinations

Metric	Key considerations for using this metric	Data source
<p>The Percent of total vaccinations (from all sources) among racial and ethnic minority patients, except for patients of unknown race/ethnicity, who refused to report race/ethnicity, and who identified as non-Hispanic-unknown race.</p>	<p>The category of racial and ethnic minority patients includes patients of known racial and ethnic minority background.</p>	
<p>The Percent of total vaccinations (administered from the Health Center COVID-19 Vaccine Program only) among racial and ethnic minority patients, except for patients of unknown race/ethnicity, who refused to report race/ethnicity, and who identified as non-Hispanic-unknown race.</p>	<p>The numerator includes vaccinations of patients who self-reported as Hispanic/Latino and Non-Hispanic/Latino Black/African American, Asian, American Indian/Alaska Native, Native Hawaiian, Other Pacific Islander, and more than one race. It also includes those who identified as Hispanic/Latino White or Hispanic/Latino, but did not report race.</p> <p>The denominator includes all vaccinations, except for patients of unknown race/ethnicity, who refused to report race/ethnicity, and who identified as non-Hispanic-unknown race.</p>	<p>HRSA, Health Center COVID-19 Vaccinations Among Racial and Ethnic Minority Patients</p> <p>Update frequency: Every two weeks</p>
<p>The cumulative number of vaccinations administered through the Health Center COVID-19 Vaccine Program and from allocations that health centers receive from state and local health departments, as well as health center patients vaccinated through other means</p>	<p>None, refer to the metric's description for details</p>	
<p>The cumulative number of vaccinations administered from allocations through the Health Center COVID-19 Vaccine Program only</p>		
<p>Indicator of whether the health center is participating in the Health Center COVID-19 Vaccine Program.</p>	<p>As of April 7, 2021, HRSA and CDC had invited all health centers and look-alikes to participate in the program. A list of frequently asked questions and answers about the Health Center COVID-19 Vaccine Program is available at the following link: https://bphc.hrsa.gov/emergency-response/coronavirus-frequently-asked-questions?field_fa_category_tid=306&combine=</p>	<p>HRSA, Health Center COVID-19 Vaccine Program Participants</p> <p>Update frequency: Every two weeks</p>

Metric	Key considerations for using this metric	Data source
Name of health center organization.	This is the name of the health center grantee (awardee) which may have multiply health center sites with different names.	
Date that the health center's vaccine program status was last updated	None	
Percent of Total Asian Population Vaccinated	All race categories include Hispanic individuals	KFF, COVID-19 Data, Metrics, and Trends Update frequency: Approximately monthly
Percent of Total Black Population Vaccinated		
Percent of Total Hispanic Population Vaccinated		
Percent of Total White Population Vaccinated		
Percent of Vaccinations with Known Ethnicity		
Percent of Vaccinations with Known Race		
Percent of Vaccinations with Unknown Ethnicity		
Percent of Vaccinations with Unknown Race		
American Indian or Alaska Native Percent of Vaccinations		
Asian percent of Vaccinations		
Asian percent of Vaccinations (by population distribution)		
Black percent of Vaccinations		
Black percent of Vaccinations (by population distribution)		
Hispanic percent of Vaccinations (by population distribution)		
Hispanic percent of Vaccinations		
Native Hawaiian or Other Pacific Islander Percent of Vaccinations		
Other Percent of Vaccinations		
Percentage Point Difference Between White and Asian Rate		
Percentage Point Difference Between White and Black Rate		
Percentage Point Difference Between White and Hispanic Rate		
White percent of Vaccinations		

Metric	Key considerations for using this metric	Data source
White percent of Vaccinations (by population distribution)		
White to Asian Vaccination Ratio		
White to Black Ratio		
White to Hispanic Vaccination Ratio		
Cumulative number of administered vaccines	None	
Cumulative number of delivered vaccines	None	
Cumulative number of people with 1+ dose	None	
Cumulative number of people with 2 doses	None	
Cumulative number of incarcerated individuals who are fully vaccinated	The COVID-19 Behind Bars Data Project cautions that carceral agencies vary widely in what data they report about vaccinations, how they report them, and who agencies include in the incarcerated populations for which they report vaccine information. Importantly, this information may include incarcerated individuals who have since been released and/or those who received a vaccine before entering the facility.	UCLA School of Law, COVID-19 Behind Bars Data Project Update frequency: Not specified
Cumulative number of incarcerated individuals who have received at least one dose of a vaccine		
Cumulative number of staff who are fully vaccinated		
Cumulative number of staff who have received at least one dose of a vaccine		
Cumulative number of vaccine doses administered to incarcerated individuals		
Cumulative number of vaccine doses administered to staff		

***Note:** Percentages are based on total vaccinations for which race/ethnicity is known. There are differences in vaccination data by data reported, reporting periods, racial/ethnic classifications, and/or rates of unknown race/ethnicity. Where states report vaccination data for people of multiple races, KFF include these data in the Other category. As of 3/15, KFF only reports state-reported unknown race/ethnicity data. Persons of Hispanic origin may be of any race.

2. Racism

Measures from these data sources reflect the science linking specific racism-related measures to health inequities. Project REFOCUS analyses that include one or more of these measures can help contextualize how specific forms of racism may co-occur with COVID outcomes, and allow end users to examine the relationship between the racism indicators and COVID-19 inequities to understand their potential to exacerbate stressors, limit access to or quality of healthcare, or increase risk to other exposures.

Hate Crimes

Metric	Key considerations for using this metric	Data source
Name of the agency reporting the hate crime(s)	None	Hate Crime Statistics, FBI Update frequency: Annually
Type of agency reporting the hate crime(s)	None	
City	This variable was created and filled in by Project REFOCUS research members.	
County	This variable was created and filled in by Project REFOCUS research members. There are cities that are located in more than one county. In those instances, the city is listed with the county with the largest percentage of that city. The following tool was used: https://www.statsamerica.org/CityCountyFinder/ .	
The number of hate crimes motivated by bias against persons based on a presumed or actual disability	Some agencies may have reported hate crimes with more than one bias motivation.	
The number of hate crimes motivated by bias against persons based on their presumed or actual gender		
The number of hate crimes motivated by bias against person based on their presumed or actual race		
The number of hate crimes motivated by bias against persons based on their presumed or actual religion		
The number of hate crimes motivated by bias against person based on their presumed or actual sex		
The number of hate crimes motivated by bias against persons based on their presumed or actual sexual orientation		

Metric	Key considerations for using this metric	Data source
State	None	
Population size	None	

Hate Groups

Metric	Key considerations for using this metric	Data source
City	Represents the groups' approximate location	SPLC, Hate Map
State		
Anti-Immigrant Groups	Represents groups that have been identified	Update frequency: Annually
Anti-LGBTQ Groups		
Anti-Muslim Groups		
General Hate Groups		
Hate Group Name		
Hate Music Groups		
Ku Klux Klan		
Male Supremacy Groups		
Neo-Confederate Groups		
Neo-Nazi Groups		
Neo-Völkisch Groups		
Racist Skinhead Groups		
Radical Traditional Catholicism Groups		
These Hate Groups are Not Statewide/It is Unknown Whether These Hate Groups are Statewide	Represents the groups' approximate location	
These Hate Groups are not the Headquarters/It is Unknown Whether These Hate Groups are the Headquarters Locations	Represents the groups' approximate location	
These Hate Groups are Statewide	Represents the groups' approximate location	
These Hate Groups are the Headquarters Locations	Represents the groups' approximate location	
Total Count of the Hate Group in the State	The SPLC uses this indicator as a barometer of the level of hate activity in the country	
White Nationalist Christian identity Groups	Represents groups that have been identified	
White Nationalist Groups	Represents groups that have been identified	

Residential Segregation

Metric	Key considerations for using this metric	Data source
The evenness with which Black and White residents are distributed across the census tracts that make up counties.	The Black/White residential segregation measure is only available for counties with a Black population of at least 100 (applies to approximately 65% of US counties). This measure is a reflection of racial and not ethnic discrimination.	County Health Rankings Update frequency: Annually
The evenness with which non-white and white residents are distributed across the census tracts that make up counties.	This measure is a reflection of racial and not ethnic discrimination.	
The action taken on the covered loan or application (e.g., originated, approved, denied, incomplete, withdrawn) (HMDA.1a)	HMDA metrics 1a-1f were used to construct the housing discrimination variables (HMDA metrics 2a-2i) and are not included in the dashboard, but can be obtained from the original data source. These metrics (1a-1f) are listed and defined here to clarify how the housing discrimination variables were generated. Data definitions were obtained from the Federal Financial Institutions Examination Council.	Home Mortgage Disclosure Act, CFPB Update frequency: Monthly
Whether the covered loan or application is primarily for a business or commercial purpose (e.g., yes, no, exempt) (HMDA.1b)		
Derived dwelling type from Construction Method and Total Units fields for easier querying of specific records (e.g., single family, multifamily unit) (HMDA.1c)		
The purpose of the covered loan or application (e.g., home purchase, home improvement, refinancing, other) (HMDA.1d)		
Ethnicity of the primary applicant or borrower (Hispanic or Latino; Mexican; Puerto Rican; Cuban; Other Hispanic or Latino; Not Hispanic or Latino; Information not provided by applicant in mail, internet, or telephone application; Not applicable) (HMDA.1e)	Applicants can report more than one race and/or ethnicity. We used the first race/ethnicity reported by the applicant to calculate the housing discrimination variables.	
Race of the primary applicant or borrower (American Indian or Alaska Native; Asian; Asian Indian; Chinese; Filipino; Japanese; Korean; Vietnamese; Other Asian; Black or African American; Native Hawaiian or Other Pacific Islander; Native Hawaiian; Guamanian or Chamorro; Samoan; Other Pacific Islander; White;		

Metric	Key considerations for using this metric	Data source
Information not provided by applicant in mail, internet, or telephone application; Not applicable) (HMDA.1f)		
The calendar year the data submission covers	As of January 2022, housing discrimination variables were calculated for two years, 2019 and 2020. These were the most recent years of HMDA data available at the time of our data collection.	
11-digit census tract number	The first five numbers indicate the state-county FIPS code and are followed by the census tract number.	
State-county FIPS code	The first two numbers indicate the state FIPS code and the last three numbers indicate the county FIPS code. Each county in the US has a distinct state-county FIPS code.	
Two-letter state abbreviation (e.g., AL is Alabama)	None	
The total number of loan applications submitted in a census tract	We used HMDA data (metrics HMDA.1a-1e) to calculate the total number of applications and the number and proportion of denied applications for each census tract. These metrics are not included in the original data source. Consistent with previous studies, we excluded: incomplete and withdrawn loan applications and applications for non-owner-occupied units (properties for business purposes), multifamily units, and home improvement & refinancing (e.g., loans not for the purchase of a home).	
The number of loans submitted by the specified racial group that were denied in a census tract		
The proportion of total loans that were denied in a census tract ($n_denied_apps / total_apps$)		
The total number of loan applications submitted by the specified racial group in a census tract.		
The proportion of total loans submitted by the specified racial group that were denied in a census tract ($n_denied_apps_racial\ group / total_apps_racial\ group$)		
The ratio of the proportion of denied loans for the specified racial group by the proportion of denied loans for the total population ($p_denied_apps_racial\ group / p_denied_apps$)		
The number of loans that were denied in a census tract		
Year		

Metric	Key considerations for using this metric	Data source
County	None	Segregation Measures for Selected Metropolitan Areas: 1980, 1990, 2000 Update frequency: Not updated
State	None	
AIAN/White absolute centralization index	Counties (and county equivalents) are assigned the segregation index of the metropolitan area they are located in.	
AIAN/White delta index		
AIAN/White dissimilarity index	Residents who identify as Non-Hispanic White (alone) are the comparison group.	
AIAN/White hypersegregation		
AIAN/White isolation index	Higher values indicate more segregation.	
AIAN/White spatial proximity index		
API/White absolute centralization index	The formula, strengths, and weaknesses for each segregation index are detailed here: https://www.census.gov/prod/2002pubs/censr-3.pdf	
API/White delta index		
API/White dissimilarity index		
API/White hypersegregation		
API/White isolation index		
API/White spatial proximity index		
Black/White absolute centralization index		
Black/White delta index		
Black/White dissimilarity index		
Black/White hypersegregation		
Black/White isolation index		
Black/White spatial proximity index		
Hispanic/White absolute centralization index		
Hispanic/White delta index		
Hispanic/White dissimilarity index		
Hispanic/White hypersegregation		
Hispanic/White isolation index		
Hispanic/White spatial proximity index		

Other Racism Measures

Metric	Key considerations for using this metric	Data source
Name of declarative entity	None	APHA, Places that have declared racism a public health crisis Update frequency: APHA notes that data are not updated automatically but will be frequently updated to reflect new declarations
Type of entity	Types include: Health/Public Health Entity; City/Town Council; County Board; Other; State Legislature; Education; Governor/Mayoral Statement	
City	None	
County	None	
Geography of entity	Geographies include: State; City; County; County Board	
State	None	
Hyperlink to original declaration source	None	

3. Social Stigma

Stigma-related approaches and measures assess the labeling, stereotyping, separation, status loss, and discrimination within a power context that allows for stigmatization. The indicators of social stigma are drawn from the data sources below. Each has been developed relatively recently; therefore, the levels of scientific evidence supporting their use is emerging.

Environment

Metric	Key considerations for using this metric	Data source
Air Toxics Cancer Risk	None	EPA, Environmental Justice Screen Update frequency: Annually
Air Toxics Respiratory Hazard Index	None	
Diesel Particulate Matter Level in Air	None	
EJ Index for % Pre-1960 Housing/Lead Paint	None	
EJ Index for Air Toxics Cancer Risk	None	
EJ Index for Air Toxics Respiratory Hazard Index	None	
EJ Index for Diesel Particulate Matter Level in Air	None	
EJ Index for Ozone Level in Air	None	
EJ Index for Particulate Matter Level in Air	None	
EJ Index for Proximity to National Priorities List Sites	None	
EJ Index for Proximity to Risk Management Plan Facilities	None	
EJ Index for Proximity to Treatment Storage and Disposal Facilities	None	
EJ Index for Traffic Proximity and Volume	None	
EJ Index for Wastewater Dischargers Indicator	None	
Number of National Priorities List Facilities in the Block Group	None	
Number of Treatment Storage and Disposal Facilities in the Block Group	None	
Ozone Level in Air	This variable is calculated from the EPA Office of Air and Radiation.	
Particulate Matter Level in Air	This variable is calculated from the EPA Office of Air and Radiation.	
Percentile for % Pre-1960 Housing/Lead Paint	None	

Metric	Key considerations for using this metric	Data source
Percentile for Air Toxics Cancer Risk	None	
Percentile for Air Toxics Respiratory Hazard Index	None	
Percentile for Diesel Particulate Matter Level in Air	None	
Percentile for EJ Index for % Pre-1960 Housing/Lead Paint	None	
Percentile for EJ Index for Air Toxics Cancer Risk	None	
Percentile for EJ Index for Air Toxics Respiratory Hazard Index	None	
Percentile for EJ Index for Diesel Particulate Matter Level in Air	None	
Percentile for EJ Index for Ozone Level in Air	None	
Percentile for EJ Index for Particulate Matter Level in Air	None	
Percentile for EJ Index for Proximity to National Priorities List Sites	None	
Percentile for EJ Index for Proximity to Risk Management Plan Facilities	None	
Percentile for EJ Index for Proximity to Treatment Storage and Disposal Facilities	None	
Percentile for EJ Index for Traffic Proximity and Volume	None	
Percentile for EJ Index for Wastewater Dischargers Indicator	None	
Percentile for Ozone Level in Air	None	
Percentile for Particulate Matter Level in Air	None	
Percentile for Proximity to National Priorities List Sites	None	
Percentile for Proximity to Risk Management Plan Facilities	None	
Percentile for Proximity to Treatment Storage and Disposal Facilities	None	
Percentile for Traffic Proximity and Volume	None	
Percentile for Wastewater Dischargers Indicator	None	
Proximity to National Priorities List Sites	This variable is calculated from the EPA CERCLIS database.	
Proximity to Risk Management Plan Facilities	This variable is calculated from EPA RMP database.	

Metric	Key considerations for using this metric	Data source
Proximity to Treatment Storage and Disposal (TSDF) facilities	This variable is calculated from EPA RCRAInfo database.	
Traffic Proximity and Volume	None	
Wastewater Dischargers Indicator	None	
Census FIPS Code	None	
Department of Health and Human Services Region	The Environmental Protection Agency (EPA) shares the same structure as the Department of Health and Human Services (DHHS) for their regions and offices.	
Land Area in Square Meters	None	
Object ID	None	
Shape Area	None	
Shape Length	None	
State	None	
Water Area in Square Meters	None	
Percentage of Population Over Age 64	None	
Percentage of Population Under Age 5	None	
Percentage of Population Who are People of Color	None	
Percentile for % People of Color	None	
Percentile for % People Over Age 64	None	
Percentile for % People Under Age 5	None	
Population of People 25 Years and Over	None	
Total Population of Individuals Over Age 64	None	
Total Population of Individuals Under Age 5	None	
Total Population of People of Color	None	
Demographic Index	None	
Demographic Index * Total Population	This variable, vuleo, is an "artifact" that is no longer used by the EPA. vuleo was calculated by the following: vuleopct * totalpop.	
Excess Demographic Index	None	
Percentage of Population in Houses Built Before 1960	None	
Percentage of Population in Linguistically Isolated Households	None	

Metric	Key considerations for using this metric	Data source
Percentage of Population who are 25 Years or Over with Less than a High School Degree	None	
Percentage of Population with Low-Income	None	
Percentile for % of People Living in Linguistic Isolated Households	None	
Percentile for % People Age 25 Years or Over with Less than a High School Degree	None	
Percentile for % People with Low-Income	None	
Percentile for Demographic Index	None	
Population of People Below Poverty Level	This value is from the American Community Survey 2013 - 2017 Population dataset.	
Total Houses Built Before 1960	None	
Total Housing Units	This value is from the American Community Survey 2013 - 2017 Population dataset.	
Total Linguistically Isolated Households	This value is from the American Community Survey 2013 - 2017 Population dataset.	
Total Population of Individuals Age 25 Years or Over with Less than a High School Degree	None	
Total Population of Individuals Living in Linguistically Isolated Households	None	
Total Population of Individuals with Low-Income	None	
Total population	This value is from the American Community Survey 2013 - 2017 Population dataset.	

Social Vulnerability

Metric	Key considerations for using this metric	Data source
County	Zip code	Advancement Project, RACE COUNTS California Social Vulnerability Index
ZIP Code	County name	
Index Percentile	Index Rank is based on relative Index Percentile Scores (highest need = 1, lowest need = 1236).	
Index Rank	Percentile of zip code based on overall Index score (calculated from Risk, Severity, and Recovery Need scores)	

Metric	Key considerations for using this metric	Data source
Hospitalizations for Diabetes Percentage	Risk of COVID-19 infection derived from the average of Black, Latinx, AIAN, and NHPI residents as a percent of population, Essential Workers (%), Population under 200% of Federal Poverty Level (%), and Overcrowded Housing Units (%).	Update frequency: Not specified
Hospitalizations for Diabetes Percentile	Risk of severe illness or death from COVID-19 derived from the average of Black, Latinx, AIAN, and NHPI residents as a percent of population, Population under 200% of Federal Poverty Level (%), Population Age 75+ in Poverty (%), Uninsured Population (%), Heart Attack Hospitalization Rate (per 10,000), and Diabetes Hospitalization Rate (per 10,000)	
Hospitalizations for Heart Attack Percentage	Vulnerability of community to economic and social costs of pandemic derived from the average of Black, Latinx, AIAN, and NHPI residents as a percent of population, Essential Workers (%), Population under 200% of Federal Poverty Level (%), Unemployment Rate, and Uninsured Population (%)	
Hospitalizations for Heart Attack Percentile	Percentage of total population that self-identifies as Latinx, including all races	
American Indian or Alaska Native Population Percentage	Percentile of total population that self-identifies as Latinx, including all races, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
American Indian or Alaska Native Population Percentile	Percentage of total population that self-identifies as Black alone, excluding Latinx	
Black Population Percentage	Percentile of total population that self-identifies as Black alone, excluding Latinx, from 0-100 [100 signifying zip code for highest estimate for this indicator]	

Metric	Key considerations for using this metric	Data source
Black Population Percentile	Percentage of total population that self-identifies as American Indian or Alaska Native alone or in combination with another race, including Latinx	
Latinx Population Percentage	Percentile of total population that self-identifies as American Indian or Alaska Native alone or in combination with another race, including Latinx, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Latinx Population Percentile	Percentage of total population that self-identifies as Native Hawaiian or Pacific Islander alone or in combination with another race, including Latinx	
Native Hawaiian or Pacific Islander Population Percentage	Percentile of total population that self-identifies as Native Hawaiian or Pacific Islander alone or in combination with another race, including Latinx, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Native Hawaiian or Pacific Islander Population Percentile	Percentage of all workers that are essential workers (defined by the Urban Institute)	
Essential Workers Percentage	Percentile of all workers that are essential workers (defined by the Urban Institute), from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Essential Workers Percentile	Percentage of individuals living in households earning less than 200% of the Federal Poverty Level	
Overcrowded Housing Units Percentage	Percentile of individuals living in households earning less than 200% of the Federal Poverty Level, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Overcrowded Housing Units Percentile	Number of unemployed people as a percentage of the civilian labor force in parentheses)	
Poverty Rate (Below 200% FPL) Percentage	Percentile of unemployed people as a percentage of the civilian labor force, from 0-100	

Metric	Key considerations for using this metric	Data source
	[100 signifying zip code for highest estimate for this indicator]	
Poverty Rate (Below 200% FPL) Percentile	Percentage of all housing units that are overcrowded, defined as housing that which houses 1.5 or more persons per room	
Recovery Need Percentile	Percentile of all housing units that are overcrowded, defined as housing that which houses 1.5 or more persons per room, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Risk Percentile	Percentage of seniors ages 75 and over, living in households earning less than 100% of the Federal Poverty Level	
Senior Poverty Rate (ages 75+) Percentage	Percentile of seniors ages 75 and over, living in households earning less than 100% of the Federal Poverty Level, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Senior Poverty Rate (ages 75+) Percentile	Percentage of people who do not have health insurance	
Severity Percentile	Percentile of people who do not have health insurance, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Unemployment Rate Percentage	Rate of heart attack hospitalizations per 10,000 people	
Unemployment Rate Percentile	Percentile of heart attack hospitalizations per 10,000 people, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Uninsured Rate Percentage	Rate of diabetes-related hospitalizations per 10,000 people	
Uninsured Rate Percentile	Percentile diabetes-related hospitalizations per 10,000 people, from 0-100 [100 signifying zip code for highest estimate for this indicator]	
Population	Total population of zip code	
County	None	

Metric	Key considerations for using this metric	Data source
5-digit FIPS code	None	<p>Surgo Ventures, CCVI</p> <p>Update frequency: Not specified</p>
State	None	
Overall county CCVI score	Range from 0 (lowest vulnerability) to 7 (highest vulnerability)	
Emergency services per 100,000 people (includes emergency and relief services and freestanding ambulatory surgical and emergency centers)	<p>See the following link for sources used to generate this indicator: https://www.precisionforcoviddata.org</p>	
Epidemiologists per 100,000 people		
Health labs per 100,000 people		
Health spending per capita		
Percentage of population employed in high-risk industry (includes employees in farming, manufacturing, printing, and related support activities and textile NAICS subsectors)		
Hospital beds per 100,000 people		
Intensive care unit beds per 100,000 people		
Prisons population per 100,000		
Long-term care (nursing homes, assisted living, and care homes) residents per 100,000		
Total Public Health Emergency Preparedness (PHEP) funding per capita		
Agency for Healthcare Research and Quality - Prevention Quality Indicator Overall Composite		
Estimated percentage of persons aged 17 and younger		
Estimated percentage of occupied housing units with more people than rooms		
Estimated percentage of civilian noninstitutionalized population age 5+ with a disability		
Estimated percentage of persons in institutionalized group quarters		
Estimated percentage of mobile homes		
Estimated percentage of housing in structures with 10 or more units		

Metric	Key considerations for using this metric	Data source
Estimated percentage of households with no vehicle available		
Estimated percentage of households without access to indoor plumbing		
Estimated percentage of single parent households with children under 18		
Estimated percentage of persons age 5+ who speak English "less than well"		
Estimated minority percentage of total population (all persons except white, non-Hispanic)		
Estimated total number of people per unit area (sq. miles)		
Estimated percentage of persons aged 65 and older		
Estimated percentage of persons age 25+ with no high school diploma		
Estimated per capita income		
Estimated percentage of persons below poverty		
Estimated percentage of persons age 16+ unemployed		
Estimated percentage of population uninsured		
Theme 1- Socioeconomic status		
Theme 2- Minority status and language	Index measure of minority status indicators	
Theme 3- Household and transportation	Index measure of household and transportation indicators	
Theme 4- Epidemiological factors	Index measure of epidemiological indicators (at census level) selected according to CDC guidelines	
Theme 5- Healthcare system factors	Index measure of healthcare system factors indicators to address capacity, strength, accessibility, and preparedness of the healthcare system in regards to COVID-19	
Theme 6- High-risk environments	Index measure of high-risk environments indicators to address living and working conditions that lead to adverse and disproportionate COVID-related outcomes (e.g., nursing home residents)	

Metric	Key considerations for using this metric	Data source
Theme 7- Population density	Represents single Population Density indicator, giving it more weight compared to other indicators in the overall CCVI index	

*Stigma associated with incarceration and COVID-19 may be explored using data from the COVID-19 Behind Bars Project (UCLA School of Law)

4. Resilience

These measures center on community power and resilience and are available with these data sources.

Community Resilience

Metric	Key considerations for using this metric	Data source
County FIPS code	None	Community Resilience Estimates Update frequency: Not specified (datasets for 2018 and 2019 are available)
A geographic identifier which contains information on the type of geography and applicable FIPS codes	None	
Geographic Area Name	May also include: Census Tract Number, County Name, State Name	
Geographic level	None	
State FIPS code	None	
Tract FIPS code	None	
Estimated number of individuals with three plus risk factors (high risk)	None	
Estimated margin of error for individuals with three plus risk factors (high risk)	None	
Estimated number of individuals with zero risk factors (low risk)	None	
Estimated margin of error for individuals with zero risk factors (low risk)	None	
Estimated number of individuals with one-two risk factors (medium risk)	None	
Estimated margin of error for individuals with one-two risk factors (medium risk)	None	
Total population	None	
Rate of individuals with three plus risk factors (high risk)	None	
Rate margin of error for individuals with three plus risk factors (high risk)	None	
Rate of individuals with zero risk factors (low risk)	None	
Rate margin of error for individuals with zero risk factors (low risk)	None	
Rate of individuals with one-two risk factors (medium risk)	None	
Rate margin of error for individuals with one-two risk factors (medium risk)	None	

5. Social and Political Determinants of Health

Measures from these data sources include social determinants of health indicators that are pertinent to the COVID pandemic. Including these measures is important to help track the institutional and structural drivers of pandemic inequities.

Policy

Metric	Key considerations for using this metric	Data source
Adults Ages 65+ Prioritized Ahead of Essential Workers	None	BU School of Public Health, COVID-19 U.S. State Policy Database Update frequency: At least biweekly
Cannabis Dispensaries Considered Essential Businesses	None	
COVID-19 Anti-Retaliation Rules	None	
COVID-19 Business Liability Protections	None	
COVID-19 Liability Protections for Healthcare Workers	None	
COVID-19 Not Acceptable Reason to Request Application for Mail-In Ballot unless Sick/Exposed (as of September 1, 2020)	None	
COVID-19 Workers' Compensation Expansion	None	
Data Reporting Required for Workers' Medical Treatment	If a number is present, that is minimum number of missed days of work where employer is required to report event. If no number present, then there is no days missed requirement (the state may have a requirement to report any injury/illness event that requires more than first aid).	
Date: 20-Week Extended Benefits Program Activated	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	
Date: 20-Week Extended Benefits Program Activated for Second Time	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	
Date: 20-Week Extended Benefits Program Deactivated	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	

Metric	Key considerations for using this metric	Data source
Date: 20-Week Extended Benefits Program Deactivated for Second Time	None	
Date: Adults Ages 30+ Became Eligible for Vaccination	None	
Date: Adults Ages 40+ Became Eligible for Vaccination	None	
Date: Adults Ages 45+ Became Eligible for Vaccination	None	
Date: Adults Ages 50+ Became Eligible for Vaccination	None	
Date: Adults Ages 55+ Became Eligible for Vaccination	None	
Date: Adults Ages 60+ Became Eligible for Vaccination	None	
Date: Adults Ages 65+ Became Eligible for Vaccination	None	
Date: Adults Ages 70+ Became Eligible for Vaccination	None	
Date: Adults Ages 75+ Became Eligible for Vaccination	None	
Date: Adults Ages 80+ Became Eligible for Vaccination	None	
Date: Allowed Audio-only Telehealth	None	
Date: Allowed Businesses to Return to Operations at All Hours of the Night	None	
Date: Allowed Restaurants to Deliver Alcohol	None	
Date: Allowed Restaurants to Sell Takeout Alcohol	None	
Date: Allowed State Emergency Declaration to Expire	None	
Date: Allowed Tenants to be Reconnected to Utilities without Paying Any Fees	None	
Date: Allowed/Expanded Medicaid Telehealth Coverage	None	
Date: Any Remaining Prohibitions on Any Part of the Eviction Process Expired	None	
Date: Any Remaining Prohibitions on Any Part of the Eviction Process Expired for Second Time	None	
Date: Any Remaining Prohibitions on Any Part of the Eviction Process Expired for Third Time	None	
Date: At Least One State Actor First Prohibited Some Part of the Eviction Process	None	
Date: At Least One State Actor Prohibited Some Part of the Eviction Process for Second Time	None	
Date: At Least One State Actor Prohibited Some Part of the Eviction Process for Third Time	None	

Metric	Key considerations for using this metric	Data source
Date: Banned Face Mask Mandates Implemented/Enforced by Local Jurisdictions (Not Including K-12 Schools)	None	
Date: Banned Face Mask Mandates in K-12 Schools	None	
Date: Banned Visitors to Nursing Homes Statewide	None	
Date: Began to Resume Visitation in State Prisons	None	
Date: Closed Bars Statewide	None	
Date: Closed Daycares Statewide	If closure announced in evening, considered to apply to next day. If closure announced on weekend, first week day closed is listed. Checked against: https://www.childcareaware.org/	
Date: Closed Indoor Gyms/Fitness Centers	None	
Date: Closed K-12 Public Schools Statewide	Did not require executive order if department of education closed all public schools. If spring break prior to closure, considered closure to begin on first day of spring break. If closure announced on weekend, first week day closed is listed. If closure announced in evening, considered to apply to next day. Some states only applied order to public schools. Checked against: https://www.edweek.org/ew/section/multimedia/map-coronavirus-and-school-closures.html	
Date: Closed Movie Theaters	None	
Date: Closed Non-Essential Businesses Statewide	None	
Date: Closed Restaurants (except for Takeout)	None	
Date: Ended All Mandated Quarantines for Individuals Arriving from Out of State	None	
Date: Ended Face Mask Mandate Only for Those who are Fully Vaccinated Against COVID-19	None	
Date: Ended/Allowed Expiration of Stay at Home/Shelter in Place Order	Only included if order applies to entire state	
Date: Exceptions to Emergency Oral Prescriptions	None	
Date: Extended Benefits Program Activated	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	

Metric	Key considerations for using this metric	Data source
Date: Extended Benefits Program Activated for Second Time	None	
Date: Extended Benefits Program Deactivated	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	
Date: Extended Benefits Program Deactivated for Second Time	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	
Date: First Day Reclosed Bars after an Initial Reopening	None	
Date: First Issued Any Type of Emergency Declaration	None	
Date: First Mandated that Individuals Arriving in Their State from a Specific State(s) Must Undergo Quarantine	None	
Date: First Mandated that Individuals Arriving in Their State from Any State Must Undergo Quarantine	None	
Date: General Public Became Eligible for Vaccination	None	
Date: Grocery Store Workers Became Eligible for Vaccination	None	
Date: Home Delivery of Take-Home Medication by Opioid Treatment Programs	None	
Date: Implemented an Order to Close Businesses for Certain Hours Overnight	None	
Date: Implemented Face Mask Mandates in K-12 Schools in Preparation for 2021-22 Academic Year	None	
Date: Implemented Local Face Mask Mandates Dependent on Levels of Community COVID-19 Transmission	None	
Date: Initially Reopened Restaurants for Outdoor Dining Only	None	
Date: Issued Orders to Close Casinos throughout the State	None	
Date: Issued Orders to Close Casinos throughout the State for Second Time	None	

Metric	Key considerations for using this metric	Data source
Date: Issued Orders to Re-Open Casinos throughout the State	None	
Date: Issued Orders to Reopen Casinos throughout the State for Second Time	None	
Date: Issued Stay at Home order that applied to portions of the population, businesses closures, or suggested but did not order	None	
Date: Judge/Court Made a Decision to Block the State from Enforcing Bans on Face Mask Mandates in Schools and/or in Local Jurisdictions	None	
Date: K-12 School Employees Became Eligible for Vaccination	None	
Date: Last Day of Receipt of Mail-In Ballot Request for the General Election (by mail or online)	None	
Date: Last Released to the Public an Updated Version of COVID-19 Vaccine Allocation Plan	None	
Date: Lifted an Order that Prohibited Utility Companies from Disconnecting Tenants from Utilities	None	
Date: Lifted Order that Allowed Tenants to be Reconnected to Utilities without Paying Any Fees	None	
Date: Limited a Prohibition on Some Part of the Eviction Process to Tenants Who were Experiencing an Economic/Health-Related Hardship due to COVID-19	None	
Date: Mandated Face Mask Use in Public Spaces by All Individuals Statewide	None	
Date: Mandated Face Mask Use in Public Spaces by All Individuals Statewide Second Time	None	
Date: Mandated that Employees in Public Facing Businesses Must Wear Face Masks Statewide	None	
Date: Modified Medicaid Requirements with 1135 Waivers	Section 1135 waivers allow states to modify or waive certain Medicaid requirements. https://www.cms.gov/about-CMS/emergency-preparedness-response-operations/current-emergencies/coronavirus-waivers	

Metric	Key considerations for using this metric	Data source
Date: No Order to Suspend Elective Medical Procedures but Released Guidance/Orders to Resume	Some of these states had suggestions to halt elective procedures and later released guidelines to reopen. One state, Georgia, explicitly ordered that medical providers open.	
Date: No Prohibition on a Court's Ability to Hold Eviction Hearings Remained and Courts could Start Holding Eviction Hearings	None	
Date: No Prohibition on a Court's Ability to Hold Eviction Hearings Remained and Courts could Start Holding Eviction Hearings for Second Time	None	
Date: No Prohibition on Giving Notice of/Filing for Eviction Remained and Landlords could File an Eviction Action for Second Time	None	
Date: No Remaining Prohibition on Giving Notice of/Filing for Eviction Remained and Landlords Could File an Eviction Action	None	
Date: Patients can Receive 14-28 Take-Home Doses of Opioid Medication	None	
Date: People Who Are Incarcerated Became Eligible for Vaccination	None	
Date: Prohibited Utility Companies from Disconnecting Tenants from Utilities	None	
Date: Prohibited Utility Companies from Disconnecting Tenants from Utilities for Second Time	None	
Date: Re-Implemented Face Mask Mandate for Those who are Fully Vaccinated Against COVID-19	None	
Date: Reclosed Bars Statewide After an Initial Opening	None	
Date: Reclosed Bars Statewide for Third Time	None	
Date: Reclosed Hair Salons/Barber Shops Statewide	None	
Date: Reclosed Indoor Dining Statewide After an Initial Opening	None	
Date: Reclosed Indoor Dining Statewide for Third Time	None	
Date: Reclosed Indoor Gyms/Fitness Centers Statewide After an Initial Opening	None	

Metric	Key considerations for using this metric	Data source
Date: Reclosed Movie Theaters Statewide After an Initial Opening	None	
Date: Reduced Order from Applying to the Entire State to Only Applying to Certain High Risk Regions	None	
Date: Reduced Order from Applying to the Entire State to Only Applying to Certain High Risk Regions for Second Time	None	
Date: Reinstated Emergency Declaration	None	
Date: Reopen Bars Statewide	None	
Date: Reopened ACA Enrollment using a Special Enrollment Period	None	
Date: Reopened Bars Statewide for Second Time	None	
Date: Reopened Bars Statewide for Third Time	None	
Date: Reopened Businesses Previously Closed due to COVID-19 Statewide	Date refers to when a state first reopened any business that was originally ordered to close.	
Date: Reopened Daycares Statewide	None	
Date: Reopened Hair Salons/Barber Shops Statewide	None	
Date: Reopened Hair Salons/Barber Shops Statewide for Second Time	None	
Date: Reopened Indoor Gyms/Fitness Centers Statewide	None	
Date: Reopened Indoor Gyms/Fitness Centers Statewide for Second Time	None	
Date: Reopened Movie Theaters Statewide	None	
Date: Reopened Movie Theaters Statewide for Second Time	None	
Date: Reopened Non-Essential Retail Statewide	Nebraska never closed non-essential retail.	
Date: Reopened Religious Gatherings Statewide	None	
Date: Reopened Restaurants (for Indoor and/or Outdoor Dining) Statewide	None	
Date: Reopened Restaurants (for Indoor and/or Outdoor Dining) Statewide for Second Time	None	
Date: Reopened Restaurants (for Indoor and/or Outdoor Dining) Statewide for Third Time	None	

Metric	Key considerations for using this metric	Data source
Date: Resumed Elective Medical Procedures	None	
Date: Resumed Elective Medical Procedures for Second Time	None	
Date: Resumed Visitation in State Prisons for Second Time	None	
Date: SNAP Waiver Approved - Emergency Allotments to Current SNAP Households	None	
Date: SNAP Waiver Approved - Pandemic EBT During School Year 2019-2020	SNAP waivers are submitted to the USDA to allow state SNAP agencies to modify requirements or policies of their state SNAP program. https://www.fns.usda.gov/disaster/pandemic/covid-19/snap-waivers-flexibilities	
Date: SNAP Waiver Approved - Pandemic EBT During School Year 2020-2021	SNAP waivers are submitted to the USDA to allow state SNAP agencies to modify requirements or policies of their state SNAP program. https://www.fns.usda.gov/disaster/pandemic/covid-19/snap-waivers-flexibilities	
Date: SNAP Waiver Approved - Pandemic EBT During Summer 2021	None	
Date: SNAP Waiver Approved - Temporary Suspension of Claims Collection	SNAP waivers are submitted to the USDA to allow state SNAP agencies to modify requirements or policies of their state SNAP program. https://www.fns.usda.gov/disaster/pandemic/covid-19/snap-waivers-flexibilities	
Date: State Actor Lifted Prohibition on Law Enforcement Personnel Enforcing Orders of Eviction and Law Enforcement could Resume Executing Orders of Eviction	None	
Date: State Actor Lifted Prohibition on Law Enforcement Personnel Enforcing Orders of Eviction and Law Enforcement could Resume Executing Orders of Eviction for Second Time	None	
Date: State Actor Lifted Prohibition on Some Part of the Eviction Process Only Where the Cause of Action was for the Tenant's Non-Payment of Rent	None	

Metric	Key considerations for using this metric	Data source
Date: State Actor Lifted Prohibition on Some Part of the Eviction Process Only Where the Cause of Action was for the Tenant's Non-Payment of Rent for Second Time	None	
Date: State Actor Lifted Prohibition on Some Part of the Eviction Process that was Limited to COVID-19 Hardship or Lifted the COVID-19 Hardship Requirement	None	
Date: State Actor Lifted Prohibition on Some Part of the Eviction Process that was Limited to COVID-19 Hardship or Lifted the COVID-19 Hardship Requirement for Second Time	None	
Date: State Actor Lifted the Requirement that a Landlord Filing for Eviction Provide a Certification/Affirmation that the Property is Not Covered by the Federal CARES Act Eviction Moratorium	None	
Date: State Actor Prohibited the Collection of Late Fees/the Bringing of an Action for Late Fees	None	
Date: State Actor Prohibited the Collection of Late Fees/the Bringing of an Action for Late Fees for Second Time	None	
Date: State Actor Recognized the Authority of the CDC Moratorium in the State/Required that a Landlord Filing for Eviction Provide a Certification/Affirmation that the Tenant had Not Provided the Landlord with a CDC Declaration	None	
Date: State Actor Started Limiting a Prohibition on Some Part of the Eviction Process to Evictions Where the Cause of Action was for Non-Payment of Rent	None	
Date: State Actor Started Limiting a Prohibition on Some Part of the Eviction Process to Evictions Where the Cause of Action was for Non-Payment of Rent for Second Time	None	

Metric	Key considerations for using this metric	Data source
Date: State Actor Started Limiting a Prohibition on Some Part of the Eviction Process to Tenants who were Experiencing an Economic/Health-Related Hardship due to COVID-19 for Second Time	None	
Date: State Actor Started Prohibiting Courts from Holding Eviction Hearings	None	
Date: State Actor Started Prohibiting Courts from Holding Eviction Hearings for Second Time	None	
Date: State Actor Started Prohibiting Landlords from Giving Notice of/Filing an Eviction Action	None	
Date: State Actor Started Prohibiting Landlords from Giving Notice of/Filing an Eviction Action for Second Time	None	
Date: State Actor Started Prohibiting Law Enforcement Personnel from Enforcing Orders of Eviction	None	
Date: State Actor Started Prohibiting Law Enforcement Personnel from Enforcing Orders of Eviction for Second Time	None	
Date: State Actor Started Requiring that a Landlord Filing for Eviction Provide a Certification/Affirmation that the Property is Not Covered by the Federal CARES Act Eviction Moratorium	None	
Date: State Actor Stopped Prohibiting the Collection of Late Fees/the Bringing of an Action for Late Fees	None	
Date: State Actor Stopped Prohibiting the Collection of Late Fees/the Bringing of an Action for Late Fees for Second Time	None	
Date: State Actor Stopped Recognizing the CDC Moratorium/Lifted the Requirement that a Landlord Filing for Eviction provide a Certification/Affirmation that the Tenant had Not Provided the Landlord with a CDC Declaration	None	
Date: Stay at Home/Shelter in Place Order Went Into Effect	None	
Date: Stopped Legal Visitation in State Prisons	None	

Metric	Key considerations for using this metric	Data source
Date: Stopped Participating in Pandemic-related Federal Unemployment Benefit Programs	None	
Date: Stopped Personal Visitation in State Prisons	None	
Date: Stopped Visitation in State Prisons for Second Time	None	
Date: Suspended Elective Medical Procedures	None	
Date: Suspended Elective Medical Procedures for Second Time	None	
Date: Use of Telemedicine for Schedule II-V Prescriptions	None	
Date: Use of Telemedicine/Telephone Evaluations to Initiate Buprenorphine Prescribing	None	
Date: Waived One Week Waiting Period for Unemployment Insurance	Date that the waiting period was waived in Delaware was not found.	
Date: Waived Requirement to Obtain Separate DEA Registration to Dispense Outside Home State	None	
Different Minimum Wage for Smaller Businesses	None	
During COVID-19 Pandemic: Did Not Waive Copays for Incarcerated Individuals	None	
During COVID-19 Pandemic: Kept Alcohol/Liquor Stores Open	None	
During COVID-19 Pandemic: Kept Firearms Sellers Open	If states initially closed, then later reopened firearm sellers during the pandemic (not as part of the phased reopening process), they are represented by the value of 2.	
During COVID-19 Pandemic: Made Effort to Limit Abortion Access	Under the Pandemic Emergency Unemployment Compensation (PEUC) state-level unemployment insurance will be extended by an additional 13 weeks thanks to federal funding under the CARE stimulus bill.	
During COVID-19 Pandemic: Waived All Copays for Incarcerated Individuals	None	
During COVID-19 Pandemic: Waived COVID/Respiratory Illness-Related Copays for Incarcerated Individuals	None	

Metric	Key considerations for using this metric	Data source
Earnings Required to Receive a \$300 Weekly Benefit Amount for Unemployment Insurance	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Eviction Moratorium Currently in Place	None	
Expanded Eligibility of Unemployment Insurance to Anyone who is Quarantined and/or Taking Care of Someone who is Quarantined	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Expanded Eligibility of Unemployment Insurance to Those who have Lost Childcare/School Closures	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Expanded Eligibility to High-Risk Individuals in Preventative Quarantine	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Expanded Scope of Practice of Certain Health Providers to Administer COVID-19 Vaccines	None	
Extended the Amount of Time an Individual can be on Unemployment Insurance	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Face Mask Mandate Currently in Place for Everyone	None	
Face Mask Mandate Enforced by Criminal Charge/Citation	None	
Face Mask Mandate Enforced by Fines	None	
Government Branch Implementing COVID-19 Liability Rules	If both a law and Executive Order implemented, default label to a law being passed.	
Minimum Number of Work Days Missed by Workers to Require Data Reporting	None	
OSHA-Approved State Plan	None	
Penalty for Failure to Comply with COVID-19 Vaccine Distribution Requirements	None	
Prioritization by Race/Ethnicity	None	
Proof of Age Eligibility Requirement for Vaccination	None	
Proof of Residency Requirement for Vaccination	None	
Proof of Work Eligibility Requirement for Vaccination	None	
Reinstated One Week Waiting Period for Unemployment Insurance	None	

Metric	Key considerations for using this metric	Data source
Reinstated Work Search Requirement for Unemployment Insurance	None	
Religious Gatherings Exempt Without Clear Social Distance Mandate	None	
Reports American Indian or Alaska Native COVID-19 cases	None	
Reports American Indian or Alaska Native COVID-19 deaths	None	
Reports American Indian or Alaska Native COVID-19 hospitalizations	None	
Reports American Indian or Alaska Native COVID-19 testing	None	
Reports American Indian or Alaska Native COVID-19 vaccinations	None	
Reports COVID-19 cases by race/ethnicity	None	
Reports COVID-19 deaths by race/ethnicity	None	
Reports COVID-19 hospitalizations by race/ethnicity	None	
Reports COVID-19 testing by race/ethnicity	None	
Reports COVID-19 vaccinations by race/ethnicity	None	
Required Earnings in the Last Two Calendar Quarters to Qualify for Unemployment Insurance	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Response to COVID-19: Automatic Applications Sent for Mail-In Ballots	None	
Response to COVID-19: Automatic Mail-In Ballot System	None	
September 1, 2020 Minimum Wage	None	
Since COVID-19 Pandemic: Permanent Paid Family and Medical Leave Social Insurance Program	None	
Since COVID-19 Pandemic: Permanent Paid Sick Leave Social Insurance Program	None	
State Department in Charge of Enforcing Programs	None	
State Order Included Mention of Existence of Tribal Casinos or Mention of Collaboration with Tribes	None	

Metric	Key considerations for using this metric	Data source
State Suspended CHIP Premium Non-Payment Lock-Outs	A lockout period is an amount of time during which the disenrolled child is prohibited from returning to the CHIP program due to non-payment of premiums. Lockouts are not permitted in Medicaid, and the Affordable Care Act (ACA) limited lockout periods in CHIP to no more than 90 days; Source: data collected by Georgetown University Center for Children and Families and the Kaiser Family Foundation: http://files.kff.org/attachment/Report-Medicaid-and-CHIP-Eligibility-Enrollment-Renewal-and-Cost-Sharing-Policies-as-of-January-2019	
Temporary COVID-19-Specific Paid Leave Expansions	None	
Vaccine Allocation Phase: Additional Essential Workers	None	
Vaccine Allocation Phase: Additional Healthcare Workers	None	
Vaccine Allocation Phase: Adults Ages 65+	None	
Vaccine Allocation Phase: Adults Ages 75+	None	
Vaccine Allocation Phase: Adults w/ High-Risk Medical Conditions	None	
Vaccine Allocation Phase: Correctional Staff	None	
Vaccine Allocation Phase: EMS Providers	None	
Vaccine Allocation Phase: Firefighters	None	
Vaccine Allocation Phase: Food Supply Workers	None	
Vaccine Allocation Phase: Frontline Essential Workers	None	
Vaccine Allocation Phase: Frontline Healthcare Workers	None	
Vaccine Allocation Phase: General Public	None	
Vaccine Allocation Phase: Grocery Store Workers	None	
Vaccine Allocation Phase: Healthcare Service Workers	None	
Vaccine Allocation Phase: Higher Education Employees	None	
Vaccine Allocation Phase: Home Healthcare Workers	None	
Vaccine Allocation Phase: Law Enforcement & Public Safety Personnel	None	

Metric	Key considerations for using this metric	Data source
Vaccine Allocation Phase: Long-term Care Residents	None	
Vaccine Allocation Phase: People who are Incarcerated	None	
Vaccine Allocation Phase: Pre-K-12 School Employees	None	
Vaccine Allocation Phase: Public Transit Workers	None	
Vaccine Allocation Phase: Residents of Homeless Shelters	None	
Waived Work Search Requirement for Unemployment Insurance	None	
Weekly Unemployment Insurance Maximum Amount	None	
Weekly Unemployment Insurance Maximum Amount with Extra Stimulus (through July 21, 2020)	The additional \$600 is paid retroactively. Payments are effective starting with the week ending 4/5/20. The \$600 only applies to those who are receiving unemployment benefits.	
Witness/Notary Signature Required for Mail-In Ballot (as of September 1, 2020)	None	
Average Benefit Amount (August)	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Square Miles	None	
State Abbreviations	None	
State FIPS Codes	None	
All-Cause Deaths (2018)	None	
Mental Health Professionals per 100,000 Population (2019)	None	
% of People At Risk for Serious Illness due to COVID-19	None	
% of People Living under Federal Poverty Line (2018)	None	
% of People Unemployed (2018)	None	
At least one American Indian or Alaska Native reservation	None	
Number of People Experiencing Homelessness (2019)	None	

Metric	Key considerations for using this metric	Data source
Total Unemployment Rate at Extended Benefits Program Shutoff	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	
Total Unemployment Rate Relative to Prior Year	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	
Total Unemployment Rate Relative to Second Prior Year	Information reflects raw data collected directly from each Trigger Notice. No adjustments for time delays have been made.	
Types of Workers Eligible for Workers' Compensation Expansion	If expansion includes more than just frontline health and public workers (i.e. grocery workers, food workers, etc.), then the expansion is coded for all workers.	
Population Density per Square Miles	None	
Population Size (2018)	None	
2020 Minimum Wage for Tipped Workers	None	
2021 Minimum Wage	None	
2021 Unemployment Insurance Maximum Duration of Weeks	None	
Aerosol Transmissible Disease Standards	None	
Air/Ventilation Standards	None	
Before COVID-19 Pandemic: Does Not Charge Copays for Incarcerated Individuals	None	
Before COVID-19 Pandemic: No State Unemployment Waiting Period	None	
Before COVID-19 Pandemic: Occupational Injuries, Illnesses, and Fatalities Reporting	Bureau of Labor Statistics (BLS) reports state-level information on occupational injuries/illnesses, but some states do not report this information to BLS.	
Before COVID-19 Pandemic: Permanent Paid Family and Medical Leave Social Insurance Program	None	
Before COVID-19 Pandemic: Permanent Paid Sick Leave Social Insurance Program	None	
Before COVID-19 Pandemic: SNAP Able-Bodied Adults without Dependents Time Limit Waiver	Washington D.C., Louisiana, and New Mexico have able-bodied adults without dependents (ABAWD) time limit waivers that apply to the entire state. The	

Metric	Key considerations for using this metric	Data source
	remaining 32 states listed have waivers that apply to certain areas of the state. All ABAWD time limits were suspended by the Families First Coronavirus Response Act. effective April 1, 2020.	
Casino(s) in State	None	
January 1, 2019 Minimum Wage	None	
January 1, 2020 Minimum Wage	None	
January 2020 Unemployment Insurance Maximum Duration of Weeks	None	
July 1, 2019 Minimum Wage	None	
July 1, 2020 Minimum Wage	None	
July 2020 Unemployment Insurance Maximum Duration of Weeks	None	
March 29, 2019 Minimum Wage	None	
Maximum Tax Rate	"Rates apply only to experience rated employers and do not include surtaxes, penalties, surcharges, or applicable non UI taxes." - Department of Labor. Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Minimum Tax Rate	"Rates apply only to experience rated employers and do not include surtaxes, penalties, surcharges, or applicable non UI taxes." - Department of Labor. Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Minimum Total Earnings Required Outside the Highest Earning Calendar Quarter to Qualify for Unemployment Insurance	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Minimum Total Earnings Worked Required to Qualify for Unemployment Insurance	Washington requires 680 hours of work with earnings not specified. Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
No Legal Enforcement of Face Mask Mandate	None	

Metric	Key considerations for using this metric	Data source
Number of Calendar Quarters with Earnings Needed to Qualify for Unemployment Industry	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	
Oct 1, 2019 Minimum Wage	None	
October 1, 2020 Minimum Wage	None	
Prior to COVID-19 Pandemic: Medicaid Expansion	None	
Prior to COVID-19 Pandemic: Permanent Mail-In Ballot System	None	
State had CHIP Premium Non-Payment Lock-Out Period as of January 2019	A lockout period is an amount of time during which the disenrolled child is prohibited from returning to the CHIP program due to non-payment of premiums. Lockouts are not permitted in Medicaid, and the Affordable Care Act (ACA) limited lockout periods in CHIP to no more than 90 days; Source: data collected by Georgetown University Center for Children and Families and the Kaiser Family Foundation: http://files.kff.org/attachment/Report-Medicaid-and-CHIP-Eligibility-Enrollment-Renewal-and-Cost-Sharing-Policies-as-of-January-2019	
State Previously Allowed Audio-Only Telehealth	None	
Taxable Wage Amount	Does not include eligibility for Pandemic Unemployment Assistance (PUA)- only applies to state unemployment insurance	

Other Factors

Metric	Key considerations for using this metric	Data source
Date (resolution: daily)	None	Google LLC, COVID-19 Community Mobility Update frequency: Daily
Country region (US)	None	
Indicator of the country - Constant value of "US" in our data	None	
US State (full name, no abbreviation)	None	
US County	None	
Percentage of mobility change w.r.t baseline - Pharmacy / Grocery	None	

Metric	Key considerations for using this metric	Data source
Percentage of mobility change w.r.t baseline - Parks	None	
Percentage of mobility change w.r.t baseline - Residential	None	
Percentage of mobility change w.r.t baseline - Retail and Recreation	None	
Percentage of mobility change w.r.t baseline - Transit Station	None	
Percentage of mobility change w.r.t baseline - Workplaces	None	
Date	None	OSHA, COVID 19 Complaints Update frequency: Weekly
Complaint Type	None	
Decision made from whistleblower complaint	None	
Doing Business As	None	
Establishment Name	None	
Hazard Description & Location	None	
Receipt Type	None	
Region ID	None	
UPA Number/Complaint ID	None	
Address Line 1	None	
Address Line 2	None	
City	None	
County	None	
DHHS & OSHA Region	Occupational Safety and Health Administration (OSHA) shares the same structure as the Department of Health and Human Services (DHHS) for their regions and offices.	
State of the complaint	If the complaint is closed or a whistleblower, a single state is listed. If the complaint is open, the states listed are associated with the complaint's RID.	
Zip code	None	
Inspection Number	Inspections conducted may not be related to the complaint filed. The inspections may be due to different complaints from the same site.	

Metric	Key considerations for using this metric	Data source
Number of Alleged Hazards/Employees Exposed	Some values (for example, 0/100) may be unclear. The data is self-reported by the individual who filed the complaint, so clarification is not available.	
Number of inspections conducted	Inspections conducted may not be related to the complaint filed. The inspections may be due to different complaints from the same site.	
Primary Industry Sector	None	
Site of Complaint Sector	None	
Status	None	
Weekly date	Available data is limited to information made publicly available by each jurisdiction	The Princeton Eviction Lab, Eviction Filing Rate Update frequency: Weekly
Aggregated counts of eviction judgments in 2020	Available data is limited to information made publicly available by each jurisdiction	
Aggregated average eviction judgments in 2020	Available data is limited to information made publicly available by each jurisdiction	
State abbreviation	None	
Filing week	Available data is limited to information made publicly available by each jurisdiction	
County	None	The Washington Post, Fatal Police Shootings Update frequency: Regularly
Date of incident	None	
State where incident occurred	None	
Gender (Female)	The Post identifies victims by the gender they identify with if reports indicate that it differs from their biological sex.	
Gender (Male)	The Post identifies victims by the gender they identify with if reports indicate that it differs from their biological sex.	
Race (Asian)	None	
Race (Black)	None	
Race (Hispanic)	None	
Race (Native)	None	
Race (Other)	None	
Race (Unknown)	None	
Race (White)	None	

Metric	Key considerations for using this metric	Data source
Total number of fatal police shootings	Only includes fatal shootings in the United States by a police officer in the line of duty	

Key considerations for using each dataset

Measure	Data source	Dataset	Key considerations for using the dataset
COVID Outcomes	CDC	COVID-19 Hospitalizations	The full disclaimer for using CDC hospitalization data is available through their dashboard: https://gis.cdc.gov/grasp/covidnet/COVID19_5.html
	HRSA	Health Center COVID-19 Vaccine Program Participants	Health centers listed as "invited" have been invited but are not participating.
		Health Center COVID-19 Vaccinations Among Racial and Ethnic Minority Patients	
	KFF	COVID-19 Data, Metrics, and Trends	KFF's update frequency falls behind CDC data sources. Data users may also cross reference variables with other datasets that are updated more frequently.
	UCLA School of Law	COVID-19 Behind Bars Data Project	Carceral agencies vary dramatically in what they report publicly. When data are not available, The UCLA Law COVID Behind Bars Data Project attempts to retrieve missing information through original public records requests. Full disclaimers for using this dataset are available at: https://uclacovidbehindbars.org/methods
Racism	APHA	Places that have declared racism a public health crisis	This dataset was manually compiled by the REFOCUS team using the interactive tool on the APHA website. Declaration are self-reported.
	CFPB	HMDA	Measure definitions for variables 2a-g are based on Sewell, A. A. (2013). ⁴ Opening the black box of segregation: Structures of racial health disparities (Doctoral dissertation, Indiana University). Each of the measures in this table are census-tract level variables (i.e., loan-level data was aggregated to the census tract).

Measure	Data source	Dataset	Key considerations for using the dataset
			<p>A separate set of credit refusal variables was created for each of the following racial/ethnic groups: American Indian or Alaska Native; Asian; Asian Indian; Chinese; Filipino; Japanese; Korean; Vietnamese; Black or African American; Native Hawaiian or Other Pacific Islander; Native Hawaiian; Guamanian or Chamorro; Samoan; Hispanic or Latino; Mexican; Puerto Rican; and Cuban. Each race-specific variable is based on the first race/ethnicity reported (i.e., the applicant_race1 and applicant_ethnicity1 variables).</p> <p>For each, race-specific variable we included applicants who reported the specified race alone or in combination with another group. The measures for Asian, Native Hawaiian and Pacific Islander, and Hispanic or Latino applicants are based on HMDA's methods for aggregating disaggregated race information.⁹</p>
	County Health Rankings & Roadmaps	Residential Segregation Measure using the 2015-2019 ACS	This dataset uses the index of dissimilarity where higher values indicate greater residential segregation between non-White and White county residents.
	FBI	Hate Crime Statistics	<p>Participation in data collection is voluntary for state, local, and tribal law enforcement agencies, but is mandatory for federal law enforcement.</p> <p>Level of reporting varies from year to year.</p> <p>The FBI cautions users from making simplistic comparisons between the statistical data provided in this dataset and those of others using differing methodologies.</p>
	SPLC	Hate Groups	Data represents activity by the hate group during the previous year.

Measure	Data source	Dataset	Key considerations for using the dataset
	U.S. Census Bureau	1980-2000 Segregation Data	Based on previously calculated measures. See: https://www.census.gov/prod/2002pubs/censr-3.pdf
Social Stigma	Advancement Project	RACE COUNTS California Social Vulnerability Index	This dataset compiles community vulnerability indicators from different sources.
	EPA	Environmental Justice Screening Map & Data	EPA cautions that users understand that EJSCREEN is not a detailed risk analysis, but a screening tool assessing issues related to environmental justice. Therefore, there is uncertainty in the data included and important limitations to consider. Visit the following link to learn more: https://www.epa.gov/ejscreen/limitations-and-caveats-using-ejscreen
	Surgo Ventures	COVID-19 Community Vulnerability Index	Data includes tribal census tracts, but does not include them in rankings that compare them to each other nor against standard census tracts due to geographic separation and cultural diversity. Sources for each indicator available on SurgoVentures website.
	UCLA School of Law	COVID-19 Behind Bars Data Project	Carceral agencies vary dramatically in what they report publicly. When data are not available, The UCLA Law COVID Behind Bars Data Project attempts to retrieve missing information through original public records requests. Full disclaimers for using this dataset are available at: https://uclacovidbehindbars.org/methods
Resilience	U.S. Census Bureau	Community Resilience Estimates	Data are for the previous year.
Social and Political Determinants of Health	BU School of Public Health and Johns Hopkins Bloomberg School of Public Health	COVID-19 U.S. State Policy Database	Cautions data users to triangulate policy data based on additional data sources.
	Google LLC	COVID-19 Community Mobility	The state-value and county values are both provided in the dataset. AWS S3 setup might be needed for efficient automation.

Measure	Data source	Dataset	Key considerations for using the dataset
	OSHA	COVID-19 Complaints	This dataset consists of self-reported data.
	The Princeton Eviction Lab	Eviction Filing Rate (Weekly)	Some eviction filing data have a number of cases with missing or incorrect tract/zip code information. These cases are listed in rows where the tract/zip is described as “sealed” in the Princeton Lab data. Values of filings by tract/zip may be underestimates as a result. Rows where tract/zip data are listed as “sealed” are not included.
	The Washington Post	Fatal Police Shootings	The Washington Post only logs fatal shootings by an on-duty police officer in the U.S.

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Appendices

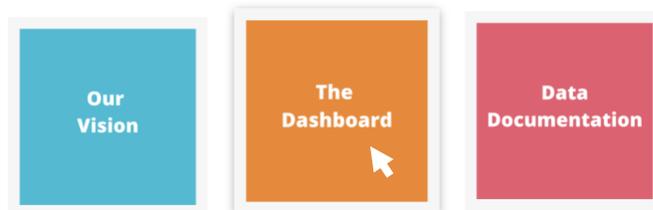
Using the Dashboard

Accessing the Dashboard

1. Go to projectrefocus.com
2. Click on crisis monitoring system



3. Click on the dashboard



Alternative approach

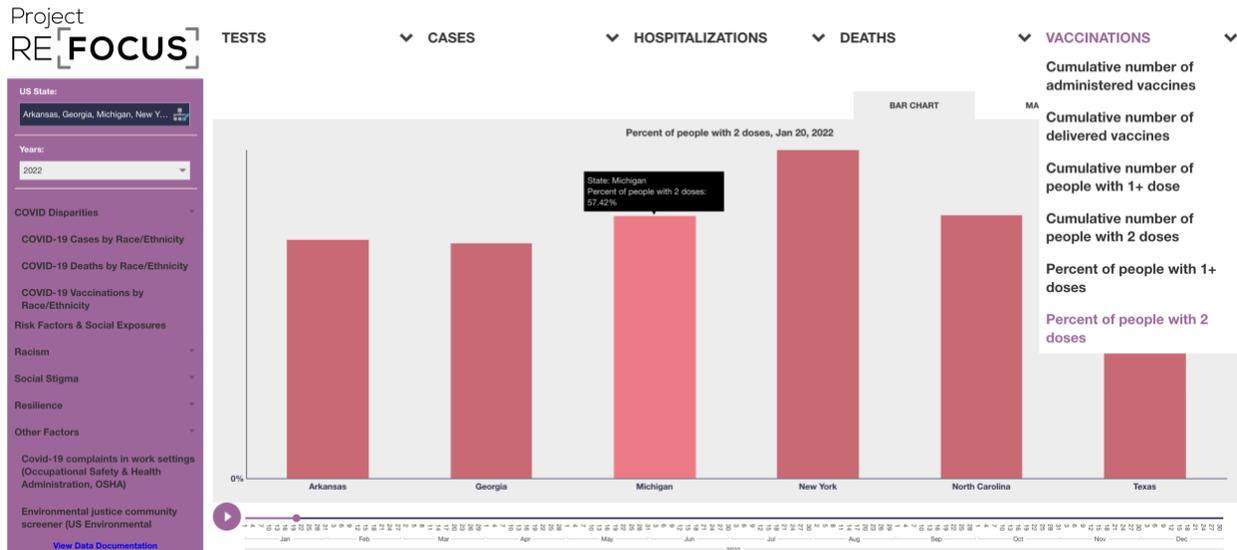
1. Navigate to projectrefocus.com/dashboard/

Using the Dashboard

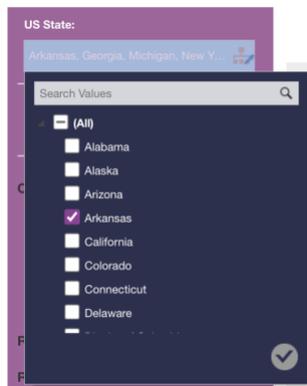
Top level headings

1. Hover on a **top level heading** to select a COVID indicator

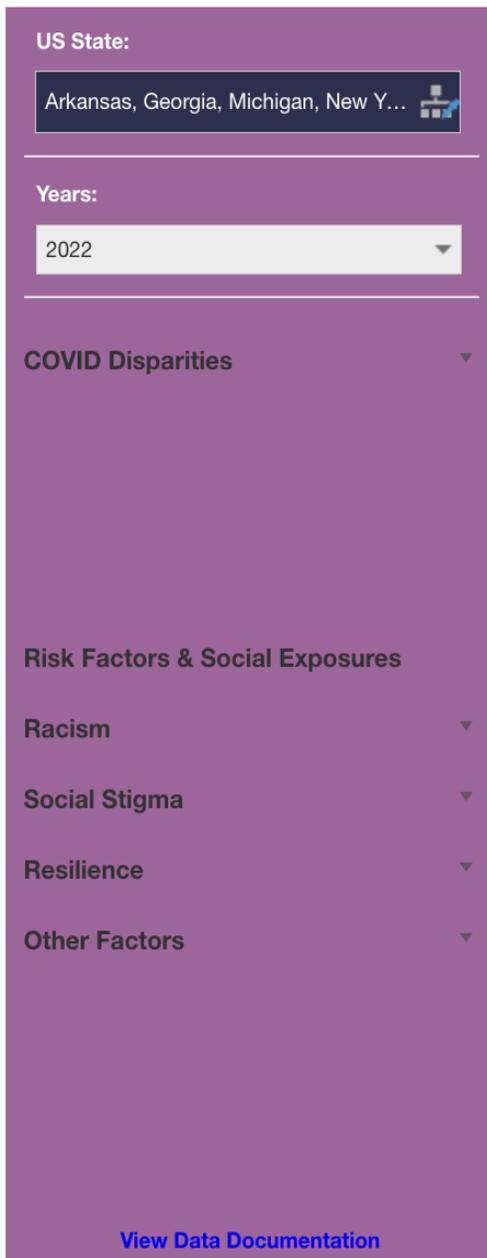
- In this example, we have selected **vaccinations** and are interested in the percent of people with two vaccination doses



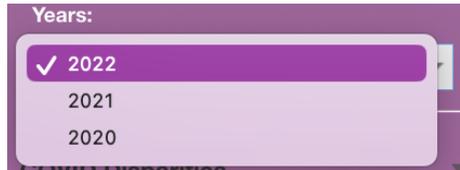
- Hover on **individual bars** to see the result for each state
- **Press the play** button to see changes in the data across time
- Using the **U.S. state selector** on the left side of the screen, we can remove or add states
- Arkansas, Georgia, Michigan, New York, North Carolina, and Texas are all pre-selected



The side panel



- You'll also be able to **adjust the year**. Selecting a year from the drop down will allow you to see COVID-related data at a particular point in time



- Click the **COVID Disparities drop down** to see COVID-related data by race/ethnicity



- The **risk factors and social exposure indicators** are contained in their own individual drop down menus. Below, the racism menu is used as an example



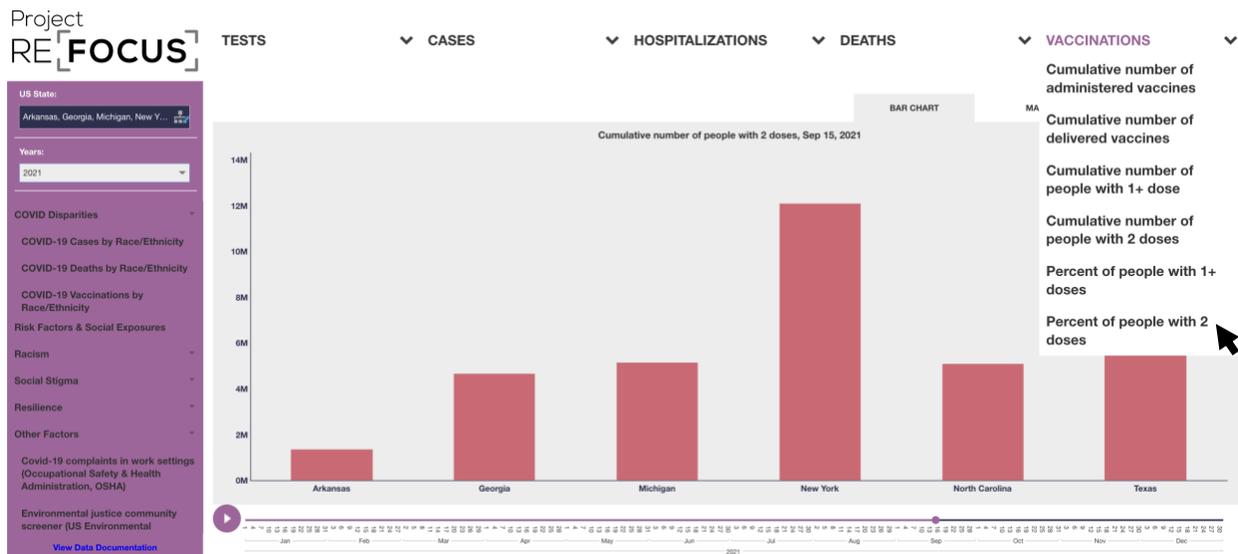
- Click on the blue link to **access the data documentation** or visit projectrefocus.com/data-documentation

Conducting a Query

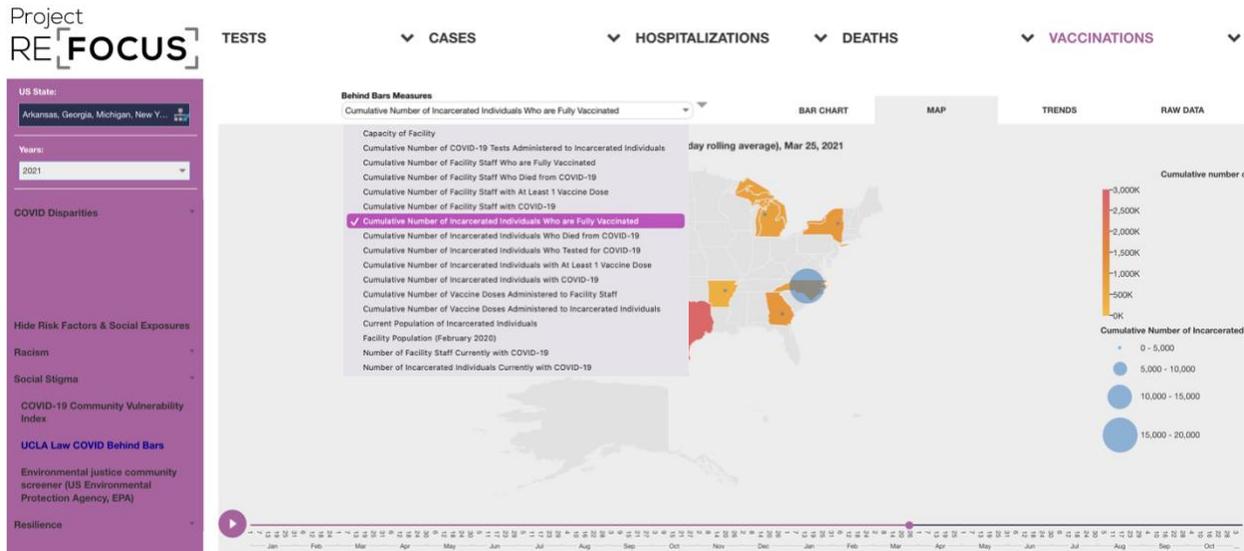
In this example, we are interested in comparing the cumulative number of people receiving at least 2 vaccine doses in Arkansas, Georgia, Michigan, New York, North Carolina, and Texas to the cumulative number of incarcerated individuals who were fully vaccinated in these states in 2021.

We will select the following information:

1. *COVID outcome: Vaccinations*
 - o Indicator: Cumulative number of people receiving at least 2 vaccine doses
2. *U.S. States*: Arkansas, Georgia, Michigan, New York, North Carolina, and Texas
3. *Year*: 2021



4. *Exposure*: Social stigma. We will use the UCLA Law COVID Behind Bars dataset (learn more about this data source by exploring the Project REFOCUS [data documentation](#) or by visiting uclacovidbehindbars.org)
 - o Indicator: Cumulative number of incarcerated individuals who are fully vaccinated



We can explore the variables contained in this dataset as a map, bar chart, or trend. We can even see the raw data.

The bar chart option allows us to see another drop down menu where we can select COVID-19 vaccinations. You can also select and deselect additional options using the area on the bottom right of the screen.



Codebook

The detailed codebook, which all users of the dashboard may reference, is available [online](#). Users may apply temporary filters to the primary sheet or look across sheets to find specific indicators and variables.

Applying temporary filters

Users of the online codebook may create a temporary filter view then filter across column headings.

The screenshot shows the Google Sheets interface for the 'Project REFOCUS Codebook'. A menu is open over the table, with options: 'Create new temporary filter view', 'Save as temporary filter view', 'Delete all filter views', 'Filter view options', and 'Learn more'. The table has columns: Metric, Description, Key considerations for..., Data source, and Update Frequency. The 'PRIMARY' tab is selected.

Metric	Description	Key considerations for...	Data source	Update Frequency
% change in cases	Percent change in cases over...	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
% change in positivity rate	Percent change in positivity rate	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
% change in positivity rate	Percent change in positivity rate	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
% of cases with Known Race	Percent of cases with Known Race	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
% of cases with Unknown Race	Percent of cases with Unknown Race	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
American Indian or Alaska Native % of cases	American Indian or Alaska Native percent of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
Asian % of cases	Asian percent of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
Asian Percent of cases	Asian percent of cases (by population)	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
Black % of cases	Black percent of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
Black Percent of cases	Black percent of cases (by population)	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily

The screenshot shows the 'Temporary filter 1' dialog box applied to the table. The dialog has a search bar and a list of filters: '1. COVID Outcome', '2. Racism', '3. Social Stigma', and '4. Resilience'. The '1. COVID Outcome' filter is selected. The table is filtered to show only rows where the 'Measure' column contains '1. COVID Outcome'.

Measure	Indicator	Metric	Description	Key considerations for...	Data source	Update Frequency
1. COVID Outcome	Sort A → Z		Percent change in cases over...	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome	Sort Z → A		Percent change in cases over...	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome	Sort by color		Percent change in positivity rate	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome	Filter by color		Percent change in positivity rate	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome	Filter by condition		Percent of cases with Known Race	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome	Filter by values		Percent of cases with Unknown Race	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome	Select all - Clear		American Indian or Alaska Native % of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Asian percent of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Asian percent of cases (by population)	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Black percent of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Black percent of cases (by population)	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Cumulative cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Daily cases (7-day rolling average)	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Daily cases per million population	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Daily change in cumulative cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Daily change in cumulative cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Hispanic percent of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Hispanic percent of cases (by population)	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Native Hawaiian or Other Pacific Islander % of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Other percent of cases	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Percentage point change in positivity rate	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily
1. COVID Outcome			Positivity rate (7-day rolling average)	None	KFF, COVID-19 Data, Metrics, and Trends	Almost daily

*The primary sheet is the selected sheet in this example

Using preset filters

Users of the online codebook may navigate to a specific sheet then select a matching filter title.

The screenshot shows the Google Sheets interface for the Project REFOCUS Codebook. A filter menu is open over the 'Social Stigma' sheet. The spreadsheet data is as follows:

			Description	Key considerations	Data source
2	3.	None	County	Zip code	Advancement Project, RACE COUNTS California
3	3.	Code	ZIP Code	County name	Advancement Project, RACE COUNTS California
4	3.	Percentile	Index Percentile	Index Rank is based on	Advancement Project, RACE COUNTS California
5	3.	Rank	Index Rank	Percentile of zip code ba	Advancement Project, RACE COUNTS California
6	3.	Learn more	Hospitalizations for Diabetes	Hospitalizations for Diabetes Percentage	Risk of COVID-19 infecti
7	3. Social Stigma	Population: Health	Hospitalizations for Diabetes	Hospitalizations for Diabetes Percentage	Risk of severe illness or
8	3. Social Stigma	Population: Health	Hospitalizations for Heart Attack	Hospitalizations for Heart Attack Percentage	Vulnerability of communit
9	3. Social Stigma	Population: Health	Hospitalizations for Heart Attack	Hospitalizations for Heart Attack Percentage	Percentage of total popul
10	3. Social Stigma	Population: Race	American Indian or Alaska Native Populati	American Indian or Alaska Native Population P	Percentage of total popula
11	3. Social Stigma	Population: Race	American Indian or Alaska Native Populati	American Indian or Alaska Native Population P	Percentage of total popul
12	3. Social Stigma	Population: Race	Black Population	Black Population Percentage	Percentage of total popula
13	3. Social Stigma	Population: Race	Black Population	Black Population Percentage	Percentage of total popul

The filter menu is open, showing options: 'Create new temporary filter view', 'Delete all filter views', 'Filter view options', and 'Learn more'. The 'Social Stigma' sheet is selected in the bottom navigation bar.

**Social Stigma is the selected sheet in this example*

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