

Overview

The COVID Analysis and Mapping of Policies (AMP) is part of the COVID-Local suite of free resources developed for local decision-makers. The COVID AMP Policy and Plan Database includes a library of policies from US states and the District of Columbia, US local governments (counties, cities) and national governments globally.

COVID AMP is an on-going research effort with data collection performed by researchers at the Georgetown University Center for Global Health Science and Security. As of June 2020, data are most complete for US states. Additional work is in progress to expand both to county-level data collection across the US and country-level data globally. In addition, a dataset of COVID-19-related plans published by US states and other organizations is also being collated and will be available on the site.

The site includes:

1. A searchable, filterable database of all policies and plans in the dataset. The complete dataset can be downloaded in a Excel file format directly from the site. If you are interested in establishing an API or other direct access, please contact us at ihrcosting@georgetown.org.
2. An interactive policy map providing geospatial visualization of the policies implemented over time. Policies can be viewed by “Distancing level” (see Methods below for detailed information about these categories) or by key policy types. All policy maps include reference COVID-19 case counts, over time, either as new cases in the last 7 days or cumulative cases.
3. *COMING SOON*: An interactive tool to explore the intersection between policies and caseload for each US state. The tool also provides the ability to:
 - a. Compare the effect of not having implemented any policies
 - b. Evaluate new policy options given current conditions for each state

A comprehensive data dictionary defining the structure and metadata for the policy dataset can be downloaded [here](#).

Annotated Policy Library

Data coding process

To collect the data, the team first developed a custom data taxonomy and data dictionary to define key metadata and organize the dataset. These data are populated directly by the policy coding team into Airtable and transferred *via* API into a database on Amazon Webservices. These data may be accessed directly from the backend database *via* API upon request. The data dictionary with complete description of all metadata fields can be downloaded as an Excel file

[here](https://covidamp.org/data). The complete dataset can be downloaded from the policy data page from covidamp.org/data.

For the purpose of this effort, policies are defined as government-issued and backed by legal authority or precedent. Plans included in the dataset are documents issued by a government, non-profit, for-profit, or higher education institution that provide recommended actions or guidelines, but do not necessarily have legal basis or authority.

The plans dataset is in development to be released in AMP at a later date (corresponding methods for plan data will be added at that time).

Policies are coded and tagged with the relevant metadata manually. Each policy is tagged with a series of descriptive attributes based on a review of the policy language, including (representative subset – see data dictionary for full description of data fields):

- Policy name and description
- Policy type (e.g., executive order, emergency declaration, statute, etc.)
- Categorical description of the scope of policy actions (e.g., social distancing, travel restrictions, enabling and relief measures, support for public health and clinical capacity) as well as more granular subcategory tagging (e.g., face coverings, quarantine, private sector closures, school closures, etc.)
- Authorizing role enacting the policy (e.g., governor, mayor, health official, president, city council, etc.)
- Start/end dates, including anticipated end dates for those policies still in effect but with declarative expirations
- Information about the geographic regions where the policy applies (if different from the level at which the policy was enacted)

Researchers review public sources to identify policies, with the most common sources including government websites that collate policy announcements, either COVID-19-specific or more generally. If a documented policy is not available or where there are questions about the policy, researchers contact local public communications or other offices to confirm. A static copy (PDF or screen capture) of each policy is stored with links to any sites with associated policy announcements in the dataset.

Legal experts review each policy following entry into the dataset to identify and code relevant authorities underlying the policy. In addition, for policies in the US, this data collection includes capturing attributes of the US state with respect to how legal authority is allocated between the local and state government (see definitions for Dillon’s Rule and Home Rule states in the data dictionary available from the AMP documentation page).

Policy Map

The policy map visualizes the policies in effect over time. Currently, this is limited to the 50 US states and the District of Columbia and will expand at country scale, globally, as additional policies are collected for additional countries.

Visualizing policies in place, by category, over time

To visualize policies in effect of different types over time, the map queries the policy dataset by date and location. Policies can be viewed by category on the map:

- Social distancing
- Emergency declarations
- Travel restrictions
- Enabling and relief measures
- Support for public health capacity

Policies can be viewed by multi-selected categories or sub-categories to view the status of each location based on policies in effect/not in effect related specifically to private sector closures, school closures, mass gatherings, and others.

A date slider at the top of the map page provides the ability to select a date or date range over which to compare the policies in effect in a given category.

Visualizing distancing level, as analyzed from policies

Distancing level reflects major categories of status of the overall approach to COVID-19-related policies that address measures related to social distancing at a given time, including: Lockdown (Phase I), Stay-at-home (Phase II), Safer-at-home (Phase III), and New normal (Phase IV). Each phase is intended to reflect the approaches and phases that have emerged across the approach to COVID-19 response, including as aligned to the frameworks of the COVID Local Frontline Guide for Local Decision-Makers.

The distancing status of each location is captured based on a day-by-day analysis of policies in effect for each state over time. In any case where an explicit policy is in effect, that status is used. In cases where a set of policies addressing school closures, private sector closures, and mass gatherings exist in specified combinations, the status is inferred from these policy categories, as follows. The definition for each distancing level is included and the bullets that follow reflect the conditions used to capture each status *via* and/or logic.

Lockdown (Phase I): Policies do not allow residents to leave their place of residence unless explicitly permitted to do so.

- Lockdown order in place

Stay-at-home (Phase II): Policies limit most in-person activities and social events

- Stay-at-home order OR
- School closures AND
- Private sector closures AND
- Mass gathering and/or event restrictions

Safer-at-home (Phase III): Policies limit activities to those specifically permitted, encouraging extra precautions and retaining limits on mass gatherings

- Safer at home order in place OR
- Private sector reopening OR
- Mass gathering limitations, may be somewhat relaxed
- School closure in place
- No stay-at-home order in place

New normal (Phase IV): A majority of public restrictions on mass gatherings and non-essential businesses are lifted or expired, with some encouraging of safeguards such as face coverings

- No safer-at-home order in place
- No stay-at-home order in place
- No private sector closures
- No mass gathering restrictions

COVID caseload data

State-level COVID-19 caseload data, new cases in the last 7 days and cumulative cases, are sourced from the New York Times Coronavirus (Covid-19) Data in the United States (<https://github.com/nytimes/covid-19-data>), as attributed on the interactive map. Data are updated daily. These data are collated by the New York Times on the basis of data from state and local health agencies. Data are used in accordance with the Creative Commons Attribution-Non Commercial 4.0 International license.