# USCOVID ATLAS

# Resource Guide & Community Toolkit

Welcome to the US Covid Atlas (<u>www.USCovidAtlas.org</u>)! In a quickly changing pandemic landscape, the US Covid Atlas connects case data and community indicators across the United States and helps you visualize current and historical data to better understand the often unequal impact of the pandemic. This Resource Guide provides an overview, with step-by-step instructions, on how to use the Atlas and its tools and features. This guide will help you:

- Explore data and choose your variables of interest;
- Learn how to map and visualize US county and state COVID-19 and contextual data;
- Focus on the impacts on communities using various data tools and visualization options;
- Easily export and share Atlas maps and data and customize community reports.

If you are new to the Atlas, we recommend beginning with <u>Chapter 1: Getting Started</u>. You can also browse and select a topic in the Table of Contents on the following page.



Let's get started!

## TABLE OF CONTENTS

#### CHAPTER 1

Getting Started: Atlas 101 Map Orientation Exploring Data Using the Map Variables Panel Identifying Trends Over Time Gaining Insight on Communities Data Sources Spatial Scales Temporal (Time) Scales

#### CHAPTER 2

<u>Visualizing Data</u> <u>Map Type</u> <u>Thematic Maps</u> <u>Hotspot Maps</u> <u>Visualization Types</u> <u>2D vs 3D</u> <u>Dasymetric (Dot Density)</u> <u>Cartogram</u> <u>Line Chart</u>

#### CHAPTER 3

Community Contexts Overlays Resources Community Data Panel Add Custom Data

#### **CHAPTER 4**

<u>Sharing and Enhancing Findings</u> <u>Downloading Data</u> <u>Sharing Maps & Findings</u> <u>Embed a Map View</u> <u>Take a Screenshot</u> <u>Creating Custom Community Reports</u>

<u>About</u> <u>Contact Us</u> <u>Acknowledgements</u>



# CHAPTER 1 Getting Started: Atlas 101

# **Map Orientation**

Start exploring the Atlas by navigating to <u>theuscovidatlas.org/map</u>. After a few seconds, the main map will load.



- The **Main Map** is shown at the center of the screen and takes up the majority of the view. A *Map Legend* can be found at the bottom of the screen, and the *Map Control* panel allowing you to zoom in, out, and more is at the left side.
- At the far left side of the screen, you will see the **Map Navigation** panel. *Data Sources & Map Variables* is selected as the default, presented as a left sidebar.
- At the top of the screen, you'll find the **Time Slider & Calendar** panel, used to select time.
- At the right side of the screen, you'll see the **Line Chart** floating panel that shows *Cases* as the default. This shows a graph of cases over time, (or alternate variable selected) with multiple options for viewing in-depth. By default this shows national-level case trends; when a county is selected, the graph will show that county's trends.
- Once you click on a county on the map, a scrollable right sidebar appears. This **Community Data** panel provides more contextual information of the county clicked on within the main map.
- At the top of the screen, you'll find the main **Site Navigation** bar.



## Main Map

The thematic map (also known as a "choropleth" map) shown as the default on the Atlas presents county-level data on COVID-19 cases for the country. On the bottom of the map, you will find a **Map Legend,** which provides a guide to interpret the map colors. See the legend displaying *Confirmed Count per 100K Population* with the color scale in the example above. Values with 0 or missing data will be shown in light gray. In the example screenshot above, Florida is grayed out because there was no data available for the state for the specific selection made.

At the bottom left of the map, you'll find your **Map Controls.** 



← Select a rectangular area. Data in the **Line Chart** and **Community Data** panels will be re-aggregated to show the area average.

← This icon re-zooms the map to your current location. Note: Location services will need to be enabled on your device for this functionality to work.

← The plus or minus icons will allow you to Zoom in and out of the map.

Use the North compass arrow to reposition the map so that North is facing up on your screen. You can rotate the map by holding CTRL + dragging your mouse.
This sharing icon will allow you to share the current view of the map and selections as a URL. The link is automatically copied to your clipboard.

At the top right side of the map, you will find an option to **Search By Location**. Enter an address, county, city, or any place in the U.S. and hit return to re-zoom the map to your area of interest.



# **Map Navigation Panel**

The **Map Navigation** panel is a fixed panel on the left sidebar with multiple options that will assist in selecting data, variables, and more customized options.



The default selection is the first icon, **Data Sources & Map Variables**, where you can select your map variables, date range, data source, and other options. You can turn this panel on or off by clicking this icon.

≣

The next icon opens and closes the **Community Data** panel, which pops up as a scrollable right sidebar on the screen. It will always be to the right of the main map. If you click a county on the map, you will find additional information on COVID-19, community contextual data, and related health factors for that county in this panel.

 $\sim$ 

You can turn the **Line Chart**, which shows you an overview of the data over time, feature on or off using this icon. The chart shows up on the right side of your screen as a default, and can be moved as a floating panel.

This **Add Custom Data** icon opens the Atlas Custom Data Loader. This feature helps you visualize and analyze your data by loading it in the Atlas web interface. Click on this icon to open and close the Data Loader.

Next, the **Report Builder** icon controls the Atlas Report Builder. With this tool, you can build a custom report to help you and your community understand the context of COVID-19 and social determinants of health.



The **Stories** icon opens the Atlas Stories data layer, featuring real stories from people about their pandemic experiences, tagged to their counties. You can contribute your own story and learn more about this project at <u>stories.uscovidatlas.org</u>.

	_
	-
	- 1

The **Information** icon brings you to more information about the latest version of the US Covid Atlas, new features, interface tips, and tutorials where you can learn more about the myriad use cases for the Atlas.



## Time Slider & Calendar



On the top of the map, you'll find the *Time Slider & Calendar* . This allows you to explore the entire timeline of the pandemic.

To view how data in this county has changed over time, you may want to move the Time Slider by dragging your cursor along the white line or pressing the play button , or by clicking on the date and Calendar Icon at the top to select a date. See <u>Community Data Panel</u> in Ch 3 for more info.



## Site Navigation Bar

us covid atlas map learn - about - data - insights - stories - contact

Use the **Site Navigation Bar** at the top of the screen in order to explore the US Covid Atlas and *Atlas Stories* websites and learn more about our work.

- **Map** takes you to the main map page, where you can explore and visualize COVID-19 and community contextual data in multiple ways.
- Learn has options for viewing this toolkit and tutorials, methods, and FAQs about the Atlas.
- **About** has an overview of the US Covid Atlas, team members, and our Community Advisory Board.
- Data has data documentation, data downloader tool, and more information on our API.
- **Insights** has recent academic research and publications, the Atlas Insights blog with quick updates, and other recent data visualization projects.
- **Stories** has more information on Atlas Stories, our oral histories collection project, how to submit a story, story archive, and a link to the Stories feature on the Atlas map.
- Contact has a quick and easy contact form to get in touch with the Atlas directly.



# **Exploring Data**

# Using the Map Variables Panel

# **LOCATION** : LEFT SIDEBAR

- Toggle between **Variables** to display data on cases, deaths, testing, vaccinations, and community indicators. Adjust the **Date Range** to ensure the scope of your variable of interest.
- Under *Geography*, select an option to visualize data at the County or State level.
- Click on **Data Source** to see what sources are available for your variable of interest.
- Select a *Map Type* to display case data through Natural Breaks, Hotspot, or Box Map.
- Choose a Visualization Type that best suits the data: 2D view, 3D view, Dasymetric (Dot Density) view, or Cartogram. For more on each of these, see <u>Visualization Types</u>.
- **Overlay** segregated cities, Native American Reservation boundaries, and other community regions to identify uniquely vulnerable locales.
- Plot **Resources** by selecting one or multiple options to visualize clinics, hospitals, and federal vaccination sites.

¢	Data Sources &
~	Confirmed Count per 100K 🔻
Ð	Date Range 7-Day Average 🔻
<u>.</u>	Fixed Bins 🛈
Z	Geography Data Source
i	County - New York Times -
	Мар Туре
	Natural Breaks <sup>1</sup>
	O Box Map 🖲
	○ Hotspot <sup>●</sup>
	Visualization Type
	Overlay -
	Resource

For more on each of the available options for Map Types, Visualization Types, Overlays, and Resources, see <u>Chapter 2: Visualizing Data</u>.

#### HINT:

Maps can miscommunicate underlying trends if health data are not appropriately normalized or classified, or communicated at the appropriate temporal or spatial scale (ex. daily versus 7-day average; county versus state level). Spatial literacy skills are crucial to avoid developing maps prone to misinterpretation, as well as avoid misinterpreting maps of Pandemic public health data.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Juergens, Carsten. "Trustworthy COVID-19 mapping: Geo-spatial data literacy aspects of choropleth maps." KN-journal of cartography and geographic information 70, no. 4 (2020): 155-161.



# Identifying Trends Over Time LOCATION : TOP OF THE MAP



- After locating the *Time Slider* at the top of the map display (pictured above), click and drag your cursor along the slider to change the date of the map display.
- Click on the *Line Chart* icon on the left-hand side control panel to bring up the Line Chart (pictured below). The Line Chart will pop up on the top right of the map display but it

is moveable using on the top left corner of the chart. By default, the Line Chart shows the 7-day average of confirmed COVID cases since March 2020, but the data variable, scale, and other factors can be control in the Line Chart Controls panel, available by

clicking the gear icon in the lower left corner of the Line Chart. For more details, see <u>Chapter 2: Visualizing Data, Line Chart.</u>





# **Gaining Insight on Communities**

# **LOCATION** : RIGHT SIDEBAR

- Click on a County or State and scroll through information that pops upon the right-hand *Community Data Panel* on the area's COVID statistics, population, health indicators, and other factors. You can click on the icon on the Map Control Panel to turn on or off the Community Data Panel at any time.
- Scrolling down the Community Data Panel, you'll find a list of curated indicators, including Community Health Factors, Community Health Context, Length & Quality of Life (Source: County Health Rankings & Roadmaps, 2021) and Essential Workers (Source: American Community Survey, 2019).

#### Selection of data available on the Community Data Panel (Example: Macon, AL):

5948

56

black / white

Residential segregation

Macon, AL 2022-07-26	Community Health Factors © Source: County Health Rankings	Essential Workers O Source: American Community Survey 49%	Length & Quality Life O
Population <b>19,054</b>	Children in poverty <b>0</b>	Community Health Context 0	Life expectancy ()
COVID Vaccination	Income inequality ①	Source: County Health Rankings	73.2 Self-rated health <sup>()</sup>
% of Population Fully Vaccinated	Median household income	20.4% Adult obesity ①	30%
<b>46.46%</b> Total Number	\$32,500 Food insecurity	50% Diabetes prevalence ①	
Fully Vaccinated 8,853	26% Unemployment <b>û</b>	23% Adult smoking 0	
% of Population Received At Least One Dose	5.5%	21%	
<b>58.11%</b> Total Number Received At Least One Do <u>se</u>	11%	11%	
11,072	2679:1	Drug overdose deaths <b>U</b>	
	Preventable hospital stays 0		

Testing \*2022-07-19

Source: HHS/CDC

7-Day Positivity Rate

11%



# Data Sources LOCATION : LEFT SIDEBAR

The Atlas offers multiple data sources for some variables. To see what data sources are available, click on the **Data Source** option.

To view all the data sources available for each variable, view the <u>Data Documentation</u> page on the US Covid Atlas, under the Data menu.

### HINT:

Some variables in the Atlas come from multiple data sources, but there might be slight variations in the values across these sources because of slightly different ways that data is recorded, processed, and shared-XYZ is a good example of this. You can explore your variable of interest across multiple data sources., Some parts of the country, and some periods of time, may have better coverage than others.

For more information on this phenomenon, check out the paper published on *Dimensions of Uncertainty*<sup>2</sup> by the Atlas Team.

Data Sources & Map Variables	
Variable Confirmed Count per 100	K
Date Range 7-Day Average Fixed Bins	
i Geography Data Source	ts 🔻
Map Type <ul> <li>Natural Breaks</li> <li>Box Map</li> <li>Hotspot</li> <li>Visualization Tune</li> </ul>	
2D	•
Overlay	-
Resource	-

<sup>&</sup>lt;sup>2</sup> Halpern, D., Lin, Q., Wang, R., Yang, S., Goldstein, S., & Kolak, M. (2021). Dimensions of uncertainty: a spatiotemporal review of five COVID-19 datasets. *Cartography and Geographic Information Science*, 1-22.



# Spatial Scales LOCATION : LEFT SIDEBAR: Data & Variables

The Atlas allows you to explore data at a county or state-specific level for each variable. To change the spatial scale of your variable of interest, use the Map Variables Panel to select the data source and variable that you would like to map, click on **Geography**, and choose between State or County.





### HINT:

Maps can miscommunicate underlying trends if health data are not appropriately normalized or classified, or communicated at the appropriate temporal or spatial scale (ex. daily versus 7-day average; county versus state level). Spatial literacy skills are crucial to <u>avoid developing maps</u> prone to misinterpretation, as well as avoid misinterpreting maps of pandemic public health data.<sup>3</sup>

# **Temporal (Time) Scales**

# LOCATION : LEFT SIDEBAR: Data & Variables

The Atlas offers the option to explore data across various time scales, otherwise known as temporal scales, for each variable. To adjust the scale of data displayed on the Atlas, use the map variables panel (left sidebar) to select the data source/variable that you would like to map and click on the **Date Range** drop-down menu. Choose between presenting cumulative, 7-day average, or daily new data. Selecting "Custom Range" allows you to incorporate data from a specific window of time that is selected using the Calendar and Time Slider. To learn more about the available temporal scales, see the table below.



<sup>&</sup>lt;sup>3</sup> Juergens, Carsten. "Trustworthy COVID-19 mapping: Geo-spatial data literacy aspects of choropleth maps." KN-journal of cartography and geographic information 70, no. 4 (2020): 155-161.



#### Temporal Scales Available on the US Covid Atlas

Date Range	Description
Cumulative	Total number of instances, such as confirmed cases, deaths, or vaccines, since the start of the pandemic or the start of data collected.
Daily New	The number of new instances per day for which data is available.
7-Day Average	The average number of instances over the previous 7-day period for which data is available.
Custom Range	Use the Time Slider and Calendar to choose a custom date range; i.e. the last month, 6 months, the latest variant, etc.

#### HINT:

Maps can miscommunicate underlying trends if health data are not appropriately normalized or classified, or communicated at the appropriate temporal or spatial scale (ex. daily versus 7-day average; county versus state level). Spatial literacy skills are crucial to avoid developing maps prone to misinterpretation, as well as avoid misinterpreting maps of Pandemic public health data.<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> Juergens, Carsten. "Trustworthy COVID-19 mapping: Geo-spatial data literacy aspects of choropleth maps." KN-journal of cartography and geographic information 70, no. 4 (2020): 155-161.



# **CHAPTER 2 Visualizing Data**

# • LOCATION : LEFT SIDEBAR

# Basic Thematic Maps: Natural Breaks vs Box Map

The Map Type buttons in the Atlas' map variables panel allow you to change how the map is colored and how the data is visualized. Choose between visualizing your variable of interest through a Natural Breaks or Box Map.

- Selecting **Natural Breaks** will plot data from the selected variable according to a non-linear algorithm that categorizes observations into similar values, grouping and highlighting extreme observations. To learn more about how data is sorted to create Natural Breaks Maps through the Atlas, click <u>here</u>.
- Selecting **Box Map** will plot the selected variable by categorizing data into bins according to where it would lie on a box plot chart (25th, 50th, 75th percentile, etc.) This is useful for identifying outlier data -- data that is significantly different from the rest, i.e. counties with much higher or lower rates compared to all other counties.

## **Hotspot Maps**

The Atlas allows you to identify hotspots and cool spots to visualize 'interesting locations' and trends related to COVID-19. To find and examine hotspots, select the spatial scale of your variable of interest, use the map variables panel (left sidebar) to select the data source and variable that you would like to map. Under Map Type, click on the **Hotspot** button and use the color ramp at the bottom of the screen to see if a region falls into a hotspot category.



#### METHODS:

The Atlas identifies hotspots using a spatial cluster detection method called LISA or local spatial autocorrelation. What this means is red shaded clusters (high-high or high-low) represent hotspots or areas with high rates; while blue shaded clusters (low-low or low-high) show cool spots, or areas with low rates. To learn more about local spatial autocorrelation, click <u>here</u>.



HINT:

Although it may be to associate hotspots in red as 'bad' and coldspots in blue as 'good' – especially for case rates – it's important to remember that, when exploring vaccination rates, the opposite is true! Hotspots in red signify regions with high vaccination rates and coldspots in blue identify regions with low vaccination rates.



# ◆ LOCATION : LEFT SIDEBAR

2D vs 3D

The Atlas offers the option to visualize data in different dimensions for each variable. Use the map variables panel (left sidebar) to select the data source/variable that you would like to map and choose between 2D or 3D under a *Visualization Type*.







# Dasymetric (Dot Density)

Use the Data Source and Map Variables Panel to select the data source and variable that you would like to map. Then, choose *Dasymetric (Dot Density)* under **Visualization Type**.

Unlike traditional thematic maps — with geographies symbolized with colors representing different metrics — dot density maps show dots representing concentrations of people. The density is visualized by placing one dot per 500 people. Toggle to choose between using dots to represent different racial and ethnic groups ("Color by ACS Race/Ethnicity") or the COVID-related data chosen above ("Color by COVID Data"). Use the Background Opacity slider to adjust the transparency of the Map Type chosen earlier.



## Cartogram

The Atlas allows you to change the style in which the data is presented. Use the map variables panel (left sidebar) to select the data source/variable that you would like to map and choose Cartogram under **Visualization Type**.

Unlike traditional choropleth maps — with geographies symbolized with colors representing different metrics — cartograms distort the geometries of regions in order to convey the information of an alternate variable. After selecting Cartogram as a visualization type, each will be inflated or deflated according to the numeric value of your COVID-related variable of interest.





# Line Chart LOCATION : TOP RIGHT, MOVEABLE

# Line Chart

The Atlas' *Line Chart* allows you to look at the nation's or a particular county's historic data now relative to trends in the past.

The *Line Chart* pops up in the top right corner when you first navigate to the Atlas. It can also be

accessed by clicking the Line Chart button on the left-hand side Control Panel.

Using the arrows icon in the bottom right hand corner , expand the *Line Chart* window for a better view of the data. Click on a county to visualize county-specific COVID trends or leave counties unselected for a national overview of historical case data.

- The white line represents the average of new COVID cases each week, the 7-day average.
- The yellow line is the cumulative or total number of cases that the county has experienced since the beginning of the pandemic.

In the bottom left hand corner, you'll see the gear icon indicating the Line Chart
 Controls menu. There, you can choose from a number of options to visualize in the Line Chart:

- Line Chart Variable: Choose from cases, deaths, fully vaccinated persons, or the weekly positive rate.  $\rightarrow$
- **Other Line Chart Controls:** Toggle between options to visualize data in different ways. Toggle On or  $Off: \rightarrow$ 
  - Logarithmic Scale
  - Population Normalization (Rates Per 100K)
  - Show Summary Line
  - Variant Designation: Approximate dates of when different identified COVID-19 variants started being tracked by the CDC.







# CHAPTER 3 Community Contexts

# Overlays

# LOCATION : LEFT SIDEBAR

Overlays in the Covid Atlas allow you to identify COVID-related trends in uniquely vulnerable locales. Use the map variables panel (left sidebar) to select the data source/variable that you would like to map and toggle between community types under **Overlays**. Choose between overlaying Hypersegregated Cities, Native American Reservation, Black Belt Counties, and US Congressional Districts to highlight communities/regions of interest.



After selecting an overlay, you can visualize COVID or community data with the natural breaks binning, box map binning schemas, hotspot analysis, and any other tools that are available within the Atlas.

#### METHODS:

The **Overlays** options were curated from partnerships with US Covid Atlas users and communities. These geographies and communities also represent groups that have been historically underrepresented in public health data reporting and analysis.

- Hypersegregated Cities comes from research led by sociology and public affairs professor Douglas Massey of Princeton University's Office of Population Research.
- Native American Reservations comes from the US Census Bureau, Department of Commerce <u>2017 TIGER/Line American Indian/Alaskan Native/Native Hawaiin (AIANNH)</u> <u>National Shapefile</u>.
- The U.S. Black Belt refers to a social and demographic history of approximately 200 southern US counties that were at least 30% Black or African American as of the 2000 Census. These counties have a history of majority African American population and cotton production.



# Cocation : Left Sidebar

The Altas allows you to plot resources to visualize the distribution of COVID-related public health resources throughout the country. Use the map variables panel (left sidebar) to select the data source/variable that you would like to map and toggle between resource types under **Resources**. Choose between plotting Federal Vaccination Sites, Hospitals, Clinics, or both Clinics and Hospitals.



After selecting a resource to plot, create map visualizations with the natural breaks binning, box map binning schemas, hotspot analysis, and any other tools available within the Atlas.

# **Community Data Panel**

# LOCATION : RIGHT SIDEBAR

Gain insight into COVID-related trends by clicking on a county or state (or right click to select multiple counties or states) by exploring the *Community Data Panel* on the right side of your map. Scroll through the panel for information on the selected county or state population, case rates, health and other community data.

The following is a selection of data provided for each county. See <u>Chapter 1:</u> <u>Gaining Insights on Communities</u> for more details.

- Population
- Total COVID-19 Cases, Deaths
- 7-Day Average of New Cases, Deaths per 100k Population
- Vaccination Rates
- Testing Positivity Rates
- Community Health Factors (Source: County Health Rankings, 2021)
- Essential Workers (Source: American Community Survey, 2019)
- Community Health Contexts (Source: County Health Rankings, 2021)

#### HINT:

By default, the Community Data Panel will show county-specific information for today's date. You can adjust the date by using the *Time Slider* or *Calendar*.





# Add Custom Data

Although the COVID Atlas includes up to date information on county-level COVID vaccinations, tests, hospitalization, and case rates, you might be looking to visualize datasets that are not yet incorporated into the Atlas – whether that be a different variable or unit.



To load and visualize your own geospatial data in the context of the U.S. COVID Atlas, first ensure that your data is in the GeoJSON data format. GeoJSON is a spatial data format that allows you to place data in a particular location on a map.

# If the data you are looking to visualize is tabular (or it ends in .xls, .csv, or .tsv), you can easily transform it to the spatial format GeoJSON file using <u>GeoJay</u>.

How to use GeoJay:

- 1. Navigate to GeoJay at <u>geojay.netlify.app</u>; GeoJay easily identifies and joins tabular data into the geospatial administrative boundaries that are needed to visualize your data on the Atlas.
- 2. Click "Join Data" and load your geospatial dataset into GeoJay.
- 3. GeoJay will use its warehouse of States, Counties, Zip codes, and more to join your Table data with geospatial geographies.

Once the joined data is downloaded onto your computer, navigate back to <u>uscovidatlas.org/map</u> to load it into the Atlas.



#### How to Add Custom Data:

- Use the Map Navigation Panel and click the Add Custom Data icon. You can load GeoJSON data from your computer or use a remotely accessible online data source. Many common data sources, such as Socrata or Data.gov, provide spatial data as GeoJSON that you can use. Specifically, your geospatial data must be in the WGS84 projection (EPSG:4326).
- 2. Choose your link or load in your file. Click "File Link" to link to an online file, or click "File Upload" to use a file on your computer. Your file will not be uploaded to the Atlas servers, and your data will remain private.



3. Validate your data and proceed to the next step.



4. Add variables by clicking the 'Add a Variable' card. You can add multiple variables from the same dataset.



5. Using the variable editor, name your variable and choose a data column for your numerator. You can choose a denominator for your data as well, such as population to normalize your data. If you just choose a numerator, your data will simply display that data. You can choose a color scheme to represent your data and click *Save*. You can return to this menu by clicking *Edit Variable*.





6. Once your data is loaded onto the Atlas, you can perform geospatial visualizations with the natural breaks binning, box map binning schemas, hotspot analysis, and any other tools that are available with existing atlas data.



Feel free to even switch back and forth between your custom data and US Covid Atlas data, and use existing tools in the Atlas to gain new insights from your data.

#### HINT:

The Atlas supports polygon geometries and numerical data; weekly rates and other data types may not be read accurately, so be sure to check for areas that have NaN or null values. The data loaded into the Atlas will not be saved and is visible to only you – if you would like to save visualizations or analysis loaded onto the Atlas, be sure to check out our tutorial on <u>Customizable</u> <u>Community Reports</u>.

## HINT :

Make sure your data is in *wide format* before loading in the Custom Data Loader. In wide formatted data, the county or state's data will be a single row, and each date or time point (for COVID data shared reported daily, for example) will be in a separate column. By contrast, in the long format, each row is one time point per county or state, so each county will have data in multiple rows. Our set-up requires wide formatted data because it makes reading in the data and any transformations, including visualization, much easier.

If your data is in long format or needs some cleaning up, make sure you give yourself some extra time to wrangle it into wide format.

![](_page_21_Picture_8.jpeg)

# **CHAPTER 4 Sharing and Enhancing Findings**

# **Downloading Data**

Data Download Tool

## LOCATION : TOP MAIN MENU

Use the Data Download tool to download bulk CSV files from the US Covid Atlas data archive.

- 1. Navigate to the Data Download tool at: <u>www.uscovidatlas.org/download</u>
- Use the checkboxes to select your datasets of interest. You may choose the full dataset (i.e. all Cases Data), select a dataset by County and/or State, and/or select by Data Source (i.e. Cases Data - County - New York Times and Cases Data - County - USA Facts). See the screenshot below for the complete available data archive.
  - Cases Data
     County New York Times
     County USA Facts
     State New York Times
     State USA Facts
- 3. Press the "Download Data" blue button to begin your download.

![](_page_22_Picture_9.jpeg)

- 4. Your device should begin downloading a ZIP archive of your selected CSV files and as well as data documentation.
- 5. Unzip the folder to view its contents. You should see 4 items: **data** folder; **docs** folder; **LICENSE.txt** file; and a **readme.md** file.

![](_page_22_Picture_12.jpeg)

![](_page_23_Figure_0.jpeg)

![](_page_23_Picture_1.jpeg)

- a. The data folder contains the CSVs of your selected datasets.
- b. The **docs** folder contains the documentation for all Atlas datasets
- c. **LICENSE.txt** contains details on the GNU General Public License (GPL 3), a free copyleft license for our open source software and data on the Atlas.
- d. **readme.md** contains a brief description of the ZIP archive contents.

#### HINT:

If you are downloading the full data archive available on the Atlas, note that the file will be over 70MB and may be slow to load.

Access the Data Download Tool at www.uscovidatlas.org/download.

Bulk Data Download		
This menu allows you to download bulk CSVs of t of interest with the checkboxes below and then c your CSV files and data documentation. Please ne may be slow to load.	he data available on the Atlas. Select your datasets lick download data to receive a ZIP archive with ote that the full dataset is currently over 70MB, and	DOWNLOAD DATA
Cases Data	Deaths Data	Vaccination Data
🗹 County - New York Times	County - NYT	County - Vaccine Series Complete (Fully Vaccinated) - CDC
🖌 County - USA Facts	County - USA Facts	County - One or More Doses Administered - CDC
🗹 State - New York Times	State - New York Times	State - Vaccine Series Complete
State - USA Facts	State - USA Facts	(Fully Vaccinated) - CDC       State - One or More Doses       Administered - CDC       State - Doses Distributed but not       Administered - CDC
Testing Data	Hospital and Clinics Locations	Essential Workers
County - Testing Counts - CDC	Federally Qualified Health Clinics - HRSA	Essential Workers - ACS
County - Tests Performed Per 100k - CDC	Hospital Locations - CovidCareMap	
County - Testing Positivity - CDC		
County - Confirmed Cases per Testing - CDC		
State - Testing Counts - HHS		
State - Tests Performed Per 100k - HHS		
State - Testing Positivity - HHS		
State - Confirmed Cases per Testing - HHS		

![](_page_23_Picture_10.jpeg)

# Sharing Maps & Findings

## **Embed a Map View**

In a few short steps, you can integrate a map view of the Atlas into your own website to share through embedded content.

![](_page_24_Figure_3.jpeg)

#### **Covid Atlas Embed Helper**

`<iframe height="410px" width=100%" src="https://theuscovidatlas.org/map" title="The US Covid Atlas Map" />`

Generate the map you'd like to embed with the variables of interest, visualization of county/state level COVID data, and specific community indicators and resources

- 1. Click the link icon on the bottom of your map to copy the unique URL.
- 2. Navigate to the COVID Atlas Embed Helper at www.bit.ly/atlas-embed.
- 3. Under Link to embed, copy and paste your unique map view URL link.
- 4. (Optional) To change the size of the embedded view, adjust *Window Height*.
- 5. Check the *Preview* to confirm the size & quality of the embedded map view.
- 6. Copy and paste the *iframe element* to embed the Atlas on your site or newsletter.

## Take a Screenshot

Screenshotting is an easy way to share visualizations and data insights.

- 1. **Generate your map** using tutorials in previous chapters of this Resource Guide to visualize county or state COVID data, and use menu options to view specific community indicators.
- 2. Adjust the view by zooming in and out on your area or insight of interest.
- 3. **Screenshot the window** according to your device's settings. Visit <u>take-a-screenshot.org</u> for a guide to taking a screenshot on a Windows, Mac, Linux, or Chrome device.

![](_page_24_Picture_19.jpeg)

Use the iframe element below to embed the Atlas on your website.

# **Creating Custom Community Reports**

After exploring regional trends, hotspots, and more, you'll likely want to share insights from the Atlas with colleagues, neighbors, or community. The Atlas Report Builder helps you create an easy-to-share report of pandemic and community data.

On the Map Navigation Panel on the left side of the map, click the **Report Builder** icon.

# Ē¢

## **Report Templates**

Select one of the four default report templates, or build your own:

- My County's Stats, the most detailed data available on the Atlas;
- A National Snapshot, for an overview of national trends and data;
- My Neighboring Counties' Stats, for a view of your county and its neighbors;
- My Region's Snapshot, for a view of how your region is doing;
- Something Else (Blank Report) to start with a blank page.

![](_page_25_Picture_11.jpeg)

Next, choose from the available settings for your template, such as selecting your county, specialized data, and naming your report.

![](_page_25_Picture_13.jpeg)

		LAS MAP LEARN - ABO			Q Search by location
⇔	Data Sourc Map Varial	ces & bles	7/31/2022 (***)	Cases	
_	New: See /	-			×
~~	Variable —	Atlas Report Builder			
R		🧹 Choose a template ———	2 Select your community O Custo		- 4 Save or Print
	Date Range	Customize your template:			M.
R.			You selected Tuscaloosa, Alabama. Click 'Next' to continue		NY
Ľ	Fixe		Type to search (eg. Miami-Dade)		MASS
i	County	My County's			
		Stats	What date would you like to see?		
			Latest Available Data		- I 🕹
					🖻
	🔿 Box Ma		What would you like to name your report?		
			My County's Stats - Tuscaloosa, Alabama - Latest Available Da —	ata	
		BACK			NEXT
	Data is updated wit daily, at minimum, li	h freshest available data at 3pm CST n case of data discrepancy, local	V V	Gull of	
	health departments per CDC recommer methods and EAO	s are considered most accurate as ndations. More information on data, at main site.	0		
			Confirmed Count per 100K Population		

# **Customize Your Report**

Choose and add relevant Additional Report Items to further customize your report.

- Maps: Visualize geospatial data for counties, regions, states
- **Tables**: Summary data on different topics
- **Descriptions**: Text-based plain language information
- Charts: Line charts show historic context; scatter charts illustrate relationships

![](_page_26_Figure_7.jpeg)

![](_page_26_Picture_8.jpeg)

Components can be customized in different ways, like changing the county, size of the report item, date, and more. You can add more pages by clicking the + button below the first page.

## Save and Share

After customizing your report, use the buttons at the top of the page to save and share it:

- Save Atlas template: Save your current report as a template to revisit;
- Download screenshot: Save as an image (or images, for multi-page) for easy sharing;
- Download pdf: Save a PDF of your report;
- **Print**: Print out your report

![](_page_27_Figure_7.jpeg)

Your report will automatically save to your Atlas browser. Return and find your saved report:

25		LAS MAP LEARN - ABOUT - DATA - INSIGHTS - STORIES - CONTACT Q Search E	y location
¢ 	Data Sour Map Vari	res & 7/31/2022	
≡	New: See /	Atlas Report Builder	. Kasta
~~		1 Choose a template 2 Select your community 3 Customize your report 8 Save or Print	
•	Confirme	Use this tool to build a report to help you and your community understand the context of COVID and determinants of health.	
	Date Range 7-Day Av	To get started, which template best fits your needs?	
Ø	Fixe		
i	Geography - County	My County's Stats         A National Snapshot         My My Region's Snapshot         My Neighboring County's Stats	
	🔿 Box Ma	Something Fixe (Blank Previous Reports	
		Report)	
	Visualization 2D	My County's Stats - Tuscaloosa, Alabama - Latest Available Data	
	Data is updated daily, at minimur		
	health department per CDC recomme methods, and FAQ	a se considered nost accurate as notations. More information on data, the information on data, the information on data, the information on data, the information on data and the information on data a	
	4	POWERED BY GEODA Omapbo	

![](_page_27_Picture_10.jpeg)

# About

The US Covid Atlas works to understand, archive, and represent the often unequal impact of the COVID-19 pandemic on the United States. A coalition of research partners and contributors have been integral to developing and expanding the US Covid Atlas to meet the needs of health practitioners, planners, researchers, and the public. The Atlas team leads from The Center for Spatial Data Science have directed development of the Atlas since its first launch in March of 2020. For more information, visit <u>uscovidatlas.org/about</u>.

# **Contact Us**

If you have any questions or comments about this Community Toolkit and Resource Guide or about the US Covid Atlas in general, please contact us at <u>uscovidatlas.org/contact</u>.

# Acknowledgements

The US Covid Atlas Community Toolkit and Resource Guide was written by Susan Paykin, Sindu Soundararajan, Dylan Halpern, and Marynia Kolak of the Healthy Regions & Policies Lab at the Center for Spatial Data Science at the University of Chicago, with additional contributions from Aresha Martinez-Cardoso of the Department of Public Health at University of Chicago and Qinyun Lin at the Health Regions & Policies Lab at the Center for Spatial Data Science at University of Chicago. It was drafted and revised in 2021-2022 and published in August 2022. The US Covid Atlas is funded in part by the Robert Wood Johnson Foundation.

![](_page_28_Picture_6.jpeg)