

## COVID-19 Data Resources (as of April 16, 2020)

We have compiled a list of data sources, mostly publicly available, that researchers may find useful. Some are just repackaging of official government statistics on infections, hospitalizations, deaths, and so forth, but, depending on the particular website, they might be from different governments and at different levels of aggregation. Others are entirely novel data sources, often shared by private firms who have collected them in the course of their business practice or as a public service. With the exception of the data on the 1918 Flu Pandemic, all data sets cover a period of time relevant for study of the current pandemic.

We offer the list with the caveat that new data dumps, curated repositories, and official statistics are becoming available on a daily basis. Furthermore, links might become stale as websites are moved or removed. (We try to offer searchable descriptions to help researchers track down the data sources.)

1. Statistics on infections, hospitalizations, recoveries, and deaths at the **country** level
  - a. <https://data.humdata.org/dataset/novel-coronavirus-2019-ncov-cases>
  - b. European CDC data <https://www.ecdc.europa.eu/en/covid-19-pandemic>
  - c. Institute for Health Metrics and Evaluation data  
<http://www.healthdata.org/covid>
2. Statistics on infections, hospitalizations, recoveries, and deaths at the **US state** level, as well as data on ventilator, hospital, and ICU usage and number of tests
  - a. <https://ourworldindata.org/covid-testing>
  - b. <https://covidtracking.com/data>
3. Statistics on infections, hospitalizations, recoveries, and deaths at the **US county** level
  - a. <https://usafacts.org/visualizations/coronavirus-covid-19-spread-map/> (where it says Download data (Jan. 22- April 6))
4. NY Times data at the **US county** level of confirmed cases and deaths by day
  - a. <https://www.nytimes.com/article/coronavirus-county-data-us.html>, available at <https://github.com/nytimes/covid-19-data>
5. New York City-specific data
  - a. <https://www.nytimes.com/article/coronavirus-county-data-us.html>, available at <https://github.com/nychealth/coronavirus-data>
6. Historic data for 43 US cities on the 1918 Flu Epidemic, including deaths, death rates, and non-pharmaceutical interventions (such as social distancing), from US Census data--used in Markel, Lipman, and Navarro (2007), but not clear if and where the data are available for download
  - a. <https://jamanetwork.com/journals/jama/fullarticle/208354>
7. Data on the timing of non-pharmaceutical interventions (social distancing, closure of schools and universities, closure of nonessential business, gathering size limitations, etc.) in the US
  - a. [www.keystonestrategy.com/covid-19/](http://www.keystonestrategy.com/covid-19/), available at <https://github.com/Keystone-Strategy/covid19-intervention-data/>
8. Data on distances traveled using cell phone movements from Unacast---can view and interact with their mobility map, but not download the data. (They may be offering it to universities and non-profits for free.)

- a. <https://www.unacast.com/covid19/social-distancing-scoreboard>
9. Mobility data is becoming available from other sources as well, such as Google, CityMapper, and SafeGraph
  - a. <https://www.google.com/covid19/mobility/>
  - b. <https://citymapper.com/cmi>
  - c. <https://safegraph.com>
10. Restaurant reservation data by city and day for Australia, Canada, Germany, Ireland, Mexico, United Kingdom, and the United States from Open Table
  - a. <https://www.opentable.com/state-of-industry>
11. Data on airport usage---can view map but not available for download
  - a. <https://wanderlog.com/coronavirus-airports-effect>
12. Data on fever incidence from Kinsa, a firm that makes smart thermometers---can view infographics, but not available for download
  - a. <https://www.kinsahealth.co/images-and-infographics-from-kinsas-health-weather-map-and-data/>
13. Data on air pollution (at weekly or daily frequency)
  - a. For European countries: <https://www.eea.europa.eu/themes/air/air-quality-and-covid19/monitoring-covid-19-impacts-on>
  - b. Worldwide: <https://www.covidexplore.com/PM25>  
(<https://github.com/mayukh18/covidexplore>)
  - c. India and China (though they might have data on more countries):  
<https://energyandcleanair.org/blog/>
  - d. <https://aqicn.org/data-platform/covid19/>
14. Satellite data on air pollution data in Europe
  - a. [https://www.esa.int/Applications/Observing\\_the\\_Earth/Copernicus/Sentinel-5P/Coronavirus\\_lockdown\\_leading\\_to\\_drop\\_in\\_pollution\\_across\\_Europe](https://www.esa.int/Applications/Observing_the_Earth/Copernicus/Sentinel-5P/Coronavirus_lockdown_leading_to_drop_in_pollution_across_Europe)  
(<https://scihub.copernicus.eu>)
15. Data from Foursquare on consumer location, derives measures of impacts on flights, stocking up behavior, sit-down restaurants, fast food, etc.---can view article, but data not available for download
  - a. <https://enterprise.foursquare.com/intersections/article/understanding-the-impact-of-covid-19/>
16. Data on planned, ongoing, and completed trials for medical interventions
  - a. <https://covid-evidence.org>
17. Google Trends, a free tool offered to allow researchers to download (normalized) data on search volumes over time and across geographic regions
  - a. <https://trends.google.com/trends/>
  - b. Example article using these data  
<https://www.nytimes.com/2020/04/05/opinion/coronavirus-google-searches.html>

