

Extended Notes on Sources and Methodology

Data

At all points it is important to remember that the number of confirmed cases is lower than the number of actual cases, and may be significantly lower during periods when there is a dearth of testing. There are also reasons to believe deaths are [undercounted](#), as different jurisdictions use varying testing procedures and resources.

The data source for global and U.S. confirmed cases and deaths from January 22 onwards is Johns Hopkins University Centers for Systems Science and Engineering, which posts its data [on Github](#).

Prior to January 22, information is scarce. For daily case numbers, POGO identified scattered data from the European Centre for Disease Prevention and Control, the U.S. Centers for Disease Control and Prevention, the World Health Organization, and references in news accounts and medical journal articles. But most of this information originally came from the local government in Wuhan, China, which was not forthcoming during this time period. For a substantial portion of the month of January, [China did not disclose any new cases](#), even though the virus was clearly spreading during that time. Where we had information that there was a higher number of cases on a particular day, we used the higher number if the source is reliable. For instance, while the [European CDC](#) has posted pre-January 22 daily numbers, until January 18, they are all lower than the number of cases [cited](#) by the World Health Organization.

On January 13, the number of confirmed cases grows to 42, with [the first case confirmed outside of China](#)—in Thailand—added to the 41 known Chinese cases cited by the World Health Organization. On January 16, Japan [confirmed](#) its first case, growing the number to 43. Thailand [reported](#) a second case on January 17, growing the number to 44. For January 18-21, POGO used [the European CDC data](#).

Data on U.S testing volume up to mid-March is from [U.S. CDC daily testing numbers](#). POGO added the daily tests conducted by the CDC to those conducted by public health laboratories to get total U.S. daily testing numbers through mid-March. Beginning on March 16, the data is from the [COVID Tracking Project](#). We switched sources because there is a significant lag in the CDC's reporting of testing numbers, and COVID Tracking Project's data appears to be more complete because the daily numbers are larger. Regardless of the source, [differing practices among the jurisdictions reporting the data](#) make it difficult to get a firm grasp on the true total number of tests, and there have been [documented issues](#) where not all private and university labs conducting tests have their results included in the totals released by states.

POGO utilized data from the above sources that was current as of 12 PM Eastern time on April 29, 2020.

What Did POGO Look For and How Did It Conduct Its Search?

POGO looked for any U.S. government action or development, particularly those that relate to the public health response, although some high-profile actions regarding the economic fallout are included as well. We sought to identify presidential statements related to the coronavirus. Because some statements were lengthy, we had to be particularly selective about excerpts in those cases. Key coronavirus developments focus on items relevant to policymakers that could or should have informed the governmental response. We looked for advancements in medical and scientific understanding of the virus, and for events, such as the rapid discovery of cases once testing expanded and the imposition of social distancing measures across the country and world, that also should have been on the radar of federal policymakers.

We examined government press releases, briefing transcripts, executive orders, congressional testimony, and other official government records on *.gov and *.mil websites, especially the [CDC's site](#) and the [site](#) of the Department of Health and Human Services' Office of the Assistant Secretary for Preparedness and Response. We sought to be inclusive but also had to exercise some degree of discretion on what to include. The White House's own list of 120 actions the administration took, as transmitted to the *Washington Post* via email [in April](#), can be [found here](#). A significant number of these are in our timeline, although many cannot be included because the day they occurred cannot be identified.

We also examined the [U.S. Government COVID-19 Response Plan](#) dated March 13, which contained the dates of some government developments we had not seen elsewhere. (The plan was published by the *New York Times*.) We also reviewed an internal government memo entitled "[A Plan to Increase COVID-19 Testing in the U.S.](#)," dated February 27. (The memo was published by the *Washington Post*.)

We examined e-mails by U.S. government officials [obtained by journalists](#) or through the Freedom of Information Act, such as by the [nonprofit American Oversight](#).

We also examined World Health Organization releases, including its daily situation reports on COVID-19.

The National Institutes of Health's PubMed allows for the search of a vast array of scientific and medical articles on COVID-19 [here](#). (The search string in that URL is [recommended](#) by NIH's National Library of Medicine.) But, for the most part, we became attuned to relevant research literature by reading about it in the mainstream press.

For news coverage from the month of January, we conducted Google News searches, day-by-day using "custom range," for the term "coronavirus." For the earliest days of January before the virus was identified as a new type of coronavirus, we searched for "Wuhan" and "pneumonia." The Google searches became unwieldy due to the large number of search results moving into February.

The following were particularly important in-depth news accounts on U.S. government developments that provided key details used in our timeline: the *Washington Post*, "[Inside the](#)

[coronavirus testing failure: Alarm and dismay among the scientists who sought to help](#)"; the *Wall Street Journal*, "[America Needed Coronavirus Tests. The Government Failed.](#)" the *New York Times*, "[The Lost Month: How a Failure to Test Blinded the U.S. to Covid-19](#)"; Associated Press, "[Testing Blunders Crippled US Response as Coronavirus Spread](#)"; *NBC News*, "[Mismanagement, missed opportunities: How the White House bungled the coronavirus response](#)"; the *Washington Post*, "[The U.S. was beset by denial and dysfunction as the coronavirus raged](#)"; the *New York Times*, "[He Could Have Seen What Was Coming: Behind Trump's Failure on the Virus](#)"; and *Politico*, "[5 ways the Trump administration fell short of its own pandemic goals.](#)"

As we built out our timeline, we also reviewed timelines that were published by others such as those by [Just Security](#), a site focused on national security law based at New York University School of Law; [Xinhua](#), a Chinese government-sponsored news site; and the [Trump 2020 campaign](#).

Perhaps the single most invaluable resource was the [University of Minnesota's Center for Infectious Disease Research and Policy \(CIDRAP\)](#), which has publicly tracked the outbreak since December 31. CIDRAP has, on a nearly daily basis, posted information on important developments regarding the virus and the response to it.

Content Categories

"Surveillance" refers to testing and other means of detection so that public health and other government officials can take appropriate actions to contain, mitigate, and otherwise address the spread of the virus.

"Healthcare System and Supply Chain Preparedness" refers to measures that could help healthcare facilities, the government, and other entities involved in the public health response be prepared, such as obtaining adequate numbers of personal protective equipment and ventilators.

"Travel Restrictions and Warnings" refers to government warnings or restrictions on travel as well as quarantine and screening measures at ports of entry to keep the virus from entering the U.S. from overseas.

"Medical Countermeasures" refers to the development, manufacturing, and deployment of vaccines and drugs to treat people who contract coronavirus.

"Community Mitigation" refers to social distancing efforts—whether government imposed or recommended—such as closing schools and certain businesses, canceling events, and other actions to prevent people from congregating and thus slowing the transmission of the virus.

"Economic Response" refers to actions taken to cushion the blow of the economic impacts of the pandemic.

"Interagency Coordination, Resources, and White House Leadership" refers to government developments that relate to multiple agencies working together, the White House role in leading

and coordinating the executive branch's response, or seeking more funding for executive branch efforts, which involve approval from the White House's Office of Management of Budget.

“Congress” refers to the involvement of the legislative branch, such as when it has conducted oversight of the executive branch as well as when it has moved legislation, including appropriating more funds.

Most of these categories are derived from the [government's COVID-19 response plan's appendices](#). We did not use the plan's category of “Public Communication and Outreach” since many, if not the majority, of the timeline entries reflect outreach and communication in some way. We combined the categories “Healthcare Systems Preparedness and Resilience” and “Supply Chain Stabilization” since they are largely intertwined for the purposes of this timeline, which is focused on the public health response. For instance, while there are broader supply chain issues, such as for food, that is not a focus in our timeline. We did not specifically track the category of “Continuity of Operations & Essential Services,” although the continuity of government operations, such as that of Congress, has been a significant issue (see, for example, [“Congress Desperately Needs a Contingency Plan”](#) by POGO board member Norm Ornstein in *The Atlantic*). We created the category on “Travel Restrictions and Warnings” to call attention to one of the first tools the government used to combat the virus's spread. POGO also created the category “Interagency Coordination/Resources/White House Leadership,” which is not about specific actions taken so much as a lens for evaluating how the executive branch, and especially the White House, responded. The White House plays a key role in facilitating cross-governmental coordination and action, and its Office of Management and Budget is the gatekeeper when agencies seek more appropriations from Congress. And POGO created the “Economic Response” category to try to capture the government actions taken in reaction to or anticipating the economic fallout of the coronavirus.