Oxford COVID-19 Government Response Tracker
What's changed with "differentiated policies"?

27 July 2022

On 27 July 2022 the OxCGRT implemented data changes which incorporate different policies applying to vaccinated and non-vaccinated people. We refer to this phenomenon as "differentiated policies", and to incorporate these differentiated policies we have changed our data structure. This means that scripts and automated workflows based on our old dataset will no longer work.

All of our documentation on GitHub has been updated to reflect these changes, but this document presents an additional summary.

Quick changes you can make for your scripts to continue to function…

…using the new data structure

For those looking to make a quick update to a script using our main csv files (eg. the old OxCGRT_latest.csv), we recommend the following changes:
- Edit indicators C1-C7, H6 and H8 to follow the logic: `CX` to `CXM` (e.g., replace `C1_School closing` with `C1M_School closing`). These indicators report values for the majority of the population vaccinated or non-vaccinated when there is differentiation.
- Edit indicator `C8_International travel controls` to be `C8EV_International travel controls`. This indicator reports the vaccinated value when there is differentiation.
- Edit indices to add `_average` after the index name (e.g. `stringencyindex` to `stringencyindex_average`). These indices create a weighted average of scores for vaccinated and non-vaccinated people.
- Change the CSV file name from `OxCGRT_latest.csv` to `OxCGRT_nat_latest.csv` (note: if you are looking for subnational data, this has been split into separate files).

Note that each of these changes reflect a new and slightly different meaning and interpretation. This is explained in detail in our [codebook](#). In general, these indicators will report a lower policy level if there is a more lenient policy that applies to a large portion of vaccinated people.

…using the old (legacy) data structure

For those who wish to continue using the previous data structure and variables - we have established a legacy repo where we will continue to publish updated data in our old format. If

you have been using our `OxCGRT_latest.csv` file, you can access the legacy version of the file at this URL:

`https://raw.githubusercontent.com/OxCGRT/covid-policy-tracker-lega cy/main/legacy_data_202207/OxCGRT_latest.csv`

What we mean by "differentiated policies", and how it is different from vaccine "mandates"

We define differentiated policies to mean policies where vaccinated people can access greater freedoms due to their vaccination status, and are subject to less stringent restrictions. An example of this is if vaccinated people who can present a vaccine pass/passport can enter public events freely, but non-vaccinated people are banned.

Where there is a differentiated policy in place, we now record both the more stringent policy that applies to non-vaccinated people as well as the less stringent policy that applies to vaccinated people. We have gone back and re-coded our database for 2021 to account for any governments that introduced these policies early.

Differentiated policies account for access to elements of public life – for instance attending large events. It does not account for unequivocal vaccine *mandates*: where a certain group of society is required by law to be vaccinated (eg. where healthcare workers are required to be vaccinated in order to keep their jobs). Vaccine "mandates" are reported in our dedicated V4 indicator.

For example, consider the restrictions that may apply to a residential aged care facility. Imagine that both nursing home visitors and staff must be vaccinated in order to attend the facility. The requirement for visitors will be recorded as a differentiated policy in `H8_Protection of elderly people`, showing that the nursing home is *open* for vaccinated visitors (eg. H8V = 1) but that *visits are prohibited* for non-vaccinated visitors (eg. H8NV = 3). The mandate for staff would be recorded separately in `V4_Staff working in an elderly care home`.

How our indicators have changed

The definition of our 21 policy indicators remain unchanged, but for 10 of our indicators (C1-C8, H6 and H8) we now account for policies which apply to vaccinated and non-vaccinated people differently. In practice, this means our full data set now contains 4 versions of each indicator (E, NV, V, and either M or EV). Depending on whether or not a country has policies differentiated by vaccine status, we will publish some combination of the following:

- **Everyone variables** (eg. `C1E_School closing`) will include data if the same policy applies to everyone – i.e. there is no differentiated policy in place.
- **Non-vaccinated variables** (eg. `C1NV_School closing`) will have data if there is a differentiated policy, and in this NV variable we will report the policy that applies to non-vaccinated people.
- **Vaccinated variables** (eg. `C1V_School closing`) whenever we publish an NV policy, we will also report the corresponding policy that applies to vaccinated people.
- **The majority variables** (eg. `C1M_School closing`) reports whatever policy applies to the majority of the population: eg. if a majority of the population are fully vaccinated, we report the less stringent policy that applies to them (or if the same policy applies to everyone, it reports that). It is designed to report a continuous series of data regardless of whether policies are differentiated by vaccine status or not.
  - The majority policy exists for C1-C7, H6 and H8. It does not exist for C8.
- **The "vaccinated or everyone" variable** (`C8EV_International travel controls`) only exists for C8. If there is a policy that applies to everyone (E), we include it. If there are differentiated policies in place, we publish the vaccinated (V) value for C8 in order to report the policies applying to (vaccinated) international arrivals.

Regardless of the policy setting there will always be data published in the M/EV variables. The other variables will have gaps depending on the policy setting. Because of this, our simple recommendation for most people is to switch to using the M or EV variables.

Policy setting	E	NV	V	M / EV
The same policy applies to everyone	yes	x	x	yes
There is a differentiated policy	x	yes	yes	yes

How the indices have changed

As with the individual indicators, the definitions of our four indices – Government Response Index, Containment and Health Index, Stringency Index, and Economic Support Index – have not changed. However we have created several variations of each index that account for differentiated policies in different ways:
- **Non-vaccinated** (eg. `StringencyIndex_Nonvax`) constructs the index using policies that apply to non-vaccinated people (either non-vaccinated (NV) policies if present, or otherwise using everyone (E) policies).
- **Vaccinated** (eg. `StringencyIndex_Vax`) constructs the index using policies that apply to vaccinated people (either vaccinated (V) policies if present, or otherwise using everyone (E) policies).
- **Simple average** (eg. `StringencyIndex_SimpleAverage`) takes the sum of _Nonvax and _Vax indices and divides them by 2.

- **Weighted average** (eg. `StringencyIndex_WeightedAverage`) takes an average of the _Nonvax and _Vax indices and weights this by the proportion of the population that are fully vaccinated.

In our simple `OxCGRT_XXX_latest.csv` CSVs (eg. `OxCGRT_nat_latest.csv` or `OxCGRT_GBR_latest.csv`) we report indices with the suffix `_Average`, eg. `StringencyIndex_Average` (this is also the case in our subnational data, eg. `OxCGRT_GBR_latest.csv`). This `_Average` version of the indices is always the weighted average, except for the few jurisdictions for which we do not have vaccinated rate data (and thus cannot calculate a *weighted* average), in which case it is the simple average. Because of this, our simple recommendation for most people is to switch to using the `_Average` version of indices.

Where you can find the data you need

Depending on the specific data you are looking for, it may not be exactly where you expect.

- Simple country-level data – a single continuous variable for each policy indicator
    - You can find this data in our "latest" files (eg. `OxCGRT_nat_latest.csv`)
- All the raw data (4 versions of indicators with differentiated policies, and 4 versions of each index)
    - All of our raw data is published in our "differentiated_withnotes" files (eg. `OxCGRT_nat_differentiated_withnotes_2022.csv`)
    - These files are split by year.
- Explanatory notes from our data collectors with links to policy websites
    - These are included in our "differentiated_withnotes" files (eg. `OxCGRT_nat_differentiated_withnotes_2022.csv`), but not in our "latest" files to keep them smaller.
    - These files are split by year.
- Subnational data
    - We have now split out subnational data from our main data files, and put them into individual folders.
    - This difference is also in the file name, for instance "nat" files contain data for 180+ national jurisdictions, whereas "GBR" files contain data for the devolved nations of the United Kingdom.
    - You should be able to easily join files of the same type. For instance, `OxCGRT_nat_latest.csv` and `OxCGRT_GBR_latest.csv` are designed to be perfectly compatible so you can mix-and-match for the data you want.
- Data in the old format
    - This can be found on our [legacy repo,](#) where we will continue to publish data in the old format.