Initial searches show just eight countries globally publicly reporting data on COVID-19 vaccinations by sex. We urge governments to prioritise reporting vaccination data on sex and other characteristics. Given the differential impacts COVID-19 is having on different populations, data is required to know whether the benefits of vaccinations are reaching different populations equitably.

Since November 2020, there have been an additional 15 million cases and over 230,000 deaths reported where the sex is not known. If cases and deaths continue to rise and the reporting of sex-disaggregated data does not increase, these numbers will only continue to grow.

Insights from countries so far reveal a variety of reasons why this data is not being reported, including, among some, a lack of capacity to report such data, and among others, a stated position that sex is not an important risk factor for COVID-19. Both technical support and clearer communication on the centrality of this data are required to encourage reporting of this data.

At the global level, for every 10 female confirmed cases that have died, 15 male confirmed cases have died. This reflects the fact that confirmed cases are evenly distributed between men (49%) and women (51%), but men comprise a higher proportion of hospitalisations (53%), ICU admissions (68%) and deaths (57%) than women.
Between November and January, there have been over 15 million cases and over 230,000 deaths reported where the sex is not known. The proportion of total cases and deaths where the sex has been reported has remained relatively constant, but as cases and deaths rise globally, and unless efforts to report sex-disaggregated data increase, these numbers will only continue to rise. A higher proportion of total reported deaths globally are disaggregated by sex than cases, with around 7 in 10 deaths reported by sex globally and 6 in 10 cases (Figures 1 and 2).

There remains a gap in the availability of data on non-binary and transgender populations. We have not located any national-level COVID-19 surveillance data on non-binary or transgender populations. Two states in India (Tamil Nadu and Haryana) are reporting data on cases and deaths among transgender populations.

**Fig 1. Number of Global COVID-19 Cases where the Sex is Known, November 2020 - January 2021**

**Fig 2. Number of Global COVID-19 Deaths where the Sex is Known, November 2020 - January 2021**
Gaps in the availability of nationally-reported sex-disaggregated data on COVID-19

At the time of this upload, across the 10 countries with the highest number of confirmed cases globally, there are two countries with notable gaps in the availability of sex-disaggregated data (Table 1). Russia has never reported any sex disaggregated data on cases or deaths. We have not been able to locate sex disaggregated data in India for cases since early September and deaths since May. Sex-disaggregated data from these countries would help fill a large proportion of unknown global cases and deaths.

Table 1: Availability of Sex-Disaggregated Data within the Past Month amongst Countries with the Highest COVID-19 Caseload as of this Update¹

<table>
<thead>
<tr>
<th>Country</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>Reporting</td>
<td>Reporting</td>
</tr>
<tr>
<td>India</td>
<td>Sept 2020</td>
<td>May 2020</td>
</tr>
<tr>
<td>Brazil</td>
<td>Reporting</td>
<td>Reporting</td>
</tr>
<tr>
<td>Russia</td>
<td>Never</td>
<td>Never</td>
</tr>
<tr>
<td>United Kingdom²</td>
<td>Reporting</td>
<td>Reporting</td>
</tr>
<tr>
<td>France</td>
<td>Reporting</td>
<td>Reporting</td>
</tr>
<tr>
<td>Spain</td>
<td>Reporting</td>
<td>Reporting</td>
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<tr>
<td>Italy</td>
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<tr>
<td>Germany</td>
<td>Reporting</td>
<td>Reporting</td>
</tr>
<tr>
<td>Colombia</td>
<td>Reporting</td>
<td>Reporting</td>
</tr>
</tbody>
</table>

Countries report sex-disaggregated data inconsistently and incompletely across all key indicators. A notably smaller proportion of countries reported sex-disaggregated data in the past month than have ever reported such data over the course of the pandemic (Figure 3).

In the past month, 51% (95) of the 187 countries being tracked reported sex-disaggregated case data and 41% (76) reported sex-disaggregated death data. 36 countries that had previously reported case data by sex and 26 who had previously reported death data by sex were no longer reporting.

² Data for the United Kingdom is reported separately for England, Northern Ireland, Scotland and Wales in the COVID-19 Sex-Disaggregated Data Tracker. All are currently reporting sex-disaggregated data on cases and deaths. Scotland are reporting vaccination data.
Fig 3. Number of Countries Reporting Sex-Disaggregated Data by Indicator, Ever and in the Past Month, across 187 Countries as of January 2021

The full list of countries reporting on each variable and the corresponding data can be found here.

Availability of sex-disaggregated data by income level and region

The availability of sex-disaggregated data on COVID-19 further varies by World Bank country income groupings and WHO regions (Figures 4-5), ranging from 77% of all cases in high-income countries for which data is sex-disaggregated to 37% of cases in low-income countries. The variation in death reporting is even broader, from nearly 82% of deaths in high-income countries reported by sex to 21% of deaths in lower middle-income countries reported by sex.

Fig 4. Proportion of reported COVID-19 cases and deaths that are disaggregated by sex, by World Bank country income groupings across 187 countries
Global gender differences along the COVID-19 clinical pathway

Figure 6 shows the distribution of testing, confirmed cases, hospitalisations, ICU admissions and deaths in men and women across all available global data. This distribution varies along the pathway, with more women than men getting tested for COVID-19, and men and women accounting for similar numbers of confirmed cases. The gender gap grows further along the pathway, with men accounting for a higher proportion of hospitalisations (53%), ICU admissions (68%) and deaths (57%) (Figure 6).

The global picture has been relatively stable, but these proportions vary significantly by country. For instance, the proportion of cases that are male ranges from 90% in some countries to 37% in others, with deaths ranging from 80% to 30% male. Country-data on each of these variables can be explored here.

Fig 6. Global COVID-19 Clinical Pathway. % male / % female
Regional variation in gender differences along the clinical pathway

Our Regional Briefs on the WHO African Region and 11 countries across the WHO South-East Asia & Eastern Mediterranean Regions identify regional variations in the data. For instance, while at the global level 51% of cases and 57% of deaths to date are male, across the 11 SEARO/EMRO countries, we see that 63% of cases and 64% of deaths are male.

Figures 7 and 8 present the sex-disaggregated differences along the clinical pathway in both these regions. To explore this in more depth and for more data, information and insights from these regions, visit the latest SEARO/EMRO Regional Report and AFRO Regional Report.

**Fig 7. COVID-19 Clinical Pathway, % male, across 11 countries in WHO SEARO / EMRO Regions**

**Fig 8. COVID-19 Clinical Pathway, % male, across WHO AFRO Region**
About the COVID-19 Sex-Disaggregated Data Tracker

The COVID-19 Sex-Disaggregated Data Tracker is the world's largest database of sex-disaggregated data on COVID-19 health outcomes. The tracker currently collects data on testing, confirmed cases (including among health workers), hospitalisations, ICU admissions and deaths among women and men. It is also tracking the availability of data disaggregated by other social and demographic characteristics as well as data on pre-existing comorbidities. Data is collected directly from official national sources, including ministry of health websites, national statistics sites, death registers and government social media accounts. The Tracker is updated every two weeks.

About the Sex, Gender and COVID-19 Project

The Sex, Gender and COVID-19 Project is a partnership of Global Health 50/50, the International Center for Research on Women and the African Population and Health Research Center. Together, these partners are investigating the roles sex and gender are playing in the outbreak, building the evidence base of what works to tackle gender disparities in COVID-19 health outcomes, and advocating for effective gender-responsive approaches to COVID-19.

Learn more about sex, gender and COVID-19 and explore the Sex-Disaggregated Data Tracker here: https://globalhealth5050.org/the-sex-gender-and-covid-19-project/

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If you are aware of countries that are reporting data that we have not been able to locate or collect, we would be grateful if you could make us aware by emailing us at info@globalhealth5050.org and sharing a link to where the data can be found.

Engage with us: @Globalhlth5050 @APHRC @ICRW