

Supplemental Appendix

Data Sources and Timeframe

Preprints were identified using the preprint databases medRxiv and bioRxiv (<https://connect.medrxiv.org/relate/content/181>). These are free online archives that distribute and maintain unpublished manuscripts in the medical, clinical, and health related sciences. They are maintained by Yale University and BMJ. Published articles were identified using the NCBI section LitCovid (<https://www.ncbi.nlm.nih.gov/research/coronavirus/>), a curated database of PubMed listed COVID-19 publications. The start date of the search was November 1st, 2019 to set a baseline for non-COVID-19 publications. The first extraction was conducted on April 1st, 2020 and has been updated weekly to reflect new publications. The end date of the search and final data extraction were both May 26th, 2020.

Data Extraction

To assess the growth of COVID-19 preprints and publications, the following process was used. For the preprint archives medRxiv and bioRxiv, JSON data were downloaded from the following internet address: https://connect.medrxiv.org/relate/collection_json.php?grp=181 (last accessed May 26th, 2020). For the published studies in the LitCovid database, all published articles were downloaded from the following internet address: <https://www.ncbi.nlm.nih.gov/research/coronavirus/> (last accessed May 26th, 2020). The R package JSONlite was used to extract relevant bibliographic content from the preprint data, which included the publication date of every article. The LitCovid data only included the PubMed Identifier (PMID), title, and journal name. PMIDs and the R package RISmed were therefore used to access publication dates from the NCBI Entrez databases.

To assess the time journals require to review publications (“review time”), the following process was used. First, PubMed identifiers (PMIDs) were extracted from all of the articles in the LitCovid

database. The R package RISmed was then used to extract further bibliographic data from the NCBI Entrez databases for all of these articles. The following data were extracted: date of submission, date of acceptance, date of publication, and International Standard Serial Number (ISSN). The primary outcome was the review time, which was defined as the number of days between the date of submission and the date of acceptance. In order to create a comparator group (i.e. non-COVID-19 publications), we used ISSNs from the COVID-19 related publications to identify all of the journals that had published at least one article in the LitCovid database. The same bibliographic information from all non-COVID-19 publications from the same journals was then extracted, again using the R package RISmed.

Data Analysis

The weekly rate of publications in each database was compared using descriptive statistics and graphed using the R package ggplot2 (Figure 1A). The review time from COVID-19 related publications and non-COVID-19 related publications was compared using descriptive statistics and graphed using the R package ggplot2 (Figure 1B). The difference in the review time between COVID-19 related publications and non-COVID-19 related publications was compared using the independent samples t-test. All analyses were performed on RStudio v1.2.5033.