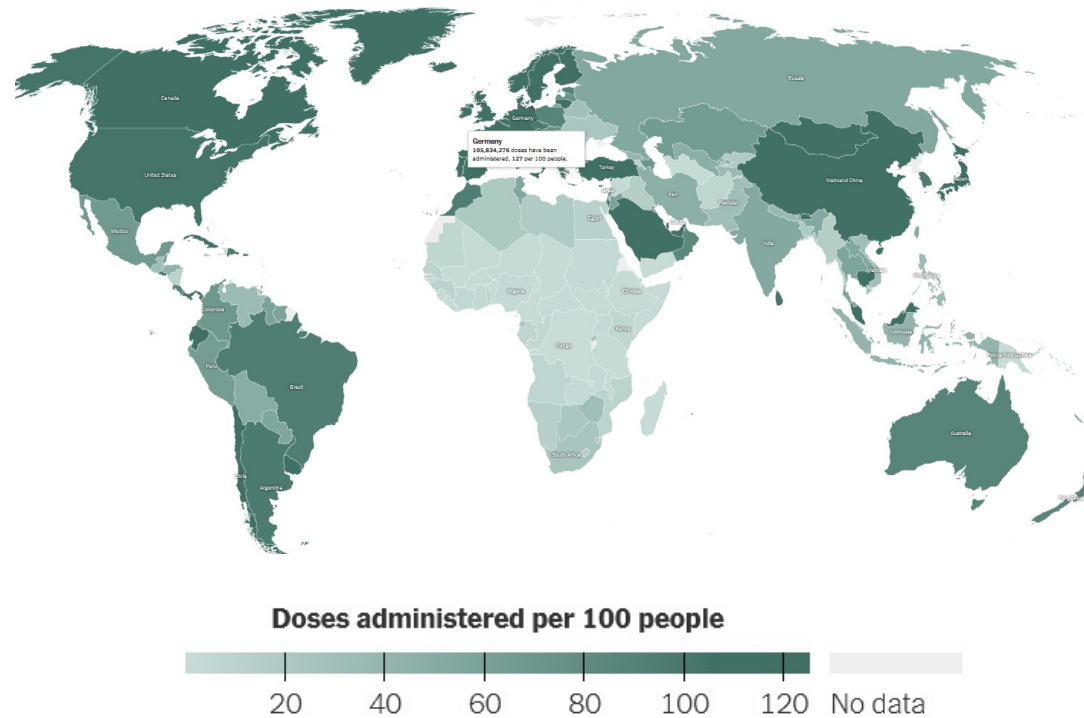


WISSENSCHAFT IN PANDEMIE-ZEITEN



MARKUS MANZ, Zürich

DGHO/OeGHO/SGHO/SGH

Jahrestagung 2021

PRESSEKONFERENZ

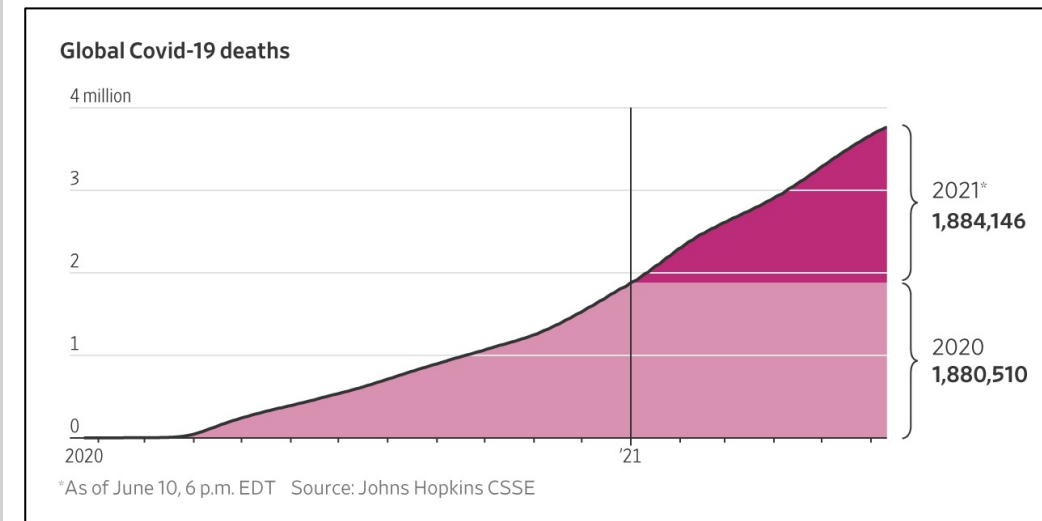
WISSENSCHAFT IN PANDEMIE-ZEITEN

- Wissenschaftliche Aktivität am Beispiel SARS-CoV2 / COVID-19: Erste Pandemie im Zeitalter der digitalen (R)Evolution
- Biomedizinisch-wissenschaftliche Publikations-Aktivität zu weiteren Themen während der Pandemie
- Wissenschaftliche Kommunikation während der Pandemie

Wissenschaftliche Aktivität am Beispiel SARS-CoV2 / COVID-19: Pandemie im Zeitalter der digitalen (R)Evolution

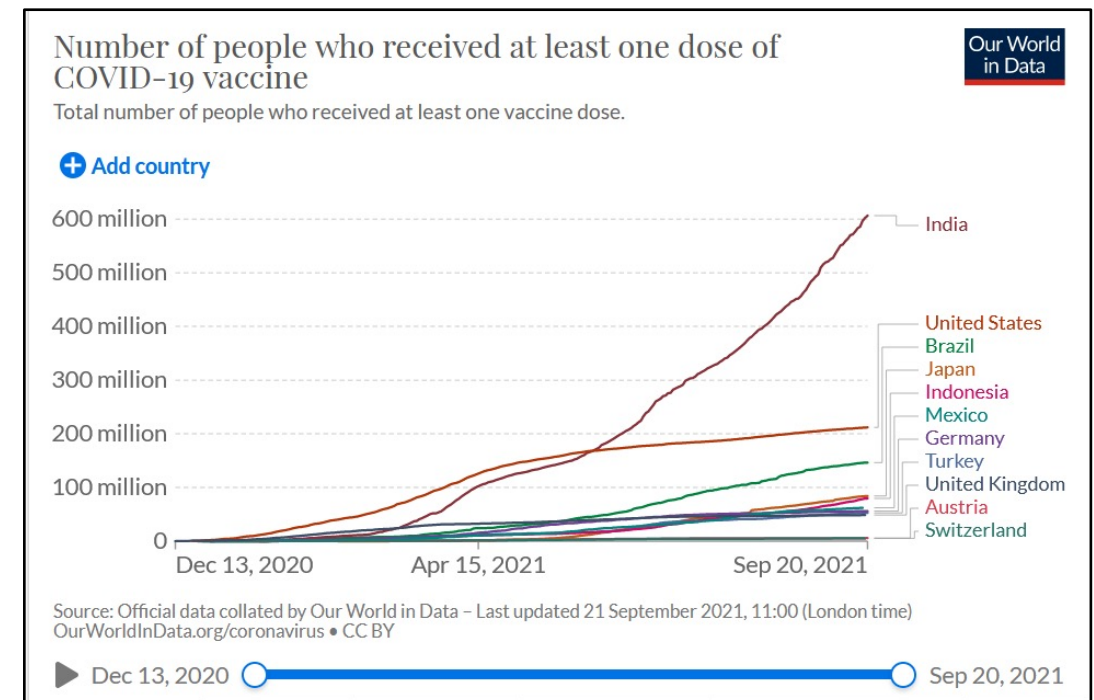
Vom ersten bekannten Fall zur Impfkampagne in weniger als einem Jahr

20.12.2019	First case of unknown lung disease in Wuhan, China
Jan 20219	59 cases in Wuhan, China
9.1.2020	Full identification of a novel Corona virus type, fully sequenced - less than 1 MONTH
11.1.2020	1st death in China
23.1.2020	Lock-down in Wuhan
25.1.2020	1st case in France
Jan 2020	WHO declares public health emergency of international concern
8.2.2020	New disease is named COVID-19
9.3.2020	National lock-down in Italy
11.3.2020	WHO declares pandemic
Mar 2020	First mRNA vaccine trial starts – after 3 MONTHS
Apr 2020	1 Mio. global cases
Aug 2020	Approval Sputnik V, before large scale human trials
29.9.2020	1 Mio. deaths



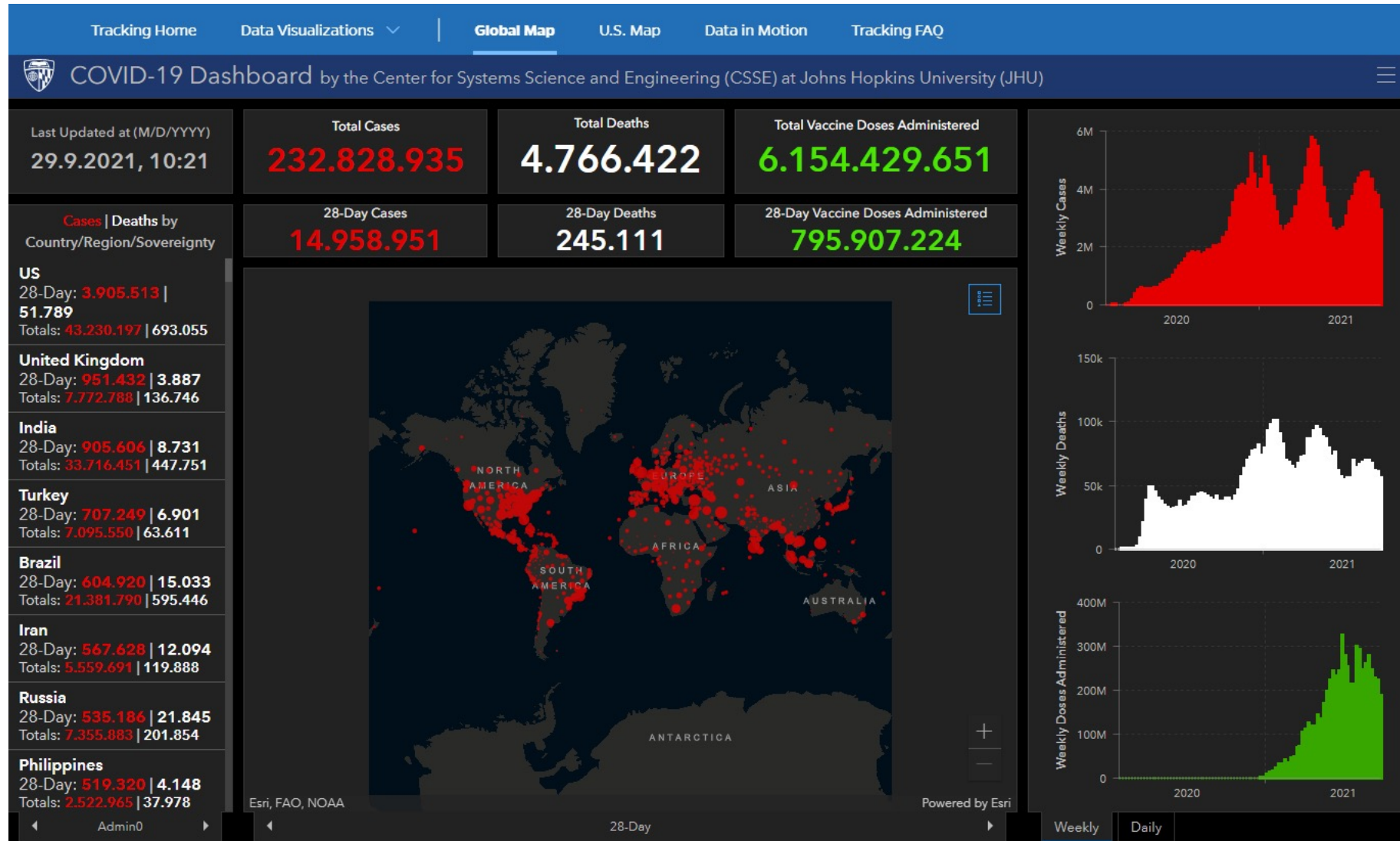
Vom ersten bekannten Fall zur Impfkampagne in weniger als einem Jahr

Nov 2020	>90% efficacy of mRNA vaccines published - 11 MONTHS
2.12.2020	First authorization of vaccine - less than 1 YEAR
Dec 2020	New emerging variants are described
15.1.2021	2 Mio. deaths
.....	
Sep 2021	228 Mio confirmed cases of COVID-19
Sep 2021	4.6 Mio deaths, reported to WHO
Sep 2021	A total of 5'776'127'976 vaccine doses have been administered
.....	
	Vaccinations continue world-wide, WHO foresees unequal distribution for years



Zum Vergleich 1981-2021: 40 Jahre HIV/AIDS Epidemie

Tagesaktueller öffentlicher Zugang zu Pandemie-Daten für jeden mit Internet-Zugang



INCREASED
TRANSPARENCY

DAILY UP-DATES

DATA SHARED
WORLD-WIDE

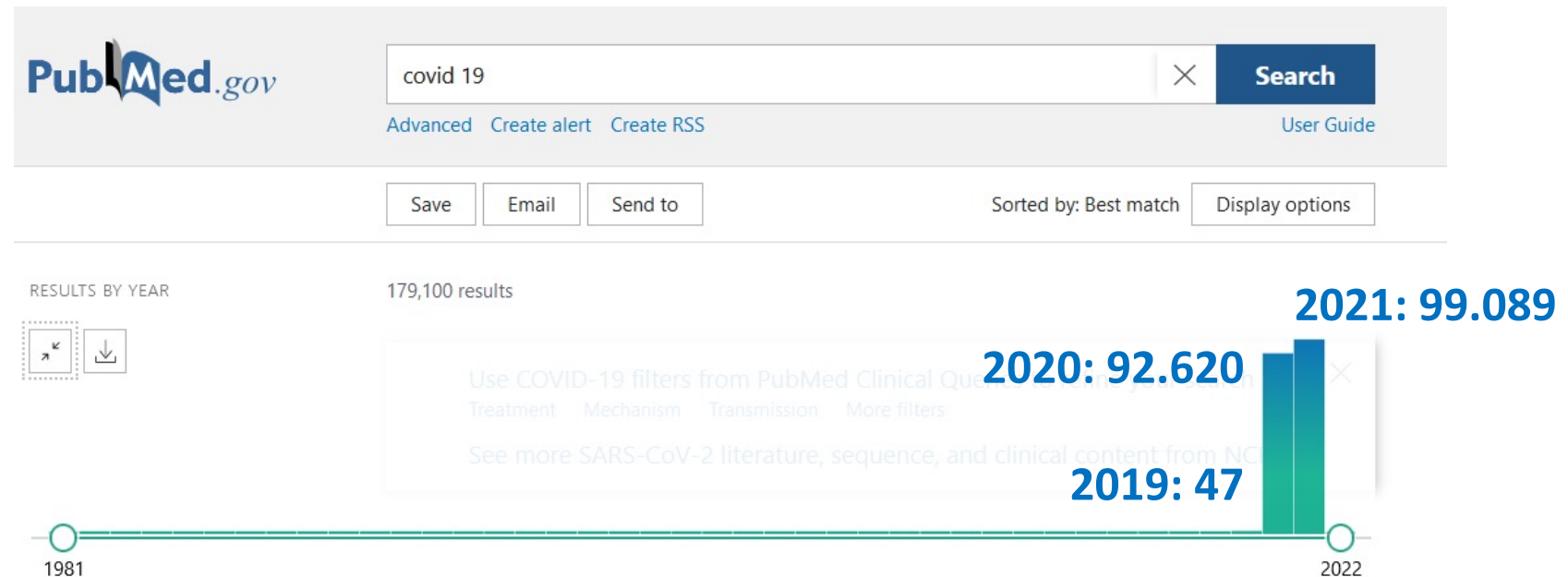
Wissenschaftliche Publikationsaktivität zu COVID-19

- In 2020, around **4%** of the world's research output was devoted to coronavirus
- The pandemic **fueled a sharp rise in sharing through preprints**

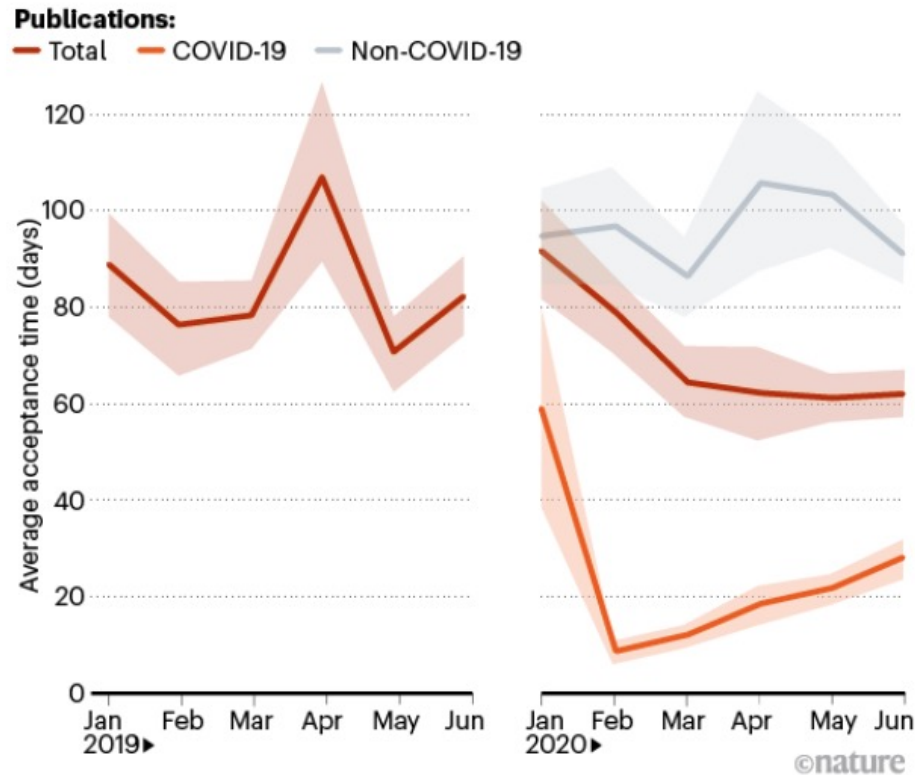
1 January - 30 June 2020

- **12,331** coronavirus articles on Web of Science
- **12,602** papers tracked by Scopus
- Research papers accounted for **48%** on Scopus and **37%** Web of Science of all COVID-19-related articles

www.nature.com/articles/d41586-020-03564-y



Geschwindigkeit wissenschaftlicher Publikationsaktivität



ref. 2

Faster Review at medical journals

Covid-related publications were reviewed quickly – but other research took longer as usual to be published

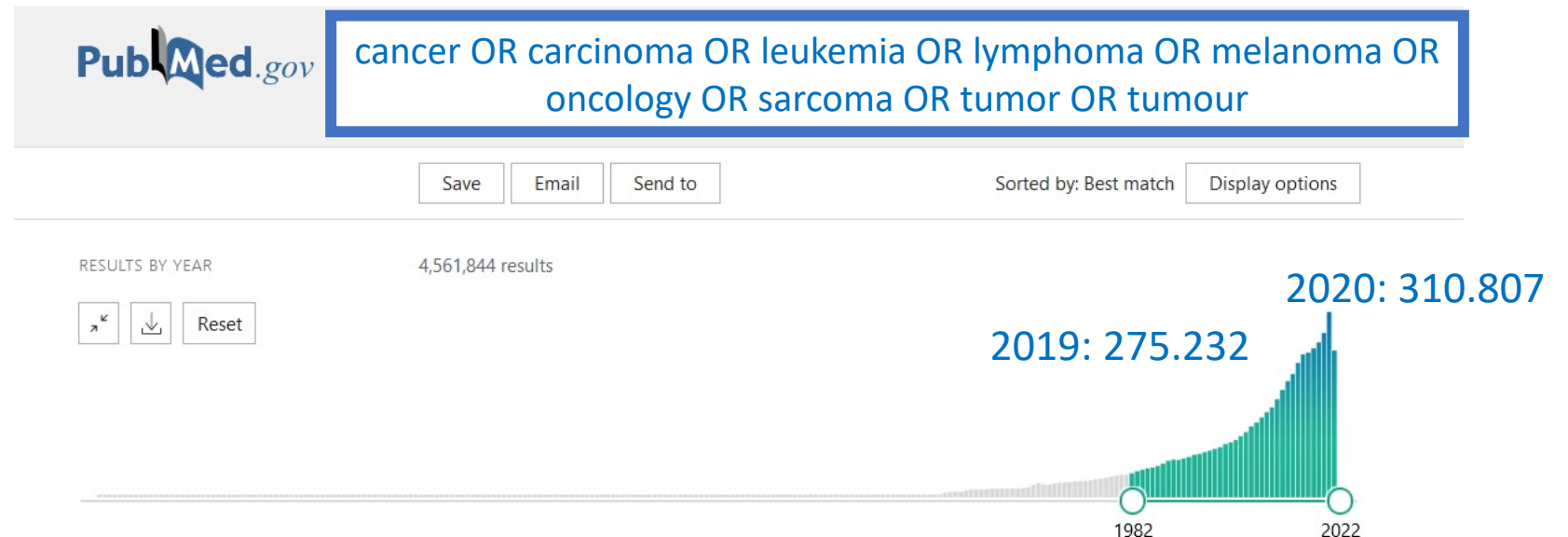
<https://www.nature.com/articles/d41586-020-03564-y>

Wissenschaftliche Publikations-Aktivität zu weiteren Themen während der Pandemie

- 2020 saw sharp increase in articles on all subjects being submitted to scientific journals - perhaps because many researchers had to stay at home and focus on writing up papers rather than conducting science
- Submissions to publisher Elsevier's journals alone were up by **58%** — between February and May 2020 when compared with the same period in 2019
- The **increase** was even higher for **health and medicine titles (up 92%)**
- The pandemic **advanced the output of male authors over female authors**, probably because women shouldered the burden of childcare and home-schooling during lockdowns

www.nature.com/articles/d41586-020-03564-y

- Publications in oncology increased substantially (ca. 12%+)





25,307
total respondents



152
countries represented



Conducted in
May and June 2020

- 1 Despite the massive disruption, researchers' day to day work has **not been significantly affected by COVID-19** at the time of the survey, with many able to continue their professional role throughout.
- 2 Many researchers expressed that policy makers **had not sufficiently taken scientific advice into account** to mitigate the pandemic.
- 3 Nearly half of the researchers surveyed fear that the pandemic will have a **long-lasting effect on funding**.
- 4 Researchers ask that policy makers invest **more funding into basic research**, and better ways for science to advise policy and decision making.

- 5 The pandemic has encouraged many **to reconsider how they share their work** with researchers more likely to publish open access, share their data and use preprint servers.
- 6 **Most researchers want to contribute to task forces**, primarily with research into the virus itself or through interdisciplinary knowledge-sharing.
- 7 There is concern about future pandemics, but **researchers are equally concerned about climate change**, which we can prepare for and mitigate with the help of science.
- 8 Researchers stress the **importance of learning from the COVID-19 pandemic**, allowing us to become more resilient in the future.

The academic response to COVID-19



25,307

total respondents

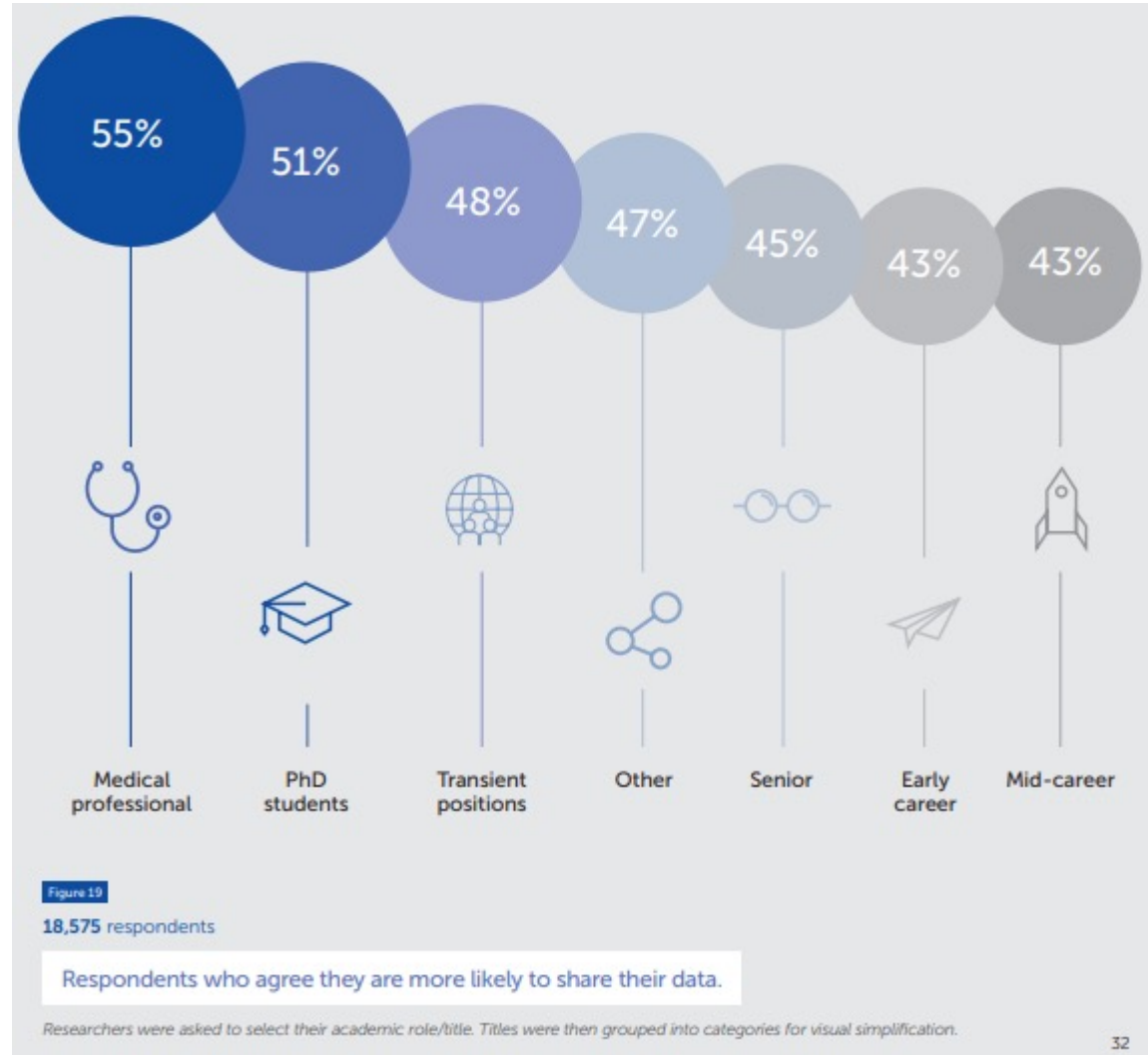


152

countries represented



Conducted in
May and June 2020



Medical professionals and PhD students are the most likely to move towards sharing data in the future

The responses by career stage relating to sharing data follows a similar pattern to the responses about publishing in open access journals, with PhD students and medical professionals most likely to share their data in the future.

- Die DGHO/OeGHO/SGHO/SGH **Jahrestagung** musste 2020 erstmalig auf Hybrid-VIRTUELL umgestellt werden
- Dies hat erfolgreich funktioniert und ist im Jahre 2021 weiter optimiert worden

Virtuell, online, digital - vom 9. bis 11. Oktober 2020



1.-4. Oktober

- Die DGHO/OeGHO/SGHO/SGH haben zeitnah und effizient in den **onkopedia leitlinien** Informationen und Expertenmeinungen zu COVID-19 bei Blut- und Krebserkrankungen erarbeitet und fortlaufend implementiert - es ist davon auszugehen, dass dies erheblich zur Versorgungsqualität beigetragen hat



WISSENSCHAFT IN PANDEMIE-ZEITEN

- Digitale Wissens-Bereitstellung schafft neue Gruppen-Intelligenz und ermöglicht weiteren Wissenszuwachs und Ergebnisumsetzung in bisher nicht gekannter Geschwindigkeit.
- Geschwindigkeit in Kommunikation erzeugt auch Risiko für Amplifikation von Fehlern/Fehleinschätzungen.
- Bedeutung der Einordnung von Wissenschaft von Experten zur Allgemeinheit und Politik als «aktueller Stand des Irrtums» hat zugenommen.
- Wissenschaft hat eindrucksvoll gezeigt, «Wissen-Schafft Hoffnung» und trägt entscheidend zur Problembewältigung bei.