

COVID-19 advocacy bias in the *BMJ*: meta-research evaluation

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ABSTRACT

Objectives: During the COVID-19 pandemic, *BMJ*, the premier journal on evidence-based medicine worldwide, published many views by advocates of specific COVID-19 policies. We aimed to evaluate the presence and potential bias of this advocacy.

Design and Methods: Scopus was searched for items published until April 13, 2024 on “COVID-19 OR SARS-CoV-2”. *BMJ* publication numbers and types before (2016–2019) and during (2020–2023) the pandemic were compared for a group of advocates favoring aggressive measures (leaders of both the Independent Scientific Advisory Group for Emergencies (indieSAGE) and the Vaccines-Plus initiative) and four control groups: leading members of the governmental Scientific Advisory Group for Emergencies (SAGE), UK-based key signatories of the Great Barrington Declaration (GBD) (favoring more restricted measures), highly-cited UK scientists, and UK scientists who published the highest number of COVID-19-related papers in the entire scientific literature (n=16 in each group).

Results: 122 authors published more than 5 COVID-19-related items each in *BMJ*. Of those, 18 were leading members/signatories of aggressive measures advocacy groups publishing 231 COVID-19 related *BMJ* documents, 53 were editors/journalists, and 51 scientists were not identified as associated with any advocacy. Of 41 authors with >10 publications in *BMJ*, 8 were scientists advocating for aggressive measures, 7 were editors, 23 were journalists, and only 3 were non-advocate scientists. Some aggressive measures advocates already had strong *BMJ* presence pre-pandemic. During pandemic years, the studied indieSAGE/Vaccines-Plus advocates outperformed in *BMJ* presence leading SAGE members by 16.0-fold, UK-based GBD advocates by 64.2-fold, the most-cited scientists by 16.0-fold, and the authors who published most COVID-19 papers overall by 10.7-fold. The difference was driven mainly by short opinion pieces and analyses.

Conclusions: *BMJ* appears to have favored and massively promoted specific COVID-19 advocacy views during the pandemic, thereby strongly biasing the scientific picture on COVID-19. © 2024 Ioannidis et al. All rights reserved. This article is published by BMJ Group. No reuse allowed without permission.

Keywords: science; advocacy; pandemic; zeroCovid; *BMJ*; evidence-based medicine

Summary box

Section 1: What is already known on this topic

- Advocacy is intensely debated for its merits to science and policy.
- Many journals increasingly publish pieces by advocates and it is thus important to understand the nature, scale and impact of this phenomenon.

Section 2: What this study adds

- This study provides a detailed quantitative assessment of journal-promoted advocacy, focusing on the world's premier evidence-based medical journal, the *BMJ*.
- We show that *BMJ* had massive bias towards specific COVID-19-related advocacy favoring aggressive measures.
- Our study reveals a need for editorial guidelines on journal-promoted advocacy.

INTRODUCTION

Science ideally develops conclusions from systematic evidence and balanced analysis of risks, intervention benefits and harms, and uncertainties.^{1,2} In contrast, advocacy groups lobby for specific policies, often in unilateral fashion not reflecting the full complexity of the issues involved. Advocacy has an important mission in raising awareness of critical needs. However, it may also be biased towards special ideological or financial interests that could sometimes harm society by unbalanced resource allocation.^{3,4}

Leading medical and scientific journals publish many opinion, editorial, and journalistic pieces, and these could shape how science and evidence are perceived and what policies are adopted. These pieces are typically published quickly, often with little or no external review. Sometimes they may reflect overt advocacy that may increase the danger of bias and polarization of the scientific community.⁵ As more journals move towards publishing more opinion and advocacy, ethical guidelines are warranted.⁶

During the COVID-19 pandemic, science-based advocacy was common.⁷ While some argued for milder mitigation with restricted measures focused primarily on those at highest risk (e.g., the Great Barrington Declaration (GBD)^{8,9}), others argued for mass suppression of the virus (e.g., the John Snow memorandum (JSM)¹⁰) or for elimination using aggressive lockdown measures, intense testing and contact tracing, social distancing, masking, and air monitoring and air cleaning interventions ("zeroCovid").^{11,12} Understanding the presence of this advocacy in leading medical journals, given the historical importance of the issues involved, may help inform development of better guidelines for science-based advocacy in medical journals.

Here, we aimed to quantify the potential COVID-19 advocacy bias in the *BMJ*. *BMJ* is a leading journal with tremendous influence worldwide, arguably the premier journal championing evidence-based medicine with rigorous methods and protection from bias and conflicts of interest. We evaluated the share of advocates, editors, journalists, and independent scientists among the most prolific authors of COVID-19-related work in the *BMJ*; and assessed how *BMJ* published items authored by publicly declared advocates of aggressive measures (those who were leading members

of both the Independent Scientific Advisory Group for Emergencies (indieSAGE)^{13,14} and the Vaccines-Plus initiative)¹⁵ relative to other scientist groups.

METHODS

Design.

This is an exploratory meta-research analysis, and thus no protocol was pre-registered. We explored two research questions: 1) whether some advocacy was enriched in *BMJ* relative to the most prolific authors of COVID-19-related papers with UK addresses in the general literature (enrichment analysis); and 2) how strongly the dominant advocate group outperformed other groups of scientists in numbers of *BMJ* publications (controlled advocacy bias analysis) before (2016-2019) and during (2020-2023) the pandemic. We followed the STROBE guidelines in reporting the controlled comparison.

Advocacy groups of interest.

We focused on advocacy groups with clear, visible presence and public listing of key members. In the bibliometric analysis of prolific authors, we studied eight main advocacy groups: 1) indieSAGE members/key advisors (UK-based)¹⁴; 2) World Health Network (WHN) advocates defined as co-signatories on the Lancet WHN letter¹⁶ (this group is led from the US but also advocated elimination and its advocacy letter from October 2021 features many indieSAGE advocates); 3) advocates on the Vaccines-Plus letter, which contains UK and non-UK advocates but was initiated by UK indieSAGE advocates¹⁵; 4) JSM co-signatories on the original *Lancet* paper (contains non-UK signatories but was initiated by scientists affiliated with ZeroCovid advocacy); 5) GBD; 6) UK-led CollateralGlobal; 7) UK-based UsForThem; 8) UK-led Health Advisory & Recovery Team (HART). Groups 1-4 advocated for more aggressive policies whereas groups 5-8 advocated for more restricted policies. Details on the eight groups are summarized in Supplementary Text in the Supporting Information file.

Data extraction.

Data were extracted by two researchers independently (for the SCOPUS data: JPAI and IAC; for the *BMJ* data: KPK and JPAI) and discrepancies were discussed with a third researcher (KPK or IAC, respectively). A predesigned data extraction was developed that included use of the *BMJ* web site's advanced search method with manual inspection of all collected documents to reduce misclassification. Information collected included the *BMJ* ID of the publication, the document type, the authors, and the publication year. Details of specific data protocols and extracted data are described below.

Initial bibliometric analysis: most prolific COVID-19 authors.

We searched Scopus for items published in the *BMJ* until April 13, 2024 on COVID-19 using the search string “COVID-19 OR SARS-CoV-2” in all fields. The most prolific authors were checked for being at any time members (indieSAGE webpage, HART group, UsForThemUK) or co-signatories (main authors the advocacy letters) of the eight initiatives listed above; editors or journalists; or, if none of these, other scientists. Members of official organisations like the WHO and the Royal Society of Medicine and patient interest groups not clearly aligned with a pandemic policy were included in the “other scientists” group. The analysis focused on those with 6 or more COVID-19-related publications in the *BMJ*, with special emphasis also on those with >10 such publications.

We also evaluated in Scopus the 100 most prolific scientists (excluding journalists) on COVID-19 for publications (in any scientific publication venue) with an address from the UK to examine the relative representation of advocates among them.

Bibliometric analysis: controlled comparisons.

Given the strong presence of indieSAGE and aligned advocacy groups in the retrieved documents, we performed additional analysis to investigate if the frequency of authorships and publications were biased. In order to ensure that we analyzed clear rather than short-term or low-

commitment advocacy, our primary group of interest included the 16 scientists who were both members or key advisors of indieSAGE and co-authors of the Vaccines-Plus advocacy letter. We specifically evaluated whether indieSAGE/Vaccines-Plus advocates published more papers in *BMJ* during the pandemic years 2020-2023 as compared with the pre-pandemic years 2016-2019, and compared with other control groups of authors.

We considered four control groups, aiming to have exactly n=16 authors in each for balance against the indieSAGE/Vaccines-Plus group: The first control group included the 16 members of SAGE who attended at least four of the first 9 meetings of SAGE in early 2020.¹⁷ This comparison contrasts official government advisers versus self-organized advocates.

The second control group included the 16 scientists with a UK affiliation who were the most-highly cited according to a database of composite citation indicators¹⁸ and whose primary field in that database was considered to be relevant to *BMJ* (General & Internal Medicine; Epidemiology; Neurology & Neurosurgery; Nutrition & Dietetics; Respiratory System; Substance Abuse; Cardiovascular System & Hematology; Developmental & Child Psychology; Psychology; Statistics; Psychiatry; Immunology). We used the most updated citation database that focuses on the citation impact in a single most recent calendar year (2022) rather than whole career-long impact, so as to capture contemporary impact. This comparison contrasts advocates against the most extremely highly-cited scientists.

The third control group included the 16 UK-based scientists who are listed by name in the GBD website.⁸ This comparison contrasts two opposing advocacy groups with anti-diametric views.

The fourth control group included the 16 UK-based scientists who published the highest number of COVID-19 papers overall across all journals indexed in Scopus (excluding any indieSAGE members and current or previous editors such as Richard Horton from *Lancet* and Richard Smith and Fiona Godlee from *BMJ*). This comparison contrasted the advocates against a group with maximal interest in publishing COVID-19-related work.

For each author in the indieSAGE/Vaccines-Plus group and in each of the control groups, we examined whether they were among the top-2% most-cited authors in their field according to the composite citation indicator for single year impact in 2022¹⁸ and in 2019.¹⁹ We then counted the

number of publications they had authored in *BMJ* each year between 2016 and 2023, using the advanced search method of the *BMJ* web site on author name (and affiliation, in cases of doubt), counting all document types. Membership of consortia also counted as authorship. The indieSAGE letter to *BMJ* was only counted to the main author, although other indieSAGE advocates cosigned it, given that it was merely a response to another paper. One letter listing indieSAGE as an author by itself was also not included. Given the large number of total counts, these two choices do not affect any conclusions of our work.

The search was done both for all document types without restriction, and restricted to COVID-19-related pieces (defined by presence of “COVID”, “SARS”, or “Pandemic” in the text, abstract, or title (using option: any word)). We also examined data for 2024 (up to April 20, 2024) to explore potentially differential evolution of publication patterns in the post-pandemic era. Publications were classified in four major groups: Original Research (Research), Review and Methods (Review, Research Methods and Reporting, Practice), Analysis (lengthy opinion pieces that may include also some data analyses) and Short Opinion (all other identified items: Views and reviews, Editorial, Opinion, Feature, Letter, Observation). Obituaries were not included in the analysis.

Statistical analyses.

We present descriptive statistics and avoid statistical testing of hypotheses given the exploratory nature of the evaluation.

RESULTS

Bibliometric analysis: most prolific COVID-19 authors

BMJ published 4,075 COVID-19-related items by April 13, 2024. 122 authors published more than 5 (up to 330 in the case of a journalist) COVID-19-related items each in the *BMJ* (**Table S2**). They included 18 advocates of aggressive policies (indieSAGE n=9, including a *BMJ* freelance journalist), WHN n=5, Vaccines-Plus n=12 (including the same *BMJ* freelance journalist), JSM main authors n=11 (20 if including low-level JSM co-signatories), with substantial overlap. The other prolific authors were 53 editors or journalists, and 51 other scientists not identified as associated with any advocacy. The 18 advocates of aggressive policies published 231 COVID-19-related papers in *BMJ*. An advocate who was a member of indieSAGE, left the organization in September 2020 and later joined CG that advocated for restricted measures. Since this advocate published 3 papers in 2020 before indieSAGE was formed, 4 while a member, and 6 after indieSAGE membership and the CG involvement started only in 2024, we classified this advocate as belonging to indieSAGE to avoid double counting. The prolific *BMJ* editors and journalists published about half of all *BMJ* COVID-19-related papers (n=564 and n=1355, respectively). Among 41 authors publishing >10 items in *BMJ*, 8 were advocates of aggressive policies, zero of restricted measures, 7 were editors, 23 journalists, and 3 were non-advocate scientists.

Conversely, among the 100 most prolific authors of COVID-19-related papers with a UK address, there were only 3 advocates of aggressive measures, 2 *BMJ* editors, 16 editors of other journals, and 79 other scientists (**Table S3**). If analysis was restricted to publications retrieved with COVID-19 OR SARS-CoV-2 in "Article title, Abstract, Keywords" rather than "All fields" in Scopus, the aggressive advocacy bias was similarly very large (**Table S2**). **Figure 1** summarizes these results on the representation of the studied advocates, editors, and journalists in *BMJ* versus the overall UK-based literature.

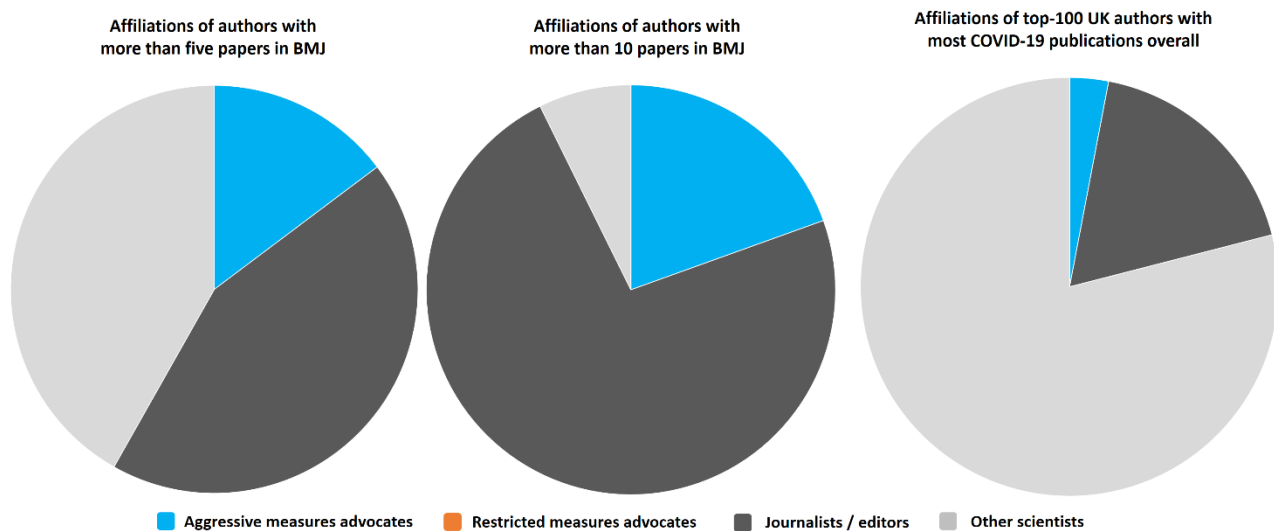


Figure 1. Most-prolific authors. Left: 122 authors with more than 5 *BMJ* COVID-19 related publications. Middle: 41 authors with more than 10 *BMJ* COVID-19-related publications. Right: 100 authors with 74 or more (up to 253) COVID-19-related publications with any UK address published in any venue (journalists excluded). One indieSAGE member subsequently advocated restricted measures (CG) in 2024; this special case was classified as aggressive measures advocacy, as best reflecting the *BMJ* publications of the study period.

Bibliometric analysis: controlled comparisons

To understand whether the enrichment seen in **Figure 1** also translated into an actual publishing bias, we report below a controlled publication analysis using five comparison groups to account for various types of confounding. All five groups of $n=16$ included excellent, high-impact scientists, as testified by the high proportion who were in the top-2% based on composite citation indicator data for their most recent year impact. For 2019 citation data, 9/16 in the indieSAGE/Vaccines-Plus group, 10/16 of the SAGE group, 8/16 of the GBD UK group, 16/16 of the UK most highly-cited group, and 12/16 in the group of UK scientists who published most COVID-19-related publications overall belonged to the top-2% most-cited scientists. In 2022 citation data, respective figures were 12/16, 10/16, 8/16, 16/16, and 16/16. (Supplementary **Table S4**).

Table 1 shows the total number of authorships in the *BMJ* for the five groups. In the pre-pandemic period, the group of the most-cited scientists had the strongest presence in Research articles, while scientists who subsequently became indieSAGE/Vaccines-Plus advocates had quite

strong presence in writing opinion pieces and scientists who subsequently became GBD advocates had practically no presence in the *BMJ*.

During pandemic years, indieSAGE/Vaccines-Plus advocates massively outperformed in *BMJ* presence all four control groups: 16.0-fold compared with leading SAGE members, 64.2-fold compared with the GBD advocates, 16.0-fold compared with the most-cited group, and 10.7-fold compared with the most prolific on COVID-19 group. The dominance of indieSAGE/Vaccines Plus advocates was most overwhelming in the Short Opinion group, where they outperformed the four control groups by 82.5-fold, 165-fold, 23.6-fold, and 41.3-fold, respectively; and in Analysis articles (10-30 fold, depending on comparison group). In the post-pandemic year, indieSAGE/Vaccines Plus authors seem to still publish many opinion pieces, while GBD authors have published nothing in the *BMJ* and the other three groups also had limited presence.

Although a minority of publications were coauthored by several advocates, when reducing the analysis to unique publications, a very similar picture was evident (**Table S5**). Comparing the pre-pandemic and pandemic years, although two indieSAGE/Vaccines-Plus associates already published many opinions in *BMJ* before 2020, the bias was massively enhanced during pandemic years (**Figure 2**).

A total 338 of 475 authorships (72%) during the pandemic years 2020-2023 of the members of the 5 groups were on COVID-19-specific publications. The extreme dominance of indieSAGE/Vaccines-Plus remained similar when analysis for 2020-2023 was limited to COVID-19-specific publications (**Table 2**).

The relative presence in the *BMJ* of the different indieSAGE/Vaccines-Plus members varied substantially. During 2020-2023, one member who also served as freelance journalist published 180 opinions and views (97 of them COVID-19-related) in the *BMJ*. Even without this author, the bias remained massive (**Tables S6, S7**). Among other indieSAGE/Vaccines-Plus members, one published in the same period 81 papers (69 COVID-19-related), and another published 29 (28 COVID-19-related), while the others had less prolific contributions.

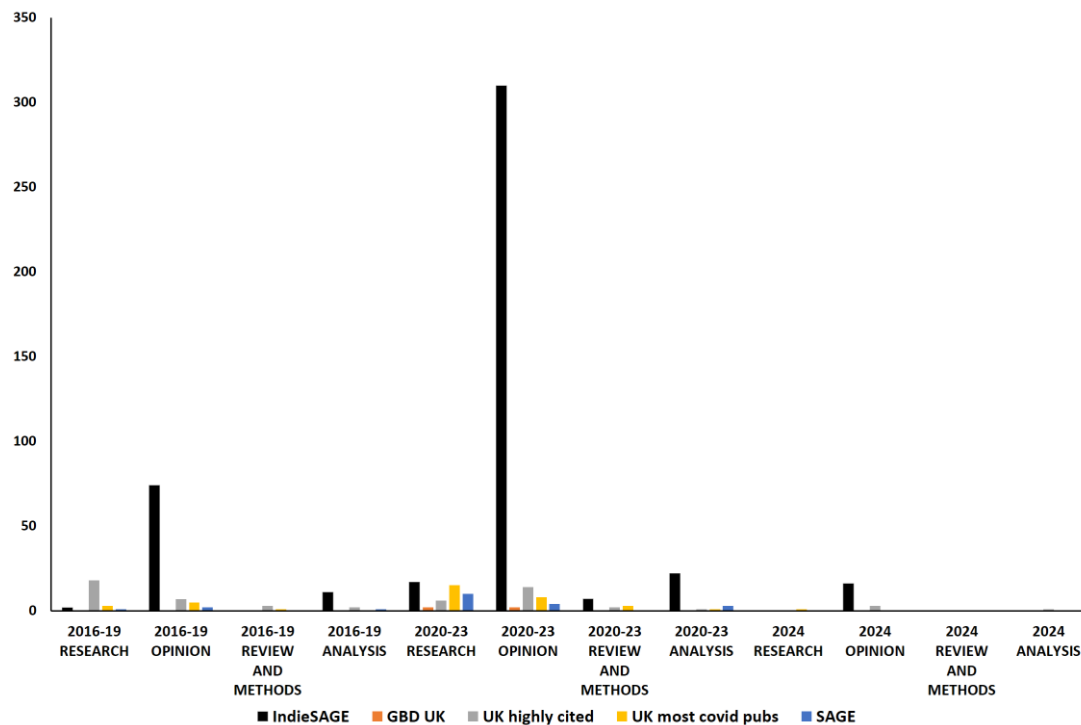


Figure 2. Historic development of unique number of *BMJ* publications featuring any member of the five studied groups of n=16 authors each (all publications with no content restriction).

DISCUSSION

Our analysis suggests that *BMJ* massively published advocate authors championing zeroCOVID policies and later, other indieSAGE-led aggressive approaches to COVID-19 during the pandemic. Leading members of SAGE, highly-cited UK scientists and the most prolific researchers on COVID-19 across the entire scientific literature had very limited *BMJ* presence compared with the preferred advocates. Advocates of restricted, focused measures have been almost extinct from *BMJ* pages. *BMJ* editors, staff and apparently advocate contributors developed a massive literature, comprised mostly of opinion pieces that in general (as acknowledged by the *BMJ*) underwent no external review in the *BMJ*. The degree of apparent favoritism exhibited by what is considered to be the premier venue of evidence-based medicine is very concerning and invites further scrutiny.

Scientific journals have a responsibility to be balanced, objective, and factual, giving that endorsement of specific ideological or political positions may distort evidence and lead to polarization of the scientific community and loss of trust.²⁰ The intense advocacy by indieSAGE in

BMJ was accompanied by UK media publishing many views by indieSAGE, with almost 200 being available on IndieSAGE's own web page, and these views were sometimes confused with the official SAGE in British media.^{21,22} This confusion led to exposure of the British population to zeroCOVID advocacy without appropriately recognizing it as such. Given the worldwide influence of *BMJ*, the impact of this distortion probably had global consequences.

Advocacy may be associated also with hostility towards other scientists, both on social media and in *BMJ*, promoting obsessive forms of criticism.²³ In *BMJ*, SAGE modeling was held co-responsible for tens of thousands of deaths.²⁴ On Twitter/X, UK scientists were also criticized intensely (**Table S8**). In a letter in *BMJ Evidence Based Medicine*,²⁵ three WHN advocates called a paper on long COVID²⁶ a "Trojan horse" and accused the authors of ideological biases, while themselves declaring no association with WHN or indieSAGE. A paper on "misinformation" in *BMJ*²⁷ by advocates studied here that criticized some other groups also lacked these declarations.

Some limitations of our work should be discussed. First, we only evaluated one major journal, and similar assessments in other leading journals seem warranted as part of a more general post-pandemic meta-science evaluation. Discussion of journal-led science-based advocacy is needed. Leading journals with large, influential magazine sections, like the *BMJ*, are particularly important to study because they have major impact and can publish many opinion papers very quickly, while peer-reviewed research is far slower. *BMJ*, *Lancet*, *Nature*, and *Science* have many editors and journalists who may publish hundreds of items in their pages, typically without external peer-review and disclosure of conflicts of interest.²⁸

The specific bias we observed here may also have occurred elsewhere. For example, the author who published most COVID-19-related publications in *BMJ* was also the most prolific academic in COVID-19-related publications in the *Lancet* (n=36 published items); and the second most-prolific in *BMJ* was also prolific in the *Lancet* (n=10 published items). Both were indieSAGE/Vaccines-Plus advocates, with most of their documents being opinion pieces. In the case of the *Lancet*, the highest number of COVID-19-related publications were anonymous editorials (n=65) or items authored by the editor-in-chief (n=50). The editor-in-chief himself also advertised "noCOVID" aggressive mitigation advocacy.²⁹

Second, as we do not have submission statistics available, our study only informs on final published documents, but the large majority of submissions to *BMJ* are rejected. Editors and advocates may shape what gets published through the editorial and peer-reviewing process, and authors with views not congruent with zeroCOVID advocacy may even have stopped submitting to *BMJ* after seeing the overt bias that we describe here, or after receiving disparaging feedback. We encourage the *BMJ* to release information that could illuminate this, including how many papers the scientists analysed here were invited to review. In support of this concern, we preliminarily explored the available reviewer names of the 64 COVID-19-related externally reviewed *BMJ* Research, Analysis, and Review papers that were published by the 80 members of the 5 analysed groups of authors (17 Research and 22 Analysis for the indieSAGE/vaccines-Plus group and 37 by the other groups combined, which reduced to 25 unique documents after removing duplicates due to group authorship overlap). 9 of the 64 unique documents had been reviewed by at least 1 advocate of aggressive measures and 0 by advocates of restricted measures; of these 9 cases, 7 were papers by indieSAGE, i.e. advocates reviewed papers by other advocates belonging to the same advocacy group. For example, Greenhalgh reviewed Haque (*BMJ* 2021; 372: n693) and Scally and Kvalsvig reviewed McKee (*BMJ* 2021; 372: n208; *BMJ* 2022; 378: e069558). Two of the Analyses written by indieSAGE on masks³⁰ and COVID-19 misinformation²⁷ had their peer-review hidden against standard journal policy. These sparse data suggest strong advocacy collusion but they need to be augmented by reviewer information on all COVID-19 papers submitted to the *BMJ*, including rejected submissions. Given that space in a competitive journal is very limited, the many advocate Analysis papers in *BMJ* and the editorial commissioning of many indieSAGE opinions³¹ may have led to correspondingly less favorable reviewing experiences for other scientists.

Third, the comparisons made here have various confounding effects. Dedicated advocates are by their very call to advocacy more likely to publish opinions. Our analysis has attempted to account for this confounding by comparing to diverse groups of other authors, including leading GBD scientists, who are also expected to have a call to advocacy. One of the indieSAGE advocates was a *BMJ* freelance journalist publishing 180 opinions and views during 2020-23, many proposing wide-reaching public health policies with little or no evidence. Although this by itself raises

questions and contributes to the massive bias observed here, the bias remains massive if this journalist is removed from the analysis (**Tables S6-S7**). One could argue that SAGE as a comparison group has less inclination to publish pandemic opinion pieces by their role as official advisors; we controlled for this by comparing also to other highly-cited UK scientists and non-advisor scientists with a clear research interest in COVID-19. The fact that the bias was massive regardless of what control group we used shows that all these potential confounders have limited effect compared to the total observed bias signal.

Fourth, we did not aim to appraise whether the claims and policy proposals of the advocates were correct or wrong, or if the methods used were worse than any other science-related advocacy in circulation. However, the status of elimination policies as a minority position in the scientific community³² and the eventual infeasibility of zeroCOVID³³ contrast strongly to the special preference that advocates of this position had in *BMJ*. This suggests that the bias was not only misplaced in quantitative terms but also misplaced or even devastatingly wrong in qualitative terms.

Fifth, we only examined advocates based on highly visible, uncontestable advocacy groups, but there are several other organizations, movements, and initiatives that advocated and lobbied during the pandemic, often without having publicly listed memberships. Therefore, advocacy infiltration of the literature may be more prominent than what we observed.

Some suggestions for the future can be made based on our analysis. First, editors should consider placing a cap on how often they can host opinion pieces of any particular scientist (or even their own views) in a given calendar year. Editorial nepotism has been described to be a widespread problem.³⁴ Massive publication of non-evidence-based opinions by editors or favored authors could distort consensus on available evidence in some critical circumstances. Original research articles rarely affect public policy by themselves, while opinions in major journals set the tone for far-reaching policy choices. Second, journals where massive advocacy bias and other forms of favoritism are demonstrated may wish to establish independent auditing to examine whether collusion affected editorial practices. Third, readers and the general public should be sensitized to these problems so as to avoid being misled in the future. This requires new empirical studies and clarified principles regulating science communication. Finally, journals may need to ensure space

for debate articles where different views are juxtaposed, each supported by evidence, in the best interest of science and evidence-based policy-making.

Data sharing statement: All data used in this study are publicly available at *BMJ* or can be obtained via SCOPUS. We provide relevant raw data in Supplementary information. If any data or calculations remain unclear, readers are warmly welcome to contact the authors.

Transparency declaration: The lead author (JPAI) affirms that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted. All data and calculations are available upon request.

Ethics approval: The work described did not require ethics approval as it is a bibliometric analysis.

Funding: The study did not receive any funding.

Competing interests: According to Scopus, JPAI has published 75 items over the last 30 years in the *BMJ* (categorized by Scopus as Articles (n=43), Reviews (n=12), Letters (n=10), Editorials (n=7) and Short Surveys (n=3) and is thus ranked 160th among the most-prolific authors in *BMJ*. Of the 75 items, 3 are related to COVID-19: a non-commissioned opinion piece where he has declared his opposition to signing petitions, memoranda, declarations, and any other open advocacy letters as a means to settle scientific matters; a debate article on lockdowns; and an editorial on the peer review congress co-sponsored by *BMJ* and his center (METRICS). IAC has published 2 Articles in *BMJ* and TM has published one Review in *BMJ*, all unrelated to COVID-19. All authors have had COVID-19-related submitted papers to *BMJ* rejected in ways that violated COPE ethical principles (e.g. unethical comments by advocate reviewers, decision reached but not communicated to the authors, decision signed by person not previously listed in the *BMJ* website as an editor, decision delayed inappropriately for time-sensitive papers). According to Scopus (all publications considered), JPAI has published 102 COVID-19-related items, TM has published 10, IAC has published 8, and KPK has published 10 COVID-19-related items.

Table 1. Number of *BMJ* authorship appearances for indieSAGE/Vaccines-Plus advocates and four control groups, each with n=16 authors.

	Total	Research	Opinion	Review/Methods	Analysis
2016-2019 (Pre-pandemic)					
IndieSAGE/Vaccines-Plus	88	3	74	0	11
SAGE	4	1	2	0	1
GBD UK	0	0	0	0	0
UK most highly cited	32	20	7	3	2
UK most COVID-19 papers	9	3	5	1	0
2020-2023 (Pandemic)					
IndieSAGE/Vaccines-Plus	385	18	330	7	30
SAGE	24	17	4	0	3
GBD UK	6	4	2	0	0
UK most highly-cited	24	6	14	3	1
UK most COVID-19 papers	36	25	8	2	1
2024 (Post-pandemic)					
IndieSAGE/Vaccines-Plus	16	0	16	0	0
SAGE	0	0	0	0	0
GBD UK	0	0	0	0	0
UK most highly-cited	4	0	3	0	1
UK most COVID-19 papers	1	1	0	0	0

Table 2. Number of *BMJ* authorship appearances for indieSAGE/Vaccines-Plus advocates and four control groups, each with n=16 authors, limited to published items that are COVID-19-specific.

	Total	Research	Opinion	Review/Methods	Analysis
2020-2023 (Pandemic)					
IndieSAGE/Vaccines Plus	272	17	221	7	27
SAGE	21	15	3	0	3
GBD UK	6	4	2	0	0
UK most highly-cited	11	1	9	0	1
UK most COVID-19 papers	28	20	5	2	1

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<https://web.archive.org/web/20230716175928/https://www.theguardian.com/uk-news/2023/mar/24/sage-warned-independent-sage-name-would-cause-confusion-patrick-vallance-david-king>

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SUPPORTING INFORMATION

COVID-19 advocacy bias in the *BMJ*: meta-research evaluation

Supplementary methods

Of the four advocacy groups favoring aggressive measures, IndieSAGE³⁴ was formed in May 2020 to provide an independent, critical counterpart to the Scientific Advisory Group for Emergencies (SAGE), the official UK governmental COVID-19 scientific advisory taskforce. IndieSAGE advocated COVID-19 elimination, i.e., a "zeroCOVID" strategy.³⁴ Membership in indieSAGE changed over time (**Table S1**) and not all members were equally active in advocacy while some members also changed views and/or left indieSAGE. Like indieSAGE, the WHN, initiated in 2020 and led by Yaneer Bar-Yam and Eric Ding, also advocated for elimination ("zero-covid") strategies.³⁴ Vaccines-Plus published a manifesto³⁴ in *BMJ* in January 2022, when zeroCOVID was clearly no longer feasible, arguing for efforts to tightly control infections using "effective find, test, trace, isolate, and support" strategies, use of respirators (e.g. N95, P2/FFP2, KF94) in all indoor settings, and aiming for "a paradigm shift to ensure all public buildings are designed, built, adapted, and utilised to maximise clean air", while also advocating (less controversial) global vaccine equity. Advocates in these groups had substantial overlap with the key authors of JSM in *Lancet*.³⁴

Of the four advocacy groups favoring restricted measures, GBD³⁴ was initiated by one UK and two US scientists, advocated for "focused" protection, i.e. giving more freedom to younger age groups, including school children. This group has many UK scientists in the list of publicly visible key signatories. CollateralGlobal was initiated by UK scientists and emphasizes increased focus on the adverse effects of pandemic mitigation policies. We used the list of signatories of a letter questioning the UK COVID inquiry.³⁴ UsForThemUK emphasized normalcy of school kids during the pandemic but later advocated also a broader range of policies.³⁴ Finally, HART was a (very) low-intervention pandemic advocacy group that strongly favored keeping children and schools out of the pandemic mitigation and also criticized the mass vaccination policies during the pandemic.³⁴

Besides the analysis of main advocates, JSM provides also a list of 4,200 people who co-signed it besides the main author co-signatories.³⁴ As a supplementary analysis, the presence of such additional co-signatories was assessed in the most-prolific COVID-19-related authors in the

BMJ and in the most-prolific COVID-19-related authors in papers with UK address. GBD, that JSM opposed, did not provide in public full lists of secondary co-signatories by name. The long list of 4,200 JSM co-signatories included additionally 9 who were among the most prolific in the *BMJ* (**Table S2**) and additionally 7 who were among the most prolific in papers with a UK address (**Table S3**), indicating that, in stark contrast to the enrichment of the "high-level" advocacy discussed above, only a modest, arguably non-significant, *BMJ* enrichment in "low-level" advocacy was seen.

Table S1. Members of indieSAGE, and alleged period of membership.^a

Member Period	Name
Dec 2021 – Oct 2023	Altmann, Daniel
May 2020 –	Costello, Anthony
April 2022 –	Cruickshank, Sheena
May 2020 – May 2022	Friston, Karl
April 2022	Greenhalgh, Trisha
Jan 2022 –	Griffin, Stephen
April 2022 – May 2022	Gurdasani, Deepti
May 2020 –	Haque, Zubaida
April 2022 –	Kane, Binita
Jan 2022 –	Katzourakis, Aris
May 2020 – May 2021	Khunti, Kamlesh
May 2020 – August 2021	King, David A.
Jan 2023 –	Lee, Lennard
May 2020 –	McKee, Martin
May 2020 –	Michie, Susan
June 2020 – Feb 2022	Oni, Tolullah
May 2020 –	Pagel, Christina
May 2020 – Dec 2021; Apr 2022 – October 2022	Pillay, Deenan
May 2020	Pittard, Alison
May-September 2020	Pollock, Allyson
June 2020 –	Reicher, Stephen
April 2022 –	Robertson, Duncan
August 2021 –	Salisbury, Helen
May 2020 –	Scally, Gabriel
October 2020-	Yates, Christian/Kit

^a Data taken from indieSAGE's web page (<https://www.independentsage.org/who-are-independent-sage/>)

<https://web.archive.org/web/20240221090620/https://www.independentsage.org/who-are-independent-sage/>

Table S2. Affiliations of 122 authors publishing more than 5 papers in BMJ.^{a,b,c,d,e}

IS = IndieSAGE; WHN: World Health Network Lancet letter signatory; Vacc+ = BMJ Vaccines-plus signatory; JSM = John-Snow Memorandum main letter signatory; GBD = Great Barrington Declaration Top Signatory. UFT = UsForThemUK. CG = CollateralGlobal advocacy letter. HART = HART Group.

Last name	Initials	# papers	IS	WHN	Vacc+	JSM	GBD	UFT	CG	HART	Editor	Journalist	Other scientist	UK based
TOTAL TOP 100			9	5	12	11(9)	0	0	1	0	10	44	51	83
Mahase	E.	330										1		1
Iacobucci	G.	244									1			1
Wise	J.	142										1		1
Dyer	O.	117										1		
Tanne	J.H.	97										1		
Rimmer	A.	97									1			1
Oliver	D.	80										1		1
Abbasi	K.	75									1			1
Torjesen	I.	62										1		1
Dyer	C.	55										1		1
Taylor	L.	47										1		
Godlee	F.	47									1			1
McKee	M.	45	1	1	1	1								1
Salisbury	H.	42	1		1									1
Griffin	S.	42										1		1
Majeed	A.	33											1	1
Looi	M.K.	31									1			1
O'Dowd	A.	28										1		1
Kmietowicz	Z.	24									1			
Greenhalgh	T.	24	1	1	1	1								1
Limb	M.	23										1		1
Baraniuk	C.	22										1		1
Khunti	K.	19	1		1	1								
Shepherd	A.	18										1		1
Thornton	J.	17										1		1
Stokel-Walker	C.	16										1		1
Day	M.	16										1		1
Page	C.	15	1	1	1	1								1
Wilkinson	E.	14										1		1
Coombes	R.	14										1		1
Alderwick	H.	14										1		1
Yamey	G.	13				1								
Michie	S.	13	1	1	1	1								1
Feinmann	J.	13										1		1
Christie	B.	13										1		1
Aronson	J.K.	13											1	1
Legido-Quigley	H.	12				(1)							1	1
Doshi	P.	12									1			
Nabavi	N.	11										1		1
Hodes	S.	11			1									1
Armstrong	S.	11										1		1
Thiagarajan	K.	10										1		
Rae	M.	10											1	1
Pollock ^e	A.M.	10	1						(1) ^e					1
Guyatt	G.	10											1	
Wenham	C.	9				1								1
Singh	S.	9										1	1	
Silberner	J.	9										1		
Razai	M.S.	9											1	1
Paterlini	M.	9										1		
Middleton	J.	9				(1)						1		1

Karan	A.	9			1	(1)							1	
Collins	G.S.	9											1	1
Agius	R.M.	9			1									1
Sivan	M.	8			1									1
Pareek	M.	8												1
Nordström	A.	8										1		
Kar	P.	8										1		1
Jung	A.S.	8											1	1
Ham	C.	8										1		1
Haldane	V.	8											1	
Gill	D.	8											1	1
Cowper	A.	8										1		1
Chiolero	A.	8											1	
Best	J.	8										1		1
Appleby	J.	8										1		1
Vandvik	P.O.	7											1	
Sridhar	D.	7				1								1
Semple	M.G.	7											1	1
Reicher	S.	7	1			1								
Moberly	T.	7								1				1
Mathew	R.	7										1		1
Loder	E.	7										1		1
Knight	M.	7											1	1
Harvey	A.	7											1	1
Gurdasani	D.	7	1	1	1	1								1
Clark	J.	7								1				
Brignardello-Petersen	R.	7											1	
Bhopal	R.	7											1	1
Banerjee	A.	7				(1)							1	1
Abdalla	S.M.	7											1	
Zeraatkar	D.	6											1	
Waters	A.	6										1		1
Walker	A.J.	6											1	1
Van Calster	B.	6											1	
Stewart	M.	6											1	1
Skirrow	H.	6											1	1
Silver	A.	6										1		
Sheikh	A.	6											1	1
Rochweg	B.	6											1	
Riley	R.D.	6											1	1
Rao	M.	6											1	1
Prieto-Alhambra	D.	6				(1)							1	1
Nolan	T.	6								1				1
Nelson	B.	6										1		
Munro	C.	6										1		1
Moons	K.G.M.	6											1	
Mehrkar	A.	6											1	1
Mayor	S.	6										1		1
MacKenna	B.	6											1	1
Lamontagne	F.	6											1	
Krishna	G.	6										1		
Kickbusch	I.	6				1								
Kendrick	D.	6				(1)								1
Hviid	A.	6											1	
Howard	S.	6										1		1
Hooft	L.	6											1	
Hernán	M.A.	6				(1)							1	
Green	S.T.	6											1	1
Goldacre	B.	6											1	1
Gill	M.	6				(1)							1	1
Gerada	C.	6											1	1
Dunning	J.	6											1	1

Table S3. Affiliations of Top-100 UK authors publishing most on COVID-19.^{a,b,c,d,e}

IS = IndieSAGE; WHN: World Health Network Lancet letter signatory; Vacc+ = BMJ Vaccines-plus signatory; JSM = John-Snow Memorandum main letter signatory; GBD = Great Barrington Declaration Top Signatory. UFT = UsForThemUK. CG = CollateralGlobal advocacy letter. HART = HART Group.

Last name	Initials	# papers	IS	WHN	Vacc+	JSM	GBD	UFT	CG	HART	Editor	Journalist	Other scientist
TOTAL TOP 100			3	2	3	3(7)	0	0	0	0	18	0	79
Khunti	K.	253	1		1	1							
Griffiths	M.D.	248											1
Smith	L.	178											1
Hasan	S.S.	173											1
Zumla	A.	170											1
McKee	M.	166	1	1	1	1							
Godlee ^b	F.	160									1		
Horton ^b	R.	157				(1)					1		
Kow	C.S.	153											1
Sheikh	A.	216											1
Koyanagi	A.	152											1
Laybourn-Langton ^b	L.	146									1		
Smith ^b	R.	145									1		
Norman ^b	I.	143									1		
Atwoli ^b	L.	142									1		
Rubin ^b	E.J.	141									1		
Praities ^b	N.	140									1		
Turale ^b	S.	139									1		
Sahni ^b	P.	139									1		
Vázquez ^b	D.	138									1		
Patrick ^b	K.	138									1		
Hancocks ^b	S.	138									1		
Bosurgi ^b	R.	138									1		
Zambon	M.	133											1
Godman	B.	131											1
Monteiro ^b	C.A.	130									1		
Semple	M.G.	129											1
Lucero-Prisno	D.E.	129											1
Jit	M.	128				(1)							1
Wong	I.C.K.	127											1
Baqi ^b	A.H.	124									1		
Dwivedi	Y.K.	123											1
Banerjee	A.	122				(1)							1
Ladhani	S.N.	121											1
Klenerman	P.	119											1
Katikireddi	S.V.	119											1
Eggo	R.M.	117											1
Benfield ^b	T.	117									1		
Hopkins	C.	113											1
Lip	G.Y.H.	112											1
Pollard	A.J.	111											1

Table S4. Comparison groups of 16 used for controlled comparison.

indieSAGE and vaccine+ advocate	Name	2022 rank	2022 cites	2019 rank	2019 cites
	Costello, Anthony	22767	2347	32032	1789
	Greenhalgh, Trisha	233	5699	980	3537
	Griffin, Stephen	N/A	N/A	N/A	N/A
	Gurdasani, Deepti	N/A	N/A	N/A	N/A
	Haque, Zubaida	N/A	N/A	N/A	N/A
	Katzourakis, Aris	74839	408	177096	299
	Khunti, Kamlesh	2184	8519	10595	3864
	McKee, Martin	725	21855	1892	14226
	Michie, Susan	250	10350	457	8035
	Pagel, Christina	178859	547	N/A	N/A
	Pillay, Deenan	258930	779	146460	1360
	Salisbury, Helen	209676	144	N/A	N/A
	Scally, Gabriel	401845	170	N/A	N/A
	Yates, Christian/Kit	N/A	N/A	N/A	N/A
	Drury, John	8194	1769	39209	435
	West, Robert	1813	3935	2429	3448
UK GBD	Name	2022 rank	2022 cites	2019 rank	2019 cites
	Sunetra Gupta	N/A	N/A	N/A	N/A
	Simon Wood	220	3200	608	2212
	David Livermore	2012	2256	1228	3083
	Mike Hulme	4832	1160	3466	1605
	Helen Colhoun	26427	4289	15825	3764
	Matthew Ratcliffe	33012	219	131764	98
	Ellen Townsend	60247	819	N/A	N/A
	Anthony J Brookes	66956	2291	61211	1478
	Angus Dagleish	96024	566	75167	656
	Gabriela Gomes	N/A	N/A	N/A	N/A
	Karol Sikora	N/A	N/A	N/A	N/A
	Lisa White	N/A	N/A	N/A	N/A
	Mario Recker	N/A	N/A	N/A	N/A
	Paul McKeigue	N/A	N/A	68048	865
	Stephen Bremner	N/A	N/A	N/A	N/A
	Yaz Gulnur Muradoglu	N/A	N/A	N/A	N/A
UK Highly cited in BMJ-relevant fields	Name	2022 rank	2022 cites	2019 rank	2019 cites
	Higgins, Julian P.T.	17	50275	31	38227
	Smith, Stephen	59	12006	45	14922
	Calder, Philip C.	90	6606	131	5151
	Barnes, Peter J.	95	6507	97	7410
	Marmot, Michael	100	8056	119	9135
	Griffiths, Mark D.	119	9841	401	4828
	Smith, George Davey	130	25363	199	22059
	McMurray, John J.V.	158	19539	245	17181
	Baron-Cohen, Simon	160	7081	141	7653
	Lip, Gregory Y.H.	178	24015	182	24858
	Baddeley, Alan D.	214	3365	138	4286
	Wood, Simon N.	220	3200	608	2212
	Steptoe, Andrew	230	7792	612	5845
	Rutter, Michael	343	3624	251	4878
	Hardy, John	379	11350	224	11751

	Pocock, Stuart	413	18179	419	14015
	Gordon, Siamon	432	4722	348	5444
	Sterne, Jonathan Ac	440	17522	891	11034
	Goodman, R.	476	2832	277	3834
	Frith, Chris	479	4598	334	6197
UK authors with most COVID publications (excluding indieSAGE and editors)^a	Name	2022 rank	2022 cites	2019 rank	2019 cites
	Mark Griffiths	119	9841	401	4828
	Lee Smith	14322	4117	N/A	N/A
	Syed Shahzad Hasan	68359	911	N/A	N/A
	Alimuddin Zumla	5196	5531	15861	2980
	Chia Siang Kow	124221	524	N/A	N/A
	Aziz Sheikh	732	18988	3935	7157
	Maria Zambon	17954	6447	49471	1238
	Brian Godman	69266	957	250957	511
	Malcolm G Semple	84640	4593	N/A	N/A
	Ai Koyanagi	6902	23053	20271	9665
	Mark Jit	12670	5311	74850	912
	Ian Chi Kei Wong	43570	2034	69874	1334
	Yogesh K. Dwivedi	1103	7019	5070	3397
	Amitava Banerjee	11224	8958	28529	9859
	Shamez Ladhani	6248	3868	40291	994
	Paul Klenerman	10522	8688	21194	2661
Leading SAGE members	Name	2022 rank	2022 cites	2019 rank	2019 cites
	Patrick Vallance	97125	689	47568	975
	Chris Whitty	74691	455	78979	508
	Charlotte Watts	26599	2209	41302	2472
	John Aston	N/A	N/A	N/A	N/A
	Neil Ferguson	4258	3704	8694	1804
	Carole Mundell	N/A	N/A	N/A	N/A
	Peter Horby	22878	5390	115530	935
	Phil Blythe	N/A	N/A	N/A	N/A
	Graham Medley	91326	1959	222952	509
	Maria Zambon	17954	6447	49471	1238
	Jonathan van Tam	N/A	N/A	N/A	N/A
	Sharon Peacock	62198	1522	61403	1437
	W. John Edmunds	12798	4568	69703	1636
	James Rubin	N/A	N/A	N/A	N/A
	Wendy Barclay	73688	3808	160829	648
	Alaster Smith	N/A	N/A	N/A	N/A

Citation data are for self-citations excluded. ^a Editors such as Richard Smith (formerly *BMJ*) and Richard Horton (*Lancet*) were excluded, to make the lists primarily reflecting non-editor scientists without an expected bias towards publishing opinions.

Table S5. Number of unique publications (accounting for multiple author positions on papers; data used for Figure 1) for indieSAGE/Vaccine Plus advocates and four control groups with n=16 authors.

	Total	Research	Opinion	Review/Methods	Analysis
2016-2019 (Pre-pandemic)					
IndieSAGE/Vaccines Plus	87	2	74	0	11
SAGE	4	1	2	0	1
GBD UK	0	0	0	0	0
UK most highly cited	30	18	7	3	2
UK most COVID-19 papers	9	3	5	1	0
2020-2023 (Pandemic)					
IndieSAGE/Vaccines Plus	356	17	310	7	22
SAGE	17	10	4	0	3
GBD UK	4	2	2	0	0
UK most highly-cited	23	6	14	2	1
UK most COVID-19 papers	27	15	8	3	1
2024 (Post-pandemic)					
IndieSAGE/Vaccines Plus	16	0	16	0	0
SAGE	0	0	0	0	0
GBD UK	0	0	0	0	0
UK most highly-cited	4	0	3	0	1
UK most COVID-19 papers	1	1	0	0	0

Table S6. Ratios of author incidence, indieSAGE vs. other groups, including the BMJ-IndieSAGE freelance journalist (all papers in BMJ 2020-23).

	Total	Research	Opinion	Review/Methods	Analysis
GBD UK	64.2	4.5	165.0	N/A	N/A
UK highly cited	16.0	3.0	23.6	2.3	30.0
UK most covid pubs	10.7	0.7	41.3	3.5	30.0
SAGE	16.0	1.1	82.5	N/A	10.0

Table S7. Ratios of author incidence, indieSAGE vs. other groups, excluding the BMJ-IndieSAGE freelance journalist (all papers in BMJ 2020-23).

	Total	Research	Opinion	Review/Methods	Analysis
GBD UK	34.2	4.5	75.0	N/A	N/A
UK highly cited	8.5	3.0	10.7	2.3	30.0
UK most covid pubs	5.7	0.7	18.8	3.5	30.0
SAGE	8.5	1.1	37.5	N/A	10.0

Table S8. Selected views of indie-SAGE members from Twitter/X, 2020-2023.

Topic	Date	Quote	Link
Zero-covid	Feb 8, 2021	Petition: Adopt a Zero Covid strategy in the UK	https://web.archive.org/web/20220118135009/https://twitter.com/martinmckee/status/1358564477873061895
	Feb 9, 2021	We either go for #ZeroCovid or we yo-yo for years.	https://web.archive.org/web/20210209160309/https://twitter.com/trishgreenhalgh/status/1359170208720650242
	Jul 18, 2021	Also worth asking those who think 'zero COVID' is 'painful and pointless'... what they think about our current strategy? The evidence is plain as day - our media are complicit in the mess we're in. Trying to portray zero COVID as extreme, when it's the only sensible position.	https://web.archive.org/web/20211226060708/https://twitter.com/dgurdasani1/status/1416803660642783236
	Feb 17, 2021	Zero covid does not mean eradication for ever. It does not mean restrictions for ever. Next year, if vaccines for children are approved, then vaccination can do most (not all) of the heavy lifting	https://web.archive.org/web/20210217103830/https://twitter.com/chrischirp/status/1361988350744403968
	Sep 4, 2021	"In the past, people in the UK did not accept that they had to learn to live with cholera, measles, polio, plague, rabies, SARS, smallpox, tuberculosis or typhoid – they looked at the possibilities of control and elimination." Why any different for #Covid19UK? @ZeroCovid_UK	https://web.archive.org/web/20210904141541/https://twitter.com/SusanMichie/status/1434151148085256194
	Feb 7, 2021	This is a serious warning! Vaccines are wonderful - but we also need to get as many countries to #zeroCOVID as possible, so as to guard against more variants.	https://web.archive.org/web/20210207213423/https://twitter.com/GabrielScally/status/1358529517334192128
Long-COVID and immunity	Sep 20, 2022	All year so far we've seen more deaths for heart conditions, diabetes, hypertension, Parkinson's and dementia and Alzheimers. All of these have been linked to prior Covid infection (either Covid can make conditions worse, or put people at higher risk of developing)	https://web.archive.org/web/20240114175013/https://twitter.com/chrischirp/status/1572249247549980673
	Sep 1, 2021	I'm beginning to think I'm living in some sort of parallel universe from media & some scientists who think it's 'reassuring' that 1 in 7 children get long-term symptoms from a novel virus known to cause multi-system disease, especially when thousands are being infected every day.	https://web.archive.org/web/20210901142453/https://twitter.com/dgurdasani1/status/1433051154943029252
	Apr 26, 2022	Lockdown does not cause hepatitis.	https://web.archive.org/web/20220426065649/https://twitter.com/trishgreenhalgh/status/1518846388309790720
	Jun 18, 2021	This is such an important study. I like longitudinal studies - this UK one demonstrates convincingly that #COVID19 causes brain damage. It explains some symptoms of 'long COVID' and reinforces my view that it's wrong to allow children to get infected.	https://web.archive.org/web/20220605134347/https://twitter.com/GabrielScally/status/1405830700541095936
	Dec 3, 2022	I try to avoid amplifying disinformation but this is dangerous nonsense that some people will believe. Shocked that some otherwise sensible scientists peddling the "immunity debt" nonsense. Someone senior at UKHSA needs to get a grip	https://web.archive.org/web/20240324084243/https://twitter.com/martinmckee/status/1599001607210864640
	Nov 15, 2020	Damage to multiple organs recorded in 'long Covid' cases https://www.theguardian.com/world/2020/nov/15/damage-to-multiple-organs-recorded-in-long-covid-cases?CMP=Share_iOSApp_Other	https://web.archive.org/web/20201115165524/https://twitter.com/SusanMichie/status/1328013027472515072
Mitigation of schools and children	Oct 2, 2020	New study provides strong evidence children are spreading infection in India - I see no reason why it should be different elsewhere. This challenges one of main justifications used for opposing face coverings for children where appropriate & possible https://t.co/6F70yVeQma	https://web.archive.org/web/20211117145314/https://twitter.com/martinmckee/status/1312052327822614535

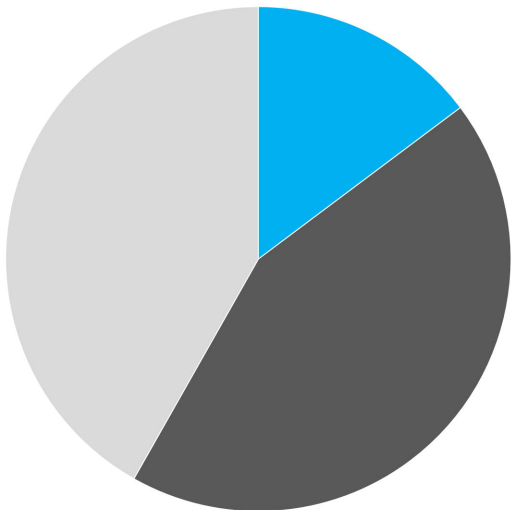
	Sep 29, 2023	UK schools are really not a safe place for children because DfE, the paedrs community, and govt have decided that forced mass infection of children is the way to go.	https://web.archive.org/web/20240115142229/https://twitter.com/dgurdasani1/status/1707536623012028746
	Jan 27, 2022	I simply cannot accept this argument that it is better for children to get covid as soon as possible. It is better if children never get covid at all.	https://web.archive.org/web/20220127093717/https://twitter.com/Kit_Yates_Maths/status/1486634129831731203
	Jan 23, 2022	We have failed to protect kids by not investing in cleaner air in schools - progress is glacial. We have failed to protect kids by removing mask requirements. We have failed to protect kids by not even allowing the option of 5-11 yr vaccine for most kids.	https://web.archive.org/web/20220124004536/https://twitter.com/chrischirp/status/1485412125447233538
	Jan 25, 2022	Madness to remove requirement for use of face masks in schools, & negligent not to ensure good ventilation or air filtration in classrooms. Why is UK Govt sacrificing children to such high rates of avoidable short-term illness, long Covid & educational and family disruption?	https://web.archive.org/web/20220125162802/https://twitter.com/SusanMichie/status/1486012911445319690
	Oct 6, 2023	Being off school for a year is damaging. Being dead's also damaging. Go figure.	https://web.archive.org/web/20240115141133/https://twitter.com/trishgreenhalgh/status/1710363132219060451
Policy proposals			
	Oct 16, 2021	As we head into winter with v high cases I think we need to use half term to: accelerate vax in teens roll out CO2 monitors everywhere & HEPA filters where necessary resintate masks in secondary schools tell parents what symptoms of covid in kids are (!) start govt plan B	https://web.archive.org/web/20211230234540/https://twitter.com/chrischirp/status/1449437964547788803
	Jan 28, 2021	16 reasons why countries should pursue #COVID19 elimination policy - Michael Baker & I list them in @guardian based on our very different experiences in Australia & UK	https://web.archive.org/web/20210618172559/https://twitter.com/martinmckee/status/1354684493530075138
	Jan 10, 2021	Having gone through cancer surgery during #COVID19 last year, my heart goes out to all whose ops have been cancelled in 2021. It need not & should not have been like this. The only strategy to prevent this in future is working towards #ZeroCovid as outlined by @IndependentSage	https://web.archive.org/web/20210110223959/https://twitter.com/SusanMichie/status/1348387430370582529
	Apr 15, 2023	My various science WhatsApp groups are buzzing. Genetic lineage clips and diagrams flying back and forth. I understand little of the detail but it looks like it's once again time to MASK UP.	https://web.archive.org/web/20231124161301/https://twitter.com/trishgreenhalgh/status/1691361610894340096
	May 25, 2022	We *need to suppress* with high-grade masks, ventilation, rapid testing, supported isolation - *while* we wait for the next generation of vaccines, and better treatments for long COVID. This will lead to *huge* increases in chronic illness. We really need to recognise this.	https://web.archive.org/web/20220525205207/https://twitter.com/dgurdasani1/status/1529565829267968002
Anecdotal evidence			
	Dec 15, 2021	A friend was at a small party last weekend (11 people). Everyone had neg LFDs first, all vaxed inc 3 boosted. All windows open. 1 person tested +ve 2 days later. Now another 7/11 have tested +ve (inc my boosted friend) & 2 out of remaining 3 have symptoms & waiting for PCR.	https://web.archive.org/web/20230106102628/https://twitter.com/chrischirp/status/1471119076244209669
	Jun 1, 2023	Update on what I'm going to now call long COVID symptoms- as it's been 3.5 months since my infection - so am well past the acute stage now. For those who've been following- I've been struggling with breathlessness, chest pain and brain fog post-COVID	https://web.archive.org/web/20230613181756/https://twitter.com/dgurdasani1/status/1664253184456663040
	Aug 14, 2023	Bearing in mind I have taken all the vaccines I've been offered, I am relatively young and fit, I've been hit pretty hard by it. I guess it just goes to show that no-one can expect to be unaffected when they get covid.	https://web.archive.org/web/20240328100918/https://twitter.com/Kit_Yates_Maths/status/1691046141779943424
	Oct 2, 2021	Schoolgirl, 15, dies of Covid on day she was due to be vaccinated as heartbroken mum issues warning to 'blasé' children	https://web.archive.org/web/20211002203759/https://twitter.com/trishgreenhalgh/status/1444306854381858821
	Jul 11, 2021	I've said it so often but I'll say it again. In public health/epidemiology we must never ever forget that the numbers we work with are real people. We must listen to them and not dismiss	https://web.archive.org/web/20210711055338/https://twitter.com/

		them as “anecdote” (some do). Please read this thread by @IntegralAnswers	itter.com/martinmckee/status/1414100472747728899
	Dec 19, 2020	Newcastle manager Steve Bruce shocked by effect of Covid on players	https://web.archive.org/web/20201219113206/https://twitter.com/SusanMichie/status/1340258447628120064
On others Names of UK scientists have been replaced with "X"	Jul 20, 2021	If X is really questioning reality & severity of long covid he has no place advising govt on covid. Evidence is overwhelming and well documented. He is gaslighting the million plus Britons living with it No wonder he is fine with kids and young people getting covid.	https://web.archive.org/web/20210719223131/https://twitter.com/chrischirp/status/1417250746693824525
	Dec 14, 2022	See the long thread linked in my pinned tweet. The evidence that masks, and especially respirators, work is overwhelming. This is an information war. Do not be taken captive by ideologues who refuse to engage in proper scientific debate, however senior they are.	https://web.archive.org/web/20221214141706/https://twitter.com/trishgreenhalgh/status/1602875972503900160
	Nov 10, 2022	New study in NEJM shows large benefit of masks in schools during pandemic. Now wait for certain paediatricians to tell us why it's wrong/ doesn't apply elsewhere etc. (recalling how they attacked our paper on children before they could have read it)	https://web.archive.org/web/20240327191059/https://twitter.com/martinmckee/status/1590606524883554304
	Jan 7, 2021	Why is #BBC giving air time to X yet again to trot out the destructive Gt Barrington line that will delay containment of #COVID19 with great cost to lives and livelihoods? Why don't we hear from the signatories of https://t.co/EnZaeFQgo4 ?	https://web.archive.org/web/20210107073743/https://twitter.com/SusanMichie/status/1347084942140956674
	Aug 21, 2021	X is on jvci and a long term minimiser of covid impact on children and impact of childhood transmission on pandemic growth	https://web.archive.org/web/20210822003702/https://twitter.com/dgurdasani1/status/1429033127272402947
	Sep 4, 2023	I honestly prefer the X's of the world- at least we know who they are - and they're consistent in their pseudoscience and complicity in harm.	https://web.archive.org/web/20240328093716/https://twitter.com/dgurdasani1/status/1705883332410831046
	Jan 15, 2022	sure, listen to clinical experience, but not X, Y, and Z, all of whom have been covid minimisers in children- and partly responsible for where we are. They don't represent the breadth of clinical experience in the UK.	https://web.archive.org/web/20220527041613/https://twitter.com/dgurdasani1/status/1482209074443964418
	Nov 24, 2022	Also worth noticing that the FOI clearly shows that X (who played an important role in producing flawed evidence that led to minimisation of COVID in children across the globe)- was well aware of the disproportionate and serious impact of COVID on ethnic minority children.	https://web.archive.org/web/20240406194956/https://twitter.com/dgurdasani1/status/1595703841353527296
Accusing authorities	Jul 19, 2021	It feels really surreal (and not in a good way) to be living in a country that is actively trying to infect young adults and children with Covid. I just can't imagine ever being ok with it.	https://web.archive.org/web/20210719193501/https://twitter.com/chrischirp/status/1417206336174104581
	Aug 26, 2022	This is important. Our government is rewriting history.	https://web.archive.org/web/20220826051305/https://twitter.com/trishgreenhalgh/status/1563031604674850816
	Mar 13, 2022	Something has gone terribly wrong with messaging on children in First JCVI dither, delay, & spread confusion Now parents are being forced to allow their children to spread infection, in a country that has done almost nothing to create safe schools	https://web.archive.org/web/20220313120453/https://twitter.com/martinmckee/status/1502978912967700483
	Nov 15, 2021	I love this from a colleague in relation to rumours of UK Government planning to reduce #Covid_19 testing - “Soon they will be banning thermometers to prevent global warming”	https://web.archive.org/web/20211115224245/https://twitter.com/SusanMichie/status/1460369144440893441
	Dec 29, 2021	Woke up to a deluge of DMs and emails telling me the wrong people are advising the UK government and please could I step in to make someone see sense. Tweeps, these advisers have been hand picked. I have no inside track.	https://web.archive.org/web/20211229071755/https://twitter.com/trishgreenhalgh/status/1476083009535328256
	Jun 5, 2023	The eugenics movement is deeply rooted within the UK- it had strong proponents there, and was once mainstream among the scientific community. I guess the shadow of it has always persisted even after it became 'unpopular'. It's clearly been present throughout govt policy & MSM.	https://web.archive.org/web/20240329085344/https://twitter.com/dgurdasani1/status/1665693517405102083

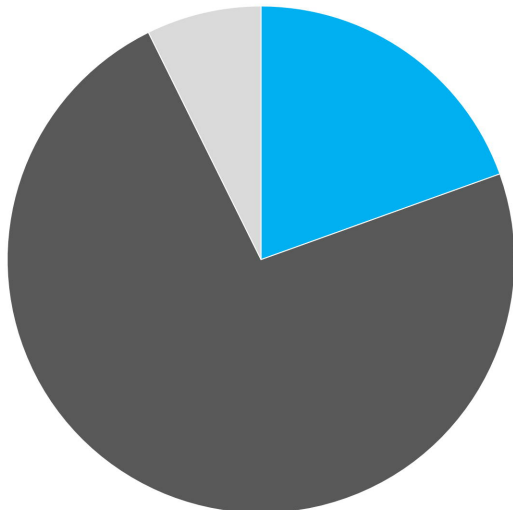
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<https://www.johnsnowmemo.com/signatories.html>

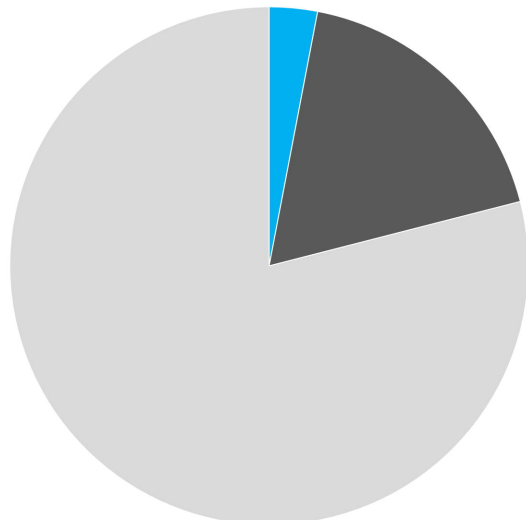
Affiliations of authors with more than five papers in BMJ





Affiliations of authors with more than 10 papers in BMJ




Affiliations of top-100 UK authors with most COVID-19 publications overall



 Aggressive measures advocates

 Restricted measures advocates

 Journalists / editors

 Other scientists

