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From: Berger, Sherri (CDC/OD/OCS) <(b)(6)

To: Pearlman, Aj (HHS/IOS) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b823159c628641fb89934ad67912edff-Pearlman, A <AJ.Pearlman@hhs.gov>; Despres, Sarah (HHS/IOS) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15d1d64eacdf46b8a378310ae7caf6bd-Despres, Sa <Sarah.Despres@hhs.gov>; Sams, Ian (HHS/ASPA) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=486e1c5f2f544391bfd4b50abc329b44-Sams, Ian <Ian.Sams@hhs.gov>

CC: Tumpey, Abbigail (CDC/DDPHSS/CSELS/OD) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2137d2b90bd946d39c26add5d0ac9aa8-Tumpey, Abb (b)(6); spe9 /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=user40a67ecc <(b)(6)

Subject: FYI

Date: 2021/11/16 13:51:22

Priority: Normal

Type: Note

this could be shared broadly, thanks

From: Michael Osterholm (b)(6)

Sent: Tuesday, November 16, 2021 8:41 AM

To: (b)(6)

Cc: Lisa Brosseau <(b)(6) Kevin Escandón <(b)(6); Angela Ulrich <(b)(6); Angela Rasmussen <(b)(6); Bix, Gregory J (b)(6); Roy, Chad J <(b)(6); Saskia V Popescu (b)(6); (b)(6) hlatshwayo-davism@stlouis-mo.gov; (b)(6) (b)(6) (b)(6) (b)(6) (b)(6) (b)(6) Daniel.p.mcquillen@lahey.org; Del Rio, Carlos (CDC emory.edu) (b)(6); (b)(6) (b)(6) (b)(6) (b)(6) (b)(6) Adimora, Adaora (CDC med.unc.edu) (b)(6); (b)(6) (b)(6) (b)(6) (b)(6) (b)(6) (b)(6) (b)(6) Howard, John (CDC/NIOSH/OD) (b)(6); Walensky, Rochelle (CDC/OD) <(b)(6)

Subject: Errors in the CDC/IDSA Website "Masks and Face Coverings for the Public"

Dear Dr. Chida,

Please find attached a letter from six colleagues and me regarding serious errors in the website "Masks and Face Coverings for the Public" on the COVID-19 Real-Time Learning Network hosted by CDC and IDSA. We believe the information and recommendations as provided may actually put an individual at increased risk of becoming infected with SARS-CoV-2 and for them to experience a serious or even life-threatening infection.

We look forward to your review of the information included in our letter and how the IDSA and CDC will address it at as soon as possible.

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Thank you. The authors of the letter are happy to discuss this information with you at your earliest convenience.

Sincerely,
Mike

Michael T. Osterholm, PhD, MPH
Regents Professor
McKnight Endowed Presidential Chair in Public Health
Director, Center for Infectious Disease Research and Policy
Distinguished University Teaching Professor
Environmental Health Sciences, School of Public Health
Professor, Technological Leadership Institute College of Science and Engineering
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Sent Date:	2021/11/16 13:51:05
Delivered Date:	2021/11/16 13:51:22

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November 15, 2021

Natasha Chida, MD, MSPH
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Dear Dr. Chida:

We urge you to address serious errors on the website "Masks and Face Coverings for the Public," on the COVID-19 Real-Time Learning Network hosted by the Centers for Disease Control and Prevention (CDC) and the Infectious Diseases Society of America (IDSA).

In particular, this website suggests, "Masking may reduce viral inoculum when transmission occurs, resulting in more mild disease" and cites a highly questionable and misleading commentary published by Monica Gandhi, Chris Beyrer, and Eric Goosby in the *Journal of General Internal Medicine* (*JGIM*).[1] We recently authored an in-depth review addressing this hypothesis and the topics of SARS-CoV-2 infectious dose, viral load, and severity outcomes in *Clinical Infectious Diseases*,[2] in which we note that there is little and conflicting evidence to suggest a link between SARS-CoV-2 inoculum and disease severity. The infectious dose or inoculum received is very likely associated with the probability of infection, which is supported by animal data. However, once infection occurs, the disease outcomes that result are greatly dependent on host factors such as age, sex, cardiometabolic comorbidities, smoking, and pregnancy.

After Gandhi, Beyrer, and Goosby published that commentary on July 31, 2020, in *JGIM*, Gandhi and George W. Rutherford further proposed that masks could provide a means of "variolation" in the absence of vaccines in a September 8, 2020, *New England Journal of Medicine* perspective article.[3] In October 2020, six of us authored two letters to the editor strongly criticizing this perspective of masks.[4,5] In particular, we noted, "Masks are used primarily to reduce SARS-CoV-2 transmission rather than reduce the dose of infectious particles or mitigate the severity of COVID-19. The suggestion that masks offer an alternative to vaccination without evidence that the benefits outweigh the great risks implicitly encourages reckless behavior." We also noted that the term "variolation" should be avoided because it was inaccurate with respect to coronaviruses and described an obsolete and risky practice used for the iatrogenic inoculation of smallpox and that the importance of host factors in driving COVID-19 severity should not be neglected.

As of late 2021, there is still insufficient and controversial evidence supporting the variolation inoculum-dependent hypothesis by which masks or any other interventions that potentially reduce the viral infectious dose

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lead to reduced disease severity and induce protective immunity. We believe human epidemiological and animal experimental data have been misinterpreted in pieces that make such claims as well as in numerous other publications citing Gandhi's ideas.[6,7,8,9] We are concerned that promotion of these pieces and their placement on well-trusted websites such as those of IDSA and the CDC not only damage the credibility of science and endanger public trust by misrepresenting the evidence, but also provide false expectations in terms of respiratory protection to the public.

We strongly urge IDSA to remove the suggestion that masking prevents severe disease from its webpage on Masks and Face Coverings for the Public. In addition, the podcast by Dr. Monica Gandhi where such irresponsible claims are made (https://www.idsociety.org/multimedia/podcasts/covid-19-prevention-why-masking-is-our-best-weapon/), should be removed from the website.

We also recommend that IDSA reconsider its statements about the efficacy of masks and face coverings for preventing transmission of SARS-CoV-2. We do not agree that the evidence for their efficacy has strengthened throughout the pandemic, as the website suggests. In fact, contrary to the conclusion on this website, the November 2020 Cochrane review cited states this: "Compared with wearing no mask, wearing a mask may make little to no difference in how many people caught a flu-like illness (9 studies; 3,507 people); and probably makes no difference in how many people have flu confirmed by a laboratory test (6 studies; 3,005 people). Unwanted effects were rarely reported, but included discomfort." Of note, although this review focused on respiratory viruses in general, it has been used to draw evidence and generalize it for COVID-19 prevention efforts.

We highly recommend that the living reviews, updated bimonthly throughout the pandemic, by Dr. Roger Chu and colleagues at the Pacific Northwest Evidence-based Practice Center at Oregon Health and Science University be used as an authoritative source for considering the effectiveness of masking. To date this ongoing review has found very limited evidence of mask efficacy in the community.[10-16]

We also call your attention to two recent commentaries published on the University of Minnesota Center for Infectious Disease Research and Policy (CIDRAP) website.[17,18] The second of these pieces describes the important elements of a rigorous mask study and critiques several studies as examples of the shortcomings of most such studies to date. One of the critiqued studies is the randomized clinical trial of masks conducted in Bangladesh and released as a preprint by Jason Abaluck; this study is cited by IDSA in support of mask efficacy. This study has many significant shortcomings not described or recognized by the IDSA summary, which were highlighted in the CIDRAP commentary. Most important, this study did not consider or measure baseline seropositivity in the study population, but instead concluded that anyone seropositive at the end of the study must have been infected during the study period. The time period of the study – late 2020 to early 2021 — does not lend itself to this conclusion. The masks were not described, so we lack details on their filter efficiency or fit. The confidence intervals for the outcome variables were very wide and included 1.0, suggesting weak, if any, protection provided by masks.

The IDSA "Masks and Face Coverings for the Public" webpage appears to focus on the strengths of studies that support its conclusions while ignoring their shortcomings of study design; studies that do not support its perspective are similarly downplayed. For example, a summary of the Bundgaard study of masks in Denmark,[19] which found no reduction in SARS-CoV-2 among mask wearers, declares in bold type, ***"Overall, in this large population-based randomized controlled trial, recommending persons to wear masks in addition to social distancing was not associated with reduction in SARS-CoV-2 acquisition for mask wearers. The study is limited by a significant amount of mask nonadherence in participants recommended to wear them and by the***

fact that community caseload was low during the study. The results also cannot be extrapolated to determine the effectiveness of masks at reducing transmission of SARS-CoV-2, as the study was designed to assess protection of wearers, not transmission." The last statement suggests that other studies of masks have focused on transmission and not protection of wearers, which is not true — in most cases, the direction of transmission (to or from a mask wearer) has not and generally cannot be ascertained and was not the outcome of interest. There are similar problems with most of the other studies cited by IDSA in support of mask efficacy.

We welcome the opportunity to assist IDSA in updating its review of the science that may support the use of masks by the public. We are not anti-mask, but rather we strongly support a more careful scientific review of the data that states the role that masks may play in preventing SARS-CoV-2 transmission, based on the best scientific evidence that exists.

Sincerely,

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14-1

Prevalence and Risk Factors for School-Associated Transmission of SARS-CoV-2

August 4, 2023

Sandra B. Nelson, MD1,2; Caitlin M. Dugdale, MD1,2,3; Isaac Ravi Brenner, BA3; et al
Allison Crawford, MS3; Alyssa Bilinski, PhD4; Duru Cosar, BS3; Nira R. Pollock, MD, PhD2,5; Andrea Ciaranello, MD, MPH1,2,3
JAMA Health Forum. 2023;4(8):e232310. doi:10.1001/jamahealthforum.2023.2310

Key Points

Question What is the rate of secondary transmission of SARS-CoV-2 in schools, and what factors are associated with transmission?

Findings In this cohort study of 10 Massachusetts school districts, the secondary attack rate of SARS-CoV-2 in schools was 2.2% during the 2020-2021 school year and 2.8% in the fall of 2021. Factors associated with transmission in schools changed over time, although a greater social vulnerability index was associated with transmission in both periods.

Meaning These findings suggest that although transmission of SARS-CoV-2 in schools was uncommon, ongoing surveillance efforts may be essential to ensure that both targeted resources and mitigation practices remain optimal and relevant for disease prevention.

Abstract

Importance School-associated SARS-CoV-2 transmission is described as uncommon, although the true transmission rate is unknown.

Objective To identify the SARS-CoV-2 secondary attack rate (SAR) in schools and factors associated with transmission.

Design, Setting, and Participants This cohort study examined the risk of school-based transmission of SARS-CoV-2 among kindergarten through grade 12 students and staff in 10 Massachusetts school districts during 2 periods: fall 2020/spring 2021 (F20/S21) and fall 2021 (F21). School staff collected data on SARS-CoV-2 index cases and school-based contacts, and SAR was defined as the proportion of contacts acquiring SARS-CoV-2 infection.

Exposure SARS-CoV-2.

Main Outcomes and Measures Potential factors associated with transmission, including grade level, masking, exposure location, vaccination history, and Social Vulnerability Index (SVI), were analyzed using univariable and multivariable logistic regression models.

Results For F20/S21, 8 school districts (70 schools, >33 000 students) were included and reported 435 index cases (151 staff, 216 students, and 68 missing role) with 1771 school-based contacts (278 staff, 1492 students, and 1 missing role). For F21, 5 districts (34 schools, >18 000 students) participated and reported 309 index cases (37 staff, 207 students, and 65 missing role) with 1673 school-based contacts (107 staff and 1566 students). The F20/S21 SAR was 2.2% (lower bound, 1.6%; upper bound, 26.7%), and the F21 SAR was 2.8% (lower bound, 2.6%; upper bound, 7.4%). In multivariable analysis, during F20/S21, masking was associated with a lower odds of transmission compared with not masking (odds radio [OR], 0.12; 95% CI, 0.04-0.40; $P < .001$). In F21, classroom exposure vs out-of-classroom exposure was associated with increased odds of transmission (OR, 2.47; 95% CI, 1.07-5.66; $P = .02$); a fully vaccinated vs unvaccinated contact was associated with a lower odds of transmission (OR, 0.04; 95% CI, 0.00-0.62; $P < .001$). In both periods, a higher SVI was associated with a greater odds of transmission.

Conclusions and Relevance In this study of Massachusetts schools, the SAR for SARS-CoV-2 among school-based contacts was low during 2 periods, and factors associated with transmission risk varied over time. These findings suggest that ongoing surveillance efforts may be essential to ensure that both targeted resources and mitigation practices remain optimal and relevant for disease prevention.'

Introduction

When the COVID-19 pandemic first emerged, schools in all 50 states closed as a means of preventing transmission. Over the subsequent 2 years, schools reopened with a variety of mitigation measures to reduce school-associated transmission, including remote and hybrid models to reduce in-school density, distancing requirements, mask mandates, initiation of testing programs, enhanced hand hygiene measures, isolation of symptomatic persons, ventilation improvements, and recommendations for vaccination of students, faculty, and staff. As schools reopened, school-associated transmissions were reported to be uncommon.[1-5]

The true rate of in-school SARS-CoV-2 transmission, however, remains unknown. The impact of mitigation measures in preventing in-school transmission is largely understood at the policy level rather than the individual level, for example, from comparisons between districts with different masking and distancing policies or with different approaches to ventilation.[6-8] Without detailed contact tracing information, factors associated with in-school transmissions are difficult to untangle from transmissions occurring in the community, such as at play dates, during recreational athletic activities, or at after-school gatherings. Furthermore, most of the currently available data on school-associated transmissions were gathered during times when viral variants with lower intrinsic transmissibility than current variants were circulating and prior to the widespread adoption of vaccines.[1] Understanding how transmission dynamics differ over time and in association with different SARS-CoV-2 prevention measures may inform future strategies around mitigation measures in schools. As schools adapt to this new era in the SARS-CoV-2 pandemic during which waves of disease may continue to occur, data-driven best practices are needed to maximize in-person

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learning while minimizing transmission risk to students, faculty, and staff. To address this need, we used detailed school-based contact tracing data in a sample of Massachusetts school districts to describe the secondary attack rate (SAR) of SARS-CoV-2 during the 2020-2021 school year and during the fall term of the 2021-2022 school year and identify factors associated with school-based transmissions.

Methods

Design

In this cohort study, a convenience sample of 25 Massachusetts public kindergarten through grade 12 (K-12) school districts were invited to participate, and the Massachusetts Department of Elementary and Secondary Education invited all Massachusetts districts to participate in the study through frequent COVID-19 webinars for schools. Interested school districts were provided with a standardized contact tracing spreadsheet (eTable 1 in Supplement 1; eTable 2 in Supplement 2) for the reporting of deidentified data. Data were collected during 2 periods: fall and spring semesters of the 2020-2021 school year (F20/S21), and the fall semester (August 30 through December 8) of the 2021-2022 school year (F21). Districts were encouraged to participate in 1 or both periods if feasible. Ultimately, 8 public school districts contributed F20/S21 data; 3 of these districts plus 1 additional district and 1 private prekindergarten through grade 9 school contributed F21 data. The study was approved by the Mass General Brigham and Massachusetts Department of Public Health institutional review boards. Waiver of informed consent was granted as the data were collected by school personnel as part of their individualized contact tracing programs; only deidentified data were sent to investigators. The study followed the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline.

Study Population

Index cases were included if the student, faculty member, or staff member with SARS-CoV-2 was in school while infectious, beginning 48 hours before symptom onset (or collection time of a positive test result if asymptomatic). Requested information about index cases included their role in school (ie, student or staff and grade level or staff role), the means of case identification (eg, regularly scheduled asymptomatic testing, symptomatic testing, testing after exposure in school, testing after exposure outside of school), duration of time spent in school while infectious, and number of in-school close contacts. Specific demographic data (including age, sex, and race and ethnicity) were not collected by school districts as part of their contact tracing efforts and, therefore, could not be included in the analysis. All school-based close contacts were included. Requested information about contacts included role in school (ie, student or staff and grade level or staff role), location of exposure (eg, classroom, lunch or snack time, recess, physical education, bus, school sports, other school-sponsored extracurricular event), and individual mask use during the exposure, as well as whether each contact was tested for SARS-CoV-2 within 14 days following the exposure, the type of test performed, and the test results. The contact tracing tool was updated for F21 to include information about vaccination status, approximate distance between index case and contact at the time of exposure, and the quarantine and testing approach.

Contacts were defined by Massachusetts Department of Public Health criteria[9] as individuals within 6 feet of an index case for at least 15 minutes (cumulative) over 24 hours during the window of infectiousness. Beginning in April 2021, close contacts within classrooms and on school buses were excluded from quarantine requirements if both the case and contact were masked, unless closer than 3 feet for at least 15 minutes over 24 hours during the window of infectiousness.[10] During both periods, all Massachusetts school districts were encouraged to participate in weekly asymptomatic screening programs using pooled polymerase chain reaction testing. Seven of the 8 districts offered pooled testing in F20/S21 and 4 of 5 districts offered pooled testing in F21.[10] For F21, districts were also encouraged to offer a test-to-stay (TTS) program, allowing unvaccinated students and faculty exposed to COVID-19 in schools the option to remain in school with a negative result on daily rapid antigen testing performed by school personnel. All 5 districts offered a TTS program.[11] Participation in all testing programs was voluntary at the individual level. Vaccination became available in Massachusetts for K-12 staff on March 11, 2021; for students aged 16 years or older on April 19, 2021; for students aged 12 years or older on May 12, 2021; and for students aged 5 to 11 years on November 3, 2021. Vaccination rates among school-aged children varied substantially among participating districts (eFigure in Supplement 3). During F20/S21, fully vaccinated individuals were excluded from contact tracing, according to department of public health guidance. In F20/S21, schools were advised to maintain 3 feet of distance separation in classrooms; many districts operated in a hybrid format, with some students learning remotely. In April 2021, districts were required to offer in-person learning to all students, with no specific requirements regarding distancing. All students were required to return to full in-person learning in F21. Masking was required in classrooms during both periods. During F20/S21, the original SARS-CoV-2 strain was predominant; in F21, the Delta variant was predominant in Massachusetts.

For contacts with positive test results for SARS-CoV-2, the likelihood that transmission occurred in the school setting was assessed by the school-based team. School-based nursing and contact tracing teams designated contacts who tested positive as not a school-associated transmission if a clear alternative exposure was present and believed to be more likely than the school-based exposure (ie, a household contact with exposure timing more convincing for likely source of infection). Transmissions were considered possible school-associated transmissions if there were both school-associated and out-of-school exposures, either of which may have led to transmission. Transmissions were considered probable school-associated transmissions if no out-of-school exposures were identified.

Statistical Analysis

We defined the SAR as the proportion of school-based contacts acquiring SARS-CoV-2 infection and designated as either possible or probable school-associated transmission. We calculated the SAR in 3 ways: (1) as ascertained by testing, (2) a lower bound (assuming all untested contacts were uninfected), and (3) an upper bound (assuming all untested contacts were infected). We also repeated the SAR calculation in a sensitivity analysis in which all contacts with positive test results (including those deemed not school-associated transmissions) were included. Index cases with 0 school-associated contacts during the window of infectiousness were excluded from analysis. Descriptive analyses were performed to calculate the total number of cases, contacts, and possible or probable school-associated transmission events for each district and in each category of index case and exposure type (student or staff, grade level, exposure setting, masking, etc). In addition, the mean and

median number of contacts per case and the proportion of contacts who underwent SARS-CoV-2 testing within 14 days of their exposure were calculated.

We used Fisher exact tests to compare SARs in univariable analysis, with a 2-sided $P < .05$ indicating statistical significance. Unknown or missing values were removed from the univariable analysis if the number of contacts with unknown or missing data comprised less than 5% of the total number of contacts tested for each exposure category; individuals with some missing data could still contribute data in other exposure categories where data were complete. We repeated this calculation twice, assessing the F20/S21 and F21 periods separately due to differences in circulating variants, quarantine and testing policies, and vaccination prevalence. We then fit logistic multivariable regression models for each period, selecting variables that were either significant in univariable analysis or had policy-relevant implications. We fit logistic regression models using backward selection to arrive at final models with significant terms for each period. We used the Firth bias reduction method as necessary. All analyses were conducted using R, version 4.2.2 statistical software (R Foundation for Statistical Computing). Because community COVID-19 case rates were similar in all included districts and the primary outcome of SAR is less sensitive to community transmission rates than the outcome of total case count among students and staff, we did not include weekly community rates in the final models. Data from the Centers for Disease Control and Prevention's Social Vulnerability Index (SVI)[12,13] were used to assess the association between district-level SAR and SVI. The SVI is a validated measure that combines 16 vulnerability-associated factors in 4 domains. The SVI has been associated with COVID-19 incidence and mortality, and school poverty level has been associated with access to mitigation measures in schools.[14-16] We separately analyzed the 4 SVI components for each district (socioeconomic status, household characteristics [age, single parenting, disability, and English language proficiency], minority status [race and ethnicity], and housing type and transportation) as well as the overall SVI (a composite measure of all 4 components). The SVI values were categorized into quartiles for the analysis, with higher quartiles indicating a higher SVI. The overall SVI for the included districts ranged between the 10th and 70th percentile; the districts with the greatest vulnerability in the state did not participate in the study.

Results

For F20/S21, 8 K-12 public school districts (70 schools with >33 000 enrolled students) participated in the contact tracing study (Table 1). During F20/S21, there were 435 index cases (151 staff, 216 students, and 68 missing role) with 1771 school-based contacts (278 staff, 1492 students, and 1 missing role). Of the 1771 contacts, 1327 (74.9%) underwent testing, 39 of these 1327 (2.9%) contacts tested positive for SARS-CoV-2. Of the 39 positive contacts, 10 (25.6%) had clear out-of-school exposures and were deemed not school-associated transmissions and excluded from the base-case SAR calculations. Twenty-nine contacts (74.4%) were deemed possible or probable school-associated transmissions, resulting in a school-associated SAR of 2.2% (lower bound, 1.6%; upper bound, 26.7%). The SAR ranged by district from 0.0% (lower bound, 0.0%; upper bound, 0.0%) to 11.9% (lower bound, 11.0%; upper bound, 19.2%). In a sensitivity analysis in which all contacts who tested positive for SARS-CoV-2 (including those deemed not school-associated transmissions) were included in the F20/S21 SAR calculation, the SAR was 2.9% (lower bound, 2.2%; upper bound 27.1%).

For F21, 4 K-12 public school districts and 1 prekindergarten through grade 9 private school (34 schools with >18 000 enrolled students) participated (Table 1). During F21, there were 309 index cases (37 staff, 207 students, and 65 missing role) with 1673 school-based contacts (107 staff and 1566 students). Of the 1673 contacts, 1594 (95.3%) underwent testing and 46 of the 1594 (2.8%) tested positive for SARS-CoV-2. Of the 46 positive contacts, 2 had clear out-of-school exposures and were excluded from the base-case SAR calculations. Forty-four were deemed possible or probable school-associated transmissions, resulting in a school-associated SAR of 2.8% (lower bound, 2.6%; upper bound, 7.4%). The SAR ranged by district from 0.0% (lower bound, 0.0%; upper bound, 1.7%) to 8.0% (lower bound, 7.9%; upper bound, 9.6%). In a sensitivity analysis in which all contacts who tested positive (including those deemed not school-associated transmissions) were included in the F21 SAR calculation, the SAR was 2.9% (lower bound, 2.7%; upper bound, 7.5%).

Tables 2 and 3 include the number of school-associated transmissions and SAR calculations according to different exposure types for F20/S21 and F21, respectively. During F20/S21, the unadjusted SAR was significantly higher if the exposure occurred at lunch, if both the index case and contact were unmasked, and if the index case had been tested because of an in-school exposure (Table 2). Higher overall SVI quartile (indicating greater social vulnerability) and higher socioeconomic SVI quartile were also associated with a higher SAR in univariable analysis (Table 2). During F21, the unadjusted SAR was significantly higher if the contact or the index case was an elementary student (compared with older grade levels and staff), if the exposure occurred in the classroom, if the contact did not participate in the TTS program (eg, chose quarantine), if the contact was partially vaccinated or unvaccinated, and if the index-case individual was unvaccinated (Table 3). Higher socioeconomic SVI quartile was also associated with a higher SAR (Table 3).

More information about index cases, including the proportion of index cases with any school-associated transmission, is outlined in eTables 3 and 4 in Supplement 3. In univariable analysis, a higher district-level SVI quartile was associated with a higher proportion of index-cases who transmitted infection in the first period (F20/S21). During the second period (F21), a greater proportion of elementary student index cases (compared with those in other grade levels or staff) and unvaccinated index cases (compared with vaccinated and partially vaccinated index cases) transmitted infection. A greater proportion of index cases in districts with a higher socioeconomic SVI quartile transmitted infection during F21.

In the final fitted multivariable models, during F20/S21, mask use of both the index case and contact was associated with lower odds of school-associated transmission relative to mask nonuse (Table 4; Figure, A). With both individuals masked, there was an 88% decrease in relative odds of in-school transmission (odds ratio [OR], 0.12; 95% CI, 0.04-0.40) and an absolute risk decrease of 9.6% (95% CI, −1.9% to −29.0%). During F21, classroom exposure and vaccination of the contact were associated with transmission (Table 4; Figure, B). A fully vaccinated contact had a 96% decrease in relative odds of in-school transmission (OR, 0.04; 95% CI, 0.0-0.62) and an absolute risk decrease of 3.6% (95% CI, −2.7% to −4.6%). A classroom exposure carried more than twice the odds of in-school transmission (OR, 2.47; 95% CI, 1.07-5.66) and an absolute risk increase of

2.1% (95% CI, 0.6%-3.8%) compared with an out-of-classroom exposure. For both F20/S21 and F21, higher SVI score (overall and socioeconomic status component) was associated with greater odds of school-associated transmission (Table 4).

Discussion

In this cohort study, based on detailed school-based contact tracing spanning 2 academic years and amid substantial changes in circulating SARS-CoV-2 variants and vaccine availability and uptake, the SAR among school-based contacts in Massachusetts was low. Our study expands the available literature on SARS-CoV-2 transmission in schools by providing an in-depth analysis of transmission context over time. During the first period (F20/S21), most schools were open and using a hybrid format, with reduced classroom density and greater distances between students in class. The original and Alpha variants were circulating, and vaccination was only available at the end of the academic year for staff and older students. The second period (F21) was characterized by the absence of a remote learning option, leading to greater classroom and lunchroom density, availability of vaccines for middle and high school students and staff, and circulation of the more transmissible Delta variant. Masking was required in classrooms during both periods; during F21, more nonclassroom school activities, such as sports, were unmasked. In both periods, available vaccines had high effectiveness in preventing transmission of circulating variants (original, Alpha, and Delta); both periods were before the widespread circulation of the Omicron variant. Despite important differences in factors associated with transmission, the SAR was low during both periods and similar to what has been reported in other studies.[1-4]

In this study, students and staff who lived in districts with greater social vulnerability, as measured by SVI, had a higher likelihood of infection through school-based exposure. It has long been recognized that the pandemic disproportionately affected communities with high social vulnerability.[17-19] However, this study is the first to our knowledge to show that students and staff exposed to SARS-CoV-2 at school were more likely to become infected if they lived in districts with greater social vulnerability, even when vaccination status, distance, and other factors of transmission risk were considered. Because the outcome was SAR, this finding was independent of community rates of disease, and it held true during both study periods for reasons that are uncertain. Schools with more resources may have had more ability to implement ventilatory improvements, a factor known to reduce transmission in schools.[16] Classroom density may be higher in lower-income neighborhoods.[20] As we consider both the efficient use of limited current resources and the critical need for additional resources to improve student and staff health going forward, ensuring that resources are directed to districts in which transmission risk is higher may help to reduce both health and educational disparities.

Studies have shown that schools with mask policies had fewer cases of SARS-CoV-2 during the 2020-2021 school year,[8,21] before widespread student and staff vaccination. While mask policies have been associated with reduced cases in schools, detailed contextual information about individual mask use has not previously been available. In this study, masking of both the index case and contact was protective against school-associated transmission during the 2020-2021 school year. Interestingly, in F21, despite a more transmissible variant (Delta) and greater classroom density, mask use was no longer found to be associated with reduced transmission; instead, vaccination of the in-school contact was the most protective factor. This finding suggests that at times of both high vaccination uptake and high vaccine effectiveness against the circulating variant, masking may be less preventive of transmission than vaccination. However, in settings with lower vaccination uptake, or when there is loss of vaccine effectiveness against circulating variants, masking may be more protective. Importantly, masking in schools may continue to be an important tool to prevent school-associated transmission when the effectiveness of vaccines against circulating variants and their effectiveness over time since vaccination are diminished.[22]

While distance between case and contact is known to be associated with transmission risk,[23] in this study, the distance between the index case and contact was not found to be associated with transmission risk in schools. Importantly, the school-based teams conducting contact tracing were not always able to assess distance between cases and contacts. Distances were sometimes inferred based on policies in each location rather than on actual measurement of distance. Therefore, these data cannot be used to confirm that distance between case and contact is not relevant to transmission in schools.

During the 2020-2021 school year, we found no difference in transmission likelihood by age of the index case or contact as measured by students' grade level. In F21, apparent differences in transmission by age may have been associated with age-related differences in vaccination. In the unadjusted analyses, elementary students were more likely to transmit infection and more likely to become infected when exposed than older students; however, in multivariable analysis, there was no association between age and transmission risk. This finding supports other data that suggest that transmission risk does not depend on age.[24-27]

In F21, the state of Massachusetts adopted a TTS program in which unvaccinated students and staff exposed to SARS-CoV-2 in schools were eligible to remain in school provided that they had a negative rapid antigen test result on all in-school days for 7 days following the exposure. Studies have shown that this approach is safe[28,29] and associated with fewer lost learning days in the setting of exposure. In this study, unvaccinated students enrolled in the TTS program were less likely to acquire SARS-CoV-2 than unvaccinated students who were quarantined and tested. In addition, students who were identified as cases through the TTS program were not more likely to transmit infection than those identified as cases through other means (eg, symptomatic testing, out-of-school close contact). This finding suggests that exposed students who eventually tested positive but remained in school before their antigen test results became positive were not more likely than other students to transmit infection at school during that time, supporting the safety of TTS programs to minimize lost learning days.

Limitations

This study had several important limitations. First, while the majority of school-based contacts were monitored for symptoms and underwent testing, not all contacts were tested for SARS-CoV-2. To address this limitation, we calculated the upper and lower bounds of SAR estimates, assuming that all untested contacts were truly infected or uninfected, respectively. These upper and lower bounds ranged widely, particularly for the first period (Table 1). Second, most contacts, unless enrolled in the TTS program, were tested only once. The sensitivity of a single test to

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confirm absence of transmission is imperfect.[30] It is possible that the SAR would have been higher if exposed contacts were tested more frequently. Interestingly, contacts enrolled in the TTS program (who were tested more frequently but with rapid antigen tests) were not more likely to be diagnosed with SARS-CoV-2 than those not participating in TTS, but polymerase chain reaction testing was not performed. Third, contact tracing is imperfect, and some features that are potentially associated with transmission (eg, distance and masking during exposure) are subject to recall bias or unknown. Fourth, the likelihood of school-associated transmission for each contact who became infected was determined by school health staff; genomic sequencing of isolates to investigate the source of infection was not done. Fifth, the districts with the greatest vulnerability in the state were not included in the analysis; whether the correlations would hold if more these districts were included is unknown. Sixth, this study was conducted before the highly transmissible Omicron variant took hold. In January 2022, coincident with the arrival of the Omicron variant, contact tracing was no longer required in Massachusetts schools, and therefore we were not able to add a third study period to determine factors associated with school-based transmission during the Omicron era.

Conclusions

The findings of this longitudinal cohort study of K-12 schools in Massachusetts, based on detailed school-based contact tracing during the 2020-2021 school year and fall semester of 2021, indicate that the SAR of SARS-CoV-2 among school-based contacts was low. The study highlights the importance of collecting data about school-based infectious disease incidence in order to identify factors associated with transmission, with the goal of acting on those that can be addressed through school-based or public health interventions. We provide an in-depth individual-level analysis of the context of transmission in schools, extending existing literature by highlighting the benefit of vaccination and masking to prevent transmission in school settings. The study also demonstrated that like the pandemic, factors associated with respiratory virus transmission risk in schools are not static and will be impacted by circulating variants, vaccination prevalence, vaccine effectiveness, testing protocols, and other factors. Importantly, this study highlights the importance of social vulnerability in transmission risk, suggesting that schools in districts of greater vulnerability must be provided with additional resources to optimize the health of students and staff. The generalizability of these data beyond the 2021-2022 school year remains uncertain. Ongoing surveillance of school-associated SARS-CoV-2 transmission in schools is critical to inform decisions about school-based mitigation measures as the pandemic continues to evolve.

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15-1

Kids Almost Never Transmitted COVID In Schools; Major New Study Finds

AUG 08, 2023 *Alex Berenson*

The research should end what's left of the pathetic rear-guard effort to defend school closures - or any mitigation measures like making kids wear masks...

Children almost never passed Covid infections in school, a study published Friday reveals.

In fall 2021, in four Massachusetts school districts with 18,000 children, researchers found 44 potential cases of in-school transmission.

You read that right.

18,000 students. 34 schools. Four months. And 44 Covid infections - including *no* infections of teachers or other staff members.

Throughout 2020 and 2021, as parents pressed with increasing urgency to reopen classrooms, teachers unions and Democratic politicians warned in-school Covid transmission would lead to waves of death. "Teachers are so worried about returning to school that they're preparing wills," CNN infamously wrote on July 16, 2020.

In reality, schools were among the *safest* possible places for students and teachers during Covid, this study suggests.

The study, which ran in the peer-reviewed journal *JAMA Health Forum*, is both nearly useless and vital.

It's nearly useless in advancing our actual knowledge about Covid- because serious researchers have known since 2020 that children spread Covid much less frequently than adults and that schools and camps were likely to be major sources of new Covid cases.

As early as April 11, 2020, French researchers published a paper showing that an infected nine-year-old child had not transmitted the disease "despite close interactions within schools." By August 2020, researchers in Spain and Sweden had confirmed that finding on a much larger scale.

The reason is obvious too, since it is the same reason kids get much less sick than adults. They have lower viral loads and clear the infection more quickly. For many healthy children, Covid is barely even a cold.

16-1

American Farmers To Begin Injecting Livestock With mRNA Shots This Month - VIDEO

Apr 5, 2023 Greg Reese

https://banned.video/watch?id=642d95f579567b66ccec4ecd

17-1

WHO Quietly Backtracks and Says Healthy Children and Teens are Considered Low Risk and Do Not Need COVID-19 Shot

Jim Hoft Apr. 7, 2023

The World Health Organization (WHO) has issued new recommendations for the covid vaccine after many children had already been vaccinated.

After three years of COVID vaccine lies, WHO's Strategic Advisory Group of Experts on Immunization (SAGE) have quietly backtracked their decision on the Covid-19 vaccination recommendations and now says healthy kids and teens don't need it.

"Following its 20-23 March meeting, WHO's Strategic Advisory Group of Experts on Immunization (SAGE) revised the roadmap for prioritizing the use of COVID-19 vaccines, to reflect the impact of Omicron and high population-level immunity due to infection and vaccination," according to its **news release**.

"The roadmap newly considers the cost-effectiveness of COVID-19 vaccination for those at lower risk – namely healthy children and adolescents – compared to other health interventions. The roadmap also includes revised recommendations on additional booster doses and the spacing of boosters," it added.

The revised roadmap outlines three priority-use groups for COVID-19 vaccination: high-, medium- and low-risk groups.

Children between the ages of 6 months and 17 years old are considered a "low-priority group," which means they do not need to get a shot.

"The low priority group includes healthy children and adolescents aged 6 months to 17 years. Primary and booster doses are safe and effective in children and adolescents. However, considering the low burden of disease, SAGE urges countries considering vaccination of this age group to base their decisions on contextual factors, such as the disease burden, cost effectiveness, and other health or programmatic priorities and opportunity costs," according to WHO.

World Health Organization officials even admitted that these doses provide low benefits compared to traditional vaccines.

"The public health impact of vaccinating healthy children and adolescents is comparatively much lower than the established benefits of traditional essential vaccines for children – such as the rotavirus, measles, and pneumococcal conjugate vaccines – and of COVID-19 vaccines for high and medium priority groups."

Florida Surgeon General Dr. Joseph Ladapo responded to the WHO's new COVID vaccine guidance for children.

WATCH:

"It makes it not only senseless but malicious, to be giving these mRNA COVID-19 vaccines to young men and boys at this point in the pandemic."

Dr. Joseph Ladapo Responds to the WHO's New COVID Vaccine Guidance for Children & Disturbing Data From England

"It makes it not only senseless, but malicious, to be giving these mRNA COVID-19 vaccines to young men and boys at this point in the pandemic."**@FLSurgeonGen**... **pic.twitter.com/GzGyK9NyZD**

17-2

— Chief Nerd (@TheChiefNerd) **April 6, 2023**
Meanwhile in New York and other states, children age 5 year and older were mandated covid vaccines or denied civil rights.

In NYC children age 5+ were mandated covid vaccines or denied civil rights:

NO sports
NO after-school
NO dance
NO theatre
NO movies
NO museums
NO cafes
NO internships
NO summer jobs

Teens are still denied admission to **@CUNY**

We demand those **https://t.co/buWhUdNQs2**...

— NYC Parent (@nycfreethinker) **March 30, 2023**

18-1

Pfizer Hid Data on Waning Immunity

MARYANNE DEMASI APRIL 7, 2023

In late 2020, the airways became saturated with triumphant reporting of Pfizer and Moderna's "95% effective" covid-19 vaccines. Millions rolled up their sleeves with the belief that reaching herd immunity would end the pandemic.

But by June 2021, the pandemic endgame story had gone off script. Highly vaccinated countries like Israel were experiencing a new wave of covid infections, vaccination rates were starting to slow, and public scepticism was snowballing.

Authorities tried to allay fears by saying that new infections were "rare breakthroughs," but the data became too difficult to ignore.

By early July, the Israeli Ministry of Health reported that vaccine effectiveness against infection and symptomatic disease had fallen to 64 percent. Three weeks later, revised estimates put Pfizer's vaccine at just 39 percent effective.

Delayed disclosure

Regulatory filings date stamped from April 2021 show Pfizer had strong evidence that its vaccine's efficacy waned – results the company did not publicly release until the end of July.
Peter Doshi, associate professor at the University of Maryland School of Pharmacy, accessed these documents from the Canadian drug regulator, Health Canada.

"It's clear from the documents that these analyses were almost four months old by the time they became public," said Doshi.

"It's disappointing that neither Pfizer, nor regulators, disclosed these data until it was too obvious to ignore new outbreaks in Israel and Massachusetts, which made it clear that vaccine performance was not holding up."

When mRNA vaccines were first authorised in 2020, FDA scientists had listed critical 'gaps' in the knowledge base. Two of them were effectiveness against viral transmission and duration of protection.

But on April 1, 2021, when Pfizer announced its 6-month data from its Phase III trial, there was no mention of waning immunity by Pfizer or the regulators. On the contrary, officials repeated standard talking points.

Speaking on national TV, Anthony Fauci told the American public that "when you get vaccinated, you not only protect your own health ... you become a dead end to the virus."

Then, on a door-to-door vaccination drive, Fauci told one unvaccinated resident, "on the very, very, very rare chance that you do get it even if you're vaccinated ... you don't even feel sick, it's like you don't even know you got infected."

Martin Kulldorff, biostatistician, and professor of medicine at Harvard (on leave) says he is disappointed with the lack of transparency.

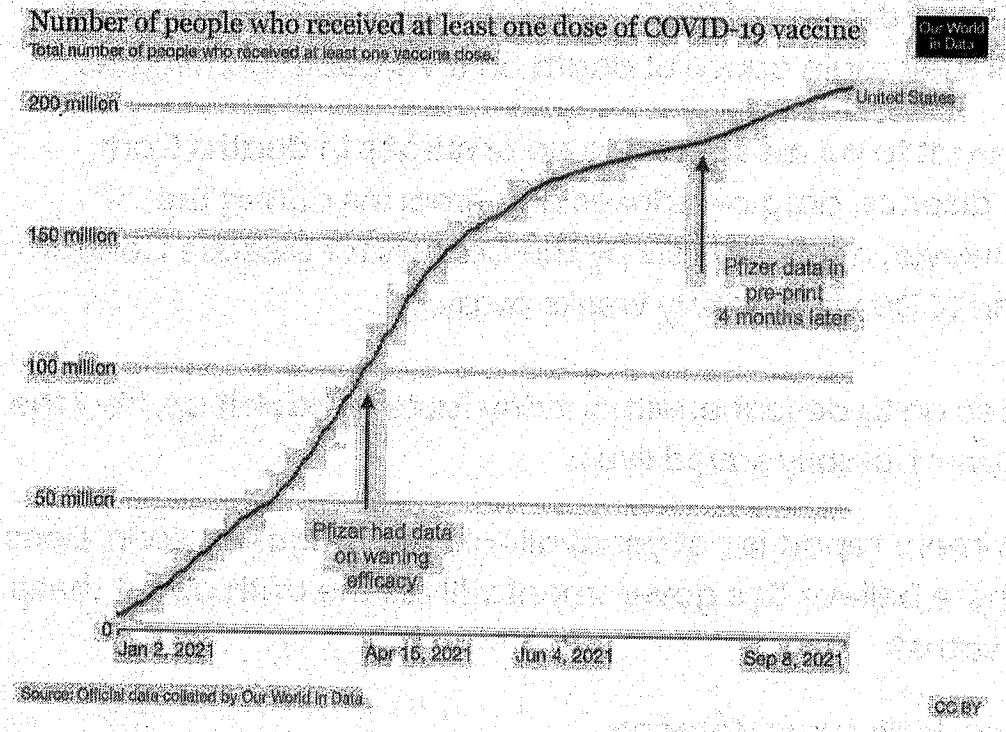
18-2

"In public health, it is important to be honest with the public. Pfizer should have reported the declining vaccine efficacy in its April 1, 2021 press release, which they clearly knew about at the time," said Kulldorff.

Pfizer gave no explanation for why it delayed the publication of its data. The FDA did not confirm when it first learned about waning efficacy and Health Canada did not respond by the deadline.

Outcome of hiding data?

In that four-month delay, approximately 90 million Americans queued to get vaccinated (see graph), unaware that data were already in hand, hinting that two doses may not be the final ask.



Doshi speculated that if the public was told about waning efficacy in April 2021, it may have hampered a vaccination campaign that had enormous momentum.

"Publicly disclosing that efficacy waned so soon after authorisation might have undermined the credibility of authorities, who'd been projecting great confidence about the vaccines' ability to end the pandemic," said Doshi.

"Also, the safety evaluation was based on a course of two doses, so publishing data that might jumpstart a conversation about people needing extra doses, could certainly have raised questions about vaccine safety," added Doshi.

Within weeks of Pfizer publishing its data on waning efficacy, President Biden mandated all federal workers (and employees of contractors) to get vaccinated within 75 days, otherwise they'd face punishment or have their employment terminated.

19-1

How authorities are manipulating excess deaths in the UK, Canada and Australia

RHODA WILSON MAY 23, 2023

"Official" excess deaths are determined using a five-year average from previous years. If the average was always pre-pandemic years this would be correct. However, it seems to be standard to include 2021 and 2022 in the five-year average while excluding 2020. So, to determine how many excess deaths there are in 2022, for example, the average of the five years 2016, 2017, 2018, 2019 and 2021 is used as a baseline. This is happening in all three of the UK, Canada and Australia.

This is deceitful because the high excess numbers in 2021 result in excess death figures in 2022 appearing lower than they are. Using the latest excess data from Canada, Professor Norman Fenton how the "official" excess deaths are being manipulated and showed what excess deaths look like when honest methods are used to determine them.

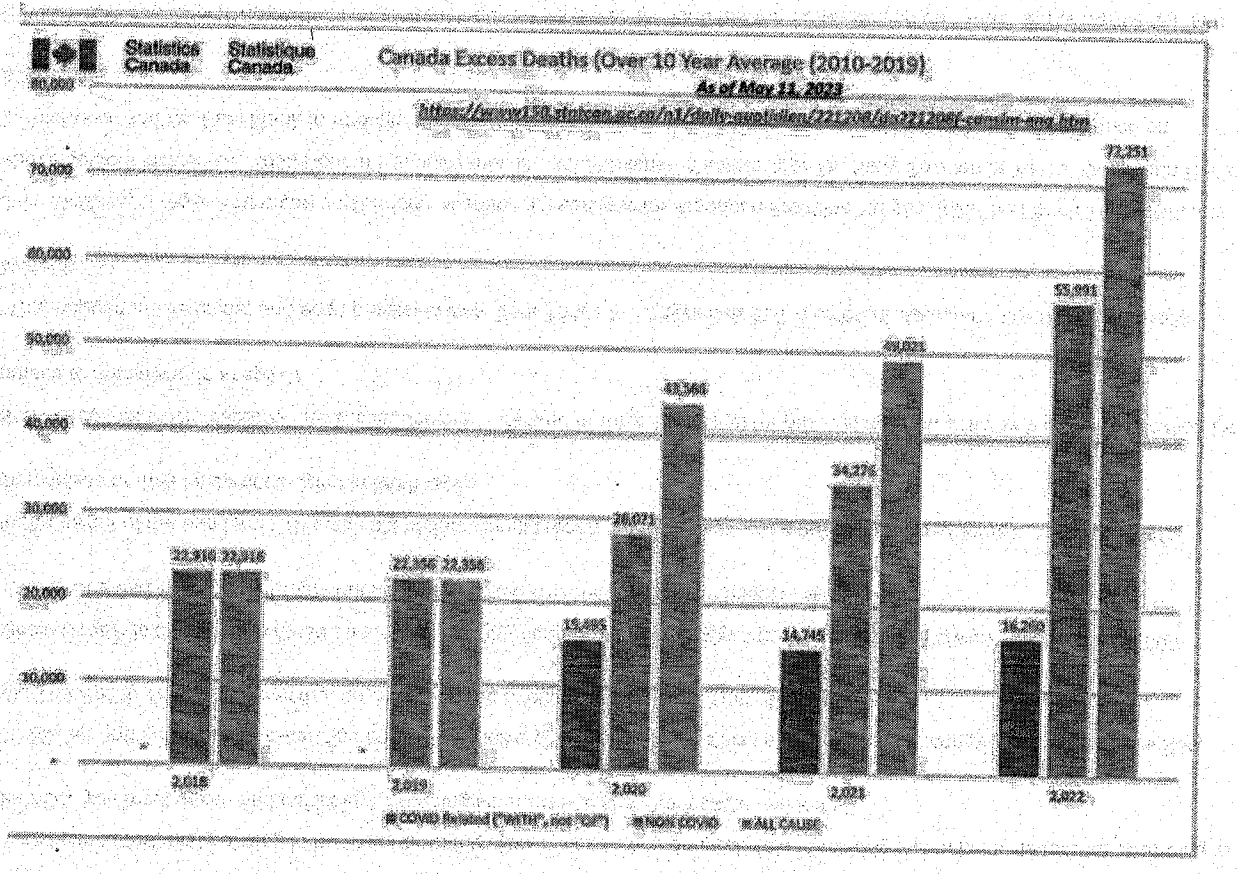
Manipulating Mortality

By Professor Norman Fenton

John Campbell asked me if I could explain what the confidence intervals meant in THESE Canadian excess deaths charts. I [responded and below] is John's subsequent video where he quotes my summary comments.

Dr. John Campbell: Excess deaths in Canada, 19 May 2023 (14 mins) - https://www.youtube.com/watch?v=Kn0KQfl3dds

It turns out that the latest Canada data on excess deaths is actually much more serious that even suggested in John's video. THIS website, with thanks to David Dickson, provides continually updated data and exposes multiple problems with the "official" Canada data including the fact that the two main provinces are missing data – Ontario and Quebec. The excess deaths for the years 2020, 2021, and 2022 based on the 2010-2019 10-year average is especially revealing:



19-2

We believe that using a 10-year pre-covid (i.e., pre-2020) period is the best way to determine excess deaths, assuming stability and homogeneity in the population and in disease profiles. Many of the excess death figures you see for 2021, 2022 and 2023 from around the world are based on the previous 5 years only; moreover, while most (correctly) exclude the unusual covid year of 2020, it seems to have become standard to include the years 2021 and 2022 which, because of the impact of lockdowns and the vaccines as well as any continuing covid, were certainly not "normal" years in any sense. Thus, for example, for its 2022 figures, the ONS in the UK uses the years 2016, 2017, 2018, 2019, and 2021 for its "baseline" and for 2023 it uses the years 2017, 2018, 2019, 2021, 2022. We believe this is extremely duplicitous, since the high excess numbers in 2021 result in artificially suppressing the excess death figures in 2022, and the high excess numbers in both 2021 and 2022 result in even greater artificial suppression of the excess death figures in 2023.

We see the same in Australia where they estimate 2022 excess deaths using 2017-2019 and 2021 but do not include 2020 because "deaths were significantly lower than expected." So, by including a year that is higher than expected and excluding a year it is lower than expected the excess is manipulated to look smaller. See Arkmedic's Substack for details: '*The Australian Bureau of (Lies, Damned Lies and) Statistics*'.

Even with these tricks to downplay the current excess death figures some people are noticing that there is a major problem, as this *Daily Mirror* article shows:

'Brits are dying in their tens of thousands – and we don't really have any idea why', Mirror, 11 May 2023

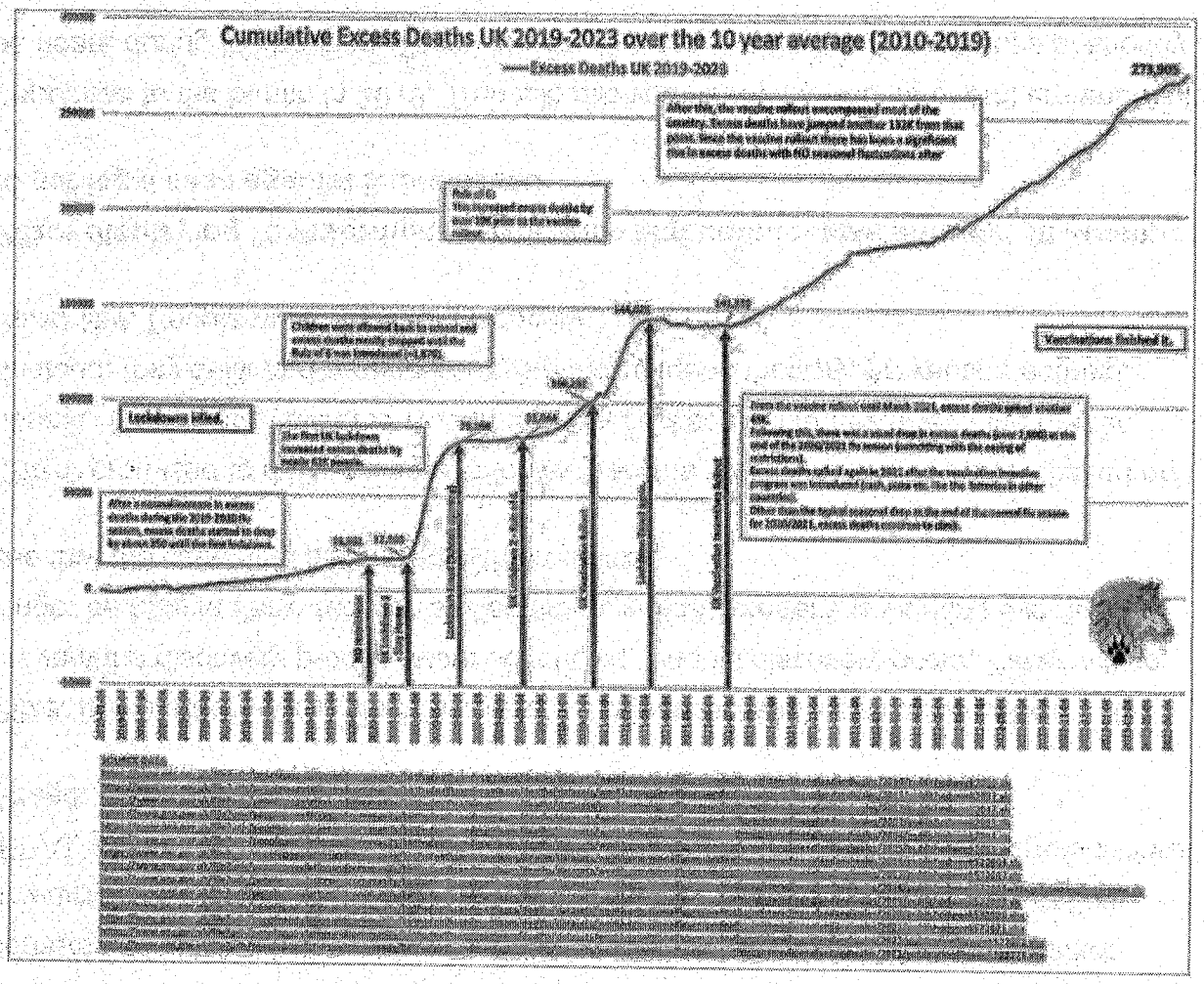
But of course, if you ignore, as the corporate media does, the possibility that the vaccine may be a contributory factor, then it's all a mystery as Prof. Coleman in that article suggests. He can't understand why excess deaths are higher when they should be lower after the pandemic. But he highlighted two key reasons for the excess deaths spike: "Britain's getting older, and gaining a larger average Body Mass Index."

Of course, it could be people not taking their statins. Honestly.

Update: Here is David Dickson's updated analysis of UK excess deaths using the 10-year 2010-2019 average:

53-3

19-3


Cumulative Excess Deaths UK 2019-2023 over the 10 year average (2010-2019)
Excess Deaths UK 2019-2023
279,905
After this, the vaccine rollout encompassed most of the country. Excess deaths have jumped another 102K from that point. Since the vaccine rollout there has been a significant rise in excess deaths with NO seasonal fluctuations after
Rate of 0
this increased excess deaths by over 10K prior to the vaccine rollout.
Children were allowed back in school and excess deaths mostly stopped with the Rate of 0 now introduced (~4,000).
Vaccinations finished it.
Lockdowns killed.
The first UK lockdown increased excess deaths by nearly 50K people.
After a convalescence in excess deaths during the 2019-2020 flu season, excess deaths started to drop by about 35K until the first lockdown.
From the vaccine rollout until March 2021, excess deaths spiked violently 40%.
Following this, there was a small drop in excess deaths (over 1,000) at the end of the 2020/2021 flu season (coinciding with the easing of restrictions).
Excess deaths spiked again in 2021 after the vaccination booster program was introduced (Jab, plan etc. like the Omicron in other countries).
Other than the typical seasonal drops at the end of the summer flu season for 2020/2021, excess deaths continue to climb.
50,000
100,000
150,000
200,000
250,000
300,000
Jan 2020
Feb 2020
Mar 2020
Apr 2020
May 2020
Jun 2020
Jul 2020
Aug 2020
Sep 2020
Oct 2020
Nov 2020
Dec 2020
Jan 2021
Feb 2021
Mar 2021
Apr 2021
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Dec 2023

20-1

Retracted coronavirus (COVID-19) papers

via CDC

We've been tracking retractions of papers about COVID-19 as part of our database. Here's a running list, which will be updated as needed. (For some context on these figures, see this post, our letter in *Accountability in Research* and the last section of this *Nature* news article. Also see a note about the terminology regarding preprint servers at the end.)

Retracted

1. "5G Technology and induction of coronavirus in skin cells," published in *Biological Regulators & Homeostatic Agents* on July 16, 2020, withdrawn on July 24, 2020. Our coverage here.
2. "6-month consequences of COVID-19 in patients discharged from hospital: a cohort study," published on January 8, 2021 in the *Lancet*; EOC issued on November 24, 2022, retracted and republished on June 8, 2023. See our coverage here and here.
3. "A Case Series of Stent Thrombosis During the COVID-19 Pandemic," published on May 27, 2020 in *JACC: Case Reports*; retraction date is unknown. Retracted as a duplicate publication by journal error.
4. "A Comparison of Early Rehabilitation in the Intensive Care Units of Patients With Severe COVID-19: A Propensity Score Matching Analysis," published November 10, 2022 in *Cureus*; retracted on April 4, 2023.
5. "A data-mining based analysis of traditional Chinese medicine in diagnosing and treating COVID-19," published on June 24, 2021 in *The Anatomical Record*; unknown when retracted.
6. "A deep learning model and machine learning methods for the classification of potential coronavirus treatments on a single human cell," published on October 17, 2020 in the *Journal of Nanoparticle Research*; retracted on August 16, 2021.
7. "A Discourse Analysis of Quotidian Expressions of Nationalism during the COVID-19 Pandemic in Chinese Cyberspace," published on September 8, 2020; retracted on April 12, 2022.
8. "A fuzzy rough hybrid decision making technique for identifying the infected population of COVID-19," published on November 23, 2020 in *Soft Computing*; retracted on May 29, 2023.
9. "A mechanistic analysis placental intravascular thrombus formation in COVID-19 patients," published on April 25, 2020 in *Annals of Diagnostic Pathology*. Retracted on June 22, 2020 as a duplicate publication by journal error.
10. "A meta-analysis of granulocyte-macrophage colony-stimulating factor (GM-CSF) antibody treatment for COVID-19 patients," published on August 20, 2021 in *Therapeutic Advances in Chronic Disease*; retracted on November 21, 2021. See our coverage here.
11. "A Model Based Analysis for COVID-19 Pandemic in India: Implications for Health Systems and Policy for Low- and Middle-Income Countries," preprint posted on June 12, 2020 in *medRxiv*; retracted on August 18, 2020.
12. "A new emergency response of spherical intelligent fuzzy decision process to diagnose of COVID19," published on October 1, 2020 in *Soft Computing*; corrected on January 9, 2021; retracted on May 29, 2023.
13. "A new prediction approach of the COVID-19 virus pandemic behavior with a hybrid ensemble modular nonlinear autoregressive neural network," published on November 19, 2020 in *Soft Computing*; retracted on July 10, 2023.
14. "A psychosocial exploration of body dissatisfaction: A narrative review With a focus on India during COVID-19," published on July 29, 2021 in Frontiers in Global Women's Health; retracted on January 19, 2023.
15. "A qualitative study of the impact of COVID 19, on health care providers for cancer patients: An original research," published on November 10, 2021 in the *Journal of Pharmacy & Bioallied Sciences*; retracted on July 13, 2022.
16. "A Report on Myocarditis Adverse Events in the U.S. Vaccine Adverse Events Reporting System (VAERS) in Association with COVID-19 Injectable Biological Products," published on October 1, 2021 in *Current Problems in Cardiology*, temporarily retracted on October 15, 2021. Our coverage here.
17. "A Retrospective Analysis and Comparison of Prisoners and Community-Based Patients with COVID-19 Requiring Intensive Care During the First Phase of the Pandemic in West Texas," published on November 2, 2020 in the *Journal of Primary Care & Community Health*; retracted on July 16, 2021
18. "A review of convalescent plasma transfusion in COVID-19: Old wine reserved for special occasions," published in Lung India on September 16, 2020; retracted December 31, 2020.
19. "A Systematic Review of Autopsy Findings in Deaths after COVID-19 Vaccination," published on July 5, 2023 in *SSRN: Preprints with The Lancet*; retracted on July 6, 2023.
20. "A study of COVID-19 in the Wuhan, Beijing, Urumqi and Dalian cities based on the regional disease vulnerability index," published on September 4, 2021 in the *Journal of Infection and Public Health*; retracted on unknown date for publisher error in duplicate publishing.
21. "A Study of Potential SARS-CoV-2 Antiviral Drugs and Preliminary Research of Their Molecular Mechanism, Based on Anti-SARS-CoV Drug Screening and Molecular Dynamics Simulation," published on December 1, 2020 in the *Journal of Computational Biology*; retracted on June 25, 2021.
22. "A thematic analysis of system wide learning from first wave Covid-19 in the east of England," publishing on April 25, 2022 in BMC Health Services Research; retracted on July 5, 2022.
23. "A topic-based hierarchical publish/subscribe messaging middleware for COVID-19 detection in X-ray image and its metadata," published on October 19, 2020 in *Soft Computing*; retracted on May 29, 2023.
24. "Accurate computation: COVID-19 rRT-PCR positive test dataset using stages classification through textual big data mining with machine learning," published on January 4, 2021 in *The Journal of Supercomputing*; retracted on November 21, 2022.
25. "Acute kidney injury and collapsing glomerulopathy associated with COVID-19 and APOL1 high risk genotype," Abstract 111 and Abstract 621, both published in the *Journal of Investigative Medicine*; both retracted on April 1, 2021.
26. "Acute necrotizing myelitis and acute motor axonal neuropathy in a COVID-19 patient," published in *Journal of Neurology* on August 9, 2020; unknown date of retraction.
27. "Addressing the Mental Health Needs of Filipino Child Victims of Online Sexual Exploitation During the COVID-19 Crisis: Challenges in Implementing Online Intervention Studies for Vulnerable Populations," published on January 11, 2022 in the *Asia Pacific Journal of Public Health*; retracted on February 22, 2022.
28. "Advancing ambulatory pharmacy practice through a crisis: Objectives and strategies used in an ambulatory care action team's response to the COVID-19 pandemic," published on January 23, 2021 in the *American Journal of Health-System Pharmacy*; retracted on April 1, 2022 due to published error causing duplicate publication.
29. "AI Techniques for COVID-19," published in *IEEE Access* on July 8, 2020; retracted in October (exact date unknown).
30. "An adaptive speech signal processing for COVID-19 detection using deep learning approach," published on August 21, 2021 in the International Journal of Speech Technology; retracted on October 13, 2022.
31. "An effective protective equipment to use in the vaginal delivery of the pregnant women with suspected/diagnosed COVID-19: Delivery Table Shield," published in the *American Journal of Obstetrics and Gynecology* on June 15, 2020, withdrawn sometime before June 25, 2020. Retracted and reinstated. Republished on unknown date, no explanation given. Our coverage here.
32. "An epidemiological investigation of a new coronavirus pneumonia cluster epidemic spread in public transportation" (also titled "An epidemiological investigation of 2019 novel coronavirus diseases through aerosol-borne transmission by public transport"), published in early March in *Practical Preventive Medicine* and retracted sometime in mid-April. More context here.
33. "An Intelligent Mechanism for COVID-19 Emergency Resource Coordination and Follow-Up Response," published on June 20, 2022 in *Computational Intelligence and Neuroscience*; retracted on July 26, 2023.
34. "Anal swab as the potentially optimal specimen for SARS-CoV-2 detection to evaluate the hospital discharge of COVID-19 patients," published on August 14, 2020 in *Future Microbiology*; retracted on April 13 2021.
35. "Analysis of 329,942 SARS-CoV-2 records retrieved from GISAID database," published on October 26, 2021 in *Computers in Biology and Medicine*; retracted on April 20, 2022.
36. "Analysis of Conocurvone, Ganoderic acid A and Oleuropein molecules against the main protease molecule of COVID-19 by in silico approaches: Molecular dynamics docking studies," published on February 27, 2023 in *Engineering Analysis with Boundary Elements*; retracted on August 16, 2023.
37. "Analysis of Ten Microsecond simulation data of SARS-CoV-2 dimeric main protease," preprint posted on *bioRxiv*, April 12, 2020, withdrawn April 16, 2020.
38. "Analysis of thin-section CT in patients with coronavirus disease (COVID-19) after hospital discharge," published on May 15, 2020 in *Clinical Imaging*; retraction date/reason is unknown.
39. "Analysis of Urban Residents' Consumption Behavior and Influencing Factors of Ecological Agricultural Products in the Post-Pandemic Era of COVID-19," published on May 14, 2022 in *Applied Bionics and Biomechanics*; retracted on November 21, 2022.
40. "Antiviral treatment could not provide clinical benefit in management of mild COVID-19: A Retrospective Experience from Field hospital," published on July 31, 2021 in the *Journal of Infection and Public Health*; unknown date of retraction.

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41. "Application of embedded computer and improved genetic algorithm in the strategy of community of human destiny: the development of artificial intelligence in the context of Covid-19," published on April 9, 2021 in the *Journal of Ambient Intelligence and Humanized Computing*; retracted on October 30, 2022.
42. "Assessing the Dissemination of COVID-19 Articles Across Social Media With Altmetric and PlumX Metrics: Correlational Study," published on June 13, 2020 as a preprint, and January 14, 2021 as an article in the *Journal of Medical Internet Research*; retracted on July 29, 2022.
43. "Assessment of COVID-19 pandemic effects on ship pollutant emissions in major international seaports," published on October 23, 2021 in *Environmental Research*; retraction date/reason is unknown.
44. "Association of Initial Viral Load in Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) Patients with Outcome and Symptoms," published on July 7, 2020 in *The American Journal of Pathology*; retraction date is unknown. Retracted as a duplicate publication by journal error.
45. "Atorvastatin versus Placebo in ICU Patients with COVID-19: Ninety-day Results of the INSPIRATION-S Trial," published on March 21, 2023 in *Thrombosis and Haemostasis*; temporarily retracted on unknown date.
46. "Autopsy and Histologic Findings of Patients with New Coronavirus Pneumonia: The Pathologic Associations with Hypoxemia," published on February 13, 2020 in *Medical Science Monitor*; retracted on March 17, 2021.
47. "Ayurvedic management of moderate COVID-19 infection: A case report," published on October 16, 2020 in the Journal of Ayurveda Case Reports; retracted on January 18, 2021.
48. "Basic Demographic Parameters Help Predict Outcomes in Patients Hospitalized With COVID-19 During the First Wave of Infection in West Texas," published on November 2, 2020 in the *Journal of Primary Care & Community Health*; retracted on July 16, 2021.
49. "Because if I don't hold his hand then I might as well not be there": Experiences of Dutch and UK care home visiting during the COVID-19 pandemic," published on September 17, 2021 in the Journal of the American Medical Directors Association; unknown date of retraction.
50. "Biopsychosocial intersections of social/affective touch and psychiatry: implications of 'touch hunger' during COVID-19," published February 24, 2021 in the *International Journal of Social Psychiatry*; retracted on November 26, 2021. See our coverage here.
51. "Calcifediol Treatment and COVID-19-Related Outcomes," preprint posted to *Preprints with The Lancet* on January 22 and removed on February 19. Our coverage here.
52. "Can quantitative RT-PCR for SARS-coV-2 help in better management of patients and control of coronavirus disease 2019 pandemic," published on November 16, 2020 in *Indian Journal of Medical Microbiology*; unknown date of retraction.
53. "Can Traditional Chinese Medicine provide insights into controlling the COVID-19 pandemic: Serpentinization-induced lithospheric long-wavelength magnetic anomalies in Proterozoic bedrocks in a weakened geomagnetic field mediate the aberrant transformation of biogenic molecules in COVID-19 via magnetic catalysis," published in *Science of the Total Environment* on October 8, 2020, "temporary removal" on November 5, 2020; subsequently retracted on an unknown date. Our coverage here.
54. "Can Your AI Differentiate Cats from Covid-19? Sample Efficient Uncertainty Estimation for Deep Learning Safety," reportedly to be presented at the *ICML 2020 Workshop on Uncertainty and Robustness in Deep Learning* in July, 2020, removed sometime before June 17, 2020. *Improbable Research* discusses it here.
55. "Cardiovascular Disease, Drug Therapy, and Mortality in Covid-19," published in the *New England Journal of Medicine* on May 1, 2020, subjected to an expression of concern on June 2, 2020 and retracted on June 4.
56. "Characteristics and risk factors for COVID-19 diagnosis and adverse outcomes in Mexico: an analysis of 89,756 laboratory-confirmed COVID-19 cases," published in the *European Respiratory Journal* on July 31, 2020, and retracted on March 4, 2021.
57. "Changes in depression and suicidal ideation under severe lockdown restrictions during the first wave of the COVID-19 pandemic in Spain: a longitudinal study in the general population," published on June 2, 2021 in *Epidemiology and Psychiatric Sciences*; retracted on March 13, 2023.
58. "Characterization of all small RNAs in and comparisons across cultured megakaryocytes and platelets of healthy individuals and COVID-19 patients," published on August 7, 2023 in the *Journal of Thrombosis and Haemostasis*; temporary removal on unknown date.
59. "Chinese medical personnel after the COVID-19 pandemic," published on March 25, 2023 in the Lancet; retracted on March 31, 2023.
60. "Chinese medical staff request international medical assistance in fighting against COVID-19," letter in *The Lancet* published February 24, 2020 and retracted February 26, 2020. More context here.
61. "Chinese mental health burden during the COVID-19 pandemic," published on April 14, 2020 in the *Asian Journal of Psychiatry*; EOC issued September 3, 2020; retracted on November 4, 2020. Our coverage here.
62. "Chinese nationalism during the COVID-19 pandemic: Conciliatory and confrontational discourses," published on January 4, 2022, in *Nations and Nationalism*; retracted on unknown date.
63. "Chloroquine or hydroxychloroquine for COVID-19: why might they be hazardous?" published in *The Lancet* on May 22, 2020, retracted and replaced July 9, 2020. Our coverage here.
64. "Clinical and CT imaging features of 2019 novel coronavirus disease (COVID-19)," published on March 3, 2020 in the *Journal of Infection*; unknown dates for retraction and reinstatement. Retracted and reinstated.
65. "Clinical and Epidemiological Characteristics of 34 Children With 2019 Novel Coronavirus Infection in Shenzhen," published in *Zhonghua Er Ke Za Zhi* on February 17, 2020, date of retraction unknown.
66. "Clinical and Scientific Rationale for the "MATH+" Hospital Treatment Protocol for COVID-19," published on December 15, 2020 in the *Journal of Intensive Care Medicine*; retracted on October 9, 2021. See our coverage here.
67. "Clinical Characteristics and Blood Test Results in COVID-19 Patients," published on May 1, 2020 in the *Annals of Clinical & Laboratory Science*; retracted on July 1, 2020.
68. "Clinical characteristics and outcomes of patients with COVID-19 pneumonia admitted to an intensive care unit in Faisalabad, Pakistan," published on March 17, 2021 in the *International Journal of Clinical Practice*; retracted on October 12, 2021.
69. "Clinical Characteristics and Risk Factors Associated with Severe Disease Progression among COVID-19 Patients in Wad Medani Isolation Centers: A Multicenter Retrospective Cross-Sectional Study," published on February 28, 2022 in *Health Science Reports*; retracted on Augut 24, 2023.
70. "Clinical Characteristics and Risk Factors for Myocardial Injury and Arrhythmia in COVID-19 patients," preprint posted on December 3, 2020 in *medRxiv*; retracted on August 3, 2021.
71. "Clinical characteristics of skin manifestations in the new coronavirus infection COVID-19 caused by SARS-CoV-2," published on May 12, 2020 in *Clinical Dermatology and Venerology*; retracted on July 22, 2021.
72. "Clinical manifestations and outcome of SARS-CoV-2 infection during pregnancy," published on March 5, 2020 in *Journal of Infection*; unknown date of retraction. Hat tip.
73. "Clinical sequelae of the novel coronavirus: does COVID-19 infection predispose patients to cancer?", published in *Future Oncology* in May 2020, retracted for plagiarism in December 2020. Our coverage here.
74. "Combined effects of inflammation and coronavirus disease 2019 (COVID-19) on the risks of anxiety and depression: a cross-sectional study based on UK Biobank," published on April 13, 2023 in the *Journal of Medical Virology*; retracted on July 14, 2023.
75. "Comment on an article: 'Osteoporosis in the age of COVID-19 patients'," published on January 21, 2021 in Osteoporosis International; retracted on July 14, 2021.
76. "Community pharmacists: On the frontline of health service against COVID-19 in LMICs," published on April 19, 2020 in *Research in Social and Administrative Pharmacy*; retraction date is unknown. Retracted as a duplicate publication by journal error.
77. "Comparison of the Performance of Various Scores in Predicting Mortality Among Patients Hospitalized With COVID-19," published on December 27, 2021 in the journal Cureus; retracted on March 17, 2022.
78. "Complete Heart Block, Severe Ventricular Dysfunction and Myocardial Inflammation in a Child with COVID-19 Infection," published on May 27, 2020 in JACC: Case Reports; retraction date is unknown. Retracted as a duplicate publication by journal error.
79. "Computational analysis suggests putative intermediate animal hosts of the SARS-CoV-2," preprint posted on *bioRxiv* on April 5, 2020, withdrawn April 20, 2020.
80. "Convalescent plasma therapy in COVID 19: Every dark cloud has a silver lining," published on October 16, 2020 in *Journal of Anaesthesiology Clinical Pharmacology*; retracted January 18, 2021.
81. "Convalescent Plasma, an Apheresis Research Project Targeting and Motivating the Fully Recovered COVID 19 Patients: A Rousing Message of Clinical Benefit To Both Donors and Recipients Alike," published on April 22, 2020 in *Transfusion and Apheresis Science*; unknown date of retraction for duplicate publication by journal error.
82. "Coronavirus disease 2019 in a 2-month-old male infant: a case report from Iran," published on September 21, 2020 in the *Clinical and Experimental Pediatrics*; retracted on July 19, 2022.
83. "Coronavirus herd immunity optimizer to solve classification problems," published on March 15, 2022 in *Soft Computing*; retracted on May 22, 2023.
84. "Corona Virus Killed by Sound Vibrations Produced by Thali or Ghanti: A Potential Hypothesis," published in March-August 2020 issue of *Journal of Molecular Pharmaceuticals and Regulatory Affairs*; date of retraction unknown.
85. "Coronary arteries and aortic valve calcifications in COVID-19," published on January 23, 2022 in *Emergency Radiology*; retracted on March 18, 2022.
86. "Coronavirus disease-2019: A brief compilation of facts," published on May 8, 2020 in the *Journal of Oral and Maxillofacial Pathology*; retracted in the May-August 2020 issue.
87. "Countering fake news in the COVID-19 era: The public's opinion on the role of an honest and reliable website," published on November 17, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
88. "COVID 19 response: An analysis of teachers' perception on pedagogical successes and challenges of digital teaching practice during new normal," published on April 18, 2021 in *Education and Information Technologies*; retracted on August 9, 2021.

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89. "Covid and Biologics," published on September 11, 2020 in the *Journal of the American Academy of Dermatology*; date of retraction is unknown. Retracted as a duplicate publication by journal error.
90. "COVID-19 admissions calculators – Revisited," published on April 25, 2020 in Early Human Development; retracted on June 23, 2021. See our related coverage here.
91. "COVID-19 admissions calculators: General population and paediatric cohort," published on April 10, 2020 *in Early Human Development*; retracted on June 17, 2021. See our related coverage here.
92. "COVID-19 and cognitive impairment: A cross-sectional clinic-based study," published on February 22, 2022 in *Brain and Behavior*; retracted on August 4, 2023.
93. "COVID-19 and potential global mortality – Revisited," published on April 30, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
94. "COVID-19 and the scaled-down 2020 Hajj Pilgrimage – Decisive, logical and prudent decision making by Saudi authorities overcomes pre-Hajj public health concerns," published on August 8, 2020 in the *International Journal of Infectious Diseases*; date of retraction is unknown. Retracted as a duplicate publication by journal error.
95. "COVID-19 as an "infodemic" in public health: Critical role of the social media," published on March 18, 2021 in *Frontiers in Public Health*; retracted on December 23, 2022.
96. "COVID-19 Emergency Responders in FDA's Center for Drug Evaluation and Research," published sometime after April 6, 2020 in *Journal of the American Pharmacists Association*, date of retraction unknown.
97. "COVID-19 in Africa and collateral effects on health systems and their immunization programs," published on October 9, 2020 in *Vaccine*; retraction date is unknown.
98. "COVID-19 is ageist, sexist, ruthless, dispassionate and opportunistic – Protecting our vulnerable," published on October 1, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
99. "COVID-19 lockdown impact on CERN seismic station ambient noise levels," published on March 2, 2022 in *Open Engineering*; retracted on July 12, 2022 due to duplicate publication by journal error.
100. "COVID-19 mortality and its predictors in the elderly: A systematic review," published on May 23, 2022 in *Health Science Reports*; corrected on July 21, 2022 and retracted on July 25, 2023.
101. "COVID-19 pandemic and unemployment rate: A hybrid unemployment rate prediction approach for developed and developing countries of Asia," published on May 19, 2021 in Soft Computing; retracted on December 1, 2022.
102. "COVID-19 pandemic planning, response, and lessons learned at a community hospital," published on September 3, 2022 in the American Journal of Health-System Pharmacy; retracted on September 30, 2022 due to duplicate publication by publisher error.
103. "COVID-19 related acute decline in paediatric admissions in Malta, a population-based study," published on November 12, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
104. "COVID-19, its novel vaccination and fake news – What a brew," published on November 12, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
105. "COVID-19, Suicide, and Femicide: rapid research using Google Search," published on January 22, 2021 in *The Journal of General Psychology*; retracted on May 19, 2021. See our coverage here.
106. "COVID-19: A global and continental overview of the second wave and its (relatively) attenuated case fatality ratio," published on October 3, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
107. "COVID-19: Combined supply-side and demand-side shocks, so lift restrictions (carefully) lest GPD declines ultimately kill more than COVID-19," published on October 1, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
108. "COVID-19: Mathematical estimation of delay to deaths in relation to upsurges in positive rates," published on October 1, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
109. "Covid -19: Should sexual practices be discouraged during the pandemic?" Journal of the American Academy of Dermatology, publication date unknown (accepted April 16), retracted on or around May 11, and replaced on an unknown date. Retracted and reinstated. Our coverage here.
110. "COVID-19: The possible seasonal shape of things to come," published on November 12, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
111. "CoVITris2020 and ChloViD2020: a striking new hope in COVID-19 therapy," published on January 3, 2021 in *Molecular Diversity*; retracted on September 3, 2022.
112. "'Crisis Within the Walls': Rise of Intimate Partner Violence During the Pandemic, Indian Perspectives," published on May 28, 2021 in *Frontiers in Global Women's Health*; retracted on January 9, 2023.
113. "Critical thinking cultivation in Chinese learning classes for International students during the COVID-19 pandemic," published on May 10, 2021 in the journal *Thinking Skills and Creativity*; retracted on June 22, 2022.
114. "Cuentos Lunares: Poems and Flash Fiction That Save Lives — A Euromelanoma Project During the COVID-19 Pandemic," published on November 11, 2021 in Actas Dermo-Sifiliográficas; retracted on an unknown date due to publisher error causing a duplicate publication.
115. "Decrease in Hospitalizations for COVID-19 after Mask Mandates in 1083 U.S. Counties," *medRxiv* preprint posted on October 23, 2020 and withdrawn on November 4, 2020.
116. "Deep learning system to screen coronavirus disease 2019 pneumonia," published on April 22, 2020 in *Applied Intelligence*; date of retraction is unknown.
117. "Dependence of emotional burnout on personality typology in the COVID-19 pandemic," published on November 26, 2021 in the journal *Work*; retracted on October 14, 2022.
118. "Describing the unvaccinated as the main driver of the current COVID-19 situation in Germany should not be based on analyzing pre-pandemic patterns of contacts," published on December 13, 2021 in *The Lancet Regional Health – Europe*; retracted on January 10, 2022.
119. "Detecting Subacute Thyroiditis after COVID-19 infection using Deep Learning Techniques – A Case Study," published on April 23, 2021 in the *Journal of Physics: Conference Series*; retracted on December 21, 2021.
120. "Determinants of COVID-19 incidence and mortality: A cross-country analysis," preprint posted on June 12, 2020 in medRxiv; retracted on June 19, 2020.
121. "Discovery of (E)-N-(4-cyanobenzylidene)-6-fluoro-3-hydroxypyrazine-2-carboxamide (cyanorona-20): the first potent and specific anti-COVID-19 drug," published on May 16, 2021 in *Chemical Papers*; retracted on June 4, 2022.
122. "Distance learning impact on the English language teaching during COVID-19," published on May 27, 2021 in *Education and Information Technologies*; retracted on August 23, 2022.
123. "Does China Pakistan Economic Corridor become an avenue to achieve sustainable development goal no. 2 (food security) in Pakistan: Under the condition of COVID-19?," published on January 6, 2023 in *PLoS ONE*; corrected on March 1, 2023 and retracted on April 4, 2023.
124. "Does stock market development and COVID-19 pandemic lead to financial crisis: the case of largest Islamic stock exchange market?," published on March 12, 2021 in the *Journal of Sustainable Finance & Investment*; retracted on February 17, 2023.
125. "Dyslipidemia Increases the Risk of Severe COVID-19: A Systematic Review, Meta-analysis, and Meta-regression," published on February 8, 2021 in *Journal of Clinical and Experimental Hepatology*; retracted on unknown date.
126. "Early Release Estimates for SARS-CoV-2 Prevalence and Antibody Response Interim Weighting for Probability-Based Sample Surveys," preprint posted on September 18, 2020 in *medRxiv*; retracted on October 8, 2020.
127. "Economic and social implications of the spread of Corona virus on the Saudi Community and the scientific and practical solutions to reduce and limit them," published on March 29, 2021 in the *Journal of Sustainable Finance & Investment*; retracted on February 17, 2023.
128. "Ecuadorian university English teachers' reflections on emergency remote teaching during the COVID-19 pandemic," published on April 30, 2022 in *SN Social Sciences*; retracted on July 20, 2022.
129. "Effect of relative humidity and wind on the human sneezing to prevent virus transmission: A numerical approach," published on October 11, 2021 in *Aerosol Science and Technology*; retracted on June 13, 2022.
130. "Effectiveness of Surgical and Cotton Masks in Blocking SARS–CoV-2: A Controlled Comparison in 4 Patients," published on April 6, 2020 in the *Annals of Internal Medicine*, retracted on June 1, 2020.
131. "Effectiveness of ZYESAMI™ (Aviptadil) in accelerating recovery and shortening hospitalization in critically-ill patients with COVID-19 Respiratory Failure: interim report from a phase 2b/3 multicenter trial," published on February 27, 2021 in *SSRN*, removed without notice on an unknown date.
132. "Effects of a Single Dose of Ivermectin on Viral and Clinical Outcomes in Asymptomatic SARS-CoV-2 Infected Subjects: A Pilot Clinical Trial in Lebanon," published on May 26, 2021 in *Viruses*; retracted on October 26, 2021. See our coverage here.
133. "Effects of the COVID-19 Pandemic on Stroke Patients," published on August 24, 2020 in *Cureus*; retracted on January 13, 2021.
134. "Efficacy and safety of acupuncture therapy for asymptomatic infection of COVID-19: A protocol for systematic review and meta-analysis'" published on October 9, 2020 in *Medicine*; retracted on March 12, 2021.
135. "Efficacy and safety of acupuncture therapy for COVID-19: A protocol for systematic review and meta-analysis," published on May 29, 2020 in Medicine; retracted on March 12, 2021.
136. "Efficacy and Safety of Ayurveda Intervention (AYUSH 64) as add-on therapy for patients with COVID-19 infections – An open labelled, Parallel Group, Randomized controlled clinical trial," preprint posted on August 17, 2021 in *medRxiv*; retracted on September 27, 2021.
137. "Efficacy and Safety of Ivermectin for Treatment and prophylaxis of COVID-19 Pandemic," preprint posted on *ResearchSquare* on November 13, 2020, withdrawn (along with its two revisions) on July 14, 2021. More information here.

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138. "Efficacy of combined Sofosbuvir and Daclatasvir in the treatment of COVID-19 patients with pneumonia: a multicenter Egyptian study," published on July 6, 2021 in *Expert Review of Anti-infective Therapy*; retracted on August 24, 2022.
139. "Efficacy of favipiravir in COVID-19 treatment: a multi-center randomized study," published on January 25, 2021 in *Archives of Virology*; EOC issued January 25, 2021; retracted on November 22, 2021. See our coverage here.
140. "Elevated histamine etiology model for most major vaccine associated adverse events including SARS-CoV-2 spike vaccines," published on June 8, 2022 in the journal Medical Hypotheses; retracted on unknown date.
141. "Emergency Preparedness and COVID-19: A Review of AWWA Policy Statements and Guidance," published on August 4, 2020 in *Opflow*. Retracted on December 4, 2020.
142. "Emotional Burden Associated with COVID-19: Trust and Communication in Cancer Care," published in *Cancer Investigation* on November 4, 2020. Retracted on March 12, 2021 as a duplicate publication by journal error.
143. "Enhanced bat algorithm for COVID-19 short-term forecasting using optimized LSTM," published on August 11, 2021 in *Soft Computing*; retracted on May 22, 2023.
144. "Epidemiological and clinical features of the 2019 novel coronavirus outbreak in China," *medRxiv* preprint posted on February 11, 2020 and withdrawn February 21, 2020. More context here.
145. "Epidemiological Features of COVID-19 in Makkah City: A Retrospective Data Analysis," published on February 24, 2022 in *Computational and Mathematical Methods in Medicine*; retracted on February 5, 2023.
146. "Errors of Interpretation – correcting the record on the comparative efficacy of surgical masks versus respirators," published on December 15, 2022 in *Clinical Infectious Diseases*; retracted on January 17, 2023.
147. "Evaluating the Clinical Outcomes of Remdesivir Among Patients Admitted With COVID-19 in a Tertiary Care Hospital," published on November 11, 2021 in the journal *Cureus*; retracted on March 17, 2022.
148. "Evaluating the effects of air disinfectants in decontamination of COVID-19 aerosols," published on January 10, 2023 in *Health Science Reports*; retracted on July 25, 2023.
149. "Evaluation of rapid antibody test and chest computed tomography results of COVID-19 patients: A retrospective study," preprint posted on February 20, 2021 in *medRxiv*; retracted on July 19, 2021.
150. "Evolving deep convolutional neutral network by hybrid sine–cosine and extreme learning machine for real-time COVID19 diagnosis from X-ray images," published on May 10, 2021 in *Soft Computing*; retracted on May 29, 2023.
151. "Experience on radiological examinations and infection prevention for COVID-19 in radiology department," published on March 31, 2020 in *Radiology of Infectious Diseases*; date of retraction is unknown.
152. "Experimental Treatment with Favipiravir for COVID-19: An Open-Label Control Study," published in *Engineering* on March 18, 2020 and temporarily retracted, now back online, all without explanation. Retracted and reinstated.
153. "Exploring the potential effect of COVID-19 on an endangered great ape," published on October 21, 2021 in *Scientific Reports*; retracted on January 25, 2022. See our coverage here.
154. "Expression of SARS-CoV-2 Spike Protein Receptor Binding Domain on Recombinant B. subtilis on Spore Surface: A Potential COVID-19 Oral Vaccine Candidate," published on December 21, 2021 in *Vaccines*; retracted on November 1, 2002.
155. "Facemasks in the COVID-19 era: A health hypothesis," published on November 22, 2020 in *Medical Hypotheses*; retracted on or about May 3, 2021. Our coverage here.
156. "Factores de riesgo de lesión renal aguda en adultos con covid-19," published on October 1, 2021 in *Nefrología*; retracted on unknown date.
157. "Factors associated with insomnia among frontline nurses during COVID-19: a cross-sectional survey study," published on January 17, 2022 in *BMC Psychiatry*; retracted on July 25, 2022.
158. "Family planning in COVID-19 times: access for all," published on May 18, 2021 in *The Lancet Global Health*; retracted on June 28, 2021.
159. "Fatal Outcomes from COVID-19 in Diabetes Patients and Its Management: Impact of Diabetes and Other Comorbidities in COVID-19," published on August 20, 2021 in *Current Diabetes Reviews*; unknown date of retraction.
160. "Feature selection for diagnose coronavirus (COVID-19) disease by neural network and Caledonian crow learning algorithm," published on February 7, 2022 in *Applied Nanoscience*; retracted on December 4, 2022.
161. "Filter clotting, anticoagulation and duration of sled in patients with COVID-19 and acute kidney injury," (Abstract 112 and Abstract 643) published on February 1, 2021 in the *Journal of Investigative Medicine*, retracted on April 1, 2021.
162. "Financial reporting quality in pandemic era: case analysis of Vietnamese enterprises," published on March 30, 2021 in the *Journal of Sustainable Finance & Investment*; retracted on February 17, 2023.
163. "First COVID-19 suicide case in Bangladesh due to fear of COVID-19 and xenophobia: Possible suicide prevention strategies," published on April 7, 2020 in the *Asian Journal of Psychiatry*; temporary removal on unknown date, reinstated on unknown date. See our coverage here.
164. "First viral replication of Covid-19 identified in the peritoneal dialysis fluid," published in *Bulletin de la Dialyse à Domicile* on April 13, 2020, retracted on April 20, 2020. Our coverage here.
165. "Forensic case-work analysis and legal challenges during pandemic: An update from Pakistan," published in *Legal Medicine* in October 2020, retracted at an unclear date.
166. "From SARS-CoV to Wuhan 2019-nCoV Outbreak: Similarity of Early Epidemic and Prediction of Future Trends," preprint posted on *bioRxiv* on January 25, 2020, withdrawn on January 28, 2020.
167. "Genetic diversity of Mycobacterium tuberculosis isolates from northwest of Iran during Covid-19 era," published on February 22, 2022 in *Gene Reports*; retracted on unknown date (prior to 6/7/2022).
168. "Genome-wide variations of SARS-CoV-2 infer evolution relationship and transmission route," preprint posted on May 3, 2020 in *medRxiv*; retracted on May 8, 2020.
169. "Glucocorticoids Should Be Used With Caution in Patients With SARS-CoV-2," published on February 24, 2021 in *Frontiers in Medicine*; retracted on May 31, 2022.
170. "Gradual emergence followed by exponential spread of the SARS-CoV-2 Omicron variant in Africa," published on December 1, 2022 in *Science*; retracted on December 20, 2022.
171. "GraphCovidNet: A graph neural network based model for detecting COVID-19 from CT scans and X-rays of chest," published on April 15, 2021 in *Scientific Reports*; retracted on November 30, 2021.
172. "Gut microbiota and COVID-19: A systematic review," published on January 23, 2023 in *Health Science Reports*; retracted on July 25, 2023.
173. "Heterogeneous Longitudinal Antibody Responses to Covid-19 mRNA Vaccination," published on October 7, 2021 in *Clinical Pathology*; retracted on May 9, 2022.
174. "Holidays over: A review of actual COVID-19 school outbreaks up to September 2020," published on October 1, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
175. "Homeopathy combat against coronavirus disease (Covid-19)," published on June 5, 2020 in the *Journal of Public Health* and retracted on August 3, 2020. See our coverage here and here.
176. "Hospital factors associated with SARS-CoV-2 infection among healthcare personnel in Greece," published in *The Journal of Hospital Infection* on October 22, 2020, "Temporary Removal" date not provided. Reinstated sometime after December 29, 2020.
177. "How Chemists Achieve Active Learning Online During the COVID-19 Pandemic: Using the Community of Inquiry (CoI) Framework to Support Remote Teaching," published on July 21, 2020 in the *Journal of Chemical Education*; retracted on February 14, 2023.
178. "How Has the COVID-19 Pandemic and Lockdown Affected Breslow Thickness in Cutaneous Melanoma," published on November 10, 2021 in *Actas Dermo-Sifiliográficas*; retracted on unknown date due to publisher error in duplicate publication.
179. "How perceived threat of Covid-19 causes turnover intention among Pakistani nurses: A moderation and mediation analysis," published on August 10, 2020 in the International *Journal of Mental Health Nursing*; unknown date of retraction – estimated to be February 1, 2021.
180. "Human Immunodeficiency Virus (HIV) and Outcomes from Coronavirus Disease 2019 (COVID-19) Pneumonia: A Meta-Analysis and Meta-Regression," published in *AIDS Research and Human Retroviruses* on January 27, 2021, retracted on June 1, 2021.
181. "Hybrid harmony search algorithm for social network contact tracing of COVID-19," published on June 28, 2021 in *Soft Computing*; retracted on May 29, 2023.
182. "Hybrid intelligent model for classifying chest X-ray images of COVID-19 patients using genetic algorithm and neutrosophic logic," published on August 18, 2021 in *Soft Computing*; retracted on May 22, 2023.
183. "Hydroxychloroquine in the Treatment of COVID-19: A Multicenter Randomized Controlled Study," published on August 14, 2020 in *The American Journal of Tropical Medicine and Hygiene*; EOC published October 11, 2021, retracted on September 2, 2022.
184. "Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis," published in *The Lancet* on May 22, 2020, subjected to an expression of concern on June 2, and retracted on June 4.
185. "Hydroxychloroquine plus azithromycin: a potential interest in reducing in-hospital morbidity due to COVID-19 pneumonia (HI-ZY-COVID)?" preprint posted on *medRxiv*, May 11, 2020, withdrawn on May 20, 2020. Our coverage here.
186. "Hydroxychloroquine: An Essential Drug in Dermatology and Its Controversial Use in COVID-19," published on November 26, 2021 in *Actas Dermo-Sifiliográficas*; retracted on unknown date from publisher error causing duplicate publication.
187. "Identify and measure the degree of over-prevention behaviors in the post-COVID-19 era in China," published on September 25, 2021 in *BMC Public Health*; retracted on December 10, 2021.

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188. "IgG4 related orbital/ophtalmic disease in COVID-19 after improving from critical pneumonia," published on June 30, 2022 in the *European Journal of Clinical and Experimental Medicine*; retracted on June 30, 2023.
189. "Impact of Covid-19 on Airbnb: evidence from Vietnam," published on March 2, 2021 in the *Journal of Sustainable Finance & Investment*; retracted on February 17, 2023.
190. "Impact of COVID-19 pandemic on franchise performance from franchisee perspectives: the role of entrepreneurial orientation, market orientation and franchisor support," published on March 5, 2021 in the *Journal of Sustainable Finance & Investment*; retracted on February 17, 2023.
191. "Impact of COVID-19 pandemic on vaccination coverage of children and adolescents: A systematic review," published on February 2, 2022 in *Health Science Reports*; retracted on July 26, 2023.
192. "Impact of COVID-19 pandemic on total market trade value (institutional investors vs non-institutional investors)," published on March 29, 2021 in the *Journal of Sustainable Finance & Investment*; retracted on February 17, 2023.
193. "Impact of daily high dose oral vitamin D therapy on the inflammatory markers in patients with COVID 19 disease," published on May 20, 2021 in *Scientific Reports* and corrected on August 30, 2021; retracted on April 20, 2022.
194. "Impact of lockdown and health anxiety during COVID 19 pandemic among inpatients of a psychiatric hospital: an observational study," published on November 10, 2020 in the *Asian Journal of Psychiatry*; unknown date of retraction.
195. "Impact of the COVID-19 Pandemic on Stroke Epidemiology and Clinical Stroke Practice in the US," published on January 26, 2021 in the Journal of Stroke and Cerebrovascular Diseases; retracted on July 10, 2021.
196. "Impact of the third wave of the COVID-19 pandemic and interventions to contain the virus on society and patients with kidney disease in Cambodia," published on October 9, 2021 in *Renal Replacement Therapy*; retracted on June 15, 2022.
197. "Impacts of social distancing on cancer care during COVID-19 pandemic: Hong Kong experience," published on June 29, 2020 in *Palliative & Supportive Care*; retracted on August 20, 2021.
198. "Implementation of a telemedicine service during COVID-19 pandemic in Pakistan," published on May 1, 2021 in the *International Journal of Clinical Practice*; retracted on October 12, 2021.
199. "Implications of Spike-glycoprotein processing at S1/S2 by Furin, at S2' by Furin and/or TMPRSS2 and shedding of ACE2: cell-to-cell fusion, cell entry and infectivity of SARS-CoV-2," preprint posted on in bioRxiv; retracted on July 15, 2021.
200. "Incidence and affecting factors of pulmonary diffusing capacity impairment with COVID-19 survivors 18 months after discharge in Wuhan, China," published on January 2, 2022 in the *Journal of Infection*; retracted on an unknown date for publisher error of duplicate publication.
201. "Incidence and mortality of COVID-19 in Iranian multiple sclerosis patients treated with disease-modifying theraples," published September 15, 2020 in *Revue Neurologique* and retracted on October 8, 2020.
202. "Increased nurses' anxiety disorder during the COVID-19 outbreak," published on April 10, 2022 in *Brain and Behavior*; retracted on August 24, 2023.
203. "India perspective: CNN-LSTM hybrid deep learning model-based COVID-19 prediction and current status of medical resource availability," published on November 19, 2021 in *Soft Computing*; retracted on May 22, 2023.
204. "Internet of Things Based Intelligent Transportation of Food Products During COVID," published on August 21, 2021 in *Wireless Personal Communications*; retracted on December 9, 2022.
205. "Internet of things in the management of chronic diseases during the COVID-19 pandemic: A systematic review," published on March 14, 2022 in *Health Science Reports*; retracted on July 26, 2023.
206. "Intersectionality and Inequalities in Medical Risk for Severe COVID-19 in the Canadian Longitudinal Study on Aging," published September 24, 2020 in *The Gerontologist*, retracted January 22, 2021.
207. "Intracranial Hemorrhage in COVID-19 Patients on ECMO: Challenges and Future Directions," published on June 6, 2020 in the *Journal of Cardiothoracic and Vascular Anesthesia*; retraction date is unknown.
208. "Introducing special cutaneous "sign" tribute to healthcare workers managing new coronavirus disease (Covid -19)," published on April 20, 2020 in *Clinics in Dermatology*; retracted on an unknown date as a duplicate publication by journal error.
209. "Investigation and analysis of cognitive function and psychological status in stroke patients with COVID-19," published on July 14, 2022 in the *Journal of Stroke and Cerebrovascular Diseases*; retracted on unknown date.
210. "IoT-Enabled Framework for Early Detection and Prediction of COVID-19 Suspects by Leveraging Machine Learning in Cloud," published on April 12, 2022 in the *Journal of Healthcare Engineering*; retracted on May 24, 2023.
211. "Is vitamin D deficiency associated with the COVID-19 epidemic in Europe," preprint posted on January 29, 2021 in *medRxiv*; retracted on March 6, 2021.
212. Ivermectin and the odds of hospitalization due to COVID-19: evidence from a quasi-experimental analysis based on a public intervention in Mexico City, preprint posted on May 4, 2021 in *OSF Preprints*; retracted on February 4, 2022. See our coverage here.
213. "Ivermectin in COVID-19 Related Critical Illness," preprint posted in April 2020 on *SSRN: Social Science Resource Network*, retracted sometime in May. Reporting from *The Scientist* here.
214. "Letter to editor in response to COVID-19: From bench to bedside by Singh A et al," published on June 12, 2020 in *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*. Retracted on September 11, 2020 as a duplicate publication by journal error.
215. "Listerial Meningitis and Brain Abscess With Coexisting COVID-19 Infection in a Young, Immunocompetent Male: A Case Report," published on September 22, 2022 in *Cureus*; retracted on June 5, 2023.
216. "Liver impairment associated with disease progression in COVID-19 patients," published April 15, 2020 in *Liver International* and retracted in August/September 2020.
217. "Long Covid: quantitative and qualitative analyses of online Long Haulers' experiences, emotions and practices in the UK," preprint posted on October 4, 2020 in *medRxiv*; retracted on November 16, 2020.
218. "Lung disease severity, Coronary Artery Calcium, Coronary inflammation and Mortality in Coronavirus Disease 2019." *medRxiv* preprint posted May 6, 2020 and withdrawn June 20, 2020.
219. "Lung ultrasound score in establishing the timing of intubation in COVID-19 interstitial pneumonia: A preliminary retrospective observational study," published in PLOS ONE on September 3, 2020; Expression of concern published in PLOS ONE on November 30, 2020; retracted December 31, 2020. Our coverage here.
220. "Malta tourism losses due to second wave of COVID-19," published on October 1, 2020 in *Early Human Development*; retracted sometime in March, 2021.
221. "Managing college operations during the coronavirus outbreak," published April 10, 2020 in *Journal of the American Pharmacists Association*, date of retraction unknown.
222. "Manufacturing Is Not as Usual: Lessons Learnt from COVID-19 Pandemic," published on November 2, 2021 in *ICEM 2020: Recent Advances in Industrial Production*; retracted on May 11, 2023.
223. "Measures of Adiposity and Risk of Testing Positive for SARS-CoV-2 in the UK Biobank Study," published on January 27, 2021 in the *Journal of Obesity*; retracted on March 18, 2022.
224. "Mechanical ventilation in COVID-19: Is it due to patient or virology factors," published on June 14, 2020 in the *Annals of Medicine and Surgery*; date of retraction is unknown.
225. "Medicine Distribution Robot and Human Less Intervention for Covid-19 Affected People (AKM MED ASSISTIVE BOT)," published on January 18, 2021 in *IOP Conference Series: Materials Science and Engineering*; retracted on July 26, 2023..
226. "MEGA: Machine Learning-Enhanced Graph Analytics for COVID-19 Infodemic Control," preprint posted on October 27, 2020 in *medRxiv*; retracted on July 8, 2021.
227. "Mental health burden for the public affected by the COVID-19 outbreak in China: Who will be the high-risk group?," published April 14, 2020 in *Psychology, Health & Medicine* and retracted on October 23, 2020. Our coverage here.
228. "Mental Health outcome and Professional quality of Life among Healthcare Worker during COVID-19 pandemic: A (FRONTLINE-COVID) survey," published January 6, 2021 in the *Annales Médico-psychologiques, revue psychiatrique*; unknown date of retraction.
229. "Mental health status and coping strategy of medical workers in China during The COVID-19 outbreak," preprint posted on *medRxiv* on February 25, 2020, withdrawn on March 7, 2020.
230. "Meta-analysis of Randomized Trials of Ivermectin to Treat SARS-CoV-2 Infection," published on July 6, 2021 in *Open Forum Infectious Diseases*; retracted on February 5, 2022; EoC published August 9, 2021. Our coverage here.
231. "Methylene blue photochemical treatment as a reliable SARS-CoV-2 plasma virus inactivation method for blood safety and convalescent plasma therapy for COVID-19," published on April 16, 2021 in *BMC Infectious Diseases*; EOC issued on May 6, 2021; retracted on July 9, 2021. Our coverage here.
232. "Microbiome-Based Hypothesis on Ivermectin's Mechanism in COVID-19: Ivermectin Feeds Bifidobacteria to Boost Immunity," published on July 11, 2022 in *Frontiers in Microbiology*; EOC issued on January 5, 2023; retracted on May 3, 2023.
233. "Modeling the dynamics of SARS-CoV-2 immunity waning, antigenic drifting, and population serology patterns," preprint posted on September 11, 2020 in *medRxiv*; retracted on October 11, 2020.
234. "Modeling the progression of COVID-19 deaths using Kalman Filter and AutoML," published on January 5, 2021 in *Soft Computing*; retracted on June 8, 2023.
235. "Moderating role of compassion in the link between fear of Coronavirus disease and mental health among undergraduate students," published on September 6, 2022 in Frontiers in Psychiatry; retracted on September 4, 2023.

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236. "Mortality of a pregnant patient diagnosed with COVID-19: A case report with clinical, radiological, and histopathological findings," published in *Travel Medicine and Infectious Disease* on April 11, 2020, retracted on May 2, 2020. Our coverage here.
237. "mRNA COVID-19 Vaccination and Development of CMR-confirmed Myopericarditis," preprint published on September 16, 2021 in *medRxiv*; retracted on September 24, 2021.
238. "mRNA Vaccines to Prevent COVID-19 Disease and Reported Allergic Reactions: Current Evidence and Approach," published December 31, 2020 in *The Journal of Allergy and Clinical Immunology: In Practice*. Temporary Removal published on unknown date; reinstated on unknown date.
239. "Mucormycosisco-infection in patients with COVID-19: A systematic review," published on February 28, 2022 in *Health Science Reports*; retracted on July 26, 2023.
240. "Needed: Less influenza vaccine hesitancy and less presenteeism among health care workers in the COVID-19 era," published on October 1, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
241. "Neurological manifestations of COVID-19: A potential gate to the determinants of a poor prognosis," published on April 25, 2022 in *Brain and Behavior*; retracted on August 4, 2023.
242. "Neutrophil/lymphocyte ratio—A marker of COVID-19 pneumonia severity," published on September 6, 2020 in the *International Journal of Clinical Practice*; retracted on October 12, 2021.
243. "No Deleterious Effect of Lockdown Due to COVID-19 Pandemic on Glycaemic Control, Measured by Glucose Monitoring, in Adults with Type 1 Diabetes," published on May 12, 2020 in *Diabetes Technology & Therapeutics*; retracted July 27, 2020. Our coverage here.
244. "Noninvasive versus invasive ventilation: one modality cannot fit all during COVID-19 outbreak," published on July 8, 2020 in the *Korean Journal of Anesthesiology*, retracted on September 14, 2020. Our coverage here.
245. "Noteworthy Neurological Manifestations Associated With COVID-19 Infection," published on July 3, 2020 in *Cureus*, retracted on March 5, 2021.
246. "Novel research opportunities: an unfortunate small silver lining to COVID-19," published on October 2, 2020 in *Early Human Development*; retracted on sometime in March, 2021. See our coverage here.
247. "Novel research opportunities 2: An unfortunate small silver lining to COVID-19," published on November 12, 2020 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
248. "Nurses reports of actual work hours and preferred work hours per shift among frontline nurses during coronavirus disease 2019 (COVID-19) epidemic: A cross-sectional survey," published on May 16, 2020 in the *International Journal of Nursing Studies*; date of retraction is unknown.
249. "Obesity and mortality of COVID-19. Meta-analysis," published on July 9, 2020 in *Obesity Research & Clinical Practice*, retracted February 6, 2021.
250. "One of COVID-19's many costs: Malta's expenditure in consumables and non-consumables, a population-based study," published on October 1, 2021 in *Early Human Development*; retracted sometime in March, 2021. See our coverage here.
251. "Online Language Teaching During Coronavirus," published in conference proceedings on August 19, 2021 in *ICIMTECH 21: The Sixth International Conference on Information Management and Technology*; retracted on August 24, 2022.
252. "Optimization model design of cross-border e-commerce transportation path under the background of prevention and control of COVID-19 pneumonia," published on March 5, 2021 in *Soft Computing*; retracted on December 27, 2022.
253. "Original Antigenic Sin in COVID-19: Hoskins Effect and Vaccine," published on March 17, 2022 in *Infectious Disorders -- Drug Targets*; retracted on unknown date.
254. "Our Elderly's Mental Health in Times of COVID-19," published January 2021 in the *Open Journal of Social Sciences*; retracted on January 20, 2021.
255. "Patterns of COVID-19 Mortality and Vitamin D: An Indonesian Study," preprint posted on April 30, 2020 in *SSRN: Social Science Resource Network*. Retraction date unknown. (Hat tip to HealthNerd)
256. "'People Will Continue to Suffer if the Virus is Around': A Qualitative Analysis of Sub-Saharan African Children's Experiences during the COVID-19 Pandemic," published on June 4, 2021 in *Health Psychology Research*; retracted on June 15, 2023.
257. "Personal respirators for population level control of the COVID19 pandemic," published on May 6, 2020 in the *Journal of Infection*; date of retraction is unknown. Retracted as a duplicate publication by journal error.
258. "Phenotype and outcomes of acute kidney injury associated with COVID-19," (Abstract 113 and Abstract 445) published on February 1, 2021 in the *Journal of Investigative Medicine*; retracted on April 1, 2021.
259. "Phylogenetic analyses of SARS-CoV-2 B.1.1.7 lineage suggest a single origin followed by multiple exportation events versus convergent evolution," preprint posted on January 13, 2021in *bioRxiv*; retracted on January 15, 2021.
260. "Phytotherapeutic options for the treatment of COVID-19: A concise viewpoint," published on August 20, 2020 in *Phytotherapy Research*; retracted on December 30, 2020.
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352. "Use of Post-Mortem Computed Tomography During the COVID-19 Pandemic: The Malaysian Experience," published on October 28, 2022 in *The Malaysian Journal of Medical Sciences*; retracted on January 18, 2023.
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355. "Vaccination of multiple sclerosis patients during the COVID-19 era: Novel insights into vaccine safety and immunogenicity," published on October 8, 2022 in *Multiple Sclerosis and Related Disorders*; retracted on unknown date.
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359. "Vitamin D Level of Mild and Severe Elderly Cases of COVID-19: A Preliminary Report," preprint posted on May 5, 2020 in *SSRN: Social Science Resource Network*; unknown date of retraction.
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364. "'Weighty woes': Impact of fat talk and social influences on body dissatisfaction among Indian women during the pandemic," published on February 4, 2021 in the *International Journal of Social Psychiatry*; retracted on November 26, 2021. See our coverage here.
365. "Welchen Corona-Experten können Ärzte vertrauen?" published on April 29, 2021 in *MMW – Fortschritte der Medizin*; retracted on September 23, 2021.
366. "Whole-Body Cryotherapy as an Innovative Treatment for COVID 19-Induced Anosmia-Hyposmia: A Feasibility Study," published on January 13, 2022 in the *Journal of Integrative and Complementary Medicine*; retracted on March 9, 2022.
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368. "Will the extraction of COVID-19 from wastewater help flatten the curve?" published on January 5, 2021 in *Chemosphere*; retracted on August 24, 2021. Our coverage here.
369. "Willingness to Accept COVID-19 Vaccine and Associated Factors Among Adult Household Members in Dire Dawa City Administration, East Ethiopia," published on November 1, 2022 in *Patient Preference and Adherence*; retracted on February 8, 2023.

Expressions of concern

1. "Common contributing factors to COVID-19 and inflammatory bowel disease," published on August 31, 2021 as part of a special issue in *Toxicology Reports*; EoC assigned to entire issue on December 17, 2021. See our coverage here.
2. "Complete Genome Sequence of a 2019 Novel Coronavirus (SARS-CoV-2) Strain Isolated in Nepal," published on March 20 in *Microbiology Resource Announcements*. EoC here.
3. "COVID-19 pandemic and alcohol consumption: Impacts and interconnections," published on August 31, 2021 as part of a special issue in *Toxicology Reports*; correction issued on September 2, 2021, EoC assigned to entire issue on December 17, 2021. See our coverage here.
4. "Detection of 2019 novel coronavirus (2019-nCoV) by real-time RT-PCR," published in Eurosurveillance in January 2020. Corrections published on April 8, 2020, July 30, 2020 (2 notices), February 4, 2021; EOC issued DEcember 3, 2020. Our coverage here.
5. "Emergence of NDM-producing Pseudomonas aeruginosa among hospitalized patients and impact on antimicrobial therapy during the coronavirus disease 2019 (COVID-19) pandemic," published on June 28, 2021 in Infection Control & Hospital Epidemiology; EOC issued on September 16, 2022;
6. "Humoral immune mechanisms involved in protective and pathological immunity during COVID-19," published on July 1, 2021 in *Human Immunology*; EOC issued on 4/8/2023.
7. "Hydroxychloroquine and azithromycin as a treatment of COVID-19: results of an open-label non-randomized clinical trial," published in *International Journal of Microbial Agents* on March 20, 2020. More context here and here.
8. "Improved strategies to counter the COVID-19 pandemic: Lockdowns vs. primary and community healthcare," published on August 31, 2021 as part of a special issue in *Toxicology Reports*; EoC assigned to entire issue on December 17, 2021. See our coverage here.
9. "Is online education more welcomed during COVID-19? An empirical study of social impact theory on online tutoring platforms," published on January 20, 2021 in *The International Journal of Electrical Engineering & Education*; EOC issued on December 15, 2021.
10. "Ivermectin for Prevention and Treatment of COVID-19 Infection: A Systematic Review, Meta-Analysis, and Trial Sequential Analysis to Inform Clinical Guidelines," published June 21, 2021 in the *American Journal of Therapeutics*; EoC published February 7, 2022. Our coverage here and here.
11. "Mrna COVID Vaccines Dramatically Increase Endothelial Inflammatory Markers and ACS Risk as Measured by the PULS Cardiac Test: a Warning (Abstract 10712)," published on November 8, 2021; EOC published November 24, 2021; Correction issued December 21, 2021. See our coverage here.

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12. "Review of the Emerging Evidence Demonstrating the Efficacy of Ivermectin in the Prophylaxis and Treatment of COVID-19," published on April 22, 2021 in the *American Journal of Therapeutics*; EoC published February 7, 2022. Our coverage here.
13. "Risk factors associated with COVID-19-induced death in patients hospitalized in intensive care units (ICUs) in a city in Southern Brazil," published on August 31, 2021 as part of a special issue in *Toxicology Reports*; EoC assigned to entire issue on December 17, 2021. See our coverage here.
14. "Safety of COVID-19 vaccines administered in the EU: Should we be concerned?," published on August 31, 2021 as part of a special issue in *Toxicology Reports*; correction issued on September 2, 2021, EoC assigned to entire issue on December 17, 2021. See our coverage here.
15. "The Comparative Analysis of Two RT-qPCR Kits for Detecting SARS-CoV-2 Reveals a Higher Risk of False-Negative Diagnosis in Samples with High Quantification Cycles for Viral and Internal Genes," published on July 5, 2022 in the *Canadian Journal of Infectious Diseases and Medical Microbiology*; EOC issued on January 19, 2023.
16. "The introduction of a mandatory mask policy was associated with significantly reduced COVID-19 cases in a major metropolitan city," published on July 21, 2021 in *PLoS One*; EOC issued on April 21, 2023.
17. "Unexpected detection of SARS-CoV-2 antibodies in the prepandemic period in Italy," published in Tumori on November 11, 2020, subject to an expression of concern on March 22, 2021. Expression of concern removed on June 30, 2021.
18. "Vitamin D sufficiency, a serum 25-hydroxyvitamin D at least 30 ng/mL reduced risk for adverse clinical outcomes in patients with COVID-19 infection," published in PLOS ONE on October 14, 2020. Our coverage here.

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Scientists Seek Retraction of Fauci-Endorsed COVID Paper, Citing 'Fraud,' 'Scientific Misconduct'

Wire Editor August 8, 2023

(Jon Miltimore, FEE) A growing number of people, including prominent scientists, are calling for a full retraction of a high-profile study published in the journal *Nature* in March 2020 that explored the origins of SARS-CoV-2.

The paper, whose authors included immunology and microbiology professor Kristian G. Andersen, declared that evidence clearly showed that SARS-CoV-2 did not originate from a laboratory.
"Our analyses clearly show that SARS-CoV-2 is not a laboratory construct or a purposefully manipulated virus," the authors wrote in February.

Yet a trove of recently published documents reveal that Andersen and his co-authors believed that the lab leak scenario was not just possible, but likely.

"[The] main thing still in my mind is that the lab escape version of this is so friggin' likely to have happened because they were already doing this type of work and the molecular data is fully consistent with that scenario," Andersen said to his colleagues, according to a report from *Public*, which published a series of Slack messages between the authors.

Anderson was not the only author who privately expressed doubts that the virus had natural origins. *Public* cataloged dozens of statements from Andersen and his co-authors—Andrew Rambaut, W. Ian Lipkin, Edward C. Holmes, and Robert F. Garry—between the dates January 31 and February 28, 2020 suggesting that SARS-CoV-2 may have been engineered.

" ...the fact that we are discussing this shows how plausible it is," Garry said of the lab-leak hypothesis.
"We unfortunately can't refute the lab leak hypothesis," Andersen said on Feb. 20, several days *after* the authors published their pre-print.

To complicate matters further, new reporting from *The Intercept* reveals that Anderson had an $8.9 million grant with NIH pending final approval from Dr. Anthony Fauci when the Proximal Origin paper was submitted.

'Fraud and Scientific Misconduct'?

The findings have led several prominent figures to accuse the authors of outright deception.
Richard H. Ebright, the Board of Governors Professor of Chemistry and Chemical Biology at Rutgers University, called the paper "scientific fraud."

"The 2020 'Proximal Origin' paper falsely claimed science showed COVID-19 did not have a lab origin," tweeted Ebright. "Newly released messages from the authors show they did not believe the conclusions of the paper and show the paper is the product of scientific fraud and scientific misconduct."

Ebright and Silver are among those pushing a petition urging *Nature* to retract the article in light of these findings.

Among those to sign the petition was Neil Harrison, a professor of anesthesiology and molecular pharmacology at Columbia University.

"Virologists and their allies have produced a number of papers that purport to show that the virus was of natural origin and that the pandemic began at the Huanan seafood market," Harrison told *The Telegraph*. "In fact there is no evidence for either of these conclusions, and the email and Slack messages among the authors show that they knew at the time that this was the case."
Only 'Expressing Opinions'?

Dr. Joao Monteiro, chief editor of *Nature*, has rebuffed calls for a retraction, *The Telegraph* notes, saying the authors were merely "expressing opinions."

This claim is dubious at best. From the beginning, the Proximal Origin study was presented as authoritative and scientific. Jeremy Farrar, a British medical researcher and now the chief scientist at the World Health Organization, told *USA Today* that Proximal Origin was the "most important research on the genomic epidemiology of the origins of this virus to date."

Dr. Anthony Fauci, speaking from the White House podium in April 2020, cited the study as evidence that the mutations of the virus were "totally consistent with a jump from a species of an animal to a human." Fact-check organizations were soon citing the study as proof that COVID-19 "could not have been manipulated."

Far from being presented as a handful of scientists "expressing opinions," the Proximal Origin study was treated as gospel, a dogma that could not even be questioned. This allowed social media companies (working hand-in-hand with government agencies) to censor people who publicly stated what Andersen and his colleagues were saying privately—that it seemed plausible that SARS-CoV-2 came from the laboratory in Wuhan that experimented on coronaviruses and had a checkered safety record.

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Indeed, even as media and government officials used the Proximal Origin study to smear people as conspiracy theorists for speculating that COVID-19 might have emerged from the Wuhan lab, a Defense Intelligence Agency study commissioned by the government questioned the study's scientific rigor.
"The arguments that Andersen et al. use to support a natural-origin scenario for SARS CoV-2 are based not on scientific analysis, but on unwarranted assumptions," the now-declassified paper concluded. "In fact, the features of SARS-CoV-2 noted by Andersen et al. are consistent with another scenario: that SARS-CoV-2 was developed in a laboratory..."

Despite the many problems with the study's findings, Monteiro continues to resist calls for retraction—perhaps because Monteiro himself publicly inferred that the lab leak hypothesis was a conspiracy theory in March, 2020.

Whatever the case, it remains unclear how long Monteiro can resist calls for a retraction in face of overwhelming evidence of scientific misconduct.

"There can be no doubt the Proximal Origin authors consciously and inappropriately downplayed the #COVID19 research-related origin hypothesis and coordinated efforts manipulating media coverage," said Jamie Metzl, a former Clinton administration official and a WHO expert advisory committee on human genome editing appointee.

Power, Accountability, and Impunity

Why there was such intense pressure to declare that SARS-CoV-2 was of natural origin is obvious today.
The federal government was funding risky coronavirus research at Wuhan Institute of Virology, which would make officials complicit to some degree in a leak of a deadly virus. This is no doubt why the government had an interest in funding the study, which gave them a measure of control over its results.

"Jeremy Farrar and Francis Collins [then director of the National Institutes of Health] are very happy. Works for me," Holmes Slacked his colleagues after the pre-print was submitted.

The Proximal Origin paper increasingly looks like a whitewashing job, and some influential people have noticed.

"This is a huge scandal," said statistician and FiveThirtyEight founder Nate Silver. "Scientists like @K_G_Andersen believed a lab leak was extremely plausible, if not likely, they concocted a plan to deceive the public about it, and they've been caught red-handed."

Silver is not wrong; yet so far, no one has been held accountable.

This lack of accountability is concerning, and to understand why it's worth consulting age-old concepts of power and justice. As FEE's Dan Sanchez has observed, power is not the mere exertion of unjust force. **True power lies in the use of force and the absence of any accountability.**

"Systematically getting away with it—or impunity—is where power truly lies," wrote Sanchez.

In his famous work *Republic*, Plato showed what raw power looked like. The legendary "Ring of Gyges" did not make one strong. It made one *invisible*. This did not mean the wearer could do anything he wanted, but it did mean he would never be held accountable for his acts of injustice.

This is the most frightening part of raw state power. **The greatest danger is not that people will act unethically. It's not even that state actors will commit crimes to serve "a greater good." The real danger begins when people are not held accountable—even when they are caught "red-handed."**

22-1

Fauci, Collins Bagged 58 Royalty Payments Amid $325 Million Collected By NIH

AUG 10, 2023

The two longtime directors of the National Institutes of Health and its National Institute of Allergy and Infectious Diseases, **Francis Collins and Anthony Fauci received 58 royalty payments** from companies to license and deploy their products using taxpayer dollars, according to a new release from *OpenTheBooks*.

On Wednesday, the organization published more than 1500 pages of unredacted records revealing which companies were involved, and which NIH scientists were paid for inventions. The release came after a Freedom of Information Act (FOIA) battle with the NIH, reports *Just the News*.

***The 56,000 transactions add up to more than $325 million**, according to OpenTheBooks, though the individual amounts for each payment and corresponding license are not listed in the records.*

***Fauci received 37 payments from three companies between 2010-2021:** 15 from Santa Cruz Biotechnology, which creates products for medical research including antibodies and made the fifth-most payments in the royalty database; 14 from Ancell Corp., which produces immunology tolls; and eight from Chiron Corp., acquired by Novartis in 2006. -JTN*

According to the report, Novartis has received some $17 million in NIH contract payments and $15 million in NIH grants since the acquisition of Chiron. In 2004, Fauci's NIAID had a contract with the company to develop an avian influenza vaccine.

Collins, meanwhile, who stepped down as NIH director at the end of 2021 before serving as President Joe Biden's COVID-19 czar, **received 21 payments from four companies** between 2010 and 2018. Twelve of them came from GeneDX, which received $5 million in federal contract payments - mostly from NIH - since 2008.

Quest Diagnostics' Specialty Laboratories, a biological testing company, made four payments to Collins. He received four more from Ionis Pharmaceuticals, originally named ISIS, which develops RNA-targeted therapeutics. The last entity to pay Collins was the Progeria Research Foundation - a nonprofit which does research for congenital disorders.

According to OpenTheBooks, **obtaining the full names and license numbers for each payment** - which the NIH had originally redacted until a court forced them to unredact - **was crucial for "scrutinizing these records for potential conflicts of interest or public health risks."**

As *Just the News* further notes, **Fauci has already admitted to receiving more than $45,000 in royalties** nearly two decades ago when he was also NIAID director, for an experimental AIDS treatment funded by the NIH.

23-1

Records Reveal Fauci Made More Than $300M from COVID Pandemic

Corine Gatti August 14, 2023

(Corine Gatti, Headline USA) **When many Americans were struggling to pay their bills under government mandates during the COVID pandemic, authoritarians like Dr. Anthony Fauci profited from the pandemic through royalty checks.**

Leaders of the National Institutes of Health and the National Institute of Allergy and Infectious Diseases, including Fauci, made big bucks from the pandemic, according to information from OpenTheBooks. More than 1,500 unredacted records uncovered the disturbing truth that officials profited from the virus that has killed thousands of people, Town Hall reported.

Fauci collected 58 royalty payments for allowing companies to use their COVID-19 vaccines, which in return was developed with funding from U.S. taxpayers by private pharmaceutical firms, the news outlet noted.

Fauci, who directed funds to the Wuhan Institute of Virology to research the Coronavirus, also collected 37 payments from three different entities between 2010 and 2021, including 15 from Santa Cruz Biotechnology. The names and license numbers for each payment were not initially released, which could indicate potential conflicts of interest. Furthermore, Fauci did not donate his royalties to charity, despite making a promise to do so.

"As the most recognized official at NIH, Dr. Anthony Fauci was the face of the third-party royalties controversy. But our investigation was about a lot more than any single scientist," OpenTheBooks.com CEO Adam Andrzejewski said in a statement.

Through the Freedom of Information Act, 56,000 transactions were recorded, tallying over $325 million paid to the so-called experts. Moreover, scientists from the National Institutes of Health earned in excess of $325 million in royalties from Chinese and Russian entities, as well as pharmaceutical companies, in the span of a decade, the *New York Post* reported.

"The NIH continues to refuse to voluntarily divulge the names of scientists who receive royalties and from which companies over the period of time from 2010 to 2016, 27,000 royalty payments were paid to 1800 NIH employees," Sen. Rand Paul, R-Ky., said in 2022.

Paul also referred Fauci to the Department of Justice for lying to Congress regarding government funding of Chinese labs. He recently asked the Senate to mandate royalty disclosures from federal employees. But was shot down in committee by Democrats and Sen. Lisa Murkowski, R-Alaska.

"Taxpayers and Congress itself are left in the dark when trying to assess conflicts of interest," Paul said in a July Health, Education, Labor and Pensions Committee hearing.

24-1

US FDA Revokes Emergency Use Authorization of J&J COVID-19 Vaccine

Jim Hoft June 3, 2023

In 2022, the U.S. Food and Drug Administration announced that it would limit who can receive the Johnson & Johnson/Janssen Covid-19 shot due to the serious risk of blood clots, as reported by The Gateway Pundit.

The FDA announced that it would limit the authorized use of J&J Covid-19 shot to individuals 18 years of age and older for whom other authorized or approved COVID-19 vaccines are not accessible or clinically appropriate, and to individuals 18 years of age and older who elect to receive the Janssen COVID-19 Vaccine because they would otherwise not receive a COVID-19 vaccine.

The change is being made after the investigation revealed that there is a risk of thrombosis with thrombocytopenia syndrome (TTS), a syndrome of rare and potentially life-threatening blood clots in combination with low levels of blood platelets following the administration of the Janssen Covid-19 shot.

The FDA also confirmed that individuals experienced an anaphylactic reaction after taking an mRNA Covid-19 shot.

On May 18, the Centers for Disease Control and Prevention (CDC) announced that Johnson & Johnson/Janssen COVID-19 shot are no longer available in the US, and all remaining doses will be disposed of in accordance with the law.

"Janssen COVID-19 Vaccine is no longer available in the U.S. All remaining U.S. government stock of Janssen COVID-19 Vaccine expired May 7, 2023. Dispose of any remaining Janssen COVID-19 Vaccine in accordance with local, state, and federal regulations," CDC said.

On May 22, 2023, Janssen Biotech, Inc., a pharmaceutical subsidiary of Johnson & Johnson, requested the voluntary withdrawal of the Emergency Use Authorization (EUA) for the Janssen COVID-19 Vaccine.

This decision came as a result of various factors, including the expiration of the last lots of the vaccine purchased by the U.S. Government, a lack of demand for new vaccine lots within the United States, and no intention to update the strain composition of the vaccine to address emerging variants. Responding to this request, the U.S. Food and Drug Administration (FDA) revoked the EUA for the Janssen COVID-19 Vaccine on June 1, 2023.

The revocation of the EUA for Janssen appeared to be unlikely until Johnson & Johnson itself approached the FDA with the request to do so.

WOW: The FDA revoked Johnson and Johnson's emergency use authorization for the COVID jab. They're trying to undo the harm that they've caused and hope we don't notice.
No. We notice. pic.twitter.com/2aKxodBqOd
— Dr. Simone Gold (@drsimonegold) June 4, 2023

25-1

Top Doctor: 'There Is No Question That Shedding Is a Real Thing'

Adan Salazar June 12th 2023

'The other way [shedding can happen] is that people who [are] recently vaccinated exhale what are called exosomes,' says Dr. Paul Marik. 'You can inhale these exosomes and be spiked,' he added.

Accomplished physician, researcher and educator Dr. Paul Marik warned avoiding the experimental Covid-19 injection may not be enough to stop dangerous spike proteins from infecting a person, as they are easily transmissible via vaxxed individuals.

In a **lengthy interview** with Children's Health Defense last week, Marik said unvaccinated individuals should beware of the possibility of spike protein shedding, which could be spread via intimate or close contact.

"This may be horrific," Dr. Marik said. "The amount of spike protein after vaccination in spermatozoa is truly astonishing."

Dr. Marik went on to say "we know of women who've had relations with their partner and have developed symptoms of spike disease. So that can happen."

Moreover, "The other way [shedding can happen] is that people who [are] recently vaccinated exhale what are called exosomes," Dr. Marik stated.

"You can inhale these exosomes and be spiked," he added.

"So, this is a real phenomenon. Unfortunately, nobody wants to study it or publish data on it. So, most of the cases we know about are anecdotal, but it does happen."

Spike proteins induced by the mRNA jabs have been blamed by numerous physicians for facilitating the conditions in the body that lead to blood clots, damaged blood vessels, heart attacks and more.

Could Dr. Marik's theory explain the bizarre phenomenon observed worldwide following the rollout of the mRNA jabs where young healthy fit people inexplicably **died suddenly**?

Dr. Marik was instrumental in promoting early treatment protocols for Covid-19 and was among several speakers, including Dr. Robert Malone, Dr. Peter McCullough and Dr. Ryan Cole, at a **forum on vaccine injuries** held last December by U.S. Senator Ron Johnson (R-Wisc.).

26 T

Dr. Simon Goddek: Ten Explosive Revelations That Unmask the Covid Pandemic as an Orchestrated Event

J.D. Rucker June 12, 2023

Our readers are very much aware — and have been for some time — that Pandemic Panic Theater has been one of our top concerns since the Plandemic was rolled out in 2019. In recent weeks, we've dedicated fewer stories to the subject because it seems to be less prominent in conservative and alternative news.

But as with so many bad things happening in the world today, we're confident this isn't over. Whether we see a resurgence of Covid, a renewed push for more jabs, or something new, we expect there to be more gaslighting and medical tyranny in our near future. That's why the post below by Dr. Simon Goddek is so important. We cannot forget what they did. We cannot ignore what they continue to do. And we cannot become complacent as the next states of their plan unfold.

Here's the list from Dr. Goddek:

Trending: Trump Hits New Globalist Kingpin Alex Soros in a Purely Trumpish Manner

1. **Fear-mongering the Public**: Instead of reassuring the populace during the crisis, our media and politicians had them living in perpetual dread, contradicting historical wisdom.
2. **Vaccine Data Manipulation**: A brave whistleblower recently exposed the distorted data behind the BioNTech/Pfizer vaccine approval. Rather than probing the vaccine's benefits and efficacy, nations rushed to make booster shots mandatory.
3. **Pressurizing the Healthy**: Despite minimal risk to children, teens, and healthy adults from Covid, they were strongly urged to take an experimental drug to "protect others." Non-compliance often led to job loss, and some countries even considered detention.
4. **Shifting Vaccine Narrative**: Vaccines, once advertised for self-protection, were suddenly everyone's obligation to "protect yourself and others," despite similar transmission rates amongst the vaccinated and unvaccinated. Troublingly, getting vaccinated seemed to raise the likelihood of dying with or from Covid.
5. **Questionable PCR Test Peer-Review**: The speedy peer-review process for the Covid PCR test publication, whose author was conveniently on the journal's editorial board, raised eyebrows. Circumventing the peer-review process might be classified as scientific fraud. Furthermore, the author, Christian Drosten, was reported to receive external briefings, casting a shadow on his credibility.
6. **Mask Misinformation**: A historical study during the Spanish Influenza deemed masks ineffective and potentially unhygienic if worn all day. Recent research mirrored these findings, concluding that masks might pose significant health risks without reducing transmission. It seemed like an attempt to muzzle the public under a politically motivated guise.
7. **The Death-Age Paradox**: The average age of those who died with or due to Covid matched the general life expectancy, unlike during the Spanish Influenza where these figures greatly differed.
8. **Demonizing Dissenters**: Publicly branding dissenters as "terrorists" and "tyrants" felt like a ploy to revoke the unvaccinated individuals' rights to bodily integrity and human dignity.
9. **Undermining Immunity**: Governments closed gyms, sports clubs, and banned social interactions during lockdowns, thus neglecting essential factors for a strong immune system such as sunlight (Vitamin D), physical exercise, social interaction, gut health, and exposure to pathogens.
10. **Silencing the Experts**: Social media platforms were actively blocking and restricting accounts of scientists and experts who disagreed with the mainstream narrative, curbing their freedom of speech in a flagrant affront to the principles of an open society.

274

German Government Confirms There's No Data Showing COVID-19 Vaccinated People Have Better Health Outcomes

Adan Salazar August 9th 2023

Ministry of Health responds to member of parliament that it can point to no studies proving jabs boosted general health.

The German government could not present evidence to a member of parliament showing the experimental Covid-19 jabs provided health benefits to recipients.

AfD member of parliament for the Rhein-Sieg-Kreis II in North Rhine-Westphalia Roger Beckamp on Friday got a reply to his recent inquiry asking for studies proving the jabs boosted general health.

BREAKING: German Government confirms, there's no data that can back up the claims that COVID-19 vaccinated people have better health outcomes!! pic.twitter.com/dm4ZKJD8uq

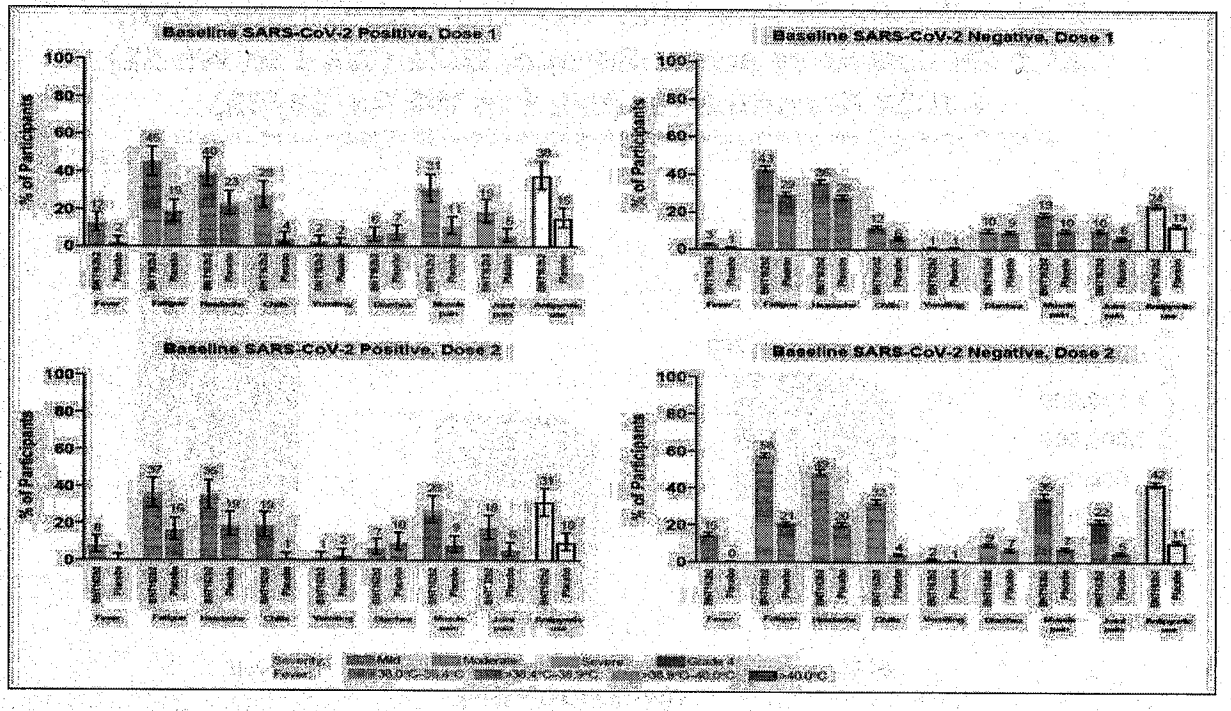
— Ben M. (@USMortality) August 8, 2023

"Are there reputable (i.e. randomized, placebo-controlled, blinded) studies that show that the 'BioNTech/Pfizer' substance improves overall health? I asked the federal government that," Beckamp wrote on Telegram.

"No, the federal government does not have such figures," responded the Parliamentary State Secretary at the Federal Ministry of Health, Prof. Dr. Edgar Franke.

Beckamp criticized the government's lack of data on Telegram, writing, "No, there aren't! That is why the federal government is not aware of such data...But there should be exactly such data if you recommend this substance."

The AfD member of parliament further went on to highlight a study showing the jabs actually had the opposite effect: people who took the jabs were made much sicker.



The establishment's narrative surrounding the deadly Covid jabs is slowly crumbling as more people try to hold world governments accountable for the Orwellian lockdowns, mandatory jabs and deaths caused by the shots.

28-1

Genes May Explain Why 20% Of People Who Get COVID-19 Are Asymptomatic: Study

AUG 18, 2023 Megan Redshaw, JD

Scientists recently discovered a gene variant that may explain why 20 percent of people who get COVID-19 never develop symptoms.

In a recent study published in Nature, researchers theorized that **human leukocyte antigen (HLA) genes** may be the reason some people are asymptomatic when they test positive for COVID-19.

According to the authors, **HLA genes play a significant role in viral infections** by helping the immune system recognize infected or foreign cells and are the most medically important region of the human genome.

To determine whether HLA gene variants are associated with asymptomatic COVID-19, researchers enrolled 24,947 bone marrow donors over a nine-month study period, as gene sequencing is a prerequisite for being a tissue or organ donor and recipient, and genetic information was already available.

Participants used a smartphone app to track positive COVID-19 tests and daily symptoms, including fever, chills, and mild symptoms such as scratchy throat or runny nose. Each week volunteers noted whether they had taken a COVID-19 test, and each month reported whether hospitalization had occurred.

During the study period, 1,428 unvaccinated individuals reported a positive COVID-19 test, with 20 percent of individuals reporting no symptoms. **Further analysis revealed a specific HLA-B*15:01 variant was "significantly overrepresented" in asymptomatic individuals compared to symptomatic individuals.**

Those who carried two copies of this variant—one passed down by each parent—were more than eight times more likely to remain asymptomatic than those carrying other genotypes. Researchers confirmed their findings in two other groups of people.

The authors then examined the effect HLA-B*15:01 had on T cells—a type of white blood cell that helps the immune system recognize germs and fight disease, including SARS-CoV-2.

Analyzing T cells donated by HLA-B*15:01$^+$ people before the pandemic, researchers discovered that **T cells in asymptomatic participants reacted to a specific piece of SARS-CoV-2 spike protein**, enabling the virus to enter the cells as if they had previously encountered the virus. Additional experiments showed that T cells with the specific HLA variant responded aggressively to an almost identical spike protein fragment from two seasonal coronaviruses associated with common colds.

"The findings suggest that T cells in many people with HLA-B*15:01 could already recognize SARS-CoV-2 because of their prior exposure to seasonal coronaviruses," according to the National Institutes of Health (NIH). This ability to recognize SARS-CoV-2 allowed their immune systems to respond rapidly to clear out the virus before it caused symptoms of infection.

*Read more **here...***

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29-1

Democratic Sen. Dick Durbin tests positive for COVID-19 for 3rd time within a year

ALEX NITZBERG JULY 24, 2023

Democratic Sen. Dick Durbin of Illinois announced on Sunday that he has tested positive for COVID-19 again.

"Unfortunately, I tested positive for COVID-19 today. I'm disappointed to have to miss critical work on the Senate's NDAA this week in Washington. Consistent with CDC guidelines, I'll quarantine at home and follow the advice of my doctor while I work remotely," Durbin tweeted.

This latest announcement marks the senator's third time testing positive in a year. He had previously tested positive in March 2023 and July 2022.

In the first and second announcements, he noted that he had been vaccinated and boosted.
"This morning, I tested positive for COVID-19. Thankfully, I am fully vaccinated and boosted and only experiencing minor symptoms. I will quarantine consistent with CDC guidelines and follow advice from my doctor while I continue to work remotely," he tweeted in March 2023.

"This morning, I tested positive for COVID-19. Thankfully, I am fully vaccinated and double boosted and only experiencing minor symptoms. Consistent with CDC guidelines, I will quarantine and follow advice from my doctor while I continue to work remotely," he tweeted on July, 28, 2022.

While many people who received multiple COVID-19 jabs have still tested positive for the illness, the Centers for Disease Control and Prevention continues to advocate for vaccination. The CDC claims that the vaccines "are effective at protecting people from getting seriously ill, being hospitalized, and dying."

GOP Rep. Nancy Mace of South Carolina tested positive for a third time last week after having previously tested positive in June 2020 and January 2022.

Earlier this year Mace, who had been fully vaccinated in 2021, said that she regretted getting the vaccination. **The congresswoman indicated that after the second jab, she got asthma. She also said she has tremors in her left hand as well as occasional heart pain.**

29-1