



Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Interference in scientific research on COVID-19 in Turkey

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), as it was later named, was first identified in Wuhan, China, on Jan 7, 2020.¹ Over the following months, the virus rapidly spread throughout the world. The disease, COVID-19, was characterised as a pandemic by WHO on March 11, 2020. On the same day, the Turkish Ministry of Health reported the first case in Turkey.² According to the Global Initiative on Sharing All Influenza Data platform, which analyses the genomic epidemiology of SARS-CoV-2, the disease reached Turkey mainly through Iran, with whom Turkey has strong commercial and touristic ties, and Saudi Arabia, where thousands of Turkish citizens travelled to visit the holy places until mid-March, 2020.³

2 months after the first case, on May 11, 2020, the Turkish Ministry of Health declared that the number of COVID-19 cases had reached 139 771, with 3841 deaths.² However, the excess mortality for Istanbul alone during this period was 4209 deaths. From 2016–19, the average number of deaths that occurred in Istanbul was 23 232 for the period of March 11 to July 5.⁴ In 2020, this figure went up to 27 955 deaths. The excess mortality found between March 11 and July 5, 2020, in Istanbul was 4723 deaths.⁴ There were at least 1952 unexplained deaths. However, the officially reported COVID-19 mortality in the same period was 2771 deaths.⁵

Because no other serious mass health events were recorded at that time, this discrepancy could be explained by non-compliance with WHO codes from the International Classification of Diseases (tenth edition).⁶ The official reporting system of Turkey only covered PCR-positive cases. As of July 27, 2020, Turkey ranks fourth in the European region for cases of COVID-19, with a

total number of 225 173 patients and 5596 COVID-19 deaths,⁷ as reported by the Ministry of Health on the basis of PCR-positive cases alone.⁸

The establishment of a scientific board and full coverage of treatment, and the encouragement of research by the Ministry of Health and funding bodies such as the Scientific and Technological Research Council of Turkey and the Health Institutes of Turkey were admirable steps taken by the authorities in the beginning of the pandemic. However, tension soon started building among the public sector and medical and scientific organisations due to the Ministry of Health's lack of transparency, its reluctance to share basic data, and its refusal to collaborate. There were also concerns about the shortage of personal protective equipment for health-care workers.⁸

The final stroke came with the control of COVID-19 research by the Ministry of Health. Despite the great interest in research on COVID-19 in Turkey by researchers and physicians, the Turkish Ministry of Health announced a mandatory application for permission for research on COVID-19, before any application is made to ethics committees.⁹ This unprecedented decision was against the Constitution¹⁰ and laws regulating research activities in Turkey. It appears that most submitted projects have been approved by the Ministry of Health, but some projects, including a large, multicentre observational study by the Turkish Thoracic Society, have been rejected without any clear explanation.

The regular procedure for research activities in Turkey is well defined. In keeping with the international regulations, researchers must get approval from the independent ethics committee. The Turkish Constitution clearly states that "everyone can learn science and art freely and has the right to teach, explain, disseminate and research in these areas".¹⁰ The Science Academy, a member of the

International Science Council, has highlighted this fact.¹¹ The Turkish Medical Association and other professional medical organisations made a declaration through a press conference and urged the Ministry of Health to cancel their decision.

In conclusion, we, as respiratory physicians and scientists, are worried about the restrictions imposed by the Turkish Ministry of Health on independent research about the COVID-19 pandemic in Turkey, and we sincerely hope that the Ministry of Health's decision will be taken back in compliance with the Turkish Constitution.

We declare no competing interests. All authors are affiliated with the Turkish Thoracic Society: HB is the President, NK is the Foreign Relations Chair, and OE is the Head of the Working Group on Health Policies, OK is the Co-Editor in Chief of the *Turkish Thoracic Journal*, AS is a member of the Auditing Board, and ED is a member.

**Hasan Bayram, Nurdan Köktürk, Osman Elbek, Oğuz Kılınç, Abdullah Sayiner, Elif Dağlı, on behalf of the Turkish Thoracic Society*
hasantoraks@gmail.com

Turkish Thoracic Society, Ankara, Turkey

- 1 WHO. Novel coronavirus—China. 2020. <https://www.who.int/csr/don/12-january-2020-novel-coronavirus-china/en/> (accessed July 27, 2020).
- 2 Ministry of Health of Turkey. Current status in Turkey. 2020. <https://covid19.saglik.gov.tr> (accessed May 20, 2020).
- 3 Global Influenza Surveillance and Response System. Genomic epidemiology of hCoV-19. 2020. <https://www.gisaid.org/epiflu-applications/next-hcov-19-app/> (accessed May 20, 2020).
- 4 The Istanbul Metropolitan Municipality Death Information Inquiry. 2020. <https://www.turkiye.gov.tr/istanbul-buyuksehir-belediyesi-vefat-sorgulama> (accessed May 20, 2020; in Turkish).
- 5 Ministry of Health. COVID-19 weekly situation report 29/06/2020—05/07/2020 Turkey. 2020. <https://dosyamerkez.saglik.gov.tr/Eklenti/37862,covid-19-weekly-situation-report-29062020---05072020pdf.pdf?0&tag1=8C3F5C6E9B0E4630704978AA6BB8151EEE4AFC99> (accessed July 28, 2020).
- 6 WHO. International guidelines for certification and classification (coding) of COVID-19 as cause of death. 2020. https://www.who.int/classifications/icd/Guidelines_Cause_of_Death_COVID-19-20200420-EN.pdf?ua=1 (accessed May 20, 2020).
- 7 WHO. Coronavirus disease (COVID-19) situation report—117. 2020. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200516-covid-19-sitrep-117.pdf?sfvrsn=8f562cc_2 (accessed July 27, 2020).



Anadolu Agency/Getty Images

- 8 Turkish Medical Association. A two-months evaluation report of COVID-19 pandemic. 2020. <https://www.ttb.org.tr/userfiles/files/covid19-rapor.pdf> (accessed July 27, 2020; in Turkish).
- 9 Ministry of Health. Scientific research studies on COVID-19. 2020. https://bilimselarastirma.saglik.gov.tr/_layouts/15/BilimselYayin_Membership/login.aspx?ReturnUrl=%2F_layouts%2F15%2FAuthenticate.aspx%3FSource%3d%252F&Source=%2F (accessed July 27, 2020; in Turkish).
- 10 Judiciary of Turkey. Current version of Constitution of the Republic of Turkey including latest amendments 08.05.2017. <http://www.judiciaryofturkey.gov.tr/Current-version-of--Constitution-of-the-Republic-of-Turkey--including-latest--amendments>. (accessed July 27, 2020; in Turkish).
- 11 The Science Academy. Declaration: subjecting scientific researches about COVID-19 to the notification to The Ministry of Health is inconvenient. 2020. <https://bilimakademisi.org/covid-19-arastirmalari-hakkinda-bildirim-yukumlulugu-sakinalidir/> (accessed July 27, 2020; in Turkish).

See Online for appendix



The Cummings effect: politics, trust, and behaviours during the COVID-19 pandemic

Published Online

August 6, 2020

[https://doi.org/10.1016/S0140-6736\(20\)31690-1](https://doi.org/10.1016/S0140-6736(20)31690-1)

On May 22, 2020, *The Guardian* and *Daily Mirror* newspapers in the UK published details of how Dominic Cummings, senior aide to the British prime minister, had broken lockdown rules by travelling 420 km to a family estate with his wife (who had suspected COVID-19) and child. Although some other officials and senior figures had also broken the lockdown rules, this transgression was the first to not immediately be followed by an apology and resignation. The event prompted media condemnation, with concerns about transparency, accountability, and equality,¹ and many scientists spoke out about the effect of Cummings' actions and the UK Government's defence of Cummings in undermining essential public health messaging.^{1,2}

It is only now, however, with the benefit of hindsight provided by systematic data, that we can see these negative effects in stark detail. New analyses of 220 755 surveys

from 40 597 individuals in England, Scotland, and Wales, completed between April 24 and June 11, 2020, as part of University College London's COVID-19 Social Study, show that these events undermined confidence in the government to handle the pandemic specifically.

We report the change in ratings of confidence in the government to handle the pandemic from the baseline on April 24, 2020 (appendix pp 1–3). Participants from England answered about central government, and participants in Scotland and Wales answered about their own devolved governments. Confidence was measured on a scale from 1 (not at all) to 7 (completely). The sample was well stratified across socio-demographic factors and weighted to population proportions for core demographics (appendix p 9). Starting on May 22, 2020, there was a clear decrease in confidence in England, a decline that continued over the following days. Analyses of data from Google Trends showed that public searches of Dominic Cummings' name peaked 3 days later (May 25, 2020; appendix p 4) when he gave a televised statement. This peak coincided with the steepest decline in confidence in government (appendix pp 1–3).

To ascertain whether this decrease in confidence was as a result of the Cummings events (a Cummings effect), we carried out analyses using two types of comparisons. First, we compared the responses for people living in England to those of people living in the devolved nations of Scotland and Wales who were asked to rate their confidence in their own devolved governments. There was no evidence of a similar large decrease in confidence in the governments of the devolved nations either descriptively (appendix pp 1–3) or statistically (appendix p 5) during the 3 weeks following May 22, 2020. Second, using data from questions identical in format to those about confidence in government, we compared confidence

in the health service to cope with the pandemic, and confidence that access to essentials (eg, food and medication) would be maintained during the same time period. There was no evidence of a decrease in confidence in the health system or confidence in acquiring essentials during the same time period, either in descriptive data or when applying statistical tests (appendix pp 1, 2, 5), further showing that the change in confidence in the government was a considerable departure from the weeks preceding the Cummings events.

Public trust in the government's ability to manage the pandemic is crucial as this trust underpins public attitudes and behaviours at a precarious time for public health. Our data show how closely public confidence is related to government announcements regarding COVID-19. After an initial increase in public confidence in the ability of the government to handle the pandemic well between March 21 and March 23, 2020, as lockdown came in, the government's announcement on May 10, 2020, that society would begin to reopen in England through a staged series of lockdown easing measures as part of a new COVID-19 alert level system was followed by a decrease in confidence (appendix pp 1–3). Leaders of devolved governments in Scotland and Wales who expressed concern that these measures were risky and premature and who did not change lockdown measures or messaging did not see any clear decreases in confidence from their public.³ Data show that confidence stabilised and even improved slightly in England in the fortnight following these events, until the Cummings effect.

This finding is echoed by data from weekly political surveys, which show that confidence decreased with these announcements but then remained stable for 2 weeks until the Cummings events, when confidence suddenly decreased further (appendix p 6).

Another reason for concern is that trust is related to people's willingness