

# Covid-19 and the politics of data visualisation

James Wilsdon, Information School & RoRI

TUOS Open Research Conversation, 18 November 2020

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# Ground-zero empiricism & coronavirus confirmation syndrome

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APRIL 10, 2020 · 1:58 PM

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## Ground-Zero Empiricism

Lorraine Daston

I am used to waking up in the seventeenth century. As a historian of early modern science, that's where I spend a lot of time. But it is strange that everyone else is suddenly keeping me company there.

No, I don't mean the plague. Fortunately for us, Covid-19 is nowhere near as deadly as the diseases caused by the bacterium *Yersinia pestis*. From its arrival in Pisa in 1348 to the last great outbreak in Marseilles in 1720, the bacterium



Learn more

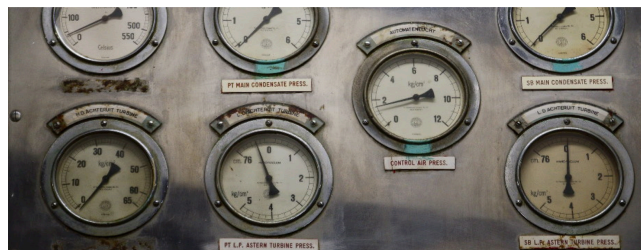
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## MODERNITY WITHOUT ITS CLOTHES: THE PANDEMIC CRISIS SHINES A LIGHT ON FUTILITIES OF CONTROL



Engine Room control panel / Rob Oo / cc-by 2.0

April 7th, 2020 Andy Stirling 8 Comments

Same Research as Before, but Now with Covid

Mikhael Shor

[mike.shor@uconn.edu](mailto:mike.shor@uconn.edu)

Final draft: 23 June 2020

First draft: 22 June 2020

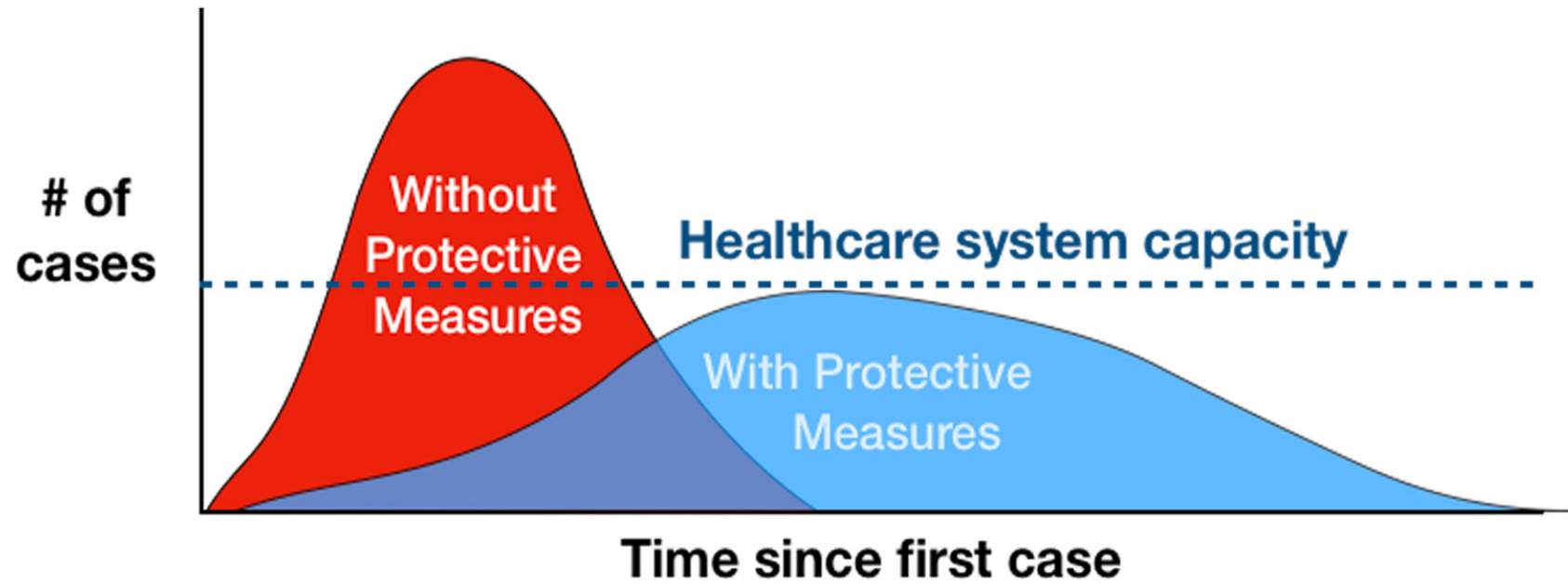
### Abstract

This paper continues my theoretical (Shor 2002, 2004, 2011a, 2011b) and empirical (Shor 2009, 2016, 2019) agenda, but adds several important references to Covid, an illness that has significantly impacted research priorities (Smith et al 2020). I add to the previous theoretical construct the variable  $\gamma$ , interpreted as "Covid," and show that previous results are confirmed as  $\gamma \rightarrow 0$ . In the empirical section, I introduce rainfall as an instrument for Covid spread and find it to be approaching significance. Several policy implications are discussed.

**Keywords:** Covid, virus, #covid, economics, non-economics, rainfall, coronavirus

**JEL Codes:** V19 (Covid), A (General economics))

*“The main significance of this pandemic lies not in lofty platforms for pre-entitled, indulgently-curated identities. In fact, there really seems only one clear truth so far...that nobody knows the historic implications of this moment. A radical diversity of futures are possible....”* **Andy Stirling, STEPS Centre & SPRU, University of Sussex**



*Adapted from CDC / The Economist*

“flatten the curve”

Global Cases

55,714,647

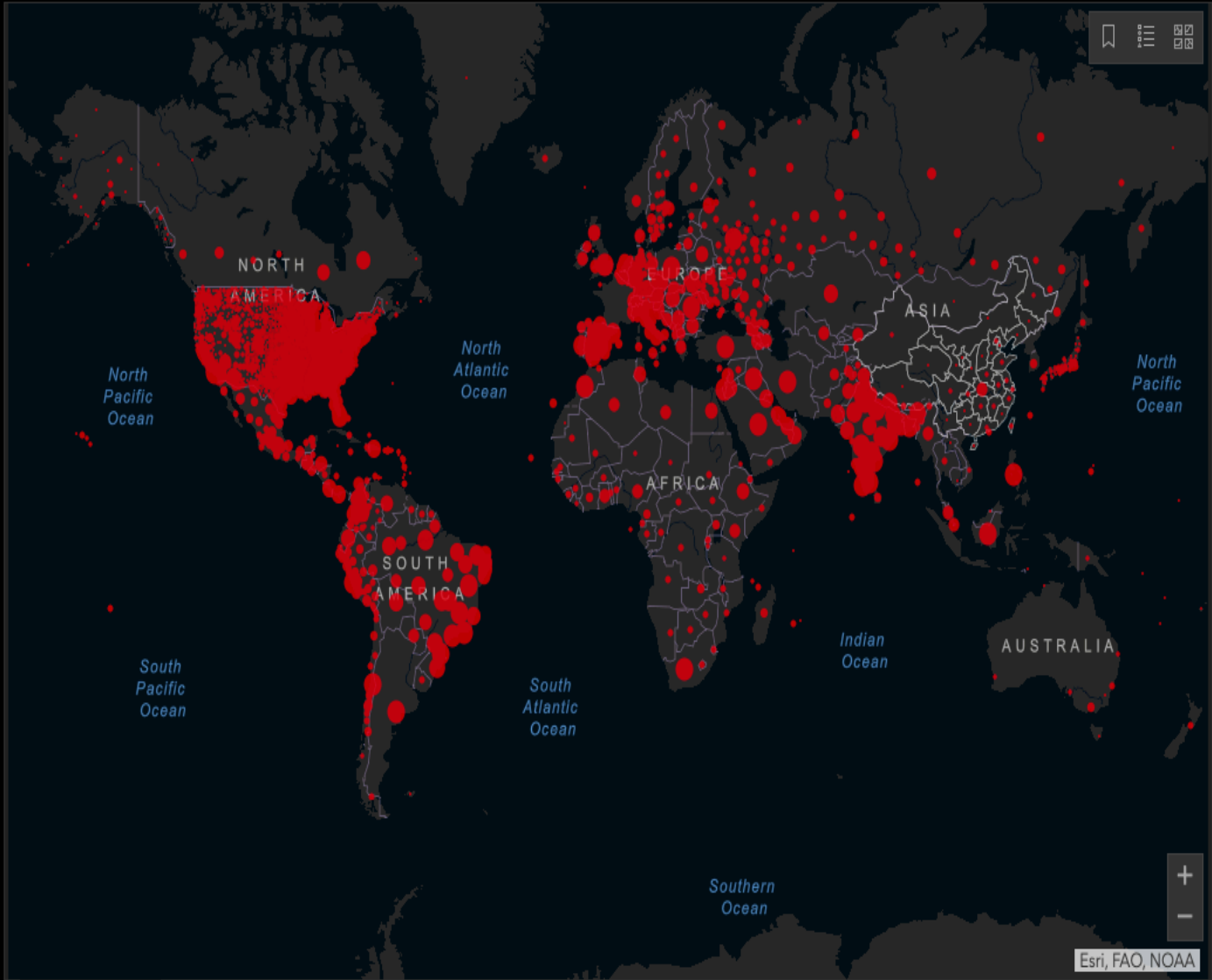
Cases by Country/Region/Sovereignty

11,360,128	US
8,912,907	India
5,911,758	Brazil
2,087,183	France
1,975,629	Russia
1,510,023	Spain
1,414,359	United Kingdom
1,329,005	Argentina
1,238,072	Italy
1,211,128	Colombia
1,011,153	Mexico
938,268	Peru
843,757	Germany
801,894	Iran
772,823	Poland
754,256	South Africa
586,522	Ukraine

Admin0

Admin1

Admin2



- Cumulative Cases
- Active Cases
- Incidence Rate
- Case-Fatality Ratio
- Testing Rate

Global Deaths

1,340,645

248,707 deaths US
166,699 deaths Brazil
130,993 deaths India
99,026 deaths Mexico
52,839 deaths United Kingdom
46,464 deaths Italy
46,346 deaths France
42,041 deaths

Global Deaths

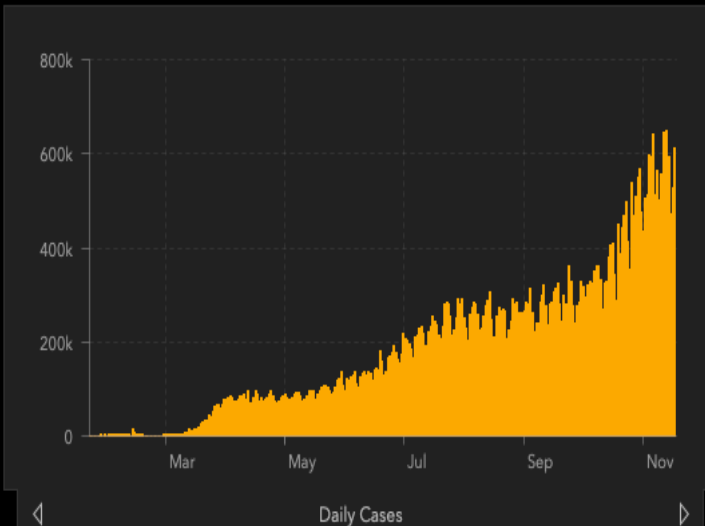
Global Recovered

US State Level

Deaths, Recovered

34,156 deaths, 82,022 recovered New York US
20,147 deaths, 883,223 recovered Texas US
18,362 deaths, recovered California US
17,644 deaths, recovered Florida US
16,618 deaths, 39,800 recovered New Jersey US
11,317 deaths, recovered Illinois US
10,360 deaths, 137,422 recovered Massachusetts US
9,344 deaths, 184,503 recovered

US Deaths, Recovered



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## Coronavirus

### Covid cases and deaths today: coronavirus UK map

Are UK coronavirus cases rising in your local area and nationally? Check week-on-week changes across England, Scotland, Wales and Northern Ireland and the latest figures from public health authorities

Coronavirus has hit the UK hard, with the country recording hundreds of thousands of cases and over 40,000 deaths linked to the disease. England faced Europe's highest excess death levels during the first wave of the pandemic.

The government figures below include confirmed cases only - some people who have the disease are not tested.

#### Covid-19 in the UK

Daily cases	Daily deaths	Total deaths
<b>20,051</b> -361 vs last week	<b>598</b>	<b>52,745</b>

<b>England</b>	<b>Scotland</b>	<b>Wales</b>	<b>NI</b>
Daily cases	Daily cases	Daily cases	Daily cases
<b>17,549</b>	<b>1,248</b>	<b>705</b>	<b>549</b>

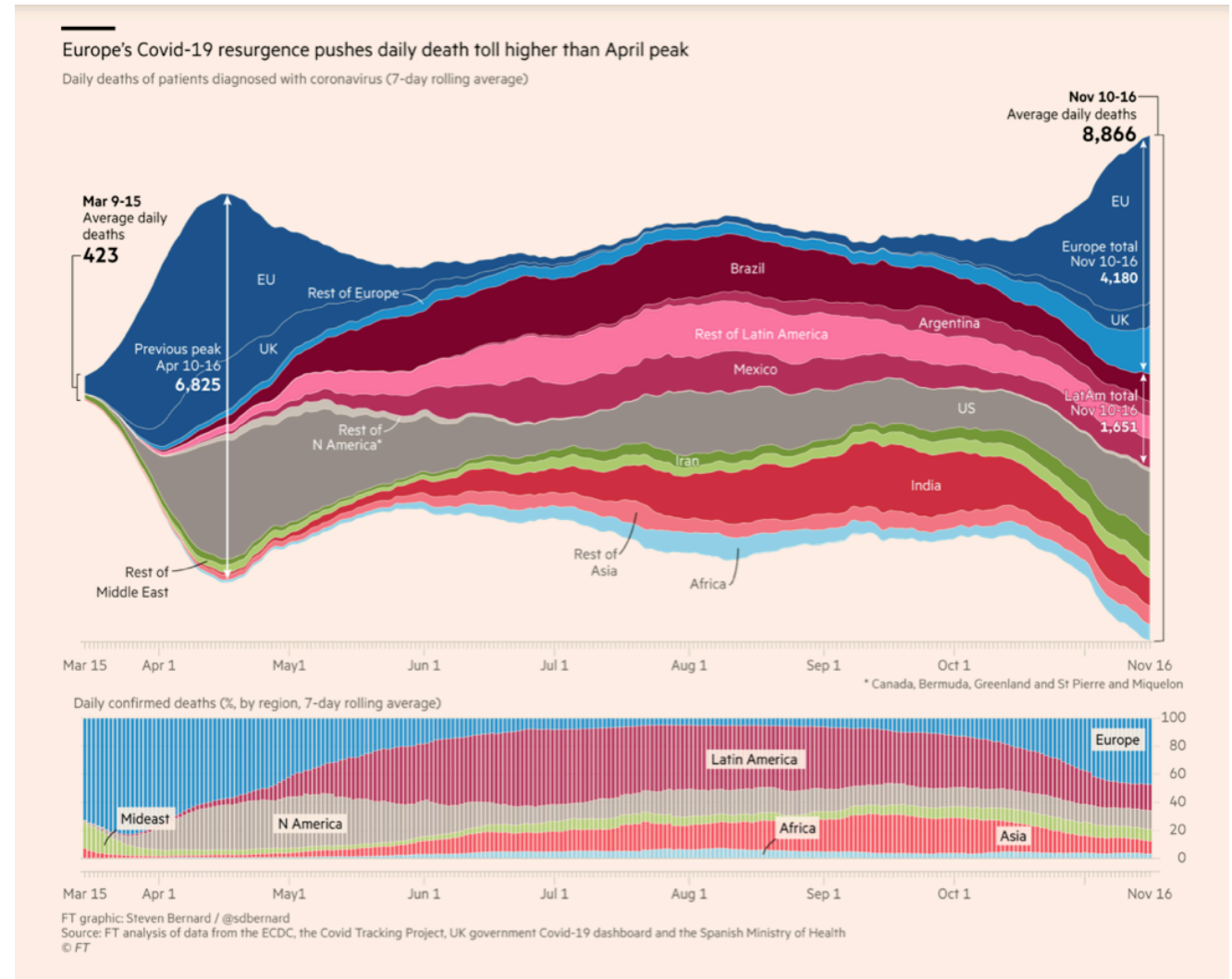
UK data as published 17 November, 2020, national data as published 17 November, 2020. Note: This is the latest available from PHE. UK total is not always the sum of totals for individual countries. Low daily deaths at weekends is often a result of delayed reporting. Weekly change shows new daily cases compared to 7 days ago. [About the data](#)

#### Where are the UK's current coronavirus hotspots?

At the start of the pandemic, London bore the brunt of coronavirus's impact. Since then, however, the centre of the virus shifted northwards and to areas in Northern Ireland. Everyday life in the UK has been subject to varying degrees of restriction since March, and various lockdowns currently apply in England, Scotland and Northern Ireland. These regulations are set by the legislative body in each nation so there are local differences. There may also be extra measures in place at local authority level.

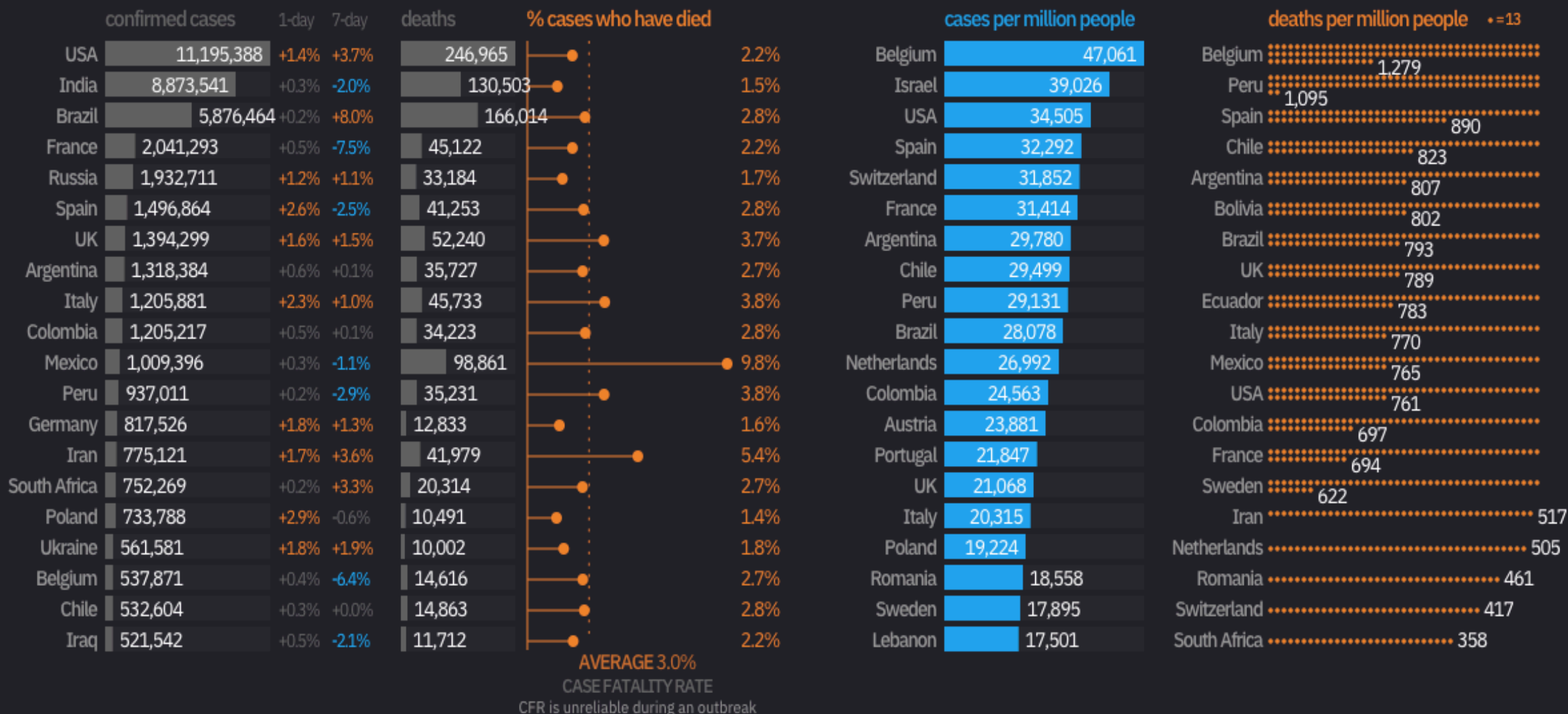
#### UK: New cases in the last week

Click to show data for each area, double click to zoom in, click "reset zoom" to zoom out





# Infection & Fatality Rates Vary by Country



# Coronavirus Riskiest Activities

According to 500+ epidemiologists & health professionals

## 🧠 risk factors to consider

- 👥 **people** how many?
- 📏 **space** how close is the contact?
- 🕒 **time** how long the exposure?
- 📍 **location** inside or outside?
- 👉 **surfaces** lots of high touch?
- 📶 **area** high number of cases?
- 👤 **covidciy** how likely is compliance?

## LOW RISK



## MEDIUM RISK



## HIGH RISK



Risk reduced by wearing a mask, social distancing & washing hands

informationisbeautiful

sources: New York Times, Reuters, NPR, SF Gate & others



FT Magazine Coronavirus pandemic [+ Add to myFT](#)

# Statistics, lies and the virus: Tim Harford's five lessons from a pandemic

In an age of disinformation, the value of rigorous data has never been more evident



Tim Harford SEPTEMBER 10 2020

 344 

Be the first to know about every new Coronavirus story

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Will this year be 1954 all over again? Forgive me, I have become obsessed with 1954, not because it offers another example of a pandemic (that was 1957) or an economic disaster (there was a mild US downturn in 1953), but for more



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Policy paper

## Slides and datasets to accompany coronavirus press conference: 31 October 2020

Slides on coronavirus presented by Professor Chris Whitty and Sir Patrick Vallance.

Published 31 October 2020  
Last updated 3 November 2020 — [see all updates](#)  
From: [Prime Minister's Office, 10 Downing Street](#)

### Documents

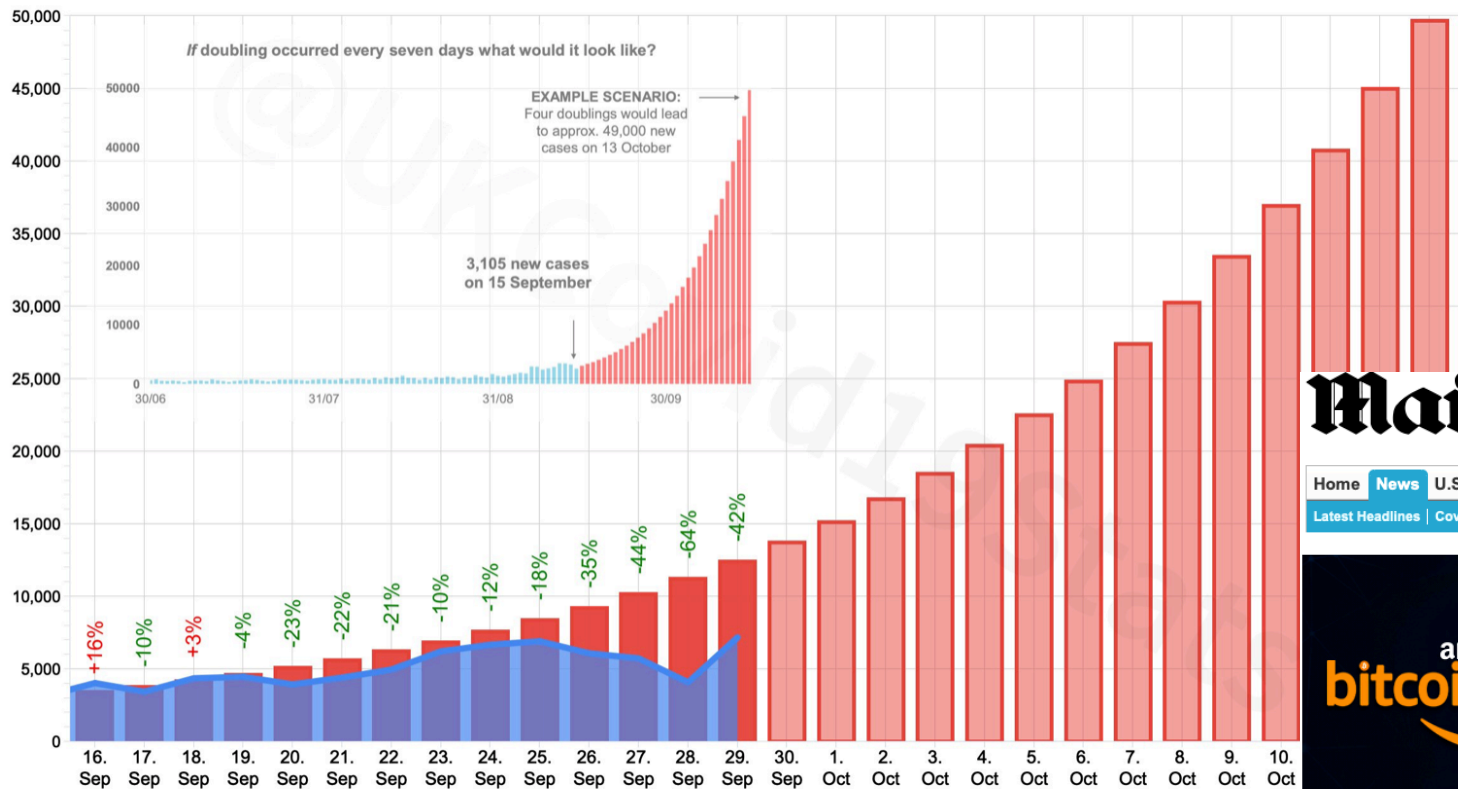


[Slides presented by Chief Medical Officer to accompany coronavirus press conference: 31 October 2020](#)

PDF, 1.98MB, 10 pages

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People are shocked over Amazon's latest project and the banks are not happy

Exclusive Amazon Project

## Do Whitty and Vallance's numbers add up? Advisers claimed Britain is on course to follow French and Spanish trajectories but NEITHER country is showing cases doubling every week like they warned for UK

- Sir Patrick Vallance and Professor Chris Whitty held a briefing this morning warning about virus rebounding
- They said Britain could be headed for rising deaths and severe hospital cases if it doesn't change course
- Infection resurgence among young people is spreading to older generations, the top medics warned
- But they have been accused of 'scaring people' and using data in ways that make situation look worse

By SAM BLANCHARD SENIOR HEALTH REPORTER and STEPHEN MATTHEWS HEALTH EDITOR and VANESSA CHALMERS HEALTH REPORTER FOR MAILONLINE

PUBLISHED: 15:29, 21 September 2020 | UPDATED: 22:19, 21 September 2020

# Behind the curves: obscured or hidden inequalities



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## Emerging evidence on health inequalities and COVID-19: May 2020

5 June 2020

 [Louise Marshall](#)

 [Blog](#) / [COVID-19](#) / [Inequalities](#)



[A recent Health Foundation long read](#) suggests that the coronavirus (COVID-19) pandemic could be a watershed moment in creating the social and political will to build a society that values everyone's health – now and in the long term.

The global pandemic, and the wider governmental and societal response, is certainly bringing health inequalities into sharp focus. And it has been apparent from the early stages of the pandemic that some groups are at much higher risk of catching and dying from the virus than others. Factors such as [age](#), [gender](#), [ethnicity](#) and [socioeconomic deprivation](#) are all known to be important. Critically, these factors [combine in complex ways to put some people at much greater risk](#).



## One in 20 people likely to suffer from 'Long COVID', but who are they?

October 21, 2020

In the early days of the pandemic, there was a perception that for the majority of people COVID-19 was a short, relatively mild illness lasting less than a fortnight, with most research focused on the much smaller proportion of patients falling seriously or fatally ill.

However, in recent months we've seen [increasing attention paid to people with 'long COVID'](#), whose symptoms were not serious enough to land them in hospital yet have persisted for many weeks or months.





**Data – however beautifully visualised – isn't always self-explanatory and won't take the heat out of scientific, political and public debate**

TRENDING: UK government messaging on Covid-19: Five principles an...

indie\_SAGE

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Inequalities and Ethnic Minorities (4)

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### The Independent SAGE Report 22

#### UK government messaging and its association with public understanding and adherence to COVID-19 mitigations:

##### UK GOVERNMENT MESSAGING ON COVID-19: FIVE PRINCIPLES...

16 Nov 2020

Five principles and recommendations

Independent SAGE is a group of scientists who are working together to provide independent scientific advice to the UK government and public on how to minimise deaths and support Britain's recovery from the COVID-19 crisis.

We believe openness and transparency leads to better understanding and better decision making. We also believe it is the responsibility of scientists and those with specialist knowledge to engage with the public and policy makers in order to ensure that science benefits all of society.

# COVID-19: the deadly threat of misinformation

Jane Galvão

Published: October 05, 2020 • DOI: [https://doi.org/10.1016/S1473-3099\(20\)30721-0](https://doi.org/10.1016/S1473-3099(20)30721-0)

References

Article Info

An Editorial<sup>1</sup> published in *The Lancet Infectious Diseases* addressed the COVID-19 infodemic. An infodemic is described by WHO as an “overabundance of information—some accurate and some not—that occurs during an epidemic”;<sup>2</sup> and WHO is dealing with this issue proactively.<sup>3</sup> The UN is also focusing on misinformation in connection with COVID-19, stating that misinformation is a virus and launching an initiative called Verified “to provide content that cuts through the noise to deliver life-saving information, fact-based advice and stories from the best of humanity”.<sup>4</sup>

Initiatives such as Verified<sup>4</sup> and WHO’s proposal<sup>2, 3</sup> to manage the infodemic are fundamental, but, in some cases, as highlighted in the Editorial,<sup>1</sup> the people responsible for disseminating misinformation are public figures such as elected officials like the presidents of Brazil and the USA. Misrepresentations from these public figures have included trivialising the risks of COVID-19, equating COVID-19 with seasonal influenza, questioning the effectiveness of mitigation and control measures (eg, the use of masks), promoting unproven treatments (eg, hydroxychloroquine), contradicting public health experts (even those from their own administrations), and politicising the vaccine development that is essential to the ultimate control of the pandemic.

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### Vaccine hesitancy threatens to undermine pandemic response

← About the Royal Society

10 November 2020

An 80% take up of a COVID-19 vaccine could be necessary to protect the community but, given the scale and complexity of the task, vaccines will not be a silver bullet, according to a report published today by the British Academy and the Royal Society for the [SET-C \(Science in Emergencies Tasking: COVID-19\) group](#).

The author of COVID-19 vaccine deployment, Oxford Professor Melinda Mills MBE, calls for a “frank conversation” with the public to manage expectations that life will not immediately get back to normal when vaccines arrive. An open dialogue is critical to build public support about who has priority, address fears about safety, communicate complex information about multiple vaccines, and counter misinformation and public complacency.

The rapid review focuses on behavioural aspects of deployment, suggesting government should begin to tackle these challenges immediately to ensure effective vaccine coverage. It makes the following policy recommendations:

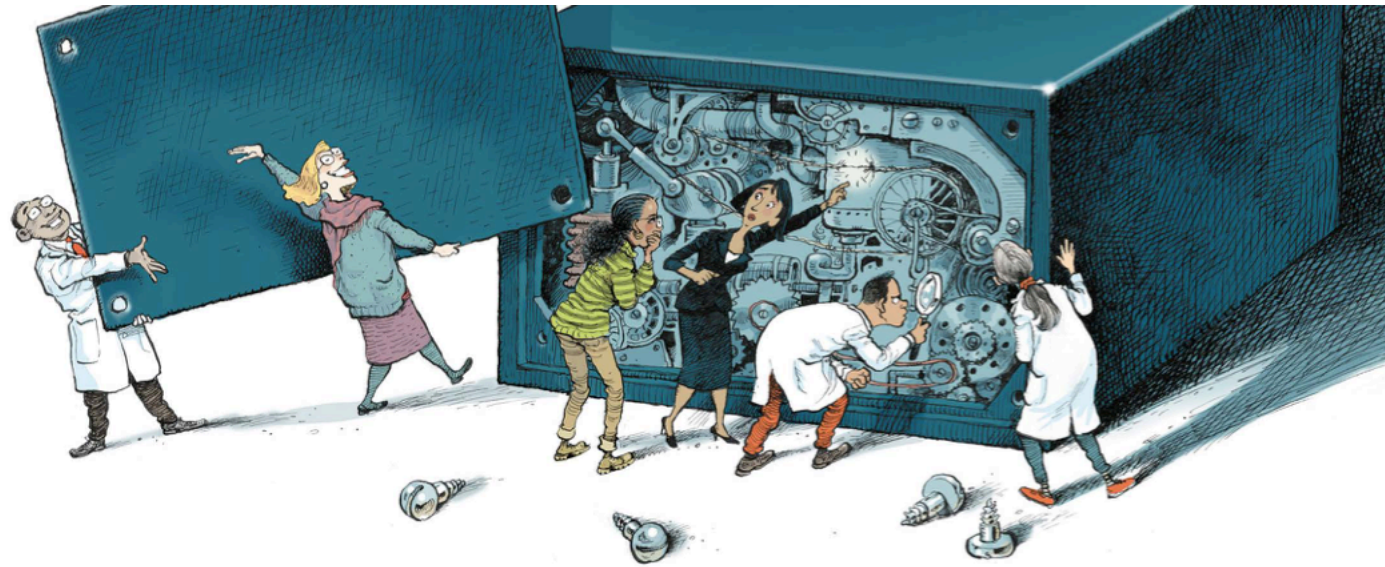
- Start an open, transparent dialogue over vaccine deployment with the general public to address uncertainties about efficacy and safety and provide clarity on the longer timescale of vaccination roll-out to build support and understanding.
- Make vaccinations convenient and build on existing immunisation programmes, such as ensuring they are available at weekends and evenings at GP surgeries and other appropriate sites, where GPs could identify those with comorbidities, log vaccinations or issue reminders. Centralised mass sites and roving teams are likely to be less effective.

#### Downloads

 [COVID-19 vaccine deployment](#)  
PDF, 845.6KB



# Lessons from climate science & politics – and other fields...



## Five ways to ensure that models serve society: a manifesto

Andrea Saltelli, Gabriele Bammer, Isabelle Bruno, Erica Charters, Monica Di Fiore, Emmanuel Didier, Wendy Nelson Espeland, John Kay, Samuele Lo Piano, Deborah Mayo, Roger Pielke Jr, Tommaso Portaluri, Theodore M. Porter, Arnald Puy, Ismael Rafols, Jerome R. Ravetz, Erik Reinert, Daniel Sarewitz, Philip B. Stark, Andrew Stirling, Jeroen van der Sluijs & Paolo Vineis

**Pandemic politics highlight how predictions need to be transparent and humble to invite insight, not blame.**

**T**he COVID-19 pandemic illustrates perfectly how the operation of science changes when questions of urgency, stakes, values and uncertainty collide – in the ‘post-normal’ regime.

Well before the coronavirus pandemic, statisticians were debating how to prevent malpractice such as *p*-hacking, particularly

when it could influence policy<sup>1</sup>. Now, computer modelling is in the limelight, with politicians presenting their policies as dictated by ‘science’<sup>2</sup>. Yet there is no substantial aspect of this pandemic for which any researcher can currently provide precise, reliable numbers. Known unknowns include the prevalence and fatality and reproduction rates of the virus in

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