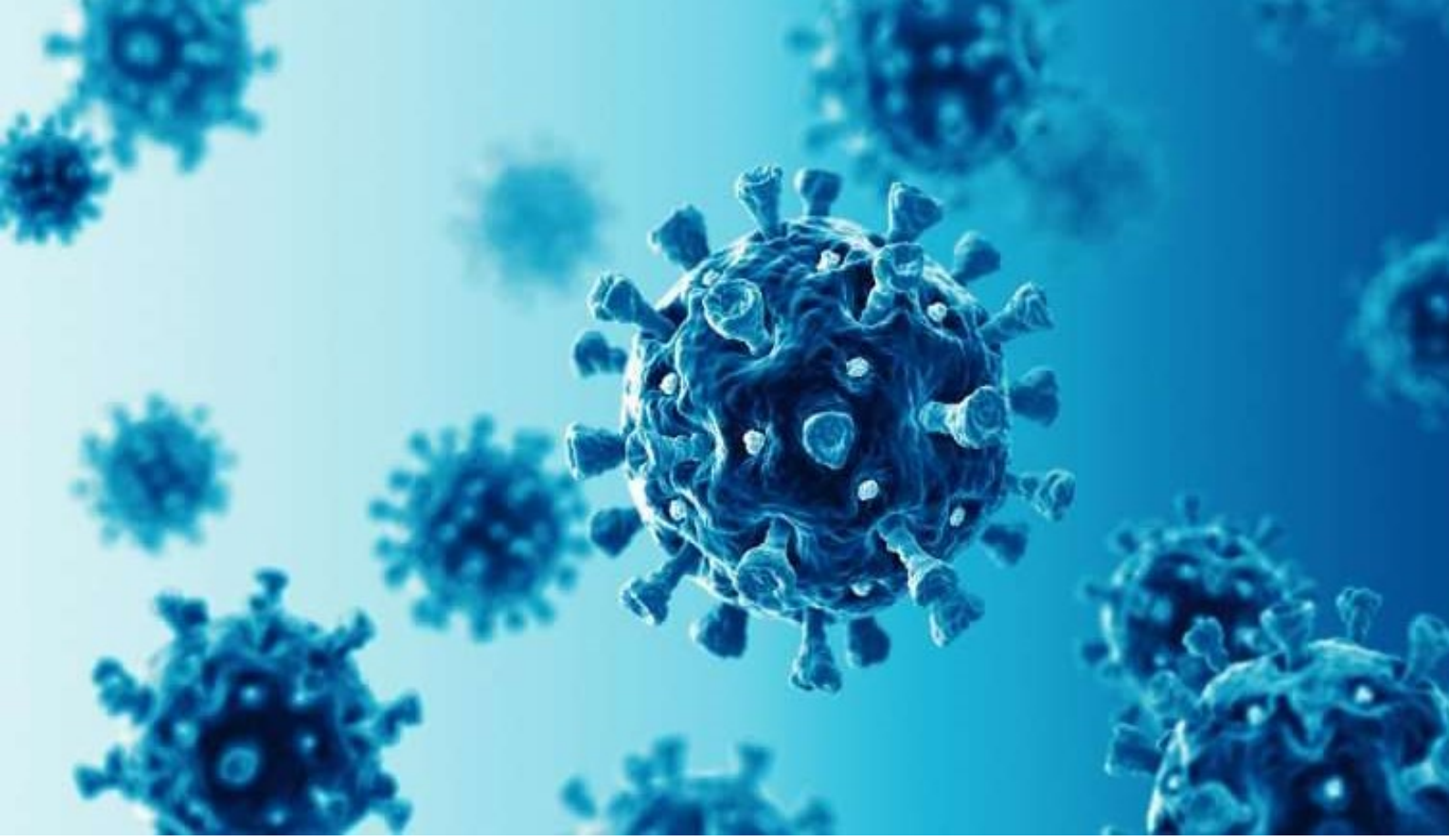


COVID-19: Following the Science

An examination of the declared public health emergency in light of evidence-based approaches

September 2020

Version 1.02

The author of this document has over 20 years' experience working in the public sector.
Assistance in the technical aspects of this paper came from a PhD graduate in Biochemistry.

Opening remarks

A huge responsibility for those of us who work in the public sector is that of our community leadership role and responsibility for our residents, including representing and promoting their best interests. We must do our utmost to verify and establish facts as much as possible in order to guide and inform our public policy-making decisions.

If the evidence base to justify our decision-making is not sound, we could be taking the wrong actions and risk not achieving the best outcomes for our communities and residents. In the current environment of working under a declared health emergency, this could have significant implications for the safety, health and well-being of all.

It is with the above concerns in mind that this paper has been compiled. The paper explores some fundamental issues connected to the science and evidence of the declared public health emergency and the responses that are being implemented to deal with it.

The oft-repeated statement that we are *'following the science'* and being *'guided by the evidence'* can be evaluated against established standards to determine if this is the case. Merely uttering these words does not mean that the science and evidence is being followed in practice. We can also measure the actual actions and approaches being taken and look at the results they are producing.

We have seen in recent times the tragedies of Grenfell, Hillsborough and many other examples where officials and officers in public sector roles have come under great scrutiny concerning the decisions they made during such tragic events. We carry the risk of being complicit and opening ourselves up to future litigation cases from people who may have suffered personal losses and infringement of human rights and freedoms. In some situations, this could include potential harm to life as a consequence of the far-reaching and unprecedented changes being implemented in current times affecting the daily lives of every person.

I would encourage every individual to do their own diligent research to assure themselves that the decisions they are taking and the courses of action they are adopting have sound evidential backing. This includes assessing their own understanding of Covid-19 and contemplating what they believe about it and what has led them to hold those beliefs, such as the information and news sources that could be feeding those perceptions and beliefs.

One should have an open mind and be free to challenge and scrutinise the existing narratives, approaches and solutions being proposed without being criticised, using the right to freedom of opinion and expression. Given the challenging times we are in, we should be aware of other perspectives and rigorously explore solutions for dealing with the current situation, without eroding people's freedoms, civil liberties and dignity. Discussing facts and evidence and engaging in a respectable discussion about them should be welcomed.

Contents

A new virus emerges…

In January 2020, the World Health Organisation (WHO) announces that a novel coronavirus has been identified and in March 2020 the WHO declares the outbreak of a pandemic.

At the time of this declaration there are 98 cases and no deaths in 18 countries outside of China.

The disease appears in other parts of Asia and the rest of the world. Iran and Italy become early hotspots, with these countries reporting high death tolls.

Governments around the world, public-health officials, politicians, media and other influential voices characterize the virus as extremely dangerous and focus on the contagiousness of the virus and the rising numbers of cases.

Governments begin to declare states of emergency, and speedily enact legislation to impose strict lockdown measures on the populations confining people to their homes, closing businesses and schools, shutting down whole economies and preventing freedom of movement of people.

A huge drive is made to free up hospital beds in anticipation of significant admissions of people infected with the virus. As a result, large numbers of elderly people are discharged into care homes.

Makeshift new hospitals are swiftly built to create extra bed capacity, and there is a big scramble for ventilators and personal protective equipment (PPE).

Large numbers of people die in the space of several weeks - the elderly and those with major pre-existing medical conditions form the majority of deaths.

Leaders and public health officials start daily press briefings giving daily death counts and stress the need to slow the spread of the virus and ‘flatten the curve’ to ensure health agencies are not overwhelmed.

Once the death count begins to fall, the focus shifts to mass testing of the population and monitoring case outbreaks to ‘control the virus’. The media continue to call for more testing and publicises instances of the public not complying with lock-down measures.

Despite the numbers of cases and deaths starting to plateau, officials claim it’s too early to tell whether the virus has finished passing through their population and therefore, restrictive measures must continue. Local authorities are given powers to impose local lockdowns in response to localised outbreaks.

Test and trace systems are introduced and resources are focused on tracking people down who have had contact with a test-positive individual, and these people are confined to their homes.

Legislation is enacted that allows various officials to forcefully quarantine and isolate people that have the virus or that they suspect have the virus, with powers to remove people from their own families.

Vaccines are relentlessly promoted as the solution to protect people from the virus. Academic institutions and pharmaceutical companies scramble in a race to develop a new vaccine and Government leaders seek to enter into contracts for the supply of millions of vaccines sufficient for the entire population.

In the absence of a vaccine or effective drugs, people are told they have to rely on public and social health measures. They are told that in order to regain some freedoms and to open up the economy and get people back to work, they must abide by a 'new normal' which includes measures like social distancing, wearing of face masks, avoiding physical contact with other people and restrictions to their movements.

New invasive technology such as health-monitoring apps and digital health passports are promoted, collecting data on the health status of an individual. This information is then used to determine whether an individual can return to work or resume social interactions. China, Singapore, Taiwan and South Korea are already using this technology and many other countries start looking at adopting similar systems.

Many studies emerge concluding that lockdown is causing great harm to individuals and society. The media and various authorities maintain the narrative that the adopted measures are necessary to saves lives and protect the economy, but evidence shows that the measures are having the opposite effect.

Deaths from restrictive measures start being quantified and estimates of the long term impact far exceed deaths due to the virus. Countries are seeing unprecedented levels of poverty, physical abuse, mental health issues, isolation and loneliness associated with huge falls in economic activity, mounting national debt, and huge backlogs in dealing with other health issues such as cancer, heart disease, strokes and so on.

Officials continue to stress the need for routine coronavirus testing and tracing of the population whilst restrictions on activities and freedom of movement remain, and entry into normal societal functions becomes linked to proving one's health status.

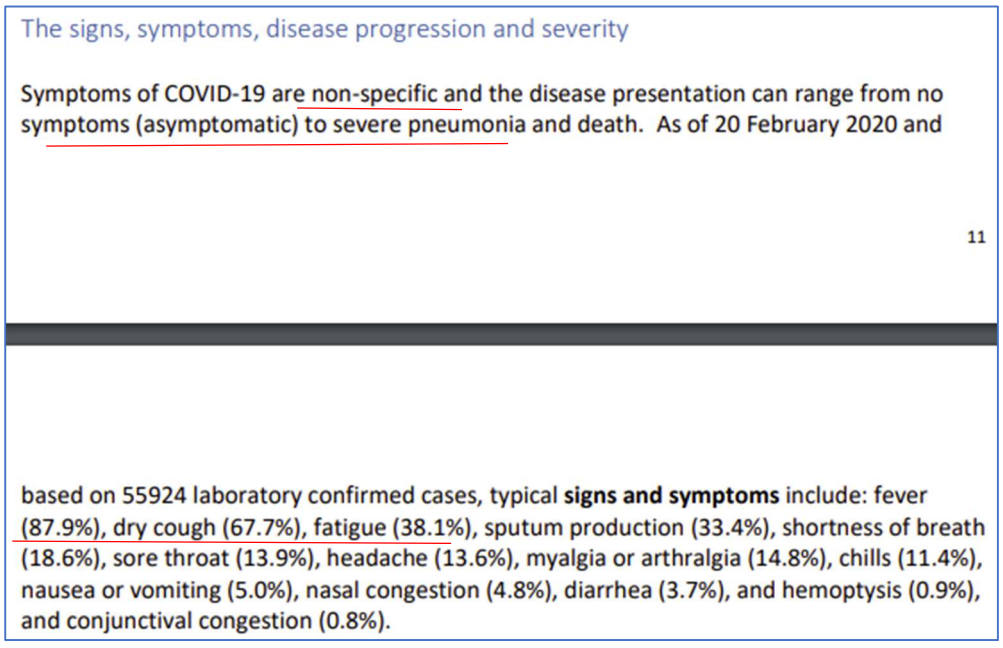
Covid-19 – is it a unique disease?

There are established protocols for studying diseases particularly in relation to the spread of a new infectious disease. The declared syndrome of the disease called Covid-19 which is being associated with a new virus can be tested against these well-established protocols.

Disease, *any harmful deviation from the normal structural or functional state of an organism, generally associated with certain signs and symptoms and differing in nature from physical injury. A diseased organism commonly exhibits signs or symptoms indicative of its abnormal state.*

The study of disease is called pathology. Correctly identifying the cause of a disease is necessary to identifying the proper course of treatment.
https://www.britannica.com/science/disease

A World Health Organisation (WHO) report based on around 56,000 cases set out the most common symptoms associated with the syndrome Covid-19. Here is a link to the report:
https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf



The signs, symptoms, disease progression and severity

Symptoms of COVID-19 are non-specific and the disease presentation can range from no symptoms (asymptomatic) to severe pneumonia and death. As of 20 February 2020 and

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based on 55924 laboratory confirmed cases, typical **signs and symptoms** include: fever (87.9%), dry cough (67.7%), fatigue (38.1%), sputum production (33.4%), shortness of breath (18.6%), sore throat (13.9%), headache (13.6%), myalgia or arthralgia (14.8%), chills (11.4%), nausea or vomiting (5.0%), nasal congestion (4.8%), diarrhea (3.7%), and hemoptysis (0.9%), and conjunctival congestion (0.8%).

The following observations can be made from the report:

- There are **no unique symptoms to Covid-19**.
- That the **disease can present with no symptoms (asymptomatic)**.
- The typical signs and symptoms **are generic** that can arise from **many other conditions and states**.

If we take those symptoms that occurred in more than half of the cases identified, then we only have **fever (88%)** and **dry cough (68%)**; which we know are common in the population generally. This creates a major problem when trying to diagnose a new disease.

The following illustration compares symptoms of Covid-19, the flu and the common cold. We can see the practical difficulty and huge potential for error when attempting to make an accurate clinical diagnosis on the basis of these 'symptoms'.

To demonstrate the point, we could create a new disease of our own which we will call **BE-19** presenting with no unique symptoms of its own but typical signs and symptoms as follows (shown on the right of the original table in shaded blue).

	COVID-19	Flu	Cold	BE-19
Incubation period	2–14 days	1–4 days	1–3 days	2-14 days
Symptom onset	Gradual	Abrupt	Gradual	Gradual
Cough	Common	Common	Mild to moderat	Sometimes
Shortness of breath	Common	Sometimes	Mild	Sometimes
Fever	Common	Common	Rare	Common
Fatigue	Common	Common	Sometimes	Common
Runny nose	Sometimes	Sometimes	Common	Sometimes
Nasal congestion	Sometimes	Sometimes	Common	Sometimes
Diarrhea	Sometimes	Sometimes	Rare	Common
Body aches	Sometimes	Common	Slight	Sometimes
Sore throat	Sometimes	Sometimes	Common	Sometimes
Headache	Sometimes	Common	Rare	Sometimes
Loss of appetite	Sometimes	Common	Sometimes	Sometimes
Respiratory issues	Common	Sometimes	Sometimes	Sometimes
Chills	Sometimes*	Fairly common	Uncommon	Sometimes
New loss of taste or smell	Sometimes	Sometimes	Sometimes	Sometimes

https://www.medicalnewstoday.com/articles/coronavirus-vs-flu#symptoms

As we can see, a new disease could easily be made out of a combination of the above common general symptoms.

The working assumption is that we have a new virus called SARS-COV-2 that is circulating across the world and this 'virus' is the cause of a new disease that is named 'Covid-19'.

To say something is a cause of a new disease requires proof and evidence.

The issue of causation is acknowledged in the following early study on the outbreak in China which reported on the identification and characterization of the new coronavirus. The article acknowledges that a causative relationship between the virus and the disease Covid-19 had not been established.

A pneumonia outbreak associated with a new coronavirus of probable bat origin, Published: 03 February 2020

'The study provides a detailed report on 2019-nCoV, the likely aetiological agent responsible for the ongoing epidemic of acute respiratory syndrome in China and other countries. Virus-specific nucleotide-positive and viral-protein seroconversion was observed in all patients tested and provides evidence of an **association** between the disease and the presence of this virus. However, there are still many urgent questions that remain to be answered. **The association between 2019-nCoV and the disease has not been verified by animal experiments to fulfil the Koch's postulates to establish a causative relationship between a microorganism and a disease'.**

https://www.nature.com/articles/s41586-020-2012-7

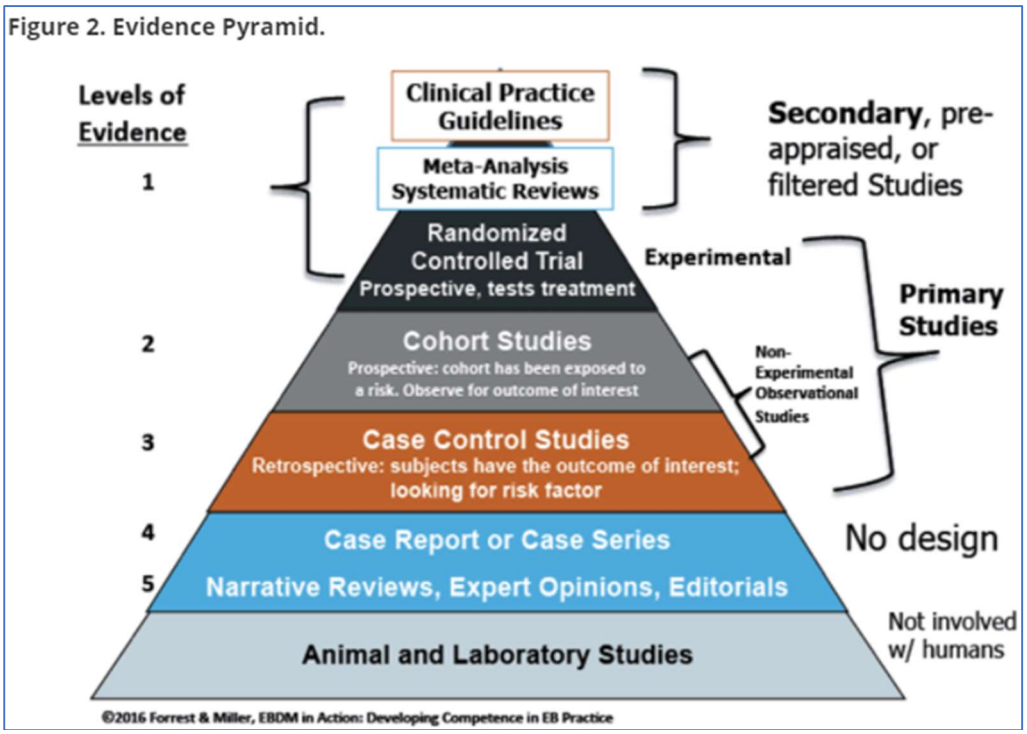
We will now look at the scientific standards and evidence used in making health-related decisions and in establishing causative relationships.

A brief introduction to evidence-based decision-making

Much mention has been made throughout the last few months by officials and those in authority and the media of the claim of 'following the science' and being 'guided by the evidence'. A brief overview of this important area is explored in this section and examples are given where misuse, misrepresentation and conflicts of interest could occur.

Evidence-based medicine (EBM), is about finding evidence and using that evidence to make decisions. A cornerstone of EBM is a hierarchical system of classifying evidence. There are various methodologies and approaches that can be used but the following serves as a very useful illustration of the concept:

Figure 2. Evidence Pyramid.



https://www.dentalcare.com/en-us/professional-education/ce-courses/ce530/evidence-pyramid-and-study-types

This simple pyramid can help us understand how to weigh different levels of evidence in order to make health-related decisions. It helps us to put the results of each study into perspective, based on the relative strengths and weaknesses of each design. Level 1 is the best and strongest form of evidence and Level 5 the weakest.

Level	Description
One	At the top of the hierarchy are **Clinical Practice Guidelines (CPGs).** CPGs represent an interpretation or translation of the highest levels of research evidence on a specific topic to provide guidance to clinicians. Systematic Reviews and Meta-**Analyses**, are "Secondary" or "Filtered studies." and provide Level 1 evidence. Secondary research provides a synthesis of the primary/individual research studies, which address the same specific and very focused question regarding a particular intervention. If no systematic review or meta-analysis is available, then an individual **randomized controlled trial (RCT)** is recognized as the next best evidence (Level 1) for determining causality. RCTs are regarded as very reliable and a **gold standard**.
Two	**Cohort studies** are considered Level 2 evidence. This is a type of observational study. Cohort studies are ''prospective in nature.'' In these studies, participants are placed into groups based on their exposure to a risk factor/causal agent. One group of individuals has been exposed to a putative causal agent (e.g., tobacco), while the other group has not (no exposure to tobacco). Both groups are then followed by the researcher for a period of time to measure the "incidence" or development of the disease or outcome of interest, e.g., lung cancer.
Three	**Case-control studies** are the second type of observational study and provide Level 3 evidence. These studies are "retrospective in nature." In other words, they look back in time at a group of individuals who already have the disease or outcome being studied. This group is then compared with a control group who are typically matched in all possible aspects with those who have the disease/outcome except they do not have the disease/outcome.
Four	**Case reports (an individual patient) and case series** are descriptive studies that are prepared for illustrating novel, unusual, or atypical features identified in patients in medical practice, and they potentially generate new research questions. Generally considered as anecdotal evidence.
Five	**Expert opinions and editorials** and considered the least reliable and basically regarded anecdotal.

'**An RCT is the highest level of primary evidence and is a "true experiment"** in which eligible individuals are randomly assigned to either the experimental or control group. The experimental group would receive the intervention being tested whereas the control group would receive a placebo or no treatment. **RCT's have the ability to safeguard against bias through "randomization" of participants and "blinding" of either the participants or the investigator (or both).**'
https://www.dentalcare.com/en-us/professional-education/ce-courses/ce530/evidence-pyramid-and-study-types

A framework called GRADE (Grading of Recommendations, Assessment, Development and Evaluations) can be used for grading the quality of evidence and for making recommendations. The tool is subjective however, and different persons evaluating the same body of evidence might come to different conclusions. You can find some details about it here: https://bestpractice.bmj.com/info/toolkit/learn-ebm/what-is-grade/

GRADE has four levels of evidence – also known as 'certainty in evidence' or 'quality of evidence':

Table 1. GRADE certainty ratings

Certainty	What it means
Very low	The true effect is probably markedly different from the estimated effect
Low	The true effect might be markedly different from the estimated effect
Moderate	The authors believe that the true effect is probably close to the estimated effect
High	The authors have a lot of confidence that the true effect is similar to the estimated effect

Causation

Another important issue when assessing evidence is **Causation** and many errors can be made in this regard, where correlation and association can get muddled up with causation. The following link https://www.dentalcare.com/en-us/professional-education/ce-courses/ce530/assessing-evidence-for-causation provides an illustrative approach for assessing causation issues.

I replicate the example below which shows the process in action, taken from the link above.

Assessing Evidence for Causation

When determining whether there is sufficient evidence to imply a causal relationship between a variable and an outcome, it is important to follow a systematic process that utilizes the criteria for causation. Two examples of how this process can be applied are given below. Each has been prepared following an extensive search and analysis of the existing literature.

Example # 1 "Cigarette Smoking and Periodontitis"

Bradford Hill Criteria	Cigarette Smoking and Periodontitis
Temporal Relationship (the cause must precede the outcome)	**Yes** *(Numerous observational studies)*
Strength (Rank the evidence according to study Level and RR's or OR's reported)	**Strong *BUT*** *(only level 2 studies available, but OR's are strong)*
Dose-response (Biological gradient) (Disease worsens with amount of exposure)	**Yes** *(Numerous studies demonstrating this)*
Consistency (Relationship is repeatedly observed)	**Yes** *(Numerous studies consistently have the same results)*
Plausibility (From a biological standpoint, the relationship is possible)	**Yes** *(Numerous studies showing biological plausibility)*
Experiment (Causality is more likely if demonstrated in randomized controlled trials or systematic reviews of RCT's)	**No** *(No RCT's or systematic reviews of RCT's available)*
Specificity (A specific factor influences a particular outcome)	**No** *(Cannot say with certainty that in **every** case, smoking causes periodontitis)*
Coherence (Studies must not contradict each other)	**Yes** *(Studies do not contradict each other)*

Conclusions from this analysis: Due to ethical reasons, it is not possible to conduct experimental studies where some participants are assigned to smoke and others not to smoke and then wait for years to see if they develop periodontal disease. Thus, the analysis falls short in the category of experiment, however the evidence is very strong in observational studies (OR's >4). This analysis is similar to the one conducted by Bradford Hill regarding cigarette smoking and lung cancer. This analysis reveals that cigarette smoking is not only plausible but consistently associated with an increased prevalence/severity of periodontitis demonstrating a dose-response relationship. Thus, one can say with confidence, that it is ***suspected*** of playing a ***causal role***. Thus, smoking is now listed as one of the few true Risk Factors for periodontitis.

The purpose of presenting the preceding information is to demonstrate that scientific evidence must be the outcome of well-designed and well-controlled research investigations.

To prove 'causation' there are strong criteria that should be met for any assertion that a particular thing (variable) causes another thing (outcome).

Whenever a claim or assertion is made, we can refer back to the pyramid of evidence and weigh the evidence. What level does it sit in?

We can also extend this tool and apply it to the various measures and restrictions introduced in response to the epidemic and being claimed as necessary to protect lives and peoples' health.

The 'burden of proof rests with those making the claim.'

So we need proof of any claim that 'something' caused 'something else' or that certain measures and restrictions are necessary to tackle something; otherwise we are at a high risk of working on nothing but mere 'superstition', 'dogma' and 'pseudoscience'.

Misuse and Misrepresentation of Research

The academic and research publishing business is a massive industry and can be subject to significant misuse and misrepresentation.

Here is an article by Stanford University Professor John P. A. Ioannidis published in 2005 that details various concerns on published research findings.

Why Most Published Research Findings Are False
https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0020124

'There is increasing concern that most current published research findings are false. The probability that a research claim is true may depend on study power and bias, the number of other studies on the same question, and, importantly, the ratio of true to no relationships among the relationships probed in each scientific field. In this framework, a research finding is less likely to be true when the studies conducted in a field are smaller; when effect sizes are smaller; when there is a greater number and lesser preselection of tested relationships; where there is greater flexibility in designs, definitions, outcomes, and analytical modes; when there is greater financial and other interest and prejudice; and when more teams are involved in a scientific field in chase of statistical significance. Simulations show that for most study designs and settings, it is more likely for a research claim to be false than true. Moreover, for many current scientific fields, claimed research findings may often be simply accurate measures of the prevailing bias. In this essay, I discuss the implications of these problems for the conduct and interpretation of research.'

Corollary 5: **The greater the financial and other interests and prejudices in a scientific field, the less likely the research findings are to be true. Conflicts of interest and prejudice may increase bias.** Conflicts of interest are very common in biomedical research [26], and typically they are inadequately and sparsely reported [26,27]. Prejudice may not necessarily have financial roots. **Scientists in a given field may be prejudiced purely because of their belief in a scientific theory or commitment to their own findings**. Many otherwise seemingly independent, university-based studies may be conducted **for no other reason than to give physicians and researchers qualifications for promotion or tenure**. Such nonfinancial conflicts may also lead to **distorted reported results and interpretations.** Prestigious investigators may suppress via the peer review process the appearance and

dissemination of findings that refute their findings, thus condemning their field to perpetuate false dogma. **Empirical evidence on expert opinion shows that it is extremely unreliable** [28].

One area where misuse, misrepresentation and conflicts of interest are rife is in the pharmaceutical and drug sector.

The following article is an enlightening read. **Please read it thoroughly**. It was written by Richard Smith who was an editor for the prestigious British Medical Journal (BMJ) for 25 years, and he shares his invaluable experience during this time:

Medical Journals Are an Extension of the Marketing Arm of Pharmaceutical Companies
https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.0020138

Some snippets below:

"Journals have devolved into **information laundering operations for the pharmaceutical industry**", wrote Richard Horton, editor of the Lancet, in March 2004 [1]. In the same year, Marcia Angell, former editor of the New England Journal of Medicine, lambasted the industry for becoming "**primarily a marketing machine**" and co-opting "every institution that might stand in its way" [2]. Medical journals were conspicuously absent from her list of co-opted institutions, but she and Horton are not the only editors who have become increasingly queasy about the power and influence of the industry. Jerry Kassirer, another former editor of the New England Journal of Medicine, argues that **the industry has deflected the moral compasses of many physicians** [3], and the editors of PLoS Medicine have declared that they will not become "**part of the cycle of dependency…between journals and the pharmaceutical industry**" [4].

A table in the article provides some **excellent examples of how clinical trials can be misused and misrepresented.** We can see the dangers of this being used to advocate drugs and vaccines:

Examples of Methods for Pharmaceutical Companies to Get the Results They Want from Clinical Trials

- Conduct a trial of your drug against a treatment known to be inferior.
- Trial your drugs against too low a dose of a competitor drug.
- Conduct a trial of your drug against too high a dose of a competitor drug (making your drug seem less toxic).
- Conduct trials that are too small to show differences from competitor drugs.
- Use multiple endpoints in the trial and select for publication those that give favourable results.
- Do multicentre trials and select for publication results from centres that are favourable.
- Conduct subgroup analyses and select for publication those that are favourable.
- Present results that are most likely to impress—for example, reduction in relative rather than absolute risk.

Just to reiterate, this article was written by a British medical doctor who edited a prestigious journal (the BMJ) for 25 years. Editors of other journals have also said the same thing.

Here is another excellent read explaining misuse of the 'independent' and 'expert' label used frequently in our times:

Trust Us, We're Experts! How Industry Manipulates Science and Gambles with Your Future by Sheldon Rampton and John Stauber
https://www.prwatch.org/books/experts.html

Here is a brief summary:

"In their new book, Trust Us, We're Experts: How Industry Manipulates Science and Gambles with Your Future, Sheldon Rampton and John Stauber offer **a chilling exposé on the manufacturing of "independent experts."** Public relations firms and corporations have seized upon a slick new way of getting you to buy what they have to sell: Let you hear it from a neutral "third party," like a professor or a pediatrician or a soccer mom or a watchdog group. The problem is, **these third parties are usually anything but neutral**. They have been handpicked, cultivated, and meticulously packaged to make you believe what they have to say--preferably in an "objective" format like a news show or a letter to the editor. And in some cases, they have been paid handsomely for their "opinions."'

A video is available of the authors talking about their book and providing more insights – it's just over an hour long:

https://www.c-span.org/video/?162637-1/trust-us-experts

Steps for Proving a New Infectious Disease

A detailed step by step account of protocols that can be followed to prove a new infectious disease are given in **Appendix 1: Steps for Proving a New Infectious Disease.**

These steps are devised from scientific standards that were set up in the early 20th century for the detection of any alleged infectious disease and they follow **common sense and basic laws of sound reasoning**. The steps are:

1. **A New Clinical Picture** – a clinical picture is collated for any new disease with new symptoms that have not been seen before;
2. **Medical History Examination** – an examination is carried out to identify factors that may have caused the disease, looking for patterns and obvious causes first;
3. **Optical Identification of the Pathogen** - if nothing stands out from the medical history examination, then a pathogen is identified from samples taken from patients;
4. **Isolation and High Purification** – this sample must be highly purified and isolated free from other particles;
5. **Identification and Characterisation** – using this highly purified sample, the properties of the pathogen can be determined;
6. **Calibration of Laboratory Testing** – only if the pervious steps have been successfully performed, a test can be developed for a response to the unique features of this pathogenic virus;
7. **Fulfilling Koch's First Postulate** - Koch's postulates describe a cause-effect relationship between the pathogen and the corresponding disease. The first postulate demands that the supposed pathogen is found only in the sick and never or rarely in the healthy.
8. **The Second Postulate** - the isolated, purified pathogen must be able to multiply.
9. **The Third Postulate** – the pathogen is administered to healthy test subjects;
10. **The Fourth Postulate** – the disease-causing virus is now re-isolated in purified form, from the diseased host and identified as being identical to the original causative agent from previous steps that was purified, cultured and characterised.

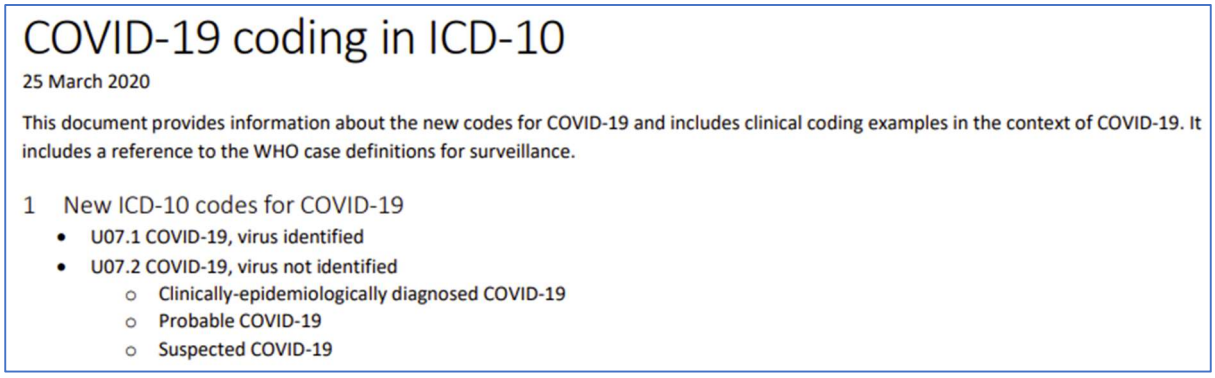
The steps have been taken from the German publication 'Express Zeitung' translated in English as 'Express Newspaper', Issue 32, May 2020. It has been adapted to include additional explanatory information.

Now that we have established a framework for how a new disease can be proven based on common sense and logic, we can move on to look at the new disease of Covid-19, keeping this framework in mind.

What is a Covid-19 death?

The number of deaths attributed to this new disease called 'Covid-19' is being very closely tracked across the world. Given the huge focus on the 'numbers' a key consideration is how deaths attributed to Covid-19 are defined, identified and reported.

The World Health Organisation (WHO) gives guidance for coding of Covid-19 deaths, which the UK and many other countries have adopted and in turn feeds into the information published by the UK's Office for National Statistics (ONS):



COVID-19 coding in ICD-10

25 March 2020

This document provides information about the new codes for COVID-19 and includes clinical coding examples in the context of COVID-19. It includes a reference to the WHO case definitions for surveillance.

1 New ICD-10 codes for COVID-19

- U07.1 COVID-19, virus identified
- U07.2 COVID-19, virus not identified
  - Clinically-epidemiologically diagnosed COVID-19
  - Probable COVID-19
  - Suspected COVID-19

https://www.who.int/classifications/icd/COVID-19-coding-icd10.pdf?ua=1

So here, the identification of a 'virus' being detected in the body is a factor, as well as clinical symptoms (e.g. fever, cough etc). We also have the concept of 'probable' and 'suspected' Covid-19 deaths.

The WHO document provides definitions for 'confirmed', 'suspected' and 'probable' cases and these are shown below:

Confirmed cases

A confirmed case is a person with laboratory confirmation of infection with the COVID-19 virus, irrespective of clinical signs and symptoms.

Suspected cases

A) a patient with acute respiratory illness (that is, fever and at least one sign or symptom of respiratory disease, for example, cough or shortness of breath) AND with no other etiology that fully explains the clinical presentation AND a history of travel to or residence in a country, area or territory that has reported local transmission of COVID-19 disease during the 14 days prior to symptom onset

OR

B) a patient with any acute respiratory illness AND who has been a contact of a confirmed or probable case of COVID-19 disease during the 14 days prior to the onset of symptoms

OR

C) a patient with severe acute respiratory infection (that is, fever and at least one sign or symptom of respiratory disease, for example, cough or shortness breath) AND who requires hospitalization AND who has no other etiology that fully explains the clinical presentation.

Probable case
A probable case is a suspected case for whom the report from laboratory testing for the COVID-19 virus is inconclusive.

We can take from the above that those cases which are designated as 'confirmed' can be classed as such **even if there were NO clinical signs and symptoms of illness** (i.e. solely on the basis of a laboratory test).

We can also note that **'probable'** and **'suspected'** cases can be included as Covid-19 deaths.

The specific classifications adopted by nations across the world can vary - a single definition is not used.

UK Reporting on Deaths

There are two main data sources on numbers of Covid-19 deaths and they use different definitions and serve different purposes:

- The Department of Health and Social Care releases daily updates (https://coronavirus.data.gov.uk/) on the number of deaths that occur within 28 days of testing positive for Covid-19. These are deaths in people **with Covid-19** and not necessarily due to Covid-19, and do not include deaths in people where Covid-19 was suspected but a laboratory test was not done or was negative. **For example, if someone died immediately in a car accident and they had tested positive for Covid-19 within 28 days of the accident, this would count as a Covid-19 death according to this definition.**

- The ONS provides weekly figures based on deaths certified and registered in England and Wales with Covid-19 as an underlying or contributory cause of death (in other words wherever Covid-19 was 'mentioned' on death certificates). The figures include all Covid-19 deaths whether tested for Covid-19 or suspected by the certifying doctor based on symptoms.

The UK's Office for National Statistics (ONS) publishes weekly updates on a Tuesday and are contained in spreadsheet format: **Weekly provisional figures on deaths registered in England and Wales**
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales

Here, Covid-19 deaths are described as follows:

'Deaths where COVID-19 was mentioned on the death certificate (ICD-10 U07.1 and U07.2)'

and a further explanation:

'underlying cause of death' refers to the main cause of death, whereas a cause being 'mentioned on the death certificate' means that it might be the main reason or a contributory reason to the cause of death.'

Note the distinction between an 'underlying cause of death' and a cause being 'mentioned on the death certificate' meaning that it **MIGHT** be the main reason or a contributory reason.

So we can take from this that the terminology being used can be vague and non-specific. e.g.

- 'covid-19 associated deaths'
- 'dying with covid-19'
- 'deaths involving covid-19'
- 'dying after testing positive for Covid-19'

The following links from the ONS website clarify how deaths are recorded by the ONS:

Deaths involving COVID-19, England and Wales: deaths occurring in June 2020
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvingcovid19englandandwales/deathsoccurringinjune2020

Counting deaths involving the coronavirus (COVID-19), Sarah Caul March 31, 2020
https://blog.ons.gov.uk/2020/03/31/counting-deaths-involving-the-coronavirus-covid-19/

Measuring pre-existing health conditions in death certification – deaths involving COVID-19: March 2020
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/methodologies/measuringpreexistinghealthconditionsindeathcertificationdeathsinvolvingcovid19march2020

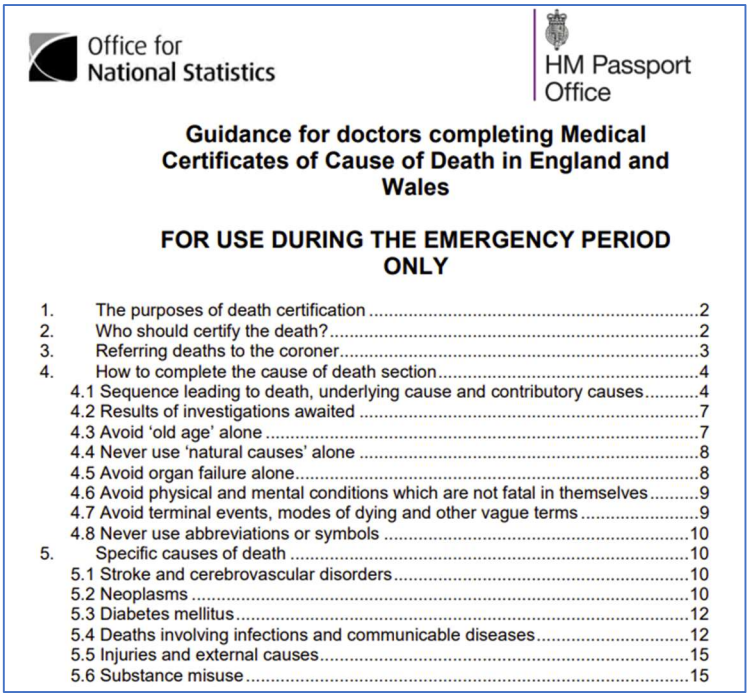
The statistics prepared by the ONS rely on information contained in medical certificates of causes of death. Every death will have an 'underlying' cause recorded, along with any other causes that may have contributed to the death ('contributory' causes) – taken together, these are called 'mentions' (deaths with a cause appearing anywhere on the death certificate).

Certificates of Causes of Death

Guidance for doctors completing medical certificates on causes of death has recently been revised and is contained in this document *'Guidance for doctors completing Medical Certificates of Cause of Death in England and Wales'.*
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877302/guidance-for-doctors-completing-medical-certificates-of-cause-of-death-covid-19.pdf

The changes are said to have been made due to the current crisis where families may have to self-isolate or are unable to leave their homes due to Covid-19-related sickness absence, and it may become impossible to comply with the usual requirements for registering a death.

A summary of the contents is shown on the right. It provides some practical examples of how to complete a death certificate.



Office for National Statistics

HM Passport Office

Guidance for doctors completing Medical Certificates of Cause of Death in England and Wales

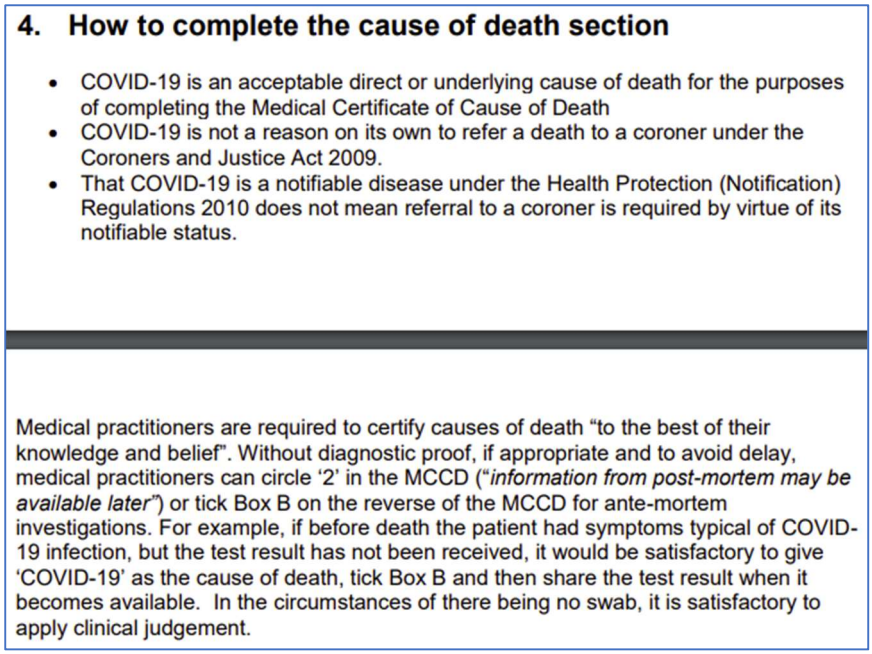
FOR USE DURING THE EMERGENCY PERIOD ONLY

The signing of death certificate is an important legal responsibility and medical practitioners are required to certify causes of death *'to the best of their knowledge and belief'.*

Before the Covid-19 crisis, only certain people could register a death and had to attend before the registrar in person. The Coronavirus Act has however expanded the list of people who can now register a death, and this includes funeral directors who are helping the family with the arrangements.

Doctors do not necessarily need to have examined the deceased prior to signing the Medical Certificate of Cause of Death (MCCD). Any doctor can sign the MCCD. There is no need for the scrutiny of a second Medical Examiner. The Medical Examiner, or any other doctor, can sign the MCCD alone. Safeguards were introduced in 2016 following systematic abuses but have been removed during the emergency period for cases of Covid-19.

Section 4 of the guidance (shown below) refers to Covid-19 and how deaths attributed to it are to be registered:



4. How to complete the cause of death section

- COVID-19 is an acceptable direct or underlying cause of death for the purposes of completing the Medical Certificate of Cause of Death
- COVID-19 is not a reason on its own to refer a death to a coroner under the Coroners and Justice Act 2009.
- That COVID-19 is a notifiable disease under the Health Protection (Notification) Regulations 2010 does not mean referral to a coroner is required by virtue of its notifiable status.

Medical practitioners are required to certify causes of death "to the best of their knowledge and belief". Without diagnostic proof, if appropriate and to avoid delay, medical practitioners can circle '2' in the MCCD ("*information from post-mortem may be available later*") or tick Box B on the reverse of the MCCD for ante-mortem investigations. For example, if before death the patient had symptoms typical of COVID-19 infection, but the test result has not been received, it would be satisfactory to give 'COVID-19' as the cause of death, tick Box B and then share the test result when it becomes available. In the circumstances of there being no swab, it is satisfactory to apply clinical judgement.

Under the revised guidance on completing a medical certificate we can see that 'Covid-19' is allowed as a direct or underlying cause of death for the purpose of completing the death certificate. **This is a crucial point.**

Guidance from the Royal College of Pathologists states:

'If a death is believed to be due to confirmed COVID-19 infection, there is unlikely to be any need for a post-mortem examination to be conducted and the Medical Certificate of Cause of Death should be issued.'
https://www.rcpath.org/discover-pathology/news/new-briefing-on-covid-19-autopsy-practice-relating-to-possible-cases-of-covid-19.html

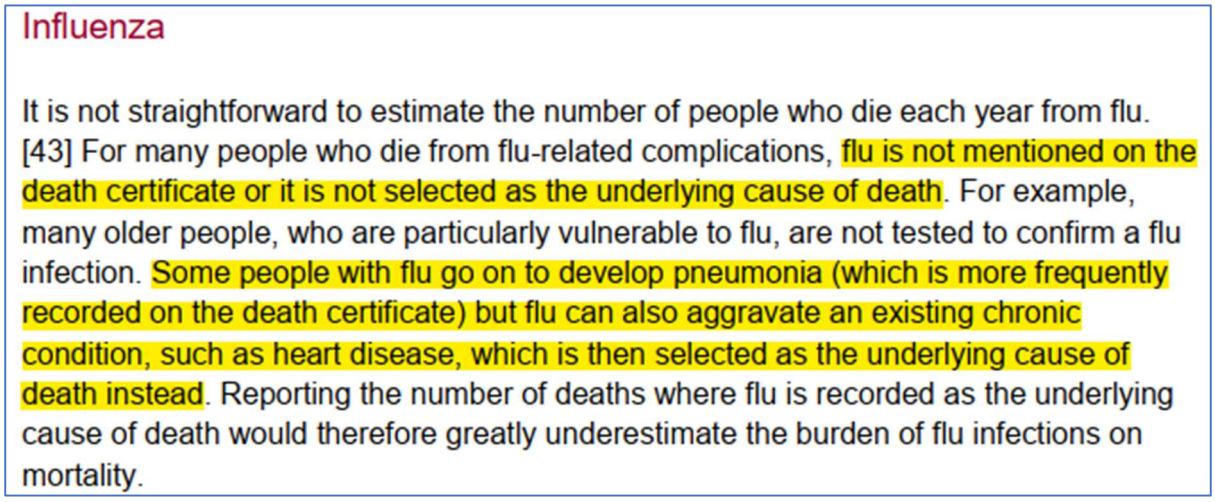
In other words, if Covid-19 is believed to have anything to do with the death, no need to look into it further, is the strong hint here.

An article by a Dr John Lee, a former professor of pathology and NHS consultant pathologist covers the subject of reporting of Covid-19 deaths. Lee explains in his piece that if a disease is not a **notifiable** one it won't be used to account for a patient's death; the flu, for instance, is not a notifiable disease. **So, if the flu complicates into a respiratory infection that kills a patient, who also has another serious illness, then the flu won't feature as the cause of death**. Extrapolating from this, we learn that if Covid-19 was not notifiable, any respiratory infection (that becomes the fatal illness) that might be thought to complicate from SARS-COV-2 would not be blamed for the death.

The distinction above is really important.

Here is a link to the article by Dr Lee from The Spectator:
https://www.spectator.co.uk/article/the-way-covid-deaths-are-being-counted-is-a-national-scandal

A Public Health England document called 'A review of recent trends in mortality in England' published in December 2018 corroborates this issue. On page 52 of the document it states:



Influenza

It is not straightforward to estimate the number of people who die each year from flu. [43] For many people who die from flu-related complications, flu is not mentioned on the death certificate or it is not selected as the underlying cause of death. For example, many older people, who are particularly vulnerable to flu, are not tested to confirm a flu infection. Some people with flu go on to develop pneumonia (which is more frequently recorded on the death certificate) but flu can also aggravate an existing chronic condition, such as heart disease, which is then selected as the underlying cause of death instead. Reporting the number of deaths where flu is recorded as the underlying cause of death would therefore greatly underestimate the burden of flu infections on mortality.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/827518/Recent_trends_in_mortality_in_England.pdf

Concerns about statistics on Covid-19

An article from The Guardian highlights a number of issues that should be borne in mind when viewing various statistics on deaths:

Coronavirus statistics: what can we trust and what should we ignore?

''The number of new deaths each day'' The range of sources on this is large and each of these can report deaths in differing ways and different time periods. The gold standard is the number of death certificates collated by the Office for National Statistics:

"Excess deaths" **The number of extra deaths that will be recorded due either to Covid-19 or the lockdown, is hotly contested**. Lives will be lost **because of the illness, reduced medical care for everyone, domestic violence and the effects of unemployment and poverty**; and lives will be saved through fewer accidents and, particularly, improved air quality. A (disputed) fraction of those dying would have died anyway in the coming year, a phenomenon known as mortality displacement or even "harvesting". But the overall effect is hard to predict, and **confident claims should be treated with scepticism**.

https://amp.theguardian.com/world/2020/apr/12/coronavirus-statistics-what-can-we-trust-and-what-should-we-ignore?

Summary

We can summarise the context and environment in which information on deaths was and is being recorded, and which is feeding into the various mortality statistics:

- A new virus allegedly discovered and spreading across the world;
- The virus alleged to be the cause of a new disease called Covid-19;
- Great uncertainty as to the features of the virus, its transmission, its impact and severity in terms of any disease it is said to cause;
- Main symptoms of the new disease of Covid-19 said to be 'high fever' and 'continuous cough';
- The symptoms attributed to this new disease happen to be generic and common across the human population and could arise from many other conditions;
- Guidance for completing medical certificate of cause of death revised and relaxed during the 'emergency period'
- Potential pressures on health service and medical practitioners due to disruption to health services and caseload numbers in hospitals;
- A potential for greater number of deaths being certified by someone other than the 'attending' doctor;
- Unavailability of staff due to self-isolation, quarantine and illness;
- Potential for innocent mistakes, confusion and errors of judgement due to disruption to health and care sector with staff working under pressure and stress;
- Potential bias in the classification of deaths towards 'Covid-19' by medical practitioners due to prevailing high profile reporting and coverage in the media and elsewhere of the 'virus' on a daily basis;
- Lack of post –mortem and detailed investigation of cause of death of the new disease, although many deceased having chronic pre-existing medical conditions;
- Laboratory tests being used to determine confirmed cases but major concerns about their accuracy and usefulness in being used to diagnose a disease or infection.

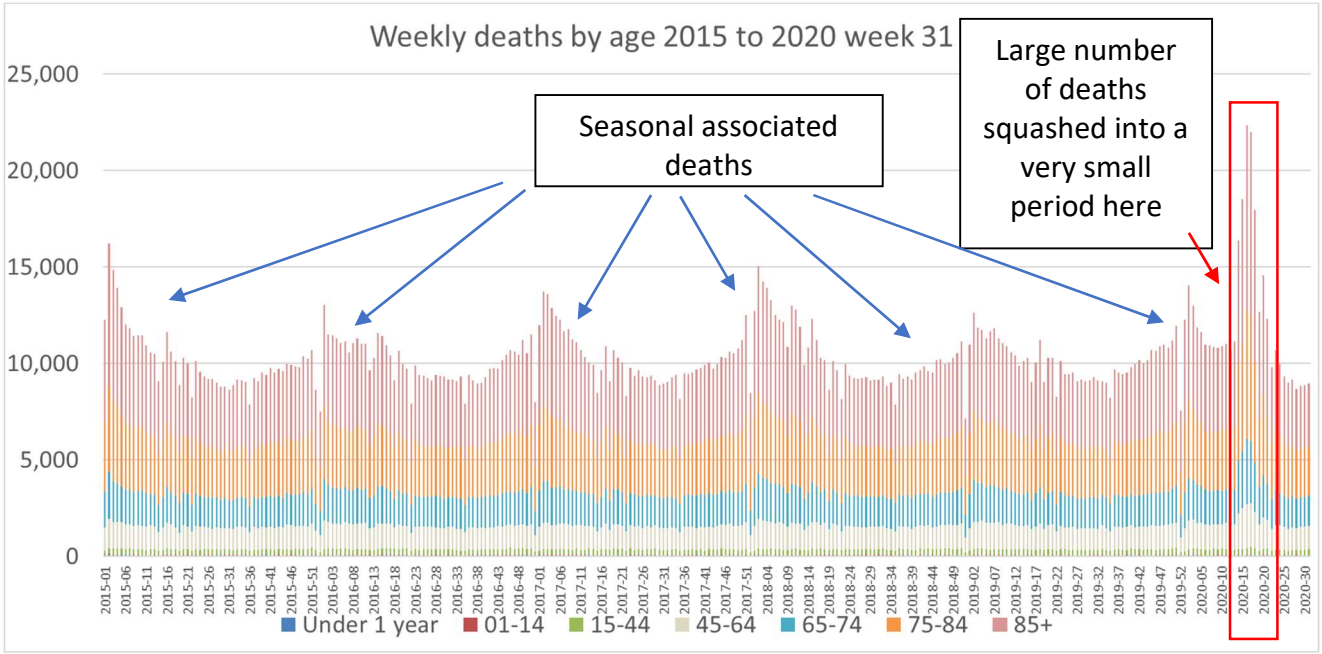
Covid-19 death statistics

The previous section highlighted that some caution should be taken when looking at mortality statistics and the difficulties presented in accurately attributing deaths to Covid-19. With this mind, we will now look at mortality statistics using information from the Office of National Statistics (ONS) on reported Covid-19 deaths, the timing of those deaths, the ages of the deceased and the settings where deaths took place.

Average annual deaths

The Office for National Statistics (ONS) as a very credible source of information which publishes a range of statistics about the UK's economy, society and population. In relation to reported Covid-19 deaths, the ONS publishes a range of statistics and information.

Before we examine deaths attributed to Covid-19, here is a summary of annual deaths in England and Wales over the last 5 years. The graph allows you to visualise the proportion of deaths by age group and how they vary over the five-year period. Note the peaks and troughs.



Source data used to prepare the chart:
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales.

The peaks are said to represent cold/flu seasons and are associated with higher level of deaths. Notice how these peaks are spread out over a long period – a gradual rise and a gradual fall. Try to imagine a sort of triangle shape above the 10,000 deaths line on the y-axis - this also provides you with a quick visualisation of the number of deaths. You can see

how in some seasons the 'triangle' is more pronounced and in some time seasons it is more shallow.

Looking at 2020, we can observe that there is a very narrow period in which peak deaths occurred – weeks 14 to 21 (an 8-week period). This is very unusual when compared with seasonal peaks in previous years. There is no 'gradual' rise and fall, but a very **'rapid' rise and fall**.

We can also observe that deaths of people in the age band 65 to 74 were higher (unlike previous periods where they were largely constant, even throughout the flu season). There is also a smaller peak for the 45 to 64 age range observed for the first time in comparison to the previous five years. The largest death toll by far is for the aged over 75 group.

The table below shows annual deaths broken down by age bands, showing an average of circa 530,00 deaths a year and an average of 10,000 people dying each week in England & Wales.

England and Wales	**2015**	**2016**	**2017**	**2018**	**2019**	**2020 to week 37**
Deaths	539,007	524,474	533,125	539,340	527,234	434,646
Average per week	10,168	10,083	10,251	10,371	10,139	11,747
By Age:						
Under 1 year	53	53	53	50	49	47
01-14	20	19	18	18	18	16
15-44	283	291	279	291	283	290
45-64	1,180	1,205	1,202	1,229	1,215	1,383
65-74	1,637	1,681	1,700	1,724	1,683	1,904
75-84	2,917	2,854	2,884	2,909	2,878	3,388
85+	4,078	3,980	4,115	4,150	4,013	4,719
Average per week	**10,168**	**10,083**	**10,251**	**10,371**	**10,139**	**11,747**

https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales

To simplify the table above, we can state that in England and Wales **each week,** around:

- 10,000 people die in total;
- 1,300 people die who are less than the age of 65;
- 1,700 people die between the ages of 65 to 74;
- 3,000 people die between the ages of 75 to 84; and
- 4,000 people over the age of 85 die.

We can simplify this even more and say that **each week** around **1,300 people die who are less than the age of 65**, and **8,700 people die aged 65 and over**.

To further put things into context, here is the mid-2019 population estimates for the age bands above. I have used reported actual deaths from 2019.

	Population Mid-2019	Annual Deaths 2019	Deaths as % of Population	1 in every person in age group dying
Under 1 year	649,388	2,567	0.40%	250
01-14	10,072,846	934	0.01%	10,000
15-44	22,465,870	14,714	0.07%	1,429
45-64	15,235,644	63,195	0.41%	244
65-74	5,937,494	87,492	1.47%	68
75-84	3,597,153	149,651	4.16%	24
85+	1,481,445	208,681	14.09%	7
Total	**59,439,840**	**527,234**	**0.89%**	**113**

To help interpret the table: taking the 85+ age group as an example, 1 in 7 of every person in the 85+ age group died in 2019. For the 15-44 age bracket: 1 in every 1,429 persons in that age group died in 2019.

The population of people aged 65 and over is **11 million** (shown in blue font). Only a small proportional of these are being looked after in a care home setting.

A recent study has estimated the number of people in a care homes at around 300,000 for a subset of care homes which provide care for people with dementia and older people over 65 years of age. The total number of people in care homes will be higher than this figure as not all care homes are included in this study. Interestingly, the population of older residents in care home settings has not changed much since 2001.

Source for the figures above:
Impact of coronavirus in care homes in England: 26 May to 19 June 2020
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/impactofcoronavirusincarehomesinenglandvivaldi/26mayto19june2020

Changes in the Older Resident Care Home Population between 2001 and 2011
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/ageing/articles/changesintheolderresidentcarehomepopulationbetween2001and2011/2014-08-01

Excess Winter Deaths

It is also useful to examine the number of 'excess winter' deaths each year; this information is published as part of the Health Profile for England 2019 statistics showing winter 'excess' deaths going back to 1950/1951. Data from 1989/90 onwards is shown below which also highlights those years where there was excess deaths above 40,000 a year:

Winter season	Excess winter deaths	Five-year moving average
1989/1990	47200	34824
1990/1991	37940	33360
1991/1992	34850	34304
1992/1993	25650	30322
1993/1994	25880	30772
1994/1995	27290	33342
1995/1996	40190	32802
1996/1997	47700	36988
1997/1998	22950	41214
1998/1999	46810	38134
1999/2000	48420	34040
2000/2001	24790	34236
2001/2002	27230	29558
2002/2003	23930	26188
2003/2004	23420	26268
2004/2005	31570	25530
2005/2006	25190	25668
2006/2007	23540	28252
2007/2008	24620	27070
2008/2009	36340	27226
2009/2010	25660	27326
2010/2011	25970	28634
2011/2012	24040	24828
2012/2013	31160	28466
2013/2014	17310	28188
2014/2015	43850	30286
2015/2016	24580	34074
2016/2017	34530	
2017/2018	50100	

https://www.gov.uk/government/publications/health-profile-for-england-2019
Chapter 7: current and emerging health protection issues (data tables)
Figure 7. Excess winter deaths and 5-year moving average in England and Wales, between 1950 to 1951 and 2017 to 2018 (provisional)

- In 1950/51 there were **106,400** excess winter deaths;
- In 1962/63 there were **89,600** excess winter deaths;
- As recently as 2017/18 we had excess winter deaths of **50,100**.

An observation from the data above is that **excess deaths are not unique to Covid-19** and they have also occurred in previous years – in much higher numbers.

For example, this article from the Daily Mail reports on the flu outbreak in 2017/18:

Killer flu outbreak is to blame for a 42% spike in deaths in January after 64,000 people died - the highest number since records began

- **Government data shows 64,157 people died in January - the highest since 2006**
- **It is only the second time the toll has breached the 60,000 mark, figures reveal**
- **'Circulating influenza' was blamed, released by the Office for National Statistics**

By STEPHEN MATTHEWS FOR MAILONLINE
PUBLISHED: 15:16, 27 February 2018 | **UPDATED:** 16:36, 27 February 2018

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The killer flu outbreak is to blame for a 42 per cent spike in deaths across England and Wales, statisticians claim.

Government figures reveal 64,157 people died in January - significantly higher than the death toll of 45,141 recorded in December.

It is the highest number since records began in 2006 - and only the second time it has breached 60,000.

'Circulating influenza' was blamed in the report, released today and compiled using data of deaths from each region.

It showed deaths were higher than levels recorded during the Swine flu pandemic in 2010 - considered the worst outbreak in recent years.

And here's a similar article from Time magazine about a flu outbreak in the US:

Killer flu outbreak to blame for 42% spike in deaths…
https://www.dailymail.co.uk/health/article-5440785/Killer-flu-outbreak-blame-42-spike-deaths.html

Hospitals Overwhelmed by Flu Patients Are Treating Them in Tents
https://time.com/5107984/hospitals-handling-burden-flu-patients/

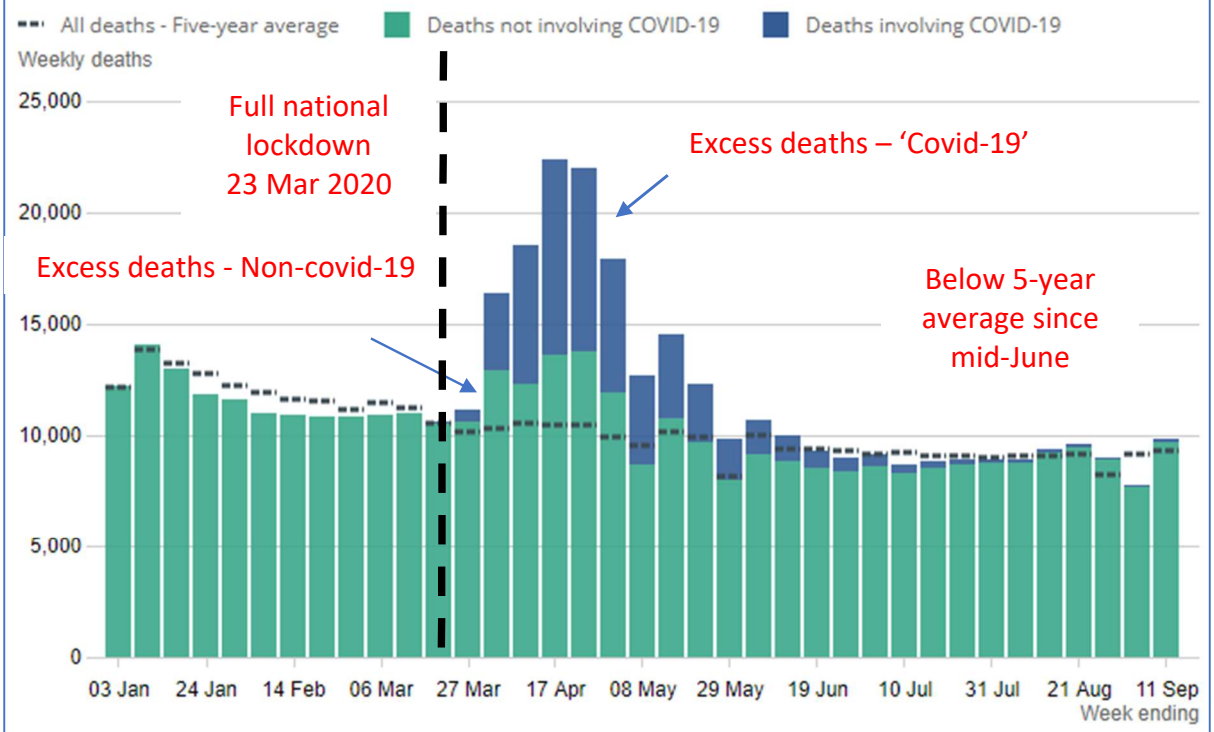
One could ask whether any measures were put in place in those times similar to the ones currently in place for Covid-19 to protect health services e.g. social distancing, lockdown, surveillance, face coverings, quarantine, isolation and contact tracing procedures and so on.

Current Year 2020 Covid-19 Deaths

The following ONS summary contains information for the current year 2020 on the deaths throughout the course of the year to date:

Figure 2: Deaths not involving COVID-19 increased above the five-year average

Number of deaths registered by week, England and Wales, 28 December 2019 to 11 September 2020



Source: Office for National Statistics – Deaths registered weekly in England and Wales

Deaths registered weekly in England and Wales, provisional: week ending 11 September 2020
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsregisteredweeklyinenglandandwalesprovisional/weekending11september2020

Note the following:

- total deaths increased significantly towards the end of March 2020, shortly after a full national lockdown was declared on 23 March 2020;
- reported deaths 'involving' Covid-19 increased significantly towards end of March 2020 and throughout April and reduced significantly by May 2020;
- large number of excess non-Covid-19 related deaths (green section above the dotted 5-year average line);
- easing of lockdown restrictions not associated with a spike or increase in reported deaths 'involving' Covid-19;
- total deaths below or around the 5-year average since mid-June 2020 onwards

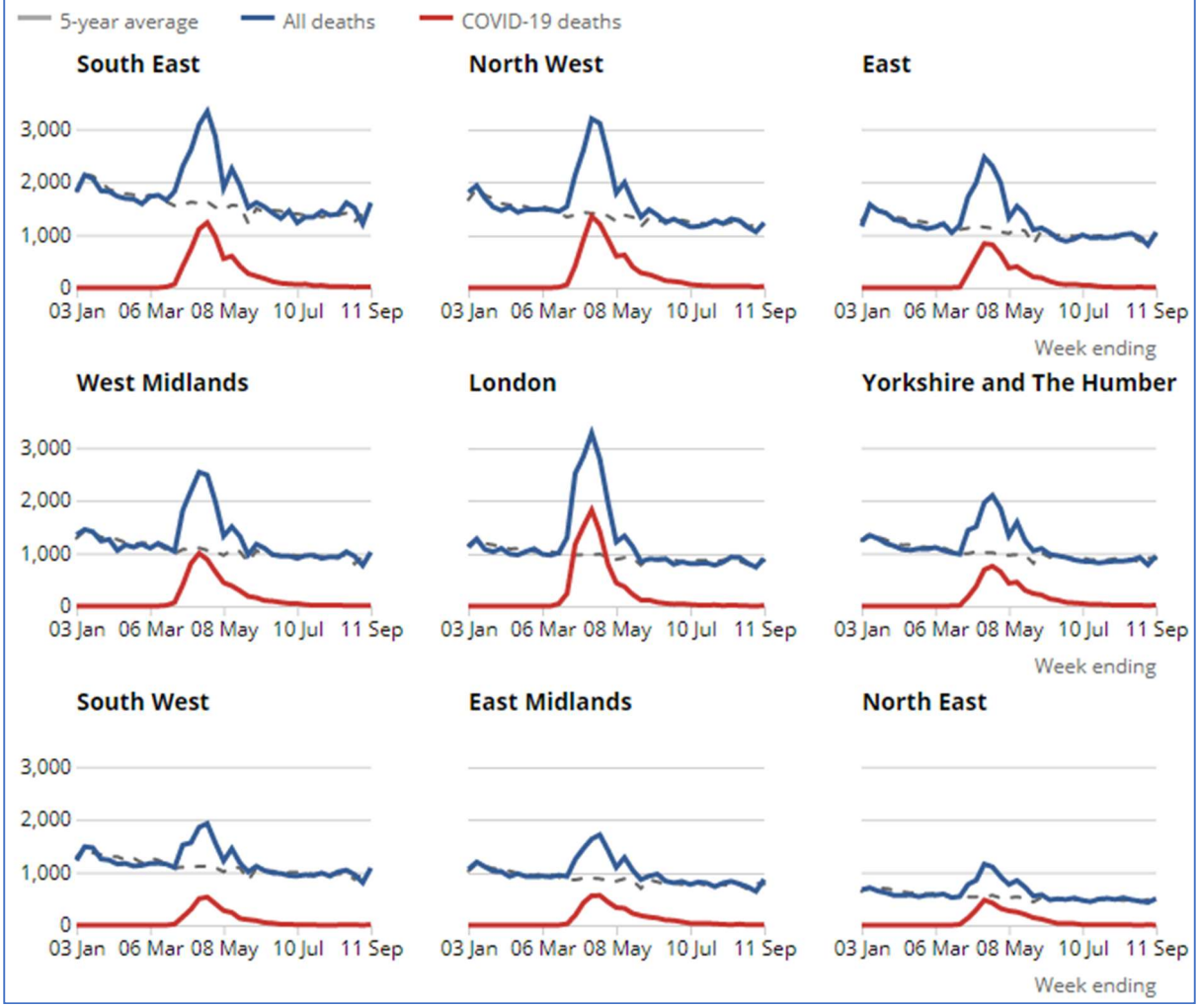
It is very clear that compared to the last 5 years, total deaths so far this year to date are high.

There could be a number of reasons to explain the high number of deaths in 2020. For example, this year we had a full national lockdown for an extended period of time, with far-reaching implications across society causing severe disruption and lack of access to health services and treatment for most things not related to Covid-19. Over the last 5 years, there has never been a similar restriction throughout the months of April, May, June and July. If we had similar lockdowns during the same period in each of the last 5 years, would total deaths have been different in those years?

A key observation is the number of deaths spiking **after** lockdown (and not before). Maybe this is just a coincidence. The same pattern is observed when analysing regional deaths across England:

Figure 4: Deaths in Week 37 increased in Wales and across all English regions

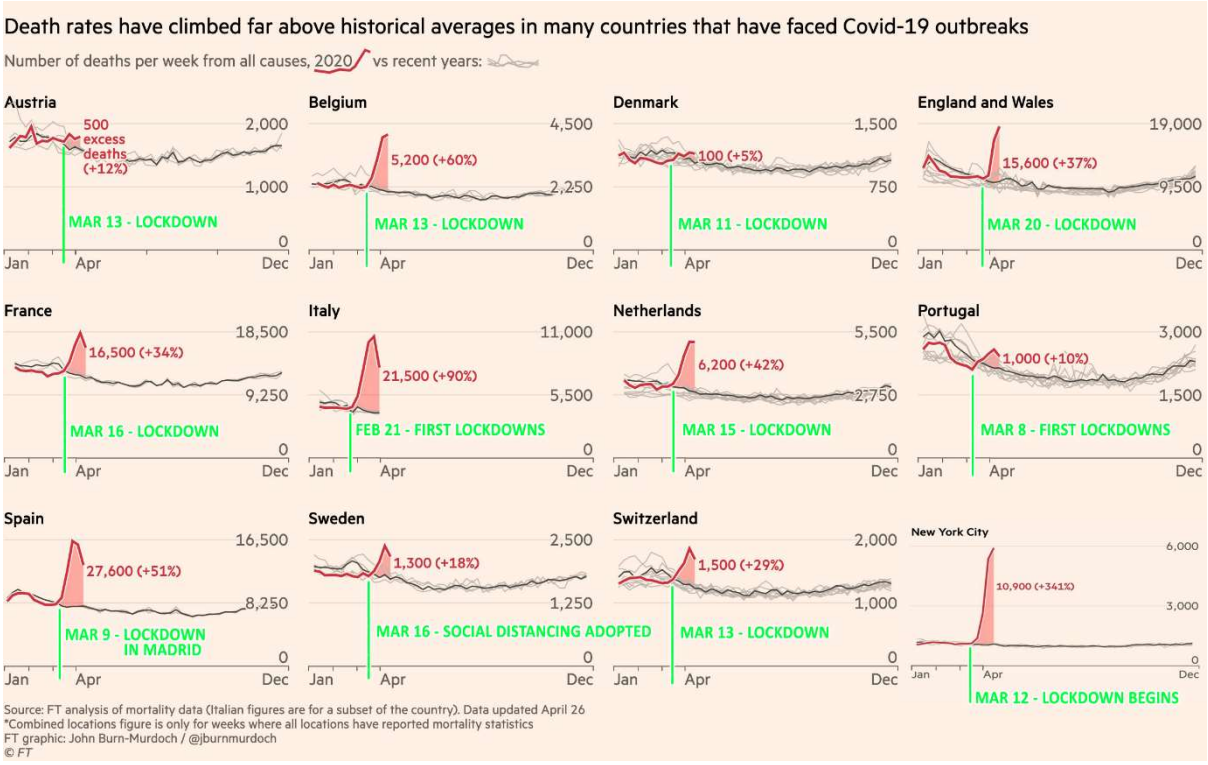
Number of deaths in Wales and regions in England, registered between 28 December 2019 and 11 September 2020



This article **Questions for lockdown apologists**, 23 May 2020 suggests a similar pattern of deaths increasing after lockdowns in some other countries:

'We now have mortality data for the first few months of 2020 for many countries, and, as you might expect, there were steep increases associated with the beginning of the COVID-19 pandemic in each one.
Surprisingly, however, these increases did not begin before the lockdowns were imposed, but after. Moreover, in almost every case, they began immediately after. Often, mortality numbers were on a downward trend before suddenly reversing course after lockdowns were decreed.'
https://medium.com/@JohnPospichal/questions-for-lockdown-apologists-32a9bbf2e247

The article takes charts (shown below) from the Financial Times that show that after each country (or city) was locked down there was on observed increase in deaths.



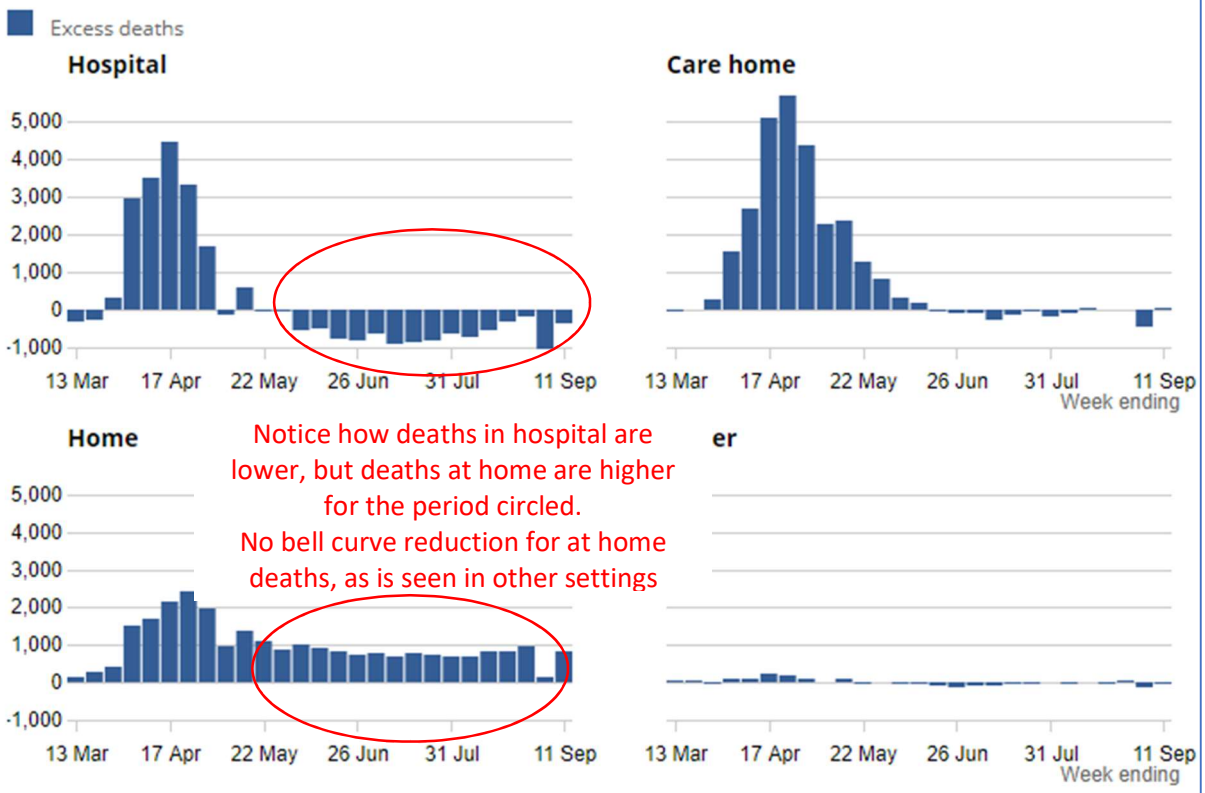
Some people may give the argument that deaths fell due to the lockdown measures implemented. This is a counter-factual argument and is not backed up by any evidence. In fact, studies have emerged showing that those countries with more stingent lockdowns are associated with higher deaths.

Places of Excess Deaths

We will now move onto look at the places where excess deaths occurred. The following chart breaks down excess deaths into four different settings; hospital, care home, home and other communal establishments:

Figure 5: Deaths in private homes and care homes were above the five-year average in Week 37

Number of excess deaths by place of occurrence, England and Wales, registered between 7 March 2020 and 11 September 2020



Source: Office for National Statistics – Deaths registered weekly in England and Wales

As the chart above shows, there is a prolonged and sustained level of excess deaths in home settings.

The following table breaks down deaths by place of death for the year 2020 up to Week 37:

	Number of Deaths			% of deaths in each setting		
Place of death	Covid 19 only	Non Covid 19	All Deaths	Covid 19 only	Non Covid 19	All Deaths
Care home	16,156	95,634	111,790	30%	24%	24%
Elsewhere	210	9,545	9,755	0%	2%	2%
Home	2,579	121,156	123,735	5%	30%	27%
Hospice	747	18,723	19,470	1%	5%	4%
Hospital	34,467	158,835	193,302	63%	39%	42%
Other communal	254	1,605	1,859	0%	0%	0%
Total	**54,413**	**405,498**	**459,911**	100%	100%	100%

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/datasets/deathregistrationsandoccurrencesbylocalauthorityandhealthboard

To interpret the above table: In a care home setting there were 16,156 deaths out of a total of 54,413 Covid-19 deaths across all settings which equates to 30%. A similar calculation for non-Covid-19 deaths gives us 24%.

The difference in death rates across various settings stands out:

- low level of Covid-19 deaths at home (5%), compared to non-Covid-19 deaths (30%)
- high level of Covid-19 deaths in hospitals (63%) compared to non-Covid-19 (39%).
- **the proportion of deaths in care home settings for Covid-19 and non-Covid-19 do not vary as much as in other settings (30% Covid-19 vs 24% non-Covid-19)** (but 5% and 30% for home settings and 63% and 39% for hospital settings)**.**

We can now look a bit further at weekly all-cause deaths up to week 37 in 2020 by place of death. These are shown in the table below.

We can see the spike in deaths during weeks 14 to 21 (highlighted in yellow) which has now disappeared and not resurfaced. Weekly deaths are currently at the lowest levels of the year. What is alarming is that the proportion of deaths occurring in a **home setting** are higher than normal.

	All Causes Deaths - Number of Deaths							Relative Proportions of Deaths in each setting						
Week No Year 2020	Care home	Elsewhere	Home	Hospice	Hospital	Other communal	Grand Total	Care home	Elsewhere	Home	Hospice	Hospital	Other communal	Grand Total
Week 1	3,176	197	2,701	667	6,233	43	13,017	24%	2%	21%	5%	48%	0%	100%
Week 2	3,356	270	3,422	672	7,203	43	14,966	22%	2%	23%	4%	48%	0%	100%
Week 3	3,027	278	3,287	638	6,442	59	13,731	22%	2%	24%	5%	47%	0%	100%
Week 4	2,652	257	3,139	563	5,888	52	12,551	21%	2%	25%	4%	47%	0%	100%
Week 5	2,704	259	3,023	570	5,716	50	12,322	22%	2%	25%	5%	46%	0%	100%
Week 6	2,579	263	2,891	588	5,286	43	11,650	22%	2%	25%	5%	45%	0%	100%
Week 7	2,568	262	2,930	558	5,286	48	11,652	22%	2%	25%	5%	45%	0%	100%
Week 8	2,486	231	2,767	556	5,409	44	11,493	22%	2%	24%	5%	47%	0%	100%
Week 9	2,567	268	2,807	608	5,144	48	11,442	22%	2%	25%	5%	45%	0%	100%
Week 10	2,514	261	2,950	589	5,173	41	11,528	22%	2%	26%	5%	45%	0%	100%
Week 11	2,572	265	2,888	567	5,334	45	11,671	22%	2%	25%	5%	46%	0%	100%
Week 12	2,430	262	2,916	569	5,116	50	11,343	21%	2%	26%	5%	45%	0%	100%
Week 13	2,628	243	2,993	516	5,438	33	11,851	22%	2%	25%	4%	46%	0%	100%
Week 14	3,944	282	4,126	563	8,302	62	17,279	23%	2%	24%	3%	48%	0%	100%
Week 15	5,142	311	4,354	522	9,002	88	19,419	26%	2%	22%	3%	46%	0%	100%
Week 16	7,616	359	4,884	578	9,929	129	23,495	32%	2%	21%	2%	42%	1%	100%
Week 17	8,233	332	5,136	568	8,681	139	23,089	36%	1%	22%	2%	38%	1%	100%
Week 18	6,672	307	4,522	501	6,767	93	18,862	35%	2%	24%	3%	36%	0%	100%
Week 19	4,444	272	3,382	447	4,725	60	13,330	33%	2%	25%	3%	35%	0%	100%
Week 20	4,641	303	3,993	545	5,771	74	15,327	30%	2%	26%	4%	38%	0%	100%
Week 21	3,505	267	3,751	493	4,906	48	12,970	27%	2%	29%	4%	38%	0%	100%
Week 22	2,623	224	2,973	461	4,083	38	10,402	25%	2%	29%	4%	39%	0%	100%
Week 23	2,538	288	3,648	447	4,434	40	11,395	22%	3%	32%	4%	39%	0%	100%
Week 24	2,250	248	3,395	487	4,124	35	10,539	21%	2%	32%	5%	39%	0%	100%
Week 25	2,036	252	3,298	482	3,846	36	9,950	20%	3%	33%	5%	39%	0%	100%
Week 26	1,898	199	3,227	471	3,699	24	9,518	20%	2%	34%	5%	39%	0%	100%
Week 27	1,940	228	3,205	469	3,827	41	9,710	20%	2%	33%	5%	39%	0%	100%
Week 28	1,742	245	3,161	461	3,605	33	9,247	19%	3%	34%	5%	39%	0%	100%
Week 29	1,876	236	3,180	514	3,526	30	9,362	20%	3%	34%	5%	38%	0%	100%
Week 30	1,929	288	3,181	469	3,555	25	9,447	20%	3%	34%	5%	38%	0%	100%
Week 31	1,837	266	3,080	487	3,743	53	9,466	19%	3%	33%	5%	40%	1%	100%
Week 32	1,920	268	3,146	443	3,681	33	9,491	20%	3%	33%	5%	39%	0%	100%
Week 33	2,080	250	3,205	522	3,916	28	10,001	21%	2%	32%	5%	39%	0%	100%
Week 34	2,074	275	3,253	446	4,119	42	10,209	20%	3%	32%	4%	40%	0%	100%
Week 35	1,846	263	3,153	493	3,820	32	9,607	19%	3%	33%	5%	40%	0%	100%
Week 36	1,640	204	2,463	448	3,414	39	8,208	20%	2%	30%	5%	42%	0%	100%
Week 37	2,105	272	3,305	492	4,159	38	10,371	20%	3%	32%	5%	40%	0%	100%
Grand Total	**111,790**	**9,755**	**123,735**	**19,470**	**193,302**	**1,859**	**459,911**	**24%**	**2%**	**27%**	**4%**	**42%**	**0%**	**100%**

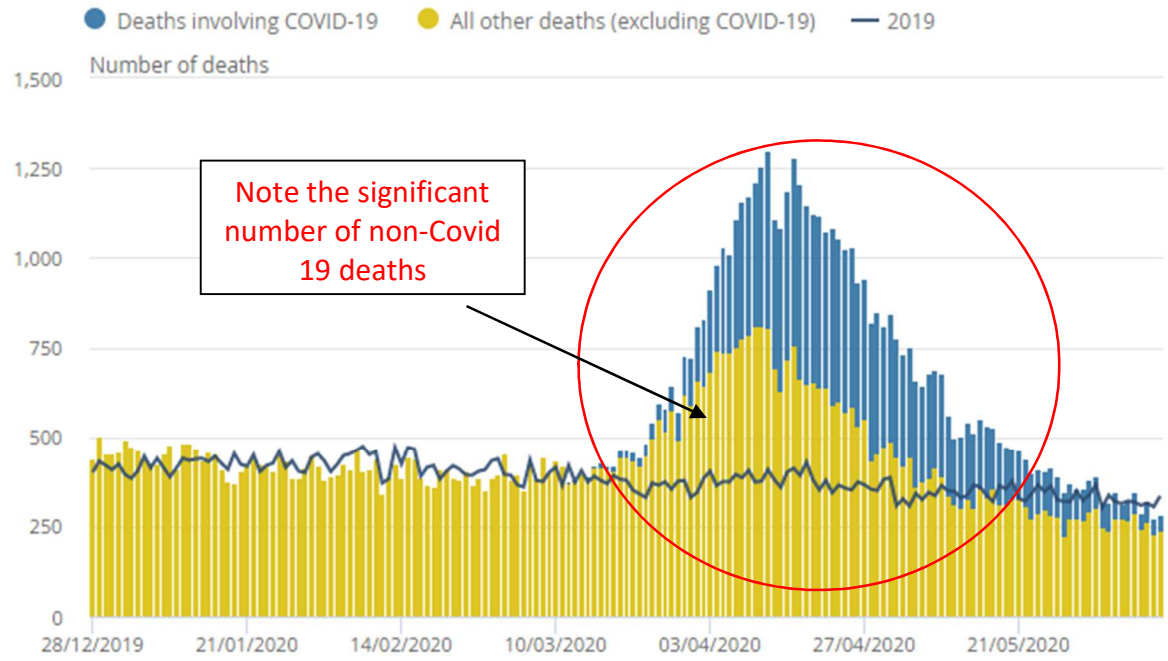
Care setting deaths

The number of deaths in care homes has received much attention. Here is a chart from an ONS report which shows the number of deaths of care home residents throughout the year to date and how many deaths involved Covid-19:

Note the alarmingly high number of non Covid-19 deaths represented in yellow.

Figure 1: Since mid-April 2020, the number of deaths among care home residents has been decreasing

Number of deaths of care home residents from 28 December 2019 to 12 June 2020, registered up to 20 June 2020, England and Wales



Source: Office for National Statistics – Deaths involving COVID-19 in the care sector

Deaths involving COVID-19 in the care sector, England and Wales: deaths occurring up to 12 June 2020 and registered up to 20 June 2020 (provisional)
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsinvolvingcovid19inthecaresectorenglandandwales/latest

The afore-mentioned report states:

'The provisional number of deaths of care home residents occurring in England and Wales from 28 December 2019 to 12 June 2020 (registered up to 20 June 2020) was 93,475; this represents 29,393 more than the same period last year, a 45.9% increase. Of these deaths, 19,394 mentioned "novel coronavirus (COVID-19)", which is 20.7% of all deaths of care home residents.'

The ONS report also provides data on pre-existing conditions. A pre-existing condition is defined as any condition that either preceded the disease of interest (for example, Covid-19) in the sequence of events leading to death or was a contributory factor in the death but was not part of the causal sequence.

'Of the 19,394 care home resident deaths involving COVID-19, 17,528 (**90.4%) had at least one pre-existing health condition. The mean number of pre-existing conditions was 2.0.** The most common main pre-existing health condition in care home residents was Dementia and Alzheimer disease, with 9,605 deaths (49.5% of all deaths involving COVID-19) (Figure 14).'

Hospital deaths

The table below published by the NHS looks at hospital-only deaths and shows deaths by age group and whether they had any pre-existing conditions.

According to this table, up to 23 September, 1,400 people died with Covid-19 and with no pre-existing conditions and 28,438 died with pre-existing conditions (from a population of some 59 million in England and Wales). Therefore 95% of hospital Covid-19 deaths had a pre-existing condition.

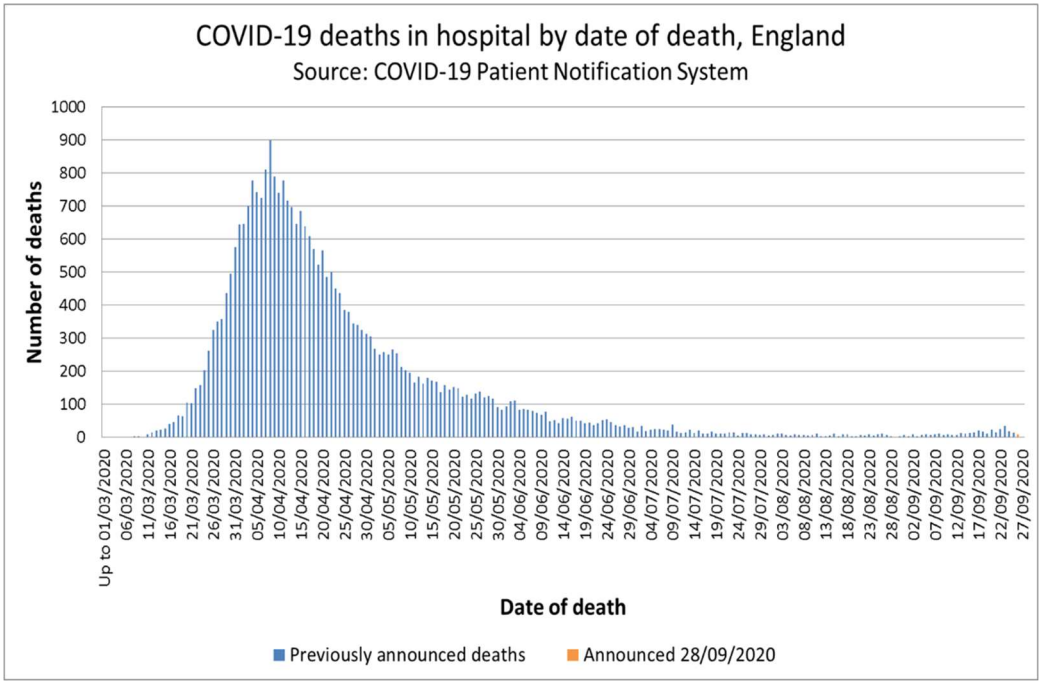
Breakdown by pre existing condition

	Pre existing condition			
Age group	Yes	No	Unkown presence of pre-existing condition	Total
Total	28,438	1,400	0	29,838
0 - 19 yrs	17	4	0	21
20 - 39	182	35	0	217
40 - 59	2,042	270	0	2,312
60 - 79	10,766	577	0	11,343
80+	15,431	514	0	15,945
Unknown age	0	0	0	0

https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2020/09/COVID-19-total-announced-deaths-24-September-2020-weekly-file.xlsx

The following chart shows hospital deaths only in NHS Trusts in the year to date. It shows the peak and fall of reported Covid-19 deaths and also that current deaths are relatively low (in hospitals).

This data would suggest that NHS hospital settings are not currently overwhelmed. The curve has been 'flattened'.

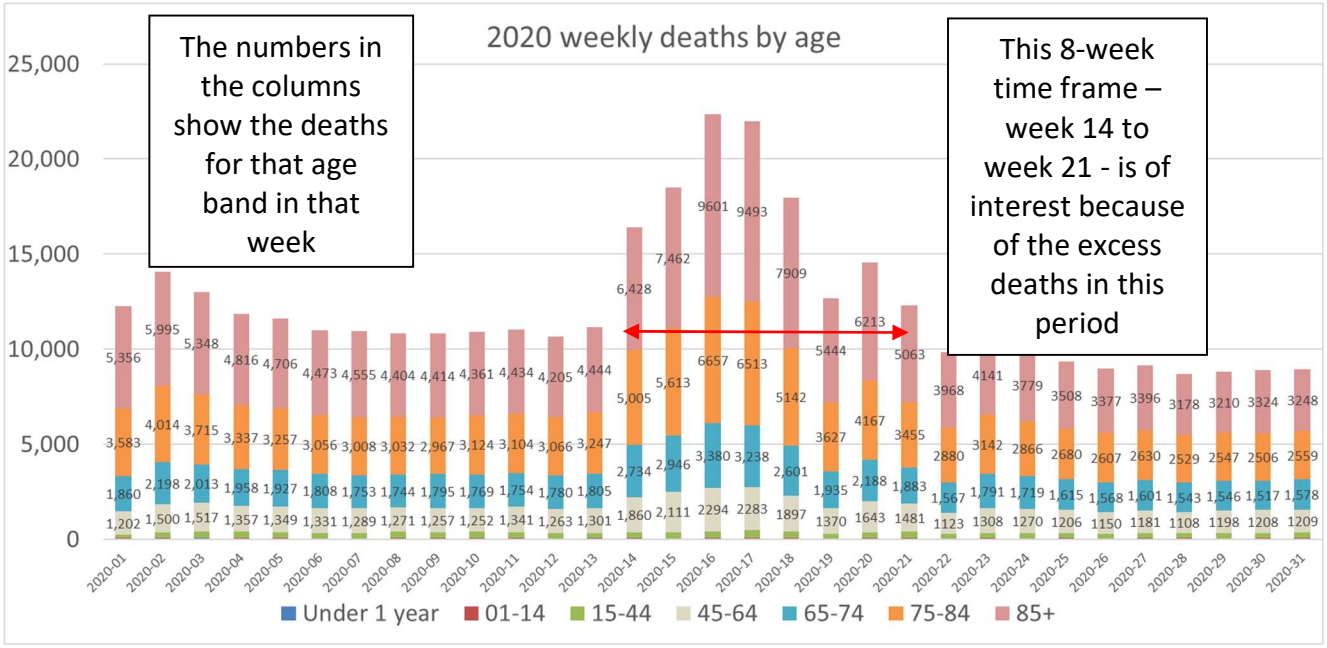


https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2020/09/COVID-19-total-announced-deaths-28-September-2020.xlsx

We can observe that deaths in both care home and hospital settings surged around the time of national lockdown, peaking in April 2020 and then fell just as rapidly.

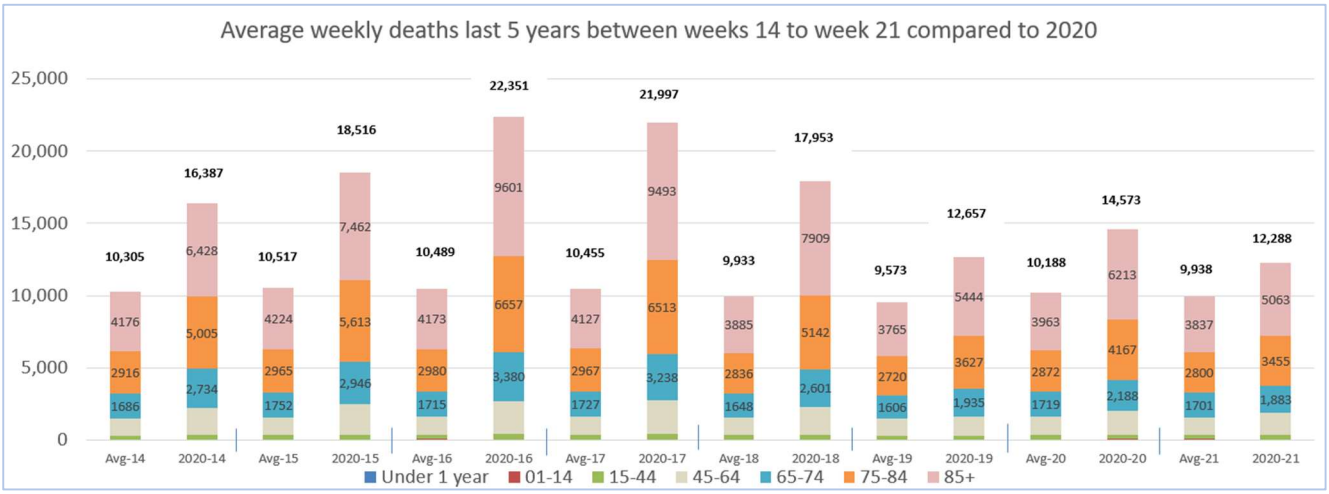
Deaths in Weeks 14 - 21 of 2020

Now let's take a closer look at the age bands of people who died in 2020, which is represented in the following chart:



Source data used to prepare the chart:
https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/datasets/weeklyprovisionalfiguresondeathsregisteredinenglandandwales.

Let's compare the 8-week time frame of particular interest with the last 5 years (2015 to 2019). The chart below shows average deaths in weeks 14 to 21 over the last five years (the first column). Deaths for 2020 for that same week number are shown alongside (second column).



For example, the first column shows the average weekly deaths in week 14 over the 5-year period 2015 to 2019 of 10,305 (with a breakdown of death numbers in the higher 3 age bands only). The second column shows the weekly deaths for week 14 in 2020. This comparison continues onwards for week 15 to week 21.

We can observe from the chart that for the higher age groups, the peak number of deaths almost doubled (weeks 16 and 17). Total deaths also doubled in these same two weeks (from 10,000 to 20,000).

The following table shows 2020 deaths by age-band compared with the 5-year average for the 8-week period. A positive figure means higher than average deaths in 2020 and a lower figure means lower than average deaths in 2020 (compared to the 5-year average for that week number).

	Under 1 year	01-14	15-44	45-64	65-74	75-84	85+	Total
Week 14	2	3	17	671	1,048	2,089	2,252	**6,082**
Week 15	-10	-7	44	892	1,194	2,648	3,238	**7,999**
Week 16	-5	-6	59	1,044	1,665	3,677	5,428	**11,862**
Week 17	2	-6	102	1,021	1,511	3,546	5,366	**11,542**
Week 18	-2	-9	45	703	953	2,306	4,024	**8,020**
Week 19	-18	0	-40	227	329	907	1,679	**3,084**
Week 20	7	0	-19	383	469	1,295	2,250	**4,385**
Week 21	-9	-2	31	267	182	655	1,226	**2,350**
Total	**-33**	**-27**	**239**	**5,208**	**7,351**	**17,123**	**25,463**	**55,324**
% excess	**0%**	**0%**	**0%**	**9%**	**13%**	**31%**	**47%**	**100%**
age 75 and over						**78%**		
age 65 and over					**91%**			

Overall during the period of the spike there were 55,324 excess deaths and 91% of these were people aged 65 and over, 78% were people aged 75 and over, and 47% were those aged 85 and over.

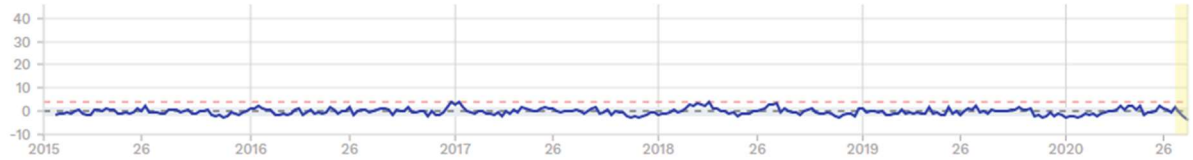
European Deaths

We can look at data for other countries to see if they also had any excess deaths; this information can be found here: https://www.euromomo.eu/graphs-and-maps/

The website shows the position for various countries generated in week 2020-33 with data from 22 out of 24 participating countries: Austria, Belgium, Denmark, Estonia, Finland, France, Germany (Berlin), Greece, Hungary, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, UK (England), UK (Northern Ireland), UK (Scotland).

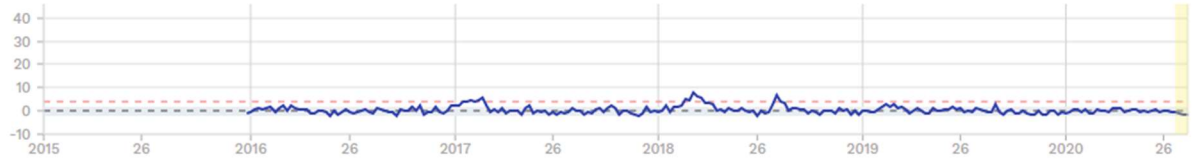
I replicate the graphs showing deaths from 2015 onwards here for ease; cast your eye on the year 2020 and look out for the **presence or absence of any spikes which can indicate 'excess' deaths:**

Finland



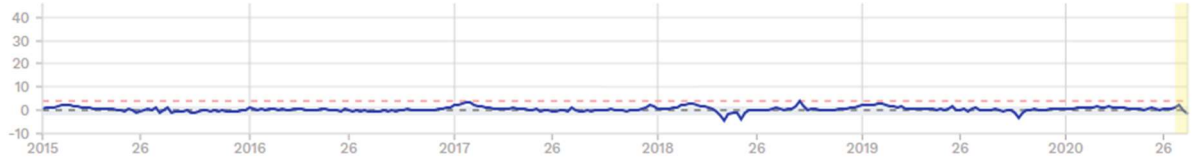
France

Germany (Berlin)

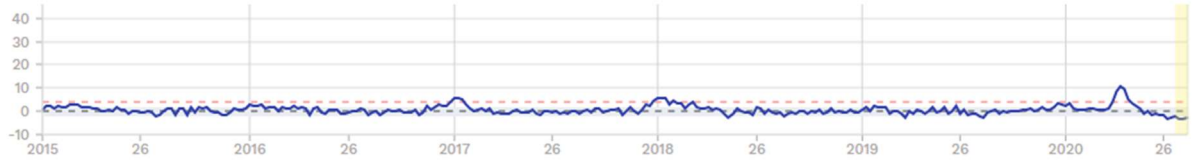


Greece

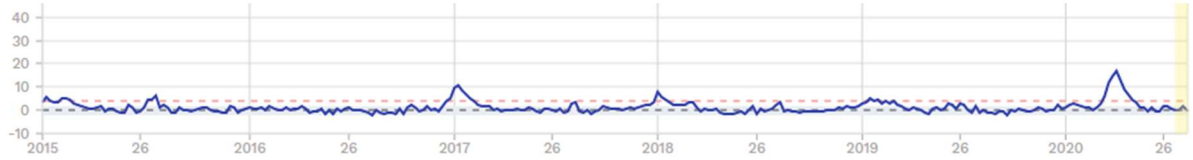
Hungary



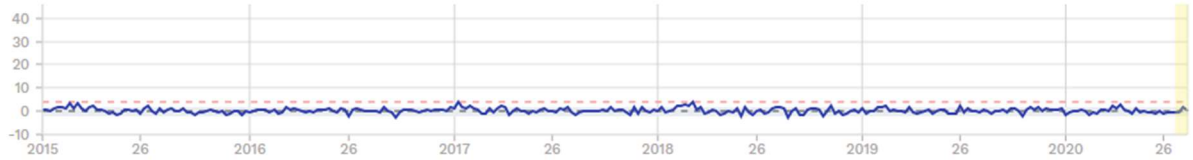
Ireland



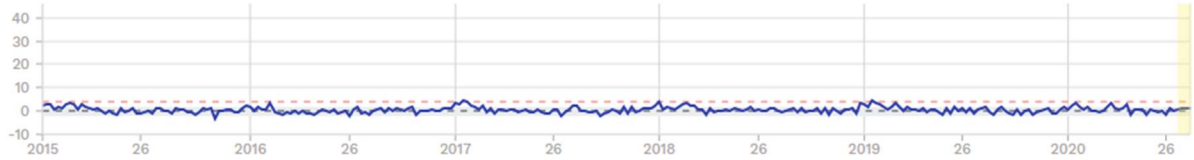
Italy



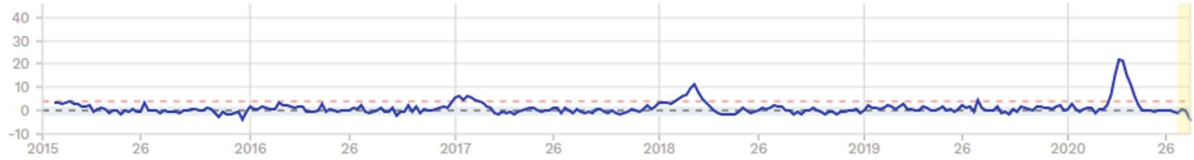
Luxembourg



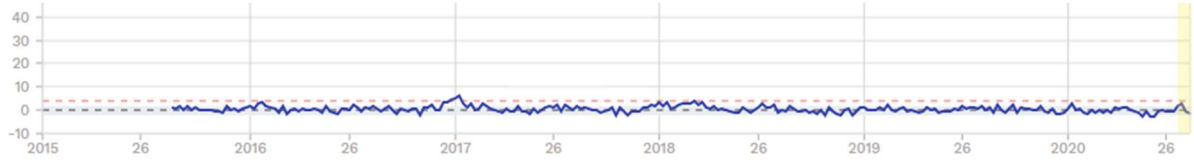
Malta



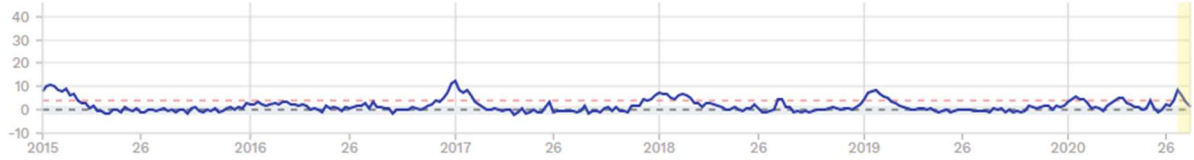
Netherlands



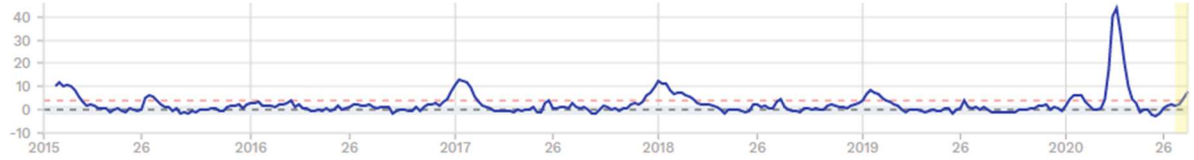
Norway



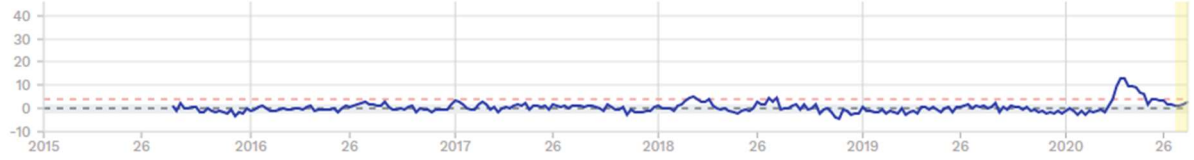
Portugal



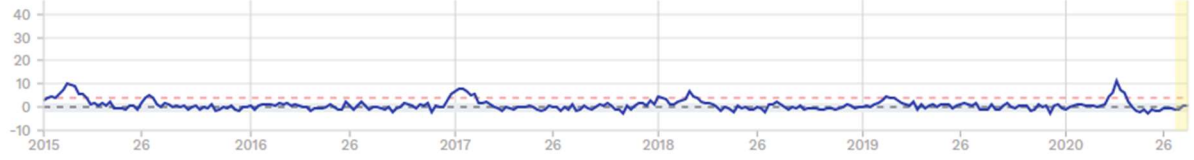
Spain



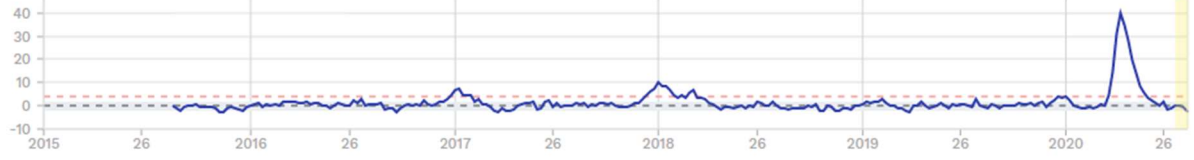
Sweden

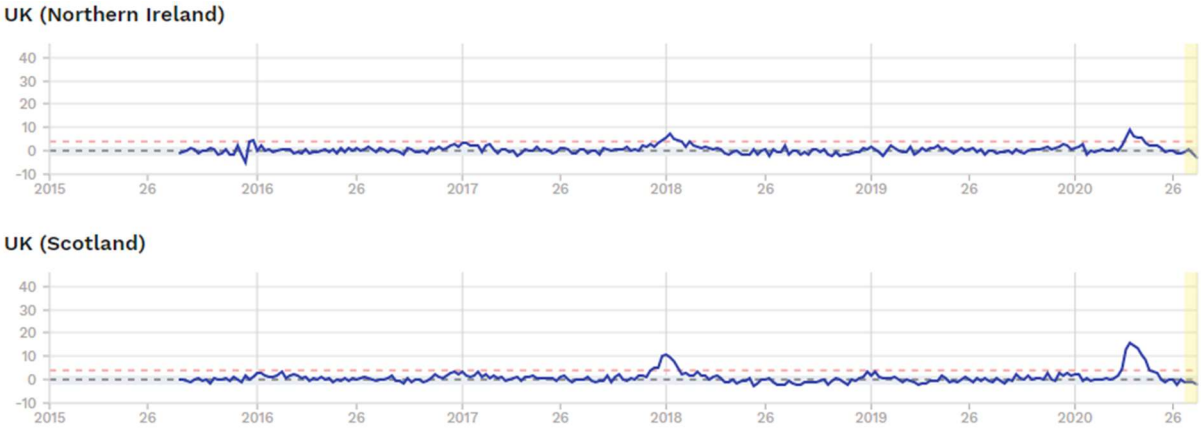


Switzerland



UK (England)





In some countries/regions, no excess deaths can be observed. Austria, Denmark, Estonia, Finland, Germany (Berlin), Greece, Hungary, Luxemburg, Malta and Norway are not showing excess deaths. Maybe future research could look into this.

Worldwide deaths

Here is a website that looks at the picture across the world (not just Europe). Information extracted below on 21 August 2020 17:00pm:
https://www.worldometers.info/coronavirus/

All | Europe | North America | Asia | South America | Africa | Oceania

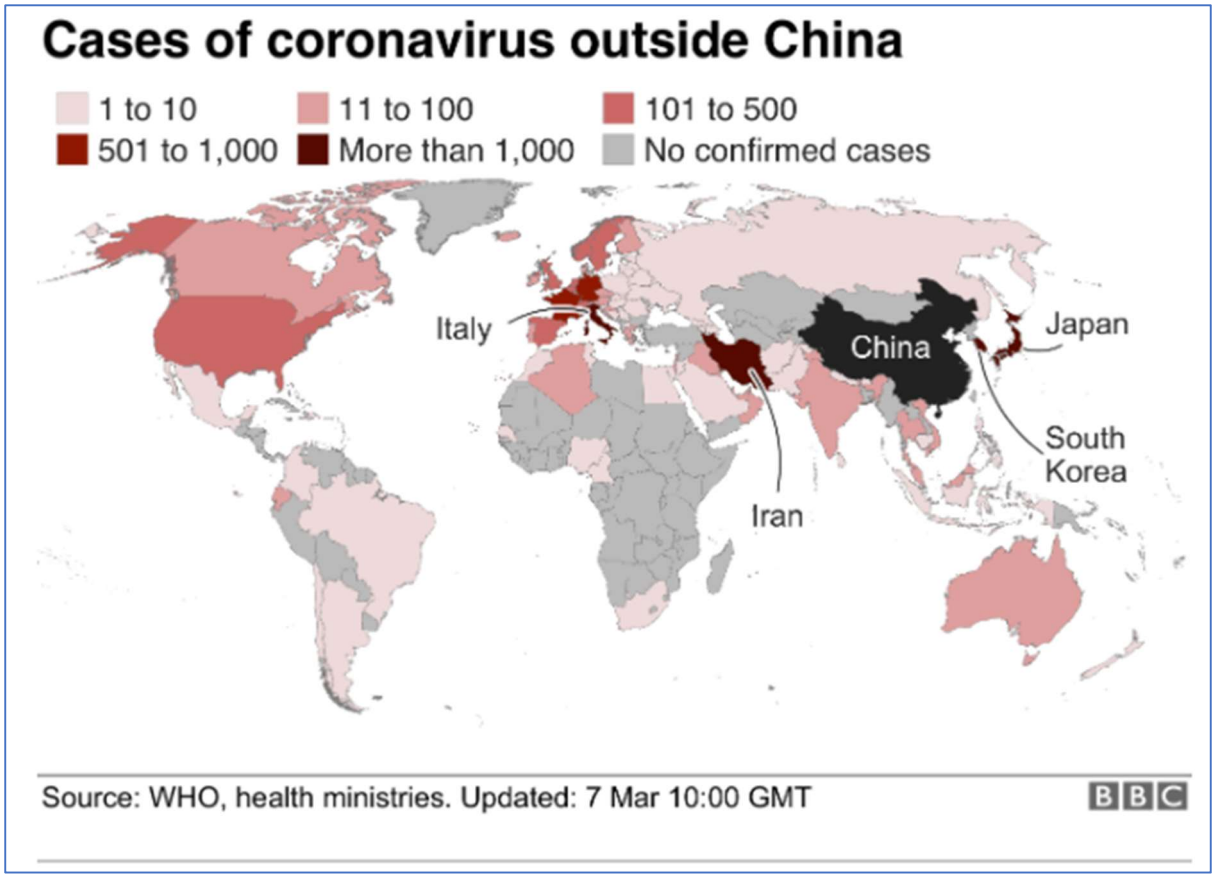
#	Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop	Deaths/ 1M pop	Total Tests	Tests/ 1M pop	Population
1	San Marino	704		42		657	5		20,742	1,237	6,511	191,833	33,941
2	Belgium	80,178	+699	9,976	+7	18,131	52,071	82	6,914	860	2,074,445	178,883	11,596,664
3	Peru	567,059		27,034		380,730	159,295	1,519	17,166	818	2,852,011	86,336	33,033,892
4	Andorra	1,024		53		875	96	1	13,250	686	137,457	1,778,642	77,282
5	Spain	404,229		28,813		N/A	N/A	522	8,645	616	7,955,615	170,147	46,757,339
6	UK	323,313	+1,033	41,405	+2	N/A	N/A	76	4,759	609	15,177,265	223,407	67,935,641
7	Italy	257,065	+947	35,427	+9	204,960	16,678	69	4,253	586	7,862,592	130,069	60,449,180
8	Sweden	86,068		5,810	+5	N/A	N/A	26	8,515	575	1,030,010	101,900	10,108,001
9	Chile	391,849		10,671		366,063	15,115	1,077	20,474	558	2,113,632	110,437	19,138,783
10	USA	5,757,888	+11,616	177,652	+228	3,097,040	2,483,196	16,812	17,381	536	74,006,470	223,401	331,272,237
11	Brazil	3,505,361	+264	112,445	+22	2,653,407	739,509	8,318	16,475	528	13,748,152	64,616	212,768,400
12	France	229,814		30,480		84,065	115,269	384	3,520	467	6,000,000	91,892	65,293,815
13	Mexico	543,806	+6,775	59,106	+625	371,638	113,062	3,503	4,212	458	1,226,117	9,496	129,117,943
14	Panama	83,855		1,844		59,174	22,837	154	19,393	426	287,300	66,445	4,323,882

Note the relatively high death rate per million population for the UK. The variation in death rates across the world is quite surprising.

One might have expected deaths in more affluent countries to be lower, and deaths higher in less developed countries or countries with denser populations. But this does not appear to be the case. A possible area of research could be to determine if more stringent lockdowns were associated with more excess deaths.

Spread of the Virus

The following map shows the appearance of the virus across the world:



https://www.bbc.co.uk/news/world-middle-east-51783242

Italy and Iran were key areas said to have been impacted early on as the virus appeared in other parts of the world. These countries were early hotspots although it's not clear why other countries were not affected as badly, in the emerging stages.

I came across these noteworthy articles that identify significant levels of air pollution in those early hotspots of the outbreak i.e. Wuhan in China, Lombardy in Italy, and various places in Iran. There were clearly serious underlying health concerns before the virus even appeared.

China has made major progress on air pollution. Wuhan protests show there's still a long way to go, July 11, 2019
https://edition.cnn.com/2019/07/10/asia/china-wuhan-pollution-problems-intl-hnk/index.html

'At 146 globally on the AirVisual list, Wuhan, in northeastern China, is not among China's most polluted cities, but residents aren't taking any chances. Recent weeks have seen major protests there -- in themselves a rarity in China -- over plans for a new garbage incineration plant.

Holding banners with slogans such as "we don't want to be poisoned, we just need a breath of fresh air," thousands of people took to the city's streets over two weeks in June and July calling for the suspension of plans to build the plant.

"We are fearful that the plant is too close to residence area," one protester in the city of 10 million people told state media. Others expressed concern that emissions could worsen air pollution and harm residents' health.'

Air pollution exposure, cause-specific deaths and hospitalizations in a highly polluted Italian region, May 2016
https://www.sciencedirect.com/science/article/pii/S0013935116300834#:~:text=The%20Lombardy%20region%20in%20northern,effects%20on%20all%2Dcause%20mortality.

'The Lombardy region in northern Italy ranks among the most air polluted areas of Europe. Previous studies showed air pollution short-term effects on all-cause mortality. We examine here the effects of particulate matter with aerodynamic diameter ≤10 μm (PM10) and nitrogen dioxide (NO2) exposure on deaths and hospitalizations from specific causes, including cardiac, cerebrovascular and respiratory diseases.'

Severe Air Pollution In Iran Turns Into Major Public Health Crisis
December 25, 2019
https://caspiannews.com/news-detail/severe-air-pollution-in-iran-turns-into-major-public-health-crisis-2019-12-25-59/

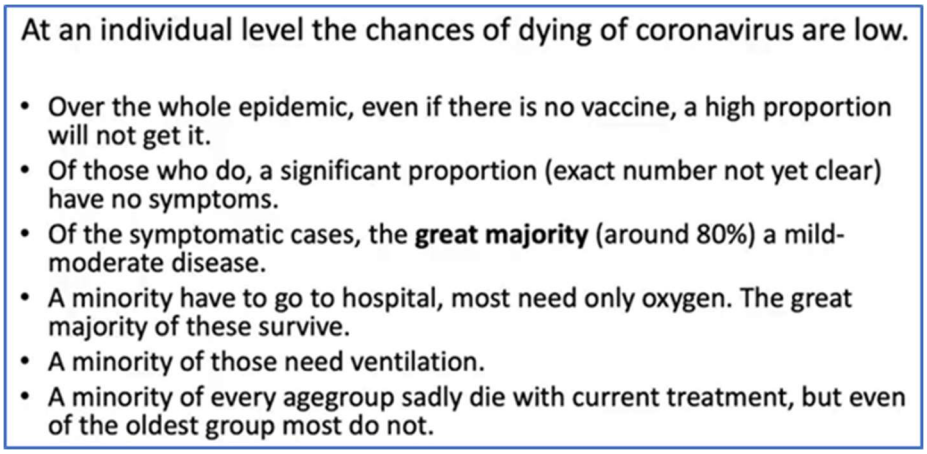
"Due to air pollution and increased particulate matter in the provinces of Tehran, Isfahan, Markazi, Alborz, East Azerbaijan, West Azerbaijan, Qazvin and Qom, 8,296 people visited pre-hospital emergency services across the country, 5,018 of them were heart related and 3,278 respiratory related complaints," the spokesman of Iran's Emergency Services Organization Mojtaba Khaledi said on Monday, according to Jam-e Jam news.

Air pollution could therefore be a key explanation for the respiratory issues identified in the early cases of the outbreak.

Risk of dying

A detailed risk assessment and cost benefit analysis should be undertaken when deciding on the appropriate action to take to manage the public health concern. How big are the risks? Who could be affected and who is at risk? What is the nature of the risk? Are there any uncertainties in evidence about the risk? Who is doing the risk assessment? What are the various options and measures available and their implications? Are there significant adverse impacts arising from the options and measures proposed?

On 30 April 2020 Professor Chris Whitty delivered a presentation on Covid-19 at Gresham College, City of London. At one point in the lecture, he talked about the risks of dying of coronavirus (around the 12:33 minute mark onwards). An extract is given below of the presentation slide used in his presentation, and also a link to the video of the lecture itself.



https://www.youtube.com/watch?v=3BdPKpWbxTg

The above information is in stark contrast to the position portrayed by the mainstream media. The presentation was delivered a few months ago, we know more about this now and many studies across the world have estimated infection fatality rates, which are much lower on average than initially feared.

According to the latest immunological studies, the overall lethality of Covid-19 as measured by the Infection Fatality Rate (IFR) in the general population ranges between 0.1% and 0.5% in most countries

A paper by the Centre for Evidence-Based Medicine presents data from two models estimating daily infections in England, deriving recent IFRs estimates of 0.30% using the Medical Research Council unit's data and 0.49% using ONS data.
Estimating the infection fatality ratio in England, August 21, 2020
https://www.cebm.net/covid-19/estimating-the-infection-fatality-ratio-in-england/

The median age of Covid-19 deaths is 80 years and above. The average life expectancy in the UK is below this age.

In most places, the risk of death for the healthy general population of school and working age is comparable to the risks of dying during a daily car ride to work.

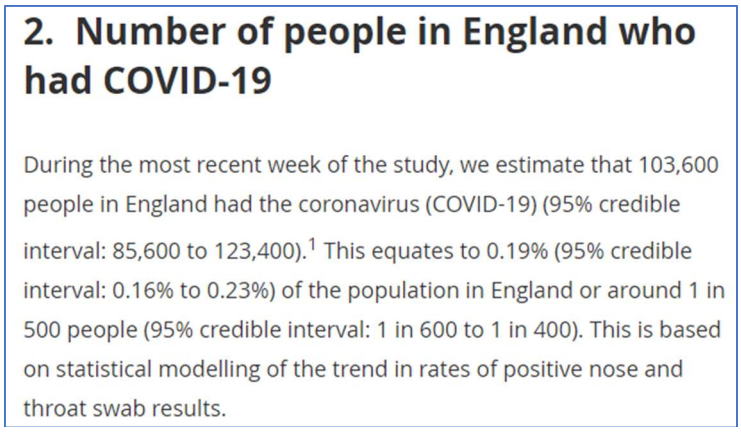
Up to 60% of all people may already have a partial T-cell immune response against the new coronavirus due to contact with previous coronaviruses (i.e. cold viruses).
https://www.cell.com/cell/fulltext/S0092-8674(20)30610-3

Moreover, up to 60% of children and about 6% of adults may already have cross-reactive antibodies.
https://www.biorxiv.org/content/10.1101/2020.05.14.095414v2

We can look at the current numbers of estimated infections from the following survey published by the ONS:

Coronavirus (COVID-19) Infection Survey pilot: England and Wales, 25 September 2020
https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronaviruscovid19infectionsurveypilot/englandwalesandnorthernireland25september2020

This survey models the number of current coronavirus (Covid-19) infections within the community population - community in this instance referring to private residential households - and it excludes those in hospitals, care homes or other institutional settings. The overall target population for England used in this study is 54,628,600.



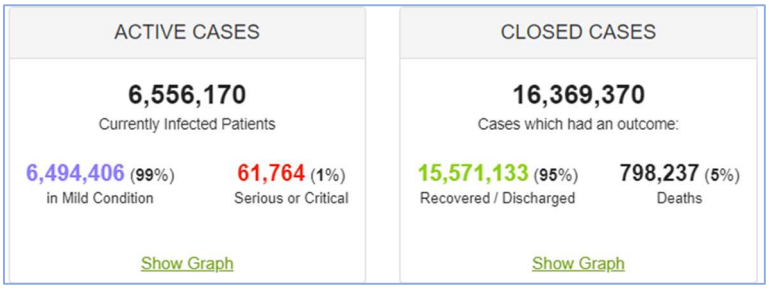
2. Number of people in England who had COVID-19

During the most recent week of the study, we estimate that 103,600 people in England had the coronavirus (COVID-19) (95% credible interval: 85,600 to 123,400).[1] This equates to 0.19% (95% credible interval: 0.16% to 0.23%) of the population in England or around 1 in 500 people (95% credible interval: 1 in 600 to 1 in 400). This is based on statistical modelling of the trend in rates of positive nose and throat swab results.

It is estimated 103,600 people within the community population in England had the coronavirus (Covid-19) during the week from 13 to 19 September 2020 equating to around 1 in 500 individuals.

So using the above figures, if 0.19% of the community population have Covid-19 and with an assumed overall average fatality rate of 0.5% (99.95% of people infected surviving) this would equate to 0.00095% of the community population dying or 19 in 2,000,000 people.

The following information was taken from https://www.worldometers.info/coronavirus/ on 21 August 2020 and provides global information on 'Covid-19' cases and attributable deaths:



So at the date in question, there were around 62,000 people across the world in a serious or critical condition out of a population of around 7 billion, and a reported 798,000 deaths where Covid-19 was involved.

Contrast the above data to seasonal epidemics of influenza which are said to result in 3 to 5 million cases of severe illness every year. Seasonal flu is not called a pandemic despite occurring across the world and being responsible for up to 650,000 deaths a year.

Here is an extract from the worldometer website for the **day before** providing the 'New Deaths' of Covid-19 for a whole day:

#	Country, Other	Total Cases	New Cases	Total Deaths	New Deaths	Total Recovered	Active Cases	Serious, Critical	Tot Cases/ 1M pop	Deaths/ 1M pop
	World	22,850,102	+267,532	796,376	+6,182	15,508,345	6,545,381	61,822	2,931	102.2

The world population according to worldometer is **7,768,671,683** and we can see that new Covid-19 deaths for one day across the whole world were **6,182**.

Let's put the above number into context. The daily deaths figure of 6,182 equates to 0.8 deaths per every 1 million persons in the world. **So less than 1 person for every 1 million people on earth is stated to have died with Covid-19.**

We can also calculate the attributed Covid-19 deaths of 796,376 as a percentage of the world population of 7,768,671,683 and this equates to **0.01% of the world population**.

To put the mortality numbers into perspective, here is some information from the WHO (https://www.who.int/health-topics) on the number of people dying annually across the world from other causes:

- Air pollution 4.2 million deaths
- Alcohol-related 3.0 million deaths
- Cardiovascular disease 17.9 million deaths (and the number 1 cause of death with those at-risk including the overweight and obese)

- Malnutrition said to account for 45% of child deaths
- Tuberculosis 1.5 million deaths
- Tobacco-related 8 million deaths

In addition, it is estimated that 422 million people have diabetes and there are 1.9 billion adults who are overweight or obese, which is considered a high risk factor for the biggest killer in the world: cardiovascular disease.

When you consider the significant number of deaths arising from these other causes, and reflect on the drastic measures to tackle Covid-19 with its much lower mortality, it begs the question if similar drastic measures are also being taken to reduce the more significant mortality rates due to these other causes? Malnutrition should on the face of it be easy to resolve – people just need to be fed, but this does not appear to be tackled with such rigour as Covid-19.

Cases and testing for Covid-19

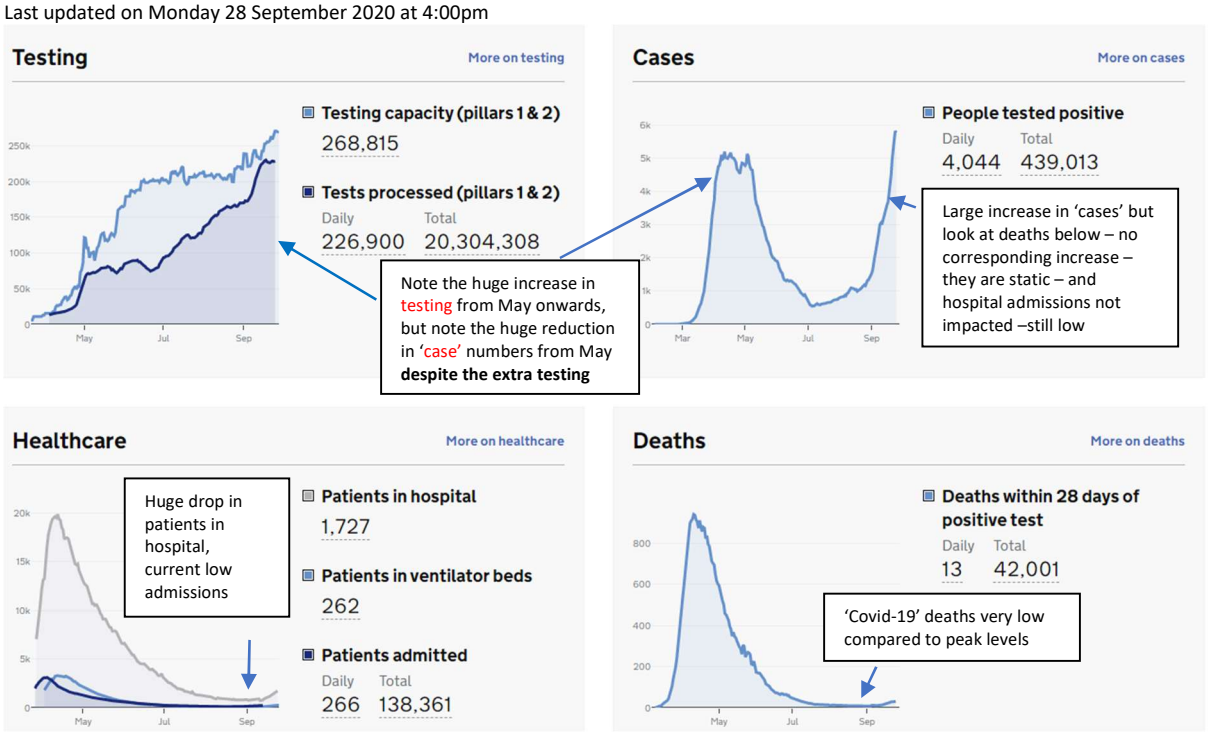
The focus has shifted from the number of 'DEATHS' associated with Covid-19, (relatively low at the moment) to identifying 'CASES'. It is on the basis of the number of 'CASES' in an area that 'outbreaks' could be declared triggering surveillance activities, restrictions on people's movements and local lockdowns in future. This section explores the rationale for testing, comparing with what the science says on this issue, and examining tools being used to identify the disease and virus to determine if they are 'fit for purpose'.

We should recall that the main reason stated for the need for a national lockdown at the time was to **'flatten the curve'** and to prevent the NHS from being overwhelmed. This point was repeated time and time again as the reason that a national lockdown was required.

Here is a government dashboard summarising the position on deaths, testing, cases and hospital admissions: https://coronavirus.data.gov.uk/ extracted on Monday 28 September 2020 at 4:00pm.

It shows that as at the above date and time there were a reported 439,013 cases in total and 'Covid-19' deaths are reported as 42,001. I have added some commentary.

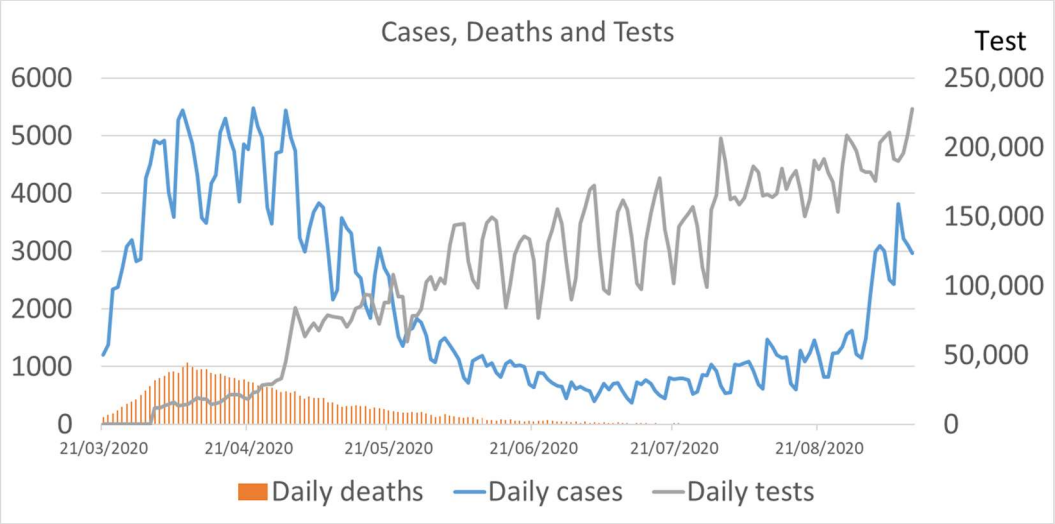
Last updated on Monday 28 September 2020 at 4:00pm



In summary the charts show an increase in tests being conducted; cases undergoing a rapid rise and fall; hospital admissions now at low levels and deaths also at low levels following an earlier rapid rise and fall.

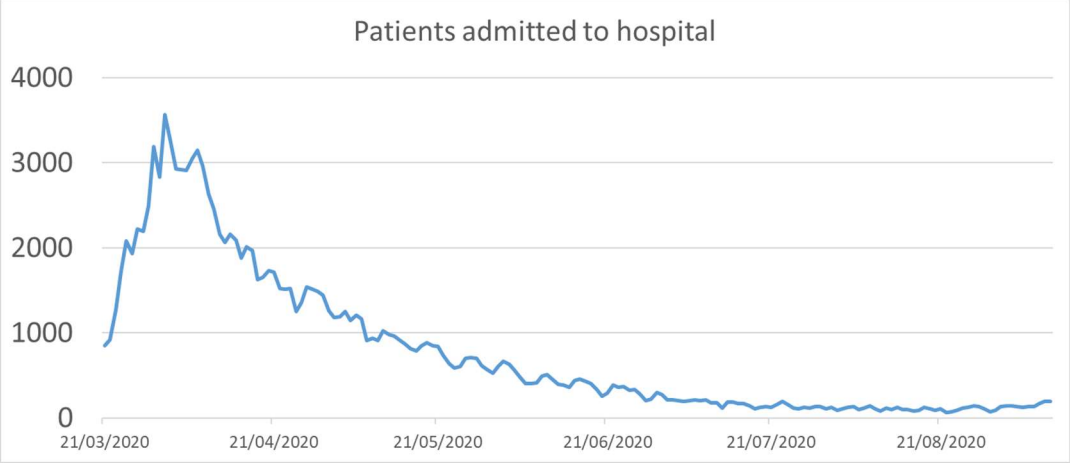
Below are some charts constructed from data taken from here: https://coronavirus.data.gov.uk/. If you click on the 'data' tab you get the daily figures which you can copy and paste into a spreadsheet and then analyse the data.

This chart looks at the number of cases, deaths and tests over time.



The above chart shows that despite significantly increased testing since March, the number of cases was falling for several months, and although the number of cases has risen recently, the number of deaths remain very low.

This chart looks at hospital admissions over time and shows that after a peak in early April, admissions have been falling and are currently at very low levels.



There is a danger that people could perceive that a higher level of cases being reported means that an infection is spreading. But the higher number of cases could simply be due to a higher number of tests being conducted. **If you test more and more people, you will get more cases**.

It should also be noted that although cases are rising sharply recently, **hospital admissions are low and deaths are low.**

Here is a good piece of analysis on this topic from the University of Oxford Centre for Evidence-Based Medicine:

COVID cases in England aren't rising: here's why

'Inaccuracies in the data and poor interpretation will often lead to errors in decisions about imposing restrictions, particularly if these decisions are done in haste and the interpretation does not account for fluctuations in the rates of testing. The current reporting of the data with its inconsistencies also makes it difficult to provide accurate estimates of the case rates per tests done.'

'…when you adjust for the number of tests done and then standardise to per 100,000 tests. Pillar 1 is seen to be still trending down, but Pillar 2 is now flatlining. The increase in the number of cases detected, therefore is likely due to the increase in testing in Pillar 2.'

'It is essential to adjust for the number of tests being done. Leicester and Oldham have seen significant increases in testing in a short time. Leicester, for example in the first two weeks of July did more tests than anywhere else in England: 15,122 tests completed in the two weeks up to 13th July.'

https://www.cebm.net/covid-19/covid-cases-in-england-arent-rising-heres-why/

Tests for Confirming Cases

We have already established that clinical diagnosis based on symptoms of the disease of Covid-19 presents with major problems as there are no unique symptoms and also that the most common signs and symptoms are said to be fever and cough – which are not unique or new.

Laboratory testing, in the form of PCR tests and antibody tests, is being used to identify the prevalence and level of 'cases' in the population; so it is relevant to look very closely into these tests and determine whether they are actually fit for purpose.

PCR Tests

The PCR test is currently being used to determine if someone has the coronavirus and Covid-19. A positive test is being regarded as an 'infection' and counted as a 'case' of Covid-19. **However, the PCR test is not suitable for this purpose.**

The PCR test was intended by its inventor (Dr Kary Mullis, awarded the 1993 Nobel Prize in Chemistry) to be used as a manufacturing technique to replicate genetic material (DNA sequences) billions of times over and used for research purposes and **NOT as a diagnostic tool for illnesses**.

Typically, a swab from the nose or throat of the suspected individual is taken, and the sample is then processed for nucleic acid extraction and amplification. This process can be divided into three steps: 1) RNA extraction, 2) transcription of RNA into complementary DNA (cDNA) and 3) PCR amplification of DNA.

The PCR test amplifies the genetic material through multiple cycles. Each cycle of amplification doubles the amount of DNA. If there is just one DNA molecule to start with, the amount of DNA after 30 cycles of amplification (referred to as cycle threshold or Ct value) will be 2^{30} or one billion molecules.

So the procedure simply replicates genetic material many times over and is NOT meant to be used as a diagnostic tool for illness.

Test manufacturers themselves have flagged up limitations to using the tests they have created, urging caution about using them for diagnostic purposes.

I provide below just a few examples direct from source documentation from the manufacturers of the testing kits which provide disclaimers and warn of caution in trying to use the kits to diagnose a disease:

Example1: https://www.fda.gov/media/134922/download

On page 3:

Results are for the identification of 2019-nCoV RNA. The 2019-nCoV RNA is generally detectable in upper and lower respiratory specimens during infection. Positive results are indicative of active infection with 2019-nCoV but do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definite cause of disease. Laboratories within the United States and its territories are required to report all positive results to the appropriate public health authorities.

On page 39:

the optimum types of specimens to collect, and, during the course of infection, when these specimens are most likely to contain levels of viral RNA that can be readily detected.

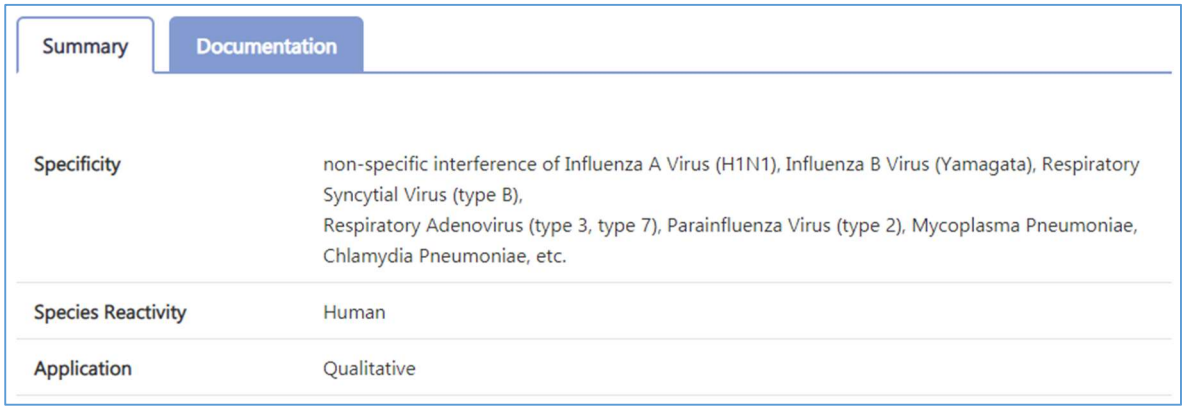
- Detection of viral RNA may not indicate the presence of infectious virus or that 2019-nCoV is the causative agent for clinical symptoms.
- The performance of this test has not been established for monitoring treatment of 2019-nCoV infection.
- The performance of this test has not been established for screening of blood or blood products for the presence of 2019-nCoV.
- This test cannot rule out diseases caused by other bacterial or viral pathogens.

Example 2: https://www.fda.gov/media/136151/download

On page 1:

Results are for the identification of SARS-CoV-2 RNA. The SARS-CoV-2 RNA is generally detectable in respiratory specimens during the acute phase of infection. Positive results are indicative of the presence of SARS-CoV-2 RNA; clinical correlation with patient history and other diagnostic information is necessary to determine patient infection status. Positive results do not rule out bacterial infection or co-infection with other viruses. The agent detected may not be the definite cause of disease. Laboratories within the United States and its territories are required to report all positive results to the appropriate public health authorities.

Example 3: https://www.creative-diagnostics.com/sars-cov-2-coronavirus-multiplex-rt-qpcr-kit-277854-457.htm



Summary | Documentation

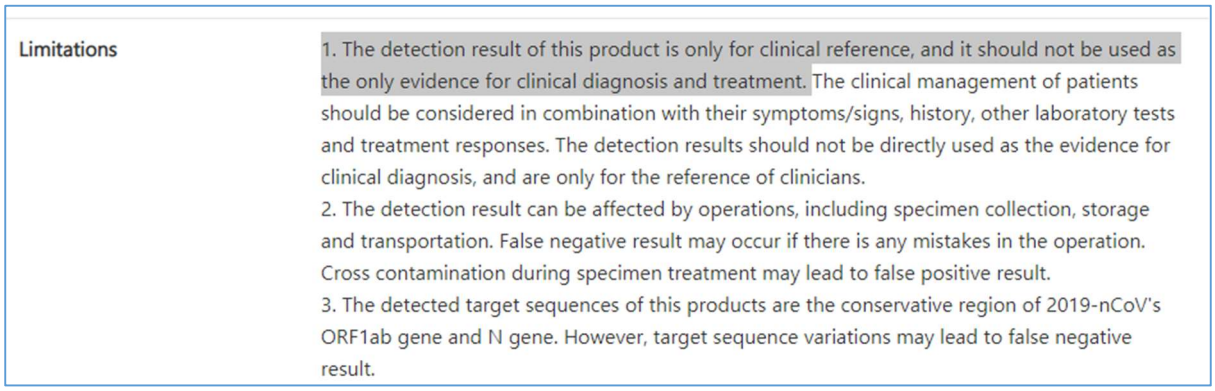
Specificity	non-specific interference of Influenza A Virus (H1N1), Influenza B Virus (Yamagata), Respiratory Syncytial Virus (type B), Respiratory Adenovirus (type 3, type 7), Parainfluenza Virus (type 2), Mycoplasma Pneumoniae, Chlamydia Pneumoniae, etc.
Species Reactivity	Human
Application	Qualitative

Just to elaborate on the above terms:

Specificity: this means that the test can detect 2019-CoV **BUT** it can also give a positive result if any of the other viruses are present (e.g. Influenza A (H1N1), Influenza B etc.). So effectively this would not be any evidence that 2019-CoV is associated with the symptoms at all.

Application: 'Qualitative'. This means that the test can only tell you if the virus was present, it cannot tell you how much (quantitative) of it was present. This is an important point as the load or amount of infection present is said to be a big indication as to whether someone is diseased.

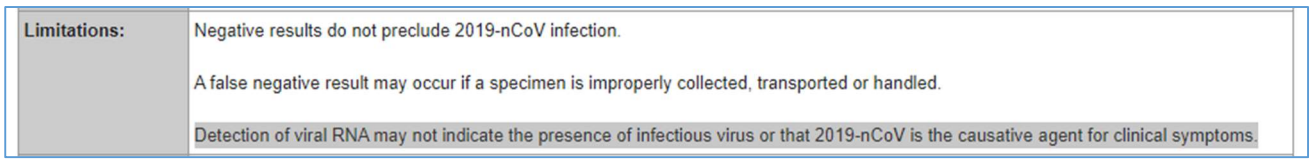
And further down the page:



Limitations	1. The detection result of this product is only for clinical reference, and it should not be used as the only evidence for clinical diagnosis and treatment. The clinical management of patients should be considered in combination with their symptoms/signs, history, other laboratory tests and treatment responses. The detection results should not be directly used as the evidence for clinical diagnosis, and are only for the reference of clinicians. 2. The detection result can be affected by operations, including specimen collection, storage and transportation. False negative result may occur if there is any mistakes in the operation. Cross contamination during specimen treatment may lead to false positive result. 3. The detected target sequences of this products are the conservative region of 2019-nCoV's ORF1ab gene and N gene. However, target sequence variations may lead to false negative result.

Example 4:
http://www.slh.wisc.edu/wslhApps/RefMan/wslhSearch.php?searchTerm=novel%20coronavirus&TEST_REFERENCE_ID=8105&submitIt=testDetail

Type in 'novel coronavirus' in the search tool and you get: COVID-19 virus (novel coronavirus 2019/SARS-CoV-2) RT-PCR



Limitations:	Negative results do not preclude 2019-nCoV infection. A false negative result may occur if a specimen is improperly collected, transported or handled. Detection of viral RNA may not indicate the presence of infectious virus or that 2019-nCoV is the causative agent for clinical symptoms.

So the conclusion from the above is that the presence of something (the virus) does not indicate presence of an 'infectious virus' or that it is the 'causative agent' for clinical symptoms.

Here is an interesting piece of analysis on the issue of testing and PCR written by Celia Farber, April 7, 2020, who was in the rare position of having known, spent time with, and interviewed the inventor of the PCR test.

https://uncoverdc.com/2020/04/07/was-the-covid-19-test-meant-to-detect-a-virus/

Some snippets below:

What do we mean when we say a person "tests positive" for Covid-19?
We don't actually mean they have been found to "have" it.
We've been hijacked by our technologies, but left illiterate about what they actually mean.

Kary Mullis was a scientist. He never spoke like a globalist, and said once, memorably, when accused of making statements about HIV that could endanger lives: "I'm a scientist. I'm not a lifeguard." That's a very important line in the sand. Somebody who goes around claiming they are "saving lives," is a very dangerous animal, and you should run in the opposite direction when you encounter them. Their weapon is fear, and their favorite word is "could." They entrap you with a form of bio-debt, creating simulations of every imaginable thing that "could" happen, yet hasn't.

When you see the word "cases" on your TV screen, in this world that has now been hijacked by one single event, one dread, one Idol, you will be forgiven for thinking those are cases of Covid-19.

In the US, we have all but abandoned classical diagnostic medicine in favor of biotech, or lab result medicine.

"You have to have a whopping amount of any organism to cause symptoms. Huge amounts of it," Dr. David Rasnick, bio-chemist, protease developer, and former founder of an EM lab called Viral Forensics told me. "You don't start with testing; you start with listening to the lungs. I'm skeptical that a PRC test is ever true. It's a great scientific research tool. It's a horrible tool for clinical medicine. 30% of your infected cells have been killed before you show symptoms. By the time you show symptoms…the dead cells are generating the symptoms."

I asked Dr. Rasnick what advice he has for people who want to be tested for COVID-19.
"Don't do it, I say, when people ask me," he replies. "No healthy person should be tested. It means nothing but it can destroy your life, make you absolutely miserable."
"PCR for diagnosis is a big problem," he continues. "When you have to amplify it these huge numbers of time, it's going to generate massive amounts of false positives. Again, I'm skeptical that a PCR test is ever true."

Here is a very interesting study, again from the University of Oxford Centre for Evidence-Based Medicine, which points out the importance of understanding and interpreting test results:

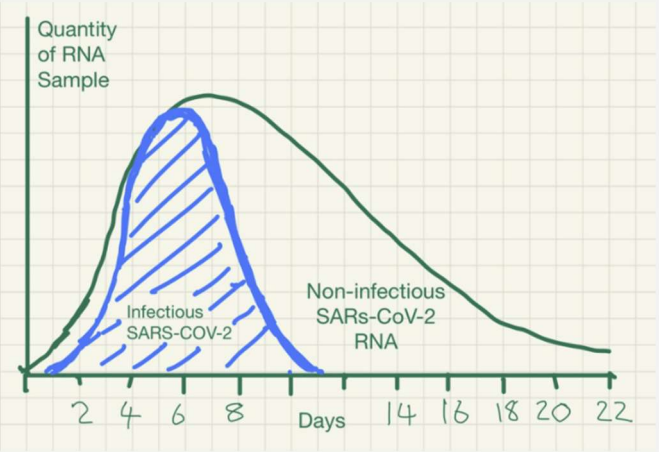
Are you infectious if you have a positive PCR test result for COVID-19? August 5, 2020
https://www.cebm.net/covid-19/infectious-positive-pcr-test-result-covid-19/

I provide some snippets from the above study:

'PCR detection of viruses is helpful so long as its accuracy can be understood: **it offers the capacity to detect RNA in minute quantities, but whether that RNA represents infectious virus may not be clear**.'

'The immune system works to neutralise the virus and prevent further infection. Whilst an infectious stage may last a week or so, because inactivated RNA degrades slowly over time it may still be detected many weeks after infectiousness has dissipated.'

The graph below (provided in the CEBM study paper) is very interesting as **it shows that a PCR test could be detecting RNA many days after and at a time when it is not actually infectious.** There is also another study I've come across suggesting RNA being detected after some 60+ days.



'Insufficient attention may have been paid how PCR results relate to disease. The relation with infectiousness is unclear and more data are needed on this'.

'If this is not understood, **PCR results may lead to restrictions for large groups of people who do not present an infection risk.**'

Here is an article that looks in more detail into the PCR test and concludes that on a scientific basis, this test is not fit for purpose:

COVID19 PCR Tests are Scientifically Meaningless
https://off-guardian.org/2020/06/27/covid19-pcr-tests-are-scientifically-meaningless/
(you will need to copy the link into your browser to access)

'Lockdowns and hygienic measures around the world are based on numbers of cases and mortality rates created by the so-called SARS-CoV-2 RT-PCR tests used to identify "positive" patients, whereby "positive" is usually equated with "infected."

But looking closely at the facts, the conclusion is that these PCR tests are meaningless as a diagnostic tool to determine an alleged infection by a supposedly new virus called SARS-CoV-2.'

Here is another article highlighting the dangers of over-reliance on positive test results, particularly for asymptomatic people:

Diagnosing COVID-19 infection: the danger of over-reliance on positive test results
https://www.medrxiv.org/content/10.1101/2020.04.26.20080911v3

'**Unlike previous epidemics**, in addressing COVID-19 nearly all international health organizations and **national health ministries have treated a single positive result from a PCR-based test as confirmation of infection, even in asymptomatic persons without any history of exposure**. This is based on a widespread belief that positive results in these tests are highly reliable. **However, data on PCR-based tests for similar viruses show that PCR-based testing produces enough false positive results to make positive results highly unreliable over a broad range of real-world scenarios.** This has clinical and case management implications, and affects an array of epidemiological statistics, including the asymptomatic ratio, prevalence, and hospitalization and death rates. Steps should be taken to raise awareness of false positives, reduce their frequency, and mitigate their effects. In the interim, positive results in asymptomatic individuals that haven't been confirmed by a second test should be considered suspect.'

Here is an interesting article from Science magazine that also highlights limitations of PCR testing:

Old Guard Urges Virologists to Go Back to Basics, Science 6 July 2001, Vol. 293, Issue 5527, pp. 24
https://science.sciencemag.org/content/293/5527/news-summaries

I provide some snippets below:

'Calisher [a virologist at Colorado State University] has been worrying for years about the wholesale takeover by modern lab toys, fearing that the genetic code they spit out sheds much less light on a virus's workings than "classic" methods.'

'Once you isolated a new virus, you'd produce a stock of it, induce antibodies by injecting the virus into mice, then send your virus and reagents to one of several viral repositories around the world. Local health labs could use antibody tests to detect these new viruses, and other researchers could inject them into animals to study how they caused disease.'

'Nowadays, scientists can detect a virus simply by searching for and amplifying snippets of its DNA in human or animal samples. Indeed, they have identified and described quite a few new viruses without ever isolating them.'

'Although all that is terrific, says Calisher, a string of DNA letters in a data bank tells little or nothing about how a virus multiplies, which animals carry it, how it makes people sick, or whether antibodies to other viruses might protect against it. **Just studying sequences, Calisher says, is "like trying to say whether somebody has bad breath by looking at his fingerprint**."'

Please re-read the last paragraph as it is an extremely important point to grasp.

And here is another article from the New York Times highlighting the potential for the tests to be misused, when it was thought there was an epidemic of whooping cough based on PCR testing, when in fact, there wasn't one:

Faith in Quick Test Leads to Epidemic That Wasn't
https://www.nytimes.com/2007/01/22/health/22whoop.html

It was the start of a bizarre episode at the medical center: the story of the epidemic that wasn't.

For months, nearly everyone involved thought the medical center had had a huge whooping cough outbreak, with extensive ramifications.

Not a single case of whooping cough was confirmed with the definitive test, growing the bacterium, Bordetella pertussis, in the laboratory. Instead, it appears the health care workers probably were afflicted with ordinary respiratory diseases like the common cold.

Now, as they look back on the episode, epidemiologists and infectious disease specialists say the problem was that they placed too much faith in a quick and highly sensitive molecular test that led them astray.

"The big message is that every lab is vulnerable to having false positives," Dr. Petti said. "No single test result is absolute and that is even more important with a test result based on P.C.R."

False Positive Rate PCR Test

In laboratory testing and equipment there is an element of inaccuracy involved. This also applies for the PCR test. A major issue has been flagged up regarding the false positive rate of the PCR test.

This very issue was considered in a paper by Government Office for Science (GOS) called 'Impact of false-positives and false-negatives' in the UK's Covid-19 RT-PCR testing programme and was considered by SAGE on 11 June 2020.

I provide some highlights from the paper below. It is important to understand this issue hence a lot of the content of the paper has been replicated:

RT-PCR tests are highly sensitive, but can show false negatives (giving a negative result for a person infected with COVID-19) and false positives (giving a positive result for a person not infected with COVID-19). The RT-PCR assays used for the UK's COVID-19 testing programme have been verified by PHE, and show over 95% sensitivity and specificity. This means that under laboratory conditions, these RT-PCR tests should never show more than 5% false positives or 5% false negatives.

Operational false-positives and false-negatives will have significant impact in the way we respond to the COVID-19 pandemic. They will affect national surveillance, and the functioning of the UK track and-trace programme. **We have been unable to find any data on the operational false positive and false negative rates in the UK COVID-19 RT-PCR testing programme.**

The paper the goes on to explore what causes false positives.

What causes false positives?

- **Cross reactions with other genetic material.** Other sources of DNA or RNA may have cross reactive genetic material that can be amplified by the RT-PCR test. False positives were observed unexpectedly in norovirus assays in patients with enterocolitis, due to unusually high levels of human DNA in samples [1]
- **Contamination during sampling.** This may happen if the swab head accidently contacts, or is placed on a contaminated surface (e.g. latex gloves, hospital surface).
- **Contamination during swab extraction.** Viral RNA is extracted from swabs in solution; accidental aerosolization of liquid can cause cross contamination between samples.
- **Contamination with PCR amplicon.** The PCR amplification process generates millions of copies of the DNA target (amplicon) that can cause false positives in subsequent PCR reactions. If a testing lab is accidently contaminated with amplicon it can lead to sporadic false positives.
- **Contamination of PCR laboratory consumables.** Contamination can spread from a post-PCR lab into a pre-PCR lab by transfer of equipment, chemicals, people or aerosol. Even experienced national labs can be affected. In early-March 2020, COVID-19 RT-PCR assays produced by the CDC were withdrawn after many showed false positives due to contaminated reagents.[2]

The paper then estimates a range of false positive rates based on RT-PCR's for other viruses. It identifies a median false positive rate of 2.3%, with a minimum of 0.8% and maximum of 4.0% for the interquartile range.

What is the UK operational false positive rate?

The UK operational false positive rate is unknown. There are no published studies on the operational false positive rate of any national COVID-19 testing programme.

An attempt has been made to estimate the likely false-positive rate of national COVID-19 testing programmes by examining data from published external quality assessments (EQAs) for RT-PCR assays for other RNA viruses carried out between 2004-2019 [7]. Results of 43 EQAs were examined, giving a **median false positive rate of 2.3% (interquartile range 0.8-4.0%).**

The next part of the paper reveals why this false positive rate is such a big concern.

Why are false positives a problem?

DHSC figures [3] show that 100,664 tests were carried out on 31 May 2020 (Pillar 1 and 2 RT-PCR tests). 1,570 of those tests were positive for SARS-CoV-2 (1.6%). The majority of people tested on that day did not have SARS-CoV-2 (98.4% of tests are negative). **When only**

a small proportion of people being tested have the virus, the operational false positive rate becomes very important. Clearly the false positive rate cannot exceed 1.6% on that day, and is likely to be much lower. **If the operational false positive rate was 0.4%, 400 of the 1,570 positive tests would be false positives.**
That would represent 400 people being isolated when they are well, and much wasted effort in contact tracing. It is possible that a proportion of infections that we currently view as asymptomatic may in fact be due to these false positives.
Unless we understand the operational false positive rate of the UK's RT-PCR testing system we risk overestimating the COVID-19 incidence, the demand on track and trace, and the extent of asymptomatic infection.

https://www.gov.uk/government/publications/gos-impact-of-false-positives-and-negatives-3-june-2020

Even a small false positive rate can lead to many false positive cases.

A 1% false positive rate DOES NOT mean that 1% of the positives is false, but that 1% of all tests is false. This can turn out to be a significant number.

Some excellent work has been undertaken on this topic by Professor Carl Heneghan, Director of the University of Oxford's Centre for Evidence-Based Medicine and also Dr Mike Yeadon, former Chief Scientific Officer and VP, Allergy and Respiratory Research Head with Pfizer Global R&D.

The exemplification below is based on the work of these two individuals and shows how many false positives can be produced. The scenario assumes testing is **random** across the population.

Let's assume:

- An incidence rate of 0.20% in the population (or 1 in every 500 people) – reflecting the latest ONS infection survey
- A 0.8% false positive rate – which is the minimum interquartile range stated in the GOS paper considered by SAGE
- 100,000 tests are undertaken

So if 100,000 tests are performed, and the incidence rate in the population is 0.2%, then this would mean:

- 200 positives (people who have it) [100,000 x 0.2%]
- 99,800 negatives (people who don't have it)

If the false positive rate is 0.8%, then this would mean that 798 people will show as positive when they should not (99,800 x 0.8% = 798)

However, the reported position would show that 998 people tested positive, consisting of the 200 true positives and the 798 false positives.

So the probability of a positive test being a true positive would be 20% (200 divided by 998) and the **probability of it being false would be 80%** (798 divided by 998).

There are some who argue that those being tested are a subset of the general population and will be those who have 'symptoms' so there is a high prior probability that those being tested will be positive.

This argument could hold some water if there were **unique** signs and symptoms to Covid-19. However, we know that the signs and symptoms attributed to Covid-19 are **general only (not unique)**, and the most frequently cited are 'fever' and 'cough'. These occur generally across the population (and have done so for thousands of years before Covid-19 came on the scene). Therefore, increasing the prior probability to a high figure is unjustified.

Antibody testing

The antibody test identifies if certain antibodies have been produced by the body in response to an infection of a 'virus'. This test is generally used to test for past infections.

The theory goes that when the body is exposed to a 'virus', a complex immune response is triggered, involving different types of cells that produce antibodies and attach to cells that have been infected by a virus. Once the antibodies appear, they tend to wane after a few months.

To put this in a nutshell, this form of testing is an attempt to prove the existence of a 'virus' in an **indirect way**, i.e. it doesn't detect the virus itself, but measures a response to 'something'.

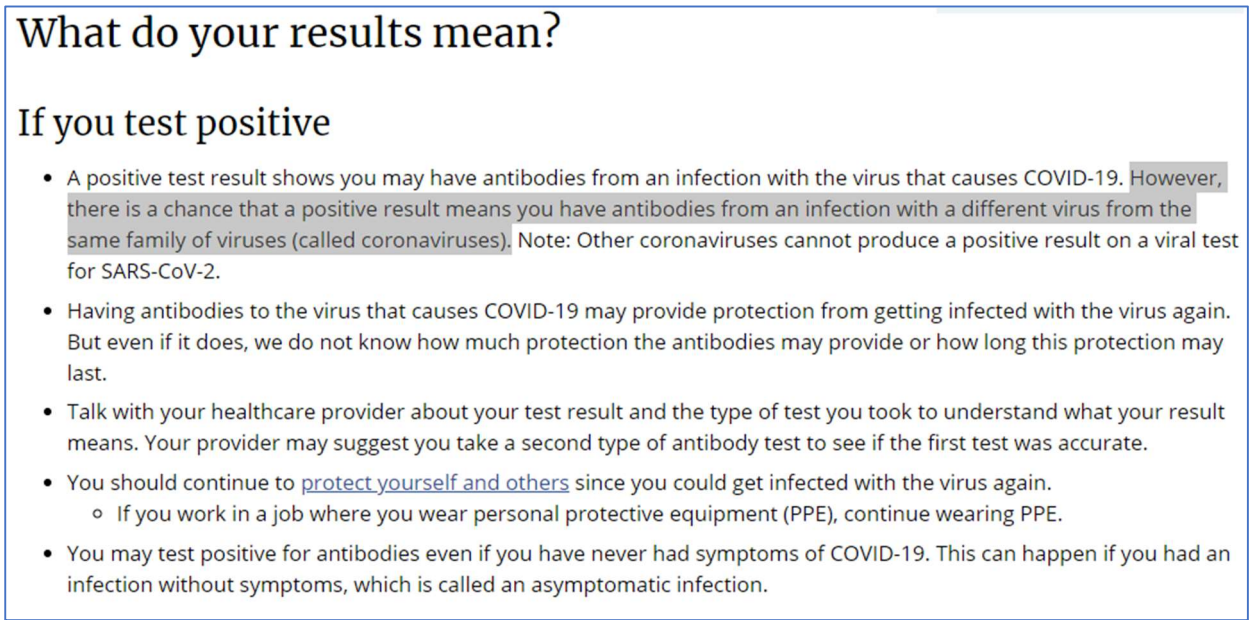
The presence or absence of antibodies cannot be used to determine immunity. Not everyone needs to produce antibodies for immunity because the immune system responds in different ways to protect the body and maintain homeostasis.

The immune system is said to be made up of two parts: the **innate**, (general) immune system and the **adaptive** (specialized) immune system. These two systems work closely together and take on different tasks. The link below provides a brief summary of the concept, which is useful to be aware of due to the many references to terminology such as antibodies, lymphocytes and T-cells, that you may have heard of in recent months.

The innate and adaptive immune systems
https://www.ncbi.nlm.nih.gov/books/NBK279396/

What we can take from the above is that as there are different levels of protection and action, we might not need to get to the stage where antibodies even need to be produced as the other aspects of the immune system are sufficient.

Going back to the subject of antibody testing, the American Centre for Disease Control (CDC) openly acknowledge that a positive result could also arise from the presence of other coronaviruses -in other words, the common cold could also get picked up.



What do your results mean?

If you test positive

- A positive test result shows you may have antibodies from an infection with the virus that causes COVID-19. However, there is a chance that a positive result means you have antibodies from an infection with a different virus from the same family of viruses (called coronaviruses). Note: Other coronaviruses cannot produce a positive result on a viral test for SARS-CoV-2.
- Having antibodies to the virus that causes COVID-19 may provide protection from getting infected with the virus again. But even if it does, we do not know how much protection the antibodies may provide or how long this protection may last.
- Talk with your healthcare provider about your test result and the type of test you took to understand what your result means. Your provider may suggest you take a second type of antibody test to see if the first test was accurate.
- You should continue to protect yourself and others since you could get infected with the virus again.
  - If you work in a job where you wear personal protective equipment (PPE), continue wearing PPE.
- You may test positive for antibodies even if you have never had symptoms of COVID-19. This can happen if you had an infection without symptoms, which is called an asymptomatic infection.

https://www.cdc.gov/coronavirus/2019-ncov/testing/serology-overview.html

If special antibodies are produced in response to this 'virus' then we get back to the same problematic issue as for PCR tests, has the 'virus' been fully purified, isolated and characterised so that the various tests can be **correctly calibrated**, so we know for sure **what they are reacting to**?

Here is a Cochrane systematic review on using antibody tests for identifying infections, pointing out uncertainties on their benefits but also highlighting when they are best used:

Antibody tests for identification of current and past infection with SARS-CoV-2
https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD013652/full

'We are therefore uncertain about the utility of these tests for seroprevalence surveys for public health management purposes. Concerns about high risk of bias and applicability make it likely that the accuracy of tests when used in clinical care will be lower than reported in the included studies. Sensitivity has mainly been evaluated in hospitalised patients, so it is unclear whether the tests are able to detect lower antibody levels likely seen with milder and asymptomatic COVID-19 disease.'

'The review shows that antibody tests could have a useful role in detecting if someone has had COVID-19, but the timing of when the tests are used is important. Antibody tests may help to confirm COVID-19 infection in people who have had symptoms for more than two weeks and do not have a RT-PCR test, or have negative RT-PCR test results. The tests are better at detecting COVID-19 in people two or more weeks after their symptoms started, but we do not know how well they work more than five weeks after symptoms started. We do not know how well the tests work for people who have milder disease or no symptoms, because the studies in the review were mainly done in people who were in hospital.'

Many studies have emerged showing that many individuals do not even need to produce antibodies to the virus because their T cells are sufficient to deal with the infection. In addition, many studies have suggested some background immunity exists in individuals arising from historic cross-reactivity from other viruses (e.g. colds).

This calls into question the need for a vaccine for the mass population, especially when studies suggest that around 99.95% of the people who have had the virus survive.

Summary

As admitted by test manufacturers themselves, **a positive test does not signify that you have a disease or are infectious**.

A 'positive case' does not necessarily translate into a disease or infection of Covid-19. Healthy people who carry many viruses (because most people have colds and flus through their lives) and are currently disease free can be counted as 'cases' under the current testing regime. This can give the impression that the virus is spreading, when in reality it is only the testing that is creating that impression. **So an epidemic or 'outbreak' could simply be a result of rolling out of testing across a nation**.

So here's how things could go…

More testing → more cases → more lockdown → more contact tracing → further testing and the cycle continues

We could have a scenario where a few people have the flu or common cold, they get tested and come up as 'positive' and then get added to the case numbers, resulting in an 'outbreak' being declared in an area and we have isolation, quarantine, track and tracing of contacts of those individuals, who in turn could be isolated and quarantined etc. And yet no-one could actually be ill with symptoms or dying.

Going back to our evidence-based medicine approach– a potential way to ascertain if a 'virus' is responsible for a disease would be to undertake a randomised controlled trial study as follows:

- Take (say) two hundred people and obtain a swab test from them;
- Ideally we would have 100 healthy people (control group) and 100 ill or symptomatic people;
- Make sure the testers do not know who the people are and what their health condition is (known as 'blinding' the tests);
- Run the PCR test for each individual;
- Determine what 'virus' they have found and how much of it in each individual;
- Then 'unblind' the patients (the control group and the symptomatic group);
- Finally check to see who the 'virus' was found in and if they are symptomatic or not.

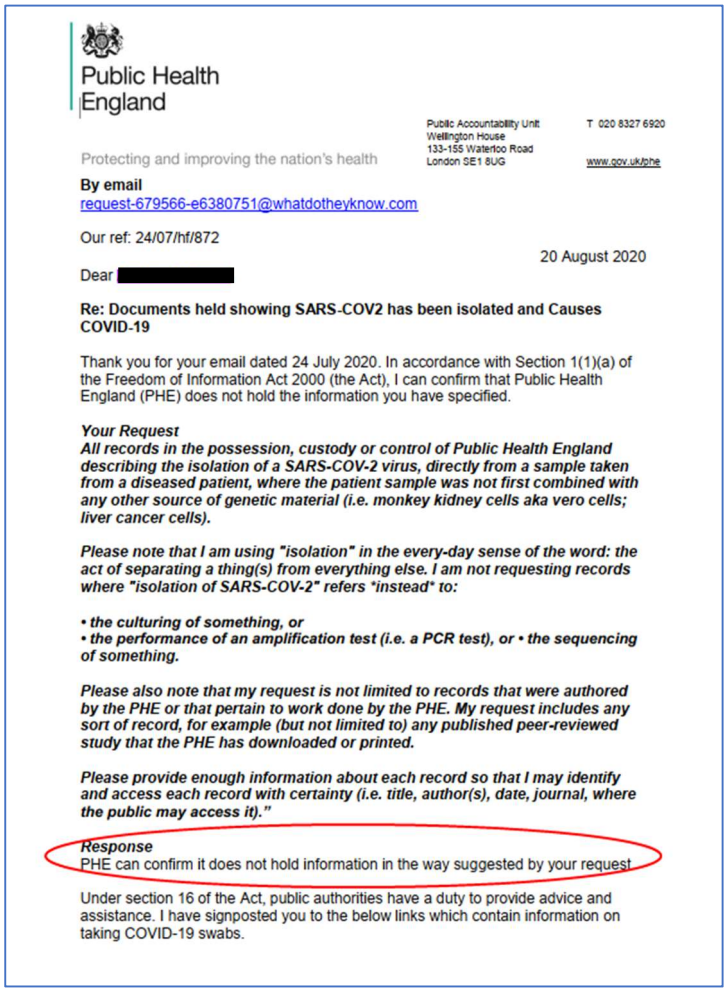
An important issue is the need for a control group. **If we find the exact same genetic material in the samples of the healthy control group, then it can't be the cause of the disease.** We would need to find that particular viral sequence in the symptomatic people and **not** in the healthy in order to say it was the cause.

This has not yet been done for Covid-19.

We can have a situation where nobody is actually diseased or sick yet because of technical laboratory testing in the population, an 'outbreak' could be declared, leading to a whole series of 'control' and 'mitigation' measures being put in place, encroaching civil liberties and freedoms.

What follows is a response from Public Health England (PHE) to a Freedom of Information Request which requested access to any documents held 'showing SARS-COV2 had been isolated and caused Covid-19.'

PHE confirmed that it did not hold the information in the way suggested in the request.



Public Health England

Public Accountability Unit
Wellington House
133-155 Waterloo Road
London SE1 8UG

T 020 8327 6920

www.gov.uk/phe

Protecting and improving the nation's health

By email
request-679566-e6380751@whatdotheyknow.com

Our ref: 24/07/hf/872

20 August 2020

Dear [redacted]

Re: Documents held showing SARS-COV2 has been isolated and Causes COVID-19

Thank you for your email dated 24 July 2020. In accordance with Section 1(1)(a) of the Freedom of Information Act 2000 (the Act), I can confirm that Public Health England (PHE) does not hold the information you have specified.

Your Request
All records in the possession, custody or control of Public Health England describing the isolation of a SARS-COV-2 virus, directly from a sample taken from a diseased patient, where the patient sample was not first combined with any other source of genetic material (i.e. monkey kidney cells aka vero cells; liver cancer cells).

Please note that I am using "isolation" in the every-day sense of the word: the act of separating a thing(s) from everything else. I am not requesting records where "isolation of SARS-COV-2" refers *instead* to:

• the culturing of something, or
• the performance of an amplification test (i.e. a PCR test), or • the sequencing of something.

Please also note that my request is not limited to records that were authored by the PHE or that pertain to work done by the PHE. My request includes any sort of record, for example (but not limited to) any published peer-reviewed study that the PHE has downloaded or printed.

Please provide enough information about each record so that I may identify and access each record with certainty (i.e. title, author(s), date, journal, where the public may access it)."

Response
PHE can confirm it does not hold information in the way suggested by your request.

Under section 16 of the Act, public authorities have a duty to provide advice and assistance. I have signposted you to the below links which contain information on taking COVID-19 swabs.

https://www.whatdotheyknow.com/request/679566/response/1625332/attach/html/2/872%20FOI%20All%20records%20describing%20isolation%20of%20SARS%20COV%202.pdf.html

From the above response, PHE do not have any documents showing that the virus has been purified, isolated and characterised; steps which are essential for laboratory testing and equipment to be correctly calibrated.

Here are some articles from the press on this subject of PCR testing which again focus on the potential misuse of testing leading to unjustified restrictive measures being enforced:
Experts from Oxford University's Centre for Evidence-Based Medicine say the widely-used PCR test will result in false positives. Saturday 5 September 2020 12:48, UK
https://news.sky.com/story/coronavirus-tests-may-be-picking-up-traces-of-dead-virus-12064151

The tests used to find out if someone is COVID positive could be finding traces of the virus that are no longer active, some scientists are saying.
A study by members of the University of Oxford's Centre for Evidence-based Medicine (CEBM) and the University of the West of England found that there was a risk of "false positives" because of the way people are currently tested for coronavirus.
They looked at 25 studies on the polymerase chain reaction (PCR) test - the very sensitive test widely used to find out if someone has the virus in their system.
The test gives a positive or negative result, which the scientists say amounts to a simplistic "yes" - someone has the virus, or "no" - they don't have the virus.
But they found the tests were able to detect traces of the virus's genetic material for a much longer period than it remains infectious - meaning a person who tests positive may have the virus in their system, but won't necessarily pass it on.
Other genetic material it detects might be fragments of dead virus - which have already been dealt with by a body's immune system.
One of the study's authors, the CEBM's Professor Carl Heneghan, told The Spectator magazine there were also issues with the way the tests check for the virus and there was a risk that a surge in testing across the UK was increasing the risk of contamination.
He said it may be part of the reason why the number of cases in the UK is rising but the number of deaths from COVID-19 is remaining static.
Prof Heneghan wrote in the magazine: "**Evidence is mounting that a good proportion of 'new' mild cases and people re-testing positives after quarantine or discharge from hospital are not infectious, but are simply clearing harmless virus particles which their immune system has efficiently dealt with**."
He said an "international effort" was needed to avoid "**the dangers of isolating non-infectious people or whole communities**".

Flawed Test May Have Caused Thousands a Pointless Lockdown, Sunday Express—6 September 2020
https://www.express.co.uk/news/uk/1331999/UK-lockdown-coronavirus-test-leeds-middlesborough-tynside-corby/amp

THOUSANDS may have been forced into lockdown unnecessarily because the test for Covid-19 is flawed and needs to be changed as a “matter of urgency”.

Local lockdowns have been imposed because infections are deemed dangerously high, but research by experts at Oxford University suggests as many as half of the "positive" tests relied upon could actually be false. **This is because the current test is so sensitive it can pick up dead and harmless viral particles that are shed once the infection has passed.** People are infectious only for about a week, but particles continue to be emitted from the body for up to 74 days, their research has indicated, leading to an over-estimate of the pandemic.


FLAWED TEST MAY HAVE CAUSED THOUSANDS A POINTLESS LOCKDOWN

CORONAVIRUS

Masking

'The results are just not reliable'

Last night Labour joined calls more extensive testing to be rolled out at airports to reduce travellers' self-isolation periods. But **Professors Tom Jefferson and Carl Heneghan warned that the tests were flawed because they were so sensitive 'The results are just not reliable'**
they could skew the infection results. The pair, who reviewed 25 papers on Covid tests, found in one area of Italy over half of all positive tests were "false positives" as a result of the problem.

Professor Heneghan said: "We are potentially locking down thousands of people on the basis of false positive tests. **The government needs to follow the evidence which is now clear that the test results are not reliable**."

Mass testing of the population is being used as a strategy to identify and control the spread of the virus. The articles above and the rest of the information in this section identify major problems in this approach. The article below explores PCR testing and cycle thresholds, cases, positive tests and infections. **The point about cycle thresholds or amplification cycles is important to note because positive tests could be returned due to high cycle thresholds being used, even though these high thresholds are an indication that only a minute quantity of non-infectious material was detected.**

Why mass PCR testing of the healthy and asymptomatic is currently counter-productive
https://rationalground.com/why-mass-pcr-testing-of-the-healthy-and-asymptomatic-is-currently-counter-productive/

Current PCR tests provide evidence of the presence of viral RNA but no information about whether the individual is infectious.

"Detection of viruses using Polymerase Chain Reaction (PCR) is helpful so long as its accuracy can be understood: **it offers the capacity to detect RNA in minute quantities, but whether that RNA represents infectious virus is another matter**. RT-PCR uses enzymes called reverse transcriptase to change a specific piece of genetic material called RNA into a matching piece of genetic DNA. The test then amplifies this DNA exponentially; millions of copies of DNA can be made from a single viral RNA strand.

"A fluorescent signal is attached to the DNA copies, and when the fluorescent signal reaches a certain threshold, the test is deemed positive. The number of cycles required before the fluorescence threshold is reached gives an estimate of how much virus is present in the sample. This measure is called the cycle threshold (Ct). The higher the cycle number, the less

RNA there is in the sample; the lower the level, the greater the amount in the initial sample."

A recent New York Times article presented evidence that specimens detected in 27 to 34 cycles rarely show any live virus, and specimens detected above 34 cycles never show any live virus. "**It's just kind of mind-blowing to me that people are not recording the Ct values from all these tests — that they're just returning a positive or a negative**," said Angela Rasmussen, a virologist at Columbia University in New York.

The New York Times article said, "The standard tests are diagnosing huge numbers of people who may be carrying relatively insignificant amounts of the virus" and that identifying these non-contagious people "may contribute to bottlenecks that prevent those who are contagious from being found in time."

In a review of data from three labs, the New York Times found that "**up to 90 percent of people testing positive carried barely any virus**," meaning that only about 10% of people who test positive may actually need to isolate and submit to contact tracing. **The recommended solution was to reduce the threshold to 33 cycles**, based on CDC calculations.

The decision to equate a positive PCR test with a "case" in the COVID-19 pandemic is not aligned with recommendations from the test manufacturers or with definitions of cases for other viruses.

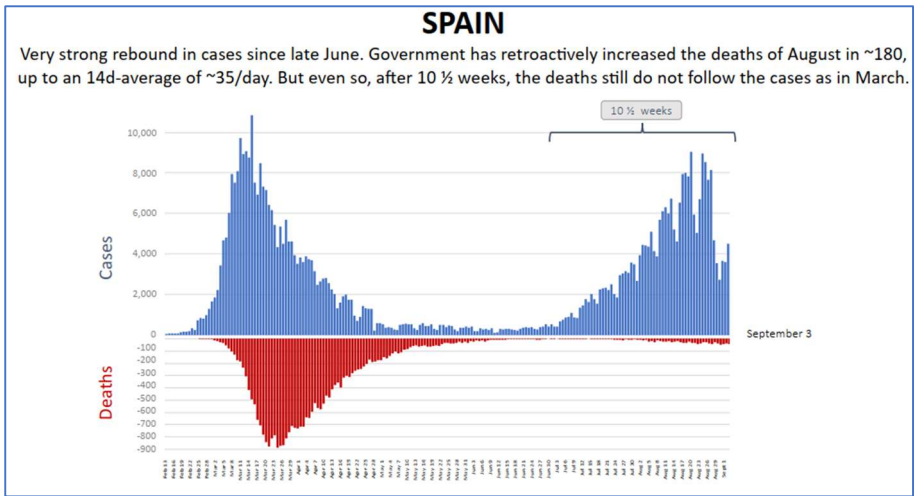
The point of testing should be to identify infectious individuals, and the current testing procedures fail in that public health goal. The FDA should **update their guidance to recommend no more than 34 cycles, require labs to communicate the number of cycles required to detect the virus for each positive test, and require labs to disclose the cycle threshold for all previous COVID tests (if that data is available) to clean up the inflated statistics (cases, hospitalizations, and deaths) associated with test results that exceeded 34 cycles.**

Cases vs deaths

This section will look at charts comparing case numbers with number of deaths. Some of these charts have been produced by Jose Gefaell who has examined in more detail the position in Spain; the document is called **Covid19 Second Wave Monitoring** – Sept 4, 2020 https://www.dropbox.com/s/udcch7nrmey65wj/SPAIN%20-%20Second%20Wave%20Monitoring-4Sept2020.pdf?dl=0

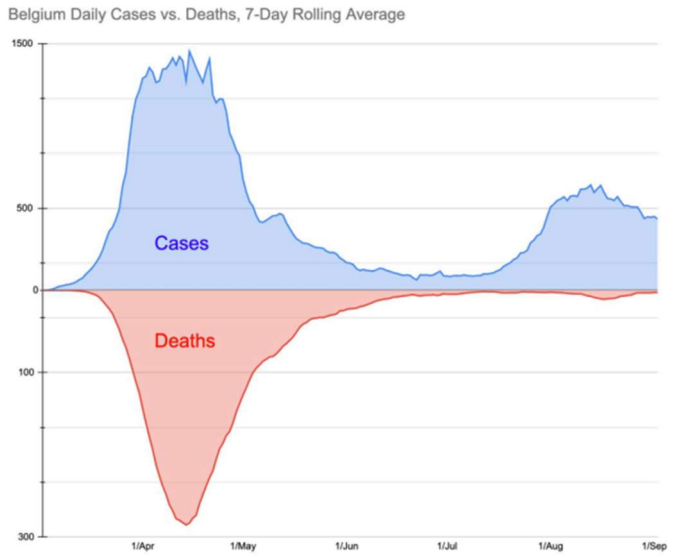
The charts compare cases numbers vs number of deaths and an analysis is included for several other countries. **It reiterates the dangers of focusing on 'cases' and how they can falsely perpetuate a sense of danger leading to unjustified restrictive measures impinging on freedoms and civil liberties of people and potentially harming people's health and well-being.**

In the scenarios below we can observe how deaths are plateaued even though case numbers can be seen to rise considerably.



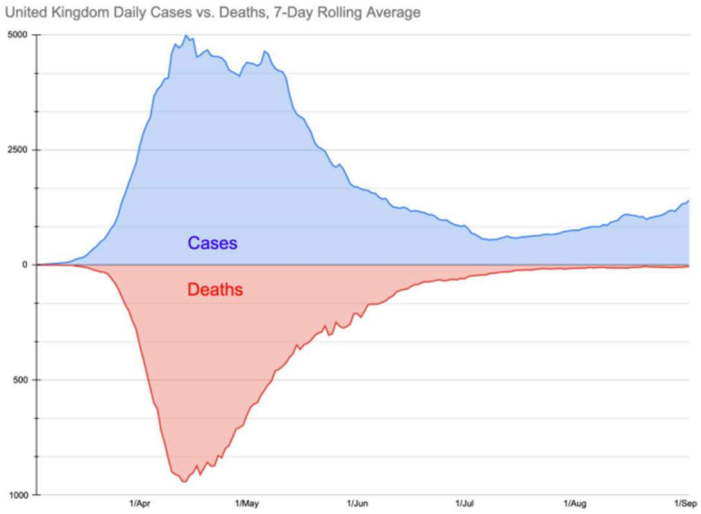
Charts for other countries are shown below, which depict a similar position.

Belgium



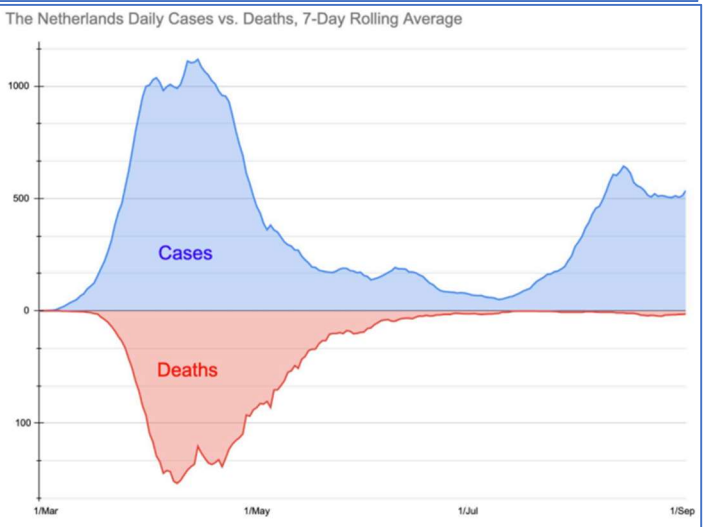
Source: **Peter Hitchens** @ClarkeMicah

United Kingdom



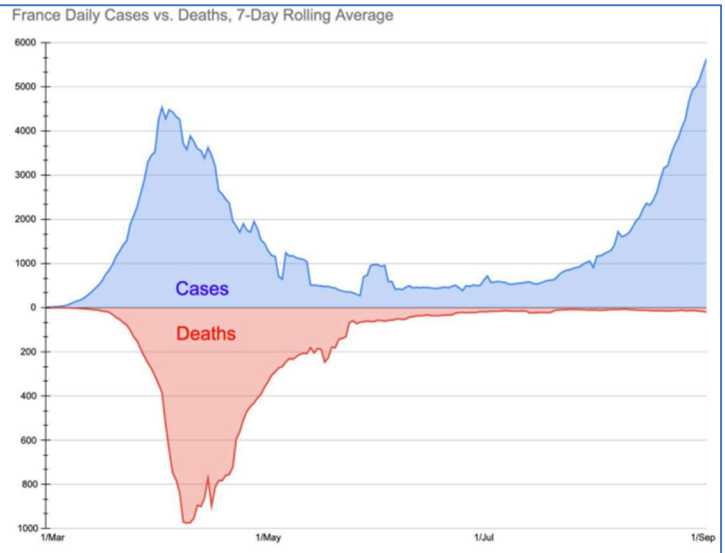
Source: **Peter Hitchens** @ClarkeMicah

Netherlands



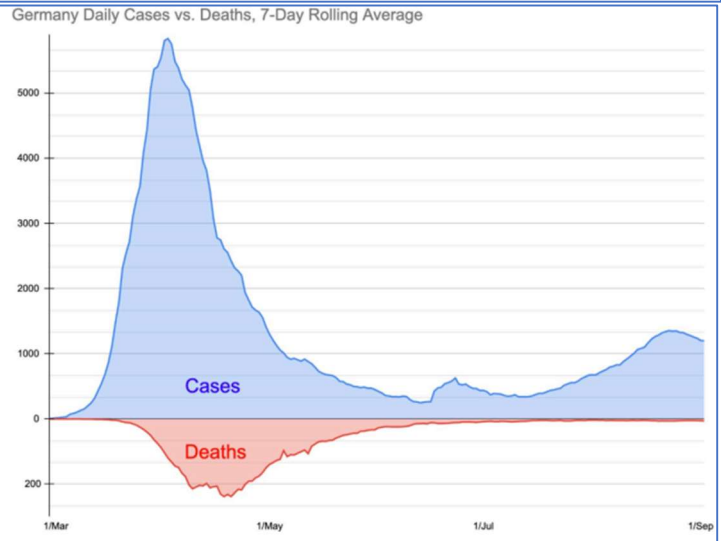
Source: **Peter Hitchens** @ClarkeMicah

France



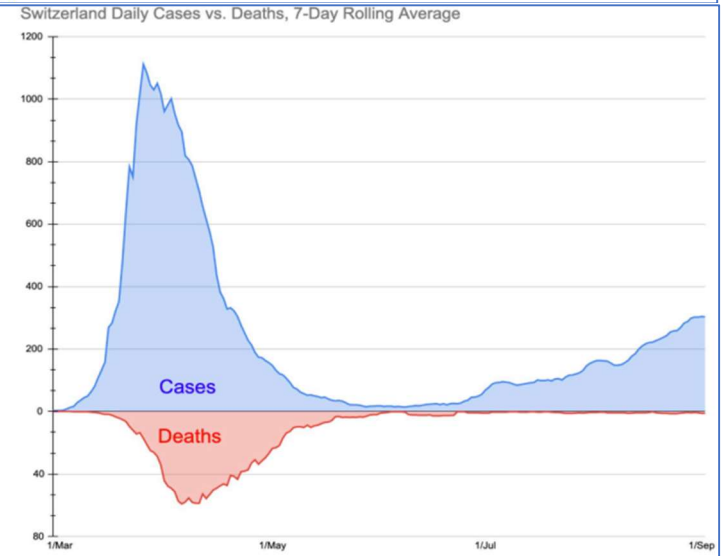
Source: **Peter Hitchens** @ClarkeMicah

Germany



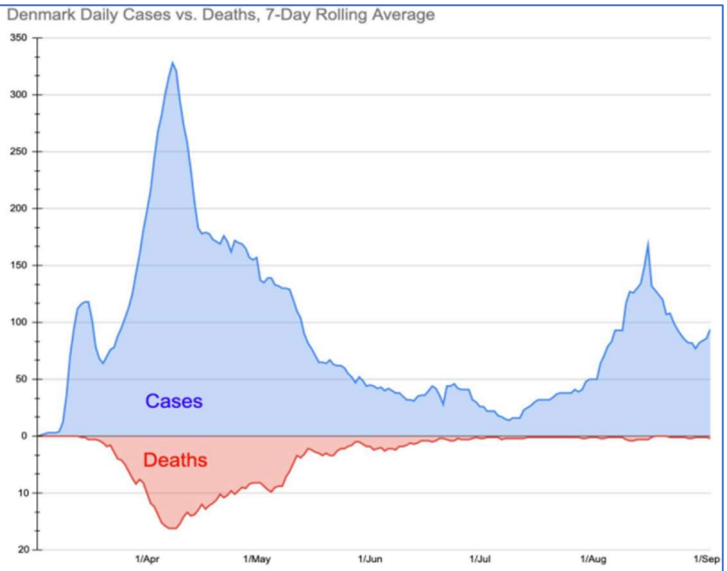
Source: **Peter Hitchens** @ClarkeMicah

Switzerland



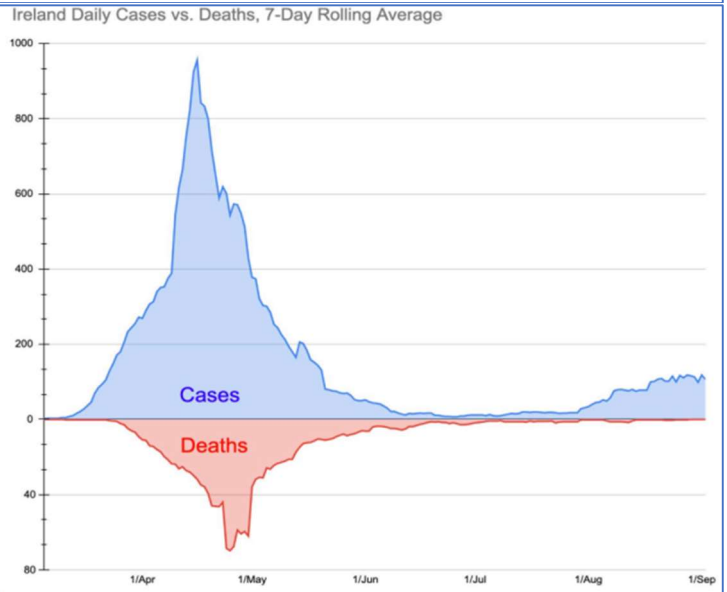
Source: **Peter Hitchens** @ClarkeMicah

Denmark



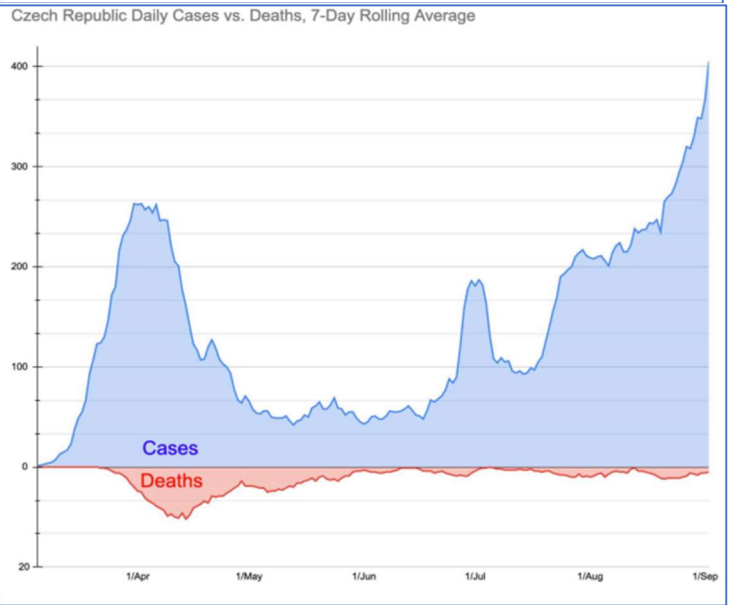
Source: **Peter Hitchens** @ClarkeMicah

Ireland



Source: **Peter Hitchens** @ClarkeMicah

Czechia



Source: **Peter Hitchens** @ClarkeMicah

World Health Organisation (WHO)

The World Health Organisation (WHO) describes itself as a specialised agency of the United Nations. It came into force in 1948 and acts as the directing and coordinating authority on international health work. It is playing a key role in co-ordinating worldwide response to the 'pandemic'. It is relevant to look closely at the organisation, what it does and how it is funded and controlled.

The functions of the WHO, as set out in Article 2 of its Constitution, include: to act as the directing and coordinating authority on international health work; to establish and maintain effective collaboration with diverse organizations; and to promote cooperation among scientific and professional groups which contribute to the advancement of health.

Non-governmental players play a significant role in the activities of the WHO. The following WHO document explains the role of 'non-state' actors which include academic institutions, philanthropic foundations/trusts and non-government organisations:

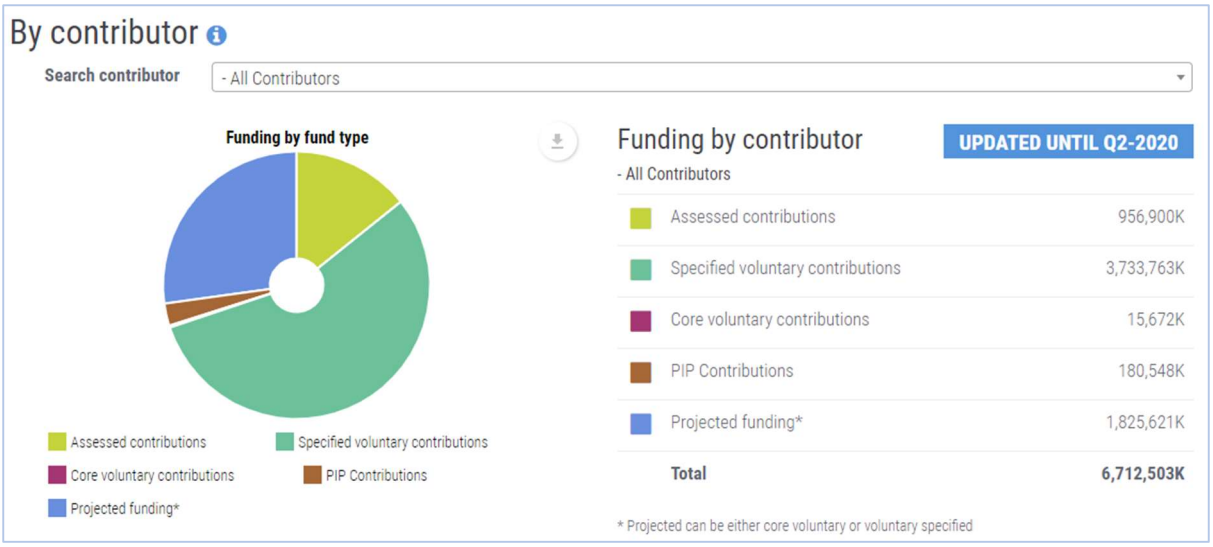
Constitution of the World Health Organisation, Basic Documents 49th edition

'The global health landscape has become more complex in many respects; among other things, there has been an increase in the number of players including non-State actors. WHO engages with non-State actors in view of **their significant role in global health** for the advancement and promotion of public health and to **encourage non-State actors to use their own activities to protect and promote public health**.'

https://apps.who.int/gb/bd/pdf_files/BD_49th-en.pdf#page=103

The funding arrangements of the WHO are important to consider because the sources of funding can determine it priorities and actions.

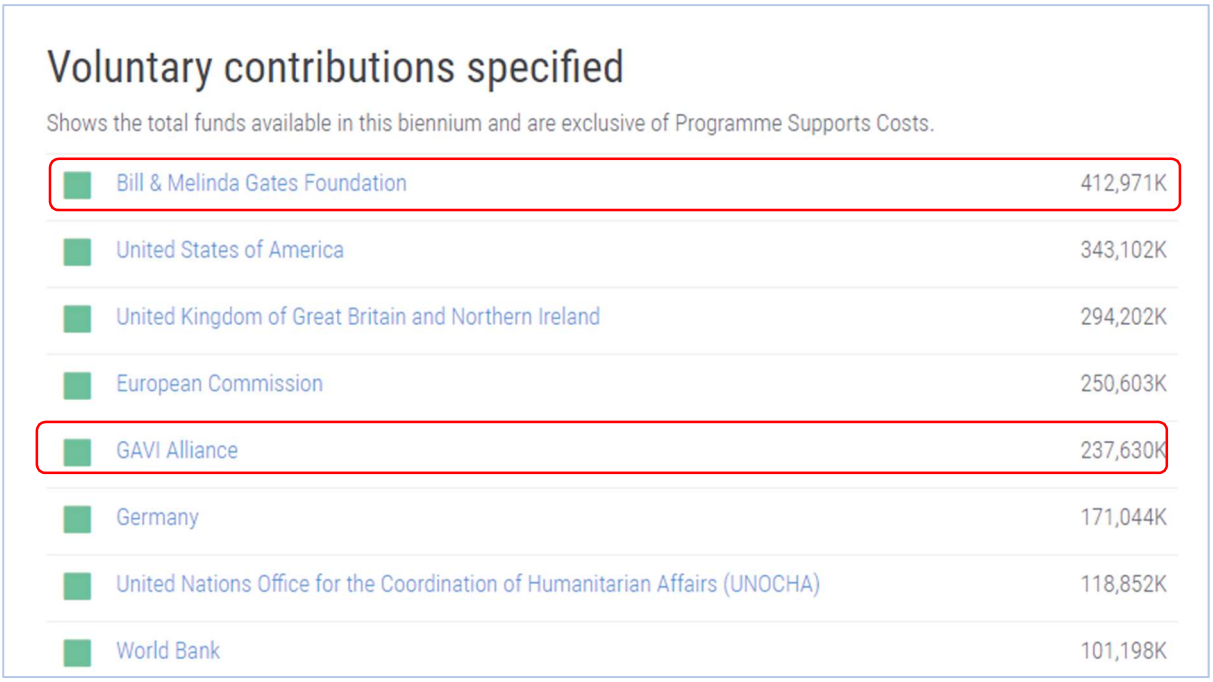
Here are the current funding arrangements of the WHO taken directly from its website:



http://open.who.int/2020-21/contributors/contributor

Assessed contributions are from nation states and amount to $957 million of the $6.713 billion total funding (17%).

The largest element is specified voluntary contributions of $3.734 billion and the main contributors in this area are:



A substantial amount of funding comes from the Bill and Melinda Gates Foundation and also the GAVI Alliance (Global Alliance for Vaccines and Immunisation which is dedicated to worldwide immunisation) - $651 million in total from these two sources alone.

The Bill and Melinda Gates Foundation established GAVI. The GAVI Alliance, states that it ‘helps vaccinate almost half the world’s children against deadly and debilitating infectious

diseases and improves access to new and under-used vaccines for millions of the most vulnerable children.'

The Bill & Melinda Gates Foundation (BMGF) is a very influential organisation with assets of billions of dollars. It provides significant funding to many organisations across all industries. Here is a link to a database which includes grant payments made by the BMGF and previous foundations of the Gates family: https://www.gatesfoundation.org/How-We-Work/Quick-Links/Grants-Database

The following extensive and meticulous piece of research on international global health issues and governance explores the role that philanthropists have played on global health exploring the role of the Rockefeller family, and lately the Gates family:

Philanthrocapitalism, past and present: The Rockefeller Foundation, the Gates Foundation, and the setting(s) of the international/global health agenda
http://archive.wphna.org/wp-content/uploads/2015/04/2014-11-Hypothesis-Anne-Emanuelle-Birn-Rockefeller-and-Gates.pdf

'International health in the 20th century was punctuated by the philanthrocapitalist's prerogative. In the 21st it may well still be a rich man's world, but we need not settle for a rich man's agenda for global health. **Scientists, scholars, activists, and ethical thinkers of all stripes should take notice of these untoward developments and work together for accountability and democratic decision-making in global health**.'

Here is an article from a publisher of peer-reviewed journals highlighting concerns about funding and influence over the WHO's activities:

Why the Corruption of the World Health Organization (WHO) is the Biggest Threat to the World's Public Health of Our Time, Journal of Integrative Medicine & Therapy
https://www.avensonline.org/fulltextarticles/jimt-2378-1343-02-0004.html

'In the scientific community it is generally accepted that metaanalyses are more accurate than single studies and independent studies more trustworthy than industrial studies. It is therefore understandable that Cochrane reviews, meta-analyses based on rigid protocol and independent origin, have the highest quality in medical research. **It is therefore unfortunate that Cochrane reviews seems systematically to conflict with the information and recommendations from the World Health Organization (WHO). A number of the drugs and vaccines recommended by WHO, especially the drugs used in psychiatry, are in Cochrane reviews found to be harmful and without significant clinical effect**. Since whose recommendations are followed by many people in the member states, it could indeed lead to patients getting the wrong medication and many patients have severe adverse effects, because of these drugs. **To solve this serious public health problem it is recommended to revise the WHO-system, which in fact has been proven weak to the interests of the pharmaceutical industry.** We therefore believe that the WHO's recommendations regarding medicine in its "list of essential medicines" and other drug directories are biased and not reliable as a source of information on medicine.'

'The World Health Organization (WHO) is guiding the public health services of 194 member states and a number of other countries regarding their use of pharmacological drugs, vaccines, and non-drug medicine (psychotherapy, physical therapy, alternative medicine(CAM) etc.). **Ten years ago WHO changed its financial policy and allowed private money into its system, instead of only funding from the member states** [3,4]. WHO has since been extremely successful in raising funds and is **now receiving more than half of its yearly budget from private sources** [3,4]. Bill Gates has for example given more than one billion dollars to the WHO [4]. **The new system of private funding of WHO has brought WHO much closer to the pharmaceutical industry**.'

'This change in policy honoring rationality and science to serving the pharmaceutical industry and going for its money is what this article is about. I hope you are sitting down, because you might be up for a big surprise.'

'Many drugs listed in the WHO drug directories, like "**WHOs model list of essential medicines" [6], have no value as medicine according to Cochrane reviews, since the drugs are dangerous, often harmful, and without significant beneficial effects for the patient. You can even say that the lack of effect and the danger of the drugs are well documented!**'

'Leaders of the Cochrane movement have openly criticized the pharmaceutical industry for **buying and manipulating the researchers and cheating with the design and results of the randomized controlled trial (RCT)-test that documents the effects of their drugs** [8]. The Danish director of the Nordic Cochrane Center openly addressed what he called "**the criminal practices of the pharmaceutical industry**" [8] and documented in his book the problem that "Big Pharma" already has taken patient's lives and caused harm to patients from the use of poisonous, poorly documented, and ineffective medicine [8].'

WHO declarations of PHEICs

The International Health Regulations, or IHR (2005), represent an agreement between 196 countries including all WHO Member States to work together for global health security.

The term Public Health Emergency of International Concern (PHEIC) is defined as "an extraordinary event which is determined… to constitute a public health risk to other States through the international spread of disease; and to potentially require a coordinated international response".

This definition implies a situation that: is serious, unusual or unexpected; carries implications for public health beyond the affected State's national border; and may require immediate international action.

In its 72-year history there have been six PHEIC declarations and all of these have been made in just the last 11 years and all since 2009:

- 2009 H1N1 (or swine flu) pandemic;
- 2014 polio;
- 2014 outbreak of Ebola in Western Africa;
- 2015–16 Zika virus epidemic;
- 2018–20 Kivu Ebola epidemic;
- and ongoing Covid-19 pandemic.

The decisions to declare PHEICs have come under great scrutiny and concerns have been raised about the transparency of decision-making in arriving at such a declaration.

This BMJ paper investigates the role of the WHO and its Emergency Committees in declaring a PHEIC. It calls for more transparency in decision-making:

An analysis of International Health Regulations Emergency Committees and Public Health Emergency of International Concern Designations
https://gh.bmj.com/content/bmjgh/5/6/e002502.full.pdf

'This first comprehensive review of EC statements found **considerable inconsistency in the justifications** dictating which criteria were considered to be met and how the criteria were considered to be satisfied.'

'Lack of consistency and clarity regarding the EC and the WHO DG's decision-making contributes to ongoing concerns about a lack of transparency in the PHEIC process and other public disagreements with PHEIC declarations.'

'Going forward, the WHO should, in consultation with member states and legal experts, develop clear guidelines to aid ECs in interpreting PHEIC criteria.'

'The makeup of the EC is ill-equipped to address political and social considerations.'

'It is essential for PHEIC declarations to be made based on **science, not politics**.'

'The WHO should address separately, outside of the PHEIC declaration process, the problem of Member States taking actions that are inconsistent with WHO recommendations and place unnecessary travel and trade restrictions on affected countries, which would be detrimental to both the country and the response efforts.'

A specific example of the dangers of undue influence and conflict of interest is provided in the article referred to earlier; Why the Corruption of the World Health Organization (WHO) is the Biggest Threat to the World's Public Health of Our Time, Journal of Integrative Medicine & Therapy. The section about the 2009 Swine Flu pandemic is replicated in full below and is an eye-opening read:

The 2009 Pandemic (Swine Flu)

In 1988 Halfdan Mahler (WHO director general during 1973- 1988) in the daily Danish newspaper Politiken warned the world against the power the pharmaceutical industry had

over WHO: “the industry is taking over WHO”, he said. But nobody believed him, because it was too difficult for the public to understand the complicated power games he talked about. Unfortunately he was right.

Recent scandals, like the Swine Flu scandal in 2009, has shown that WHO unfortunately has succumbed totally to the power of the pharmaceutical industry [1,2,17-59]; we have also gained important insight in how the WHO-system works. Let us take a look at some of the facts that came to public knowledge during this scandal.

On June 11, 2009 the WHO declared that the world faced a horrible and deathly influenza pandemic [17,19,23,27-29,38,41,42,58] with millions of people predicted to die in the worst disaster in modern time. All over the world more than two hundred countries prepared for the pandemic like the plague or the Spanish Flu, which over the next few months could claim the lives of 40 million people or so - as it happened during the Spanish Flu in the cold and bitter years 1918-1919 following World War I.

In June and July 2009 national borders were suddenly closed, thousands of public meeting places, like restaurants, cafes, and libraries in many countries were closed, and millions of travelers were stopped from entering a number of countries in Asia, if they had fever or a common cold [27-29,38,41,42,58].

Many people travelling wasted hours on emergency health controls and physicians, hospitals and Ministries of Health panicked and started to send patients home. Many countries started to buy influenza vaccines or anti-influenza drugs and spend vast amounts of dollars [1,2,17-59]. The pharmaceutical industry had good days indeed.

As the world reacted to the threat by continuing to buy incredible amounts of influenza vaccines and anti-influenza medicine a debate started in the scientific media like the British Medical Journal (BMJ) [15-25] and slowly also in the public media worldwide [1,2,24-59]. Suddenly WHO was accused of “crying wolf” [23] and supporting the pharmaceutical industry [1,2,14-25].

It turned out to be a false alarm and the Swine Flu epidemic in 2009 did not cause the many cases of deaths as first expected [12,13,15-25]. Slowly it became known that the WHO actually knew this already BEFORE the director-general Margaret Chan declared the pandemic. This can be seen by the fact that WHO changed the definition of a “pandemic” from meaning “millions of deaths” to mean a nondangerous infection that spreads worldwide only one month before the WHO’s declaration of the pandemic [1,2,14-25,28,29].

In 2010 a number of representatives from governments all over the world as well as a number of international organizations i.e. the Council of Europe agreed that WHO had caused an international panic and disaster by declaring the mildest flu ever, the A/H1N1 “Swine flu” influenza, to be a pandemic threatening mankind. The Council of Europe pointed in a dire report to the problem of WHO going private as the true cause of all the trouble [58].

During 2010 the situation continued to develop and turned into a medical scandal of unknown proportions [1,2,17-59]. Ineffective and dangerous medicines worth billions of dollars were sent for destruction. Close and secret links between the WHO and the pharmaceutical industry producing the vaccines was exposed. The Danish newspaper "Information" found that five researchers involving in advising WHO during the scandal had been paid around seven million EURO from the vaccine industry [38].

The vaccines and the anti-influenza medicine were in Cochrane reviews documented to be totally without value and burdening its users with a long list of adverse effects [1,2,14-25,28,29,59].

Soon it was realized that thousands of patients suffered from a wide range of serious adverse effects: local inflammations, local or systemic muscle pain, vasculitis, neuritis (autoimmune nerve-inflammations), encephalitis, narcolepsy, and other chronic pains [19.28,29,43,49,51,58]. The media then discovered that the adjuvants used in vaccines had many serious adverse effects that were mentioned to the citizens neither by the companies who sold the vaccines, nor by the governments buying and reselling the vaccines [1,2,17-59].

It also turned out that the contracts the industry had made with the countries included a paragraph that the adverse effects were the buyer's full responsibility [1,2,17-25,28,29,30-59].

In an interview the Polish health minister revealed everything about the horrible industrial contracts, where the pharmaceutical companies - helped by WHO - sold vaccines that were not even properly tested! The minister pointed to the fact that the test groups were extraordinary small – so small that the adverse effects of the vaccines could not even be evaluated [59].

In spite of these horrible terms almost every country in Europe still signed the contracts, bought the drugs and vaccines in enormous quantities: two flu-shots per citizen [1,2,17-25,28-59].

The media also brought WHO warning thoroughly and repeatedly and around July 2009 everybody knew about the coming catastrophe. One can easily understand the pressure on the many public health services and "better safe than sorry" seems to have been the mantra everywhere. To understand the kind of pressure and stress the states and the ministries of health were put under, you need to realize that not to buy the vaccines could easily, because of the close links between the industry and the press, mean the fall of a whole government.

This was what motivated the governments to sign sleeping contracts with the industry, and WHO played a vital role in this; sleeping means that the contract only become realized if WHO would declare a pandemic – which happened later. This way WHO pushed enormous quantities of vaccines and anti-influenza drugs to its 194member states [1,2,17-59].

The scandal came with an after-match: During 2011, 2012, 2013 and 2014 many countries' patient-organizations have started courtcases against the governments, who had given them the ineffective and dangerous medicine [28,29,44,59].

It also became clear that it was the flu-vaccine-industry that had taken control over WHO and created a fake pandemic and the world wanted an answer to this question: Did WHO fail its responsibility as leader in international health in 2009? [1,2,14-23,28,29,58].

WHO agreed after a long period of total denial to make an investigation of itself; but after one year the internal WHO-report from the committee concluded that WHO had done nothing wrong at all. After the hearing of about 500 experts the WHO's investigation group concluded that WHO had done absolutely nothing wrong in 2009: "WHO performed well in many ways during the pandemic" [60].

Everybody who followed the development of the scandal and the exposure in the media - The Guardian, Der Spiegel, the BMJ and a number of other serious media - had to conclude that the biggest medical scandal ever was only possible, because something is wrong in the WHO-system [1,2,17-25,28-59].
https://www.avensonline.org/fulltextarticles/jimt-2378-1343-02-0004.html

In the UK, there were tragic consequences arising from the swine flu 'epidemic' for some people that received vaccinations advocated to protect them. In the UK, victims of damage caused by swine flu vaccines received payouts. It should be noted that pharmaceutical companies are indemnified by Governments and it is effectively taxpayers who meet the costs of such payments - pharmaceutical companies had zero liability.

Brain-Damaged UK Victims of Swine Flu Vaccine to Get £60 Million Compensation
https://www.ibtimes.co.uk/brain-damaged-uk-victims-swine-flu-vaccine-get-60-million-compensation-1438572
Patients who suffered brain damage as a result of taking a swine flu vaccine are to receive multi-million-pound payouts from the UK government.

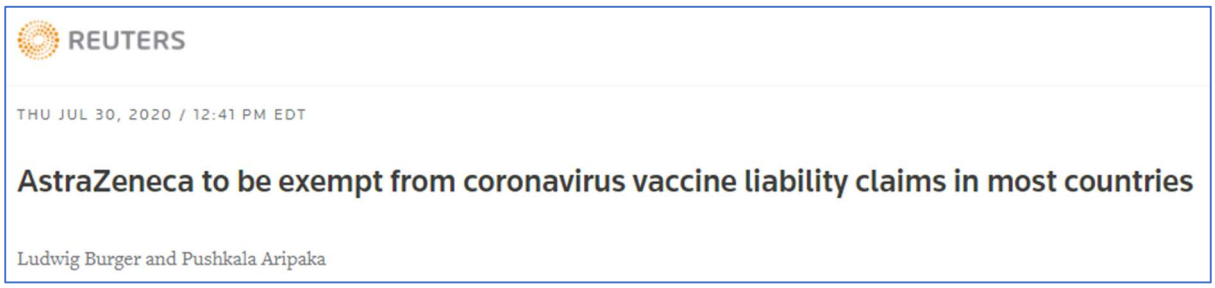
The government is expected to receive a bill of approximately £60 million, with each of the 60 victims expected to receive about £1 million each.

Peter Todd, a lawyer who represented many of the claimants, told the Sunday Times: "There has never been a case like this before. The victims of this vaccine have an incurable and lifelong condition and will require extensive medication."

Following the swine flu outbreak of 2009, about 60 million people, most of them children, received the vaccine.

It was subsequently revealed that the vaccine, Pandemrix, can cause narcolepsy and cataplexy in about one in 16,000 people, and many more are expected to come forward with the symptoms.

The indemnity provided to pharmaceutical companies looks to be available for the coronavirus vaccine. This Reuters article quotes a big pharma official saying that his company itself cannot afford to take the risk if side effects emerge in later years:



REUTERS

THU JUL 30, 2020 / 12:41 PM EDT

AstraZeneca to be exempt from coronavirus vaccine liability claims in most countries

Ludwig Burger and Pushkala Aripaka

"This is a unique situation where **we as a company simply cannot take the risk if in ... four years the vaccine is showing side effects**," Ruud Dobber, a member of Astra's senior executive team, told Reuters.

EU officials told Reuters this week product liability was among contentious points in European efforts to secure supply deals for potential COVID-19 vaccines from Pfizer, Sanofi and Johnson & Johnson.

The US Johns Hopkins University and the Rockefeller Foundation are also key influential bodies shaping the global response to the pandemic. These institutions are also facing huge lawsuits for allegedly infecting people with syphilis.

HEALTH NEWS JANUARY 4, 2019 / 5:22 PM / 2 YEARS AGO

Johns Hopkins, Bristol-Myers must face $1 billion syphilis infections suit

Jonathan Stempel 4 MIN READ

(Reuters) - A federal judge in Maryland said The Johns Hopkins University, Bristol-Myers Squibb Co (BMY.N) and the Rockefeller Foundation must face a $1 billion lawsuit over their roles in a 1940s U.S. government experiment that infected hundreds of Guatemalans with syphilis.

WHO Pandemic definition

The definition of pandemics keeps changing, just like certain viruses which are said to keep mutating. Here is a timeline of how the WHO's definition has changed. Note the move to a looser, more ambiguous and vague definition.

This is from the WHO website on 1 May 2009 (Google cache pdf).

An influenza pandemic

An influenza pandemic occurs when a new influenza virus appears against which the human population has no immunity, resulting in epidemics worldwide with **enormous numbers of deaths and illness**. With the increase in global transport, as well as urbanization and overcrowded conditions, epidemics due the new influenza virus are likely to quickly take hold around the world.

Outbreaks of influenza in animals, especially when happening simultaneously with annual outbreaks of seasonal influenza in humans, increase the chances of a pandemic, through the merging of animal and human influenza viruses. During the last few years, the world has faced several threats with pandemic potential, making the occurrence of the next pandemic a matter of time.

This is from the WHO website on Sept 2, 2009 (Google cache pdf).

What is an influenza pandemic?

A disease epidemic occurs when there are more cases of that disease than normal. A pandemic is a worldwide epidemic of a disease. An influenza pandemic may occur when a new influenza virus appears against which the human population has no immunity. With the increase in global transport, as well as urbanization and overcrowded conditions in some areas, epidemics due to a new influenza virus are likely to take hold around the world, and become a pandemic faster than before. WHO has defined the phases of a pandemic to provide a global framework to aid countries in pandemic preparedness and response planning. Pandemics can be either mild or severe in the illness and death they cause, and the severity of a pandemic can change over the course of that pandemic.

This is from the WHO website Sep, 10 20

What is a pandemic?

24 February 2010

A pandemic is the worldwide spread of a new disease.

An influenza pandemic occurs when a new influenza virus emerges and spreads around the world, and most people do not have immunity. Viruses that have caused past pandemics typically originated from animal influenza viruses.

Some aspects of influenza pandemics can appear similar to seasonal influenza while other characteristics may be quite different. For example, both seasonal and pandemic influenza can cause infections in all age groups, and most cases will result in self-limited illness in which the person recovers fully without treatment. However, typical seasonal influenza causes most of its deaths among the elderly while other severe cases occur most commonly in people with a variety of medical conditions.

Note how the definition has removed reference to **enormous numbers of deaths and illness** to simply a ‘worldwide spread of a new disease’. A pandemic can now be declared with zero deaths.

Use of non-pharmaceutical measures

This section will focus on a key piece of work prepared by Imperial College London that is said to have been influential in determining the Government approach to tackling the 'outbreak', in particular the use of non-pharmaceutical measures. We will then compare this with what the science and evidence says on this subject matter.

It has been stated that the UK Government and other countries across the world based their strategies in dealing with the 'outbreak' on a paper that was published on 16 March 2020 by Professor Neil Ferguson and his team at Imperial College London. This paper forecast a large number of deaths under a 'do nothing' scenario:
https://spiral.imperial.ac.uk/handle/10044/1/77482

The paper states that the team assessed the potential role of a number of public health measures – so-called **non-pharmaceutical interventions (NPIs)** – aimed at reducing contact rates in the population and thereby reducing transmission of the virus.

The paper modelled two strategies to combat the 'virus': a) suppression and b) mitigation.

The paper states (emphasis in bold is mine):

'We find that that optimal mitigation policies (combining home isolation of suspect cases, home quarantine of those living in the same household as suspect cases, and social distancing of the elderly and others at most risk of severe disease) **might reduce peak healthcare demand by 2/3 and deaths by half**. However, the resulting mitigated epidemic would still **likely result in hundreds of thousands of deaths** and **health systems (most notably intensive care units) being overwhelmed many times over.** For countries able to achieve it, this leaves suppression as the preferred policy option.'

'The major challenge of suppression is that this type of intensive intervention package – or something equivalently effective at reducing transmission – **will need to be maintained until a vaccine becomes available (potentially 18 months or more)** – given that **we predict that transmission will quickly rebound if interventions are relaxed**.'

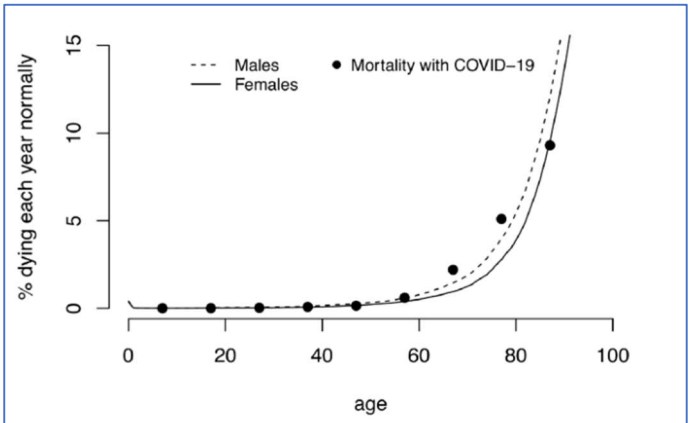
The paper admits that the ethical or economic implications of either strategy were **not considered**, and that they could **carry enormous implications on health and well-being** and that mitigation will never be able to completely protect those at risk from severe disease or death.

16 March 2020 *Imperial College COVID-19 Response Team*

We do not consider the ethical or economic implications of either strategy here, except to note that there is no easy policy decision to be made. Suppression, while successful to date in China and South Korea, carries with it enormous social and economic costs which may themselves have significant impact on health and well-being in the short and longer-term. Mitigation will never be able to completely protect those at risk from severe disease or death and the resulting mortality may therefore still be high. Instead we focus on feasibility, with a specific focus on what the likely healthcare system impact of the two approaches would be. We present results for Great Britain (GB) and the United States (US), but they are equally applicable to most high-income countries.

This article from David Spiegelhalter, a statistician, shows a comparison between Covid-19 mortality using Imperial College London model assumptions and 'normal' annual mortality.

How much 'normal' risk does Covid represent?
https://medium.com/wintoncentre/how-much-normal-risk-does-covid-represent-4539118e1196



The comparison between Covid-19 mortality (from Imperial group) and 'normal' annual mortality, plotted on a linear scale. This more clearly shows the dramatic increase with age, and the small excess risk for people in their 60s and 70s.

The black dots show mortality with Covid-19 and the other lines show normal mortality for males (dashed) and females.

There is a small excess risk for people in their 60s and 70s. Other than this, the dots closely resemble normal risk profiles.

Track Record of Professor Neil Ferguson

Professor Neil Ferguson has a track record of modelling and forecasts that have been wildly inaccurate when looking at previous epidemics. A question could be asked as to why the Government keep referring to this individual or his academic institution (Imperial College London) for advice on such matters. The following article from The Spectator highlights where his forecasts were significantly incorrect in past outbreaks:
https://www.spectator.co.uk/article/six-questions-that-neil-ferguson-should-be-asked

- In 2005, Ferguson said that up to 200 million people could be killed from bird flu. He told the Guardian that 'around 40 million people died in 1918 Spanish flu outbreak… There are six times more people on the planet now so you could scale it up to around 200

million people probably.' In the end, only 282 people died worldwide from the disease between 2003 and 2009.

- In 2009, Ferguson and his Imperial team predicted that swine flu had a case fatality rate 0.3 per cent to 1.5 per cent. His most likely estimate was that the mortality rate was 0.4 per cent. A government estimate, based on Ferguson's advice, said a 'reasonable worst-case scenario' was that the disease would lead to 65,000 UK deaths. In the end swine flu killed 457 people in the UK and had a death rate of just 0.026 per cent in those infected.

- In 2001 the Imperial team produced modelling on foot and mouth disease that suggested that animals in neighbouring farms should be culled, even if there was no evidence of infection. This influenced government policy and led to the total culling of more than six million cattle, sheep and pigs – with a cost to the UK economy estimated at £10 billion.

- In 2002, Ferguson predicted that between 50 and 50,000 people would likely die from exposure to BSE (mad cow disease) in beef. He also predicted that number could rise to 150,000 if there was a sheep epidemic as well. In the UK, there have only been 177 deaths from BSE.

So we see a consistent track record of failed predictions raising serious questions about the usefulness of information and reports from this team at Imperial College London.

This is how the current narrative for Covid-19 could be played out:

- he makes a claim that half a million people could die under a 'do nothing' scenario;
- this is said to have caused the government to make a u-turn and implement a national lockdown with harsh suppressive measures;
- half a million people don't die;
- the shortfall between actual deaths attributed to Covid-19 and the half a million-figure forecast in this paper is portrayed as 'lives saved';
- claims are made that this proves the national lockdown and other harsh restrictive measures were a success.

We have obvious problems here of circular reasoning and counterfactual scenarios being used. Going back to the 'pyramid of evidence', this wouldn't get past the first post.

It is relevant to point out here that there is a difference between 'science' and mathematical modelling and simulations. They are not the same. Here is an article exploring this point:

After Repeated Failures, It's Time To Permanently Dump Epidemic Models
https://issuesinsights.com/2020/04/18/after-repeated-failures-its-time-to-permanently-dump-epidemic-models/

Going back to the Imperial College London paper, it is relevant to point out that there are strong links between Imperial College London and pharmaceutical companies, with strong

partnership-working on vaccination projects and huge funding and contributions received from bodies connected to this work.

One example is its strong involvement in the Vaccine Impact Modelling Consortium which coordinates the work of several research groups modelling the impact of vaccination programmes worldwide. Imperial College London currently acts as the secretariat.

About us

The Vaccine Impact Modelling Consortium coordinates the work of several research groups modelling the impact of vaccination programmes worldwide.

The Consortium was established at the end of 2016 for a period of five years, and is currently coordinated by secretariat based at Imperial College London.

As its core objective, the Consortium aims to deliver more sustainable, efficient, and transparent approach to generating disease burden and vaccine impact estimates. Furthermore, the Consortium will work on aggregating the estimates across a portfolio of ten vaccine-preventable diseases and further advancing the research agenda in the field of vaccine impact modelling.

The Consortium is funded by Gavi, the Vaccine Alliance and the Bill & Melinda Gates Foundation, and the data generated by the Consortium will support the evaluation of the two organisations' existing vaccination programmes, and inform potential future investments and vaccine scale-up opportunities.

https://www.vaccineimpact.org/aboutus/

The key partners of this organisation include Imperial College London, Department of Infectious Disease Epidemiology - Coordinating institution:

Key Partners

Imperial College London, Department of Infectious Disease Epidemiology - ***Coordinating institution***

Imperial College London

The Department of Infectious Disease Epidemiology at Imperial College London is one of the largest academic departments specialising in infectious disease epidemiology in Europe. Its highly interdisciplinary research focuses on the transmission, evolution, and control of infectious diseases in human and animal populations. The Department's particular strengths are in epidemiological and genetic analysis and mathematical modelling, backed by focussed field and experimental research.

The research work spans a wide range of disease areas, including emerging infectious diseases, HIV, malaria, tuberculosis, polio, influenza, mosquito-borne viral infections, sexually transmitted infections, neglected tropical diseases (NTDs), and bacterial and fungal infections. Since much of the research has direct relevance to policy, the Department works in close partnership with a wide range of public and global health organisations – notably Public Health England and the World Health Organization (WHO).

The Bill & Melinda Gates Foundation - ***Funder***

BILL & MELINDA GATES *foundation*

Guided by the belief that every life has equal value, the Bill & Melinda Gates Foundation works to help all people lead healthy, productive lives. In developing countries, it focuses on improving people's health and giving them the chance to lift themselves out of hunger and extreme poverty. In the United States, it seeks to ensure that all people—especially those with the fewest resources—have access to the opportunities they need to succeed in school and life. Based in Seattle, Washington, the foundation is led by CEO Dr. Susan Desmond-Hellmann and Co-chair William H. Gates Sr., under the direction of Bill and Melinda Gates and Warren Buffett.

Gavi, the Vaccine Alliance - ***Funder***

Gavi The Vaccine Alliance

Gavi is an international organisation that was created in 2000 to improve access to new and underused vaccines for children living in the world's poorest countries. Based in Geneva, Switzerland, Gavi is the Vaccine Alliance, which brings together public and private sectors with the shared goal of creating equal access to vaccines for children, wherever they live.

https://www.vaccineimpact.org/partners/

Key influential people and institutions shaping the UK response to Covid-19 have received substantial sums from the Bill and Melinda Gates Foundation and/or have strong links to the pharmaceutical sector:

- Imperial College has been awarded a substantial amount of money from the Bill and Melinda Gates Foundation – around $185 million.
  (https://donations.vipulnaik.com/donee.php?donee=imperial+college+london)

- As a researcher, Professor Chris Whitty was awarded $40m (£31m) by Bill and Melinda Gates for malaria research
  (https://www.msn.com/en-gb/news/world/coronavirus-meet-the-scientists-who-are-now-household-names/ar-BB11xnnB)

- Sir Patrick Vallance, worked for GlaxoSmithKline plc for many years before becoming the UK Government's Chief Scientific Adviser
  (https://www.gsk.com/en-gb/media/press-releases/patrick-vallance-president-rd-gsk-to-become-uk-governments-chief-scientific-adviser/)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Revealed: Sir Patrick Vallance has £600,000 shareholding in firm contracted to develop vaccines

Government denies claims of potential conflict of interest, maintaining he is not involved in commercial decisions on coronavirus vaccines

By Charles Hymas, HOME AFFAIRS EDITOR *and* Gareth Walsh
23 September 2020 • 9:00pm

Sir Patrick Vallance, the chief scientific adviser, has already cashed in more than £5 million worth of shares he received from GSK during his tenure from 2012 until March 2018 CREDIT: Simon Dawson/Reuters

We can summarise then that the Imperial College London paper would appear to have played a significant role in setting a course that many countries have gone on to adopt; comprising intensive suppression measures involving the shutting down of whole economies and preventing freedom of movement of people. The Government decided to follow the advice in this paper insisting that lockdown was necessary to "flatten the curve" and, in the UK, to protect the NHS.

We will now compare this approach with the advice of the following bodies:

- the UK's top medical advice panel on infectious diseases;

- the WHO on the use of NPIs; and

- many other prominent scientists and academics across the world.

UK medical advice panel on infectious disease

As of March 19 2020, the UK Government's top medical advice panel announced that Covid-19 is **no longer a serious public health hazard**. The Advisory Committee on Dangerous Pathogens (ACDP) downgraded Covid-19, declaring that it should no longer be classified as a **high consequence infectious disease** (HCID).

According to this, in January 2020 as an interim measure Covid-19 was classed as a high consequence infectious disease, but from March 19 2020, it was no longer classified as such.

This was just 4 days before a full national lockdown took effect on 23 March 2020.

Status of COVID-19

As of 19 March 2020, COVID-19 is no longer considered to be a high consequence infectious disease (HCID) in the UK.

The 4 nations public health HCID group made an interim recommendation in January 2020 to classify COVID-19 as an HCID. This was based on consideration of the UK HCID criteria about the virus and the disease with information available during the early stages of the outbreak. Now that more is known about COVID-19, the public health bodies in the UK have reviewed the most up to date information about COVID-19 against the UK HCID criteria. They have determined that several features have now changed; in particular, more information is available about mortality rates (low overall), and there is now greater clinical awareness and a specific and sensitive laboratory test, the availability of which continues to increase.

The Advisory Committee on Dangerous Pathogens (ACDP) is also of the opinion that COVID-19 should no longer be classified as an HCID.

The need to have a national, coordinated response remains, but this is being met by the government's COVID-19 response.

Cases of COVID-19 are no longer managed by HCID treatment

The same web page provides a definition of a HCID:

Definition of HCID

In the UK, a high consequence infectious disease (HCID) is defined according to the following criteria:

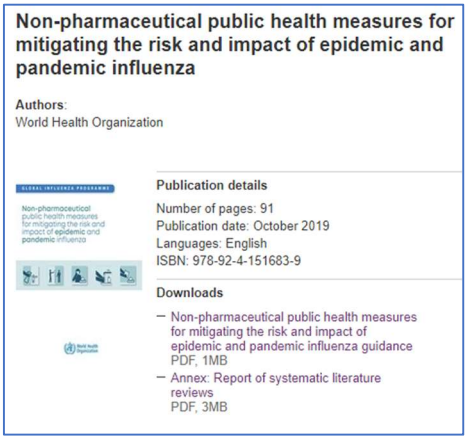
- acute infectious disease
- typically has a high case-fatality rate
- may not have effective prophylaxis or treatment
- often difficult to recognise and detect rapidly
- ability to spread in the community and within healthcare settings
- requires an enhanced individual, population and system response to ensure it is managed effectively, efficiently and safely

https://www.gov.uk/guidance/high-consequence-infectious-diseases-hcid

The WHO on use of non-pharmaceutical measures

The WHO recently conducted a detailed review of the use of a variety of non-pharmaceutical interventions. Here is the link to the document:
https://www.who.int/influenza/publications/public_health_measures/publication/en/

As part of this review, a WHO committee assessed the costs and benefits of a range of measures assumed to slow disease spread – from hand-washing to border closure – reviewing the available evidence. The review concluded and provided recommendations for the use of non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza.


Non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza

Authors:
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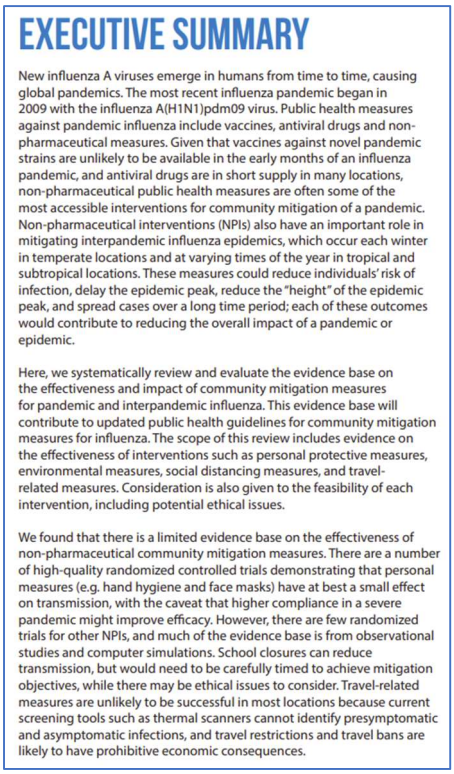
– Non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza guidance
PDF, 1MB
– Annex: Report of systematic literature reviews
PDF, 3MB

The recommendations were based on a review of existing guidance documents and the latest scientific evidences that were gathered through a series of systematic literature reviews on the effectiveness of non-pharmaceutical public health measures. The findings of the systematic reviews are summarized in the *Annex: report of systematic literature reviews*.


EXECUTIVE SUMMARY

New influenza A viruses emerge in humans from time to time, causing global pandemics. The most recent influenza pandemic began in 2009 with the influenza A(H1N1)pdm09 virus. Public health measures against pandemic influenza include vaccines, antiviral drugs and non-pharmaceutical measures. Given that vaccines against novel pandemic strains are unlikely to be available in the early months of an influenza pandemic, and antiviral drugs are in short supply in many locations, non-pharmaceutical public health measures are often some of the most accessible interventions for community mitigation of a pandemic. Non-pharmaceutical interventions (NPIs) also have an important role in mitigating interpandemic influenza epidemics, which occur each winter in temperate locations and at varying times of the year in tropical and subtropical locations. These measures could reduce individuals' risk of infection, delay the epidemic peak, reduce the "height" of the epidemic peak, and spread cases over a long time period; each of these outcomes would contribute to reducing the overall impact of a pandemic or epidemic.

Here, we systematically review and evaluate the evidence base on the effectiveness and impact of community mitigation measures for pandemic and interpandemic influenza. This evidence base will contribute to updated public health guidelines for community mitigation measures for influenza. The scope of this review includes evidence on the effectiveness of interventions such as personal protective measures, environmental measures, social distancing measures, and travel-related measures. Consideration is also given to the feasibility of each intervention, including potential ethical issues.

We found that there is a limited evidence base on the effectiveness of non-pharmaceutical community mitigation measures. There are a number of high-quality randomized controlled trials demonstrating that personal measures (e.g. hand hygiene and face masks) have at best a small effect on transmission, with the caveat that higher compliance in a severe pandemic might improve efficacy. However, there are few randomized trials for other NPIs, and much of the evidence base is from observational studies and computer simulations. School closures can reduce transmission, but would need to be carefully timed to achieve mitigation objectives, while there may be ethical issues to consider. Travel-related measures are unlikely to be successful in most locations because current screening tools such as thermal scanners cannot identify presymptomatic and asymptomatic infections, and travel restrictions and travel bans are likely to have prohibitive economic consequences.

A complete extract of the summary of the *Annex: Report of systematic literature reviews* is shown on the left*:* Note the overall conclusion formed that:

'there is a **limited evidence base** on the effectiveness of non-pharmaceutical community mitigation measures.'

'there are a number of high quality randomised controlled trials demonstrating that personal measures (e.g. hand hygiene and face masks) **have at best a small effect on transmission**…'

'…however, there are few randomised trials for other NPIs, and **much of the evidence is from observational studies and computer simulations**.'

The main report '*Non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza'* can be found here:
https://www.who.int/publications/i/item/non-pharmaceutical-public-health-measuresfor-mitigating-the-risk-and-impact-of-epidemic-and-pandemic-influenza

I provide some snippets below:

On page 3:
Note the severity levels used and what is **not recommended under any circumstances** (and when face masks for public are suggested).

Table 1. Recommendations on the use of NPIs by severity level

SEVERITY	PANDEMIC[a]	EPIDEMIC
Any	Hand hygiene Respiratory etiquette Face masks for symptomatic individuals Surface and object cleaning Increased ventilation Isolation of sick individuals Travel advice	Hand hygiene Respiratory etiquette Face masks for symptomatic individuals Surface and object cleaning Increased ventilation Isolation of sick individuals Travel advice
Moderate	*As above, plus* Avoiding crowding	*As above, plus* Avoiding crowding
High	*As above, plus* Face masks for public School measures and closures	*As above, plus* Face masks for public School measures and closures
Extraordinary	*As above, plus* Workplace measures and closures Internal travel restrictions	*As above, plus* Workplace measures and closures
Not recommended in any circumstances	UV light Modifying humidity Contact tracing Quarantine of exposed individuals Entry and exit screening Border closure	UV light Modifying humidity Contact tracing Quarantine of exposed individuals Entry and exit screening Internal travel restrictions Border closure

NPI: non-pharmaceutical intervention; UV: ultraviolet.

Page 13 provides a summary of each non-pharmaceutical measure and also grades the **quality of the evidence** and also whether it is **recommended** or not**.** Note that **the quality of evidence is described only as moderate, low, and very low** on many measures. **There is not a single piece of evidence that is graded as 'strong'.** Also note the measures that are not recommended.

On page 26:

4.3. Face masks

Summary of evidence

Ten relevant RCTs were identified for this review and meta-analysis to quantify the efficacy of community-based use of face masks, including more than 6000 participants in total (*42-47, 50, 68-70*). Most trials combined face masks with improved hand hygiene, and examined the use of face masks in infected individuals (source control) and in susceptible individuals. In the pooled analysis, although the point estimates suggested a relative risk reduction in laboratory-confirmed influenza of 22% (RR: 0.78, 95% CI: 0.51–1.20, I2=30%, P=0.25) in the face mask group, and a reduction of 8% in the face mask group regardless of whether or not hand hygiene was also enhanced (RR: 0.92, 95% CI=0.75–1.12, I2=30%, P=0.40), the evidence was insufficient to exclude chance as an explanation for the reduced risk of transmission. Some studies reported that low compliance in face mask use could reduce their effectiveness. A study suggested that surgical and N95 (respirator) masks were effective in preventing the spread of influenza (*71*).

OVERALL RESULT OF EVIDENCE ON FACE MASKS

1. Ten RCTs were included in the meta-analysis, and there was no evidence that face masks are effective in reducing transmission of laboratory-confirmed influenza.

On page 37:

6. SOCIAL DISTANCING MEASURES

6.1. Contact tracing

Summary of evidence

Four simulation studies were included in the systematic review (*102-105*), none of which studied contact tracing as a single intervention. Contact tracing was studied in combination with other interventions such as quarantine, isolation and provision of antiviral drugs. Evidence for the overall effectiveness of contact tracing varied. A simulation model with R0=1.8 reported that the combination of contact tracing, quarantine, isolation and antiviral drugs could reduce the infection attack rate by 40% (*102*), while another study predicted that it would be difficult to control influenza even with 90% contact tracing and quarantine because of the presumed high level of pre-symptomatic or asymptomatic transmission (*104*). A combination of isolation, treatment of cases, contact tracing, quarantine and post-exposure prophylaxis was estimated to delay the epidemic peak for 6 weeks, assuming a case detection rate of 30% (*105*). In addition, the combination of contact tracing with quarantine has been suggested to be more effective than when combined with symptom monitoring (*103*).

OVERALL RESULT OF EVIDENCE ON CONTACT TRACING

1. Evidence for overall effectiveness of contact tracing was limited. All included studies were simulation models.
2. Only one study reported on the effect of adding contact tracing to isolation and quarantine. Such addition was estimated to provide at most a modest benefit, but at the same time would increase considerably the number of quarantined individuals.

Notwithstanding the above, it appears that past understanding, knowledge and guidance on the use of non-pharmaceutical measures in a pandemic/epidemic is currently being disregarded (e.g. lockdowns, quarantines contact tracing and face masks), and is instead being replaced by approaches which lack credible scientific backing. Decades and decades of research and guidance seems to have been ignored and the 'science' just seems to be changing before our very eyes.

Previous studies have looked in detail at the effectiveness and feasibility of various mitigation measures in a pandemic. Here is one related to Influenza but still applicable to the current situation:

Disease Mitigation Measures in the Control of Pandemic Influenza
http://www.upmc-biosecurity.org/website/resources/publications/2006/2006-09-15-diseasemitigationcontrolpandemicflu.html

Some snippets from the above study:
'The negative consequences of large-scale quarantine are so extreme (forced confinement of sick people with the well; complete restriction of movement of large populations; difficulty in getting critical supplies, medicines, and food to people inside the quarantine zone) **that this mitigation measure should be eliminated from serious consideration'**

'A World Health Organization (WHO) Writing Group, after reviewing the literature and considering contemporary international experience, concluded that "**forced isolation and quarantine are ineffective and impractical**." Despite this recommendation by experts, mandatory large-scale quarantine continues to be considered as an option by some authorities and government officials.'

'But studies have shown that the ordinary surgical mask does little to prevent inhalation of small droplets bearing influenza virus. The pores in the mask become blocked by moisture from breathing, and the air stream simply diverts around the mask. There are few data available to support the efficacy of N95 or surgical masks outside a healthcare setting. N95 masks need to be fit-tested to be efficacious and are uncomfortable to wear for more than an hour or two.'

Face Masks

On the subject matter of face masks, there has been a noticeable change in the advice on this issue. The following video compilation highlights the changing 'guidance' on this matter by UK officials: Dr Jenny Harries (Deputy Chief Medical Officer), Chris Whitty (Chief Medical Officer), Sir Patrick Vallance (Government Chief Scientific Advisor), Matt Hancock MP and Professor DAME Angela McLean (Chief Scientific Advisor for the MoD).

https://www.youtube.com/watch?v=AtMEcOjoF7Q

This interesting article from Cindy Gough, an operating-room nurse for 25 years, provides a perspective on the subject of wearing a face mask:

Masked Threats? Studies Reveal NO Benefits to Global COVID-19 Facemasks-for-all Policy
https://www.sott.net/article/436447-Masked-Threats-Studies-Reveal-NO-Benefits-to-Global-COVID-19-Facemasks-for-all-Policy

I've been wearing masks for 25 years in my role as an operating-room nurse. So I have a firm grasp on masks' risks and benefits and how to use them correctly. I'm having a hard time watching the misuse of masks all around me after the folly of influential public-health officials promote universal-mask-wearing recommendations to control COVID-19.

Masks can harbor harmful contaminants. Bacterial surveillance data found the outside surface of a surgical mask is dirtier than the floor -- and the inside 100 times dirtier than that. Indeed, a 2019 paper examining the presence of viruses on the surface of medical masks concluded, "Respiratory pathogens on the outer surface of the used medical masks may result in self-contamination."

Even among trained medical personnel, contamination caused by the incorrect removal of masks is a persistent problem. Studies show that even under the threat of Ebola, the biggest contamination risk is from the way masks are removed.

Meanwhile, we now see lay people including children routinely wearing masks. People appear unaware they're wearing a highly contaminated filter on their face that can transmit infection if it's handled, stored or disposed of improperly.

Their masks are often hanging under their chins or with their noses fully exposed. They're reusing and repeatedly adjusting their masks and storing them in their pockets and purses. I have yet to see one person sterilize their hands after touching their mask.

Of equal concern, risks of mask-wearing include skin infections and oxygen deficiency. The latter is the reported cause of a car crash involving a masked man who passed out while driving.

A UK parliamentary report concluded that the evidence base is ‘inadequate’ for face masks:

Face masks, face coverings and COVID-19, Wednesday, April 29, 2020
https://post.parliament.uk/analysis/face-masks-face-coverings-and-covid-19/

Research on face masks

The main consensus emerging from the scientific literature is that the evidence base is inadequate.

There is no research on the role of masks worn by the general population on the transmission of SARS-CoV-2.
There is some research on the role of masks in the transmission of influenza and other respiratory viruses.

> The best way to test a health intervention is with a randomised control trial (RCT) – this allows one or more interventions to be tested against an alternative or doing nothing. In studies of masks, studies have compared a variety of the following: different mask types, masks with additional measures such as hand hygiene, and no masks at all. Scientists can also examine data from separate studies (like RCTs) that have looked at a health intervention by using an approach called a systematic review. This allows researchers to examine how effective a health intervention is, using the results from multiple studies and summarise the results.

The following collection of studies on report limited or no benefit for wearing face masks and could actually be causing harm to the wearer:

(NEJM) New England Journal of Medicine:
"We know that wearing a mask outside health care facilities offers little, if any, protection from infection." PMID: 32237672

Headache Journal:
"Most healthcare workers develop de novo PPE (such as N95 face mask) associated headaches or exacerbation of their pre-existing headache disorders**."** PMID 32232837

Journal of influenza & other respiratory viruses:
"None of the studies established a conclusive relationship between mask/respirator use and protection against influenza infection**."**
PMID: 22188875 — Note: This study is **a systematic review of randomised controlled trials** and constitutes the highest level of scientific evidence, way above "expert opinions, editorials and narratives" of any government, body or institution.

American Journal of Infection Control:
"Face mask use in health care workers has not been demonstrated to provide benefit in terms of cold symptoms or getting colds**."**
PMID: 19216002 — This was a randomised controlled trial.

Journal Neurocirugia (Neurosurgery):
"Preliminary Report on Surgical Mask Induced Deoxygenation During Major Surgery—Our study revealed a decrease in the oxygen saturation of arterial pulsation (Sp02)." *(basically it means less oxygen being circulated in the blood)* PMID: 18500410

Respiratory Acidosis:
"Respiratory acidosis develops when air inhaled into and exhaled from the lungs does not

get adequately exchanged between the carbon dioxide from the body and oxygen from the air**."** https://www.medicalnewstoday.com/articles/313110

Journal of Epidemiology and Infection:
"There is little evidence to support the effectiveness of face masks to reduce the risk of infection**."** PMID 20092668

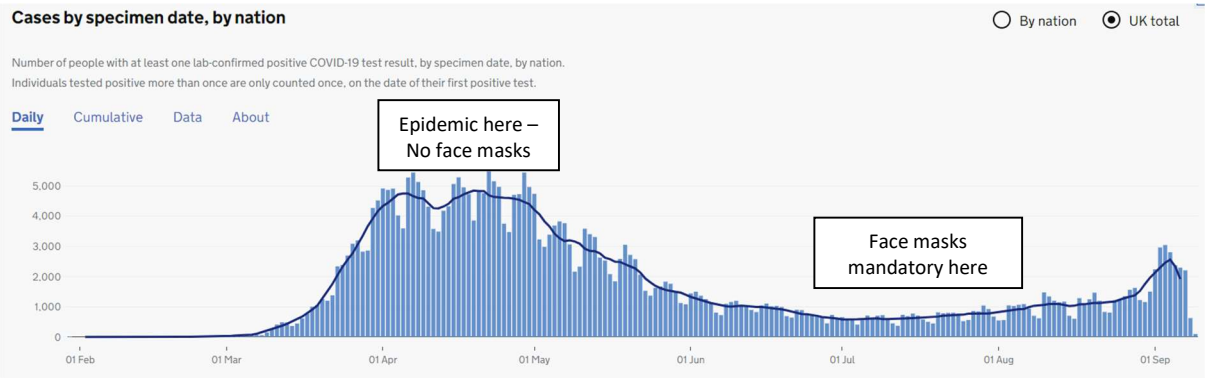
(BMJ) British Medical Journal:
"...laboratory-confirmed virus (RR=1.72, 95% CI 1.01 to 2.94) were significantly higher in the cloth masks ... This study is the first RCT of cloth masks, and the results caution against the use of cloth masks. This is an important finding to inform occupational health and safety. Moisture retention, reuse of cloth masks and poor filtration may result in increased risk of infection**."** PMID: 25903751

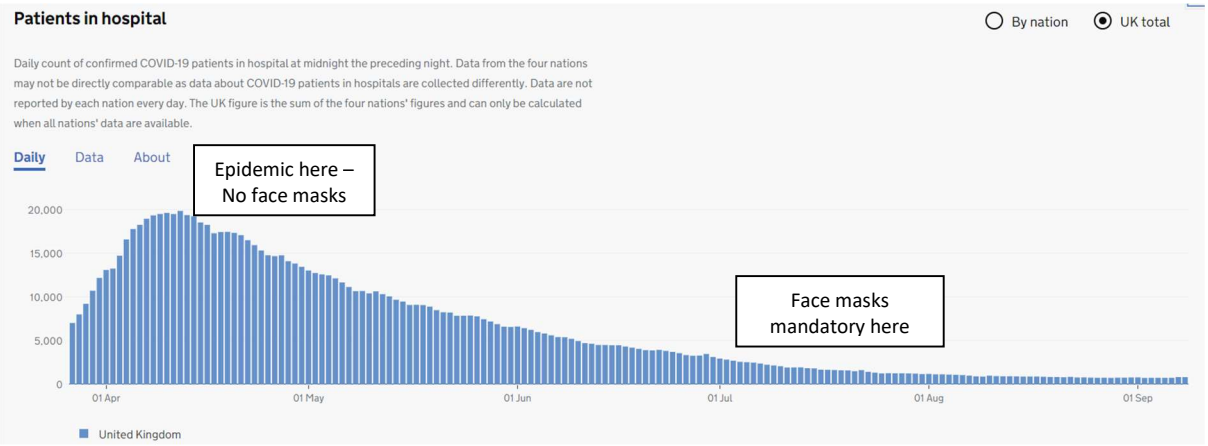
University of Edinburgh:
"Conversely, surgical and hand-made masks, and face shields, generate significant leakage jets that have the potential to disperse virus-laden fluid particles by several metres. The different nature of the masks and shields makes the direction of these jets difficult to be predicted, but the directionality of these jets should be a main design consideration for these covers. They all showed an intense backward jet for heavy breathing and coughing conditions. It is important to be aware of this jet, to avoid a false sense of security that may arise when standing to the side of, or behind, a person wearing a surgical, or handmade mask, or shield**."**
https://arxiv.org/ftp/arxiv/papers/2005/2005.10720.pdf

(JAMA) Journal of the American Medical Association:
"Face masks should not be worn by healthy individuals to protect themselves from acquiring respiratory infection because there is no evidence to suggest that face masks worn by healthy individuals are effective in preventing people from becoming ill**."**
https://jamanetwork.com/journals/jama/fullarticle/2762694

The graphs below show when the advice on face masks changed in relation to the stages of the epidemic, looking at a) case numbers and b) hospital admissions.

The timing of when face masks were advised for the public could be considered strange.





Research specialists state that the best time to study the effectiveness of wearing face masks would be when the disease is spreading rapidly – in the above scenario this would be in the period of the big rise in cases and hospital admissions. It is at this point that control groups can be set up against a backdrop of rising cases and admissions.

There are clear studies that show face masks can cause harm to the wearer, and no clear studies that they do not cause any harm. So using the precautionary principle, a sensible person would avoid using a face mask outside of a surgical or clinical setting, which has been the consistent scientific advice for many decades.

Some are of the opinion that the purpose of enforcing mask-wearing could be to perpetuate fear and to maintain a sense of imminent threat paving the way to bring in new laws and eroding people's freedoms further. Others are of the opinion that the purpose of wearing face masks is to help the public feel safe, similar to a placebo effect.

What independent experts say

Many of the world's leading professors, scientists, epidemiologists, microbiologists, academics and doctors have expressed their views on the current situation and the options and approaches that are being taken to deal with the 'outbreak'. It is relevant to look at what they have advised.

This large community of experts has repeatedly warned that lockdown and other extreme restrictive measures being adopted by governments throughout the world are the wrong thing to do and are not backed by the science and evidence.

There is little or no mainstream media coverage of these concerns being raised.

Here are just a few of these experts, web article links are provided below on their views and legitimate concerns about the way things are being tackled:

- Dr Sucharit Bhakdi is a specialist in microbiology. He was a professor at the Johannes Gutenberg University in Mainz and head of the Institute for Medical Microbiology and Hygiene and one of the most cited research scientists in German history.

- Dr Wolfgang Wodarg is a German physician specialising in Pulmonology, politician and former chairman of the Parliamentary Assembly of the Council of Europe.

- Dr Joel Kettner is a professor of Community Health Sciences and Surgery at Manitoba University, former Chief Public Health Officer for Manitoba province and Medical Director of the International Centre for Infectious Diseases.

- Dr John Ioannidis Professor of Medicine, of Health Research and Policy and of Biomedical Data Science, at Stanford University School of Medicine and a Professor of Statistics at Stanford University School of Humanities and Sciences.

- Dr Yoram Lass is an Israeli physician, politician and former Director General of the Health Ministry.

- Dr Pietro Vernazza is a Swiss physician specialising Infectious Diseases at the Cantonal Hospital St. Gallen and Professor of Health Policy.

- Frank Ulrich Montgomery is German radiologist, former President of the German Medical Association and Deputy Chairman of the World Medical Association.

- Prof. Hendrik Streeck is a German HIV researcher, epidemiologist and clinical trialist. He is professor of virology, and the director of the Institute of Virology and HIV Research, at Bonn University.

- Dr Yanis Roussel et. al. – A team of researchers from the Institut Hospitalo-universitaire Méditerranée Infection, Marseille

- Dr. David Katz is an American physician and founding director of the Yale University Prevention Research Center.

- Michael T. Osterholm is regents professor and director of the Center for Infectious Disease Research and Policy at the University of Minnesota.

- Dr Peter Goetzsche is Professor of Clinical Research Design and Analysis at the University of Copenhagen and founder of the Cochrane Medical Collaboration.

- Dr. Sunetra Gupta is a Professor of Theoretical Epidemiology at the University of Oxford with an interest in infectious disease agents that are responsible for malaria, HIV, influenza and bacterial meningitis.

- Dr Karin Mölling is a German virologist whose research focused on retroviruses, particularly human immunodeficiency virus (HIV). She was a full professor and director of the Institute of Medical Virology at the University of Zurich from 1993 until her retirement in 2008 and received multiple honours and awards for her work.

- Dr Anders Tegnell is a Swedish physician and civil servant who has been State Epidemiologist of the Public Health Agency of Sweden since 2013.

- Dr Pablo Goldschmidt is an Argentine-French virologist specializing in tropical diseases, and Professor of Molecular Pharmacology at the Université Pierre et Marie Curie in Paris.

- Dr Eran Bendavid and Dr Jay Bhattacharya are professors of medicine and public health at Stanford University

- Dr Tom Jefferson is a British epidemiologist, based in Rome. He works for the Cochrane Collaboration, where he is an author and editor of the Cochrane Collaboration's acute respiratory infections group, as well as part of four other Cochrane groups.

- Dr Michael Levitt is Professor of biochemistry at Stanford University. He is a Fellow of the Royal Society (FRS), a member of the National Academy of Sciences and received the 2013 Nobel Prize in Chemistry for the development of multiscale models for complex chemical systems.

- German Network for Evidence-Based Medicine is an association of German scientists, researchers and medical professionals.

- Dr Richard Schabas is the former Chief Medical Officer of Ontario, Medical Officer of Hastings and Prince Edward Public Health and Chief of Staff at York Central Hospital.

- Dr John Lee is an English consultant histopathologist at Rotherham General Hospital and formerly clinical professor of pathology at Hull York Medical School.

- Dr. John Oxford is an English virologist and Professor at Queen Mary, University of London. He is a leading expert on influenza, including bird flu and the 1918 Spanish Influenza, and HIV/AIDS.

- Prof Knut Wittkowski is German-American researcher and professor of epidemiology. He worked for 15 years on the Epidemiology of HIV before heading for 20 years the Department of Biostatistics, Epidemiology, and Research Design at The Rockefeller University, New York.

- Dr Klaus Püschel is German forensic pathologist and former professor of forensics at Essen University and current director of the Institute of Forensic Medicine at the University Medical Center Hamburg-Eppendorf.

- Dr Alexander Kekulé is a German doctor and biochemist. He has held the Chair for Medical Microbiology and Virology at Martin Luther University Halle-Wittenberg since 1999 and is the current Director of the Institute for Medical Microbiology at the University Hospital Halle.

- Dr Claus Köhnlein is a German Internist based in Kiel and co-author of the book Virus Mania

- Dr Gérard Krause is head the Department for Epidemiology at the Helmholtz Centre for Infection in Braunschweig, director of the Institute for Infectious Disease Epidemiology at TWINCORE in Hannover and Chair of the PhD Program Epidemiology at the Hannover Medical School.

- Dr Gerd Gigerenzer is a German psychologist, professor of psychology and Director of the Harding Center for Risk Literacy at the Max Planck Institute for Human Development in Berlin.

https://off-guardian.org/2020/03/28/10-more-experts-criticising-the-coronavirus-panic/
https://off-guardian.org/2020/04/17/8-more-experts-questioning-the-coronavirus-panic/
https://off-guardian.org/2020/03/24/12-experts-questioning-the-coronavirus-panic/

Oddly, there is very little coverage of the above people and their views on the declared health emergency in the mainstream media.

Videos are available of some of these individuals sharing their thoughts on the current situation. I would advise you take some time to listen to them at some point in the future or you can refer to the summary transcripts for a quicker overview. Links are provided below:

Professor Michael Levitt
https://unherd.com/thepost/nobel-prize-winning-scientist-the-covid-19-epidemic-was-never-exponential/

Professor Karl Friston
https://unherd.com/thepost/karl-friston-up-to-80-not-even-susceptible-to-covid-19/

Professor Johan Giesecke, one of the world's most senior epidemiologists
https://unherd.com/thepost/coming-up-epidemiologist-prof-johan-giesecke-shares-lessons-from-sweden/

Professor Hendrik Streeck
https://unherd.com/thepost/german-virologist-finds-covid-fatality-rate-of-0-24-0-36/

Professor Sunetra Gupta
https://unherd.com/thepost/sunetra-gupta-covid-19-is-on-the-way-out/

Professor Karol Sikora
https://unherd.com/thepost/professor-karol-sikora-fear-is-more-dangerous-than-the-virus/

There are thousands of health professionals across the world who are voicing their concerns about the protocols being enforced throughout the pandemic which are causing harm to people's health and endangering people's lives.

For example, in Germany a Covid-19 Extra-Parliamentary Inquiry Committee has been convened to look at the restrictive measures in place, the suffering being caused and the proportionality of the measures to the risks faced.

I provide an extract of the opening transcript below:

Dr. Heiko Schöning:

Dear fellow citizens,

Welcome to the ACU, the *Covid-19 Extra-Parliamentary Inquiry Committee*. If Parliament does not do it, we, the citizens, are called upon to do it ourselves.

As the *Covid-19 Extra-Parliamentary Inquiry Committee*, we will investigate why these restrictive measures were imposed upon us in our country as part of CoVid-19, why people are suffering now and whether there is proportionality of the measures to this disease caused by the SARS-CoV-2 virus. We have serious doubts that these measures are proportionate. This needs to be examined, and since the parliaments – neither the opposition parties nor the ruling parties – have not convened a committee and it is not even planned, it is high time that we took this into our own hands. We will invite and hear experts here in the *Covid-19* speaker group. These are experts from all areas of life: medicine, social affairs, law, economics and many more.

Well-known experts have already agreed to be part of it. In addition to the speaker group, my colleague Prof. HADITSCH and my colleague Dr. SCHIFFMANN, I would also like to introduce myself. My name is Heiko SCHÖNING, I'm an ordinary doctor from Hamburg. My personal motivation is that I am a father, like many others in this country who have children. And we see that our children are suffering now, not just because the playgrounds have been closed, but because they are separated. And it's worse for the adults.

We ask ourselves: Why are people no longer allowed to visit their parents in retirement homes? Is there such a great risk of infection? Do we really have a killer virus here? Do we have rabies or do we have the plague? We have serious doubts that this is the case! We do not have the plague! What really helps us in this context is decency and honesty, as the famous Nobel Prize winner Albert CAMUS already expressed in his wonderful book "The Plague". We want to make sure that the ACU, the *Covid-19 Extra-Parliamentary Inquiry Committee*, is based on honesty and transparency.

Here is the link to the video: https://youtu.be/E1wbgrhr2Bw
Here is the link to the transcript: https://acu2020.org/wp-content/uploads/2020/08/Text-ACU-english.pdf

In the Netherlands a committee has been set up also voicing concerns about the unsubstantiated actions being taken by the government:

Doctors sound alarm about corona measures: "Continuing like this will cause damage"

'More than 13,000 Dutch people from the medical world question the continuation of the current corona measures. Among them more than 600 doctors, surgeons and other medical specialists. They express concern about the scarcely scientifically substantiated measures taken by the government.'

https://www.ad.nl/zwolle/artsen-luiden-noodklok-over-coronamaatregelen-zo-doorgaan-levert-schade-op~a0b5b781/?

In Belgium, more than 500 doctors have expressed concern in an open letter about the SARS-CoV-2 outbreak

Open letter from medical doctors and health professionals to all Belgian authorities and all Belgian media.

We, Belgian doctors and health professionals, would like to express our serious concern about the evolution of the situation in recent months surrounding the outbreak of the SARS-CoV-2 virus. We call on politicians to be independently and critically informed in the decision-making process and in the compulsory implementation of corona-measures. We ask for an open debate, where all experts are represented without any form of censorship. After the initial panic surrounding covid-19, the objective facts now show a completely different picture – there is no medical justification for any emergency policy anymore. The current crisis management has become totally disproportionate and causes more damage than it does any good. We call for an end to all measures and ask for an immediate restoration of our normal democratic governance and legal structures and of all our civil liberties.

Read the open letter | Sign the open letter

Signed by **585** medical doctors
Signed by **1667** medically trained health professionals
Signed by **11895** citizens

https://docs4opendebate.be/en/open-letter/

To reiterate, there are an increasing number of professionals across the world who are raising concerns about the harmful consequences of some of the approaches currently being adopted in response to the health crisis.

Disruption to health services

The health service has significantly adjusted its priorities due to the unprecedented and changing circumstances surrounding the declared health emergency. The NHS (and other parts of the public sector) have not been able to provide normal levels of service and this is resulting in adverse implications for people trying to access and receive treatment. This section will explore changes in NHS activity levels.

One way to assess the impact on some aspects of the health service is to examine diagnostic activity. The following NHS report **NHS Diagnostic Waiting Times and Activity Data** published on 13 August 2020 shows diagnostic information, including waiting times and activity levels. The report concludes that there has been a significant adverse impact on diagnostic testing levels and waiting times. The full findings of the report are shown below.

2 June 2020 Key Findings

- Diagnostic test activity and waiting times have been impacted by the COVID-19 crisis, and data for the current reporting period may therefore not be comparable to previous periods.
- The total number of patients waiting six weeks or more from referral for one of the 15 key diagnostic tests at the end of June 2020 was 540,600. This was 47.8% of the total number of patients waiting at the end of the month.
- Nationally, the operational standard of less than 1% of patients waiting six weeks or more was not met this month.
- Compared with June 2019 the total number of patients waiting six weeks or more increased by 500,500, while the proportion of patients waiting six weeks or more increased by 44.1 percentage points.
- In the last 12 months, the proportion of patients waiting six weeks or more at the end of a month has varied between 2.8% (February 2020) and 58.5% (May 2020).
- At the end of June 2020, the test with the smallest proportion of patients waiting six weeks or more was Electrophysiology with 14.9%. The test with the highest proportion was Audiology Assessments, with 72.8% of patients waiting six weeks or more.
- An alternative measure of diagnostic waiting times is the average (median) waiting time. The estimated average time that a patient had been waiting for a diagnostic test was 5.3 weeks at the end of June 2020.
- There were 1,130,400 patients waiting for a key diagnostic test at the end of June 2020. This is an increase of 63,200 from June 2019. In the last 12 months the total number of patients waiting for a diagnostic test has shown an increasing trend, but as a result of the COVID-19 crisis, the waiting list fell significantly in March before increasing again.
- A total of 1,224,900 diagnostic tests were undertaken in June 2020. This is a decrease of 704,400 from June 2019. Monthly activity has increased slightly over the majority of last 12 months, before falling sharply from March 2020. We have started to see activity increase as services resume from May 2020 onwards.
- The following organisations did not submit Diagnostics (DM01) data this month:
  - North West Anglia NHS Foundation Trust (RGN)

https://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2020/08/DWTA-Report-June-2020_c4fh7.pdf

The following table taken from the report shows a significant reduction in diagnostic testing comparing June 2020 with June 2019.

Overall, there were 704,382 fewer tests conducted, equating to a 37% reduction. This is a substantial reduction compared to usual levels of activity.

Table 1: Total activity, by test – June 2019 and June 2020

	Jun-19	Jun-20	Change in activity
MRI	302,649	198,416	**-34%**
CT	515,007	449,234	**-13%**
Non-obstetric Ultrasound	639,374	378,215	**-41%**
Barium Enema	2,827	2,185	**-23%**
Dexa Scan	39,598	10,727	**-73%**
Audiology Assessments	102,817	26,080	**-75%**
Echocardiography	135,275	82,663	**-39%**
Electrophysiology	2,120	681	**-68%**
Peripheral Neurophysiology	18,905	7,848	**-58%**
Sleep Studies	10,029	4,419	**-56%**
Urodynamics	6,711	1,860	**-72%**
Colonoscopy	45,163	19,155	**-58%**
Flexi Sigmoidoscopy	26,119	7,855	**-70%**
Cystoscopy	24,882	14,894	**-40%**
Gastroscopy	57,779	20,641	**-64%**
All Tests	**1,929,255**	**1,224,873**	**-37%**

Public Health England collects and publishes health-related data to provide an early warning of public health threats, which require public health action. This information is published on a weekly basis and can be accessed through the following link:
https://www.gov.uk/government/collections/syndromic-surveillance-systems-and-analyses

Information covering five areas of service provision are collected and analysed:

- Emergency department
- National ambulance
- GP in-hours service
- GP out-of-hours service
- Remote health advice (NHS 111)

Various observations can be made from this information which include a 'baseline' using historic data to identify any variations from this baseline.

Observe closely the activity levels immediately before, during and after the current 'Covid-19' situation unfolded (circa mid/end March 2020 onwards).

We can observe significant changes in activity levels for the five health service areas with significant shifts around and after the end of March 2020. These include one-off changes (peaks and troughs) and some new and sustained changes in activity levels. Some of these changes are of concern, for example cardiac / heart issues.

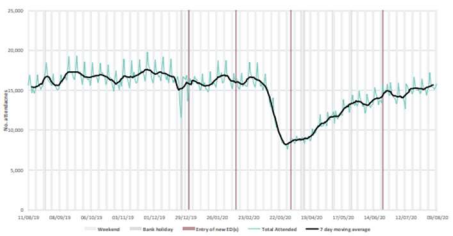
I have selected a sample of the information here for ease of reference, but I would encourage you to look at the individual reports for yourself.

Emergency Department

1: Total attendances.

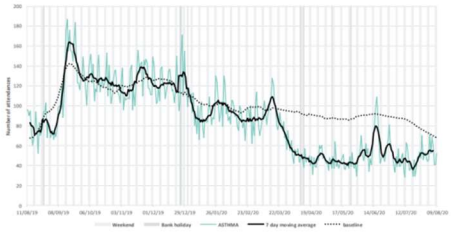
Daily number of total attendances recorded, across the EDSSS network.

The entry of new ED(s) is marked by a vertical red line (see page 6 for inclusion criteria).



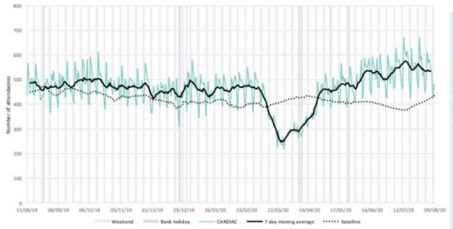
9: Asthma.

Daily number of attendances recorded as asthma/wheeze/ difficulty breathing attendances across the EDSSS network.



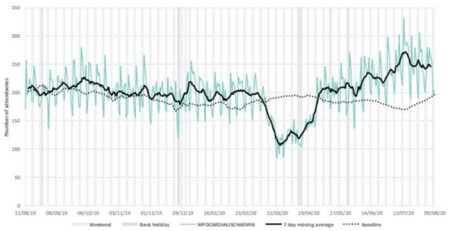
12: Cardiac.

Daily number of attendances recorded as cardiac attendances across the EDSSS network.



13: Myocardial Ischaemia.

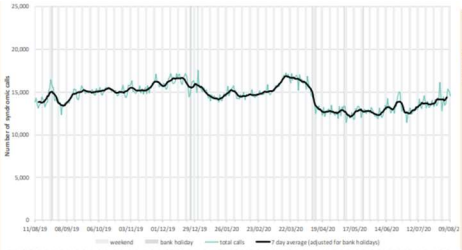
Daily number of attendances recorded as myocardial ischaemia attendances across the EDSSS network.



Ambulance Service

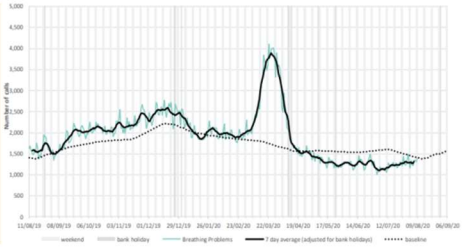
1: Total syndromic calls.

The total number of syndromic calls recorded each day, all ages, England.



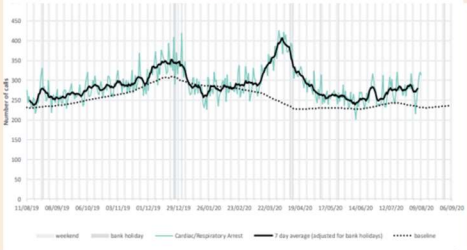
3: Breathing problems.

Daily number of calls related to 'breathing problems', England.



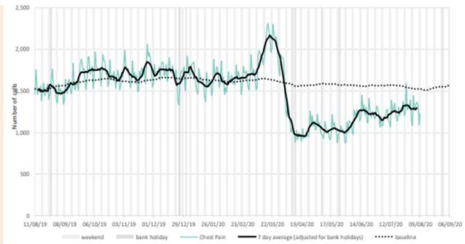
6: Cardiac/respiratory arrest.

Daily number of calls related to 'cardiac/ respiratory arrest', England.



7: Chest pain.

Daily number of calls related to 'chest pain', England.

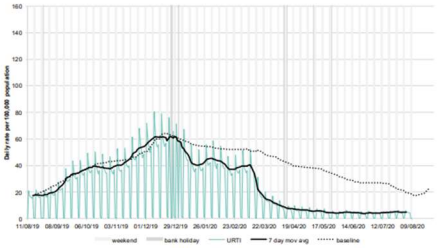


* 7-day moving average adjusted for bank holidays.

GP In Hours Service

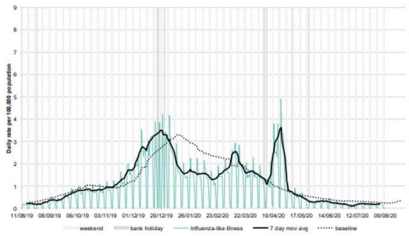
2: Upper respiratory tract infection (URTI)

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



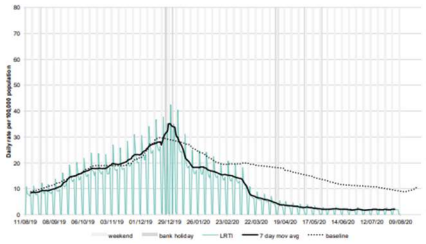
3: Influenza-like illness (ILI)

Daily incidence rates (and 7-day moving average*) per 100,000 population (all England, all ages).



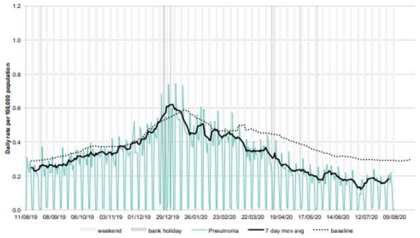
6: Lower respiratory tract infection (LRTI)

Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



7: Pneumonia

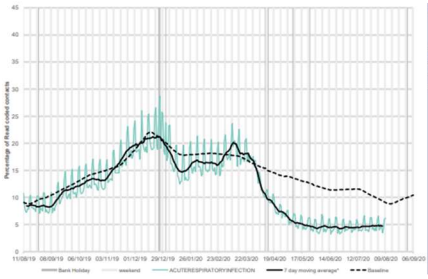
Daily incidence rate (and 7-day moving average*) per 100,000 population (all England, all ages).



GP Out-Of-Hours

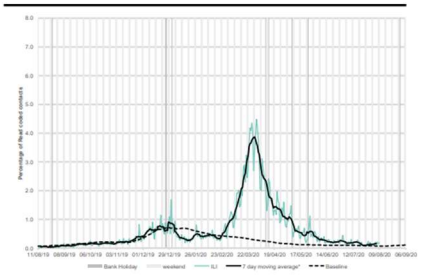
2: Acute Respiratory Infection daily contacts.

Shown as a percentage of the total contacts with a Read code and as a 7-day moving average*.



3: Influenza-like illness daily contacts.

Shown as a percentage of the total contacts with a Read code and as a 7-day moving average*.



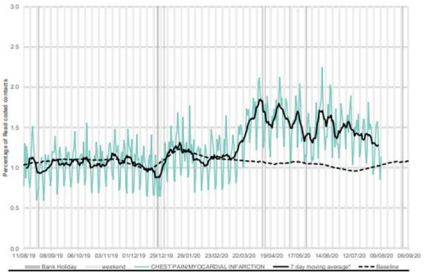
7: Gastroenteritis daily contacts

Shown as a percentage of the total contacts with a Read code and as a 7-day moving average*.

*7-day moving average adjusted for bank holidays.

10: Chest pain/ myocardial infarction daily contacts.

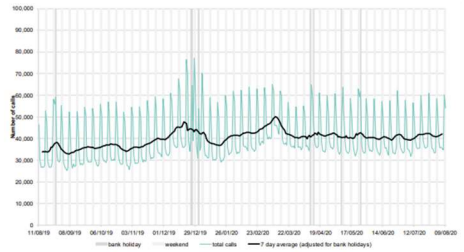
Shown as a percentage of the total contacts with a Read code and as a 7 -day moving average*.



Remote Health Advice (NHS 111)

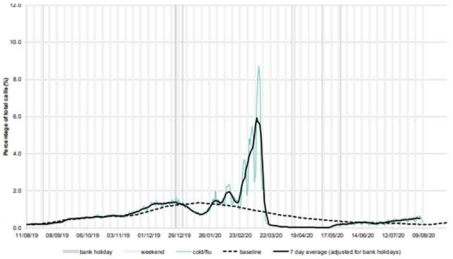
1. Total NHS 111 calls

The total number of syndromic calls recorded each day by NHS 111.



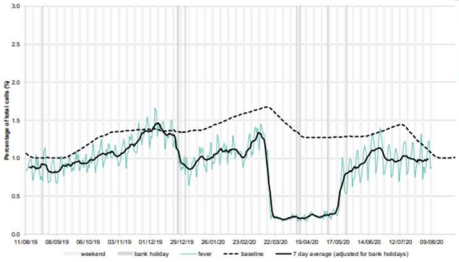
2: Cold/flu

Daily 'cold/flu' calls as a percentage of total calls (and 7-day moving average*). Baselines are constructed from historical data since 2013.



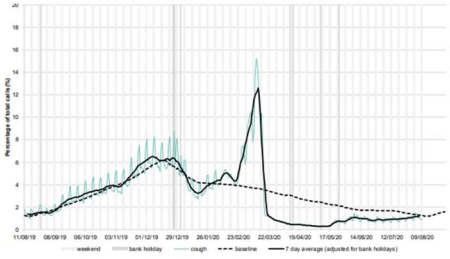
3: Fever

Daily 'fever' calls as a percentage of total calls (and 7-day moving average*). Baselines are constructed from historical data since 2013.



4: Cough

Daily 'cough' calls as a percentage of total calls (and 7-day moving average*). Baselines are constructed from historical data since 2013.



The following articles highlight how hospitals are not operating to their usual capacity and this could be impacting on the health of the population:


ACUTE CARE

NHS hospitals have four times more empty beds than normal

By Dave West | 13 April 2020

8 Comments

- Official figures state 40.9 per cent of acute beds unoccupied — about four times the normal number.
- Follow major efforts to discharge patients, and sharp drop in admissions.
- Critical care in hotspots at more than normal total capacity, especially in Birmingham and the Black Country, and thousands on oxygen.

Tens of thousands of NHS hospital beds remain unoccupied amid the coronavirus crisis — about four times the normal number — due to huge ongoing efforts to free up space, and a slowdown in admissions from other causes.

https://www.hsj.co.uk/acute-care/nhs-hospitals-have-four-times-more-empty-beds-than-normal/7027392.article


My hospital has become a medical Mary Celeste: As NHS waiting lists rocket while appointments are limited, one doctor tells of his frustration

By DR ROD HUGHES FOR THE DAILY MAIL
PUBLISHED: 01:31, 18 August 2020 | **UPDATED:** 10:35, 18 August 2020

Share 559 shares 409 View comments

Last week I was sitting in glorious isolation in my consulting room at St Peter's Hospital in Chertsey, Surrey, in what felt like a ghost town.

There was a deserted waiting room, and outside was a virtually empty car park. My only contact with patients was via the telephone on my desk.

Along the corridor, the dermatology, ophthalmology and other outpatient consulting rooms also stood empty.

https://www.dailymail.co.uk/health/article-8636343/As-NHS-waiting-lists-rocket-appointments-limited-one-doctor-tells-frustration.html


Doctor-priest: Elderly die in U.K. nursing homes while hospital beds empty

Simon Caldwell Apr 29, 2020
CATHOLIC NEWS SERVICE

https://cruxnow.com/church-in-uk-and-ireland/2020/04/doctor-priest-elderly-die-in-u-k-nursing-homes-while-hospital-beds-empty/

Many doctors, consultants and nurses in the NHS have voiced concerns about the huge drop in activity levels and restrictions enforced upon them such that they are not able to conduct consultations, undertake diagnoses and offer treatments to the normal standards.

There are delayed appointments, cancellation of services, loss of face-to-face consultations, a relaxing of some legal requirements on authorities of their obligations for health and care for some groups of people, disruption to the education of children and various support groups and interventions for vulnerable people severely impacted.

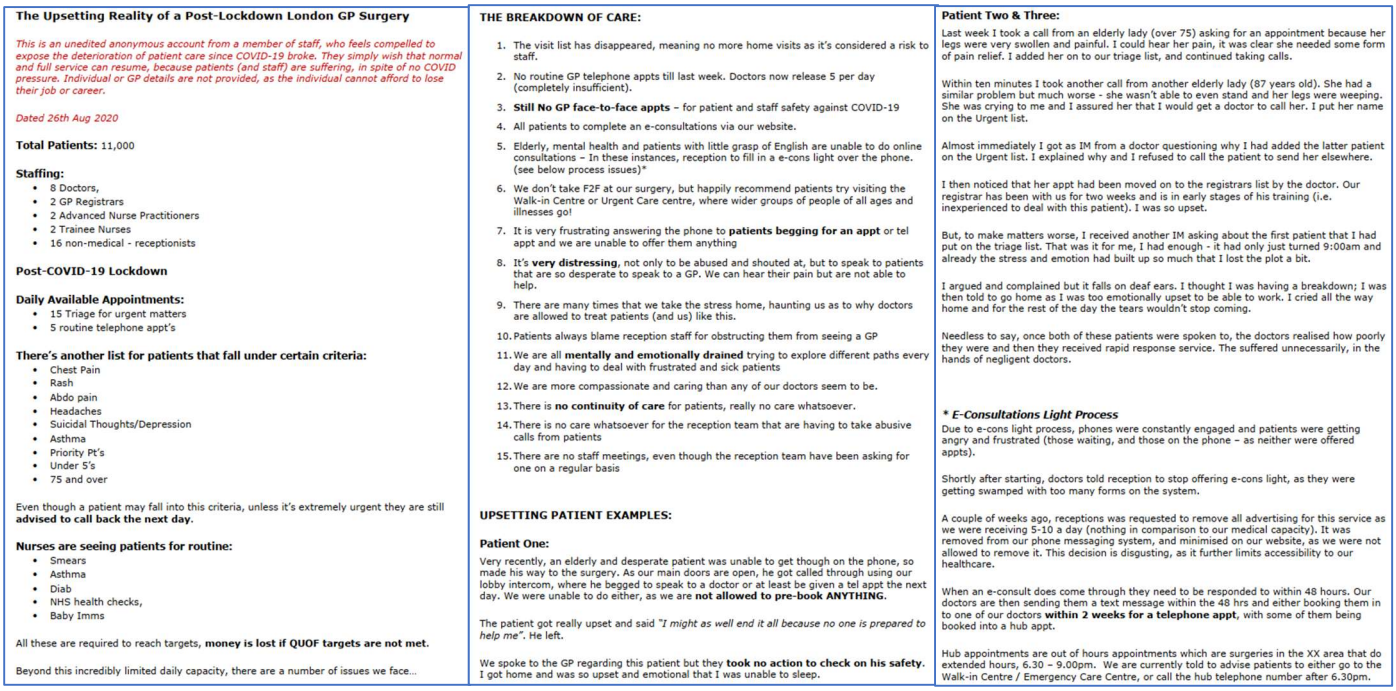
It's as if to protect the NHS, the NHS has to be closed.

Here are some tweets from an oncologist and leading authority on cancer in which he raises huge concerns about the adverse impact of this closure on the health service:

The concerns raised by many health professionals is that the NHS appears to have become a Covid-19 service, and all other services are being restructured around this one health concern.

What follows is an unedited anonymous account from an individual that works in a GP practice summarising the status of patient care since Covid-19. This person felt compelled to expose what they felt to be a deterioration of patient care since Covid-19 broke out and wanted services to return back to normal due to there being no immediate pressures any longer. The individual has fears about losing their job and career, so the identity and GP practice is left anonymous.

This and the posts that follow are anonymous and so the information requires verification, however there exists a large body of such information, growing daily, being posted on social media in the US and European countries, so it cannot be dismissed outright and should warrant further investigation by the appropriate authorities. These accounts cannot all be put down to disgruntled employees or some isolated incident in some settings. It should also be appreciated that some employees could fear losing their jobs and hence wish to remain anonymous.



The Upsetting Reality of a Post-Lockdown London GP Surgery

This is an unedited anonymous account from a member of staff, who feels compelled to expose the deterioration of patient care since COVID-19 broke. They simply wish that normal and full service can resume, because patients (and staff) are suffering, in spite of no COVID pressure. Individual or GP details are not provided, as the individual cannot afford to lose their job or career.

Dated 26th Aug 2020

Total Patients: 11,000

Staffing:
- 8 Doctors,
- 2 GP Registrars
- 2 Advanced Nurse Practitioners
- 2 Trainee Nurses
- 16 non-medical - receptionists

Post-COVID-19 Lockdown

Daily Available Appointments:
- 15 Triage for urgent matters
- 5 routine telephone appt's

There's another list for patients that fall under certain criteria:
- Chest Pain
- Rash
- Abdo pain
- Headaches
- Suicidal Thoughts/Depression
- Asthma
- Priority Pt's
- Under 5's
- 75 and over

Even though a patient may fall into this criteria, unless it's extremely urgent they are still **advised to call back the next day**.

Nurses are seeing patients for routine:
- Smears
- Asthma
- Diab
- NHS health checks,
- Baby Imms

All these are required to reach targets, **money is lost if QUOF targets are not met**.

Beyond this incredibly limited daily capacity, there are a number of issues we face...

THE BREAKDOWN OF CARE:

1. The visit list has disappeared, meaning no more home visits as it's considered a risk to staff.
2. No routine GP telephone appts till last week. Doctors now release 5 per day (completely insufficient).
3. **Still No GP face-to-face appts** – for patient and staff safety against COVID-19
4. All patients to complete an e-consultations via our website.
5. Elderly, mental health and patients with little grasp of English are unable to do online consultations – In these instances, reception to fill in a e-cons light over the phone. (see below process issues)*
6. We don't take F2F at our surgery, but happily recommend patients try visiting the Walk-in Centre or Urgent Care centre, where wider groups of people of all ages and illnesses go!
7. It is very frustrating answering the phone to **patients begging for an appt** or tel appt and we are unable to offer them anything
8. It's **very distressing**, not only to be abused and shouted at, but to speak to patients that are so desperate to speak to a GP. We can hear their pain but are not able to help.
9. There are many times that we take the stress home, haunting us as to why doctors are allowed to treat patients (and us) like this.
10. Patients always blame reception staff for obstructing them from seeing a GP
11. We are all **mentally and emotionally drained** trying to explore different paths every day and having to deal with frustrated and sick patients
12. We are more compassionate and caring than any of our doctors seem to be.
13. There is **no continuity of care** for patients, really no care whatsoever.
14. There is no care whatsoever for the reception team that are having to take abusive calls from patients
15. There are no staff meetings, even though the reception team have been asking for one on a regular basis

UPSETTING PATIENT EXAMPLES:

Patient One:

Very recently, an elderly and desperate patient was unable to get though on the phone, so made his way to the surgery. As our main doors are open, he got called through using our lobby intercom, where he begged to speak to a doctor or at least be given a tel appt the next day. We were unable to do either, as we are **not allowed to pre-book ANYTHING**.

The patient got really upset and said *"I might as well end it all because no one is prepared to help me"*. He left.

We spoke to the GP regarding this patient but they **took no action to check on his safety**. I got home and was so upset and emotional that I was unable to sleep.

Patient Two & Three:

Last week I took a call from an elderly lady (over 75) asking for an appointment because her legs were very swollen and painful. I could hear her pain, it was clear she needed some form of pain relief. I added her on to our triage list, and continued taking calls.

Within ten minutes I took another call from another elderly lady (87 years old). She had a similar problem but much worse - she wasn't able to even stand and her legs were weeping. She was crying to me and I assured her that I would get a doctor to call her. I put her name on the Urgent list.

Almost immediately I got as IM from a doctor questioning why I had added the latter patient on the Urgent list. I explained why and I refused to call the patient to send her elsewhere.

I then noticed that her appt had been moved on to the registrars list by the doctor. Our registrar has been with us for two weeks and is in early stages of his training (i.e. inexperienced to deal with this patient). I was so upset.

But, to make matters worse, I received another IM asking about the first patient that I had put on the triage list. That was it for me, I had enough - it had only just turned 9:00am and already the stress and emotion had built up so much that I lost the plot a bit.

I argued and complained but it falls on deaf ears. I thought I was having a breakdown; I was then told to go home as I was too emotionally upset to be able to work. I cried all the way home and for the rest of the day the tears wouldn't stop coming.

Needless to say, once both of these patients were spoken to, the doctors realised how poorly they were and then they received rapid response service. The suffered unnecessarily, in the hands of negligent doctors.

**** E-Consultations Light Process***

Due to e-cons light process, phones were constantly engaged and patients were getting angry and frustrated (those waiting, and those on the phone – as neither were offered appts).

Shortly after starting, doctors told reception to stop offering e-cons light, as they were getting swamped with too many forms on the system.

A couple of weeks ago, receptions was requested to remove all advertising for this service as we were receiving 5-10 a day (nothing in comparison to our medical capacity). It was removed from our phone messaging system, and minimised on our website, as we were not allowed to remove it. This decision is disgusting, as it further limits accessibility to our healthcare.

When an e-consult does come through they need to be responded to within 48 hours. Our doctors are then sending them a text message within the 48 hrs and either booking them in to one of our doctors **within 2 weeks for a telephone appt**, with some of them being booked into a hub appt.

Hub appointments are out of hours appointments which are surgeries in the XX area that do extended hours, 6.30 – 9.00pm. We are currently told to advise patients to either go to the Walk-in Centre / Emergency Care Centre, or call the hub telephone number after 6.30pm.

https://www.dropbox.com/s/9ry29p3ivon3iq0/Post-Lockdown%20GP%20Significant%20Service%20Decline%20.pdf?dl=0

This personal account from a care home worker details how she believes that elderly people in the care home she worked in did not receive the treatment and care they should be entitled to:
https://m.facebook.com/clare.wills1/videos/10217947324690408/

''Hi Claire. Thank you for the reply. I'm seeing my manager tomorrow and telling her that this will be my last complaint before going to the CQC, which is the Care Quality Commission but again, I'm not sure how responsive they will be - they don't seem to care. I'm worried that it's my word against all the GPs the district nurses and the other carers. What I have to say is that they have put all our residents on do-not-resuscitate orders and all of these residents with variable or lack of capacity are on anticipatory care pathways, which means that they are not allowed to go to hospital for any treatment for anything and aren't to receive any antibiotics for anything whatsoever whatever illness they've got. Since this pandemic started we haven't had a single GP visit the patients at home. Whenever anyone gets ill and ill not related to Covid because we haven't got it in my care home they automatically put them on end of life. And they discontinue all their medication because they say they're at risk of aspiration, which is ridiculous because if they eat drink or have medication, there is a small chance that they could aspirate, but if they're nil by mouth then they will die from dehydration and starvation. Myself and another carer have had to resort to buying jars of pureed baby food and feeding the residents, and giving them drinks after making them aware of the risk of aspiration and getting their consent just so that they can have food and drink. Along with this, the GPs are remotely prescribing end-of-life medication, which is morphine and midazolam injections and these are being misused. All our clients have had their usual medication taken away, which is regular pain relief such as paracetamol and Codeine and all their anxiety, anti depressant and anti psychotic

medication, which a lot of our clients are on. The district nurses then come into the home to give end of life drugs because with the withdrawal of usual medication the residents are showing signs of pain and anxiety, which, of course they would. The morphine should only be used for extreme pain when nothing else helps and this knocks the individuals out and especially when they're not eating and drinking and losing weight. This means it's even harder to get any fluids in them. The midazolam is given at end of life for sedation and terminal restlessness and agitation. However, this presses the individuals breathing and quickens along their death - no other alternatives to pain relief are given. There's no pain patches, no liquid paracetamol. They just put them straight onto the hard stuff which once started is only a matter of days before that resident passes away. However, this has all been okayed by the doctors and the nurses and as the need for analgesia is subjective, I don't know how much evidence I can find or even if I will be believed but I have collected evidence of fluid charts. I've worked in this home for over two years and now I have never seen anything like this when it comes to end of life and just writing people off. I believe it's a human right to have right to life and they are committing euthanasia. So much for them protecting the vulnerable.''

Here is an account from a paramedic posted on social media:

I am a paramedic and I want to share my story. Please keep my details confidential. To start I would like you to know that a normal pre-covid day for me would be up to 9 jobs in a 10-12hr period. This is job to job to job all day with only 1/2 hr break, that is the norm. During the covid peak times, I think the 6-8 initial weeks of lockdown we were sat on our bums doing nothing. I mean nothing, if we did two jobs that was a busy day. Some crews would sit for 10hours and not do a single thing. Yes, the world was locked down so there is a definite reduction of car accidents, drunks, and trauma but surely this can't account for all of it? Nobody but nobody was calling for an ambulance. Where were all the heart attacks, strokes, elderly falls, sick children, sepsis and flu? They all seemed to disappear. People were too damn scared to call 999 in case they caught covid. They were visibly distraught at the thought of going to hospital. People would have died at home because of this fear I am sure.

Every job we seemed to attend was now 'potential covid'. I cover three counties so visit 3 major A&E hospitals. Each had a designated 'covid' ward, all completely empty. Nurses sitting in groups chatting twiddling their thumbs. Sometimes my patient was the only one in there. Where were all the sick people? Not in hospital. The main A&E was the quietist I had ever seen it in 10 years. The general public triage was empty, sometimes a couple sitting there but mostly empty. The hospitals were like ghost towns. Care home residents were all issued with blanket DNR's (do not resuscitate) orders. Now, DNR's should be issued to residents with very poor health and those that are so frail that resuscitation will be futile so I will reserve judgement on those, however, one of the care homes I visited they had a 'care pathway' system which by all residents were given a scoring pathway, say green, amber and red for instance. If you were a green you may get treatment in hospital but if you were a 'red' you were denied transport and treatment in hospital and left at the care home. These care pathways do exist in everyday life but they are designed to apply to the sickest patients and in discussion with the patient and their family. Did this happen or was it forced? This I don't know. Some care homes did not have a clue about ppe and cross contamination. Some staff wearing masks, some not, some gloves, some not, no hand sanitising etc... it's no wonder the virus ripped through some of the homes. During these initial weeks the staff on my station did not practice social distancing and did not wear masks (except patient facing), the crew rooms were packed with crews sitting, eating and sleeping together in close proximity. I would say approx 25-35% of staff in each station were off sick and were testing positive. NO DEATHS! All back to work and all fine. Fire and Police the same (I have not heard of any deaths). If this virus was that deadly then surely we would have been dropping like flys?? It's only in the past few weeks we have been made to social distance in the crew rooms and wear masks in the front of the ambulance, this just does not make sense when the virus has practically gone. We will face disciplinary action if we don't adhere to these rules. Since lockdown has eased the service is getting busy again as all the usual jobs resume. Now, in the past 4 months I can count on one hand the number of patients that I took into hospital that 'I' suspected had covid and only two of them were really quite ill. Now if covid was not being forced down our throats I doubt any one of us would have noticed anything out of the ordinary. I expected many many more than that.

https://twitter.com/simondolan/status/1283729860154851329

Possible reasons for excess deaths

As explained in earlier sections, great caution should to be placed on reported Covid-19 fatality numbers. It is relevant to now look at the potential reasons that could be leading to the high excess death count observed over several weeks in the early stages of the declared health emergency.

The general belief is that excess deaths seen in recent months have been caused by Covid-19, but given the severe limitations in arriving at a true and accurate picture of this and bearing in mind there have been little or no post-mortems on such deaths, we need to consider what could explain the 'total' excess deaths. How deaths are split (i.e. Covid-19 or non-Covid 19) can be disputed but what cannot be disputed is the total death count from all causes.

The following list is not exhaustive but provides possible reasons for excess deaths:

- Social isolation
- Lack of access to healthcare and medical staff
- Aggressive medical treatment (e.g. ventilators)
- Consequences of home confinement
- Delaying going to hospital
- Malnutrition and hunger
- Stress and anxiety
- Depression
- Suicides
- Unintended neglect

Most of the people who died were the elderly who already had a number of chronic pre-existing medical conditions and so could have been approaching, or already receiving, end of life care.

A large number of elderly and vulnerable people were discharged from hospitals to free up bed space. This Coronavirus briefing by the NHS of 19 May 2020 provides a spotlight on this issue:
https://nhsproviders.org/media/689544/spotlight-on-recent-nhs-discharges-into-care-homes.pdf

Some reports have also been circulating about changes to 'Do not Resuscitate' orders for the elderly and vulnerable, which were said to be to 'protect the NHS'. Here are some articles on this issue:

Coronavirus: Call for inquiry and urgent action after 'shocking' disability death stats
https://www.disabilitynewsservice.com/coronavirus-call-for-inquiry-and-urgent-action-after-shocking-disability-death-stats/

Disabled people's organisations have demanded an inquiry into the reasons behind the disproportionately high number of deaths of disabled people during the pandemic, following the publication of "shocking" and long-overdue official figures.

The figures also show that about 22,500 disabled people of all ages died due to COVID-19 between 2 March and 15 May, compared with about 15,500 non-disabled people.

Coronavirus: unlawful do not resuscitate orders imposed on people with learning disabilities
https://www.independent.co.uk/news/health/coronavirus-do-not-resuscitate-dnr-learning-disabilities-turning-point-a9561201.html?

Unlawful 'do not resuscitate' orders are being placed on patients with a learning disability during the coronavirus pandemic without families being consulted.

National charities have successfully challenged more than a dozen unlawful do not resuscitate orders (DNRs) that were put in place because of the patient's disability rather than due to any serious underlying health risk.

Although a DNR is a medical decision and not something that requires patient consent, not consulting with the patient or their family is an unlawful breach of human rights.

It has come to the fore during the coronavirus pandemic after multiple reports of blanket DNRs being applied to elderly and vulnerable patients by GPs in care homes.

NHS managers told care homes to put blanket 'do not resuscitate' orders on ALL residents at height of Covid crisis, report shows
https://www.dailymail.co.uk/news/article-8656957/NHS-told-care-homes-not-resuscitate-orders-residents-height-Covid-crisis.html

The Queen's Nursing Institute found one in 10 care home staff were told to change resuscitation orders for patients, The Telegraph reports. In some cases, they didn't consult family members first.

Professor Alison Leary MBE, an expert in healthcare and workforce modelling at London South Bank University who wrote the report, said she was surprised to see so many people come forward about the 'do not resuscitate' orders.

Many vital support services for children and adults with disabilities have been disrupted. Physiotherapy, language, speech and portage appointments cancelled and regular support groups no longer taking place. Many children at an early age require such interventions for their development. Due to Covid-19, authorities are no longer required to adhere to the provisions contained in a child's Education and Health Care Plan (EHCP).

Part of the response in tackling the epidemic was to protect the NHS and prevent it becoming overwhelmed. So a strategy of discharging hospital patients into the community was implemented to try to free up hospital beds.

The following National Audit Office report identifies that around 25,000 people were discharged from hospitals into care homes:

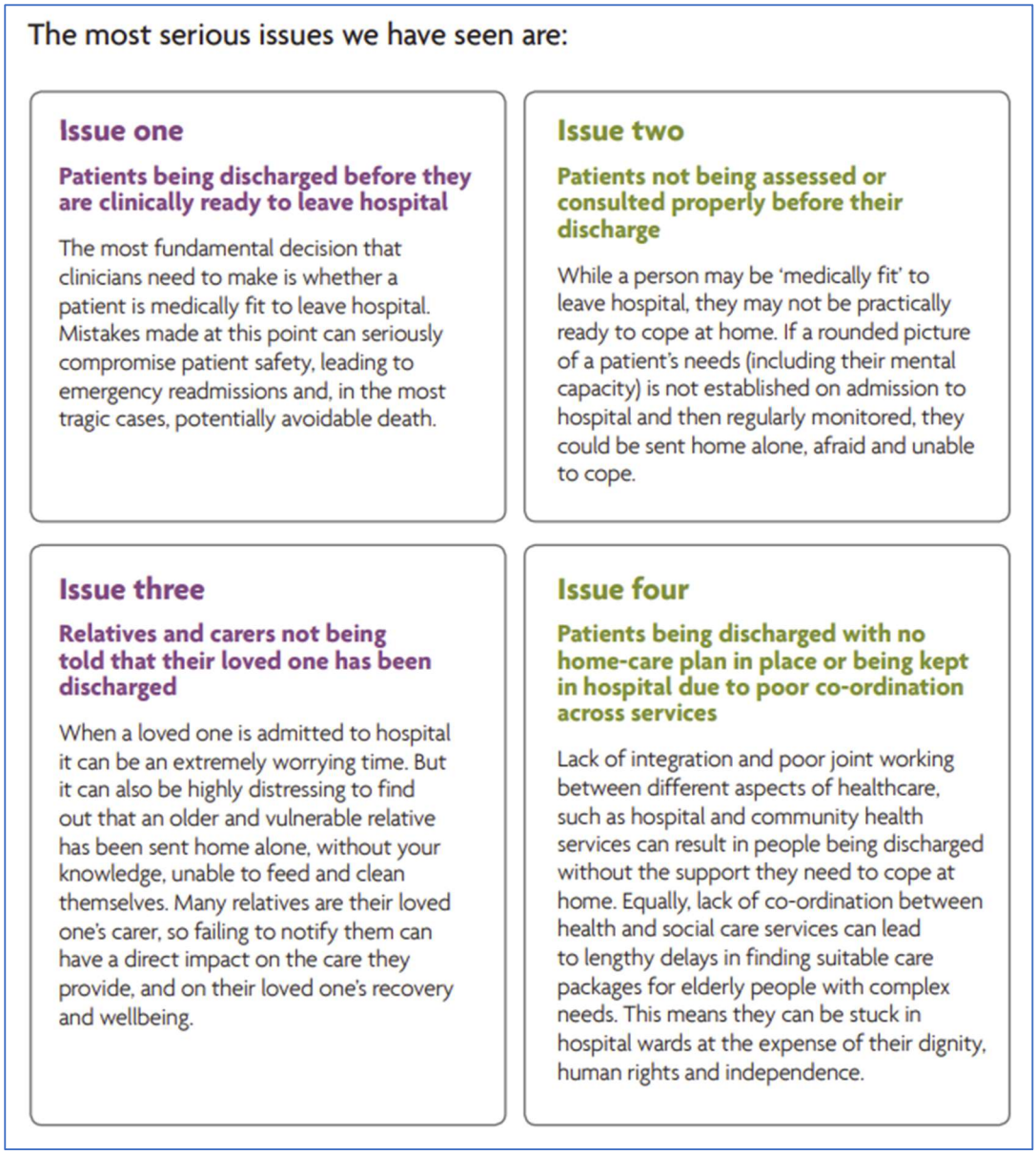
Readying the NHS and adult social care in England for COVID-19, 12 June 2020
https://www.nao.org.uk/wp-content/uploads/2020/06/Readying-the-NHS-and-adult-social-care-in-England-for-COVID-19.pdf

Patients discharged quickly from hospitals between mid-March and mid-April were sometimes placed in care homes without being tested for COVID-19. On 17 March, hospitals were advised to discharge urgently all in-patients medically fit to leave in order to increase capacity to support those with acute healthcare needs. Between 17 March and 15 April, around 25,000 people were discharged from hospitals into care homes, compared with around 35,000 people in the same period in 2019. Due to government policy at the time, not all patients were tested for COVID-19 before discharge, with priority given to patients with symptoms. On 15 April, the policy was changed to test all those being discharged into care homes. It is not known how many patients discharged to care homes had COVID-19 at the point they left hospital.

A big issue is being made that patients were not tested for infection before they were discharged from hospital. However, earlier sections of this document have shown that tests cannot be used for diagnostic purposes and cannot determine the infection status of an individual. Whether they were tested or not is therefore irrelevant from a scientific point of view.

The report does provide a useful comparison for discharge rates in the same period for the previous year which stood at 35,000 (compared to 25,000 current year).

Great care and attention needs to be taken when people are discharged from hospital, especially when vulnerable and elderly people are involved. A Parliamentary and Health Service Ombudsman publication called ‘A report of investigations into unsafe discharge from hospital, May 2016’ examined the very issue of hospital discharges. It identified four key issues that needed to be addressed:



The most serious issues we have seen are:

Issue one

Patients being discharged before they are clinically ready to leave hospital

The most fundamental decision that clinicians need to make is whether a patient is medically fit to leave hospital. Mistakes made at this point can seriously compromise patient safety, leading to emergency readmissions and, in the most tragic cases, potentially avoidable death.

Issue two

Patients not being assessed or consulted properly before their discharge

While a person may be 'medically fit' to leave hospital, they may not be practically ready to cope at home. If a rounded picture of a patient's needs (including their mental capacity) is not established on admission to hospital and then regularly monitored, they could be sent home alone, afraid and unable to cope.

Issue three

Relatives and carers not being told that their loved one has been discharged

When a loved one is admitted to hospital it can be an extremely worrying time. But it can also be highly distressing to find out that an older and vulnerable relative has been sent home alone, without your knowledge, unable to feed and clean themselves. Many relatives are their loved one's carer, so failing to notify them can have a direct impact on the care they provide, and on their loved one's recovery and wellbeing.

Issue four

Patients being discharged with no home-care plan in place or being kept in hospital due to poor co-ordination across services

Lack of integration and poor joint working between different aspects of healthcare, such as hospital and community health services can result in people being discharged without the support they need to cope at home. Equally, lack of co-ordination between health and social care services can lead to lengthy delays in finding suitable care packages for elderly people with complex needs. This means they can be stuck in hospital wards at the expense of their dignity, human rights and independence.

https://www.ombudsman.org.uk/sites/default/files/page/A%20report%20of%20investigations%20into%20unsafe%20discharge%20from%20hospital.pdf

In the current year, a significant number of people were discharged in a small space of time but the difference this year is that they were discharged during a period of huge disruptions to health and social care, unlike the discharges in previous years. For example, the lockdown and social distancing measures removed face-to-face GP support and other vital forms of support from care settings, increasing the risk to the most vulnerable. People were unable to see their loved ones face to face or be close to them. Could the four serious issues raised above have resurfaced during the recent discharges?

Under the Coronavirus Act 2020 that came into force on 25 March 2020, NHS providers were allowed to delay assessment of a patient's need for ongoing nursing care before discharging and, in exceptional circumstances, the requirements on local authorities to conduct a "needs assessment" when it appears that an adult may have needs for care and support was eased.

Social Isolation

Social isolation can have severe negative consequences on one's health and wellbeing. Here is a piece of advice from 2013 by the NHS on social isolation:

Social isolation increases death risk in older people, Tuesday 26 March 2013
https://www.nhs.uk/news/older-people/social-isolation-increases-death-risk-in-older-people/

'This cohort study found that **social isolation in older people was associated with increased risk of death from any cause in the UK**, and this relationship was independent of demographic factors and baseline health.'

Due to staff self-isolation cares homes could have been understaffed, impacting on care for residents. Family and friends were also unable to have direct contact with their loved ones in care homes and GP contact was restriced. With many people in such establishments suffering from Alzheimer's and dementia, this could only have been a difficult and distressing experience for all concerned.

The Guardian, Sun 6 Sep 2020


Urgent action needed to open up care homes for visits, ministers told

Guidance and testing regime in England under fire as relatives fear for isolated residents


Coronavirus: 'The care home lockdown sent my senile grandad into spiral of decline'

By Tom Brada
BBC News

15 August 2020 Share

Coronavirus: Dementia patients 'deteriorating' without family visits

By Sanchia Berg
BBC News

9 July 2020 Share

Aggressive Medical Treatment

We can recall at the outset of this emerging crisis that there was great concern about the availability of ventilators that were said to be vital in being able to treat patients with 'Covid-19'. Here are just a few of the headlines at the time:


NHS faces shortfall of ventilators as manufacturers struggle

Companies likely to build 'nowhere near' enough extra machines in time for UK peak of coronavirus cases, sources reveal


REUTERS

Exclusive: UK faces 'massive shortage' of ventilators - Swiss manufacturer

By John Miller 18/03/2020

However, some studies quickly arose suggesting that that use of ventilators by medical staff needed strong reconsideration after concerns were raised by medical staff about their effectiveness:

Ventilators Are No Panacea For Critically Ill COVID-19 Patients
https://www.npr.org/sections/health-shots/2020/04/02/826105278/ventilators-are-no-panacea-for-critically-ill-covid-19-patients?t=1598097276505

'Most coronavirus patients who end up on ventilators go on to die, according to several small studies from the U.S., China and Europe.'

Why some doctors are moving away from ventilators for virus patients
https://www.nbcnews.com/health/health-news/why-some-doctors-are-moving-away-ventilators-virus-patients-n1179986

'Some hospitals have reported unusually high death rates for COVID-19 patients on ventilators, and some doctors worry that the machines could be doing harm.'

In some parts of the world, front-line doctors and medical staff pointed out perverse incentives in place that could influence how deaths were being recorded and how people were treated. This short clip of a news interview with an American doctor give his views on the CDC (American Centre for Disease Control) guidelines on death counts:

Minnesota doctor blasts 'ridiculous' CDC coronavirus death count guidelines
https://www.foxnews.com/media/physician-blasts-cdc-coronavirus-death-count-guidelines
"Right now Medicare has determined that if you have a COVID-19 admission to the hospital you'll get paid $13,000. If that COVID-19 patient goes on a ventilator, you get $39,000; three times as much. Nobody can tell me, after 35 years in the world of medicine, that sometimes those kinds of things [have] impact on what we do.

"Some physicians really have a bent towards public health and they will put down influenza or whatever because that's their preference," Jensen added. "I try to stay very specific, very precise. If I know I've got pneumonia, that's what's going on the death certificate. I'm not going to add stuff just because it's convenient."

If the use of ventilators in the treatment of patients could actually have been harming them, it is quite alarming that significant financial subsidies were allegedly being offered to organisations to put their patients onto such treatment.

Lockdown Deaths

Many reports have emerged suggesting that lockdown itself has resulted in a large number of people dying, for example the following article from the Daily Mail summarises a university study on this issue:

Lockdown 'caused up to 21,000 extra deaths - many due to reduced access to healthcare', shocking study claims
https://www.dailymail.co.uk/news/article-8574317/Lockdown-caused-21-000-extra-deaths-reduced-access-healthcare.html
A study by economists and academics from Sheffield and Loughborough universities suggests more than 21,000 people died as a result of the measures introduced in March.

'Up to 21,000 people have died because of unintended consequences of lockdown – many due to a lack of access to healthcare, according to a shocking study.

In the eight weeks after restrictions were put in place an average of almost 2,700 extra people died a week than would be usual for the time of year, despite Covid-19 not contributing to their deaths.

Many of these victims died because they were unable to get urgent healthcare, it emerged last night.

There were warnings from doctors at the beginning of lockdown in March that there was a sharp drop in hospital attendance for emergencies such as heart attacks.

It was reported that at one point the number of people going to A&E had halved, while cancer referrals had plunged by 70 per cent.

Other studies have already suggested that a lack of access to urgent cancer care and a drop in referrals could lead to an extra 35,000 deaths a year.

An earlier paper published in The Lancet Oncology found some lives will be 20 years shorter due to cancers that have been missed.

This new study has raised the possibility that the wider impact of lockdown killed more people than the virus.

There could be further knock-on effects on the mortality rate linked to the ongoing social distancing restrictions, the report found.'

The Government itself had sight of a report on excess deaths from the Department of Health and Social Care, Office for National Statistics, Government Actuary's Department and Home Office, 8 April 2020:

Initial estimates of Excess Deaths from COVID-19
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/892030/S0120_Initial_estimates_of_Excess_Deaths_from_COVID-19.pdf

The paper looked at four categories of excess deaths:

1. Deaths directly from COVID-19
2. Indirect COVID-19 deaths due to additional pressures on the health and social care system, unable to maintain previous standards and unable to adequately treat and care for patients with COVID-19 and other conditions
3. Deaths from changes to healthcare activity, such as cancellation or postponement of elective surgeries and other non-urgent treatments
4. Deaths from factors affecting the wider population, both direct, resulting from the pandemic and from government's Behavioural and Social Interventions to address the pandemic (BSIs); and economic (resulting from a pandemic/BSI-induced recession).

Under category 4, the examples cited include: suicides including anxiety, depression or stress, violent crimes / homicides, domestic violence, alcohol misuse, drug misuse and adult social care.

The estimated deaths quoted in the report are alarming and estimated as: Category 1: 41,000 to 45,000; Category 2: 12,000 to 25,000; Category 3: 185,000; Category 4 – insufficient evidence to quantify estimated deaths.

On page 31 we have a chilling acknowledgement of the psychological impact of quarantine:

Psychological impacts

A review of the psychological impact of quarantine (covering 24 papers[48]) found that most studies reported negative psychological effects including post-traumatic stress symptoms, confusion, and anger. Stressors included longer quarantine duration, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma. Some researchers have suggested long-lasting effects. The review showed that most of the effects come from a restriction of liberty through stricter quarantine measures, and that voluntary quarantine is associated with less distress and fewer long-term complications.

Economy and Suicides

The significant negative impact on the economy (much larger than the 2008/9 recession) could lead to an increase in the number of suicides. The following articles report the consequences of the last recession on suicide levels:

Suicides associated with the 2008-10 economic recession in England: time trend analysis
https://www.bmj.com/content/345/bmj.e5142

Conclusion: The study provides evidence linking the recent increase in suicides in England with the financial crisis that began in 2008. English regions with the largest rises in unemployment have had the largest increases in suicides, particularly among men.

Recession 'led to 10,000 suicides'
https://www.bbc.co.uk/news/health-27796628

The economic crisis in Europe and North America led to more than 10,000 extra suicides, according to figures from UK researchers.

…suicides had been declining in Europe until 2007. By 2009 there was a 6.5% increase, a level that was sustained until 2011.

It was the equivalent of 7,950 more suicides than would have been expected if previous trends continued, the research group said.

Andy Bell, of the Centre for Mental Health, said: "The study says what we feared for some time: that unemployment, job insecurity and many other factors associated with the recession are associated with poor mental health and suicide.

Children have also been adversely affected and put at risk of potential harm:

The Telegraph

Child referrals to social services fell almost 80 per cent at height of lockdown, figures show

Councils are braced for a huge rise of referrals with schools reopening after social care teams reported a 18 per cent drop this year

By Gabriella Swerling, SOCIAL AND RELIGIOUS AFFAIRS EDITOR
7 September 2020 • 6:00am

Record number of young people on benefits

Fears over effect of Covid-19 on under-25s as ministers launch £2 billion employment scheme

By Christopher Hope, CHIEF POLITICAL CORRESPONDENT; Hayley Dixon *and* Lucy Burton
2 September 2020 • 12:01am

CamdenNewJournal The independent London newspaper

Tuesday, September 8th 2020 Islington Tribune West End Extra Classifieds

CORONAVIRUS

Warning that Covid crisis is 'now being used as cover for cuts to NHS'

Children's A&E services at Royal Free and UCLH remain closed

03 September, 2020 — By Tom Foot

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Physical abuse of older children soared in lockdown, says NSPCC

Adolescents four times more likely to be targeted than under-11s, as cases in England rise 53%

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Jamie Grierson *Home affairs correspondent*
@JamieGrierson
Tue 25 Aug 2020 00.01 BST

Conflicts of interest, lobbying and funding

There is a huge body of evidence documenting significant conflicts of interest and undue influence being exerted on the World Health Organisation (WHO) and on Governments across the world in tackling global health issues. This section will share research into this matter.

In 2009, the WHO declared a Public Health Emergency of International Concern (PHEIC) regarding a swine flu pandemic, which resulted in Governments spending significant sums of money procuring vaccines and providing indemnities to drugs companies.

Here is a short 3-minute clip from Channel 4 News highlighting conflicts of interest surrounding the 2009 swine flu outbreak:
Channel 4 News Exposes Swine Flu Scandal
https://www.youtube.com/watch?v=G9z-j8xsOeo

In 2010 the EU held an emergency debate and launched an inquiry into the ''influence'' exerted by drug makers on the WHO global H1N1 flu campaign. The article below provides further details:

EU to probe pharma over "false pandemic" 4th January 2010
http://www.pharmatimes.com/news/eu_to_probe_pharma_over_false_pandemic_982876

The text of the resolution approved by the EU states that: "in order to promote their patented drugs and vaccines against flu, **pharmaceutical companies influenced scientists and official agencies responsible for public health standards to alarm governments worldwide** and make them squander tight health resources for inefficient vaccine strategies, and needlessly expose millions of healthy people to the risk of an unknown amount of side-effects of insufficiently tested vaccines."

Here is a report looking at the lobbying power of pharmaceutical companies which also quantifies huge campaign contributions made in the US:

Lobbying Expenditures and Campaign Contributions by the Pharmaceutical and Health Product Industry in the United States, 1999-2018

Findings

This observational study, which analyzed publicly available data on campaign contributions and lobbying in the US from 1999 to 2018, found that the pharmaceutical and health product industry spent $4.7 billion, an average of $233 million per year, on lobbying the US federal government; $414 million on contributions to presidential and congressional electoral candidates, national party committees, and outside spending groups; and $877 million on contributions to state candidates and committees. Contributions were targeted at senior legislators in Congress involved in drafting health care laws and state committees that opposed or supported key referenda on drug pricing and regulation.

Meaning

An understanding of the large sums of money the pharmaceutical and health product industry spends on lobbying and campaign contributions can inform discussions about how to temper the influence of industry on US health policy.

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7054854/

This very issue was of such importance that the UK Parliament opened up its own investigation:

The Influence of the Pharmaceutical Industry, House of Commons Health Committee, Fourth Report of Session 2004-05, Volume 1 22 March 2005:
https://publications.parliament.uk/pa/cm200405/cmselect/cmhealth/42/42.pdf

Some extracts from this report are provided below:

Page 44:

'Approximately 90% of clinical drug trials and 70% of trials reported in major medical journals are conducted or commissioned by the pharmaceutical industry. As it does most of the research, inevitably the industry not only has a major effect on what gets researched, but also how it is researched and how results are interpreted and reported.'

Page 45:

'It is very much a question for the companies themselves what lines of research and development they choose to go down. Obviously, they go down roads where they think there is a real market for their products.'

'…industry's commitment to provide its shareholders with a good return on investment inhibited development of new and improved treatments in the areas of greatest medical need.'

'…more money is now invested in research into the prevention of disease, such as drugs to reduce cholesterol, than into its treatment, which serves to divert investment away from the sick towards the well, away from the old towards the young and away from the poor towards the rich.'

Page 56:

'…publication bias is more likely to arise from drug companies' reluctance to submit articles showing their products in a less that favourable light.'

This part highlights a very important matter which relates to negative studies and research outcomes not being published, meaning that this information is then not available to others making decisions on the suitability and roll-out of a particular drug or vaccine.

Page 96:

'The 1999 Vioxx Gastrointestinal Outcomes Research study of 8,000 patients, for example, showed heart attacks to be five times as common in patients taking Vioxx compared to a conventional, non-selective non-steroidal anti-inflammatory drug (NSAID). This was attributed by the company to the protective effect of the NSAID, however. A 1998 trial (Study '090') involved 978 patients. Serious cardiovascular events were found to be approximately six times more common in patients taking Vioxx than in patients taking another arthritis drug or a placebo. This study was never published.'

Page 97:

'The commercial success of the industry is not in doubt, nor is its ability to produce excellent science and important drugs; however, its ability to put the health of the nation consistently before the needs and expectations of its shareholders may be questioned.'

'Our over-riding concerns are about the volume, extent and intensity of the industry's influence, not only on clinical medicine and research but also on patients, regulators, the media, civil servants and politicians.'

Page 98:

'It is worth noting that there has been no Select Committee investigation of the industry since the Select Committee report on patent medicines in 1914. The regulatory system, the medical profession and Government have all failed to ensure that industry's activities are more clearly allied to the interests of patients and the NHS.'

'Our over-arching conclusion is that the UK pharmaceutical industry is in many ways outstanding: it conducts much excellent research, produces products which make a vital contribution to the health of the nation and is of great economic importance; however, for want of critical scrutiny by, and lack of deference and accountability to, the public and public bodies, the industry lacks the discipline and quality control that it needs but cannot itself provide.'

Page 99:

'The failings we have described have consequences, in particular: the unsafe use of drugs; and the increasing medicalisation of society.
These problems have existed in many countries. The UK may have a better record than many others. Drugs have been used unsafely in every country and we have no doubt that the drift towards medicalisation is a global phenomenon.'

And here are a few more credible reports about the issue of influence and funding which is feeding into public policy decision-making. There are many more reports of this nature.

The influence of big pharma, wide ranging report identifies many areas of influence and distortion

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC556141/

A report published last week on "the influence of the pharmaceutical industry" describes a strong United Kingdom pharmaceutical industry, whose net exports are worth over £3bn ($5.6bn; €4.3bn) annually.2 The industry's declared goal is "to bring patients life-enhancing medicines," a goal "not only necessary but noble." The House of Commons health committee examined the means used to achieve this noble end. **They found an industry that buys influence over doctors, charities, patient groups, journalists, and politicians, and whose regulation is sometimes weak or ambiguous.** For example, the **Department of Health**, responsible for a national health service that spends £7.5bn on drugs annually, **is also responsible for representing the interests of the pharmaceutical industry.**

Revealed: Big Pharma's hidden links to NHS policy, with senior MPs saying medical industry uses 'wealth to influence government'

https://www.independent.co.uk/news/uk/politics/revealed-big-pharma-links-to-nhs-policy-with-senior-mps-saying-medical-industry-uses-wealth-to-9120187.html

NHS bosses allowed a lobbying company working for some of the world's biggest drugs and medical equipment firms to write a draft report which could help shape future health policy. NHS England commissioned a group called the Specialised Healthcare Alliance (SHCA) to consult with patients' groups, charities and health organisations and produce a report feeding into its future five-year strategy for commissioning £12bn of services.

But the SHCA has confirmed to The Independent that it is entirely funded by commercial "members". Its director, John Murray, is also a lobbyist whose company lists some of the world's biggest drug and medical device firms as clients.

Conflicts of interest are common at FDA

https://www.bmj.com/content/332/7548/991.2.full

Members of drug advisory committees at the US Food and Drug Administration often have financial conflicts of interest and those conflicts affect voting patterns, says a study in JAMA (2006;295: 1921).

In 73% of the 221 meetings analysed, at least one advisory member or consultant had one or more conflicts. On an individual level, 28% of advisory members and voting consultants had conflicts. The researchers found that if panellists with conflicts had been excluded, voting margins for the index drug would have been less favourable. In none of the instances studied would exclusions have changed the majority vote for or against approval

Lancet Editor Spills the Beans and Britain's PM Surrenders to the Gates Vaccine Cartel, June 5, 2020

https://ahrp.org/lancet-editor-spills-the-beans-and-britains-pm-surrenders-to-the-gates-vaccine-cartel/?

"If this continues, we are not going to be able to publish any more clinical research data because pharmaceutical companies are so financially powerful; they are able to pressure us

to accept papers that are apparently methodologically perfect, but their conclusion is what pharmaceutical companies want."

Offline: What is medicine's 5 sigma? Richard Horton
https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(15)60696-1/fulltext
"A lot of what is published is incorrect."

The case against science is straightforward: much of the scientific literature, perhaps half, may simply be untrue. Afflicted by studies with small sample sizes, tiny effects, invalid exploratory analyses, and flagrant conflicts of interest, together with an obsession for pursuing fashionable trends of dubious importance, science has taken a turn towards darkness. As one participant put it, "poor methods get results".

Can bad scientific practices be fixed? Part of the problem is that no-one is incentivised to be right.

The following article explores possible future scenarios based on global responses to the pandemic:

Who Profits from the Pandemic? By Pepe Escobar, Global Research, April 09, 2020
https://www.globalresearch.ca/who-profits-from-the-pandemic/5709168

'The game ahead for the elites, taking advantage of the crisis, might well contain these four elements: **a social credit system, mandatory vaccination, a digital currency and a Universal Basic Income (UBI)**. This is what used to be called, according to the decades-old, time-tested CIA playbook, a "conspiracy theory." Well, it might actually happen.'

A social credit system is something that China set up already in 2014. Before the end of 2020, every Chinese citizen will be assigned his/her own credit score – a de facto "dynamic profile", elaborated with extensive use of AI and the internet of things (IoT), including ubiquitous facial recognition technology. This implies, of course, 24/7 surveillance, complete with Blade Runner-style roving robotic birds.

The U.S., the U.K., France, Germany, Canada, Russia and India may not be far behind. Germany, for instance, is tweaking its universal credit rating system, SCHUFA. France has an ID app very similar to the Chinese model, verified by facial recognition.

Mandatory vaccination is Bill Gates's dream, working in conjunction with the WHO, the World Economic Forum (WEF) and Big Pharma. He wants "billions of doses" to be enforced over the Global South. And it could be a cover to everyone getting a digital implant.'

Incidentally, some of the very initiatives mentioned above (a social credit system, mandatory vaccination, a digital currency and a Universal Basic Income) are explicitly being advocated by key influential figures.

Digital ID / Immunity or Health Passports

In an interview with Chris Anderson, who runs TED Talks, Gates indicated he believes some sort of "immunity certificate" will be instrumental in reopening the global economy:

How we must respond to the coronavirus pandemic, Bill Gates, 25 Mar 2020
https://www.youtube.com/watch?v=Xe8fIjxicoo

> Eventually what we'll have to have is certificates of who's a recovered person and who's a vaccinated person, because you don't want people moving around the world where you'll have some countries that won't have it under control. Sadly. You don't want to completely block off the ability for those people to go there and come back and move around. So eventually there will be sort of this digital immunity proof that will help facilitate the global reopening up.

The implication is clearly that you will not be allowed to move around the world freely and publicly without that "digital immunity certificate."

Tony Blair calls for new 'digital ID' so people can prove their coronavirus 'disease status' alongside test and trace programmes as world eases out of lockdown

- The former Prime Minister was speaking at virtual CogX technology conference
- Mr Blair said a digital ID was a 'natural evolution' to navigate daily life
- He said the 'Covid crisis' gives an additional reason to adopt a digital ID
- NHS Test and Trace scheme launched in England and Scotland at end of May
- Mr Blair said ID system would operate alongside track and trace programmes
- Here's how to help people impacted by Covid-19

By HARRY HOWARD FOR MAILONLINE
PUBLISHED: 17:54, 9 June 2020 | **UPDATED:** 17:55, 9 June 2020

https://www.dailymail.co.uk/news/article-8403369/Tony-Blair-calls-new-digital-ID-people-prove-coronavirus-disease-status.html

Proving your health status in order to enter societal functions – this could be entering into the realms of eugenics.

Digital Currency/ Cryptocurrency / Social Credit

There is much information of the subject of digital currency or cryptocurrency which could link into some form of social credit system.

Microsoft has a patent application for a system which rewards physical activity with cryptocurrency. This was applied for in 2019, numbered W0/2020/060606. The application mentions technology allowing for people's activity to be monitored in exchange for cryptocurrency. The patent application has not yet been granted. Details can be found here: https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2020060606

Specifically, the application is for a system whereby tasks are given to users, which, on participation or completion, can be rewarded with cryptocurrencies. Information is collected from a sensor, coupled with or potentially within the user's device, to determine whether those tasks have been completed.

Here are some articles on a social credit system being implemented nationally in China:
The complicated truth about China's social credit system, 7 June 2019
https://www.wired.co.uk/article/china-social-credit-system-explained

China's social credit system has been compared to Black Mirror, Big Brother and every other dystopian future sci-fi writers can think up. The reality is more complicated — and in some ways, worse.

The idea for social credit came about back in 2007, with projects announced by the government as an opt-in system in 2014. But there's a difference between the official government system and private, corporate versions, though the latter's scoring system that includes shopping habits and friendships is often conflated with the former.

Brits are well accustomed to credit checks: data brokers such as Experian trace the timely manner in which we pay our debts, giving us a score that's used by lenders and mortgage providers. We also have social-style scores, and anyone who has shopped online with eBay has a rating on shipping times and communication, while Uber drivers and passengers both rate each other; if your score falls too far, you're out of luck.

China's social credit system expands that idea to all aspects of life, judging citizens' behaviour and trustworthiness. Caught jaywalking, don't pay a court bill, play your music too loud on the train — you could lose certain rights, such as booking a flight or train ticket. "The idea itself is not a Chinese phenomenon," says Mareike Ohlberg, research associate at the Mercator Institute for China Studies. Nor is the use, and abuse, of aggregated data for analysis of behaviour. "But if [the Chinese system] does come together as envisioned, it would still be something very unique," she says. "It's both unique and part of a global trend."

China has started ranking citizens with a creepy 'social credit' system — here's what you can do wrong, and the embarrassing, demeaning ways they can punish you, 29 October 2018
https://www.businessinsider.com/china-social-credit-system-punishments-and-rewards-explained-2018-4?r=US&IR=T

The Chinese state is setting up a vast ranking system that will monitor the behavior of its enormous population, and rank them all based on their "social credit."

The "social credit system," first announced in 2014, aims to reinforce the idea that "keeping trust is glorious and breaking trust is disgraceful," according to a government document.

The program is due to be fully operational nationwide by 2020, but is being piloted for millions of people across the country already. The scheme will be mandatory.

At the moment the system is piecemeal — some are run by city councils, others are scored by private tech platforms which hold personal data.

Like private credit scores, a person's social score can move up and down depending on their behavior. The exact methodology is a secret — but examples of infractions include bad driving, smoking in non-smoking zones, buying too many video games and posting fake news online.

Vaccines

The race for a vaccine is on and much publicity has been given to this across all aspects of the media, advocating vaccines as a key solution to tackling the public health concern. We are told that until a vaccine is found, restrictions must continue.

https://twitter.com/BillGates/status/1207681997612748801

The following article summarises the progress in producing a vaccine for Covid-19.

Company coronavirus news summary, 9 September 2020
https://www.pharmaceutical-technology.com/uncategorised/company-coronavirus-news-summary-big-pharma-pledge-to-uphold-safety-and-efficacy-standards-in-covid-19-vaccine-race-astrazeneca-temporarily-halts-its-covid-19-vaccines-trials/

It should be pointed out that no effective vaccine has been produced for any of the other coronaviruses, including SARS 1, MERS or for other common cold viruses; and the effectiveness of the flu vaccine is said to vary from year to year and is dependent on how well the strains within the vaccine match those circulating in the flu season. The effectiveness of the flu vaccine in the UK in 2017-18 season has been estimated as 15%.

Influenza vaccine effectiveness (VE) in adults and children in primary care in the United Kingdom (UK): provisional end-of season results 2017-18
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779474/Influenza_vaccine_effectiveness_in_primary_care_2017_2018.pdf

The provisional end-of-season adjusted VE estimates showed an adjusted all age VE of 15.0% (95% CI: -6.3, 32.0) against influenza-laboratory- confirmed primary-care consultations for influenza. Effectiveness was 12.2% (95% CI: -16.8, 34.0) in 18-64 year olds and 10.1% (95% CI: -54.8, 47.8) in ≥65 year olds. VE was 90.3% (95% CI: 16.4, 98.9) against A(H1N1)pdm09 for 2-17 year olds receiving quadrivalent live attenuated influenza vaccine and 60.8% (95% CI: 8.2, 83.3) against influenza B. There was no significant effectiveness against influenza A(H3N2).

Earlier sections of this document have highlighted what appears to be an unjustified focus on creating and rolling out a mass vaccination programme for Covid-19 across the entire population.

Universal basic income

Universal basic income is being trialled in some countries and is being increasingly talked about in others, including the UK.

German experiment to test effects of basic income

https://www.publicfinancefocus.org/pfm-news/2020/08/german-experiment-test-effects-basic-income?utm_source=Adestra&utm_medium=email&utm_term=

'Universal basic income is to be trialled in Germany in an experiment to find out what effects it has on people's lives'.

The Guardian

https://www.theguardian.com/society/2020/aug/10/our-generations-nhs-support-grows-for-universal-basic-income

Huge job losses have already occurred and there is potential for many more to come, when looking at the numbers of people being furloughed, who might not have a job to go back to. This creates the prospect of millions of people with no jobs and therefore being reliant on the state.

The virus of fear

A continued sense of alarm, danger and hysteria has been portrayed throughout the crisis. The heightened level of fear and threat felt in the population reflects the messaging that has been relayed across the media and by officials and various authorities. Behavioural psychology is being used to influence certain behaviours, raising many ethical considerations which will be explored in this section.

Behavioural Insights Team

The Scientific Advisory Group for Emergencies (SAGE) is providing scientific and technical advice to support government decision-makers during the current declared emergency.

Psychology is actively being used to support decision-makers in response to the current crisis. One of the groups supporting SAGE is the Independent Scientific Pandemic Influenza Group on Behaviours (SPI-B) which includes members of the Behavioural Insights Team. Details of this team can be found here https://www.bi.team/about-us/ which has 'grown from a seven-person unit at the heart of the UK government to a global social purpose company with offices around the world.'

Many issues around the coronavirus response relate to behaviour, and this group is asked to provide advice aimed at anticipating and helping people adhere to interventions that are said to be recommended by medical or epidemiological experts.

The following paper was considered by SAGE in March 2020 and explores behavioural issues in connection with social distancing. It evaluates a range of options that could influence behaviour in people, including the use of fear and threats to get people to behave in a certain way:

Options for increasing adherence to social distancing measures, 22 March 2020. Paper prepared for the Scientific Advisory Group for Emergencies (SAGE) published 5 May 2020 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/887467/25-options-for-increasing-adherence-to-social-distancing-measures-22032020.pdf

Extract from the paper:

Persuasion

2. *Perceived threat:* A substantial number of people still do not feel sufficiently personally threatened; it could be that they are reassured by the low death rate in their demographic group (8), although levels of concern may be rising (9). Having a good understanding of the risk has been found to be positively associated with adoption of COVID-19 social distancing measures in Hong Kong (10). **The perceived level of personal threat needs to be increased among those who are complacent, using hard-hitting**

emotional messaging. To be effective this must also empower people by making clear the actions they can take to reduce the threat (11).

Note the following statement from the paper:

'A substantial number of people still do not feel personally threatened… the perceived level of threat needs to be increased…using hard hitting emotional messaging'

The document goes even further in Appendix B, where options for increasing adherence to social distancing measures are evaluated. Some of the options presented are particularly concerning and these have been highlighted in red:

Appendix B: APEASE evaluation grid for options to rapidly increase general social distancing

Option	Evaluation criteria (APEASE)					
	Acceptability	Practicability	Effectiveness	Affordability	Spill-over effects	Equity
1. Provide clear, precise, credible guidance about specific behaviours	HIGH	HIGH	HIGH IF ACCOMPANIED BY OTHER OPTIONS	HIGH	POSITIVE	UNCERTAIN
2. Use media to increase sense of personal threat	HIGH	HIGH	HIGH IF ACCOMPANIED BY OTHER OPTIONS	HIGH	COULD BE NEGATIVE	UNCERTAIN
3. Use media to increase sense of responsibility to others	HIGH	HIGH	HIGH IF ACCOMPANIED BY OTHER OPTIONS	HIGH	POSITIVE	UNCERTAIN
4. Use media to promote positive messaging around actions	HIGH	HIGH	HIGH IF ACCOMPANIED BY OTHER OPTIONS	HIGH	POSITIVE	UNCERTAIN
5. Tailor messaging	HIGH	HIGH	HIGH IF ACCOMPANIED BY OTHER OPTIONS	HIGH	UNCERTAIN	UNCERTAIN
6. Use and promote social approval for desired behaviours	HIGH	HIGH	COULD BE HIGH	HIGH	POSITIVE	UNCERTAIN
7. Consider enacting legislation to compel required behaviours	COULD BE HIGH IF EQUITY ISSUES ADDRESSED	DEPENDS ON TIMESCALE	COULD BE HIGH IF ACCEPTABLE AND ENFORCED	UNCERTAIN DEPENDING ON LEVEL OF ENFORCMENT	COULD BE NEGATIVE	COULD BE NEGATIVE
8. Consider use of social disapproval for failure to comply	UNCERTAIN	HIGH	COULD BE HIGH IF ACCOMPANIED BY OTHER MEASURES	HIGH	COULD BE NEGATIVE	COULD BE NEGATIVE
9. Develop and mobilise adequately resources community infrastructure	HIGH	VARIABLE	HIGH	MODERATE	POSITIVE	POSITIVE

It is disturbing that threats and fear could be used as an instrument of Government policy.

The following minutes of SAGE discuss strategies around behavioural issues and messaging. Note the reference to mobile phone data for the over-65's which implies some form of surveillance is being undertaken on people.

Nineteenth SAGE meeting on Covid-19, 26 March 2020:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/888789/S0387_Nineteenth_SAGE_meeting_on_COVID-19_.pdf

Priorities for SAGE ahead

5. Assuming interventions get R below 1 and demand on NHS critical care stabilises, SAGE needs to focus on behavioural and social interventions – monitoring, maintenance and release – and on the testing regime necessary for adjusting interventions.
6. SAGE will consider public messaging around interventions and explore potential behaviours linked to the easing and re-imposition of interventions and to mass testing.

15. Significantly fewer children are attending school than anticipated.
16. ONS data points to very high proportions of people in the UK changing their behaviour. Social interaction is greatly reduced, as is footfall on public transport, at parks and beaches. Mobile phone data for the over-65s suggest they are staying in one location. WiFi data suggests strong reductions in fast food outlet and supermarket use.
17. ONS is planning future surveys, including a dedicated survey for those experiencing social shielding.

The two posters below are direct examples of the 'public messaging' that is being used to increase the threat and fear levels in the population.

The red, yellow and black colours on the messaging connote danger and death, and the frightening statement "People will die" evoke the emotions of fear and guilt if the orders are not followed.

So the message being conveyed is to stay away from other people or you could kill someone. All individuals are now regarded as potential killers, putting other people's lives in danger. Visiting friends and family or visiting the sick to give them moral support – this is not acceptable now.

The gentleman shown below in army fatigues took part in the coronavirus press conference on 22 April 2020. https://www.youtube.com/watch?v=UWchvWGVZqc

Fast forward the video above to the 11-minute mark where he takes the stage.

The gentleman is General Sir Nick Carter, chief of the defence staff, who said in the press conference that members of the army's 77th Brigade were "helping to quash rumours about misinformation, but also to counter disinformation" and ''between three and four thousand people have been involved with around 20,000 available the whole time at high readiness''.

More information about the 77th Brigade is provided in the link below, where it is openly stated that this unit is involved in *'psychological operations to engage in non-lethal warfare'.*

https://www.armyrecognition.com/february_2015_global_defense_security_news_uk/british_army_to_launch_new_77th_brigade_dedicated_to_social_media_warfare_in_april.html

British Army to launch new 77th Brigade dedicated to social media warfare in April

POSTED ON TUESDAY, 03 FEBRUARY 2015 17:56

Defence & Security News - United Kingdom

British Army to launch new 77th Brigade dedicated to social media warfare in April

The British army is raising a brigade of "social media warriors" who will have social media savvy and will be trained in psychological operations to engage in non-lethal warfare. The new brigade will be based in Hermitage, near Newbury, Berkshire and the 77th Brigade will be 1,500-strong.

Biderman's Chart of Coercion

Anmesty International has published a tool to demonstrate and explain coercive methods of stress manipulation used to torture prisoners of war. It has been applied to explain the coercive techniques used by perpetrators of domestic abuse. It is called the **Biderman's Chart of Coercion** and is shown below.

Method	Effect and Purpose	Variants
Isolation	Deprives victim of all social support of their ability to resist. Develops an intense concern with self (this could be home environment) Makes victim dependent.	Complete solitary confinement Complete or partial isolation Group Isolation
Monopolisation of Perception	Fixes attention upon immediate predicament. Eliminates information not in compliance with demands. Punishes independence and /or resistance.	Physical isolation Darkness or Bright light Restricted movement Monotonous Food
Humiliation and Degradation	Makes resistance more 'costly' than compliance. 'Animal Level' concerns.	Personal hygiene prevented Demeaning Punishments Insults and taunts Denial of Privacy
Exhaustion	Weakens mental and physical ability to resist.	Semi-Starvation Sleep deprivation Prolonged interrogation Overexertion
Threats	Creates anxiety and despair Outlines cost of non-compliance	Threats to kill Threats of abandonment/non-return Threats against family Vague Threats Mysterious changes of treatment.
Occasional indulgences	Positive motivation for compliance. Hinders adjustment to deprivation	Occasional favours Rewards for partial compliance Promises
Demonstrating Omnipotence	Suggests futility of resistance	Confrontation Showing complete control over victims face
Forcing trivial demands	Develops habit of compliance	Enforcement of 'rules'

Amnesty International (1994)

https://www.strath.ac.uk/media/1newwebsite/departmentsubject/socialwork/documents/eshe/Bidermanschartofcoercion.pdf

Take a close look at the eight methods in the above table and then contemplate on the various restrictive measures enforced during lockdown and those which are continuing now – can you pick examples to fit in each of the eight methods? I filled every box with multiple examples.

New Powers Granted to Officials

Far-reaching measures have been introduced by the Government in response to the public health crisis. The justification is that there is a **serious and imminent threat to public health**. A number of these measures involve restricting people's activities and social interactions in home, work and leisure settings.

An example of the extent of these new powers is revealed in recent guidance for public health officers. These powers are said to be required to delay or prevent further transmission of the virus.

Guidance for public health officers, Potentially infectious persons, Schedule 21 to the Coronavirus Act 2020
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/899391/Guidance_for_public_health_officers_potentially_infectious_persons.pdf

> Who do your powers apply to?
>
> 2.2 Your powers apply to people in England whom, during the transmission control period, you have reasonable grounds to suspect may be potentially infectious.
>
> 2.3 A person is potentially infectious (Paragraph 2) if:
>
> (a) The person is or may be infected or contaminated with coronavirus AND there is a risk that the person might infect or contaminate others.
>
> OR
>
> (b) the person has been in an infected area within the 14 days preceding that time.

The terms used in this guidance are very vague and can be interpreted in different ways, opening the way up to potential abuse of the powers. For example, the definitions of a *'potentially infectious'* person: *'the person is or may be infected'*; *'risk that the person might infect or contaminate others'* can apply to any person.

According to this guidance, an official can merely *'suspect'* someone of being '*potentially infectious'*. However, anyone can suspect anyone of anything. This is an ambiguous ill-defined term.

And then it goes further:

3.1 If, during the transmission control period, you have reasonable grounds to suspect that a person is potentially infectious, you may (under Paragraph 6(2)):

(a) direct the person to go immediately to a place specified which is suitable for screening and assessment;

(b) remove the person to a place suitable for screening and assessment; or

(c) request a Constable to remove the person to a place suitable for screening and assessment.

This guidance outlines how officials can direct people to do things and use force if required.

And then it goes further:

5.1 The powers set out below are available to you where a person in England has been screened and assessed by a PHO, and where:

(a) the individual tested positive for coronavirus; or

(b) screening was inconclusive; or

(c) you have reasonable grounds to suspect that the person is potentially infectious. (This may be applicable where for example testing has not been carried out or if test results have been delayed).

5.2 You may impose **requirements** (Paragraph 14(3)) on a person, such as:

(a) to provide information to a PHO or any specified person;

(b) to provide contact details for contact during a specified period;

(c) to undergo further screening and assessment;

(d) to remain at a specified place for a specified period (‘**requirement to remain’**);

(e) to remain at a specified place in isolation for a specified period (‘**requirement to remain in isolation’**).

5.3 You may impose **restrictions** (Paragraph 14(4)) on a person for a specified time, such as on the person’s:

(a) movements or travel (in or out of UK);

(b) activities (including work or business activities);

(c) contact with other persons or with specified persons.

From the above, various intrusive requirements and restrictions can be imposed on an individual on thin grounds. The document also goes on to provide guidance for scenarios

associated with children which again can have severe implications for people's freedoms and civil liberties.

The guidance does state that these requirements and restrictions can only be imposed upon a person if considered necessary and proportionate to do so in the interests of the person, for the protection of other people or for the maintenance of public health.

The intrusive powers are extended to other agencies. People could now expect a knock on the door from the police to check that guidelines are being following, which could be intimidating.


News

Police could visit homes to check people are self-isolating from today

Ross McGuinness

yahoo/news • Mon, 28 September 2020, 0:22 pm BST

Public sector institutions represent the interests of their communities. However, it could be said that these institutions are slowly being turned towards doing things that work against the interests of the very people they are supposed to serve, support and protect.

Legal Considerations

Here are two good articles looking at the legal position and **unlawfulness** of some of the restrictive and intrusive measures being put in place because of Covid-19:

COVID-19 not an excuse for unlawful deprivation of liberty – UN expert group on arbitrary detention
https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=25876&LangID=E

GENEVA (8 May 2020) – A group of independent UN experts today recalled that "**the prohibition of arbitrary detention is absolute even during times of public emergencies**" and urged governments worldwide to prevent arbitrary deprivation of liberty in the context of the measures currently adopted for controlling the spread of the COVID-19 virus.

"**Imposition of mandatory quarantine**, from which a person cannot leave for any reason, in the context of a public health emergency **is de facto deprivation of liberty** and safeguards against arbitrariness must be strictly observed", the Working Group on Arbitrary Detention said.

In its newly adopted Deliberation No. 11, the expert group establishes a set of guidelines to prevent arbitrary deprivation of liberty during public health emergencies, stressing that any control measures "must be publicly declared, **be strictly proportionate to the threat**, be the **least intrusive means** to protect public health and **imposed only while the emergency lasts**".

Moreover, "the States should urgently review the existing cases of deprivation of liberty across all detention settings to determine whether the detention is still justified as **necessary and proportionate** in the prevailing context of the COVID-19 pandemic", experts say.

States should refrain from holding persons of 60 years and older, pregnant women and women that are breastfeeding, persons with underlying health conditions as well as persons with disabilities, **in places of deprivation of liberty where the risk to their physical and mental integrity and life is heightened.**

They said that "detention in the context of migration is only permissible as an exceptional measure of last resort, which is a particularly high threshold to be satisfied in the context of a pandemic or other public health emergency".

Governments are reminded that migrant children and children with their families should be immediately released, that asylum seekers should not be held in places of deprivation of liberty during the course of the procedure for the determination of their status and that refugees should be protected and not detained.

The Working Group recalls that automatic pre-trial detention of persons is incompatible with international law, and preference to non-custodial measures should be given during the public health emergencies.

The expert group also noted that the **power to detain people during health emergencies must not be used to silence the work of human rights defenders, journalists, members of the political opposition, religious leaders, health care professionals and other dissenting voices.**

The human rights experts also called on Governments to release all victims of arbitrary detention recognized in previous opinions adopted by the Working Group.

The following article picks up on the grave impact on rights and freedoms. It goes through a number of principles that restrictions should be measured against. It's a good read.

A disproportionate interference: the Coronavirus Regulations and the ECHR
https://ukhumanrightsblog.com/2020/04/21/a-disproportionate-interference-the-coronavirus-regulations-and-the-echr-francis-hoar/amp/?

Recently Lord Anderson QC, Robert Craig, Tom Hickman QC and others and Benet Brandreth QC and Lord Sandhurst QC have argued that the Regulations were or may have been ultra vires as secondary legislation beyond the delegated powers under Pt 2A of the 1984 Act. In turn, Prof Jeff King has argued that the delegated powers were exercised lawfully. It is the view of the author that the arguments against the vires of the legislation on that ground are more convincing.

This article argues that the Regulations are also a disproportionate interference with the rights protected by the European Convention on Human Rights ('the Convention'); and that, were they challenged by judicial review, should be disapplied if necessary to avoid a breach of s 6 of the Human Rights Act 1998.

Proportionality: the test to be applied

Preliminary to considering proportionality, **the fact that the United Kingdom (or even France, Italy and Spain, despite more stringent 'lockdowns') did not register any derogations from the Convention (under Article 15) might suggest that the public health crisis is not one that threatened the 'life of the nation'. It is questionable whether a virus which, while undoubtedly dangerous and life threatening, appears to have a mortality rate of between 0.12 and 1%, could be considered to threaten the life of the nation**. Likewise, the failure to use the Civil Contingencies Act 2004 both: (a) puts in question the lawfulness of the use the delegated powers of the Public Health (Control of Disease) Act 1984, given that it is a bespoke basis for regulations in a public emergency imposing strict limitations and Parliamentary scrutiny; and (b) is relevant to determining the proportionality of the Regulations, in view of the above.

A determination of the proportionality of Regulations, imposing a code affecting a number of different freedoms for public health reasons, is best judged through applying the Siracusa Principles on the Limitation and Derogation Provisions in the International Covenant on Civil and Political Rights, adopted for that purpose by the UN Economic and Social Council in 1984, and the UN Human Rights Committee.

These Principles require that restrictions should, at a minimum, be:

- carried out in accordance with the law;
- directed towards a legitimate objective;
- **strictly necessary** in a democratic society to achieve the objective;
- **the least intrusive and restrictive available to reach the objective**;
- **based on scientific evidence** and neither arbitrary nor discriminatory in application; and
- **of limited duration, respectful of human dignity**, and subject to review.

Balanced against the impact of the restrictions on rights and freedoms must be **the scientific evidence relied upon by the government to justify them; and its evaluation would be unavoidable for any court reviewing the Regulations.**

This scientific evidence is far more uncertain than is generally accepted and there is, in particular, considerable uncertainty about the effectiveness of lockdowns in containing

spread, the true mortality and infection rates (see here and here) and the accuracy of modelling in general and previous modelling from Imperial College (key to government policy) in particular. Sweden presents an example of much less restrictive measures, which evidence suggests may be just as effective (see here, here, here and up to date statistics).

One must reflect on whether the Siracusa Principles have been taken into account for the various measures introduced in response to the public health emergency.

Rockefeller Foundation

The Rockefeller Foundation is a private philanthropic foundation established in 1913. Its website can be found here https://www.rockefellerfoundation.org/about-us/our-history/ where it states the following about its history and achievements and proudly boasts about its influence on setting the field of modern public health:

'Our list of greatest achievements is long. **We founded the modern field of public health**, developed vaccines to help eradicate diseases such as yellow fever and malaria, funded urban visionary Jane Jacobs, and catalyzed a Green Revolution.'

In April 2020, the Rockefeller Foundation published a document called the *'National Covid-19 Testing Action Plan'*.
https://www.rockefellerfoundation.org/wp-content/uploads/2020/04/TheRockefellerFoundation_WhitePaper_Covid19_4_22_2020.pdf

The document states:

'The goal of the Action Plan is to build a state-led national program of Covid-19 testing that supports reopening the economy through the goals of workforce monitoring, early detection of recurrent outbreaks, and diagnostic and home testing.

This would be the largest public health testing program in American history. Success will depend on the active engagement of the government, business, philanthropy, and the public.'

The action plan is summarised below and when you read the document in full, the proposed actions bear a very strong resemblance to the measures currently being put in place by nations across the world, including the UK.

The goal of the Action Plan is to build a state-led national program of Covid-19 testing that supports reopening the economy through the goals of work-force monitoring, early detection of recurrent outbreaks, and diagnostic and home testing.

This would be the largest public health testing program in American history. Success will depend on the active engagement of the government, business, philanthropy, and the public.

THE ACTION PLAN HAS THREE MAJOR OBJECTIVES

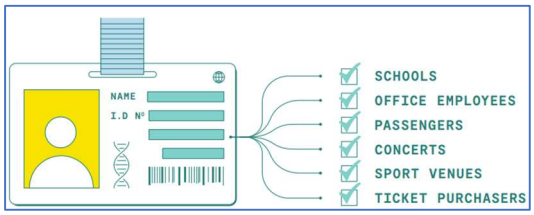
1. Launch a 1-3-30 Plan to Dramatically Expand Covid-19 Testing
2. Launch a Covid Community Healthcare Corps for testing and contact tracing
3. Create a Covid-19 Data Commons and Digital Platform

Page 17 and 18 of the document contain some proposals for how societal functions could be resumed:

'Some **privacy concerns must be set aside** for an infectious agent as virulent as Covid-19, allowing the infection status of most Americans to be accessed and validated in a few required settings and many voluntary ones'
'But vaccine development and manufacture could take years, and when it comes certain populations may be excluded from receiving it for health reasons. In the meantime, **infection status must be known for people to participate in many societal functions**.'

'Those screened must be given a **unique patient identification** number that would link to **information about a patient's viral, antibody and eventually vaccine status** under a system that could easily handshake with other systems to speed the return of normal societal functions.'

'Schools could link this to attendance lists, large office buildings to employee ID cards, TSA to passenger lists and concert and sports venues to ticket purchasers.'



'This infection database must easily interoperate with doctor, hospital and insurance health records in an essential and urgent national program to finally
rationalize the disparate and sometimes deliberately isolated electronic medical records systems across the country.'

These proposals could be considered quite sinister. In effect it is leading to a position where every person is required to prove their health status in order to go about their normal course of business, whether at home, work or leisure. All of these measures are being implemented under the guise of public health.

Summary

Earlier sections of this document have highlighted the great level of influence that philanthropic and other organisations and individuals can exert, despite not being elected to positions of authority or being held to account. These measures are not backed up by science.

This tweet from Matt Hancock MP states how our health will be protected through four measures:

https://twitter.com/MattHancock/status/1299618860090392576

Let's look at the four measures said to protect the nation's health and weigh them against Biderman's Chart of Coercion:

- Social distancing — or ISOLATION?
- NHS test and Trace — or HUMILIATION / DEGRADATION?
- Local Lockdown — or DEMONSTRATING OMNIPOTENCE?
- Biggest vaccination programme in history — or MONOPOLISATION PERCEPTION?

Where is the direct scientific evidence that the four approaches are the best way to deal with the health emergency? Are they proportionate to the threat faced? Do they respect human dignity? Are they the least intrusive? Do they reflect the Siracusa Principles?

Are the following images a reflection of what will be our 'new normal'?

We know that isolation has a significant impact on mental health – measures to increase isolation will only increase mental health issues in the population.

Testing and tracing are not scientifically proven to improve an individual's health. We know that pre-existing medical conditions are a key factor in the excess death toll.

Many studies have shown that the way to improve health is to focus on good nutrition and lifestyle factors.

The recording of transactional data such as where you have been, at what time and who with, provides no tangible benefit to protecting your health.

A powerful data store is being developed and this information on people's whereabouts could potentially be harvested by the private sector for commercial purposes.

Studies have shown that lockdowns have caused excess deaths, however more lockdowns and restrictions on people's movements are being threatened.

The low infection fatality rate and previous history of coronaviruses, such as the common cold, MERS, SARS-COV1 for which an effective vaccine has never been developed, would question the need for a similar vaccine for Covid-19 to be rolled out across the population.

Peoples behaviours are changing, and suspicion and fear is being ingrained in people's minds of fellow human beings potentially carrying an infectious disease that could easily be passed onto them, leading to imposition of restrictions on social interaction with family, friends, work colleagues and neighbours.

The effective labelling of every human being as an 'infectious agent' and a 'biohazard' capable of passing on something bad to others is a frighteningly disturbing state of affairs for individuals and our communities to live under.

Treating fellow human beings as walking killers and 'diseased rats', whilst enforcing restrictions on contact with other people could be described as living under some form of 'MEDICAL MARTIAL LAW.'

It could also be considered by some as a form of psychological abuse and many people are saying that the real virus circulating is 'FEAR'.

We have already established that the science says the testing is NOT FIT FOR PURPOSE, yet it's on the basis of increasing numbers of people 'testing positive' that further restrictions are being called for and enforced.

At the same time, the number of deaths attributable to Covid-19 is low whilst people are dying from other serious illnesses and there are huge backlogs and delays in health diagnoses and treatments for people across the country.

From the 12 weeks 11 June to 4 September 2020, the UK death toll has been the lowest for 5 years, yet local lockdowns are being applied because of a dubious test.

If the tests are flawed, then any actions taken as a result of these tests could be deemed as unlawful, and could open up the floodgates for legal action arising from losses and harm to people's well-being.

Parliamentary debate, democracy and law

One of Parliament's main roles is debating and passing laws. The national effort to tackle the current health emergency has resulted in UK ministers being granted some of the broadest legislative powers ever seen in peacetime. This section explores some concerns being raised about this the lack of scrutiny of the regulations passed, which have severe implications on human rights and civil liberties.

The following article provides the opinions of several law professionals and a civil liberties advocate in their opposition to the lockdown laws and their concerns for the rule of law and democracy:

Liberty in lockdown: Is it time to release democracy from quarantine and resuscitate the rule of law? September 2020
https://thecritic.co.uk/issues/september-2020/liberty-in-lockdown/?fbclid=IwAR3WPoe64dXpqpTHOVkjJukYS-uGGv9KiX1IRx-CHr2qLHXkqEuuvFyBp-U

Lord Sumption, former Supreme Court judge

What could persuade people to volunteer their liberty? Fear, in a word. Emergency situations call for emergency measures. The government responded swiftly to a pandemic despite scant evidence of the infectiousness and severity of Covid-19. The regulations were nodded through parliament to applause rather than opposition. **But have the UK's emergency laws and regulations been proportionate, the least intrusive available, strictly necessary and based on scientific evidence?**

The government has reviewed its emergency legislation behind closed doors, leaving MPs and the public in the dark about the evidence and proportionality of the emergency regulations. One estimate is that 21,000 non-Covid deaths have been indirectly caused by the lockdown measures, and **a government report in July predicted that more than 200,000 could ultimately die as a result of delays to treatment associated with lockdown or a Covid-related reluctance for ill people to seek treatment**.

Kirsty Brimelow QC

She points out that although citizens must follow the law, **we are allowed to decide for ourselves whether to follow guidance.** The **conflation of guidance and law** led people to be "wrongfully arrested, wrongfully convicted and that is not only bad for the person concerned, but also for society and the rule of law in general". **In England, for example, there was a rule we should be two metres apart. It might be sensible guidance, but it has never been law.**

Brimelow felt compelled to speak out because of what she saw as **miscarriages of justice**, such as the conviction of Marie Dinou, who was arrested at Newcastle station at the start of lockdown. She was held in the cells for two nights (under no powers), "treated appallingly" by the district magistrate, given a criminal conviction under the wrong legislation and fined £660, which was subsequently quashed. Dinou's case was not exceptional: **every single conviction under the Coronavirus Act has since been overturned.**

"Criminalisation should be removed from these laws," says Brimelow. "Too many people sitting together having a picnic should never be a criminal offence."

Silkie Carlo, director of the campaign group Big Brother Watch

Carlo says: **"This is the greatest loss of liberty in modern Britain and it has happened by diktat. This is how autocracies and dictatorships emerge, for the 'greater good', measure by measure."**

Big Brother Watch mainly fights against state surveillance and Carlo says we should be vigilant about the big tech response to the crisis. "It's been a cacophony of disaster. With contact tracing, the government wanted to collect as much data as possible and hold it centrally. They were basically asking people to be on a state-issued digital tag. We warned them that there are serious risks with this.

Solicitor Stephen Jackson

Solicitor Stephen Jackson is so concerned about the misrepresentation of guidance as law that he founded the website Law or Fiction to help citizens and employers make sense of the emergency legislation. He says he has received many messages from confused and worried people, **some quite heartbreaking, such as a new mother who needed a doctor to examine her burst and infected episiotomy stitches**. **Astonishingly, she was not offered an appointment, but asked to send a photograph of her genitals to an unsecured practice email address. This insensitive and intrusive request is no substitute for proper medical care.**

Barrister Francis Hoar

Barrister Francis Hoar wrote an article arguing that the **emergency regulations were incompatible with human rights.** On reading it, a businessman, Simon Dolan, who also believed that the government had acted illegally and disproportionately, contacted him.

Together with solicitors Wedlake Bell they mounted a legal challenge against the government, arguing that the lockdown regulations removed the right to liberty by restricting people to their houses, the right to a private and family life, the right to freedom of religion and expression of it, the right to protest and free assembly; plus the damaging effect on business interests and education.

They also question whether the government was right to make the emergency laws under the Public Health Act since it covers infectious people, and the whole population cannot be deemed to be infectious.

Statutory Instruments

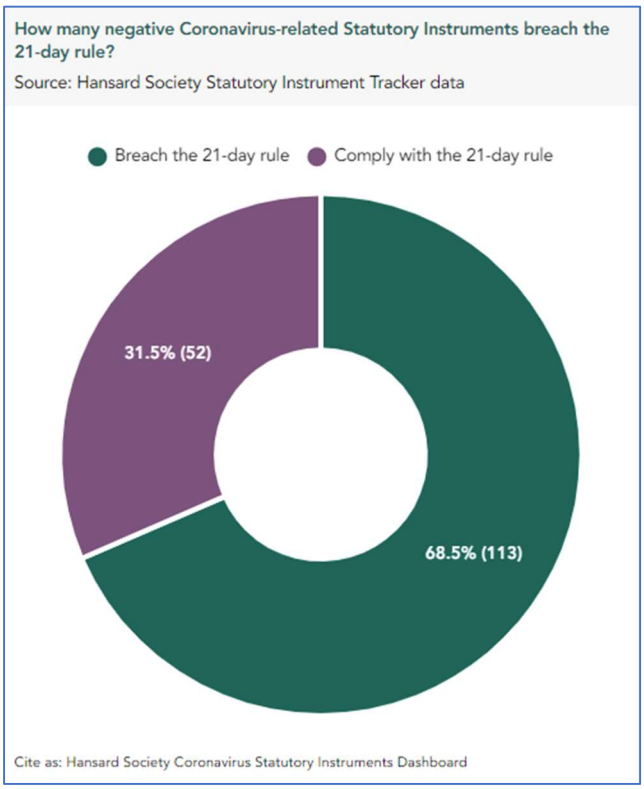
There has been **little or no debate and scrutiny** in Parliament about the various far-reaching and restrictive measures that have been passed to date in response to the declared health emergency.

Secondary legislation, of which Statutory Instruments (SIs) are an example, provide practical measures that enable the law to be enforced and operate in daily life. Here is an interesting analysis showing the Statutory Instruments (SIs) produced using these powers in the Coronavirus Act 2020 and other Acts of Parliament:
https://www.hansardsociety.org.uk/publications/data/coronavirus-statutory-instruments-dashboard

Included is a list of the Coronavirus-related Statutory Instruments laid before the UK Parliament covering the period 28 January 2020 to 18 September 2020.

Of interest is this section about 'made negative' procedures requiring SIs to be laid before Parliament at least 21 days before coming into effect. A significant number of breaches have been made here.

> A Statutory Instrument may come into effect as soon as it has been made. However, there is a convention – 'the 21-day rule' – by which, wherever possible, a Statutory Instrument which is subject to the negative procedure is laid before Parliament at least 21 calendar days before it comes into effect.
>
> Of the 165 Coronavirus-related Statutory Instruments laid before the UK Parliament which are subject to the negative procedure, 113 breach the 21-day rule.



Not only has Parliament been affected in terms of lack of debate, leadership, scrutiny and decision-making, but this has also cascaded down into other parts of the public sector including the NHS and Local Government, where leadership and decision-making has been greatly impacted across a whole range of issues across these sectors as a consequence of implementing Government-determined protocols and lockdown measures.

The Coronavirus Act 2020 came into effect on 25 March 2020 giving the UK government far-reaching powers in tackling the declared public health concern. The provisions of the Act can be found here:
https://www.legislation.gov.uk/ukpga/2020/7/contents

A useful summary of the provisions contained in the Act can be found below:
https://www.instituteforgovernment.org.uk/explainers/coronavirus-act

Here are some of the provisions of the Act that could be regarded as contentious:

Easing pressure on NHS and local authority resources
Allows NHS providers to delay assessment of a patient's need for ongoing nursing care before discharging and eases, in exceptional circumstances, the requirements on local authorities to conduct a "needs assessment" when it appears that an adult may have needs for care and support.

Indemnity
The Act enables the secretary of state and ministers in devolved administrations to provide an indemnity for clinical negligence liabilities arising from NHS activities.

Powers relating to potentially infectious persons
Gives public officials in England emergency powers to test, isolate and detain a person where they have reasonable grounds to think that the person is infected.

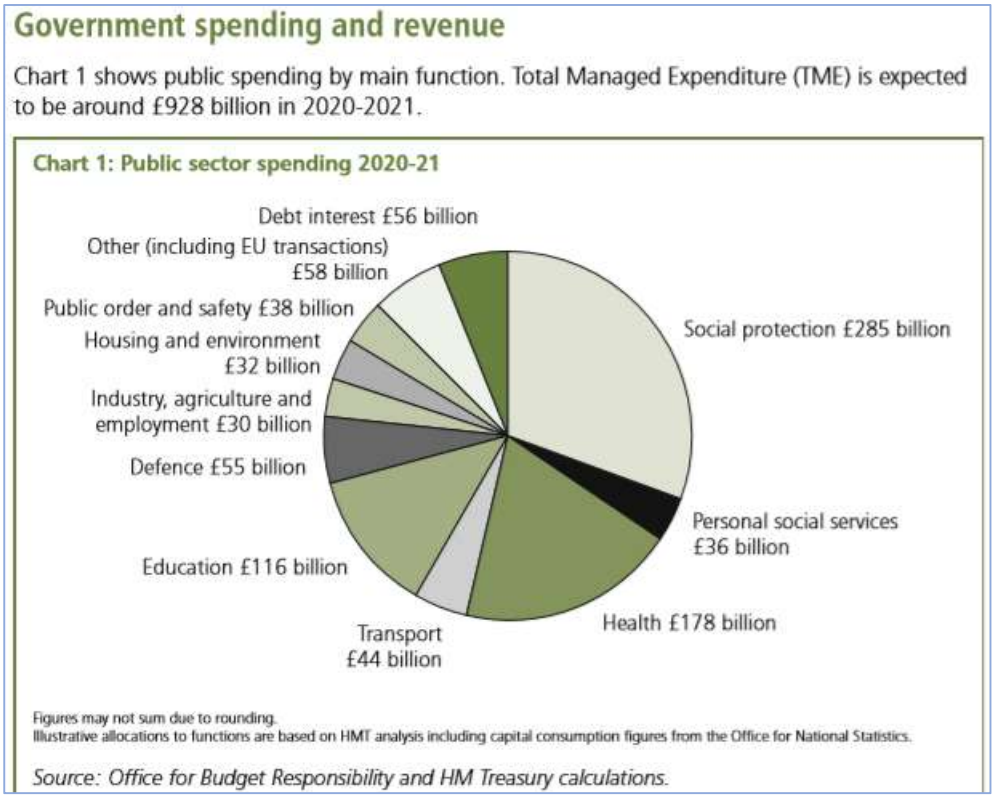
Powers regarding public gatherings and premises
Gives ministers the power to restrict or prohibit gatherings or events, and the power to close or restrict access to premises. The minister can only use this power if they have made an official declaration that the virus constitutes a "serious and imminent" threat to public health, and that using the powers would either help to control the transmission of the virus, or would facilitate the most appropriate deployment of medical/emergency resources.

The first two provisions could have a direct negative impact on the quality of health care provided to individuals through the crisis.

State of UK public finances

The shutdown and lockdowns largely implemented across countries has damaged the global and national economy. The damage to the economy could be so great that many people may not have jobs to go back to, paving the way for some sort of universal basic income scheme and people becoming more reliant on the state. This section provides a brief summary of the impact on the UK public finances.

To put things into context, around £178 billion is spent annually on the NHS and £36 billion on social care – taking annual spending to £214 billion. See the chart below:



https://www.gov.uk/government/publications/budget-2020-documents/budget-2020#budget-report

Budgeted public sector income is £873 billion for the same period. This means that planned borrowing (a budget deficit) is £55 billion in 2020/21 (£928 billion spending less £873 billion income).

Due to the impact of the lockdown measures put in place (and **NOT THE VIRUS**) the government's borrowing will go up to circa £322 billion this year- an extra £267 billion. Refer to page 8 of this presentation from the Office for Budget Responsibility:
https://obr.uk/docs/dlm_uploads/FSR2020_speaking_notes.pdf

£267 billion equates to 125% of annual spend on both the NHS and social care (or around 155% of annual spending on NHS alone).

Here are some statistics taken from here https://www.gov.uk/government/collections/hmrc-coronavirus-covid-19-statistics about changes in jobs and number of claims for income support.

- The use and cost of the furlough scheme is detailed in the following table and shows 9.6m jobs being furloughed at cost of just under **£35bn**. Look at how the number and value of claims has risen over time:

Coronavirus Job Retention Scheme management information

Total claims made as of midnight	Total number of jobs furloughed∂	Total number of employers furloughing‡	Total value of claims made
23 April†	3.8m	512,000	£4.5bn
3 May†	6.3m	800,000	£8.0bn
11 May	7.5m	935,000	£10.1bn
17 May	8m	986,000	£11.1bn
24 May	8.4m	1m	£15bn
31 May	8.7m	1.1m	£17.5bn
7 June	8.9m	1.1m	£19.6bn
14 June	9.1m	1.1m	£20.8bn
21 June	9.2m	1.1m	£22.9bn
28 June	9.3m	1.1m	£25.5bn
5 July	9.4m	1.1m	£27.4bn
12 July	9.4m	1.2m	£28.7bn
19 July	9.5m	1.2m	£29.8bn
26 July	9.5m	1.2m	£31.7bn
2 August	9.6m	1.2m	£33.8bn
9 August	9.6m	1.2m	£34.7bn

- And similar increases in the number of people claiming employment support. We now have 2.7m benefit claimants at a cost of just under **£8bn**.

Self-Employment Income Support Scheme management Information

Total claims made as of midnight	Total number of claims made	Total value of claims made
13 May	441,000	£1.3bn
14 May	1.1m	£3.1bn
17 May	2m	£6.1bn
24 May	2.3m	£6.8bn
31 May	2.5m	£7.2bn
7 June	2.6m	£7.5bn
14 June	2.6m	£7.6bn
21 June	2.6m	£7.6bn
28 June	2.6m	£7.7bn
5 July	2.7m	£7.7bn
12 July	2.7m	£7.8bn
19 July	2.7m	£7.8bn

Furloughing millions of people and forcing others on income support is costing billions of pounds. One could ask if the measures that resulted in people being furloughed and claiming income support were really necessary? Was isolating and quarantining the whole nation a proportionate response to the health risk posed?

The UK debt has exceeded £2 trillion for the first time; at the end of July 2020, debt was £2,004 billion, £227 billion more than at the same point last year. This equates to around £30,000 of debt for every person in the UK (population of 66.797 million).

Hundreds of billions of pounds are now being expended in dealing with the impact of the drastic measures put in place as opposed to dealing with the impact of Covid-19 itself. This is an important distinction to make - but is being blurred by various officials and the media. The science has always been clear on the use of non-pharmaceutical interventions in a pandemic, that there is weak evidence for them and the adverse impacts far outweigh any benefits. The evidence shown by the outcomes we are observing bears this out.

Further afield, the economies of most countries around the world have been severely impacted and poor countries are particularly affected as this article below explains. Many nations already at high levels of national debt are becoming much more indebted.

'52 countries facing debt crises' amid pandemic
https://www.publicfinancefocus.org/pfm-news/2020/08/52-countries-facing-debt-crises-amid-pandemic?utm_source=Adestra&utm_medium=email&utm_term=

'Poor countries' debt payments have reached their highest level since 2001, having grown by 115% in the past decade, new analysis has found.'

Whilst global and national economies have been drastically impacted, the wealth of some has increased significantly through the pandemic as this article explains.

The Net Worth Of America's 600-Plus Billionaires Has Increased By More Than $400 Billion During The Pandemic, May 21, 2020
https://www.forbes.com/sites/tommybeer/2020/05/21/the-net-worth-of-americas-600-plus-billionaires-has-increased-by-more-than-400-billion-during-the-pandemic/

America's billionaires saw their wealth increase by $434 billion during the course of the global pandemic, according to a new report, a staggering figure that coincided with upheaval to the global economy and more than 38 million Americans filing for unemployment.

CRITICAL QUOTE:
"While millions risk their lives and livelihoods as first responders and front line workers, these billionaires benefit from an economy and tax system that is wired to funnel wealth to the top," said Chuck Collins, director of the IPS Program on Inequality.

BIG NUMBER:
According to the report, the total net worth of America's billionaires rose 15% during the two months, from $2.9 trillion to $3.4 trillion.

WEALTH OF U.S. BILLIONAIRES GROWS $434 BILLION (15%) SINCE BEGINNING OF PANDEMIC
March 18 - May 19, 2020

Name	March 18 Net Worth ($ Billions)	May 19 Real Time Worth ($ Billions)	Wealth Growth in 2 Months ($ Billions)	% Growth in 2 Months	Source
Jeff Bezos	$113.0	$147.6	$34.6	30.6%	Amazon
Bill Gates	$98.0	$106.0	$8.0	8.2%	Microsoft
Mark Zuckerberg	$54.7	$80.0	$25.3	46.2%	Facebook
Warren Buffett	$67.5	$68.1	$0.6	0.8%	Berkshire Hathaway
Larry Ellison	$59.0	$66.0	$7.0	11.9%	Oracle
SUBTOTAL	**$392.2**	**$467.7**	**$75.5**	**19.2%**	
ALL OTHERS	**$2,555.3**	**$2,914.3**	**$359.0**	**14.0%**	
TOTAL	**$2,947.5**	**$3,381.9**	**$434.4**	**14.7%**	

Data and privacy issues

The NHS Test and Trace is a key part of the country's ongoing Covid-19 response and aims to detect people who have recently come into close contact with a new Covid-19 case, so that swift action can be taken to minimise transmission of the virus. It entails maintaining records of staff, customers and visitors, and sharing these with NHS Test and Trace where requested and raises privacy concerns.

The NHS states that records will only be asked for where it is necessary, for example, if a premise has been identified as the location of a potential COVID-19 outbreak; and all data will be handled according to the highest ethical and security standards to ensure it is used only for the purposes of protecting public health, including minimising the transmission of Covid-19. Details of the guidance can be found here: https://www.gov.uk/guidance/maintaining-records-of-staff-customers-and-visitors-to-support-nhs-test-and-trace

There have been many concerns raised about the system of Test and Trace itself and also about the collection of personal data. The following articles explore some of the privacy issues raised and how there is a risk that information could be used for purposes other than what it was collected for:

Fresh concerns over privacy and profit in NHS COVID data deals
https://www.opendemocracy.net/en/opendemocracyuk/fresh-concerns-over-privacy-and-profit-nhs-covid-data-deals/

Documents obtained by openDemocracy suggest the UK government has misled the public about how it is protecting the privacy of millions of NHS users in its major Covid-19 data deals – and about how the controversial tech firms involved stand to profit in the long term.

They have warned that NHS users could be re-identified from their health data, that the firms could profit from the intellectual property generated from the project (despite assurances to the contrary), and that contracts pave the way for unprecedented, long-term access to the NHS by unaccountable private firms.

Mass surveillance and the NHS contact tracing app
https://www.lag.org.uk/article/208260/mass-surveillance-and-the-nhs-contact-tracing-app

The idea that the majority of the population should voluntarily install an app onto their smartphone that potentially gives the government access to personal information about their health, is one that would have been met with incredulity only a few months ago. But that is exactly what we will be expected to do, if plans for the NHS app to allow for digital contact tracing materialise. What are people letting themselves in for?

Reports that, in China, coronavirus apps may be turned into 'permanent' health trackers, presage exactly the fears of the JCHR and others that, whatever the benefits of the NHS app (as yet unproven), its implementation, without the most rigorous human rights safeguards, risks the UK taking the next step towards the surveillance society.

Britain gave Palantir access to sensitive medical records of Covid-19 patients in £1 deal
https://www.cnbc.com/2020/06/08/palantir-nhs-covid-19-data.html

Britain's National Health Service has given secretive U.S. tech firm Palantir access to private personal data of millions of British citizens, according to a contract published online.

The NHS health records that Palantir has access to can include a patient's name, age, address, health conditions, treatments and medicines, allergies, tests, scans, X-Ray results, whether a patient smokes or drinks, and hospital admission and discharge information. Any data that may make patients personally identifiable are replaced with a pseudonym or aggregated before they're shared with Palantir.

Co-founded by billionaire Peter Thiel, an ally of President Donald Trump, Palantir has developed data trawling technology that intelligence agencies and governments use for surveillance and to spot suspicious patterns in public and private databases. Customers include the CIA, FBI, and the U.S. Army.

Data harvesting is a term that people may be familiar with in light of the Cambridge Analytica/ Facebook controversy. Cambridge Analytica was able to harvest data from Facebook and they were able to amass data on 87 million people and they were able to psychologically profile them based on their Facebook interactions.

There are ethics covering issues to a person's rights to privacy and a number of questions could be asked:

Who owns the data that is collected?
How can that data be used?
If data is collected, with someone's permission, for one purpose can it then be used for another?

The following article examines the test and trace programme in in light of the law. Initially the data collected from test and trace was to be held for 20 years, but this has now reduced to 8 years following concerns raised.

Coronavirus: England's test and trace programme 'breaks GDPR data law'
https://www.bbc.co.uk/news/technology-53466471

Privacy campaigners say England's test and trace programme has broken a key data protection law.

The Department of Health has conceded the initiative to trace contacts of people infected with Covid-19 was launched without carrying out an assessment of its impact on privacy.

The Open Rights Group (ORG) says the admission means the initiative has been unlawful since it began on 28 May.

The government said there is no evidence of data being used unlawfully.

The test and trace system involves people being asked to share sensitive personal information. This can include:

- their name, date of birth and postcode
- who they live with
- places they recently visited
- names and contact details of people they have recently been in close contact with, including sexual partners.

"In no way has [there] been a breach of any of the data that has been stored," said Education Secretary Gavin Williamson.

He told BBC Breakfast: "I think your viewers will understand that if we are to defeat this virus, we do need to have a test and trace system and we had to get that up and running at incredible speed.... Are you really advocating that we get rid of a test and trace system? I don't think you are."

ORG had threatened to go to court to force the government to conduct a data protection impact assessment (DPIA) - a requirement under the General Data Protection Regulation (GDPR) for projects that process personal data.

A letter from the Department of Health to the group confirmed that a DPIA was a legal requirement and had not been obtained.

ORG's executive director, Jim Killock, said the government had been "reckless" in ignoring this legally-required safety step and had endangered public health.

"A crucial element in the fight against the pandemic is mutual trust between the public and the government, which is undermined by their operating the programme without basic privacy safeguards," he added.

The government has told the ORG it is working with the Information Commissioner's Office to make sure that data is processed in accordance with the requirements of the law.

The ICO confirmed this and told the BBC it was providing guidance as "a critical friend".

But the regulator added that, while it recognised the urgency in rolling out the programme, if the public were to have confidence in handing over their data and that of their friends, "people need to understand how their data will be safeguarded and how it will be used".

The watchdog is already investigating the Test and Trace programme after the Sunday Times reported last week that some contact tracers had posted private patient data to WhatsApp and Facebook groups.

A Department of Health spokeswoman said: "NHS Test and Trace is committed to the highest ethical and data governance standards - collecting, using, and retaining data to fight the virus and save lives, while taking full account of all relevant legal obligations."

The ORG's complaint stems from work carried out on its behalf by Ravi Naik, a lawyer at the AWO data rights consultancy.

He said the legal requirements for data processing were more than just a tick-box exercise. "They ensure that risks are mitigated before processing occurs, to preserve the integrity of the system," he explained.

"Instead, we have a rushed-out system, seemingly compromised by unsafe processing practices."

Mr Naik added the ORG had already won a concession from the government. It had originally planned to keep data for 20 years but has now cut that to eight years.

Since the test and trace programme was launched, its 27,000 staff have contacted more than 155,000 people, who may have been infected with the virus, and asked them to go into isolation.

Here is a link to the privacy statement which sets out details of what personal information is collected and how it will be used and how long it will be retained.
https://contact-tracing.phe.gov.uk/help/privacy-notice

Digital immunity passports

We revisit the topic of immunity passport as it appears that this is actively being progressed in the UK. Here is an article that suggests that digital immunity passports could form part of the governments new plans to ramp up testing.
Digital immunity passports part of government's plans to ramp up testing
https://www.digitalhealth.net/2020/09/digital-immunity-passports-part-of-governments-plans-to-ramp-up-testing/

Digital immunity passports are to form part of the governments new plans to ramp up testing, a leaked memo has revealed.

The ambitious Operation Moonshot programme aims to carry out up to 10 million Covid-19 tests a day by early next year as part of a £100bn expansion of the testing programme, according to the BMJ.

Under the plans, digital immunity passports will be used to allow people who have tested negative for the virus to return to work, to travel and to take part in other activities.

Speaking after a government announcement that gatherings in England are to be restricted to six people as of 14 September, Prime Minister Boris Johnson said he wanted to eventually use testing to identify those who have tested negative to allow them to return to normal.

Digital immunity passports are a digital document detailing a person's test results proving they are not considered a risk in spreading the virus, for example someone who has tested

positive for Covid-19 antibodies and have therefore had the virus and are not thought to be likely to contract is again.

But, according to Privacy International, immunity passports are “dangerous” and risk excluding vulnerable groups and misuse of data, or mission creep.

The privacy charity said there is no scientific basis for digital immunity passports, adding: “The social risks of immunity passports are great: it serves as a route to discrimination and exclusion, particularly if the powers to view these passports falls on people’s employers, or the police”.

Evidence suggests police enforcing coronavirus rules are seven times more like to issue fines to black, Asian and minority ethnic people than white people.

But according to a post on the government’s Centre for Data Ethics and Innovation blog digital immunity passports could prove “valuable” in settings where there’s a high risk of transmission, such as sports venues and travel.

It acknowledges a risk to users privacy but adds there are “ways to mitigate these risks”.

Immunity certification should “guaranteeing that only the essential elements of a person’s identity are included”, the blog states, adding “there would also need to be clear guidelines about who should have access to the data stored on the certificate, so as to prevent undesirable data sharing between organisations”.

Digital immunity passports also heavily rely on reliable, large-scale antibody testing.

In April, the World Health Organisation warned against the use of passport schemes as “there is currently no evidence that people who have recovered from Covid-19 and have antibodies are protected from a second infection”.

Under Operation Moonshot the government plans to roll-out testing in workplaces, entertainment venues, football stadiums and at GP surgeries, pharmacies, schools, and other local sites to improve access, according to the BMJ.

But the costly plan was criticised as devoid of any contribution from scientists, clinicians, and public health and testing and screening experts,” and “disregarding the enormous problems with the existing testing and tracing programmes”.

Currently about 150,000 and 200,000 tests are completed each day, but testing capacity is reported at around 350,000. Reports have also surfaced of testing centres running out of tests.

The Department of Health and Social Care was contacted for comment.

Considering that lab testing (PCR and antibody tests) for the virus and the disease has been scientifically shown to be unfit for purpose, the £100 billion expansion of the programme could be considered wasteful and represent poor value for money.

Closing remarks

Fear, ignorance and apathy are powerful tools that can be used by some to take advantage of others and exert their will and ideas on people, communities, nations and the world. The remedy is to be informed and educated with facts and evidence, and use peaceful means to make people aware of these matters, particularly for those in authority, so that these matters can be considered and any concerns addressed at the highest levels.

The alternative is to accept the prevailing narrative and solutions being imposed on people, some of which lack credible scientific backing. Those who work in the NHS (1.78 million staff) and local government sector (2.01 million staff) are placed in a difficult position, being asked to implement measures developed by 'ghost writers' in central government and other agencies which could be subject to outside influences which at times could conflict with the interests of the public. Some of these measures could be at great odds with the knowledge and experience of professionals who work in these sectors, who simply want to get back to providing the quality care and support they are used to providing. The sincere and hard-working staff across the public sector could stand accused of being complicit in eroding and dismantling of freedoms and civil liberties, and unwittingly helping to implement measures that could adversely impact on the health and well-being of people.

The testing regime has been shown to be spurious, yet is being relied on by various bodies to closely monitor 'cases' and trigger restrictive measures if case numbers rise, thus impinging on people's freedoms and civil liberties, as well as perpetuating disruption to health services and delayed them being restored back to normal. The science is also clear on the use of non-pharmaceutical measures in pandemics which warn of significant adverse impacts when some of these measures are applied. There must be a distinction made between the impact on morbidity and mortality due to Covid-19 and the impact on morbidity and mortality due to the measures being applied in response to it. There is a risk of legal action being taken against authorities by people who may have suffered losses or harm, even though it was not the intention to cause harm.

Individuals and agencies leading the national response could be seen to have significant and clear conflicts of interest. In years to come when the many enquiries are complete, it could be found that some of the guidance and restrictive measures enforced in response to the crisis were lacking independent credible scientific evidence. Individuals will be judged according to the actions they took at the time. Will 'following orders' and 'following the guidance' be deemed an acceptable justification for the courses of action taken?

If we adopt a wholly 'top down' approach and implement what we are told by various officials and agencies without question, treating them as infallible, without exercising sufficient scrutiny, can we be sure that the interests of our communities are being served?

Staff working in the public sector have serious legal responsibilities and duties towards the wellbeing of their population. The new measures under the Coronavirus Act do not repeal those existing legal responsibilities and duties.

Appendix A: Steps for proving a new infectious disease

1. New Clinical Picture

We will assume we have a new disease called BE-19 which will be used to illustrate the steps needed to prove a new infectious disease.

If this disease occurred regularly in the past and affected large numbers of people across large geographical areas—such as whole counties, states or countries—then there would be no reason to look for a new disease. It is only when you are able to eliminate all known diseases from the list of possible diseases, that you consider a new disease.

When a disease has symptoms that **cannot be clinically distinguished** from those of known diseases such as flu, pneumonia, then there is no justification at this point for claiming a new, unknown disease. Such symptoms include a cough, fever, runny nose, loss of taste and smell, shortness of breath and so on. There are no unique symptoms here, and all of these symptoms have known causes among known diseases.

In the case of the new disease "Covid-19", the first patients in China were claimed to have shown "**atypical pneumonia**" of "unknown cause". However, "atypical pneumonia" has a wide range of known causes.

There are several and wide spectra of non-infectious causes of atypical pneumonia. These causes make atypical pneumonia more fatal than typical pneumonia for several reasons.

—Among the causes are the inhalation of **toxic fumes, solvents and substances**.

—Also the penetration of food, drinks or stomach contents, which enter the lungs in case of swallowing disorders or unconsciousness, can cause severe pneumonia (**aspiration pneumonia**). Water alone is sufficient if it enters the lungs of drowning persons to cause severe atypical pneumonia.

—A further cause is the recognized spectrum of **immunological malfunctions**, such as allergies and autoimmune reactions. It is also known that **radiation** triggers an inflammation of the lungs in cancer, which cannot be distinguished from typical pneumonia.

—**Congestive pneumonia** is particularly well known in older people. They develop it due to water retention (edema), prolonged bed rest, heart and/or kidney weakness, which can lead to inadequate ventilation and blood circulation in the lungs and, as a direct consequence, to inflammation of the lungs, i.e. atypical pneumonia.

To avoid investigation of all of these possible causes, with the prior knowledge that there is already a high incidence rate of pneumonia in China due to heavy industrial pollution, and to immediately point to a potential new virus as a cause could be regarded as premature.

2. Medical History Examination

The second step is that in this previously unknown disease, BE-19, we have to do a detailed medical history examination of the cases of this disease to see what factors may have caused the disease and whether we can see a pattern in all of the cases of the disease.

Things to look for are:

—**age group**

—drinking from the same **water supply**

—buying or consuming **food** from the same source(s)

—having been in the same **physical location**

—**pollution**, **toxicity, radiation**

—**ethnicity**, **obesity**, **existing illnesses** and so on

—**prescribed medication**

Basically, one looks for obvious causes first. Only when obvious causes are eliminated, then a pathogen, a disease causing microbe or virus, is suspected. If we find that BE-19 is affecting a particular group and the vast majority of deaths lie within that group—such as the over 80s, or those with underlying conditions—then that indicates something about the severity and danger of the disease to the population in general. If it only seems to be affecting the weak, immunocompromised, chronically ill and those already in their final stages of life, then it cannot be a serious or dangerous disease as it relates to the population in general. It is only so to the vulnerable.

3. Optical Identification of the Pathogen

If nothing stands out from the medical history examination of all patients, then a pathogen must be identified optically, which means through an electron microscope from samples from the patients. Even this is like looking for a needle in a very large haystack because there are so many types, sizes and shapes of pathogens. But let us say that we do find something unique in the electron microscope samples from each BE-19 patient, and it has a peculiar shape, and we assume it to be a virus. This means that we have made an optical identification of the suspected “pathogen” and can proceed further into the investigation.

4. Isolation and High Purification

Once optical identification has been made, **a highly purified sample** must be obtained. This is known as “isolation”, however this word, when used in scientific literature and in virology studies does not mean what we are describing here. We are speaking here in the context of scientifically sound procedures and principles.

In order to claim that a microbe or virus is the cause of a disease, **a highly-purified** sample of **the whole, intact pathogen** must be obtained so that it can be fully and accurately characterised. This would be achieved by filtration and ultracentrifugation so that the virus is **completely isolated** from all other particles and contaminants. Then, this sample must be viewed under the electron microscope **so that we have only this virus, tightly-packed, with nothing else present**.

This is never done with viruses because "isolation" means something completely different to what we have described above. In fact, in standard textbooks of virology, it is clearly stated that viruses cannot be detected directly. This means that viruses are never purified whole and intact, in complete isolation from everything else. Media and science reporting can be sloppy and present the idea to the lay public that a virus has been "isolated", leaving them to assume that the apparent meaning of the word "isolation" is intended.

As is explicitly stated in textbooks of virology. "**Viruses occur universally, but they can only be detected indirectly**." *Introduction to Modern Virology*. Dimmock, Easton and Leppard, 6th edition (Blackwell Publishing, 2007), p. 3. When samples are taken from the nose, throat or lungs of people, *it is never a whole virus which is being detected*, but very small fragments of genetic material. The true origin of this material is never known, however it is ascribed to a virus. No intact, whole virus is ever detected at any stage, let alone *purified* in the proper sense of the word. Only indirect methods are being used for detection. To give an analogy, imagine there is a man in a stadium of thousands of people. This man has a wallet in his jacket. There is also a ten pound note in his wallet. So your "marker" for detecting the man is the ten-pound note. If, after sweeping the stadium grounds, you find a ten pound note among many other things, that specific man has allegedly been "detected". However, this is non-specific and you have not detected or isolated any man at all. You only found a piece of paper that could have come from so many people.

Since viruses, unlike bacteria, cannot be directly detected, indirect methods such as **RT-PCR** and **antibody tests** are used. In the RT-PCR method, a sample from a throat or nose swab is taken. It contains many tiny genetic fragments whose origin is not known. These fragments are common in people and can be found in mucosal linings during certain time-periods among a percentage of the population, similar to how bacteria such as streptococcus resides in the throats of people and likewise staphylococcus on the skin, but without any symptoms of illness. This **RT-PCR** method replicates and amplifies the RNA or DNA genetic materials found in the sample, doubling the number of strands in each cycle, until after around 30 or so cycles, billions of copies are produced, enough for optical detection.

The inventor of this technique and Nobel prize winner, **Kary Mullis** (d. 2019) stated that this technique cannot be used to identify viruses nor for clinical diagnosis of disease. This means that its use in claiming a "novel" virus, and creating "cases" or "infected persons" or "asymptomatic carriers" is questionable and it is not fit for purpose. Zero evidence is provided that the RNA sequence is actually part of a foreign pathogenic virus as opposed to being endogenously produced by the body.

The other method is the antibody test. This is also highly dubious. It only tests for presence of antibodies, not the virus itself, and these antibodies are not unique for the specific virus

in question. This test will show “cross-reactivity” for other viruses, meaning that it is non-specific and will test positive due to the presence of other biological materials in samples. In simple terms, if you had a common cold, the antibody test will be positive. In reality, this means that such tests are just for the typical common cold coronaviruses.

The above shows how these two tests can be misued to generate false epidemics: Manufacture these tests in the tens of millions, send them to nations, roll out large-scale testing of the population, and there will always be a large resevoir of positive tests. The manufacturers of the tests can use primers in the RT-PCR tests to ensure common genetic sequences are identified in order ensure a constant supply of “positive cases”. Then from the resevoir of positive cases, you will have the **symptomatic** and the **asymptomatic**. The symptomatic are those who happen to be ill due to seasonal or other patterns of illness, such as common colds, flus and pneumonia. The symptoms can then be tied to the positive test without any evidence. Likewise, those who die, their deaths can be ascribed to the virus alleged to have been detected by these tests.

5. Identification and Characterisation

Once **a pure culture** of the suspected pathogen has been acquired, then its properties can be determined:

—what the outer shell consists of

—what proteins are on the shell

—what genetic material is inside the shell

It is only **proper isolation and purification** that allows accurate characterisation of the pathogen, to ensure that everything has indeed come from this pathogen and from it alone. If there are any contaminants, any residual genetic material not from the virus, then this will mean that it has been characterised wrongly, with the wrong sequence and the wrong properties. Here, all subsequent claims about this alleged virus and disease causation collapse and are invalid from a scientific point of view.

6. Calibration of Laboratory Testing

If we assume that **steps 4 and 5** have been **successfully performed**, and we have a cleanly isolated virus whose features have been determined, the next step is to **develop a test and calibrate** it so that the unique features of this pathogenic virus respond to it. This step ensures **a reliable measuring device** for the novel disease BE-19.

The value of this step critically depends on steps 4 and 5. If these steps have not been performed, all subsequent tests such as the RT-PCR test and antibody tests are invalid and their use for the categorisation of people and placing restrictions upon them are scientifically unsound.

One should note that even if an RT-PCR test is developed on the basis of a particular sequence of genetic material in the isolated, purified, whole, intact, clean virus, it still cannot be used for diagnostic purposes, for the reason that it cannot be established that this virus is the definite cause of disease. Other bacterial or viral pathogens could also have been the cause, within the germ theory model. This is acknowledged by the FDA and test manufacturers as has been cited earlier.

Hence, assuming we have an accurate test, there is still the issue of whether this pathogenic virus is giving the clinical picture in our new disease, BE-19, and this has to be verified in additional steps, through so many other tests. So as you can see, this is no simple matter, and it becomes clear that when it comes to disease and its causes, we are in the realm of presumption and conjecture rather than scientific accuracy and firm knowledge.

In this stage, we will have calibrated a test so that future steps involving **Koch's postulates** can be performed to verify that this isolated pathogen was indeed the cause of disease.

Dangers of testing and potential for decaring false epidemics
Given that the genetic material detected may not even be from an alleged virus and given that the test cannot prove whether the virus is the actual cause of disease, then this means that there is a danger that testing could lead to false epidemics being declared.

7. Fulfilling Koch's First Postulate

Koch's postulates describe a cause-effect relationship between the pathogen and the corresponding disease. To designate a microbe or virus as a pathogen, these are common sense postulates and must be fulfilled before any claim of causation and infectiousness can be made.[1]

The first postulate demands that the supposed pathogen is found only in the sick and never—or if we want to be generous, rarely—in the healthy. If this postulate is fulfilled, then there is a clear connection between pathogen and disease, however at this stage it has not been proven to be a causal connection. This is because it could be the case that the alleged pathogen is the consequence of a disease state and not the cause of it. Its presence can be confused with causation, similar to how an ambulance present at the scene of an accident is wrongly considered to have been the cause of the accident.
If the alleged pathogen is found in many healthy people who do not manifest the disease, then the connection becomes unclear and dubious. It becomes clear thereby that there are other factors at play and that the alleged pathogen cannot be the true, primary cause.

[1] They can be summarised as follows:
1. The microorganism must be found in abundance in all organisms suffering from the disease, but should not be found in healthy organisms.
2. The microorganism must be isolated from a diseased organism and grown in pure culture.
3. The cultured microorganism should cause disease when introduced into a healthy organism.
4. The microorganism must be re-isolated from the inoculated, diseased experimental host and identified as being identical to the original specific causative agent.

8. The Second Postulate

In the second postulate, the isolated, purified pathogen must be able to multiply so it can be used in further studies. As this is difficult to do in the human body, it is grown in **cell culture**. In this step it must also be proven that the end product from the culture is the very same as the starting product, a 100% match should be found.

This is determined by the testing procedure in **step 6** (calibration) which absolutely requires **step 4** (high purification) and **step 5** (characterisation) for it to be valid.
Remember, in the absence of these two steps, 4 and 5, everything collapses. To proceed without them is not real science, but pseudoscience.

9. The Third Postulate

In the third postulate, the pathogen is then administered to **healthy test subjects** through the **assumed natural transmission path**, which would be the mouth, nose and eyes. The same illness found in the patient from whom the sample was derived, with the same symptoms, must be triggered by the alleged pathogen. An essential part of this step is **the use of controls**. There must be other healthy test subjects who are administered a harmless placebo. The researchers themselves must not know what is being administered to whom so that there can be no researcher influence on the outcome of the experiments. If no control group is used, then this creates a high risk of manipulation by the researchers.
As for the claim that in such experiments there could be other factors which may lead to people becoming ill or not becoming ill—because of the time delay between being exposed to the alleged "pathogen" and the disease—and hence, it is difficult to ascertain these postulates because of the ambiguity, then the same can be said for real life.

False Experiments
If a disease is claimed to be infectious through normal routine contact, then the experiment must aim to reproduce those same conditions. Hence, the whole, intact, clean pathogen must be delivered through the nose, mouth and eyes, as would typically happen in a real life scenario. However, even this mode of delivery is being **very generous** because in normal, routine human contact, it does not happen like this. As for injection of the pathogen directly into the tissue, then this is not a truthful, nor accurate representation of what takes place in real life. Trying to induce disease in this way is not reflective of the real life conditions through which the disease is claimed to spread in a population.

Genuine Experiments
Genuine experiments are those which reproduce real life conditions and circumstances as closely as possible, and in which surrogate markers, or indirect methods of detection are all eliminated. As you deviate from this in experiments, you allow greater levels of manipulation, error or even deception to be entered into the experiments and you are no longer dealing with actual reality. One should note that experiments to test if influenza is contagious have already been conducted by the US Navy in the early 20th century and the reality that influenza cannot be contagious because of the way it appears **rapidly, over large geographical regions, on a seasonal basis**, has already been known for around two centuries at least.

The State of Science, Microbiology, and Vaccines Circa 1918[2] John M. Eyler, PhD. Program in the History of Medicine, University of Minnesota, Minneapolis, MN.
Public Health Reports, 2010 Supplement 3 / Volume 125

"Perhaps the most interesting epidemiological studies conducted during the 1918–1919 pandemic were the human experiments conducted by the Public Health Service and the U.S. Navy under the supervision of Milton Rosenau on Gallops Island, the quarantine station in Boston Harbor, and on Angel Island, its counterpart in San Francisco.

The experiment began with 100 volunteers from the Navy who had no history of influenza. Rosenau was the first to report on the experiments conducted at Gallops Island in November and December 1918. His first volunteers received first one strain and then several strains of Pfeiffer's bacillus by spray and swab into their noses and throats and then into their eyes. When that procedure failed to produce disease, others were inoculated with mixtures of other organisms isolated from the throats and noses of influenza patients. Next, some volunteers received injections of blood from influenza patients.

Finally, 13 of the volunteers were taken into an influenza ward and exposed to 10 influenza patients each. Each volunteer was to shake hands with each patient, to talk with him at close range, and to permit him to cough directly into his face. None of the volunteers in these experiments developed influenza. Rosenau was clearly puzzled, and he cautioned against drawing conclusions from negative results.

He ended his article in JAMA with a telling acknowledgement: "We entered the outbreak with a notion that we knew the cause of the disease, and were quite sure we knew how it was transmitted from person to person. Perhaps, if we have learned anything, it is that we are not quite sure what we know about the disease." The research conducted at Angel Island and that continued in early 1919 in Boston broadened this research by inoculating with the Mathers streptococcus and by including a search for filter-passing agents, but it produced similar negative results. It seemed that what was acknowledged to be one of the most contagious of communicable diseases could not be transferred under experimental conditions."

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[2] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2862332/

10. The Fourth Postulate

The microorganism or virus alleged to cause the disease must now be **re-isolated, in purified form**, from the diseased experimental host and identified as being identical to the original causative agent that was purified, cultured and characterised between **steps 4** and **5**.

This means that **steps 3 to 5** are repeated and the test from **step 6** is used to check if the isolated, purified virus is identical to the one that was administered.

The fulfilment of all of the above ten steps must be documented and made public for other researchers, so that they can understand the steps and experiments in a clear manner. If these researchers are able to reproduce these results, there is confirmation. The hypothesis, that the virus is the cause of disease and is infectious will then have been confirmed.

No Virus Has Ever Been Truly Isolated

From the above, the reader will now have understood the true scientific procedure through which claims of a novel virus causing a novel disease can be evaluated.
This has never been done for any alleged virus, ever.

Next, we present some reporting on a German court case that relates to this topic of viruses, isolation and purification and the implications this has on the understanding of disease, and therefore, the impact upon certain industries.

The Elusive Measles Virus

This is a report covering the court case that was concluded in 2017 between a German biologist and the top virologists in the country.

MEASLES VIRUS PUT TO THE TEST
DR. STEFAN LANKA WINS IN COURT
Dr. Lanka meets the press

Since the early 1990s, German biologist Dr. Stefan Lanka has been at the forefront of challenging the medical theory stating that viruses are the cause of infectious diseases such as hepatitis, AIDS, the flu, polio, herpes, or measles.

Caroline Markolin has presented Dr. Lanka's activities in her lecture video "Virus Mania" in great details...

Based on his studies in virology, Dr. Lanka discovered that viruses are vital components of simple life-forms that do not exist in complex organisms such as humans, animals, or plants. His research shows that the viruses believed to cause "viral infections" are in reality ordinary cell particles that have been misinterpreted as constituents of the viruses in

question. Dr. Lanka also determined that viruses don't have a destructive effect on the host, as commonly believed.

These findings are in full accordance with the discoveries of Dr. Ryke Geerd Hamer who demonstrated already in the 1980s that contrary to the standard theory, microbes do not harm the organism but play instead a supportive role during the healing process of diseases (see Fourth Biological Law of the New Medicine).

The "measles virus trial" between Dr. Stefan Lanka and German medical doctor David Bardens has by now received international attention (see the 2015 reports in CTV News Canada and BBC News). The court case has not only heated up the ongoing "virus debate". It also fuelled the discussion about the justification of childhood vaccination and of vaccination in general. Here is a brief overview of the court proceedings:

On November 24, 2011, Dr. Lanka announced on his website that he would offer a prize of € 100,000 to anyone who could prove the existence of the measles virus. The announcement read as follows: "The reward will be paid, if a scientific publication is presented, in which the existence of the measles virus is not only asserted, but also proven and in which, among other things, the diameter of the measles virus is determined."

In January 2012, Dr. David Bardens took Dr. Lanka up on his pledge. He offered six papers on the subject and asked Dr. Lanka to transfer the € 100,000 to his bank account.

The six publications are:

1. Enders JF, Peebles TC. Propagation in tissue cultures of cytopathogenic agents from patients with measles. Proc Soc Exp Biol Med. 1954 Jun;86(2):277–286.
2. Bech V, Magnus Pv. Studies on measles virus in monkey kidney tissue cultures. Acta Pathol Microbiol Scand. 1959; 42(1): 75–85
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5. Lund GA, Tyrell, DL, Bradley RD, Scraba DG. The molecular length of measles virus RNA and the structural organization of measles nucleocapsids. J Gen Virol. 1984 Sep;65 (Pt 9):1535– 42.
6. Daikoku E, Morita C, Kohno T, Sano K. Analysis of Morphology and Infectivity of Measles Virus Particles. Bulletin of the Osaka Medical College. 2007; 53(2): 107–14.

Dr. Lanka refused to pay the money since in his opinion these publications did not provide adequate evidence. Subsequently, Dr. Bardens took Dr. Lanka to court.

On March 12, 2015, the District Court Ravensburg in southern Germany ruled that the criteria of the advertisement had been fulfilled ordering Dr. Lanka to pay up. Dr. Lanka appealed the ruling. **On February 16, 2016, the Higher Regional Court of Stuttgart (OLG) re-evaluated the first ruling, judging that Dr. Bardens did not meet the criteria since he failed to provide proof for the existence of the measles virus presented in one publication, as**

asked by Dr. Lanka in his announcement. Therefore, Dr. Lanka does not have to pay the prize money.

On January 16, 2017, the First Civil Senate of the German Federal Court of Justice (BGH) confirmed the ruling of the OLG Stuttgart.

Critics of the judicial verdict argue that Dr. Lanka's victory is solely based on how he had formulated the offer of reward, namely to pay the € 100,000 for the presentation of a single publication of evidence (which Dr. Bardens was unable to provide). This argument, however, distracts the attention from the essential points.

According to the minutes of the court proceedings (page 7/ first paragraph), Andreas Podbielski, head of the Department of Medical Microbiology, Virology and Hygiene at the University Hospital in Rostock, who was one of the appointed experts at the trial, stated that even though the existence of the measles virus could be concluded from the summary of the six papers submitted by Dr. Bardens, **none of the authors had conducted any controlled experiments in accordance with internationally defined rules and principles of good scientific practice** (see also the method of "indirect evidence"). Professor Podbielski considers this lack of control experiments explicitly as a "methodological weakness" of these publications, which are after all the relevant studies on the subject (there are no other publications trying to attempt to prove the existence of the "measles virus"). **Thus, at this point, a publication about the existence of the measles virus that stands the test of good science has yet to be delivered**.

Furthermore, at the trial it was noted that contrary to its legal remit as per § 4 Infection Protection Act (IfSG) the Robert Koch Institute (RKI), the highest German authority in the field of infectious diseases, has failed to perform tests for the alleged measles virus and to publish these. The RKI claims that it made internal studies on the measles virus, however, refuses to hand over or publish the results.

Dr. Lanka: "With the Supreme Court judgment in the measles virus trial any national and international statements on the alleged measles virus, the infectivity of measles, and on the benefit and safety of vaccination against measles, **are since then of no scientific character and have thus been deprived of their legal basis**."

Pseudoscience Illustrated

There is no end to what can be cited in this regard. Here is a typical illustration of how various terms can be used in "scientific" reporting of experiments in ways that do not reflect their commonly understood meanings. An example of that being "isolation".

Joeng Min-Kim et. al. **Identification of Coronavirus Isolated from a Patient in Korea with COVID-19**. *Osong Public Health and Research Perspectives 2020;11(1):3-7. February 19, 2020*

3. Virus isolation
The virus was isolated from nasopharyngeal and oropharyngeal samples from putative COVID-19 patients. Oropharyngeal samples were diluted with viral transfer medium containing nasopharyngeal swabs and antibiotics (Nystadin, penicillin-streptomycin 1:1 dilution) at 1:4 ratio and incubated for 1 hour at 4°C, before being inoculated onto Vero cells. Inoculated Vero cells were cultured at 37°C, 5% CO2 in 1×Dulbecco's modified Eagle's medium (DMEM) supplemented with 2% fetal bovine serum and penicillin-streptomycin. Virus replication and isolation were confirmed through cytopathic effects, gene detection, and electron microscopy. Viral culture of SARS-CoV-2 was conducted in a biosafety Level-3 facility according to laboratory biosafety guidelines of Korea Centers for Disease Control and Prevention.
https://www.researchgate.net/publication/339414588_Identification_of_Coronavirus_Isolated_from_a_Patient_in_Korea_with_COVID-19

The above can be summarised as follows:

1. First samples are taken from nose, mouth and throat from **putative** COVID-19 patients, meaning suspected, but not proven to be.
2. Next these samples are diluted with **a transfer medium** which is not explained and **antibiotics** are added, Nystadin and penicillin-streptomycin. Keep in mind that antibiotics are toxic to cells as well as bacteria.
3. These samples are then placed into Vero cells, which are **African green monkey epithelial kidney cells**, meaning from the outer layer of the kidney.
4. Then this whole concoction is placed into what is known as **DMEM**, which is basically a soup, a culture medium which provides nutrients for mammalian cell growth.
5. To this, **bovine serum** and more **antibiotics** are added, penicillin-streptomycin.
6. Then this whole concoction is observed over some days to see if there are any "**cytopathic effects**". Meaning damage to the kidney epithelial cells, and this is done by visually observing under a microscope.
7. If there are cytopathic effects, this is then described by the researchers: "Virus replication and isolation **were confirmed** through cytopathic effects", and then they go on to do some gene sequencing.
8. All of this is treated as having "isolated" the virus, having shown that it causes disease (cytopathic effect) and that it was identified under an electron microscope.

What has been described is the standard, typical procedure, and it has severe flaws.

i. No true isolation or high-purification of the alleged virus is done at all. This would be **step 4** in what has preceded earlier. Further, since this has never been done in history, for any virus, then gene sequencing and the use of tests such as PCR are useless because it is not clear at all what has actually been sequenced and patched together to give an alleged genomic sequence that is then said to be an “adenovirus”, or a “coronavirus” or a “rhinovirus”. Since no purification has been made, then exactly what is producing the cytopathic effects remains unestablished.

ii. We can see that antibiotics are added in numerous stages. Antibiotics put stress and toxicity upon cells, and the cells then in turn will release RNA containing microvesicles. This means that what the researchers are looking for in the sample has actually been generated by the cells because of induced stress and toxicity through the addition of antibiotics by the researchers.

iii. When the researchers look for “cytopathic effects”, this means they are looking for structural changes where the kidney epithelial cells look damaged. This observation acts as a surrogate marker, a replacement for the disease in a real, living human being. In other words, what is taking place in this experiment is somehow deemed to be reflective of an actual disease state in a person, assumed to be caused by the alleged virus from the sample. One cannot treat these cytopathic effects on monkey kidney cells bathed with antibiotics in culture in a laboratory as being reflective of disease in a living person.

iv. Keep in mind this is a completely artificial environment in the lab in which antibiotics have been added. Sometimes enzymes such as trypsin are also added, which break down proteins, and hence, you have many confounding factors. This means that the true cause of the cytopathic effect upon the cells is not known, it could be researcher induced, by the very procedure itself.

v. In the context of the previous point, there is no control being used whereby the experiment is duplicated at the same time with a placebo solution to see if the same cytopathic effects are observed **without** a nose, mouth and throat sample. This will reveal that the effect is being produced by the experimental procedure, not the sample which is alleged to contain the disease causing virus.