There are two key questions to address, in order to avoid unethical and gross miscarriages of justice in the matter of adhering to Lockdown (NPI)<sup>1</sup> policies:

- A. Does the evidence *supporting* a transmission benefit of Lockdown policies *substantially outweigh* the evidence *disproving* a substantial benefit of Lockdown?
- B. If the outcome of A above comes out *in favour of* significant Lockdown benefits in reducing transmission then is the evidence balance *so in favour of Lockdown benefit*, that it would be legally ethical to convict someone for not following the Lockdown policy?

# **QUESTION A - BALANCE OF EVIDENCE ANALYSIS**

For the pivotal question A above, we need to carefully consider the "Asymmetry of Proof" as outlined by Professor Karl Popper. Popper's Falsification Principle, accepted in the scientific community for decades, is a way of demarcating science from non-science. For a theory or proposal to be considered scientific, it must be able to be tested and conceivably proven false. For example, the hypothesis that "all swans are white," can be falsified by observing a black swan. **For Popper, science should attempt to disprove a theory, rather than attempt to continually support theoretical hypotheses.** 

A direct quote from Popper: "My proposal is based upon an asymmetry between verifiability and falsifiability; an asymmetry which results from the logical form of universal statements. For these are never derivable from singular statements, but can be contradicted by singular statements.<sup>2</sup>

In short, any evidence *contradicting* a theory is vastly more powerful than even a large set of evidence apparently *supporting* a theory. The power of a *contradictory* piece of evidence reigns supreme, in the arena of scientific proof. That is why professional problem-solvers always focus on finding evidence which *disproves* a theory, in order to more rapidly arrive at a correct theory – this is pivotal.

In keeping with the scientific method, we will first focus on the evidence **against** Lockdown effectiveness in improving outcomes of importance and scientific dependability (e.g. mortality). We will start with published scientific analyses and papers which clearly contradict the effectiveness of Lockdown policy. We will use the most dependable outcome (mortality), but keep in mind that this acts as a proxy for "health system overloading" and other similar theoretical outcomes. Sweden specifically proved the latter point, achieving a relatively light ICU loading in spite of deploying no Lockdown, no masks, and no closing of schools for children under 16. The light ICU loading experienced was in fact entirely commensurate with their achievement of having one of the very lowest excess mortalities in the whole of Europe, throughout the pandemic period. This is a crucial point, well documented even in the legacy media.<sup>3</sup> Note that Sweden also have a *very aged demographic* in Europe - making them an excellent exemplar of the reality, and a devastating block of evidence against Lockdown effectiveness (more detail later in this document).

#### EVIDENCE AGAINST THE "LOCKDOWN IS EFFECTIVE" THEORY:

 In May 2020, very early on in the Lockdown deployment, the first published analysis refuted the Lockdown effectiveness theory. A summary of the findings here: "Comparing the trajectory of the epidemic before and after the lockdown, we find no evidence of any discontinuity in the growth rate, doubling time, and reproduction number trends. Extrapolating pre-lockdown growth rate trends, we provide estimates of the death toll in the absence of any lockdown policies, and show that these strategies might not have saved any life in western Europe. We also show that neighbouring countries applying less restrictive social distancing measures (as opposed to police-enforced home containment) experience a very similar time evolution of the epidemic."<sup>4</sup>

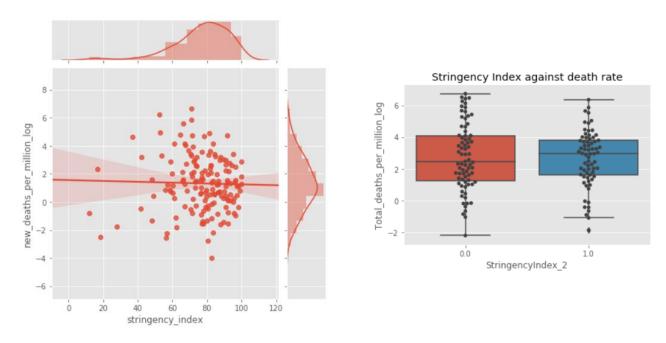
- Similarly early on in following the Lockdown deployment, in July 2020 another detailed study from The Lancet essentially verified the Wood's Hole Institute paper's findings – the key finding follows: "Rapid border closures, full lockdowns, and wide-spread testing were not associated with COVID-19 mortality per million people."<sup>5</sup>
- 3. In June 2020, the first version came out in Nature of an analysis from Prof Stefan Homberg et al<sup>6</sup>. A further publication in December 2020 copper-fastened Homburg's analysis.<sup>7</sup> It was an excellent illustration of the flawed nature of published papers which strove to attribute a meaningful benefit to Lockdown policies. The offending paper being addressed was one which achieved massive circulation, and came from the stable of Neil Ferguson and others the very people who had a powerful bias to defend the Lockdown policies which they had driven remorselessly.<sup>8</sup> The salient conclusions are reproduced here: "the [infection rate curve] does not show the slightest break in mid-April. Hitherto, the growth factor had already declined from 1.54 to 0.97, and thereafter it continued its slowdown. Contrary to the findings of Flaxman et al., Fig. 2 strongly suggests that the UK lockdown was both superfluous (it did not prevent an otherwise explosive behaviour of the spread of the coronavirus) and ineffective (it did not slow 64 down the death growth rate visibly)."

In addition: "We have checked that the growth factors in the remaining 10 countries considered by Flaxman et al. show 72 a similar pattern."

Finally, and pivotally as we will be addressing the Sweden evidence shortly: "Our final remark regards Sweden, the only country in the dataset that refrained from strong measures, but has lower corona deaths per capita than Belgium, Italy, Spain, or the United Kingdom. In the absence of a lockdown, but with an effective reproduction number that declined in the usual fashion, attribute the sudden decline in Sweden's R(t) on March 27 almost entirely to banning of public events [above 50 people], i.e., to a NPI that they found ineffective in all other countries. This inconsistency underlines our contention that the results of Flaxman et al. are artefacts of an inappropriate model."

In short, the Homberg et al analysis, and associated follow-up paper from Gustafsson et al are extremely important as they illustrate how the (relatively few) available analyses which support the "Lockdown is effective" theory...*are themselves highly flawed in their methodology and conclusions.*  4. In July 2020, the South African PanData group released another analysis showing what was becoming clearly apparent across the world (albeit not covered by mainstream/legacy media).<sup>9</sup> The analysis of data from their report had the same conclusion as many other analyses of Lockdown effectiveness, before and after: *"We demonstrated that each of them [age, hygiene and comorbidity] had some or other significant explanatory power in terms of the response variable, the logarithm of cumulative deaths per million...we then examined lockdown stringency and WHO healthcare rankings, finding no relevance."* 

A sample of illustrative plots below, as always showing no relation between Lockdown stringency and outcomes:



- 5. One of the world's most celebrated epidemiologists, and most cited scientists, Prof John P. Ioannidis published an analysis in August 2020 which clearly refuted the Lockdown effectiveness theory.<sup>10</sup> The conclusion: "Inferences on effects of NPIs are non-robust and highly sensitive to model specification. In the SIR modelling framework, the impacts of lockdown are uncertain and highly model-dependent"
- 6. A further analysis emerged in March 2021, with the benefit of hindsight and large amounts of key data fully available.<sup>11</sup> It was from economist Christian Bjørnskov of Aarhus University, Stockholm. Yet again the conclusion was clear, summarised here from the analysis paper: "Using two indices from the Blavatnik Centre's COVID-19 policy measures and comparing weekly mortality rates from 24 European countries in the first halves of 2017–2020, addressing policy endogeneity in two different ways, and taking timing into account, I find no clear association between lockdown policies and mortality development."
- An insightful analysis was published in March 2021, carried out by Maria Krylova for C2C Journal.<sup>12</sup> Conclusions from an extensive multi-factor analysis of several key US states revealed the following:

"The stay-at-home orders, which varied greatly in intensity and duration (and, anecdotally, in enforcement severity) seem to have made no observable tangible impact on the daily Covid-

19 cases and deaths. Further, the most severe restrictions, such as a prolonged lockdown and night-time curfew implemented in California in November, did not prevent the subsequent December-January spike in cases or fatalities."

"Following imposition of statewide mask mandates, there was no observable change in the daily infections or deaths in Minnesota, California or Wisconsin, nor in Florida, which never imposed this regulation statewide."

"Given the great hopes placed in lockdowns, and the lavish claims as to their benefits, one should expect the more restrictive states to have achieved decisively better performance by nearly any Covid-19-related metric – not the ambiguous, marginal, contradictory or even inferior results shown in this analysis."

It will be noted that the author allows for a potential benefit from basic, traditional hygiene and other precautions – but clearly calls out that the strong differences in Lockdown-type measures made no difference. Key here is that the author is not *denying* any benefit from basic measures taken voluntarily – but equally there is no evidence available that even demonstrates those benefits.

8. In April 2021 Professor of Statistics Simon Wood (University of Edinburgh) published an article in The Spectator.<sup>13</sup> This illustrates in more layperson-like tone the outcomes from his academic papers on Lockdown effectiveness – it is an excellent read for anyone interested in quality evidence. The data from two full UK waves was now in, and the conclusions were clear:

"Taken together these results imply that the pronouncement that 20,000 lives would have been saved by an earlier first lockdown is wrong. In fact, it is probably an answer to the wrong question. The more interesting question remains whether lockdown was necessary at all, or whether the earlier measures might have been sufficient."

9. In early 2022 a comprehensive analysis was undertaken by John's Hopkins.<sup>14</sup> The primary conclusion: "While this meta-analysis concludes that lockdowns have had little to no public health effects, they have imposed enormous economic and social costs where they have been adopted. In consequence, lockdown policies are ill-founded and should be rejected as a pandemic policy instrument."

In fact, the balance of evidence across the board strongly indicates that Lockdown caused vastly more harm than good. This makes Lockdown and restrictive mandates fundamentally unethical by their very nature.

- 10. Because this section comprising of evidence *against* Lockdown policies being effective could continue on and on, we will finish with further selection of articles, analyses and papers which come to the same conclusion i.e. that lockdown policies show no empirical evidence of real-world effectiveness:
  - a. Lockdowns Do Not Control the Coronavirus: The Evidence.<sup>15</sup>
  - COVID-19 Alternative Strategy: A Case for Health and Socioeconomic Wellbeing (2020).<sup>16</sup>
  - c. McClintock, T. Lockdowns are killing us<sup>17</sup>
  - d. A TALE OF TWO SCIENTIFIC PARADIGMS: CONFLICTING SCIENTIFIC OPINIONS ON WHAT "FOLLOWING THE SCIENCE" MEANS FOR SARS-COV-2 AND THE COVID-19 PANDEMIC<sup>18</sup>

e. The Impact of the COVID-19 Pandemic and Policy Responses on Excess Mortality<sup>19</sup>

#### EVIDENCE FOR THE "LOCKDOWN IS EFFECTIVE" THEORY:

This difficulty in completing this section is due to the fact that various papers and analyses seeking to support Lockdown, depend heavily on modelling and assumptions. While the studies in the last section (evidence *against* Lockdown effectiveness) are essentially unbiased and based on empirical real-world reality, the studies *supporting* lockdown are clearly dependent on modelling assumptions and are inherently prone to bias.

We will therefore choose the dominant study as an exemplar – an analysis which garnered nearly half a million accesses to date, and over 1,200 citations: "Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe"<sup>20</sup>. The fact that this (the most cited and referred-to study in lockdown's favour) was so easily "debunked" by multiple analyses referred to in our prior "evidence against" section<sup>21 22</sup>, is very revealing indeed. Recall that we must also consider that "affirmative" or "evidence supporting a theory" is by its very nature extremely weak compared to evidence "falsifying" or "evidence contradicting a theory". Therefore, we can end this section and invite the reader to search for convincing scientific evidence, of the empirical type that does not depend on modelling assumptions. We wish them luck with their venture.

### LOCKDOWN BALANCE OF EVIDENCE CONCLUSION:

The conclusion would appear to be clear based on the prior sections, in short: The balance of evidence is strongly in favour of Lockdown policies having no meaningful or substantial real-world empirical effect on primary outcomes.

Sweden's concordance between mortality and ICU loading, elegantly illustrates that Lockdown policies had no substantial effect on "hospital loading" either.

## **QUESTION B – THE BALANCE OF EVIDENCE ANALYSIS**

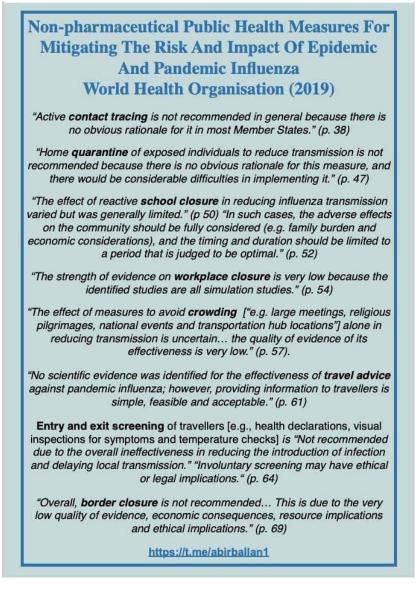
- i.e. answering the question: "if the outcome of A above comes out *in favour of* significant Lockdown benefits in reducing transmission – then is the evidence balance *so heavily in favour of Lockdown benefits accruing* - that it would be legally ethical to convict someone for not following Lockdown policies?"

With the conclusion from the last section, this question becomes moot. The evidence balance is clearly not "*heavily in favour*" of Lockdown benefits. In fact, the exact opposite is the case – the evidence balance is **against** measurable or real-world benefits accruing from Lockdown policies.

# ADDITIONAL QUESTION C – "How indeed did Lockdowns *ever* become mandated - given the science and data reviewed in this document?"

This is an important question to cover. Given the clear conclusions from the prior sections, how is it that the Western world opted for such ineffective and damaging policies? Another question that follows is "indeed, what were our established pandemic scientific guidelines, before we suddenly chose to adopt China's Lockdown policies in March 2020?".

See below some excerpts from the official WHO Pandemic Guidelines (Nov 2019).<sup>23</sup> This document is essentially a summation of many decades of research in the West:

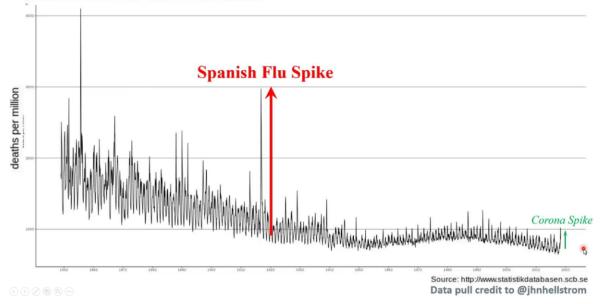


Clearly the canon of Western scientific knowledge in pandemic management bore no relation to the lockdown policies which emerged from China in early 2020. It is sometimes argued that these WHO guidelines were applicable to influenza, but not necessarily to a coronavirus issue. This however is not a convincing or indeed sustainable, as:

- The aerosol-dominated transmission mechanisms for coronavirus' like SARS CoV2<sup>24</sup> are directly analogous to the aerosol-dominated transmission mechanisms for influenza
- Seasonality is strikingly similar between coronavirus and influenza, with almost matching seasons illustrating the clear analogous nature also
- broadly similar R-values between coronavirus and influenza further lock down the compare
- even the severity of outcome with regard to SARS CoV2, is no worse than many prior flu seasons in excess mortality terms; note spikes for prior flu season monthly mortalities in below plot from Swedish government data for illustration – note seasonal flu mortality spikes even from 1990's onwards:

#### SWEDEN

Monthly deaths per million (1851/01-2020/05)



In short, there is as yet no clear indication as to why the WHO and the Western world abandoned their scientific principles and decades of data, in favour of adopting China strategies in early 2020.

<sup>3</sup> "Sweden's Covid death rate among lowest in Europe, despite avoiding strict lockdowns"

and related health outcomes

<sup>&</sup>lt;sup>1</sup> NPI = Non-Pharmaceutical Interventions

<sup>&</sup>lt;sup>2</sup> https://www.aub.edu.lb/fas/cvsp/documents/karl-

popper.doc#:~:text=My%20proposal%20is%20based%20upon,be%20contradicted%20by%20singular%20state ments.

https://www.telegraph.co.uk/global-health/science-and-disease/swedens-death-rate-among-lowest-europe-despite-avoiding-strict/

<sup>&</sup>lt;sup>4</sup> "Full lockdown policies in Western Europe countries have no evident impacts on the COVID-19 epidemic" https://www.medrxiv.org/content/10.1101/2020.04.24.20078717v1

<sup>&</sup>lt;sup>5</sup> "A country level analysis measuring the impact of government actions, country preparedness and socioeconomic factors on COVID-19 mortality" https://www.thelancet.com/journals/eclinm/article/PIIS2589-5370(20)30208-X/fulltext

<sup>6</sup> "Comment on Flaxman et al. (2020): The illusory effects of non-pharmaceutical interventions on COVID-19 in Europe" https://doi.org/10.31124/advance.12479987.v1

<sup>7</sup> Soltesz, K., Gustafsson, F., Timpka, T. et al. "The effect of interventions on COVID-19. Nature 588, E26–E28 (2020)." https://doi.org/10.1038/s41586-020-3025-y

<sup>8</sup> "Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe"

<sup>9</sup> "Exploring inter-country coronavirus mortality" https://pandata.org/wp-

content/uploads/2020/07/Exploring-inter-country-variation.pdf

<sup>10</sup> "Effect estimates of COVID-19 non-pharmaceutical interventions are non-robust and highly modeldependent" <u>https://pubmed.ncbi.nlm.nih.gov/33781862/</u>

<sup>11</sup> Christian Bjørnskov, "Did Lockdown Work? An Economist's Cross-Country Comparison", CESifo Economic Studies, Volume 67, Issue 3, September 2021, Pages 318–331, https://doi.org/10.1093/cesifo/ifab003
<sup>12</sup> "Do Lockdowns Make a Difference in a Pandemic?" https://c2cjournal.ca/2021/03/do-lockdowns-make-a-difference-in-a-pandemic/

<sup>13</sup> "Covid and the lockdown effect: a look at the evidence" https://thefatemperor.com/wp-

content/uploads/2021/04/Lockdown-Effect-Professor-Simon-Wood-University-of-Edinburgh.pdf

<sup>14</sup> A Literature Review and Meta-Analysis of the-Effects of Lockdowns on COVID-19 Mortality:

https://sites.krieger.jhu.edu/iae/files/2022/01/A-Literature-Review-and-Meta-Analysis-of-the-Effects-of-Lockdowns-on-COVID-19-Mortality.pdf

<sup>15</sup> AIER (American Institute of Economic Research). Lockdowns Do Not Control the Coronavirus: The Evidence. https://www.aier.org/article/lockdowns-do-not-control-the-coronavirus-the-evidence/

<sup>16</sup> COVID-19 Alternative Strategy: A Case for Health and Socioeconomic Wellbeing (2020).

https://www.aier.org/wp-content/uploads/2020/11/covid\_recovery\_ireland\_white\_paper\_-\_17th\_nov.pdf

<sup>17</sup> McClintock, T. Lockdowns are killing us. Mountain Democrat. February, 2021.

https://www.mtdemocrat.com/opinion/guest-column-lockdowns-are-killing-us/

<sup>18</sup> "A TALE OF TWO SCIENTIFIC PARADIGMS: CONFLICTING SCIENTIFIC OPINIONS ON WHAT "FOLLOWING THE SCIENCE" MEANS FOR SARS-COV-2 AND THE COVID-19 PANDEMIC"

https://www.researchgate.net/publication/353837019\_A\_TALE\_OF\_TWO\_SCIENTIFIC\_PARADIGMS\_CONFLICT ING\_SCIENTIFIC\_OPINIONS\_ON\_WHAT\_FOLLOWING\_THE\_SCIENCE\_MEANS\_FOR\_SARS-COV-

2\_AND\_THE\_COVID-19\_PANDEMIC

<sup>19</sup> "The Impact of the COVID-19 Pandemic and Policy Responses on Excess Mortality" https://www.nber.org/papers/w28930

<sup>20</sup> "Estimating the effects of non-pharmaceutical interventions on COVID-19 in Europe" https://www.nature.com/articles/s41586-020-2405-7

<sup>21</sup> "Comment on Flaxman et al. (2020): The illusory effects of non-pharmaceutical interventions on COVID-19 in Europe" https://doi.org/10.31124/advance.12479987.v1

<sup>22</sup> Soltesz, K., Gustafsson, F., Timpka, T. et al. "The effect of interventions on COVID-19. Nature 588, E26–E28 (2020)." https://doi.org/10.1038/s41586-020-3025-y

<sup>23</sup> WHO: "Non-pharmaceutical public health measures for mitigating the risk and impact of epidemic and pandemic influenza" https://apps.who.int/iris/bitstream/handle/10665/329438/9789241516839-eng.pdf?ua=1&fbclid=IwAR0-1SAZdSvTc5yPpxU4rLAq7x7vclQsIvKIO7F5LIMa6D1OVm4p4xbdfyk

<sup>24</sup> "Viral Load of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) in Respiratory Aerosols Emitted by Patients With Coronavirus Disease 2019 (COVID-19) While Breathing, Talking, and Singing" https://academic.oup.com/cid/advance-article/doi/10.1093/cid/ciab691/6343417