



## COVID-19 Mitigation and Global Justice: On the Swedish Experiment

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### Abstract

The novel coronavirus (from here on COVID-19) is an example of the many acute threats that the global society is creating to the sustainability of animal, ecosystem and human health as well as to global justice including economically sustainable development. COVID-19 is relatively unknown to natural science. The virus and its mitigation operate at the interface of various scientific disciplines (e.g. medicine), social sciences (e.g. strategic planning) and societal development (e.g. sustainability). COVID-19 also requires diverse stakeholders to take responsibility for the situation, political ideology inspired activism and an effort to achieve a truly global, not only Western solution, to the crisis. The objective of this paper is to argue that the human rights basis and the basic pillars of the “Swedish Experiment’s” approach to COVID-19 mitigation of the pandemic constitute a promising pathway for co-learning in the adaptation to the COVID-19 era. The authors find four pillars in the Swedish Experiment: 1) Natural Science, 2) Social Science, 3) Political Ideology and 4) Their mutually amplifying feed-back loops.

### Keywords:

COVID-19 mitigation; Global justice; Natural Science; Political Ideology; Feed-back loops

### Introduction

Due to climate change, biodiversity loss and increasing ecological footprint of unsustainable economies and industrial societies within the Western modernity, a theme such as COVID-19 mitigation and adaptation will be more relevant in the near future than now. There are several limitations, problems and weaknesses in our initial attempt to address the theme in this study. The limitations, however, can serve as potential research topics and research questions for future studies concentrating on COVID-19 mitigation during the coronavirus era. The limitations and challenges discussed can also constitute useful elements in the ongoing learning in global justice and sustainable development research and practice in general [1]; there is a danger that the pandemic of fear makes us forget our pledge for not only equal access to health but also for respect of genuine intercultural dialogue in looking for multiple sources of cure [1].

UN (United Nations) as the intended voice of the international community has worked to raise recognition for traditional knowledge, yet, when crisis hits, we tend to downplay the agency of the ‘Rest’ (the developing world). The world seems to put all our funding criteria and hopes in the Western institutions prioritizing Western “pharmaceutical-based” policy solutions. More holistic interventions that take into account economic and social rights and combine them with forms of public medical assistance could also be taken into account (id.).

In the following, we identify some of the main concerns in our presentation and in this way structure the paper. COVID-19 pandemic presents a complex challenge for scientific research, public policy and business strategy. The challenge is made worse due to the fact that the phenomenon is new, unknown and leaves no part of socio-economic life unaffected. Data, knowledge and information on the cause, treatment and societal implications of COVID-19 are emerging and changing on a weekly, even on a daily (we are submitting on the World Environment Day) basis. In classic texts on scientific evolution and progress such as the Kuhnian model of paradigm changes or the Popperian call for falsification [2-4], in times of extreme uncertainty, bold and provocative arguments are fruitful [5]. They stimulate debate. The falsification, discussion and debate, e.g., on the limitations of a certain new study, can then result into subsequent sustainability contributions.

The objective of this paper is to argue that the basic pillars of the “Swedish Experiment’s” approach to COVID-19 mitigation of the pandemic create a promising pathway for learning in the adaptation to the COVID-19 era. The authors find four pillars in the Swedish Experiment:

### Article Information

**DOI:** 10.31021/jer.20203126

**Article Type:** Research Article

**Journal Type:** Open Access

**Volume:** 3 **Issue:** 2

**Manuscript ID:** JER-3-126

**Publisher:** Boffin Access Limited

**Received Date:** 06 June 2020

**Accepted Date:** 31 July 2020

**Published Date:** 03 August 2020

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**Citation:** Korhonen J, Granberg B, Korhonen O, Snäkin JP. COVID-19 Mitigation and Global Justice: On the Swedish Experiment. J Emerg Rare Dis. 2020 Aug;3(2):126.

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1) Natural Science, 2) Social Science, 3) Political Ideology and 4) Their mutually amplifying feedback loops. The main limitations in the case study of the Swedish Experiment are categorized as 1)---4) in the main body of the text. The main thesis of the article will be discussed in sections five and six. The paper is structured according to the logic of the argument.

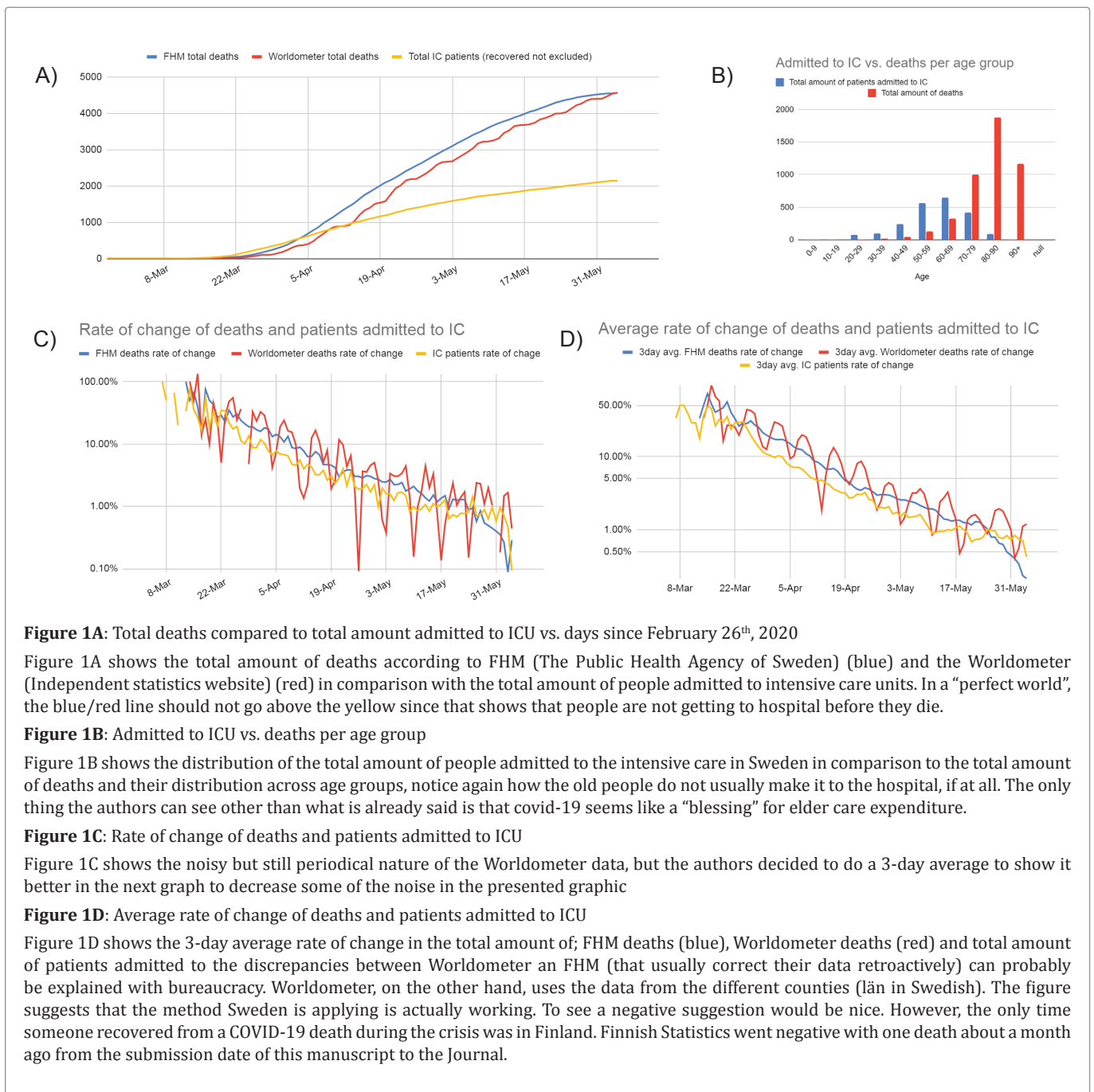
### The Authors Are Not Experts in Medical Science/ Medicine

One of the authors is working on sustainable production and circular economy in a Swedish university. One is working in a big industrial production company in Sweden that is active in circular production, circular manufacturing and sustainable production. It is important to note that Covid-19 is a very interdisciplinary phenomenon (between sciences) and its mitigation is only possible with a transdisciplinary approach (between different scientific fields and between science and all societal stakeholders, not least the industrial and business community). Our third co-author is a university Professor of global justice, human rights and international

law working in a university in Finland. The paper also has a co-author, whose expertise covers physical material and energy flow analysis and simulations, e.g. related to industrial ecology, cleaner production and ecological economics.

### Data Availability

When considering the challenging requirements for data and materials on COVID-19 mitigation, our data is limited. The data should be interdisciplinary, transdisciplinary, global and local etc. When social science-type COVID-19 mitigation approaches such as backcasting herd immunity [4] and herd-immunity from natural science are combined there can be potential for useful generalizations. Situations such as COVID-19, unfortunately, are increasing in likelihood in the world, because of the problems in the society—biosphere interactions. Climate change is an illustrative example. Global warming is directly relevant to the case of COVID-19 as it is commonly known as number five in the list of killers in the world [4] and many of the symptoms occur in the respiratory system and lungs.



**Figure 1A:** Total deaths compared to total amount admitted to ICU vs. days since February 26<sup>th</sup>, 2020

Figure 1A shows the total amount of deaths according to FHM (The Public Health Agency of Sweden) (blue) and the Worldometer (Independent statistics website) (red) in comparison with the total amount of people admitted to intensive care units. In a “perfect world”, the blue/red line should not go above the yellow since that shows that people are not getting to hospital before they die.

**Figure 1B:** Admitted to ICU vs. deaths per age group

Figure 1B shows the distribution of the total amount of people admitted to the intensive care in Sweden in comparison to the total amount of deaths and their distribution across age groups, notice again how the old people do not usually make it to the hospital, if at all. The only thing the authors can see other than what is already said is that covid-19 seems like a “blessing” for elder care expenditure.

**Figure 1C:** Rate of change of deaths and patients admitted to ICU

Figure 1C shows the noisy but still periodical nature of the Worldometer data, but the authors decided to do a 3-day average to show it better in the next graph to decrease some of the noise in the presented graphic

**Figure 1D:** Average rate of change of deaths and patients admitted to ICU

Figure 1D shows the 3-day average rate of change in the total amount of; FHM deaths (blue), Worldometer deaths (red) and total amount of patients admitted to the discrepancies between Worldometer and FHM (that usually correct their data retroactively) can probably be explained with bureaucracy. Worldometer, on the other hand, uses the data from the different counties (län in Swedish). The figure suggests that the method Sweden is applying is actually working. To see a negative suggestion would be nice. However, the only time someone recovered from a COVID-19 death during the crisis was in Finland. Finnish Statistics went negative with one death about a month ago from the submission date of this manuscript to the Journal.

In Figure 1A-1D we discuss the currently available COVID-19 data about the deaths and age groups of those who have perished within the so called “Swedish Experiment”. Data is publicly available from official Public Health Agency of Sweden website.

## The Basic Nature of The Novel Coronavirus

The basic characteristics and features of the novel coronavirus are dynamic and evolving. Among the best sources for learning for the authors here has been an international television channel CNN and its leading medical experts, e.g. Dr. Sanjay Gupta. The authors interpret that the virus has been within the biosphere for several years. It has been spreading, evolving, changing and adapting. The origin of COVID-19 is in natural ecosystems of which humanity is part.

The global economic system is always only a subsystem of the larger parent ecosystem [2,6-11]. In addition, it should be noted that the global nature of the corona virus pandemic implies that global large scale COVID-19 testing, is needed for strategic planning, is expensive and suffers from inaccuracies [12].

According to the present knowledge, the publicly available narrative within natural science is that the so called “zoonotic transfer” is upstream in cause-and-effect chains in case of corona. This means that the metabolism of a living organism is disrupted and affected when subject to stress. Stress can occur, for example, due to habitat loss, deteriorating biodiversity, climate change etc., When the metabolism of bats or of pangolins (animals among those regarded as likely carriers in the wet markets in Wuhan) suffers, virus transfer tends to be more likely between living organisms or animals including from animal to human. Despite this limitation concerning the basic nature of COVID-19, we maintain that our message is worthy. The message may help to initiate discussion on the possibility of inter- and transdisciplinary approaches in global pandemic mitigation policies and strategies. The paper may also be fruitful for integrating natural sciences and social sciences.

## The Legacy of Prime Minister Olof Palme in COVID-19 Mitigation

Sweden hosts annually the Nobel Prize proceedings. The Prime Minister of Sweden Olof Palme was murdered in Stockholm on Sveavägen in 1986 by an unknown assassin. Prime Minister Palme used the basic UN Declaration on Human Rights as the grounding of his political ideology, politics and policy making. He was known for his role on the international platform in promoting local, regional and global justice. In recent literature [4], the Palme legacy has been bridged to national COVID-19 mitigation efforts with a case example being the Sweden and the noted so called “Swedish Experiment”.

To sum up the Palme position in terms of the current pandemic we argue as follows. First, Palme emphasized that each individual should feel that she or he has value. A sense of freedom as against command-and-control, according to the Prime Minister, creates an atmosphere in which individuals, their groups and communities or herds as in the backcasting herd-immunity approach of the current Swedish government, are able to learn. Second, people and their herds learn together. They take responsibility for washing their hands, maintaining social and/or physical distancing, eat healthy, exercise, develop daily routines, get tested for COVID-19 etc. Third, the people who are responsible tend to be at low risk in drinking alcohol, doing drugs or resorting to violence as is now happening in, arguably, a non-liberal democracy located in North-America (consider the horrible fact of the death of Mr. George Floyd, another one in the long line of deaths resulting from discrimination, racism and violation of human rights). Fourth, responsible herds and their societies tend to be more open to accept, adopt and promote more long-term sustainable policies including their ecological, social and economic dimensions.

## Discussion – On Health, Freedom and Global Justice

The covid-19 pandemic is also a psychological pandemic of fear as indicated by the WHO and many national authorities. Even suicide rates are increasing up to 10 times in some countries [13,14] for discussion see, e.g. [2,4]. In terms of social sciences, it is also a holistic pandemic of the political economy that threatens with an approximately 30% reduction in global gross national product (for discussion see e.g. [3,4,7,8,15]; Even if we no longer support the economics of strong growth, the upsurge in national debts, joblessness and poverty are already causing dire effects in communities across the globe.

The justice questions abound. Many are engaged in the blame game; questions such as whether we can demand damages from China or indefinitely quarantine potential asylum seekers in camps or, when and if the vaccine emerges, keep it available for us rather than for them. We have already seen how many countries prohibited exports of face masks and ventilators in violation of international solidarity and free trade.

Commentators have called the search for the covid-19 vaccine the multi-billion dollar grail [4,16]. The covid-19 vaccine, even if it does not exist yet, has been pre-ordered in hundreds of millions of doses by rich countries although the on-going trials of various candidates raise many questions, such as how effective it will be. Currently many national authorities are willing to settle for a 50% effectiveness over 6 to 12 months after which one must revaccinate [17]. The WHO is calling for 60-70% effectiveness for one year (id.). Will it be available for developing countries, at what costs and where will the manufacturing capacity be if we need 5 to 7 billion doses semi/annually? Furthermore, even if assistance organizations such as GAVI or even the World Bank secure doses for developing countries citizens what other drugs will be cut from their programs. It does not seem likely that rich countries, in particular the United States, a major funder of international organizations, will be augmenting its contributions to pro bono drug funds when every nation faces a formidable economic cost caused by the different aspects of the holistic pandemic.

The present vaccine-driven national and global covid-19 strategy puts too many eggs in the vaccine basket, the mostly Big Pharma-led solution [18]. The 70+ poor and middle-income countries will never be wholly immunized and most scenarios depict recurring waves of pandemics in the future. The one-solution-thinking is always ill-advised, yet the covid-19 strategic debate seems to switch to the blame mode as soon as any heterodoxy appears. For instance, respected academics, with decades of research into the use of C- and D-vitamines in treating and preventing respiratory illnesses, have been goaded to publicly deny the relevance of their research to covid-19 [19,20]. The President and the medical community of Madagascar was put under immense international pressure after they announced ‘Covid-Organics’ which is a traditional herbal medicine based cure [21]. However, later, The Max Planck Institute, WHO and African Union have come to assistance in testing its effectiveness (id.). The response at the outset was ridicule and witch-hunt on the part of the developed world for the traditional knowledge-based proposal. However, many African countries and Haiti, whose annual medical budget for each of its citizens is 10 dollars which is less than the cost of the eventual vaccine and its distribution, ordered the Madagaskarian drug.

The predominance of the blame game in international covid-19-strategy debates is undoubtedly caused by the fear factor. In initially condemning Madagascar, the WHO stated that the danger of their traditional-medicine-based drug is that it distracts people from hand washing. Rather than making such dubious causal links, a heterodox covid-19 strategy should take into account the realities of the global economic and health injustice. It must also be noted that the US decision to withdraw from WHO complicates this matter further.

With the swine flu vaccine (2009), rich countries pledged equal

access during the research and development phase [18] Once the cure was ready for manufacture, e.g. the United States, Australia and Canada made such large advance orders that the distribution to the developing world took place much later [16,18,22]; for discussion [2-4,6,15]. Also, if the annual 10 dollars/person national health budgets are to provide for Covid-19 vaccines once or twice a year, what happens to HIV, malaria, TB, epilepsy, diabetes and other such cures whose availability to the world's poor has been debated for decades despite what the Bush administration did back in the day?

In this light, a heterodox strategy, multifaceted investments to global health and a human rights approach, including the right to health but also the right to fundamental freedoms, as in the Swedish strategy, should be foregrounded. The Swedish experiment constitutes of diverse and interdependent elements (the four pillars in our argument here). The experiment has risks and is partly a learning by- doing endeavor. Its merits or its failures can be comprehensively analysed long after the publication of the manuscript at hand [23-46].

## Conclusions

COVID-19 shows how the many acute threats the global human society within biosphere are posing to the sustainability of animal, ecosystem and human health as well as to socially and economically sustainable development. COVID-19 is a relatively unknown phenomenon to current scientific research practice. The virus and actions for its mitigation operate at the interface of various scientific disciplines covering natural science, social sciences, political ideology and ideology inspired voluntarism or activism.

This paper has argued that the underlying human rights-motivation and the basic pillars of the "Swedish Experiment's" approach to COVID-19 mitigation of the global pandemic constitute a promising pathway for learning in the mitigation of and/or adaptation to the COVID-19 era of the global society. The authors of this article find four pillars that are essential in the Swedish Experiment: 1) Natural Science, 2) Social Science, 3) Political Ideology and 4) Their mutually amplifying feed-back loops without forgetting a genuinely global knowledge base. There are limitations in the argument of our paper and we have outlined them in order to stimulate dialogue, discussion and debate on the theme addressed in the article within the global scientific research community, e.g. within such platforms as ISDRS (International Sustainable Development Research Society) and the like.

The authors argued that the ongoing Swedish Experiment and other globally aired proposals can have value for the global scientific community in terms of continuous co-learning about COVID-19. It is important to understand what such learning requires in terms of interdisciplinary and transdisciplinary scientific research on a global scale within the biosphere. The current COVID-19 era is an example of the urgent need toward more collaborative policies, business strategies and scientific research projects. Global justice is not a deterministic goal. Rather global justice can be understood as a process of continuous intercultural and multidisciplinary learning and cross-fertilization toward sustainable development.

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