



ADRU
Academy of the
Disaster Research Unit



SARS CoV 2 Monitoring Report

Week 19, May 4th to May 10th

Academy of the
Disaster Research Unit (ADRU)

Rationale

As part of a real time evaluation of the SARS CoV 2 pandemic (with focus on epidemiological, economical, societal, and cultural developments in Germany and Iran) the research team, under the leadership of Prof. Dr. Martin Voss, is conducting a weekly monitoring of real time developments. Multiple national and international media outlets, research platforms and scientific and organisational guidelines, briefs and updates are screened on a daily basis to feed into this weekly outlet. The rationale behind this is to support the projects' network partners in Iran and Germany with a condensed overview of key developments, trends and events that are shaping the global, German and Iranian outbreak response and recovery. The selection of subjects are driven by 3 factors:

- relevance to network partners – based on regular bilateral and multilateral feedback/input
- the focus area of the real time evaluation (epidemiological trends, economic, societal and cultural effects, escalating risks and downstream effects, risk communication and vulnerabilities)
- global trends and developments as the pandemic evolves

The setup of these short briefs is structured by technical area, with country relevance and specificities included under each main headline. The chapters are precluded by pertinent general observations. This could be mainstream big ticket items or fringe subjects that are easily overlooked in the global flood of information. Some topics will be followed through their evolution in time while others may only appear once. While subjectively selected, the briefs are descriptive in nature and leave analysis and critical interpretation to the reader. Initially based on the research teams' perception of relevance, the content will gradually represent the importance of topics for network partners in both countries.

Keywords: pandemic, covid-19, health, epidemiology, data, science, treatment, trial, risk, escalating risks, vulnerability, global, , economy, society, culture, risk management

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General Observations may 4th – May 10th 2020

As the interest in the widespread use of serological tests increases, conversations around the use of official documentation of immunity status as a basis for resuming social activity continue. These so-called “**immunity passports/certificates**” pose a variety of technical, social, ethical, and legal issues. A commentary published in [The Lancet](#) addresses some of these challenges. The author, Dr. Alexandra Phelan highlights technical barriers, including uncertainty regarding the degree and duration of immunity conferred by SARS-CoV-2 infection and the impact of false positive and negative test results. Additionally, a variety of social and economic factors could introduce incentive for individuals to deliberately infect themselves or introduce opportunity for corruption and increased socioeconomic inequities. Legal barriers, including ensuring appropriate protections of individuals, regardless of immune status or the presence of risk factors such as age or underlying health conditions, and immunity passports would risk enshrining such **discrimination** in law¹.

A third meeting of WHO's International Health Regulations (2005) Emergency [committee](#) convened resulting in WHO declaring that the outbreak of COVID-19 continues to constitute a public health emergency of international concern (PHEIC). He accepted the advice of the Committee to WHO and issued the Committee's advice to States Parties as Temporary Recommendations under the IHR.²

Health

Monoclonal antibodies are proteins designed to function like the antibodies produced by the human immune system, and a number of efforts are ongoing to develop products to combat COVID-19. A research team from [Utrecht University](#) (Netherlands) published the results of such a study in *Nature Communications*. The researchers identified a monoclonal antibody, named 47D11 that offers the potential to treat individuals already infected with SARS-CoV-2 or possibly prevent infection³.

Llama antibodies may unlock the key to vaccination. The hunt for an effective treatment for COVID-19 has led one team of researchers to find an improbable ally for their work: a llama named Winter. The team -- from The University of Texas at Austin, the National Institutes of Health and Ghent University in Belgium -- reports their findings about a potential avenue for a coronavirus treatment involving llamas on May 5 in the journal *Cell*⁴. The paper is currently available online as a pre-proof, still undergoing final formatting.

Season and climate impact on the spread of COVID 19? Scientists found in a study that this is highly unlikely: “*In our study,*” the researchers wrote in the study, published Thursday in the [Canadian Medical Association Journal](#), “*only public health interventions were consistently associated with*

¹ Phelan A. (04.05.2020): COVID-19 immunity passports and vaccination certificates: scientific, equitable, and legal challenges, retrieved from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31034-5/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31034-5/fulltext)

² World Health Organisation (01.05.2020): Statement on the third meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of coronavirus disease (COVID-19), retrieved from: [https://www.who.int/news-room/detail/01-05-2020-statement-on-the-third-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-coronavirus-disease-\(covid-19\)](https://www.who.int/news-room/detail/01-05-2020-statement-on-the-third-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-coronavirus-disease-(covid-19))

³ Wang C., Li W., Drabek D. et al (04.05.2020): A human monoclonal antibody blocking SARS-CoV-2 infection retrieved from: <https://www.nature.com/articles/s41467-020-16256-y>

⁴ Wrapp D., De Vlioger D., Corbett S. et al (04.05.2020): Structural Basis for Potent Neutralization of Betacoronaviruses by Single-Domain Camelid Antibodies retrieved from: [https://www.cell.com/cell/fulltext/S0092-8674\(20\)30494-3](https://www.cell.com/cell/fulltext/S0092-8674(20)30494-3)

reduced epidemic growth, and the greater the number of co-occurring public health interventions, the larger the reduction in growth⁵.”

Multiple debates evolved around so called “**challenge studies**” in which healthy people are injected with potential vaccines to then be infected with the virus. A brief, German radio clip can be found at DLF [mediathek](#)⁶ and WHO’s situation report number [107](#)⁷ outlines 8 criteria for the undertaking of ethically questionable challenge studies.

WHO [delivered](#) drugs to Iran under the auspices of the solidarity trial⁸. Iran is one of the early partners to WHO in the global undertaking of finding treatment for COVID 19 patients, meanwhile over 100 countries are enrolled in the trials. The Solidarity Trial compares four treatment options against standard of care, to assess their relative effectiveness against COVID-19. By enrolling patients in multiple countries, the Solidarity Trial aims to rapidly discover whether any of the drugs slow disease progression or improve survival. Other drugs can be added based on emerging evidence. In Iran “*The Solidarity Trial will be conducted in 16 provinces in 29 major hospitals that have substantial numbers of inpatient admissions for COVID,*” says Dr Christoph Hamelmann, WHO Representative in Islamic Republic of Iran⁹.

Political, Economic, Social, Cultural Effects

On Monday leaders from 40 countries around the world came together to support the Access to COVID-19 Tools (ACT) Accelerator, a WHO initiative to support the development, production and equitable distribution of vaccines, diagnostics and therapeutics against COVID-19. Some €7.4 billion were pledged, in what the WHO Director-General described as a ‘*powerful and inspiring demonstration of global solidarity*’¹⁰.

SARS CoV 2 does bring to light the inequitable access to anything from information to drugs and creates an environment that is equally inspiring discussions around models of how to make the world a fairer place and frightening in its pinpointing the vast chasms between rich and poor countries and societies. A commentary published in [The Lancet](#) addresses existing and future challenges of global disparities in access to critical medical supplies, equipment, medications, and other material in the context of the COVID-19 pandemic. The authors note, “*A governance crisis is unfolding alongside the pandemic as health officials around the world compete for access to scarce medical supplies.*” Low- and middle-income countries around the world continue to struggle as they are forced to compete against wealthier nations to obtain access to testing kits and supplies and personal protective equipment, and

⁵ Jüni P., Rothenbühler M., Bobos P. et al (07.05.2020): Impact of climate and public health interventions on the COVID-19 pandemic: a prospective cohort study, retrieved from: <https://www.cmaj.ca/content/192/21/E566>

⁶ Seema Shah im Gespräch mit Monika Seynsche fuer den Deutschlandfunk (08.05.2020): Freiwillig Infizierte für Corona-Studie „Sicherstellen, dass die Risiken sehr gering sind“ retrieved from: https://www.deutschlandfunk.de/freiwillig-infizierte-fuer-corona-studie-sicherstellen-dass.676.de.html?dram:article_id=476288

⁷ World Health Organisation (07.05.2020): Situation report – 108 Coronavirus disease 2019, retrieved from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>

⁸ World Health Organisation (03.05.2020):WHO delivers more medicines to Islamic Republic of Iran for COVID-19 “Solidarity” clinical trial, retrieved from: <http://www.emro.who.int/irn/iran-news/who-delivers-more-medicines-to-islamic-republic-of-iran-for-covid-19-solidarity-clinical-trial.html>

⁹ ibid

¹⁰ World Health Organisation (05.05.2020): Situation report – 106 Coronavirus disease 2019, retrieved from: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>



similar challenges likely await them once medical countermeasures, including vaccines, become available¹¹.

Following its [Emergency Use Authorization](#) (EUA) by the US Food and Drug Administration (FDA)¹² as a treatment for COVID-19, the **antiviral Remdesivir** is in high demand to treat patients. Gilead, the manufacturer of Remdesivir, is [donating 1.5 million vials](#) of the product (equivalent to about 100,000-00,000 patient doses), but it is unclear how those doses are being allocated¹³. Multiple [healthcare providers](#) described the US government process for Remdesivir allocation as opaque and uneven. There appears to be no public decision-making process to determine how the drug will be distributed, in the United States or internationally¹⁴. To fill the information gap, some [informal efforts are attempting to track](#) which hospitals have and have not received shipments of Remdesivir¹⁵. A report published by [STAT News](#) investigates the role that the US government played in funding the research and development of remdesivir. Initial investment by the US government could also potentially factor into decisions regarding how it is allocated or priced¹⁶.

The Emergency Relief Coordinator and UN Under-Secretary-General for Humanitarian Affairs Mark Lowcock launched an update to the **Global Humanitarian Response Plan** for COVID-19 (GHRP). The GHRP has a funding requirement of **US\$6.7 billion** to protect millions of people already facing humanitarian crises in several countries. For more information, a [UN News Story](#) and YouTube recording is available¹⁷.

As the COVID-19 incidence in many European countries appears to be declining for now, the [economic impact](#) of the pandemic largely persists¹⁸. The [European Commission](#) announced that it predicts the European economy will contract by more than 7% this year, indicating one of the worst recessions in history. Prior to the COVID-19 pandemic, it was expected that the region's economy would grow by more than 1% in 2020. While the recession is expected to impact all European countries, the degree varies, ranging from a 4.5% decrease in Poland to a 9.75% decrease in Germany. The shrinking economy affects key trading partners like the US and China as well as lower-income countries in Sub-Saharan Africa, where European countries are the largest foreign investors¹⁹.

While some countries around the world have started relaxing social distancing measures and resuming some non-essential economic activity, the lack of global demand for certain types of goods has slowed economic recovery. In [China](#), for example, economists observed a jump in exports to other countries in April, but analysts warn that this increase could be temporary. The immediate short-term demand

¹¹ Matthew M Kavanagh, M. PhD, Erundu N. PhD, Tomori, O. PhD, et al (07.05.2020): Access to lifesaving medical resources for African countries: COVID-19 testing and response, ethics, and politics, retrieved from: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)31093-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31093-X/fulltext)

¹² Food and Drug Administration (01.05.2020): Remdesivir-EUA-Letter-Of-Authorization, retrieved from: <https://www.fda.gov/oc/remdesivir>

¹³ Azad A. for CNN (08.05.2020): How does the government decide who gets Remdesivir? Doctors have no idea retrieved from: <https://edition.cnn.com/2020/05/07/health/remdesivir-access-transparency/index.html>

¹⁴ Boodman E., Ross C. (06.05.2020): Doctors lambaste federal process for distributing Covid-19 drug Remdesivir, retrieved from: <https://www.statnews.com/2020/05/06/doctors-lambaste-federal-process-for-distributing-covid-19-drug-remdesivir/>

¹⁵ Chin Hong P. on Twitter (06.05.2020): retrieved from: https://twitter.com/PCH_SF/status/1258099765121708033

¹⁶ Silverman E. (08.05.2020): The U.S. government contributed research to a Gilead remdesivir patent — but didn't get credit retrieved from: <https://www.statnews.com/pharmalot/2020/05/08/gilead-remdesivir-covid19-coronavirus-patents/>

¹⁷ UN News (07.05.2020): COVID-19: UN and partners launch \$6.7 billion appeal for vulnerable countries, retrieved from: <https://news.un.org/en/story/2020/05/1063442>

¹⁸ Stevis-Gridneff M., Ewing J. for The New York Times (06.05.2020): E.U. Is Facing Its Worst Recession Ever. Watch Out, World, retrieved from: <https://www.nytimes.com/2020/05/06/business/coronavirus-europe-reopening-recession.html>

¹⁹ European Commission (06.05.2020): Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery, retrieved from: https://ec.europa.eu/commission/presscorner/detail/en/IP_20_799



for certain supplies, such as PPE, and increased demand as businesses begin to reopen may not last, particularly in light of longer-term financial limitations associated with the global recession. Foreign demand for exported goods may not be sufficient to drive global economic expansion²⁰.

Cascading Risks

Finally a broader spectrum of media is picking up on secondary consequences of the drastic pandemic response measures. From routine vaccination to cancer prevention programmes and elective surgery – the collateral damage of Covid 19 is considerable. Even before considering additional deaths linked to COVID-19, HIV, tuberculosis, viral hepatitis, malaria, neglected tropical diseases, and sexually-transmitted infections were expected to kill an estimated four million people in 2020. Dr. Seth Berkeley, head of the global vaccine alliance Gavi²¹, warned recently – citing a [London School of Tropical Hygiene and Medicine study](#) – that deaths from other infectious diseases could outweigh COVID-19 fatalities by a factor of 100 to one in Africa²².

Vulnerabilities

Unequal risk of deaths for people from different ethnic backgrounds [Data from the UK's Office for National Statistics](#) found that black people are more than four times more likely to die from Covid-19 than white people, in figures that starkly show the divergence in the impact of the coronavirus pandemic in England and Wales. Bangladeshi and Pakistani males were 1.8 times more likely to die from Covid-19 than white males, after other pre-existing factors had been accounted for, and females from those ethnic backgrounds were 1.6 times more likely to die from the virus than their white counterparts. Researchers and policy-makers are still trying to understand the drivers for these differences. However, one potential explanation appears to have been excluded by a major study analysing the NHS health records from 17.4 million UK adults, which showed that most of the difference could not be explained by differences in rates of underlying health conditions²³. *"People have very reasonably speculated that the increased risk among BME people might be due to people having higher risk of cardiovascular disease or diabetes,"* said Ben Goldacre, director of the DataLab in the Nuffield Department of Primary Care Health Sciences at the University of Oxford, and co-lead on the study. *"Our analysis shows that is actually not the case. That is not the explanation. We've been able to exclude one of the current preferred explanations for why BME people face higher risk."*²⁴

Risk Communication

A (promotional) five minute video clip of WHO's steps taken since the beginning of the crisis is available [here](#), including the Director General speaking of the window of opportunity on Jan.30 to contain the

²⁰ Bermingham F. (07.05.2020): Coronavirus: China's medical supply boom, lockdown backlog sparked surprise April exports rise, retrieved from: <https://www.scmp.com/economy/china-economy/article/3083357/coronavirus-chinas-medical-supply-boom-lockdown-backlog>

²¹ GAVI the vaccine alliance: <https://www.gavi.org/our-alliance/about>

²² CMMID nCov working group (07.04.2020): Benefit-risk analysis of health benefits of routine childhood immunisation against the excess risk of SARS-CoV-2 infections during the Covid-19 pandemic in Africa, retrieved from: <https://cmmid.github.io/topics/covid19/EPI-suspension.html>

²³ Booth R., Barr C. for The Guardian (07.05.2020): Black people four times more likely to die from Covid-19, ONS finds, retrieved from: <https://www.theguardian.com/world/2020/may/07/black-people-four-times-more-likely-to-die-from-covid-19-ons-finds>

²⁴ ibid



virus as it was still 99% in China. He also calls the virus the public enemy nr.1. The World Health Organization has long warned of the potential of disease outbreaks and pandemics to threaten the health of people all over the world, while the world was not prepared²⁵. .

²⁵ World Health Organisation (01.05.2020): retrieved from: How has WHO responded to COVID-19
<https://www.youtube.com/watch?v=qHksVwOrpbE&feature=youtu.be>



Imprint

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