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Academy of the
Disaster Research Unit



SARS-CoV-2 Monitoring Report Summary

April 2020 – February 2021

Academy of the Disaster Research Unit (ADRU)

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Citation: Blümel, Ina; Voss, Martin (2021). SARS-CoV-2 Monitoring Report Summary:
April 2020 – February 2021. Berlin: AKFS.

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Abstract

Precursor to the development of the bi-weekly scientific monitoring reports were twofold: the INCREASE-HEALTH-CORONA project outline highlights the likelihood that the primary challenge in the unfolding pandemic will be the escalating “systemicity” (in the sense of being systemically linked) of the cross-scale, complex, non-linear and highly dynamic consequences of the pandemic. Thus monitoring the multi-layered processes unfolding is a prerequisite to understanding the systemicity and as a result to formulate *best practices* and options for scientifically informed action in near real-time to support partners in the INCREASE-HEALTH-CORONA project. The reports also initially functioned as internal “notice board” to allow all INCREASE-HEALTH-CORONA team members to stay informed with up-to-date development across a broad thematic area in a rapidly overwhelming scientific research and media landscape. The additional value of such an internal document was discussed at the first workshop with the – then still small – network of INCREASE-HEALTH-CORONA network partners in mid-April 2020 resulting in the compilation and publication of 20 bi-weekly documents of around 10-15 pages each, covering a broad range of SARS-CoV-2 pandemic related subjects including General Observations, Health, Economical, Societal and Cultural Developments, Escalating Risks and Downstream Effects, Risk Communication and Vulnerabilities. This report is a summary of the monitoring process that went into the bi-weekly scientific monitoring reports over a period of 8 months from April 2020 to February 2021. To demonstrate the breadth of the thematic covered over the reporting period, several examples of subject matters from different bi-weekly scientific monitoring reports are being presented in this summary, together with short contextual descriptions of each heading. A complete overview of the bi-weekly scientific monitoring report topics is annexed to this report.

Keywords: pandemic, SARS-COV-2, COVID-19, health, epidemiology, data, science, treatment, trial, risk, escalating risks, vulnerability, global, economy, society, culture, risk management

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Acronyms

ACT – Accelerator	Access to COVID-19 Tools
ADRU	Academy of the Disaster Research Unit
CEPI	Coalition for Epidemic Preparedness Innovations
COVID	Corona Virus Disease
COVAX	COVID-19 Vaccines Global Access
GF	Global Fund
IFRC	International Federation of the Red Cross and Red Crescent Societies
IOM	International Organisation for Migration
ITU	International Telecommunications Union
OECD	Organisation for Economic Co-operation and Development
SARS-CoV-2	Severe Acute Respiratory Syndrome Coronavirus 2
UN	United Nations
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNDP	United Nations Development Programme
UNICEF	United Nations Children’s Fund
UNESCO	United Nations Educational, Scientific and Cultural Organization
US-CDC	United States Center for Disease Control
WB	World Bank
WHA	World Health Assembly
WHO	World Health Organisation

Executive Summary

The purpose behind this summary report is to provide a quick, easily accessible overview of the real time monitoring efforts undertaken by the INCREASE-HEALTH-CORONA project, a 12 months long research project conducted by the Academy of the Disaster Research Unit (ADRU) and funded by the Federal Ministry of Education and Research in Germany. Monitoring and evaluating were at the core of the INCREASE-HEALTH-CORONA project and in the interest of sharing the monitoring results in “near” real time with a network of partners associated with the project, a bi-weekly scientific monitoring report series was established. The monitoring efforts included a broad range of scientific and media publications, guidelines and strategies spanning from epidemiology and health across politics, economic, social, and cultural effects, risk communication, escalating risks and downstream effects to vulnerabilities in relation to the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) pandemic. It became apparent early in the editorial process that subject matters were easily interchangeable between almost all subject headlines, underlining the complexity of the consequential effects of the pandemic, which are constantly interacting with one another and reflective of the systemicity of this global catastrophe. Cross-cutting subjects referenced in this report are e.g., mental health and psychosocial support which in its technical and operational aspects fall under health, while their impact on vulnerable groups places both under the respective headline of vulnerabilities and the collective results of deteriorating mental health conditions in growing numbers of individuals and social groups, clearly demonstrates the downstream effect of an escalating risk. Another interesting observation that occurred in retrospect is the perception that the negative impact of the pandemic was featured across the reporting period with steady frequency whereas the potential for positive change, the opportunities and positive downstream effects were strong in the initial phase of the pandemic and have since decreased. This observation, however, may likely be a perception bias introduced by the authors who themselves, as most people across the world, have been affected by and gone through different experiences in the evolution of the pandemic.

The bi-weekly scientific monitoring report met its intended purpose of monitoring the evolution of the pandemic and through the documentation process and frequent sharing kept the INCREASE-HEALTH-CORONA network partners and the team members themselves informed. This report in turn attempts to provide a short insight to the concept of the monitoring established, the editorial process behind the selected topics and a select introduction of some of the science, reports, guidelines and media screened on a daily basis over time.

Introduction

Over the course of the 8 months, from April 2020 to early February 2021, the INCREASE-HEALTH-CORONA research team at the Academy of the Disaster Research Unit (ADRU) followed epidemiological, economical, societal, and cultural developments in Germany, Iran, and the world as a continuous monitoring exercise of real time developments in science and within society at large. Multiple national and international media outlets, research platforms and scientific and organisational guidelines, briefs and updates were screened daily to feed into bi-weekly reports that were shared among the INCREASE-HEALTH-CORONA network and published on the project homepage. In principle, both prominent research topics and marginal topics were highlighted in the bi-weekly scientific monitoring report. Some topics were followed in their development over time, while others only appeared once. While the first 6 reports were published weekly with a focus on pure media analysis, the format was changed at the beginning of the second quarter of the project phase to a bi-weekly summary of mainly scientific research processes and results as well as organizational publications and handouts.

Over the course of the 8 months, 654 sources informed the 20 editions of the bi-weekly scientific monitoring report.

The selections of subjects for evaluation were driven by 3 factors:

- relevance to network partners – based on regular bilateral and multilateral feedback/input through partner exchanges via mail and in workshops.
- the focus area of the real time evaluation which are the observance of epidemiological trends, economic, societal, and cultural effects, escalating risks and downstream effects, risk communication and vulnerabilities.
- global trends and developments as the pandemic evolved.

In total, the team published 20 reports, each document precluding the technical sections with pertinent general observations, reflective of events or information relevant to the weeks prior to publishing. Some reports included research findings and papers shared by network partners from Iran and some presented research stimulated by feedback from members of the network. While input and feedback were stimulated repeatedly, contributions through this avenue however remained limited. It is important to note that there was no systematic approach to the selection of subjects but rather a subjective selection of day-to-day observations documented by 5-6 project team members, each covering different aspects of the INCREASE-HEALTH-CORONA project and coming from a broad range of personal, technical backgrounds including sociology and politics, anthropology, clinical health and public health and humanitarian aid.

This summary report reviews the trends and observations monitored over the course of the reporting timeframe per technical sector, each chapter attempting to span across the subjects reviewed. The chapters, some of which have not been featured in every report, are:

General Observations

Health

Economic, Societal, & Cultural Developments

Escalating Risks and Downstream Effects

Risk Communication

Vulnerabilities

General Observations

Short description

Each of the bi-weekly scientific monitoring reports opened with a short segment describing general observations, often in direct relation to either Germany, Iran, or both, that seemed pertinent to the team at the time of reporting. These were either mainstream big-ticket items or fringe subjects that lacked prominence in the flood of information on the pandemic (both in research and the media) and yet seemed worthy of sharing with the network. While the premise of the bi-weekly scientific monitoring reports was descriptive in nature and left analysis and critical interpretation to the reader, the general observations paragraph, at times, reflected the teams' perception of the subject matter. The general observations section would also relate to one or several subjects that were shared in more detail in the other sections of the report and thus functioned as an introduction of a specific theme that transpired throughout preparing for the report at the end of a two-week data collection process.

Brief insight into selected topics

Report № 7, published on July 11th, 2020, addresses the **growing concern over pre-print studies being released before the vetting processes**, usually applied before scientific publication, have been completed. The wealth of research and the considerable global interest has put an enormous pressure on the existing system and studies in “pre-print” are flooding the market. A study, published in BMC Medicine¹ titled “Rapid publications risk the integrity of science in the era of COVID-19” (Bagdasarian, Cross, and Fisher 2020) **discuss three examples of unverified information and the consequences** and is being described in more detail in the same bi-weekly report. **Report № 11**, published on September 15th, 2020, looks at the research and media landscape having changed over the previous month, away from the immediate response towards drawing more attention to **past experiences and how to learn from them**, looking at the initial response phase, including counting the losses, and what to learn from and **how to plan key steps to counter the impact of the pandemic in the future**. The general observation section then goes on to look at the **rapid scale up and down of surge capacity**, particularly in China (Xinhuanet 2020) but also elsewhere (Zawatka-Gerlach 2020; Rose 2020; Day 2020), while respectively other sections of this edition present are number of aspects matching the change in “at the time” current priorities. In **Report № 13**, published on October 11th, 2020, the general observation paragraph commemorates the 1 million officially reported deaths from or with COVID-19, which have been announced earlier in the reporting period. A closer look at the speech of the director general of the World Health Organisation (WHO) leads to introducing the **all-of-government, all-of-society response** to the readers of the bi-weekly scientific monitoring report. In a political declaration during the 66th session of the United Nations (UN) General Assembly in 2011, WHO member states give recognition to a whole of society approach required in fighting “*the ever rising prevalence, morbidity and mortality of non-communicable diseases worldwide [that] can be largely prevented and controlled through collective and multisectoral action by all Member States and other relevant stakeholders at the local, national, regional and global levels, and by raising the priority accorded to non-communicable diseases in development cooperation by enhancing such cooperation in this regard*”. And [...] “*Acknowledge the contribution of and important role played by all relevant stakeholders, including individuals, families and communities, intergovernmental organizations and religious institutions, civil society, academia, the*

¹ BMC Medicine, as part of Springer Nature, a global science publisher, is an open access platform for research in science, technology, engineering, and medicine with a portfolio of some 300 peer-reviewed journals

media, voluntary associations and, where and as appropriate, the private sector and industry, in support of national efforts for non-communicable disease prevention and control" (UN General Assembly 2011).

Health

Short description

Tracking epidemiological data and monitoring global, regional, and national responses, including capacity building efforts in response to the pandemic were at the core of the INCREASE-HEALTH-CORONA project and health-related topics therefore were at the center of each biweekly monitoring report. With the changing from weekly to bi-weekly reporting in July 2020 the health section grew considerably, including the frequent sharing of updated epidemiological data, a feature that went on to also become a daily, automated update on the project homepage ([COVID-19 Update](#)). The recurring section of general epidemiological data documented the development of confirmed cases and the positive test rate. *Our World in Data* (Ritchie et al. 2021) was the source for this standard set of data. Data on confirmed cases and deaths are taken from the European CDC; data on testing was gathered by the research team from *Our World in Data* individually. To avoid any misinterpretation, all data was depicted in relation to the number of people instead of per country. Each diagram was accompanied by a short explanation to aid the interpretation of the presented data. Updates were retrieved from the various sources each Friday prior to the publication of the report. Of particular interest to the network partners were the data that was gathered and shared in tables in addition to the publicly accessible graphs used from *Our World in Data*. Frequent updates were given on the percentage change in the number of new confirmed cases over the last 14 days relative to the number in the previous 14 days, comparing global and regional trends alongside German and Iranian percentages.

2. By-weekly change of confirmed cases¹

Country	The percentage change in the number of new confirmed cases over the last 14 days relative to the number in the previous 14 days	Confirmed cases/ million people (7-day rolling average)	
		10.07.	24.07.
Germany	+ 7%	4.27	5.69
Iran	- 5%	29.93	28.87
Africa	+27%	11.69	13.28
Asia	+23%	11.5	14.99
Australia	+183%	5.93	13.98
North America	+30%	110.14	132.5
South America	+9%	121.72	141.28
Europe	+25%	20.22	17.93
World	+ 22%	25.63	30.98

¹ Max Roser, Hannah Ritchie, Esteban Ortiz-Ospina and Joe Hasell (2020) - "Coronavirus Pandemic (COVID-19)". *Published online at OurWorldInData.org*. Retrieved from: 'https://ourworldindata.org/coronavirus', accessed 24. July 2020

Table 1 Example of epidemiological data shared on bi-weekly basis

Brief insight into selected topics

The actual body of the health section, adding to the epidemiological monitoring, covered the descriptive presentation of multiple health related subjects including drug and vaccine trials, disease development, emerging variants of the virus, long COVID, and the general impact of the pandemic on public health. Some of the key sources for this section include the United States Centre for Disease Control (US-CDC), The Johns Hopkins Centre for Health Security, the Robert Koch Institute, and the World Health Organisation alongside multiple research publishers like The Lancet and BMI medicine, and news outlets like Reuters, the New York Times, and the Guardian.

An example subject, featured in several reports throughout the reporting period is the **impact COVID 19 has on global efforts to eradicate communicable disease through routine vaccination** (Harris et al. 2021; WHO 2021b; Kelland 2020). The Gate Foundations *Annual Goal Keepers* report, a publication dedicated to track progress towards the Sustainable Development Goals, found that *“by nearly every indicator, the world has regressed. Because of COVID-19, extreme poverty has increased by 7%. Vaccine coverage, a good proxy measure for how health systems are functioning, is dropping to levels last seen in the 1990s, setting the world back about 25 years in 25 weeks”* (Gates Foundation 2020, own emphasis). **Report № 4** documents, among other subjects, a report received from Iran that Iranian epidemiologists observed **common symptoms of the disease to have changed** from respiratory to gastrointestinal, which is rarely accompanied by a fever that might lead to a delay in diagnosis and further spread of the virus (Sinaiee 2020). The report from May 19th, 2020 is, in hindsight, indicative of the (global) scramble for answers to the rapid proliferation of the virus and the difficulties in early recognition and diagnosis. One year on, at the writing of this report, it is common knowledge that COVID-19, the disease caused by the SARS-CoV-2 Virus, presents itself with a considerable variety of symptoms affecting people of different vulnerability (WHO 2021c) with a range of symptoms (WHO 2021a). In early October, a dialogue during the UN Global Assembly meeting, initiated by France, Finland, Indonesia and the World Health Organization, was referenced in **Report № 13** to document the push for **“building back better” and breaking the cycle of “panic and then forget”** (WHO 2020h) – indicating that the INCREASE-HEALTH-CORONA team continues to pick up on the motion of key stakeholders around the world (i.e. governments and international organisations) towards learning from past and current events to better prepare for the future, as picked up by the bi-weekly scientific monitoring report in the reporting cycle around Mid-September 2020 (**Report № 11**). “Building back better” is a long-standing term that is often and widely used in the aftermath of disasters. Whether the global extent and grave severity of the SARS-CoV-2 pandemic is sufficient to bring about sustainable change (i.e., effective health emergency preparedness) in preparation for future disasters remains to be seen.

There was ample opportunity to address health subjects in the health section that cut across several headings of the bi-weekly reporting format including e.g., mental health and psychosocial support or the impact of the pandemic on health staff around the world. Both examples have equal “right” to be covered (and were) under the headlines of **Escalating risks and downstream effects** and/or **Vulnerabilities**, demonstrating the interwovenness of multiple aspects of the SARS-CoV-2 pandemic.

Political, Economic, Social, Cultural Effects

Short description

This segment covered the pandemic's impact on political events, economic and social consequences, and cultural adaptations with global, regional, national, and local, social, and individual influence of unpredictable scale. Most contributions to this section had their beginnings in the daily skimming across headlines of the global media landscape including the Zeit, The New York Times, Al Jazeera News, The Guardian and many more, from where further research was initiated. While it was relatively easy to discover and dedicate specific up to date reports and information to this section, there were some cross over subjects, especially with regards to social and cultural effects that could have been (and to some extent have) presented either under the heading of vulnerability or escalating risks and downstream effects. The bi-weekly scientific monitoring report in this respect mirrors the cross-scale, complex, non-linear, and highly dynamic impact the pandemic has on all aspects of public and individual life.

Brief insight into selected topics

The political, economic, social, and cultural effects section opened in **Report № 1** with the (perceived) *good and the bad* that come with global events of the scale the world experiences today. Mr. Angel Gurría, head of the Organisation for Economic Co-operation and Development (OECD) published an opinion piece strongly promoting **an inclusive, green recovery from the pandemic** in which he states: *"As we move towards the next phase of the COVID-19 crisis in many countries, governments have a unique chance for a green and inclusive recovery that they must seize – a recovery that not only provides income and jobs, but also has broader well-being goals at its core, integrates strong climate and biodiversity action, and builds resilience."* (Gurría 2020). Gurría moves on to identify **three dimensions that stand out to accelerate a fair, low-carbon recovery** (ibid). The section goes on to report on companies are making money of sourcing COVID-19 positive blood samples to sell to tech firms in search for a treatment or vaccine. Margins are up to over 1.000% of the "usual" price for samples (Bradley 2020). The (at the time of publishing) current Weekly Newsletter of Transparency International and a statement OECD touch on **nepotism and bribery in connection with the pandemic**, both offering propositions to strengthen accountability (Transparency International 2020) and help countries strengthen their anti-bribery systems (OECD 2020a). **Report № 14** is exploring the **risks associated with religious super spreader events**, citing among others a report published by two esteemed network partners of the INCREASE-HEALTH-CORONA project, Dr. Lara Hamdanieh and Dr. Abbas Ostadtaghizadeh (Hamdanieh and Ostadtaghizadeh 2020). **Report № 19** introduces a remarkably interesting **calculation of the economic benefit of equitable access to vaccines** for 10 of the strongest economies in the world (Canada, France, Germany, Japan, Qatar, South Korea, Sweden, United Arab Emirates, United Kingdom, and the United States). The study, commissioned by the Bill & Melinda Gates Foundation and conducted by Eurasia Group (WHO 2021b; Santos 2020) finds that equal access to COVID-19 vaccines could be worth over \$460 billion by 2025 for those 10 economies studied alone (with 153 billion in 2020/2021 alone). Whereas leaving low- and lower-middle-income countries without access to vaccines amid the COVID-19 pandemic will **prolong the pandemic** and cause **significant economic damage for all economies** (WHO 2021b).

In retrospect, the themes selected portrayed an interesting opportunity to see how negative effects of the pandemic, as could be expected, were trending high throughout the entire reporting period. From economic downturn (WHO 2020c; Bell and Blanchflower 2011; NRC 2020) to social isolation

(Beunoyer, Dupéré, and Guitton 2020; WHO 2020i), vaccine protectionism (Farell and Newman 2021; Al Arabiya 2021) to the pandemic's impact on various cultural aspects through lock downs, closures of theatres and museums or omission of cultural events (UN News 2020; UNESCO 2020) including the breakdown of the payments of remittances by migrant workers (Goodman 2020). However, there was an initial trend also observed namely: the potential opportunities for *building back better*, recovery efforts that include green deals or the tremendous efforts by e.g., the European Union leadership to pull resources and help each other through the thick which toned down after a while (Harvey 2020; OECD 2020b; WHO 2020e; Gurria 2020). This viewpoint could likely be based on a biased, subjective observation, stemming from the teams' individual experiences and perceptions as the pandemic progresses, and some "surprise positive downstream effects" did show up throughout the reporting period, in particular the willingness of pharmaceutical giants to collaborate on the production and distribution of COVID-19 vaccines (Thomas 2021; Leaf 2020).

Escalating Risks and Downstream Effects

Short description

The monitoring and documentation of escalating risks and downstream effects of the pandemic have been addressed in a specific working package of the INCREASE-HEALTH-CORONA project, resulting in a [Mind-Map and Screen Cast](#) that document a variety of key risks and downstream effects identified and observed throughout the project period. As in other areas of the INCREASE-HEALTH-CORONA project, a reciprocal synergy effect arose, as escalating risks identified in the process of creating the mind map were regularly taken up in the bi-weekly scientific report and/or during the discussions of the INCREASE-HEALTH-CORONA workshop series and the subject matters either emerged from the development of the Mind-Map or flowed towards it. Even though there is an overwhelming quantity of escalating risks and downstream effects resulting from the pandemic, the headline was not fed with subjects in 6 out of the 20 reports. As will be described in more detail later in this report there was an early recognition in that themes around escalating risks and vulnerabilities as well as risk communication and health at times were easily interchangeable between those three to four headlines and in fact at times between all sections of the report. Respectively, even as there were gaps in reporting on escalating risks and downstream effects of the pandemic in the bi-weekly reporting series, there most certainly were one or several subjects at the time that could easily have fallen under this headline.

Brief insight into selected topics

One extraordinarily strong example of a pandemic induced downstream effect is documented in **Report No 4** where, what should be considered a *positive downstream effect*, the reduction in emergency department volume in the United States in the wake of community mitigation measures (John Hopkins Center for Health Security 2020), turns into a variety of second and third-order health related *negative downstream effects*. A substantial portion of this decrease is reported to be due to fewer trauma patients, which is believed to be, in part, a result of fewer cars on the roads and fewer automobile collisions (Demosky 2020). The sharp decline in trauma patients, as does the reduction in the number of stroke and heart attack patients, another major source of organ donations, likely caused by delayed health seeking behaviour (CDC 2020), has led to an associated decline in available organs for transplants (John Hopkins Center for Health Security 2020). Additionally, donor patients are often kept on ventilators and other life support to keep the organs viable until a recipient can be identified and the

transplant surgery scheduled, but there is concern in some areas that these ventilators could be needed for COVID-19 patients. Overall, transplant surgeries in the United States reportedly decreased by more than 50% compared to this time last year (ibid). **Report No 9** covers the grave consequences of the pandemic on remittance, which is the transfer of money, often by a foreign worker to an individual in their home country. **Money sent home by migrants competes with international aid as one of the largest financial inflows to developing countries.** Workers' remittances are a significant part of international capital flows, especially regarding labour-exporting countries (Goodman 2020). According to the World Bank the impact of the pandemic will likely produce the first global increase in poverty since the Asian financial crisis of 1998 with 40 million to 60 million people (...) expected this year (2020) to fall into **extreme poverty**, which the World Bank defines as living on \$1.90 a day or less (The World Bank 2020). Overall, the pandemic has damaged the earning power of 164 million migrant workers who support at least 800 million relatives in less affluent countries, according to an estimate from the United Nations Network on Migration (United Nations Network for Migration 2020). **Report No 17** reports on a subject that could as well have been placed under the Risk Communication headline: **Success in vaccine development reduces COVID-19 risk perceptions.** A study, conducted at the University of Erfurt, measures factors such as knowledge, risk perception, protective behaviour, and trust during the current COVID-19 outbreak in Germany, using a repeated cross-sectional monitoring method (Betsch et al. 2020). The study, which is a joint project with the Robert Koch Institute, the Federal Center for Health Education, and other institutions, showed that a declining number of only 48 percent of Germans are still afraid of the coronavirus. At the end of March almost 60 percent considered the outbreak "(rather) alarming" (ibid.). Additionally, the study shows a **lower personal risk perception** in the population, which is reinforced by the news of successful vaccine development and approval (ibid). Several scientific studies have shown that with a lower risk perception, **the willingness to protective behaviour and acceptance of preventative measures also decreases** (Wise et al. 2020). This results in the danger of a new surge in case numbers and deaths, while vaccination of a critical majority to foster herd immunity will take considerable time.

Risk Communication

Short description

As with escalating risks and downstream effects, the INCREASE-HEALTH-CORONA project entails an entire working package exploring the subject of risk and crisis communication and – through the team member working on this subject – the bi-weekly reports received a steady stream of up-to-date observations and research findings on this specific subject. The working package of the project examines the status of social science research on communication as a multidimensional, complex, and social event and the role of trust – especially in the face of overly complex risks and crises – in it. The resulting synthesis therefore illuminates in advance the question of why good crisis communication is important to then look analytically at risks and risk communication as a long-term mutual exchange of information about intended or already implemented high-risk measures with the aim of building trust.

Brief insight into selected topics

Repeat-subject under this headline, and explained in more detail in **Report № 12**, was the so called **infodemic**, described by WHO as an *overabundance of information, both online and offline. It includes accurate information as well as mis- and disinformation* (WHO 2020a). During the World Health Assembly (WHA) in May 2020, Resolution WHA73.1 was issued by member states of the World Health Assembly recognizing that managing the infodemic is a critical part of controlling the COVID-19 pandemic. The resolution calls on member states to provide reliable COVID-19 content, take measures to counter mis- and disinformation and leverage digital technologies across the response. Member states are called upon to **develop and implement action plans to manage the infodemic** by promoting the **timely dissemination science and evidence**, to all communities, and in particular high-risk groups; and preventing the spread, and **combating mis- and disinformation while respecting freedom of expression** (WHO 2020d). A statement, issued during the United Nations General Assembly in September 2020 by WHO, the UN, UNICEF, UNAIDS, the UN Development Programme (UNDP), UNESCO, the International Telecommunication Union (ITU), the UN Global Pulse initiative and the International Federation of the Red Cross and Red Crescent Societies, together with the governments of Indonesia, Thailand and Uruguay, reiterates the importance of attempting to **mitigate the harm from misinformation and disinformation** and highlights the need to promote science based healthy behaviour (WHO 2020f). In **Report № 16** the impact of the infodemic on individual and public behaviour is described and practical guidance introduced to help initiate the necessary change in individual behaviour. Finding safe and trustworthy information and guidelines is often made difficult which cannot only lead to incorrect or ineffective behaviour, but also has a direct impact on people's mental health. To counteract this, researchers from the University of Sussex, Cambridge University and Imperial College London have developed **recommendations for risk communication** “that will enhance current recommendations and will cut through the infodemic, supporting **accessible, reliable, actionable, and inclusive communication**” (Porat et al. 2020, own emphasis). Building on self-determination theory and concepts from psychology and philosophy, they have sought to better understand human behaviour and motivations and to “propose practical guidelines for public health communication **focusing on well-being and sustainable behaviour change.**” In their findings they propose five practical guidelines for public health and risk communication that provide a starting point for developing a concrete public health communication strategy to cut through the infodemic (ibid).

Vulnerabilities

Short description

With emphasis on vulnerable populations in Iran and Germany, this last segment of the bi-weekly scientific monitoring report focused on the – often severe – consequences of the pandemic on particularly exposed population groups. In most parts compiled by ADRU's expert on vulnerabilities, the contributions to this section were, in addition to the regular media screening, influenced by the process of developing a comprehensive data base on vulnerabilities in relation to the SARS-CoV-2 pandemic in Germany and Iran. The data base is a comprehensive pool of data on health aspects and underlying sociocultural, economic, and political conditions, each of these making a partial contribution to the vulnerability of individuals and social groups in the context of the COVID-19 pandemic. Particular attention was paid to escalating risks and the highly dynamic and complex effects of the pandemic on public health, social life, the economy and political systems on global, national, and local levels.

Brief insight into selected topics

Access limitations to adequate health care was as much a key issue repeatedly featured in this segment, as the disadvantages that migrants, homeless people, or Harz IV recipients (unemployment benefit recipients in Germany) experience in the pandemic response due to their social status, financial means, educational background, or language barriers. Two of the most outstanding subjects however were “**ethnicity**” and “**xenophobia**”, both first addressed in **Report № 6. Underlying racial and ethnic inequalities contribute to increased vulnerability to COVID-19**. A report by SJ Kim and Wendy Bostwick (2020) examines “social vulnerability and racial inequality in COVID-19 death in Chicago.” However, the INCREASE-HEALTH-CORONA team came across (and documented in parts) racial inequality in relation to the pandemic **in near every society** (Barr et al. 2020; Walker et al. 2021; Rothschild 2020). Kim and Bostwick (2020) argue that the disproportionate impacts of COVID-19 in African American people are a mirror of social inequality and exclusion that existed before the COVID-19 pandemic. At the same, **xenophobia and racist incidents such as verbal and physical assaults, social exclusions and discriminatory movement restrictions are rising** during the pandemic, which can be factors contributing to increased sense of vulnerability among not only people of colour but also, foreign nationals including migrants and refugees (Williamson and Wang 2020). The International Organization for Migration (IOM) emphasized that fear and uncertainty in times of the pandemic should not justify xenophobia, racism and hate crimes against foreigners and, therefore, it is essential that **combatting xenophobia is to be integrated into social and economic response and recovery policies** (Vitorino 2020). **Report № 8** introduces the results of a stern report from Amnesty International on research conducted that highlight the **failures to protect health and essential workers during the COVID-19 pandemic** (Amnesty International 2021). The report looks at concerns around **occupational health and safety, repression and other forms of reprisals, and violence and stigma for health and essential workers**. It also flags some broader **structural issues in health and social support systems** across the world that have exacerbated these challenges and must be urgently addressed as well (ibid P. 10). Amnesty International collected information relating to the rights of health and essential workers in 63 countries and territories across the world, including 18 in Europe, 4 in the Middle East and North Africa region, 10 in Asia, 10 in the Americas, and 21 in Africa (ibid., 11). Data analysis has shown that over 3.000 health workers have lost their lives due to COVID-19 during the pandemic – a figure that is likely to be a major underestimate given a lack of reporting – and many others have worked in unsafe environments due to shortages in personal protective equipment (PPE). They have further **faced reprisals from the authorities and their employers for raising safety concerns, including arrests and dismissals, and even in some cases have been subjected to violence and stigma from members of the public** (ibid., 5). Amnesty concludes among other important findings that “while many of these concerns have been thrown into sharp focus in the context of the pandemic, they **often reflect long-standing structural issues** that have affected health and social systems for years, **including a systematic lack of investment and preparedness, poor infrastructure, and the inadequate mainstreaming of human rights in health system design**” (ibid., 54, own emphasis). The report finishes with proposing strong recommendations to ensure that health and essential workers are adequately protected during the COVID-19 pandemic (ibid., 55ff). **Report № 12** highlights the **multi-layered challenges** arising from **intersecting disasters**, in this edition that of climate-related extreme events and the pandemic. The International Federation of the Red Cross (IFRC) published their analysis on the subject matter underlining the **compound vulnerability** of communities jointly affected by climate-related extreme events and COVID-19. The preliminary results of the analysis reveal the impacts of the combined vulnerabilities and risks of climate-related events and COVID-19:

- At least 51.6 million people worldwide have been affected by floods, droughts, storms, and COVID-19, and over 3000 people have been killed by these events.
- At least an estimated 2.3 million people affected by wildfires, with at least 53 deaths
- An estimated 431.7 million people in vulnerable communities exposed to extreme heat during the COVID-19 pandemic, including a European heatwave affecting 75.5 million people in vulnerable population. The initial estimation shows that that this has caused excess mortality due to the heat over 9000 people in July and August.

A quick google search, which often was the entry point to a specific subject of interest for the bi-weekly scientific monitoring report, shows that the internet is awash with publications and reports on intersecting disasters and the pandemic. Having addressed this issue in short by summarizing one study alone shows the limitations that the small INCREASE-HEALTH-CORONA team faced sieving through the flood of information in its monitoring process. It also however highlights the purpose of the chosen format which was to bring to the attention of the project network partners and thus stimulate their motivation to further conduct their own research should the information have ignited their interest.

Conclusion

Having started off as an internal tool to ensure all INCREASE-HEALTH-CORONA team members were informed about the wider aspects of the pandemic while working on the various working packages of the project, the bi-weekly scientific monitoring report soon became a central tool to communicate with and among network partners. Not having followed a scientifically standardized methodology or being guided by hard, objectifiable inclusion criteria as to what subjects to include in the report may have led to considerable bias in the selection of topics. However, since the 20 reports were part of the real-time analysis of a dynamic crisis, flexibility, and adaptability were the driving force behind the editorial decision-making in the team. The potential introduction of bias through this unscientific approach has been transparently communicated with the readers. The bi-weekly scientific monitoring reports were one of several avenues to connect with the frequently growing network of INCREASE-HEALTH-CORONA project partners in Iran and Germany which represent a heterogenous group of technical experts in public health, civil protection and disaster management, academia, government representatives and freelance consultants. Individual feedback, including the sharing of research results with the INCREASE-HEALTH-CORONA team has additionally shaped the identification of topics in multiple editions and thus fulfilled one of the three selection criteria chosen at the beginning of the project.

The representation of selected topics in this summary, as much as each of the bi-weekly scientific monitoring reports demonstrates the prominent role of WHO – and its key allies of global health organizations such as the Bill & Melinda Gates Foundation, CEPI, FIND, Gavi, the Vaccine Alliance, The Global Fund (GF), and the World Bank (WB) – at the forefront of the global fight against the SARS-CoV-2 pandemic. From the get go, WHO played a pivotal, strong role in reminding the world with its actions (e.g., the ACT Accelerator (WHO 2020b) and the COVAX Initiative (Gavi.org 2021)) that *“a global pandemic requires a world effort to end it – none of us will be safe until everyone is safe”* (WHO 2020g), keeping global key stakeholders like the G 20 members on their toes and – to the agencies best ability – ensure equal access to vaccines, tests and treatments (ibid). The bi-weekly scientific report never addressed the much-debated controversial role WHO played in the current and past pandemic outbreak responses, though this omission was not deliberate. It is almost needless to state that the politics of the pandemic and WHO’s role within will inevitably change the organisation. According to an article by David Fidler for *“Think Global Health”*: *[...] the balance-of-power politics will shape WHO’s future as much or more than the well-intentioned recommendations that post-pandemic reviews by experts will produce”*. Concluding with this statement takes this summary report full circle to the appreciation that the cross-scale, complex, non-linear, and highly dynamic impact the pandemic affects all aspects of public life.

Annex: INCREASE-HEALTH-CORONA bi-weekly scientific monitoring reports: Subject tracking sheet

INCREASE-HEALTH-CORONA bi-weekly scientific monitoring reports: Subject tracking sheet						
No & Pub. Date	General Observations	Health	Political, Economic, Social, Cultural Effects	Escalating Risks	Risk Communication	Vulnerability
No 01 May 5th 2020	EU pledging conference and commitment to ACT Accelerator	Treatment (Remdesivir) Herd Immunity a viable option?	OECD outlining green deal recovery; pandemic winners-money making with blood samples, bribery & accountability of public money spent on the pandemic	not covered in this edition	Trump continues to push the "Wuhan virus made in a lab theory", despite scientific push back	Pandemic impact on care home occupants in Europe, ethnic minorities in the UK
No 02 May 11th 2020	Immunity Passports, WHO declaring that the outbreak of COVID-19 continues to constitute a PHEIC	Monoclonal antibodies, Llama antibodies, Season and climate, challenge studies, solidarity trial drugs reach Iran	Access to COVID-19 Tools (ACT) Accelerator; future challenges of global disparities in access to anything; Remdesivir; declining European economy; slow economic recovery in China; UN Global Humanitarian Response Plan	Drop in routine immunization	WHO's unheard warning of the risk of a global pandemic	Unequal risk of deaths for people from different ethnic backgrounds
No 03 May 18th 2020	Wuhan mass vaccination: COVID spread among migrant populations	Doubling times; multisystem inflammatory condition in children; increasing case load in Iran; serological studies	Closing/reopening of public institutions in Iran	not covered in this edition	Artificial Intelligence	Children with disabilities; mental health impact of the pandemic; transition from response to recovery

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No & Pub. Date	General Observations	Health	Political, Economic, Social, Cultural Effects	Escalating Risks	Risk Communication	Vulnerability
No 04 May 24th 2020	Pandemic impact on health seeking behaviour; deterioration of pre-existing health conditions; cyclone Amphan relief efforts hampered; WHO Infodemic management programme; importance of cultural competency & intercultural dialogue within healthcare systems; Iran: containment phase started; de-stigmatisation campaign for COVID patients	Epi data global; Iranian scientists report a change in common symptoms; Lancet and WHO warn against use of chloroquine and hydroxychloroquine	Lancet: social determinants of health including social inequality, poverty, and the physical environment; ILO reports 1.6 billion informal economy workers are significantly impacted by lockdown measures; health workers' expression of frustration, concern, anger and disbelief towards people not adhering to social distancing, wearing masks in public and other simple measures	Excess mortality due to delays in seeking or obtaining lifesaving care; ER decline in trauma patients due to fewer traffic accidents = lesser number of organs available for organ transplants (50% decrease); routine immunisation disruption; HIV treatment and testing disruption	Iran: inadequate transparency in risk and crisis communication processes can have negative impacts on public trust and thus public behaviour and attitude relating to official recommendations for social distancing rules; between 45 to 60 percent of accounts on Twitter spreading misinformation are automated accounts known as bots	Child support for German families to support stay at home workers financially; Support mechanisms for the corporate sector
No 05 June 1st 2020	Fear of second wave in Iran; numbers going down in Germany as result of lock down measures? WHO shares surveillance tool called: Revealing the toll of COVID-19: A Technical Package for Rapid Mortality Surveillance and Epidemic Response to get a handle on vital statistics globally	Regional % of cases around the globe: South America leading; warning against use of antibiotics in COVID treatment in the absence of bacterial infection symptoms (WHO); first reporting on solidarity trial; Iran caseload remains high, face masks to be mandatory? role of warmer weather in the spread of the virus	Green recovery, open letter to G 20 countries and WHO study all pointing out job gains in green recovery; Transparency Int. Exploring post-COVID-19 trends and their impact on anti-corruption, governance and development; Iranian Red Crescent requires support - Support is coming including from China; traffic reduction in South Asian cities due to lock down	Prevention and treatment services for non-communicable diseases (NCDs) have been severely disrupted with highest impact on Low and Middle income countries (WHO) telemedicine a mitigating factor among others; pandemic has led to an increased use of antibiotics, which ultimately will lead to higher bacterial resistance rates	Contact tracing apps vs data protection concerns, mixed opinions/level of concern across the world	not covered in this edition

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No & Pub. Date	General Observations	Health	Political, Economic, Social, Cultural Effects	Escalating Risks	Risk Communication	Vulnerability
No 06 June 9th 2020	Economic pressure determining the easing of lockdown measures globally. lessons must be learned from countries affected early on in the pandemic; black life matter protests and the pandemic	Epi data; spread through aerosols; mandatory mask wearing; reliability of data scepticism postscandal over the Lancet-published study; more on the solidarity trial; Iran reaches new high in cases while lifting restrictions	Death of George Floyd; BLM movement = socio-economic factors including racial inequalities, housing discrimination, poverty, unequal & discriminatory treatment as well as limited access to public health; confusion as travel restrictions are lifting in Europe, Pandemic long-term effects on socio-cultural behaviours	not covered in this edition	Tackling falsehood is a strong imperative in pandemic response; conspiracy theories and the importance of fact checking;	Xenophobia, racism and hate crimes against foreigners everywhere & anywhere needs combating (ILO), migrants particularly vulnerable in Germany
No 07 July 11th 2020	Pre-print publications: BMC Medicine: Rapid publications risk the integrity of science in the era of COVID-19	Hospital delirium and Long-Term Cognitive Impairment after Critical Illness, post COVID immunity, WHO guideline on longer-term health emergency preparedness, aiming at improving national medium- to long-term preparedness for future threats	The US National Bureau of Economic Research published a working paper on Black Lives Matter Pro-tests, Social Distancing, and COVID	The World Economic Forum in collaboration with Visual Capitalist published a report that outlines the biggest risks to society in the next 18 months in light of COVID 19. The report groups the risks into economic, societal, environmental, technical and geopolitical issues	WHO COVID-19 Social Sciences Working Group, Western University Canada conducted a rapid global qualitative study of "Triage and COVID-19: global preparedness, socio-cultural consideration, and communication."	COVID-19 and People living with HIV&AIDS; UNRISD released a report of "Protecting & Supporting Vulnerable Groups. Through the COVID-19 Crisis" The report provides insights on government & non-state actors' interventions to address the needs of affected vulnerable groups, particularly those living in poverty & precarity, as well as older people
No 08 July 25th 2020	Introducing epidemiological monitoring approach in the bi-weekly report	Vaccine developments; potential for airborne transmission, is Iran aiming for herd immunity - and is this an option?	EU will provide a stimulus of 750 Billion € to support EU economy; development of a COVID-19 Law Lab to provide vital legal information & support for the global COVID-19 response; study on mask wearing messaging effects	not covered in this edition	Shared sense of purpose to be behind New Zealand's success of crushing the pandemic - leadership analysis	Amnesty Int. looks at concerns around occupational health and safety, repression and other forms of reprisals, and violence and stigma for health and essential workers

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No 09 Aug. 8th 2020	The outbreak still constitutes a public health emergency of international concern (PHEIC) and recommendations to WHO	Infection rate in Germany is increasing; Age Distribution among Sars-CoV-2 cases over time; pooled testing experiment in Philippines; prolonged recovery for mild cases of COVID-19; the dynamics between viral load and transmissibility	School Closing Policies Worldwide	Drastic drop in remittances: the pandemic has damaged the earning power of 164 million migrant workers who support at least 800 million relatives in less affluent countries, according to an estimate from the United Nations Network on Migration	Workshop notes on Crafting effective communications during a crisis	The COVID-19 pandemic is likely to deepen respiratory health inequalities among vulnerable and disadvantaged groups
No 10 Sept. 1st 2020	Equitable access to vaccines = formation of COVAX under ACT Accelerator	Group testing algorithms; SARS-CoV-2 waste water monitoring	Little evidence for the hypotheses of risk compensation at the population level and negative spill over effects from false feeling of safety when wearing masks	Homelessness and tenant protection across Europe	not covered in this edition	Sero prevalence study in the UK = differences among ethnicities were revealed with higher rates of infection in people of Black & Asian ethnicities than in people of white ethnicity.

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No & Pub. Date	General Observations	Health	Political, Economic, Social, Cultural Effects	Escalating Risks	Risk Communication	Vulnerability
No 11 Sept. 15th 2020	Rapid scale up and down of surge capacity highlights the need to learn from this pandemic how to better manage the establishment and maintenance of surge capacity to meet the potential needs during a crisis	Global pulse survey findings, avoiding vaccine access barriers workshop announcement, corticosteroids in treatment of COVID-19	Patchwork lock downs across nations has created an uncertainty across most of Europe's economy as people are holding on to their savings in fear of what's to come; how do developing countries approach lock downs= incomplete-markets macroeconomic model with heterogeneous agents and epidemiological dynamics that features several of the key distinctions between advanced and developing economies, addressing SARS-CoV-2 transmission among children in non-school congregate settings	Intergenerational inequalities especially for young people, the COVID-19 crisis poses considerable risks in the fields of education, employment, mental health and disposable income	not covered in this edition	Burial rites affected by COVID-19, 436 Million children globally, were unable to access to remote learning when the schools were closed; Refugee children are among the most vulnerable groups to the effects of the COVID-19 on education
No 12 Sept. 29th 2020	Treatment options now include monoclonal antibody (mAb) treatment for mild/moderate cases with some downside to it: accessibility	Cases rising in Europe and the Americas, vaccines for children unlikely to be available soon, COVID-10 long-haulers	Immunity passports - ethical considerations in Germany, impact of global recession on sustainable development goals	Downward Spiral: the economic impact of Covid-19 on refugees and displaced people. Norwegian Refugee Council Report released	UN General Assembly statement on COVID-19 Infodemic an attempt to mitigate the harm from misinformation and disinformation and highlights the need to promote science based healthy behaviour	IFRC report on multi-layered nature of these intersecting disasters and underline the compound vulnerability of the communities jointly affected by climate-related extreme events and COVID-19

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No & Pub. Date	General Observations	Health	Political, Economic, Social, Cultural Effects	Escalating Risks	Risk Communication	Vulnerability
No 13 Oct. 10th 2020	1 million COVID-19 deaths: WHO DG speech on four essential steps that all countries, communities and individuals must focus on to take control of the epidemic, all-of-government, all-of-society response, Taiwan as an example	COVID-19 on the African Continent and build back better: Disrupt the “panic-then-forget” cycle”, herd immunity; Optimizing Pandemic Preparedness and Response through Health Information Systems: Lessons Learned from Ebola to COVID-19	SARS-CoV-2 Transmission: A Sociological Review- sociological context contributing to transmission rates; Conspiracy theories are blooming in times of crisis and so is the number of initiatives aiming to discern the many “myths” around the SARS CoV 19 pandemic	not covered in this edition	Independent panel for Pandemic Preparedness and Response formed to evaluate WHO's response. Led by former prime ministers of Liberia and New Zealand	World mental health day; vulnerability of persons with disabilities
No 14 Oct. 25th 2020	Pandemic fatigue -WHO proposes 4 key strategies for governments to maintain and reinvigorate public support for protective behaviours	What do we know about the effects of the pandemic on low-income countries and humanitarian settings; Remdesivir approved by US FDA for wide use in COVID-19 treatment	Transmission in the context of large-scale religious events and risk communication within closed confessional communities	COVID-19 and domestic violence; mental health and rising drug abuse;	not covered in this edition	Digital inequalities = increased dependency on digital technologies create major challenges for a certain segment of the population, such as lower-income households, elderly populations & rural communities
No 15 Nov. 9th 2020	Surge in cases globally; new lock downs everywhere; shortages in health care staffs around the world	Second wave in Europe - more cases, fewer deaths; COVID-19 fatigue and availability of the health work force	OECD employment outlook 2020: impact on jobs has been 10 times bigger than that of the global financial crisis; Working from home & income inequality.	Downstream effect of the pandemic on vaccine preventable disease, looming outbreaks due to lack of access to routine immunisation = dangerous immunity gaps	not covered in this edition	OECD 2020 employment report highlighting vulnerable groups: the young, women, Part-time, temporary and self-employed workers; psychological well-being of children and adolescents
No 16 Nov. 24th 2020	Vaccine trials speed up due to increase in cases; details on COVAX initiative: guarantee fair and equitable access for every country in the world.	Toll the pandemic is taking on the health care workers; anticoagulation lowers risk of deaths in severe COVID-19 cases; WHO discourages use of Remdesivir; Pfizer and BioNTech & Moderna vaccine candidates	Virtually held G 20 summit recognizing importance of global solidarity in vaccine distribution; ethical considerations in the distribution/prioritisation of finite vaccine supplies in Germany	not covered in this edition	Public health & risk communication: practical guidelines for public health communication focusing on well-being and sustainable behaviour change.	COVID-19 in Prison & other closed environments: prison health as integral part of the public health response to COVID-19

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No 17 Dec. 7th 2020	Mind boggling high numbers of COVID-19 cases & deaths; the impact of the pandemic on People living with HIV and AIDS	Hospital preparedness readiness checklist	Connections between incidence of poverty & the rise of mental illness globally	COVID-19 & critical HIV therapies; Success in vaccine development reduces COVID-19 risk perceptions	During the COVID 19 pandemic the success of non-pharmaceutical measures depends on public confidence in experts: vaccine uptake hesitancy	Record number of 235 million people around the world are in need of humanitarian assistance in 2021, dependence on aid continue to be driven by crises and conflicts, internal displacement, climate change related disasters & disease outbreaks.
No 18 Dec. 21st 2020	not covered in this edition	WHO Population Prioritization Roadmap; Growing number of intensive care patients and danger of triage in German hospitals;	Impacts of the Pandemic on Mental Health;	WO perception survey: together Apart; migrants and refugees has significantly worsened	not covered in this edition	Pregnant women are considered to be vulnerable; no difference in infection rates between sexes. However, "male patients have almost three times the odds of requiring intensive treatment unit (ITU) admission (OR = 2.84; 95% CI = 2.06, 3.92) and higher odds of death (OR = 1.39; 95% CI = 1.31, 1.47) compared to females

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No & Pub. Date	General Observations	Health	Political, Economic, Social, Cultural Effects	Escalating Risks	Risk Communication	Vulnerability
No 19 Jan. 18th 2021	Iran and Germany are among the top 3 countries in their respective regions with regards to new cases & new deaths while vaccination campaigns are lagging behind; update on virus mutants	Newly emerging mutations of the coronavirus are causing concern; scale up of genome sequencing; vaccines effective to new strains; WHO establish a "platform for global sharing & coordination of emerging vaccine research information on efficacy & safety.	Study calculating the economic benefit of equitable access to vaccines for 10 of the strongest economies in the world; IPSOS study documents positive outlook for 2021 of study participants around the world; Culture in Crisis – the impact of the pandemic on the culture is much worse than initially feared with many million jobs at stake & billions in lost sponsorships	WHO taking up Emergency Use Listing for vaccines to support countries unable to conduct the cumbersome effort; The temporal association of introducing & lifting non-pharmaceutical interventions; one of Germany's largest hospital providers published a study earlier this month that evaluated the impact of the first lock down in March/April 2020 on cancer treatments	Criticism on slow vaccine roll out across Europe; mask wearing behaviour study	Informal employment/informal workers worldwide affected by the pandemic
No 20 Feb. 2nd 2021	"Living" guideline published for clinicians on the management & care of people with long-term effects of COVID-19; Russian Sputnik V 91% efficacy;	Newly emerging variants; long COVID has severe impact on public health	Gender equality: pandemic has increased workload for women, while gender equity at home has decreased	Vaccine delivery hold ups affect vaccination campaign in Germany; Vaccine manufacturers face some obstacles in scaling up their production	The Journal of Migration and Health published a study aimed to assess inclusion of migrants in COVID-19 prevention measures by evaluating if governmental risk communications are available in common migrant languages across Europe	Disruptions in the domestic food supply chain, food production, and nutrition programs appear to have increased vulnerability to food insecurity in many parts of the world

Bibliography

- Al Arabiya. 2021. 'Enthusiasm over Coronavirus Vaccines Dimmed by Talk of Protectionism, Hoarding'. Al Arabiya English. 27 January 2021. <https://english.alarabiya.net/coronavirus/2021/01/27/Enthusiasm-over-coronavirus-vaccines-dimmed-by-talk-of-protectionism-hoarding>.
- Amnesty International. 2021. 'EXPOSED, SILENCED, ATTACKED: Failures to Protect Health and Essential Workers during the COVID 19 Pandemic'. 13 July 2021. <https://www.amnesty.org/en/documents/document/?indexNumber=pol40%2f2572%2f2020&language=en>.
- Bagdasarian, N., G. B. Cross, and D. Fisher. 2020. 'Rapid Publications Risk the Integrity of Science in the Era of COVID-19'. *BMC Medicine* 18 (1): 192. <https://doi.org/10.1186/s12916-020-01650-6>.
- Barr, Caelainn, Niko Kommenda, Niamh McIntyre, and Antonio Voce. 2020. 'Ethnic Minorities Dying of Covid-19 at Higher Rate, Analysis Shows'. *The Guardian*, 22 April 2020, sec. World news. <https://www.theguardian.com/world/2020/apr/22/racial-inequality-in-britain-found-a-risk-factor-for-covid-19>.
- Beaunoyer, Elisabeth, Sophie Dupéré, and Matthieu J. Guitton. 2020. 'COVID-19 and Digital Inequalities: Reciprocal Impacts and Mitigation Strategies'. *Computers in Human Behavior* 111 (October): 106424. <https://doi.org/10.1016/j.chb.2020.106424>.
- Bell, David N. F., and David G. Blanchflower. 2011. 'Young People and the Great Recession'. *Oxford Review of Economic Policy* 27 (2): 241–67. <https://doi.org/10.1093/oxrep/grr011>.
- Betsch, Cornelia, Lars Korn, Lisa Felgendreiff, Sarah Eitze, Philipp Schmid, Philipp Sprengholz, Lothar Wieler, et al. 2020. 'COVID-19 Snapshot Monitoring (COSMO Germany) - Wave 25'. *PsychArchives*. 2020. <https://www.psycharchives.org/handle/20.500.12034/3939>.
- Bradley, Jane. 2020. 'Blood Samples, Vital for Antibody Tests, Sold at Exorbitant Rates'. *The New York Times*, 1 May 2020, sec. World. <https://www.nytimes.com/2020/05/01/world/europe/coronavirus-blood-samples.html>.
- CDC. 2020. 'Preliminary Estimate of Excess Mortality During the COVID-19 Outbreak — New York City, March 11–May 2, 2020'. *MMWR. Morbidity and Mortality Weekly Report* 69 (May). <https://doi.org/10.15585/mmwr.mm6919e5>.
- Day, Micheal. 2020. 'Covid-19: Nightingale Hospitals Set to Shut down after Seeing Few Patients | The BMJ'. *The Bmj*. 7 May 2020. <https://www.bmj.com/content/369/bmj.m1860>.
- Demosky. 2020. 'Organ Transplants Down As Stay-At-Home Rules Reduce Fatal Traffic Collisions'. *NPR.Org*. 20 May 2020. <https://www.npr.org/sections/health-shots/2020/05/20/858712314/organ-transplants-down-as-stay-at-home-rules-reduce-fatal-traffic-collisions>.
- Farell and Newman. 2021. 'The New Age of Protectionism | Foreign Affairs'. 5 April 2021. <https://www.foreignaffairs.com/articles/europe/2021-04-05/new-age-protectionism>.
- Gates Foundation. 2020. 'Annual Goalkeepers Report Shows COVID 19 Has Stalled 20 Years of Progress - Bill & Melinda Gates Foundation'. September 2020. <https://www.gatesfoundation.org/ideas/media-center/press-releases/2020/09/annual-goalkeepers-report-shows-covid-19-has-stalled-20-years-of-progress>.
- Gavi.org. 2021. '92 Low- and Middle-Income Economies Eligible to Get Access to COVID-19 Vaccines through Gavi COVAX AMC'. 2021. <https://www.gavi.org/news/media-room/92-low-middle-income-economies-eligible-access-covid-19-vaccines-gavi-covax-amc>.

- Goodman, Peter S. 2020. 'They Crossed Oceans to Lift Their Families Out of Poverty. Now, They Need Help.' *The New York Times*, 27 July 2020, sec. Business. <https://www.nytimes.com/2020/07/27/business/global-remittances-coronavirus.html>.
- Gurria, Angel. 2020. 'An Inclusive, Green Recovery Is Possible: The Time to Act Is Now'. Climate & Clean Air Coalition. 27 April 2020. <https://ccacoalition.org/en/blog/inclusive-green-recovery-possible-time-act-now>.
- Hamdanieh, Lara, and Abbas Ostadtaghizadeh. 2020. 'Arbaeen in the Context of the COVID-19 Pandemic'. Cambridge University Press. <https://www.cambridge.org/core/journals/disaster-medicine-and-public-health-preparedness/article/arbaeen-in-the-context-of-covid19-pandemic/5E58602BF3165040EF60895EC22FE81F>.
- Harris, Rebecca C., Yutao Chen, Pierre Côte, Antoine Ardillon, Maria Carmen Nievera, Anna Ong-Lim, Somasundaram Aiyamperumal, et al. 2021. 'Impact of COVID-19 on Routine Immunisation in South-East Asia and Western Pacific: Disruptions and Solutions'. *The Lancet Regional Health – Western Pacific* 0 (0). <https://doi.org/10.1016/j.lanwpc.2021.100140>.
- Harvey, Fiona. 2020. 'Green Stimulus Can Repair Global Economy and Climate, Study Says'. *The Guardian*, May. <http://www.theguardian.com/environment/2020/may/05/green-stimulus-can-repair-global-economy-and-climate-study-says>.
- John Hopkins Center for Health Security. 2020. 'COVID-19 Updates - May 21 2020'. Johns Hopkins Center for Health Security, International Vaccine Access Center. 21 May 2020. <https://myemail.constantcontact.com/COVID-19-Updates---May-27.html?soid=1107826135286&aid=1q5A9yFTkaA>.
- Kelland, Kate. 2020. 'COVID-19 Has Set Global Health Progress Back Decades: Gates Foundation'. *Reuters*, 15 September 2020. <https://www.reuters.com/article/us-health-global-goals-gates-idUSKBN2660BN>.
- Kim, Sage J., and Wendy Bostwick. 2020. 'Social Vulnerability and Racial Inequality in COVID-19 Deaths in Chicago'. *Health Education & Behavior* 47 (4): 509–13. <https://doi.org/10.1177/1090198120929677>.
- Leaf. 2020. 'How the Race for a COVID Vaccine Is Revolutionizing Big Pharma'. *Fortune*. September 2020. <https://fortune.com/longform/covid-vaccine-big-pharma-drugmakers-coronavirus-pharmaceutical-industry/>.
- NRC. 2020. 'Downward Spiral: The Economic Impact of Covid-19 on Refugees and Displaced People'. Norwegian Refugee Council. <https://www.nrc.no/resources/reports/downward-spiral-the-economic-impact-of-covid-19-on-refugees-and-displaced-people/>.
- OECD. 2020a. 'The Global Response to the Coronavirus Pandemic Must Not Be Undermined by Bribery - OECD'. 22 April 2020. <https://www.oecd.org/corruption/the-global-response-to-the-coronavirus-pandemic-must-not-be-undermined-by-bribery.htm>.
- . 2020b. 'Focus on Green Recovery'. OECD. 11 December 2020. <https://www.oecd.org/coronavirus/en/themes/green-recovery>.
- Porat, Talya, Rune Nyrop, Rafael A. Calvo, Priya Paudyal, and Elizabeth Ford. 2020. 'Public Health and Risk Communication During COVID-19—Enhancing Psychological Needs to Promote Sustainable Behavior Change'. *Frontiers in Public Health* 8. <https://doi.org/10.3389/fpubh.2020.573397>.
- Ritchie, Hannah, Esteban Ortiz-Ospina, Diana Beltekian, Edouard Mathieu, Joe Hasell, Bobbie Macdonald, Charlie Giattino, and Max Roser. 2021. 'Coronavirus Pandemic (COVID-19). Country-by-Country Data from COVID-19 Data Repository by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University'. Our World in Data. 15 January 2021. <https://ourworldindata.org/coronavirus>.

- Rose, Joel. 2020. 'U.S. Field Hospitals Stand Down, Most Without Treating Any COVID-19 Patients'. NPR.Org. 7 May 2020. <https://www.npr.org/2020/05/07/851712311/u-s-field-hospitals-stand-down-most-without-treating-any-covid-19-patients>.
- Rothschild, Nathalie. 2020. 'The Hidden Flaw in Sweden's Anti-Lockdown Strategy'. Stockholm. <https://foreignpolicy.com/2020/04/21/sweden-coronavirus-anti-lockdown-immigrants/>.
- Santos. 2020. 'Economic Benefits Of Equitable Vaccine & Medicines Distribution Would Be 12 Times Costs To Donor Countries, Says Study - Health Policy Watch'. 4 December 2020. <https://healthpolicy-watch.news/leaving-lower-and-middle-income-countries-without-covid-19-vaccines-will-result-in-severe-global-economic-damage-according-to-report-by-eurasia-group/>.
- Sinaiee, Maryam. 2020. 'Experts In Iran Say Coronavirus Symptoms Changing From Respiratory To Gastrointestinal'. *RFE/RL*, 19 May 2020. <https://en.radiofarda.com/a/iran-experts-say-coronavirus-symptoms-changing-from-respiratory-to-gastrointestinal-/30620493.html>.
- The World Bank. 2020. 'Poverty Overview'. The World Bank. 7 October 2020. <https://www.worldbank.org/en/topic/poverty/overview>.
- Thomas. 2021. 'Demonstrating the Value of Collaboration'. PharmTech. March 2021. <https://www.pharmtech.com/view/demonstrating-the-value-of-collaboration>.
- Transparency International, Transparency. 2020. 'Swift, Smart... and Clean'. Medium. 1 May 2020. <https://voices.transparency.org/swift-smart-and-clean-b158c74fb8f7>.
- UN General Assembly. 2011. 'Political Declaration of the High-Level Meeting of the General Assembly on the Prevention and Control of Non-Communicable Diseases'; September. <http://digitallibrary.un.org/record/710899>.
- UN News. 2020. 'Culture in Crisis: Arts Fighting to Survive COVID-19 Impact'. UN News. 22 December 2020. <https://news.un.org/en/story/2020/12/1080572>.
- UNESCO. 2020. 'Culture in Crisis: Policy Guide for a Resilient Creative Sector'. Diversity of Cultural Expressions. 19 October 2020. <https://en.unesco.org/creativity/publications/culture-crisis-policy-guide-resilient-creative>.
- United Nations Network for Migration. 2020. 'International Day of Family Remittances: The Global Pandemic Highlights the Crucial Role of Remittances for Migrant Families | United Nations Network on Migration'. June 2020. <https://migrationnetwork.un.org/international-day-family-remittances-global-pandemic-highlights-crucial-role-remittances-migrant>.
- Vitorino, Antonia. 2020. 'Combating Xenophobia Is Key to an Effective COVID-19 Recovery'. International Organization for Migration. 22 May 2020. <https://www.iom.int/news/combating-xenophobia-key-effective-covid-19-recovery>.
- Walker et al. 2021. 'Downing Street Suggests UK Should Be Seen as Model of Racial Equality'. *The Guardian*, 31 March 2021, sec. World news. <http://www.theguardian.com/world/2021/mar/31/uk-an-exemplar-of-racial-equality-no-10s-race-commission-concludes>.
- WHO. 2020a. 'Infodemic'. 2020. <https://www.who.int/westernpacific/health-topics/infodemic>.
- WHO. 2020b. 'The Access to COVID-19 Tools (ACT) Accelerator'. 2020. <https://www.who.int/initiatives/act-accelerator>.
- WHO. 2020c. 'The Cost of Inaction: COVID-19-Related Service Disruptions Could Cause Hundreds of Thousands of Extra Deaths from HIV'. WHO. 11 May 2020. <https://www.who.int/news/item/11-05-2020-the-cost-of-inaction-covid-19-related-service-disruptions-could-cause-hundreds-of-thousands-of-extra-deaths-from-hiv>.
- WHO. 2020d. 'WHA73.1 Resolution'. 19 May 2020. https://webcache.googleusercontent.com/search?q=cache:zv5aT5zbLUKJ:https://apps.who.int/gb/eb-wha/pdf_files/WHA73/A73_R1-en.pdf+&cd=2&hl=en&ct=clnk&gl=de.

- WHO. 2020e. 'WHO Manifesto for a Healthy Recovery from COVID-19'. WHO. 26 May 2020. <https://www.who.int/news-room/feature-stories/detail/who-manifesto-for-a-healthy-recovery-from-covid-19>.
- WHO. 2020f. 'COVID-19 Pandemic: Countries Urged to Take Stronger Action to Stop Spread of Harmful Information'. WHO. 23 September 2020. <https://www.who.int/news/item/23-09-2020-covid-19-pandemic-countries-urged-to-take-stronger-action-to-stop-spread-of-harmful-information>.
- WHO. 2020g. 'A Global Pandemic Requires a World Effort to End It – None of Us Will Be Safe until Everyone Is Safe'. 30 September 2020. <https://www.who.int/news-room/commentaries/detail/a-global-pandemic-requires-a-world-effort-to-end-it-none-of-us-will-be-safe-until-everyone-is-safe>.
- WHO. 2020h. 'The Best Time to Prevent the next Pandemic Is Now: Countries Join Voices for Better Emergency Preparedness'. 1 October 2020. <https://www.who.int/news/item/01-10-2020-the-best-time-to-prevent-the-next-pandemic-is-now-countries-join-voices-for-better-emergency-preparedness>.
- WHO. 2020i. 'COVID-19 Disrupting Mental Health Services in Most Countries, WHO Survey'. WHO. 5 October 2020. <https://www.who.int/news/item/05-10-2020-covid-19-disrupting-mental-health-services-in-most-countries-who-survey>.
- WHO. 2021a. 'Coronavirus-Symptoms'. 2021. <https://www.who.int/westernpacific/health-topics/coronavirus>.
- WHO. 2021b. 'Global Equitable Access to COVID-19 Vaccines Estimated to Generate Economic Benefits of at Least US\$ 153 Billion in 2020–21, and US\$ 466 Billion by 2025, in 10 Major Economies, According to New Report by the Eurasia Group'. 18 January 2021. <https://www.who.int/news/item/03-12-2020-global-access-to-covid-19-vaccines-estimated-to-generate-economic-benefits-of-at-least-153-billion-in-2020-21>.
- WHO. 2021c. 'COVID-19 Virtual Press Conference Transcript - 26 April 2021'. 26 April 2021. <https://www.who.int/publications/m/item/covid-19-virtual-press-conference-transcript---26-april-2021>.
- WHO. 2021d. 'Coronavirus'. 27 May 2021. <https://www.who.int/westernpacific/health-topics/coronavirus>.
- Williamson, Elizabeth, and Vivian Wang. 2020. "'We Need Help": Coronavirus Fuels Racism Against Black Americans in China'. *The New York Times*, 2 June 2020, sec. U.S. <https://www.nytimes.com/2020/06/02/us/politics/african-americans-china-coronavirus.html>.
- Wise, Toby, Tomislav Zbozinek, Giorgia Micheli, Cindy Hagan, and dean mobbs. 2020. *Changes in Risk Perception and Protective Behavior during the First Week of the COVID-19 Pandemic in the United States*. <https://doi.org/10.31234/osf.io/dz428>.
- Xinhuanet. 2020. 'How Does China Combat #coronavirus: 16 Temporary Hospitals Built in 16 Days in Wuhan - Xinhua | English.News.Cn'. Xinhuanet. 3 December 2020. http://www.xinhuanet.com/english/2020-03/12/c_138871374.htm.
- Zawatka-Gerlach, Ulrich. 2020. 'Streit um Corona-Notklinik: Berliner Wirtschaft macht sich für die Messe stark - Berlin - Tagesspiegel'. *Der Tagesspiegel*. 7 July 2020. <https://www.tagesspiegel.de/berlin/streit-um-corona-notklinik-berliner-wirtschaft-macht-sich-fuer-die-messe-stark/25979882.html>.

Imprint

Title

SARS-CoV-2 Monitoring Report Summary: April 2021 – February 2021

Publisher

Akademie der Katastrophenforschungsstelle (AKFS)
c/o Katastrophenforschungsstelle
Carl-Heinrich-Becker-Weg 6-10
12165 Berlin
www.a-kfs.de

Cover

Photo by Fatemeh Sedighi®

Project funding

This report is part of the project “Real time analysis of the global response to the SARS-CoV-2 pandemic and identification of best practices to strengthen Health Systems in Iran and Germany”.

SPONSORED BY THE



Federal Ministry
of Education
and Research

The authors of the bi-weekly scientific monitoring report series

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