

Annual Report 2022



Centre for Health Crises

Building the next generation of health crises experts through research,
education and interdisciplinary collaboration

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A Word from our Director

When the Centre for Health Crises became operational in February 2022, we hit the ground running. The Centre was established based on Karolinska Institutet's (KI's) work and societal contribution during one health crisis, the COVID-19 pandemic, while our first year of operation was immediately influenced by another, the war in Ukraine.

The invasion of Ukraine occurred one week after I had been appointed as Director of the Centre. The invasion created a need for immediate action, and to bring the Centre's expertise to where it is most needed in a health crisis – on site. You cannot support crisis-affected populations solely from behind a computer. We immediately offered our expert support to organisations working on the ground – the WHO, Médecins Sans Frontières (MSF) and UK-Med. Within the first months we seconded physicians and nurses to Ukraine as well as conducted trauma triage courses for emergency physicians at 20 hospitals in Moldova.

In parallel, it has been vital to lay out and implement a long-term aim – to build the next generation of health crises experts through education, research, and operational work. During the year, we have recruited staff and experts in health crises areas, secured funding through a donation from Marianne and Marcus Wallenberg Foundation, the Swedish government and internal KI funds, and initiated activities – all of which you can read more about in this report.

At the Centre for Health Crises, we intend to remain hands-on, as we continue to realise our vision of a society better prepared for future health crises. This can only be accomplished through a dual focus on both short and long-term activities, which has already become the Centre's modus operandi.

/Johan von Schreeb, Director

Vision

A society better prepared for future health crises

Mission

Building the next generation of health crises experts through research, education and interdisciplinary collaboration



Background

KI formally established the Centre for Health Crises in mid-June 2021¹. The intent was to coordinate and to further advance the research and educational efforts and capabilities that were developed at KI during the COVID-19 pandemic. The Centre was created to be able to act flexibly and quickly in the event of future health crises, as well as help to coordinate responses at KI in case of such crises. Just weeks after the Centre had become operational, in February 2022, Russia invaded Ukraine, and the Centre had to quickly adapt and activate to face a potential health crisis of a very different kind.

Whilst the COVID-19 pandemic was the catalyst for the creation of the Centre, the need for coordination when it comes to health crises management is not new. Previous health crises, such as the Ebola epidemic in West Africa in 2014, shone a spotlight on the need for stronger and better – more resilient – health systems. The COVID-19 pandemic demonstrated that this is also essential in high-income countries, where health systems were exceptionally strained trying to maintain access to essential services while managing a surge of COVID-19 patients and vaccinating the population. Doubtlessly, transformative change is needed in order to better handle future pandemics and other health crises, be they sudden events such as extreme weather, conflicts or more slowly emerging hazards like antimicrobial resistance.

The world is increasingly experiencing multifaceted crises of various kinds: pandemics, wars, effects of extreme weather events on all continents, all in interlinked and complex contexts. Managing these challenges requires a wide range of expertise, such as specialists in infectious diseases, disaster medicine and trauma, chemical and radio-nuclear events, and other hazards. Teaching and training in these areas have been neglected for the last twenty years and this lack of preparedness is considered a significant vulnerability when facing new crises.

Cross-cutting expertise in public health, epidemiology, and not least, expertise in how to operationalise health systems strengthening, is also required. In practice, this involves engaging experts who have clinical and systems experience, as well as experience in working in various health crises.

Knowledge on and research in, mental health, behaviour change, risk communication and so on, is also needed. This opens up for transdisciplinary collaborations with other universities, agencies, civil society and governments.

The Centre has been established at a time when the need for strengthened preparedness for, and increased abilities to respond to, health crises and disasters has been highlighted in several national² and international³ reports.

The role of universities has been clearly emphasised as important in order to ensure research, education and expert support to authorities and other actors in society. By establishing the Centre for Health Crises, KI shows its commitment to take a civic responsibility and be prepared to contribute to build a society prepared for health crises to ensure a better health for all.



1. Initially under the name Health Emergency and Pandemic Science Center

2. The Corona Commission, SOU 2022:6 on the health care sector's preparedness, government mandates to the National Board of Health and Welfare and others

3. The Independent Panel for Pandemic Preparedness and response, S20 Academies joint statement on pandemic preparedness and the role of science, etc

Organisation and Collaborations

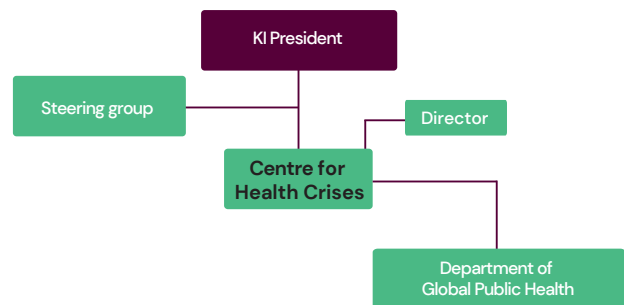
The Centre for Health Crises' activities are not limited to one single department, but rather they span across all of KI and are often done in collaboration with other actors. The Centre is set up to assist KI's management with advice and expert support in case of a health crises, and therefore the Director of the Centre reports directly to the President of KI.

The Centre's steering group, which consists of representatives from several KI departments, as well as external representatives (from SciLifeLab, KTH and Stockholm University), assures that the development and work of the Centre is conducted in accordance with its mission. It also contributes with advice and support for the Centre's development and operations.

Finance administration is managed at the department where the Director is employed. To ensure transparency in the Centre's operation vis-à-vis the hosting department, the head of administration at the Director's department is appointed to the Centre's steering group.

During 2022 the Centre's operation and activities have been made possible through internal funding granted by the President of KI, along with a generous donation from Marianne and Marcus Wallenberg Foundation.

The Centre's day-to-day operations are organised around a small, tightly knit team, led and managed by the Director and a Strategic Process Leader. They are supported by an Administrative Coordinator and a Communications Officer. In addition, a core group of Expert Coordinators with specific expertise within different health crises subjects has been formed. These experts work part-time (20%) at the Centre, with their remaining time in their core clinical and research expertise position. Experts in chemical and toxicological incidents, extreme weather, climate and health effects, critical care with limited resources, diagnostic preparedness, health system resilience, and policy and preparedness, have already been recruited. The Centre is



expanding this group to also include experts in infection biology and pandemics, mental health, radio-nuclear events and other areas, as needed. The expert coordinators ensure that there is a broad interdisciplinary skillset at the Centre, provide avenues through which to collaborate with external partners, and devise activities.

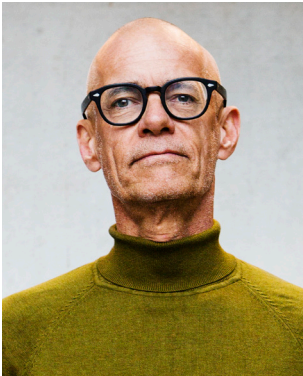
The Centre is set up to help strengthen capacities across the board: prevention, preparedness, response, and resilience. This means that the work itself will be structured differently depending on the phase and focus. At the same time, the Centre must also be able to act quickly and adapt when a crisis occurs, which has been done during the past year both in response to the war in Ukraine and the Ebola outbreak in Uganda, in collaboration with the Centre for Research on Health Care in Disasters at KI

Collaboration with actors within and outside KI, nationally and internationally, is essential for the Centre to function as intended. As described in the 'Selected Activities' section in this report, the Centre has already established contacts with other universities, the Public Health Agency, the National Board of Health and Welfare, the WHO, MSF, and more. This is to complement the Centre's own organisation, and ensure solid collaborations are in place when the next crises hits. In late December, we received further funding in the form of a grant from the Swedish government for activities to increase collaborations with other universities in 2023.



Staff

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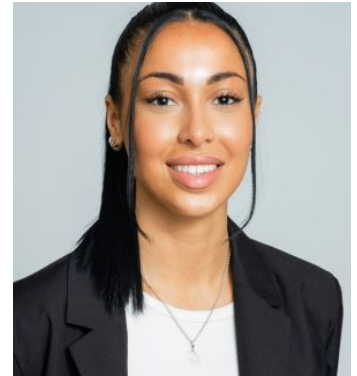
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surge capacity

Strategic Goals

- 1** Catalyse research collaborations within the field of health crises and create meeting spaces for interdisciplinary collaboration.
- 2** Stimulate and participate in the development of new education within different health crises subjects.
- 3** Gather existing and build new health crises expertise, and supply specific know-how and competence.
- 4** Drive policy development and in collaboration, set the agenda for increased health crises preparedness.
- 5** Act as KI's and its management's sensor for new health threats, and contribute to the coordination of KI's efforts in a health crisis.





Selected Activites 2022

Strategic Goal:

Catalyse research collaborations within the field of health crises and create meeting spaces for interdisciplinary collaboration



Managing health crises is a multidisciplinary effort, involving many scientific disciplines and areas. The Centre will be a catalyst, as well as a forum, to connect and stimulate interdisciplinary research collaboration

KI Contributes

The seminar series KI Contributes was initiated to gather researchers, students, and government agency representatives to discuss emerging health crises topics in an engaging and participatory manner. The first seminar was held in September 2022 and focused on health effects of extreme heat. It was a panel-based format that featured KI researchers, as well as representatives from the Swedish Public Health Agency and student organisations.

The National Disaster Medicine Conference

Together with the Centre for Research on Health Care in Disasters, the Centre hosted the annual National Disaster Medicine Conference in December 2022. The conference gathered more than 110 academics, civil servants, students, and health care professionals to share the latest advancements in the field and discuss the challenges that Sweden faces when it comes to health crises preparedness, response, and resilience.

Establishing networks

Since 2022 was the Centre's first year in operation, significant time has been dedicated to mapping contexts and forums that are relevant to participate in. We have established contacts with other universities, one example being the participation in a Stockholm Trio (Stockholm University, KTH, KI) 'Climate and Health' network. We have also engaged with national agencies such as the National Board of Health and Welfare, the Civil Contingencies Agency, and the Public Health Agency, as well as with international partners, including the WHO.



Strategic Goal:

Stimulate and participate in the development of new education within different health crises subjects



As our mission is to create the next generation of health crises experts, it is vital that we act to stimulate education and actively engage in the development of new training and education in preparedness, response, and evaluation of health crises initiatives

Mass casualty exercises in Moldova and Ukraine

Through our Director's previously established contact with the WHO, we were invited to send experts to conduct mass casualty simulations in Moldova and Ukraine, following Russia's invasion in February. The simulations are based on a format developed by the Centre for Research on Health Care in Disasters, called AnTriEx (Analogue Triage Exercise) and is used to teach and practice triage, prioritisation, and decision-making in mass casualty scenarios.

Conceptualisation of a research school

One longer-term aim for the Centre is to establish a research school for PhD students within different fields. The Research school would focus on teaching key health crises skills, as well as allowing for secondment of students to organisations conducting field work, thereby providing them with real-world experience. As a first step towards this aim, the Centre has created a model for the school. We have also started to develop the courses that would be included, through collaborations with internal and external partners, and have also applied for funding for the school from the Swedish Research Council.

Lecturing and teaching

During 2022 the Centre's staff, including our expert coordinators, have lectured and taught classes extensively at both KI and at other universities. The topics covered has ranged from disaster medicine response to the threat of antibiotic resistance in the context of pandemic preparedness. In addition, a two-day education module on acute and disaster toxicology for the Master program in toxicology at KI has been developed.



Strategic Goal:

Gather existing and build new health crises expertise, and supply specific know-how and competence

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The Centre aims to be a resource for expertise during health crises. We map knowledge and skills that exists at KI and other universities, and make it available, both during a health crisis and in crisis-preparedness

Recruitment of expert coordinators

A top priority for the Centre in our first year of operation has been to recruit expert coordinators in various health crises-related fields. These expert coordinators work 20% at the Centre (see staff page), whilst at the same time continuing their work in research, education, and clinical practice elsewhere. This allows them to maintain a strong connection to the practical work within their respective field, which is hugely beneficial for the Centre. Recruitment of additional expert coordinators is ongoing.

Expert secondment in collaboration with the WHO, UK-Med and MSF

Since the Centre does not carry out field operations, it is vital that we established relationships with actors that do, in order to make sure our expert skills can be used in ongoing health crises. During 2022, secondments supporting operational agencies were done through: WHO (to Ukraine and Moldova), UK-Med (to Ukraine) and MSF (to the Ebola outbreak in Uganda).

International engagement

Being up to date on international health crises-related developments is key. With this in mind, the Centre has become a member of the Global Outbreak and Alert Response Network (GOARN), which provides international public health resources to public health emergencies and disease outbreaks around the world. In addition, representatives from the Centre participate in various meetings and networks. This includes the WHO task force on highly infectious diseases, the 5th Emergency Medical Teams global meeting in Armenia, a workshop on antibiotic R&D and meeting with the Director of WHO Europe and the Minister of Health of Lebanon. Additionally, in collaboration with the Swedish Civil Contingencies Agency (MSB), we were part of a successful application, taking on the role as health lead in an EU project that aims to strengthen emergency health response to disasters in western Balkan.



Strategic Goal:

Drive policy development and in collaboration, set the agenda for increased health crises preparedness



The Centre will strive to make sure that the knowledge we gather is used to drive policy and help set the agenda when it comes to building capacities for health crises management, preparation, and evaluation

Application to become a national centre for health crises

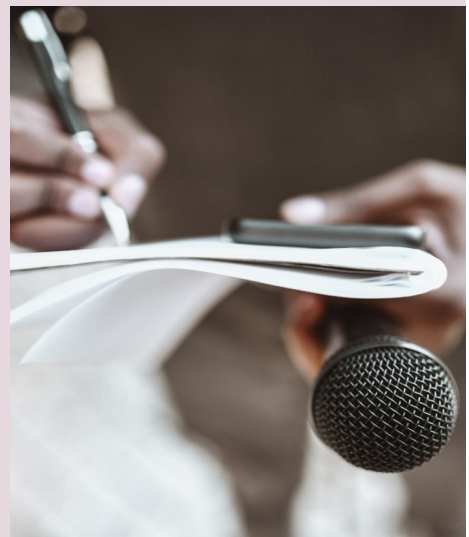
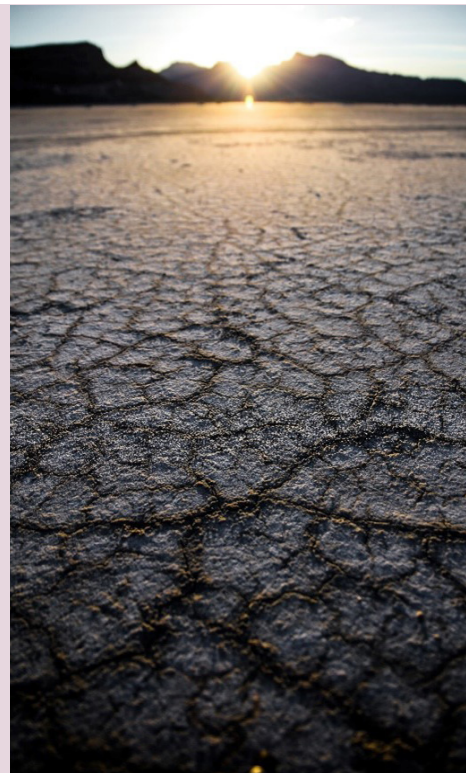
To maximise the contribution of our work and of the expertise we gather to the Swedish society, we approached the government with a proposal to become a national centre for health crises. In December 2022, we received governmental funding for 2023 and an assignment to investigate how to increase knowledge on health crises and to develop activities to support and collaborate with other universities.

Referral response to official government reports

Thanks to our experts and their experience we are well positioned to provide input to government queries and reports. The Centre coordinated KI's response to the official government report on the preparedness of the Swedish health and medical care system (SOU 2022:6), which reviewed the system's ability to respond to crises. With an increasing number of government reports and investigations on health crises response and preparedness being conducted, we will continue to ensure that our inputs, which are based on expert experience and scientific knowledge, are being put forward.

Communication and publicity

In our first year of operation, we have worked to make the Centre and our activities known in various ways. We developed a website in both English and Swedish (ki.se/healthcrises), which was visited over 2 000 unique times from its launch in March to the end of the year. We have also started to develop a podcast on different health crisis topics and the first episodes will be released in the spring of 2023. Furthermore, in 2022, the Centre and our staff were referenced 214 times in Swedish and international media.



Strategic Goal:

Act as KI's and its management's sensor for new health threats, and contribute to the coordination of KI's efforts in a health crisis



Whilst much of the Centre's work has an external focus, we combine it with internal work to assist KI as needed, in its coordination of, and preparation for, future health crises.

External monitoring

A vital part of being able to act as a sensor for new health threats is to be constantly aware of developments globally and make note of events or shifts that could result in a health crisis. The Centre ensures we have this awareness through our expert coordinators and their networks and expertise, as well as through 24/7 stand by and daily external monitoring of reports, studies, news, and other developments in health crises related matters.

Report on lessons learned at KI during the COVID-19 pandemic

KI's President tasked the Centre with compiling a report focused on lessons learned at KI during the COVID-19 pandemic, as the university adapted its research and tried to assist society. The content of the report was based on surveys and interviews as well as reviews of key university records.

Securing funding

To ensure a well-functioning centre, adequate funding is key. We have secured funding for the Centre's work primarily by external funding in form of a generous donation from the Marianne and Marcus Wallenberg Foundation, the Swedish government and internal funding granted by KI's president.

