Introduction: The Covid-19 pandemic strained health care organizations to their limits, and sometimes beyond. Different countries took different approaches to minimize the effects of the pandemic, both to protect public health and to safeguard the capability of the health care system.

A collaborative project between Sweden and Bosnia-Hercegovina with the aim to share and learn from experiences of managing the COVID-19 pandemic from a medical command and control perspective, initiated in 2021.

The project departed from three theoretical stances: socio-technical systems perspective, experiential learning theory, and organizational learning theory. Framing the problem using a holistic systems approach, compared to focusing on individual experts, allows for understanding interactions on a system level. Hence, could these theories contribute to supporting individuals' learning and organizational change?

Method: A two-day workshop involving participants from both Swedish and Bosnian (N=21) medical command and control allowed for the exchange of experiences and another's perspective on similar challenges. During the workshop, two themes were addressed: common operational picture and evaluation. First, an introductory presentation was held, then the theme was discussed and reflected upon in small groups. After this, the groups presented their conclusions, and a full group discussion was moderated.

Results: The discussions resulted in participants sharing perspectives on the selected themes, providing personal insights and experience, allowing for deepened and increased understanding of the theme. In spite of major differences between the Swedish and the Bosnian health care systems and Covid-19 approaches, several shared conclusions were identified. For example, reflections on decision processes and strategies, as well as interest in improving the crisis organization.

Conclusion: Exposing participants to different views on well-known processes and challenges allows for reflecting, verbalizing, and reaching a deeper understanding. By displaying a culturally differently organized way of approaching the challenges the contrast is even more evident.

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Issues of the Nuclear Disaster Core Facility Through Nuclear Disaster Training

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Introduction: In addition to national nuclear disaster training, local training is conducted once a year to identify issues with training.

Method: The facility is located in the urgent protective action planning zone (UPZ), an exposure medical facility was built in 2015 and has conducted four trainings so far. The fifth training was conducted this time to develop human resources (training), manage equipment and materials, receive medical teams, collaborate with the Advanced Radiation Medical Support Center, review manuals, and inform local residents.

Results: There are currently eleven nurses registered as nuclear disaster response nurses at the facility, and two nurses participate in the national nuclear disaster training program each year. On the other hand, unlike physicians and other professionals, the number of nurses enrolled for reasons such as relocation has not increased. The facility also functions as a core hospital in the event of a disaster, and currently has about 30 nurses who are willing to be dispatched in the event of a disaster. It was found that even in core facilities for nuclear disaster response, awareness of nuclear disasters within the facilities is low and few personnel are willing to work there. Previous studies have shown that they are anxious about radiation, the possibility of late effects from low-dose exposure, and concerns about the genetic effects of exposure and its effects on themselves in nursing.

Conclusion: As a core facility for nuclear disasters, issues were reported on and identified through training, such as human resource development, management of materials and equipment, and review of manuals.

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Patient Factors which Lead to Disagreement in Triage Decisions

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Introduction: Multiple triage algorithms have been proposed to optimize the allocation of medical resources in mass casualty incidents. Despite attempts at standardization, first responders often assign patients to triage categories that deviate from those prescribed by these algorithms. This study seeks to understand what patient level factors cause these deviations, and identify clinical factors which cause variance toward over or under triage. Rather than evaluate these decisions against a gold standard, we instead seek to identify patients that cause controversy among first responders with respect to their choices.

Method: This will be an online survey distributed to EMT and Paramedic students in the US. They will be provided with fifty patient cards containing a clinical vignette including description of injuries and vital signs. For each vignette, they will select a triage category (Red, Yellow, Green, or Black.) We will analyze responses to identify areas of controversy, where triage classification showed a significant split between respondents. We can then evaluate these patients for clinical trends.

Results: Data collection and analysis are planned for completion by March 30, 2023.

Conclusion: Identifying patient-level characteristics that contribute to triage variance can allow emergency managers to anticipate under-triage and over-triage following an MCI. This can aid emergency providers as they plan to receive an influx of patients. It also addresses the sub-cognitive biases that

impact first responders decision-making, which may aid EMS educators who train first responders in triage.

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Assessment of Emergency Department Key Performance Indicators about Surge Response Actions Across Three Periods of the COVID-19 pandemic in an Italian Hospital

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Introduction: At the beginning of the COVID-19 pandemic, Italian emergency departments (EDs) had to hastily implement current surge response plans or create new ones. The objectives of this study are to quantitatively assess ED performance improvements between selected non-pandemic and pandemic periods at Sant'Anna hospital in Como, Italy, and to relate these to adopted and adapted surge response actions.
Method: The average length of stay (LOS), time-to-physician initial assessment (TPIA) and left-without-being seen (LWBS) rates were calculated during two ED periods prior to the pandemic and then three periods during the pandemic in the COVID ED (C-ED) dedicated to treat COVID patients, and the COVID-free ED (NC-ED) dedicated to treat all other patients. Then quantitative data analysis based on hypothesis testing was performed.

A qualitative theme and subtheme data analysis based on the Hospital Surge Preparedness and Response Index (HSPRI) was performed on baseline strategies before each pandemic period and on the actions implemented in the subsequent period.
Results: The LOS increased across all periods, while the TPIA decreased in the first two pandemic periods in comparison to pre-pandemic periods. The NC-ED LOS was lower than the C-ED LOS, and the C-ED TPIA was lower than the NC-ED TPIA in all three pandemic periods. The LWBS decreased between pre-pandemic and pandemic periods, with an increasing trend towards pre-pandemic levels in the last pandemic period. Of the 20 action items listed in the HSPRI, six were implemented in the first pandemic period, eight in the second and one in the third.
Conclusion: The LOS, TPIA and LWBS rates are useful indicators to rapidly obtain an overview of ED performance but failed to provide an exhaustive assessment because ED performance depends on countless external and internal variables. Close collaboration of ED leaders with other healthcare agencies is critical to respond to a pandemic surge.

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Development of the "Conductor Type Human Resources Development" program for Disaster Medicine and Health Care by Tohoku University and Fukushima Medical University

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Introduction: On March 11, 2011, the Great East Japan Earthquake with a 9.0 magnitude struck the northeastern coast of Japan. The death toll reached 15,892 and 2,576 people were reported missing. Tohoku University and Fukushima Medical University, both of which are located in the affected prefectures, responded massively to the disaster.
Method: To deal with the next disaster, both universities established the "Conductor type Human Resources Development" (CHRD) program for Disaster Medicine and Health Care in 2019, not only for doctors, but also other medical professionals (such as dentists, nurses, pharmacists, etc.) supported by the Japanese government. The main course of CHRD program, "Disaster Management course," which is also a certification program at Tohoku University, comprises 14 practical educational contents (seven practical trainings and seven lectures) based on the work experience of both universities in collaboration with various organizations.
Results: To date, 59 students have enrolled in the Disaster Management course, two students are enrolled in the board-certified physician in public health and social medicine acquisition course, three students are enrolled in the master's course, a Tohoku University Graduate School of Medicine course, and two students are enrolled in the doctoral course. Until October 2022, a total of 17 people were certified to have completed the "Disaster Management course," and one person completed the board-certified physician in public health and social medicine acquisition course. A total of 68 practical trainings and lectures were held until 2021, the total number of times this program was attended by students until 2021 was 916. Average comprehension rate and satisfaction rate with practical trainings and lectures by students are 97.2% and 98.3%, respectively.
Conclusion: All the students who complete the CHRD program are believed to acquire comprehensive skills related to disaster health and medical care and will be able to respond effectively in all phases.

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A Comprehensive Coalition-Based Regional Approach to Pediatric Disaster Planning

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Introduction: Children, who comprise 25% of the US population, are frequently victims of disasters and have special needs