

**WHO Thematic Platform for
Health Emergency and Disaster Risk Management
Research Network**

The 3rd Core Group meeting
“Translating HEDRM research into practical products”

22 November 2021

WHO Centre for Health Development (WHO Kobe Centre – WKC)

WHO Disaster Risk Management and Resilience Unit, Health Security Preparedness Department

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1. Executive Summary

The WHO Centre for Health Development (WHO Kobe Centre: WKC) convened the third Core Group meeting of the WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network (Health EDRM RN) online on 22 November 2021. The meeting was a key milestone in advancing the field of health emergency and disaster risk management (Health EDRM) through research. The meeting objective was to approve the action plan for Health EDRM RN for 2022–2023 and to discuss the following four main milestones for its effective implementations including:

- Identifying additional members of the technical working group and making recommendations regarding global involvement of stakeholders for the global survey to identify up to date research needs.
- Planning to launch the Health EDRM Knowledge Hub, including further content for the Knowledge Hub, and dissemination in collaboration with regional offices.
- Identifying additional content for the *WHO Guidance on Research Methods for Health EDRM* to be added in 2022–2023 and means of dissemination in cooperation with regional offices.
- Mobilizing resources and linking research and practice in Health EDRM.

22 participants attended the meeting, including the focal points from WHO Health Emergency Programme (WHE: Headquarters), all WHO Regional Offices, the co-chairs of the TPRN, and other key stakeholders in Health EDRM research, policy, and practice.

At the end of the meeting, the participants agreed on a draft plan of major activities for the Health EDRM RN for 2022–2023, including the revision and further dissemination and use of the *WHO Guidance on Research Methods for Health EDRM*, the establishment of the Health EDRM Knowledge Hub, and the development of the WHO Health EDRM research agenda. The meeting also agreed on additional initiatives that will benefit countries by increasing regional participation, including member states and other key stakeholders, and facilitating regional and cross-sectoral collaboration. The activities of the Health EDRM RN will be accelerated, taking forward the agreed projects and paying attention to the International Health Regulations (IHR), all-hazards and whole-of-society approaches, including in the context of COVID-19.

2. Background and objectives

The World Health Organization (WHO) Thematic Platform for Health Emergency and Disaster Risk Management Research Network (Health EDRM RN) was launched in 2018. The objectives of the Health EDRM RN, whose secretariat is located at the WHO Kobe Centre (WKC), are to promote global collaboration among academia, government officials and other stakeholders, to strengthen research and

promote knowledge and evidence for managing health risks associated with all types of emergencies and disasters, and to contribute to the development of the framework for health security preparedness research, development and innovation. The Health EDRM RN helps to integrate research and evidence across the 3 strategic pillars of the WHO 13th General Programme of Work 2019-23 (GPW13).

The Health EDRM RN is aligned with the WHO Health EDRM Framework that guides member states and partners on the many functions, including evidence and research, required to manage the risks and impacts of all types of emergencies. The Health EDRM RN facilitates coherence and complementarity on health EDRM-related research to support the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030, Sustainable Development Goals, International Health Regulations (IHR) (2005), Paris Agreement on Climate Change and other related global, regional and national frameworks.

The Core Group provides strategic direction for the Health EDRM RN and consists of co-chairs representing global research experts, WHO focal points from Headquarters (HQ) and all Regional Offices (ROs) and several key experts and stakeholders. Core Group meetings were held in 2019 in Awaji and in 2020 online and achieved the following milestones:

- Set five key research areas and identified three additional areas covering emerging research needs.
- Agreed to develop WHO Guidance on Research Methods for Health EDRM
- Agreed to establish the WHO Health EDRM Knowledge Hub and develop the WHO global research agenda on Health EDRM.
- Agreed to focus on research for country needs for policy and programme advancement.
- Drafted an action plan for Health EDRM RN for 2022–2023.

Responding to the Core Group meeting recommendations, WKC coordinated the development of *WHO Guidance on Research Methods for Health EDRM*, launched multiple research projects to address the needs in four key research areas, started working for establishment of WHO Health EDRM Knowledge Hub, and the WHO Global Research Agenda for Health EDRM.

Following these achievements, WKC convened the third meeting of the Core Group on 22 November 2021, entitled “Translating Health EDRM research into practical products”. The meeting objective was to approve the action plan for Health EDRM RN for 2022–2023 and to discuss the following four main milestones for its effective implementations including:

- Identifying additional members of the technical working group and making recommendations regarding global involvement of stakeholders for the global survey to identify the up to date research needs.

- Planning to launch the Health EDRM Knowledge Hub, including further content for the Knowledge Hub, and dissemination in collaboration with regional offices.
- Identifying additional content for the *WHO Guidance on Research Methods for Health EDRM* to be added in 2022–2023 and means of dissemination in cooperation with regional offices.
- Mobilizing resources and linking research and practice in Health EDRM.

The expected outcome was to agree on the action plan for Health EDRM RN.

3. Meeting summary

Opening remarks

The Core Group Meeting started with the welcome remarks by Dr Sarah Louise Barber (Director, WKC, Kobe, Japan) which provided the overview of the key milestones of the Health EDRM RN activities.

Following the welcome remarks, Dr Qudsia Huda (Unit Head, Disaster Risk Reduction and Resilience, WHO Health Emergency Programme, Geneva, Switzerland) emphasized the needs in a) quality data collection, b) impact assessment of Strategic Tool for Assessing Risks (STAR) and the Vulnerability Risk Assessment Mapping (VRAM), c) informing the implementation of the newly developed national health emergency response operation guidance, d) promoting cross-sectional collaboration to embed risk considerations at the heart of development planning to protect lives and livelihoods, and e) all hazards approach and link with climate change research.

Dr Nirmal Kandel (Unit Head, Evidence and Analytics for Health Security, WHO Health Emergencies Programme, Geneva, Switzerland) then discussed the close linkage between Health EDRM and new research and development (R&D) framework for emergencies and disasters preparedness, emphasizing the importance of preparedness in normal times to break the ‘panic-then-forget’ cycle.

Session 1: Regional reports

Summary

- Strong needs to enhance the capacity building and workforce development for Health EDRM and Health EDRM research (Dr Ngoy Nsenga (AFRO), Dr Irshad Shaikh (EURO), Dr Jehan Al-Badri (EMRO), Dr Jan-Erik Larsen (WPRO))
- Emphasis on all-hazard approach, whole-of-society approach and community engagement (Dr Irshad Ali Shaikh, EURO, Dr Qudsia Huda (HQ), Dr Jehan Al-Badri (EMRO))
- Expectation to research to inform governance, leadership and resource allocation for Health EDRM (Dr Ngoy Nsenga (AFRO), Dr Irshad Ali Shaikh (EURO), Dr Alex Camacho (PAHO), Dr Jehan Al-Badri (EMRO), Dr Emily Chan (co-chair), Dr Jan-Erik Larsen (WPRO))
- Strong research needs to improve emergency preparedness to inherit the lessons learned from COVID-19 pandemic and past health emergencies and disasters (Dr Ngoy Nsenga (AFRO), Dr Nirmal Kandel (HQ), Dr Shinichi Egawa (Tohoku University))
- Support continuing the current key research areas including health data management, mental health and psychosocial support and health workforce development (Dr Jehan Al-Badri (EMRO))

Dr Ngoy Nsenga (WHO Representative to Central African Republic, Bangui, Central African Republic (AFRO)) highlighted the complex interplay of various factors, with emergencies and disasters of all kinds occurring in high-risk areas, deteriorating environments, and increasing vulnerability. However, only 39% of African countries had some capacity building on research for Health EDRM. There was no DRM focal person in the regional office; there was a high turnover of staff with HEDRM knowledge; and there were few resources allocated to DRM at the regional level. In addition, Dr Nsenga indicated strong concerns that the lessons learned from the COVID-19 pandemic had reversed the focus from further strengthening Health EDRM, to strengthening infectious disease control. Professor Shinichi Egawa (Division of International Cooperation for Disaster Medicine, International Research Institute of Disaster Science (IRIDeS), Tohoku University, Sendai, Japan) emphasized that response and preparedness for health emergencies such as pandemics should be based on response and preparedness for addressing social determinants of disaster risk during normal times. Potential research areas suggested by Dr Nsenga included (1) methodologies and approaches to risk assessment; (2) social determinants of disasters/outbreaks; (3) benchmarking for Health EDRM capacity in African context; (4) prediction models for major epidemic prone diseases; (5) evidence for health security tools in strengthening emergency preparedness.

Dr Irshad Shaikh (Head of Office a.i., WHO European Center on Preparedness for Humanitarian and Health Emergencies, Istanbul, Turkey (EURO)) highlighted that the issue of leadership could not be

overemphasized. It was clear from the COVID-19 lessons that Joint External Evaluation (JEE) did not include governance. The cornerstone for EURO to consider was how to develop Pan-European, national and local governance of Health EDRM, and how to bring politicians and health officials together to recognize each sector's impact on health. Health and politics were mutually at the top of each sector's agendas. Possible research areas addressed by Dr Shaikh included: (1) best practices of political leadership for COVID-19; (2) linkages between health system building blocks and health security domains/IHR core capacities; (3) vaccine mis/disinformation; (4) empirical evidence in support of all-hazards approach; (5) health care workforce training; (6) integration of primary health care and emergency preparedness; (7) templates for whole-of-society and whole-of-government architectures; and (8) an investment case for sustainable financing of emergency preparedness.

Dr. Alex Camacho (Advisor, Emergency Preparedness and Disaster Reduction, Country Health Emergency Preparedness & IHR, Washington DC, USA (PAHO)) stated that many actions had been implemented, progress was dynamic, and the regional disaster risk reduction plan was nearing completion. DRM research priorities focused on the need for evidence leading to improvements and achievements in saving lives, protecting investments, and ensuring functionality.

Dr Jehan Al-Badri (Technical Officer, Country Health Emergency Preparedness & IHR, WHO Representative Office, Baghdad, Iraq (EMRO)) explained that EMRO was helping countries with health security issues such as climate change, epidemics, biological, chemical and nuclear threats, mass gatherings, prolonged emergencies and displacement, and food insecurity. In general, the region suffers from weak governance, a lack of a holistic approach, a lack of infrastructure and poor distribution, gaps in training and certification, and limited data. The region also suffers from problems in emergency management and coordination. Potential research areas indicated by Dr Al-Badri included (1) health information management (timely data collection, sharing and analysis, to inform risk assessment); (2) community engagement (mapping of priority communities and design programmes of two-way communication); (3) health workforce development (sustainable programmes and modalities for capacity building); (4) health system resilience for climate change (forecasting of hazards and building resilient facilities to extreme weather events and long-term stresses to continue protecting the health facilities and systems); (5) mental health and psychosocial support (sustainable approaches for community and responders).

Regarding COVID-19, the importance of informal care providers was emphasized, while how to build the capacity of communities was also a challenge in EMRO. The COVID-19 pandemic would have long term psychosocial impacts. The key phrase was “protracted crises” which the world was experiencing with COVID-19. He commented that how to assess this and evaluate the risks would be a useful area to explore. In addition, Professor Emily Ying-Yang Chan (Assistant Dean, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong SAR, China) commented that funding and resource issues were also important in Health EDRM.

According to Dr Anil Bhola (Country Preparedness & IHR Officer, WHO Health Emergencies Programme, WHO Regional Office for South-East Asia, New Delhi, India (SEARO)) and Dr Victor Del Rio Vilas (Technical Officer, GOARN, Emergency Operations, WHO Regional Office for South-East Asia, New Delhi, India (SEARO)), SEARO had published a framework on health systems for health security on June 25, 2021¹.

Dr Jan-Erik Larsen (Technical Officer, Logistics, Emergency Operations, WHO Regional office for the Western Pacific, Manila, Philippines (WPRO)) demonstrated that WPRO had made progress on Health EDRM, including the establishment of a national emergency medical team in some countries in the Western Pacific Region, regular health crisis simulation exercises, Health EDRM at a high level of government, development of resilience/disaster risk reduction and management in national health policy, and smart city solutions for disaster response. Regional challenges included COVID-19, a lack of financial investment in Health EDRM, a lack of research capacity, and a lack of regional focal points for Health EDRM.

Session 2: Discussion

Summary

- Support the ongoing work to constantly update The *WHO Guidance on Research Methods for Health EDRM* as a living reference and disseminate to actually use the Guidance for education and training (Dr Ryoma Kayano (WKC), Dr Irshad Ali Shaikh (EURO), Dr Jehan Al-Badri (EMRO), .
- Recommend expanding the Health EDRM RN by involving scientists from different research fields (Dr Jan-Erik Larsen (WPRO), Dr Victor Del Rio Vilas (SEARO), Professor Virginia Murray (co-chair), Professor Tatsuhiko Kubo (Hiroshima University)).
- Support the ongoing work to establish the WHO Health EDRM Knowledge Hub and recommend enhancing research translation into practice by involving policy makers and practitioners, as well as utilizing the study findings of each key research area (Dr Jehan Al-Badri (EMRO), Dr Kevin Hung (the Chinese University of Hong Kong), Dr Elizabeth Newnham (Curtin University))

At the beginning of the discussion session, Dr Ryoma Kayano (Technical Officer, WHO Centre for Health Development, Kobe, Japan (WKC)) introduced the recent progress of Health EDRM RN activities including as the official publication of the *WHO Guidance on Research Methods for Health EDRM* (the Guidance) and the initiation of the work to establish the Health EDRM Knowledge Hub.

The Guidance is WHO's first comprehensive guide on how to plan, conduct, analyze and report on research on Health EDRM, consisting of six sections and 43 chapters. It was developed with contributions of 164

¹ <https://www.who.int/publications/i/item/9789240029682>

experts from 30 countries and supported by multiple departments at the WHO Headquarters and all six Regional Offices. The Guidance is a living reference document to be updated regularly and have already undergone one revision to address the COVID-19 context. The authors of the chapters were currently working together to make this guidance available for use in training next year. Dr Irshad Ali Shaikh echoed that the Guidance was a living document and was expected to improve the awareness of all technical personnel in WHO on what research methodology on Health EDRM is.

Dr Shuhei Nomura (Associate Professor, Department of Health Policy and Management, School of Medicine, Keio University, Tokyo, Japan) indicated that the Knowledge Hub would be valuable in sharing information, especially with those who are not familiar with Health EDRM. Opportunities should be explored to extend this to people outside health sector. Dr Jan-Erik Larsen and Dr Victor Del Rio Vilas emphasized that bringing new people into the network was one of the goals of the Health EDRM RN. Professor Virginia Murray (Head of Global Disaster Risk Reduction, Public Health England, the United Kingdom) highlighted that the Knowledge Hub needed to discuss how to expand the network.

Professor Cordia Chu (Director, Centre for Environment and Population Health, Griffith University, Queensland, Australia) stressed that emergency planners should contribute to this work to pave the way for translating the research into practice. The translational research must make a difference for vulnerable populations. Dr Jehan Al-Badri stated that EMRO appreciated the research guidance and the Knowledge Hub and suggested that products tailored for specific audiences would engage senior policy makers.

Dr Kevin Hung (Assistant Professor, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong SAR, China) described his multi-stage research (including a literature review and 12 case studies). He recently shared a Delphi method study on health workforce development in a webinar and reported that the focus and priorities of health workforce development differed significantly between high-income (HICs) and low- and middle-income countries (LMICs), with LMICs showing more emphasis. Dr. Alex Camacho stated that Evidence Aid would be presenting a collection of evidence focusing on health system resilience and disaster response this December which would be shared with the network.

Dr Tatsuhiko Kubo (Professor, Department of Public Health and Health Policy, Hiroshima University, Hiroshima, Japan) mentioned that Association of South-East Asian Nations (ASEAN) was trying to create an institute for disaster medicine (including health management and research capacity building) with funding from Japan International Cooperation Agency (JICA). It sought to connect this to Health EDRM and get them involved in this movement. They were planning to hold a research conference next year, which would be a good harmonization opportunity. Dr Elizabeth Newnham (Senior Research Fellow, School of Population Health, Curtin University, Perth, Australia) addressed the importance of access to mental health support in resource-poor settings.

Feedback from participants

Summary

- Highlight the role of the Health EDRM RN that helps avoid duplication of research and efficient use of resources (Dr Nirmal Kandel (HQ)).
- Emphasis on reaching out young researchers and strengthening leadership skills (Dr Qudsia Huda (HQ)).
- Recommend further effort on advocacy to general public to enhance the visibility of Health EDRM (Dr Shuhei Nomura (Keio University), Professor Shinichi Egawa (Tohoku University)).

Dr Nirmal Kandel emphasized the need to avoid duplication and to make effective use of resources, and that it was important to make this network work and collaborate. Dr Qudsia Huda stated that leadership was not often discussed, and it was also important to reach out to young researchers about Health EDRM. Professor Shinichi Egawa and Dr Shuhei Nomura highlighted that the climate change or other global frameworks (e.g., SDGs) were often broadcast on TV, while the Sendai Framework was rarely reported. There was a lack of public awareness and perhaps this was the responsibility of researchers and networks like the Health EDRM RN.

4. Conclusion

The progress of the main activities of the Health EDRM RN was shared with key stakeholders and external experts from the WHO Headquarters and the regional offices. Participants agreed on a draft plan of major activities for the Health EDRM RN for 2022-2023, including the revision and further dissemination and use of the *WHO Guidance on Research Methods for Health EDRM*, the establishment of the Health EDRM Knowledge Hub, and the development of the WHO Health EDRM research agenda. The meeting also agreed on additional initiatives that will benefit countries by increasing regional participation, including member states and other key stakeholders, and facilitating regional and cross-sectoral collaboration. The activities of the Health EDRM RN will be accelerated, taking forward the agreed projects and paying attention to the IHR, all-hazards and whole-of-society approaches, including in the context of COVID-19.

5. Annexes

Annex 1. Meeting programme

| Time: | Agenda item | Presenter |
|---------------|---|--|
| 12.30 - 12.50 | Opening session <ul style="list-style-type: none"> • Welcome and opening remarks • HQ initiative on Health EDRM and whole-of-society approach • R&D Framework for preparedness | Chair: Ryoma Kayano (WKC) <ul style="list-style-type: none"> • Sarah Louise Barber (WKC) • Qudsia Huda (WHE) • Nirmal Kandel (WHE) |
| 12.50 - 13.50 | Session1: Regional report Regional activities on health emergency policy, programme, operation and research | Chair: Emily Chan (RN co-chair) <ul style="list-style-type: none"> • Ngoy Nsenga (AFRO) • Irshad Shaikh (EURO) • Alex Camacho (PAHO) • Jehan Al-Badri (EMRO) • Dr Anil Bhola & Dr Victor Del Rio Vilas (SEARO) • Dr Jan-Erik Larsen (WPRO) |
| 13.50 - 14.00 | Session2: Progress report and introduction of draft Action Plan 2022–2023 on Health EDRM RN | Ryoma Kayano (WKC) |
| 14.00 - 14.45 | Session 3: Discussion <ul style="list-style-type: none"> • WHO Guidance on Research Methods for Health EDRM • WHO Knowledge Hub on Health EDRM • WHO Health EDRM Research Agenda – emerging research needs and resource mobilization | Chair: Virginia Murray (RN co-chair) <ul style="list-style-type: none"> • Shinichi Egawa (Tohoku Univ.) • Cordia Chu (Griffith Univ.) • Kevin Hung (CUHK) • Elizabeth Newnham (Curtin Univ) • Tatsuhiko Kubo (Hiroshima Univ) |
| 14.45 - 15.00 | Session 4: Feedback from participants | Chair: Ryoma Kayano (WKC) <ul style="list-style-type: none"> • Osman Elmahal Mohammed (EMRO) • Solomon Fisseha Woldetsadik (AFRO) |
| 15.00 | Close | Ryoma Kayano (WKC) |

Annex 2. List of participants

Core group of WHO Health EDRM Research Network

- Dr Jehan Al-Badri, Technical Officer, Country Health Emergency Preparedness & IHR, WHO Representative Office, Baghdad, Iraq (EMRO)
- Dr Anil Bhola*, Country Preparedness & IHR (CPI) Officer, WHO Health Emergencies Programme, WHO Regional Office for South-East Asia, New Delhi, India (SEARO)
- Dr Alex Camacho, Advisor, Emergency Preparedness and Disaster Reduction, Country Health Emergency Preparedness & IHR, Washington DC, USA (PAHO)
- Dr Victor Del Rio Vilas, Technical Officer, GOARN, Emergency Operations, WHO Regional Office for South-East Asia, New Delhi, India (SEARO)
- Professor Emily Ying-Yang Chan, Professor and Assistant Dean (Development), Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong SAR, China (Co-chair)
- Dr Qudsia Huda, Unit Head, Disaster Risk Reduction and Resilience, WHO Health Emergency Programme, Geneva, Switzerland (HQ)
- Dr Jan-Erik Larsen, Technical Officer, Logistics, Emergency Operations, WHO Regional office for the Western Pacific, Manila, Philippines (WPRO)
- Dr Ryoma Kayano, Technical Officer, WHO Centre for Health Development, Kobe, Japan (WKC/Secretariat)
- Professor Virginia Murray, Head of Global Disaster Risk Reduction, Public Health England, the United Kingdom (Co-chair)
- Dr Ngoy Nsenga, WHO Representative, WHO Representative's Office, Bangui, Central African Republic (AFRO)
- Dr Irshad Ali Shaikh, Head of Office a.i., WHO European Center on Preparedness for Humanitarian and Health Emergencies, Istanbul, Turkey (EURO)

Invited WHO experts

- Dr Ankur Rakesh, Consultant, Disaster Risk Management and Resilience, WHO Health Emergency Programme, Geneva, Switzerland (HQ)
- Dr Sarah Louise Barber, Director, WHO Centre for Health Development, Kobe, Japan (WKC)
- Dr Diarmid Campbell Lendrum*, Unit Head, Climate Change and Health, Healthier Populations, Geneva, Switzerland (HQ)
- Dr Stella Chungong*, Director, Health Security Preparedness, WHO Health Emergencies Programme, Geneva, Switzerland (HQ)
- Dr Rudi Connix*, Unit Head, Interagency Policy for Emergencies, Emergency Response, WHO Health Emergencies Programme, Geneva, Switzerland (HQ)

Dr Osman Elmahal Mohammed, Technical Officer, Country Health Emergency Preparedness & IHR, WHO Regional Office for the Eastern Mediterranean, Cairo, Egypt (EMRO)

Dr Nirmal Kandel, Unit Head, Evidence and Analytics for Health Security, Health Security Preparedness, Geneva, Switzerland (HQ)

Dr Ihor Perehinets*, Technical Adviser, Health Security, Country Health Emergency Preparedness & IHR, Copenhagen, Denmark (EURO)

Ms Maki MacDermot, Consultant, WHO Centre for Health Development, Kobe, Japan (WKC)

Ms Tasiana Samba Mzozo*, Partnerships Officer, Emergency Response, WHO Regional Office for Africa, Nairobi, Kenya (AFRO)

Dr Reuben Samuel*, Programme Area Manager, Country Health Emergency Preparedness & IHR, WHO Regional Office for South-East Asia, New Delhi, India (SEARO)

Dr Solomon Fisseha Woldetsadik, Health Emergency Officer, Emergency Response, WHO Regional Office for Africa, Nairobi, Kenya (AFRO)

Invited external experts

Professor Mike Clarke*, Professor, Queens University of Belfast, Northern Ireland, the United Kingdom

Professor Cordia Chu, Director, Centre for Environment and Population Health, Griffith University, Queensland, Australia

Professor Shinichi Egawa, Professor, Division of International Cooperation for Disaster Medicine, International Research Institute of Disaster Science (IRIDeS), Tohoku University, Sendai, Japan

Dr Kevin Hung, Assistant Professor, Faculty of Medicine, The Chinese University of Hong Kong, Hong Kong SAR, China

Dr Tatsuhiko Kubo, Professor, Department of Public Health and Health Policy, Hiroshima University, Hiroshima, Japan

Dr Elizabeth Newnham, Senior Research Fellow, School of Population Health, Curtin University, Perth, Australia

Dr Shuhei Nomura, Project Associate Professor, Department of Health Policy and Management, School of Medicine, Keio University, Tokyo, Japan

* Unable to attend