

1.1 Introduction

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Objectives

This chapter provides an introduction to

- the WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network (Health EDRM RN)
- the WHO Guidance on Research Methods for Health Emergencies and Disaster Risk Management

WHO Thematic Platform for Health Emergency and Disaster Risk Management Research Network (Health EDRM RN)

- Coordinate activities
- Promote information-sharing
- Develop partnerships
- Provide technical advice to strengthen Health EDRM research
- Discussed further in chapter 1.2 of the *WHO Guidance on Research Methods for Health EDRM*



Expert meeting to examine the status of Health EDRM evidence (January 2016)

Highlighted the vast challenges facing the academic and research community, including

- overlap in research activities
- lack of strategic research agenda
- lack of coordination between key stakeholders
- lack of resources



First Lancet letter on 'Health EDRM'

Comment

What are the health research needs for the Sendai Framework?

There is an important opportunity to build coherence across different policy areas with the 2015-16 adoption of four landmark UN agreements—the Sendai Framework for Disaster Risk Reduction 2015-2030,¹ the 2030 Sustainable Development Goals (SDGs),² the Paris Agreement, and the New Urban Agenda (Habitat III). Ensuring that health is at the heart of the Sendai Framework is crucial. The 2030 targets of the Sendai Framework call for substantial global reductions in disaster-related mortality, number of affected people, direct economic loss, and damage to critical infrastructure (panel). The framework identifies strategies that might alleviate the impact of disasters, including reduction and management of hazard, exposure, and vulnerability and capacity building for prevention, preparedness, response, and recovery.³ Health resilience is also promoted throughout the Sendai Framework.⁴

Since 2007 global platforms for disaster risk reduction have provided a biennial forum for strategic advice, coordination, partnership development, and review of progress in the implementation of international instruments on disaster risk reduction. On May 24-26, 2017, the Global Platform in Cancun, Mexico, highlighted measures needed to ensure implementation of the Sendai Framework and presented the proposed indicator framework to monitor the seven Sendai targets, such as the building of resilience of infrastructure and housing.⁵ Although discussion at the Global Platform recognised health as a determinant and outcome of disaster risk reduction, the focus was on risk-informed investment in resilient infrastructure. The importance of health as a core dimension in disaster risk reduction, as emphasised within the Bangkok Principles,⁶ has not yet been fully addressed.

The European Union report *Science for Disaster Risk Management 2027* recommended that “health sciences should be more involved in the disaster risk management community, advancing their understanding of outbreaks and pandemics, health impacts of all hazards, but also advances in data collection”. In recognition of the need to engage all relevant practitioners, Health Emergency and Disaster Risk Management (Health EDRM) has emerged as a critical field of inquiry that encompasses emergency and

disaster medicine, disaster risk reduction, humanitarian response, community health resilience, and health systems resilience. Health EDRM promotes the intersection of health and disaster risk reduction and supports the implementation of the health aspects of the Sendai Framework.⁷

If the Sendai Framework objectives are to be fulfilled, research gaps must be addressed. There are general uncertainties about the agreed tracking and monitoring of health indicators for disaster risk reduction.⁸ The absence of an agreed all-hazard and disasters classification is an issue for health data collection. Working epidemiological definitions are required, given concerns about how thresholds relating to temporality (slow-onset/protracted events), attribution (direct vs indirect causes of morbidity and mortality), and baseline data should be accounted for.⁹ Furthermore, global data collection systems, such as the International Health Regulations and the Lancet Countdown, could have a role in facilitating the identification, prevention, preparation, response, and recovery from emergency threats and risks. Indicator reporting guidelines require consultation with a diverse range of stakeholders to ensure adequate implementation and integration with national data collection systems.

Disasters affect people's wellbeing and human development with both short-term and long-term effects, such as loss of life, injury and illness, and disability. There is insufficient research on the long-term

Disaster Medicine
DOI: 10.1016/j.dmd.2017.09.001
For the Sendai Framework
For the Sustainable Development Goals
For the Paris Agreement
For the New Urban Agenda

Panel: Seven global targets of the Sendai Framework¹

- 1 Substantially reduce global disaster mortality by 2030, aiming to lower average per 100 000 global mortality rate in the decade 2020-30 compared with 2005-15
- 2 Substantially reduce the number of affected people globally by 2030, aiming to lower average global figures per 100 000 in the decade 2020-30 compared with 2005-15
- 3 Reduce direct disaster economic loss in relation to global gross domestic product by 2030
- 4 Substantially reduce disaster damage to critical infrastructure and disruption of basic services, among them health and educational facilities, including through developing their resilience by 2030
- 5 Substantially increase the number of countries with national and local disaster risk reduction strategies by 2020
- 6 Substantially enhance international cooperation to developing countries through adequate and sustainable support to complement their national actions for implementation of this framework by 2030
- 7 Substantially increase the availability of, and access to, multi-hazard early warning systems and disaster risk information and assessments to the people by 2030

- By Professors Emily YY Chan and Virginia Murray in October 2017
- Indicated the strong requirement for Health EDRM research and global collaboration to implement the Sendai Framework
Lancet 2017;390:e35-e36

First paper recommending a Health EDRM research field

Int J Disaster Risk Sci
DOI 10.1007/s13753-017-0122-0



SHORT ARTICLE

Health Emergency and Disaster Risk Management (Health-EDRM): Developing the Research Field within the Sendai Framework Paradigm

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Abstract The intersection of health and disaster risk reduction (DRR) has emerged in recent years as a field of critical inquiry. Health is recognized as an outcome and a goal of DRR, and the integration of both fields is essential to ensure the implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030. Health Emergency and Disaster Risk Management (Health-EDRM) has emerged as an umbrella field that encompasses emergency and disaster medicine, DRR, humanitarian response, community health resilience, and health systems resilience. In September 2016, an international group of experts met in Hong Kong to assess the current status and potential of the Health-EDRM research field, a research area that these scholars characterized as underdeveloped and fragmented. Key challenges identified include research overlap, lack of

strategic research agenda, absence of consensus regarding terminology, and limited coordination between stakeholders. The Sendai Framework provides a useful paradigm within which to shape the research field's strategic development. The WHO Thematic Platform for Health-EDRM Research Group was established to coordinate activities, promote information-sharing, develop partnerships, and provide technical advice to strengthen the Health-EDRM research field. This group will promote the generation of robust and scientific health research to support the meaningful implementation of the Sendai Framework.

Keywords Health disaster risk reduction · Health emergency and disaster risk management · Health-EDRM · Sendai Framework

With contributions from: Alistair Humphrey (Canterbury District Health Board, New Zealand), Olivier Higon (Geneva University Hospital), Diane Wong (Monash University), and Ada Fong (The Chinese University of Hong Kong).

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- Scope of research to include (1) all-hazards approach, (2) holistic all-needs approach, (3) research during all phases, (4) risk identification of vulnerable populations and (5) community resilience
 - Multidisciplinary, multisectoral approach
 - Plans for needs assessments, evaluation methodologies and common terminology
- International Journal of Disaster Risk Science 2017;8 145-9

Hong Kong Research Summit (July 2018)



Kobe Expert Meeting to Identify Key Research Questions (October 2018)

Highlighted five key research themes:

1. Health data management and disasters
2. Mental health and psychosocial support
3. Addressing needs of sub-populations
4. Health workforce development
5. Research methods and ethics



Area 5. Research methods and ethics

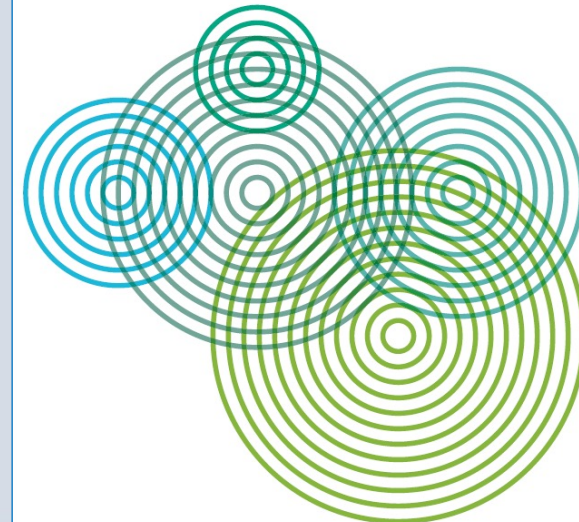
- Establish the **WHO Thematic Platform for Health EDRM Research Network**
- Prepare **WHO Guidance on Research Methods for Health EDRM**
- Launch **Knowledge Hub** on Health EDRM Research Methods, to contain
 - Guide to the book
 - Audio podcasts by chapter authors
 - Video lectures by chapter authors

WHO Guidance on Research Methods for Health EDRM

- First WHO textbook on Health EDRM research methods.
- 43 chapters online since September 2020.
- ‘Living’ document with contents to be regularly reviewed and updated, including addition of a COVID-19 chapter.



Guidance on Research
Methods for Health
Emergency and Disaster
Risk Management

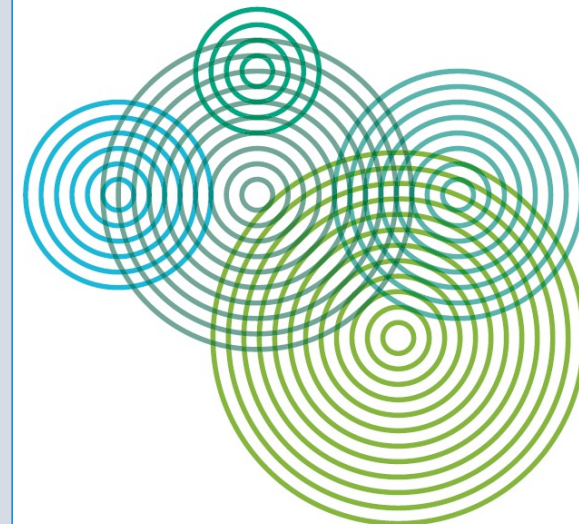


Production

- **Editors:** Ryoma Kayano (WHO WKC), Virginia Murray (Public Health England), Mike Clarke (Queen's University Belfast) and Emily Y.Y. Chan (The Chinese University of Hong Kong).
- **Associate editors:** Tracey O'Sullivan (University of Ottawa) and Jonathan Abrahams (WHO WHE)
- **Authors and peer reviewers:** 164 authors and peer reviewers from 30 countries, including WHO Headquarters and Regional Offices (PAHO, AFRO, EMRO, EURO, SEARO, WPRO).



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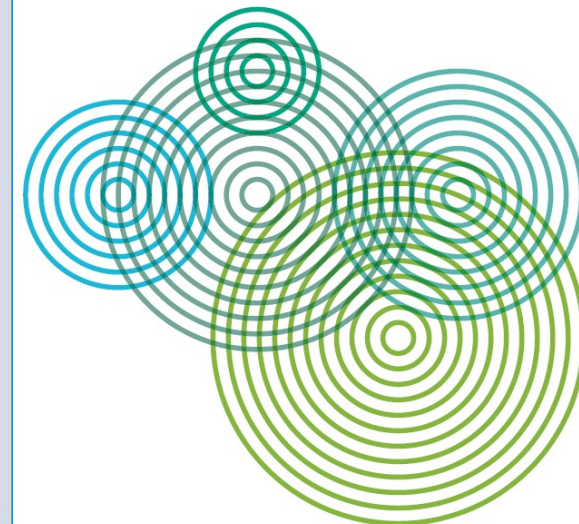


Production process

- Chapters written (ideally a senior and a junior author).
- Editorial team review led by a lead editor for each chapter.
- Peer review by at least two experts for each chapter.
- Response and revision by the authors.
- Technical editing.
- Copy editing.
- Publication.
- **USE.**
- Revision.



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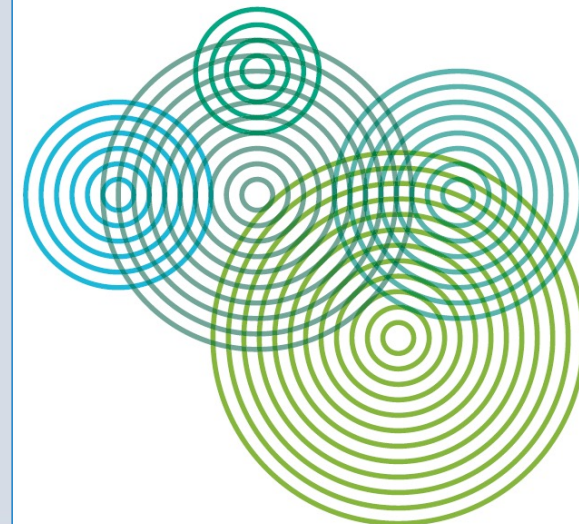


Transformative and innovative

- Improving the quality of research in Health EDRM.
- Improving the quality of the policy, practice and guidance that is supported by evidence from this research
- Increasing research capacity among researchers and the research community, including new researchers experienced researchers and teachers of research.
- Strengthening collaboration and engagement between the research community and policy-makers, practitioners and stakeholders for improved Health EDRM.



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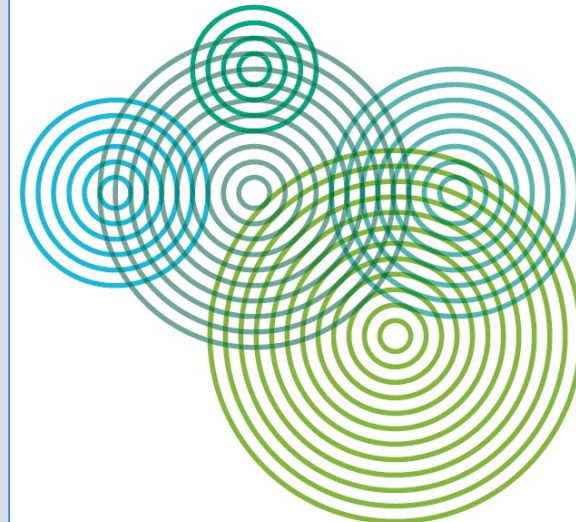


Structure of the book

1. Introduction (3 chapters)
 2. Identifying and understanding the problem (7)
 3. Determining the scope of your study (7)
 4. Study design (15)
 5. Special topics to demonstrate research processes and benefits (4)
 6. How to become a researcher (7)
- Glossary



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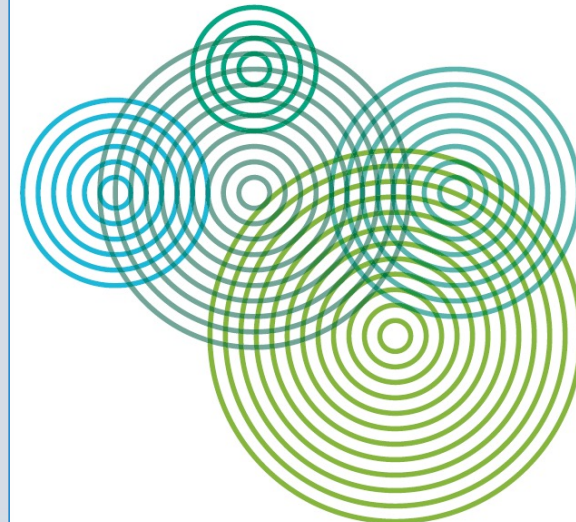


Structure of each chapter

- Learning objectives
- Main text
- Case studies
- Key messages
- Further reading
- References



Guidance on Research
Methods for Health
Emergency and Disaster
Risk Management



Examples

1.1

2.1

3.1

4.1

5.1

6.1

How to become a successful researcher

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6.1.1 Learning objectives

To understand the lifelong joys and challenges of becoming a successful researcher, by appreciating the importance and value of:

1. Gain a mastery of varied research methodologies to answer timely scientific questions.
2. Field research conducted in real-world and natural environments, which can give the researcher a deeper understanding and appreciation of the research topics and a respect for the research subjects.
3. The ability to work autonomously, set clear goals, be organized, and have a good research plan while meeting deadlines and expectations.
4. Mentorship and of working collaboratively with other researchers, mentors, learning to lead with questions using mature listening and communication skills.

6.1.2 Introduction

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Key messages

Evidence is vital to well-informed decision making in Health EDRM. The research that provides this evidence must be high quality and fit for purpose. This book aims to provide guidance for researchers, would-be researchers, policy-makers and practitioners in order to:

- improve the quality of research in Health EDRM,
- improve the quality of the policy, practice and guidance that is supported by evidence from such research,
- increase research capacity among researchers and the research community, including new researchers, experienced researchers and teachers of research, and
- strengthen collaboration and engagement between the research community and policy-makers, practitioners and stakeholders for improved Health EDRM.

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