

Chapter 2.6 - The Current State of the Evidence: Mapping the Evidence and Systematic Reviews

Hello and welcome to this instalment in our audio series for the WHO Guidance on Research Methods for Health Emergency and Disaster Risk Management. My name is Claire Allen and I'm one of the authors of Chapter 3.7 of the WHO Guidance, which is about research resources including systematic reviews. In this podcast, I will be talking to you about Chapter 2.6, titled *The current state of the evidence: Mapping the evidence and systematic reviews*. Over the next few minutes, I'll outline some of things we cover in the chapter about different types of systematic reviews and how these can be used as a source of information for Health EDRM research.

Firstly, what is a systematic review?

Systematic reviews are robust studies that use existing research to answer a research question. They provide standardized summaries of existing studies and help provide evidence that would support efficient and effective practices for disaster management. There are three main types: quantitative synthesis that use statistical analysis to combine the results of the included studies, narrative reviews, and qualitative evidence synthesis; and I'll discuss each in turn.

Quantitative synthesis, which uses a statistical technique called meta-analysis, involves data-pooling and statistical synthesis of the results of the independent studies to create an average result. This type of systematic review seeks to increase the statistical certainty in the results and control bias, and requires the included studies to be as similar as possible for the average to be meaningful. The results are often displayed in something called a forest plot, which shows the results for each study, the cumulative result and the precision.

Narrative systematic reviews provide a descriptive account of the evidence using words and text. Rather than combining the results of the studies into an average, narrative reviews tell a story about the evidence. They compare and contrast the included studies and their findings and might help provide a preliminary synthesis of them.

The third main type of systematic review is a qualitative evidence synthesis. These use information gathered in qualitative research such as through in-depth interviews, focus groups, observational studies, as well as other types of qualitative and ethnographic evidence. The synthesis identifies common themes, concepts and principles across the included studies, paying detailed attention to the contexts in which the studies were undertaken. Qualitative synthesis is helpful for identifying barriers and facilitators to successful outcomes and helps users to understand why, how and under what conditions an intervention might be successful.

One final word, though, is that although systematic reviews are a very useful tool for Health EDRM research, the disruptive and sensitive nature of disasters means that there is currently a lack of high-quality data available for use in them. This needs to be overcome by better design, conduct and reporting of disaster research, the use of transparent methodology, larger studies,

and the availability of suitably skilled personnel to conduct field research; all of which are covered by other chapters in the WHO Guidance.

Thank you for listening to this brief introduction for Chapter 2.6 in the WHO Guidance. You can find more detailed information on systematic reviews in the full chapter and our recommendations for further readings, which can be accessed freely on the WHO Knowledge Hub website. Thank you and goodbye for now.