

# [PRACTICE]

## **D8.8 Systematic review of existing research**

*Public Perceptions and Risk Communication in Times of Crisis*

***PRACTICE WP8 deliverable***

*Lead Institution: King's College London (KCL)*

*Dissemination level: Public*

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## Summary Work Package 8

The objective of WP8 is to improve public knowledge and awareness of CBRN incidents by providing a toolbox of information, procedures and processes to understand the human and societal factors that influence the impact of, and response to, CBRN incidents, as well as reduce the impact of CBRN incidents on society and individuals. The effectiveness of the 'human and societal' toolbox will be tested (via WP6) with members of the public and professional responders in an exercise at a conference/shopping centre in Birmingham in August 2013.

The output will include tools and measures (i) to inform, educate and prepare the mindset of the EU citizen for a CBRN event, (ii) to provide guidance about protective behaviour and to aid the identification of relevant information sources during events, (iii) to mitigate the societal impact on communities and individuals post event, and (iv) to identify solutions aimed at recovery.

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### 1. Executive Summary

The objective of WP8 is to 'educate the public' by providing a toolbox of information, procedures and processes to understand the human and societal factors that influence the impact of and response to CBRN incidents. Overall, the development and implementation of such a 'toolbox' will help reduce the impact of CBRN incidents on society and individuals. The effectiveness of the 'human and societal' toolbox will be tested (via WP6) with members of the public and professional responders in an exercise at a conference/shopping centre in Birmingham in August 2013. Work Package 8 (WP8) will enable us to assess the extent to which the PRACTICE tools improve public awareness and understanding of CBRN incidents and to assess their impact on positive health behaviours in response to a CBRN incident.

WP8 is divided into four tasks:

- Task 8.1 Threat and vulnerability analysis
- Task 8.2 Stakeholder workshop
- Task 8.3 Review of existing projects investigating the public psychological and behavioural response to CBRN events
- Task 8.4 Human Behaviour User Manual to prepare, respond to and mitigate for a CBRN event

This document (D8.8) is the core contribution to Task 8.3 in which existing research (scholarly literature and existing research projects) discussing human and social factors in preparing for and responding to high impact, extreme events have been reviewed to be able to identify 'best practice' in and principles for managing the human and societal effects of and influences on a CBRN event. Along with a report reviewing real-world case studies of CBRNE crisis communication (D8.9), the identification of relevant research projects in state-of-the art review of CBRN research projects (D8.5) and the comparative mapping of CBRN management structures across the EU (D8.2), this report provides input to the development of scenarios and a resilience matrix in order to shape the development of the threat and vulnerability analysis (Task 8.1), the UK based exercise involving members of the public (D6.5), and the human behaviour user manuals (Task 8.4) which will be tested at the event. In doing so, the authors of this report will highlight the ways in which the particularities of public perception of risks, responders, and responses, as well as risk communication affect psychological and physical well-being of individuals and may lead to counterproductive behavioural responses. They will also demonstrate how *effective* risk communication and the provision of targeted information can help reduce vulnerability and improve the resilience of individuals and communities in the event of a CBRNE incident.

This report uses existing theoretical and empirical scholarly literature to identify a set of human and social factors that determine public responses to CBRN events. The theoretical literature draws primarily on risk perception and communication research, as

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well as health behaviour literature. In particular, the psychometric paradigm of risk perception, the mental models approach, the concept of trust, and protection motivation theory will be drawn upon. Following this literature review, the report examines to what extent existing CBRN-related research projects reflect and complement the factors identified in the review.

The report is organised as follows: Following an introduction (Section 2), Section 3 highlights the relevance of human and social factors in recent terrorist incidents. These insights from the real world are valuable as they create opportunities to test and further validate well-established theories in the context of a terrorist event, thus enabling scholars to use grounded, real-world events to demonstrate: i) that psycho-social factors affect morbidity and mortality rates following CBRN incidents, and ii) identify the wider implications that behavioural responses to terrorist events have for political system and economy such as the trust of citizens in the governing institutions involved in CBRN management. Section 4 reviews four sets of factors that have been identified as relevant for determining the vulnerability of the public in the scholarly literature, namely: 4.1) the public perception of the threat, 4.2) the public perception of the responders, 4.3) the individuals' perception of their own response capabilities, response costs and the efficacy of response measures and 4.4) the quality of (existing) risk communication. Section 5 reviews these factors and compares them with the findings of the review of existing research projects identified in D8.5. Section 6 briefly discusses the implications of the theoretical and review findings for the threat and vulnerability analysis and the public user manuals.

If you are interested in obtaining the full report please contact Ms. Rogers via [brooke.rogers@kcl.ac.uk](mailto:brooke.rogers@kcl.ac.uk) or Mr. Krieger via [kristian.1.krieger@kcl.ac.uk](mailto:kristian.1.krieger@kcl.ac.uk)