[PRACTICE]

D8.9 CASE STUDIES: PSYCHOSOCIAL IMPACTS AND RISK COMMUNICATION

PRACTICE WP8 deliverable

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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 Manuals to prepare, respond to and mitigate for a CBRN event

This document (D8.9) contributes 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. This report and accompanying deliverables under Task 8.3 provide 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.

This report describes a series of eight CBRN incident case studies. The aftermath of each chosen incident is considered in terms of the psychosocial and behavioural impacts on the affected populations and the impact of the risk communication efforts of the responding authorities on these public reactions. The review is selective and considers: incidents for which the literature is present and readily accessible; two case studies for each CBRN domain, one large and one smaller incident, and a contrast is drawn between 'overt' and 'covert' incidents, and their effects.

The eight case studies include: the Sarin attacks on the Tokyo Subway in 1995 (Chemical); a mass pesticide poisoning in Central Valley, California in 1999 (Chemical); the Anthrax Incident in Washington, DC in 2001 (Biological); the white powder incident at B'nai B'rith headquarters in 1997 (Biological); the Goiânia Radiation Incident in Brazil in 1985 (Radiological); the Polonium-210 Incident in London in 2006 (Radiological); the Chernobyl Nuclear Meltdown Incident in 1986 (Nuclear) and the Three Mile Island nuclear incident in 1979 (Nuclear).

These case studies provide valuable insights for the PRACTICE project and EU stakeholders preparing and responding to CBRN incidents. The case studies are considered in light of the accompanying review activities of WP8 and the implications of the case studies for the public user manuals (Task 8.4) are briefly considered. A full analysis of the implications of the case studies for WP8 activities is included in Deliverable 8.10 'Testing and Validation'.