A scoping study of emergency planning and management in health care: What further research is needed?

Executive Summary

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Project 09/1005/01
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Background

The 21st century has seen substantial changes in how countries plan for and manage emergencies. Events such as terrorist outrages and the swine flu pandemic have focused attention on the need for emergency preparedness across health care systems. Even without such events there are challenges arising from climate and socio-economic changes, and from system failures arising from the ever increasing complexity of society. Aside from changes in the pattern, type and scale of emergency, in the case of health care there is ongoing development of medical knowledge and skills, and of treatment, information and communication technologies. There is thus a need to reflect upon and evaluate the potential for improvements in emergency planning and management.

Aims

This report describes a scoping study of research and development needs with regard to emergency planning and management in health care. It provides a state of the art review, drawing on learning and experiences from local, regional, national and international contexts. The main aim is to identify areas for research, but it also identifies aspects of good practice that might be shared.

Methods

The study comprised several strands: a broad, structured literature review; a range of interviews with various practitioners and stakeholders; and an exploration of incident debriefs of incidents and of larger case studies. For pragmatic reasons, a proportion of the non-literature review material was drawn from sources in the North West of England. To minimise potential bias, both urban and rural areas within the North West were studied, and findings were triangulated with those originating from other geographical areas. Findings were also discussed with an advisory group of leading academics and practitioners, and at seminars and conferences.

From these a conceptual model of emergency planning and management was developed (see figure below).
One issue had not been anticipated in the original proposal: namely, the advent of a new government with a reforming agenda for the National Health Service (NHS). For much of the project’s fourteen months there has been great uncertainty as to the ultimate organisational structure of the NHS, particularly in relation to management structures that relate to the coordination of emergency planning across trusts and other providers.

Figure: Conceptual model of health emergency planning

Moreover, the uncertainty has been increased by wider reorganisation across local government and other emergency responders, driven mainly by financial stringency, but also by political imperatives. This uncertainty made many of the investigations difficult: future organisational structures were unclear, and interviewees were uncomfortable and uncertain about their personal careers. Nonetheless, a range of very helpful advice and evidence was obtained, although to achieve this, the balance of interviews and other investigations changed somewhat from the original plan. It had been intended to investigate practices in a European neighbour with a similar health care system to the UK. However, the move towards a more diverse health care economy in the planned reorganisation, and a recognition that the USA was already very active in research on health emergency preparedness, led to a decision to undertake comparisons of the UK and USA health systems instead. Research from outside the healthcare sector was considered, but only when it explicitly addressed issues having some connection with health.
Having accumulated a substantial range of evidence, the implications for research, development and the sharing of good practice were considered, and 18 potential research topics taken to a prioritisation workshop. At the workshop a range of practitioners, senior managers, health care consumer representatives and academics, the majority of whom had had no previous contact with the project, discussed how and, importantly, the reasons that they would prioritise the topics for research. This facilitated a much clearer understanding of the imperatives that should drive such work. The topics were also considered by others via a survey, and discussed with the advisory group.

Findings and recommendations

Taking all the evidence and advice into account, four clusters of research topics are suggested as the basis of future research commissioning:

**Cluster 1: Affected public**

- Recovery of the public, including long-term health impacts
  - How are recovery issues best factored into the early stages of response?
  - How can social support networks be supported in the recovery phase?
  - How can the needs of vulnerable groups be identified and addressed?
  - What are the best interventions for preventing and addressing psychosocial health problems?
- Engagement with community groups and vulnerable populations
  - How can vulnerable populations be identified pre-, during and post-event?
  - What are the relationships between community resilience and wellness following disasters?
  - How can access to community health care services be maintained when key infrastructures are significantly disrupted by a major incident (e.g., health care provision in emergency shelters)?
  - What is the potential for active community, voluntary sector and business involvement in emergency planning and management, and how can it be developed?
- Public risk communication and information dissemination
  - How effective are risk communication efforts during particular events?
  - What are the levels across the workforce of competencies in crisis risk communication?
  - How do communities generate and use information?
  - How will technology innovation and adoption by the communication and health care fields influence emergency planning and management, and how can the system best anticipate and plan for these changes?
• Use of social networking
  - How should social networking be used to communicate with the public during and after an event?
  - During an incident how can social networks be monitored most effectively for intelligence on what is happening?
  - Can social networking be used to build trust between the authorities and the public?

Cluster 2: Inter- and intra-organisational collaboration

• Collaboration across multiple organisations
  - What are the cultural, structural and organisational issues which affect communication and planning between different organisations and sectors and across the response and recovery phases?
  - What are the factors that enable and inhibit standardisation/interoperability across organisations, including the contribution of training and exercising?
  - How does multi-agency working differ between routine operations, planned large events, and major emergencies?
  - How can the collaborative spirit engendered during incidents be built upon?
  - How can coordination across a “mixed economy” of relatively autonomous health care organisations be maintained and improved, especially during the response and recovery phases?
  - How do responders in one organisation locate information, support, etc. within another responding organisation in the face of different jargons etc.?
  - What is the potential for productive linking of emergency planning and management with other strategic and operational planning and management?

Cluster 3: Preparing responders and their organisations

• Learning and quality improvement
  - What approaches and systems are effective in facilitating learning from good practice, exercises, and incidents of all sizes - at local, regional and national levels?
  - What constitutes quality in emergency preparedness and how can this be measured and assessed?
  - What approaches (internal processes or external regulation) are effective in producing continuous, sustainable quality improvement in emergency preparedness?

• Exercises and training
  - What makes for effective and cost-effective education, training and exercise design?
  - What are the connections between training, competency and capability, and outcomes, e.g. with regard to decision-making during response?
- How do we train and share best practice among emergency planners?
- How can ICT and simulation be used most effectively in training and education of health care responders?

**Cluster 4: Prioritisation and decision making**

- Priority and resourcing given to emergency planning and management
  - What characteristics (capabilities, capacities etc.) make for an effective emergency planner/planning function in NHS organisations?
  - Which factors (e.g. professional background of senior managers, political, social and administrative contexts, funding sources, targets etc.) have the greatest impact on the resources (staff, financial, equipment etc.) that organisations devote to preparedness?
  - What is the right balance between emergency preparedness and tackling existing public health issues?

- Issues relating to organisational change
  - How to maintain emergency planning and management capability and effectiveness during periods of organisational change?
  - How does the emergency planning system provide sufficient consistency and leadership for emergencies covering a wide geographical area?

- Social, administrative and political contexts
  - What constitutes effective and fair systems for commissioning, contracting and performance management of emergency preparedness and response (e.g. taking account of the costs and knock-on impacts of response)?
  - What would constitute appropriate, devolved systems for decision-making during a pandemic, and how could they be put in place?
  - What is the impact of political imperatives on decision-making with regard to emergency preparedness, response and recovery?

- Leadership and decision support systems during crises
  - What competencies and training are needed for NHS managers who may take on command and control roles?
  - How are decisions taken during emergencies, and what use is made of decision support data and of emergency plans?

Further information about these clusters is provided in Section Error! Reference source not found., and about other topics considered at the prioritisation workshop in Error! Reference source not found.. The findings of this study may usefully be compared with those produced by the National Institute for Health Research (NIHR) Health Services and Delivery Research programme (HS&DR) project 09/1005/03. There would also appear to be scope for collaboration between research commissioners, including UK government departments and commissioners in the USA, to compare research priorities, coordinate commissioning and develop commissioning models. Consideration should also be given to
strengthening capacity to conduct research on health care emergency planning and management in the UK.