A Scoping Study of R&D Needs in Emergency Planning in UK Healthcare Systems

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ABSTRACT

Driven by events such as terrorist outrages and pandemics, the 21st century has seen substantial changes in how countries plan for and manage emergencies across health care systems. Aside from changes in the pattern, type and scale of emergency, emergency preparedness must respond to developments in medical knowledge and treatment, and in information and communication technologies, particularly social networking. This report describes a scoping study of research and development (R&D) needs with regard to emergency planning in health care undertaken by the authors in the UK. We discuss the design of the study, difficulties in its conduct and, via a reference to the published final report, indicate its conclusions.

Keywords

Healthcare emergency planning; scoping study.

INTRODUCTION

The 21st century, despite being barely a decade old, has seen substantial changes in the way in which the UK and other countries plan for and manage emergencies. Iconic events such as the terrorist outrages of 9/11 and 7/7 have focused attention on the need to be prepared for major events that have outcomes across all domains including almost inevitably healthcare. But even without these there would have been challenges arising from climate change, e.g. increased flooding and storms, from potential pandemics spread faster with the ongoing process of globalisation, and perhaps inevitably from failures arising from the ever increasing complexity of society. Cumbria has twice been subject to severe flooding this decade; and early evidence showed the authorities in Carlisle learnt much from their handling of the 2005 floods to improve their handling of the recent 2009 floods. Swine flu was not a virulent pandemic, but nonetheless it tested our response across the UK. Aside from changes in pattern, type and scale of emergency, there is a continual development of triaging criteria and treatment regimes as medical knowledge and skills advance, both in respect of the treatment of severe trauma and of disease outbreaks and pandemics. Social networking is changing public behaviour in crisis, in the way that they communicate, receive information and organise themselves. Thus there are continual pressures to reflect upon, evaluate and improve emergency planning, response and recovery.

The study described here addressed these issues and considered R&D needs to meet the changing context and also where elements of good practice could be more widely disseminated and isolated incidents of bad practice could be avoided elsewhere. The study ran from the early Autumn 2010 to late Autumn 2011. Its report and recommendations are currently being peer reviewed, assessed and assimilated within the UK National Institute of Health Research (NIHR) Service Delivery and Organisation Programme before wide publication. The report (Boyd *et al*, 2012) will be available at: www.nihr.ac.uk, specifically within www.sdo.nihr.ac.uk/project.php, project reference no. 09/1005/01. As we write this paper, the report is confidential to NIHR and we cannot include its conclusions here, except in the broadest of details. However, we will present these orally with a particular focus on information systems developments at ISCRAM2012 and discuss their implications.

OBJECTIVES AND DESIGN OF THE STUDY

The main aim of the study was to identify good practice, gaps in current knowledge and concerns about current practices in order to produce a prioritised R&D agenda for addressing these gaps and concerns. The original research call from NIHR SDO had indicated that the study should:

- conduct a literature review of existing research;
- identify emergency planning research within health and non-health sectors within the UK and other countries (where relevant);
- highlight gaps in the existing evidence base;
- engage with relevant stakeholders to identify issues of practice and policy relevance and where further evidence is needed;
- ensure the review is relevant to the current UK context;
- recommend themes for further research.

Thus we designed our project to involve the following components.

- A systematic literature review extending across health care emergency planning and response and drawing relevant material and experience both from inside and outside the UK and from other types of emergency than health care. The review covered the academic peer-reviewed literatures, professional grey literature and, to some extent when considering past incidents, the media. Throughout we adopted a broad multi-disciplinary perspective and did not limit ourselves to healthcare or medical publications.
- An analysis of a selection of internal incident debriefing documents in the Greater Manchester, Cumbria and other North West regions to identify pointers to both good practice and also real or potential issues with emergency planning and management. We also looked at a handful of major incidents in much greater depth, drawing on and correlating several sources.
- A programme of face-to-face and telephone interviews with key personnel at local, regional and national levels as well as some in the USA to gain their insights on the issues. The interviews included responders as well as policy makers, emergency managers and planners. As well as seeking views on research needs, the interviews sought to identify good practice, especially that which needed disseminating more widely.

Throughout we recognised that a significant proportion of responses to an event involved the collaboration of many organisations both within and outwith the healthcare systems. Further, we also endeavoured to pay particular attention to a range of issues regarded as likely to face emergency managers and responders in handling the response, including:

- changes that have occurred since the passing of the UK Civil Contingency Act;
- inter- and intra-agency relationships and sensitivities that can occur in a multi-agency response, and their import for coordination, command and management;
- different patterns of work both between different responding individuals and organisations and also between normal and emergency working for a single organisation or individual;
- the potential need for services and resources to be reconfigured to deal with the crisis and recovery, and the resulting impact on normal health care activities and priorities;
- different scales of emergency planning and response requirements at different levels of the NHS and other agencies and organisations involved;
- communication with the public, particular stakeholder groups and the media, including when and what to communicate;
- the effects of social networking and location aware tools such as Twitter, Facebook and mobile phones, on behaviour during crises and how crises are handled; and
- the transition from response to recovery, including business and NHS continuity.

Having gathered the evidence we identified a range of areas which seemed worthy of further research, the team organized a *prioritisation workshop* at which decision analytic techniques were used to evaluate and rank the potential R&D activities and possible changes to practice. The workshop was attended by a group of key emergency planners at local, regional and national levels. Deliberations began with general discussions of our

findings to date and the evidence that we had accumulated in identifying research gaps. Some further information and opinions were elicited; but, by and large, our list of possible research areas was accepted. The group then deliberated on how these should be prioritized, ranking them against several criteria. After the workshop, the team followed up on several of the issues that had been raised to consolidate our evidence base and then taking everything into account developed our final recommendations and reported to our NIHR SDO funders. As noted, the recommendations and full report will be published on the NIHR website.

Our next task is to dissemination of the results in a variety of ways: publications in the academic and grey literatures, seminars and conference papers.

CONDUCT OF THE PROJECT AND DIFFICULTIES ENCOUNTERED

Few projects proceed entirely according to plan and ours encountered a significant set of hurdles to overcome, in many ways all related to one event. The project was planned before the UK general election of 2010 but began after it. Although we had recognised that the incoming government might re-organise and re-structure the UK National Health Service (NHS), we had not come close to anticipating the scale and speed of change that the coalition government announced, before our project began. For much of the project's fourteen months there was 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. Moreover, the uncertainty was greatly 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, the draft parliamentary bill was virtually silent on emergency management, and, above all, interviewees were uncomfortable and uncertain about their personal careers. Nonetheless, a range of very helpful advice and evidence was obtained, although in achieving we changed the balance of interviews and other investigations 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 more use of private health care providers 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 wider comparisons of the UK and USA health systems instead.

CONCLUSION

As already forewarned, this is a paper without a conclusion, which is not to say that the project shied away from reaching some clear recommendations on areas in which emergency planning could benefit from some major research thrusts, on the one hand, and some greater sharing of good practice, on the other. We amassed evidence from a wide ranging literature review, examination of case studies and debriefs, a programme of interviews, and from the discussion and deliberation at the prioritisation workshop. Upon these foundations we identified four clusters of recommendations relating to: (i) the behaviours, characteristics and range of publics affected; (ii) aspects of inter and intra-organisational relationships, trust and collaboration; (iii) preparing and training responders and their organisations; and (iv) prioritisation and decision making within emergency planning, management and recovery and the surrounding healthcare management systems which support these activities.

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REFERENCES

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