Risk communication in radiological terrorism

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Overview

- Radiological vs nuclear terrorism
- Risk perception and why it matters
- Public responses to radiological incidents
- Public responses to a hypothetical radiological attack
- Improving risk communication
Radiological vs nuclear terrorism
Why do public perceptions matter?

• Public reactions can be a major determinant of the overall economic, social, physical and psychological impact of a terrorist incident.

• By influencing risk perception, effective communication can improve post-terrorism outcomes by:
  • Reducing unnecessary care-seeking by unthreatened populations
  • Enhancing likelihood that at risk populations will take protective actions
  • Reducing rumours and fear
  • Maintaining public trust and confidence / increasing co-operation
Factors that influence risk perception

- Voluntary vs involuntary
- Familiar vs unfamiliar
- Control vs lack of control
- Fair vs not fair
- Natural vs technological
- Ongoing risk vs dread risk
Additional factors

- Lack of information about probability of risks
- Affect heuristics (risk as feelings) v risk analysis (public v expert)
- Extent of expert agreement
- Proximity
How will the public respond?
Discouraging non-optimal responses

The PIRATE project  
http://www.pirateproject.eu/

A two year project assessing public intentions and information needs following biological and radiological terrorism (smallpox and RED) with 3 partners:

Public Health England

King’s College London

DIALOGIK (University of Stuttgart)

With financial support from the Prevention of and Fight Against Crime Programme European Commission - Directorate-General Justice, Freedom and Security
PIRATE methodology

WP1

- UK
  - Scenario development
    - RED
    - Bio
    - RED
    - Bio

- DE
  - FG stage 1

WP2

- Design surveys
  - RED
  - Bio
  - RED
  - Bio

- FG stage 2

WP3

- Design messages
  - RED
  - Bio
  - RED
  - Bio

- Reporting

- 2 x surveys
PIRATE focus group method

Inject 2: Immediate
Leaflet inject
Extended health and government official messages

Inject 3: 6pm that evening

Inject 4: 3 weeks later
PIRATE – Key issues identified in RED FGs

• **Low levels of knowledge about radiation** - radiological terrorism associated with nuclear bombs and disasters (Hiroshima, Chernobyl)

• **No awareness of REDs** - initially assumed incident a hoax as package had not ‘gone off’

• **Key concerns** - severity, contagion, pervasiveness

• Majority of participants indicated a **fairly resilient response** / that they would continue with their daily routine, but a **sizeable minority would unnecessarily attend monitoring centres**

• **Info needs** - ‘expert’ information about health and security

• Positive response to ‘independent scientist’ where comments resonated with existing concerns
• Reduced concern about cordon size, incident severity and no quarantine (based on more information about the device)

• Reduced intention to unnecessarily attend monitoring centres (based on increased understanding re: likelihood of personal impact)

• Increased scepticism in relation to the ‘independent’ scientist (based on official information received)

• Response to leaflet intervention:
  • Leaflets generally viewed favourably – tangible / credible
  • Some concern that leaflets signal seriousness of issue
Improving communication

• Re-think the ‘worried well’ (‘low risk patients’)
• Develop formal partnership with media (ahead of event)
• Use trusted communicators (and validators)
• Provide information that is
  • Targeted at encouraging specific behaviours
  • Consistent and regularly updated
  • Clear and accurate
Conclusions for effective risk communication

- Effective public communication is an essential part of preparing for and responding to a radiological terrorist attack.
- Effective communication should be targeted at encouraging specific behaviours.
- Change in behaviours to reduce risk should be regarded as rational actions rather than panic.
- Behavioural interventions must take into account public perceptions about:
  - The event
  - The efficacy of recommended behaviours
  - The ease of recommended behaviours
  - The cost of recommended behaviours
  - Those who are tasked with communicating the response.
- Generic principles of risk communication may need some adaptation for particular contexts.
Further project information

http://www.pirateproject.eu/

http://cieloopkit.fs-server.com/

http://r-futures.ecs.soton.ac.uk/overview/

http://www.practice-fp7-security.eu/

http://epr.hpru.nihr.ac.uk/

http://www.fp7-prime.eu/

www.kcl.ac.uk/warstudies
Thank you!

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