PLAGUE – PANDEMIC – PANIC

Information Needs and Communication Strategies for Infectious Diseases Emergencies
Lessons learned from Anthrax, SARS, Pneumonic Plague and Influenza Pandemic

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Content

Concept  Idea, background and methodology

Systematic Literature  Review of published data on public behaviour during infectious diseases emergencies

Empirical Investigation  Information Needs of the public during swine flu

Recommendations  Communication strategies
Concept
Starting question

1. What is the behaviour of the public during infectious diseases emergencies?
   - And during bioterrorist attacks?
   - What do we know: what data is available?

2. What information needs have the public?
Initial

Background
Public is suspected to prone to panic

This would result in
1) Stretch Medical Infrastructure (Affected and 'worried well')
2) Raised infection risk due to inappropriate behaviour
Initial

Concept
What data is peer reviewed published?
→ Systematic Literature Review

What are the information needs of the public during infectious diseases outbreaks?
→ Empirical Investigation at Frankfurt International Airport during *the first days* of swine flu
Literature
Contributed to a research study King’s College London, Institute of Psychiatry (IoP) for the British Home Office

Concept

3 outbreaks of infectious diseases as matrix:

1) **Anthrax** 2001 – Bioterrorism
2) **SARS** 2003 – New emerging disease
3) **Pneumonic Plague** 1994 – re-emerging disease with bioterrorist potential
Anthrax
Review
Anthrax

Medical infrastructure
• Minimal increase of frequency: 1-2%

Antibiotics
• Minimal increase of prescription (4%); no data whether people took them (estimate 0,5%)

Hotlines and internet
• High demand (for general information)
Anthrax

Results

• Mode of Transmission (not h-t-h)
• Availability for prophylaxis and treatment
• ‘Objects‘ or ‘Token‘ (white powder)
• Transparent Information policy

→ Led to rational behaviour of the public: no irrational demand for health care services
SARS
SARS

• High infectious rate among health care workers
• Hospitals were considered as sources of infection (Canada and Taiwan)
→ Decreased frequency of hospital -44% (non-SARS related Diseases)
→ Increase of suspect cases, 88% „Low risk patients“
SARS

Results

• Way of transmission (h-t-h) and lack of prophylaxis and treatment
  → Highly concerned public

• Telephone hotlines and Internet
  → reduced the flow of ‘low risk’ patients

• Negative effect of not using medical health services
Pneumonic Plague
Pneumonic Plague

Incident

- 1994 Outbreak of Pneumonic Plague in India
- Few information
- Health System
- Culture
Pneumonic Plague

Incident

• Mass large-scale spontaneous surge of people away from the city
• Major response of the health system
Literature Review

Results

• Way of transmission
• Medical Competence (Prophylaxis, treatment)
• Information Policy

are key factors that indicate effective management of infectious disease outbreak
Literature Review

Recommendations

• Clear, consistent and transparent information
• Triage
• Follow-up
Influenza
Influenza

Empirical Investigation of Information Needs and Communication Strategies

(University Hospital Frankfurt; Public Health Authorities Frankfurt; King’s College London)

Interviews at Frankfurt Airport (April 29-30, 2009) asking

• travellers from and to Mexico and
• airport staff

about their information needs and their level of anxiety
Influenza

Assumptions

Information and communication is critical to the successful management of infectious diseases.

An effective communication strategy prevents

- the surge of low risk patients affecting medical infrastructures
- future transmission of the infectious agent
Influenza

Direct Relation between Anxiety - Information

Passengers who had a high fear level typically reported continuing information needs whereas passengers with a low or moderate fear level reported that they had sufficient information.

Information – Exposure – Fear Level

No significant relation between fear level and actual or potential exposure. Lack of information was associated with anxiety, irrespective of exposure.
Influenza

Neglected Group: Employees

While travellers were well informed the communication strategy failed to address the staff

Health Staff

Were perceived as authentic and trustworthy source of information
Influenza

Implications

Anxiety – Information – Exposure

Public is often suspected to panic – the opposite is the fact.

The more people feel informed the more they behave rationally – regardless the scientific assessment of risk and exposure

Start with your own staff!
Influenza

Results

• Timely and transparent information policy
• Information Need irrespective of objective exposure and scientific assessment
• Start with your own staff
New Influenza A/H1N1 ("Swine Flu"): information needs of airport passengers and staff

P. Dickmann, G. J. Rubin, W. Gaber, S. Wessely, S. Wicker, H. Serve, R. Gottschalk

Background  Airports are the entrances of infectious diseases. Particularly at the beginning of an outbreak, information and communication play an important role to enable the early detection of signs or symptoms and to encourage passengers to adopt appropriate preventive behaviour to limit the spread of the disease.

Objectives  To determine the adequacy of the information provided to airport passengers and staff in meeting their information needs in relation to their concerns.

Methods  At the start of the influenza A/H1N1 epidemic (29–30 April 2009), qualitative semi-structured interviews (N = 101) were conducted at Frankfurt International Airport with passengers who were either returning from or going to Mexico and with airport staff who had close contact with these passengers. Interviews focused on knowledge about swine flu, information needs and fear or concern about the outbreak.

Results  The results showed that a desire for more information was associated with higher concern – the least concerned participants did not want any additional information, while the most concerned participants reported a range of information needs. Airport staff in contact with passengers travelling from the epicentre of the outbreak showed the highest levels of fear or concern, coupled with a desire to be adequately briefed by their employer.

Conclusions  Our results suggest that information strategies should address not only the exposed or potentially exposed but also groups that feel at risk. Identifying what information these different passenger and staff groups wish to receive will be an important task in any future infectious disease outbreak.

Keywords  Anxiety, influenza, risk communication

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Communication
Risk Communication
Any communication BEFORE a crisis

Crisis Communication
Any communication DURING a crisis
Crisis

Individual involvement in a developing situation which tends to require another communication style

Crisis Communication

Short, order-style, reduced, clear command control
Communication | Risk and Crisis

Risk – science based approach
Deals with expert opinions, probabilities

Risk - individual approach
Personal risk perception
Communication

Principles

• Transparency

• Proactive Distribution of Information and public engagement

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