

Rise of health scares has social basis

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(PhysOrg.com) -- Attempts to communicate health pandemics accurately are thwarted by rapid growing interest in health scares that spread socially rather than through individuals feeling a genuine need to find out about the disease, according to new research.

A study led by Dr Alex Bentley and Dr Paul Ormerod, Institute of Hazard, Risk and Resilience, Durham University, analyzed real-time online data from [Google](#) Trends on [Internet search](#) frequency for health-related issues.

They modelled how knowledge of [health](#) epidemics is spread socially and through independent decision-making, such as the announcement made by former US President George W. Bush of his \$7 billion 'Bird [Flu](#) Strategy' during the 2005 '[bird flu](#)' health scare.

Their findings, published in the journal *Social Science & Medicine*, show that knowledge of health epidemics spread rapidly through social means, rather than solely through firsthand accounts.

The results from monitoring internet searches about 'bird flu' or 'swine flu' outbreaks for particular regions could be misleading and may not reflect the actual spread of flu if search activity is prompted socially.

As social awareness of a health [pandemic](#) rises, formal announcements made by politicians, journalists or others could push awareness of diseases such as 'bird flu' or 'swine flu' over the tipping point, leading to a health scare.

Bentley and Ormerod compared and analyzed data on internet searches for '[swine flu](#)' and 'bird flu' from recent health scares during 2005 and 2009. They modelled the pattern of rise and fall in popularity of each topic over time, to distinguish between people searching for the topic out of personal interest versus people who were imitating them.

Their research could help the World Health Organisation (WHO), government and health officials identify sources of information that may be misleading.

Dr Alex Bentley said:

“Knowing how the information is spreading can help authorities design campaigns to influence behaviour and potentially help contain the spread of a disease through effective advice about hygiene, inoculations and travel that reaches people strategically.”

“Other studies have shown that even if just a minority of individuals think independently among a majority of herd-like individuals copying one another, the entire group can be led in the cohesive direction of those independent thinkers.”

When Bentley and Ormerod looked at the 2005 'bird flu' scare, it showed a period consisting of pure imitation in internet searches. In order for government to respond effectively to health scares, they may need to account for whether providing centralised information is the most effective communication strategy for different social scenarios.

Dr Paul Ormerod added:

“During this panicked time, merely providing centralised information could be much less effective, because it was accessible to so few selective individuals.”

“Providing centralised information, such as WHO announcements, should be more effective for cases where the public are selecting that information based on its intrinsic value.”

More information: The research article is available online at:
www.ncbi.nlm.nih.gov/pubmed/20494504

Provided by Durham University

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