

Editorial

Investigating and Rebuilding Public Trust in Preparation for the Next Pandemic

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Recent years have seen several worldwide scares related to so-called emerging infectious diseases (Washer, 2010). Examples include the severe acute respiratory syndrome (SARS) outbreak in 2002–2003, the H5N1 (avian influenza) outbreak in 2005–2006, and, most recently, the H1N1 (swine flu) pandemic in 2009. The latter in particular has left an unusual legacy. It emerged suddenly in the spring of 2009 and spread rapidly around the globe. Following the World Health Organization's (WHO) June decision to declare what was in effect the first influenza pandemic of the 21st century, numerous countries ordered vaccine on a large scale and vaccination campaigns were initiated in the fall and winter months. The H1N1 strain was very mild compared to previous pandemics (Donaldson et al., 2009; Godlee, 2010). Moreover, in several countries, the vaccine arrived and was distributed only after the main wave of infections had peaked. As a result, vaccination compliance was low. In many countries, a significant proportion of the public did not feel vaccination was necessary or even considered it risky. In January 2010, the WHO came under scrutiny because of potential conflicts of interest among its advisors (Godlee, 2010). The end of the pandemic was officially declared in August 2010.

Since then, attention of public health authorities and researchers has focused on dealing with a completely unprecedented issue, namely a crisis of public trust (Bangerter et al., 2012; Larson & Heymann, 2010). Increasingly, members of the public have grown *skeptical* regarding the real risk posed by emerging infectious diseases. Moreover, and more worryingly, *cynical* attitudes are increasingly becoming evident, with public health organizations, pharmaceutical companies, and the media being perceived as parties in a conspiracy to exploit disease outbreaks for the purpose of selling medications and vaccines (Mayor et al., in press).

It is an epidemiological fact that influenza pandemics recur approximately every three decades, and past outbreaks or other strains of disease may well erupt again. More generally, infectious diseases continue to pose a serious challenge to humanity (Morens, Folkers, & Fauci, 2004). Therefore, the current interpandemic period constitutes an opportunity to take stock of how the last crisis was handled and to derive lessons for improving the handling of the next outbreak that is sure to come (Larson & Heymann, 2010). However, current research on risk perception is arguably poorly equipped to deal with the new crisis of public trust. Classic risk perception and health behavior theories do not focus primarily on trust. In many research papers, the question of how to best handle disease outbreaks rarely receives more than run-of-the-mill suggestions for improved provision of accurate information to the public or the correction of misperceptions (e.g., d'Alessandro et al., 2012; Rubin, Amlot, Page, & Wessely, 2009). But if the very sources of such information are perceived as untrustworthy, such strategies will fail. What is needed from researchers to face this challenge (and opportunity)?

Perhaps an important first step for public health scientists and professionals would be to abandon naïve images of “the public” and how it processes risk-related information. All too often, researchers subscribe to the simplistic idea that the public suffers from a “deficit” of knowledge (i.e., incorrect risk perceptions or deficient knowledge about the risks of various health-related behavioral options). If that deficit is filled with “correct” knowledge, so the assumption goes, then the public will, of its own accord, become more open to behavioral interventions (Wynne, 1991; Ziman, 1991). That this view is misguided is demonstrated by at least two broad sets of findings.

One set of findings concerns research showing that laypersons actively construe disease risk, incorporating

popularized scientific findings, media images, and everyday knowledge into social representations (Joffe, 1999; Washer, 2010). Such representations often serve to attribute blame for a disease onto an outgroup that is viewed as immoral or weak-willed in its health-relevant practices (e.g., blaming AIDS on the purportedly immoral sexual practices of gay men), thereby preserving the symbolic purity of the ingroup. These representations are functional in that they allow laypersons to symbolize, and so make sense of, the material, psychological, and social threat that an infectious disease outbreak constitutes. They are elaborated in many different forums, for example comments posted on media websites (Henrich & Holmes, 2011). From this body of research emerges an image of an active-minded public – even if the outcome of such sensemaking processes does not always lead to compliant behavior.

A second, related set of findings demonstrates that mistrust is often motivated by malignant beliefs like conspiracy theories, and that such beliefs are propagated by groups that aim to resist scientific findings (Bangertner & Eicher, 2013) or undermine the integrity of the scientific enterprise. Conspiracy theories explaining diseases as man-made are widespread in the public. US surveys show that significant proportions of African Americans adhere to conspiracy theories regarding the causes of AIDS and that belief in conspiracy theories is associated with decreased condom use and other preventive practices (Bird & Bogart, 2005). Conspiracy beliefs about related topics such as childhood vaccines are propagated on so many websites that it is often difficult to find valid, evidence-based information (Bean, 2011; Betsch et al., 2012; Davies, Chapman, & Leask, 2002). Findings like these suggest that (1) the lack of compliance is not always due to ignorance on the part of the public, but also to active resistance, and (2) special interest groups actively promote mistrust in officially recommended health policy. Again, the image that emerges is that of an active public, and problems with compliance cannot be reduced to ignorance or deficient knowledge, but rather must be investigated to understand possible social or psychological functions of apparently noncompliant behavior.

Taken together, these two examples show how, in the context of disease outbreaks, the public constructs images about the various sources of healthcare information and advice. Unfortunately, evidence-based public health messages and the array of allied institutions that propagate them are not self-evidently trustworthy in the public eye. It is time to recognize this. It then becomes important to understand processes related to the emergence of trust and distrust in the public, especially since this constitutes an important predictor of health behavior (Gilles et al., 2011; Nougairède et al., 2010; Rubin et al., 2009). The three articles in this special section on pandemics in the present issue of *European Psychologist* constitute initial steps in these directions.

The first article, by Liao and Fielding (2014), starts by discussing two causes of public mistrust in scientific research. The first is the increasing politically motivated and deliberate disregard for scientific evidence. The second is risk fatigue due to repeated false alarms in recent years. The authors then review work on personal protection practices in the context of respiratory disease prevention prac-

tices in the Hong Kong public. Hong Kong is a particularly relevant context because it has been on the front line of many recent respiratory disease outbreaks (SARS, avian influenza), but also because Hong Kong scientists have initiated productive research programs into these diseases, especially in terms of public behavior. One important issue that emerges from this article is the wide range of sources of information that laypersons use to make disease prevention decisions. More attention needs to be paid to this issue. In particular, the availability (e.g., via the Web 2.0) of multiple information sources and the possibility for users to generate their own content and opinions may be empowering (Eysenbach, 2008), but it may also be bewildering. Members of the public may increasingly turn to “local,” personal sources of information like peers or general practitioners rather than impersonal institutions when they need to make sense of health-related issues. Understanding what drives laypersons’ search for credible information is crucial in this context.

The second article, by Kalichman (2014), is a précis of the phenomenon of AIDS denialism. The author sketches the AIDS denialist movement from its emergence in the early 1980s to its spread into mainstream public consciousness and diversification in later years. He lists the central tenets of the movement, describes different forms of denialism, and explicates the rhetorical tactics employed by the denialist movement. The case of AIDS denialism is one among several social movements actively seeking to undermine trust in public health authorities. These movements use rhetorical tactics similar to those identified by Kalichman. For example, the single-study fallacy (inappropriately relying on findings of a single study while ignoring the implications of a larger body of evidence) is also used by vaccine denialist websites (Bean, 2011). Building on Kalichman’s article, a systematic review of the tactics used by denialist social movements in other health domains would constitute an important contribution to designing better public health messages.

The third article, by Siegrist and Zingg (2014), accomplishes two purposes. First, the authors review the literature on the effects of trust on health behavior adoption. They have found a number of studies showing how trust affects behavior, but many of these studies suffer from methodological weaknesses such as cross-sectional designs that limit the ability to make causal claims. The authors then discuss the need for more theory-driven research and describe their own trust, confidence, and cooperation (TCC) model. The model notably distinguishes between trust and confidence. Trust between actors follows from perceived similarities in values, whereas confidence is based on perceived competence of an actor. This distinction parallels several existing models. Most notably, it corresponds to a widespread model of social perception that distinguishes between dimensions of warmth, or perceived intent, and competence, or perceived ability (Fiske, Cuddy, & Glick, 2007). Such models are useful for investigating trust relations because they predict different images of institutions depending on warmth and competence. Institutions perceived positively on both dimensions will be trusted; institutions perceived negatively on both dimensions will be strongly mistrusted. Institutions perceived positively on one dimension but negatively on the other will meet with ambivalence.

For example, pharmaceutical companies are likely to be perceived as highly competent but untrustworthy in terms of Siegrist and Zingg's model. This model could contribute to the issue raised above concerning how laypersons determine what kinds of information they can trust.

A wake-up call is sounding. Public health research related to infectious disease outbreaks must change. Most urgently, research needs to update its understanding of the public. Members of the public are not passive recipients of information, but are engaged in active sensemaking, and trust is an important component of this sensemaking process. We hope this special section will inspire other researchers to contribute efforts to a better understanding of public trust related to infectious diseases.

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