



## VIEWS AND REVIEWS

### The psychological effects of quarantining a city

Whether the epidemiological benefits of mandatory mass quarantine outweigh the psychological costs is a judgement that should not be made lightly

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The emergence of a novel form of coronavirus in Wuhan, China, is creating a confused and rapidly evolving situation. As ever in the early stages of a major incident, facts are unclear. We're not sure how many people have caught the disease, the fatality rate, the incubation period, how far it's spread—or how worried we should be.

The imposition of travel restrictions on Wuhan—and an expanding number of other cities—has surprised many. The move has left over 20 million people caught in a modern form of quarantine. Regardless of whether it succeeds in controlling the outbreak, the widespread lockdown will inevitably have a psychological effect. Not surprisingly, the UK media are already reporting the emotional impact of both the outbreak and the response. Residents are said to be comparing the situation to “the end of the world,” hospitals are “overwhelmed,” and there are concerns about food shortages. “Panic in Wuhan” is commonly reported.

We must be careful of reading too much into this. Journalists regularly assume panic based on little evidence and, in our experience, the further away a reporter is from an incident, the more likely they are to claim panic. Yet words have power. Portraying public responses as panic can lead policymakers to conclude that people should be controlled for their own wellbeing, or that information that might worsen the situation should be withheld.

But while history reminds us that outright panic is unlikely, fear seems an almost certain consequence of mass quarantine. Anxiety in Wuhan is to be expected, even without quarantine. During disease outbreaks, community anxiety can rise following the first death, increased media reporting, and an escalating number of new cases. Mass quarantine is likely to raise that substantially, for many reasons. Firstly, the measure shows that authorities believe the situation to be severe and liable to worsen. Secondly, the imposition of the measure primarily for the benefit of those outside the affected cities reduces trust—the belief that authorities are acting in my best interests—for those within. Thirdly, quarantine means a loss of control and a sense of being trapped, which will be heightened if families have become separated. Fourthly, the impact of the rumour mill must not be

underestimated. The desire for facts will escalate and an absence of clear messages will increase fear and push people to seek information from less reliable sources. For some, the cumulative effect of these impacts may be severe—after cases of SARS were identified among staff and patients at the Taipei Municipal Heping Hospital, all staff, patients, and visitors were forcibly restricted to the building for a two week quarantine period. An account of the chaos that followed described how the confinement “caused a sense of collective hysteria, driving the staff to desperate measures.”

Elevated anxiety may also have implications for other health measures. While reports of hospitals in Wuhan being overwhelmed might reflect high levels of disease activity, in previous incidents most patients who attended hospital were found to be free of the disease in question. Surges of such low risk patients are often precipitated by high levels of anxiety, leading patients to identify, catastrophise, and seek help for symptoms that might otherwise have prompted little concern, and leading clinicians to refer patients to hospital at the first sign of a mild symptom developing.

And yet, while anxiety among people subjected to quarantine is troubling, perhaps the most pernicious effect is on how those outside the cordon come to view those on the inside. Previous incidents have seen residents of affected areas socially shunned, discriminated against in the workplace, and their property attacked. Unless active steps are taken to avoid stigmatising those who have been under quarantine, the official imposition of a cordon may aggravate such effects. Isolation imposed by vigilantes can follow, or even run ahead of, official quarantine.

Longer term effects are also possible. The potential exists for anger over official reactions, exacerbated by the impact of the outbreak on sections of the economy, to set in train social disruption that might linger for years.

Ever since the plague of Justinian, imposed quarantine has rightly remained part of our public health arsenal. But as with every medical intervention, there are side effects that must be weighed in the balance and alternatives that must be considered. Voluntary quarantine, for example, may be associated with good compliance and less psychological impact, particularly when

explained well and promoted as altruistic. Whether the uncertain epidemiological benefits of this new form of mandatory mass quarantine outweigh the uncertain psychological costs is a judgement that should not be made lightly.

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is also supported by the UK Public Health Rapid Support team, funded by the United Kingdom Department of Health and Social Care. The views expressed are those of the authors and not necessarily those of the NHS, the NIHR, the Department of Health and Social Care or Public Health England.

Competing interests: We have read and understood BMJ policy on declaration of interests and declare that we have no competing interests

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