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Between a virus and a hard place

Complacency, not overreaction, is the greatest danger posed by the flu pandemic. That's a message scientists would do well to help get across.

Damned if you do, damned if you don't. The emergence of a new, swine-flu-related H1N1 strain of influenza in people in North America, with sporadic cases elsewhere in the world, has left the US Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, and the World Health Organization (WHO) in Geneva in an unenviable position.

For more than a week now, these two agencies have been holding daily media briefings to keep the world informed about the rapidly unfolding story. There is ample reason for concern: a new flu virus has emerged to which humans have no immunity, and it is spreading from person to person. That has happened only three times in the past century. The pandemics of 1957 and 1968 were mild in most people but still killed many, and that of 1918 — which also seemed mild in its early phases — killed at least 70 million people worldwide. As *Nature* went to press, the WHO had already upped its pandemic threat level from 3 to 5, and a final step to its highest level of 6 — a global pandemic — seemed only a matter of time.

Yet at this early stage, the consequences of the pandemic are so uncertain that communicating the risks is a delicate matter. Influenza viruses evolve rapidly, making it extremely difficult to predict what this strain might look like a few months from now. If the agencies alert people and the pandemic fizzles out, they will be accused of hyping the threat and causing unnecessary disruption and angst. Indeed, just such a media backlash is already beginning, because most cases so far have been mild. But if the agencies downplay the threat and an unprepared world is hit by a catastrophe on the scale of 1918, the recriminations will come as fast as you can say 'Hurricane Katrina.'

To their credit, the WHO and the CDC have avoided the kind of falsely reassuring officialese that has too often accompanied past crises. As Peter Sandman, a risk-communication consultant based in Princeton, New Jersey, aptly puts it: "Anyone who's paying attention gets it that we just don't know if this thing is going to fizzle, hang in abeyance for months, disappear and then reappear, spread but stay mild, replicate or exceed the 1918 catastrophe, or what. The reiteration of uncertainty and the insistence on what that means — e.g., advice may change; local strategies may differ; inconsistencies may be common — has been almost unprecedentedly good."

"The risk is not hyping the pandemic threat, but underplaying it."

Also encouraging is that many governments now have at least some kind of pandemic plan in place, thanks to the scare over the H5N1 avian flu virus earlier this decade. Five years ago very few of them did. But many of those plans contain an important element that has been conspicuously absent in the current communication by governments and public-health authorities: during a severe pandemic, there is only so much they can do. Much of the response will depend on local communities taking action for themselves.

Scientists can help, by serving as credible voices to inform their communities of the risks and uncertainties, and by pointing people to the pandemic-planning resources on the CDC and WHO websites, the PandemicFlu.gov site, and many others. For the moment, the risk is not hyping the pandemic threat, but underplaying it. We know a tsunami is coming. No one can say whether it will be just a large wave, or a monstrous one, but it is time to start thinking about at least being ready to move to higher ground. ■

Keep to the vision

The United States should not try to keep its space shuttles flying beyond 2010.

Perhaps the most memorable achievement of the US space shuttle fleet was *Endeavour*'s first servicing mission to the Hubble Space Telescope in December 1993. Here was something that only humans in space could achieve — the gentle snagging of the satellite with the shuttle's arm; the five spacewalks to install corrective optics, new instruments, gyrosocopes and solar panels; and finally, the release of a clear-eyed telescope capable of discerning finer details, deeper in the cosmos, than any other telescope in history.

On 11 May (see page 21), the space shuttle *Atlantis* is scheduled to make what is not just the last trip to the Hubble, but also the last space-shuttle trip to any destination other than the still-rather-pointless International Space Station, which is due seven more visits before shuttle flight operations cease in September 2010. As such, the Hubble flight marks — or should mark — the end of an era. Unfortunately, Congress has started making moves to keep the shuttle flying into 2011. The administration of President Barack Obama should resist this idea — and at the same time, take the opportunity to state more clearly its objectives for NASA and human spaceflight.

The "vision for space exploration" articulated by former US president George W. Bush in 2004 called for the shuttle to be replaced by an all-new system, now called Constellation, in which human crews would ride into space inside a bell-shaped Orion capsule mounted atop an Ares rocket. Constellation is in some ways a reconceived version of the Apollo infrastructure, and as such can seem technologically retrograde. But unlike the shuttle, it opens up the possibility of missions beyond low-Earth orbit — missions to the Moon, nearby asteroids and perhaps Mars.

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