1 Pandemic Flu Controversies: What have we learned? Reflections from a workshop to discuss lessons, policy implicat

surrounding Tamiflu, or the more recent concerns about rare, but significantly elevated, risk of side-effects of some pandemic vaccines. On the international stage, moreover, we have witnessed long and taxing diplomatic disputes about the sharing of H5N1 virus samples, prompted by concerns about inequitable access to medicines and other intellectual property issues. Even the carrying out of basic virology research on H5N1 viruses by highly trained scientists has provoked an international furore. Despite the prudent case for pandemic preparedness, our efforts to prepare have proved to be deeply controversial.

Stepping back for a moment, and looking collectively at all of these different controversies surrounding pandemic flu, two things become immediately clear. First, these controversies are themselves an integral part of how pandemic preparedness policies have unfolded over the past decade. We cannot tell the story of 21st century pandemic preparedness without taking this long string of controversies into account. Controversy has simply become part of the core business of pandemic preparedness. But more than that, many of these controversies also have the potential to affect adversely future planning –

Session overview: emerging perspectives

Narratives

Our first session focused on the concept of 'narratives'. Narratives are stories about the world, with clear beginnings, middles and ends, which help frame both policy and action. As we heard, they are not just stories, however; they have material consequences. There are winners and losers.

We heard in particular about the power of the 'outbreak narrative', and particularly the narrative about 'the big one' – the pandemic on the scale of 1918 which might sweep the globe with devastating consequences. Narratives often contain at least some truth. As participants confirmed, there is certainly a possibility of such a devastating flu pandemic, and preparations for such an event are clearly essential.

However, in the context of today's 24/7 media always on the look-out for a good story, and also the rise of new forms of social media, hedged speculation may end up taking on the status of truth. In 2005, a UN statement about the range of possible deaths from an H5N1 outbreak ended up with only the top end estimate of 150 million being quoted. This fed into a policy response dominated more by fear and panic, than any full scientific assessment of risk or uncertainty. Such outbreak narratives are of course fed by other concerns within the political and policy realm. The workshop heard about how issues raised by 9/11 in the US, and the failure of response to Hurricane Katrina, affected decision-making, giving impetus to a particular policy narrative around avian influenza.

Different narratives of course compete for airtime and policy attention, and those that win out tend to offer simple storylines, aligned to particular interests and backed by powerful actors, sometimes independent of the evidence underpinning them. As policy communities have reflected on the failings of earlier responses, a new – or revived – One Health narrative has been suggested, arguing for closer integration of human, animal and ecosystem health concerns. This has gained purchase in some quarters, but, as we discussed in the H1N1 case, the wider ecological, social and economic issues were downplayed in favour of a drug and vaccine response. We heard how alternative narratives based on local understandings, rooted in particular contexts, get short shrift, often seen as too specific and particular to be relevant to a global response. The international policy machinery is poorly geared to context-specific responses, seeing this as the responsibility of local health authorities. Yet, as we heard, in resource poor and low capacity settings, global framings and interventions dominate, often to the detriment of effective and efficient responses.

Narratives thus reveal the fault lines of controversies. They are not necessarily the truth, but they sometimes acquire the status of fact through repetition, and so have

Modelling

The second session picked up on these themes, but delved more deeply into the science-policy processes that underpin policy narratives, and the contested nature

Political economy

On the following day we opened with a session on 'the political economy of virus control'. The presentations reflected on the wider political and economic issues that inevitably impinge on both influenza research and pandemic response. Such factors influence what is researched and what is not, what is allocated funds and what is not, and what is regarded as important and urgent, and what is not. No matter how high quality the science, such issues inevitably influence policy, sometimes in ways that set off a train of action which is difficult to get out of.

For example, someone during the plenary discussion asked pertinently, given the H1N1 pandemic, why is no-one seriously looking at biosecurity in North American pig farming? As public health authorities focused on human-to-human spread of the virus, the underlying causes of the original emergence were somehow put aside. The question was also raised as to whether there were industrial interests at play in both the naming of the virus (and the official if not popular abandonment of the term 'swine flu'), and the failure to investigate the spread and outbreak pattern in the context of industrial pig farming in Mexico, as well as the US? Feeding into this debate, detailed ethnographic work on the way disease 'contacts' can be affected by production and marketing 'contracts' was highlighted through case studies in the

research is being done not for local benefit but for external national, even military, interests.

The pharmaceutical response

The following session focused in on one of the hot controversies of recent years, the pharmaceutical response to influenza. The context for our discussion was the decision to stockpile antiviral drugs, and to activate 'sleeping contracts' when pandemic conditions are declared, as well as the on-going debates about the pandemic efficacy of anti-viral drugs. During the H1N1 pandemic this led to accusations of collusion between WHO and drug companies, as many profited massively from the response. No-one at the workshop believed the extreme conspiracy theories: no 'smoking gun' was found to exist, but this did not mean that there were no lessons to be learned. This was, many thought, an 'avoidable controversy'. In an era of intense media scrutiny and public distrust, secret committees and lack of disclosure of information does not wash. Rather, it creates fertile ground for controversies to be blown out of proportion, fanned by speculation, gossip and rumour through the Internet and social networking media. 'Cold war' institutions like WHO need to be brought into the modern age, it was argued, with a clearer, more transparent and accountable system of decision-making. This would help allay fears and avoid controversies in future.

Transparency and openness is one thing; increasing the scope of expertise involved is another. While there is no evidence of corrupt collusion, the discussion suggested that there is a danger of creeping complacency if very tight, narrow networks are involved in decisions, without wider participation and the inclusion of different perspectives and sources of expertise. Politics and influence can be exerted in more subtle, discreet ways, without anything particularly overt, inappropriate or illegal. Some players will always stand to gain from any response: certain pharmaceutical companies, certain scientific research groups, certain international organisations, for example. Suspicion and fears need to be offset, it was argued, by much more active attempts to include, deliberate and debate alternatives. Yet it was also pointed out that decisions must be made rapidly and with the best advice available. This means relying not only on published science and randomised control trials, but also judgments and advice from experts. Sometimes, it was noted, "if you wait for the evidence, people will be dead". A real-time response is needed, drawing on different data, evidence and opinion. But, everyone concurred, the process needs to be opened up, involving more sources of advice, and to be much more transparent and accountable. This will be especially crucial as governments and pharmaceutical companies work to develop new medicines for pandemic preparedness in the years ahead, as a new ERC-funded study explores.

Viruses and IP

The next session turned to another intense controversy of recent years, that of virus sharing and intellectual property. This was provoked by Indonesia's refusal to share virus samples as part of the international effort to develop vaccines, which led to outcry and – several years later – a diplomatic compromise. This hard-fought and highly controversial policy process was discussed by a number of those closely engaged at the time. There was wide recognition that Indonesia's health minister, Siti Supari, had a legitimate point in pointing towards the difficulties of low income countries in securing access to vaccines, despite their participation in an international system of sharing viruses. There had been an assumption that all virus material would automatically be available for international use without ensuring benefit sharing. Yet this allowed those with the capacity and finance to use such samples for commercial gain. Equally, participants recognised that early detection and response required knowledge about what viruses were circulating and international cooperation on vaccine manufacture.

Much of our discussion centred on the often painful process of negotiation at the WHO and elsewhere. It took four years to come to an agreement, and clearly the processes for resolution were inadequate. Some felt like it was like being 'stuck in treacle' for much of this period. Health diplomacy is a new field, with neither diplomats nor health professionals particularly well equipped. The WHO system was also found to be wanting, as officials often had outdated assumptions, embedded in

Researching deadly viruses

The final thematic session focused on 'researching deadly viruses' and the controversy around 'dual use' research. No-one at the workshop challenged the idea that research on potentially pandemic viruses needs to be done, and under most circumstances published freely. In Europe or North America labs are tightly regulated, and the risks of release are small. Bioterrorism remains a threat, but material is unlikely to emerge from such research labs, it was thought. The particular controversy that blew up around the creation of a highly pathogenic H5N1 viral variant that could spread rapidly human-to human, involving a handful of labs in the

Second, we learned that controversies are not only deeply infused with wider social, cultural and political dynamics, but are actually excellent entry points through which to understand these very same processes. Precisely because these controversies are sites where competing perspectives crystallize and clash in their starkest form, they are also wonderfully revealing lenses through which to elucidate pandemic flu politics, and its social and cultural dimensions. Controversies, in short, are great opportunities to unearth the contested, contingent, and fractious nature of knowledge that shapes our ongoing quest to protect human lives – irrespective of which side of the controversies we come down on. Social science perspectives are therefore a critical complement to natural science-based understandings.

Finally, we were able to draw lessons about how some of these controversies could also be diminished and perhaps even avoided in future. This, the participants found, could be achieved by striving to assemble the best possible evidence for policies, by being open about where the evidence was not yet clear, by insisting on transparency and avoiding secrecy, by including diverse sources and forms of cross-disciplinary and local knowledge and expertise, and by ensuring that risk communication remains measured and proportionate, so that warnings do not end up back-firing. As the world prepares for the inevitable next pandemic, these, surely, are good lessons