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**Pandemic Flu:
Public Health and the Culture of Fear**



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Abstract

'Better safe than sorry' has been the familiar response of public health authorities to concerns about the enormous cost and disruption to health services that resulted from the 2009 global scare over what turned out to be a relatively benign swine flu virus. Some critics have focused on links between prominent public health figures and the manufacturers of antiviral medications and vaccines who were the conspicuous financial beneficiaries of the scare, alleging undue influence and conflicts of interest. This paper argues – from the perspective of a general practitioner engaged in an inner city practice in the UK during the 2009 pandemic – that the promotion of exaggerated fears of infectious disease as an instrument of policy risks further undermining popular trust in medicine and public health.

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Biography

Michael Fitzpatrick has been a general practitioner in East London for 25 years, after training at Oxford and the Middlesex. He writes on a wide range of medical and political subjects, including AIDS, addictions and health scares for both medical publications and the mainstream media. He has written columns in *The Lancet* and the *British Journal of General Practice*, reviews for the *British Medical Journal*, *Nature and Community Care*, articles for *The Times* and the *Guardian*, and is a regular contributor to the on-line magazine, *Spiked*. His book *The Tyranny of Health: Doctors and the Regulation of Lifestyle*, published by Routledge in 2001, exposed the intrusive and authoritarian character of the 'new public health'.

As a doctor who is also the parent of a son with autism, Michael Fitzpatrick has been actively involved in the controversy over alleged links between vaccines and autism, challenging the pseudoscience underlying these theories. His book *MMR and Autism: What Parents Need To Know* (2004) puts forward a comprehensive appraisal of vaccine-autism theories. This was followed in 2009 by *Defeating Autism: A Damaging Delusion*, a critique of influential but scientifically unsubstantiated 'unorthodox biomedical' interventions in autism.

Introduction

The independent review of the UK response to the 2009 pandemic carried out by the former Welsh Chief Medical Officer, Dame Deirdre Hine, concluded that ‘overall the UK response was highly satisfactory’:

The planning for the pandemic was well developed, the personnel involved were fully prepared, the scientific advice provided was expert, communication was excellent, the NHS and public health services right across the UK and their suppliers responded splendidly and the public response was calm and collaborative. I found the vast majority of the reporting of the outbreak to have been highly responsible.¹

While acknowledging that the H1N1 virus was milder than anticipated, resulting in a total of 457 deaths (considerably fewer than the approximately 12,000 who succumb each year to seasonal flu), Dame Deirdre judged that the expenditure of £1.2 billion was justified. The independent review warned of the danger of ‘another, more severe pandemic’ and emphasised the need to ‘avoid complacency’.

By the time the Hine Report was published in July 2010, the swine flu pandemic had already abated after causing 18,000 deaths in 200 countries. The first cases were identified in Mexico and the USA in April 2009. ‘It really is all of humanity that is under threat’, declared World Health Organization (WHO) Director-General Margaret Chan on 29 April, raising the pandemic alert to a global level.² The first case in the UK was discovered in Devon at the end of April and in May the authorities adopted a ‘containment’ strategy, testing, treating and isolating patients and tracing contacts. On 11 June, the WHO declared a level 6 global pandemic – in an earlier statement Margaret Chan had insisted that ‘Level 6 does not mean that we are facing the end of the world’, emphasising that it was ‘important to make this clear because (otherwise) when we announce Level 6 it will cause an unnecessary panic’.³ Recognising the rapid spread of the virus from hotspots in London, Scotland and the West Midlands, British authorities moved to a ‘treatment’ strategy. In July the first wave reached its peak and the National Pandemic Flu Service (NPFS) was launched to provide telephone diagnosis and supplies of antiviral medications. On 16 July, the Chief Medical Officer (CMO) for England, Liam Donaldson, announced that in the worst-case scenario, the number of deaths could reach 65,000. In August and September, the focus was on producing vaccines, which were distributed in October, just as the second (smaller) wave of cases reached its peak. In the New Year, just as vaccines became generally available for children, the outbreak gradually receded.

While congratulating the UK authorities for their ‘world class’ response to the pandemic, Dame Deirdre proclaimed ‘the near absence of public dissent from clinicians, politicians and commentators during the pandemic’. This comment suggests a degree of aloofness from the

¹ Hine, D. *The 2009 Influenza Pandemic: An Independent Review of the UK Response to the 2009 Influenza Pandemic*, Cabinet Office, July 2010, p. 1.

² Chan, M. Statement by WHO Director-General – Influenza A(H1N1), 29 April 2009. http://www.who.int/mediacentre/news/statements/2009/h1n1_20090429/en/index.html

³ Chan, M. Statement by WHO Director-General – World Now at the Start of 2009 Influenza Pandemic, 11 June 2009. http://www.who.int/mediacentre/news/statements/2009/h1n1_pandemic_phase6_20090611/en/index.html; Harding, B and MacInnis, L. ‘WHO Head Indicates Full Flu Pandemic to be Declared’, *Reuters*, 4 May 2009.

world of primary healthcare, indeed from public life. It is unfortunate that the independent inquiry did not include any representatives from general practice, because general practitioners (GPs) bore the brunt of popular anxieties at the height of the scare in the summer of 2009 and were left in early 2010 with fridges full of unwanted vaccines as well as unused supplies of 'personal protective equipment'.

The independent inquiry appears to have taken no account of the views of prominent GPs, such as Michelle Drage, chief executive of the London Medical Committees and Sam Everington, a leading figure in the British Medical Association. Their concerns about public health 'scaremongering', about the excessive use of antiviral drugs and the 'swamping' of primary care services, were widely shared among GPs – and were widely reported in the press.⁴ The inquiry also turns a blind eye to the campaign by the Newport Labour MP Paul Flynn over allegations of drug company influence over the WHO and the British government in relation to antiviral drugs and vaccines.⁵ Simon Jenkins, former editor of *The Times*, and currently a columnist at the *Guardian*, was merely the most senior – and most persistent – of many critical commentators in the media.⁶

A number of themes recur in the critique of the official response to the 2009 pandemic. Though they are largely ignored in the independent review, they have been widely discussed in the mainstream media, and in medical journals, most notably in the *British Medical Journal (BMJ)*, which provided a platform for investigative journalism and critical commentary on various aspects of the swine flu controversy. These include issues of disclosure and transparency in the relations between the pharmaceutical industry and public health bodies, in relation to the elevation of the swine flu outbreak to pandemic status as well as in decisions over the procurement and supply of antivirals and vaccines.⁷ Another contentious issue is the evidence base for the efficacy and safety of antiviral drugs; controversies in relation to the swine flu vaccine follow earlier debates over seasonal flu vaccines.⁸ In a retrospective commentary on the pandemic, Nigel Hawkes, former science editor of *The Times*, accused authorities of going 'over the top' as 'predictions of the severity of the pandemic consistently exaggerated its likely impact'.⁹

⁴ Smith, R. 'Swine Flu: Government is Scaremongering Say Leading GPs', *Daily Telegraph*, 8 July 2009. See also Fitzpatrick, M. 'Swine Flu Panic', *British Journal of General Practice*, June 2009, doi:10.3399/bjgp09X421094 ; Fitzpatrick, M. 'Swine Flu: Public Health has become a Public Nuisance', *British Journal of General Practice*, August 2009, doi:10.3399/bjgp09X453936.

⁵ 'Billions Wasted over Swine Flu, Says Paul Flynn MP', *BBC News*, 24 June 2010. <http://news.bbc.co.uk/1/hi/wales/10396382.stm>

⁶ Jenkins, S. 'Swine Flu? A Panic Stoked in order to Posture and Spend', *Guardian*, 29 April 2009 ; 'Sophie's Snuffle Mocks the Peddlers of Swine Flu Panic', *Guardian*, 5 May 2009 ; 'Swine Flu was as Elusive as WMD. The Real Threat is Mad Scientist Syndrome', *Guardian*, 15 January 2010 ; See also Whittaker, P. 'A Right Pig's Ear', *New Statesman*, 8 October 2009 ; Rawstone, T. 'The Men Who Made a Killing out of Swine Flu while We Wasted £1bn and were Exposed to Harmful Drugs', *The Daily Mail*, 6 February 2010.

⁷ Cohen, D. and Carter, P. 'WHO and the Pandemic Flu "Conspiracies"', *British Medical Journal*, 2009, 339:b5387. ; Godlee, F. 'Conflicts of Interest and Pandemic Flu' (editorial), *British Medical Journal*, 2009, 340:c2947.

⁸ Godlee, F. 'We Want Raw Data Now', *British Medical Journal*, 2009, 339:b5405.

⁹ Hawkes, N. 'Why We Went over the Top in the Swine Flu Battle', *British Medical Journal* 2010, 340:c789.

Projections and Predictions

Projections by leading public health officials of rates of disease and death from pandemic flu on a catastrophic scale had a major impact. While WHO experts such as Keiji Fukuda speculated that global death rates would be in the millions, if not tens of millions, television reports featured images of the 1918–19 pandemic and accounts of the devastating effects of that (historically unprecedented) viral pestilence.¹⁰ Patients fearful for their own health and that of their children, their elderly relatives, and family members with chronic illnesses sought medical advice and whatever preventative measures were available. There is however little evidence that raising awareness of the emerging threat of swine flu had any protective value. Given the rapid spread of the virus, it appears that none of the measures taken in the early ‘containment’ phase of the outbreak, such as more assiduous hand-washing, face masks, social distancing measures (school closures, etc.) and the provision of prophylactic antivirals to contacts had an appreciable effect on its spread. Pregnant women, deemed to be particularly at risk, were particularly susceptible to pandemic fears – and their anxieties were subsequently compounded by the development of vaccines that rival scaremongers claimed were unsafe.

It soon emerged that early reports from Mexico provided unreliable figures for deaths resulting from swine flu and an uncertain number of cases of infection to use as a denominator with which to calculate the mortality rate. As it also became clear that most cases were mild, projections for the impact of the pandemic were steadily scaled down.¹¹ In July, British authorities anticipated that 30 per cent of the population (19 million people) would become infected, with a complication rate of 15 per cent, a hospitalisation rate of 2 per cent and a death rate between 0.1 per cent and 0.35 per cent (between 19,000 and 65,000 people). By September the figure of 19,000 had become the worst-case scenario; the following month this was reduced to 1,000. In December, the official report on the mortality statistics for the first six months of the pandemic in England estimated a mortality rate of 0.026 per cent (138 confirmed deaths, and cases of swine flu in 1 per cent of the population), a rate substantially lower than the most optimistic scenario of six months earlier.¹² The contrast with earlier influenza pandemics was dramatic: the death rate in 1918–19 was 2–3 per cent, and that in the less severe pandemics of 1957–58 and 1967–68 around 0.2 per cent.

In the judgement of the Hine Report, ministers and officials placed excessive faith in mathematical modelling. They had come to regard this as ‘hard, quantitative science’ that could provide ‘easily understandable figures’ which had the aura of appearing ‘scientifically very robust’.¹³ Though the mathematicians had warned, at the first pandemic planning meeting in April, that in the absence of reliable data their modelling capability was low, they were under pressure from the politicians to ‘produce forecasts’. The high level of uncertainty surrounding these projections does not seem to have deterred the modellers from producing

¹⁰ ‘The Swine Flu Panic of 2009: Reconstruction of a Mass Hysteria’, *Der Spiegel*, 12 March 2010.

¹¹ Hine, D. *The 2009 Influenza Pandemic: An Independent Review of the UK Response to the 2009 Influenza Pandemic*, Cabinet Office, July 2010, p.73.

¹² Donaldson, LJ, Rutter, PD, Ellis, BM, Greaves, FEC, Mytton, OT, Pebody, RG, Yardley, IE. ‘Mortality from Pandemic A/H1N1 2009 Influenza in England: Public Health Surveillance Study’, *British Medical Journal*, 2009, 339:b5213.

¹³ Hine, D. *The 2009 Influenza Pandemic: An Independent Review of the UK Response to the 2009 Influenza Pandemic*, Cabinet Office, July 2010, pp. 72–3.

them or the politicians from projecting them into the public realm. The Hine Report observes that by the end of the first wave of swine flu cases in September, sufficient data were available to guarantee accurate modelling of the second wave. However, official statements still sought to warn against complacency about future dangers and did nothing to allay the anxieties provoked by earlier doomsday scenarios.

The Hine Report is critical of the public promotion of 'reasonable worst-case scenarios', which imply 'a reasonably likely event', focusing in particular on CMO Professor Liam Donaldson's July statement. The report says:

The English CMO's citing of the 'reasonable worst-case' planning assumption of 65,000 fatalities on 16 July 2009 was widely reported in headlines in somewhat alarmist terms.¹⁴

It seems unfair to blame the media for the alarmist tone of their reports, when it was echoed by the newly appointed health minister Andy Burnham, who told parliament that the swine flu pandemic could no longer be controlled and that there could be 100,000 cases a day by the end of August. It is striking that British authorities chose to promote such gloomy projections at a time when other prominent health figures had already declared such figures improbable. A month earlier, on the occasion of declaring the swine flu outbreak a global pandemic, WHO chief Margaret Chan had already recognised that most cases were mild and that she did not expect to see a sudden and dramatic jump in severe or fatal infections.¹⁵

While the Hine Report is generally highly congratulatory of the UK response to the swine flu pandemic, it suggests that the authorities may have adhered too strictly to the contingency plan they had developed over the previous decade to cope with the emergence of an influenza pandemic on the scale of the 1918–19 outbreak. As a result they 'did not consider sufficiently the possibility that a pandemic might be far less severe' than the one envisioned in that contingency plan. Their response was 'tailored to the plan, not the nature of the virus' and thus lacked flexibility. The report tentatively suggests that the authorities might consider as an alternative approach, a policy of preparing for the most likely outcome, while being prepared to monitor and change tack as necessary.

The alarmist response to the swine flu outbreak reflects the wider trend of the past decade in which 'crying wolf' has emerged as the appropriate official response to diverse real and imaginary threats, from the millennium bug to bioterrorism, obesity to global warming.¹⁶ For the authorities, the over-riding principle is to avoid blame for unforeseen disasters, by always proclaiming the worst-case scenario and repeating the mantra 'prepare for the worst, hope for the best'. From this perspective, rational contingency planning gives way to scaremongering. Instead of making discreet preparations for probable, predictable emergencies (snow in winter, drought in summer), the authorities engage in speculation about the grimmest possible eventualities (massive loss of life resulting from disease or climate change) with the aim of promoting more responsible behaviour and healthier

¹⁴ Ibid., p. 137.

¹⁵ Chan, M. Statement to the Press by the WHO Director-General – World Now at the Start of 2009 Influenza Pandemic, 11 June 2009.

www.who.int/mediacentre/news/statements/2009/h1n1_pandemic_phase6_20090611/en/index.html

¹⁶ Furedi, F. 'Precautionary Culture and the Rise of Possibilistic Risk Assessment', *Erasmus Law Review*, 2009, 02:197–220.

lifestyles.¹⁷ Rather than communicating realistic assessments of risk to the public, the authorities engage in sharing their anxieties and promoting fears. Instead of guiding practical professional interventions in response to real social problems, politicians and public health officials engage in dramatic posturing.

Diagnosis and Treatment

The NPFS, launched in late July 2009, is hailed in the Hine Report as a 'highly innovative scheme' that reduced the pressure on primary care. There can be little doubt that GPs welcomed the establishment of this telephone helpline, hoping that it might relieve some of the burden of calls from anxious patients that had overwhelmed their surgeries over the previous month. It remains unclear whether the ensuing decline in demand for GP services was due to the helpline or simply the fact that the first wave of the pandemic had passed its peak as the school holidays began. Many GPs found that patients first contacted the helpline and, often after receiving a diagnosis of swine flu and a prescription for medication, then contacted their surgery for a second opinion on whether to take the medication (thereby delaying starting medication, sometimes beyond the 48 hours after the onset of symptoms when it was deemed to be most effective). This may provide part of the explanation for the fact that, though 1.7 million people were authorised by the NPFS to receive antiviral medications, only 1.1 million collected their free prescriptions. The role of the NPFS highlighted a number of issues in the diagnosis and treatment of pandemic flu.

The hurriedly trained and inexperienced NPFS telephone operators assessed callers by using a diagnostic algorithm. Anybody who complained of a fever (objective confirmation not required) together with one other symptom, such as cough, sore throat, headache, diarrhoea and vomiting, was immediately diagnosed as having swine flu and authorised to receive antiviral medication. Testing a sample of these diagnoses with laboratory tests, the Health Protection Agency found that less than 10 per cent were correct.¹⁸ In addition to checking both diagnosis and treatment with their GPs, many patients who experienced adverse reactions also consulted their GPs. Though most such reactions were relatively minor – notably gastrointestinal disturbances – the fact that they occurred in a significant proportion of the high numbers of patients taking these drugs meant a substantial increase in consultations, compounding the swine flu burden.

The overdiagnosis of swine flu was inevitably accompanied by the misdiagnosis of other conditions. In the course of the pandemic, reports appeared in the medical journals – and the mainstream press – of cases of malaria, meningitis, bronchiolitis, diabetic ketoacidosis, appendicitis and leukaemia all being mistaken for swine flu, in some patients with fatal consequences.¹⁹

¹⁷ Alcabes, P. *Dread: How Fear and Fantasy have Fuelled Epidemics from the Black Death to Avian Flu*, New York: Public Affairs, 2009.

¹⁸ Whitaker, P. 'A Right Pig's Ear', *New Statesman*, 8 October 2009.

¹⁹ Delamothe, T. 'H1N1: "Now Entering the Recrimination Phase"', *British Medical Journal*, 2010, 340:c225 ; Houlihan, CF, Patel, S, Price, DA, Valappil, M, Schwab, U. 'Life Threatening Infections Labelled Swine Flu', *British Medical Journal*, 2010, 340:c137.

Concerns about the efficacy and safety of the drugs used to treat swine flu became entangled with the controversies surrounding links between public health authorities and pharmaceutical companies, and these became the subject of much critical commentary and various conspiracy theories.²⁰ Problems began with the declaration of the swine flu outbreak as a pandemic in June. Critics claimed that the definition of a pandemic had formerly required that, in addition to intercontinental dissemination, the condition should cause 'enormous numbers of deaths and illness' – clearly a requirement not met by swine flu.²¹ On behalf of the WHO, Margaret Chan replied that the new definition of a pandemic had been finalised in February 2009, before the emergence of the new strain of H1N1 in Mexico.²² Given the benefits to the pharmaceutical industry of the declaration of a pandemic, the fact that prominent figures on key WHO committees were receiving drug company funding – and the lack of transparency in these arrangements – inevitably led to allegations of corruption, which in turn contributed to mounting public suspicion.

The drugs used to treat swine flu – oseltamivir (Tamiflu) and zanamivir (Relenza) – were both licensed in 1999. Because it can be taken orally, oseltamivir has proved more successful, while zanamivir, which is inhaled as a nasal spray, has been largely used by women during pregnancy. Neither has been much used for the treatment of seasonal flu in general practice over the past decade. Following early studies, they have generally been considered to be of marginal benefit (effective only when taken shortly after the onset of symptoms) while having a significant profile of side-effects. The dramatic change resulting from the declaration of the swine flu pandemic was that drugs formerly largely used in the treatment of severe cases of very ill patients in hospital were suddenly made available for the treatment of large numbers of generally healthy adults and children with relatively minor illnesses in the community. In the febrile climate encouraged by the promotion of doomsday scenarios, it was not surprising that substantial numbers of patients complained about minor side-effects, or that a significant minority attributed more serious symptoms, including neuro-psychiatric symptoms, to these medications.

The enhanced public profile of Tamiflu and Relenza encouraged greater interest in the evidence base supporting the use of these drugs. One result was the *BMJ* edition of 10 December 2009 which included a number of articles concerning the evaluation of Tamiflu and the associated dispute between Roche, its manufacturer, and the reviewers from the Cochrane Collaboration, headed by Tom Jefferson, a long-standing critic of the role of drug companies in relation to both flu drugs and vaccines.²³ According to the Cochrane reviewers, 'the public evidence base for this global public health drug is fragmented, inconsistent and contradictory'; it was unclear whether Tamiflu offered any therapeutic advantage over drugs such as aspirin which were readily available over the pharmacy counter. The reviewers found that existing trials were unsatisfactory and that systematic review was distorted by

²⁰ See Cohen, D. and Carter, P. 'WHO and the Pandemic Flu "Conspiracies"', *British Medical Journal*, 2009, 339:b5387 and Rawstone, T. 'The Men Who Made a Killing out of Swine Flu while We Wasted £1bn and were Exposed to Harmful Drugs', *The Daily Mail*, 6 February 2010 ; Watson, R. 'Council of Europe Investigation into H1N1 Pandemic', *British Medical Journal*, 2010, 340:c641.

²¹ Doshi, P. 'How Should We Plan for Epidemics?', *British Medical Journal*, 2009, 339:b3471.

²² Chan, M. 'WHO Director-General Replies to the BMJ', *British Medical Journal*, 2010, 340:c3463.

²³ Godlee, F. 'We Want Raw Data, Now', *British Medical Journal*, 2009, 339:b5405 ; Doshi, P. 'Neuraminidase Inhibitors – The Story behind the Cochrane Review', *British Medical Journal*, 2009, 339:b5164 ; Jefferson, T, Jones, M, Doshi, P, Del Mar, C. 'Neuraminidase Inhibitors for Preventing and Treating Influenza in Healthy Adults: Systematic Review and Meta-analysis', *British Medical Journal*, 2009, 339:b5106.

publication bias. In her commentary, *BMJ* editor Fiona Godlee summed up the contributors' negative judgment:

Between them the articles conclude that the evidence that oseltamivir reduces complications in otherwise healthy people with pandemic influenza is now uncertain and that we need a radical change in the rules on access to trial data.

In their response to the Cochrane/*BMJ* critique, leading influenza authorities in the USA and Europe emphasised the proven benefits of Tamiflu in treating patients 'with severe disease or who have risk factors for developing severe disease'.²⁴ However, this avoids the key question: is it justified to use Tamiflu on a large scale, as was done through the NPFS in the UK during the 2009 pandemic, for the treatment of people with mild illness who do not have other risk factors?

A later contributor to the Tamiflu controversy noted that the death rates from pandemic flu in Spain, where the use of this medication was largely confined to hospitals, and the UK, where it was used on a grand scale in the community, were almost identical.²⁵ The author concluded that 'these data create serious doubts about the real utility of early use of oseltamivir in preventing deaths from influenza A/H1N1'.

Vaccination

By the time that vaccines against pandemic flu became available in October 2009, there was already a gulf between public perceptions of swine flu and the doomsday scenarios that had been promoted by politicians and public health authorities. It had become clear that, for most people, this was a fairly mild illness, milder even than the familiar seasonal flu. It was reassuring that most children were able to return to school within a few days, and – more surprisingly – that older people, who are generally more vulnerable to seasonal flu, were relatively spared (perhaps carrying some immunity from earlier epidemics). Though there were some anxieties arising from reports of severe cases of flu among pregnant women and among previously healthy adults, these appeared to be sufficiently rare as to not provoke continuing high levels of public concern. A degree of scepticism about the pandemic was particularly strong among health professionals, especially in primary care. They had experienced the disruption of surgeries and clinics over the summer and were alarmed by the overdiagnosis and overtreatment of the 'worried well' by the NPFS. It was not therefore surprising that when healthcare workers were designated as having priority to receive the newly procured supplies of swine flu vaccine, there was a less than enthusiastic response.

A poll conducted by the *Nursing Times* in August 2009 suggested that 31 per cent of nurses would reject the swine flu vaccine – a proportion that increased to 47 per cent in October.²⁶ Over the same period the proportion of nurses indicating that they would have the vaccine declined from over a third to less than a quarter. Health authorities mounted a propaganda barrage aimed at putting moral pressure on health service staff to receive the vaccine. This attempt to boost uptake of the vaccine evidently met with little success. The apparent lack of

²⁴ Weber, JT, Nicoll, A, Bridges, CB, Ciancio, BC. 'The Truth about Tamiflu? Neuraminidase Inhibitors in Pandemic A/H1N1 flu', *British Medical Journal*, 2010, 340:c130.

²⁵ Vergara, JC. 'Early Use of Oseltamivir does not Reduce Swine Flu Mortality. Rapid Responses to Nigel Hawkes, Why We Went over the Top in the Swine Flu Battle', *British Medical Journal*, 2010, 340:c789.

²⁶ 'Swine Flu Fears Grow as NHS Staff Shun Vaccine', *Guardian*, 11 October 2009.

confidence in the pandemic flu vaccine among professionals was inevitably transmitted to the wider public: by the time the vaccination campaign fizzled out in early 2010 less than a quarter of those eligible (4.25 million out of 17 million) had received the vaccine and the government was left with some 30 million unused doses.

The vaccination campaign was undermined by a number of controversies parallel to those affecting the antiviral drugs, and compounded by the activities of established anti-vaccine campaigns. Doubts about the efficacy of swine flu vaccines were raised by Tom Jefferson and others associated with the Cochrane Collaboration who had published earlier reviews casting doubts on the claims for the effectiveness of established seasonal flu vaccines.²⁷ Given the rapid development of the pandemic flu vaccines – in less than six months following the emergence of the new H1N1 strain, a considerable technological achievement – it was impossible to submit these vaccines to long-term safety trials. Though the new vaccine was in fact only a slightly modified version of the familiar seasonal flu vaccine, anti-vaccination campaigners could claim that it was an untested product.

It was unfortunate that legitimate scepticism about the scaremongering surrounding swine flu came to focus on the vaccine. There was some evidence that, like the seasonal flu vaccine, it offered a degree of protection against the flu virus and it was no more likely to cause serious adverse effects (which are rare with these widely used vaccines). But in the general climate of fear and suspicion generated around pandemic flu, the vaccination campaign was a gift to the anti-immunisation activists, including disaffected scientists, cranks and conspiracy theorists, who now set about reviving old vaccine scares in relation to swine flu.²⁸ One issue was the use in one of the vaccines available in the UK (Pandemrix, made by Glaxo Smith Klein) of the mercury-based preservative thiomersal (also known as thimerosal), which has been linked to autism by US campaigners. Though this association has been universally discredited, it is still advanced by the promoters of junk science and quack therapies who flourish around autism-parent campaigns.²⁹

Another issue was the use of squalene, a naturally-occurring substance commercially extracted from fish oil, as an adjuvant to enhance the effectiveness of the vaccine in provoking an immunological response. Though squalene was blamed by anti-vaccine campaigners for causing the 'Gulf War Syndrome' reported by veterans of the invasion of Kuwait in 1990–91, subsequent investigations revealed that it was not included in the vaccines given to combatants.³⁰ It has however been included in seasonal flu vaccines given to more than 20 million people in Europe since 1997 and has not been linked to any particular adverse reaction.

Another popular theme among anti-vaccination activists was the supposed risk of Guillain-Barre syndrome, a debilitating neurological condition which was associated with what has become known as the 'swine flu fiasco' in the USA in 1976. Following a single case of swine flu at an army base in New Jersey, health officials declared a pandemic emergency and President Gerald Ford launched a nationwide vaccination programme. As things turned out,

²⁷ Harrell, E. 'Do Flu Vaccines Really Work? A Skeptic's View', *Time*, 27 February 2010.

²⁸ Macfarlane, J. 'Swine Flu Jab Link to Killer Nerve Disease: Leaked Letter Reveals Concern of Neurologists over 25 Deaths in America', *The Daily Mail*, 15 August 2009.

²⁹ Fitzpatrick, M. *Defeating Autism: A Damaging Delusion*, Routledge, 2009.

³⁰ Fitzpatrick, M. 'Making a Pig's Ear of Mass Vaccination', Spiked-Online, 27 October 2009.
<http://www.spiked-online.com/index.php/site/printable/7628/>

there was no swine flu epidemic, but 500 people became ill with Guillain-Barre syndrome, apparently as a result of a (still unsubstantiated) immunological reaction to the vaccine, and 25 died, leading to compensation claims amounting to US\$100 million. But Guillain-Barre has never been recognised as an adverse effect of the seasonal flu vaccine, which has merely been tweaked to produce the current swine flu vaccine.

A more appropriate historical parallel is with the December 2002 smallpox bioterrorism scare associated with President George Bush. At a time of heightened national anxieties following the 11 September 2001 attacks on the World Trade Center and other targets, US authorities raised the spectre of biological attack using the smallpox virus (though there was no evidence that such an attack was imminent, or even feasible). President Bush announced a programme to vaccinate 10 million 'frontline' public service workers, including police and health staff, with the smallpox vaccine (which had not been used since smallpox was declared extinct 30 years earlier). But few believed that smallpox was a real threat and, though the politicians succeeded in bullying the public health authorities into endorsing the programme, less than 40,000 out of some 10 million eligible staff came forward to have the vaccine and within a year the whole campaign sputtered out.

According to journalist Arthur Allen in his authoritative study of vaccination and anti-vaccination campaigns in the USA, during the smallpox scare 'the Bush administration had seemingly distorted the truth and manipulated public fears to achieve its goals'.³¹ As an advocate of the benefits of immunisation, Allen regretted the effect of the smallpox bioterrorism vaccine programme in undermining public trust in health authorities and in damaging the reputation of vaccination. He noted that this episode contributed to a shift in popular attitudes towards immunisation from the enthusiasm of the post-war years (resulting from the success of vaccination against polio, smallpox and other diseases) to the more ambivalent climate that now prevails (as a result of the alleged vaccine/autism link and other scares).

Controversies around swine flu vaccines raged with varying levels of intensity in different European countries. They were particularly fierce in Germany and the Ukraine, where they became involved in wider political conflicts. Just as Spain apparently experienced no ill effects from refusing widespread use of Tamiflu, Poland reported no greater severity in the impact of pandemic flu following its rejection of the vaccine. According to the Council of Europe inquiry, which was highly critical of the WHO, though 'Poland did the least and the UK the most, the outcome was not that different'.³²

Cost

The Hine Report estimates the cost of the 2009 flu pandemic as £1.2 billion, largely arising from expenditure on drugs, vaccines, the NPFS and other health service costs. But this figure fails to take account of the wider impact of the pandemic. It does not consider the opportunity costs for both hospital and primary care services as resources were redirected from other areas of patient care to deal with the casualties, real and imagined, of the pandemic. A study carried out at the University of York used a computer model to estimate the 'economy-wide impact' of the pandemic, taking into account factors such as absenteeism resulting from 'illness, fear of illness and school closure – along with the costs and savings

³¹ Allen, A. *Vaccine: The Controversial Story of Medicine's Greatest Lifesaver*, New York: Norton, 2007.

³² Watson, R. 'Council of Europe Investigation into H1N1 Pandemic', *British Medical Journal*, 2010, 340:c641.

that would result from vaccination'.³³ The authors predicted a reduction in gross domestic product (GDP) of between 0.5 per cent and 4.3 per cent, equivalent to a loss of output of between £8.4 billion and £72.3 billion. The impact is thus comparable to that of the 2008–09 recession, which is estimated to have caused a 5 per cent drop in GDP, the greatest setback to the British economy since the 1930s. Though the swine flu turned out to be a relatively mild viral illness, the pandemic panic had a damaging impact on the economy at a time when it was already in difficulties.

Many commentators have drawn attention to the wider cost of the pandemic in terms of the damage to confidence in public health authorities. The failure of early modelling of the swine flu pandemic follows earlier forecasts of catastrophic mortality that were rapidly disproved by events. These included severe acute respiratory syndrome (SARS) in 2002–03 and avian flu in 2005–06. In September 2005 Dr David Nabarro, a leading WHO official seconded to the United Nations, speculated that avian flu might kill between 5 and 150 million people worldwide.³⁴ The global death toll to date is 262. Recalling these public health embarrassments, Nigel Hawkes asked: 'What happens next time? Is anybody going to believe the predictions ever again? Wrong about severe acute respiratory syndrome, wrong about bird flu, wrong about swine flu: that's an unhappy hat trick of exaggerated alarms that may come back to haunt us one day.'³⁵

A similar point was made by MP Paul Flynn as he presented the Council of Europe report on what he described as 'the pandemic that never was'. He warned that 'plummeting confidence in health advice could prove disastrous in the event of a severe future pandemic.'³⁶

The erosion of trust in public authorities fosters a climate of cynicism that is increasingly responsive to allegations of corruption and conspiracy theories, even if these cannot be substantiated. The poor uptake of the swine flu vaccine – among health service professionals as well as among vulnerable patients – reveals the corrosive effects of the pandemic for the health service.

'Can the fear of a catastrophic flu pandemic be put to good use?'³⁷ This was the question posed by two critics of the promotion of pandemic fears around the bird flu scare. They dismissed calls for the stockpiling of 'large stocks of drugs of no clear use, and following mindlessly the advice of disease experts with undeniable interests' but argued that we should 'use panic, with good reason or not, to tackle the larger agenda of preventable and curable disease in the world'. The experience of the 2009 pandemic suggests that this is a forlorn hope: panic cannot legitimately be used as an instrument of policy. While pandemic fears enriched manufacturers of drugs and vaccines, they had a damaging effect on health services even in the advanced economies. It is difficult to see how such fears could be mobilised to improve healthcare in the developing world. The culture of fear promoted by

³³ Smith, RD, Keogh-Brown, MR, Barnett, T, Tait, J. 'The Economy-wide Impact of Pandemic Influenza on the UK: a Computable General Equilibrium Modelling Experiment', *British Medical Journal*, 2009, 339:b4571 ; Maynard, A, Bloor, K. 'The Economic Impact of Pandemic Influenza', *British Medical Journal*, 2009, 339:b4888.

³⁴ 'Bird Flu could Kill 150m People', *BBC News*, 30 September 2005. <http://news.bbc.co.uk/2/hi/asia-pacific/4292426.stm>

³⁵ Hawkes, N. 'Why We Went over the Top in the Swine Flu Battle', *British Medical Journal*, 2009, 340:c789.

³⁶ MacRae, M. 'Swine Flu Risk "was Vastly Over-rated" by World Health Organisation', *The Daily Mail*, 25 June 2010.

³⁷ Bonneux, L, Van Damme, W. 'An Iatrogenic Pandemic of Panic', *British Medical Journal*, 2006, 332:796–8.

pandemic scares fosters a culture of pessimism and victimhood, undermining the faith of human beings in their own capacities.³⁸ Fear, according to philosopher Lars Svendsen, robs us of our freedom and undermines our ontological security.³⁹

'The great calamities,' according to the US public health writer Philip Alcabes, 'are always, and have always been, unforeseeable and unimaginable until the moment they begin.'⁴⁰ He argues that it is a waste of time and energy to prepare for what we cannot foresee and 'a lie to pretend that we can see what we cannot'. Contrary to the current vogue for 'preparing for the worst and hoping for the best', he insists that 'there's nothing to be gained by trying to prepare for the unlikely and unforeseeable'.

In her defence of the mathematicians who were cajoled by the politicians into providing projections of the swine flu pandemic on the basis of inadequate data, Dame Deirdre Hine protests that 'modellers are not court astrologers'. From the perspective of Alcabes, the dame doth protest too much. He depicts today's public health officials as 'wizards' and 'soothsayers'. He argues that they have turned public health policy into 'a magic show, the official engaging in legerdemain and the public – the conjurer's audience – agreeing to believe that the official has succeeded in pulling off an inexplicable trick'. Whereas in the past authorities recommended protective measures against outbreaks of infectious diseases, now they identify imaginary dangers (such as bioterrorism) and prescribe preventive measures which do nothing to make us safer (but legitimise the authorities even if the threat fails to materialise). Politicians and scientists keep identifying new epidemics (of social problems such as binge drinking and internet stalking, as well as of viral infections). Their incessant exhortations to be aware and vigilant and to curb risky behaviours are amplified by the media, fostering public anxieties. The result is a climate responsive to the promotion of a new brand of piety, in which everyone is supposed to worship at the altar of 'healthy lifestyle choices'.

Conclusion

The ascendancy of public health over primary healthcare revealed in the swine flu panic is an ominous trend. The statements of both national and local public health practitioners confirm attitudes of condescension, even contempt, for patients and primary healthcare practitioners. For public health specialists, patients are merely people committed to unhealthy lifestyles. Their risk factor epidemiology repackages old prejudices: people get ill because they are idle, promiscuous, gluttonous, drunken, and as the spread of swine flu confirms, defective in personal hygiene. They regard GPs as sadly lacking in the moral fervour required to transform the deviant behaviour of their patients.

The moralising propaganda of public health has a generally demoralising effect on society, encouraging fear and anxiety – and attendant sentiments of stigma and blame. It has a degrading effect on medical practice and is corrosive of good relations between doctors and patients. As the pandemic swine flu scare also confirms, it is disruptive of day-to-day medical practice and damaging to the economy.

³⁸ Svendsen, L. *A Philosophy of Fear*, London: Reaktion, 2008.

³⁹ Ibid.

⁴⁰ Alcabes, P. *Dread: How Fear and Fantasy Have Fuelled Epidemics from the Black Death to Avian Flu*, New York: Public Affairs, 2009.