

INFLUENZA A/H1N1

Questions and answers

The pandemic alert level has been raised to phase 5—just one level short of a full pandemic—by the World Health Organization. As influenza A/H1N1 spreads quickly from its origins in Mexico, **Rebecca Coombes** assesses the threat and our levels of protection

What is pandemic flu?

The term pandemic relates to the virus's geographical spread rather than its severity. A flu pandemic is an ongoing worldwide epidemic caused by a novel influenza virus that infects a large proportion of people lacking immunity to that virus. It is at this point that the World Health Organization raises its alert level to 6. The three flu pandemics of the 20th century were in 1918, 1957, and 1968. The current phase 5 is characterised by "human to human spread of the virus into at least two countries in one WHO region"—a strong signal that we are on the brink of an epidemic and that the time to finalise plans is short.

Is it too late to stop a pandemic?

Richard Coker, professor of public health at the London School of Hygiene and Tropical Medicine, said in a *BMJ* editorial on 30 April that containment is probably not feasible, given the widespread presence of the virus across many countries (*BMJ* 2009;338:b1791). So far, cases are occurring in countries with robust surveillance systems. He pessimistically wonders if this is because cases are not coming to light in countries with poorer surveillance systems. Are we seeing only a part of the global picture? It is harder for developing countries to detect and mitigate the effects of a new flu virus, because they have low or nonexistent stocks of antivirals and limited access to an effective vaccine once it is produced.

How severe is this flu? How does it compare with seasonal flu?

The situation is unpredictable, and it is dangerous to second guess what might happen next. So far the case fatality rate is unknown. Each year seasonal flu kills around 250 000 to 500 000 people around the world. However, A/H1N1 is a novel combination of viral strains never seen before; and because humans don't have natural immunity to it (unlike with seasonal flu) the disease has spread quickly. In the event of an epidemic in the United Kingdom, authorities are expecting

to see an attack rate of 70% in children under the age of 12 months and between 35% and 50% in adults.

It's too early to say whether some age groups are more at risk. In Europe, confirmed cases are mainly among adults aged less than 50 years old, possibly reflecting the age profile of people travelling to Mexico. Until the virus starts to spread widely in countries outside Mexico it would be premature to characterise the epidemic in terms of attack rate and age distribution. Despite the several deaths in Mexico and one in the United States, symptoms in most people have been relatively mild so far.

What is different about A/H1N1 flu?

Swine flu is a highly contagious acute respiratory disease of pigs, caused by one of several influenza A viruses. So far three type A flu virus subtypes have been found in pigs: H1N1, H1H2, and H3N2. The Mexican virus is of the H1N1 family, named after its two surface proteins. Mortality in pigs tends to be low (1-4%). Human infection with swine flu has been detected occasionally since the late 1950s, usually among people working with pigs, but secondary cases after human to human transmission have been very rare. The A/H1N1 virus has been found to contain a unique combination of genes from pig, bird, and human flu viruses. Infections from human to human have been occurring for the past three weeks, at least.

What do you do if a patient phones up the surgery with suspected swine flu?

The algorithm from the Health Protection Agency (which was last updated on 30 April at time the *BMJ* went to press) guides clinicians on which patients should be treated with antivirals (www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1240732819361). You should take precautions if faced with a patient with a febrile respiratory illness who had travelled to an area of the world affected by influenza A/H1N1 in the seven days before the onset of symptoms. Doctors should assess patients at home, if possible, or at least away from communal areas. The patient should wear a facemask, and

staff should wear facemasks, plastic aprons, and gloves. The local health protection unit (see www.hpa.org.uk) should be informed immediately, and nose and throat swabs should be sent for testing. Treatment with an antiviral should be started as soon as possible. Unless ill enough to require admission to hospital, patients should be advised to stay at home until test results are available. This entire procedure changes if the situation shifts up to a pandemic (WHO alert level 6).

What are the arrangements for administering antivirals in the event of a pandemic?

The National Flu Line—flagged as the main route for the public to get advice and access to antivirals during a pandemic—won't be available until the autumn. The contract is in place; but meanwhile GPs and NHS Direct are being told to muddle through. "We were 98% ready, but unfortunately this flu has come just too early," said an insider. So if a pandemic is announced, the only route for patients to access antiviral drugs will be through NHS Direct, which will use an algorithm to determine whether a caller has influenza A/H1N1. These patients will then get an authorisation number from NHS Direct for the drugs and must send a "flu friend"—an uninfected person—to an approved pick-up point to collect them. The aims are to promote self care and to keep infected people at home if possible, away from general practices and hospitals.

Is it worth wearing a facemask?

A systematic review last year (*BMJ* 2008;336:77-80) showed that many simple and low cost interventions in healthcare settings, including facemasks, could help to reduce the spread of respiratory viruses. Masks can be simple and need not be of the N95 type (respirators with a 95% filtration capability). It's worth remembering that ordinary surgical masks become sodden within about an hour and a half, so clinicians would have to change masks about six times a day if they wanted to wear a mask continuously. Although



Global news: front pages from around the world (l to r) Peru, UK, Austria, and France

most surgeries and hospitals will have stocked up on gloves, masks, and gowns, supplies are limited, so it is best to use them only when around affected patients.

There is no convincing scientific evidence that the widespread use of facemasks by members of the public can stop the disease spreading. They can give false reassurance and may encourage people to ignore basic hygiene measures that have proven effectiveness.

What can we learn from the SARS epidemic?

Six case control studies cited in the 2008 systematic review referred to above assessed the effect of public health measures to curb the spread of the epidemic of severe acute respiratory syndrome (SARS) in China, Singapore, and Vietnam in 2003. The data indicate that setting up barriers to transmission, isolation measures, and relatively cheap hygiene interventions—hand washing more than 10 times daily, wearing N95 masks, wearing gloves and gowns, or a combination—are effective in containing epidemics.

How can people best protect themselves?

There is good evidence on how patients can protect themselves (see previous answer). Frequent hand washing (more than 10 times a day) is the key to reducing risk. There is no evidence that medicated soaps are better than ordinary soap. People should cover their nose and mouth when coughing and sneezing, use tissues, and dispose of tissues promptly and carefully. The virus can live outside the body for up to four hours; the Department of Health advises cleaning hard surfaces with a normal cleaning product.

How effective are the antiviral drugs?

If taken within 48 hours, neuraminidase inhibitors such as zanamivir (Relenza) and oseltamivir (Tamiflu) halve the rate of excretion of the virus and reduce the duration of infection by just over a day (*Cochrane Database of Systematic Reviews* 2006;(3): CD001265, doi:10.1002/14651858.CD001265.pub2). This means that patients

who take these drugs will be less likely to infect someone else, but they do not prevent infection in the first place. The authors of the Cochrane review also caution: “We are unsure of the generalisability of our conclusions from seasonal to pandemic or avian influenza.” Japan, which consumes 60% of the world’s oseltamivir, warned in 2007 that the drug should not be prescribed to teenagers because it could lead to bizarre behaviour. In Europe doctors are advised that psychological disorders have been reported in Japan. Oseltamivir is currently available online in the UK for nearly 10 times its retail price of £16.36 for a pack of 10 capsules.

Should staff be given oseltamivir?

GPs are concerned about the health of their teams and have asked whether antivirals should be provided for staff to take. The *BMJ* understands that plans to offer prophylactic antivirals to frontline clinical staff are under urgent discussion. One practical difficulty is that staff would be required to take the drug for many weeks. Healthcare staff should not presume to be deemed the highest priority: water, sewerage, and power workers are likely to come first, followed by tanker drivers and food distribution workers.

Does last year’s flu vaccine work against A/H1N1?

There are similarities between the usual H1N1 human flu viruses, which the vaccine protects against, and swine flu, so there may be some level of cross protection, but this is likely to be partial. No information exists at present indicating that the seasonal flu vaccine offers any protection, and further investigations will take some time.

What is the expected pattern of spread of this virus?

Usually the pattern of spread of human flu viruses depends on where in the world they occur. The UK is now coming out of the winter flu season into a drier, less humid period, which suppresses the transmission of flu. In tropical regions outbreaks

can occur throughout the year. It remains to be seen whether or not A/H1N1 will defy this seasonal trend. In the UK, if flu continues to spread, there will be a need to prepare very hard for a resurgence in September, October, and November.

How soon will a vaccine be available?

The procedure for creating a vaccine is straightforward, but it will take up to six months to get a product into industrial production and available for mass use. The factories that make regular human flu vaccine have the capability to rapidly manufacture vaccines for a pandemic, and the Department of Health has contracts with two manufacturers. The US Centers for Disease Control and Prevention hopes to produce a reference strain to send to manufacturers by the second week of May. Once the UK Health Protection Agency receives samples of the virus, the process can begin here.

Should I recommend travel to the affected areas of Mexico and the US?

Advise patients to check the continually updated advice on the Foreign and Commonwealth Office website (www.fco.gov.uk/en/travelling-and-living-overseas/swine-flu).

Where should I go for updated information?

Check the BMA website daily (www.bma.org.uk/health_promotion_ethics/influenza/index.jsp), and click through from here to the relevant sites, such as those of the Health Protection Agency, WHO, and the Department of Health. The Royal College of General Practitioners is issuing daily email newsletters.

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Sources: World Health Organization, BMA, Health Protection Agency, Royal College of General Practitioners, Department of Health, European Centre for Disease Prevention and Control.

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OPEN GOVERNMENT?

Researchers are turning to the Freedom of Information Act to shed light on health policy decisions, but, as **Jane Cassidy** reports, getting data is not always straightforward

The Freedom of Information Act has helped expose massive NHS overpayment to private healthcare companies, an article in the *BMJ* reports.¹ The case came to light after a doctor joined forces with academics to release the financial details of a contract for an independent sector treatment centre between an NHS trust and a private healthcare company in Scotland.

Researchers at the Centre for International Public Health Policy at Edinburgh University discovered a possible overpayment of more than £4m (€4.4m; \$6m) to the company in the contract's first year. When they applied the Scottish findings to the whole independent sector treatment centre (ISTC) programme in England, they concluded more than a billion pounds may have been overpaid.

The case highlights how the Freedom of Information Act has great potential to promote transparency and accountability. However, it also shows the obstacles facing those using the legislation. John Evans, a retired consultant clinical biochemist, made his freedom of information request after the contract between NHS Tayside and Netcare Healthcare (UK) was signed in November 2006. NHS Tayside turned down his request, saying disclosure would prejudice the company's financial interests.

With advice from Edinburgh University academics, Dr Evans made a public interest appeal to the Scottish Information Commissioner in January 2008. NHS Tayside finally published the contract's financial details in June 2008, just before the commissioner was due to make an official ruling.

"It's very important that public interest takes precedence over commercial interest. As far as I'm aware, this is the first time such a result has applied to a private medicine ISTC contract," said Dr Evans, who documented his investigation into the Scottish case with retired nurse Ronald Macdonald.²

The Department of Health has refused to release detailed figures on the English ISTC programme to parliament on grounds of commercial confidentiality. The Commons

Box 1 | Grounds for withholding information requested under the Freedom of Information Act

- The authority has already provided you with the same or substantially similar information, in which case you may have to wait a "reasonable" time before you can apply again
- Your request is "vexatious"—for example, if it is made to disrupt the authority's work or is part of an obsessive pattern of requests
- There is an "absolute" exemption to disclosure—for example, information contained only in court documents
- The information is covered by an exemption to which the public interest test does apply—for example, information relating to the formulation or development of government policy—but the public interest in withholding the information is greater than the public interest in its disclosure
- If the cost of finding and extracting the information would be more than the set limit (£600 for government departments, £450 for other public bodies) then the public body can either request these costs be met or refuse to disclose the information

health committee concluded in 2006 that this refusal made assessment about value for money of the treatment centres difficult.³

Allyson Pollock, director of the Centre for International Public Health Policy and co-author of the NHS Tayside case study, said: "Primary care trusts are placing thousands of private contracts a year worth billions of pounds and there is no way of evaluating or monitoring them."

"Public authorities invoke the numerous exemptions in the act to restrict release of information. Data that should be publicly available are not being released at all or being given to management consultants to evaluate," she said.

Despite these difficulties, the centre continues to make many freedom of information requests and is compiling a database to analyse public authorities' compliance with and interpretation of the act. It has applied unsuccessfully three times for research funding to evaluate the legislation, arguing that there has been no systematic study of how it is being used to restrict access to crucial data.

Although the act gives extensive rights to information held by government and most public authorities, public bodies can use a number of exemptions to justify refusal to disclose material (box 1).

Some of these are subject to the act's public interest test. This means information covered by the exemption can only be withheld if the public interest in withholding it outweighs the public interest in disclosure.

Handling problems

Research shows the act is being underused by academics.⁴ Those using it to try to obtain information from the Department of Health may find the process particularly frustrating. The Information Commissioner has issued the department with two practice recommendations in the past year, suggesting its track record of handling requests is particularly poor, said Katherine Gundersen, research officer at the Campaign for Freedom of Information.

A practice recommendation is issued when the commissioner becomes aware of evidence of a public authority struggling to meet its freedom of information responsibilities or serious or repeated non-compliance with the act's codes of practice.⁵

A sternly worded press release from the commissioner's office announcing the first practice recommendation in 2008, demanded improvements: "The Department of Health has failed on numerous occasions to offer appropriate advice and assistance to people making requests under the Act and is delaying the conduct of internal reviews beyond a reasonable timescale."

The commissioner recommended that the department review staffing and resources to improve its handling of freedom of information requests.⁶

The second practice recommendation was issued in March, when the department was ordered to improve record management.⁷ The department says it is committed to improving its performance.

A spokesman for the Information Commissioner's Office said taking action twice against the Department of Health was "disappointing" and that the department's efforts to implement its recommendations would be reviewed later this year.

Challenging the department's refusal to reveal information can take months. A total of 29 appeals involving the department are awaiting a decision from the commissioner's office (box 2).⁷

The Information Commissioner, Richard Thomas, blames government failure to finance the office for delays in processing appeals. "Despite a 15% increase in complaints received, we have been told that an increase [in funding] cannot be contemplated and that a cut is possible. This would be very serious," he said in January.⁸

In 14 out of 16 rulings made since 2005, the health department was found to have acted wrongly. In a further case, the majority of the complaint against the department was upheld.⁹

Research possibilities

The experiences of researchers at the King's Fund show the inconsistent responses to freedom of information requests. Tony Harrison, a health policy research associate, has used

the act to try to obtain material from various government departments. Despite achieving some success, he also encountered refusals that he says are hard to explain. His experiences have discouraged him, and he is doubtful about the act's usefulness as a research tool.

He succeeded in accessing background documents to the white paper *Best Research for Best Health* that were not released with the paper in 2005.¹⁰

"The white paper referred to it, so you knew it was there. I asked for and got the papers prepared by independent consultants. They came without any difficulty. The more precise you can be the higher your chances of getting what you ask for," he said.

He was also successful when he asked for the cost in terms of Treasury spending of meeting waiting time targets. However, he was "turned down flat" by the Cabinet Office when he asked for background research used for a policy document on choice in health and other public sector services.

This time he was told the material constituted "advice to ministers," a term justifying government refusal to release information. The basic stance of many civil servants remains obstructive and secretive, driven by a desire to protect ministers, he believes.

Although another request to the Department of Health for forecasts of the number of operations needed to meet waiting list targets was partially successful, it did not provide sufficient detail to be useful. Attempts to get further details failed.

The Campaign for Freedom of Information says there is an extremely broad exemption in the act for information relating to the "formulation or development of government policy." Although departments often refuse requests for policy material, the Information Commissioner and Information Tribunal can and do order them to disclose it, said Ms Gundersen. Details of all the exemptions can be found in a comprehensive guide to making requests for information under the act produced by the campaign.¹¹

Jo Maybin, senior health policy researcher at the King's Fund, used the act to approach primary care trusts in England to see if they were taking advantage of their ability to use alternative providers of medical services.¹²

"We were slightly nervous about whether the information might be deemed commercially sensitive, but the commissioner's guid-

ance seemed fairly clear that a public sector body shouldn't assume this, particularly after the tendering process was over," she said.

She used the email addresses of freedom of information officers wherever possible, including "FoI request" in the message field. An electronic response to a small number of questions and a hard copy of relevant contracts was requested. She got an 80% response rate,

though not all within the statutory 20 working days. This was achieved despite a big NHS reorganisation taking place that cut the number of primary care trusts from 303 to 152.

Road testing your request with contacts working in similar organisations to check understanding and use of correct terminology is crucial, she says. Based on her experience, she also advises others not to underestimate how long the process can take without administrative support.

Concern over how using the act might affect working relationships was also an issue: "Usually we work in cooperation with primary care trusts. We didn't want them to feel we were forcing them into something. In the end it was fine.

"I would do it again but in quite particular circumstances. If I felt the information was important and there was no other way of obtaining it."

Freedom of information requests can produce important results, as the NHS Tayside case shows. The question remains, do health researchers have the time or resources to pursue them?

References are on [bmj.com](#)

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See ANALYSIS, p 1108

"Data that should be publicly available are not being released at all or being given to management consultants to evaluate"



Box 2 | Unfinished business—a selection

Charging overseas visitors for NHS care

In 2007, the student organisation Medsin made a freedom of information request to the Department of Health to release submissions to a 2004 public consultation on charging overseas visitors for NHS primary care (www.wherestheconsultation.org). The department declined to release the documents both initially and after a request for an internal review. Although some documents were released after mediation by the Information Commissioner's Office, other information remains undisclosed. The office has yet to rule on the case, which has been with it for more than 15 months.

MMR vaccine

In January, the commissioner's office ordered the Department of Health to release copies of the minutes of three committees covering the period in which the joint MMR vaccine was introduced.¹³ The commissioner said he believed some of the controversy surrounding national immunisation policy was fuelled by a perceived lack of transparency in the decision making process. He said there was a public interest in countering this perception. The department initially provided edited copies of the minutes, citing a large number of exemptions to withhold the requested material.