

Covid-19: were we prepared? A look into our pre-Covid pandemic plans

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What does “preparedness” mean?

- The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters.
- A **preparedness plan** establishes arrangements in advance to enable timely, effective and appropriate responses to specific potential hazardous events or emerging disaster situations that might threaten society or the environment.

The
warnings...

LEAD

Bill Gates Predicted the Pandemic. Here's When He Thinks It Will End, and What It Means for Your Business

There are three things you should keep in mind for yourself and your business. [🔗](#)

BY JASON ATEN, TECH COLUMNIST @JASONATEN



Getty Images

Influenza & its Mitigation

Scientific Summary of Pandemic Influenza & its Mitigation

Scientific Evidence Base Review

'Known unknowns'

1.12 Although it is possible to say that a future influenza strain with pandemic potential *will* develop at some point in future, it is not possible to predict *when* such an influenza pandemic might occur, nor how likely it would be for a pandemic to occur at given point in time.

1.13 A future pandemic could also arise in any location. Many of the previous pandemics through history appear to have originated in China or Southeast Asia. These regions may serve as efficient “incubators” for new influenza subtypes, with year-round circulation of influenza viruses coupled to the close living quarters of humans with swine and poultry. With such logic, they may represent the most likely locations for new influenza outbreaks. However, many potentially-



PANDEMIC FLU

GUIDANCE FOR THE
HOSPITALITY INDUSTRY

What you need to know
and how to protect yourself
and others

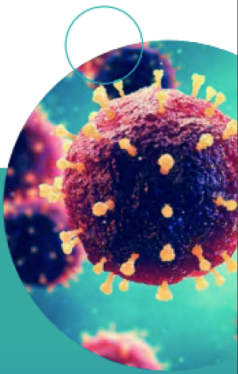
The circumstances exist now for a new flu virus to emerge and spread worldwide. Although a pandemic has not yet started, experts warn that it could be soon. It is most likely that the new virus will arise from an avian (bird) flu virus mixing with the human flu virus and becoming able to infect people.

A WORLD AT RISK

Annual report on global preparedness
for health emergencies

Global Preparedness Monitoring Board

September 2019



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The chances of a global pandemic are growing. While scientific and technological developments provide new tools that advance public health (including safely assessing medical countermeasures), they also allow for disease-causing microorganisms to be engineered or recreated in laboratories. A deliberate release would complicate outbreak response; in addition to the need to decide how to counter the pathogen, security measures would come into play limiting information-sharing and fomenting social divisions. Taken together, naturally occurring, accidental, or deliberate events caused by high-impact respiratory pathogens pose “global catastrophic biological risks.” (15)

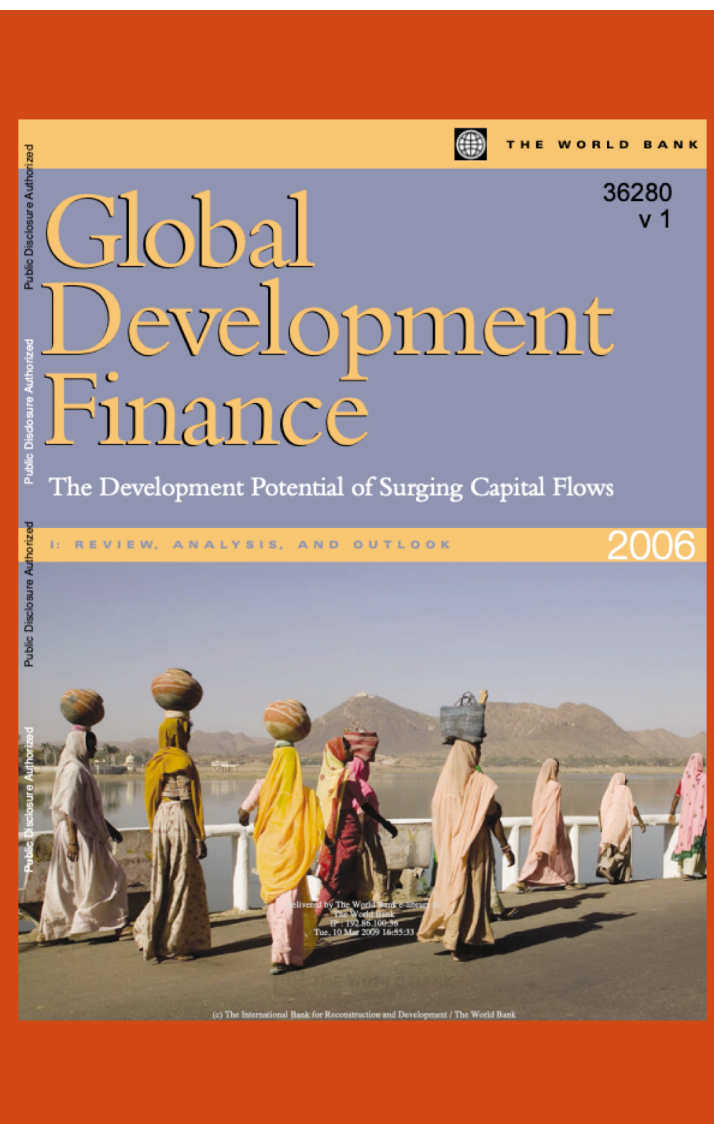


Table 1.7 Possible economic impacts of flu pandemic

% change in GDP, first-year

	Mild	Moderate	Severe
World	-0.7	-2.0	-4.8
High-income countries	-0.7	-2.0	-4.7
Developing countries	-0.6	-2.1	-5.3
East Asia & Pacific	-0.8	-3.5	-8.7
Europe & Central Asia	-2.1	-4.8	-9.9
Middle-East & North Africa	-0.7	-2.8	-7.0
South Asia	-0.6	-2.1	-4.9
Deaths (millions)	1.4	14.2	71.1

Source: World Bank calculations based on McKibbin & Sidorenko (2006).

The benchmark: the 1918 Spanish flu

- GPMB: The 1918 global influenza pandemic sickened one third of the world population and killed as many as 50 million people - 2.8% of the total population. If a similar contagion occurred today with a population four times larger and travel times anywhere in the world less than 36 hours, 50 - 80 million people could perish.
- Cabinet Office pandemic guidance: worst case scenario with a clinical attack rate of 50% in a single wave and an overall case fatality rate of 2.5%
- Covid: 6.7 GDP decline, 5.2M deaths.

The plans...

UK Influenza Pandemic Preparedness Strategy 2011

- Measures should be proportional and flexible, and only in place for as long as it is absolutely necessary
- Very little evidence that facemask wearing by the public can provide benefit
- No plans to attempt to close borders in the event of an influenza pandemic . Modelling suggests that imposing a 90% restriction on all air travel to the UK at the point a pandemic emerges would only delay the peak of a pandemic wave by one to two weeks .
- The economic, political and social consequences of border closures would also be very substantial
- There is no evidence of any public health benefit to be gained from pro-active measures such as thermal scanning or other screening methods.
- PPE for front-line health and social care staff as one of the key elements of the pandemic response.

WHO 2019

- Limited evidence that contact tracing is effective – only modest benefit of adding it to isolation and quarantine.
 - ethical issues, inefficient use of resources, low cost-effectiveness
- Recommends voluntary isolation of sick individuals
- Quarantine can be effective in reducing the burden and transmissibility and delay the peak, especially when combined with isolation, antiviral prophylaxis and school closures
 - Ethical considerations: freedom of movement, mandatory quarantine increases such concerns.
 - Barriers to implementation: household quarantine increases the risk of acquiring it, if the virus is novel we don't know the incubation time, this may imply longer quarantine with financial burden.
 - Does not recommend
- School closures: Potentially not cost effective. Recommended in severe epidemics, taking into account the adverse effects.
 - Conditionally recommended

WHO 2019

- Workplace closures potentially effective, recognises economic burden and effect on economic productivity.
 - Recommendation based on severity
- Travelling screening: evidence is likely to be very limited
 - not recommended
- Internal traveling restrictions – human rights to freedom of movement, economic consequences.
 - Only recommended during an early stage of a localized and extraordinarily severe pandemic for a limited period of time
- Border closure – freedom of movement, discrimination and stigmatization of individuals from affected areas – very early stage.
 - Not recommended

November 2018

SPI-M Modelling Summary

Prepared by the Scientific Pandemic Influenza Group on Modelling

- Ensure that all intervention strategies are able to accommodate the full range of possible disease parameters
- Assume no significant epidemiological / disease control benefit from international travel restrictions
- Assume that screening, either on exit from countries/regions, or on entry to the UK, will not have any significant benefit for considerable cost and disruption.
- Regional travel restrictions into the UK will be increasingly disruptive for relatively little benefit.
- Screening not recommended
- Attempts at containment by antiviral prophylaxis and practical social distance measures are almost certain to fail (Ferguson et al. 2006, Nguyen-VanTam et al. 2004).
- Reasonable worst case scenario is a 2.5% CFR

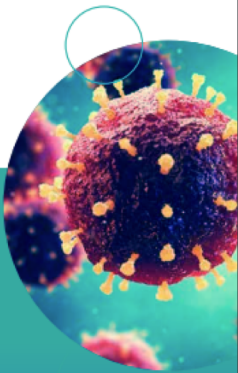
The
assessment...

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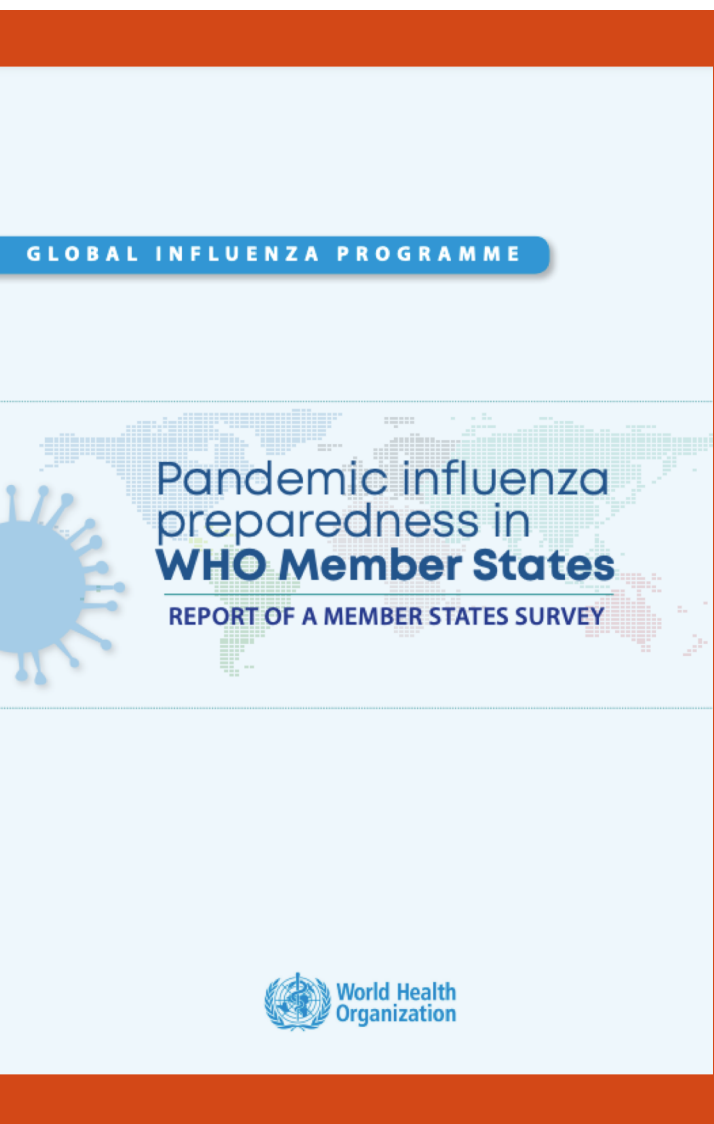


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- The world is not prepared for a fast-moving, virulent respiratory pathogen pandemic
- the great majority of national health systems would be unable to handle a large influx of patients infected with a respiratory pathogen capable of easy transmissibility and high mortality
- Preparedness is hampered by the lack of continued political will at all levels.
- As of 2018, only one-third of countries have the capacities required under the IHR
- The great majority of national health systems would be unable to handle a large influx of patients infected with a respiratory pathogen capable of easy transmissibility and high mortality.
- There is a lack of planning and readiness for a rapidly spreading, lethal, respiratory pathogen pandemic
- Social science is poorly integrated into national and international portfolios, and not applied to preparedness
- Despite the high cost-benefit ratio of emergency preparedness, governments continue to neglect it.



- International Health Regulations (IHR) core capacities are unlikely in their current formulation to adequately prepare countries and the international community for high-impact respiratory events



- Two capacity areas that warrant targeted support –
 - Preventing illness in the community (pharmaceutical and nonpharmaceutical interventions)
 - and Status of national pandemic influenza preparedness plans. – including how to manage excess mortality.

Exercise Cygnus Report

Tier One Command Post Exercise
Pandemic Influenza
18 to 20 October 2016



- Regulatory changes are needed to improve the ability of the health and other sector to cope with an outbreak, as well as changes and easements to assist with the implementation of a response
- Identified lack of joint tactical plans, lack of response capacity of local responders.
- UK's preparedness and response is not sufficient to cope with the extreme demands of a pandemic

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- Where we actually prepared?