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2 Phases of a pandemic: WHO, EU, and Irish

2.1 Introduction

A phased approach to planning preparedness and response for pandemic influenza is recommended. WHO has defined pandemic phases, and these are described below. In addition the EU has defined four levels of alert to be used during WHO Phase 6. Within Ireland, a four point Ireland-specific alert mechanism will also be used during WHO Phase 6. These are described in this chapter.

2.2 WHO phases

The WHO pandemic phases were developed in 1999 and first revised in 2005. The phases provide a structure to aid countries in preparedness and response planning for pandemic influenza. The 2009 WHO guidance document *Pandemic Influenza Preparedness and Response* has retained the use of a six-phased approach but has regrouped and redefined the phases to more accurately reflect pandemic risk and the epidemiological situation based upon observable phenomena.⁽¹⁾ These revised phases are outlined in Figure 1 and Table 1. Ireland is adopting these revised phases in this updated guidance document.

The 2009 WHO guidance document recommends actions for national authorities and WHO during each of these phases.⁽¹⁾ To facilitate planning at national and global levels, Phases 1-3 and 5-6 were grouped to include common action points (Table 1). Phases 1-3 correlate with preparedness while Phases 4-6 signal the need for response and mitigation efforts. The time after the first pandemic wave has been elaborated into post peak and post pandemic periods (Table 1). The focus during the post-peak period includes preparation for a possible future pandemic wave(s).

The 2009 pandemic phases are:

- a planning tool;
- simpler, more precise, and based on verifiable phenomena;

- will be declared in accordance with the International Health Regulations (2005);
- only loosely correspond to pandemic risk;
- identify sustained human-to-human transmission as a key event;
- better distinguish between time for preparedness and response; and
- include the post-peak and post-pandemic periods for recovery activities.

The new phases are NOT:

- designed to predict what will happen during a pandemic; and
- always going to proceed in numerical order.

Figure 1. WHO Pandemic influenza phases (2009)

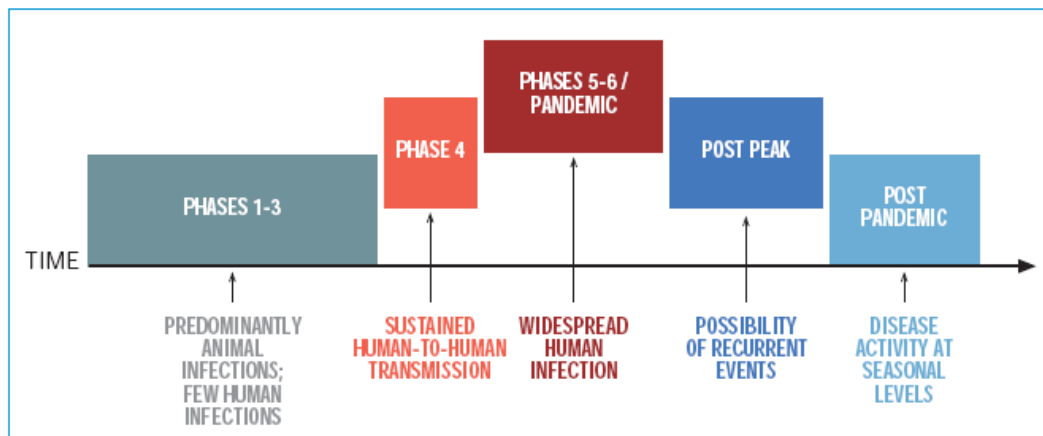


Table 1. WHO pandemic phase descriptions and main actions by phase (2009).

	Estimated Probability of Pandemic	Description	Main Actions in Affected Countries	Main Actions in Not-Yet-Affected Countries
Phase 1	Uncertain	No animal influenza virus circulating among animals has been reported to cause infection in humans.	Producing, implementing, exercising, and harmonizing national pandemic influenza preparedness and response plans with national emergency preparedness and response plans.	
Phase 2		An animal influenza virus circulating in domesticated or wild animals is known to have caused infection in humans and is therefore considered a specific potential pandemic threat.		
Phase 3		An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks.		
Phase 4	Medium to high	Human-to-human transmission of an animal or human-animal influenza reassortant virus able to sustain community-level outbreaks has been verified.	Rapid containment.	Readiness for pandemic response.
Phase 5	High to certain	The same identified virus has caused sustained community level outbreaks in at least two countries in one WHO region.	Pandemic response: Each country to implement actions as called for in their national plans.	Readiness for imminent response.
Phase 6	Pandemic in progress	In addition to the criteria defined in Phase 5, the same virus has caused sustained community level outbreaks in at least one other country in another WHO region.		
Post-Peak Period		Levels of pandemic influenza in most countries with adequate surveillance have dropped below peak levels.	Evaluation of response; recovery; preparation for possible second wave.	
Possible New Wave		Level of pandemic influenza activity in most countries with adequate surveillance is rising again.	Response	
Post-Pandemic Period		Levels of influenza have returned to the levels seen for seasonal influenza in most countries with adequate surveillance.	Evaluation of response; revision of plans; recovery.	

2.3 Designation of WHO phases

The Director-General of WHO designates the phases. Designation of a phase will be made consistent with applicable provisions of the International Health Regulations (2005)⁽²⁾ and is done in consultation with other organisations, institutions and affected Member States. With every announcement of a new phase, the Director General will set a time period at which the designation will be reviewed. The current WHO pandemic phase is Phase 5.

In the event of simultaneous situations posing different levels of risk, e.g. different new influenza subtypes occurring simultaneously, the highest level of risk will determine the phase.

2.4 EU alert levels

The European Commission has published four levels of alert to be used in the European context during WHO pandemic Phase 6 in the EU.⁽³⁻⁵⁾ These alert levels are needed due to the specific circumstances of the European Union, which is characterised by the absence of internal borders and the free circulation of persons and goods.

EU alert levels in Phase 6

EU alert level	Description
EU Alert Level One	No confirmed human cases infected with the pandemic virus in any EU Member State
EU Alert Level Two	One or more confirmed human case(s) infected with the pandemic virus in any EU Member State
EU Alert Level Three	A confirmed outbreak (transmission) with the pandemic virus in any EU Member State
EU Alert Level Four	Widespread transmission in EU Member States

2.5 Ireland specific alert levels

Once the pandemic is declared (WHO Phase 6), a four point Ireland specific alert mechanism has been developed. This subdivision of WHO Phase 6 will

help in planning responses that are appropriate to a specific time within Phase 6.

Irish alert levels in WHO Phase 6

Irish Alert Level	Description
Irish Alert Level 1	Cases only outside Ireland (in a country or countries with or without extensive Irish travel/trade links)
Irish Alert Level 2	New virus isolated in Ireland
Irish Alert Level 3	Outbreak(s) in Ireland
Irish Alert Level 4	Widespread activity in Ireland

To summarise, the WHO Phases, combined with the EU and Irish alert Levels will be used in describing the current status with regard to pandemic influenza.

2.6 References

- (1) WHO. Pandemic influenza preparedness and response: a WHO guidance document. www.who.int. 2009. Available from URL: <http://www.who.int/csr/disease/influenza/PIPGuidance09.pdf>
- (2) WHO. International health regulations (2005) -- 2nd ed. www.who.int. 2005. Available from URL: http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf
- (3) EU Committee on the Environment. Public Health and Food Safety. Commission communication to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions on pandemic influenza preparedness and response planning in the European Community. www.europa.eu. 2006. Available from URL: <http://europa.eu/bulletin/en/200511/p104062.htm>
- (4) EU Committee on the Environment. Public Health and Food Safety. Report on pandemic preparedness and response planning in the European Community. 2006.
- (5) EU Committee on the Environment. Public Health and Food Safety. Pandemic influenza preparedness planning. Report on the second joint WHO/European Commission workshop, Copenhagen, 24-26 October 2005. 2005.