

NSRA Pandemic Influenza planning assumptions compared with WN-CoV SAGE secretariat

1 st Order Assumptions	Pan-Flu reasonable worst case scenario (source: 2019 NSRA, which uses 2016 population estimate)	Confidence intervals	WN CoV current estimate	Confidence intervals
Incubation period	Short incubation period – 1-3 days.		Range remains 2 to 14 days, with average of 5 days.	
CFR	2.5%		Unlikely to be higher than SARs. Current internal estimate is 1-3%	
Basic Reproductive Rate (R₀)	No number included in planning assumptions		Estimated 2-3 in Wuhan Unknown in other Chinese regions & internationally	
Doubling rate	No number included in planning assumptions		3 to 5 days	
Duration of illness	Assumes normal flu profile - most people back to normal activities in 7-10 days		Median of 15 to 18 days, but great uncertainty around this. Longest time so far appears to be 41 days.	
Duration of infectivity	Adults are infectious for up to 5 days from the onset of symptoms. Longer periods have been found, particularly in those who are immunosuppressed. Children may be infectious for up to 7 days. Some people can be infected, develop immunity, and have minimal or no symptoms but may still be able to pass on the virus.		Around 2 weeks but could be longer. Average possibly 7 days. Duration of infectivity will vary depending on severity of individual cases.	
Transmission	Sustained human-to-human transmission. There are a number of asymptomatic cases.		Human-to-human transmission outside China has occurred. Sustained human-to-human transmission outside China cannot be ruled out, but there is as yet no definitive evidence of a sustained outbreak/epidemic elsewhere. Asymptomatic transmission cannot be ruled out and transmission from mildly symptomatic individuals is likely.	
Waves/ Duration	The pandemic will come in multiple waves (up to 3), each approximately 15 weeks long with the peak at week 6 and 7 of each wave.			

2 nd Order Assumptions	Pan-Flu	Confidence intervals	WN CoV	Confidence intervals
Population with illness	50% of population is infected and experience symptoms during one or more waves. Actual number of infected people will be higher as there are a number of asymptomatic cases.		Unknown	
Workforce absences	17-20% in the peak weeks. Anticipated that 50% of workforce may require time off at some stage over the entire period of a pandemic. An average absence duration of about 3.5% of a working year (roughly 1.5 weeks per person absent from work).		Unknown	
Numbers requiring assessment at health services	30% (9,840,000) of those that are symptomatic would require assessment by health services		Unknown	
Hospital cases	4% (1,312,000) of symptomatic patients requiring hospital care, i.e. average six-day length of stay		Unknown	
Hospital critical care	25% (328,000) of the hospital cases, i.e. 1% of all symptomatic patients, require the highest level of critical care (require intensive care for 10 days)		Unknown	
Excess deaths	820,000		Unknown	
Clinical Counter measures	<ul style="list-style-type: none"> • Antivirals (AV) • Antibiotics (AB) • Pre-pandemic vaccine (PPV) 		Unknown	
Vaccine Development	It is likely to take at least four to six months after a novel virus has been identified and isolated for an effective pandemic influenza vaccine to become available from manufacturers.		Unknown	
Interventions to stop spread:				

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<p>1. School Closures</p>	<p>Assumed that schools have not been closed</p>			
<p>2. Border control measures</p>	<p>Evidence shows that border control measures are largely ineffective because the duration of most passenger flights is considerably shorter than the incubation period of the illness</p>			