WHO delay decision on whether the nCOV outbreak is a Public Health Emergency of International Concern

New modelling estimates of real numbers

Travel restrictions in China

Date: Thursday 23rd January 2020
Sources: Multiple, see end of text.

WHO steps back from declaring public health emergency (1)
“This is an evolving and complex situation,” said Dr Tedros Adhanom Ghebreyesus, the director-general of the WHO. “Today there was an excellent discussion, but it was also clear that to proceed we need more information. More than 571 people have been taken to hospital with breathing difficulties and 17 have died, all in Hubei province, the Chinese authorities said on Wednesday. The WHO continue the discussion Thursday the 23rd January.

Number estimate from the University of Hong Kong (2)
We estimated that 1,343 (547-3,446) cases had had onset of symptoms in Wuhan during 1-17 January 2020. We estimated that Beijing, Shanghai, Chongqing, Guangzhou and Shenzhen had imported 17 (6-46), 15 (5-41), 15 (5-40), 14 (4-38) and 10 (3-29) cases from Wuhan during this period, respectively.
Note, 23rd January: (https://files.sph.hku.hk/download/wuhan_exportation_preprint.pdf) are NO LONGER VALID given that the reported no of exported cases have essentially doubled from 24 hrs ago when the model was completed.

Update from Imperial College, 22nd January (3)
We estimate that a total of 4,000 cases of 2019-nCoV in Wuhan City (uncertainty range: 1,000 – 9,700) had onset of symptoms by 18th January 2020.

ECDC Risk assessment for the EU/EEA (4)
On the basis of the information currently available, ECDC considers that:
1. the potential impact of 2019-nCoV outbreaks is high;
2. further global spread is likely;
3. there is currently a moderate likelihood of infection for EU/EEA travellers visiting Wuhan;
4. there is a high likelihood of case importation into countries with the greatest volume of people travelling to and from Wuhan (i.e. countries in Asia);
5. there is a moderate likelihood of detecting cases imported into EU/EEA countries;
6. adherence to appropriate infection prevention and control practices, particularly in healthcare settings in EU/EEA countries with direct links to Wuhan, means that the
likelihood of a case reported in the EU resulting in secondary cases within the EU/EEA is low.

**Wuhan city in quarantine (5)**
All public transport in and out of the Chinese city of Wuhan, including trains, buses and ferries, stopped at 10am on Thursday as the central government imposed a quarantine to try to contain the spread of a coronavirus that has killed 17 people and infected hundreds more.

**Molecular epidemiology (6)**
A preliminary analysis of 24 2019-nCoV genomes show close homology but also two clusters one in Shezhen and one in Wuhan.

**nCoV linked to CoV isolated from snakes (7)**
Results suggest that the 2019-nCoV appears to be a recombinant virus between the bat coronavirus and an origin-unknown coronavirus. The recombination occurred within the viral spike glycoprotein, which recognizes a cell surface receptor. Additionally, our findings suggest that a snake is the most probable wildlife animal reservoir for the 2019-nCoV based on its RSCU bias resembling snake compared to other animals.

**Sources**

1. China coronavirus: World Health Organisation delays declaring virus’ spread an international emergency (South China Morning Post, Hong Kong)

2. HKUMed WHO Collaborating Centre for Infectious Disease Epidemiology and Control releases real-time nowcast on the likely extent of the Wuhan coronavirus outbreak, domestic and international spread with the forecast for chunyun.

3. Report 2: Estimating the potential total number of novel Coronavirus cases in Wuhan City, China (22nd January 2020)
   Natsuko Imai et al.  WHO Collaborating Centre for Infectious Disease Modelling MRC Centre for Global Infectious Disease Analysis, J-IDEA, Imperial College London, UK


Comment from EITaF

The situation is evolving fast with 571 cases and 17 death officially reported from China as of this morning. Without knowing the basic reproductive rate, R0, the true epidemic potential remains unknown. It is somewhat comforting that the cases exported out of China has not resulted in any known secondary cases. The fatal cases were mostly older people with co-morbidities.

The two new estimates of the numbers indicate that the real number of cases probably is much higher than reported. It is a concern that not all cases have been tested and many less severe cases are probably not found. Note that the estimate from the Hong Kong University posted yesterday come with a caveat this morning that yesterdays numbers can not be relied on, as the case number has already changed significantly upwards.

The quarantine of Wuhan City imposed by the Chinese authorities means that travel out of the city will be almost impossible and any attempt to reach Wuhan should be discouraged.

At the moment, the sensitivity of molecular methods and titres of virus in respiratory samples is not well known. A good practice is to test more sample before rule out 2019-nCoV infection in suspected patients unless another relevant pathogen has been discovered.

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