

EPIDEMIOLOGICAL UPDATE COVID-19 AND ASSESSMENT OF THE NEEDS

For presentation to RMG 01/03/2020

Risk description and proposed measures Not a decision !!!

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Exposition

Probable first cases in China: 08/12/2019

Closing province Hubei: 23/01/2020

Cumulative incidence 23/01/2020 in Hubei = 7,62/1,000,000

-> Flight between Wuhan and Paris, Roma, London= several times/day

-> Flight between China and Brussels= 3x/week

First case outside China: 21/01/2020

First case in EU: 25/01/2020 in France

Main affected countries in EU:

- Italy, France, Germany.

Changes in the epidemiological situation

Since end February:

1, More countries are reporting cases, on all continents: Israel, Lebanon, Iran, Mexico, Nigeria and Egypt: 60/193 (31%)

2, Proportion of world population in countries having 1 cases : 53%

3, Cumulative Incidence higher than 9/1,000,000 (Cumulative incidence China – Hubei)=

- Singapore: 15/1,000,000, among 89 cases (mainly related to three clusters)
- South Korea: 15/1,000,000 among 764 cases (more than ½ cases related to one cluster)

4, EU countries : 14 countries and mainly in Italy, Germany and France

-> impact for Belgium: more probability that we will have cases

First strategy: situation

Imported cases in Belgium are expected and the spread in the population not excluded because :

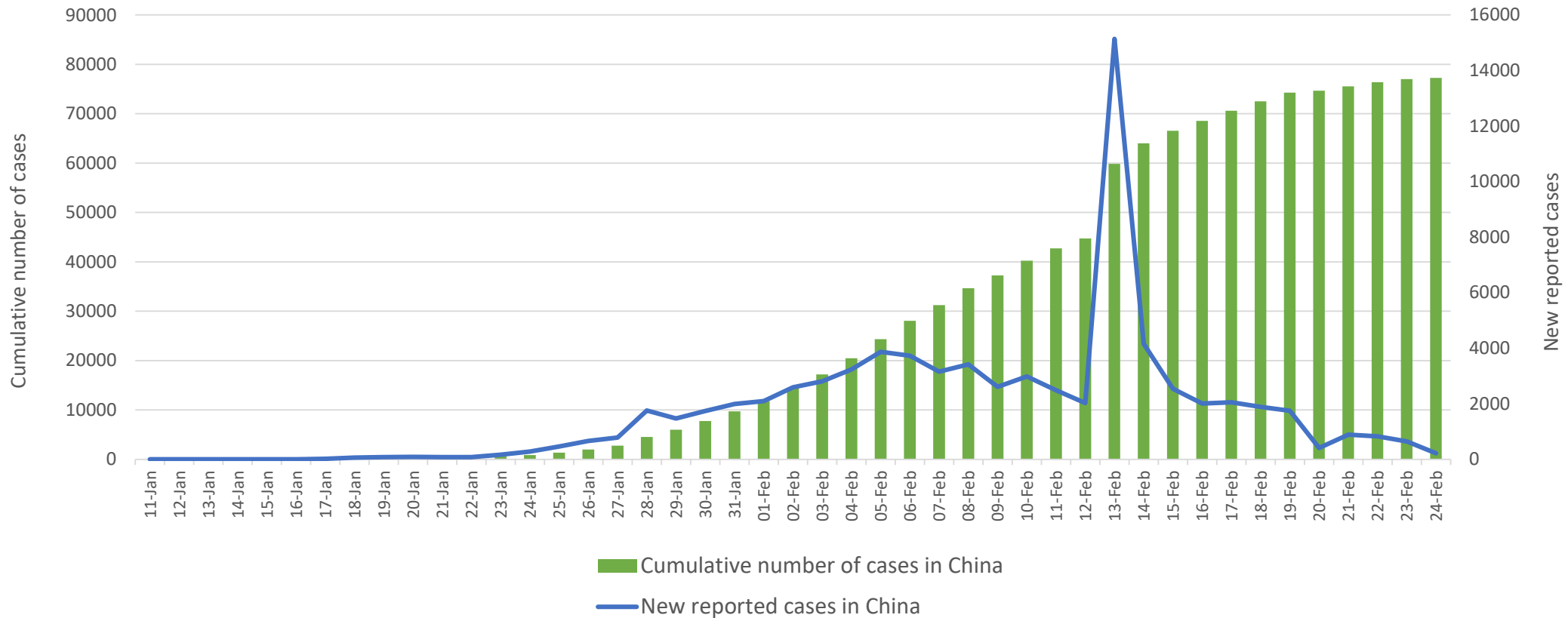
- Some patients have mild symptoms
- Asymptomatic contacts can be carriers
- The shedding of the virus is high at the beginning of the symptoms
- Population is susceptible

The Belgian authorities have therefore decided to focus on proportioned containment measures through two lines of action proportionate to the epidemiological situation and severity of the diseases:

1. Preventing spread within hospitals and among health care personnel
2. To protect the most vulnerable people (at-risk groups)

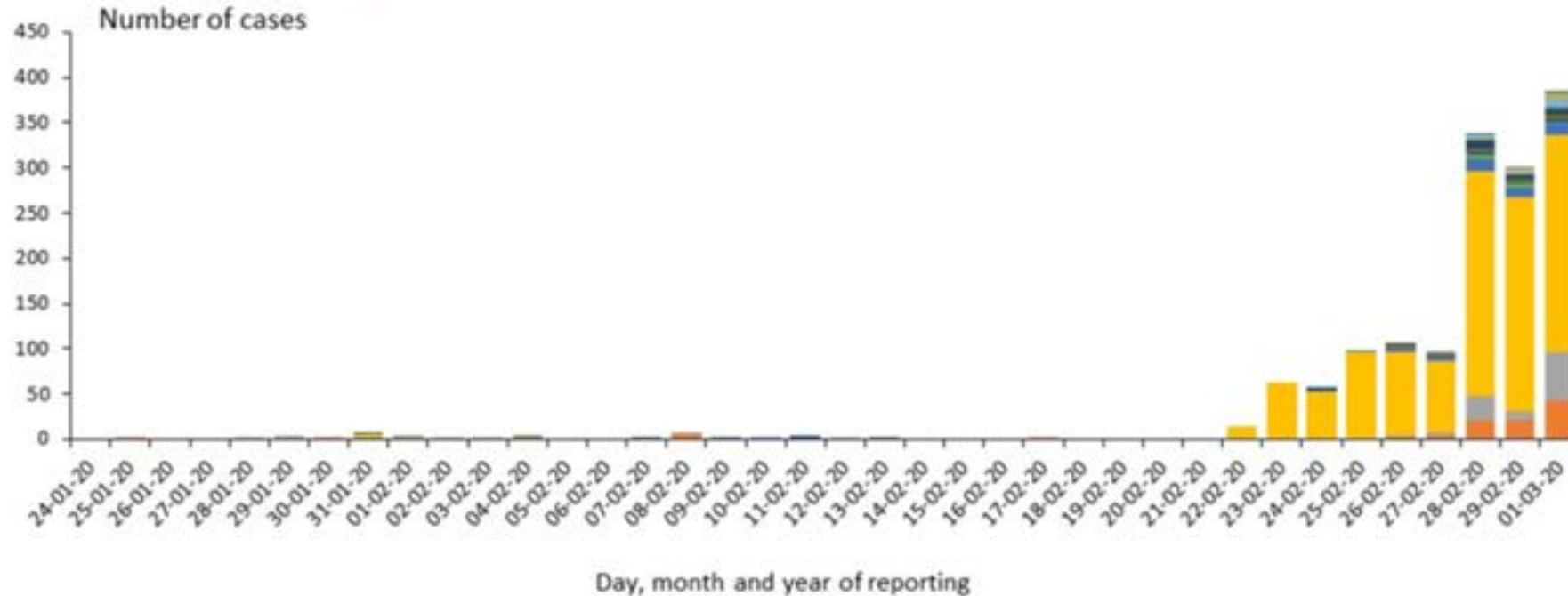
The objective is to delay the spread of the virus after the seasonal flu epidemic.

Epidemiological evolution in China



Distribution in EU/UK/Switzerland

Distribution of laboratory-confirmed cases of COVID-19 in EU/EEA and the UK and Switzerland (ECDC)



- | | | | | | |
|----------------|---------|---------|------------|-------------|-------------|
| Finland | France | Germany | Italy | Spain | Sweden |
| United_Kingdom | Belgium | Croatia | Austria | Switzerland | Greece |
| Norway | Denmark | Romania | Estonia | San_Marino | Netherlands |
| Lithuania | Iceland | Monaco | Luxembourg | Ireland | |

Severity

Cohort 72,314 patients (ccdc weekly, vol 2):

- 62% confirmed
 - 80% mild cases (non pneumonia and mild pneumonia)
- > 14% severe
- > 5% critical (49% case fatality rate)

Rough estimation for Belgium **without correction for age, length of stay, ...** :

If 10/1,000,000 as cumulative incidence in rest of China= 110 cases, 15 severe, 5,5 critical

If 50/1,000,000 as cumulative incidence in China= 550 cases, 77 severe, 27 critical

If 1000/1,000,000 as cumulative incidence in Hubei= 11000 cases, 1540 severe, 550 critical

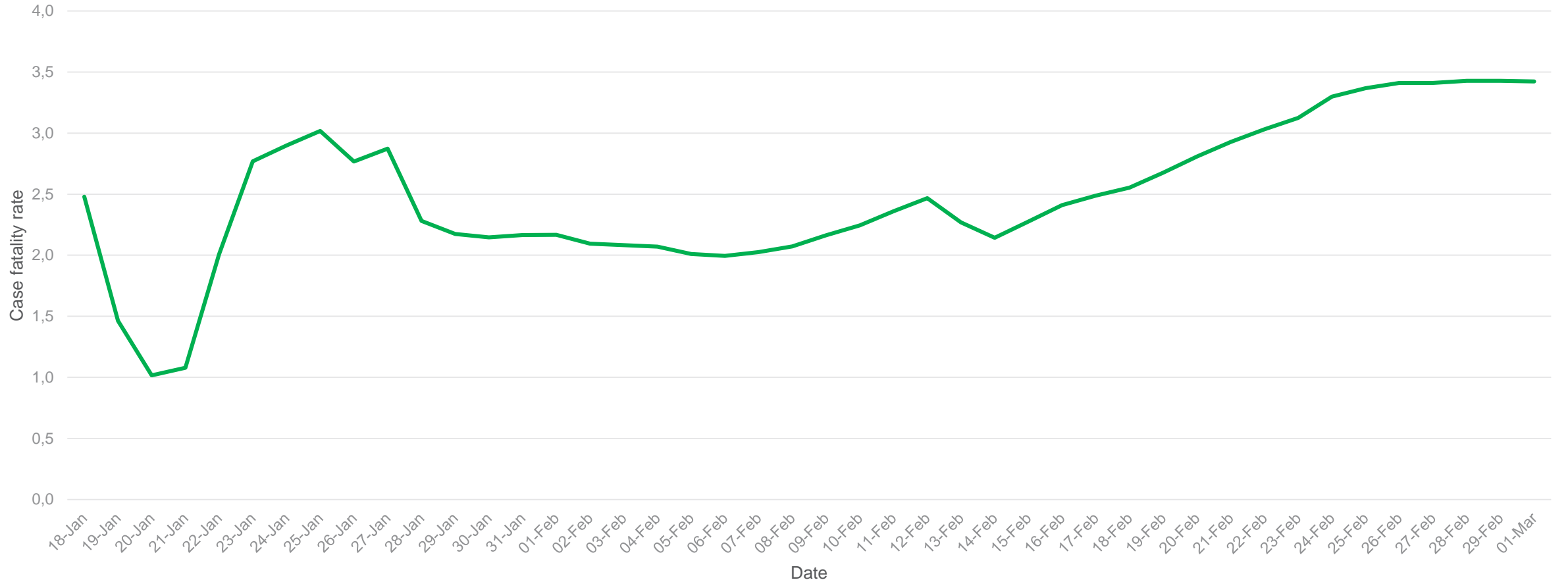
If 4000/1,000,000 as cumulative incidence in Wuhan= 44000 cases, 6600 severe, 2200 critical

-> on a 5 weeks period

	Number of cases	Deaths	CFR
Health care workers in China	1716	5 deaths	0.3%

Severity: Case fatality rate among COVID-19 cases

Case fatality rate among laboratory confirmed cases



Severity: case fatality rate

	SARS	Mers-Corona	2019-nCoV
Présentation clinique	Infection respiratoire inférieure, pneumonie atypique	Infection respiratoire dont pneumonie atypique et symptômes gastroentérologiques	Infection respiratoire basse
Dynamique	Evolution épidémique sur quelques mois	Cas sporadiques sur des années	Evolution plutôt épidémique mais encore de nombreuses inconnues
Transmission interhumaine	Elevée	Faible	Averée, semble élevée
Transmission nosocomiale	Très importante	Très importante	Décrite
Létalité	+/-10%	+/-35%	+/-3%

	Deaths	CFR (%)
Total death Covid-19 in China	2.595	3,4
Total death Covid-19 in Hubei	2.495	3,9
Total death Covid-19 in others provinces	100	0,8
Total death Covid-19 outside China	35	2,5
Total death in Italy	6	2,7
Total death in Diamond Princess	3	0,4

Influenza

Based on GP sentinel surveillance:

+/- 700,000 cases/year

Case fatality rate: 100 to 600/year

+/- 1/2500 ILI cases

Case fatality rate in patients hospitalized for SARI due to Influenza: 6%

Case fatality rate in patients older than 85 y hospitalized for SARI due to Influenza: 13%

Procédures

<https://epidemiologie.wiv-isp.be/ID/Pages/2019-nCoV.aspx>

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