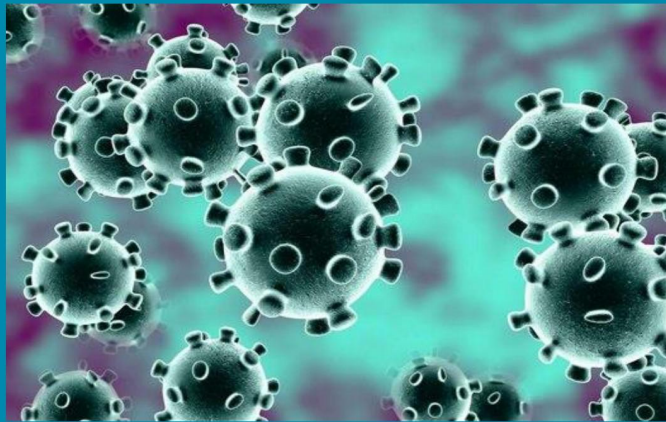


Novel Coronavirus NI Preparedness Dr Naresh Chada

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COVID-19

- Coronaviruses are a large family of viruses, some causing illness in people ranging from the common cold to more severe diseases such as MERS and SARS.
- Typical symptoms of coronavirus include fever and a cough that may progress to a severe pneumonia causing shortness of breath and breathing difficulties.
- Generally, coronavirus can cause more severe symptoms in people with weakened immune systems, older people, and those with long-term conditions like diabetes, cancer and chronic lung disease.
- Novel coronavirus (COVID-19) is a new strain of coronavirus first identified in Wuhan City, China.
- On 31 December 2019, Chinese authorities notified the World Health Organisation of an outbreak of viral pneumonia in Wuhan City.

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COVID-19

- **Origin** Current evidence suggests the virus arose from a zoonotic transmission (i.e. animal to human transmission, potentially from infected animals at a seafood and wildlife market in Wuhan) transmission, and is now sustained entirely by human-to-human transmission.
- **Transmission** Current understanding is that the transmission route is respiratory droplets and via contact. This means that viruses are transmitted via touching an infected person and spray of droplets such as coughing and sneezing.
- **Reproductive number** Estimated to be 2-3
- **Doubling number** 4-5 days
- **Case Fatality Rate (CFR)** Estimated to be lower than SARS, but many uncertainties.

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International Overview

Country	Confirmed cases	Overnight change	Fatalities	Overnight change
Mainland China	50405	(+135)	3021	(+31)
Republic of Korea	5786	(+438)	35	(+3)
Italy	2706	(+204)	107	(+28)
Iran (Islamic Republic of)	2022	(+588)	92	(+38)
International consequence - Diamond Princess	708	-	8	-
Japan	317	(+36)	6	(+1)
Germany	340	(+108)	0	-
France	285	(+73)	4	(+1)
Spain	200	(+48)	0	-
Singapore	112	(+2)	0	-
United States of America	199	(+21)	9	(+7)
Hong Kong SAR	104	(+5)	2	-
Kuwait	58	(+2)	0	-
United Kingdom	115	(+30)	0	-
Bahrain	52	(+3)	0	-
Thailand	47	(+4)	1	-
Taiwan	42	-	1	-
Australia	52	(+11)	2	(+1)
Switzerland	58	(+21)	1	(+1)
Malaysia	50	(+14)	0	-
Norway	56	(+23)	0	-
UAE	34	(+3)	2	(+2)
Canada	33	(+9)	0	-
United Arab Emirates	27	0	-	-
Austria	37	(+10)	0	-
Sweden	52	(+28)	0	-
Netherlands	38	(+15)	0	-
Vietnam	16	-	0	-
Iceland	28	(+12)	0	-

Country	Confirmed cases	Overnight change	Fatalities	Overnight change
Isle of Man	13	-	0	-
Belgium	23	(+18)	0	-
Israel	15	(+3)	0	-
Oman	15	(+3)	0	-
India	30	(+13)	0	-
Macau SAR	10	0	-	-
San Marino	16	(+8)	1	-
Denmark	10	-	0	-
Croatia	9	-	0	-
Qatar	8	-	0	-
Algeria	17	(+9)	0	-
Greece	10	(+3)	0	-
Ecuador	10	(+3)	0	-
Finland	7	-	0	-
Mexico	5	-	0	-
Pakistan	5	-	0	-
Czech Republic	8	(+3)	0	-
Portugal	8	(+2)	0	-
Azerbaijan	3	-	0	-
Georgia	3	-	0	-
Philippines	3	-	1	-
Romania	6	(+3)	0	-
Ukraine	3	-	0	-
Estonia	2	-	0	-
St. Barthélemy	3	-	0	-
Indonesia	2	-	0	-
Egypt	2	-	0	-
Brazil	3	(+1)	0	-
Ireland	8	(+4)	0	-

Country or area with no case	Confirmed cases	Overnight change	Fatalities	Overnight change
New Zealand	3	(+1)	0	-
Senegal	4	(+2)	0	-
Dominican Republic	1	-	0	-
Armenia	1	-	0	-
Luxembourg	1	-	0	-
Azerbaijan	1	-	0	-
Bahrain	6	(+2)	0	-
Canada	1	-	0	-
International consequence - Western Sahara (Morocco)	1	-	0	-
Lithuania	1	-	0	-
Morocco	1	-	0	-
Yemen	1	-	0	-
Russia	1	-	0	-
North Macedonia	1	-	0	-
Sri Lanka	1	-	0	-
Andorra	1	-	0	-
Kosovo	1	-	0	-
Latvia	1	-	0	-
Saudi Arabia	2	(+1)	0	-
Morocco	1	-	0	-
Gibraltar	1	-	0	-
Ukraine	1	-	0	-
Argentina	1	-	0	-
Eritrea	1	-	0	-
Chile	3	(+2)	0	-
Slovenia	1	(+1)	0	-
Faroe Islands	1	(+1)	0	-
Poland	1	(+1)	0	(4)
Total	10002	3917	1480	315

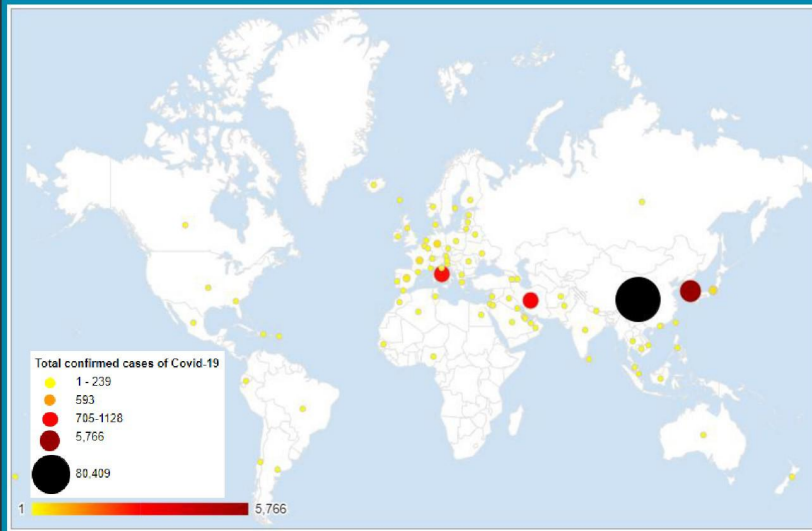
Numbers as of
10:00 05/03/2020

Data sources: Official government websites
and official government social media

*UK overseas territory

Page 5

Map of Confirmed Cases



Key Trends

- Iran: 586 new cases overnight (4th to 5th March)
- Overall, the rate of reported deaths per day has shown an increase again
- Reported cases in China are still slowing

Page 6

Watchkeepers - Done

UK Overview

Cases

On 5 March, 2020, CMO announced 25 further people in England have tested positive for COVID-19, bringing the total number of cases in England to 105.

The total for the UK now stands at 115 which includes six in Scotland, one case in Wales, and three in Northern Ireland.

A total of 18,083 people have now been tested.

Public Protection Measures

DHSC are working with NHSE to announce a partnership with Google aimed at tackling misinformation and directing users towards official, NHS-verified information.

Social and Economic Impacts

The regional airline Flybe has gone into administration. Publicly they have cited the impact of COVID-19 on flight bookings as a contributing factor.

Media mis/dis-information

Twitter stated on Wednesday 4 February it would stop any attempt by advertisers to use the coronavirus outbreak to send inappropriate advertisements to its users.

The Guardian ran a piece comparing social media platform approaches towards countering COVID-19 disinformation: Twitter was seen as a "hotbed of inaccurate and dangerous advice", while WeChat and Pinterest have severely limited users' ability to communicate about the outbreak.

The Advertising Standards Authority (ASA) has banned adverts for face masks by Easy Shopping 4 Home Ltd and Novads OU, stating the adverts were "misleading, irresponsible and likely to cause fear without justifiable reason".

Public Sentiment

The Guardian claimed that HMG is withholding information about the spread of COVID-19 after a 70% increase in confirmed cases prompted health officials to stop providing daily updates on the location of new infections.

Overview

Domestic Situation:

- On 5 March, 2020, CMO announced **25** further people in England have tested positive for COVID-19, bringing the total number of cases in England to **105**. The total for the UK now stands at **115**, which includes **six** in Scotland, one case in Wales, and **three** in Northern Ireland.
- The UK national who has tested positive in the hotel in Tenerife is undergoing further testing. **A further 24 UK nationals returned last night on commercial flights and another 21 are due to leave today, 5 March, 2020.**

International summary:

- As of 5 March, 2020, confirmed cases globally are **95,092** (**80,409** in Mainland China).
- A total of **270** fatalities have occurred outside of Mainland China: Italy (**107**), Iran (Islamic Republic of) (**92**), Republic of Korea (**35**), USA (**9**), cases on Diamond Princess Cruise ship (6), Japan (**6**), France (**4**), Hong Kong SAR (2), Australia (2), **Iraq (2)**, Taiwan (1), Philippines (1), Thailand (1), Republic of San Marino (1), **Switzerland (1)**.
- Iran has reported **2,922** (an increase of **586** overnight) active COVID-19 cases.
- Republic of Korea has reported **5,766** (an increase of **438** overnight) active COVID-19 cases.
- Italy has reported **2,706** (an increase of **204** overnight) active COVID-19 cases.

Page 8

International Overview

Cases

The global total of confirmed cases is **95,092** (an overnight increase of **1,912**).

A total of **270** fatalities have occurred outside of Mainland China (**3,012** within China).

Public Protection Measures

Social and Economic Measures

The IMF announced it was making \$50bn available to support low income and emerging market countries.

Repatriation of UKNs

24 UK nationals returned from Tenerife last night on commercial flights and another 21 are due to leave today, 5 March, 2020.

86 UK nationals remain in the hotel.

Media mis/dis-information

BBC Monitoring released an assessment of how Cuban and Venezuelan media portray COVID-19 developments. The report found state owned media outlets published through an ideological lens which argued the West either created or is taking advantage of the outbreak to further its imperialist ambitions.

UK Cases

- On 5 March, 2020, CMO announced 25 further people in England have tested positive for COVID-19, bringing the total number of cases in England to 105. The total for the UK now stands at 115, which includes six in Scotland, one case in Wales, and three in Northern Ireland. 15 cases have been discharged following two consecutive negative test results. Contact tracing is underway for all cases including where the route of transmission is not yet clear.
- Protocols for contact tracing, testing and treatment in the 'delay' phase to be sent to Secretary of State for Health and Social Care by 6 March, 2020.
- The Government launched a new public information campaign that focuses on handwashing on March 4, 2020. This follows on from the launch of the Government's Coronavirus action plan on March 3, 2020.
- FCO has confirmed that around 100 people returned to the UK from the hotel in Tenerife on 2 March, 2020. A further 24 UK nationals returned last night commercial flights and further 21 are due to leave today. All returning UK nationals are tested in Tenerife and confirmed negative 24 hours in advance of their arrival in the UK.
- England is in the process of making COVID-19 a notifiable disease. Scotland has already made it a notifiable disease.
- On 25 February, 2020, the CMO updated the advice for healthcare workers and travellers. This advice now includes those who have returned from Iran, specific lockdown areas in Northern Italy as designated by the Government of Italy. Previously updated areas include special care zones in South Korea as designated by the Government of the Republic of South Korea. For a full list on advice for healthcare workers and travellers returning from overseas please see slide 14.
- Emergency legal powers were made on 10 February, 2020, to ensure public compliance with public health advice in England. This means that we have powers to ensure those people in supported isolation remain for the full 14 days for their own safety.

Health Response

Monitoring

- Category 1 areas: EMAs (Enhanced Monitoring Arrangements) were extended from 8 February, at LHR to cover direct flights from: Iran, Hong Kong, Japan, Malaysia, Republic of Korea, Singapore, Taiwan and Thailand. There are no direct flights from Macau.
- Category 2 areas: It is expected that the existing enhanced public health monitoring arrangements in place at Heathrow, Gatwick, Manchester and Birmingham will now also apply to a small number of direct flights from Cambodia, Laos, Myanmar and, Vietnam.
- N Italy: Closer review is required of port health measures for northern Italy given the rapidly developing situation, and the extensive air and surface connectivity between this region and the UK. Therefore at this stage, existing port health protocols will not apply to any flights from Italy.
- Iran: As of 28 February, Asymptomatic passengers from flights from Iran were moved from active to passive surveillance and passengers on future flights will be managed through passive surveillance.

As of 23:59 on 4 March, 2020, 1119 flights have undergone enhanced monitoring, and 44 passengers who met the case definition have been safely isolated and transferred by these teams to NHS Hospitals or the London Heathrow supported isolation facility.

Communications

- Posters and leaflets are available in English and nine other languages. They have been sent to all UK Eurostar terminals and Dover and key ferry ports. DfT is providing assurance that leaflets are displayed with sufficient frequency and prominence.

Travel Advice

Travel Advice

- We are keeping travel advice levels under review in consultation with the office of the Chief Medical Officer. Travel advice is regularly updated for countries reporting first cases and to reflect changing entry restrictions imposed by some countries for those who have recently travelled to affected areas.
- On 2 March, 2020, the FCO raised the level of our travel advice for Daegu in South Korea, to advise against all travel. We continue to advise against all travel to Hubei Province (China) and against all but essential travel to the rest of mainland China, the city of Cheongdo (South Korea), ten small towns in the Lombardy region of Italy and one town in the Veneto region of Italy.
- The FCO is not advising against travel to any other country/territory as a result of coronavirus risks. We were already advising against travel to Iran for other reasons.

Reasonable worst case scenario

- Departments should consider **pandemic influenza planning as a starting point** to rapidly advance planning for the reasonable worst case scenario for COVID-19
- The elderly and those with existing health conditions will be disproportionately affected.
- These planning assumptions predict excess deaths, massive impacts across government, school closures, rail and road transport issues, and huge costs.

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Key Scientific Advice 1/3

1 st Order Assumptions	Pan Flu reasonable worst case, based on a 2016 UK population, including confidence intervals where possible	Covid-19 key conclusions
Basic Reproductive Rate (R_0)	No number included in planning assumptions	(Number of secondary cases generated on average by one primary case. Suppression of an outbreak requires R to be sustained below 1) Estimated 2-3 in Wuhan. Unknown in other Chinese regions and internationally
Doubling Time	No number included in planning assumptions	(Time required for the number of cases to double) 4-5 days in China
Incubation period	Short incubation period – 1-3 days	(Time between exposure to infection and symptom onset) Range remains 1 to 14 days; average of 4-5 days
Duration of illness	Assumes normal flu profile – most people back to normal activities in 7-10 days	(From onset of illness to death). Median of 15 to 18 days for severe cases, but large variation around this. Longest time so far appears to be 41 days.
Duration of infectivity	Adults are infectious for up to five days from the onset of symptoms. Longer periods have been found, particularly in immunosuppressed. Children may be infectious for up to seven days. Some people can be infected, develop immunity, and have minimal or no symptoms but may still be able to pass on the virus.	Duration of infectivity likely to vary depending on severity of individual cases. 14 days as upper limit. Peak infectivity is probably around the start of symptom onset, average 2-6 days, then falling off rapidly.
Transmission	Sustained human-to-human transmission. Around a third of infected people are asymptomatic.	Current understanding is that the transmission route is respiratory and via contact. This means that viruses are transmitted via touching an infected person and spray of droplets such as coughing and sneezing. Human-to-human transmission outside China has occurred 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
Case Fatality Rate (CFR) (symptomatic cases)	2.5%	(The proportion of deaths within a designated population due to an epidemiological outbreak). Uncertain but planning on the assumption 2-3%
Infection Fatality Rate (symptomatic and asymptomatic cases)	1.6%	1% (variable by age)
Origin	N/A	Current evidence suggests single point zoonotic (i.e. animal to human) outbreak, now sustained entirely by human-to-human transmission. No evidence of ongoing zoonotic transmission.
Duration of outbreak & waves	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.	The most likely time to peak for a UK epidemic is 2-3 months after sustained human-to-human transmission within the UK. Total duration is unknown at this stage.

Page 14

Key Scientific Advice 2/3

2 nd Order Assumptions	Pan Flu reasonable worst case, based on a 2016 UK population, including confidence intervals where possible	Covid-19 key conclusions of SAGE to date, based on a 2016 UK population
Cumulative attack rate (Population with illness)	50% (32,800,000) of population infected and experience symptoms during one or more waves (based on 1957 and 1968 flu pandemics). Actual number of infected people will be higher as there are a number of asymptomatic cases.	80% (52,480,000) of population possibly infected, however not all of these will experience symptoms. Population infected with symptoms is unclear and to be determined.
Workforce absences	17-20% nationally during peak weeks. This may vary for individual businesses. Anticipated that 50% of workforce may require time off at some stage over the entire period of a pandemic either due to illness or to care for others. This would be higher were schools to be closed. An average absence duration of 7 to 10 days.	Unknown, use pan flu planning assumptions.
Numbers requiring assessment at health services	9,840,000 would require assessment by health services. This is 30% of all those that are symptomatic.	Unknown, use pan flu planning assumptions.
Hospital cases	1,312,000 would require hospital care, i.e. average six-day length of stay. This is 4% of all those that are symptomatic.	Unknown, but possibly in the region of 4% (1,312,000), as per pan flu planning assumptions.
Hospital critical care	328,000 require the highest level of critical care (require intensive care for 10 days). This is 1% of all those that are symptomatic.	Unknown, but possibly about 1%, as per pan flu planning assumptions.
Excess deaths	820,000 (calculated using the CFR of symptomatic cases)	520,000 (to the nearest 10,000, based on infection fatality rate)
Clinical Counter measures	<ul style="list-style-type: none"> Antivirals (AV) Antibiotics (AB) Pandemic specific vaccine (PSV) 	None
Vaccine Development	It is likely to take at least six months after a novel virus has been identified and isolated for an effective pandemic influenza vaccine to become available from manufacturers.	None likely to be available in a UK epidemic

Page 15

Potential Impacts on Health and Social Care

- Pressures on the Acute Care Sector
- Critical Care
- Primary and Community Care
- Elective Procedures and Discharges
- Supply Chains

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Wider sectoral impacts

- Business Continuity
- Staff Absences
- Supply Chains
- Public Anxiety
- Communications
- Excess Deaths