



ONE HEALTH Knowledge-Café

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Flying during COVID-19



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 Head of Hygiene & Safety – Aerolíneas Argentinas SA
 Professor at Catholic University of Argentina & University of Buenos Aires
 Specialist in Hygiene, Safety and Environmental Management

Argentina

Content

After this presentation, you will be able to describe briefly:

- Situation of aviation and Covid-19
- Measures taken at airports and on flights
- Opinions about flying within this group before/after knowing Covid measures.



Photo: Bauleo

First of all...

- Share with us your opinion (anonymous)

[PolleEv.com/mariafernand169](https://pollev.com/mariafernand169)



Image: Matt Groening

**Would you be worried about the Covid if you
had to fly today?**

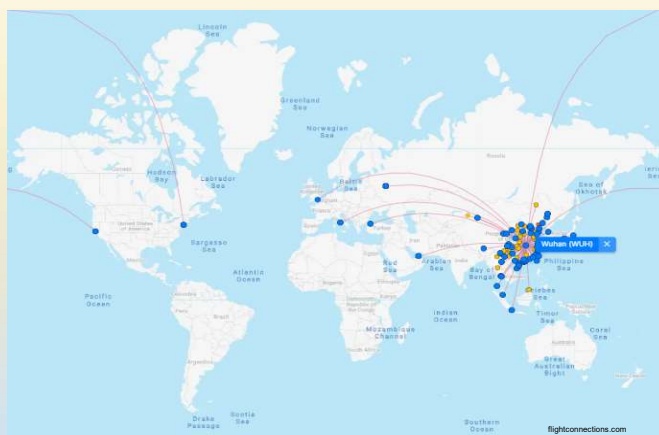


YES (afraid, NO (easy,
unsafe, at safe, at not
risk) risk)

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

Traveling during Covid-19

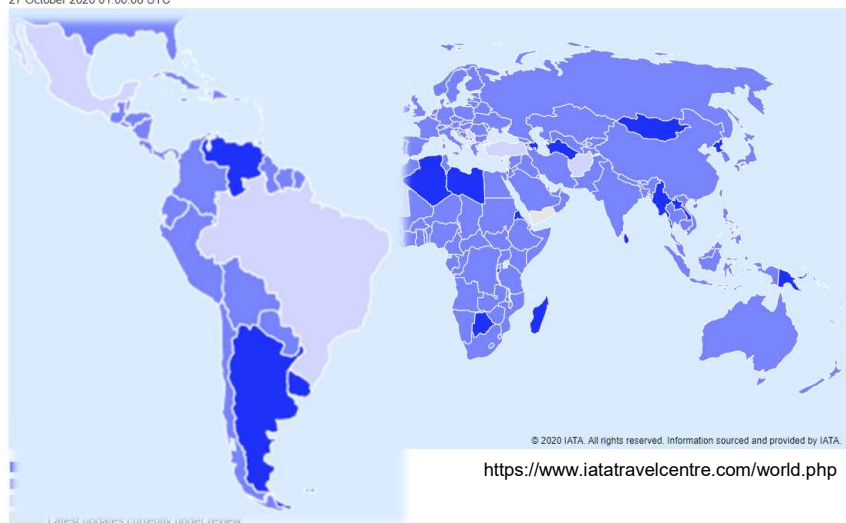
Covid travels by all means of transport, but it travels with people, not loads (cargo flights).



Restrictions

COVID-19 Travel Regulations Map* (powered by Timatic)

27 October 2020 01:00:08 UTC



October 2020

- COVID-19 Travel Recommendations by Destination
- Updated Oct. 26, 2020



Risk assessment I

Covid exposure per route (IATA - International Air Transport Association)

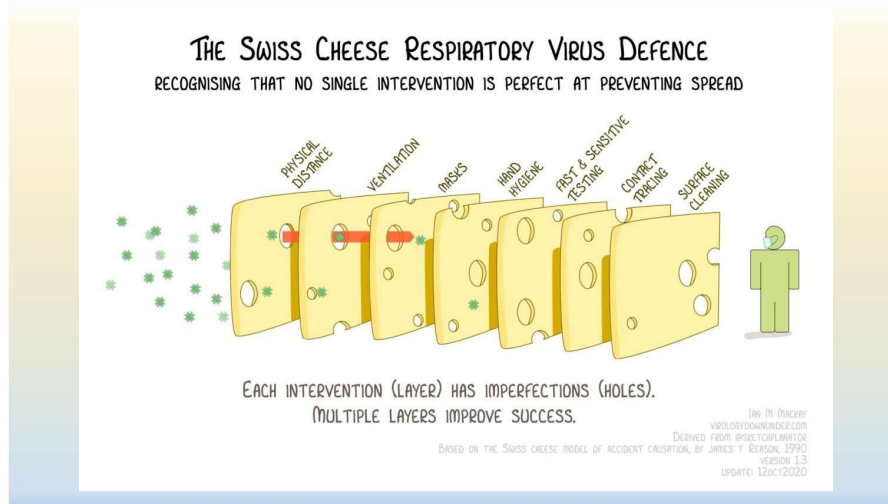
The risk levels will change frequently and should include:

- Current infection rates at origin and destination (confirmed/population in million)
- Trend in infection rates (decreasing, stable, increasing) compared to a previous time period
- Effectiveness of overall public health response to COVID-19 in each country
- Duration of the flight
- Booked passenger load



IATA Guidance for cabin operations during and post pandemic

Risk assessment II



James Reason's Theory of Swiss Cheese adapted by Mackay

Testing

• Argentines

- ❖ PCR test or
- ❖ quarantine for 14 days

Those who enter through the rest of the border crossings must carry out quarantine on a mandatory basis.

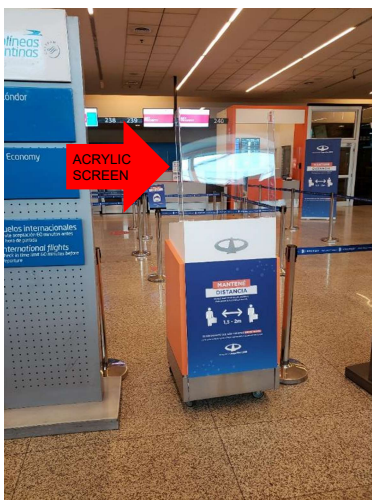
• Foreigners

- ❖ Electronic Affidavit completed within 48 hours prior to boarding,
- ❖ PCR test with negative result for COVID-19 and
- ❖ health insurance that includes coverage for that disease.

- Airlines in charge of compliance of the measures before boarding, being subject to fines.

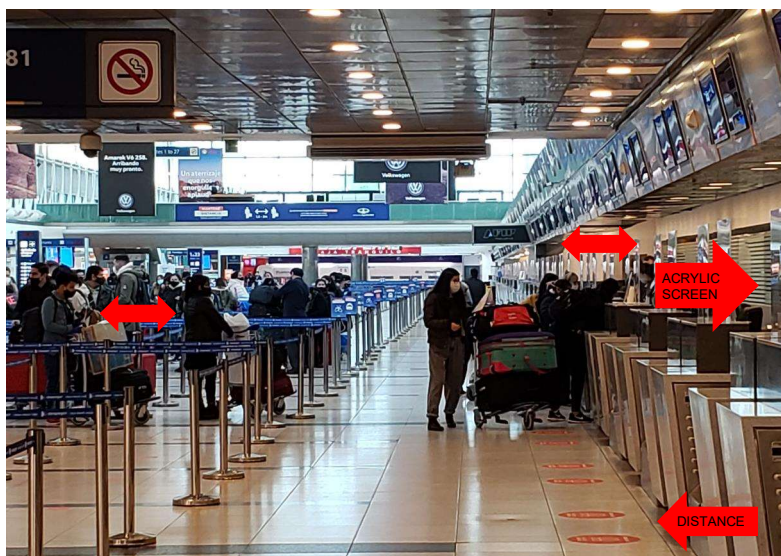


At the airport – Check in I



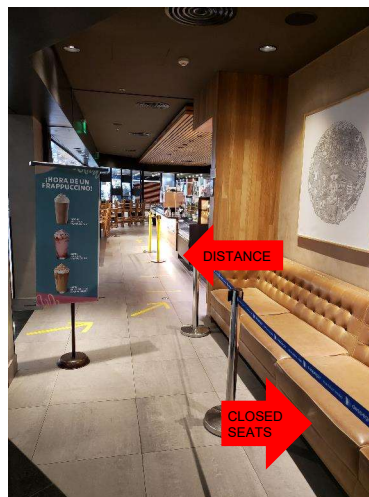
Photos: Bauleo

At the airport – Check in II



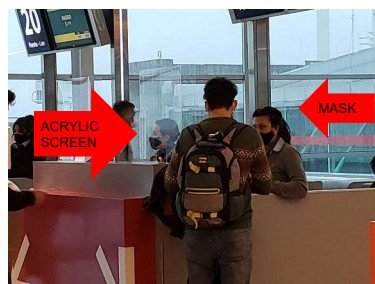
Photos: Bauleo

At the airport – Shopping



Photos: Bauleo

Boarding



Photos: Bauleo

On board

• Passengers



Photo: Bauleo



Photo: Aerolíneas Argentinas

Desinfections



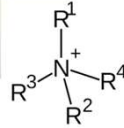
All cabin sanitization products used must be compatible with aircraft components.

Aircraft manufacturers provide operators with guidance on approved sanitization processes and cleaning fluids.

Desinfections

Quaternary ammonium cations, also known as quats, are positively charged polyatomic ions of the structure NR_4^+

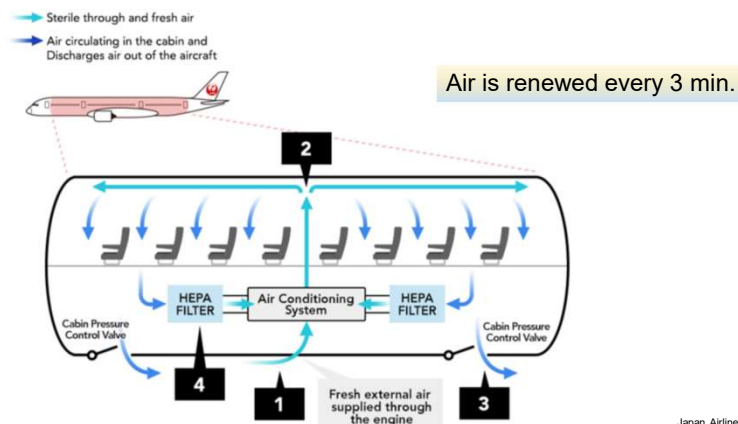
Droplets diameter: 40-80 μm



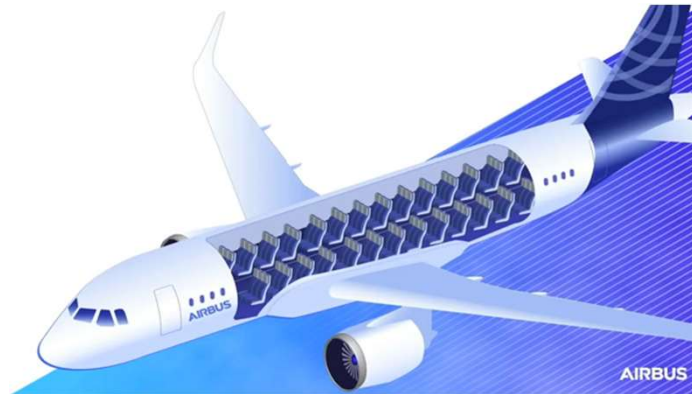
Ventilation

During the flight, the air inside the cabin is constantly cleaned with High Efficiency Particulate Air Filter (HEPA) systems.

HEPA filters can remove 99.97% of airborne particles (up to 0.3 μm) from the air.



Ventilation



Now that you know more... are you still worried about flying?



YES (afraid, NO (easy,
unsafe, at safe, at not
risk) risk)

Start the presentation to see live content. For screen share software, share the entire screen. Get help at pollev.com/app

THANK YOU!





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Travelling during COVID-19

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Patan Academy of Health Sciences
Nepal

Airports: the point of entry for disease

THE KATHMANDU POST

Construction of the second international airport to begin by mid-April

The construction of the second international airport at Nijgadh of Bara district is likely to start by mid April this year.



Airports: the point of entry for disease

THE KATHMANDU POST

Health Ministry deputs a doctor, paramedics at the airport health desk

Currently, there's no facility in the country that isolates passengers suspected of carrying infectious diseases.



Airports: the point of entry for disease

- Points to consider- Epidemiological
 - Is symptom/temperature screening sufficient?
 - What information should be obtained/recorded/retrieved?
 - What about the incubation period?
 - Are the travelers being educated and counselled enough about what precautions they should take? And why?
 - Don't meet people including family
 - Don't travel unnecessarily in-country
 - Wear mask/ Wash hands
 - Be in touch with health institutions if you are sick

Airports: the point of entry for disease

- Points to consider- Managerial
 - Creating a health desk is not easy.
 - Who's in charge? Who'll fund it?
 - Multiple Govt Agencies:
Immigration,
Epidemiology and Disease Control,
Ministry of Home Affairs (Police)
 - Need 'simulation' or 'drills' to set up new offices/systems

Airports: the point of entry for disease

Civil Aviation Authority of Nepal TIA Civil Aviation Office

TIA COVID-19 Crisis Management Procedure 2020 (Supplement to TIA Airport Emergency Plan 2019)

Approved by

Director General of Civil Aviation Authority of Nepal

Appendix – A

Script to be read by Pilot/Crew of aircraft prior to arrival at TIA

The following are health measures requested by the Epidemiology and Disease Control Division (EDCD), Department of Health, Nepal. If you have developed any of the following COVID-19 symptoms:

- Fever
- Cough
- Sore throat
- Runny nose
- Breathing difficulty

Please stay on your seat and inform to the cabin crew.

► If you have developed any of these symptoms upon arrival, please inform to TIA Health Desk in arrival lobby.

- If you have developed any of these symptoms after arrival in Nepal, please call to
- ✓ Epidemiology and Disease Control Division (EDCD),
HOTLINE: 0977 1 4256796 or
 - ✓ Health Emergency Operation Centre (HEOC),
HOTLINE: 0977 1 4258845,

and inform about the symptoms and wait for their arrival.

Thank you for your cooperation.

Appendix – B Traveler Public Health Declaration Form

Government of Nepal
Ministry of Health and Population

TRAVELLER PUBLIC HEALTH DECLARATION

This form is to obtain important information from passengers entering the country through Tribhuvan International Airport, all are requested to complete this form to facilitate health measures regarding interventions by the Ministry of Health and Population. Please print clearly. The information will be used by public health authorities in accordance with applicable national laws.

Please print name of passenger, date of arrival at your seat only. **Name: (Last, First, Middle)**

1. Traveler Information		Flight Number	
1.1 Last Name	1.2 First Name	1.3 Flight Number	1.4 Date of Arrival
1.5 Date of Birth	1.6 Gender	1.7 Nationality	1.8 Country of Origin
1.9 Date of Issue (DD/MM/YYYY)	1.10 Date of Expiry (DD/MM/YYYY)	1.11 Travel Address	1.12 Contact Number
1.13 Travel Address	1.14 Country of Origin	1.15 Mobile Number	1.16 Email Address
1.17 Address in Nepal	1.18 Mobile Number	1.19 Email Address	1.20 Other Address

2. Journey Information

2.1 Where did you start and finish your journey? (City and country, at least 21 days)

2.2 From: _____ To: _____

2.3 Date of departure: _____ Date of arrival: _____

3. Contact Information

3.1 Did you come across anyone with COVID-19 symptoms within last 14 days? Yes () No ()

3.2 Contact for anyone with a severe illness, or who has died of an unknown reason? Yes () No ()

3.3 Attended any funeral or had any contact with any dead bodies? Yes () No ()

3.4 Visited any facilities where an event is being held? Yes () No ()

4. Health Information

4.1 Fever (38°C / 100°F or higher), feeling breathless, or having chest? Yes () No ()

4.2 Headache, sore throat, cough, sneezing, running nose, etc? Yes () No ()

4.3 Have you had or increased respiratory infection or any other disease during the last 14 days? Yes () No ()

4.4 Have you had any other disease during the last 14 days? Yes () No ()

4.5 Have you had any other disease during the last 14 days? Yes () No ()

4.6 Have you had any other disease during the last 14 days? Yes () No ()

4.7 Have you had any other disease during the last 14 days? Yes () No ()

4.8 Have you had any other disease during the last 14 days? Yes () No ()

4.9 Have you had any other disease during the last 14 days? Yes () No ()

4.10 Have you had any other disease during the last 14 days? Yes () No ()

For assistance please visit the health desk at Tribhuvan International Airport or contact
Epidemiology and Disease Control Division, Kathmandu.
Phone: +977 1 4256796 / 1796, 1797-1798. Email: info@edcd.gov.np
Facebook: www.facebook.com/edcdnepal

Appendix – C

Public Health Passenger Locator Form

APPENDIX C: PUBLIC HEALTH PASSENGER LOCATOR FORM

This form is to be completed by all passengers entering the country through Tribhuvan International Airport, all are requested to complete this form to facilitate health measures regarding interventions by the Ministry of Health and Population. Please print clearly. The information will be used by public health authorities in accordance with applicable national laws.

Please print name of passenger, date of arrival at your seat only. **Name: (Last, First, Middle)**

1. Traveler Information		Flight Number	
1.1 Last Name	1.2 First Name	1.3 Flight Number	1.4 Date of Arrival
1.5 Date of Birth	1.6 Gender	1.7 Nationality	1.8 Country of Origin
1.9 Date of Issue (DD/MM/YYYY)	1.10 Date of Expiry (DD/MM/YYYY)	1.11 Travel Address	1.12 Contact Number
1.13 Travel Address	1.14 Country of Origin	1.15 Mobile Number	1.16 Email Address
1.17 Address in Nepal	1.18 Mobile Number	1.19 Email Address	1.20 Other Address

2. Journey Information

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3. Contact Information

3.1 Did you come across anyone with COVID-19 symptoms within last 14 days? Yes () No ()

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4. Health Information

4.1 Fever (38°C / 100°F or higher), feeling breathless, or having chest? Yes () No ()

4.2 Headache, sore throat, cough, sneezing, running nose, etc? Yes () No ()

4.3 Have you had or increased respiratory infection or any other disease during the last 14 days? Yes () No ()

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For assistance please visit the health desk at Tribhuvan International Airport or contact
Epidemiology and Disease Control Division, Kathmandu.
Phone: +977 1 4256796 / 1796, 1797-1798. Email: info@edcd.gov.np
Facebook: www.facebook.com/edcdnepal

Airports: the point of entry for disease

- Sequence of events leading to airport closure
 - Europe started seeing a surge of cases and deaths in Early March
 - Travel restrictions were imposed first in Italy then France and Spain
 - Widespread lockdowns in Europe prompted the Nepal government to take preemptive measures

Airports: the point of entry for disease

- Ramifications of airport closure
 - People who want to visit close family in dire-circumstances
 - People who are abroad for health-care reasons

Airports: the point of entry for disease

Our son was scheduled to come back from abroad after his studies anyway. His father was diagnosed with cancer after the start of lockdown. It was already in an advanced stage when first detected. Before the flights could resume he passed away. They were so close to each other.

Wife of a cancer victim

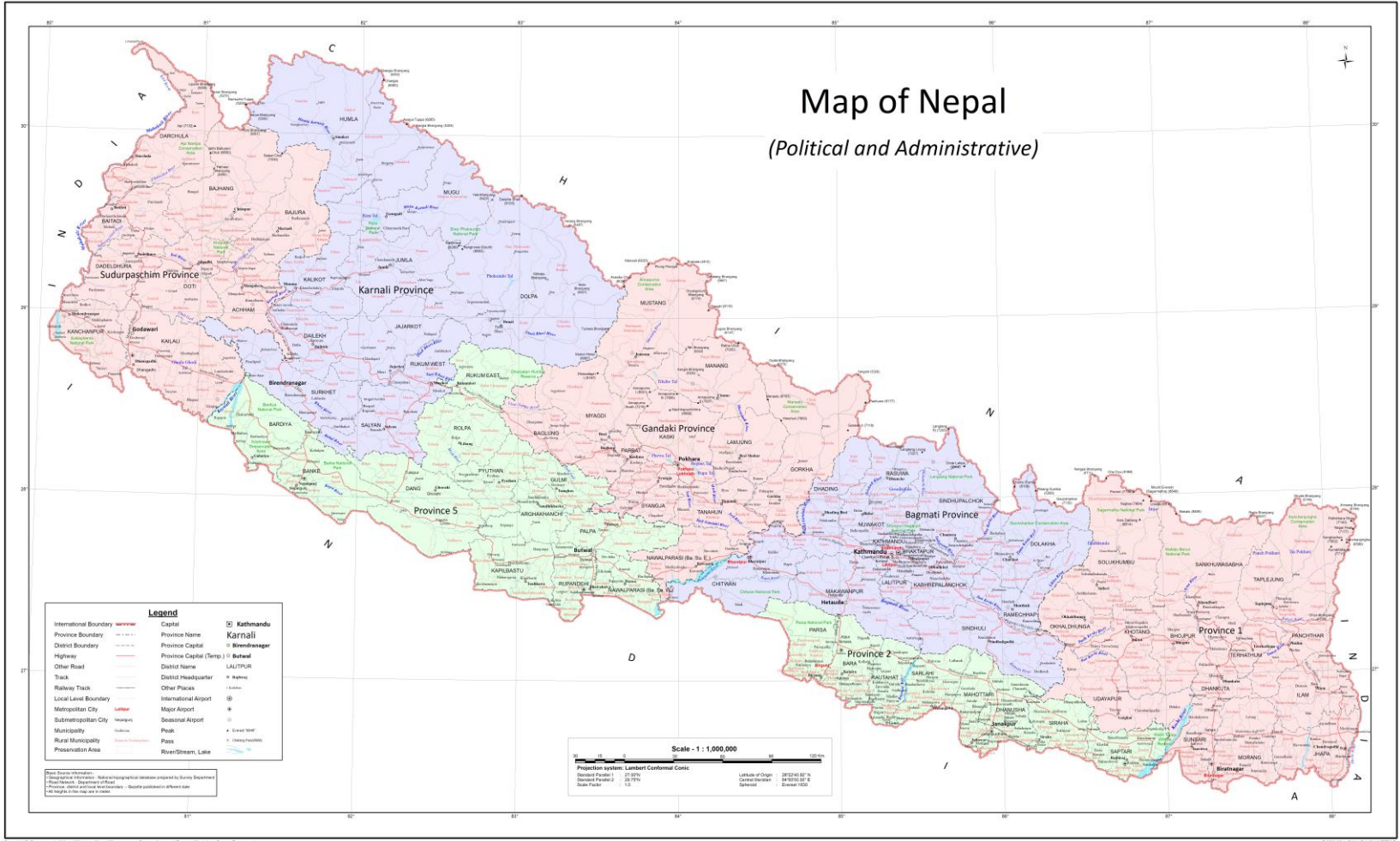
We had been to New Delhi for treatment of his esophageal cancer. After the flight suspension we waited for a few weeks. Then we reserved an ambulance which brought us to the Nepal land border and then took another ambulance to Kathmandu.

Wife of a cancer patient

Travel Restrictions: Sequence of events

- Sequence of events related to the travel restrictions in Nepal
 - **Jan 2020 First case (student from Wuhan)**
 - 11 March Pandemic Declared
 - 18 March Schools Closed; Exams Postponed
 - 20 March All flights/arrivals stopped from 50 countries
 - **March 2020 Second case (student from France)**
 - 23 March Land Borders to India and China closed
 - 24 March Nationwide lockdown
 - 21 July Nationwide lockdown was lifted
 - 23 September Intercity Public Buses were allowed

Land Borders: multiple points of entry



Lockdown: Don't mind your own business



Lockdown: Is a border control possible?



Lockdown: Desperate times- Desperate Measures

Three arrested after swimming across Mahakali to Nepal



Setopati

Kathmandu, March 30



21
Shares



Darchula Police arresting a man who swam across the Mahakali river.

Prolonged Closure of an Open Border

- Points to consider
 - Can you actually seal an open land-border?
 - Can you screen the returnee migrants?
 - Can you handle the returnee migrants?

Quarantine: A socially acceptable option



Travel: The stigmatized traveller

The people of my municipality were stranded on the border in the hot sun, without food or water. They pleaded to me for help. I asked the bus-operators for help. They denied because recently the fact that the virus even survives in steel and metal was in wide circulation and they were gripped in fear.

I eventually convinced a truck which carries rocks and gravel to help the migrants.

Despite the bumpy ride back home on the back of the tripper truck, the returning migrant workers heaved so much thanks and praise to me for my kindness.

Mayor of a rural municipality in the Nepal Hills

Lockdown: Was a sudden preemptive lockdown rational?



Lockdown: Aided by a resilient and hardy people



Walking 3 days to get home

Trapped by lockdown, and low on cash, Nepalis trek cross-country to get back to their villages

Sanjay Mishra in Rautahat
April 2, 2020



Lockdown: The collateral health effects

Articles

Effect of the COVID-19 pandemic response on intrapartum care, stillbirth, and neonatal mortality outcomes in Nepal: a prospective observational study

Ashish KC*, Rejina Gurung*, Mary V Kinney, Avinash K Sunny, Md Mainuddin, Omkar Basnet, Prajwal Paudel, Pratiksha Bhattarai, Kalpana Subedi, Mahendra Prasad Shrestha, Joy E Lawri, Mats Mälvist†



Summary

Background The COVID-19 pandemic response is affecting maternal and neonatal health services all over the world. We aimed to assess the number of institutional births, their outcomes (institutional stillbirth and neonatal mortality rate), and quality of intrapartum care before and during the national COVID-19 lockdown in Nepal.

Methods In this prospective observational study, we collected participant-level data for pregnant women enrolled in the SUSTAIN and REFINE studies between Jan 1 and May 30, 2020, from nine hospitals in Nepal. This period included 12.5 weeks before the national lockdown and 9.5 weeks during the lockdown. Women were eligible for inclusion if they had a gestational age of 22 weeks or more, a fetal heart sound at time of admission, and consented to inclusion. Women who had multiple births and their babies were excluded. We collected information on demographic and obstetric characteristics via extraction from case notes and health worker performance via direct observation by independent clinical researchers. We used regression analyses to assess changes in the number of institutional births, quality of care, and mortality before lockdown versus during lockdown.

Findings Of 22 907 eligible women, 21 763 women were enrolled and 20 354 gave birth, and health worker performance was recorded for 10 543 births. From the beginning to the end of the study period, the mean weekly number of births decreased from 1261.1 births (SE 66.1) before lockdown to 651.4 births (49.9) during lockdown—a reduction of 52.4%. The institutional stillbirth rate increased from 14 per 1000 total births before lockdown to 21 per 1000 total births during lockdown ($p=0.0002$), and institutional neonatal mortality increased from 13 per 1000 livebirths to 40 per 1000 livebirths ($p=0.0022$). In terms of quality of care, intrapartum fetal heart rate monitoring decreased by 13.4% (–15.4 to –11.3; $p<0.0001$), and breastfeeding within 1 h of birth decreased by 3.5% (–4.6 to –2.6; $p=0.0032$). The immediate newborn care practice of placing the baby skin-to-skin with their mother increased by 13.2% (12.1 to 14.5; $p<0.0001$), and health workers' hand hygiene practices during childbirth increased by 12.9% (11.8 to 13.9) during lockdown ($p<0.0001$).

Interpretation Institutional childbirth reduced by more than half during lockdown, with increases in institutional stillbirth rate and neonatal mortality, and decreases in quality of care. Some behaviours improved, notably hand hygiene and keeping the baby skin-to-skin with their mother. An urgent need exists to protect access to high quality intrapartum care and prevent excess deaths for the most vulnerable health system users during this pandemic period.

Funding Grand Challenges Canada.

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Lancet Glob Health 2020; 8: e1273–81

Published Online
August 10, 2020

[https://doi.org/10.1016/S2214-109X\(20\)30345-4](https://doi.org/10.1016/S2214-109X(20)30345-4)

See Comment page e1243

*Joint first authors

†Joint senior authors

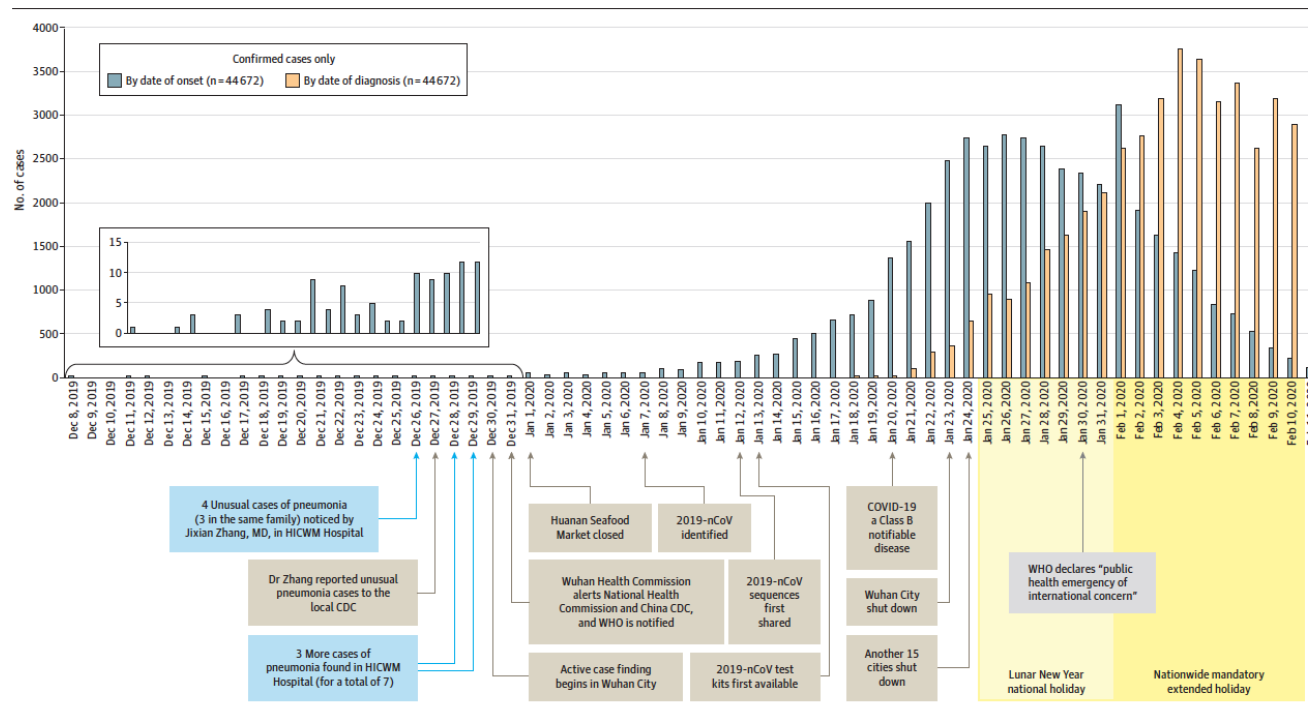
For the Nepali translation of the abstract see Online for appendix 1

For the Mathai translation of the abstract see Online for appendix 2

Department of Women's and Children's Health, Uppsala University, Uppsala, Sweden (A KC PhD, M Mälvist PhD); Society of Public Health Physicians Nepal, Kathmandu, Nepal (A KC); Research Division, Golden Community, Lalitpur, Nepal (R Gurung MSc, A K Sunny MD, O Basnet BSc, P Bhattarai MA); School of Public Health, Faculty of Community and Health Sciences, University of the Western Cape, Cape Town, South Africa (M V Kinney MSc); Department of Global Health, Save the Children, Cape Town, South Africa (M V Kinney); Institute of Child Health, University College London, London, UK (M Mainuddin PhD); Division of Maternal and Child Health, ICCDR, B, Dhaka, Bangladesh (M Mälvist PhD).

Lockdown: Rationale for a National Lockdown

Epidemic Curve of the Confirmed Cases of Coronavirus Disease 2019 (COVID-19)

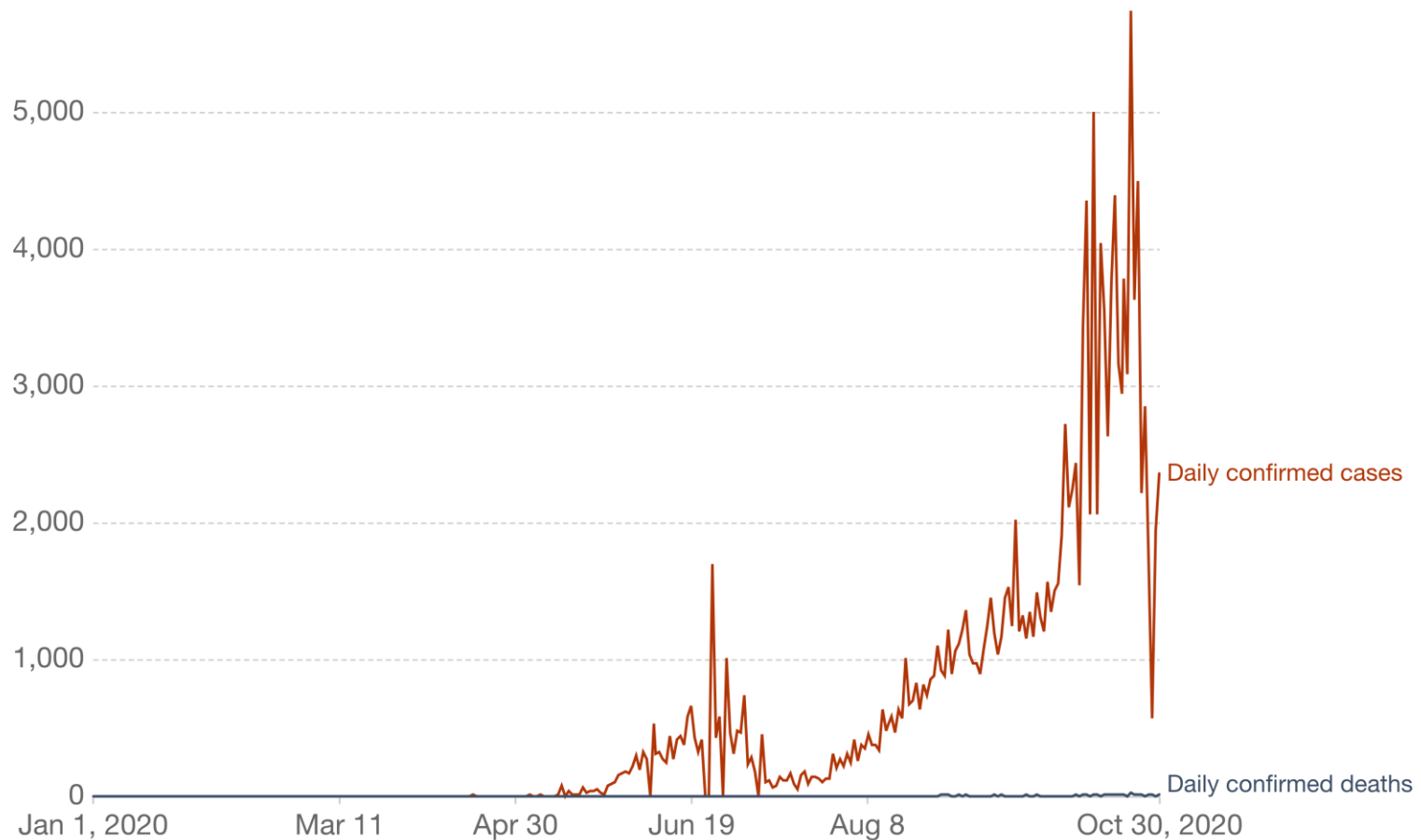


Lockdown: Did the lockdown determine this curve?

Daily confirmed COVID-19 cases and deaths, Nepal

Our World
in Data

The confirmed counts shown here are lower than the total counts. The main reason for this is limited testing and challenges in the attribution of the cause of death.



Source: European CDC – Situation Update Worldwide – Last updated 30 October, 10:35 (London time) [OurWorldInData.org/coronavirus](https://ourworldindata.org/coronavirus) • CC BY

Travel Restrictions: Can those in need be identified and helped?

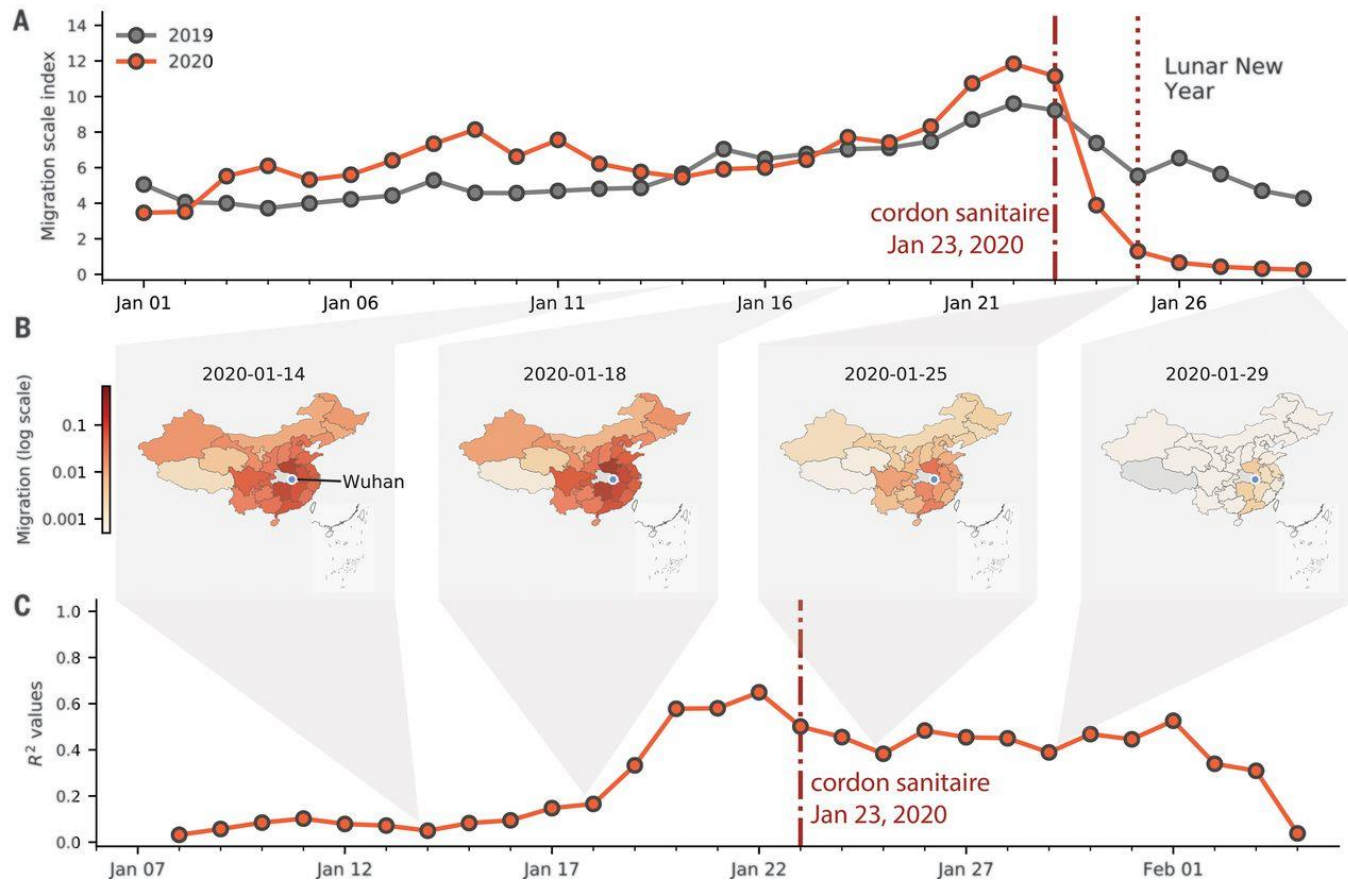
I have been out of work since December/January as there have been almost no tourists this year. I decided to move back to my village. My family are self-sufficient in agriculture so food is not a problem. But for my friends who live in the city, it is, and they have had to rely on food hand-outs.

Trekking Guide, female
(Source:BBC Nepali Service)

I have been distributing hot meals of Daal-Bhat since the start of lockdown. The cost price of one good meal is about 35 rupees. I am not doing this work for profit.

Volunteer who feeds the destitute and homeless in Katmandu
(Source:BBC Nepali Service)

Lockdown: Rationale for a Complete Travel Ban



Tourism: Can tourists travel in a bubble, a perpetual state of quarantine?

THE KATHMANDU POST

Nepal still tepid about reopening for foreign tourists as virus cases continue to rise

Scenario does not look good for the tourism sector as the government once again pushes back the date for welcoming foreign tourists, industry insiders say.



<https://kathmandupost.com/national/2020/10/14>

Acknowledgements

- CIH-LMU One Health Knowledge Café
- Dr Ashish Lohani, Dr Deepak Poudel, Sabina Sigdel
- Dr Shiva Raj Neupane (Quarantine Pictures)
- Dr Nishant Thakur (Airport Health Desk)

Points for Q&A session

- Was complete border closures and flight bans the right thing to do?
- Could the lockdown be done in a better way?
- How do you identify those in need?
- What was the social and economic impact of travel restrictions?
- Do social and economic contexts have to be factored in?



Covid-19 Pandemic: The Effects of Travel Guidelines on the UK.

Dr. Farah Shahi MBChB BMedSci(Hons) DTM&H MRCP(UK)

Infectious Diseases/Microbiology ST5

Clinical Research Fellow/ PhD Student

Darton Group

University of Sheffield

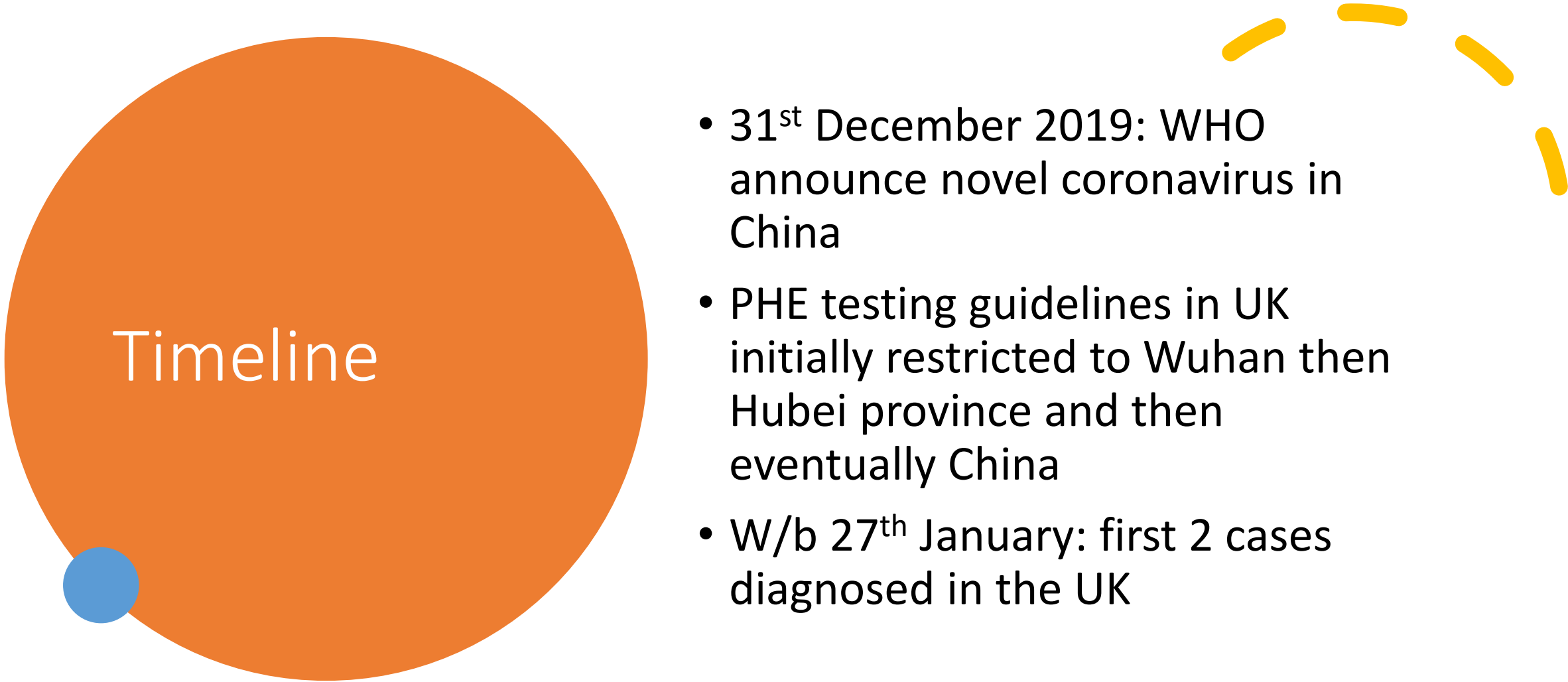
Instagram/Twitter: @dresmerelda





Content

- Disclaimer
- UK: First Wave
 - Guidance timeline
 - The benefit of hindsight
- UK: Second Wave
 - Impact of travel
 - Comparisons with our neighbours
- Conclusions



Timeline

- 31st December 2019: WHO announce novel coronavirus in China
- PHE testing guidelines in UK initially restricted to Wuhan then Hubei province and then eventually China
- W/b 27th January: first 2 cases diagnosed in the UK

[J Infect.](#) 2020 May; 80(5): 578–606.

Published online 2020 Feb 28. doi: [10.1016/j.jinf.2020.02.020](https://doi.org/10.1016/j.jinf.2020.02.020)

PMCID: PMC7127394

PMID: [32119884](#)

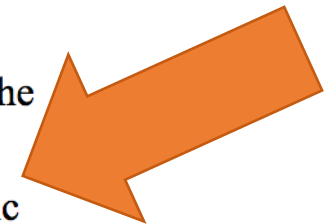
Novel coronavirus disease (Covid-19): The first two patients in the UK with person to person transmission

[Patrick J. Lillie](#),^a [Anda Samson](#),^a [Ang Li](#),^b [Kate Adams](#),^a [Richard Capstick](#),^b [Gavin D. Barlow](#),^{a,c} [Nicholas Easom](#),^a [Eve Hamilton](#),^b [Peter J. Moss](#),^a [Adam Evans](#),^b [Monica Ivan](#),^a [PHE Incident Team](#),^d [Yusri Taha](#),^b [Christopher J.A. Duncan](#),^{b,e,*} [Matthias L. Schmid](#),^{b,**} and [the Airborne HCID Network](#)^{f,1}

► [Author information](#) ► [Article notes](#) ► [Copyright and License information](#) [Disclaimer](#)

This article has been [cited by](#) other articles in PMC.

Tang and colleagues reported in this journal their experience with COVID-19 disease¹, the outbreak of which began in December 2019 in Wuhan, Hubei province, China^{2, 3} with spread to 33 additional countries^{4, 5, 6, 7, 8} as of the 21st February 2020. Here we report the clinical features and outcome of the first two cases of disease caused by SARS-CoV-2 infection in the United Kingdom (UK) – the first imported and the second associated with probable person-to-person transmission within the UK. Public health management will be reported separately.



However...

- Moss P *et al.* Lessons for managing high-consequence infections from first COVID-19 cases in the UK. [https://doi.org/10.1016/S0140-6736\(20\)30463-3](https://doi.org/10.1016/S0140-6736(20)30463-3)

These first UK cases of COVID-19 raise important points about the management of cases of HCID in England. The decision to test for SARS-CoV-2 is based on a clinical and epidemiological case definition, and testing is only approved if this is met. When tested, neither of these people clearly met the current case definition, and had criteria been strictly applied, testing might not have been done. A decision to test was made because of high clinical suspicion and in response to latest available information about the distribution of infection. It is

Timeline

- 31st December 2019: WHO announce novel coronavirus in China
- PHE testing guidelines in UK initially restricted to Wuhan province and then eventually China
- W/b 27th January: first 2 cases diagnosed in the UK
- W/b 8th February: the "Brighton Superspreader"
- PHE testing guidelines expanded to cover more of Far East Asia (from memory!)
- 29th February: "first" UK transmission- man from Surrey with no travel history; 20th UK case but first without clear travel history
- Early March: Iran and Northern Italy added to the highest risk areas
- 23rd March: UK lockdown

Guidance

[Withdrawn] COVID-19: specified countries and areas with implications for returning travellers or visitors arriving in the UK in the last 14 days

Updated 10 March 2020

This guidance was withdrawn on 13 March 2020

This content has been superseded by information in [COVID-19: stay at home guidance](#).

Category 1: Travellers should self-isolate, even if asymptomatic, and use the [111 online coronavirus service](#) to find out what to do next. Go home or to your destination and then self isolate.

The guidance for Italy applies to travellers who returned from the country on or after 9 March 2020.

Category 2: Travellers do not need to undertake any special measures, but if they develop symptoms they should self-isolate and call NHS 111.

Category 1 countries/areas

Wuhan city and Hubei Province (China, [see map](#))

Iran

Daegu or Cheongdo (Republic of Korea, [see map](#))

Italy**

Category 2 countries/areas

Cambodia

China*

Hong Kong

Japan

Laos

Macau

Malaysia

Myanmar

Republic of Korea*

Singapore

Taiwan

Thailand

Vietnam

The effect of international
travel restrictions on internal
spread of COVID-19
Russell *et al.*

doi: <https://doi.org/10.1101/2020.07.12.20152298> (Pre-print)

“According to International Health Regulations (2005) travel restrictions “shall not be more restrictive of international traffic and not more invasive or intrusive to persons than reasonably available alternatives that would achieve the appropriate level of health protection.” 4 . Hence there are strong economic, humanitarian and legal reasons to only impose international travel restrictions when the benefits outweigh the costs.”

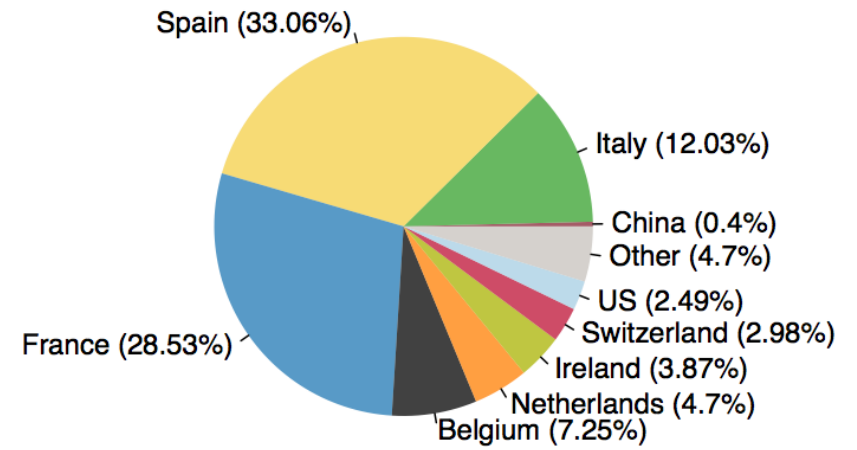
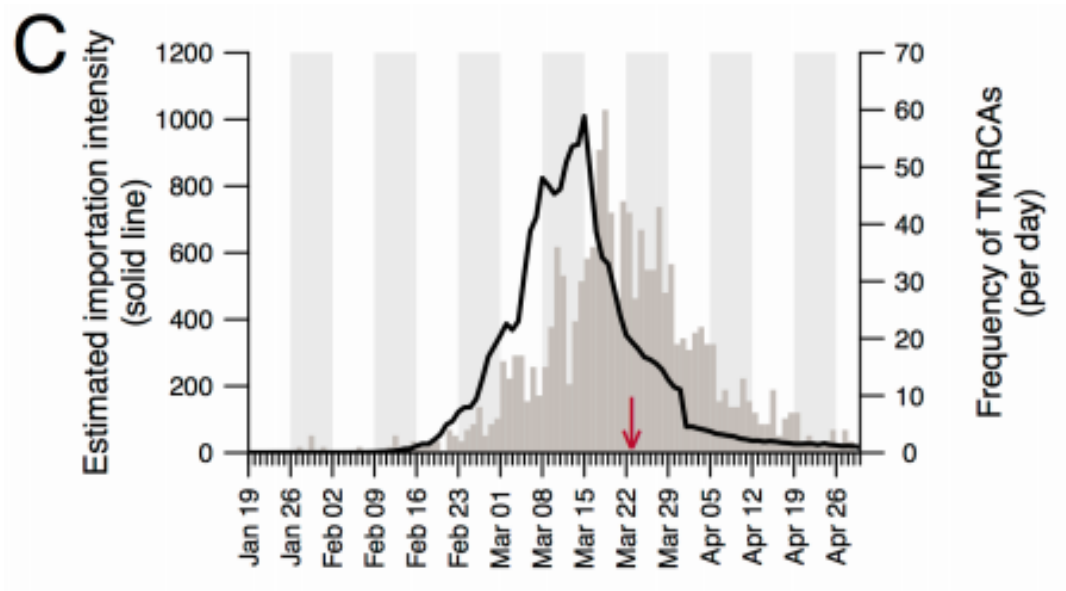
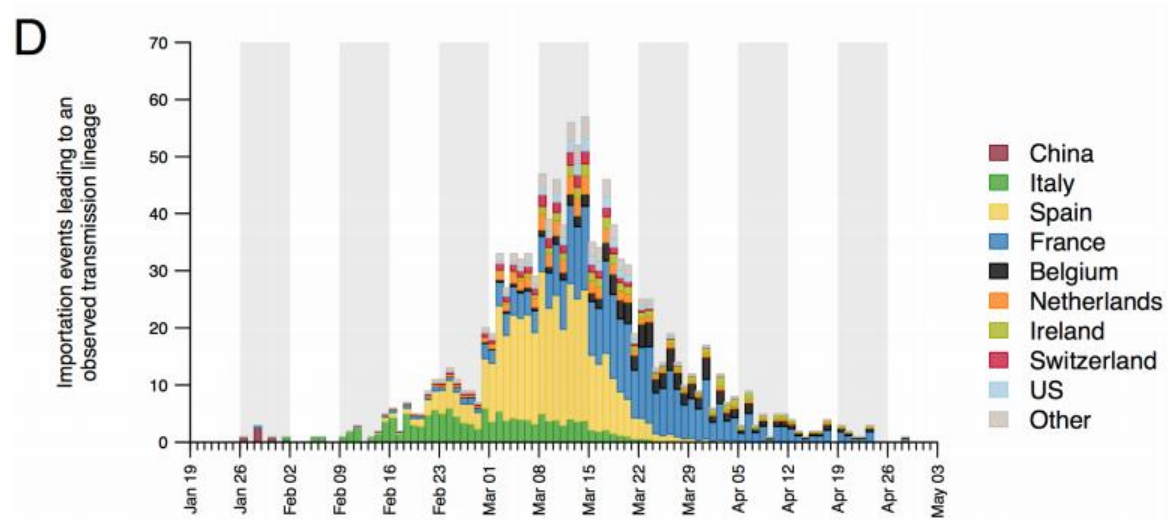
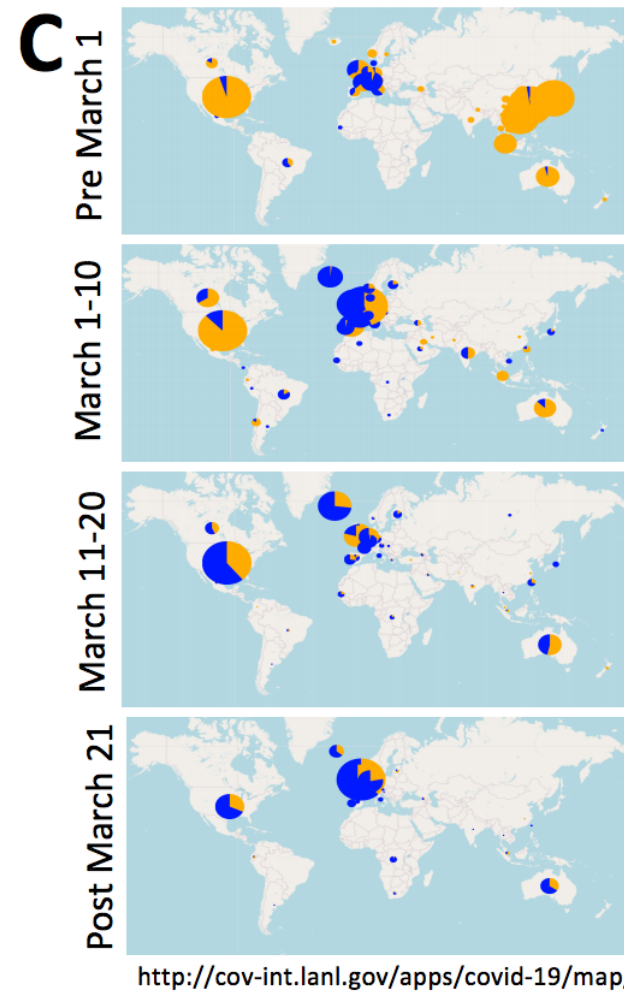
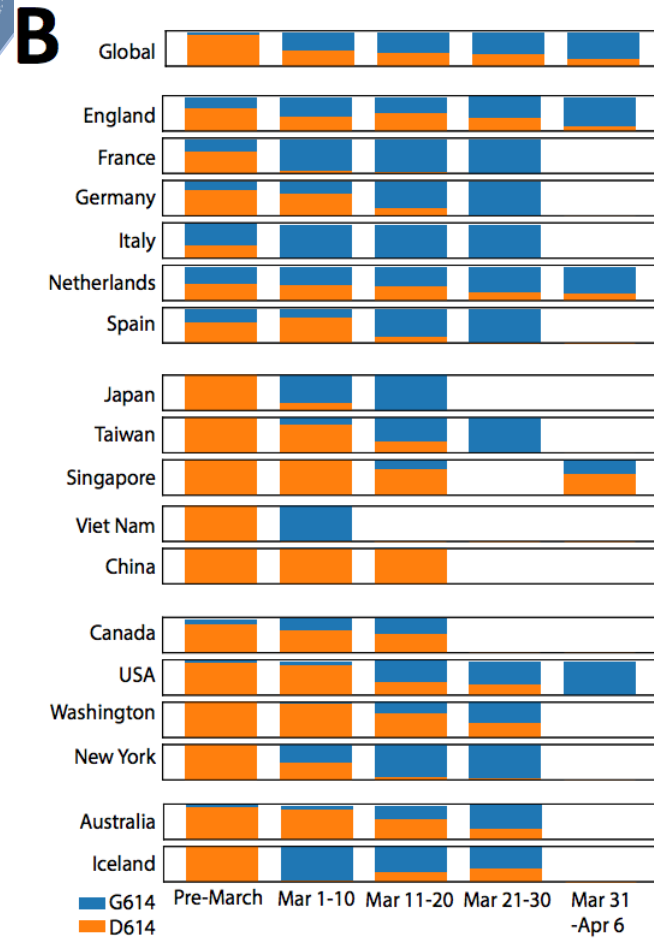


Fig. S20. The estimated total fraction of importation events that are attributable to inbound travellers from each country.



- International arrivals ↓ 95% March through April
- EII peak = high inbound travel with high cases elsewhere
- 80% importations between 27th Feb and 30th March
- Delay between inferred date of importation and first lineage detection 14.13 +/- 5.61 days (IQR= 10-18) and declined through time



bioRxiv preprint doi: <https://doi.org/10.1101/2020.04.29.069054>.
 Spike mutation pipeline reveals the emergence of a more transmissible
 form of SARS-CoV-2. Korber B *et al.*

“Post Match” Analysis

Spain not included in early quarantine lists- an issue not exclusive to the UK

Between 13th March and 8th June, no border measures in place for UK- highly unusual compared with other countries...

“Post Match” Analysis

Home Affairs Committee

**Home Office
preparedness for
COVID-19 (coronavirus):
management of the
borders**

Fifth Report of Session 2019–21

Report, together with formal minutes relating to the report

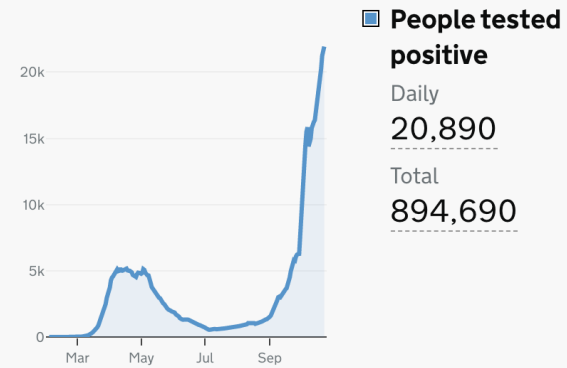
Ordered by the House of Commons
to be printed 30 July 2020

Thousands of cases from Europe between 13th March and lockdown on 23rd likely contributed to the first wave

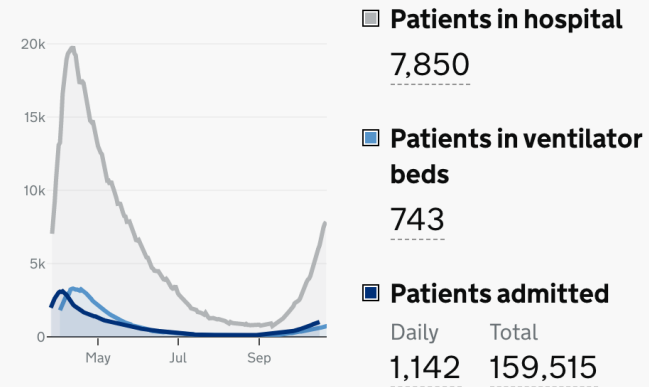
Border testing needed

Travel corridors and acknowledgment of travel not being “risk-free” welcomed. However, warnings on rapid changes should have been brought in at the time of travel corridor introduction

Cases

[More on cases](#)

Healthcare

[More on healthcare](#)

Deaths

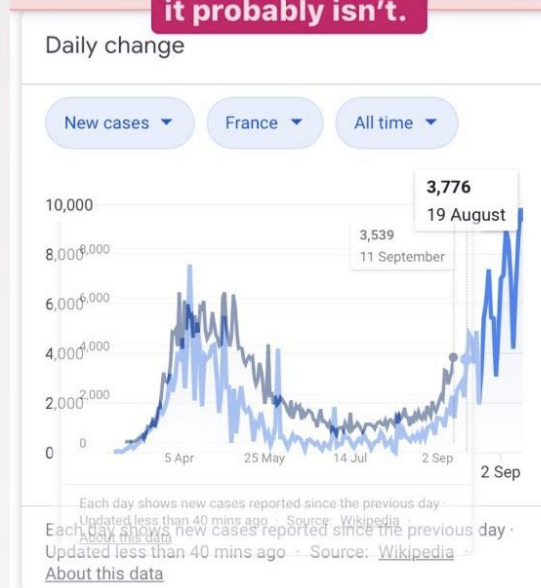
[More on deaths](#)

Second Wave

Source: PHE Covid Dashboard

Superimposing our curve (dark blue) roughly over France's and our trend does seem to be following theirs. They're count of cases for yesterday was around 9,000.

My knowledge of France's testing capacity is limited but I suspect their first peak also was not a true reflection of real numbers of infection. So this is what I mean when I say that if we keep following this trajectory, our counts peak will look like it's overwhelming the first time when it probably isn't.



Roughly one month behind
France in second wave...

Impact of international travel and border control measures on the global spread of the novel 2019 coronavirus outbreak

Chad R. Wells^a, Pratha Sah^a, Seyed M. Moghadas^b, Abhishek Pandey^a, Affan Shoukat^a, Yaning Wang^c, Zheng Wang^d, Lauren A. Meyers^{e,f}, Burton H. Singer^{a,1}, and Alison P. Galvani^a

^aCenter for Infectious Disease Modeling and Analysis, Yale School of Public Health, New Haven, CT 06520; ^bAgent-Based Modelling Laboratory, York University, Toronto, ON M3J 1P3, Canada; ^cState Key Laboratory of Mycology, Institute of Microbiology, Chinese Academy of Sciences, 100101 Beijing, China; ^dDepartment of Biostatistics, Yale School of Public Health, New Haven, CT 06510; ^eDepartment of Integrative Biology, The University of Texas at Austin, Austin, TX 78712; ^fSanta Fe Institute, Santa Fe, NM 87501; and ¹Emerging Pathogens Institute, University of Florida, Gainesville, FL 32610

Contributed by Burton H. Singer, February 27, 2020 (sent for review February 12, 2020; reviewed by Yoav Keynan and Heman Shakeri)

Significance

To contain the global spread of the 2019 novel coronavirus epidemic (COVID-19), border control measures, such as airport screening and travel restrictions, have been implemented in several countries. Our results show that these measures likely slowed the rate of exportation from mainland China to other countries, but are insufficient to contain the global spread of COVID-19. With most cases arriving during the asymptomatic incubation period, our results suggest that rapid contact tracing is essential both within the epicenter and at importation sites to limit human-to-human transmission outside of mainland China.

- Mathematical model comparing impact of travel with local transmission
- Absent restrictions, with comparable travel to May 2019, imported cases <10% of total incidence in 103/142 countries; <1% in 48 countries.
- Number of countries increases (ie, less effect) when taking into account citizens self-imposing restrictions.

The effect of international travel restrictions on internal spread of COVID-19

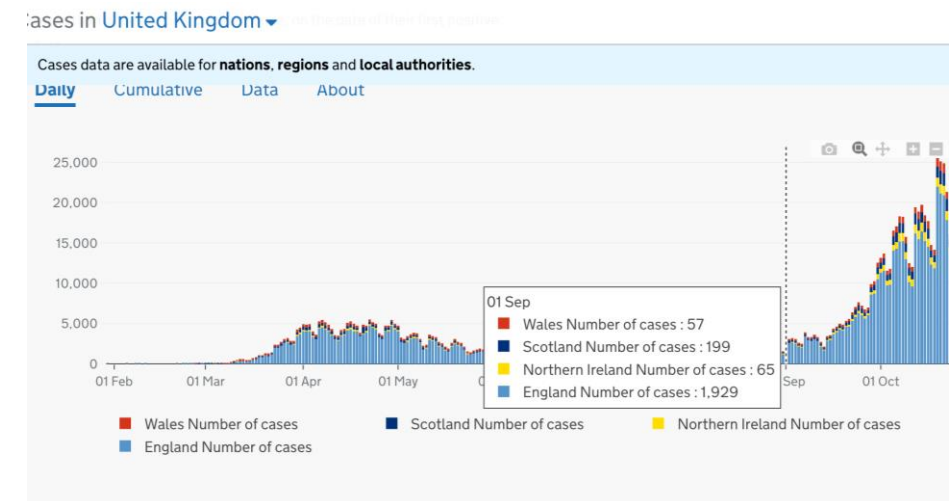
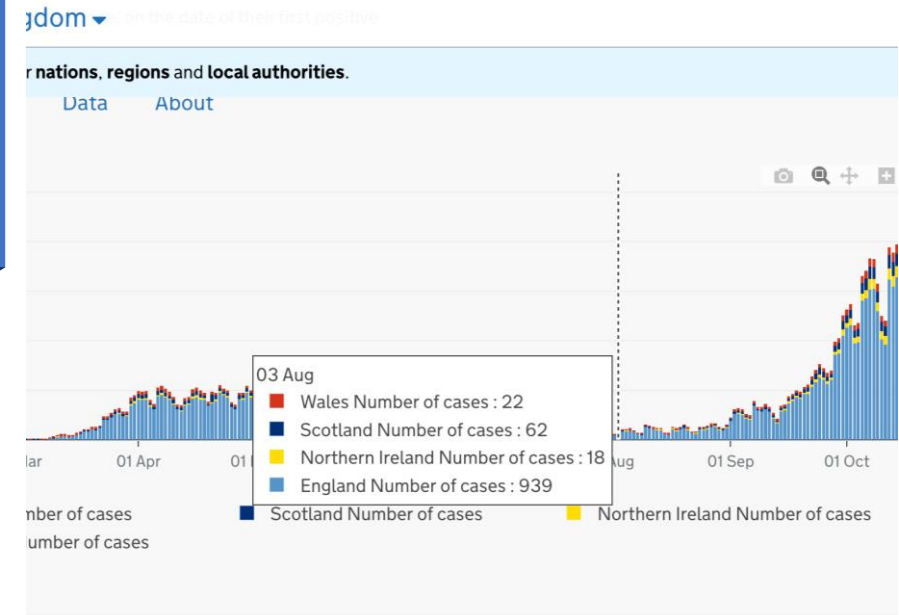
Russell *et al.*

doi: <https://doi.org/10.1101/2020.07.12.20152298> (Pre-print)

“Hence, our results suggest that in May 2020, travel restrictions may have done little in most countries to change the course of local epidemics, and may not be justified given the high economic and social costs required to prevent the arrival of travellers representing less than 10% (or in many cases, less than 1%) of new cases.”

Second Wave

- UK: restrictions ease 23rd June
- UK: 12th July 367 cases (nadir)
- UK: 2000+ cases per day by 1st Sept
- France: phase 1 lifting: May 11th
- France: phase 2 lifting: 15th June (152 cases)
- France: 2000+ cases per day by 7th August
- Spain: restrictions ease 21st June (334 cases)
- Spain: approx. 2000+ cases per day by 23rd July
- Italy: ease of restrictions 15th June (301 cases)
- Italy: approx. 2000+ cases per day by 1st Oct
- Germany...



Sources: PHE, Google, John Hopkins, media

Get a discount with the Eat Out to Help Out Scheme

From 3 to 31 August, get a 50% discount when you eat in at restaurants that are registered with the Eat Out to Help Out Scheme.

Published 15 July 2020

Last updated 1 September 2020 — [see all updates](#)

From: [HM Revenue & Customs](#)

This guidance was withdrawn on 1 September 2020

The Eat Out to Help Out Scheme closed on 31 August 2020.

Conclusions

- Travel restrictions best applied when local rates are lowest (e.g. NZ)
- There's limited explanation for border decisions in UK mid-end of March but we most likely missed the boat before this
- Testing capacity, population density, cultural and behavioural differences make it very difficult to pick apart transmission dynamics:
 - Were the UK and Italian populations more nervous to mix again than the French or Spanish...?!
 - It is likely more about in-country mobility than cross-border mobility at this point
- Adding countries to the UK quarantine list may be a little "after the fact" currently

Coronavirus (COVID-19)

“...And Track & Trace...”

There are three simple actions we must all do to keep on protecting each other



Wash hands

keep washing your hands regularly



Cover face

wear a face covering in enclosed spaces



Make space

stay at least 2 metres apart - or 1 metre with a face covering & precautions

Thank you.

Please submit questions.

COVID-19

Establishing an International Travel Consensus: the European Perspective

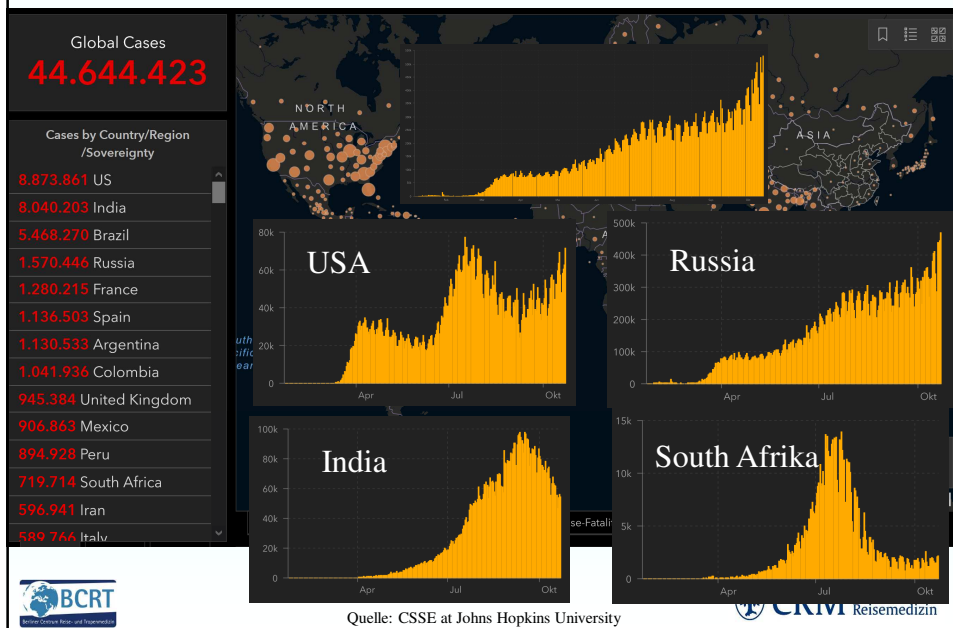
Prof. Dr. Tomas Jelinek

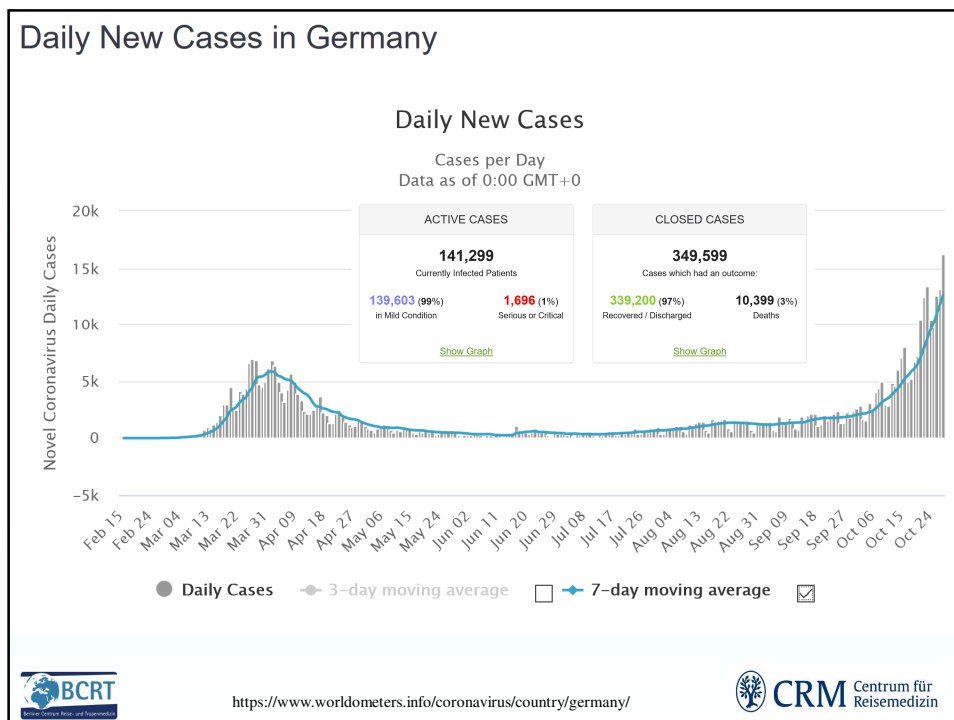
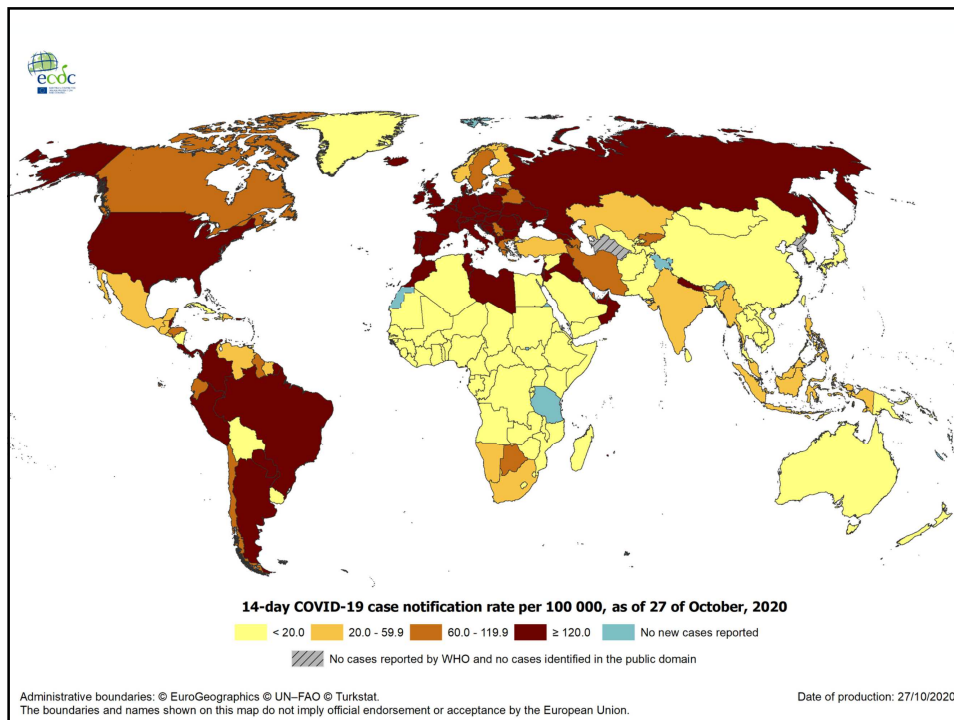


- Wissenschaftlicher Leiter, CRM – Centrum für Reisemedizin, Düsseldorf
- Medizinischer Direktor, BCRT - Berliner Centrum für Reise- und Tropenmedizin
- Lehrbeauftragter am Institut für Medizinische Mikrobiologie, Immunologie und Hygiene, Uniklinik Köln
- Consulting Expert to WHO
- European Academy of Sciences and Arts



Covid-19: Active Cases as of 29 OCT 2020





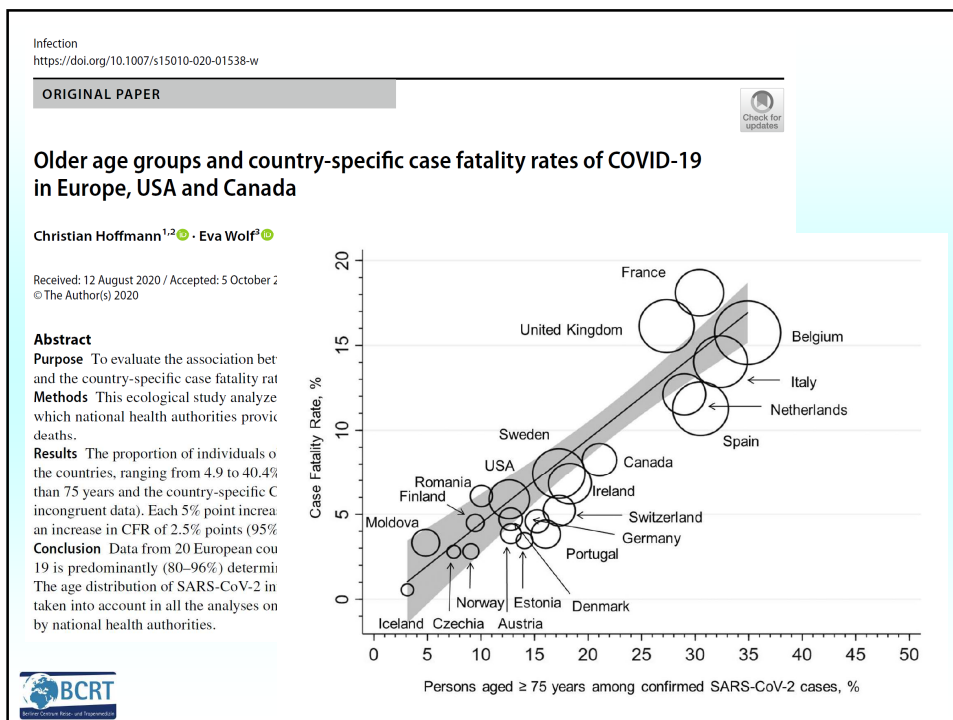
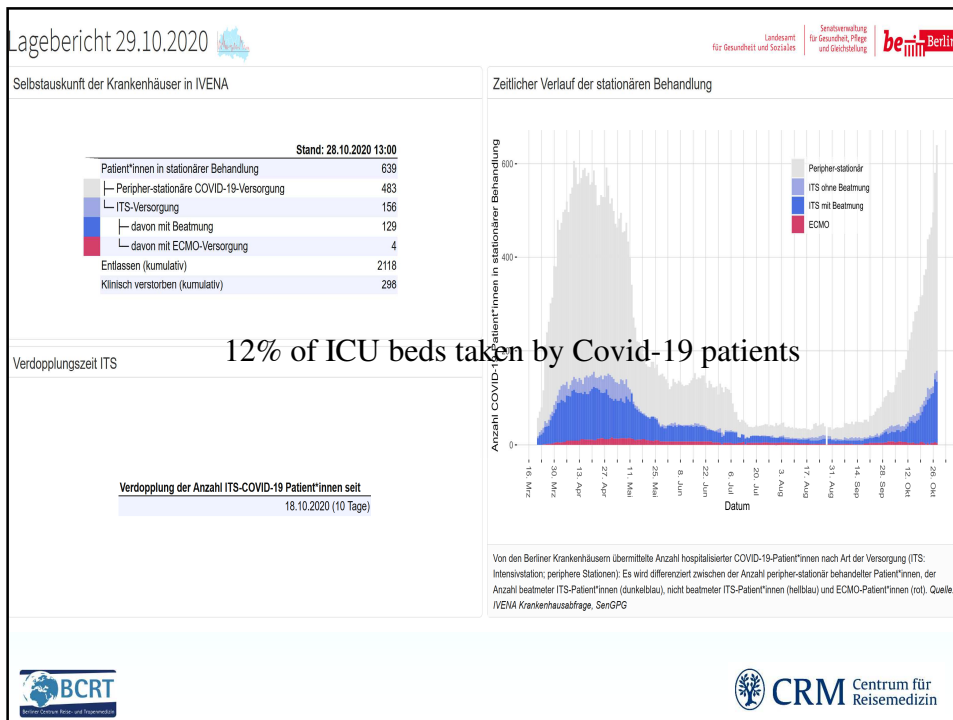


Table 1. Risk Factors for Severe Covid-19.^a

Older age
Chronic obstructive pulmonary disease
Cardiovascular disease (e.g., heart failure, coronary artery disease, or cardiomyopathy)
Type 2 diabetes mellitus
Obesity (body-mass index, ≥ 30)
Sickle cell disease
Chronic kidney disease
Immunocompromised state from solid-organ transplantation
Cancer

Table 2. SARS-CoV-2 Transmission According to Stage of Infection.

Stage of Infection ^a	RNA Detectable in Respiratory Samples, Blood, and Feces	Viable Virus Detectable in Respiratory Samples	Transmission Can Occur	Mechanism of Transmission ^b						Minimum Recommended Level of Precautions
				Droplet	Natural Aerosol	Aerosol-Generating Procedure	Direct Contact	Indirect Contact	Enteric Route	
Presymptomatic or asymptomatic ^c	Yes	Yes	Yes ^d	Yes	Strongly suspected	Strongly suspected	Suspected	Suspected	Unknown	Protection from droplet and contact transmission during routine care Protection from airborne and contact transmission during aerosol-generating procedure
Symptomatic	Yes	Yes	Yes	Yes	Yes	Yes	Strongly suspected	Suspected	Unknown	Protection from droplet and contact transmission during routine care Protection from airborne and contact transmission during aerosol-generating procedure
Post-acute symptomatic	Yes, often prolonged	No	No	No	No	No	No	No	No	Accordance with updated standard precautions, including use of eye protection (goggles or face shield) and medical mask



Ghandi RT et al. Mild or Moderate Covid-19. NEJM 2020;383:18



JCI The Journal of Clinical Investigation

Recent endemic coronavirus infection is associated with less severe COVID-19

Manish Sagar, ... , Laura White, Joseph P. Mizgerd

J Clin Invest. 2020. <https://doi.org/10.1172/JCI143380>.

Concise Communication In-Press Preview COVID-19

Graphical abstract

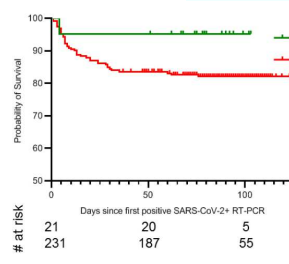
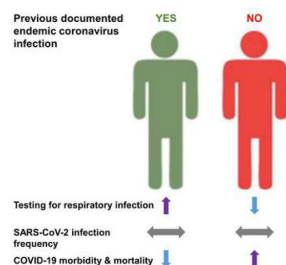


Table 2. SARS-CoV-2 infection and COVID-19 outcomes in the patients with and without a documented endemic coronavirus^a

	eCoV- (n = 15,083)	eCoV+ (n = 875)	OR (95% CI) eCoV+/eCoV-	Adjusted OR (95% CI)
SARS-CoV-2 tested, no. (% of total)	1,679 (11.2)	133 (15.2)	1.4 (1.2 – 1.7)	1.4 (1.2 – 1.7) ^b
SARS-CoV-2+, no. (% of tested)	437 (26.0)	33 (24.8)	0.9 (0.6 – 1.4)	
Hospitalized, no. (% of SARS-CoV-2+)	231 (52.9)	21 (63.6)	1.6 (0.8 – 3.2)	
Intensive care unit, no. (% of hospitalized)	65 (28.1)	1 (4.8)	0.1 (0.0 – 0.7)	0.1 (0.1 – 0.9) ^c
Mechanical ventilation, no. (% of hospitalized)	38 (16.4)	0 (0)	0.0 (0.0 – 1.0)	

Abbreviations include eCoV: endemic coronavirus; SARS-CoV-2: Severe Acute Respiratory Syndrome Coronavirus 2; COVID-19: coronavirus disease-19; OR: odds ratio; CI: confidence interval

^a Data are expressed as number (%) and odds ratio was calculated using Fisher's exact test.

^b OR after adjusting for race/ethnicity, chronic obstructive pulmonary disease, HIV, number of co-morbidities, and level of clinical care using multivariate logistic regression.

^c OR after adjusting for age, gender, body mass index, and diabetes mellitus using penalized logistic regression.



Reviews | 3 Jun 2020

Prevalence of Asymptomatic SARS-CoV-2 Infection

FREE

Table. Summary of SARS-CoV-2 Testing Studies

Cohort	Tested, n	SARS-CoV-2 Positive, n (%)	Positive but Asymptomatic, n (%)	Notes*
Iceland residents (6)	13 080	100 (0.8)	43 (43.0)	R
Vo', Italy, residents (7)	5155	102 (2.0)	43 (42.2)	R, L
Diamond Princess cruise ship passengers and crew (8)	3711	712 (19.2)	331 (46.5)	—
Boston homeless shelter occupants (9)	408	147 (36.0)	129 (87.8)	—
New York City obstetric patients (11)	214	33 (15.4)	29 (87.9)	L
U.S.S. Theodore Roosevelt aircraft carrier crew (12)	4954	856 (17.3)	~500 (58.4)	E
Japanese citizens evacuated from Wuhan, China (2)	565	13 (2.3)	4 (30.8)	L
Greek citizens evacuated from the United Kingdom, Spain, and Turkey (14)†	783	40 (5.1)	35 (87.5)	L
Charles de Gaulle aircraft carrier crew (13)	1760	1046 (59.4)	~500 (47.8)	E
Los Angeles homeless shelter occupants (10)	178	43 (24.2)	27 (62.8)	—
King County, Washington, nursing facility residents (15)	76	48 (63.2)	3 (6.3)	L
Arkansas, North Carolina, Ohio, and Virginia inmates (16)	4693	3277 (69.8)	3146 (96.0)	—
New Jersey university and hospital employees (17)	829	41 (4.9)	27 (65.9)	—
Indiana residents (18)	4611	78 (1.7)	35 (44.8)	R
Argentine cruise ship passengers and crew (19)	217	128 (59.0)	104 (81.3)	—
San Francisco residents (29)	4160	74 (1.8)	39 (52.7)	—

E = estimated from incomplete source data; L = longitudinal data collected; R = representative sample.

* A dash indicates that the study did not have a representative sample, collected no longitudinal data, and did not require estimation of missing data.

† Clarified via e-mail communication with coauthor.

Super-Spreader drive the Pandemic

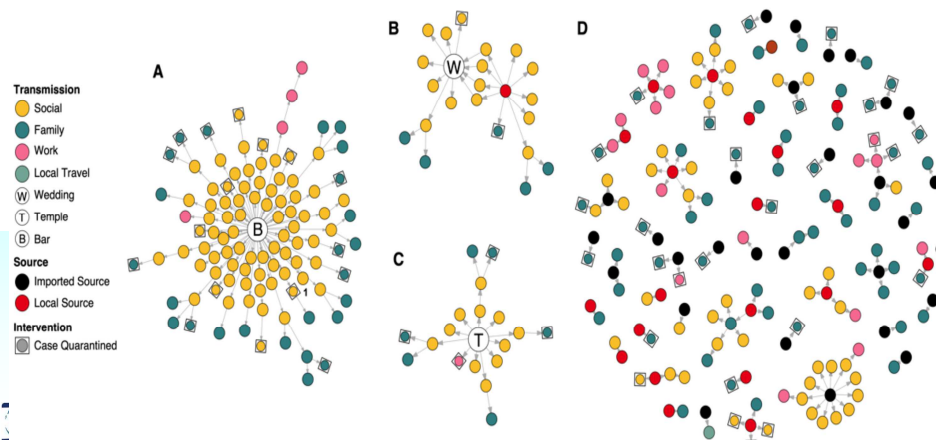


COVID-19 Preprints | Browse

This is a preprint. Preprints are preliminary reports that have not undergone peer review. They should not be considered conclusive, used to inform clinical practice, or referenced by the media as validated information.

RESEARCH ARTICLE Epidemiology

Clustering and superspreading potential of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infections in Hong Kong



Some Details from Heinsberg in March

Case Fatality:	0.37%
Transmission Rate (in Family):	15%
Asymptomatic:	22%



Risk for Transmission and Symptoms: Carnival Session



Source: <https://www.uni-bonn.de/neues/111-2020>



Science

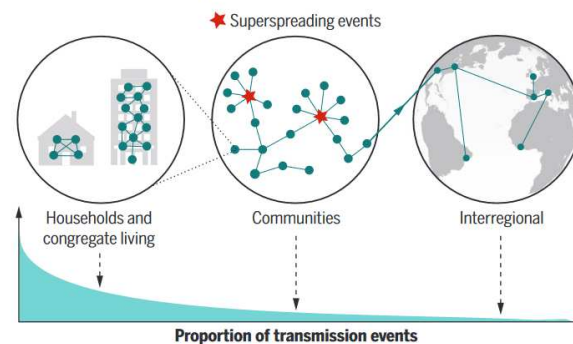
The engines of SARS-CoV-2 spread

Elizabeth C. Lee, Nikolas I. Wada, M. Kate Grabowski, Emily S. Gurley and Justin Lessler

Science 370 (6515), 406–407.
DOI: 10.1126/science.abd8755

SARS-CoV-2 spread across spatial scales

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is mostly transmitted within households and household-like settings. A decreasing proportion of transmission events take place at increasing spatial scales, but these events become more critical for sustaining the pandemic.



Imposed Measures in Germany (from November, 2nd)

- „Lockdown light“: Face Mask, Distance 1.5m, Private Meetings Limited, No Large Gatherings, Closed Restaurants, etc.
- Regional lockdown if more than 150 new cases per 100,000 are reported within 1 week in a district/city.
- States (Bundesländer) have large leeway for local variations.
- National borders controlled
- Travel warning for various countries, 5 days quarantine after return before testing is possible
- **No European perspective:** countries close borders arbitrarily (Denmark)
- Rules change frequently and without warning, no planning safety



tagesschau.de

Startseite Videos & Audio Inland Ausland Investigativ Wirtschaft Wahlen Wetter Ihre Meinung

Startseite Inland Spätkorrekturen Corona-Testpflicht ab Samstag an

Einreise aus Risikogebieten
Corona-Testpflicht gilt ab Samstag
Stand: 06.08.2020 11:49 Uhr

Einreisende aus internationalen Corona-Risikogebieten müssen sich von diesem Samstag an bei der Rückkehr nach Deutschland auf das Virus testen lassen. Das teilte Bundesgesundheitsminister Spahn mit.

Die Corona-Testpflicht für Einreisende aus Risikogebieten gilt ab dem kommenden Samstag. Das gab Bundesgesundheitsminister Jens Spahn bei einer Pressekonferenz in Berlin bekannt. Andernfalls drohen Bußgelder. Er sei sich bewusst, dass dies einen Eingriff in die "Freiheit des Einzelnen" bedeute, dies sei aber gesamtgesellschaftlich vertretbar, so der CDU-Politiker. Er erinnerte dabei auch an die Verantwortung des Einzelnen.

Bisher müssen Einreise beim Gesundheitsamt negatives Testergebnis

ENDLICH!
Die Corona - Schnelltests aus China sind eingetroffen.

BCRT
Bavarian Center for Research and Training

ÄrzteZeitung

Coronavirus Medizin Politik Praxis & Wirtschaft Panorama Specials Kooperationen Podcasts

Startseite Praxis & Wirtschaft Labor

Labor-Kapazitätsgrenzen
PCR-Tests: „Wir sollten nicht jeden Politikerwunsch erfüllen“

Die Kapazitäten der Labore für PCR-Tests auf SARS-CoV-2 könnten knapp werden – wenn die Zahl der Tests steigt. Die Laboranbieter appellieren dringend, gezielter zu testen.

Von Hauke Gerlef
Veröffentlicht: 11.08.2020, 15:28 Uhr

Süddeutsche Zeitung

11. August 2020, 10:20 Uhr - Presse bei Corona-Tests in Bayern

44 000 Ahnungslose, 900 Infizierte

Ein Stopp an der Corona-Teststation führt derzeit auch Unbekannte dazu. Zum Beispiel an der Autobahn B 40 bei der Teststation Hirschfeld-Neustadt (Foto: Jens Hoppmann)

- Die Verzögerungen bei der Übermittlung von Corona-Testergebnissen in Bayern haben deutlich dramatischere Ausmaße als bisher bekannt: 44 000 Reisende warten nach Tests in Bayern noch auf das Ergebnis, darunter auch 900 nachweislich positiv getestete.
- Die Infizierten sollten bis Donnerstagmittag ihr Ergebnis bekommen, sagte Bayerns Gesundheitsministerin Melanie Huml (CSU) in München.
- Ministerpräsident Markus Söder sagte einen für Donnerstag und Freitag geplanten Besuch an der Nordsee nach Bekanntwerden der Pause ab.

CRM Centrum für Reisemedizin



GEMEINSAME
POSITION VON
WISSENSCHAFT
UND ÄRZTESCHAFT

**EVIDENZ- UND
ERFAHRUNGSGEWINN IM
WEITEREN MANAGEMENT
DER COVID-19-PANDEMIE
BERÜCKSICHTIGEN**

ZUSAMMENFASSUNG DER KERNTHESEN

Abkehr von der Eindämmung alleine durch Kontaktpersonennachverfolgung.

Einführung eines bundesweit einheitlichen Ampelsystems anhand dessen sowohl auf Bundes- als auch auf Kreisebene die aktuelle Lage auf einen Blick erkennbar wird.

Fokussierung der Ressourcen auf den spezifischen Schutz der Bevölkerungsgruppen, die ein hohes Risiko für schwere Krankheitsverläufe haben.

Gebotskultur an erste Stelle in die Risikokommunikation setzen.


Gemeinsames Positionspapier zur COVID-19-Pandemie / 28. Oktober 2020



CRM Centrum für
Reisemedizin

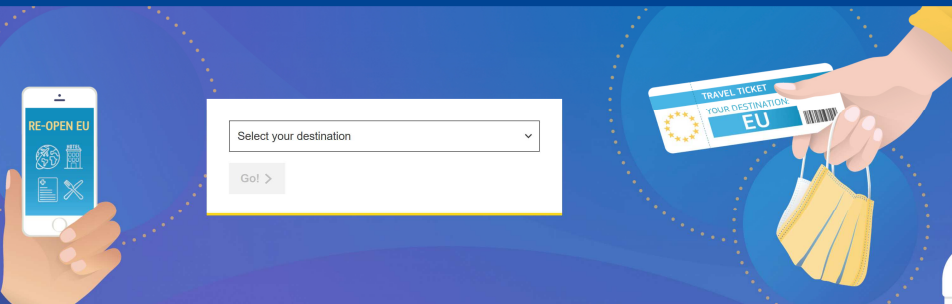
Travel in Europe

An official website of the European Union How do you know? ▼


European Union
https://reopen.europa.eu
English **EN**

European Union > Re-open EU

Re-open EU



Select your destination ▼

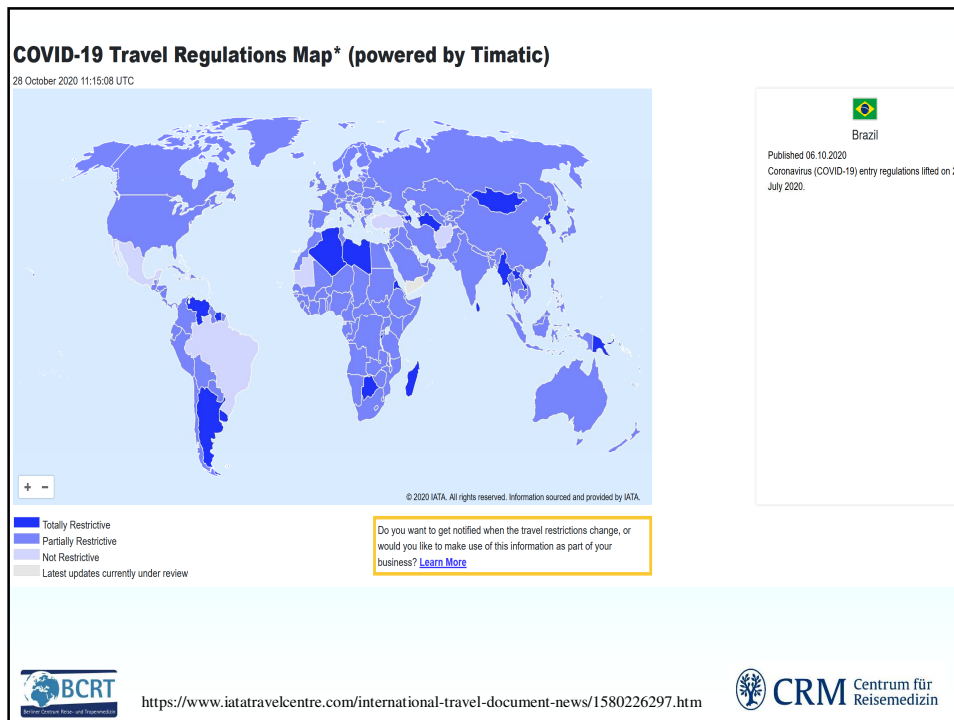
Go! >

The European Union, and all of its member states, are planning for a safe re-opening of Europe. While protecting the public health remains our priority, we want everyone to enjoy their holidays, to reunite with family and friends, and to be able to travel for any purpose. This interactive tool provides you with the information that you need to confidently plan your European travel and





CRM Centrum für
Reisemedizin



CRM Centrum für Reisemedizin

www.crm.de/rc/corona/

**Aktuelle Corona-Einreiseinformationen.
Wählen Sie Ihr Reiseziel aus.**

Wählen Sie Ihr Reiseziel aus.
Land: [Land auswählen ...]
Alle Länder (A-Z)
A B C D E F G H I J K L M N O P R S T U V W Z

Bedingt durch den weltweiten Corona-Ausbruch haben viele Länder spezielle Einreisebestimmungen erlassen, teilweise ist die Einreise sogar (noch) gar nicht möglich. In unserem Corona-Einreise-Checker haben wir entsprechende Informationen aus diversen Quellen zusammengestellt.*

Corona-Einreiseinformationen für Tansania

Aktualisiert am: 12.08.2020

CRM Hinweis
Wichtig: Das Land gilt als Risikogebiet. Bitte beachten Sie bei der Rückreise aus Risikogebieten die Quarantänebestimmungen unter: <https://www.auswaertiges-amt.de>

Quelle IATA
1. Fluggäste und Flugbesatzung werden einer medizinischen Untersuchung unterzogen.
2. Ein ausgefülltes "Überwachungsformular für Reisende" muss den Hafengesundheitsbehörden bei der Ankunft vorgelegt werden.

BCI **CRM** Centrum für Reisemedizin



The Future:

Corona Vaccination Certificate

analogous to Yellow Fever



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Secure Supply
Secure Supply

SECURE YOUR PHARMA CO.
Let's provide trust. Together.

Pfizer

AstraZeneca to supply Europe with up to 400 million doses of COVID-19 vaccine

An agreement between AstraZeneca and the European Commission means the company will supply up to 400 million doses of its AZD1222 COVID-19 vaccine.

AstraZeneca has concluded an agreement with the European Commission (EC) to supply up to 400 million doses of its AZD1222 COVID-19 vaccine. This new agreement will give all EU member states the option to access the vaccine in an equitable manner at no profit during the pandemic. It also allows EU member states to redirect doses to other European countries.

Pascal Soriot, Chief Executive Officer of AstraZeneca, said: "This first vaccine agreement with the EC will ensure that millions of Europeans have access to the AZD1222 vaccine following its approval. With production in our European supply chain soon to be started, we hope to make the vaccine available widely and rapidly, with the first doses to be delivered by the end of 2020."

CRM Centrum für Reise- und Tropenmedizin

Thanks!

