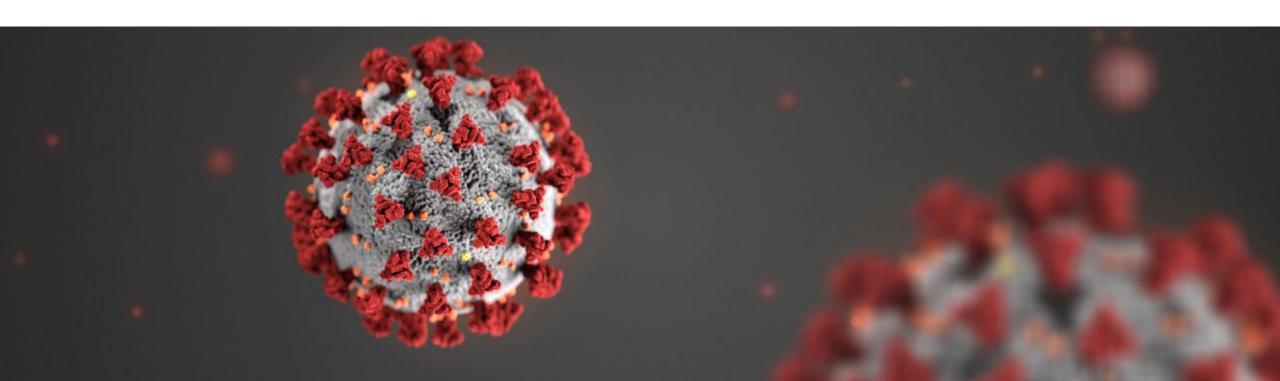




## **SARS-CoV-2** Report

#### **José Luis Pires**

15 June 2021



#### **Contents**

#### **SARS-Cov-2**

- Vaccines and Products to treat COVID-19 with EUA in the United States
- Confirmed cases by Country
- Deaths by Country
- > Total confirmed Covid-19 cases and deaths per million people
- Daily new confirmed Covid-19 cases and deaths per million people
- Number of COVID-19 cases reported weekly by WHO region
- Portugal
  - <u>Cases, Deaths and Projections</u> per week
- Ireland
  - <u>Cases, Deaths and Projections</u> per week
- New Jersey/US
  - <u>Cases, Deaths and Projections</u> per week
- Recent News



## Where each vaccine is being used

#### **Portugal**

- Doses administered per 100 people: 67 (61)
- Total doses administered: 6,840,510 (6,228,272)
- Population Vaccinated: 44% (40%)
- Population Fully vaccinated: 23% (21%)

#### **Ireland**

- Doses administered per 100 people: 63 (48)
- Total doses administered: 3,100,000 (2,387,348)
- Population Vaccinated: 36% (36%)
- Population Fully vaccinated : % (11%)

#### **USA**

- Doses administered per 100 people: 94 (90)
- Total doses administered: 310,645,827 (299,120,522)
- Population Vaccinated: 53% (51%)
- Population Fully vaccinated: 44% (41%)

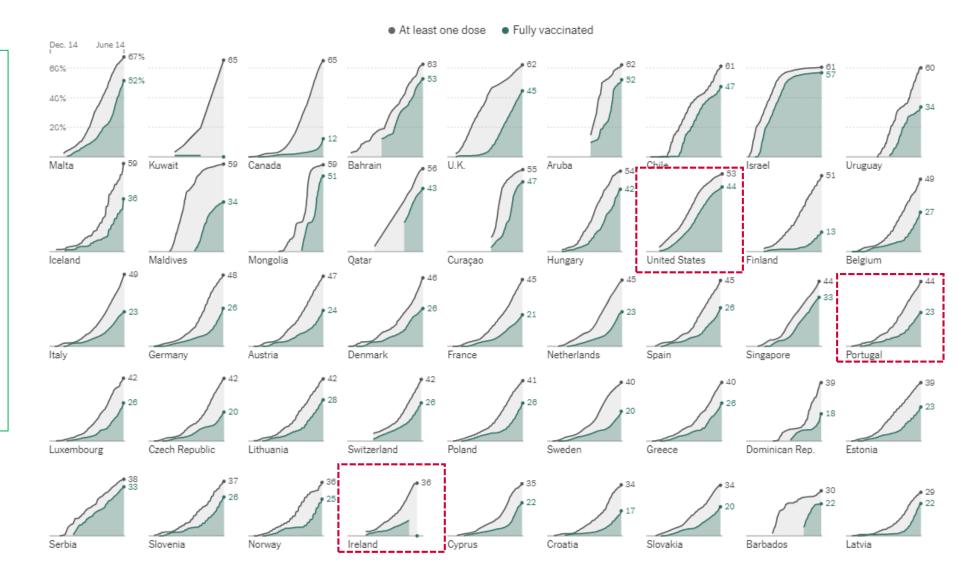
14 June 2021 (7 June 2021)



# Tracking vaccination rates by country

**Share of Population Vaccinated** 

14 June 2021



## Coronavirus (SARS-CoV-2 / Covid-19) - Confirmed cases by country

Note: Selected Countries, sorted by # of cases

Norway 128,277

China 103,401 Finland 93,850

62,301

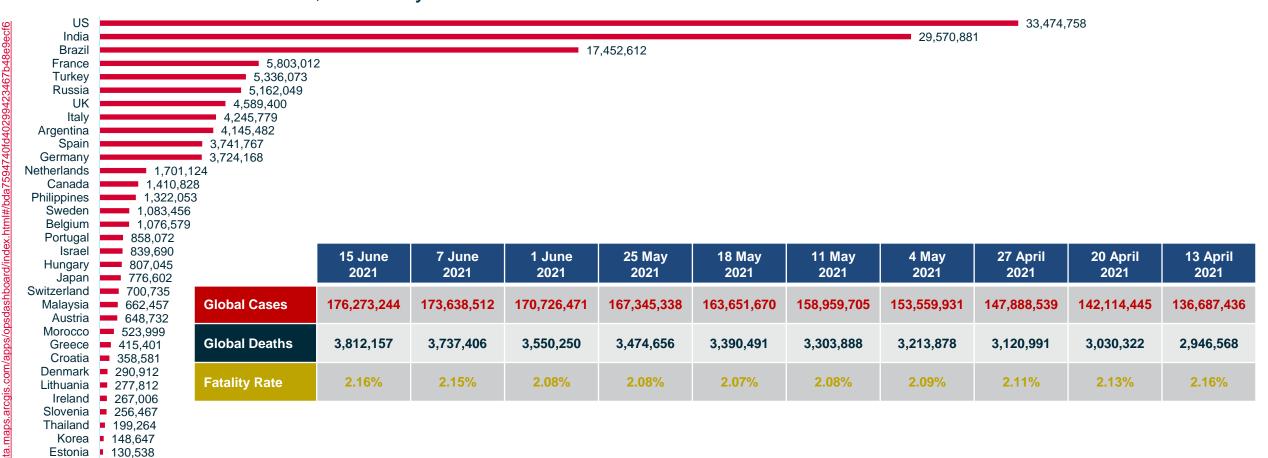
6,555

Luxembo... 70.445

Singapore

Australia

Iceland



#### Last Updated at 15 June 2021, 7:22 AM

by the Center for Systems Science and Engineering at Johns Hopkins University

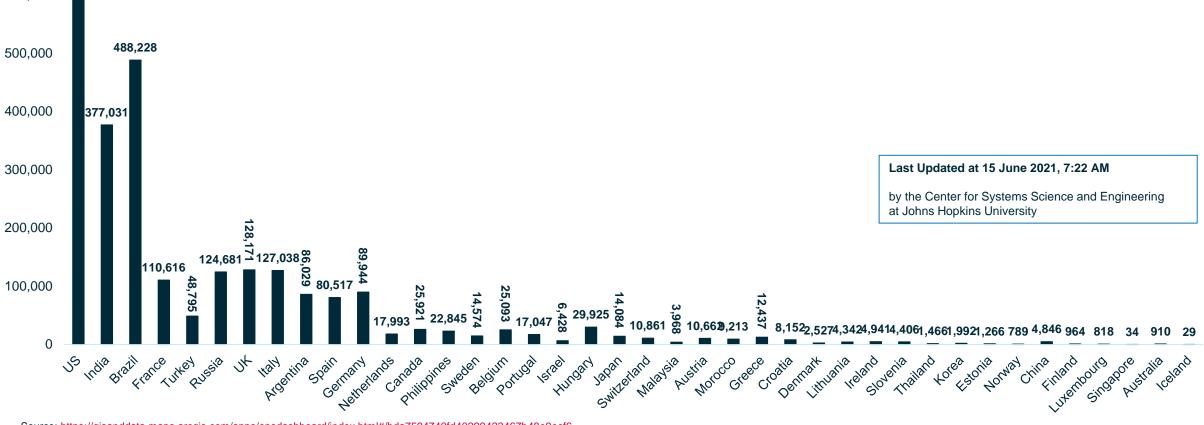
0 5,000,000 10,000,000 15,000,000 20,000,000 25,000,000 30,000,000 35,000,000 40,000,000

## Coronavirus (SARS-CoV-2 / Covid-19) – Deaths by Country

Note: Selected Countries, sorted by # of cases

700,000

600,000



Source: https://gisanddata.maps.arcgis.com/apps/opsdasnboard/index.ntmi#/bda7594740id40299423467b48e9eci



## **Latest Cases and Deaths by TOP 10 Countries – 13 June 2021**

Total Cases		
1	USA	
2	India	
3	Brazil	
4	France	
5	Turkey	
6	Russia	
7	United Kingdom	
8	Italy	
9	Argentina	
10	Colombia	
30 (30)	Portugal	

Cases in last 7 days		
1	India	
2	Brazil	
3	Colombia	
4	Argentina	
5	USA	
6	Russia	
7	Iran	
8	Indonesia	
9	South Africa	
10	United Kingdom	
60 (63)	Portugal	

Total Cases per million people		
1	Bahrain	
2	Czechia	
3	Slovenia	
4	Sweden	
5	Serbia	
6	USA	
7	Lithuania	
8	Estonia	
9	Uruguay	
10	Moldova	
18 (18)	Portugal	

Cases in last 7 days per million people		
1	Uruguay	
2	Bahrain	
3	Argentina	
4	Colombia	
5	Mongolia	
6	Namibia	
7	Kuwait	
8	Chile	
9	Paraguay	
10	Brazil	
46 (55)	Portugal	

Total Deaths		
1	USA	
2	Brazil	
3	India	
4	Mexico	
5	Peru	
6	United Kingdom	
7	Italy	
8	Russia	
9	France	
10	Colombia	
31 (31)	Portugal	

Total Deaths per million people		
1	Peru	
2	Hungary	
3	Bosnia and Herzegovina	
4	Czechia	
5	North Macedonia	
6	Bulgaria	
7	Moldova	
8	Brazil	
9	Slovakia	
10	Belgium	
21 (21)	Portugal	

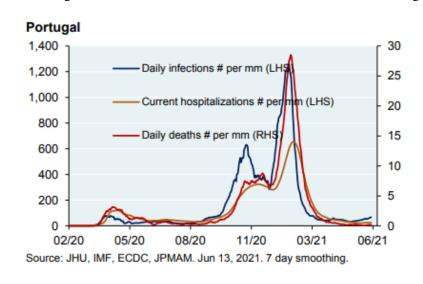
Deaths in last 7 days		
1	India	
2	Brazil	
3	Argentina	
4	Colombia	
5	Russia	
6	USA	
7	Peru	
8	Mexico	
9	Indonesia	
10	Romania	
100 (102)	Portugal	

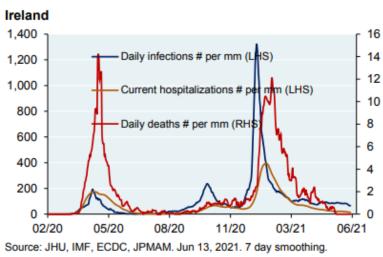
Deaths in last 7 days per million people		
1	Paraguay	
2	Uruguay	
3	Argentina	
4	Peru	
5	Colombia	
6	Brazil	
7	Trinidad and Tobago	
8	Romania	
9	Bahrain	
10	Bolivia	
94 (97)	Portugal	

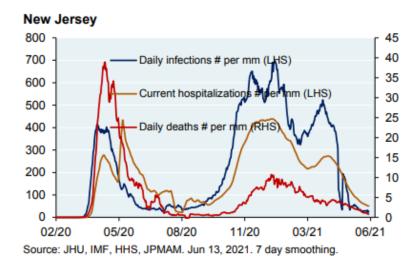
2021

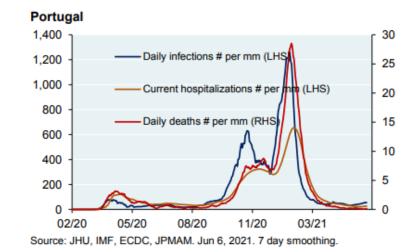
JUNE

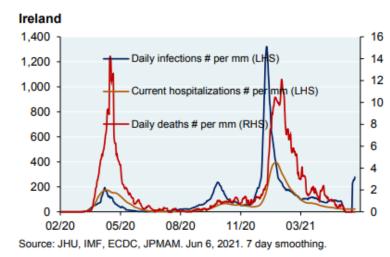
## Daily infections vs mortality per million

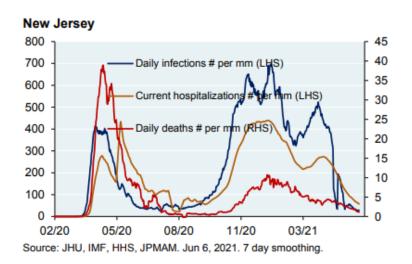












### **US** vs Europe infections and mortality

#### **US vs Europe infections**

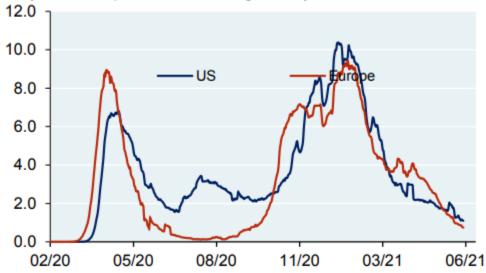
Daily infections, # per mm, smoothing = 7 days 800



Source: Johns Hopkins University, IMF, JPMAM. Jun 13, 2021.

#### US vs Europe mortality

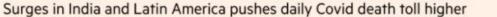
Daily deaths, # per mm, smoothing = 7 days

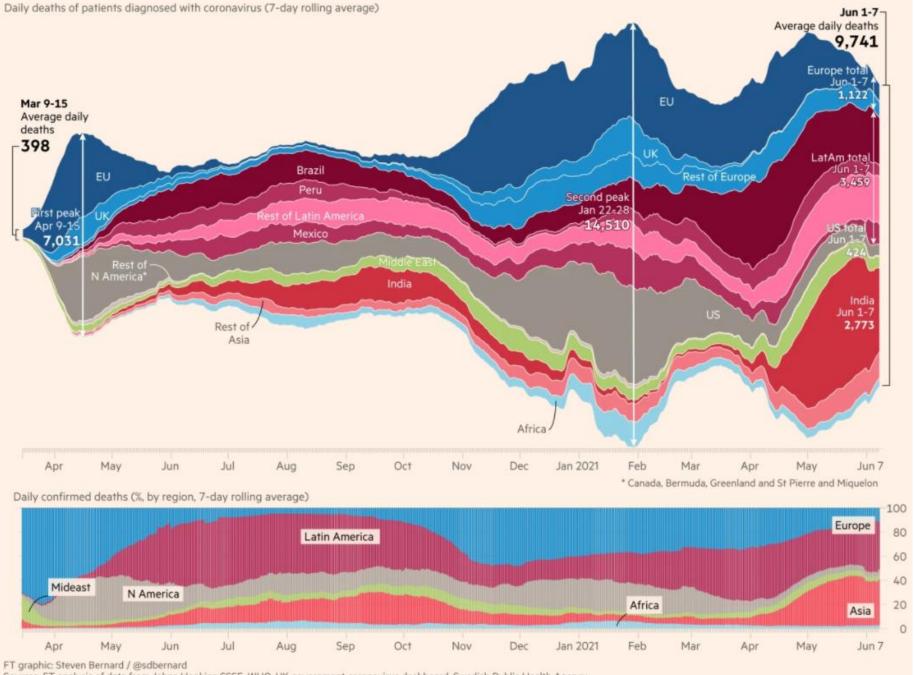


Source: Johns Hopkins University, IMF, JPMAM. Jun 13, 2021.



## Daily deaths of patients diagnosed with coronavirus (7-day average)

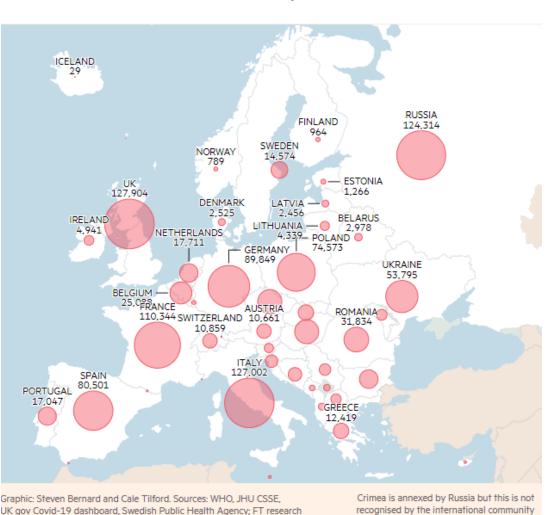




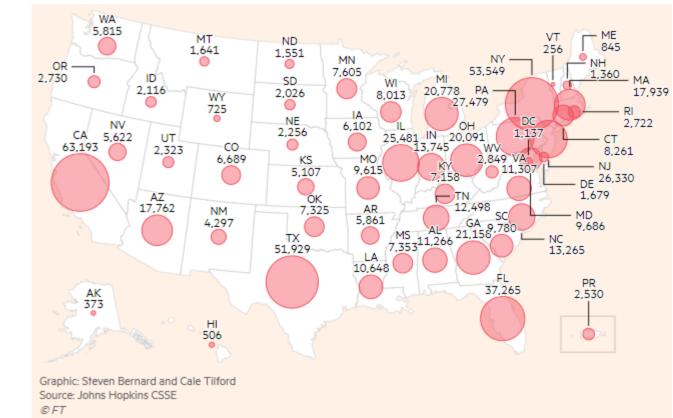


#### Total deaths as of 9.03am June 14 GMT

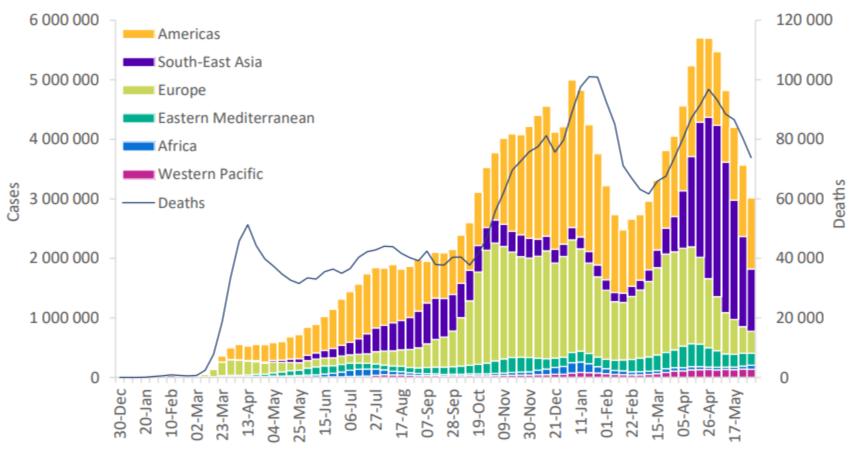
#### Europe



US

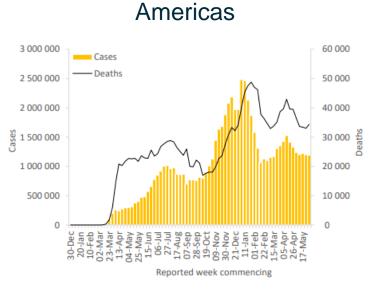


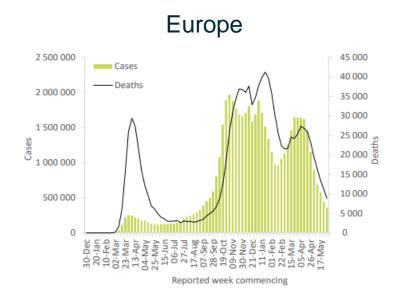
## Number of COVID-19 cases reported weekly by WHO Region, and global deaths, as of 6 June 2021

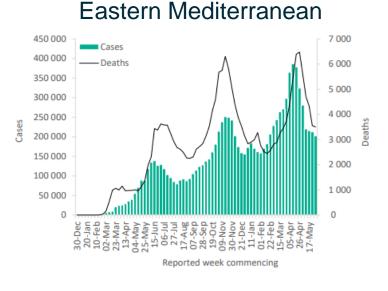




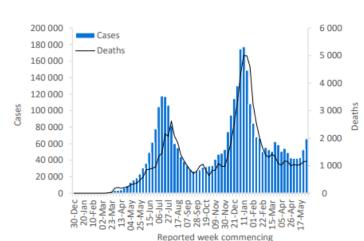
## Number of COVID-19 cases reported weekly by WHO Region, and global deaths, as of 6 June 2021



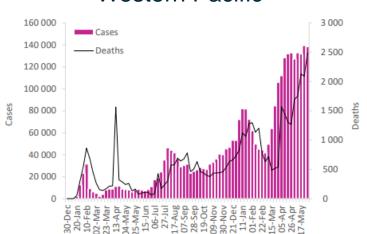




Africa

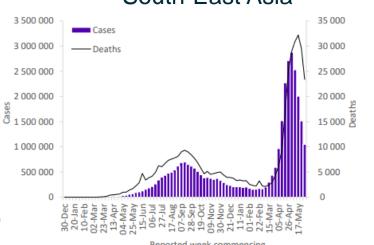






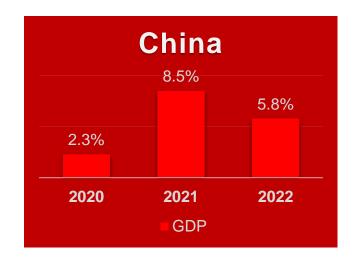
Reported week commencing

#### South-East Asia

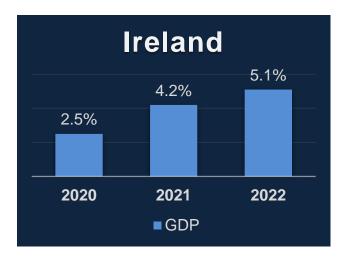


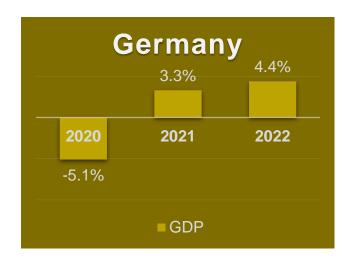
## The pandemic had a diverse impact on Gross Domestic Product (GDP) across countries







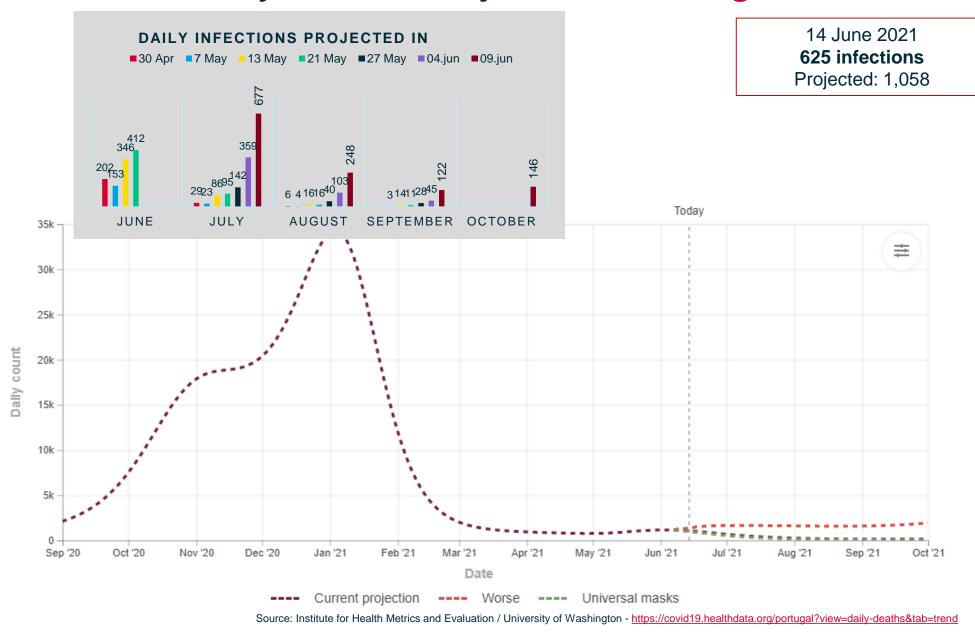






## Portugal

### **Covid-19 Daily Infection Projections in Portugal**



Current projection: Vaccine distribution is scaled up over 90 days. Variant B.1.1.7 continues to spread in certain locations.

Worse: In those who are vaccinated, mobility moves toward pre-COVID-19 levels.

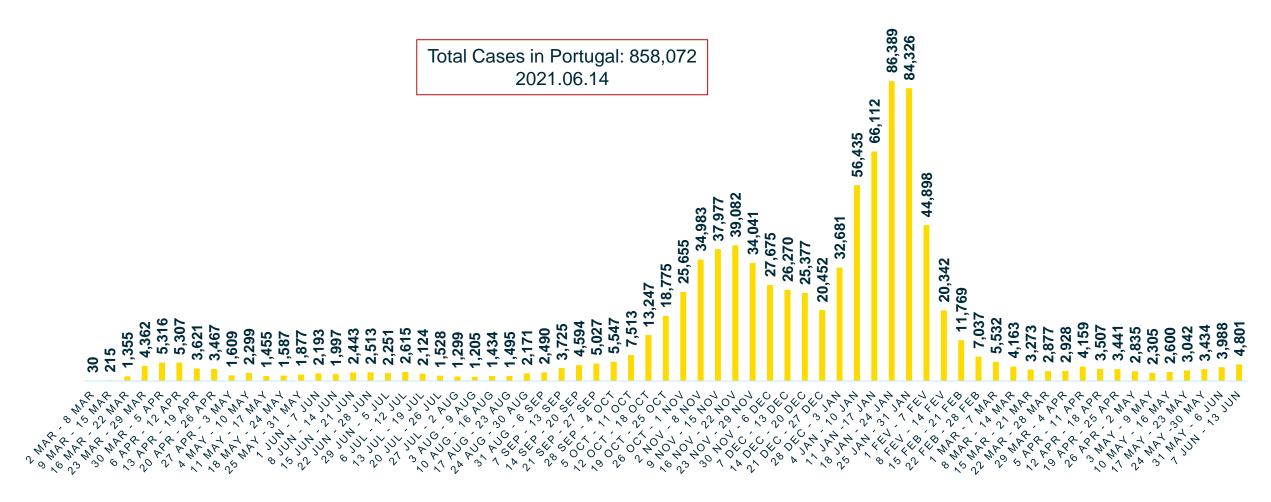
Universal masks : 95% mask usage is adopted in public.

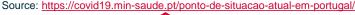
## **Projection Daily Infections**

For 1 October 2021

9 June Projection: 146

## Coronavirus (SARS-CoV-2 / COVID 19) – Portugal – New cases per week



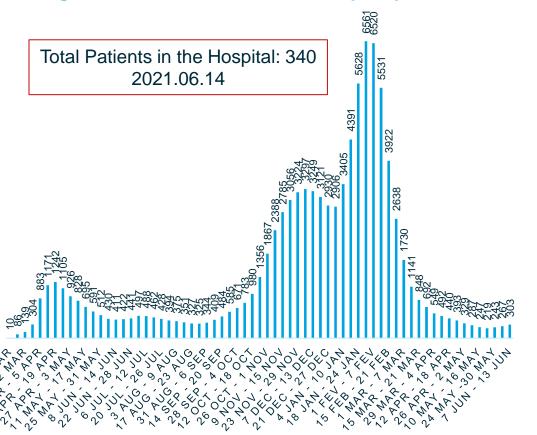




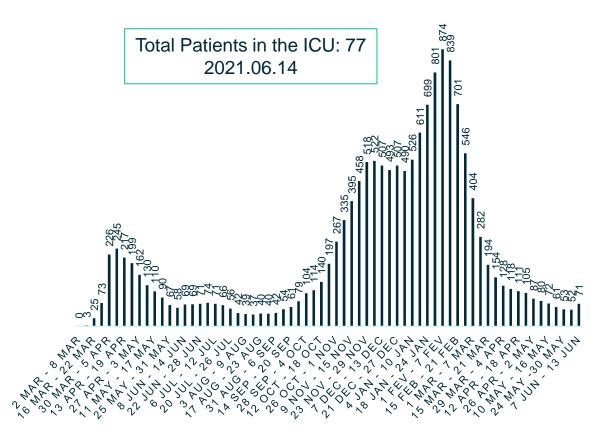
Coronavirus (SARS-CoV-2 / COVID 19) – Portugal – Hospital stable/ICU per

week

■ Average # of Patients stable in the Hospital per week



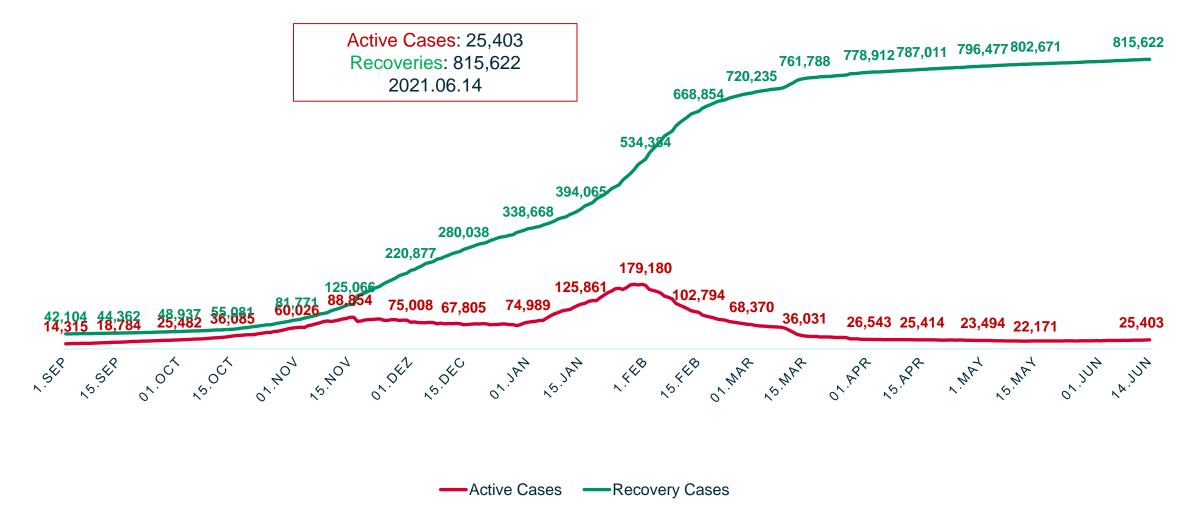
■ Average # of Patients in the ICU per week



Source: https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/



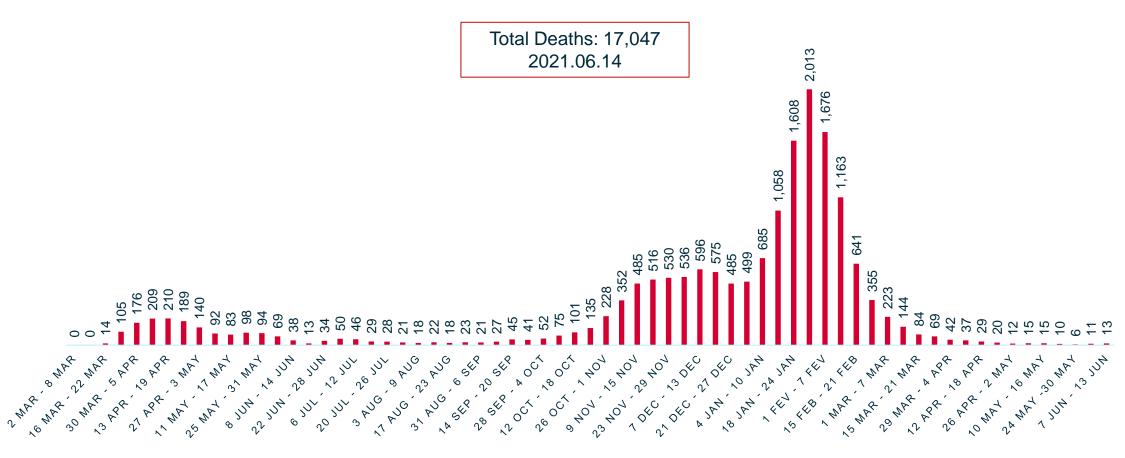
## Coronavirus (SARS-CoV-2 / COVID 19) – Portugal – Active cases vs Recoveries



Source: https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/



## Coronavirus (SARS-CoV-2 / COVID 19) – Portugal – New deaths per week



Source: https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/



#### **Portugal – Fatality Rate**

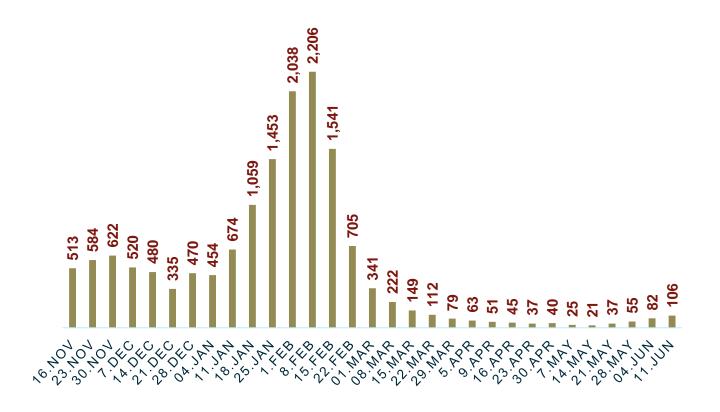


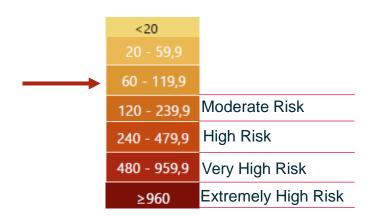
Source: <a href="https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/">https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/</a>



## Coronavirus (SARS-CoV-2 / COVID 19) ) – Loures

#### New Cases per 100,000 population



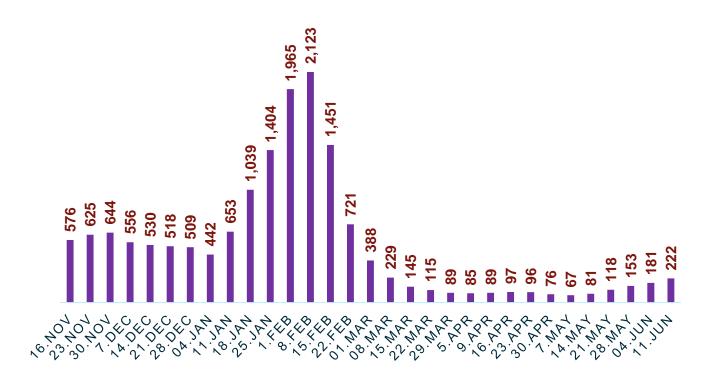


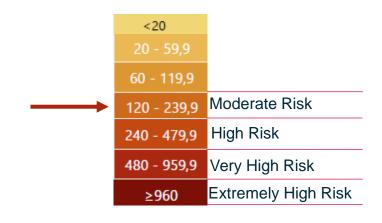
Source: <a href="https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/">https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/</a>



## Coronavirus (SARS-CoV-2 / COVID 19) ) – Lisbon

#### New Cases per 100,000 population

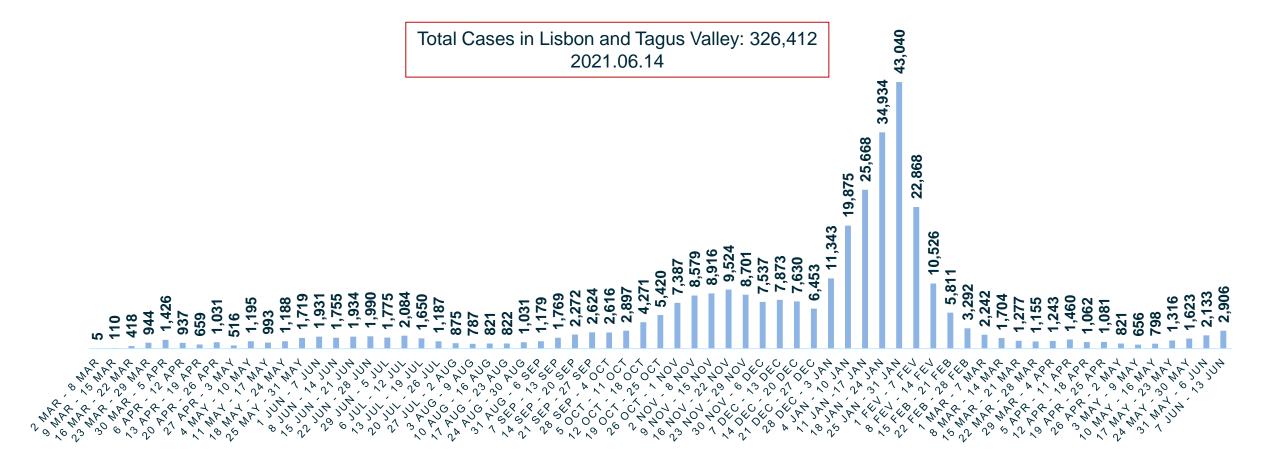




Source: <a href="https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/">https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/</a>

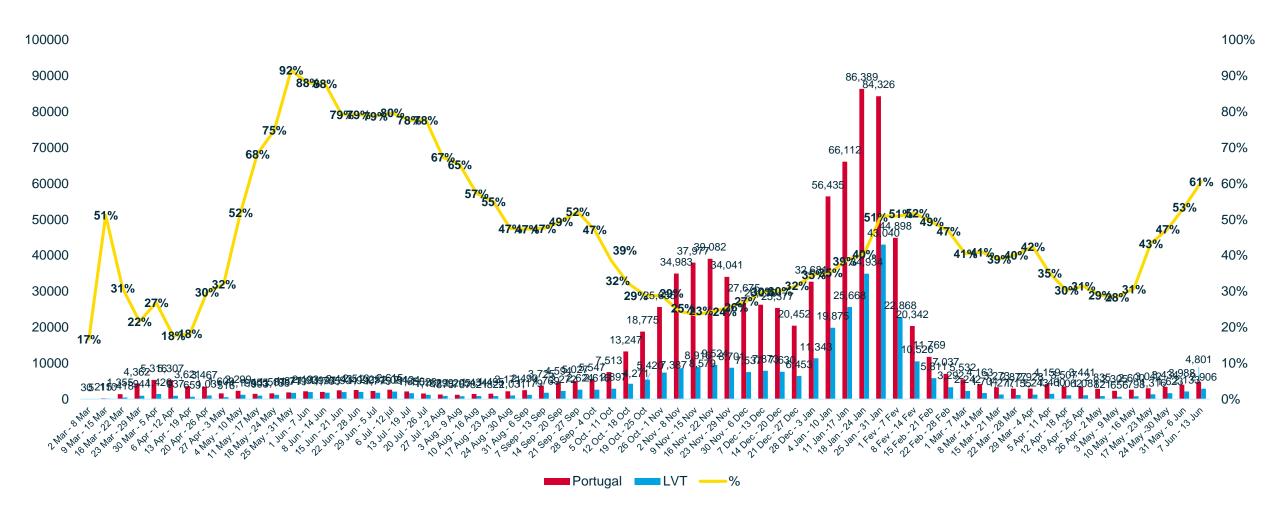


## Coronavirus (SARS-CoV-2 / COVID 19) ) – Lisbon and Tagus Valley - New cases per week





## Coronavirus (SARS-CoV-2 / COVID 19) – % of new cases in Lisbon and Tagus Valley - New cases per week







Proteja-se e proteja os outros.

## **Portugal Vaccination** Plan

From: 27 Dec 2020

To: 6 June 2021

#### Pessoas vacinadas com 1ª dose1

Pessoas com vacinação completa

**3 986 585** (39%)

+226 341

**2 315 000** (23%)

+333 769

#### Pessoas vacinadas com 1ª dose1 e com vacinação completa

Grupo Etário	1ª Dose <sup>1</sup>	1ª Dose <sup>1</sup>		
0-172	1 293	0%	413	0%
18 – 24	40 372	5%	25 709	3%
25 – 49	495 787	15%	306 956	9%
50 – 64	1 278 890	59%	550 352	26%
65 – 79	1 515 874	94%	811 974	51%
≥ 80	654 368	97%	619 596	92%

#### **Doses Recebidas**

**⊨**□----

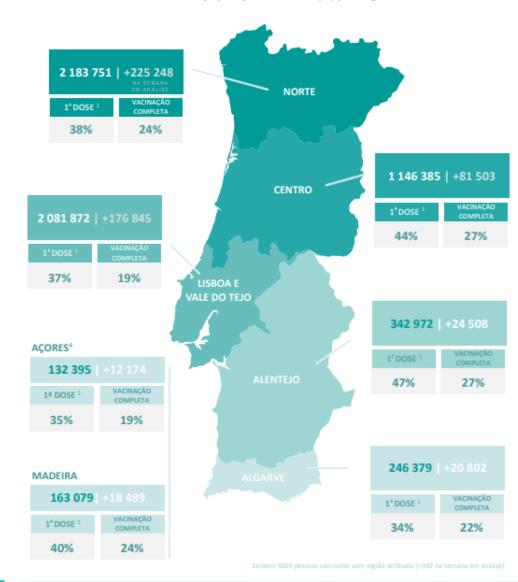
7 263 540

Doses Distribuídas<sup>3</sup>



6 299 315

#### Número de doses administradas e cobertura vacinal na população residente (%) por região de Saúde

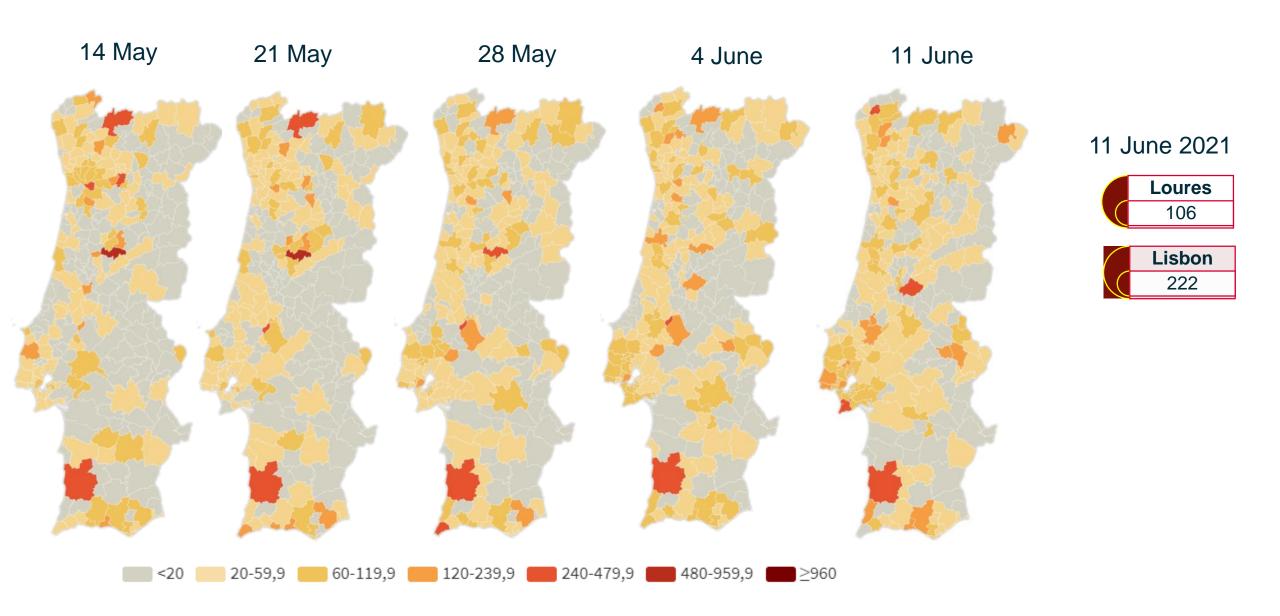








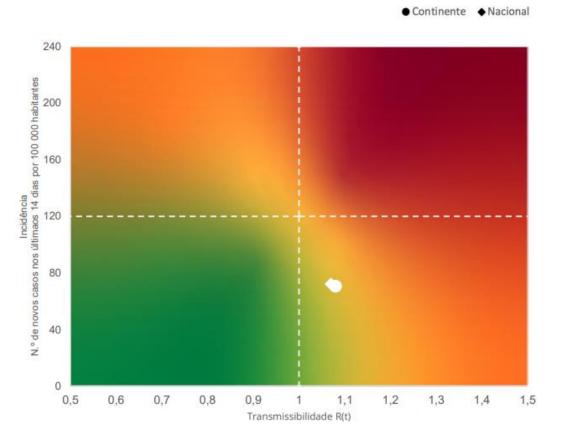
### SARS-CoV-2 / COVID 19 Portugal - cases per 100.000



#### COVID-19 | RELATÓRIO DE SITUAÇÃO | 07-06-2021

#### MATRIZ DE RISCO

Realização da análise: 07-06-2021



#### INCIDÊNCIA

Nacional: **72,2** casos de infeção por SARS-CoV-2/ COVID-19 por 100 000 hab. Continente: **70,6** casos de infeção por SARS-CoV-2/ COVID-19 por 100 000 hab.

#### R(t)

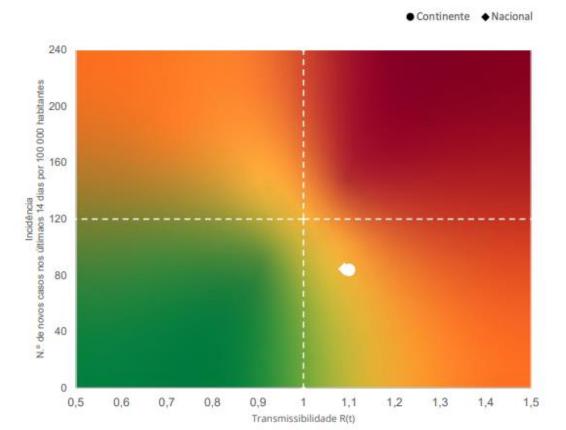
Nacional: 1,07

Continente: 1,08

#### COVID-19 | RELATÓRIO DE SITUAÇÃO | 14-06-2021

#### MATRIZ DE RISCO

Realização da análise: 14-06-2021



#### INCIDÊNCIA

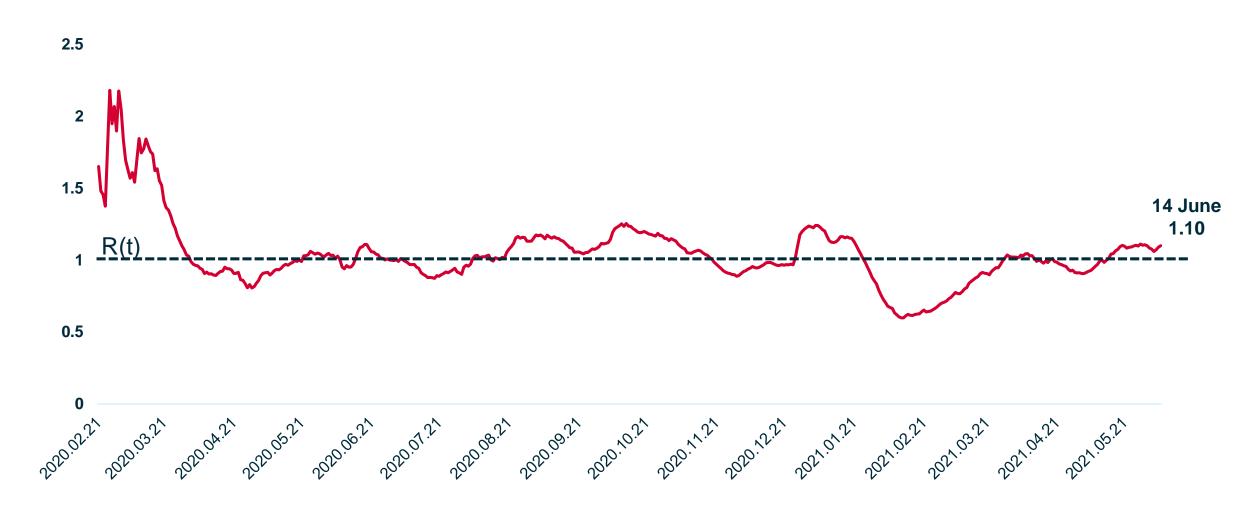
Nacional: **84,5** casos de infeção por SARS-CoV-2/ COVID-19 por 100 000 hab. Continente: **83,4** casos de infeção por SARS-CoV-2/ COVID-19 por 100 000 hab.

#### R(t)

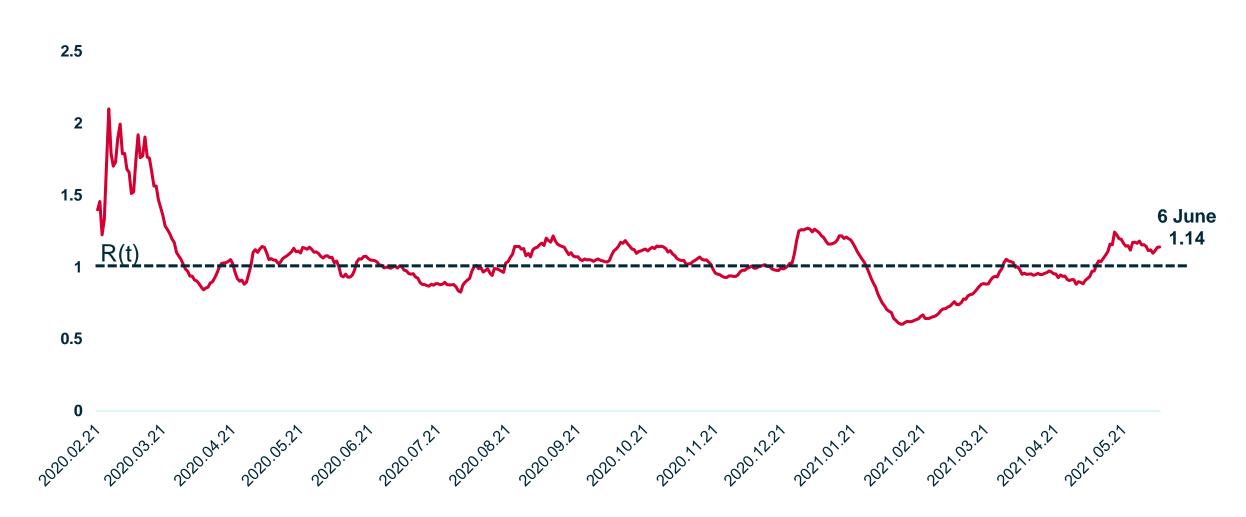
Nacional: 1,09

Continente: 1,10

## **Transmission Rate - R(t) in Portugal**

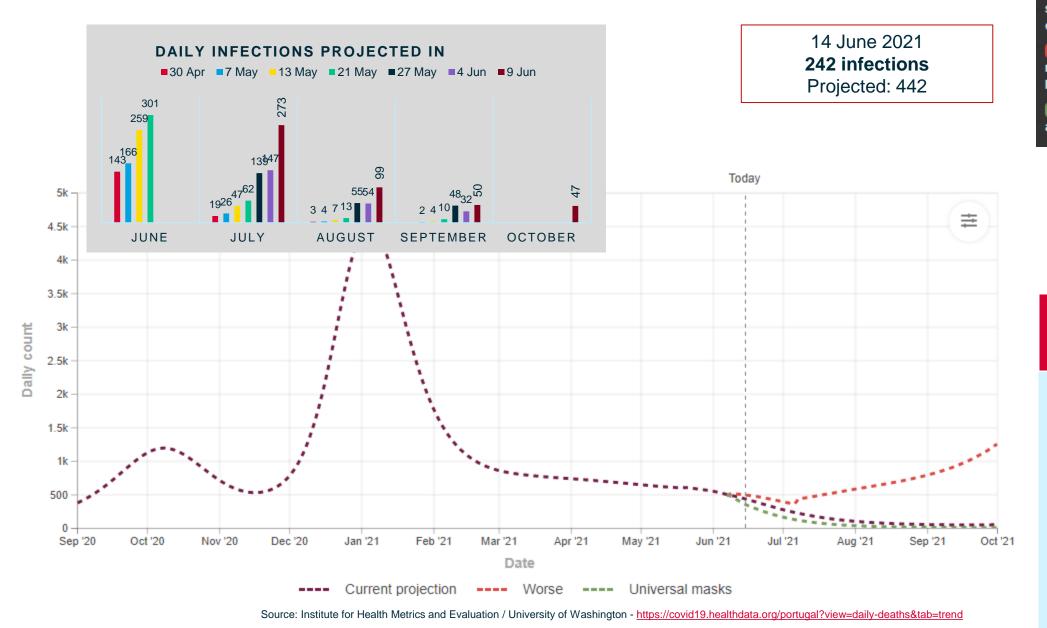


### **Transmission Rate - R(t) in Lisbon and Tagus Valley**



## Ireland

### **Covid-19 Daily Infection Projections in Ireland**



Current projection: Vaccine distribution is scaled up over 90 days. Variant B.1.1.7 continues to spread in certain locations.

Worse: In those who are vaccinated, mobility moves toward pre-COVID-19 levels.

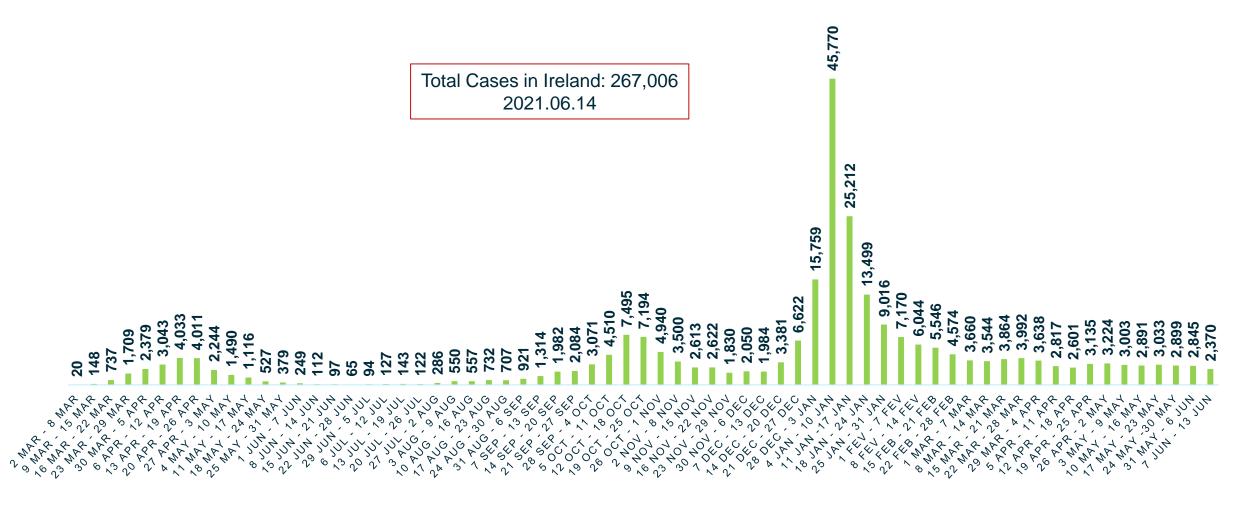
Universal masks : 95% mask usage is adopted in public.

## Projection Daily Infections

For 1 October 2021

9 June Projection: 47

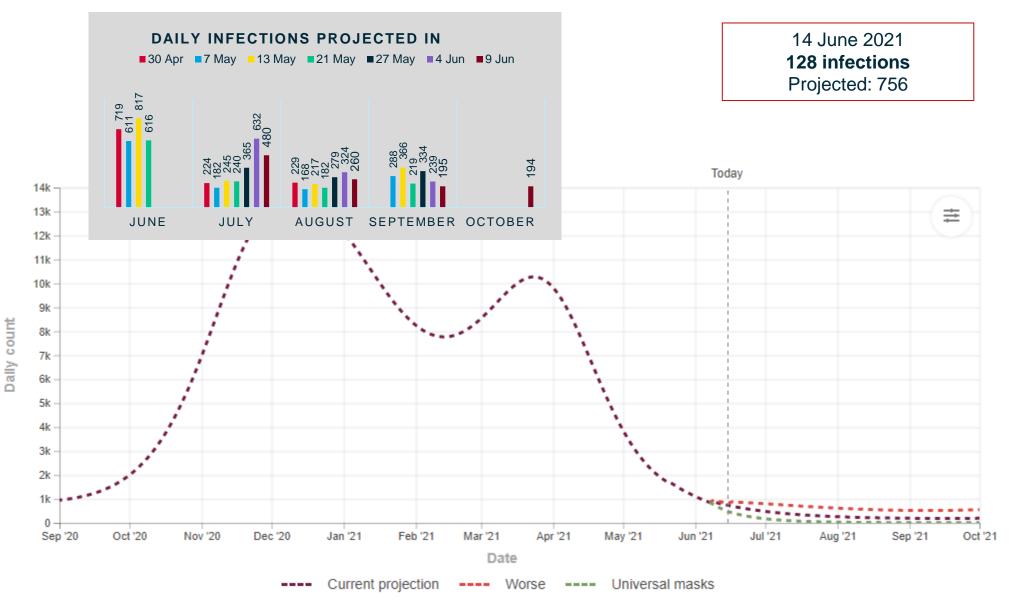
## Coronavirus (SARS-CoV-2 / COVID 19) ) – Ireland - New cases per week





## New Jersey

## **Covid-19 Daily Infection Projections in New Jersey**



Current projection: Vaccine distribution is scaled up over 90 days. Variant B.1.1.7 continues to spread in certain locations.

Worse: In those who are vaccinated, mobility moves toward pre-COVID-19 levels.

Universal masks : 95% mask usage is adopted in public.

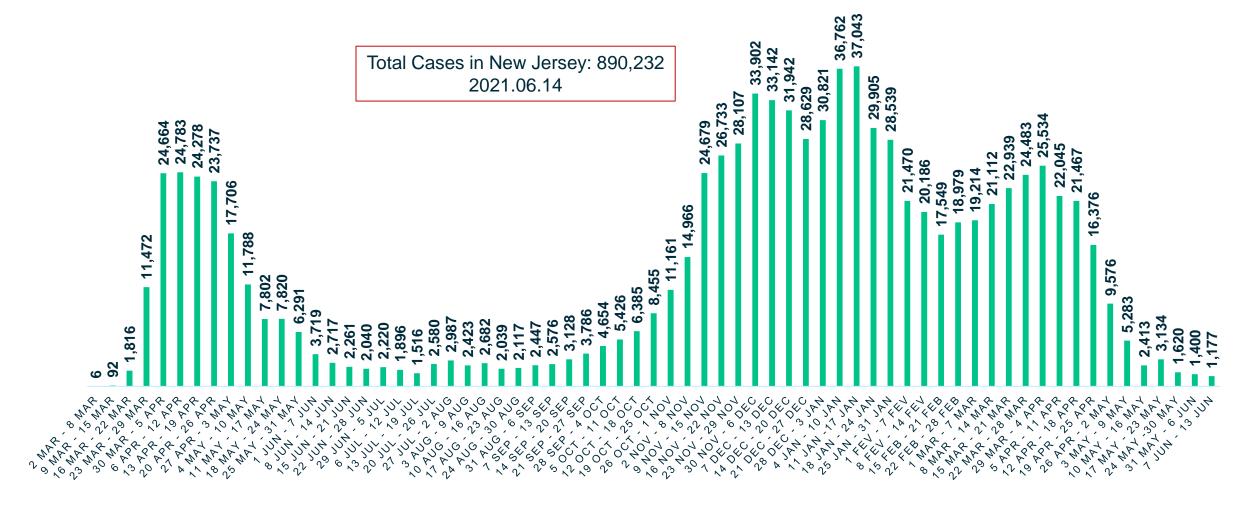
## Projection Daily Infections

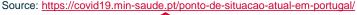
For 1 October 2021

9 June Projection: 194

Source: Institute for Health Metrics and Evaluation / University of Washington - <a href="https://covid19.healthdata.org/portugal?view=daily-deaths&tab=trend">https://covid19.healthdata.org/portugal?view=daily-deaths&tab=trend</a>

## Coronavirus (SARS-CoV-2 / COVID 19) ) – New Jersey - New cases per week







## Recent News

#### **Latest News**

- The US has administered over 309 million vaccines, with almost 87% of people 65 and older receiving at least one dose and 76% fully vaccinated.
- The US Food and Drug Administration (FDA) has authorised two batches of Emergent BioSolutions' Covid-19 vaccine developed at the company's Baltimore Bayview facility, as part of Johnson & Johnson's emergency use authorisation. Emergent plans to resume manufacturing of the Johnson & Johnson Covid-19 vaccine drug substance after both the companies and the FDA confirm that relevant steps have been taken to resolve shortcomings.
- The European Medicines Agency (EMA) has identified a new rare blood condition associated with AstraZeneca's Covid-19 vaccine, and stated that it is looking into cases of heart inflammation following vaccination from all Covid-19 vaccines. The EMA said capillary leak syndrome (CLS) must be included as a new side effect to the labelling on AstraZeneca's Vaxzevria vaccine. It added that individuals having experienced CLS, where fluids leak from the smallest blood vessels causing inflammation and a blood pressure drop, should not receive the jab.
- Moderna has submitted an emergency use authorisation (EUA) request to the US Food and Drug Administration (FDA) for its Covid-19 vaccine in adolescents in the
  US. The company has already filed EUA requests with the European Medicines Agency (EMA) and Health Canada and is expected to do the same with other regulatory
  agencies worldwide to approve its vaccine for this age group.
- The US FDA has authorised the shelf life extension of the Johnson & Johnson single-shot Covid-19 vaccine from three months to four and a half months. The decision was made based on data received from ongoing stability assessment studies, which found the vaccine to be stable at four and a half months when refrigerated at 2-8°C.
- Merck has entered into a supply agreement with the US government for molnupiravir (MK-4482). Molnupiravir is currently being assessed in a Phase III clinical trial, the MOVe-OUT study, for treating non-hospitalised Covid-19 patients with at least one risk factor linked to poor disease outcomes. Merck has collaborated with biotechnology company Ridgeback Biotherapeutics to develop the oral antiviral candidate. Merck is expected to receive \$1.2bn to supply 1.7 million courses of the therapy if granted emergency use authorisation or approval from the US Food and Drug Administration.
- A Scottish study focused on examining the side effects of AstraZeneca's Covid-19 vaccine found only a link with generally harmless bleeding among almost 5.4 million people who took the jab. The study confirmed no association between the vaccine and brain clots in the study population, highlighting the rarity of serious blood disorders. The University of Edinburgh researchers found only one additional case of idiopathic thrombocytopenic purpura (ITP) per 100,000 people following the first shot of the AstraZeneca vaccine, while no link was established between the shot and more dangerous cerebral venous sinus thrombosis (CVST).
- A preclinical study of Selva Therapeutics' antiviral drug SLV213 has demonstrated efficacy against three major Covid-19 variants of concern.

- The UK's Medicines and Healthcare products Regulatory Agency (MHRA) has authorised the administration of Pfizer-BioNTech Covid-19 vaccine among 12 to 15-year-olds, following clearances in the EU and US. This follows a review of the safety, efficacy and quality of the vaccine for the age group by the MHRA and the government's Commission on Human Medicines (CHM).
- The US Food and Drug Administration (FDA) has updated the emergency use authorisation (EUA) for Regeneron Pharmaceuticals' antibody cocktail REGEN-COV for treating Covid-19. As a result, the agency has lowered the dose to 1,200 mg (600 mg casirivimab and 600 mg imdevimab), half of what was previously authorised for use.
- Drug delivery platforms innovator Lexaria has announced that remdesivir and ebastine along with DehydraTECH were effective in preventing the SARS-CoV-2 virus, using an in vitro screening assay in infected cells in Lexaria's VIRAL-C21-3 study.
- Moderna has entered into a long-term agreement with the United Nations Children's Emergency Fund (UNICEF) to supply Covid-19 vaccines on behalf of the COVAX facility. Under the agreement, UNICEF and its partners, including the Pan American Health Organisation, will have access to approximately 34 million doses of Moderna's vaccine to be delivered at the end of 2021 and about 466 million doses in 2022.
- Biotechnology company Centivax has partnered with the US Naval Medical Research Centre for a Phase I clinical development of the company's Covid-19 broad-spectrum injectable antibody therapeutic and prophylactic, the Centi-B9.
- Moderna has begun the rolling submission procedure with the US Food and Drug Administration for a Biologics License Application for the licensure of its mRNA
  vaccine to prevent Covid-19 among individuals aged 18 years and older. The company is expected to continue submitting data in the coming weeks, along with a request for a
  priority review.
- Indian pharmaceutical company Biological E. has signed a licensing agreement with Canada-based biotech Providence Therapeutics to manufacture the
  company's mRNA Covid-19 vaccine in India. The company is expected to run a clinical trial of Providence's vaccine in India, thereby seeking an emergency use approval for
  the jab. Biological E. has also signed a deal to produce about 600 million doses of the Johnson & Covid-19 vaccine annually.
- South Korean biotech Samsung Biologics is looking to add an mRNA vaccine production line to its Songdo facility by the first half of 2022. The company said the expansion is part of a long-term strategy to move beyond its current focus on monoclonal antibodies and become a fully integrated global biopharmaceutical company.

- University of Pennsylvania scientists have found a new drug, diABZI, to be highly effective in preventing severe Covid-19 in mice infected with the SARS-CoV-2 virus. The study, published in the journal Science Immunology, found that diABZI activated an immune response the body's defence mechanism against infection in the mice. It is hoped that the drug can also help to treat other respiratory coronaviruses.
- South Korean biotech Samsung Biologics is looking to add an mRNA vaccine production line to its Songdo facility by the first half of 2022. The company said the expansion is part of a long-term strategy to move beyond its current focus on monoclonal antibodies and become a fully integrated global biopharmaceutical company. Samsung Biologics also entered into a fill-finish manufacturing agreement with Moderna last week, one of the four such contracts announced in the country.
- Swiss biotechnology company ACM Biosciences has received a grant from Innosuisse, the Swiss Innovation Agency, to collaborate and develop a novel delivery system for mRNA Covid-19 vaccines.
- The US Food and Drug Administration may refuse to grant new emergency use authorizations for vaccines for the remainder of the pandemic, particularly for developers that have not engaged with the agency during the past year, according to a guidance update. Vaccine makers that have already received early feedback from the agency are more likely to have the appropriate data and information needed for authorization, the agency said late Tuesday.
- Belgium has halted the administration of Johnson & Johnson's Janssen Covid-19 vaccine for individuals aged 41 years and below following Europe's first death from severe side-effects linked to the jab. A 37-year-old woman in Belgium died after suffering a blood clot with low platelets.
- Altimmune, a clinical-stage biopharmaceutical company, has released new data from a preclinical study showing that the company's Covid-19 vaccine, AdCOVID, can neutralise the rapidly emerging B.1.351 variant of concern from South Africa.
- The Phase II/III study of Moderna's Covid-19 vaccine, mRNA-1273, among adolesecents has met its primary immunogenicity endpoint. Using the primary definition, no Covid-19 cases were identified among the participants who had received two doses of the vaccine.
- Clinical-stage biopharmaceutical company Xencor has entered into a technology licensing agreement with Bristol Myers Squibb to provide the latter access to its Xtend Fc technology to extend the half-life of a novel antibody combination therapy that neutralises the SARS-CoV-2 virus.
- AstraZeneca's Covid-19 vaccine Vaxzevria, formerely AZD1222, has received emergency use approval in Japan for inoculating individuals aged 18 years and older. The approval was granted by the Japanese Ministry of Health, Labour and Welfare on the basis of positive Phase III efficacy and safety results from the Oxford University-led clinical trial programme in Brazil, South Africa and the UK, as well as a Phase I/II trial conducted in Japan.

- Pfizer has announced that its first enrolled subjects have received immunisations as part of a new study that explores co-administration of its 20-valent pneumococcal conjugate vaccine (20vPnC) candidate after a booster dose of the Pfizer-BioNTech Covid-19 vaccine among adults aged 65 years or older. The conjugate vaccine candidate is currently authorised for emergency use by the US Food and Drug Administration. The study aims to establish the safety of co-administering both vaccines, along with a six-month follow-up after vaccination. The secondary objectives are to report immune responses elicited by both vaccines.
- Moderna and contract manufacturer Aldevron have expanded a partnership to support the development of Moderna's Covid-19 vaccine and other programmes in Moderna's therapeutic pipeline. Aldevron will provide plasmid DNA, which will serve as the genetic template for producing Moderna's Covid-19 vaccine, as well as supporting other clinical development programmes.
- Moderna and contract manufacturing organisation Samsung Biologics have entered into a manufacturing and supply agreement that will require the latter to carry
  out large-scale, commercial fill-finish manufacturing for Moderna's Covid-19 vaccine, mRNA-1273. Immediate technology transfer is expected to commence at Samsung
  Biologics' facilities in South Korea after the deal is executed. This will speed the production of Moderna's Covid-19 vaccine to non-US markets in the third quarter of the year.
- Pfizer and BioNTech have signed a new supply agreement with the European Commission for 900 million doses of Comirnaty, the companies' Covid-19 vaccine, to the European Union. The EC has the option to request an extra 900 million doses. The new deal is in addition to the 600 million doses already committed to the EU through 2021. The 900 million doses are expected to be delivered between December 2021 and 2023.
- Biopharmaceutical company Immunome has been awarded an additional \$4.3m by the US Department of Defence (DOD) Joint Program Executive Office for Chemical, Biological, Radiological and Nuclear Defence (JPEO-CBRND), in partnership with the Defence Health Agency (DHA), for continuing the development of its antibody cocktail (IMM-BCP-01) to fight Covid-19 and its variants. The DOD had awarded \$13.3m to the company to develop the antibody cocktail a year ago. IMM-BCP-01 contains three monoclonal antibodies that exhibit combinatorial effects in vitro against multiple SARS-CoV-2 variants.
- The UK has launched a study to ascertain whether a third booster dose of Covid-19 vaccines can offer greater protection and immunity against the virus. The trial, called Cov-Boost, is expected to enrol 2,886 participants and will look into seven different Covid-19 vaccines as potential boosters, including those from AstraZeneca, Pfizer, Moderna, Novavax, Johnson & Samp; Johnson, Valneva, and CureVac. The third shots will be administered to people who have already received two doses of the Pfizer or AstraZeneca Covid-19 vaccine, with initial findings expected to be reported in September.

- BioNTech on Monday said the European Medicines Agency agreed to extend the time it would allow medical agencies to store the Covid-19 vaccine it makes with Pfizer at refrigerator temperature to 31 days, longer than the five days it previously gave permission for. The change to the rules will allow for more vaccinations within Europe. The company said US regulators are considering a similar request.
- Russia's Sputnik V Covid-19 vaccine is now being used in India, as it becomes the first overseas-developed vaccine to be administered in the country. Sputnik V vaccine dosing was launched in Hyderabad from 14 May, after the first batch of the vaccine arrived on 1 May. The vaccine was approved under emergency use authorisation (EUA) in India on 12 April 2021.
- An ongoing Phase III clinical trial of one of Sinopharm's Covid-19 vaccines, being conducted in five Arab countries since 2020, has shown a 78.89% efficacy on people aged 18 years and above. According to Zhang Yuntao, vice president and chief scientist of Sinopharm China National Biotec Group, a subsidiary of Sinopharm, the trialled vaccine also demonstrated 100% protection against severe Covid-19 and hospitalisation resulting from the disease. Approximately 45,000 participants from 125 countries have been enrolled on the trials being conducted in Abu Dhabi, Bahrain, Egypt, Sharjah, and Jordan.
- United Nations secretary-general Antonio Guterres has highlighted the need to double the capacity of Covid-19 vaccine production and for fairer redistribution of the shots in the developing world.
- Mixing doses of two leading Covid-19 vaccines increased patients' side effects such as fatigue and headaches in early findings from a study that has yet to show how well such a cocktail defends against the virus. People who got a first dose of AstraZeneca Plc's shot followed by Pfizer Inc.'s vaccine four weeks later reported more short-lived side effects, most of them mild, researchers from the University of Oxford reported in The Lancet medical journal. That was also true when the order of the shots was switched.
- The US Food and Drug Administration (FDA) has granted Fast Track status to biopharma company Cerecor's CERC-002 treatment for hospitalised Covid-19 patients. CERC-002 is a first-in-class fully human monoclonal antibody targeting the LIGHT cytokine that is entitled to both rolling submission and priority review under the fast-track designation. The monoclonal antibody, which was licenced from Kyowa Kirin, is the only clinical-stage anti-LIGHT therapy and is expected to treat various LIGHT-associated immune diseases including cytokine storm-induced Covid-19 acute respiratory distress syndrome (ARDS).

#### **Sources**

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