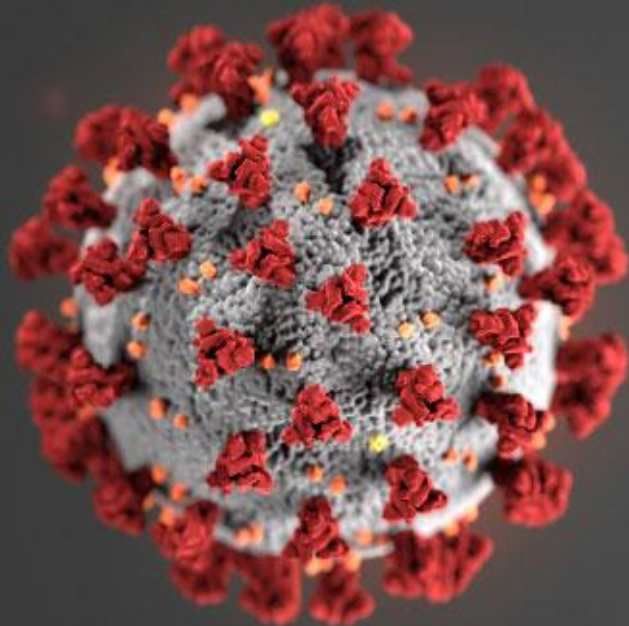


SARS-CoV-2 Report

José Luis Pires

29 June 2021



Contents

SARS-Cov-2

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- [Confirmed cases by Country](#)
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- [Daily new confirmed Covid-19 cases and deaths per million people](#)
- [Number of COVID-19 cases reported weekly by WHO region](#)
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- **Ireland**
 - [Cases, Deaths and Projections](#) – per week
- **New Jersey/US**
 - [Cases, Deaths and Projections](#) – per week
- [Recent News](#)

Where each vaccine is being used

Portugal

- Doses administered per 100 people: 80 (67)
- Total doses administered: 8,203,905 (6,840,510)
- Population Vaccinated: 52% (44%)
- Population Fully vaccinated : 31% (23%)

Ireland

- Doses administered per 100 people: 74 (63)
- Total doses administered: 3,679,531 (3,100,000)
- Population Vaccinated: 48% (36%)
- Population Fully vaccinated : 20% (11%)

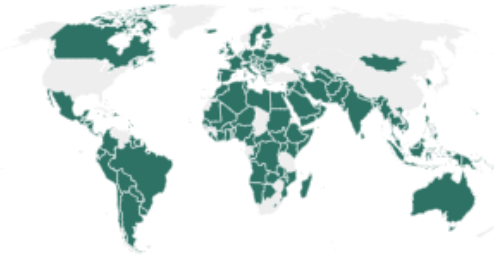
USA

- Doses administered per 100 people: 98 (94)
- Total doses administered: 324,414,371 (310,645,827)
- Population Vaccinated: 54% (53%)
- Population Fully vaccinated : 46% (44%)

28 June 2021 (14 June 2021)

Where each vaccine is being used

Oxford-AstraZeneca
178 COUNTRIES



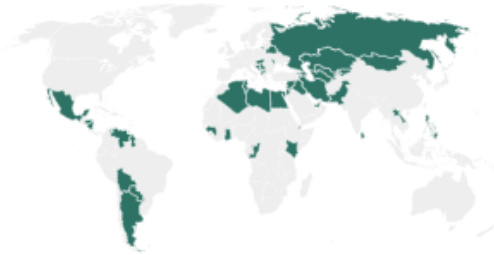
Pfizer-BioNTech
106 COUNTRIES



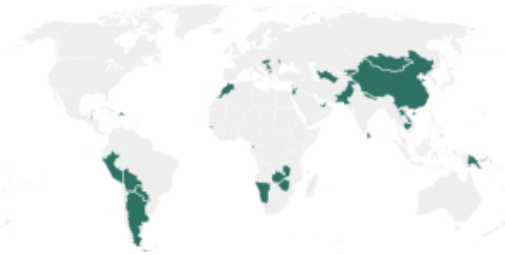
Moderna
55 COUNTRIES



Gamaleya (Sputnik V)
45 COUNTRIES



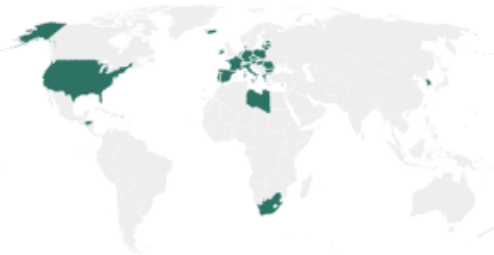
Sinopharm-Beijing
36 COUNTRIES



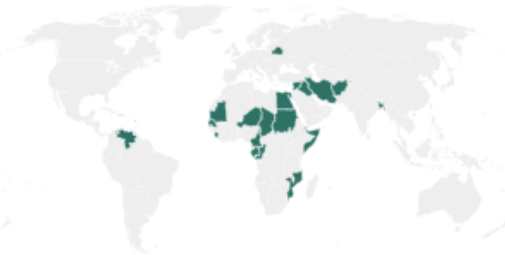
Sinovac
33 COUNTRIES



Johnson&Johnson
27 COUNTRIES



BBIBP-CorV
23 COUNTRIES



Bharat Biotech (Covaxin)
6 COUNTRIES



CanSino
4 COUNTRIES



Sinopharm-Wuhan
2 COUNTRIES



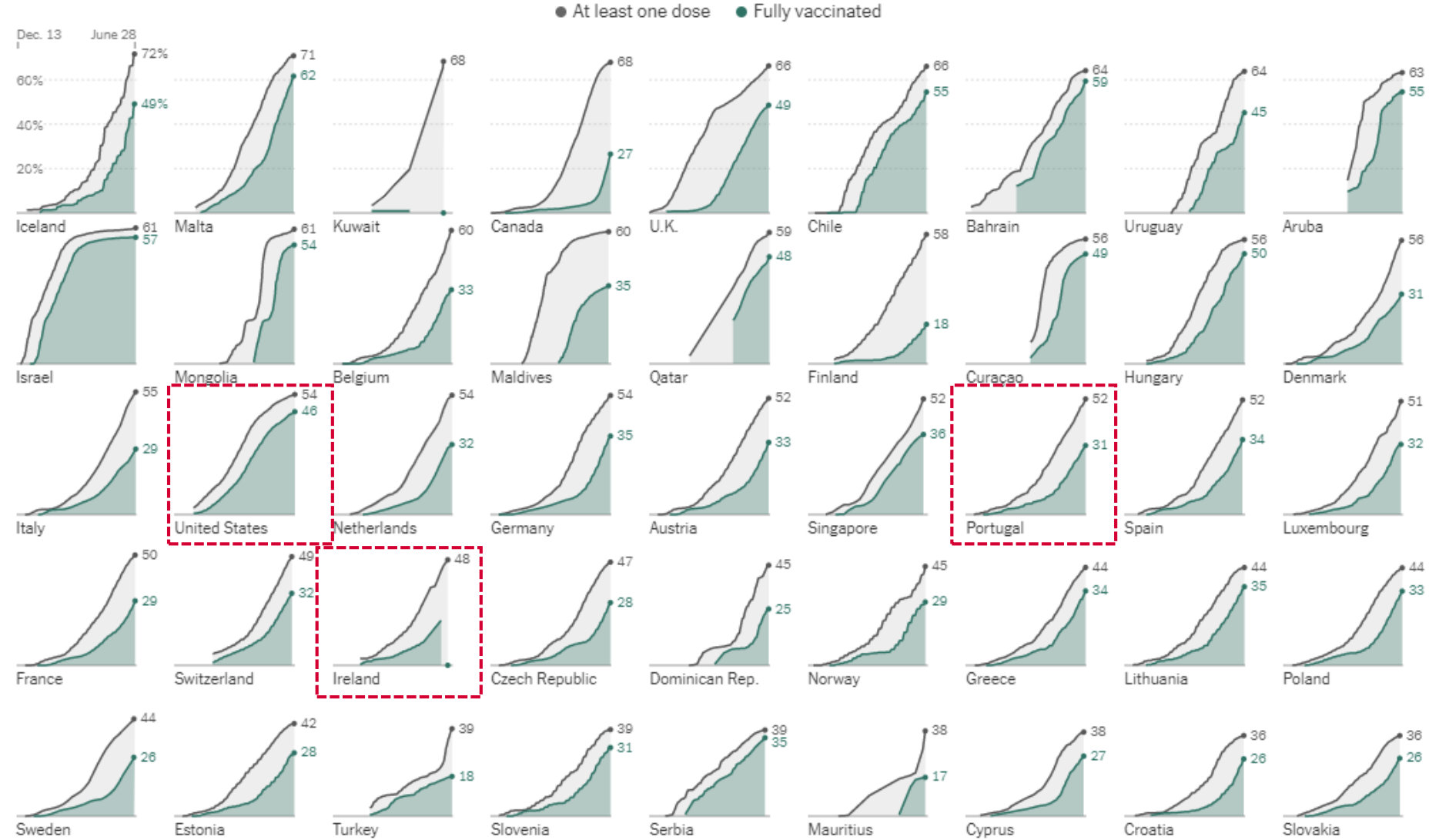
Vector Institute (EpiVacCorona)
2 COUNTRIES



Tracking vaccination rates by country

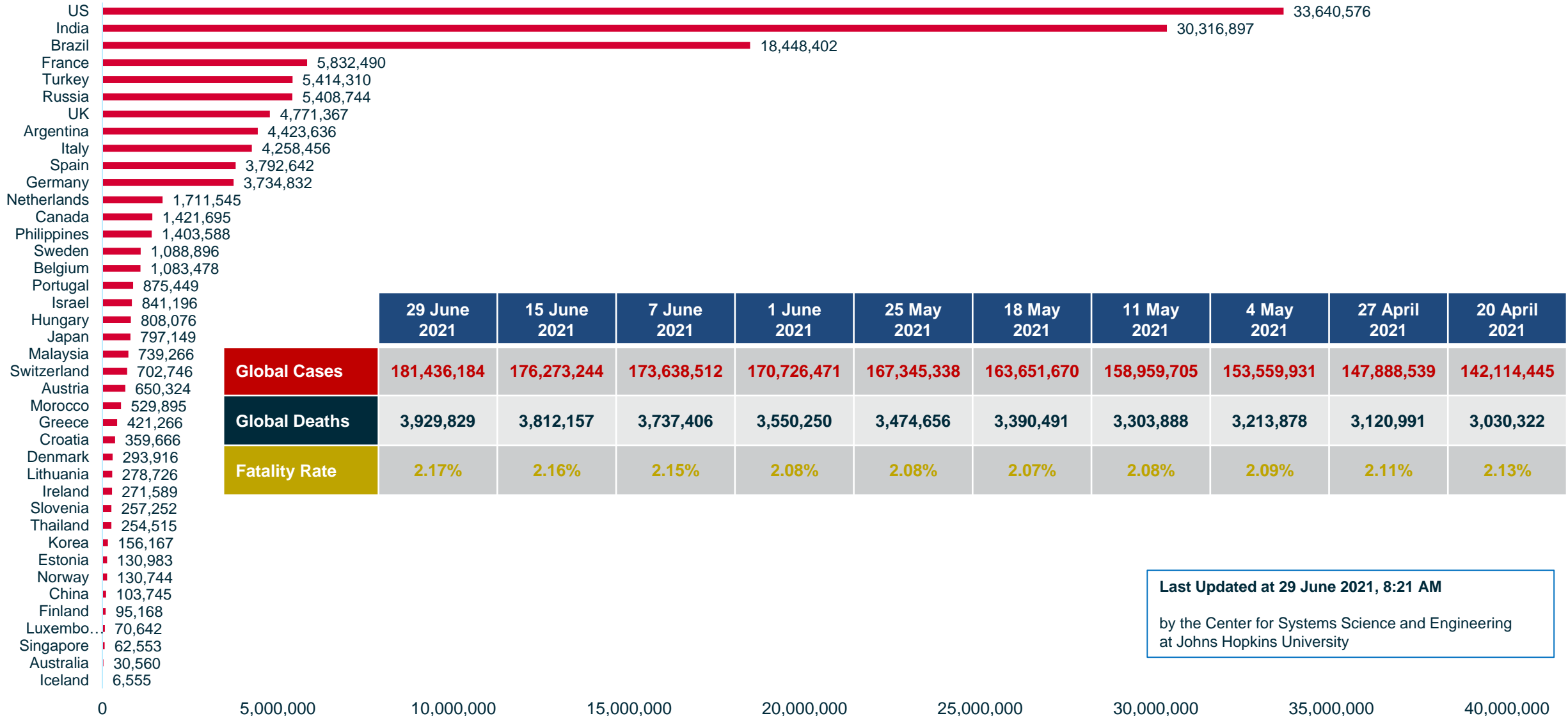
Share of Population Vaccinated

28 June 2021



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

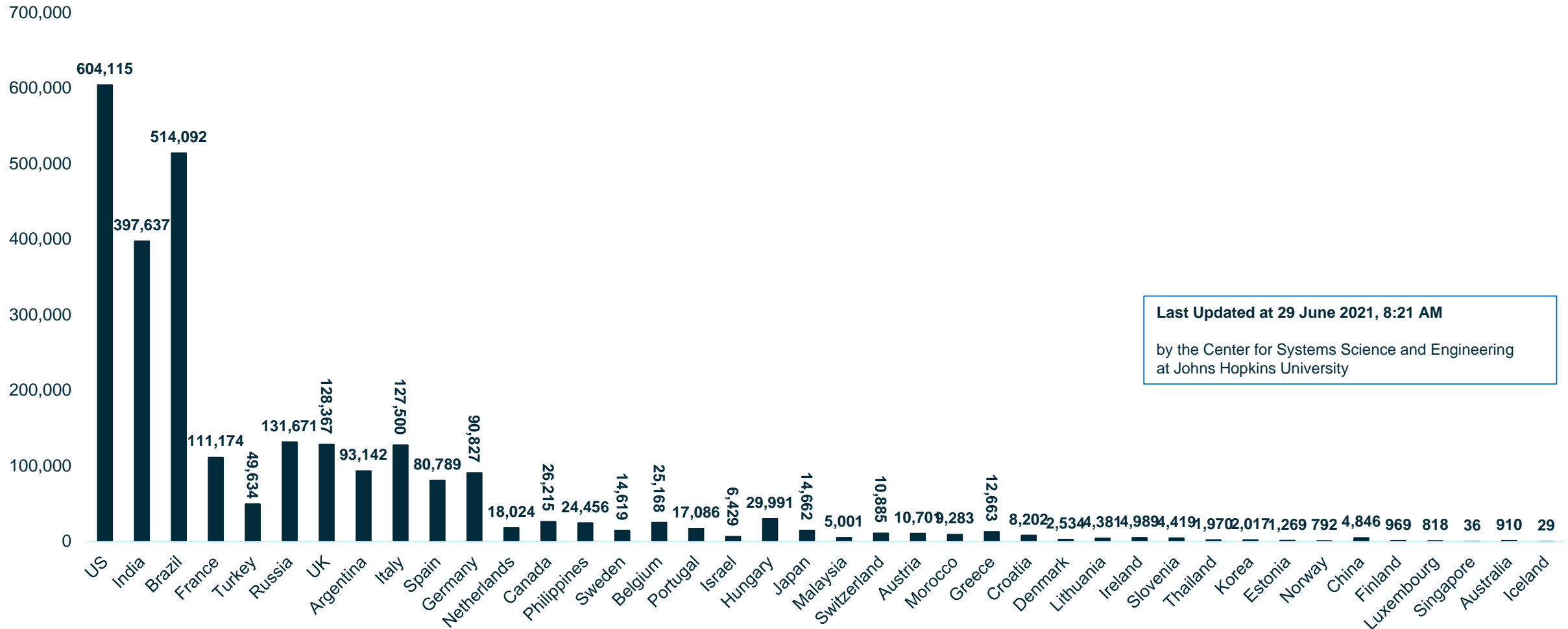
Note: Selected Countries, sorted by # of cases



Last Updated at 29 June 2021, 8:21 AM
by the Center for Systems Science and Engineering
at Johns Hopkins University

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

Note: Selected Countries, sorted by # of cases



Source: <https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

Latest Cases and Deaths by TOP 10 Countries – 27 June 2021

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

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

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

Deaths in last 7 days	
1	Brazil
2	India
3	Colombia
4	Russia
5	Argentina
6	Indonesia
7	USA
8	Mexico
9	South Africa
10	Peru
86 (82)	Portugal

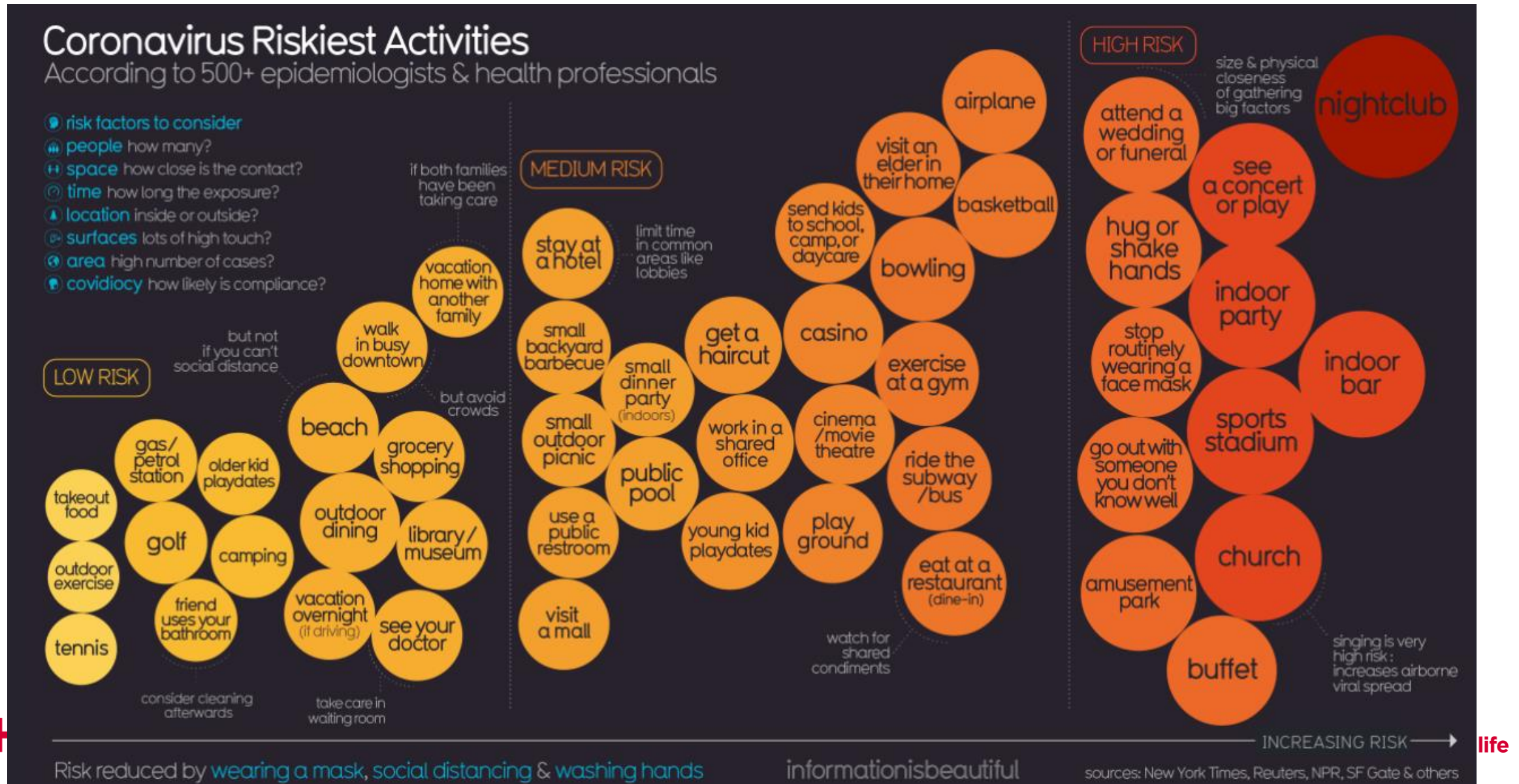
Total Cases per million people	
1	Bahrain
2	Czechia
3	Slovenia
4	Sweden
5	Uruguay
6	Serbia
7	USA
8	Lithuania
9	Estonia
10	Argentina
19 (19)	Portugal

Cases in last 7 days per million people	
1	Mongolia
2	Colombia
3	Namibia
4	Argentina
5	Uruguay
6	Kuwait
7	Oman
8	Brazil
9	Tunisia
10	South Africa
25 (28)	Portugal

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

Deaths in last 7 days per million people	
1	Paraguay
2	Namibia
3	Colombia
4	Argentina
5	Brazil
6	Uruguay
7	Trinidad and Tobago
8	Tunisia
9	Oman
10	Romania
88 (81)	Portugal

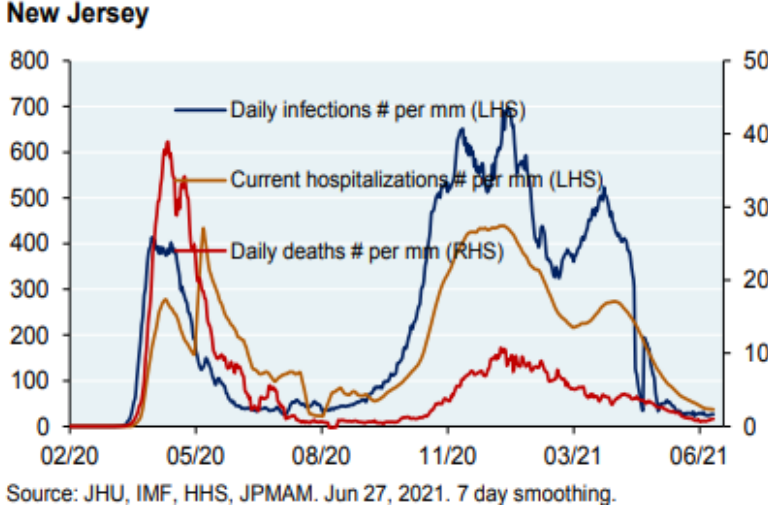
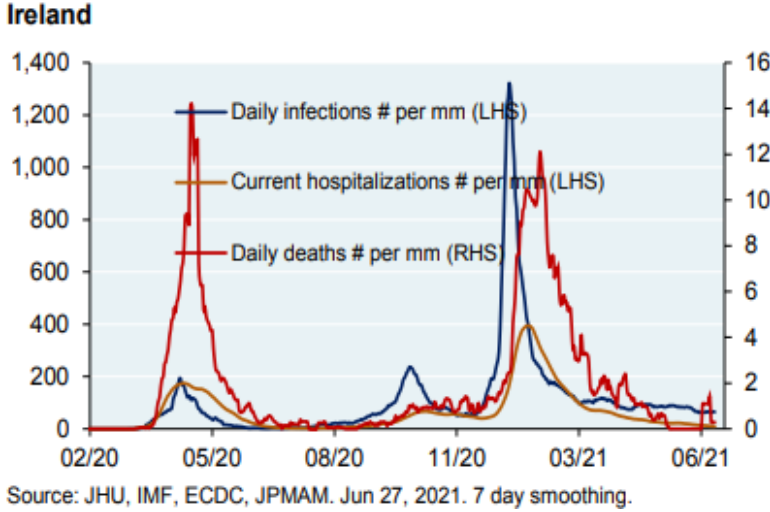
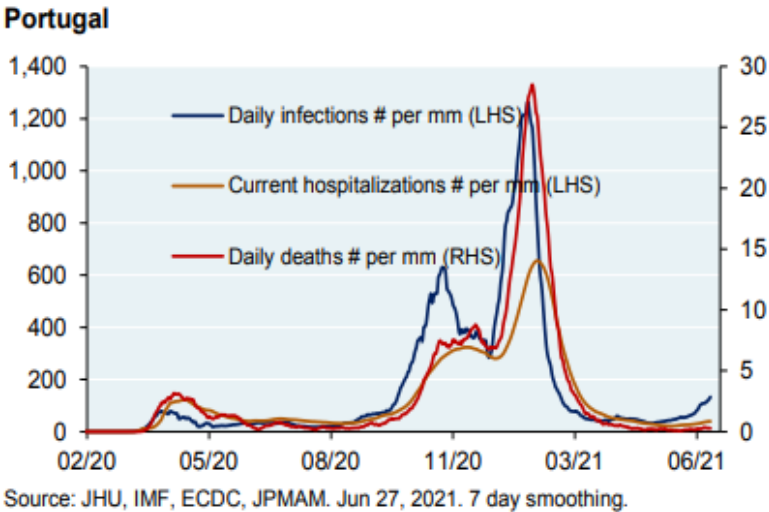
Coronavirus Riskiest Activities



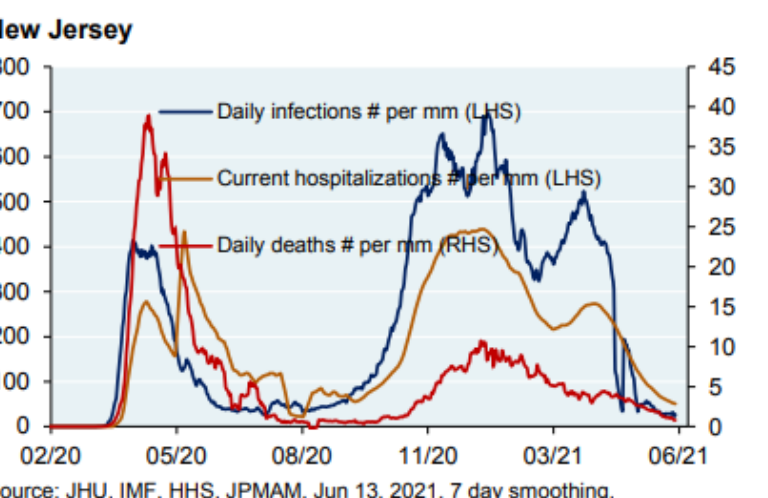
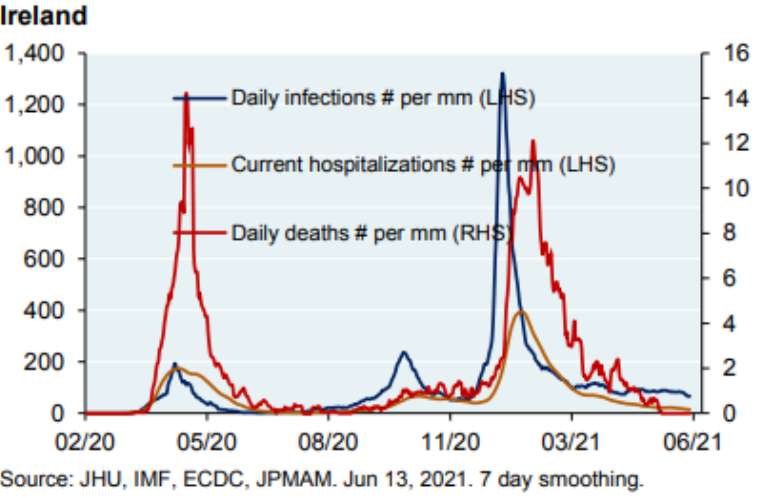
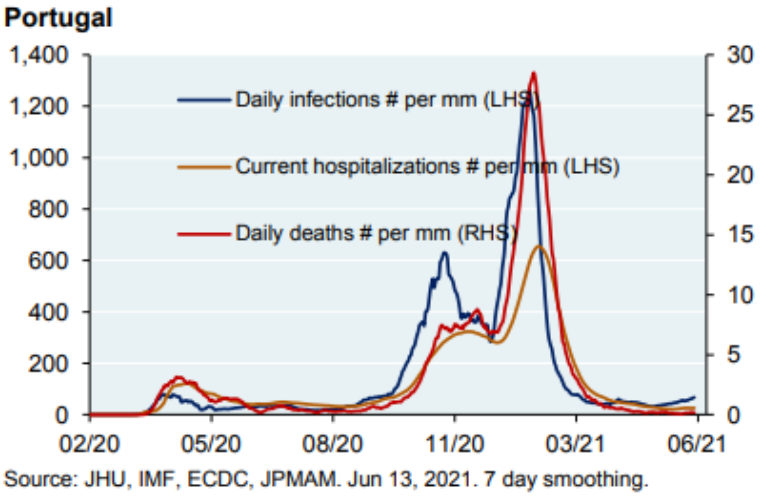
Daily infections vs mortality per million

LHS – Left Hand Scale
RHS – Right Hand Scale

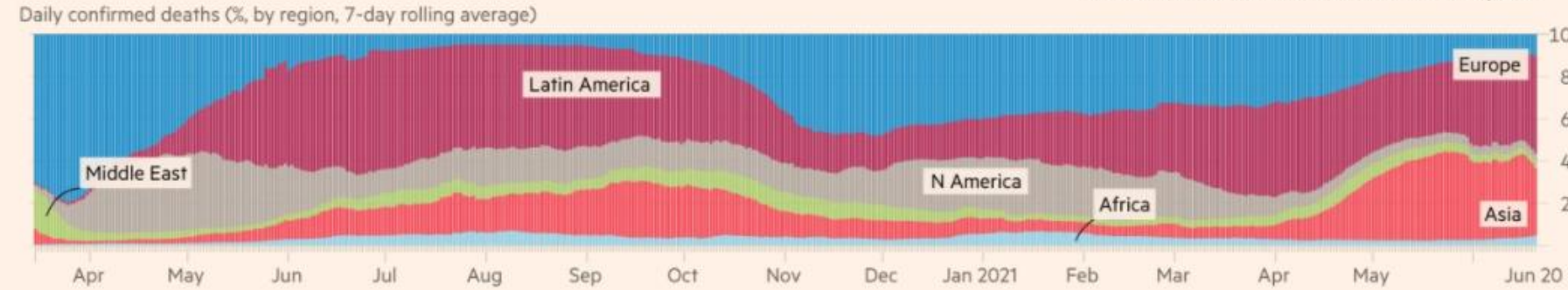
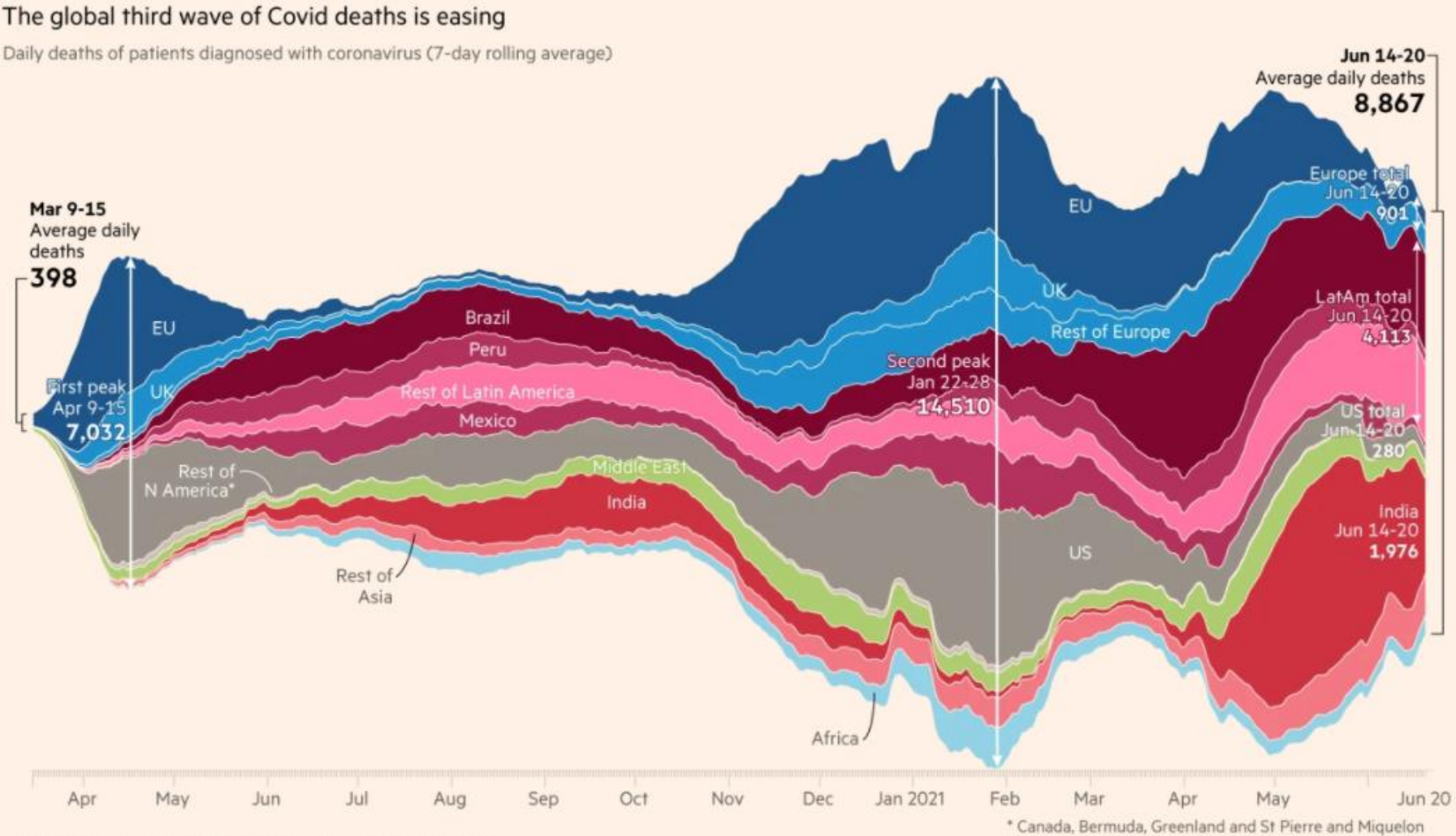
27 JUN 2021



13 JUNE 2021



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



FT graphic: Steven Bernard / @sdbernard
Sources: FT analysis of data from Johns Hopkins CSSE, WHO, UK government coronavirus dashboard, Swedish Public Health Agency
© FT

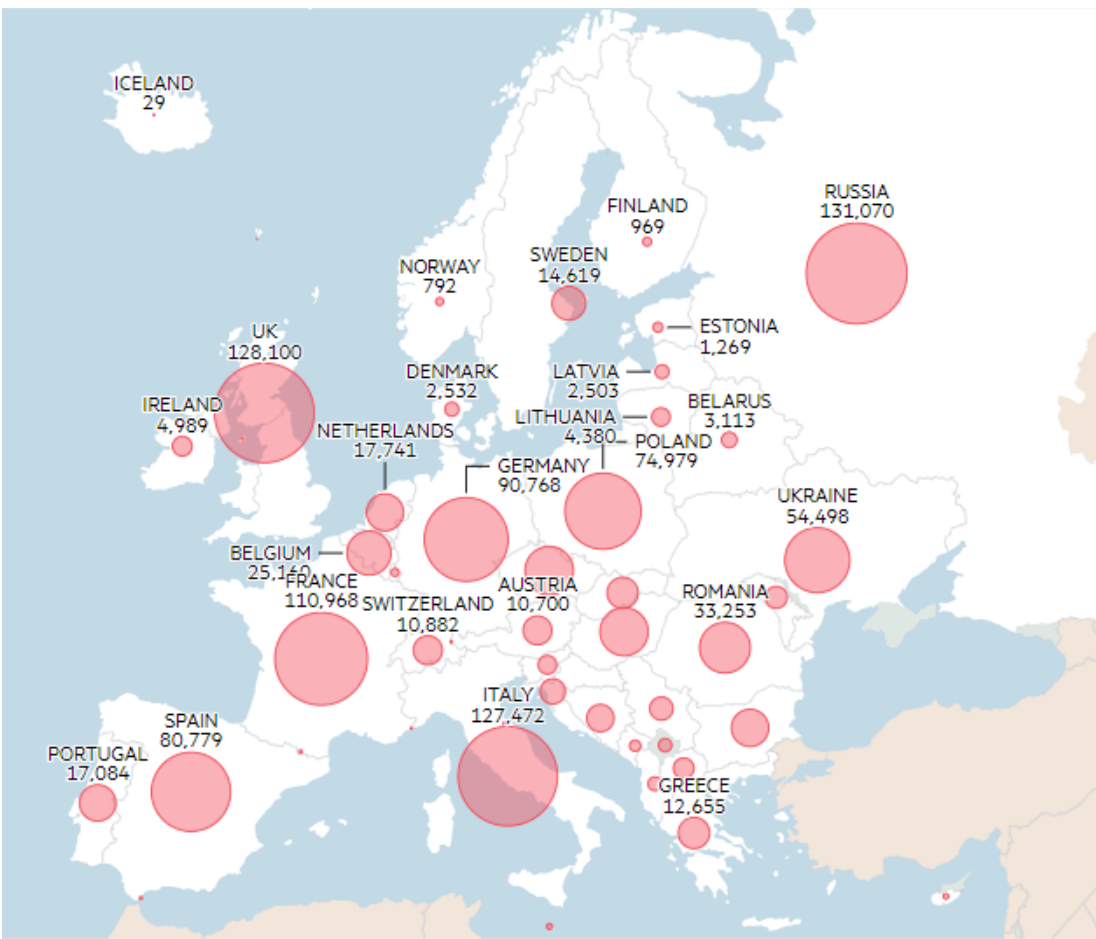
Source: <https://www.ft.com/content/a26fb7e-48f8-11ea-aeb3-955839e06441>



June 2021

Total deaths as of 1.17pm June 28 GMT

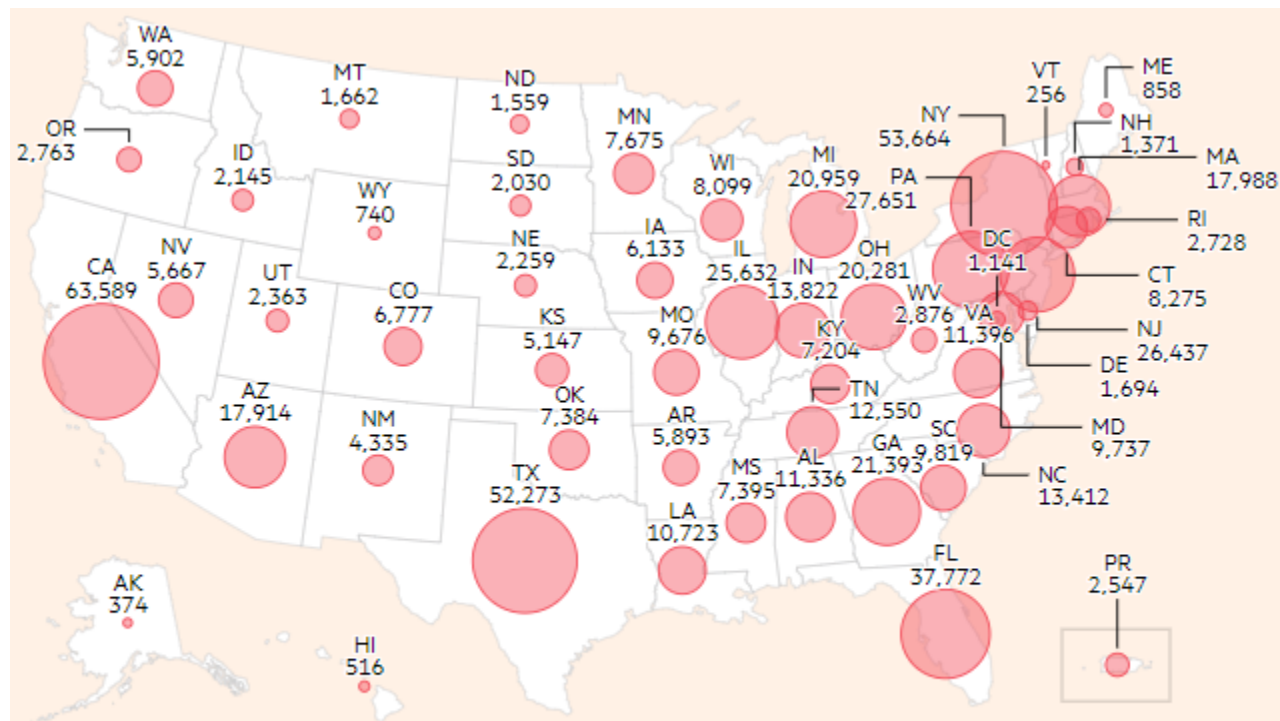
Europe



Graphic: Steven Bernard and Cale Tilford. Sources: WHO, JHU CSSE, UK gov Covid-19 dashboard, Swedish Public Health Agency; FT research

Crimea is annexed by Russia but this is not recognised by the international community

US

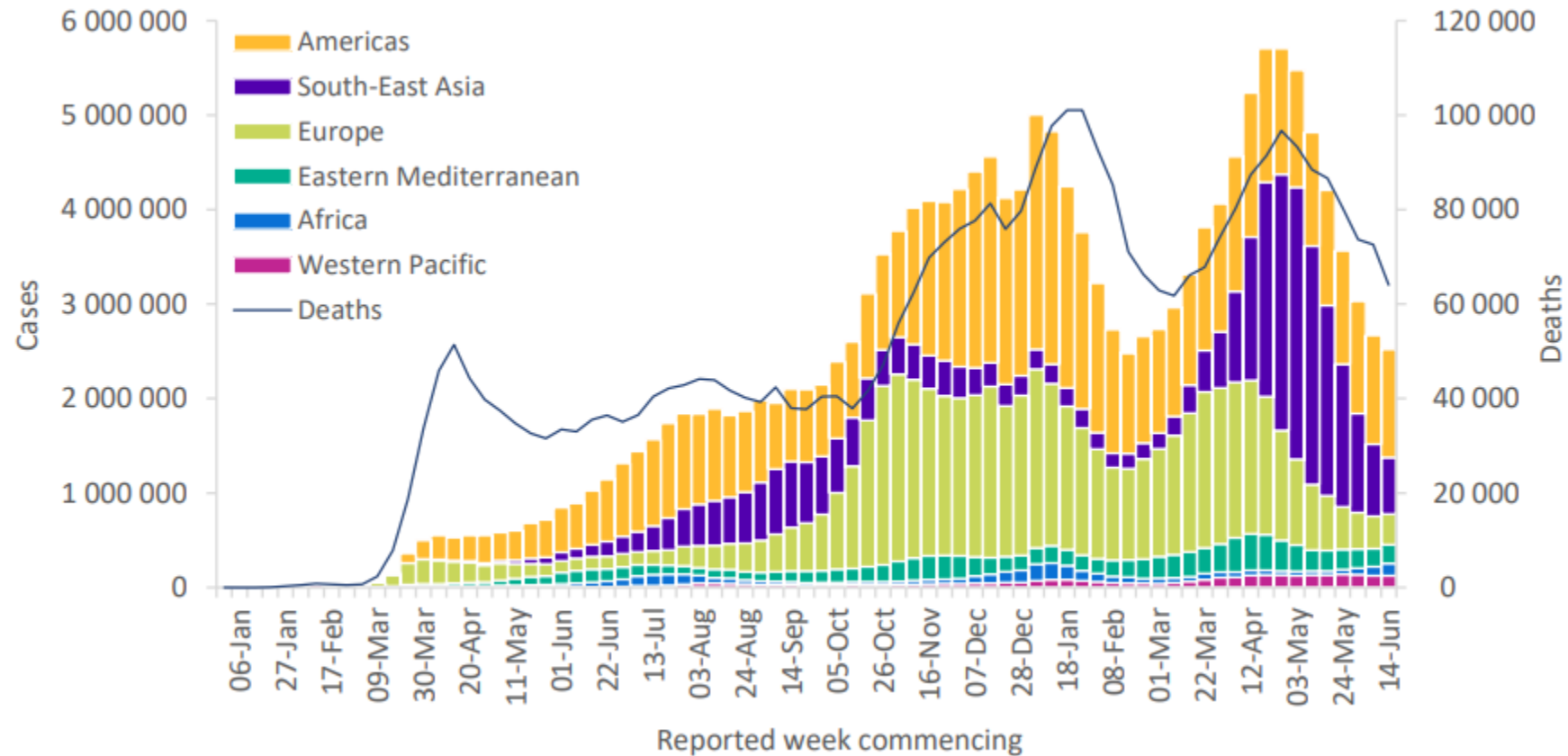


Graphic: Steven Bernard and Cale Tilford

Source: Johns Hopkins CSSE

© FT

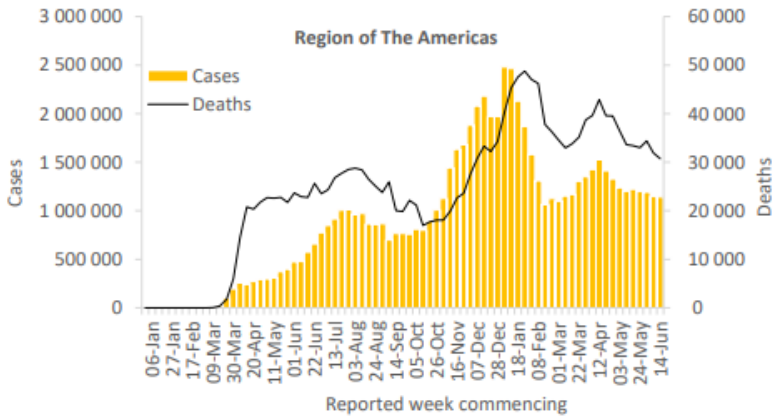
Number of COVID-19 cases reported weekly by WHO Region, and global deaths, as of 20 June 2021



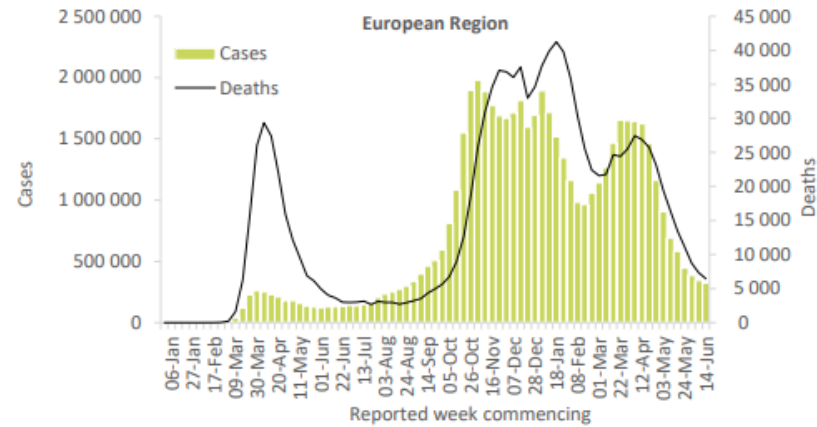
Source: WHO

Number of COVID-19 cases reported weekly by WHO Region, and global deaths, as of 20 June 2021

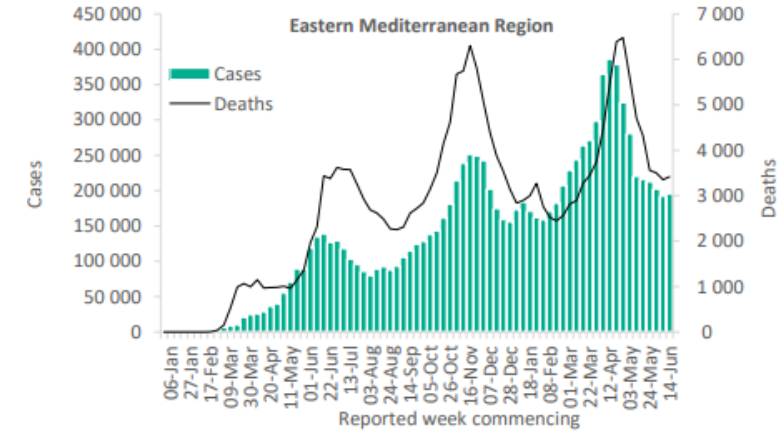
Americas



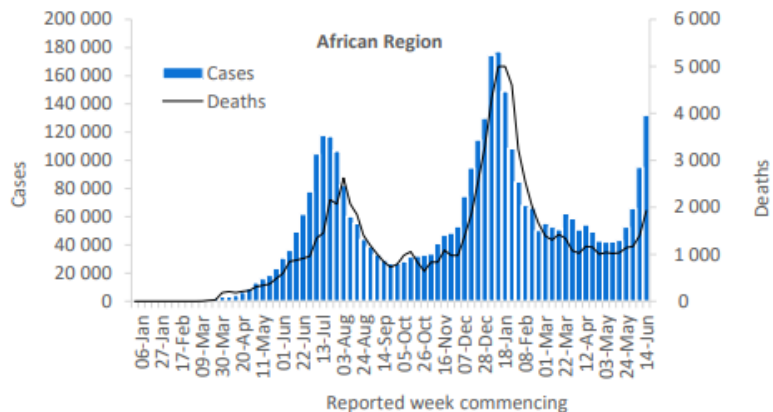
Europe



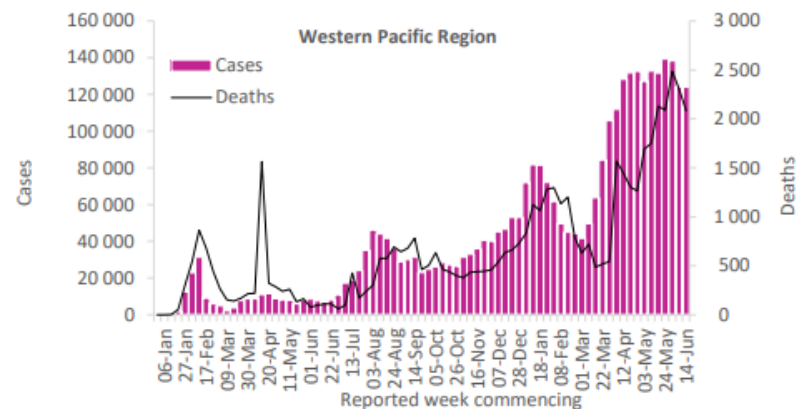
Eastern Mediterranean



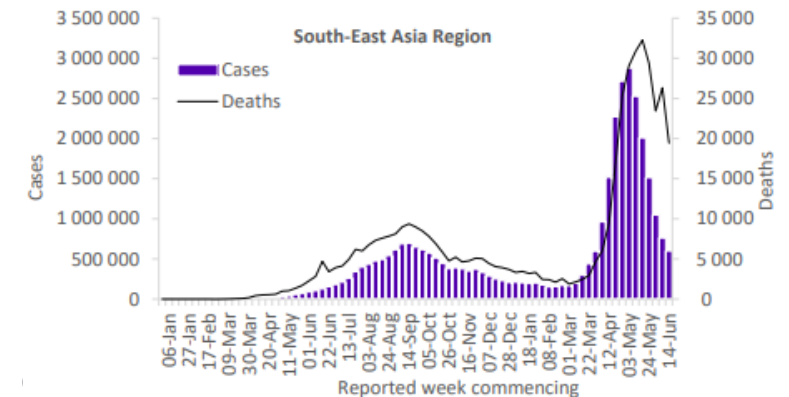
Africa



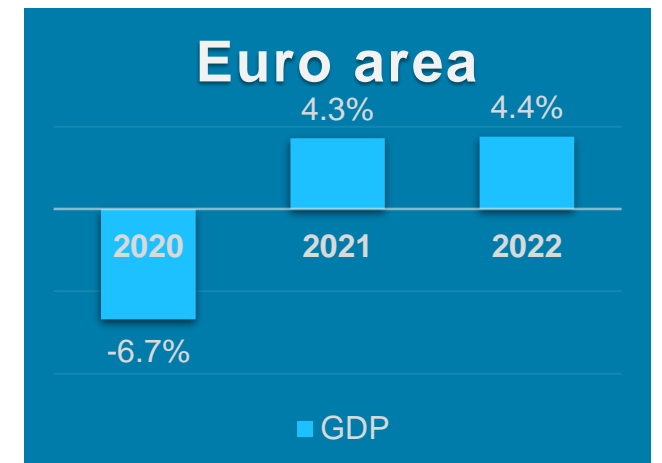
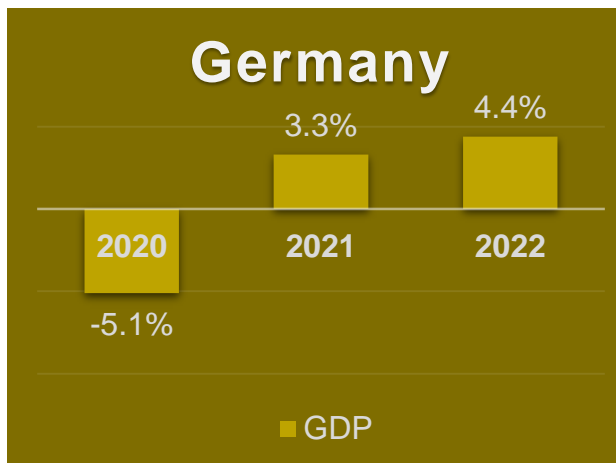
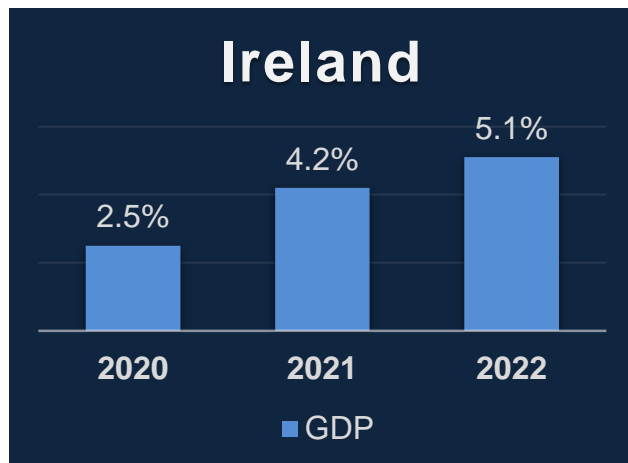
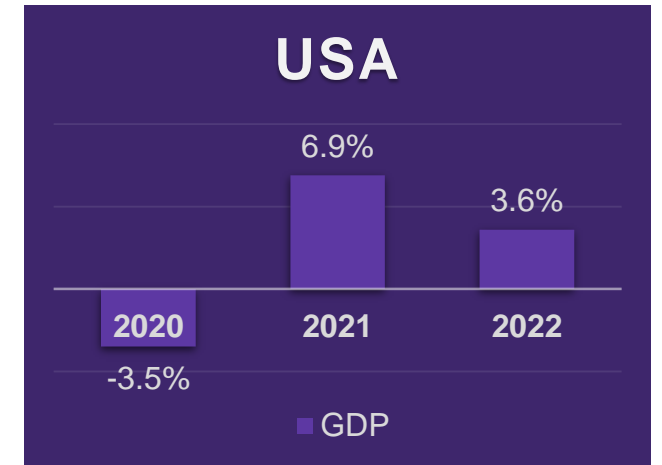
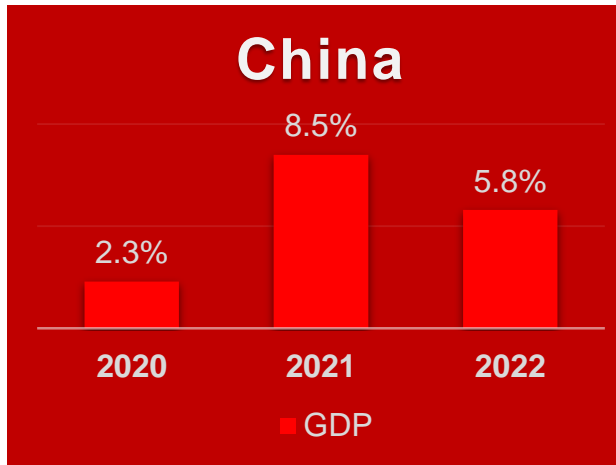
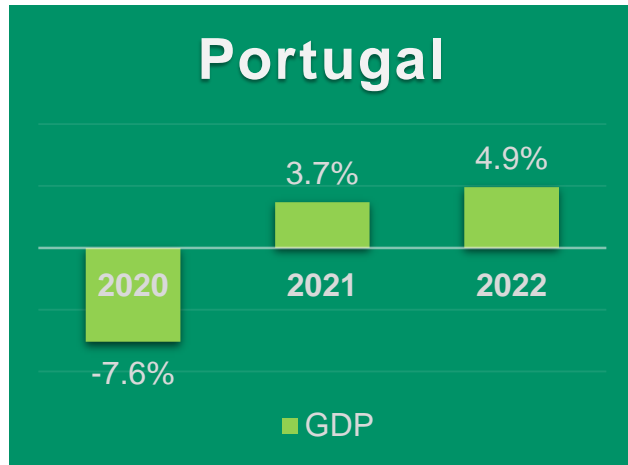
Western Pacific



South-East Asia

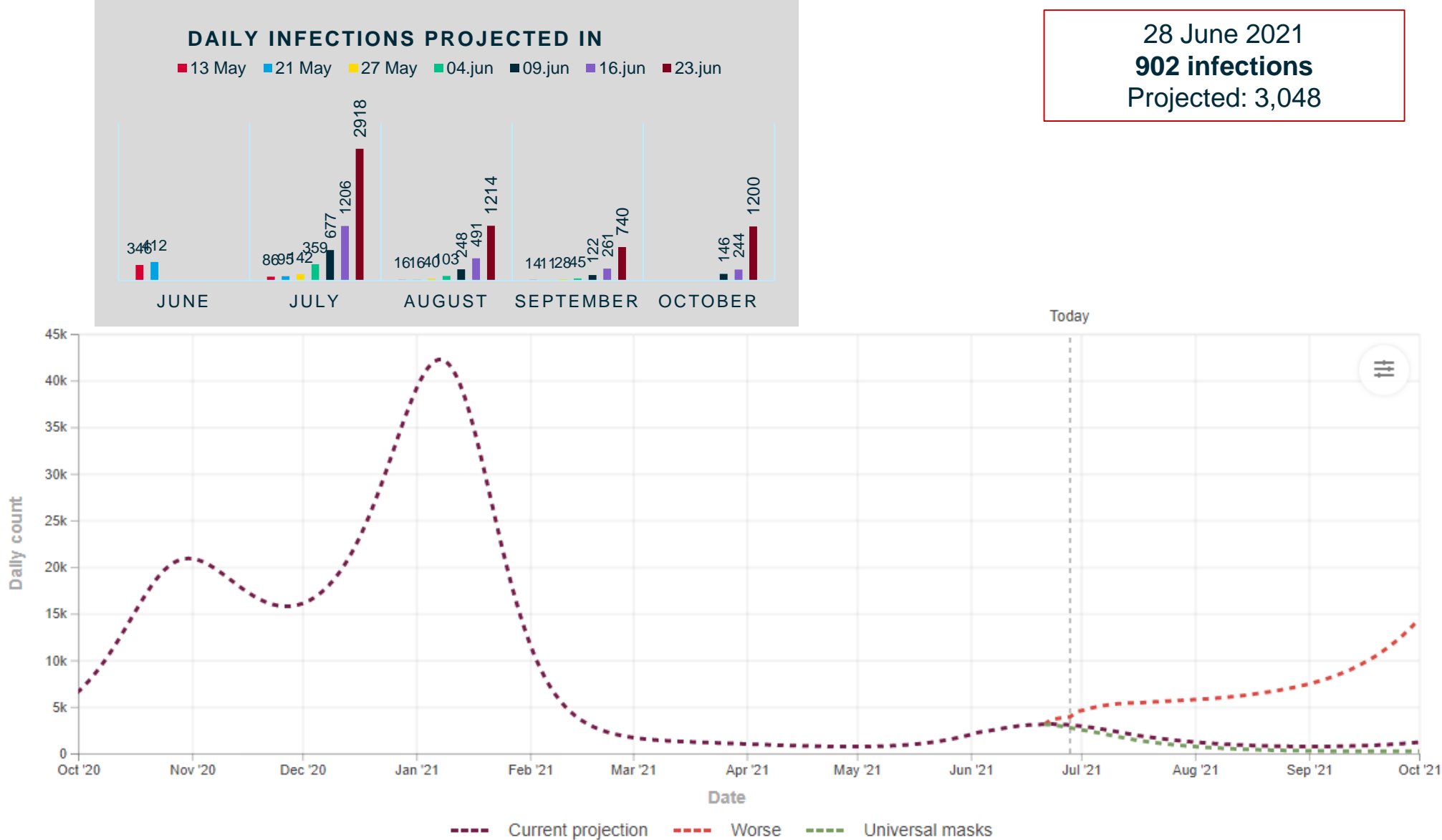


The pandemic had a diverse impact on Gross Domestic Product (GDP) across countries



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.

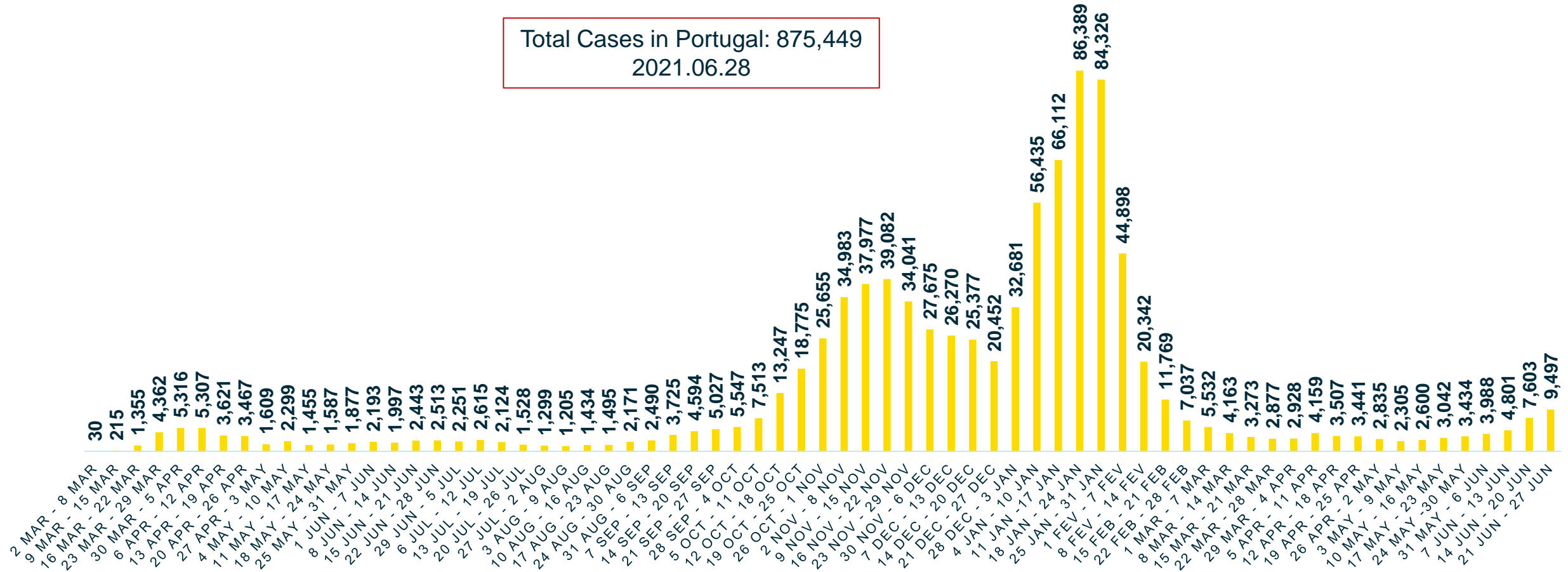
Universal masks : 95% mask usage is adopted in public.

Projection Daily Infections

For 1 October 2021

23 June Projection: 1,200

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

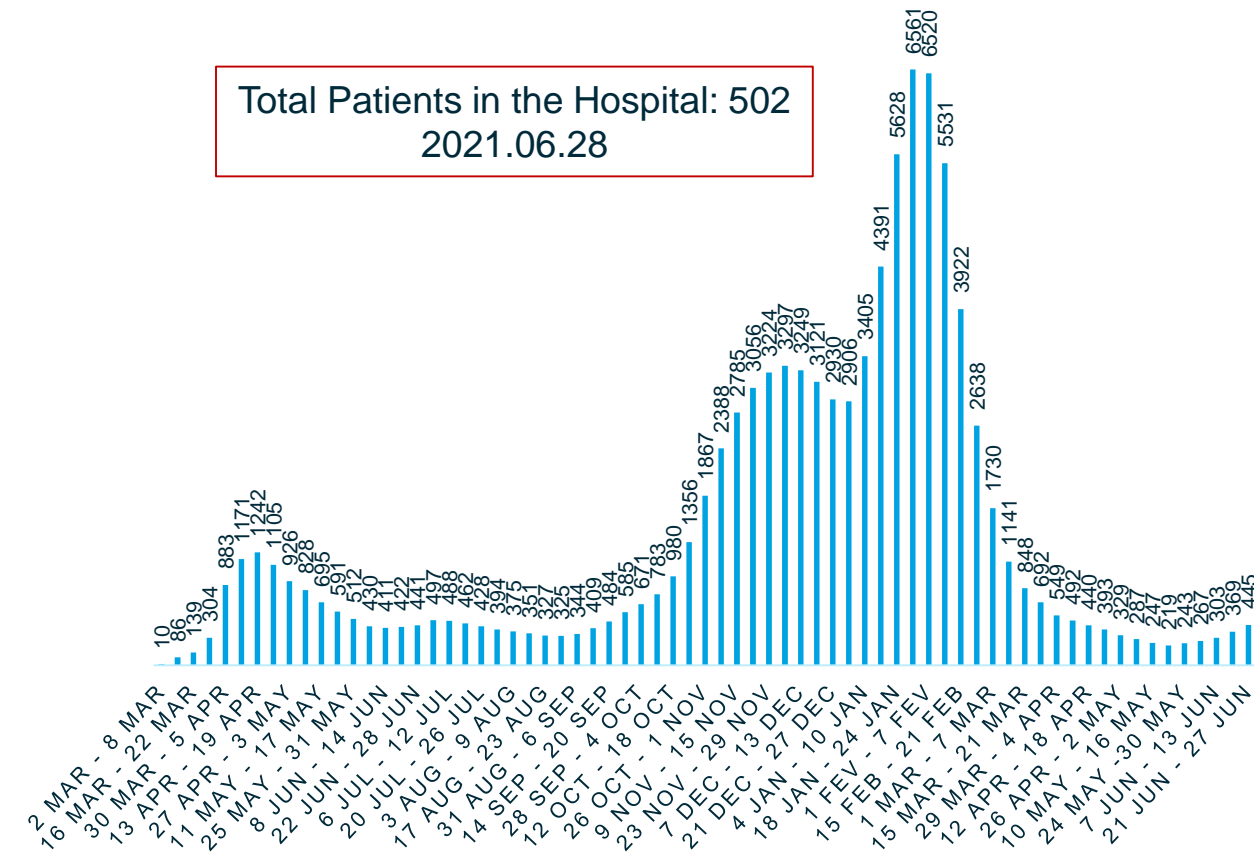


Source: <https://covid19.min-saude.pt/ponto-de-situacao-atual-em-portugal/>

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

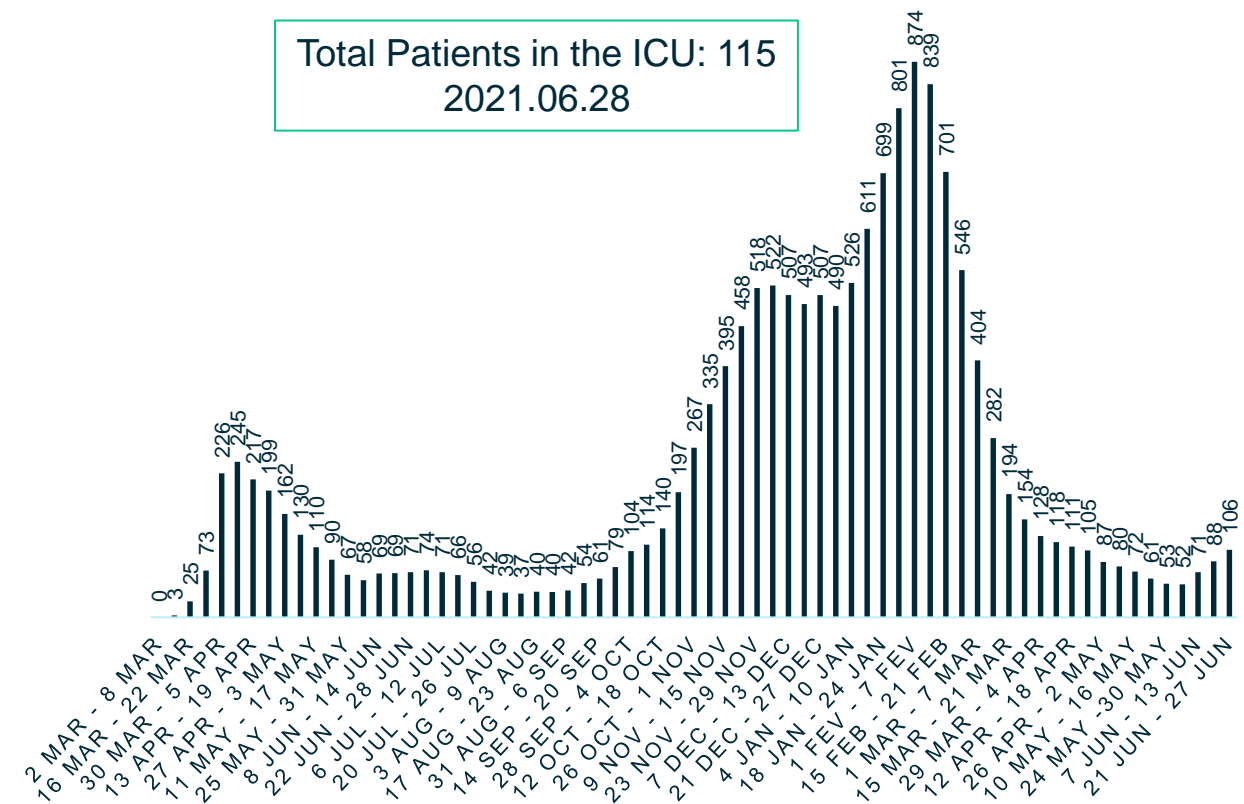
■ Average # of Patients stable in the Hospital per week

Total Patients in the Hospital: 502
2021.06.28



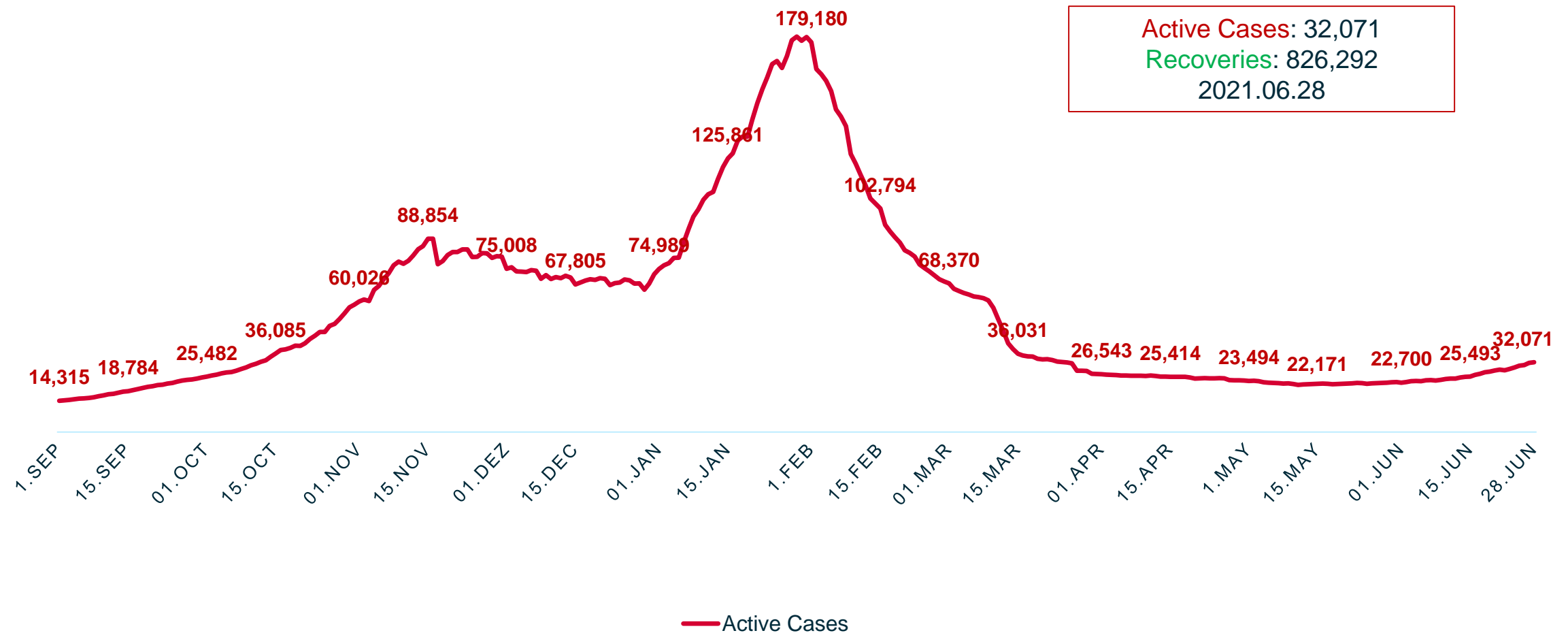
■ Average # of Patients in the ICU per week

Total Patients in the ICU: 115
2021.06.28



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

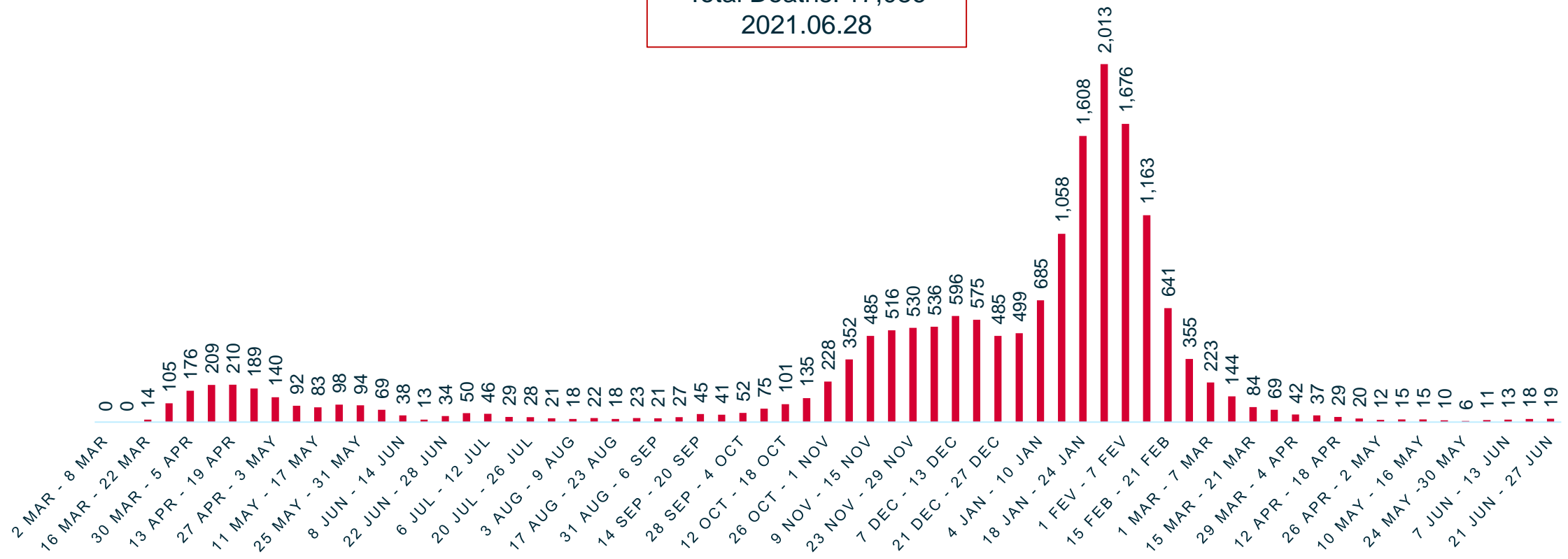
Coronavirus (SARS-CoV-2 / COVID 19) – Portugal – Active cases



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

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

Total Deaths: 17,086
2021.06.28



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

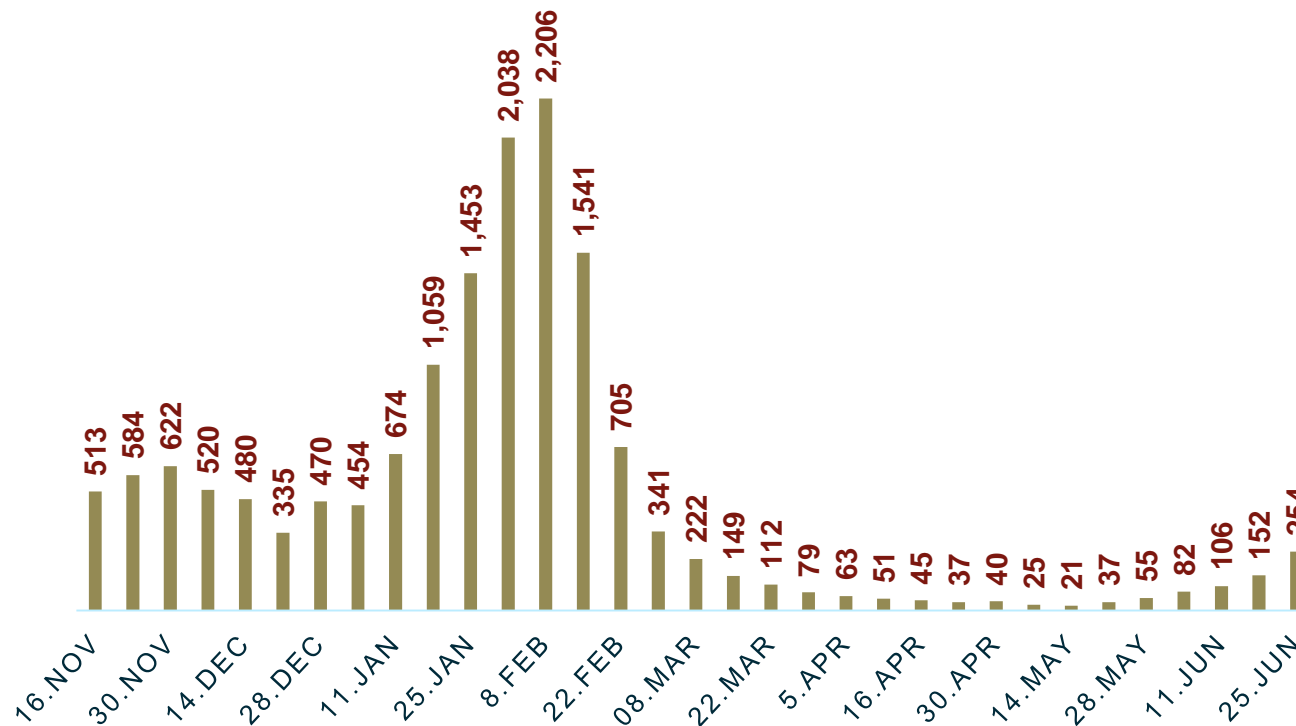
Portugal – Fatality Rate



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

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

New Cases per 100,000 population

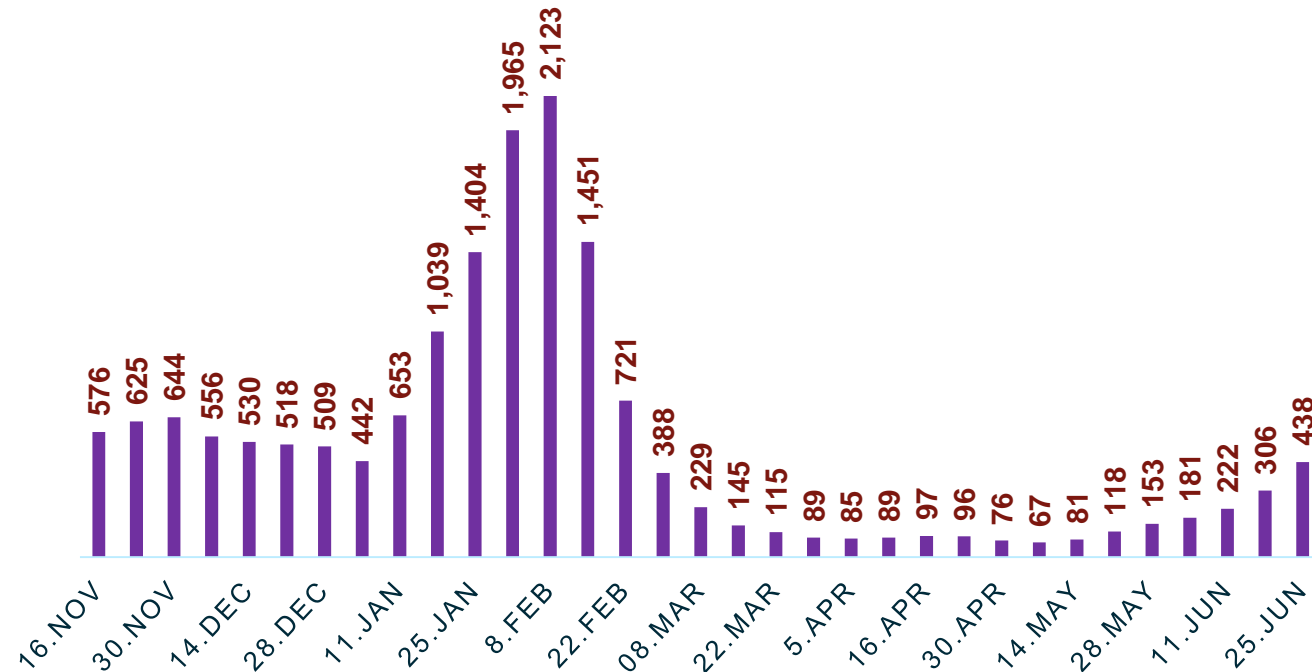


<20	
20 - 59,9	
60 - 119,9	
120 - 239,9	Moderate Risk
240 - 479,9	High Risk
480 - 959,9	Very High Risk
≥960	Extremely High Risk

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

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

New Cases per 100,000 population

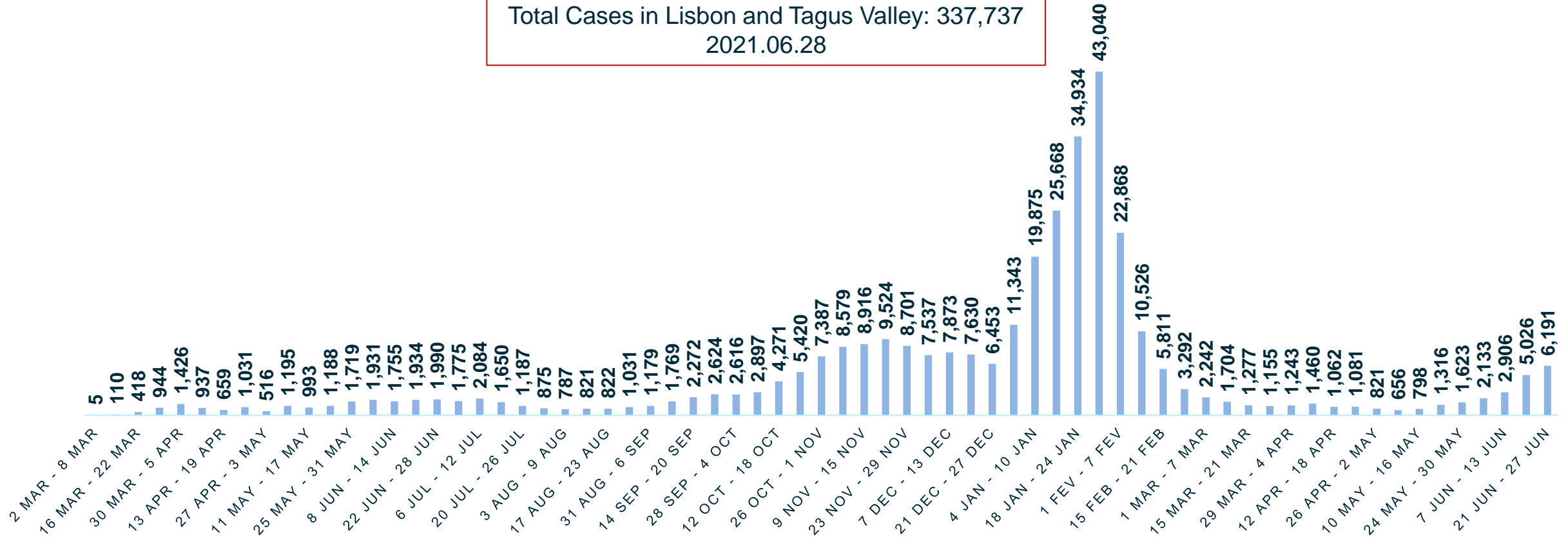


<20	
20 - 59,9	
60 - 119,9	
120 - 239,9	Moderate Risk
240 - 479,9	High Risk
480 - 959,9	Very High Risk
≥960	Extremely High Risk

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

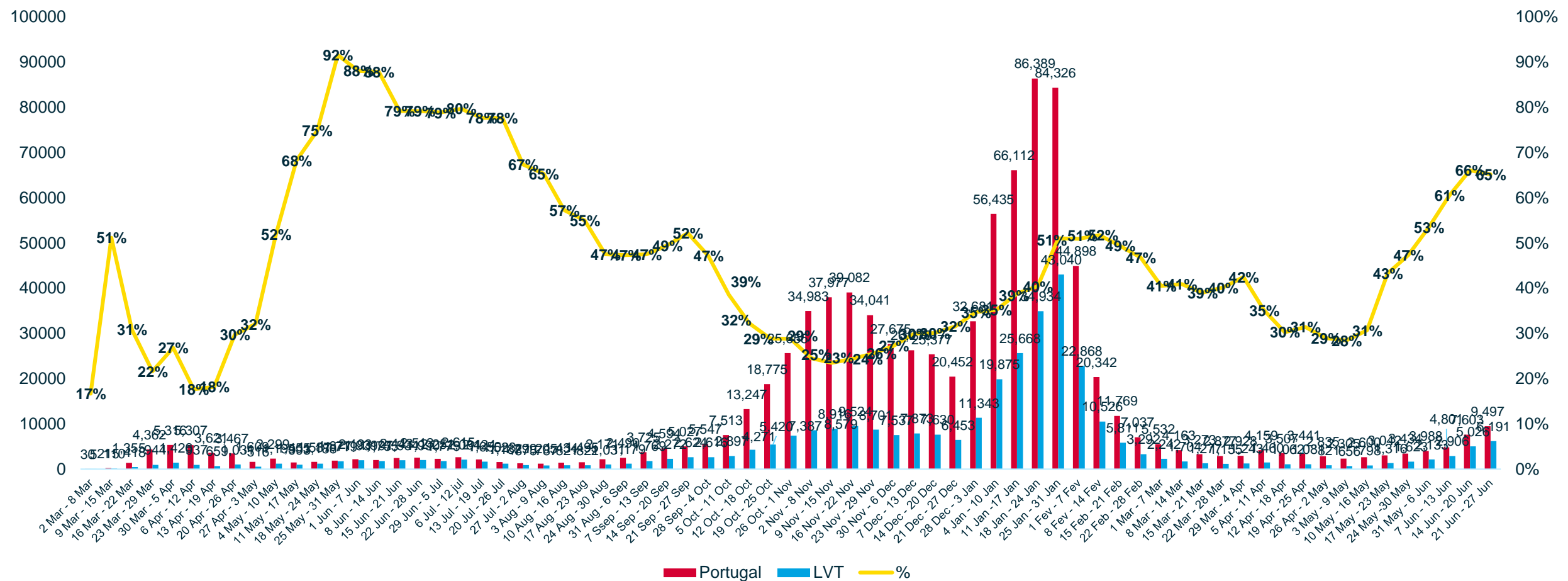
Coronavirus (SARS-CoV-2 / COVID 19) – Lisbon and Tagus Valley - New cases per week

Total Cases in Lisbon and Tagus Valley: 337,737
2021.06.28



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

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



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

Pessoas vacinadas com 1ª dose¹

4 688 551 (46%)

+338 623
NA SEMANA EM ANÁLISE

Pessoas com vacinação completa

2 947 718 (29%)

+381 498
NA SEMANA EM ANÁLISE

Existem 300 pessoas vacinadas com dose em fase de registo (+31 na semana em análise)

Pessoas vacinadas com 1ª dose¹ e com vacinação completa

Grupo Etário	1ª Dose ¹		Vacinação completa	
0 – 17 ²	2 288	0%	807	0%
18 – 24	45 925	6%	32 669	4%
25 – 49	861 058	26%	420 176	13%
50 – 64	1 575 758	73%	918 951	43%
65 – 79	1 543 716	96%	945 894	59%
≥ 80	659 804	98%	629 221	93%

Existem pelo menos 2 pessoas com grupo etário por atribuir

Doses Recebidas



8 604 606

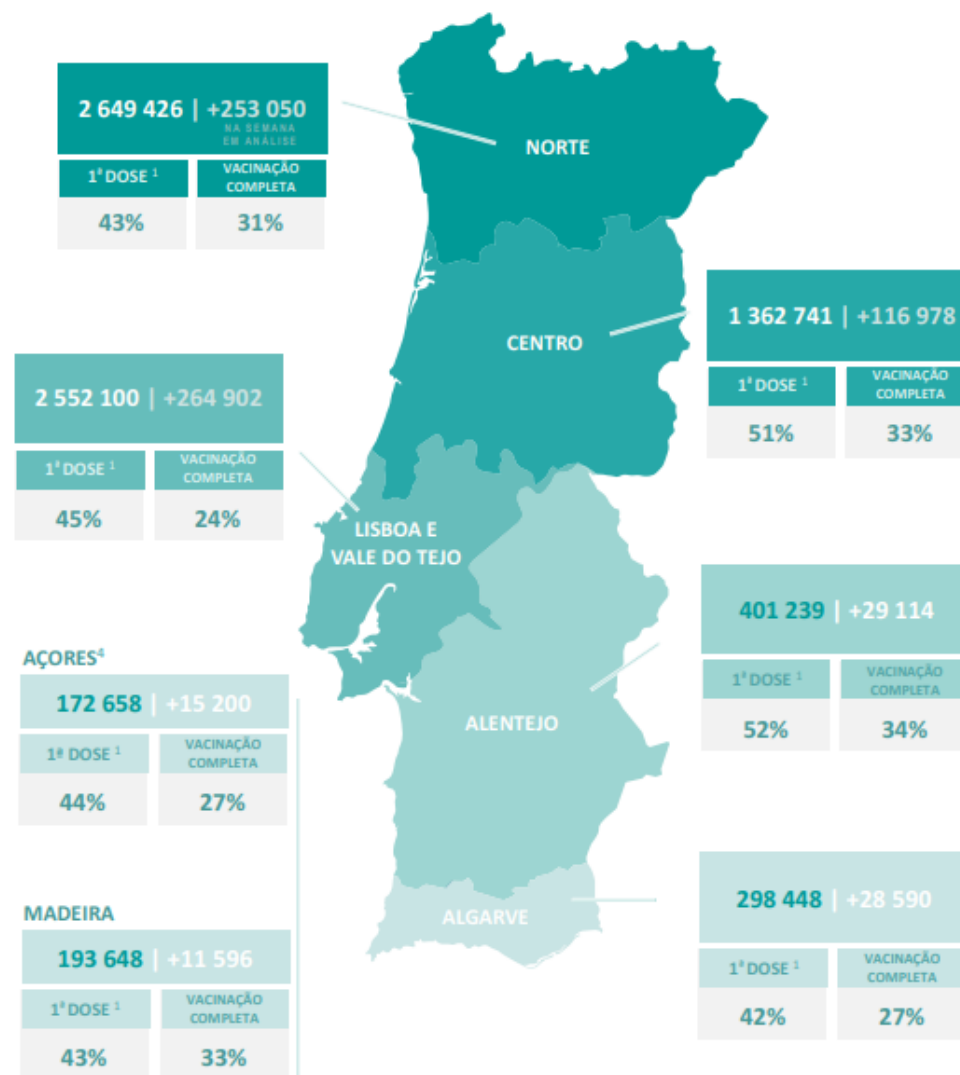
Doses Distribuídas³



7 566 600

² Não estão incluídas as distribuições nas Regiões Autónomas da Madeira e dos Açores

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



Existem 6309 pessoas vacinadas sem região atribuída (+722 na semana em análise)

Portugal Vaccination Plan

From: 27 Dec 2020
To: 20 June 2021

SARS-CoV-2 / COVID 19

Portugal - cases per 100.000

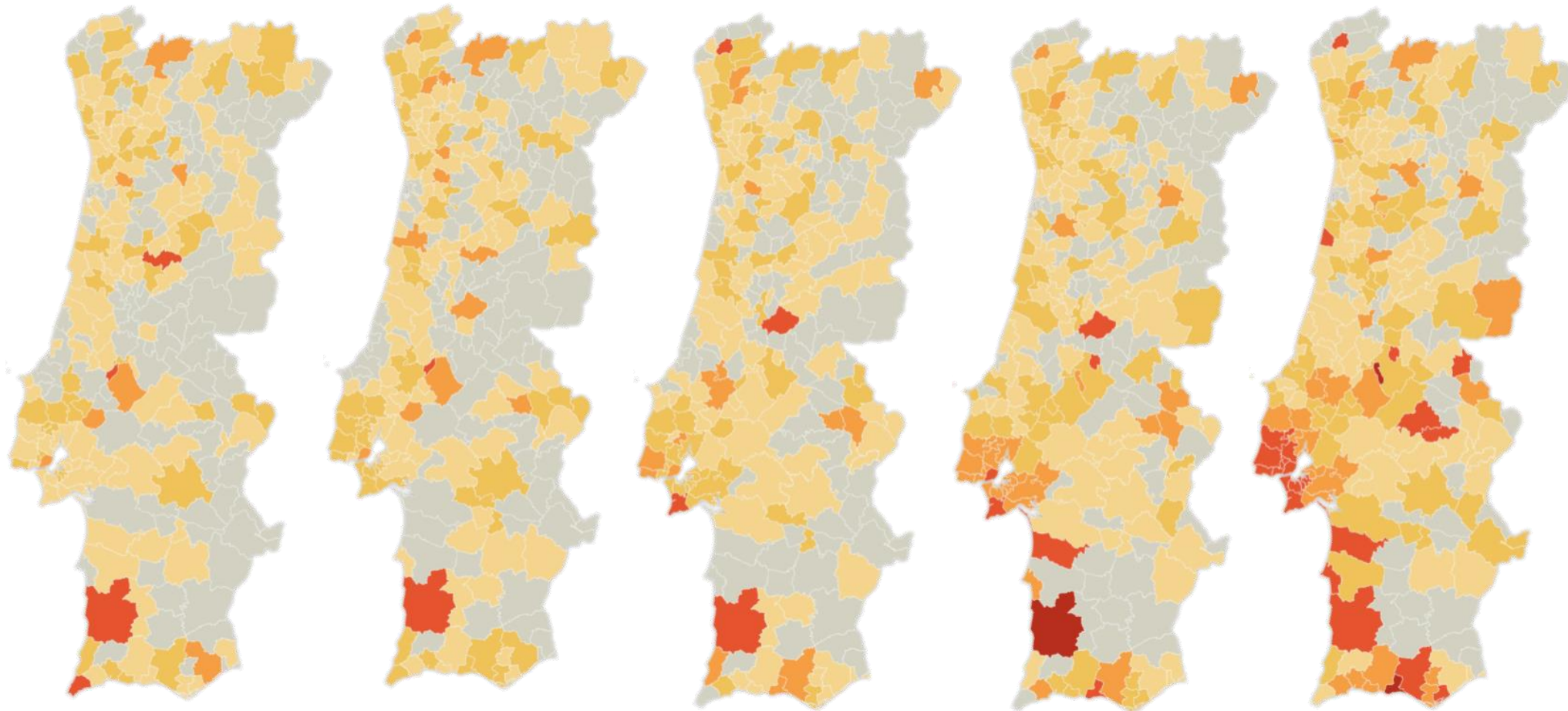
28 May

4 June

11 June

18 June

25 June



25 June 2021

Loures

254

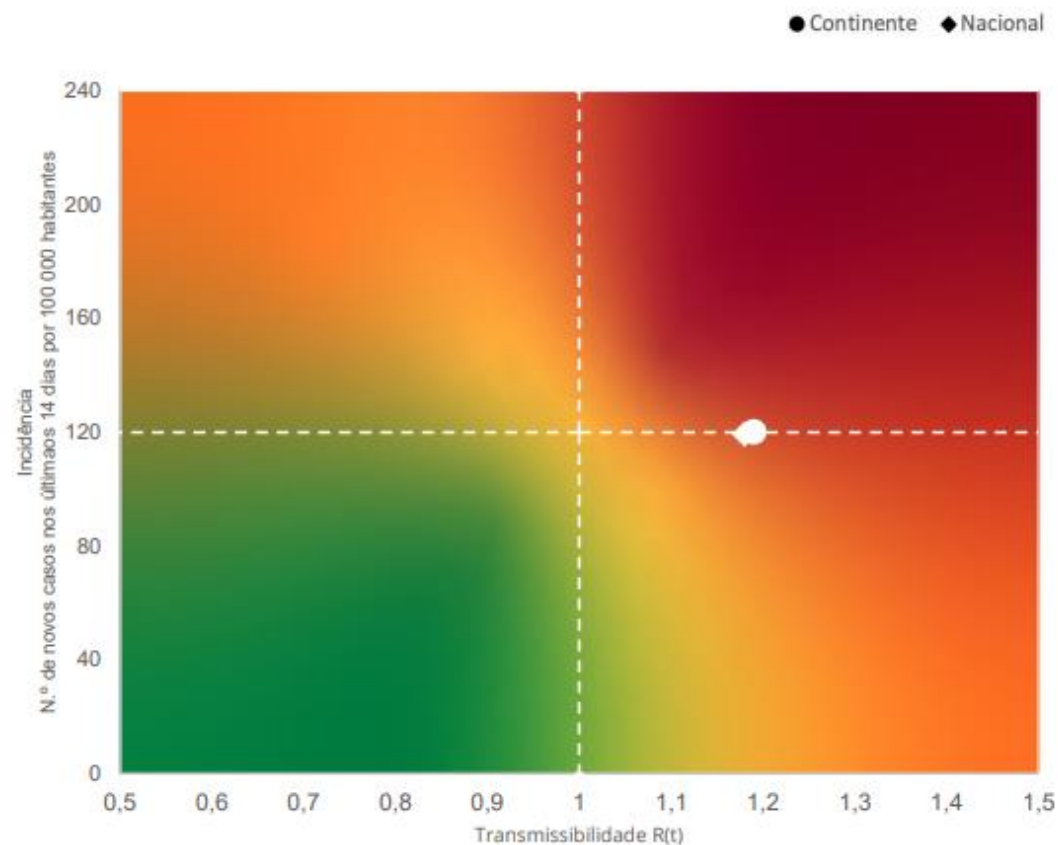
Lisbon

438

<20 20-59,9 60-119,9 120-239,9 240-479,9 480-959,9 ≥ 960

MATRIZ DE RISCO

Realização da análise: 21-06-2021



INCIDÊNCIA

Nacional: **119,3** casos de infecção por SARS-CoV-2/ COVID-19 por 100 000 hab.

Continente: **120,1** casos de infecção por SARS-CoV-2/ COVID-19 por 100 000 hab.

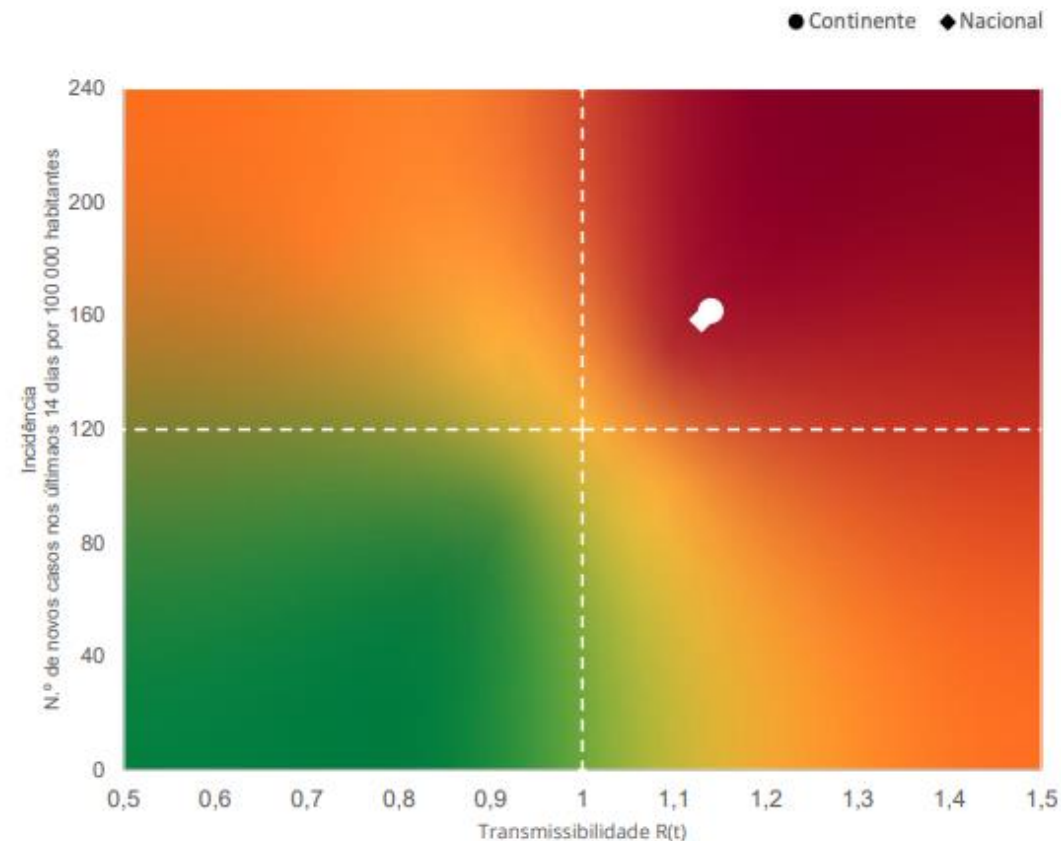
R(t)

Nacional: **1,18**

Continente: **1,19**

MATRIZ DE RISCO

Realização da análise: 28-06-2021



INCIDÊNCIA

Nacional: **158,5** casos de infecção por SARS-CoV-2/ COVID-19 por 100 000 hab.

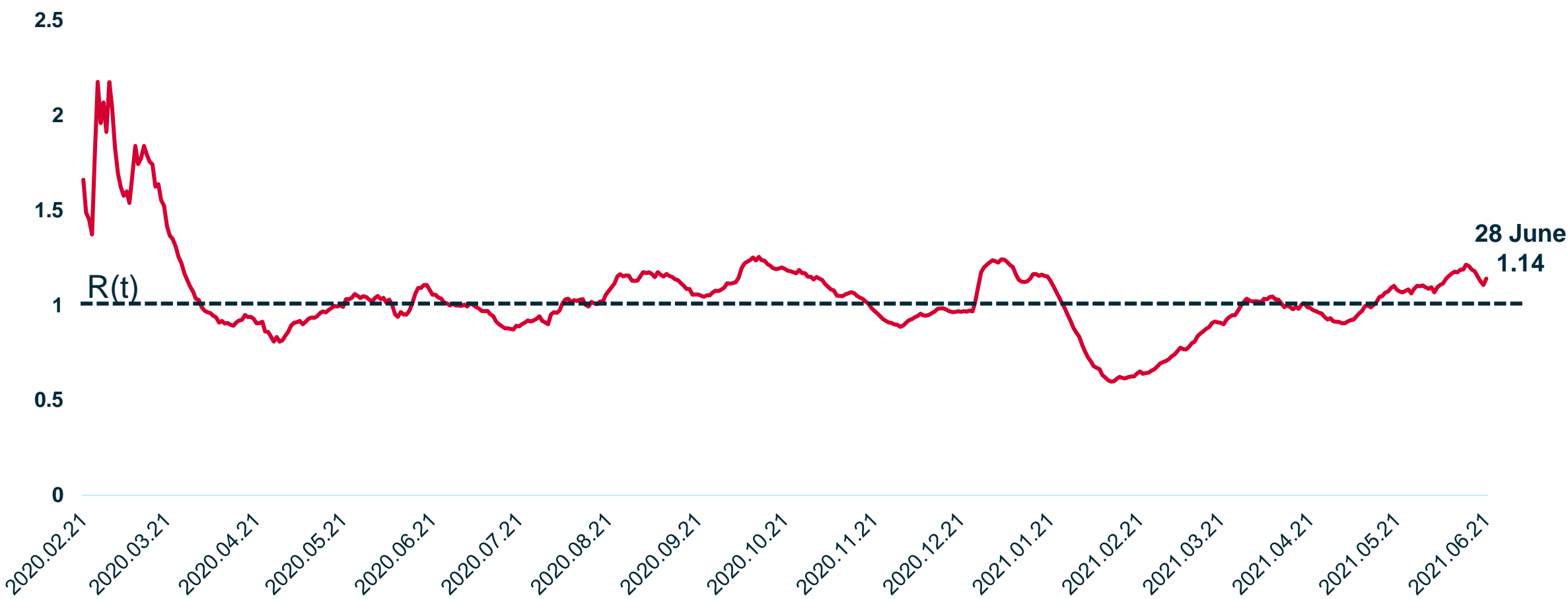
Continente: **161,7** casos de infecção por SARS-CoV-2/ COVID-19 por 100 000 hab.

R(t)

Nacional: **1,13**

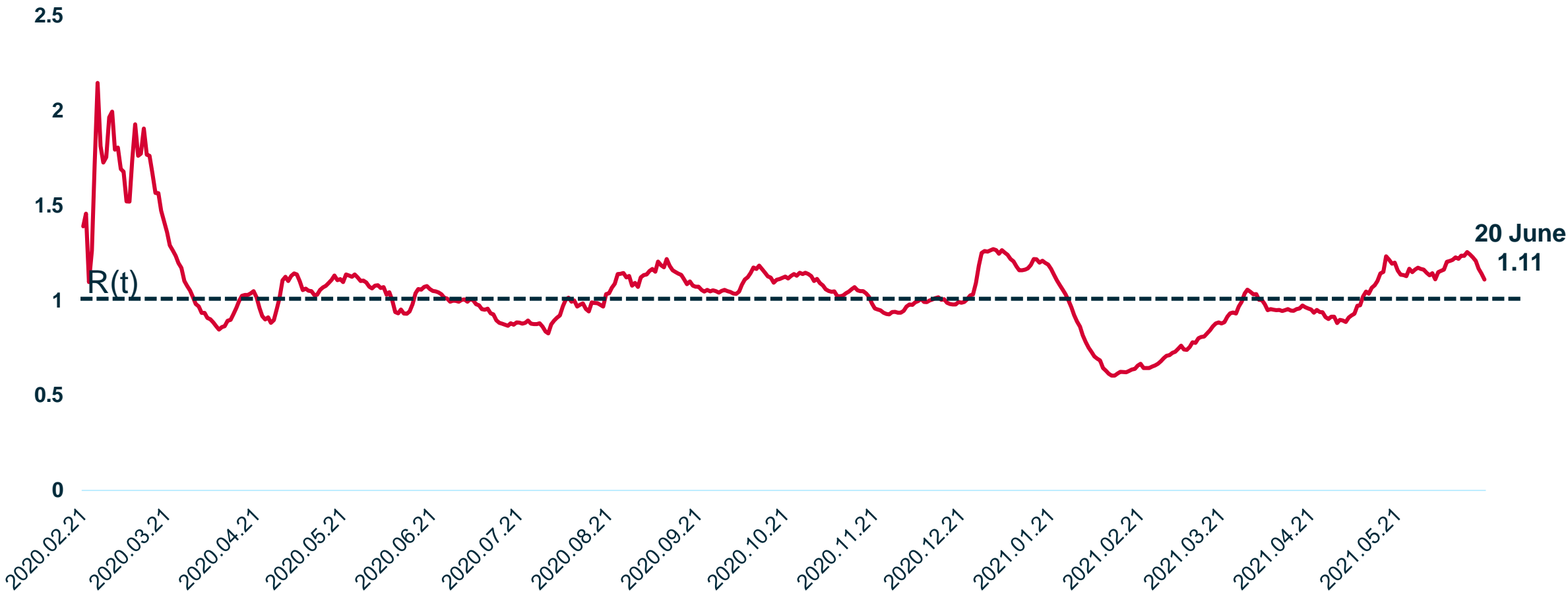
Continente: **1,14**

Transmission Rate - $R(t)$ in Portugal



Source: SNS - <http://www.insa.min-saude.pt/category/areas-de-atuacao/epidemiologia/covid-19-curva-epidmica-e-parametros-de-transmissibilidade/>

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



Source: SNS - <http://www.insa.min-saude.pt/category/areas-de-atuacao/epidemiologia/covid-19-curva-epidmica-e-parametros-de-transmissibilidade/>

Economic Projections for Portugal

March 2021

MAR. 2021

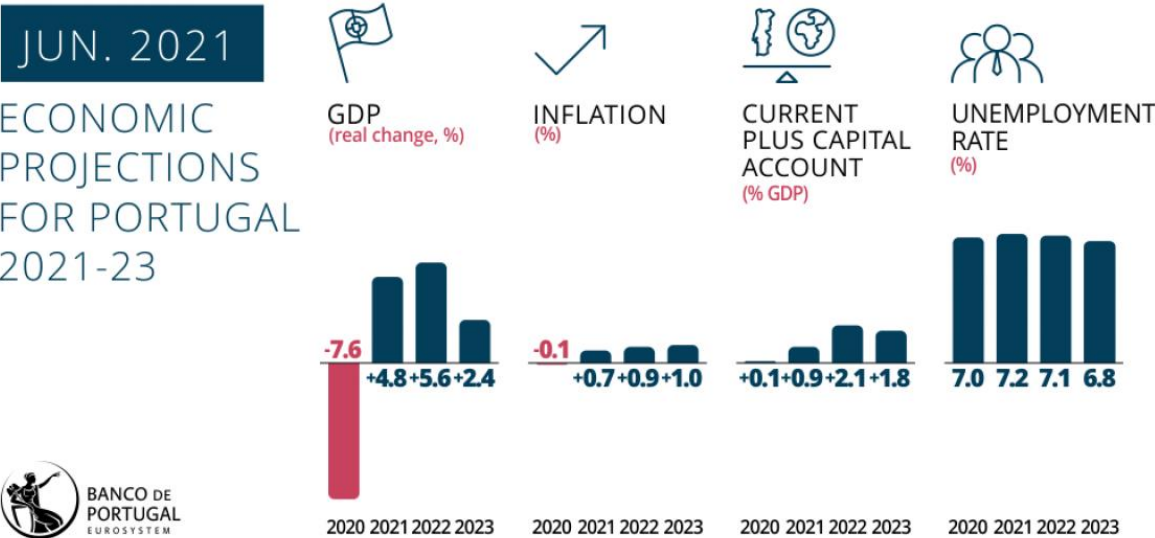
ECONOMIC PROJECTIONS FOR PORTUGAL 2021-23



June 2021

JUN. 2021

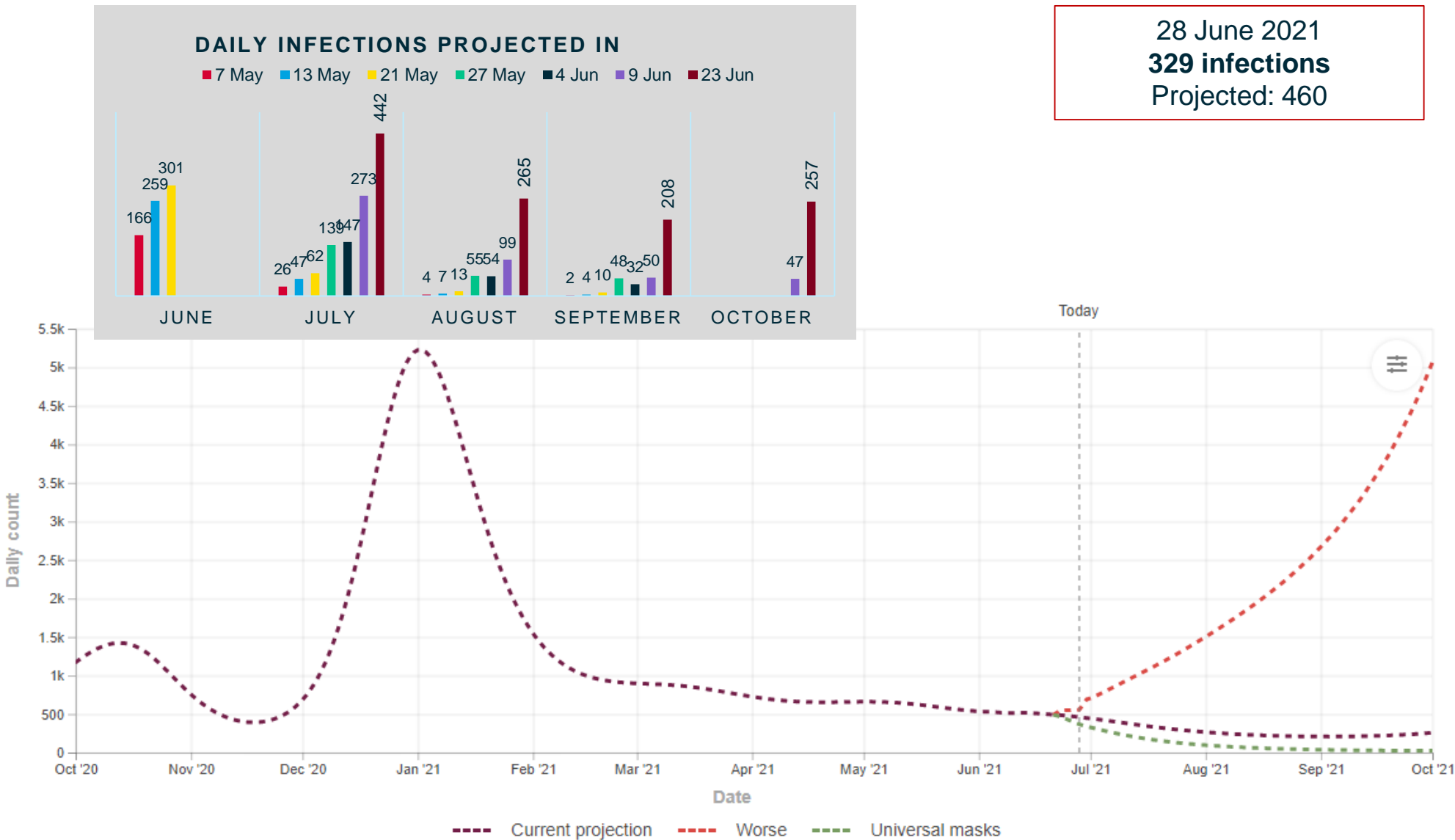
ECONOMIC PROJECTIONS FOR PORTUGAL 2021-23



Source: Banco de Portugal

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.

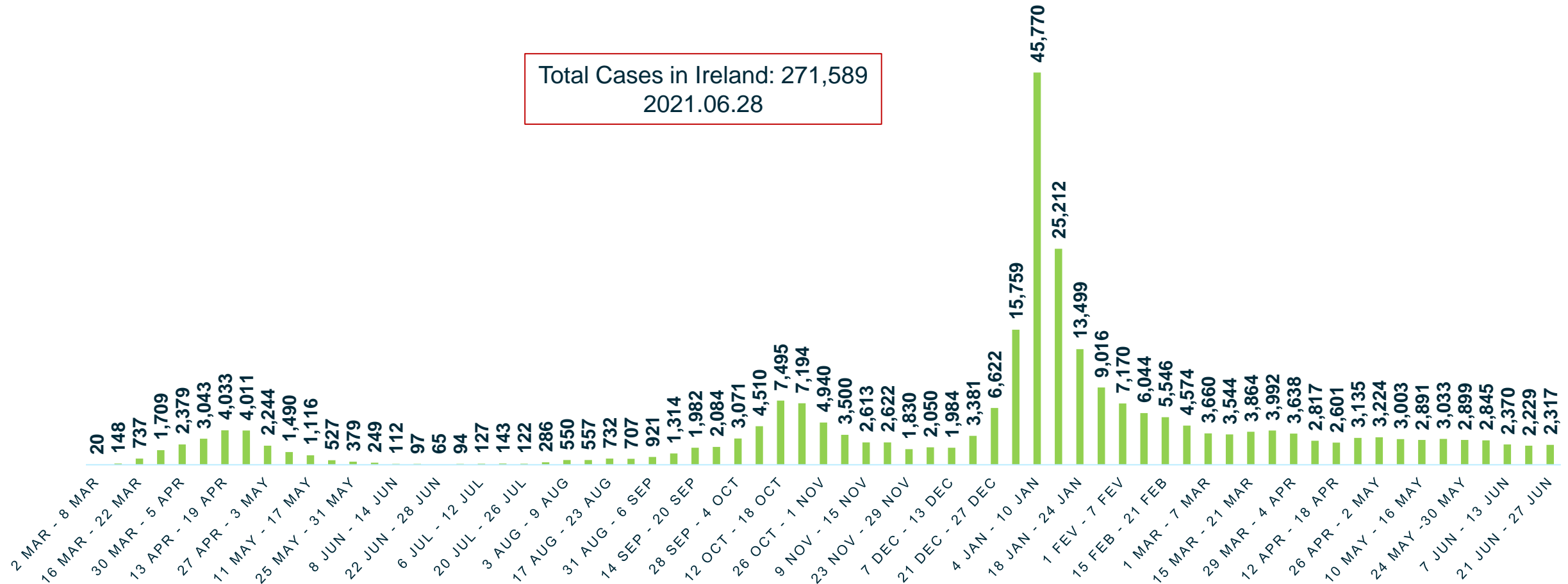
Universal masks : 95% mask usage is adopted in public.

Projection Daily Infections

For 1 October 2021

23 June Projection: 257

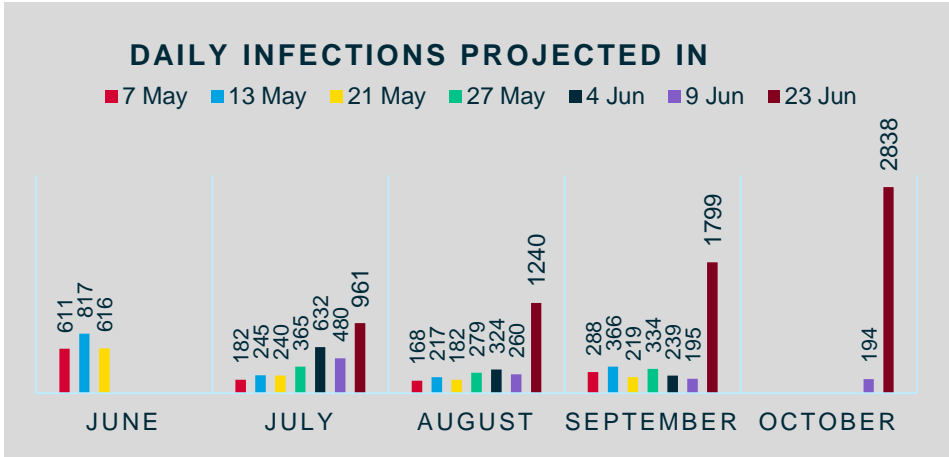
Coronavirus (SARS-CoV-2 / COVID 19) – Ireland - New cases per week



Source: <https://covid19ireland-geohive.hub.arcgis.com/>

New Jersey

Covid-19 Daily Infection Projections in New Jersey

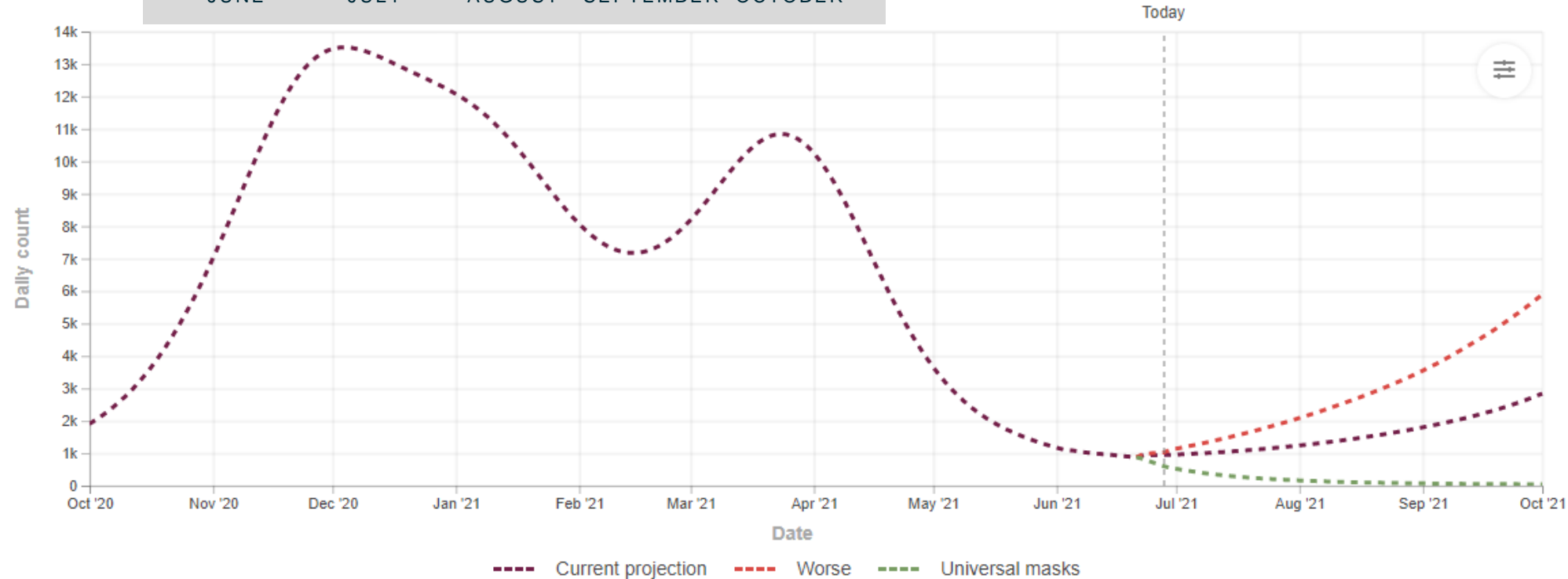


27 June 2021
11 infections
Projected: 949

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.



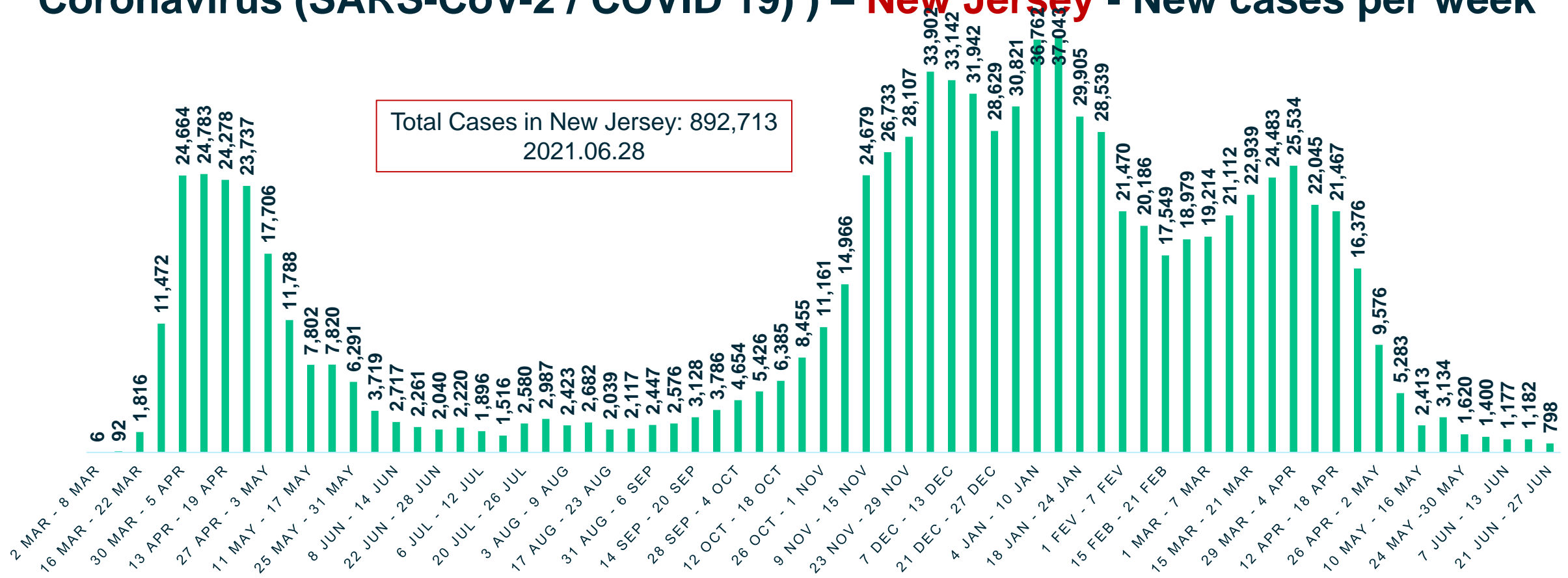
**Projection
Daily Infections**

For 1 October 2021

23 June Projection: 2,838

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

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



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

Recent News

Latest News

- Biopharmaceutical company Ampio Pharmaceuticals has announced that patient randomisation and dosing of inhaled Ampion is underway in its multi-centre AP-019 Phase II clinical trial to treat respiratory distress due to Covid-19.
- The European Medicines Agency has approved the production of Johnson & Johnson's single-dose Covid-19 vaccine at a new site in Italy, as it aims to accelerate the supply of the vaccine in the European Union (EU).
- Roche's Genentech has announced that its intravenous Actemra (tocilizumab) has received emergency use authorisation from the US Food and Drug Administration for treating hospitalised Covid-19 patients.
- The University of Oxford is testing the anti-parasitic drug ivermectin as a treatment for Covid-19. The study is part of UK government-backed research aiming to support recoveries outside hospital settings. Laboratory studies have shown the drug to reduce virus replication, with a small pilot showing that an early administration of the drug could reduce viral load, as well as the duration of the symptoms in some patients infected with mild Covid-19.
- Drug discovery company Anna Biosciences has introduced an immunotherapy platform called Syntem, which fights Covid-19 by deploying engineered molecules to produce artificial immunity.
- Histogen and its partner Amerimmune have announced top line results from a Phase I study of Emricasan in treating mild symptomatic Covid-19 patients.
- Tonix Pharmaceuticals, a clinical-stage biopharmaceutical company, is planning on developing TNX-102 SL (cyclobenzaprine HCl sublingual tablets) to treat long Covid or post-acute sequelae of Covid-19 (PASC1). Tonix is expected to meet with the US Food and Drug Administration in the third quarter of 2021 to agree on a potential Phase II pivotal study and the clinical development of TNX-102 SL for long Covid treatment.
- The European Medicines Agency has stated that 415 possible cases of rare blood clotting with low platelet count have been reported in the European Economic Area. This is among the 50 million people and more who have been vaccinated with the AstraZeneca and Johnson & Johnson Covid-19 vaccines. Known as thrombosis with thrombocytopenia, the rare blood clotting occurred among 10 individuals who received the J&J shot, and in 405 individuals who were inoculated with the AstraZeneca's Vaxzevria vaccine.

Latest News (cont.)

- **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.**

Latest News (cont.)

- **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 & 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.

Latest News (cont.)

- **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.
- Altimune, 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 adolescents 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, formerly 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.

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