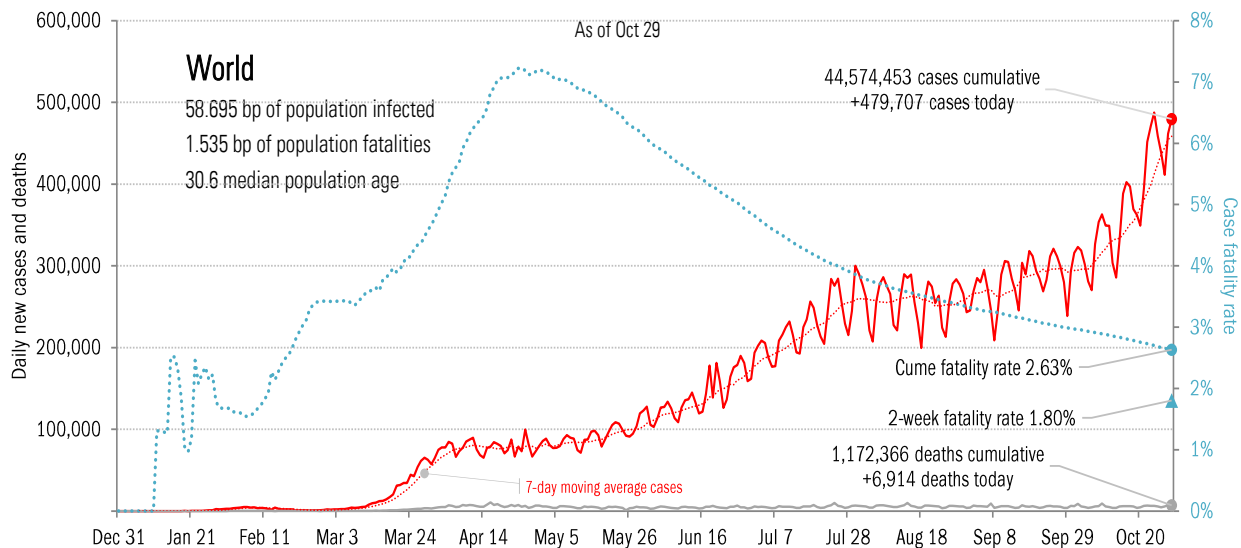
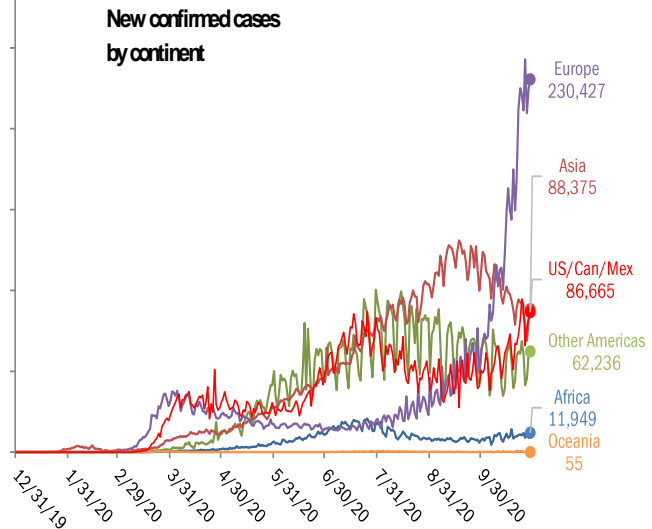


Data Insights: Covid-2019 Monitor

Thursday, October 29, 2020

The global scorecard

The worst ten countries			
New cases		New Deaths	
US	+78,371	US	+977
India	+49,881	India	+517
France	+36,437	Brazil	+510
Brazil	+28,629	Mexico	+495
Italy	+24,988	Iran	+415
UK	+24,700	Russia	+346
South_Sudan	+19,765	Argentina	+341
Poland	+18,820	UK	+310
Netherlands	+17,789	France	+244
Germany	+16,774	Poland	+236
	+316,154		+4,391
World	+479,707	World	+6,914
Top ten	66%	Top ten	64%



Source: [ECDC](https://ecdc.europa.eu/en), TrendMacro calculations

For more information contact us:

Donald Luskin: 312 273 6766 don@trendmacro.com
 Thomas Demas: 704 552 3625 tdemas@trendmacro.com

Copyright 2020 Trend Macrolytics LLC. All rights reserved. This document is not to be forwarded to individuals or organizations not authorized by Trend Macrolytics LLC to receive it. For information purposes only; not to be deemed to be recommendations for buying or selling specific securities or to constitute personalized investment advice. Derived from sources deemed to be reliable, but no warranty is made as to accuracy.

The US scorecard

National and state-by-state data do not line up because of different sources

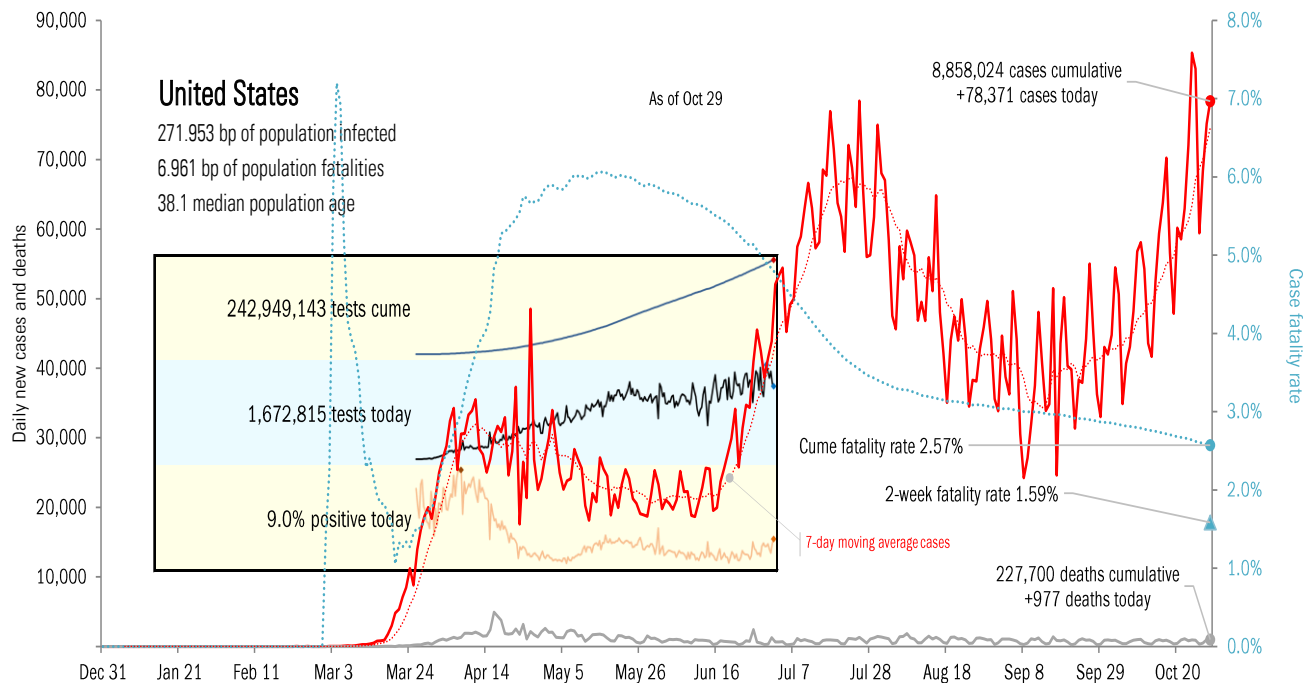
The ten worst US states

New cases		New Deaths		New in hospital		Curre cases		Curre deaths		Curre in hospital	
IL	+6,110	TX	+105	TX	+138	CA	908,713	NY	25,773	NY	89,995
TX	+5,627	CA	+75	IL	+103	TX	879,994	TX	17,700	FL	49,289
CA	+4,515	FL	+66	CH	+80	FL	780,220	CA	17,475	NJ	37,485
WI	+4,130	IL	+51	KS	+70	NY	500,677	FL	16,775	GA	31,370
FL	+4,005	WI	+48	SC	+64	IL	393,808	NJ	16,324	AZ	21,247
MI	+3,590	MA	+36	CO	+57	GA	355,025	MA	9,924	VA	20,854
KS	+3,369	NC	+34	WI	+54	NC	266,136	IL	9,889	AL	20,116
CH	+2,607	SC	+34	NJ	+53	TN	254,220	PA	8,718	CH	18,606
IN	+2,548	TN	+34	MO	+39	AZ	241,165	GA	7,876	MD	16,910
TN	+2,446	IN	+33	FR	+39	NJ	232,997	MI	7,606	IN	16,273
+38,947		+516		+697		4,812,955		138,060		322,145	
All states	+78,661	All states	+1,025	All states	+833	All states	8,802,099	All states	219,374	All states	468,287
Top ten	50%	Top ten	50%	Top ten	84%	Top ten	55%	Top ten	63%	Top ten	69%

Some states not reporting

Five most improved US states

Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most recoveries	
TX	-1,665	WI	-23	TN	-136	AL	+12
WI	-1,371	IN	-18	GA	-127	AR	+6
CO	-778	MI	-12	TX	-96	KS	+5
PA	-523	TN	-10	IN	-61	UT	+2
FR	-272	CK	-9	VA	-46	AK	+0



Source: States and test data [Covid Tracking Project](#), US data [ECDC](#), TrendMacro calculations

Recommended reading

[Macron Puts France in Lockdown as Virus Sick Swamp Hospitals](#)

Rudy Ruitenberg
Bloomberg
October 28, 2020

[How deadly is covid-19?](#)

Sebastian Rushworth
Sebastian Rushworth
October 24, 2020

[Germany imposes fresh curbs in push to slow Covid-19 spread](#)

Michael Peel, Guy Chazan and Erika Solomon
Financial Times
October 28, 2020

[Vitamin D Status in Hospitalized Patients With SARS-CoV-2 Infection](#)

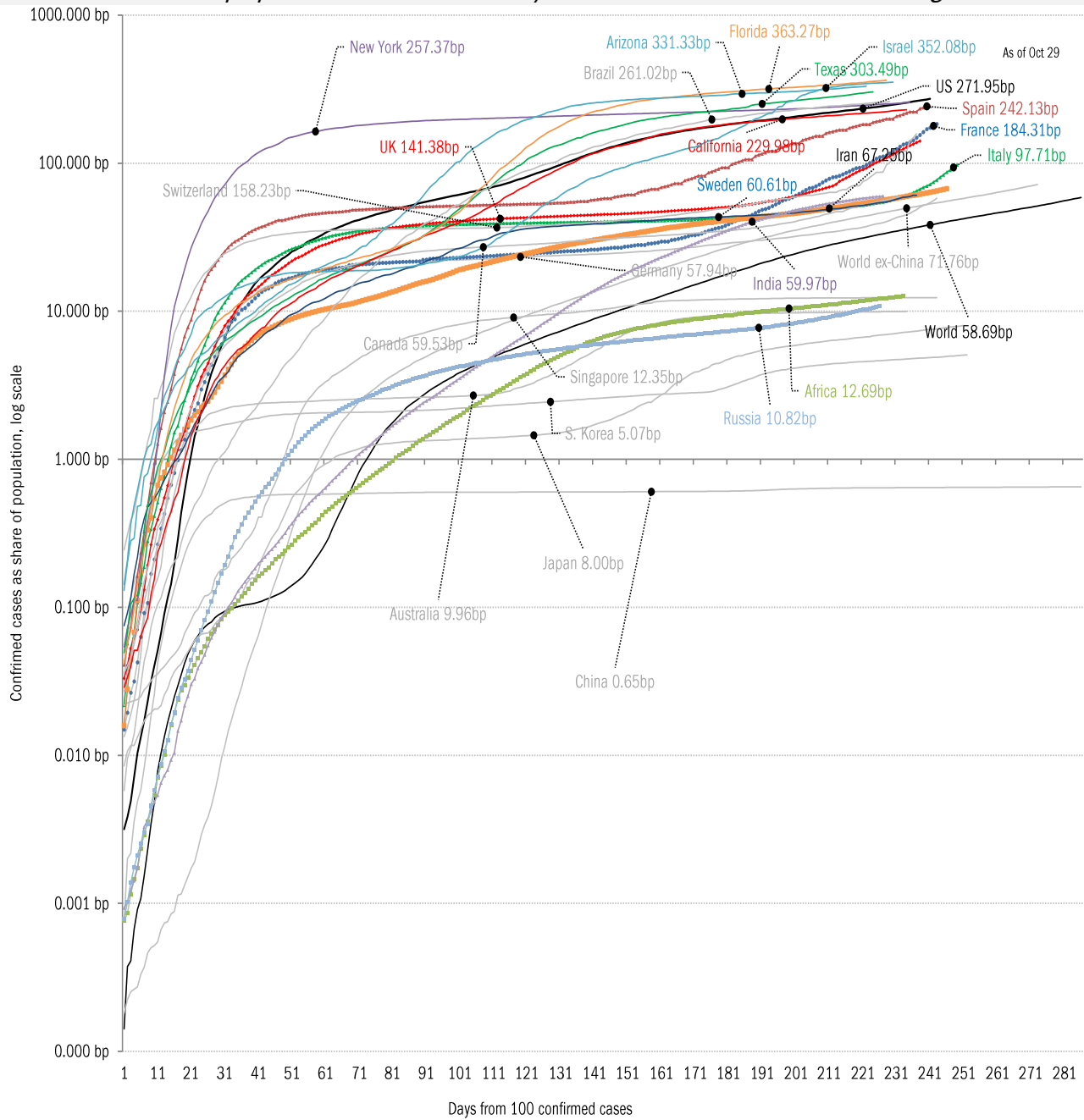
José L Hernández et al.
Journal of Clinical Endocrinology & Metabolism
October 27, 2020

Meme of day



Source: Our beloved clients, and [Power Line blog "The Week in Pictures"](#)

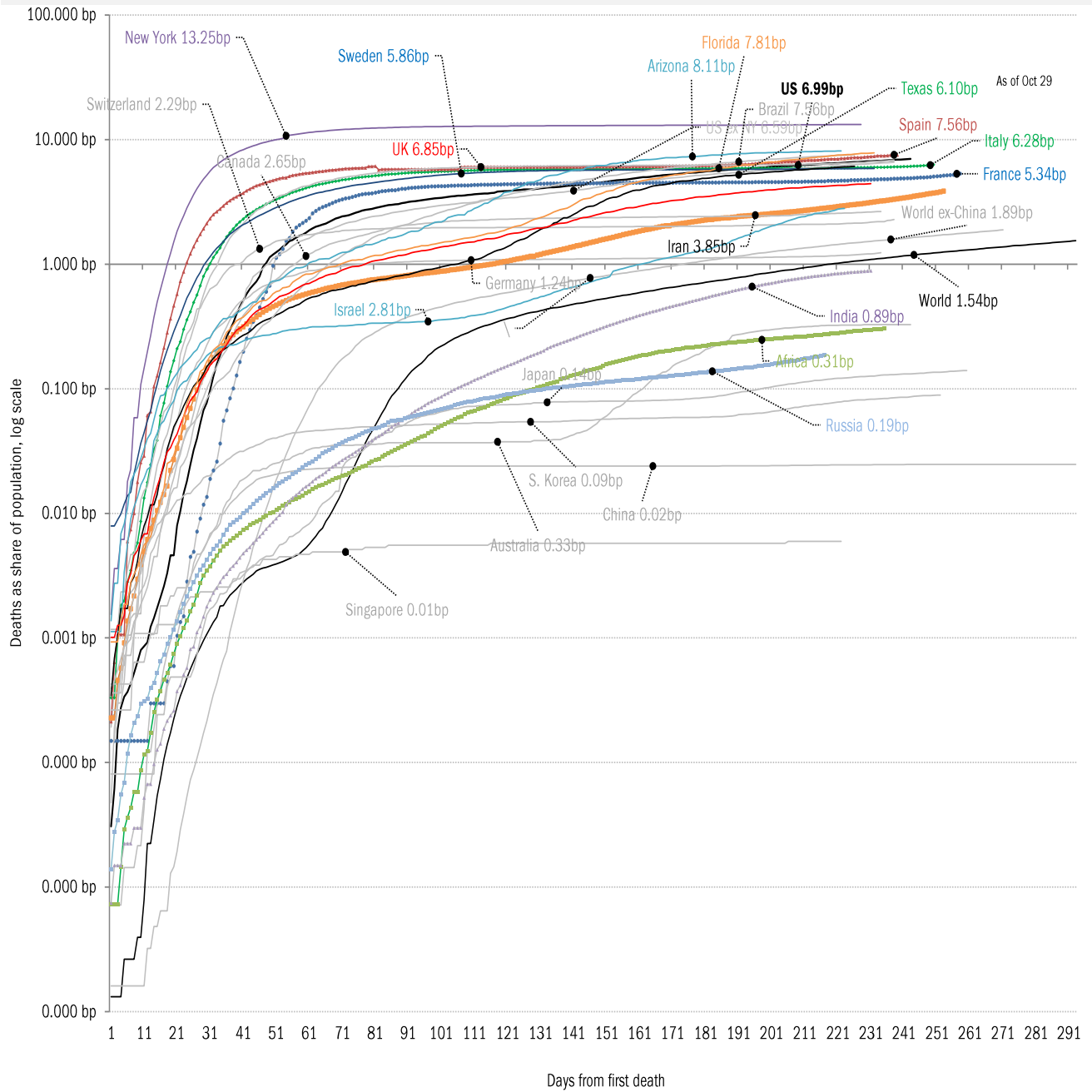
The coronavirus case accelerometer... tracking the world's infection curves
Share of infected population from first day with 100 confirmed cases, log scale



Source: [ECDC](#), TrendMacro calculations

The coronavirus mortality accelerometer ... tracking the world's fatality curves

Share of deceased population from day of first fatality

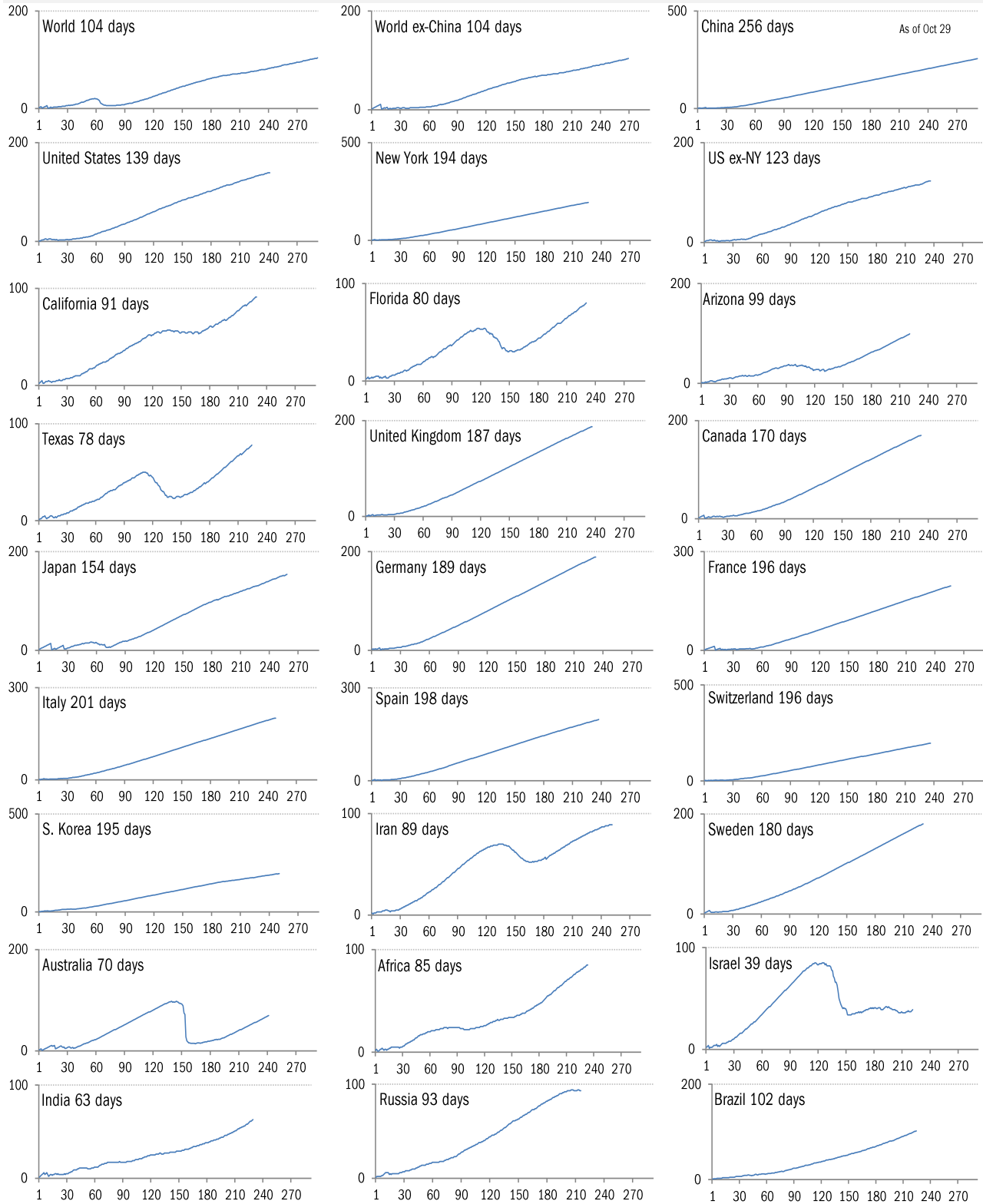


Source: [ECDC](#), TrendMacro calculations

Our most reliable evidence of slowing exponential growth of Covid-2019

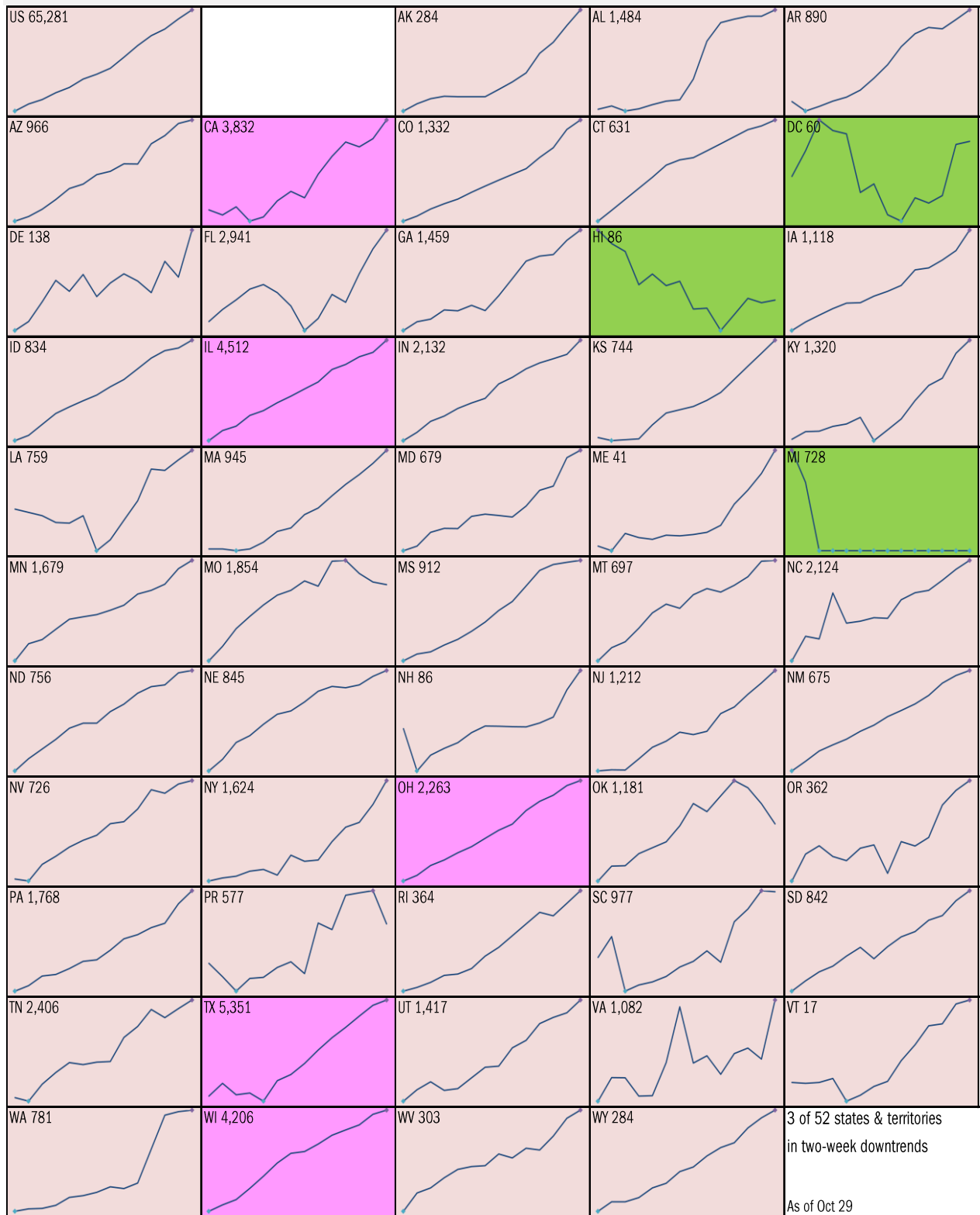
Vertical: days to double deaths Horizontal: days from first death

Flat indicates exponential spread Declining indicates supra-exponential spread Rising indicates sub-exponential spread



Source: [ECDC](https://ecdc.europa.eu/), TrendMacro calculations

Requirement to [Open Up America Again](#): 14-day "downward trajectory" in new cases
 14-day moving average, last 14 days *Most recent value displayed* ● High ● Low
 ■ Downward trajectory ■ Five best ■ Upward trajectory ■ Five worst

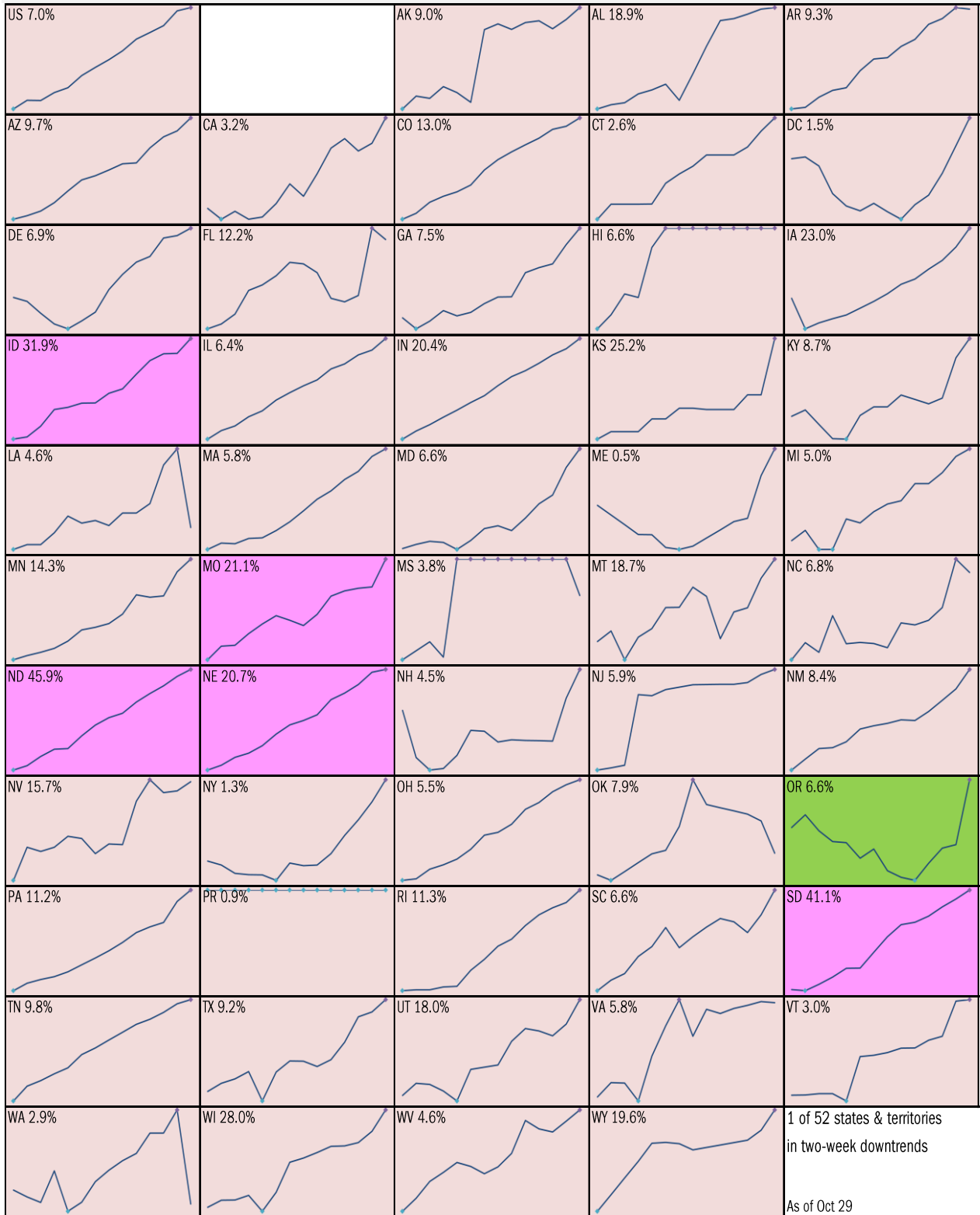


Source: [Covid Tracking Project](#), TrendMacro calculations

Alt requirement to [Open Up America Again](#): 14-day “downward trajectory” in pos tests

14-day moving average, last 14 days *Most recent value displayed* ● High ● Low

■ Downward trajectory ■ Five best ■ Upward trajectory ■ Five worst



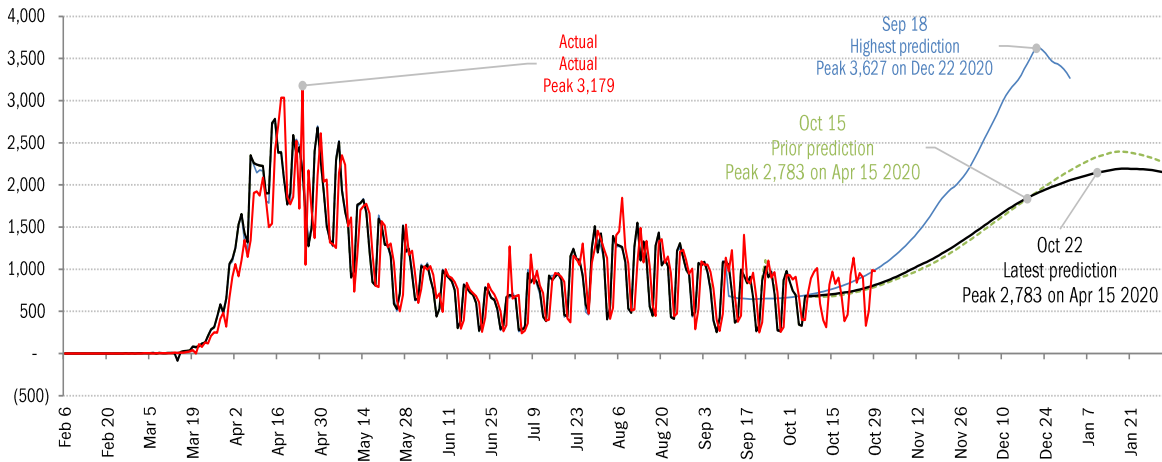
Source: [Covid Tracking Project](#), TrendMacro calculations

Reality-checking the models: actuals versus [IHME](#) predictions

New daily fatalities

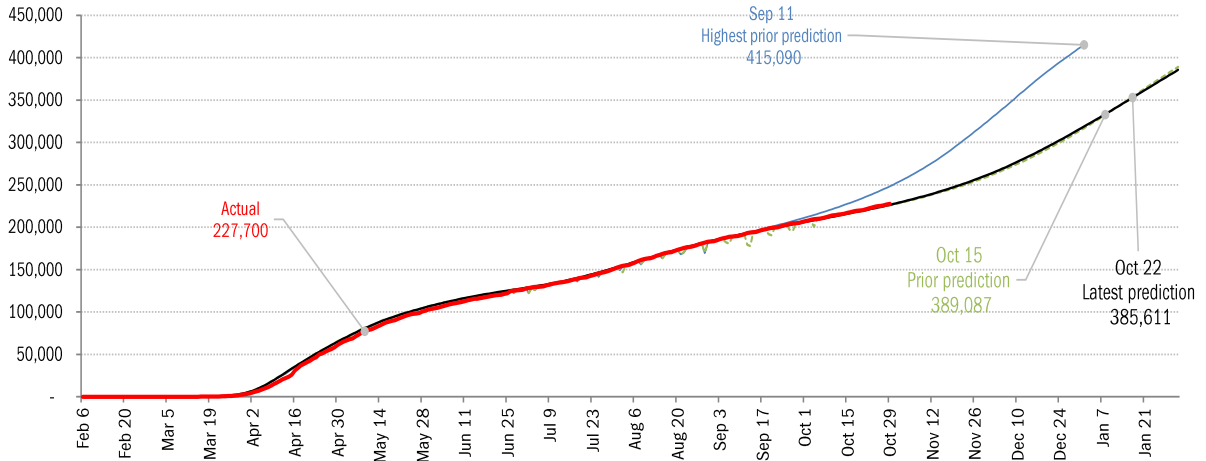
As of Oct 29

Actual versus first, highest, lowest and latest model mean predictions

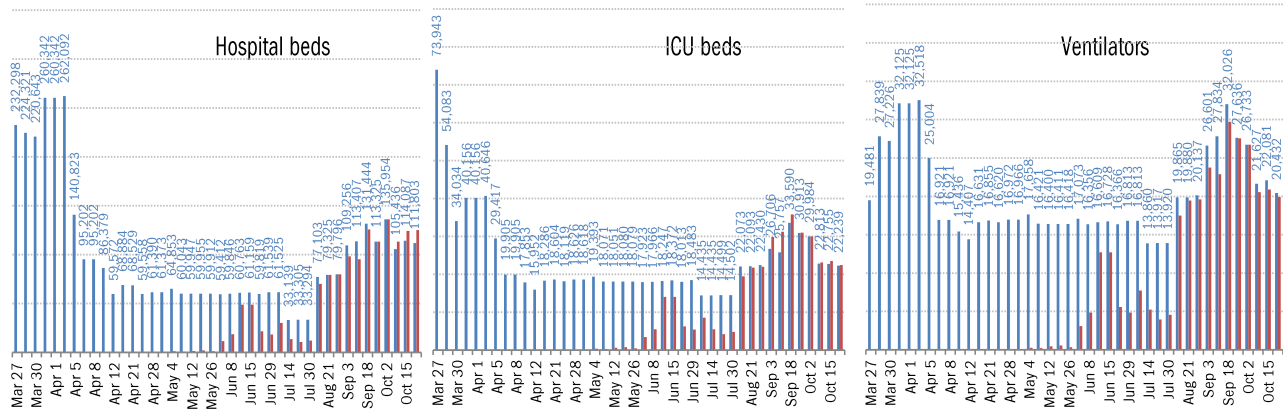


Cumulative fatalities

Actual versus first, highest, lowest and latest model mean predictions

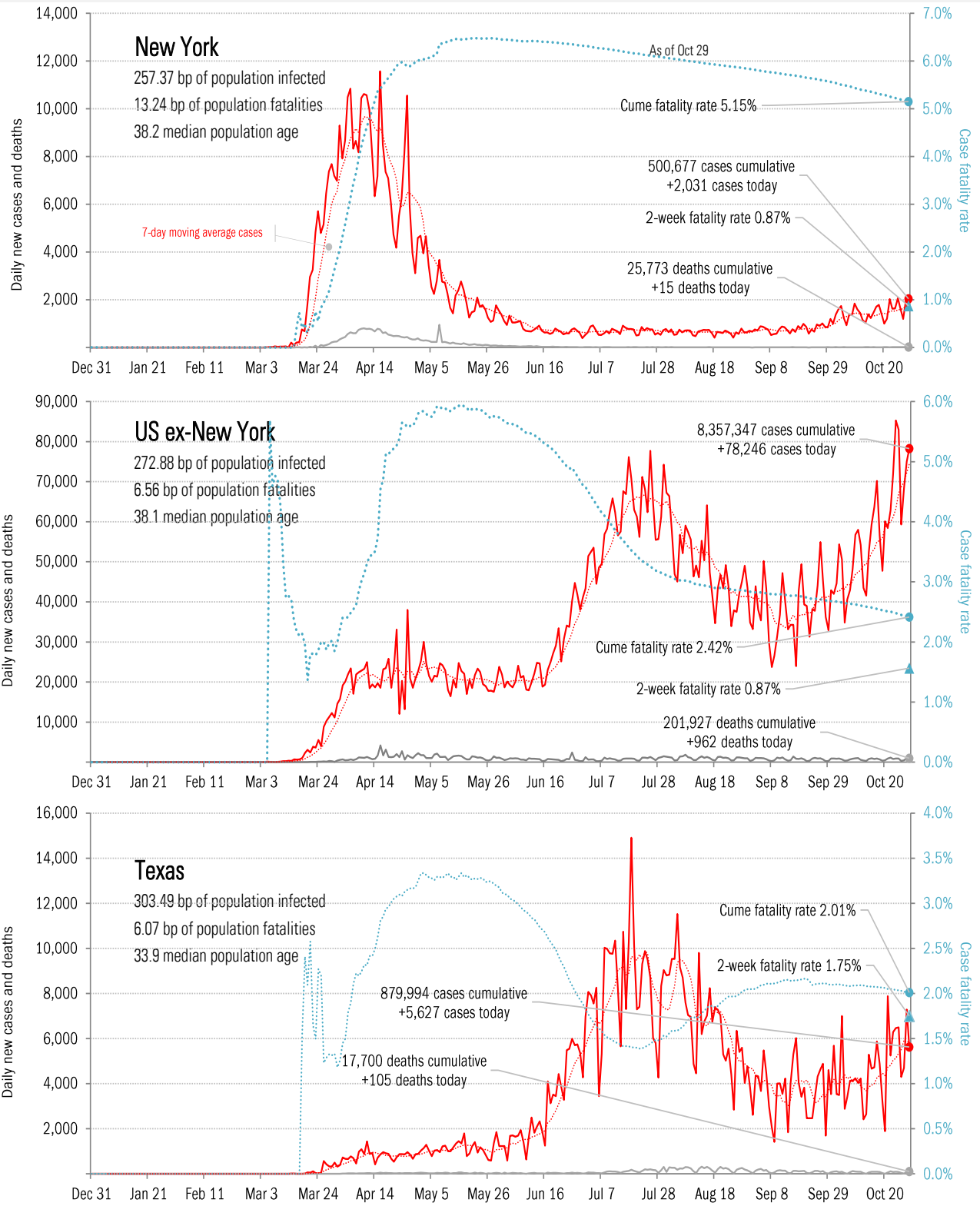


Healthcare system stress, **peak** and **ultimate** estimated at each model revision



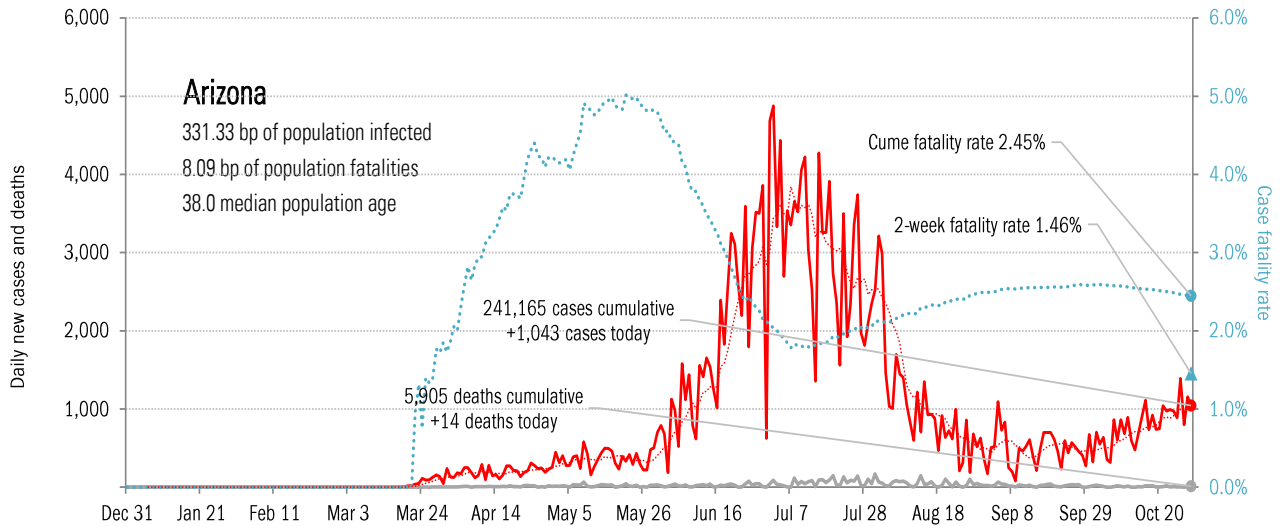
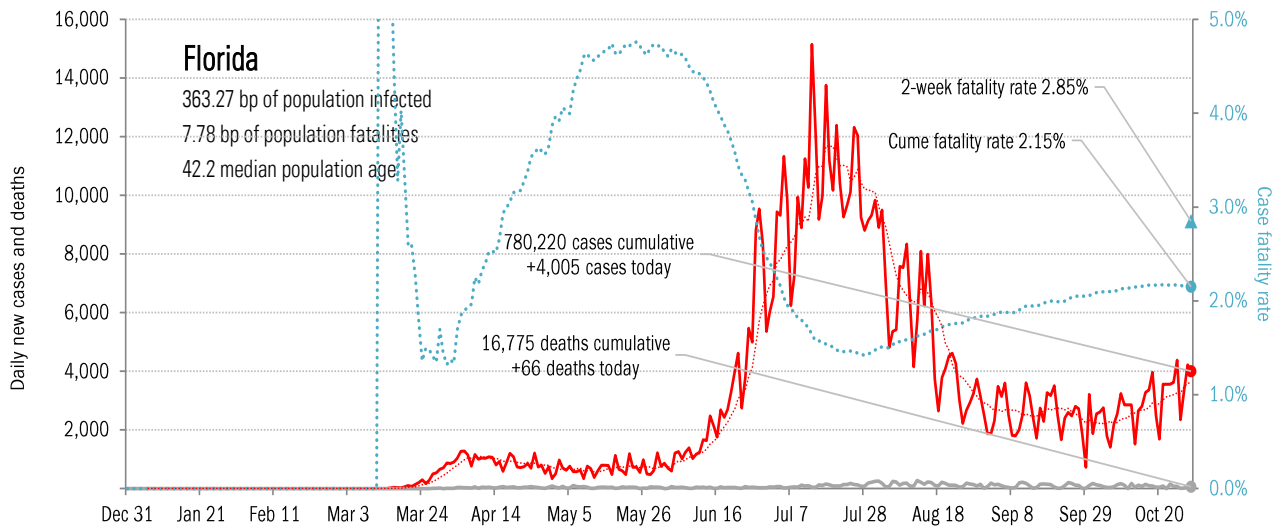
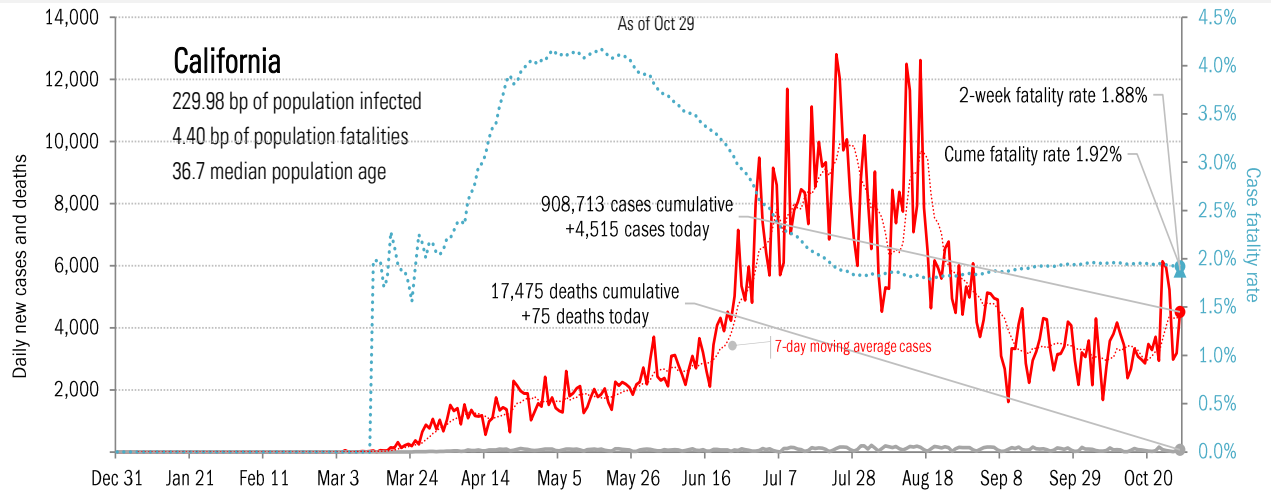
Source: [ECDC](#), [IHME](#), TrendMacro calculations

From Ground Zero to the Rio Grande



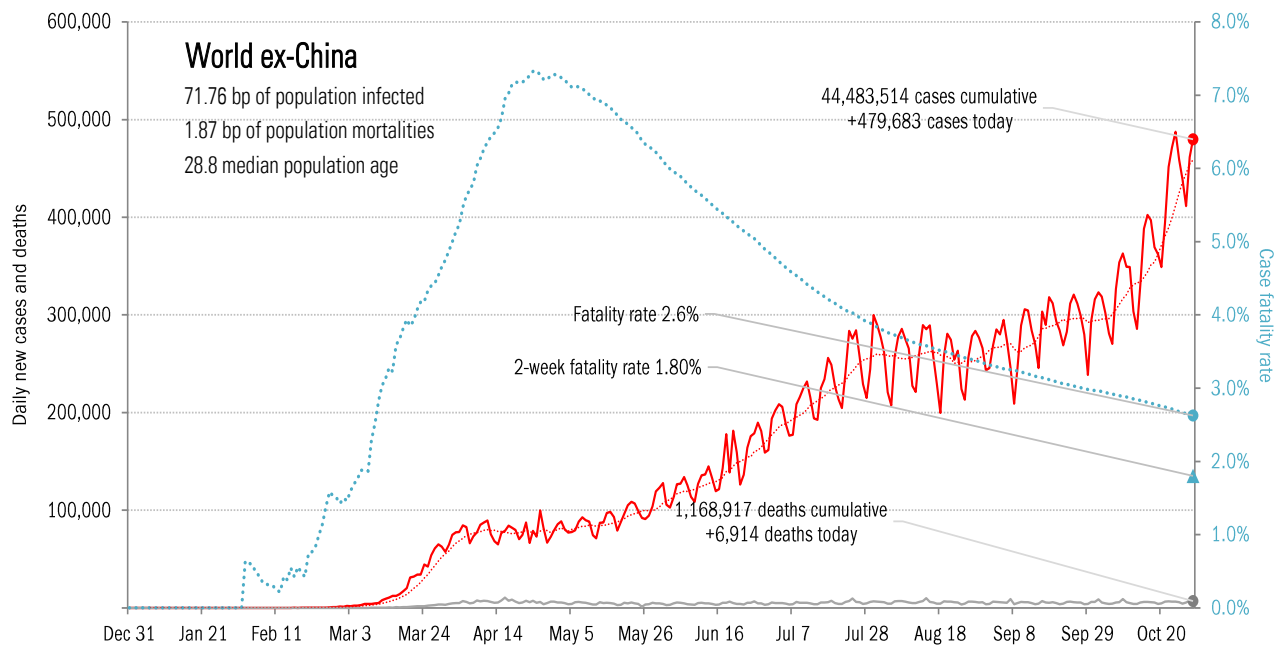
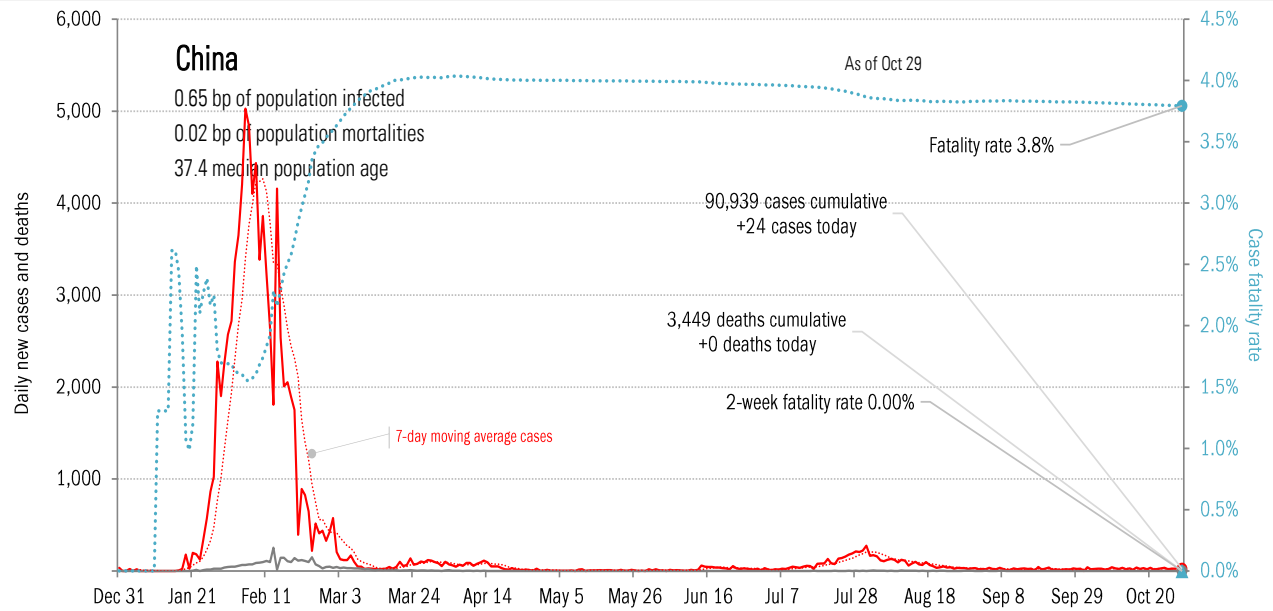
Source: [ECDC](#), TrendMacro calculations

The sun-belt hot-spot states (other than Texas)



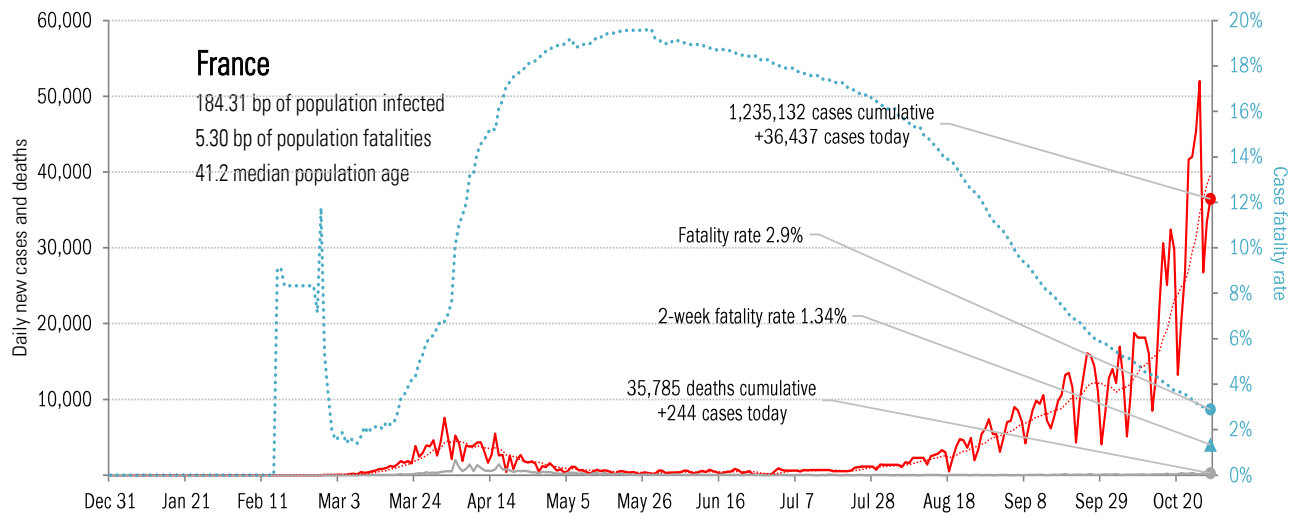
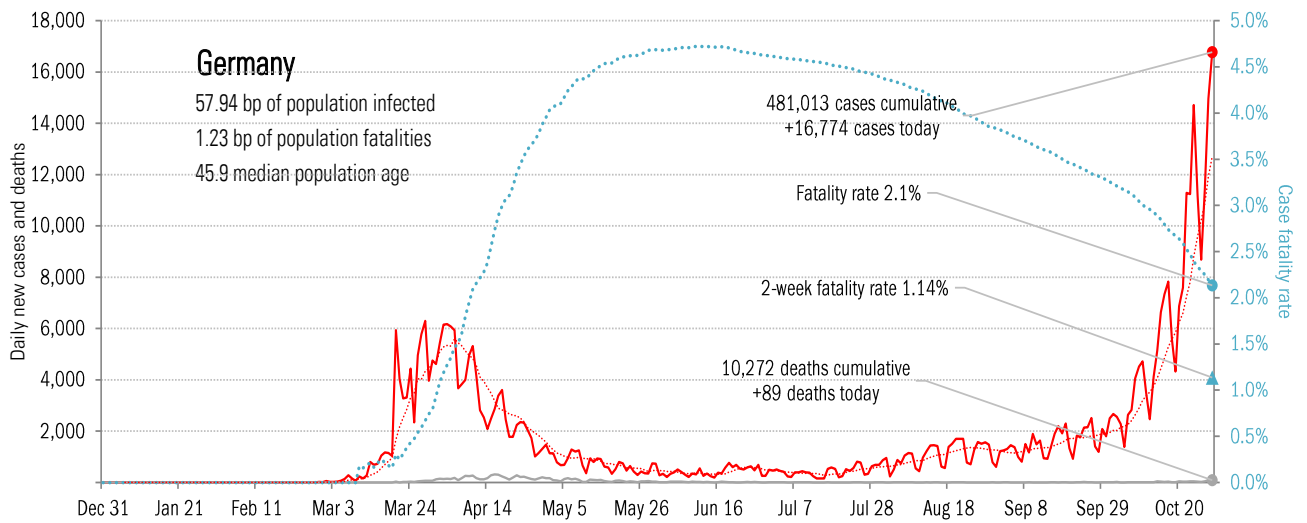
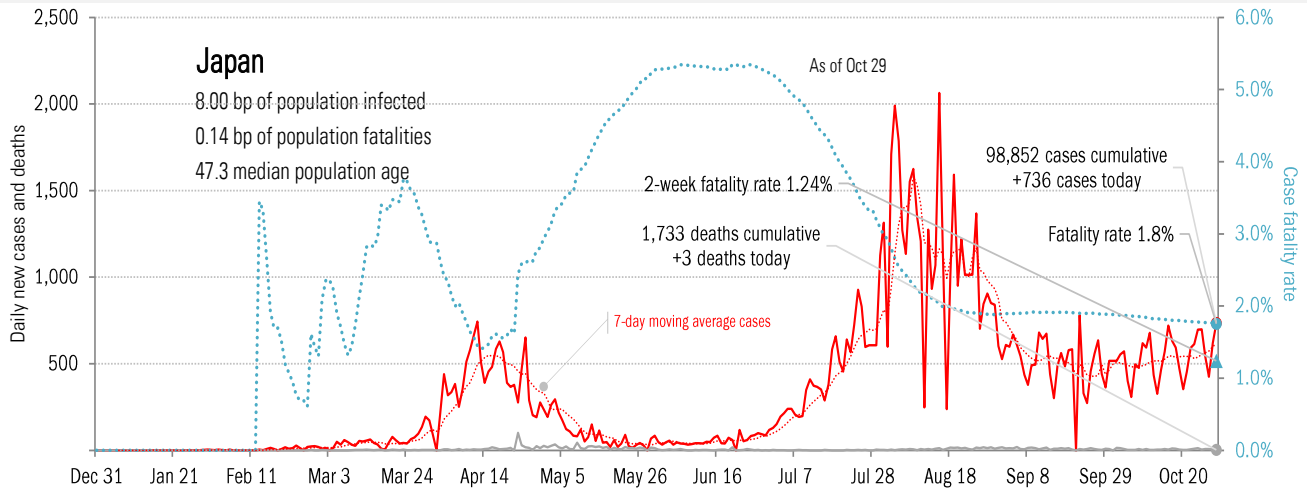
Source: [ECDC](#), TrendMacro calculations

Patient zero... and then everyone else



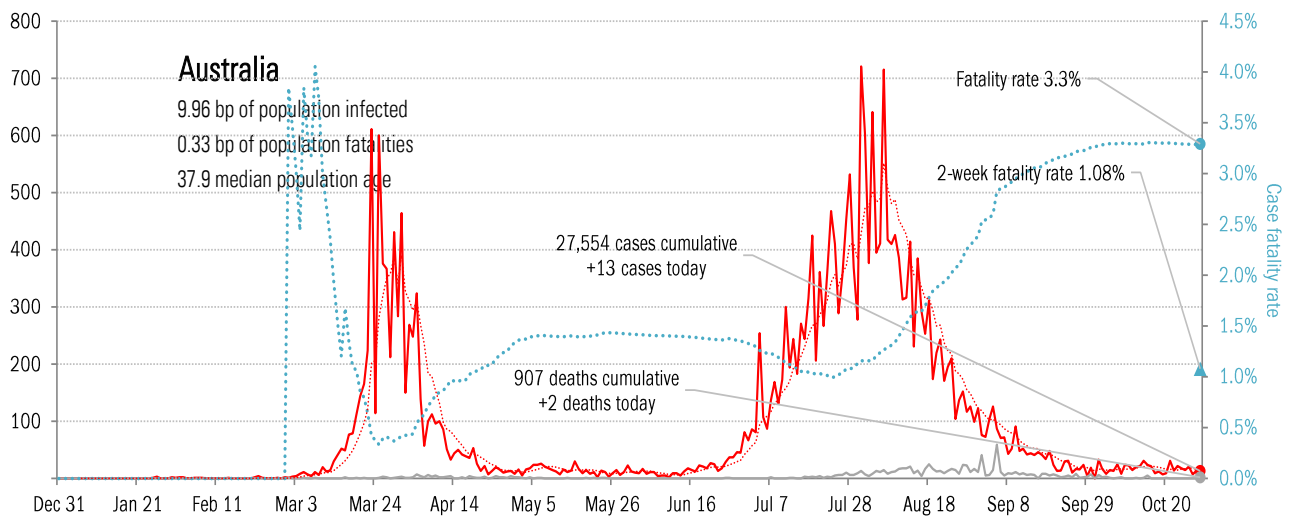
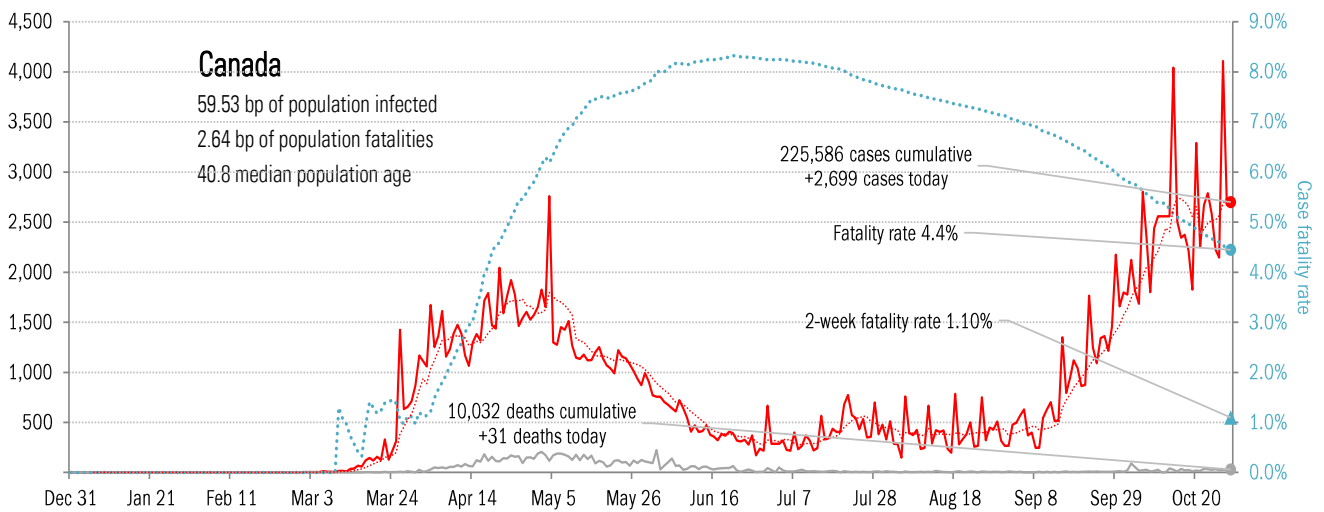
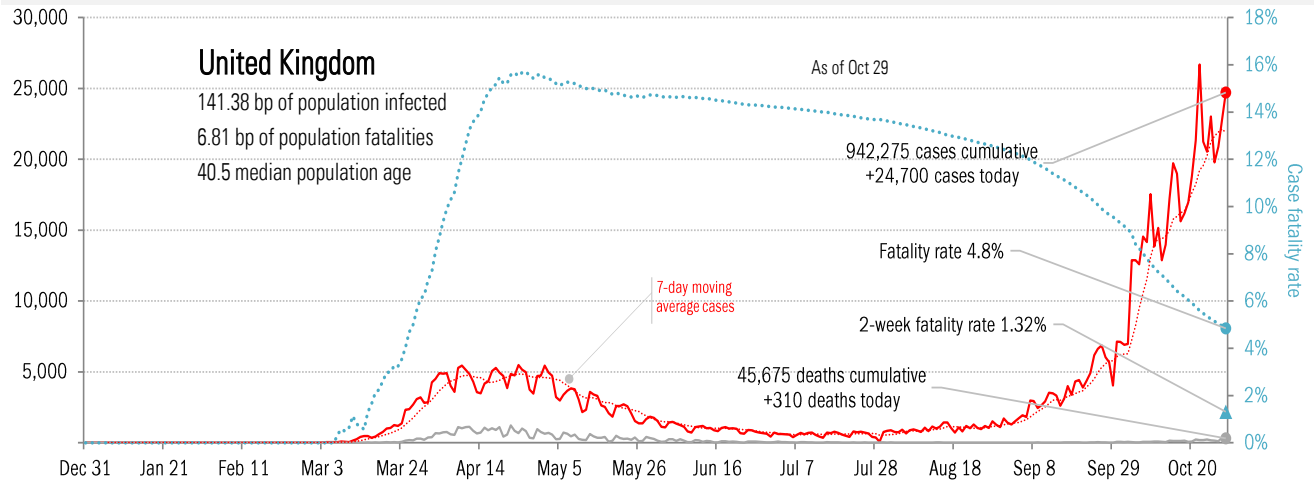
Source: [ECDC](#), TrendMacro calculations

Impact in the largest economies



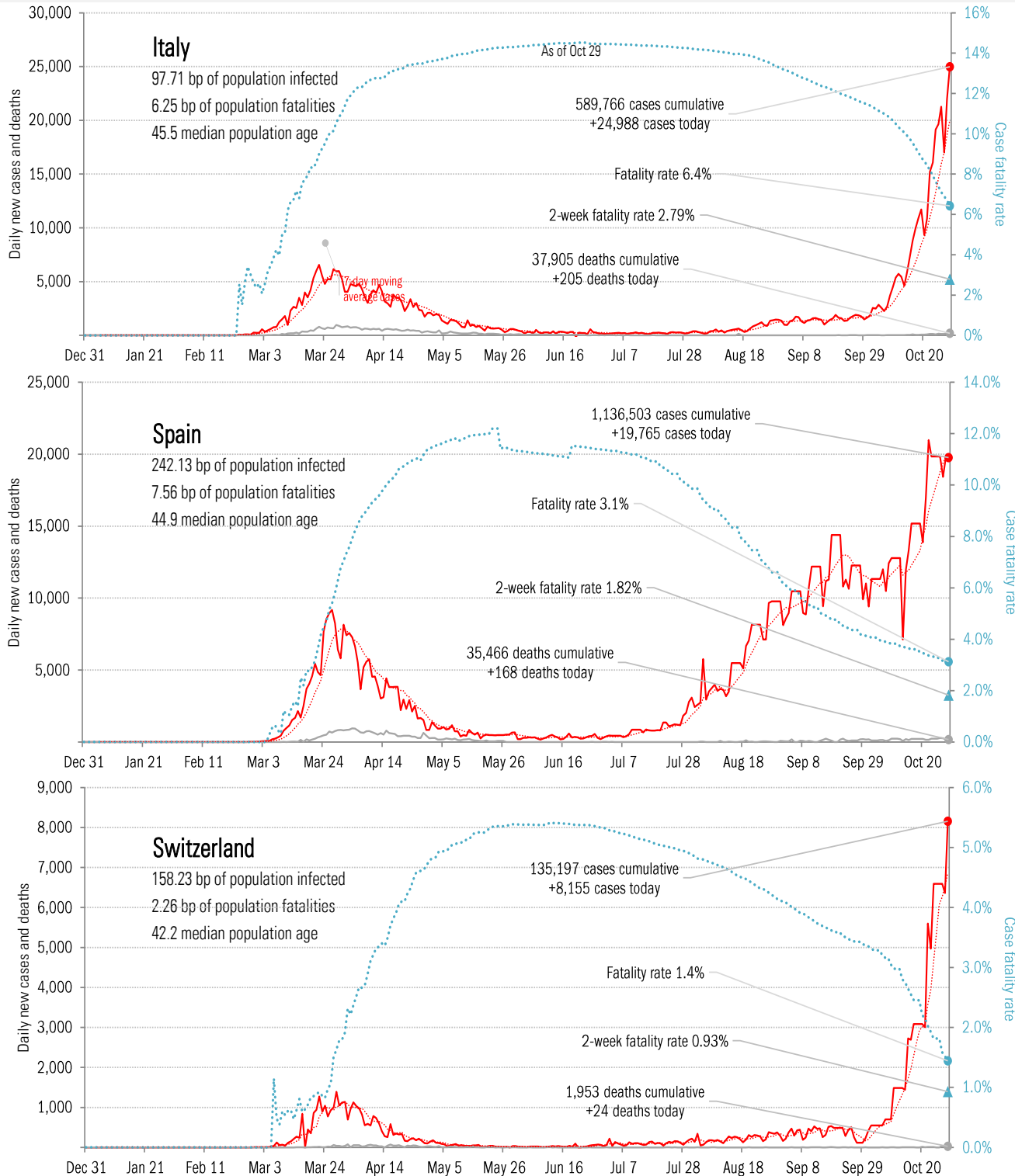
Source: [ECDC](#), TrendMacro calculations

Impact in The Anglosphere



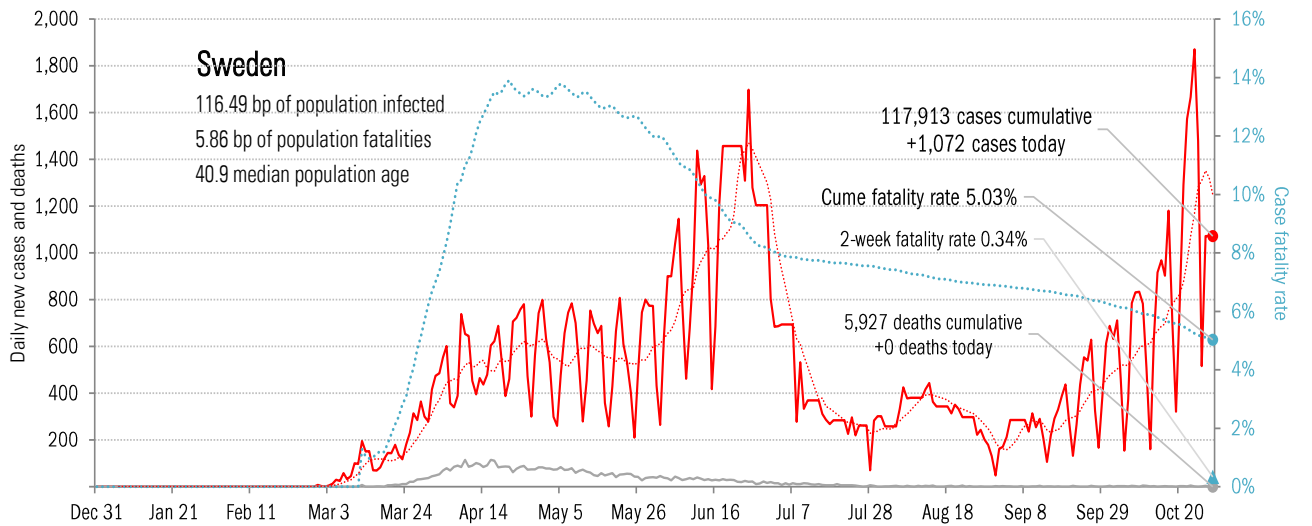
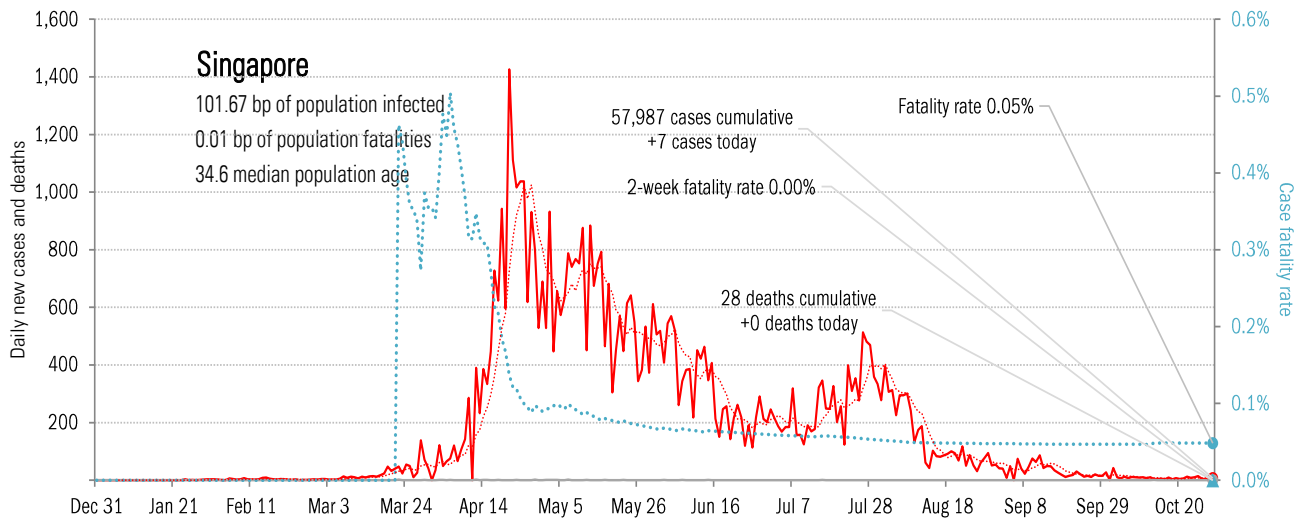
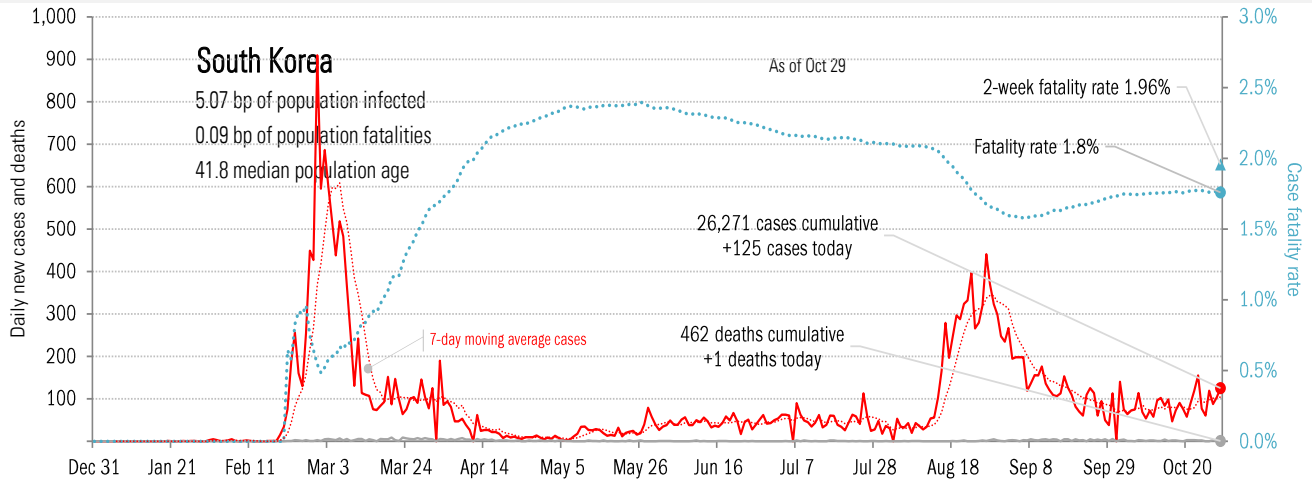
Source: [ECDC](#), TrendMacro calculations

Impact in continental Europe



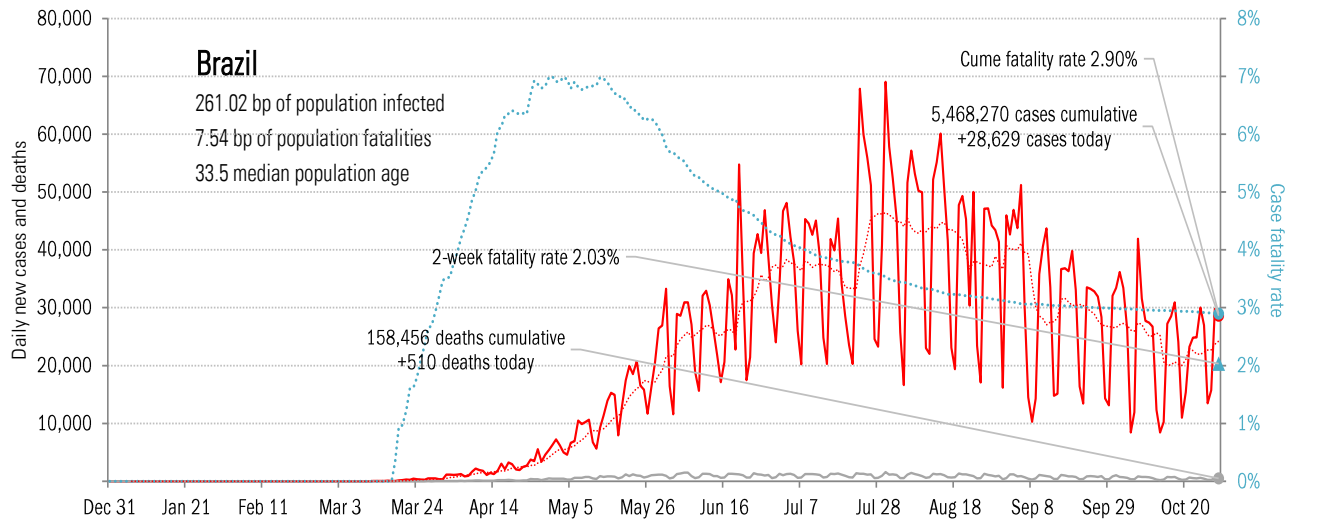
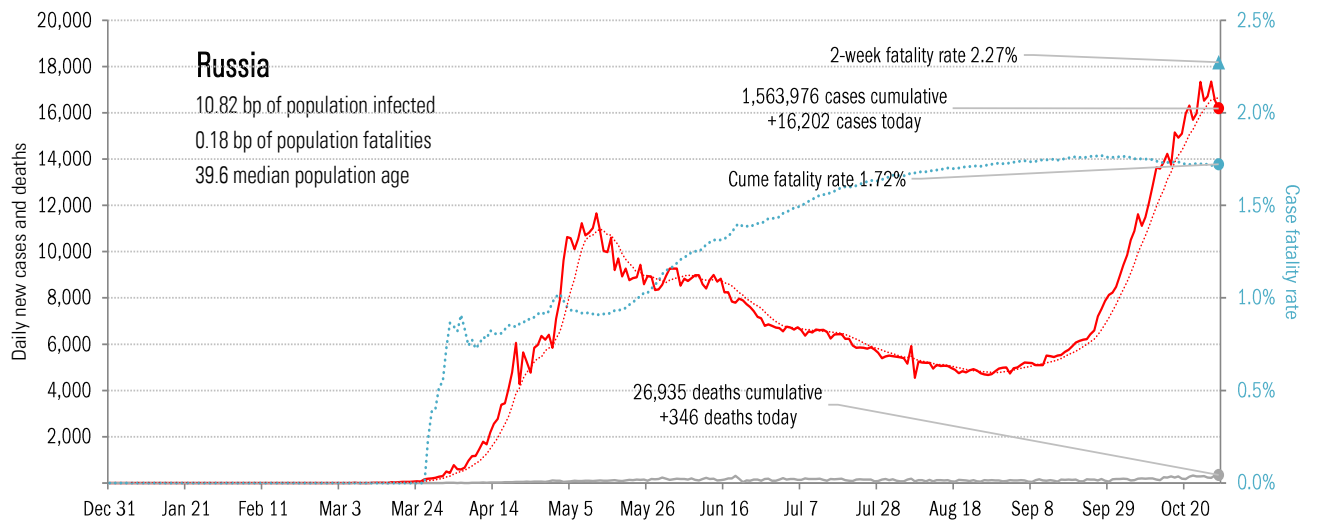
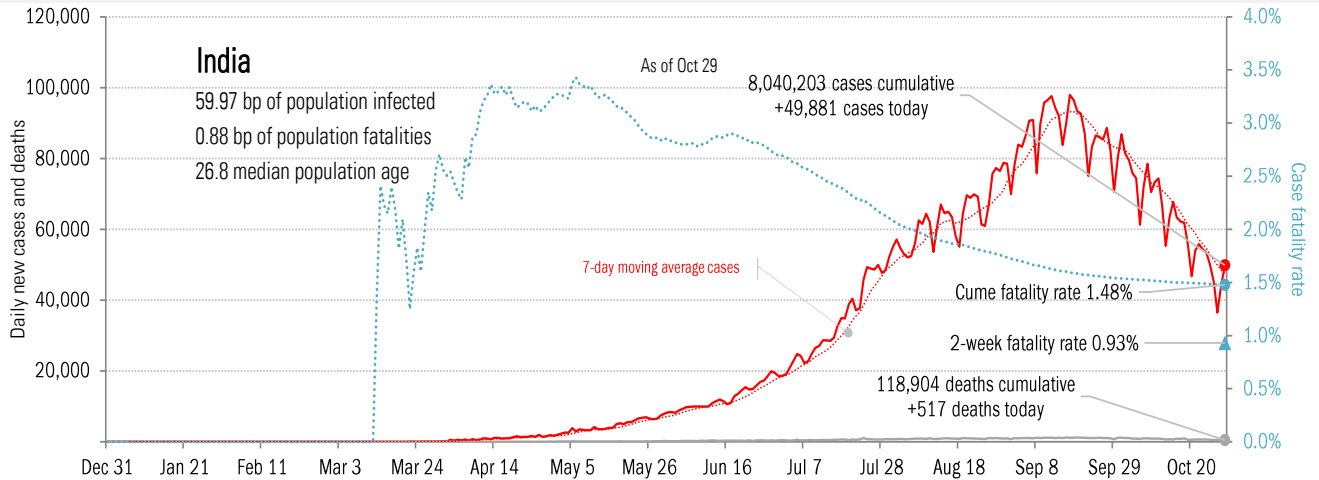
Source: [ECDC](#), TrendMacro calculations

Impact in other hot-spots



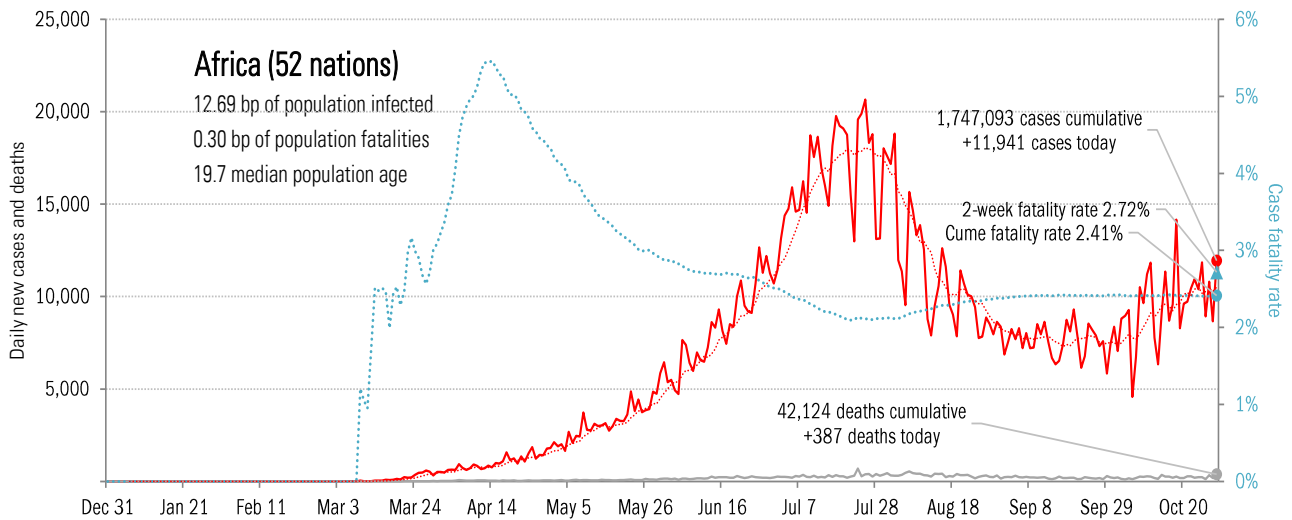
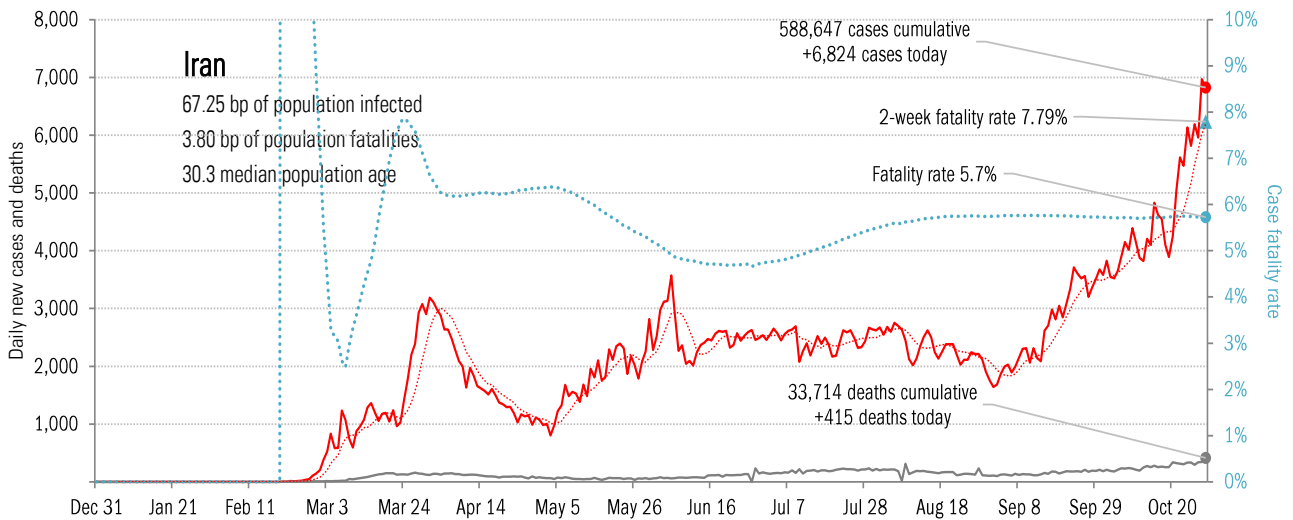
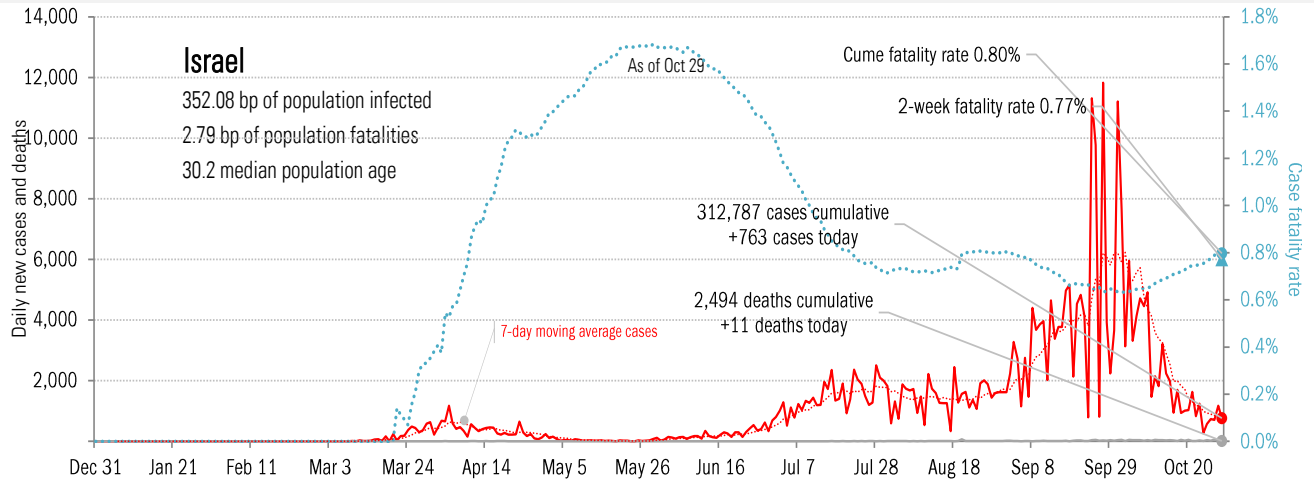
Source: [ECDC](#), TrendMacro calculations

Impact in the BRICs ex-China



Source: [ECDC](#), TrendMacro calculations

Impact in the Middle East and Africa



Source: [ECDC](#), TrendMacro calculations