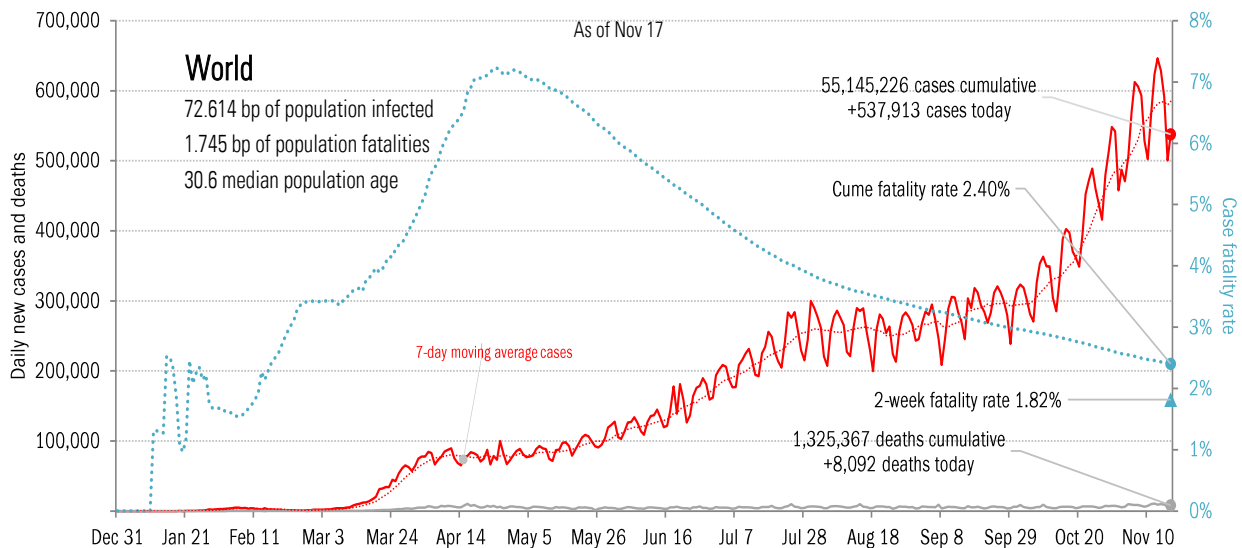
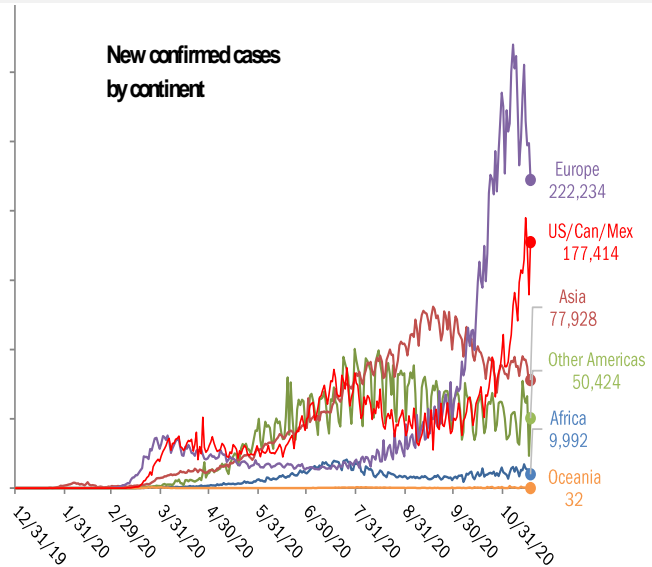


Data Insights: Covid-2019 Monitor

Tuesday, November 17, 2020

The global scorecard

The worst ten countries			
New cases		New Deaths	
US	+168,425	US	+1,006
Russia	+45,188	Russia	+745
#N/A	+29,163	France	+506
Brazil	+27,505	Italy	+504
Italy	+27,352	Iran	+486
Spain	+21,371	Spain	+484
UK	+21,363	India	+449
Poland	+20,816	Brazil	+356
Germany	+14,419	Mexico	+319
Iran	+13,053	Argentina	+291
+388,655		+5,146	
World	+537,913	World	+8,092
Top ten	72%	Top ten	64%



Source: [ECDC](#), TrendMacro calculations

For more information contact us:

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

The US scorecard

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

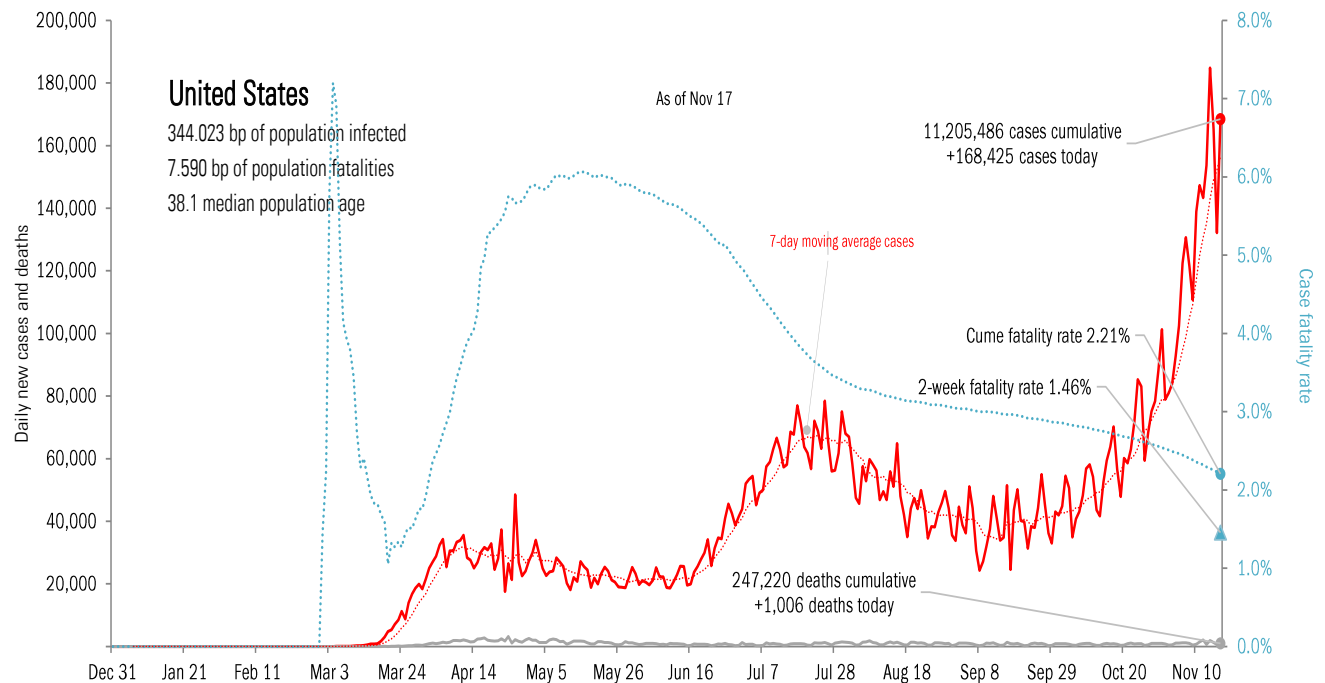
The ten worst US states

New cases		New Deaths		New in hospital		Curre cases		Curre deaths		Curre in hospital	
MI	+13,162	MI	+55	MI	+339	CA	1,029,235	NY	26,159	NY	89,995
IL	+11,632	AR	+42	CH	+212	TX	1,027,889	TX	19,579	TX	52,649
CA	+9,890	IL	+42	TX	+194	FL	877,340	CA	18,263	NJ	39,106
TN	+7,951	FL	+41	WI	+181	IL	585,248	FL	17,775	GA	33,265
MN	+7,437	SC	+31	IN	+140	NY	563,690	NJ	16,580	VA	23,699
CH	+7,268	TN	+30	PA	+135	GA	387,930	IL	11,204	AZ	23,122
KS	+7,234	IN	+26	MN	+134	WI	334,562	MA	10,340	AL	22,716
TX	+7,168	NY	+26	NV	+132	TN	318,888	PA	9,325	CH	22,478
IN	+5,147	ND	+25	FL	+125	NC	314,207	GA	8,967	IN	21,043
CT	+4,639	CT	+22	NY	+123	CH	305,364	MI	8,431	MD	18,688
+81,528		+340		+1,715		5,744,353		146,623		346,761	
All states	+148,532	All states	+581	All states	+3,021	All states	11,047,064	All states	238,217	All states	520,570
Top ten	55%	Top ten	59%	Top ten	57%	Top ten	52%	Top ten	62%	Top ten	67%

Some states not reporting

Five most improved US states

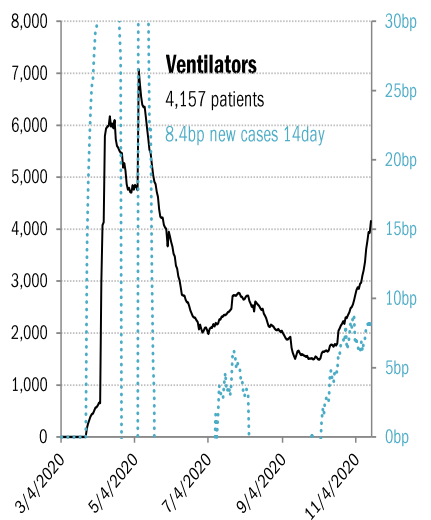
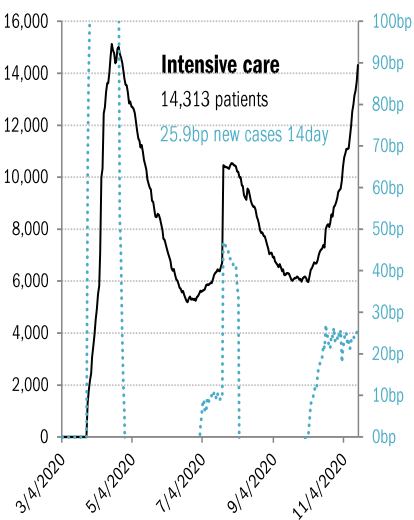
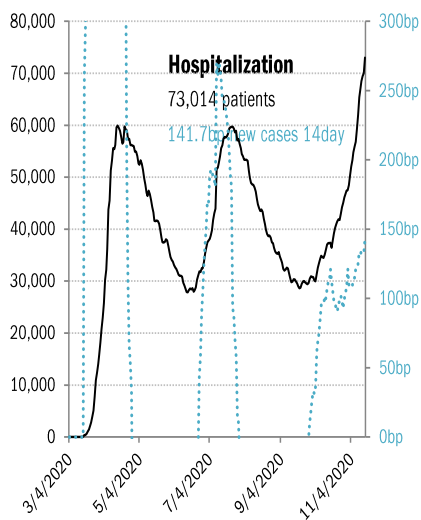
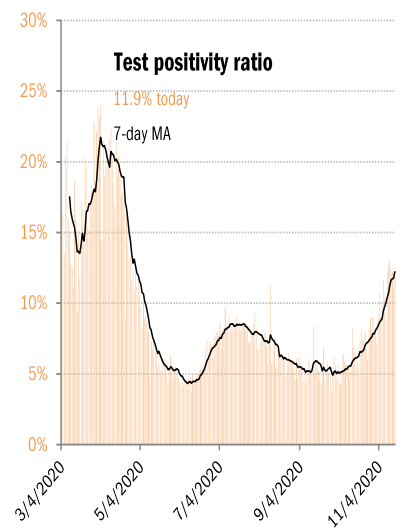
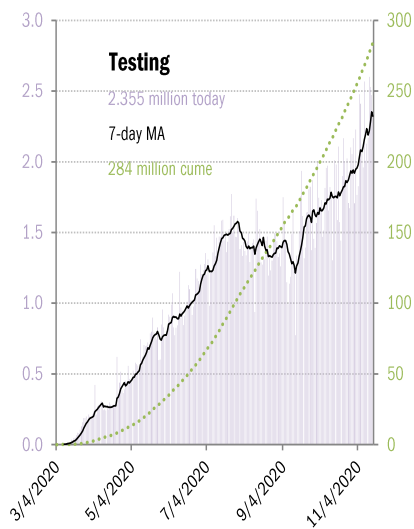
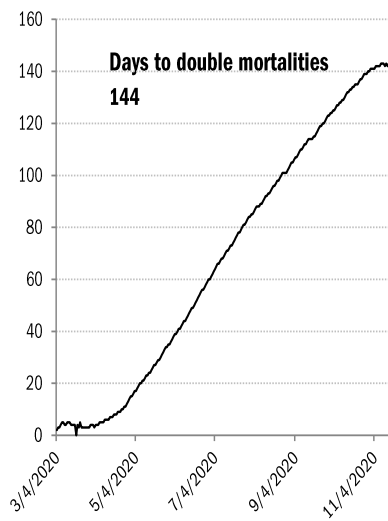
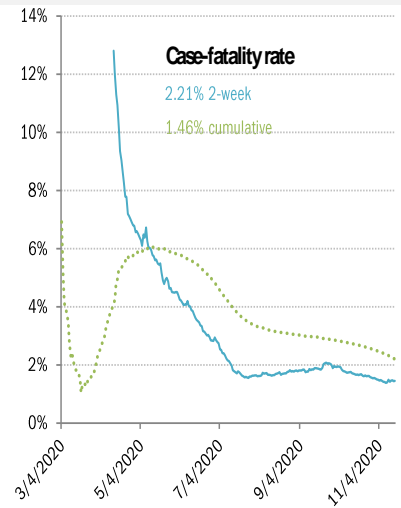
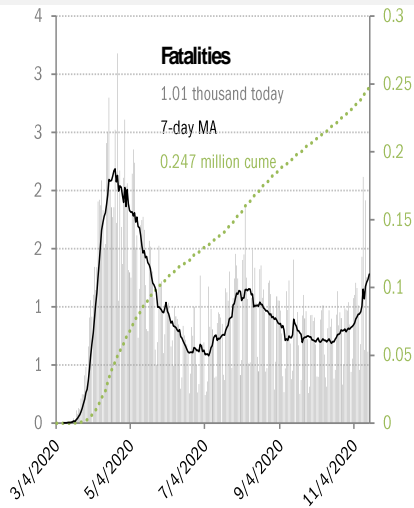
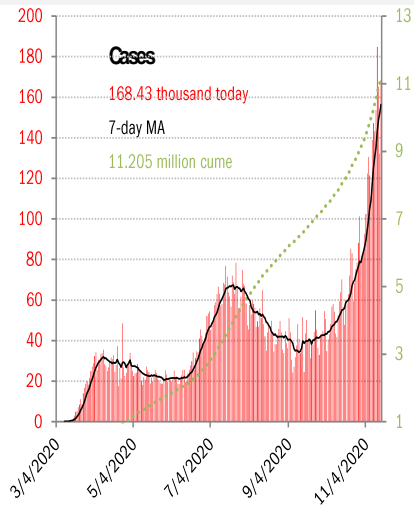
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most recoveries	
FL	-5,290	TX	-69	KS	-260	NC	+14,413
NJ	-2,319	NC	-42	CA	-137	MN	+6,741
LA	-1,986	IL	-32	AK	-14	PA	+5,266
WI	-1,682	CA	-25	WY	-11	MS	+5,253
IN	-1,563	MA	-25	AL	-8	WI	+3,766



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

US deep-dive

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



Source: Case and fatality data [ECDC](#), Test and hospitalization [Covid Tracking Project](#), TrendMacro calculations

Recommended reading

[Two Existing Technologies Could Fight Covid Now](#)

Salmaan Keshavjee and Tom Nicholson
Wall Street Journal
November 16, 2020

[Trump, Biden and Covid Vaccines](#)

Wall Street Journal
November 16, 2020

['Predatory and Opportunistic': Southwest Airlines Seizes the Moment as Rivals Struggle](#)

Alison Sider
Wall Street Journal
November 16, 2020

[Biden COVID Advisor: Those Older Than 75 Should Get Vaccines Last](#)

Elizabeth Bauer
The Federalist
November 16, 2020

[Estimation of US Children's Educational Attainment and Years of Life Lost Associated With Primary School Closures During the Coronavirus Disease 2019 Pandemic](#)

Dimitri A. Christakis et al
Jama Network Open
November 12, 2020

[Teachers unions have kept schools closed. Now they want more money?](#)

Frederick M. Hess and Hayley Sanon
American Enterprise Institute
November 10, 2020

[Masking emotion in the age of COVID-19](#)

Peter Attia
Peter Attia
November 15, 2020

[Biden Draws Sharp Trump Contrast With Trio Atop His Virus Panel](#)

John Tozzi and Michelle Fay Cortez
Bloomberg
November 10, 2020

[Biden Virus Advisers Say a National Lockdown Isn't on Agenda](#)

Tony Czuczka and Bill Allison
Bloomberg
November 15, 2020

[Moderna Vaccine Found Highly Effective at Preventing Covid](#)

Robert Langreth
Bloomberg
November 16, 2020

[Biden Informed Of Pfizer's Vaccine News Before Government Health Officials](#)

Tristan Justice
The Federalist
November 12, 2020

[Justice Alito raises concerns about coronavirus restrictions continuing after pandemic](#)

Joseph Weber
Just the News
November 13, 2020

[Illinois' COVID fatality rate plummets: Cases skyrocket, deaths down since last peak](#)

Ted Dabrowski and John Klingner
Wirepoints
November 11, 2020

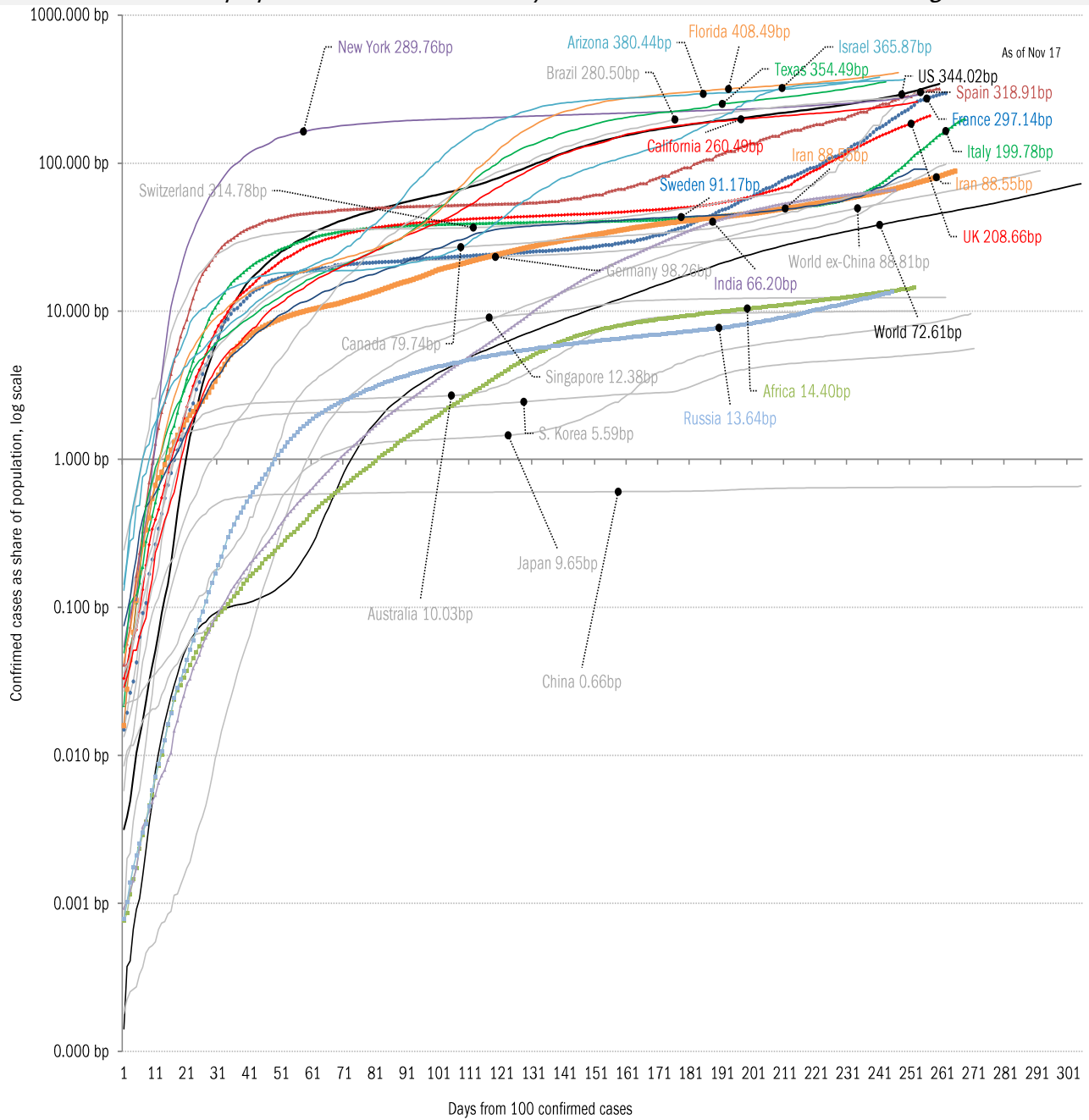
Meme of day



Evolution In Action? This Baby Was Born With A Mask On His Face

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

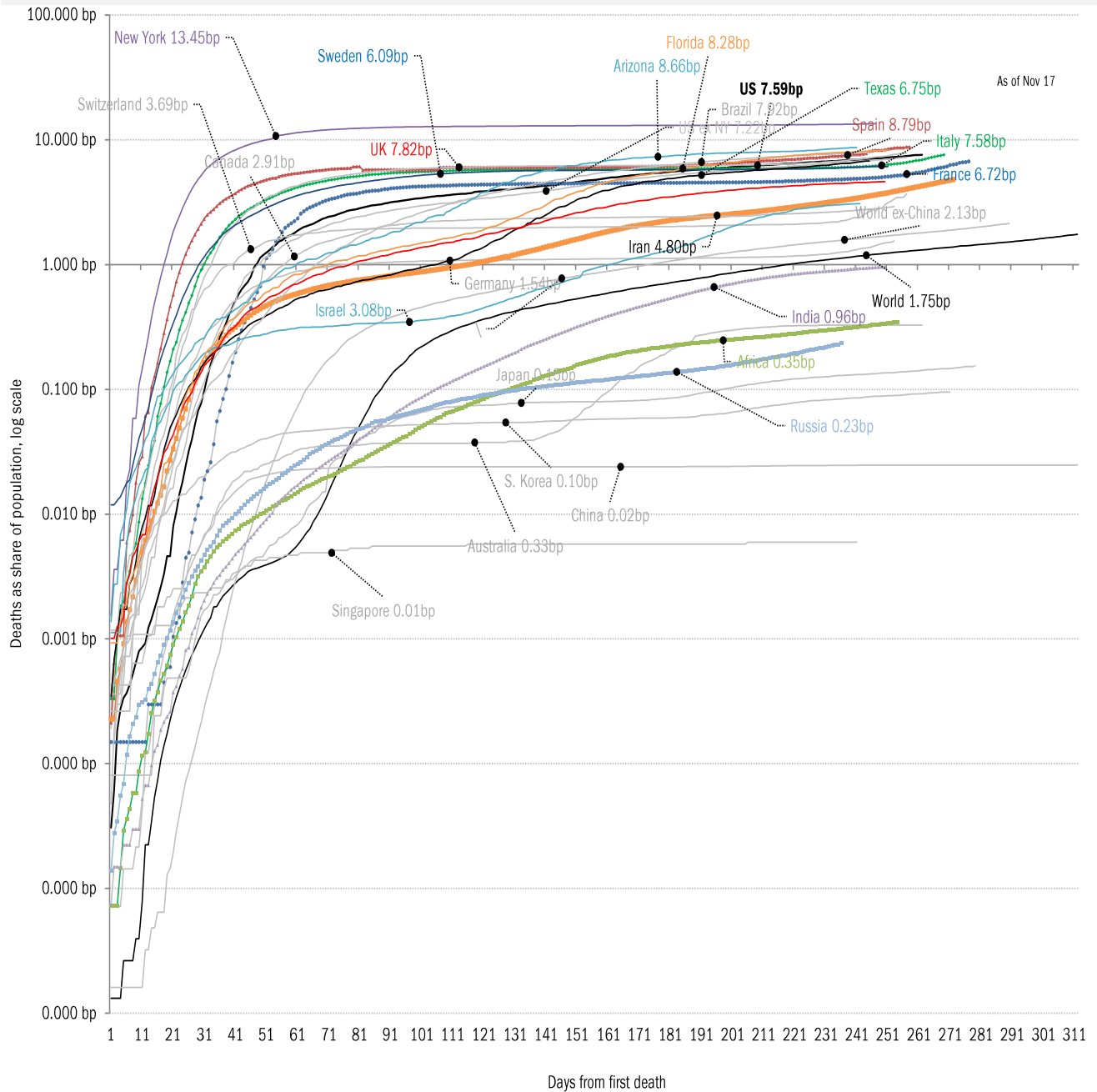
The coronavirus case accelerometer... tracking the world's infection curves
Share of infected population from first day with 100 confirmed cases, log scale



Source: [ECDC](#), TrendMacro calculations

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

Share of deceased population from day of first fatality

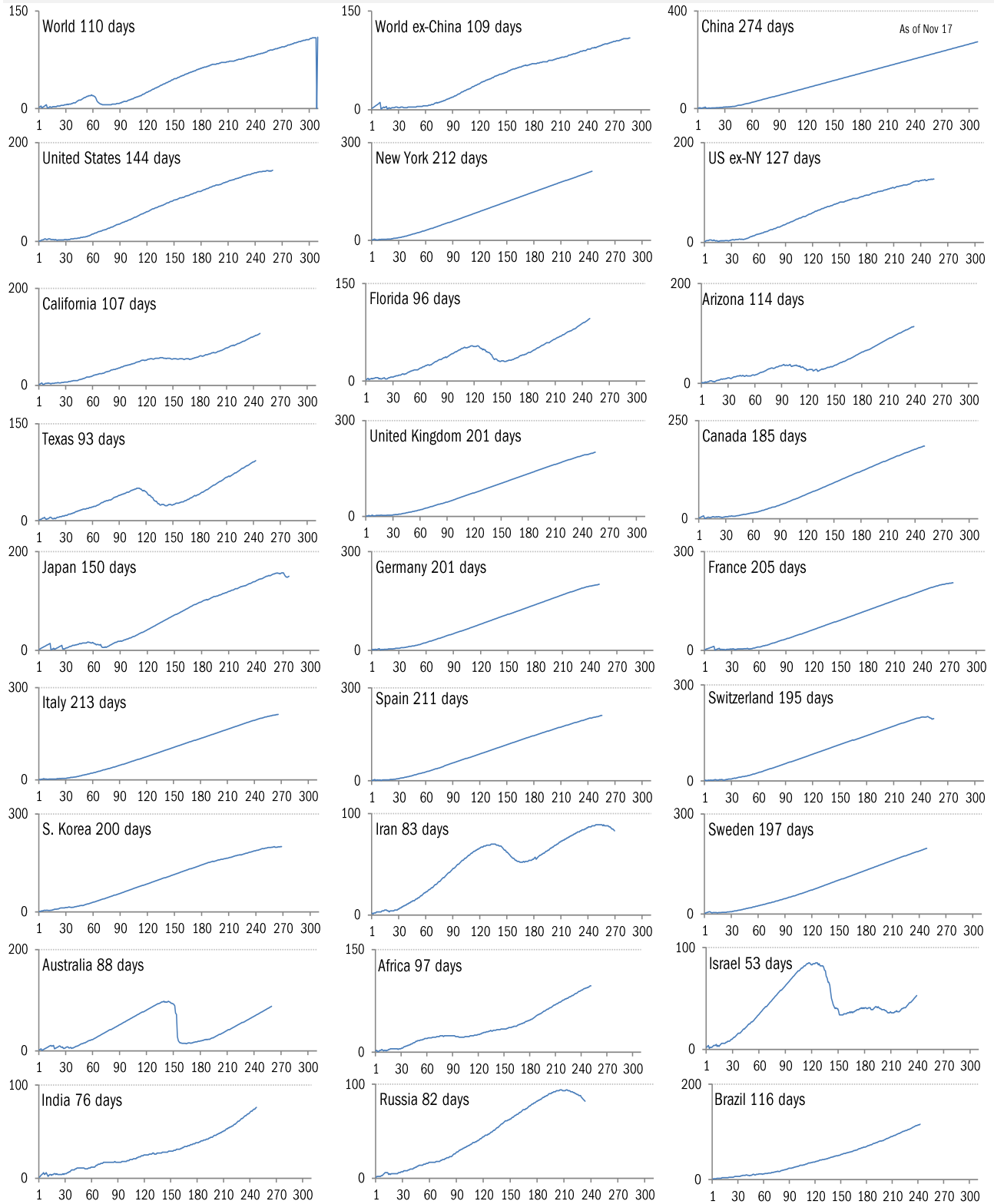


Source: [ECDC](#), TrendMacro calculations

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

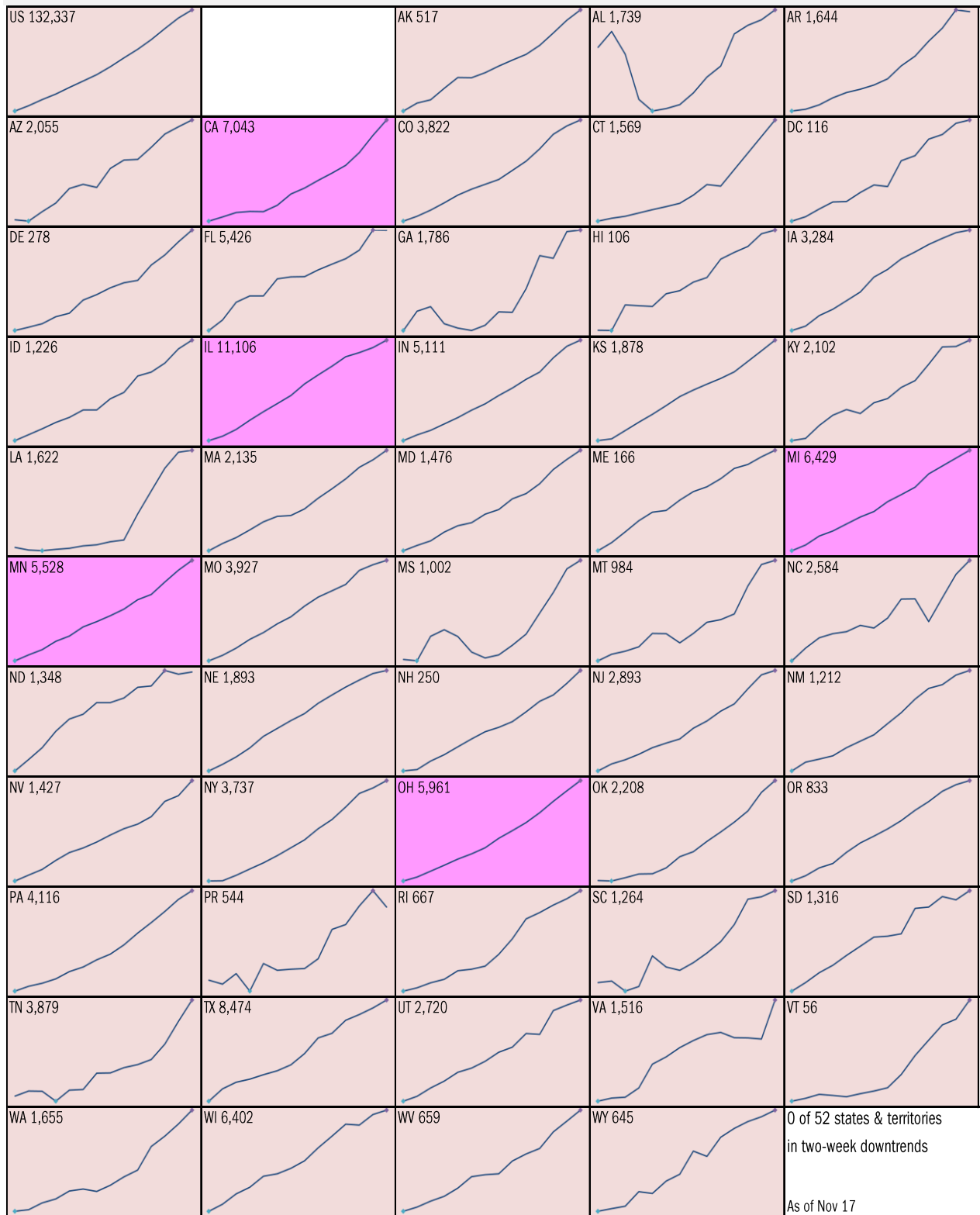


Source: [ECDC](#), TrendMacro calculations

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

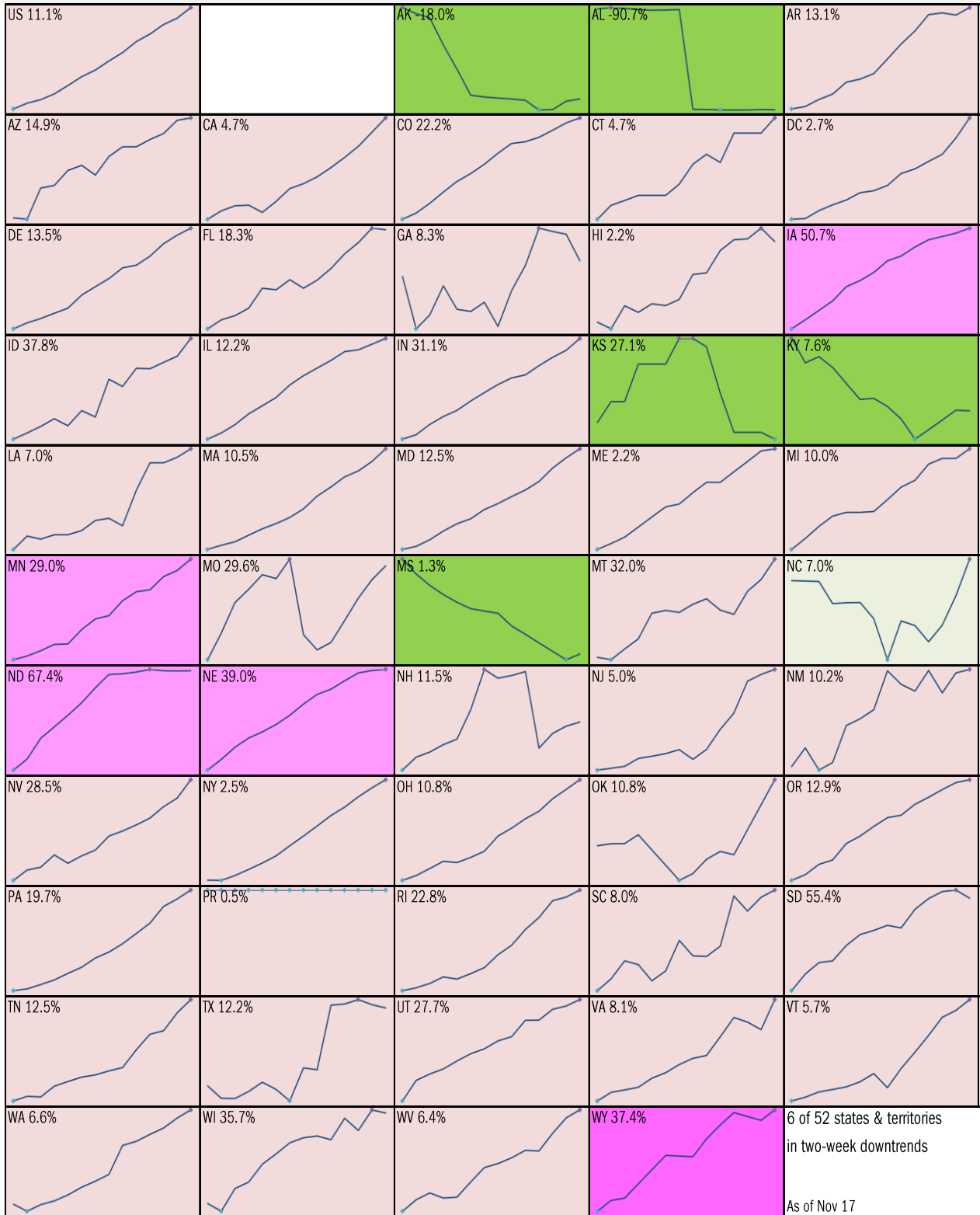


Source: [Covid Tracking Project](#), TrendMacro calculations

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



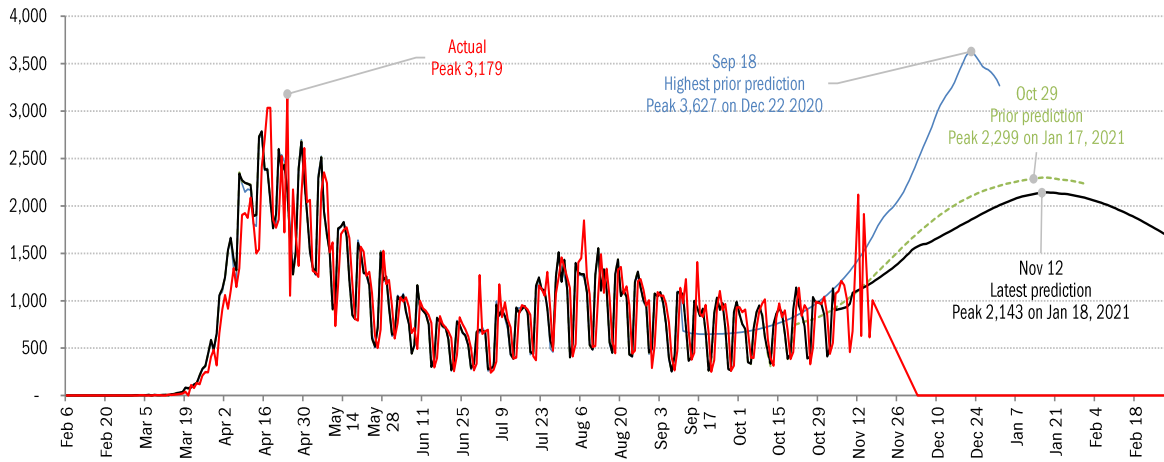
Source: [Covid Tracking Project](#), TrendMacro calculations

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

New daily fatalities

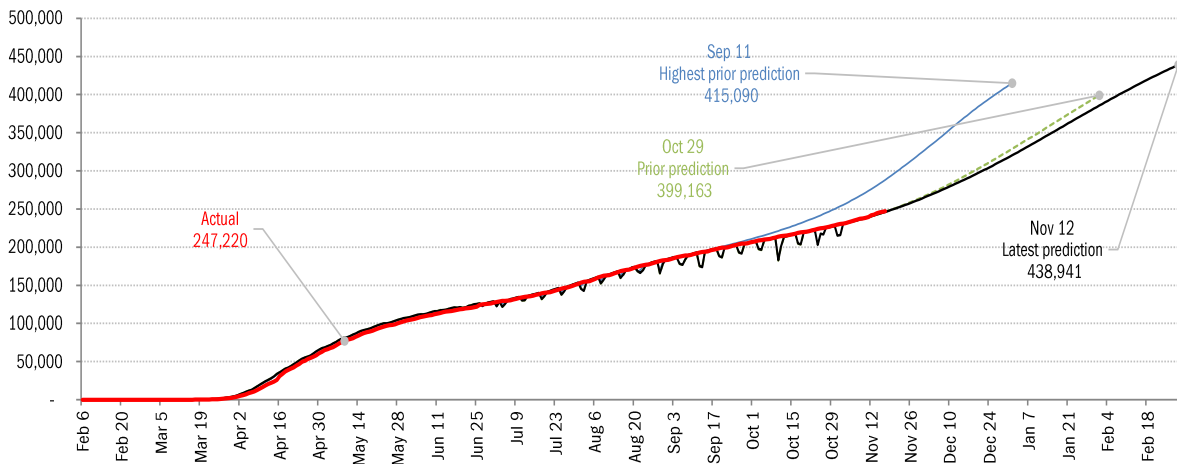
As of Nov 17

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

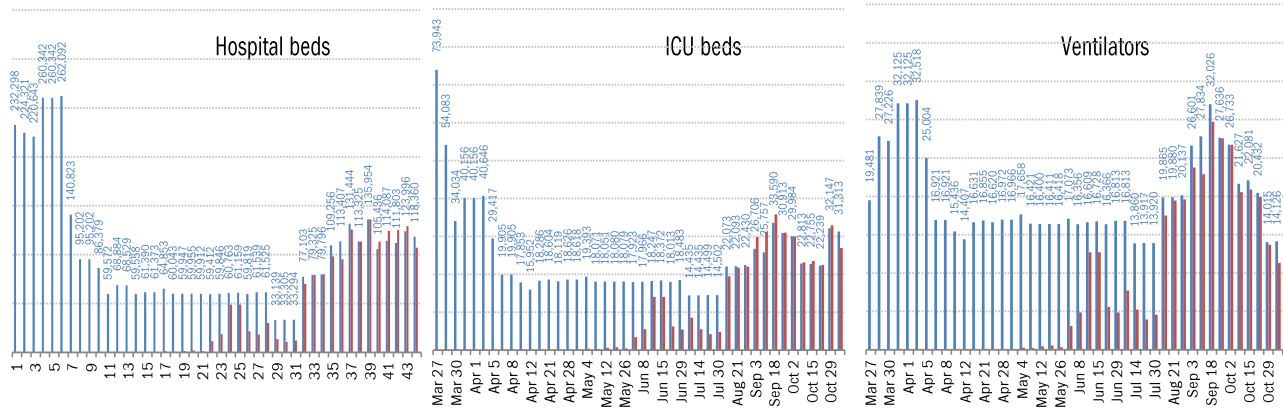


Cumulative fatalities

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

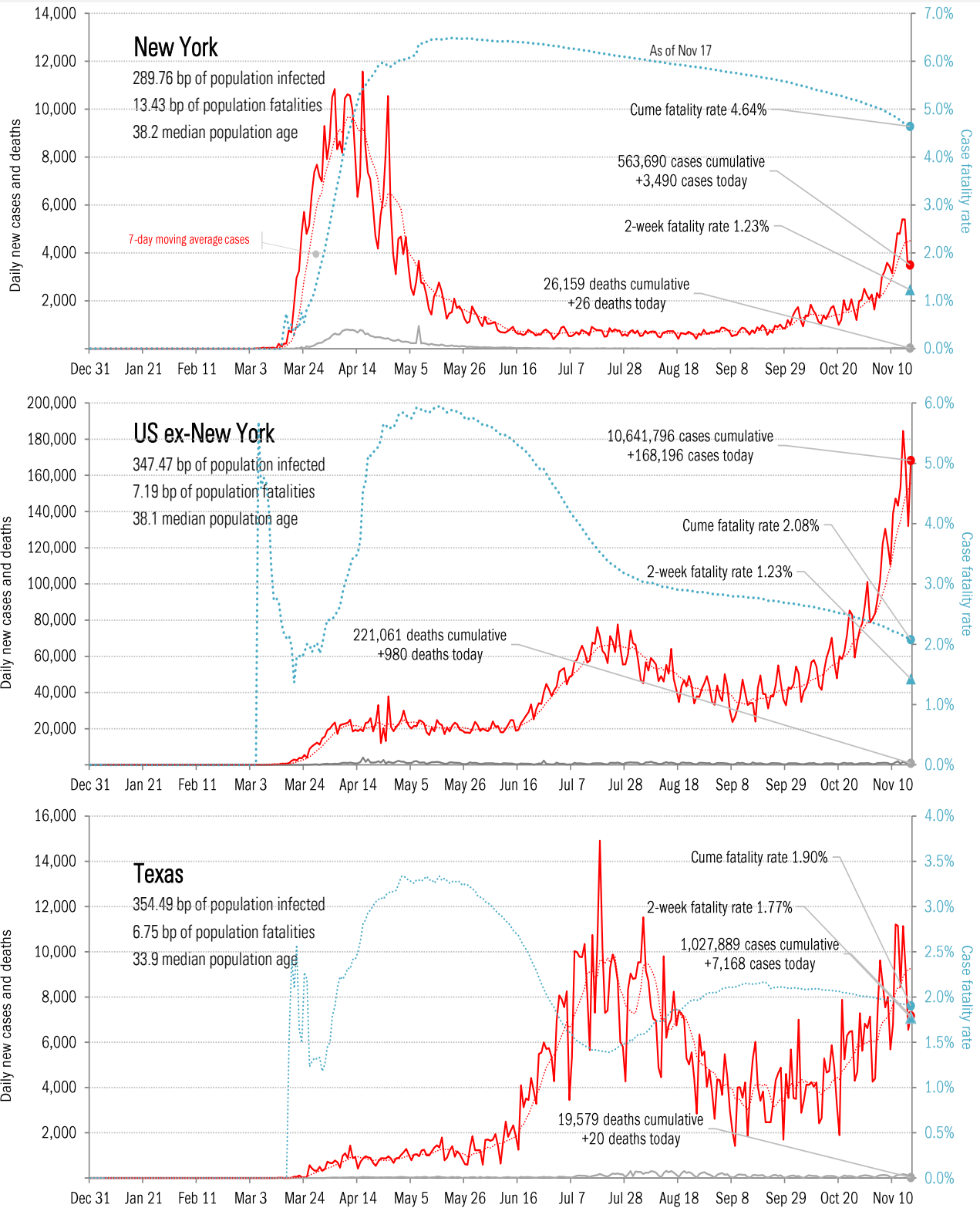


Healthcare system stress, **peak** and **ultimate** estimated at each model revision



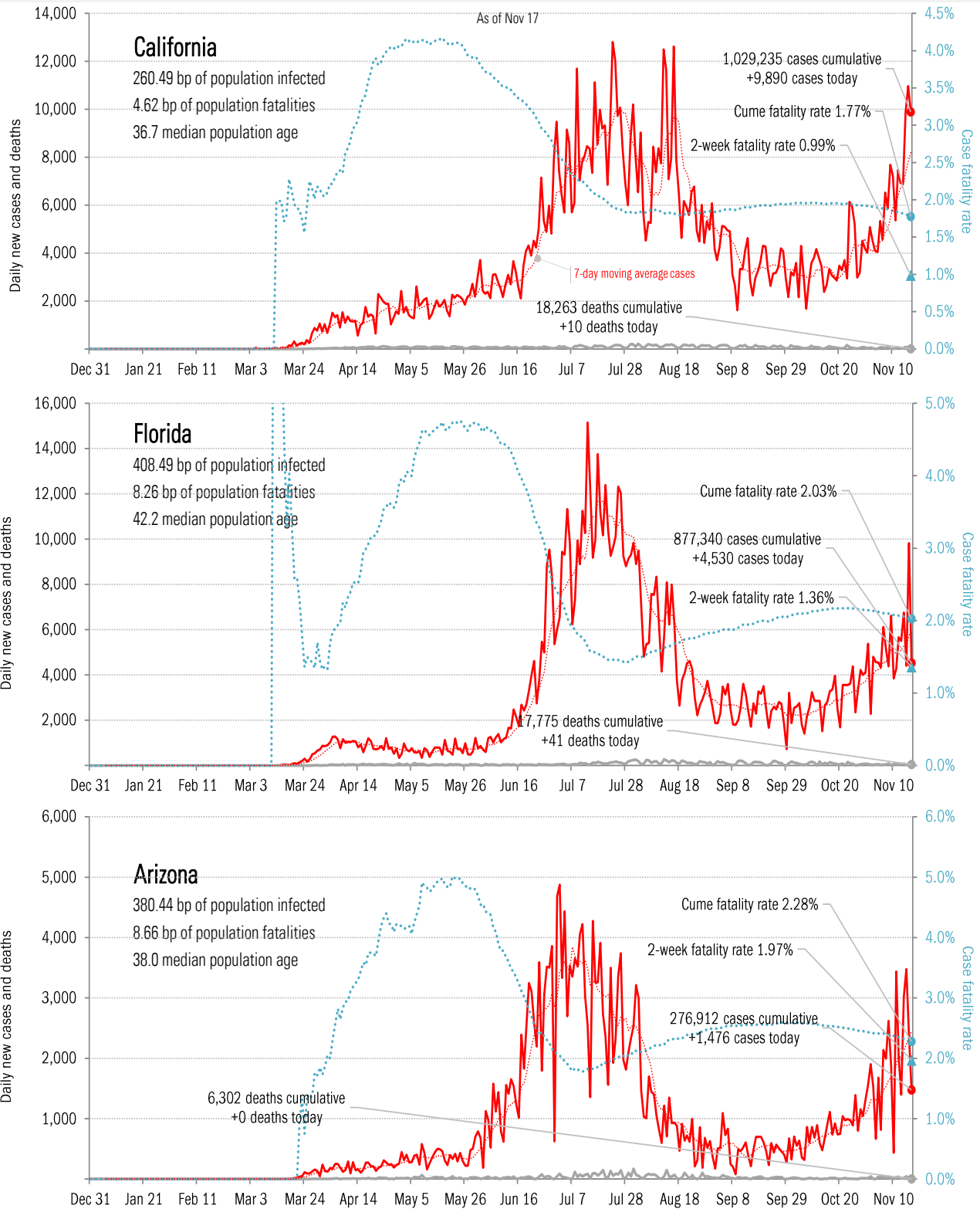
Source: [ECDC](#), [IHME](#), TrendMacro calculations

From Ground Zero to the Rio Grande



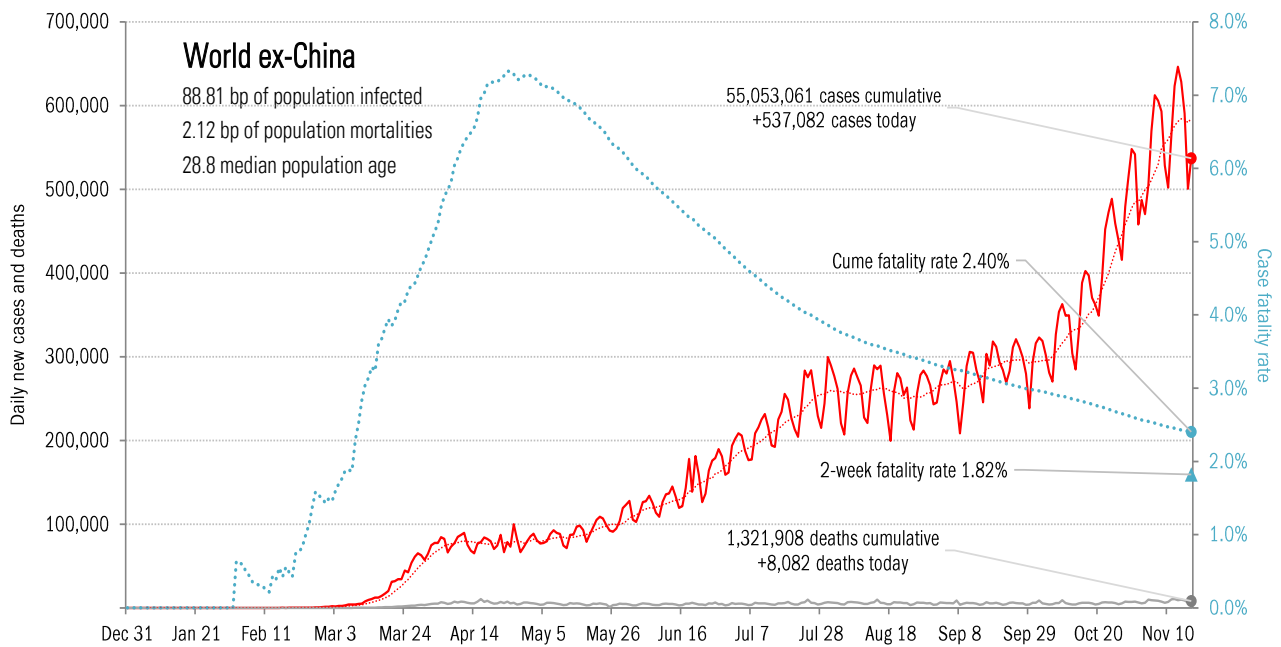
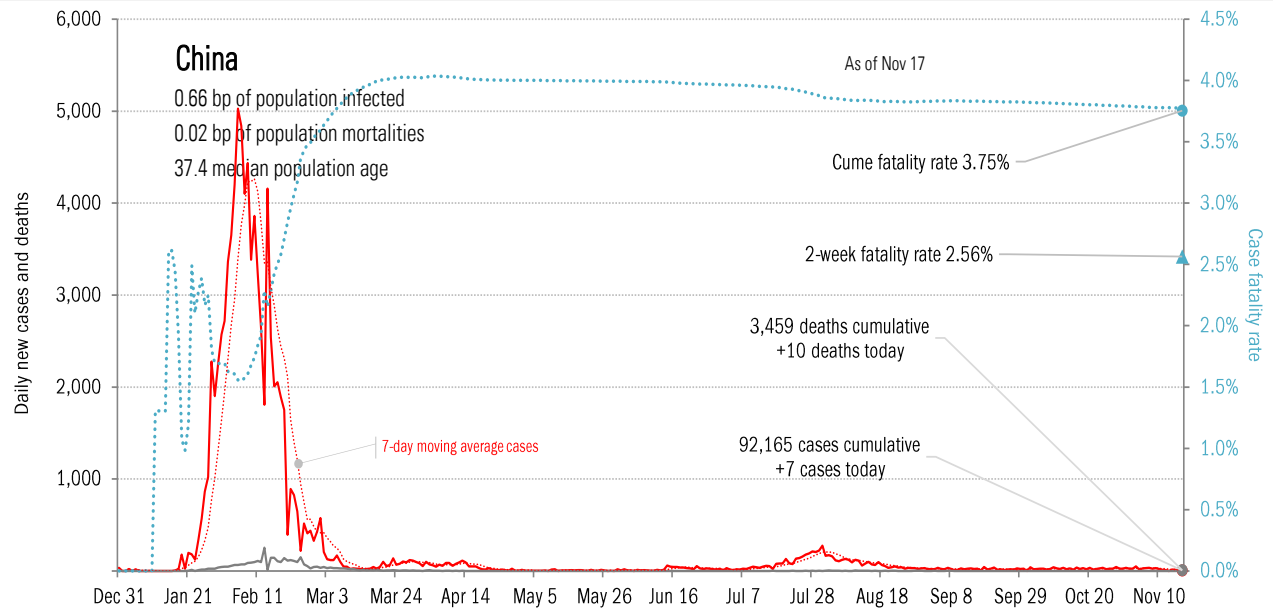
Source: [ECDC](#), TrendMacro calculations

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



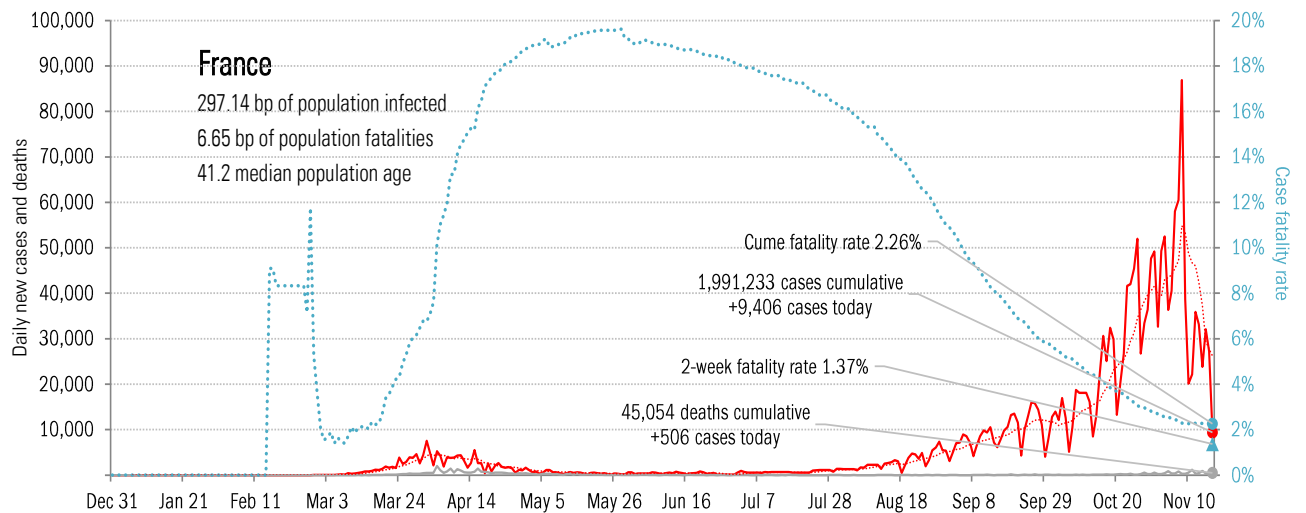
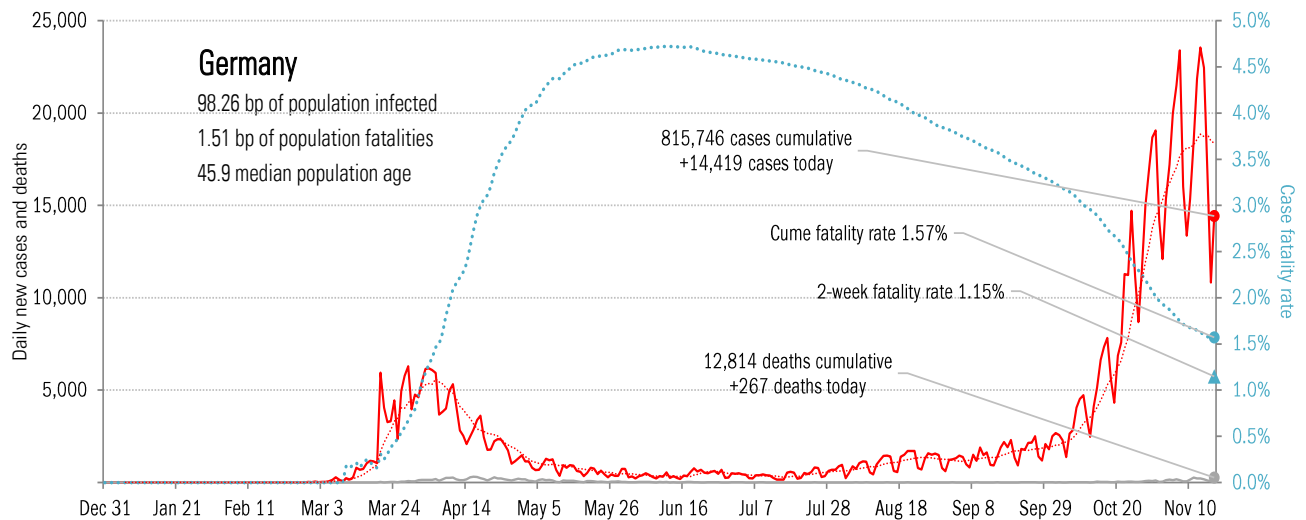
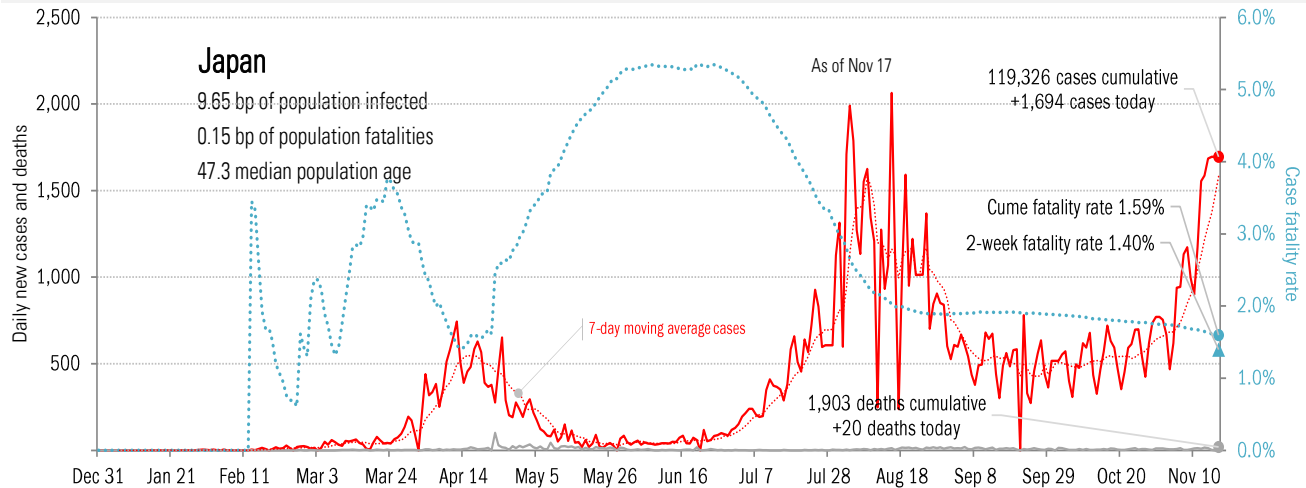
Source: [ECDC](#), TrendMacro calculations

Patient zero... and then everyone else



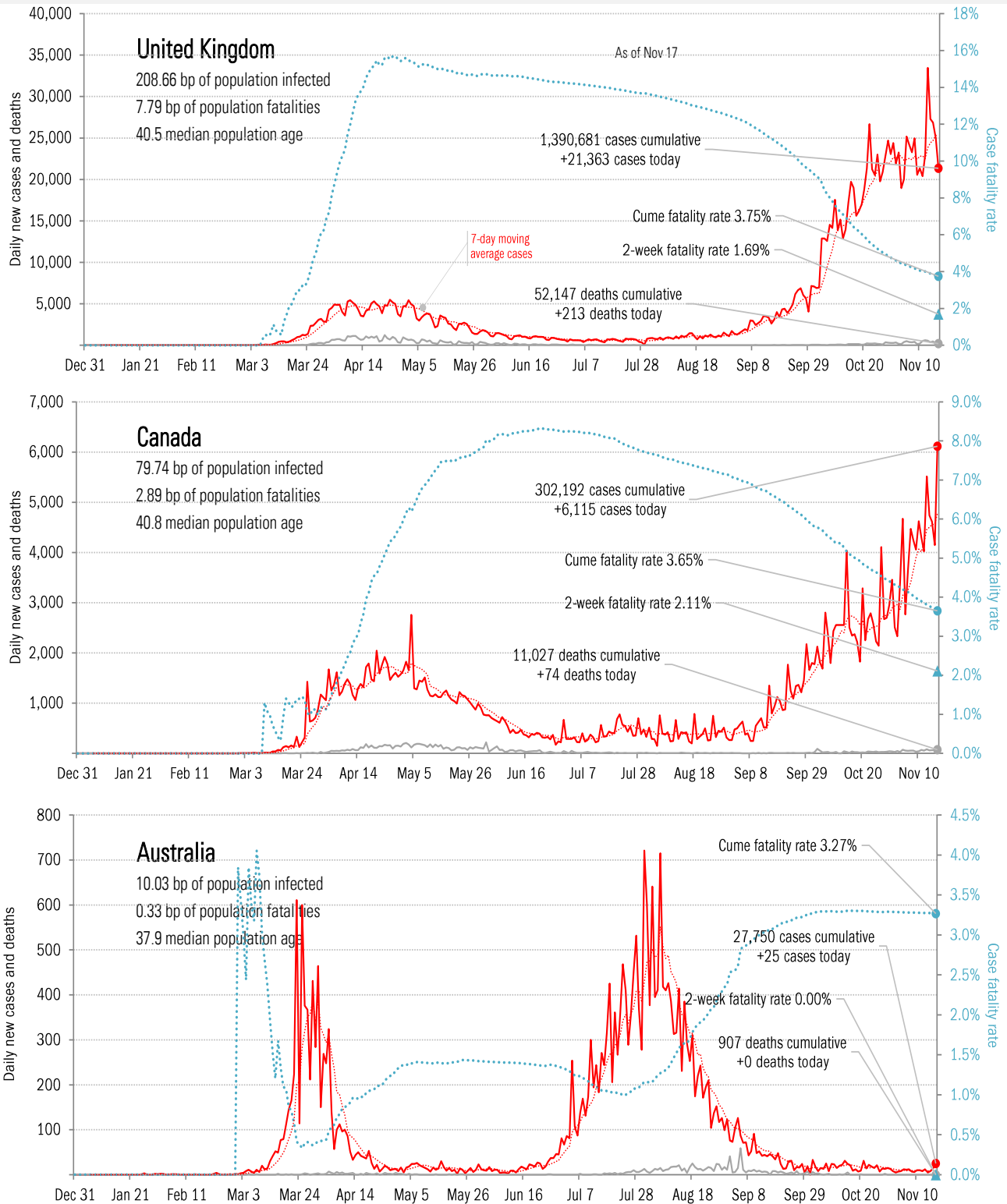
Source: [ECDC](#), TrendMacro calculations

Impact in the largest economies



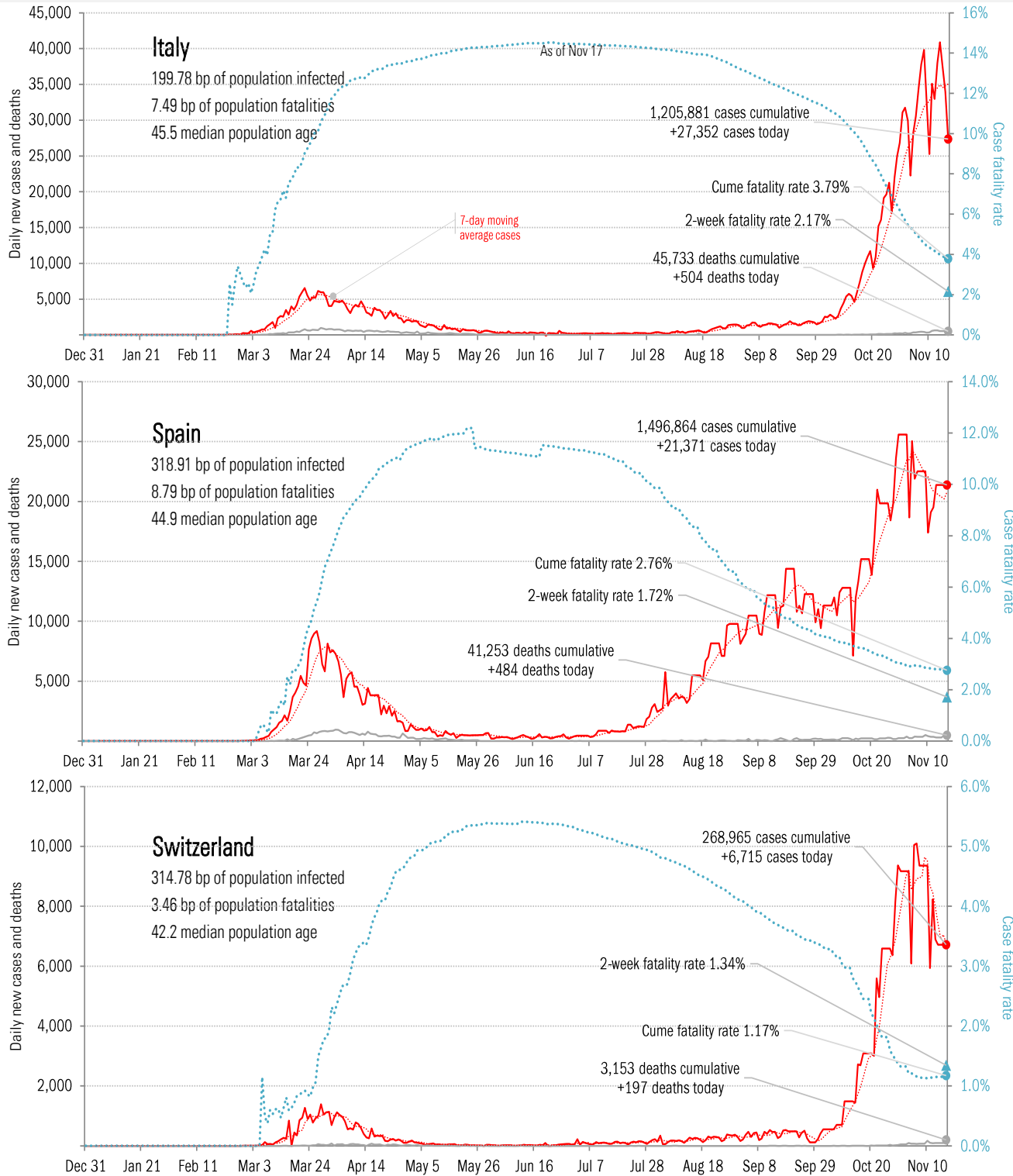
Source: [ECDC](#), TrendMacro calculations

Impact in The Anglosphere



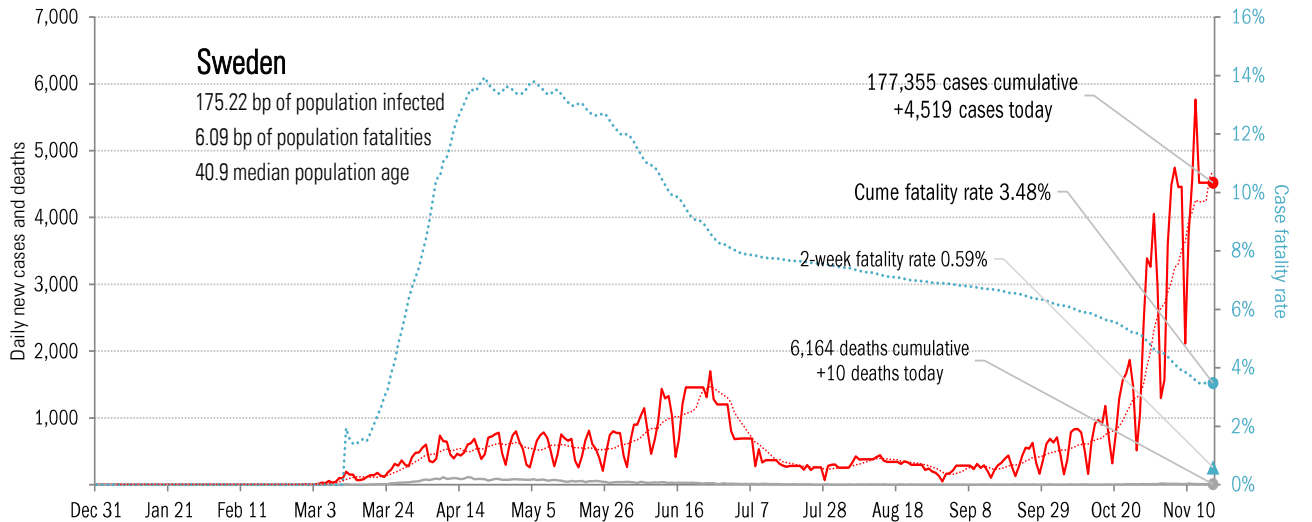
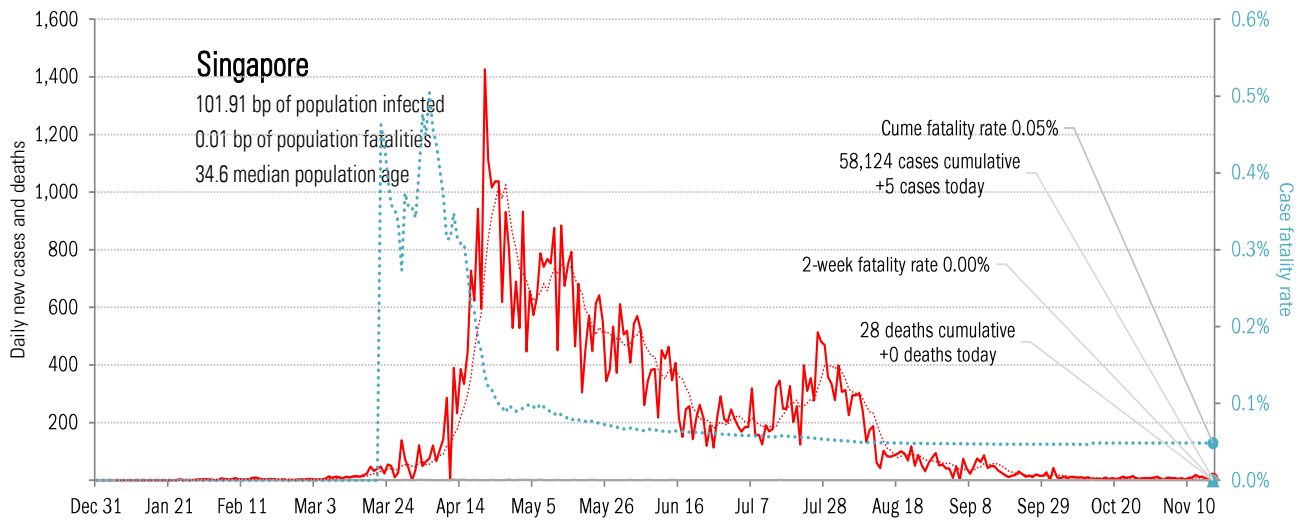
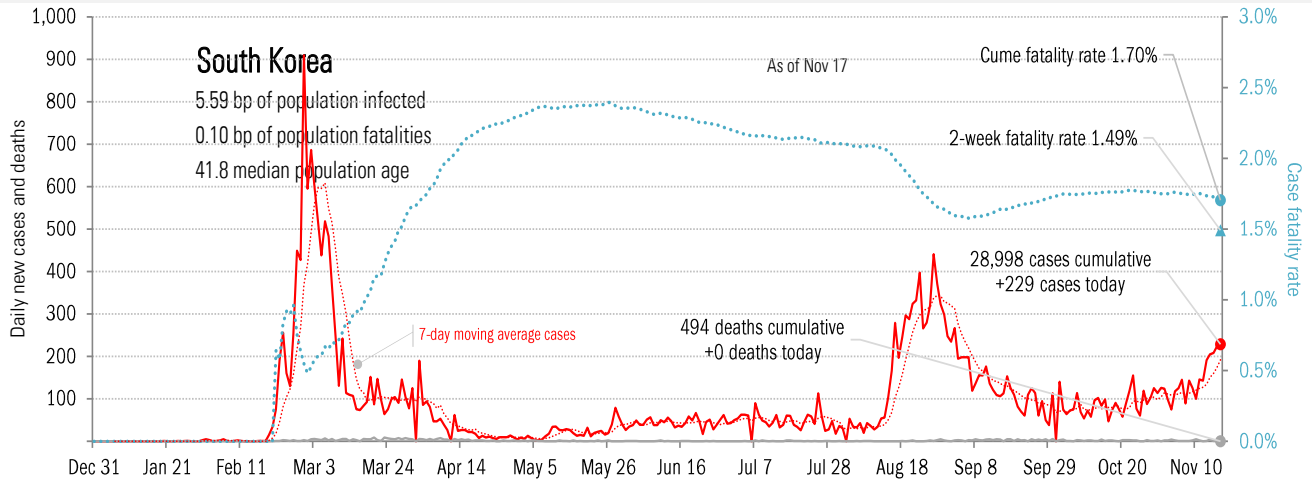
Source: [ECDC](#), TrendMacro calculations

Impact in continental Europe



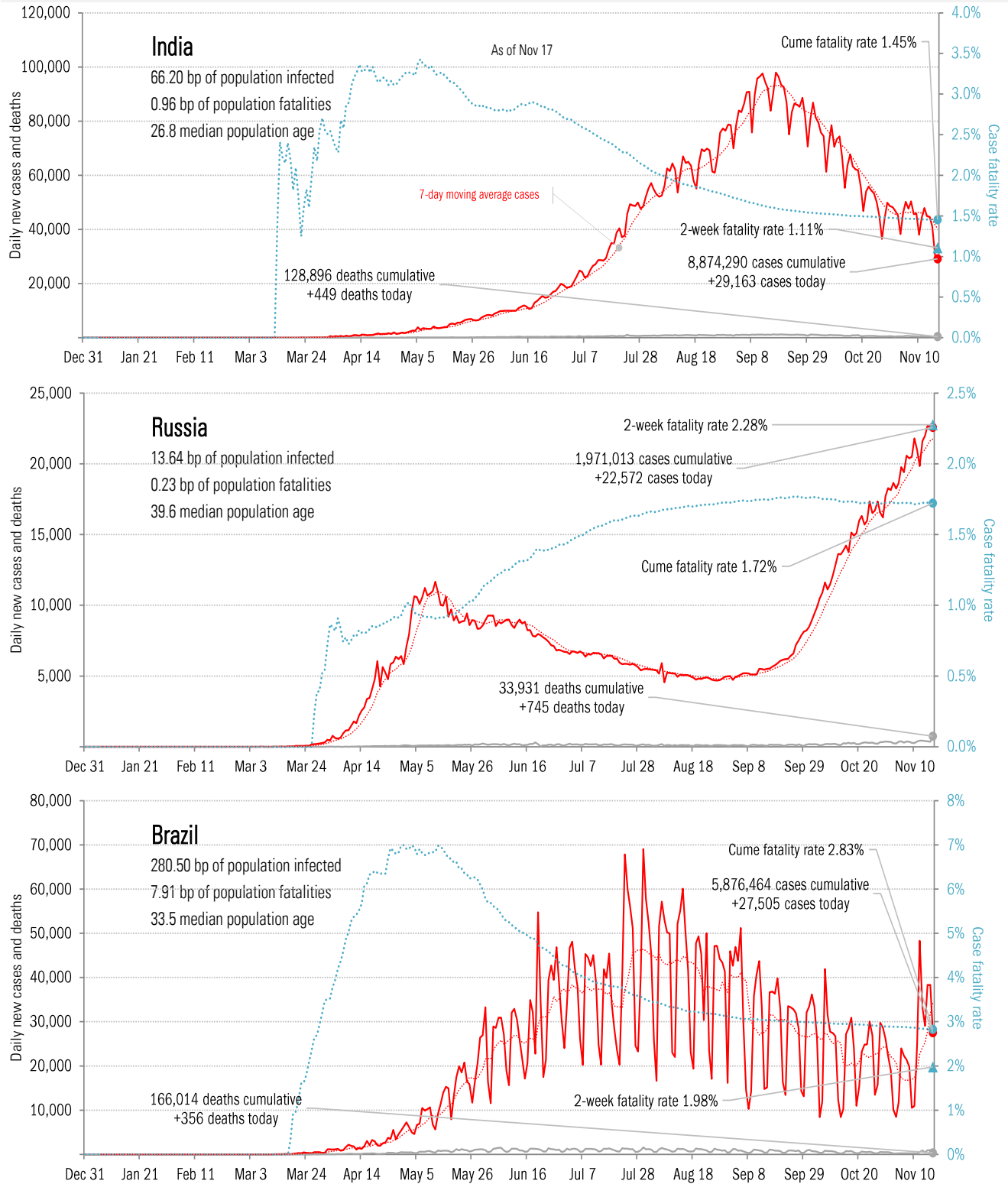
Source: [ECDC](#), TrendMacro calculations

Impact in other hot-spots



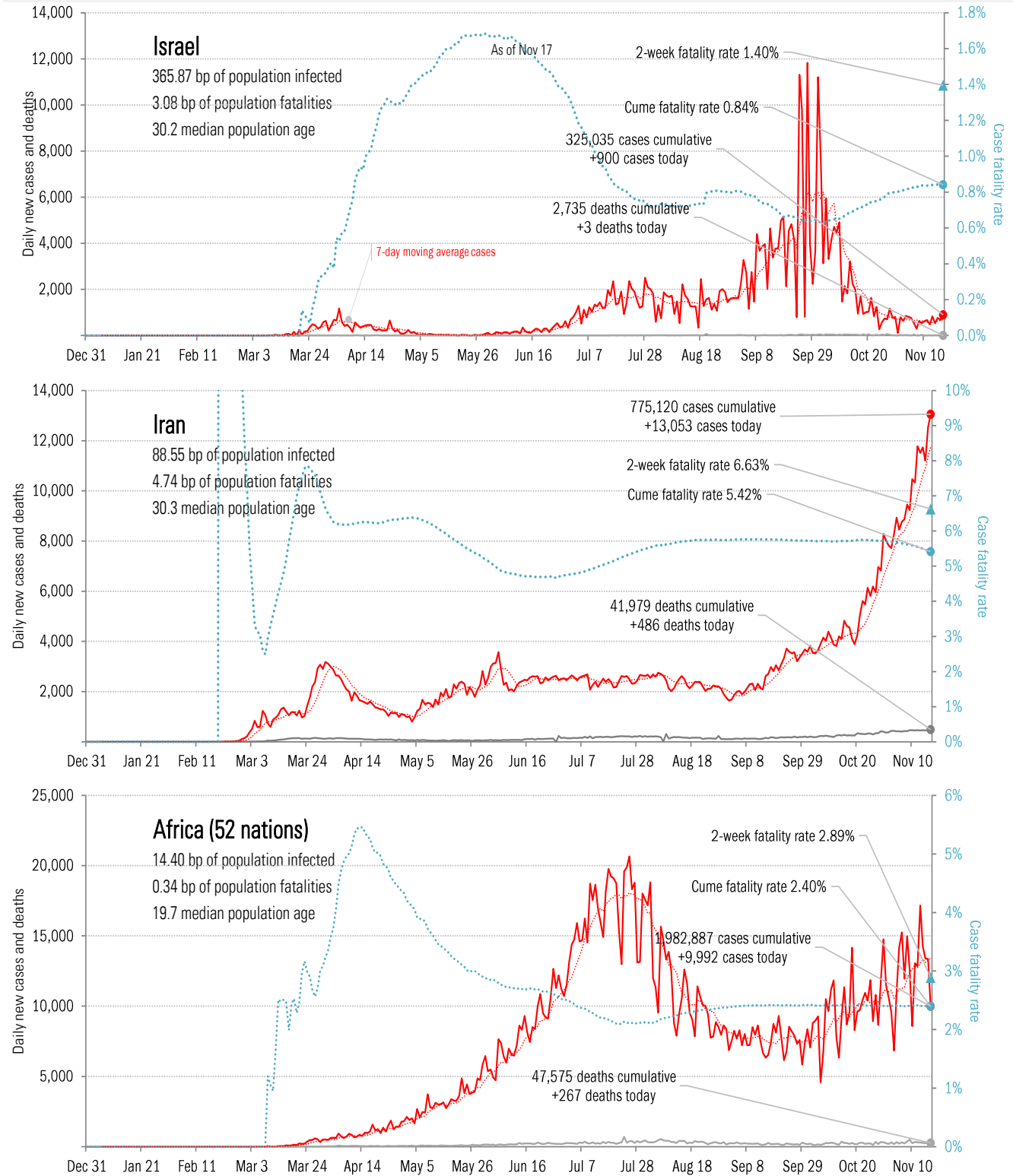
Source: [ECDC](#), TrendMacro calculations

Impact in the BRICs ex-China



Source: [ECDC](#), TrendMacro calculations

Impact in the Middle East and Africa



Source: [ECDC](#), TrendMacro calculations