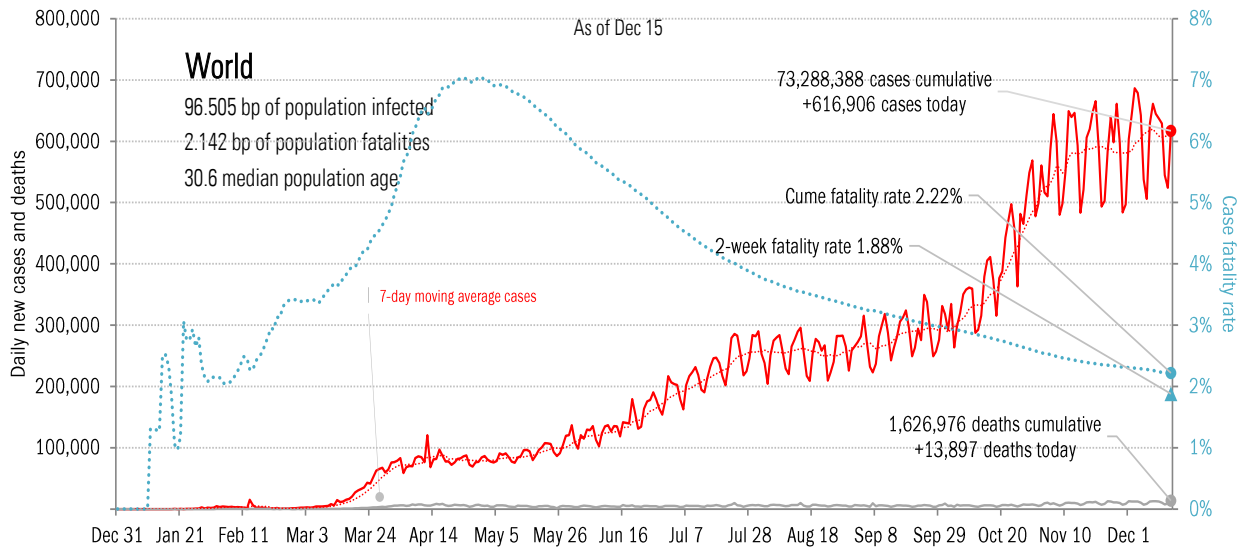
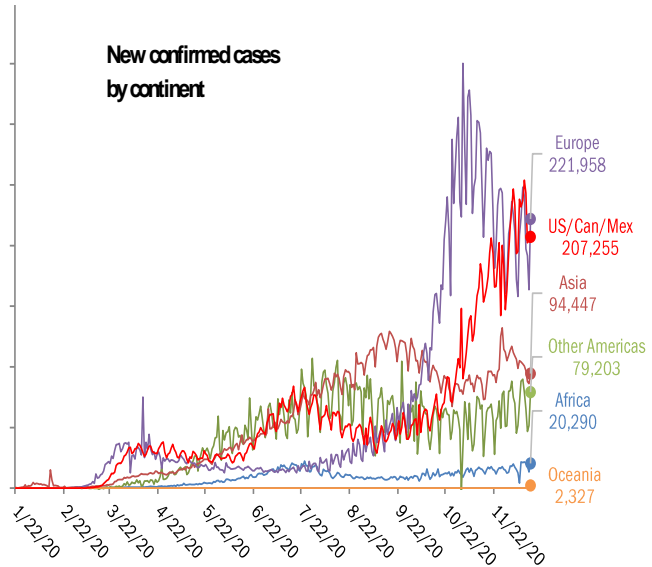


Data Insights: Covid-2019 Monitor

Wednesday, December 16, 2020

The global scorecard

The worst ten countries			
New cases		New Deaths	
United States	+189,783	United States	+2,918
Brazil	+42,889	Brazil	+964
Germany	+33,825	Germany	+910
Turkey	+32,102	Italy	+846
India	+26,382	Mexico	+801
Russia	+26,265	France	+791
Sweden	+20,931	Russia	+564
United Kingdom	+18,569	United Kingdom	+506
Italy	+14,839	Spain	+388
France	+11,655	India	+387
+417,240		+9,075	
World	+616,906	World	+13,897
Top ten	68%	Top ten	65%



Source: [Johns Hopkins](#), [Covid Tracking Project](#), 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

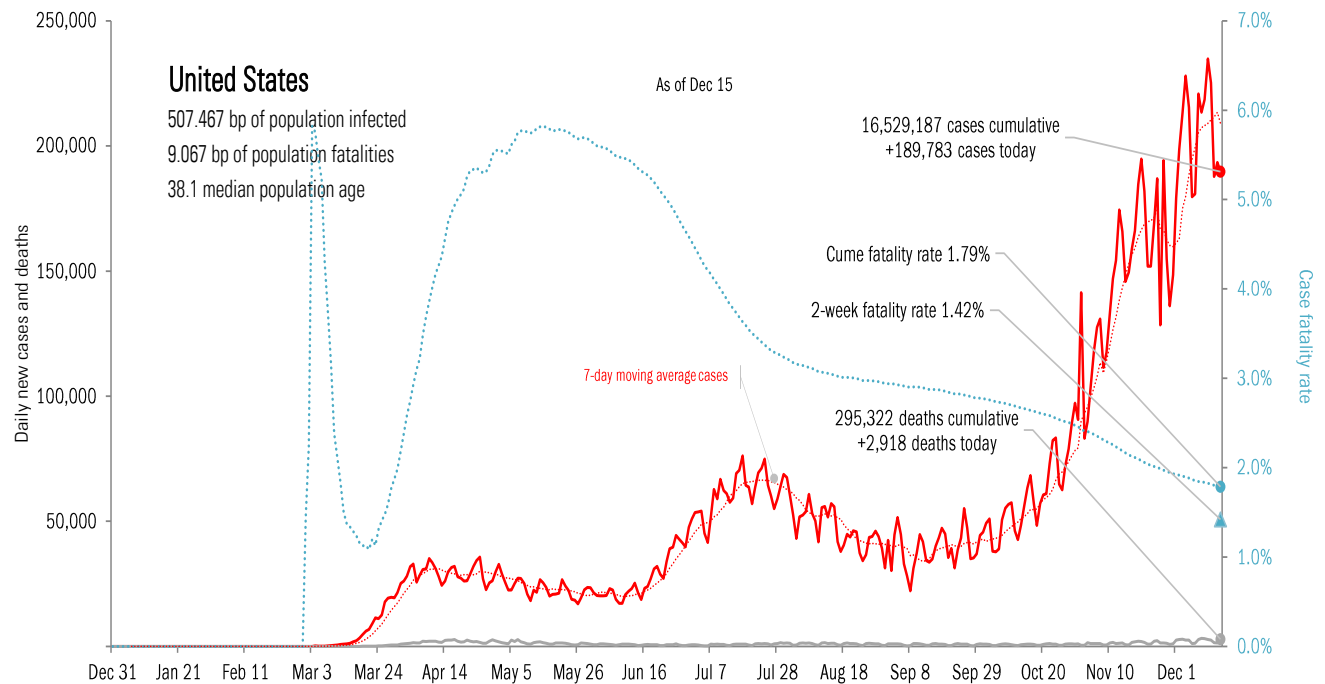
The ten worst US states

New cases		New Deaths		New in hospital		Curre cases		Curre deaths		Curre in hospital	
CA	+32,326	PA	+270	CA	+620	CA	1,617,370	NY	28,002	NY	89,995
TX	+18,926	MO	+240	NY	+270	TX	1,500,538	TX	24,142	FL	59,385
NY	+10,353	MI	+206	PA	+269	FL	1,124,742	CA	21,188	NJ	44,136
PA	+9,556	TX	+205	NC	+182	IL	863,477	FL	20,365	GA	38,111
FL	+9,296	CA	+142	FL	+171	NY	794,557	NJ	17,872	CH	32,878
CH	+8,755	IL	+132	TX	+168	CH	579,357	IL	15,587	IN	31,324
TN	+8,611	NY	+132	IN	+157	PA	509,320	PA	12,890	AZ	31,266
IL	+7,359	IN	+128	CH	+139	GA	484,152	MI	11,495	AL	29,259
MI	+5,391	CO	+116	VA	+101	MI	478,171	MA	11,443	MD	23,711
NC	+5,236	CH	+103	OK	+77	WI	475,340	GA	10,160	MIN	19,785
+115,809		+1,674		+2,154		8,427,024		173,144		399,850	
All states	+189,783	All states	+2,918	All states	+2,267	All states	16,529,187	All states	295,322	All states	622,898
Top ten	61%	Top ten	57%	Top ten	95%	Top ten	51%	Top ten	59%	Top ten	64%

Some states not reporting

Five most improved US states

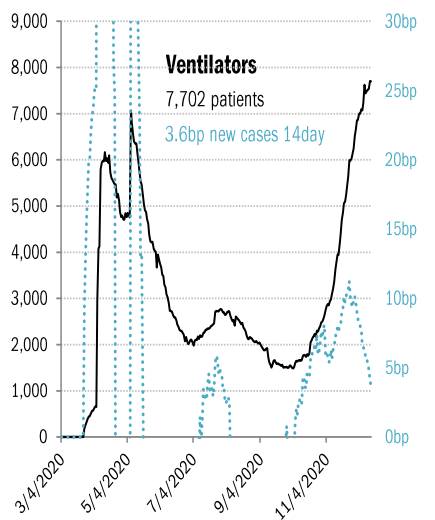
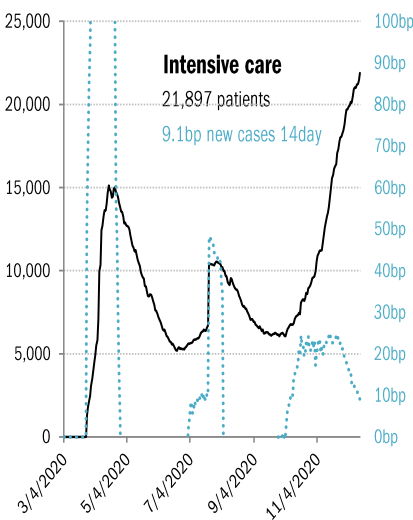
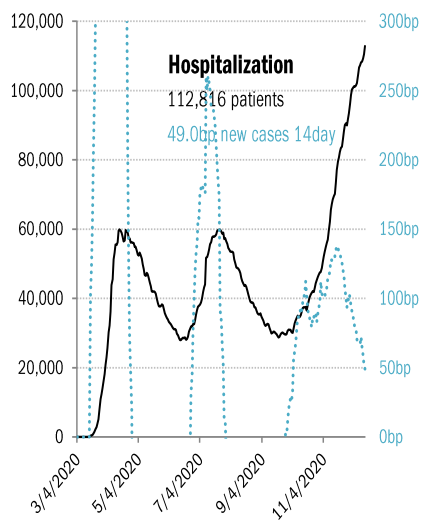
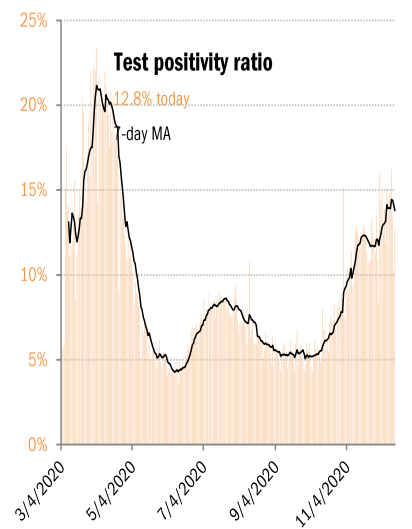
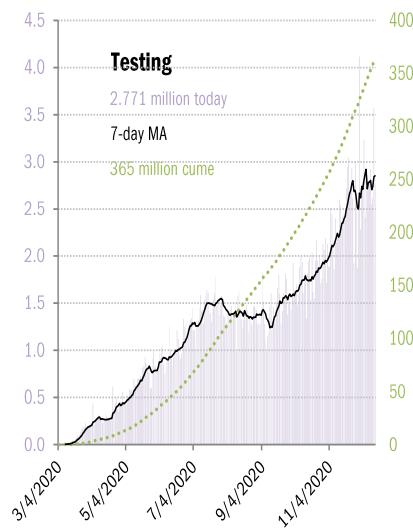
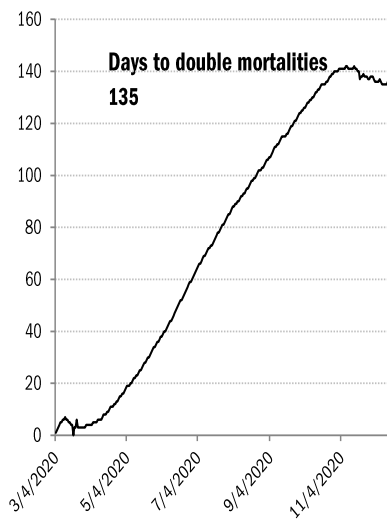
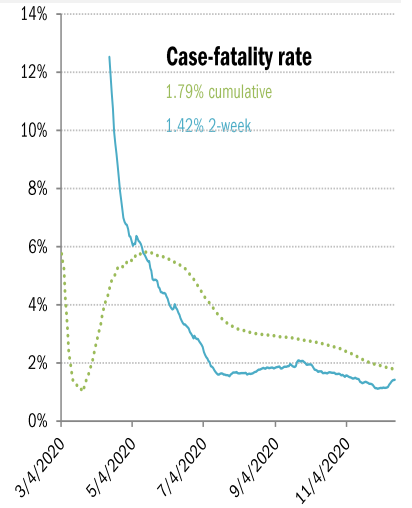
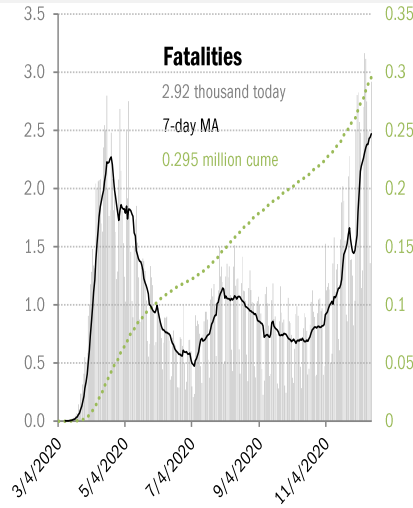
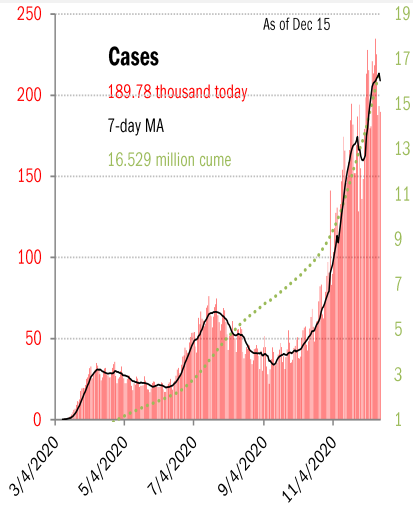
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most recoveries	
AZ	-7,672	CT	-59	NV	-248	TX	+17,770
CT	-5,761	FL	-44	SC	-228	CH	+12,245
KS	-4,724	KS	-37	GA	-87	TN	+10,450
MI	-2,230	AR	-19	FL	-74	IN	+5,964
TN	-1,348	SC	-7	MO	-68	IA	+5,936



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

US deep-dive

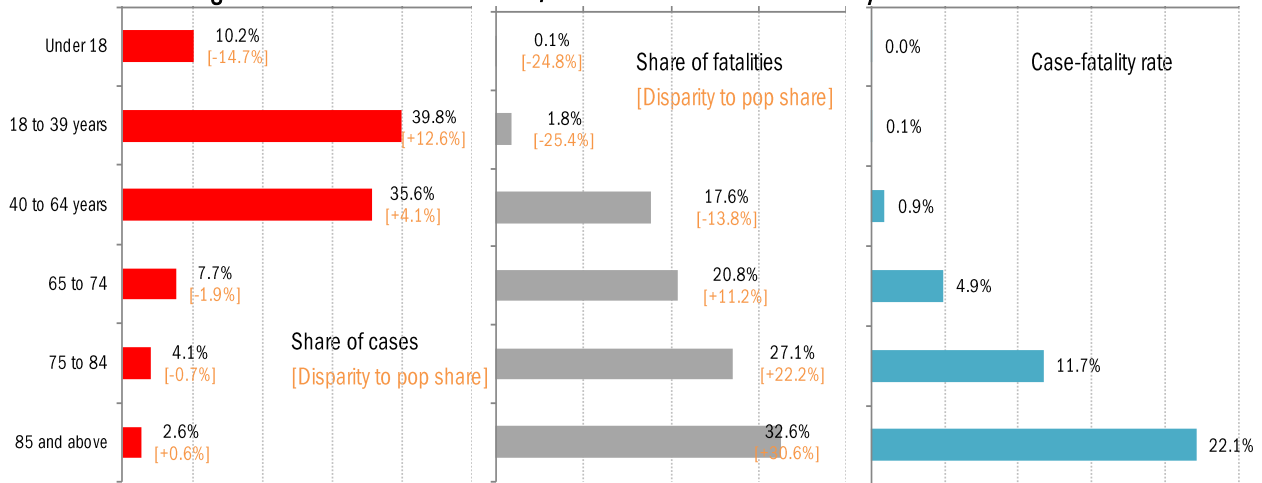
National and state-by-state data do not line up because of different sources



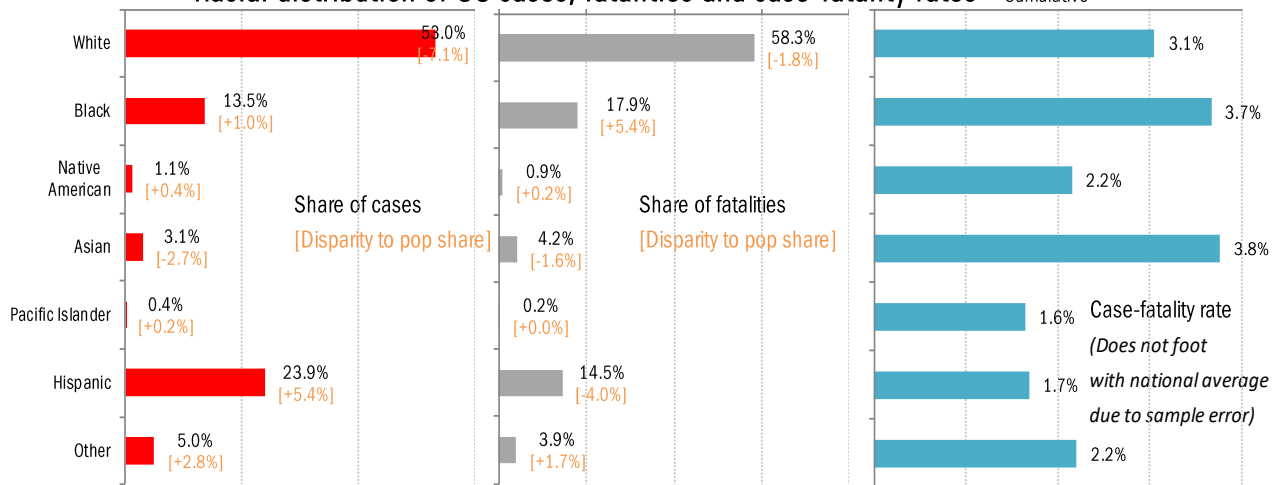
Source: [Covid Tracking Project](#), TrendMacro calculations

US deep-dive on the demographics of age, race and health

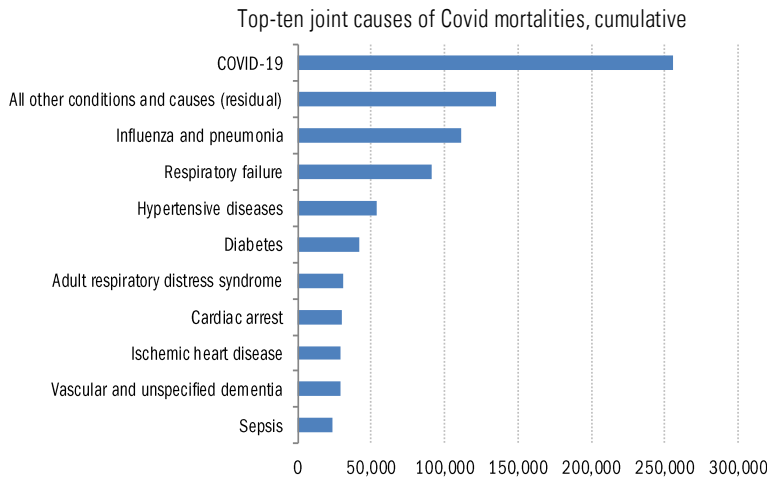
Age distribution of US cases, fatalities and case-fatality rates



Racial distribution of US cases, fatalities and case-fatality rates



Comorbidities



For 6% of the deaths, COVID-19 was the only cause mentioned. For deaths with conditions or causes in addition to COVID-19, on average, there were 2.9 additional conditions or causes per death.

Source: Distributions [CDC](#), Comorbidities [CDC](#), TrendMacro calculations

Recommended reading

[Household Transmission of SARS-CoV-2](#)

Zachary J. Madewell et al.
Jama Network Open
December 14, 2020

[We Had the Vaccine the Whole Time](#)

David Wallace-Wells
New York Magazine
December 7, 2020

[With His Star Dimmed, California's Newsom Could Face Recall](#)

Michael R. Blood
NBC Bay Area
December 14, 2020

['New variant' of coronavirus identified in England](#)

BBC
December 14, 2020

[Inferring the effectiveness of government interventions against COVID-19](#)

Jan M. Brauner et al.
Science
December 15, 2020

[Moderna Vaccine Found Safe, Effective Ahead of Key FDA Review](#)

Anna Edney
Bloomberg
December 15, 2020

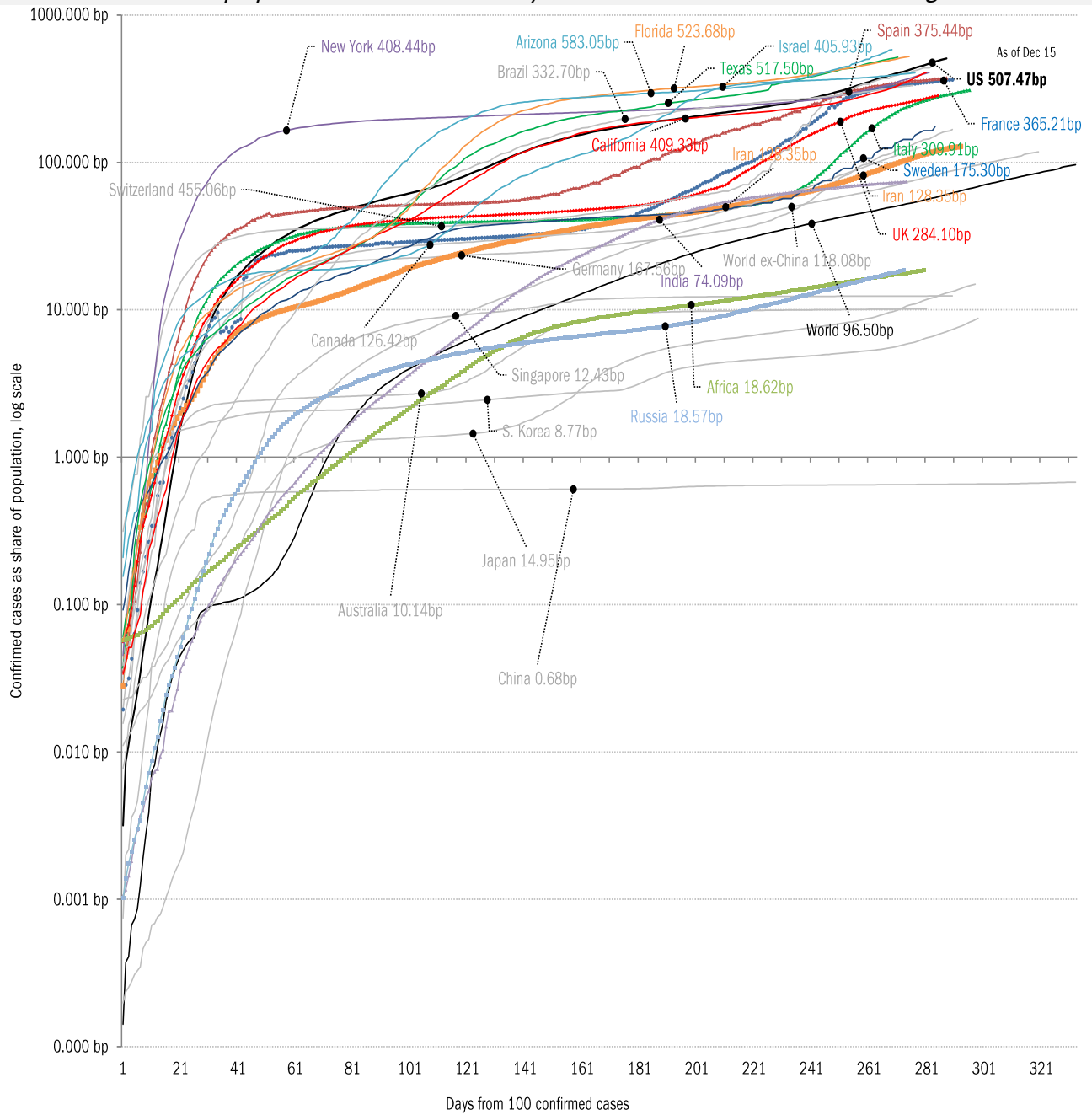
Meme of day

maybe i'm happy but asymptomatic



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

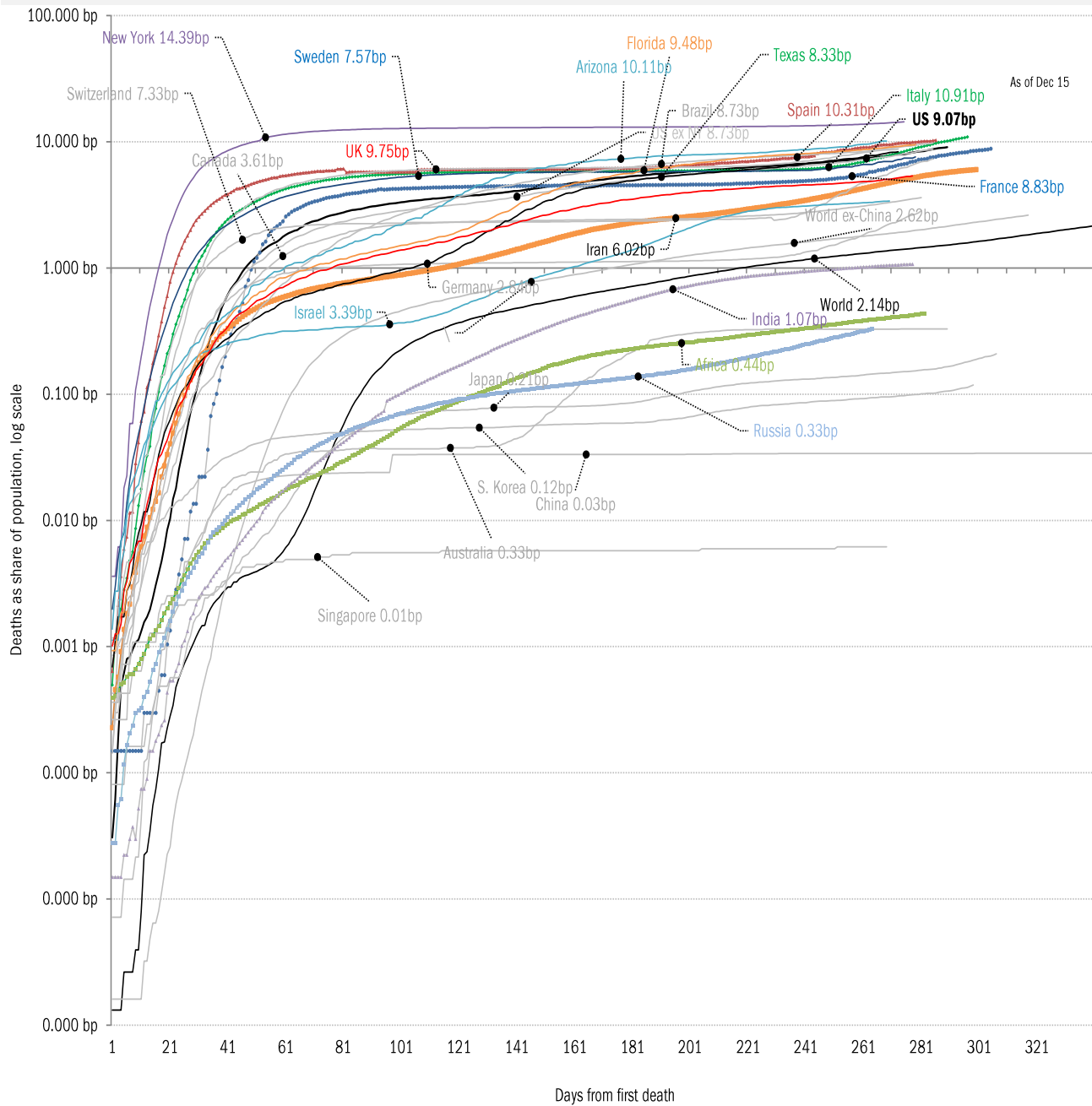
The coronavirus case accelerometer... tracking the world's infection curves
Share of infected population from first day with 100 confirmed cases, log scale



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

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

Share of deceased population from day of first fatality

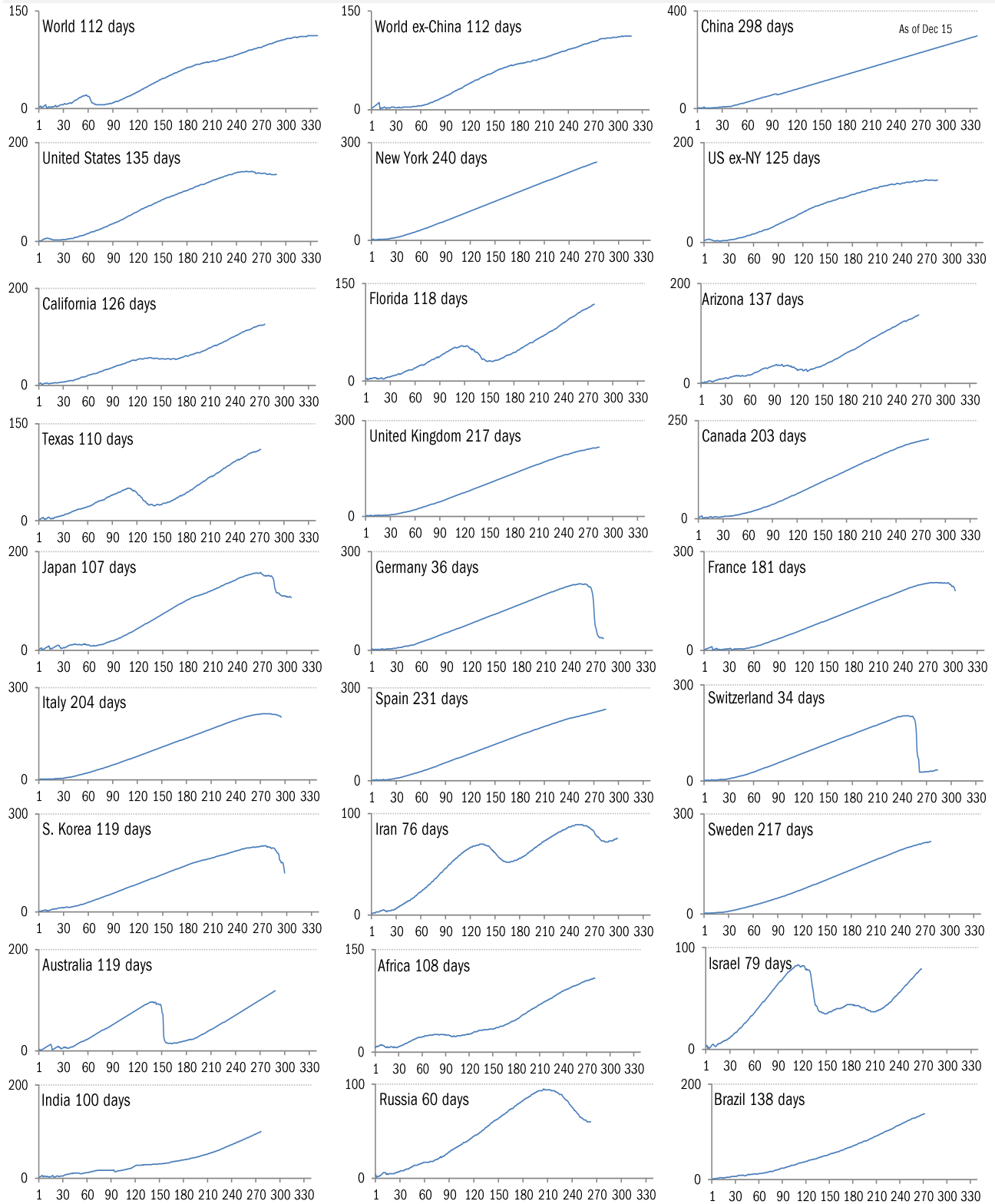


Source: [Johns Hopkins](#), [Covid Tracking Project](#), TrendMacro calculations

"Exponential"? Our most reliable evidence of the rate of spread of Covid-19

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

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

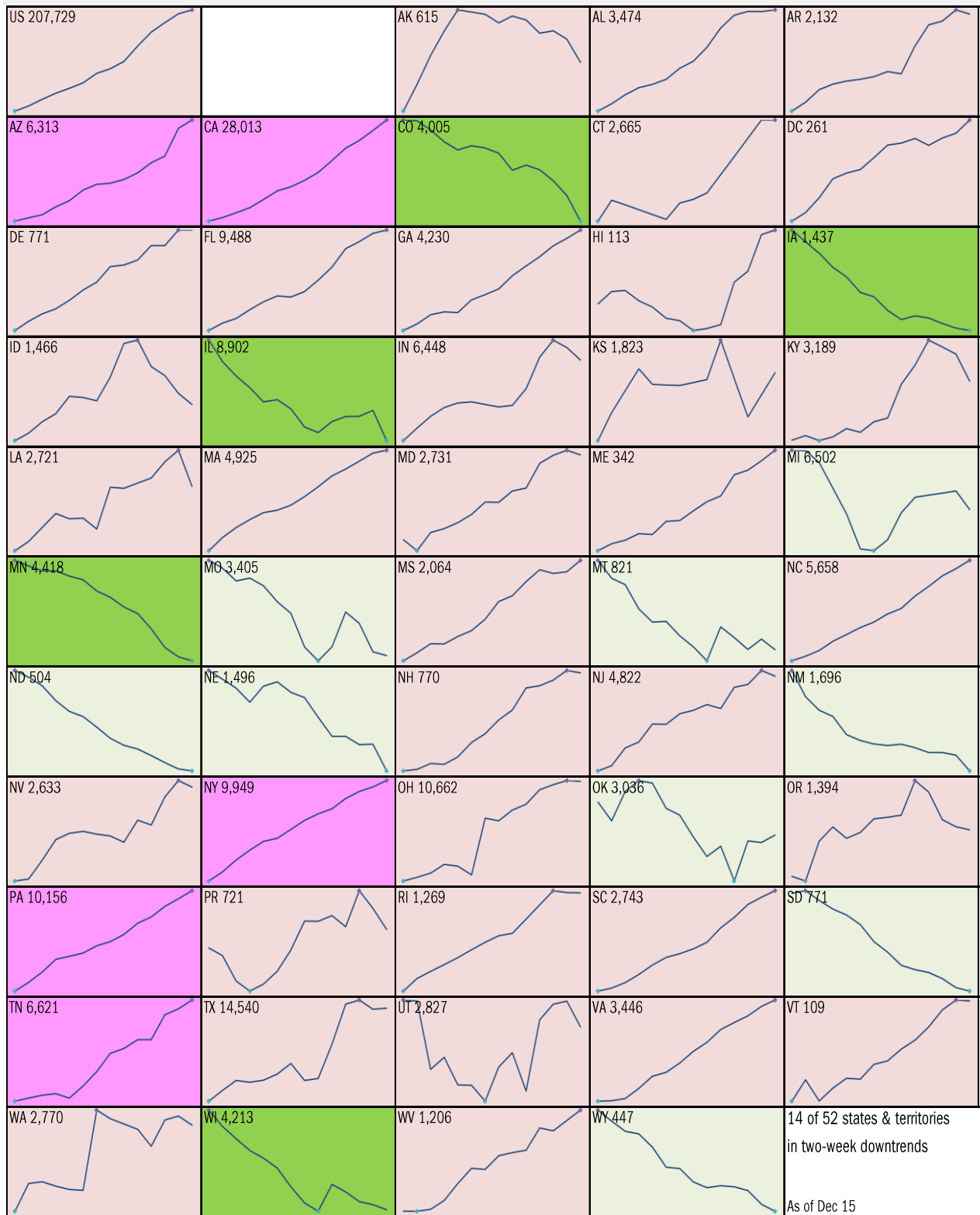


Source: [Johns Hopkins, Covid Tracking Project](#), TrendMacro calculations

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

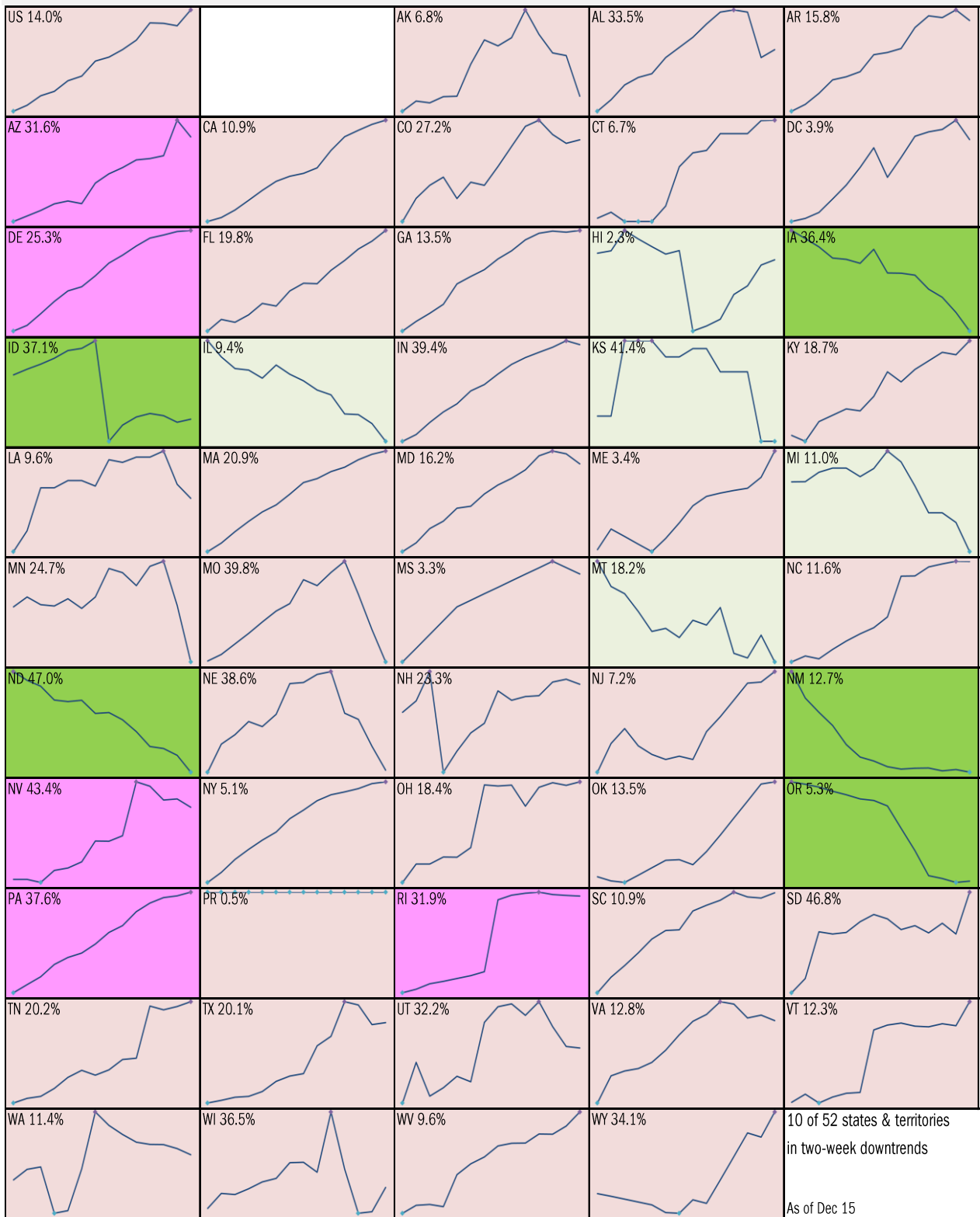


Source: [Covid Tracking Project](#), TrendMacro calculations

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



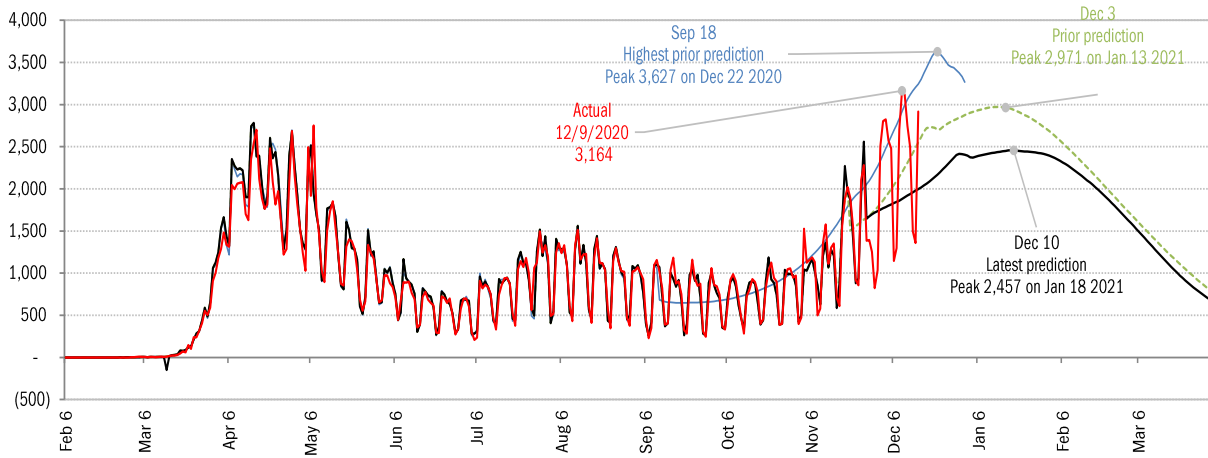
Source: [Covid Tracking Project](#), TrendMacro calculations

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

New daily fatalities

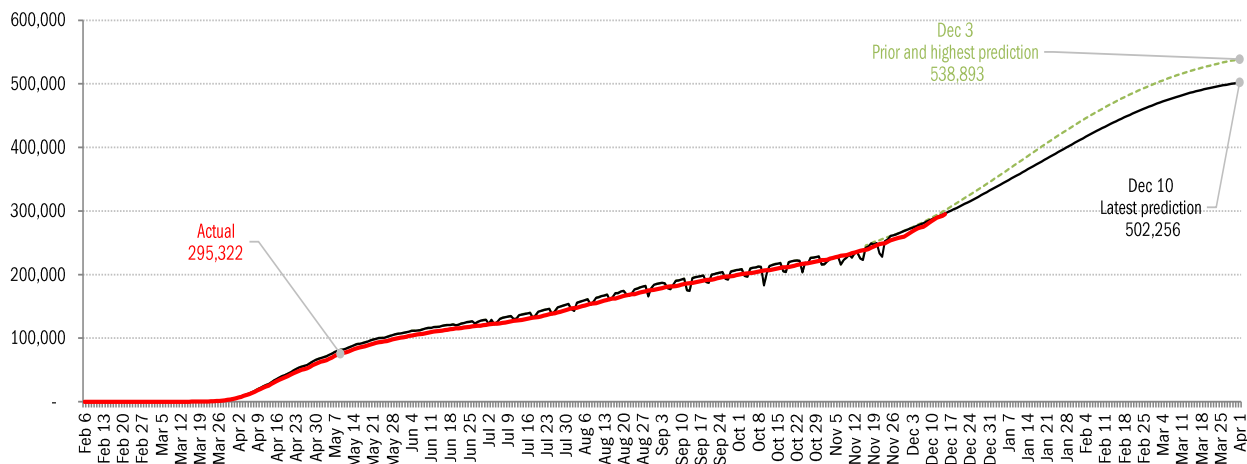
As of Dec 15

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

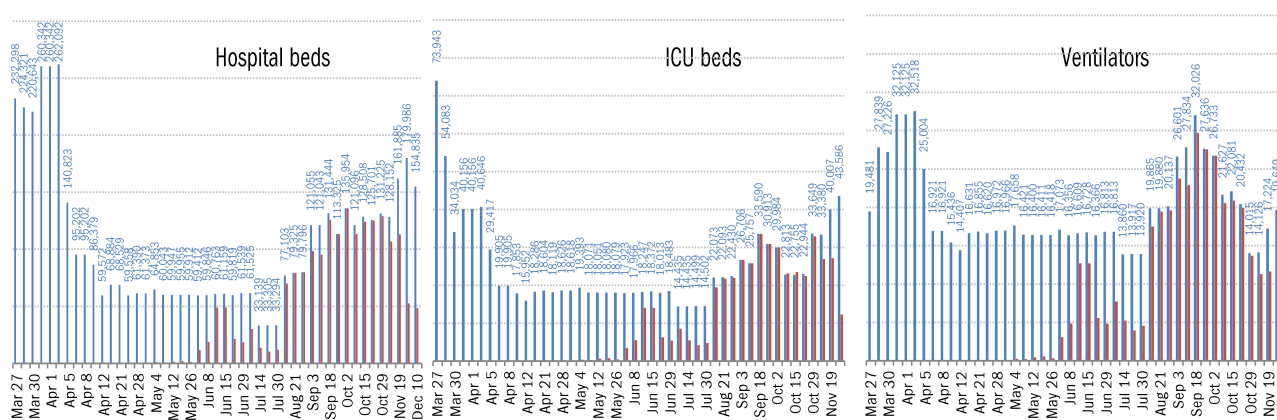


Cumulative fatalities

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

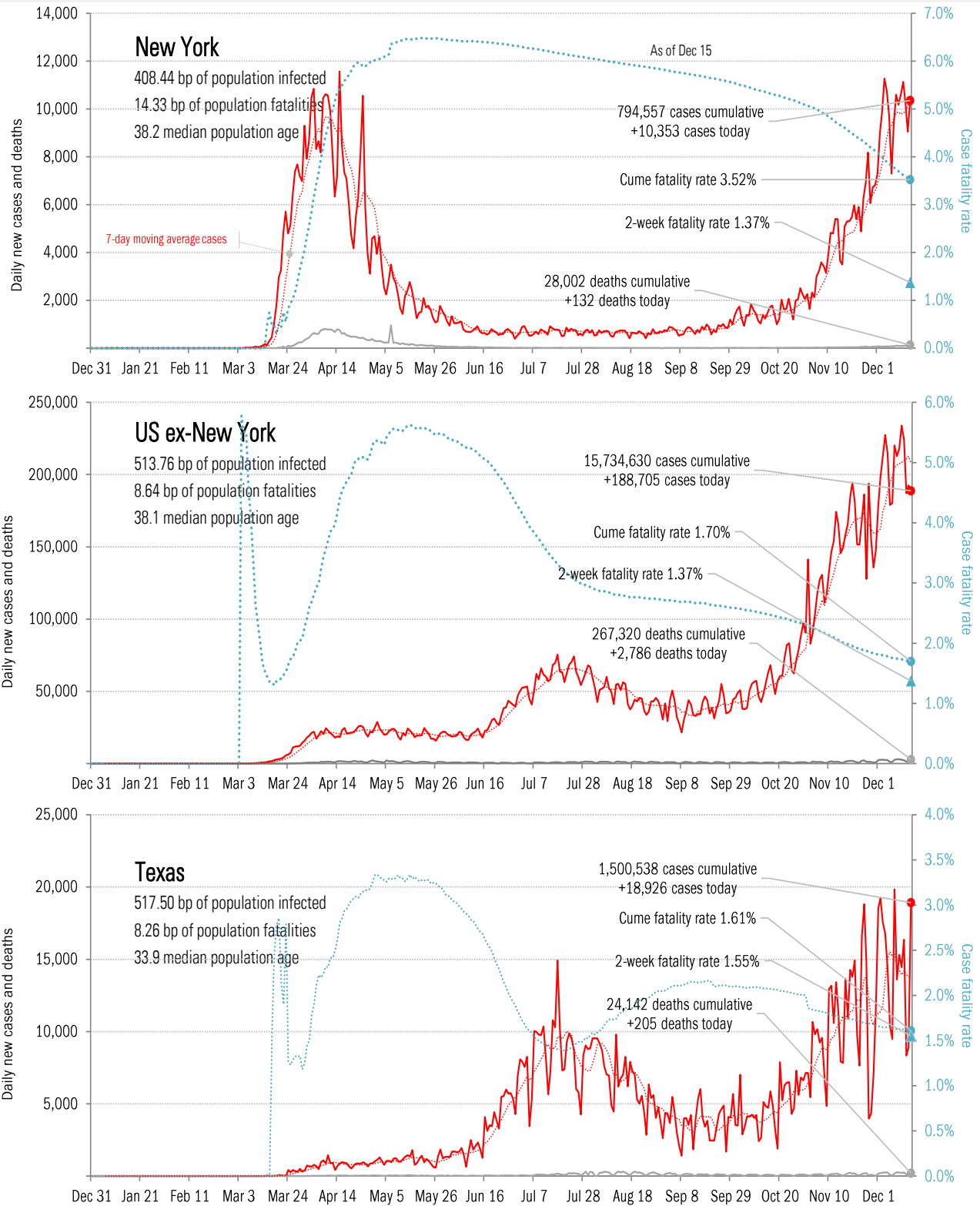


Healthcare system stress, peak and ultimate estimated at each model revision



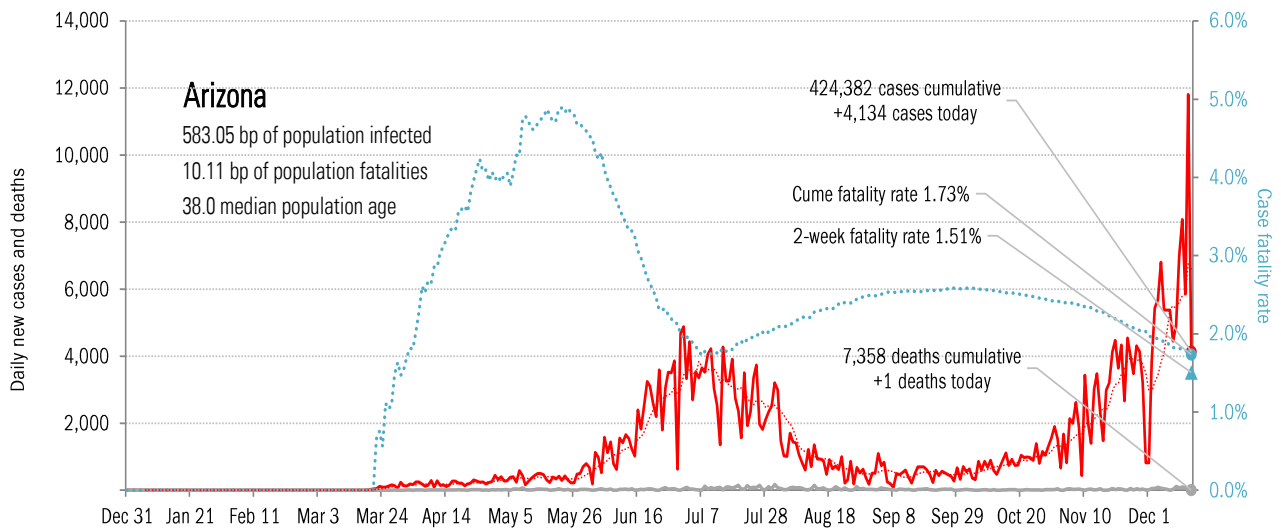
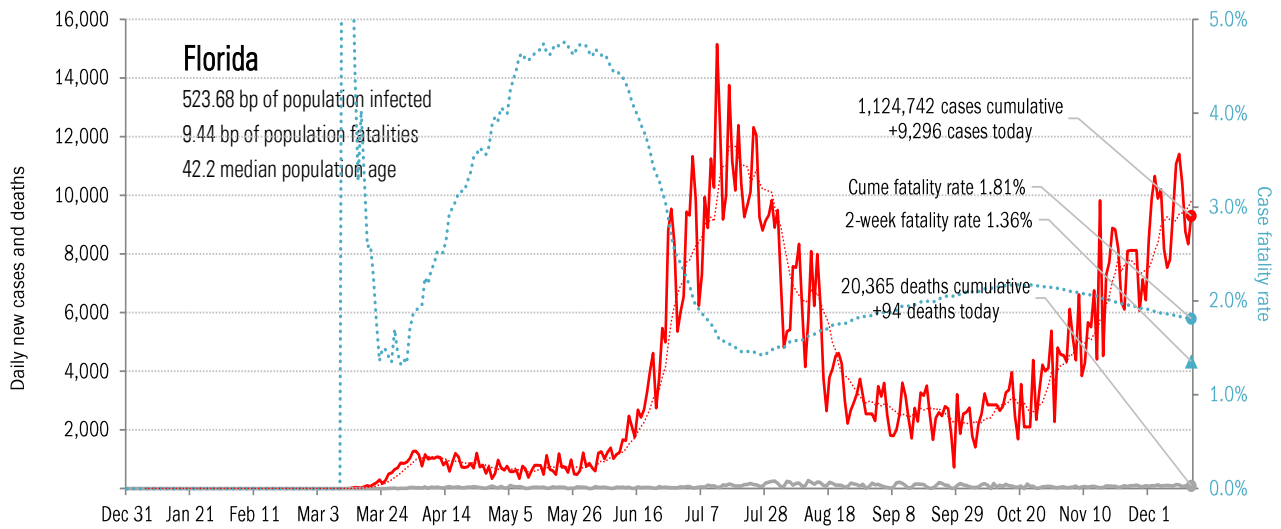
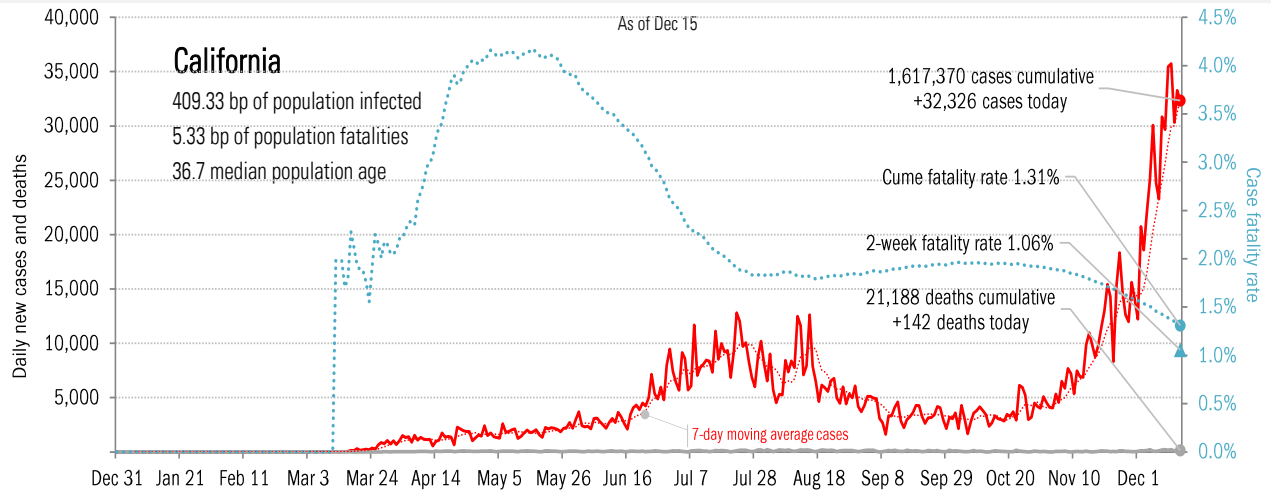
Source: [IHME](#), [Covid Tracking Project](#), TrendMacro calculations

From Ground Zero to the Rio Grande



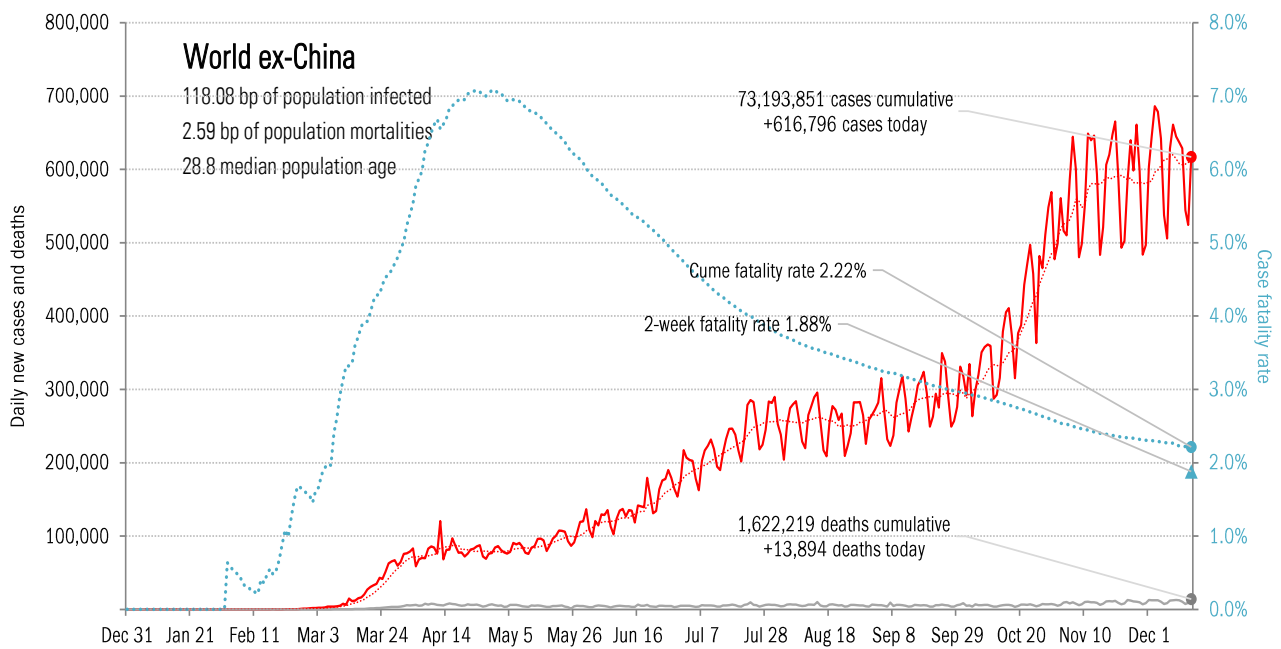
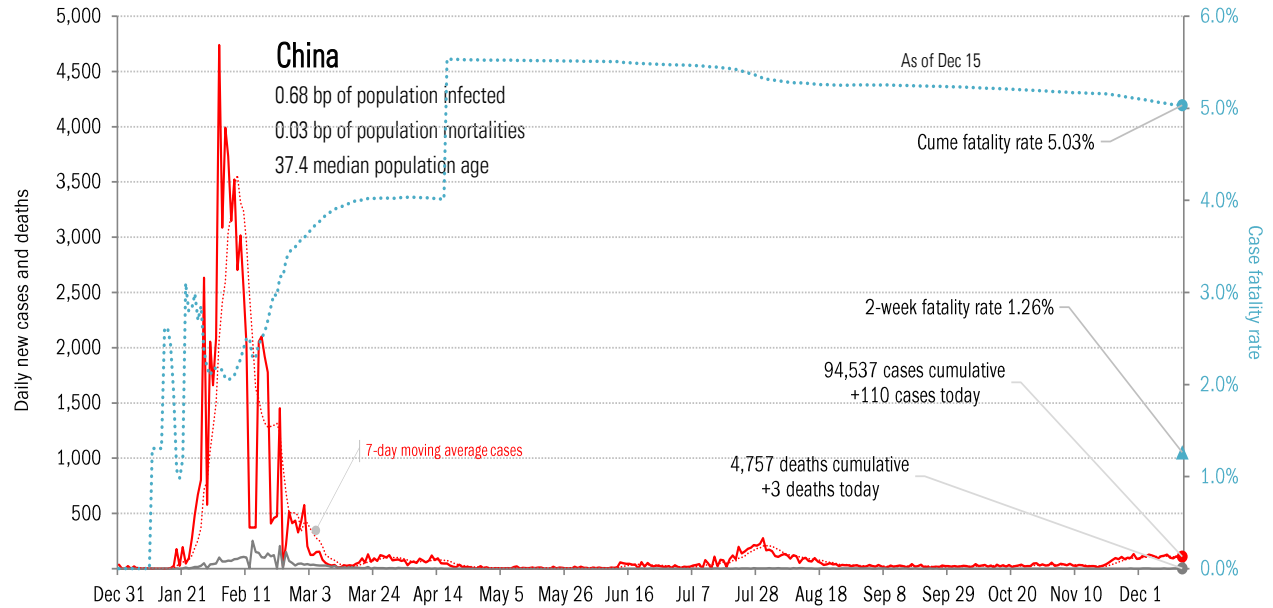
Source: [Covid Tracking Project](#), TrendMacro calculations

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



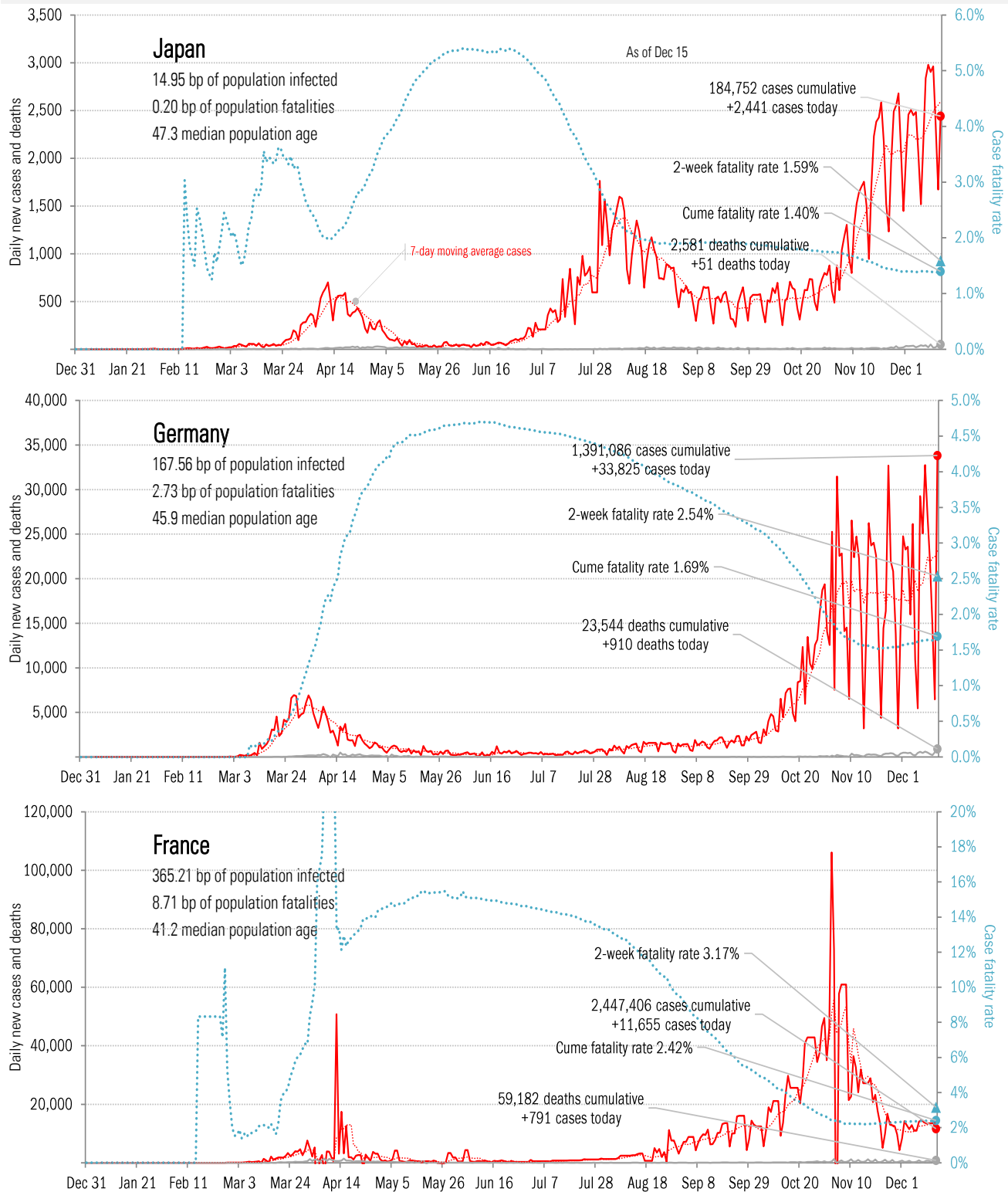
Source: [Covid Tracking Project](#), TrendMacro calculations

Patient zero... and then everyone else



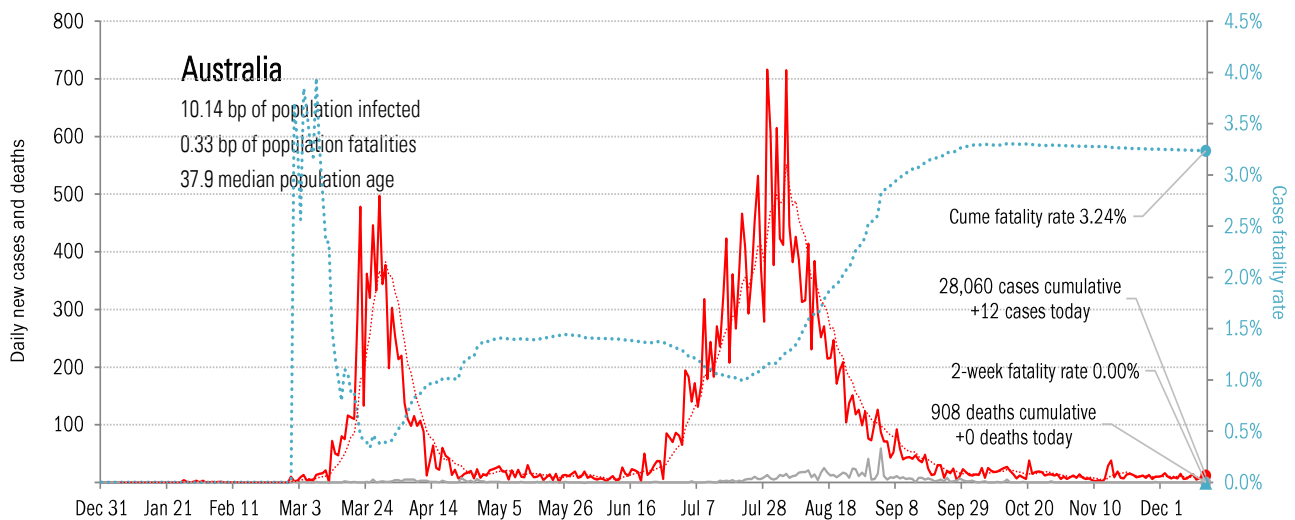
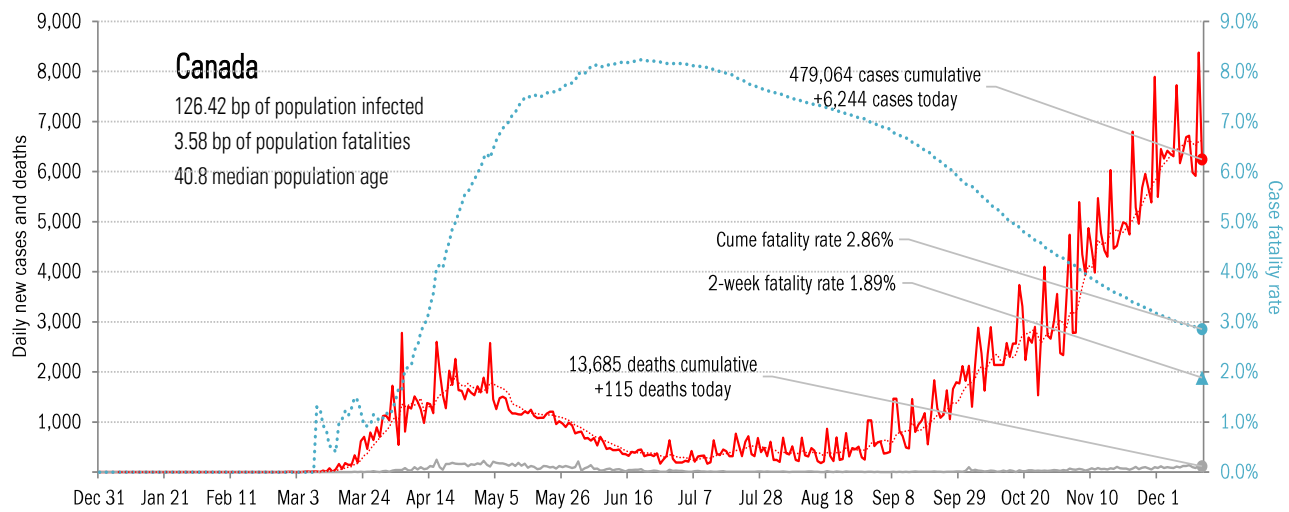
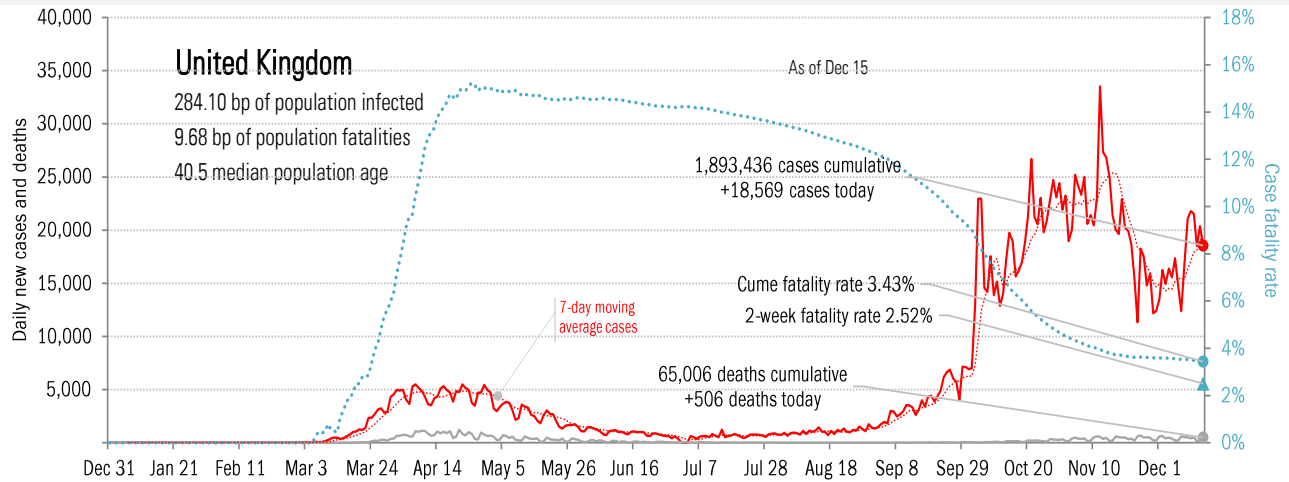
Source: [Johns Hopkins](#), [Covid Tracking Project](#), TrendMacro calculations

Impact in the largest economies



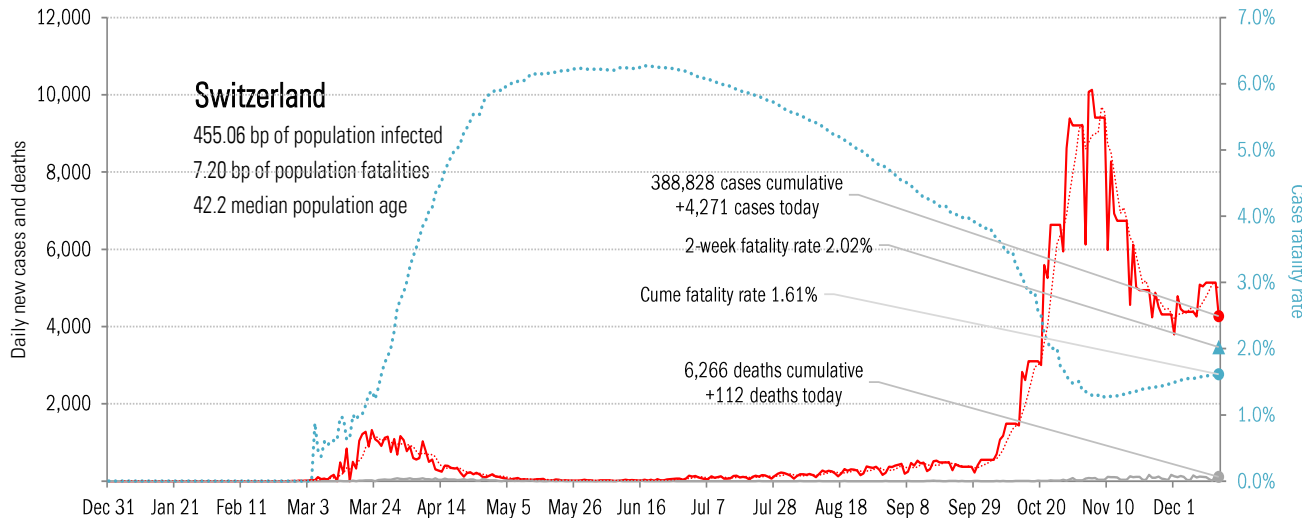
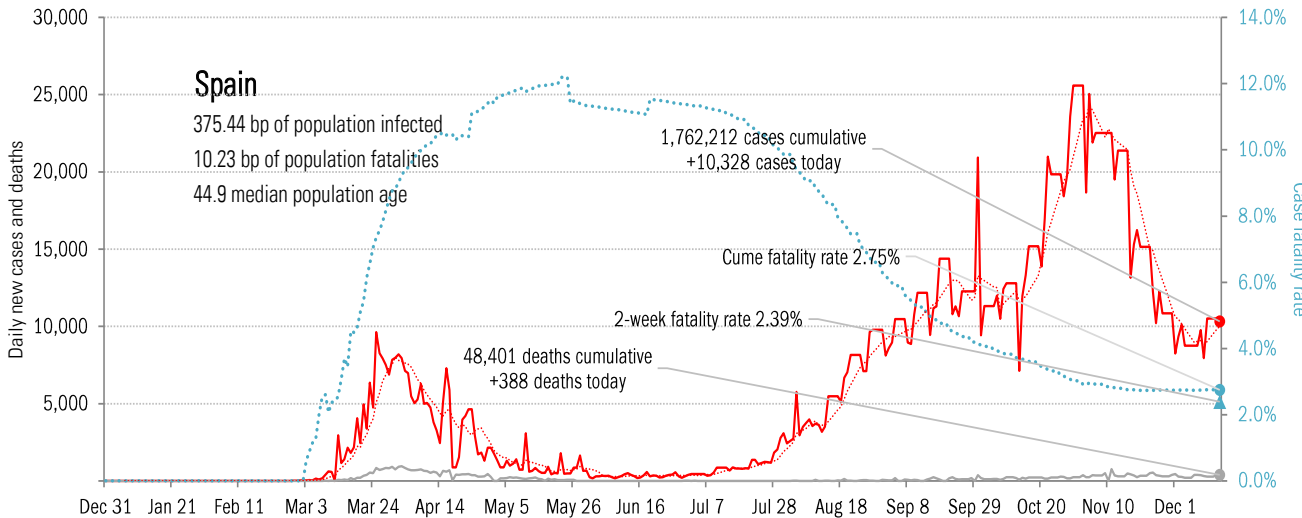
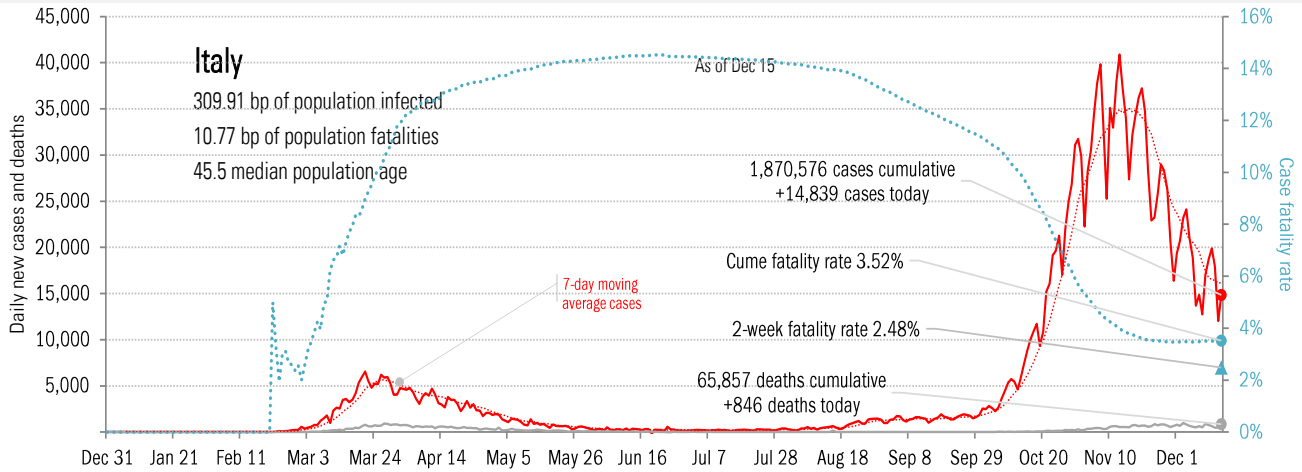
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in The Anglosphere



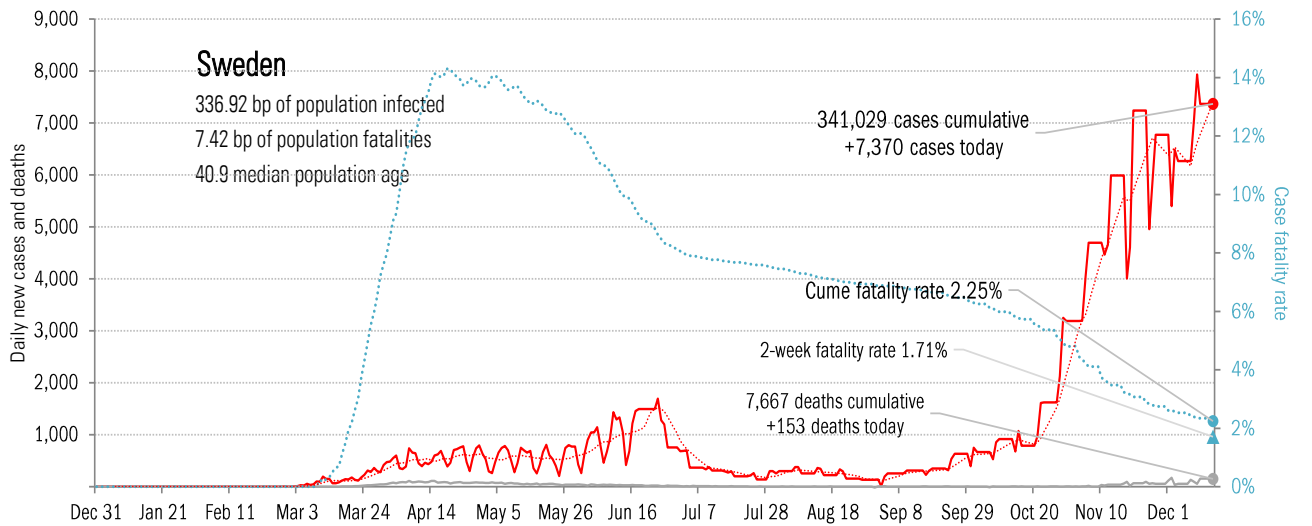
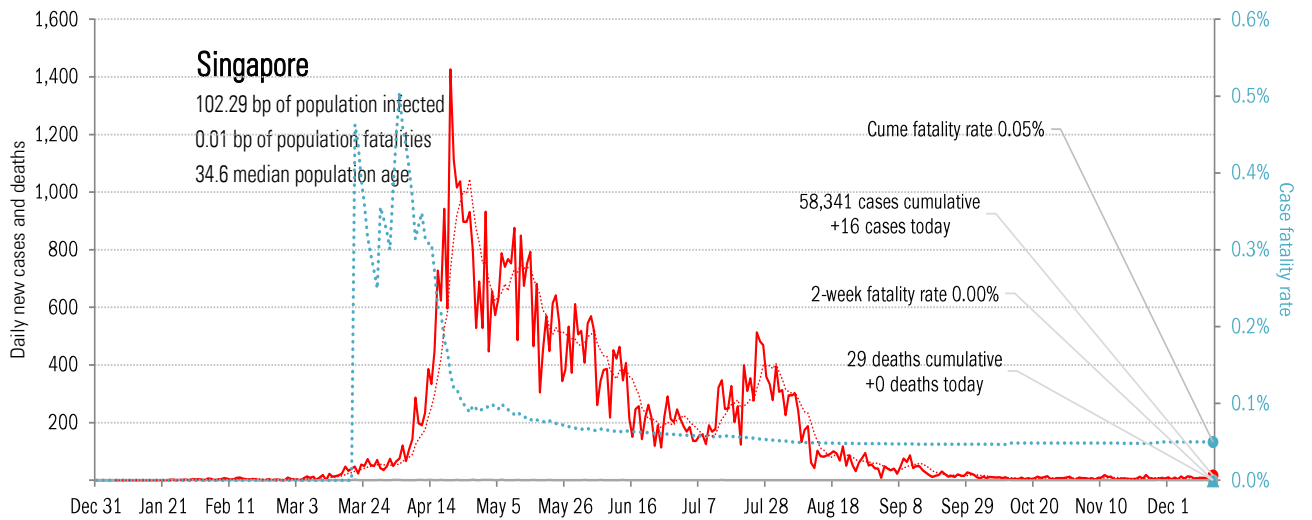
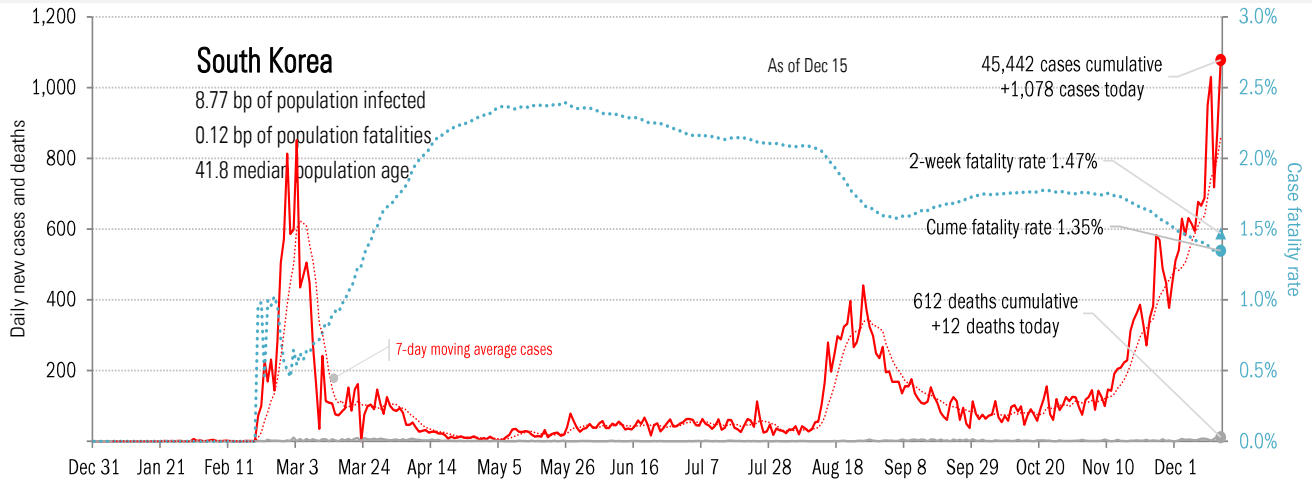
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in continental Europe



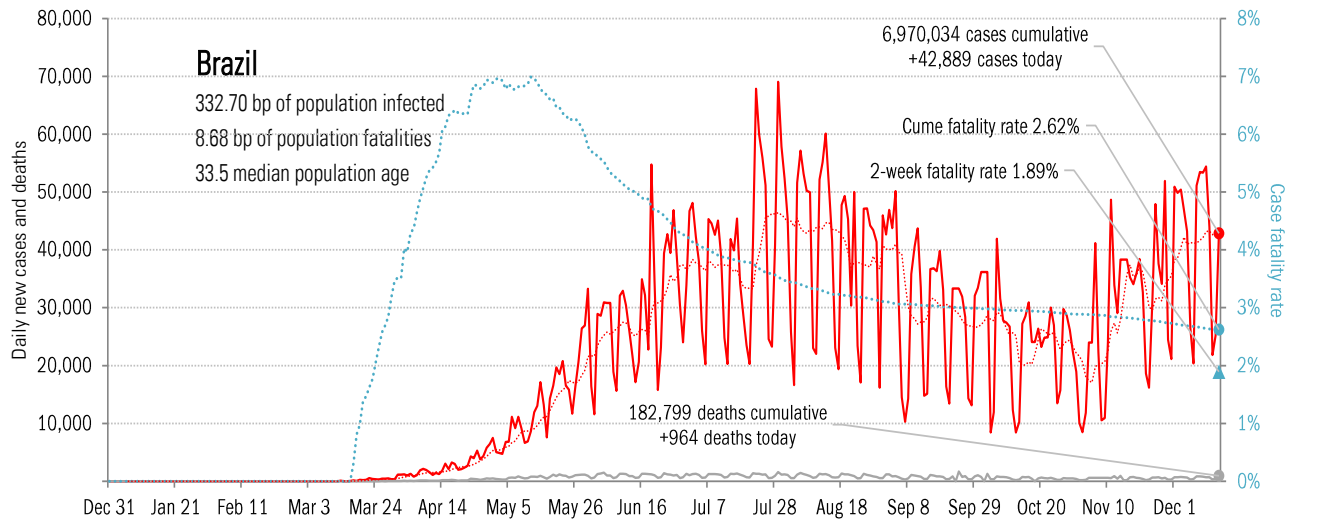
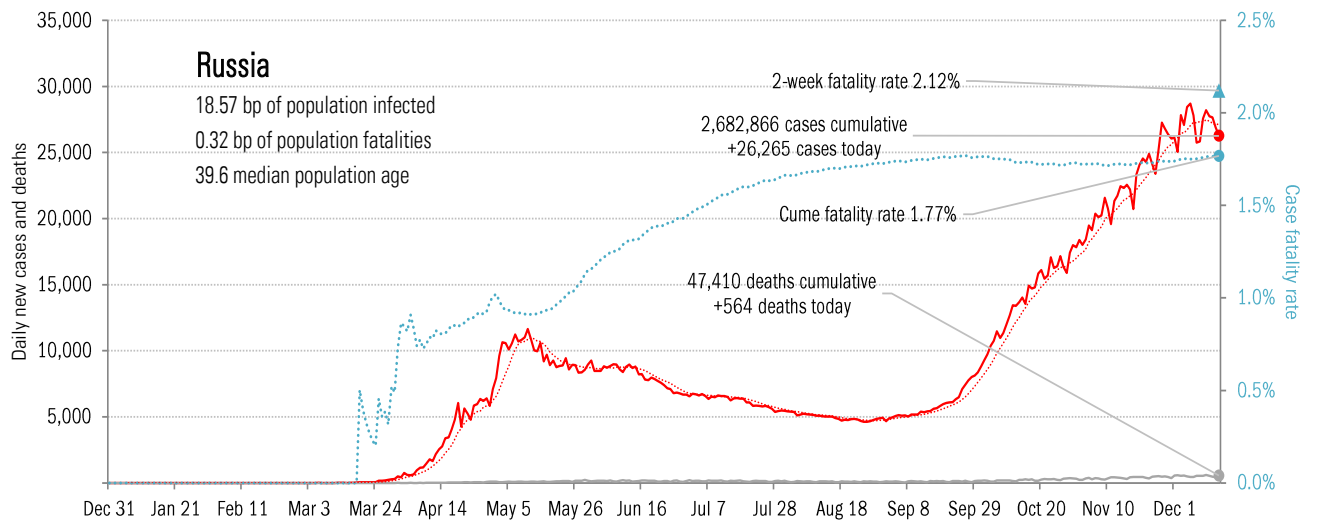
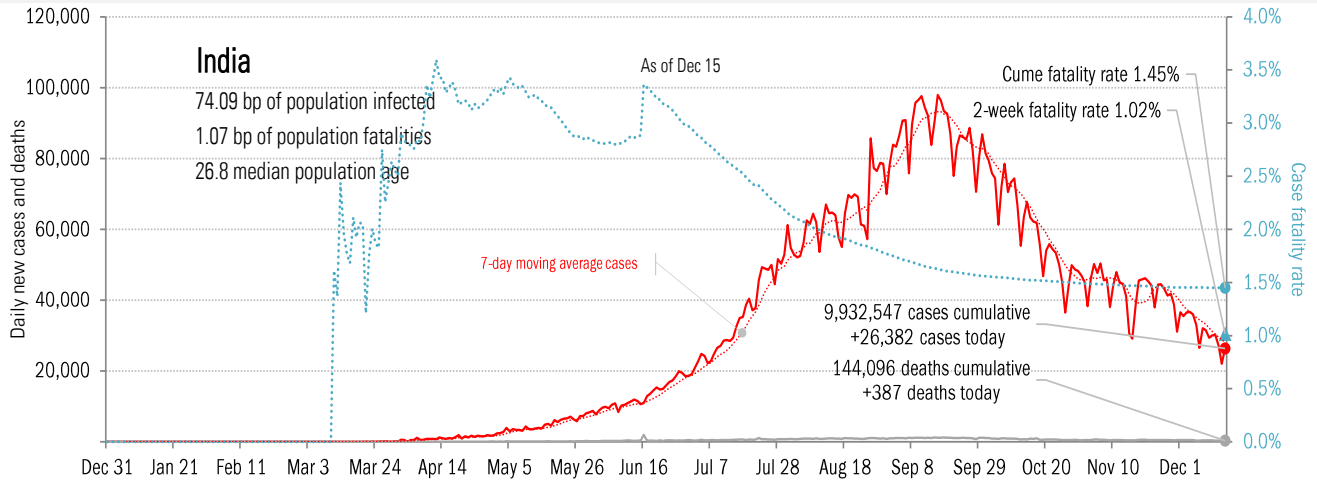
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in other hot-spots



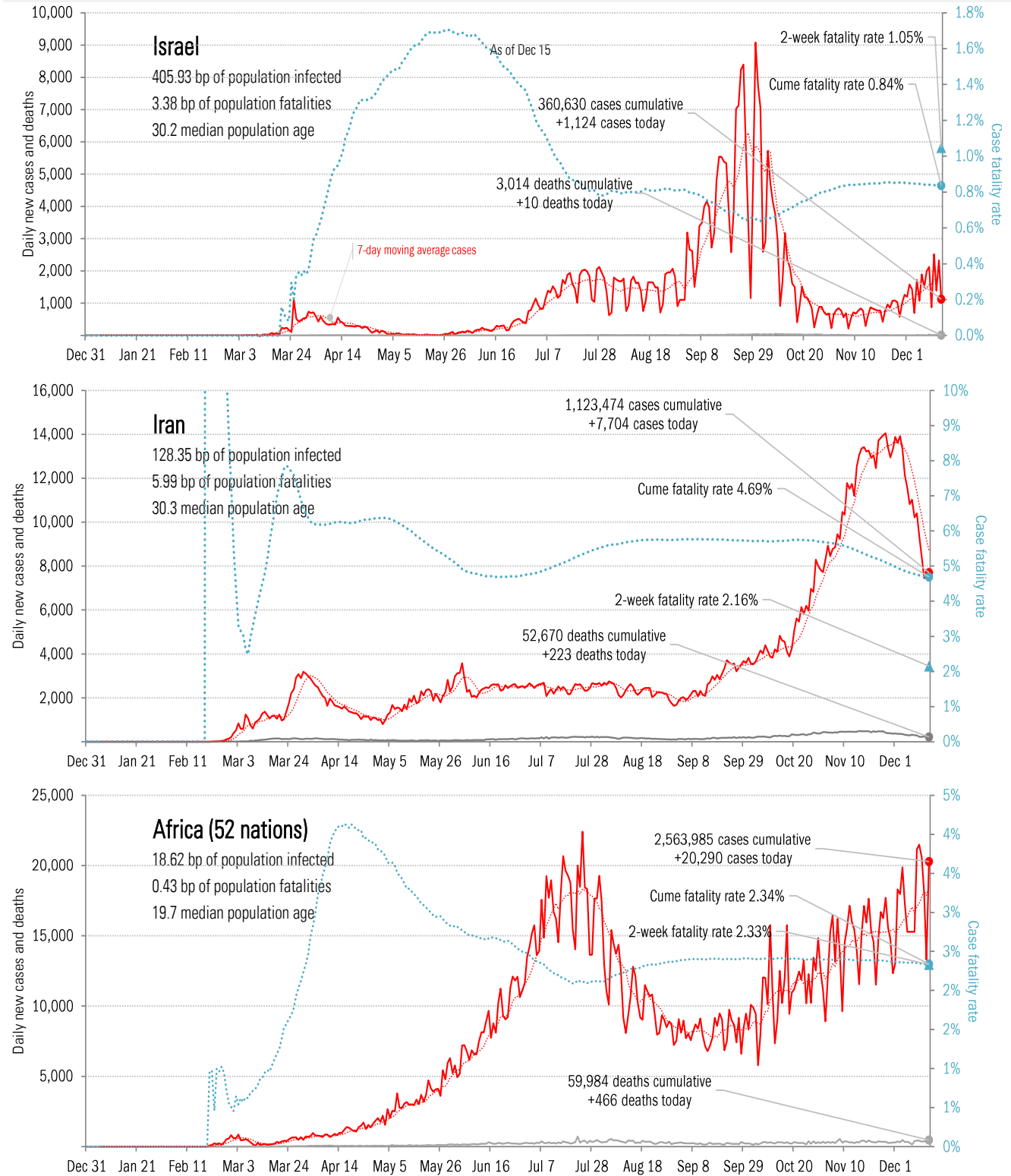
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the BRICs ex-China



Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the Middle East and Africa



Source: [Johns Hopkins](#), TrendMacro calculations