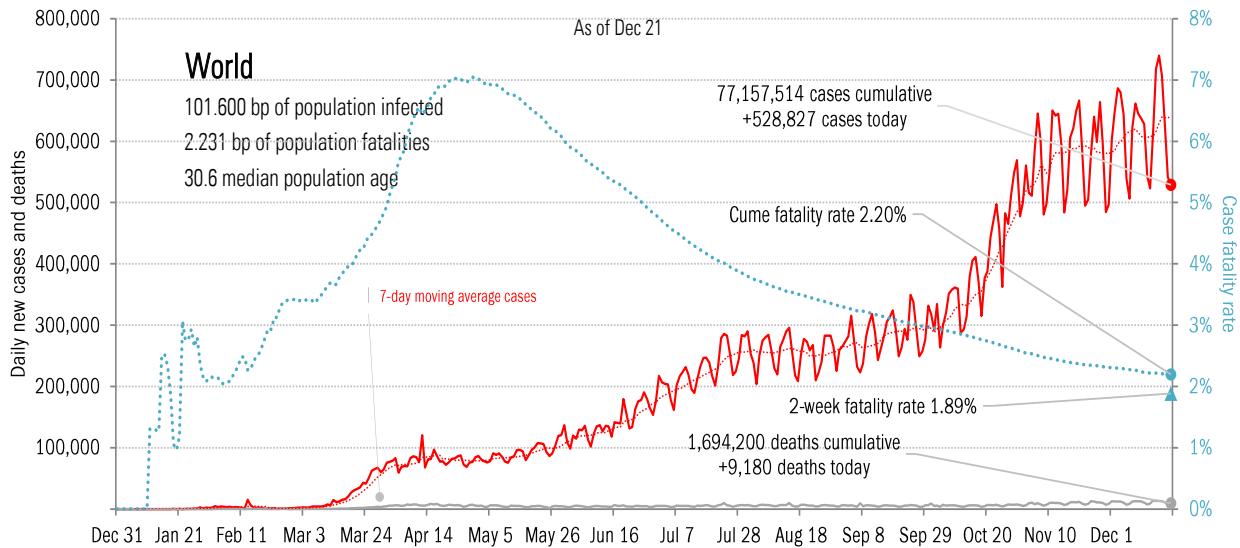
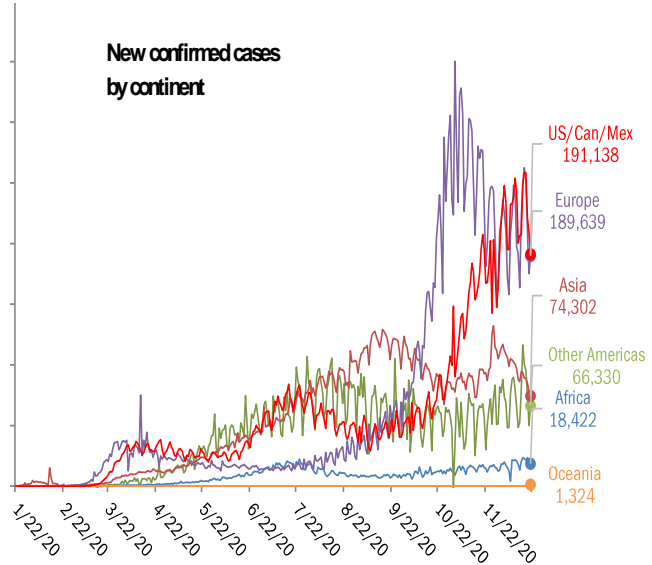


Data Insights: Covid-2019 Monitor

Tuesday, December 22, 2020

The global scorecard

The worst ten countries			
New cases		New Deaths	
United States	+178,191	United States	+1,485
United Kingdom	+33,517	Germany	+710
Russia	+28,917	Brazil	+527
Brazil	+25,019	Russia	+481
Spain	+22,013	Italy	+415
India	+19,556	Mexico	+396
Germany	+19,256	France	+354
Turkey	+19,103	Spain	+334
Netherlands	+11,218	India	+301
Italy	+10,869	Turkey	+254
+367,659		+5,257	
World	+528,827	World	+9,180
Top ten	70%	Top ten	57%



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

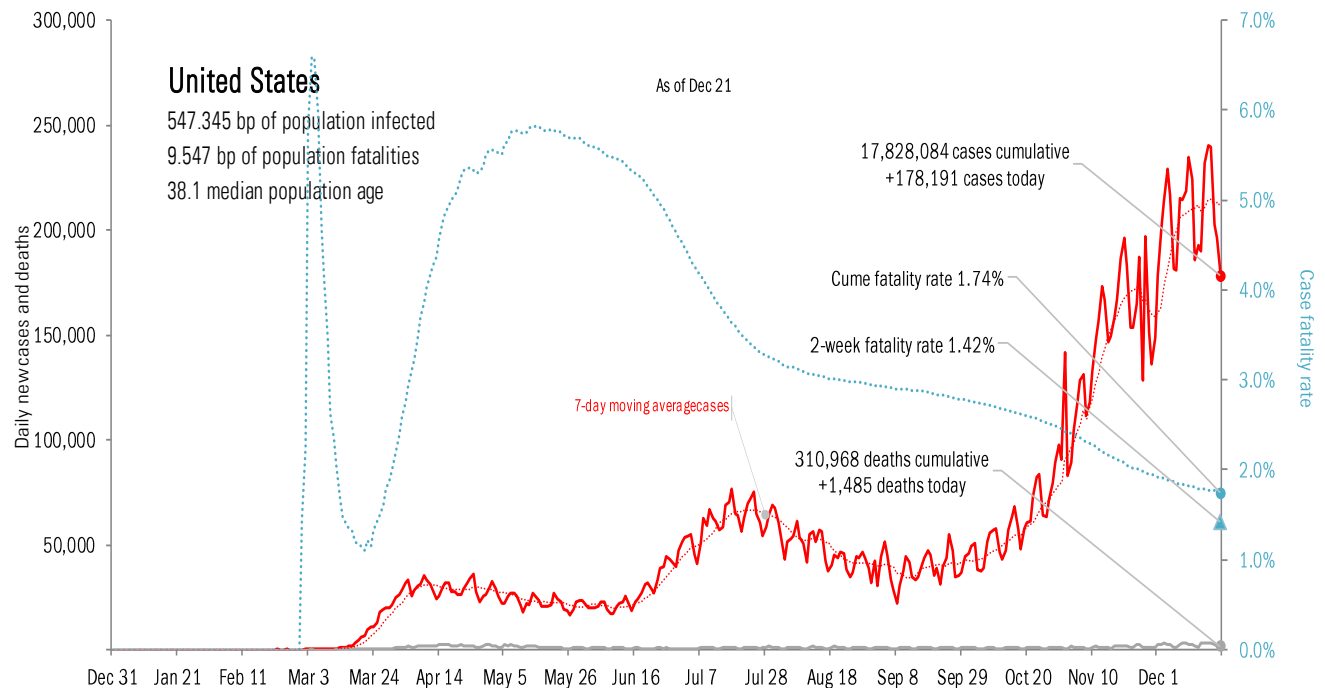
The ten worst US states

New cases			New Deaths			New in hospital			Cume cases			Cume deaths			Cume in hospital			Hospital use		ICU use	
CA	+37,892		IL	+120		CA	+609		CA	1,892,348		NY	28,709		NY	89,995		RI	90%	NM	96%
FL	+10,907		FL	+115		FL	+277		TX	1,591,948		TX	25,415		FL	60,953		GA	82%	AL	90%
TX	+10,280		NY	+111		AL	+189		FL	1,192,456		CA	22,676		NJ	45,284		SC	81%	GA	89%
TN	+9,891		KS	+107		GA	+173		IL	905,069		FL	20,976		GA	39,502		MD	81%	NV	89%
NY	+9,007		CT	+95		TX	+153		NY	857,049		NJ	18,223		CH	35,048		DC	81%	RI	88%
PA	+7,887		CA	+83		NY	+146		CH	629,354		IL	16,527		AZ	33,195		NV	79%	OK	88%
AZ	+7,748		MI	+79		MA	+72		PA	563,589		PA	13,981		IN	32,710		FL	79%	MS	87%
CH	+6,548		CH	+75		NV	+72		TN	529,578		MI	12,153		AL	30,994		NC	79%	CA	85%
MI	+5,059		TX	+67		IL	+71		GA	512,699		MA	11,759		MD	24,758		CA	78%	TX	85%
IL	+4,699		LA	+65		NC	+69		MI	501,115		GA	10,399		MN	20,629		AZ	77%	MO	84%
+109,918			+917			+1,831			9,175,205			180,818			413,068						
All states	+178,191		+1,485			+1750			All states	17,828,084		310,968			647,080			All states	73%		77%
Top ten	62%		62%			105%			Top ten	51%		58%			64%			Median	70%		74%

Some states not reporting

Five most improved US states

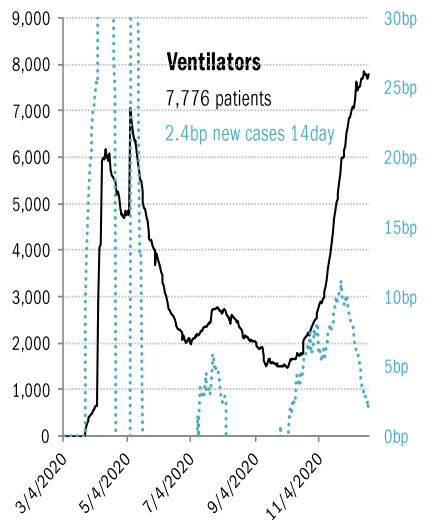
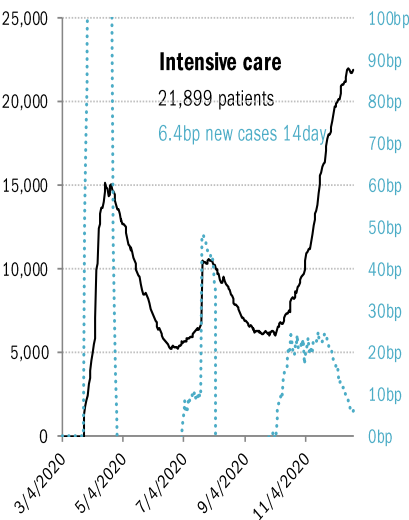
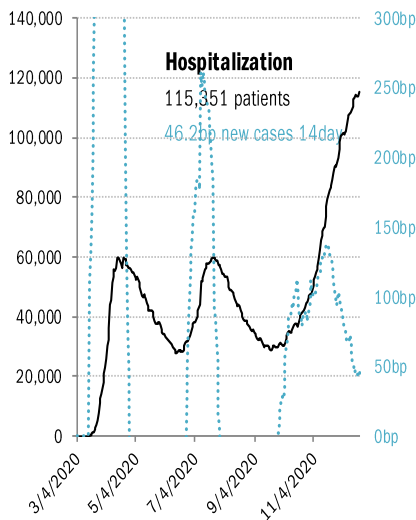
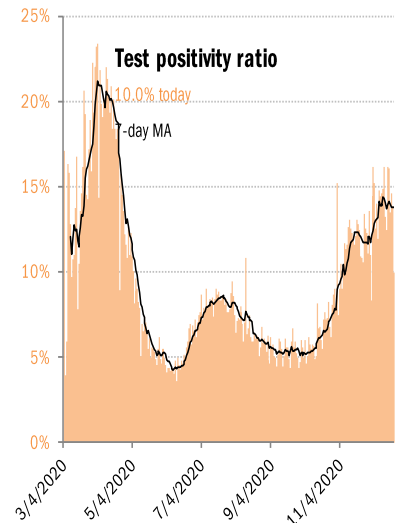
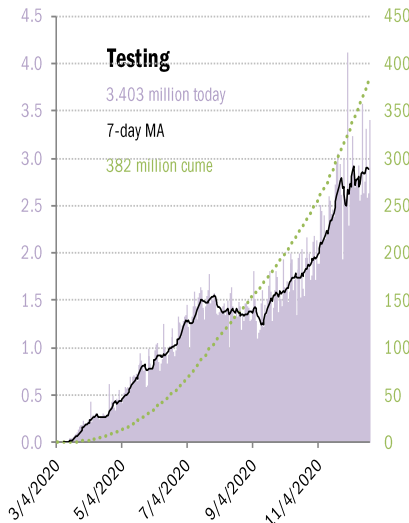
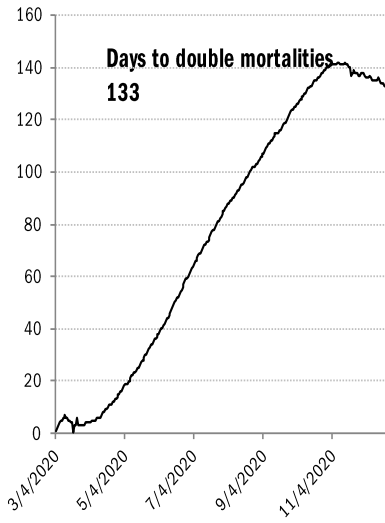
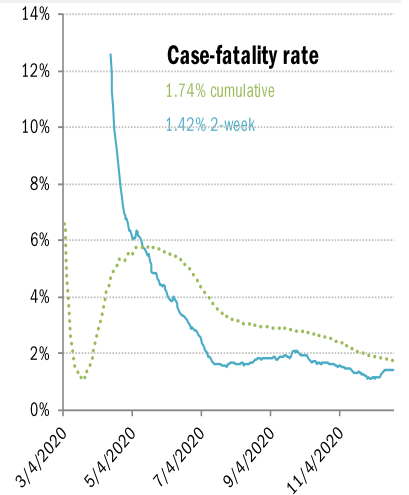
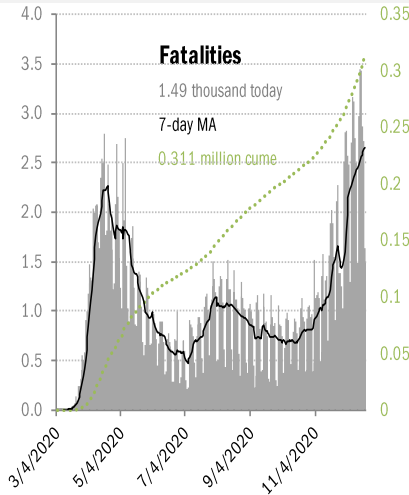
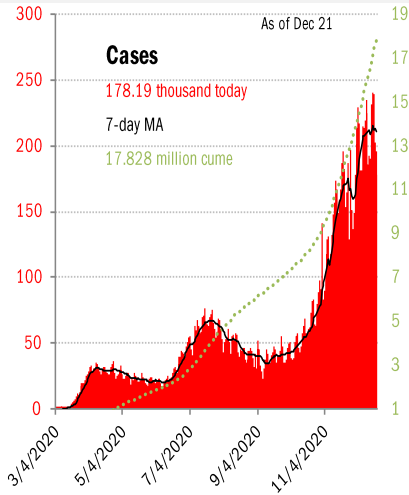
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most recoveries	
CA	-8,582	CA	-78	MI	-105	NC	+38,215
TN	-6,145	IA	-56	MN	-104	TX	+10,053
IN	-2,618	TX	-55	MO	-64	PA	+9,211
LA	-2,595	MN	-48	KS	-58	IN	+8,280
NC	-2,421	TN	-46	RI	-30	CH	+6,912



Source: [Covid Tracking Project](#), [Dept. of Health and Human Services](#), TrendMacro calculations

US deep-dive

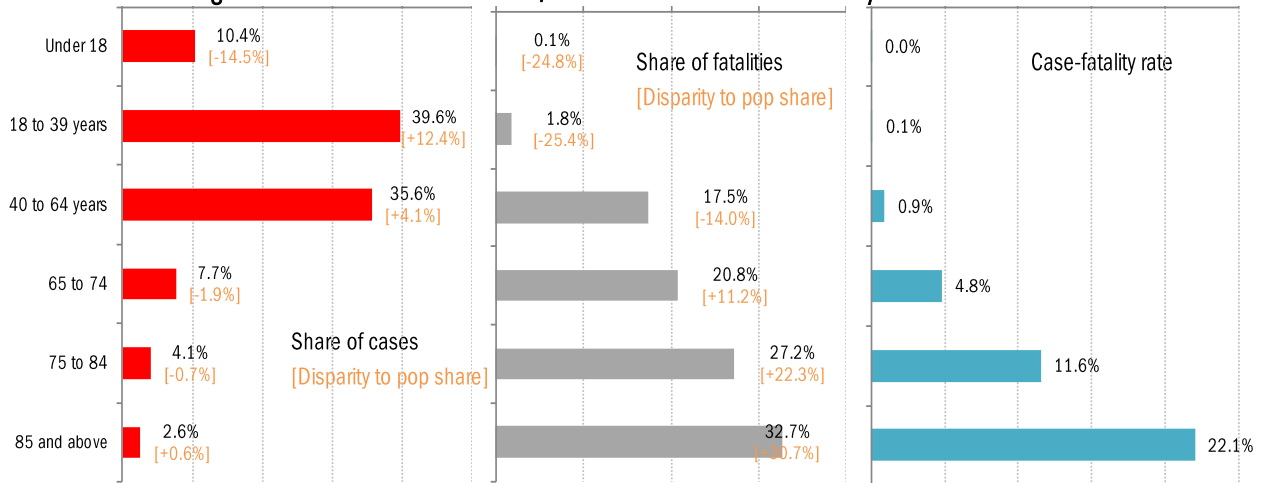
National and state-by-state data do not line up because of different sources



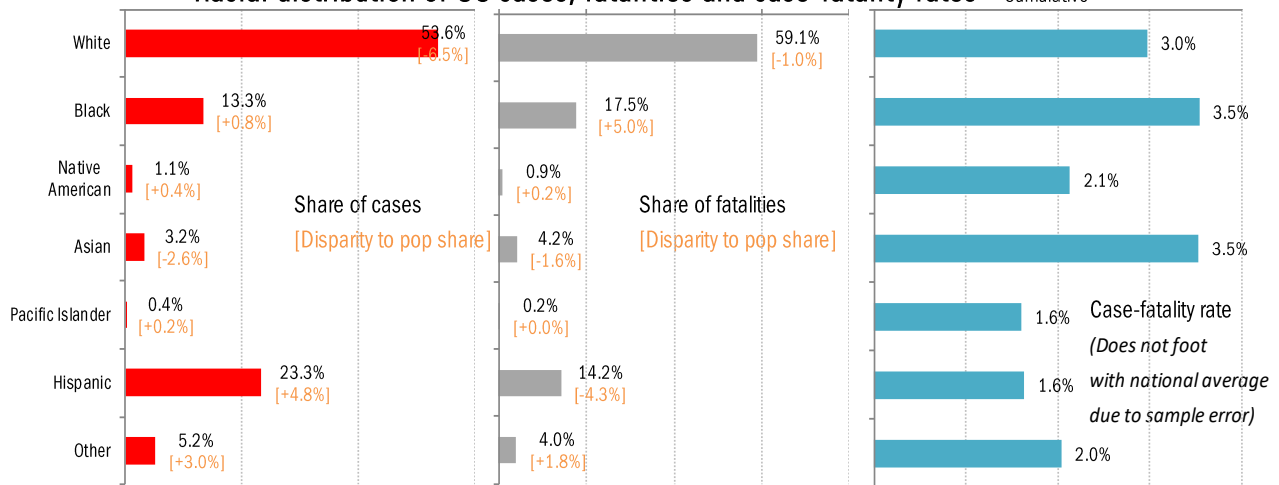
Source: [Covid Tracking Project](#), TrendMacro calculations

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

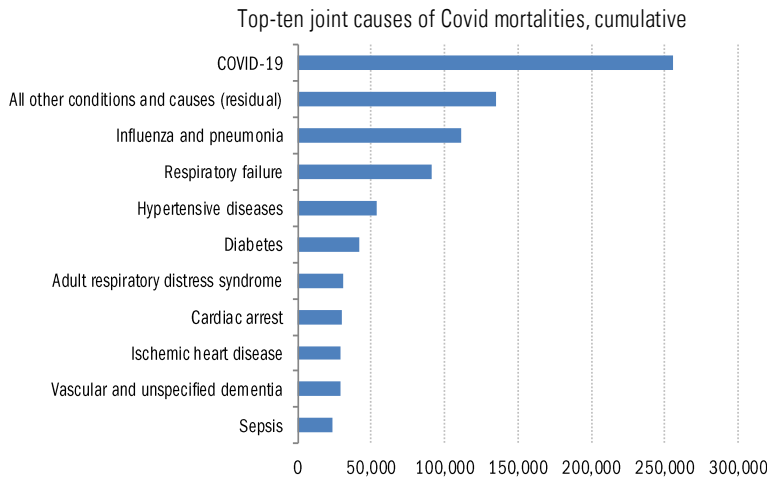
Age distribution of US cases, fatalities and case-fatality rates



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

[BioNTech's co-founder says there is no evidence its vaccine would not work on the new virus variant.](#)

New York Times
December 22, 2020

[A Pandemic of Misinformation](#)

Scott Atlas
Wall Street Journal
December 21, 2020

[The Economic Effects of Pandemic Unemployment Programs: An Update](#)

Casey B. Mulligan
Committee to Unleash Prosperity
November 2020

[Horowitz: Comprehensive analysis of 50 states shows greater spread with mask mandates](#)

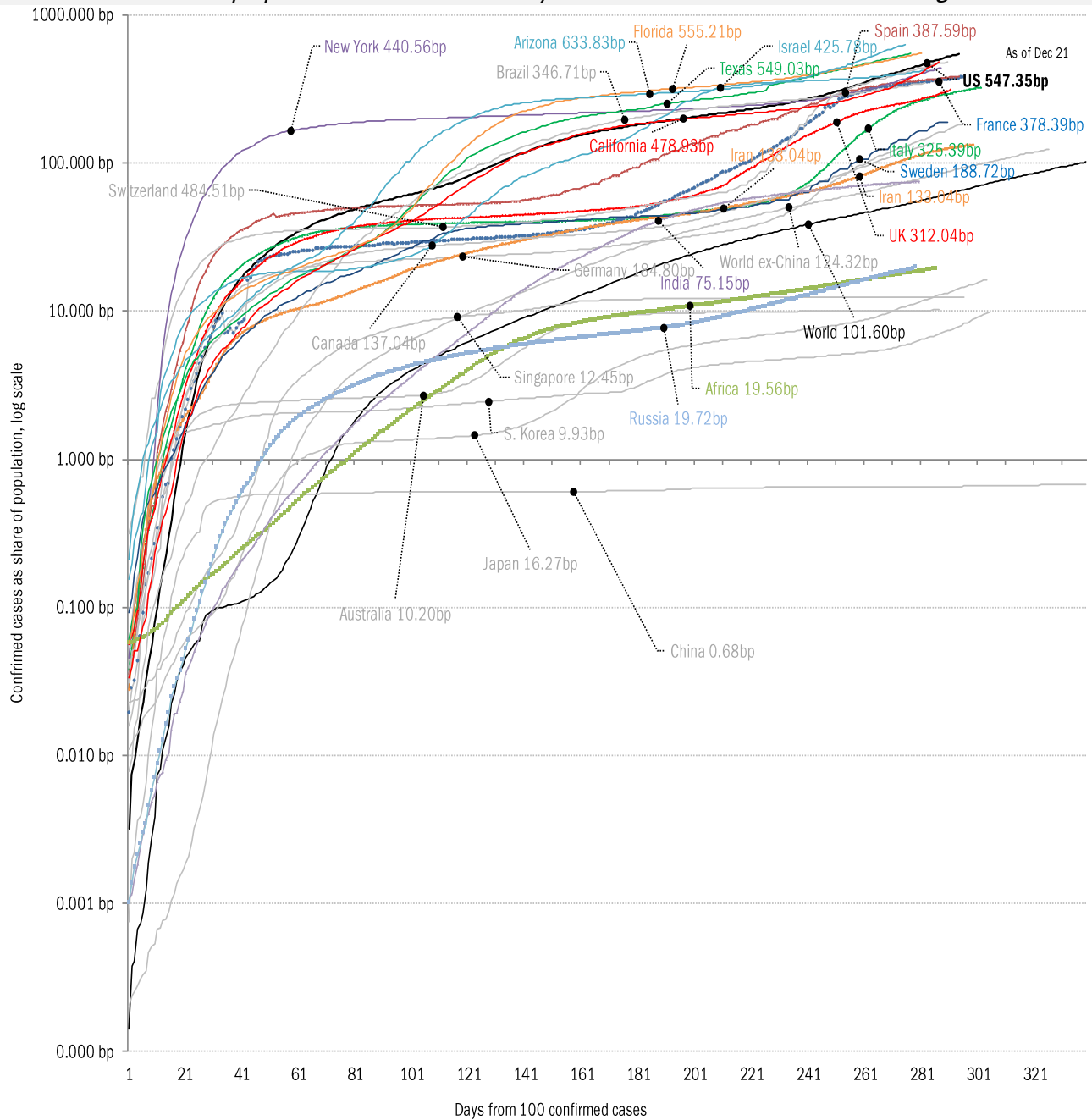
Daniel Horowitz
The Blaze
December 21, 2020

Meme of day



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

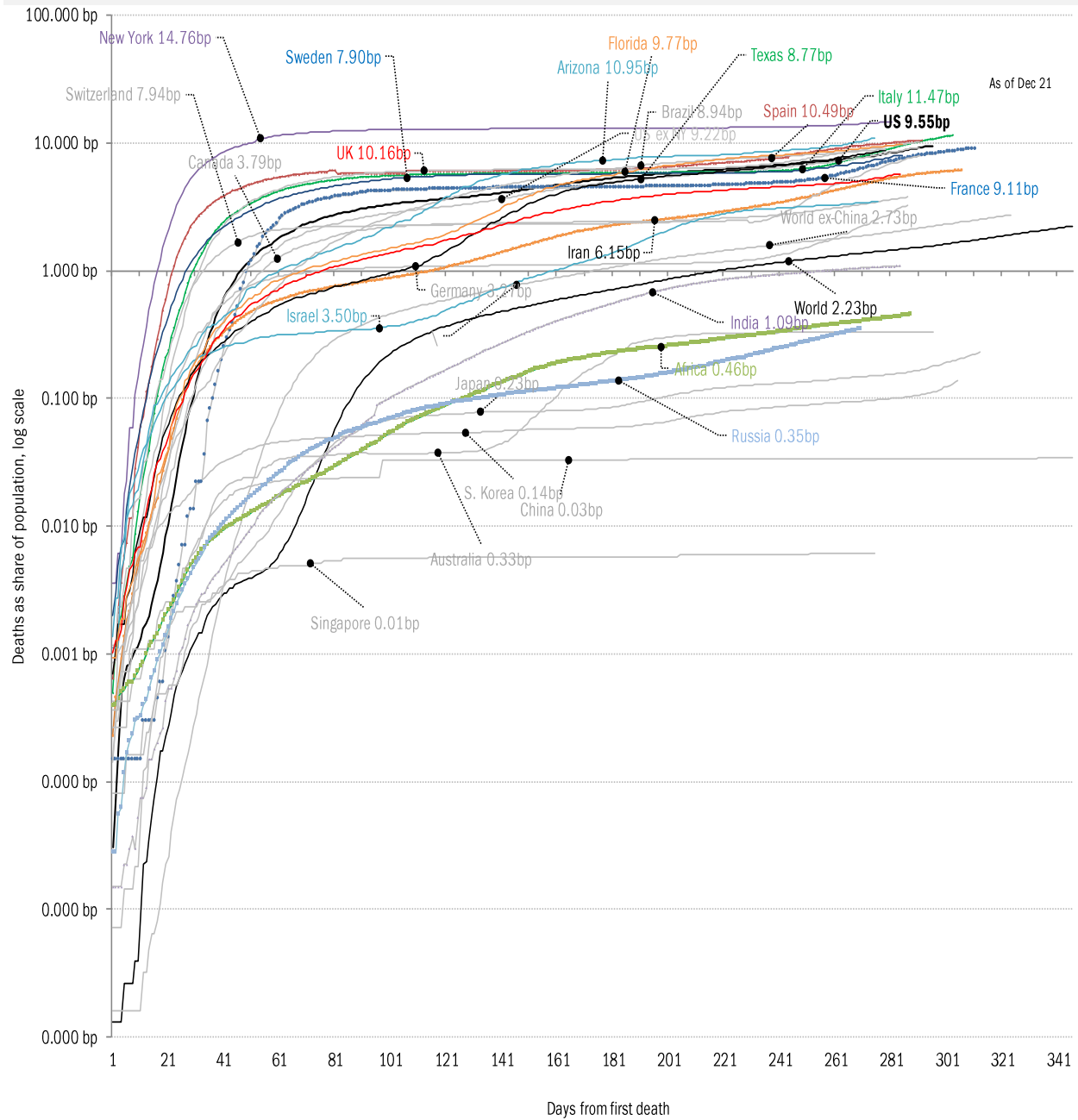
The coronavirus case accelerometer... tracking the world's infection curves
Share of infected population from first day with 100 confirmed cases, log scale



Source: [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

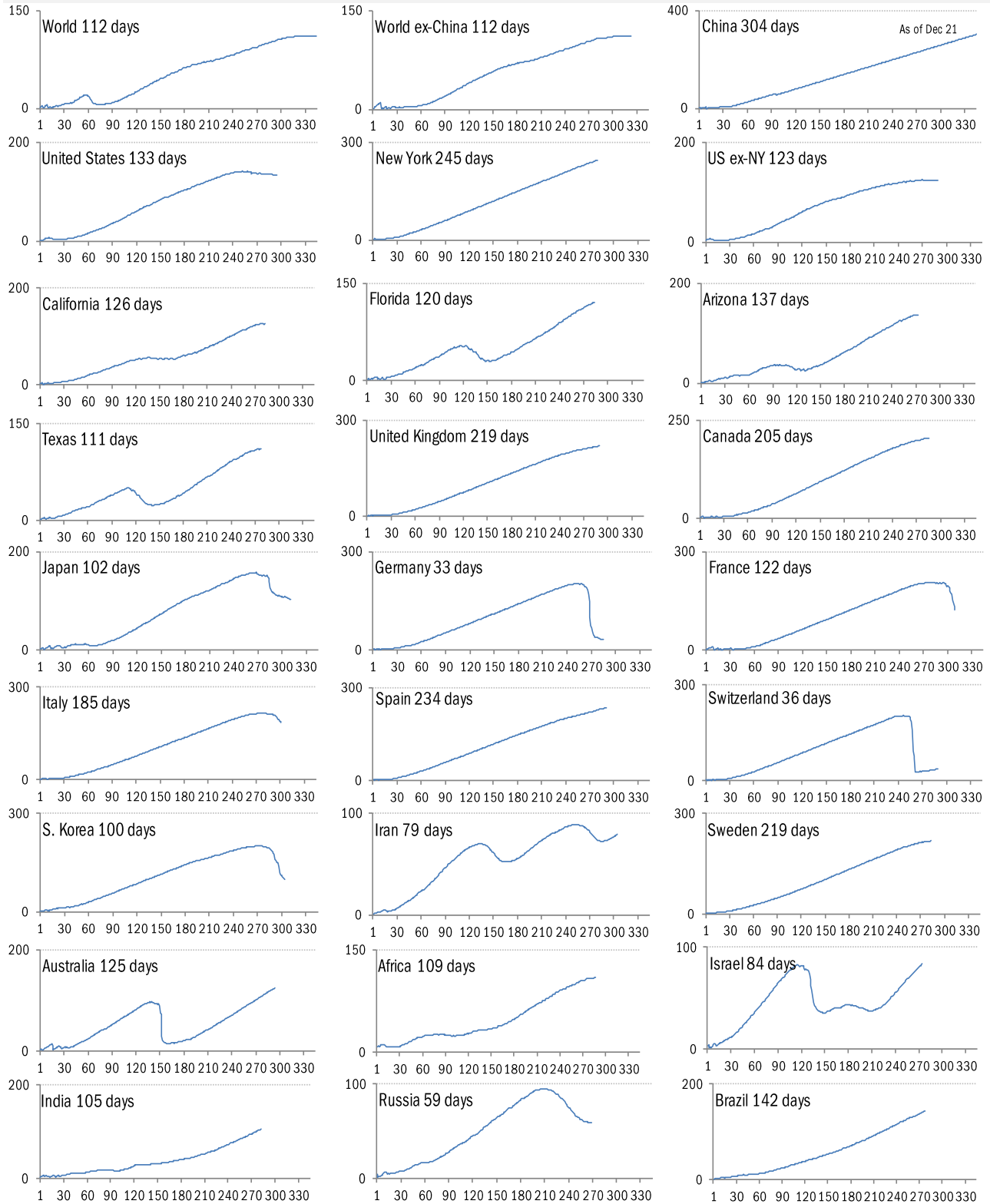


Source: [Johns Hopkins, Covid Tracking Project](#), TrendMacro calculations

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

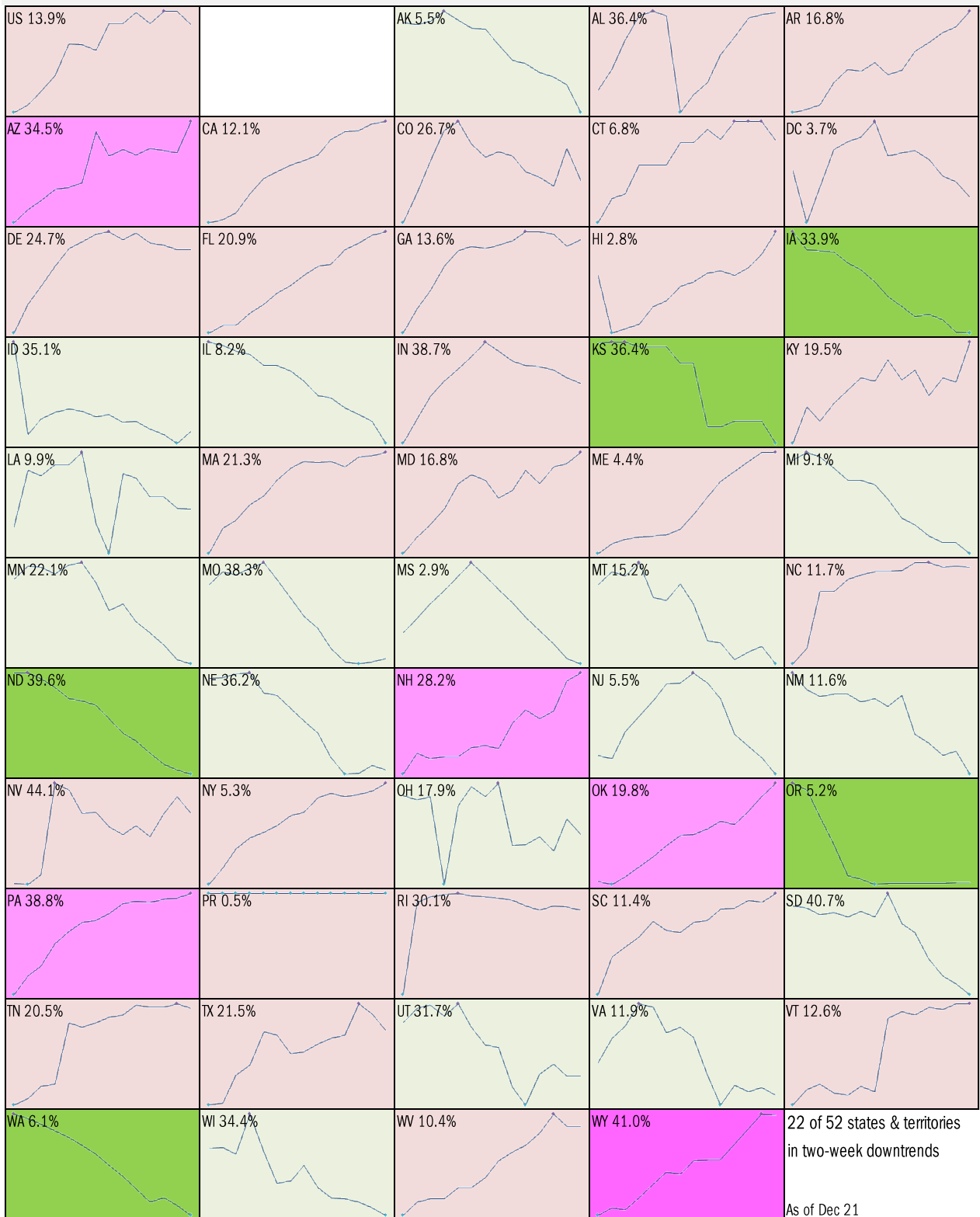


Source: [Covid Tracking Project](#), TrendMacro calculations

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



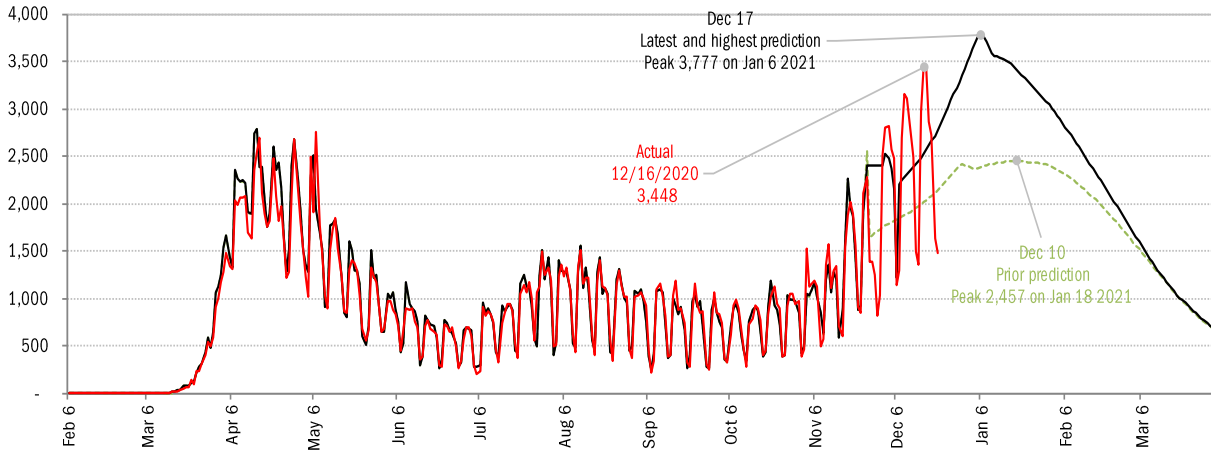
Source: [Covid Tracking Project](#), TrendMacro calculations

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

New daily fatalities

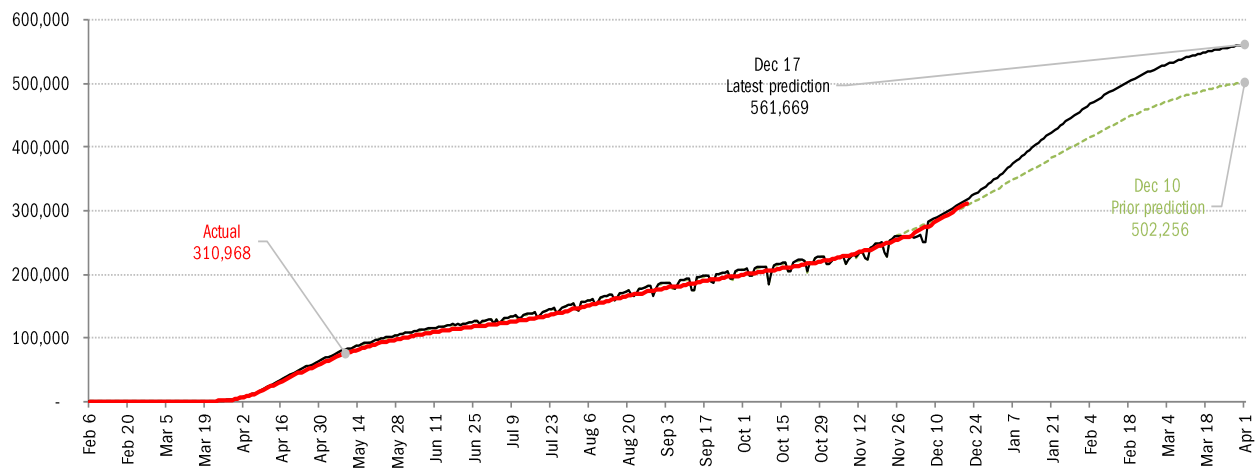
As of Dec 21

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

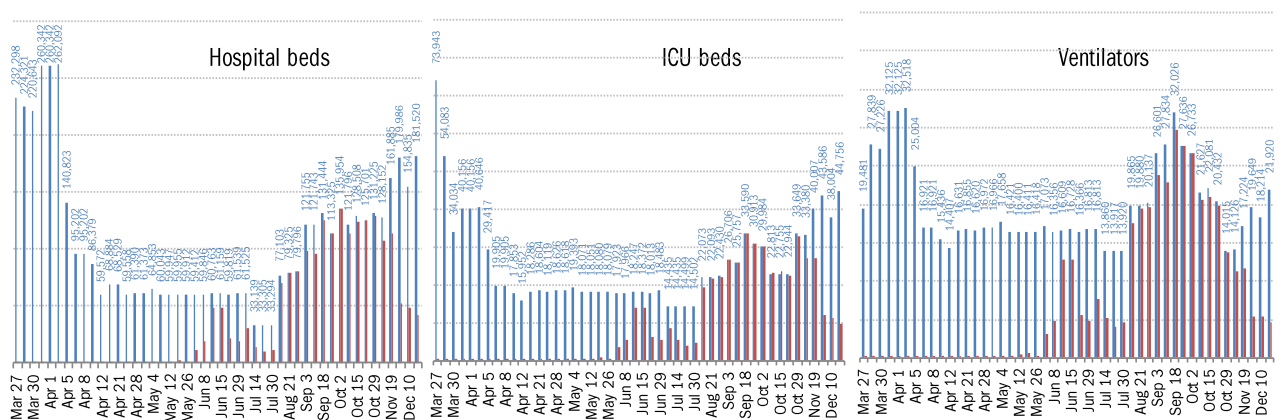


Cumulative fatalities

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

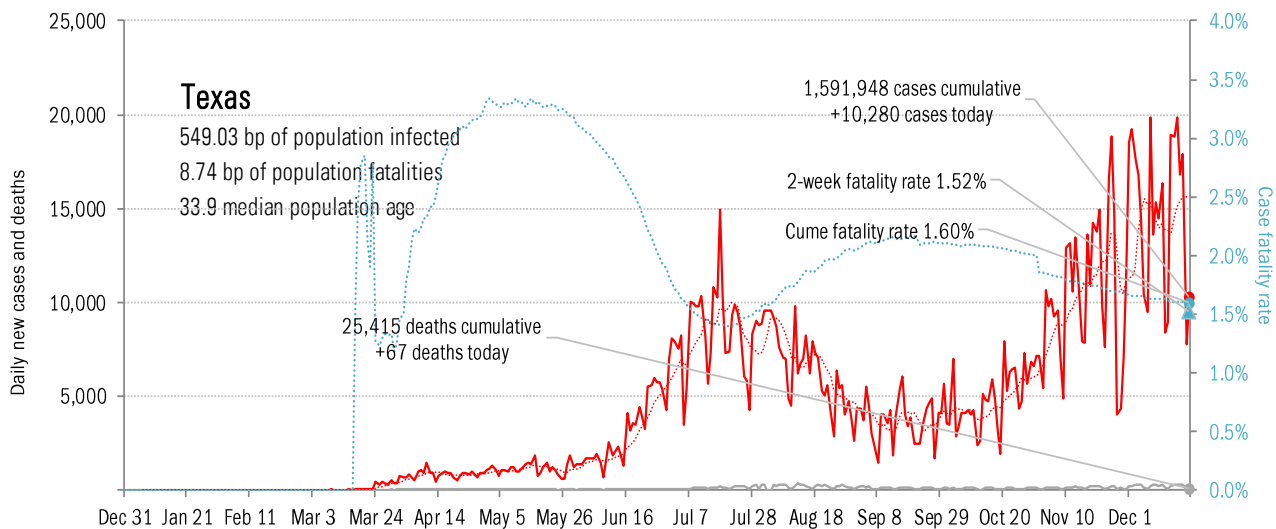
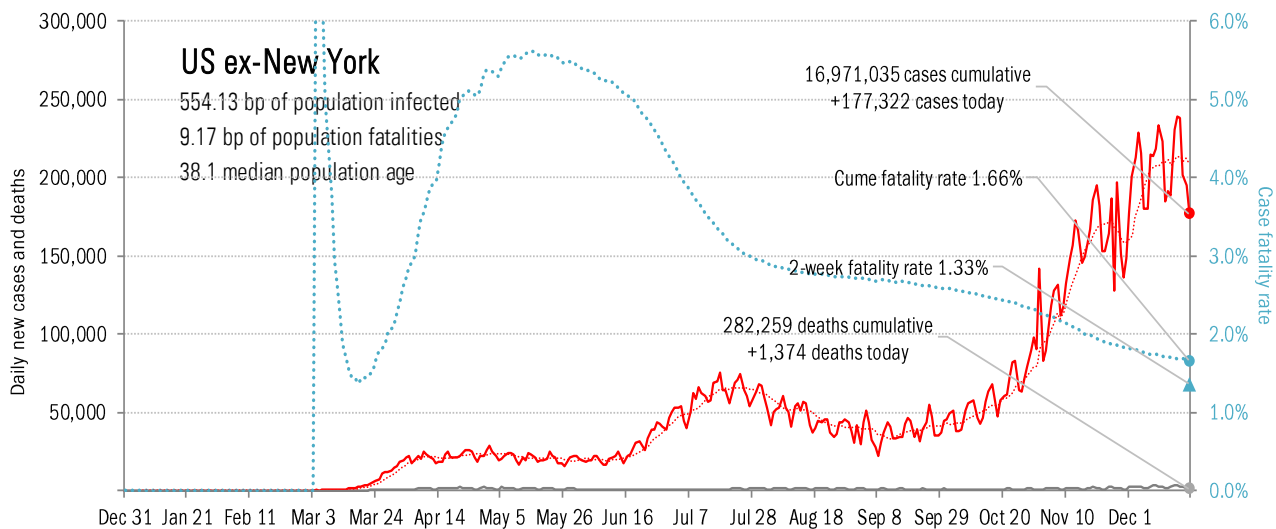
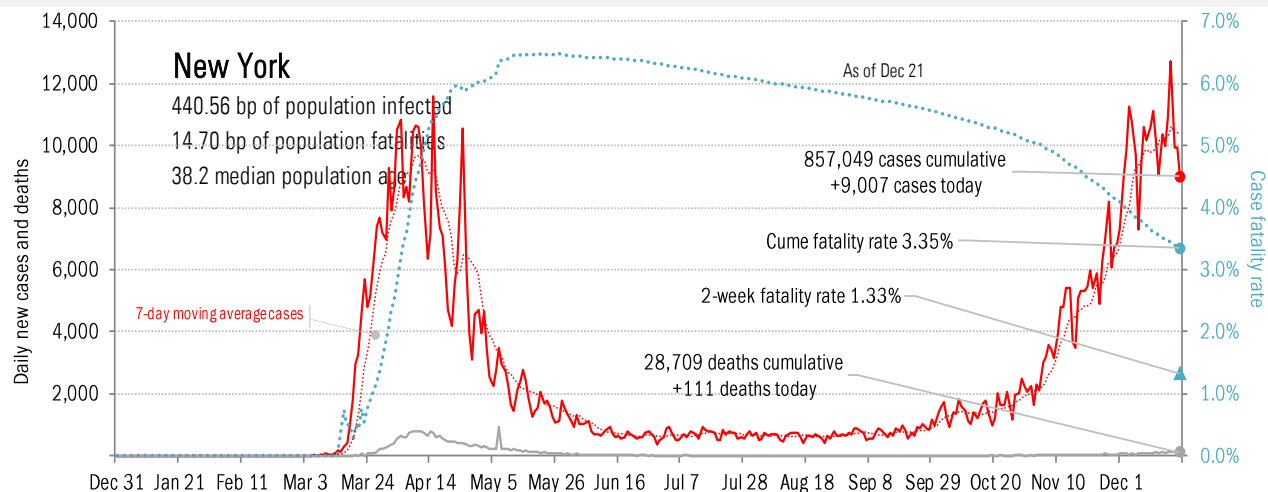


Healthcare system stress, **peak** and **ultimate** estimated at each model revision



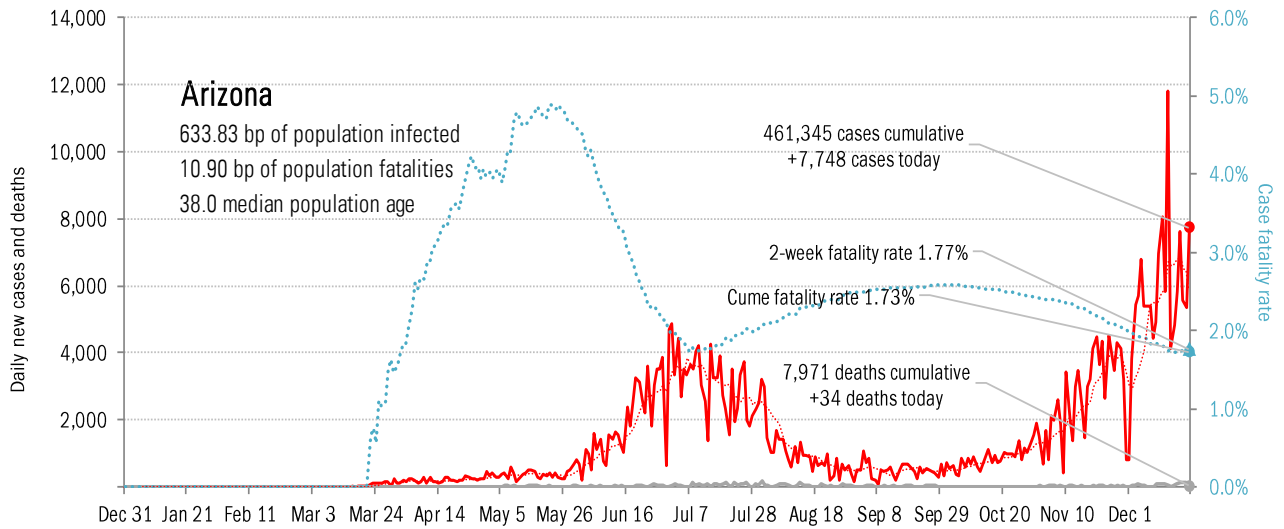
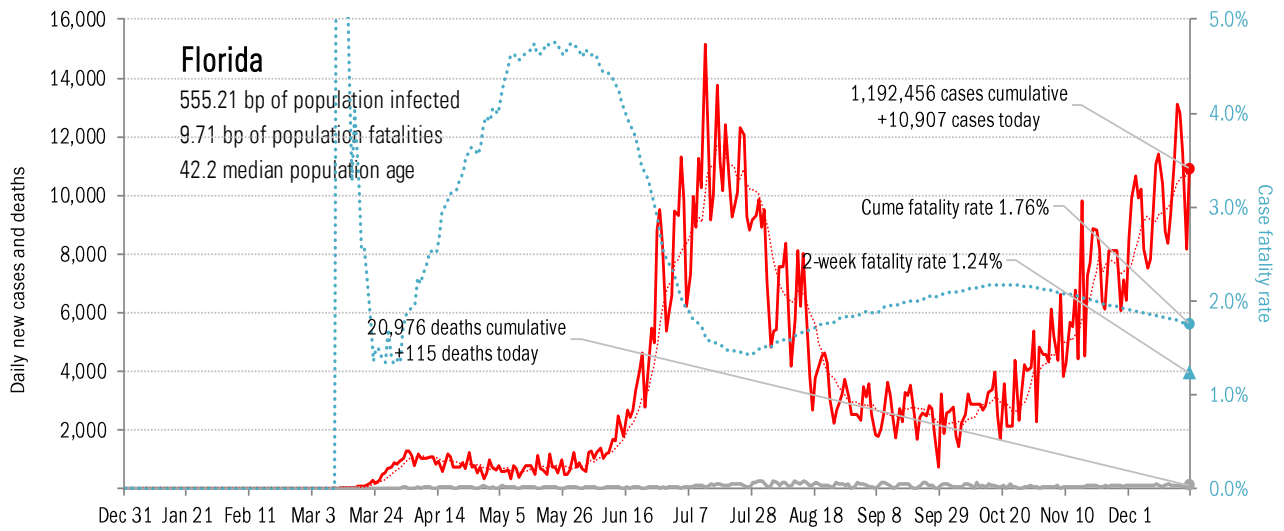
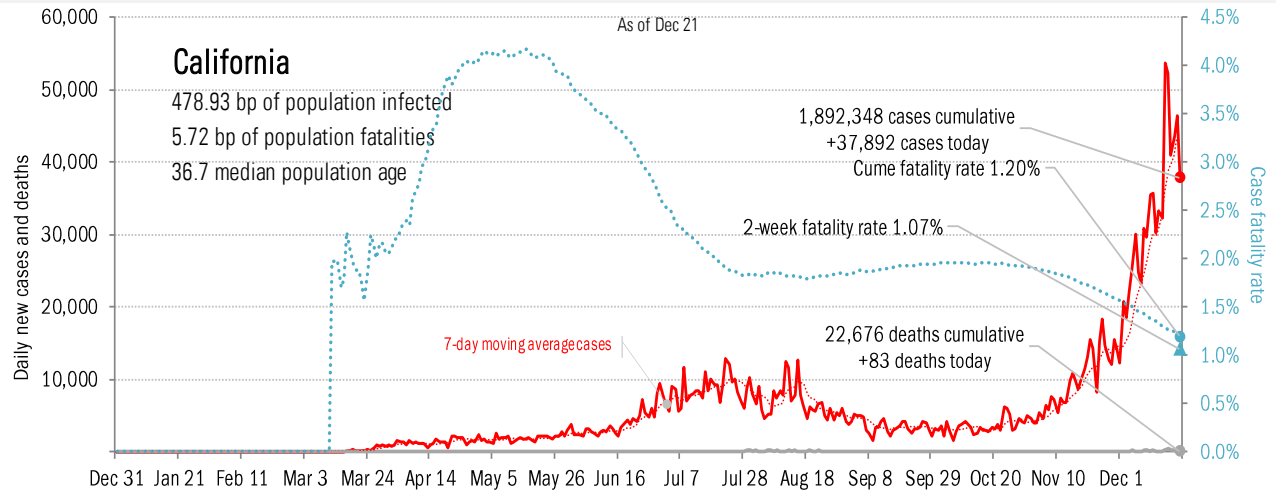
Source: [IHME Covid Tracking Project](#), TrendMacro calculations

From Ground Zero to the Rio Grande



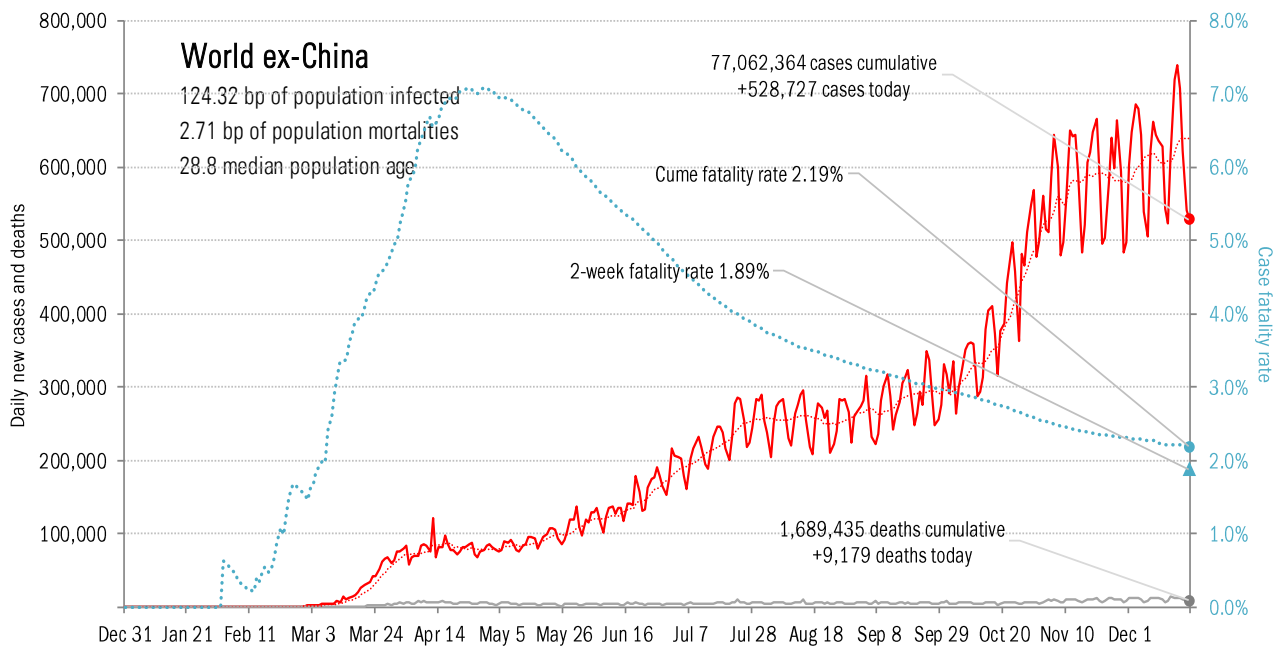
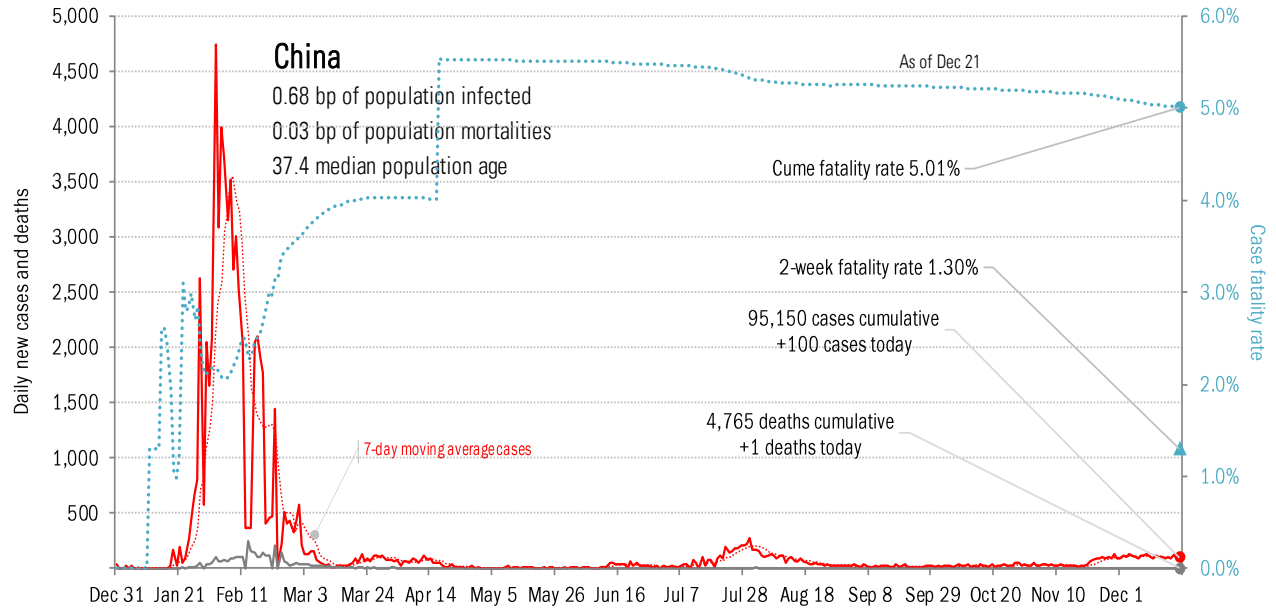
Source: [Covid Tracking Project](#), TrendMacro calculations

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



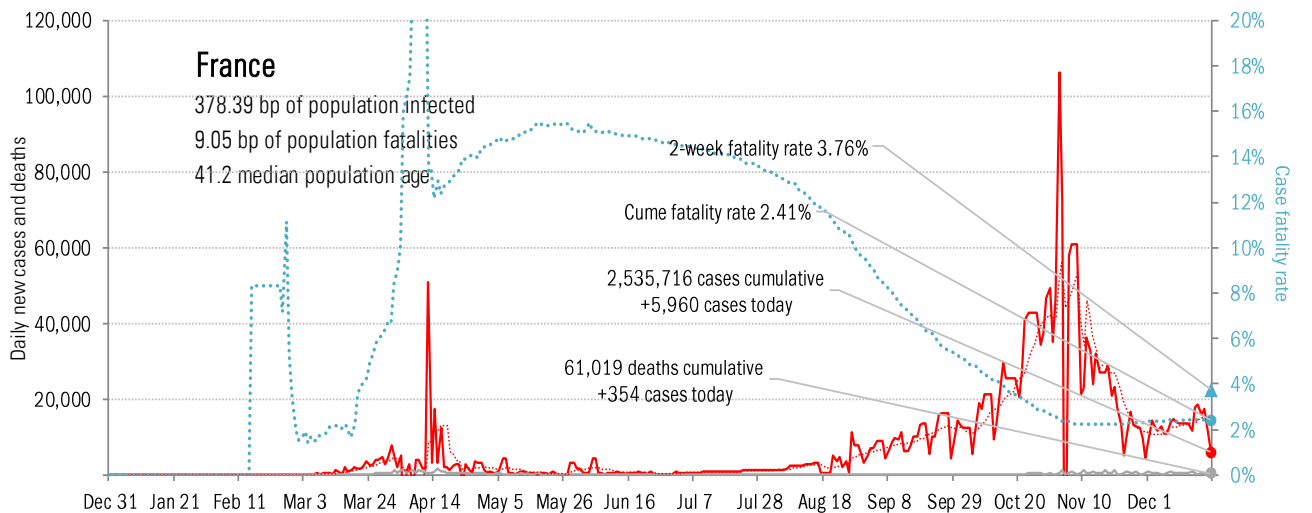
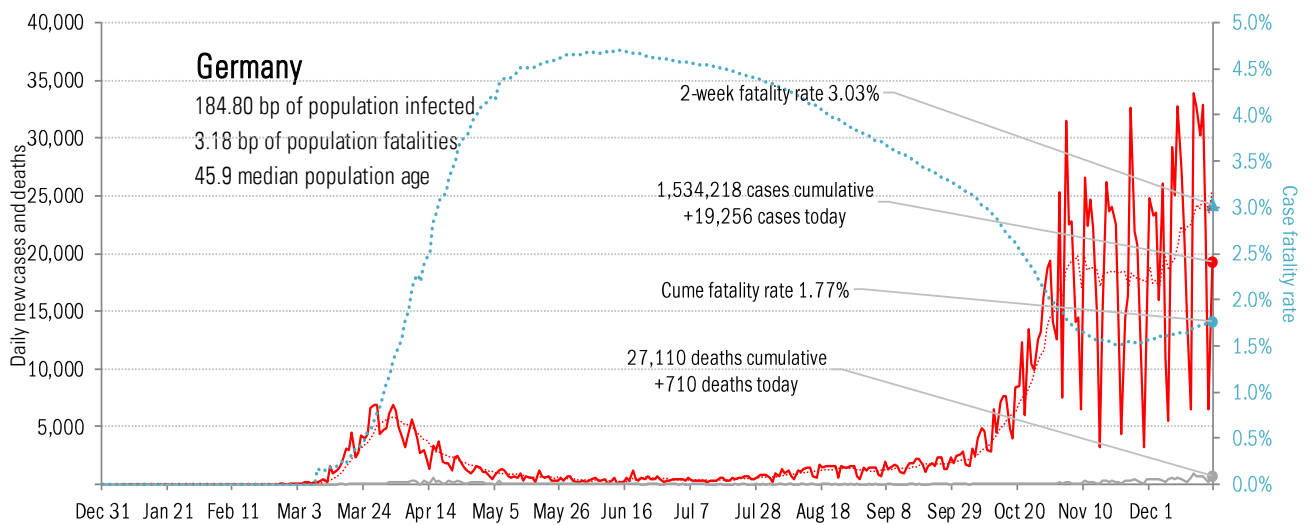
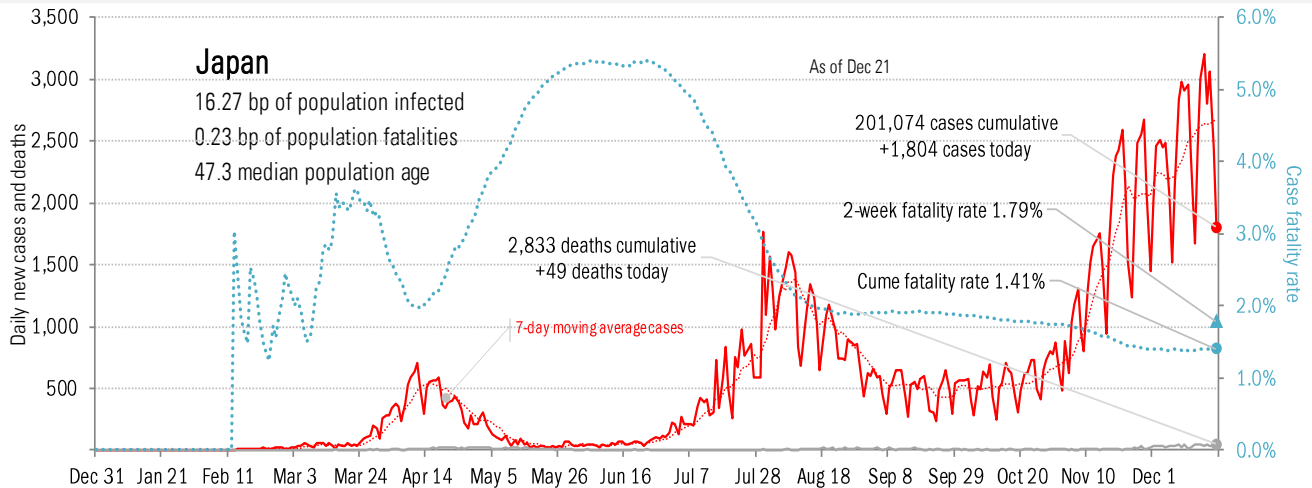
Source: [Covid Tracking Project](#), TrendMacro calculations

Patient zero... and then everyone else



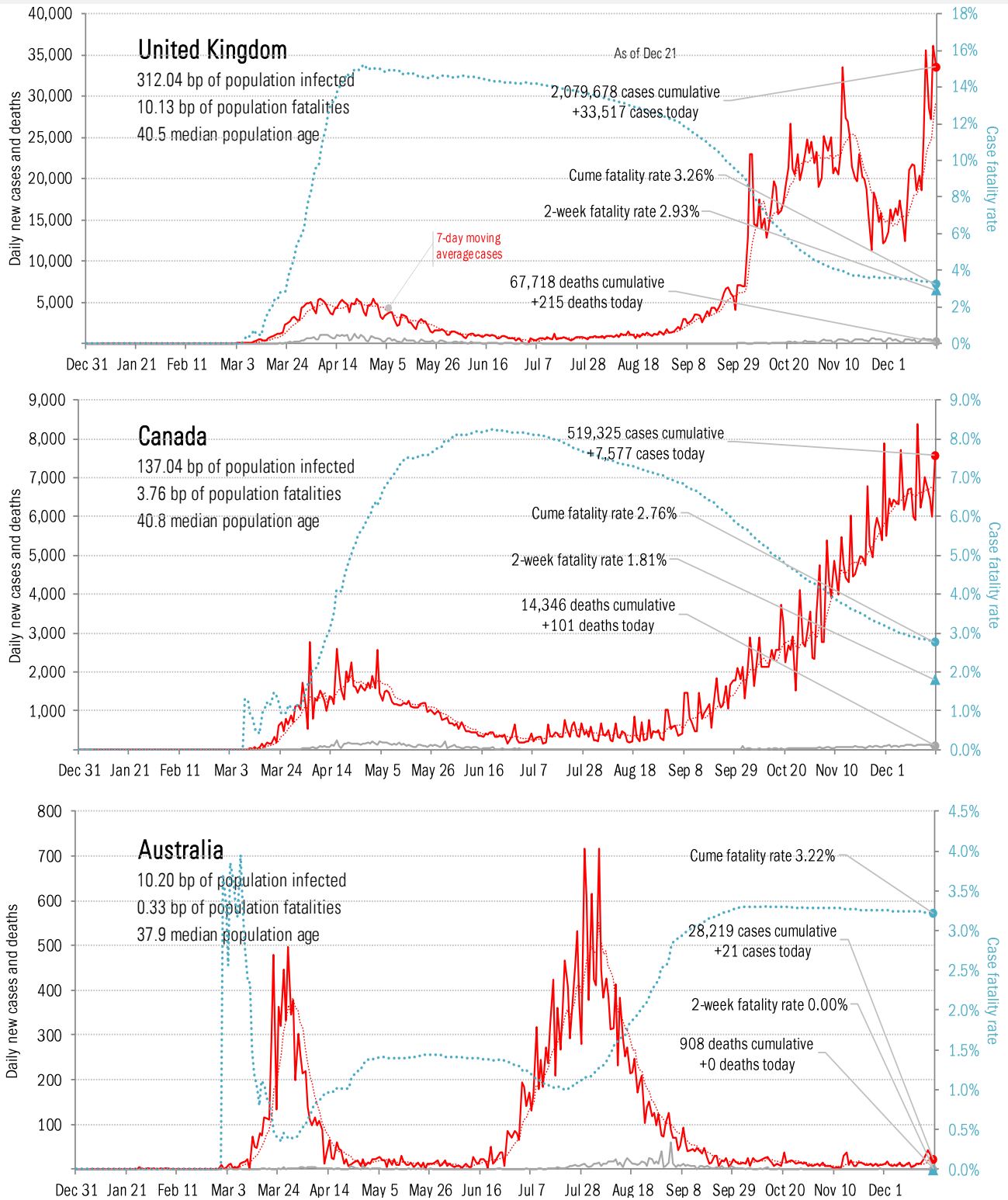
Source: [Johns Hopkins](#), [Covid Tracking Project](#), TrendMacro calculations

Impact in the largest economies



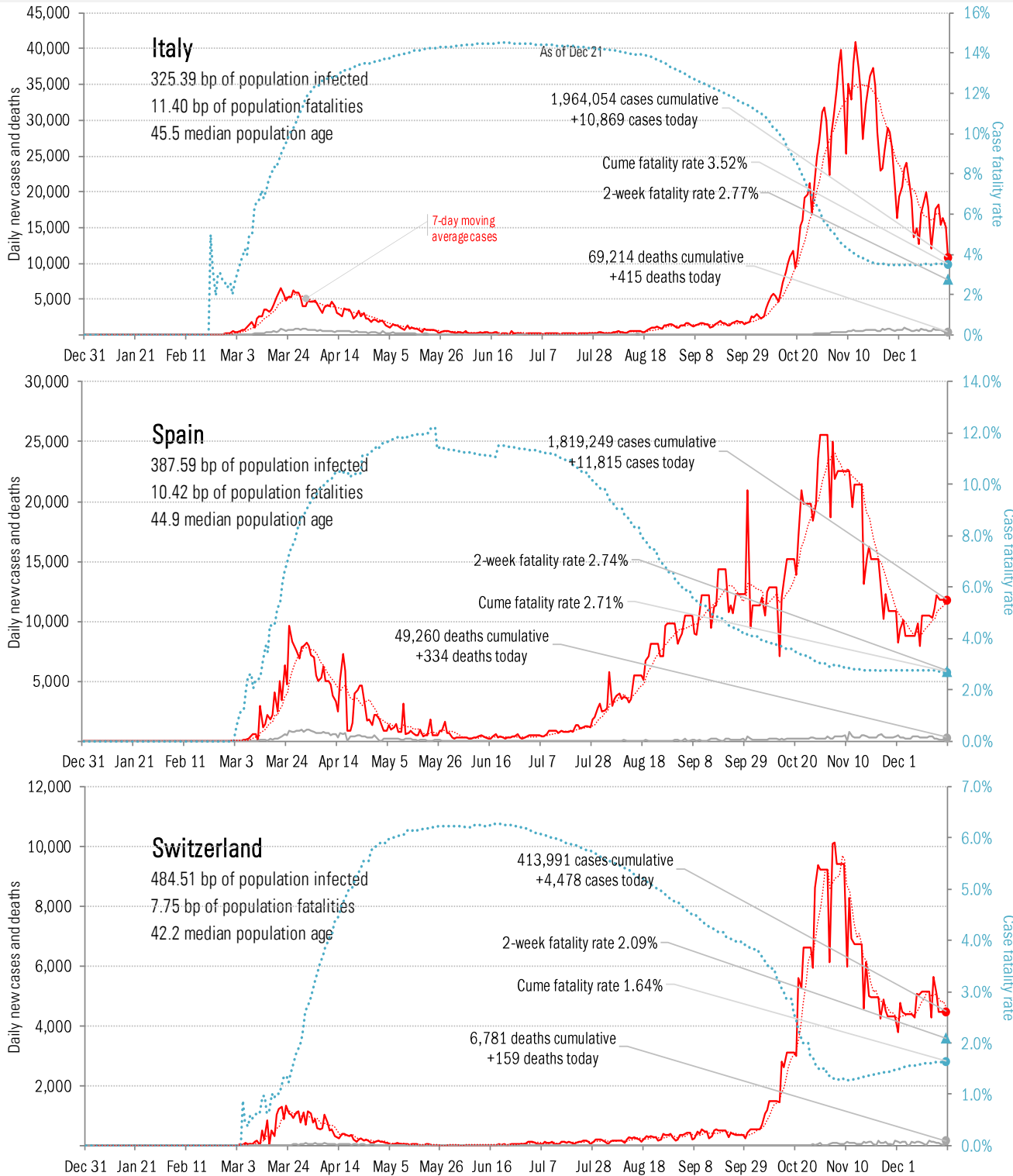
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in The Anglosphere



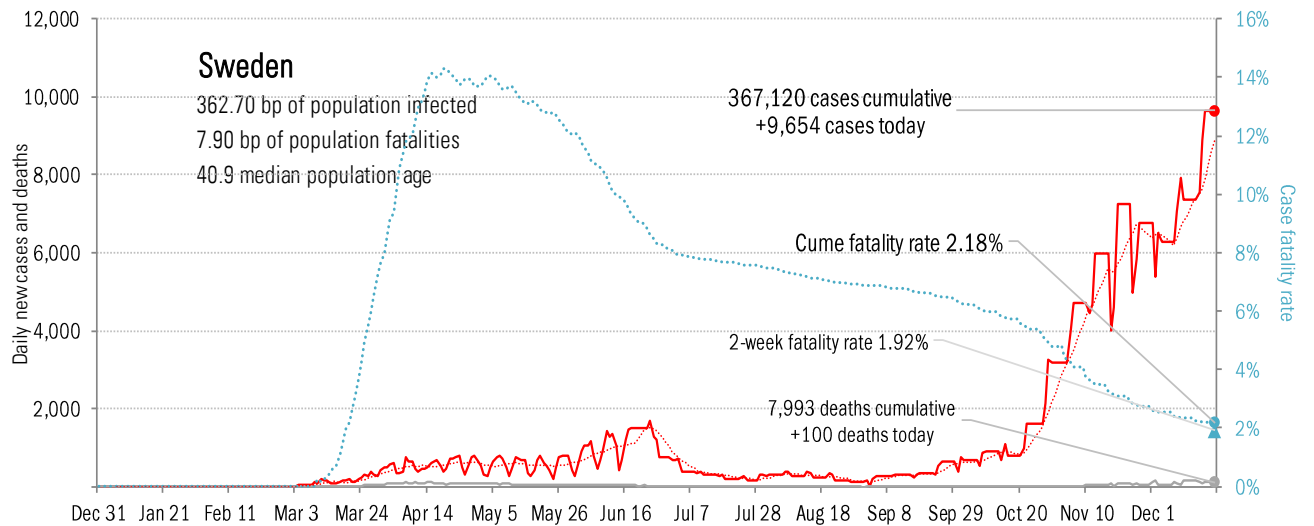
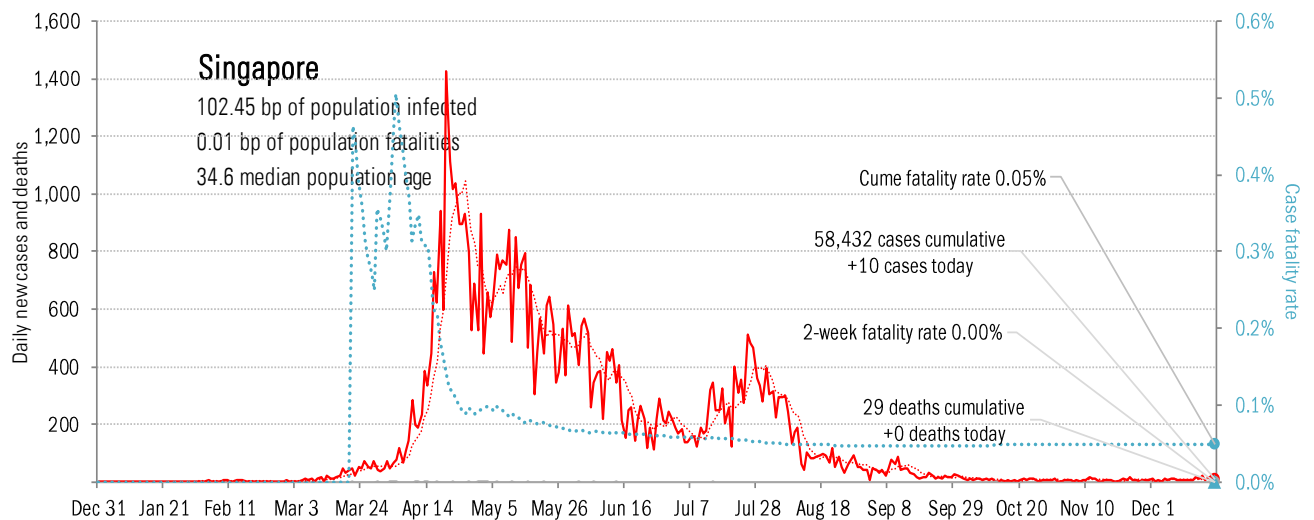
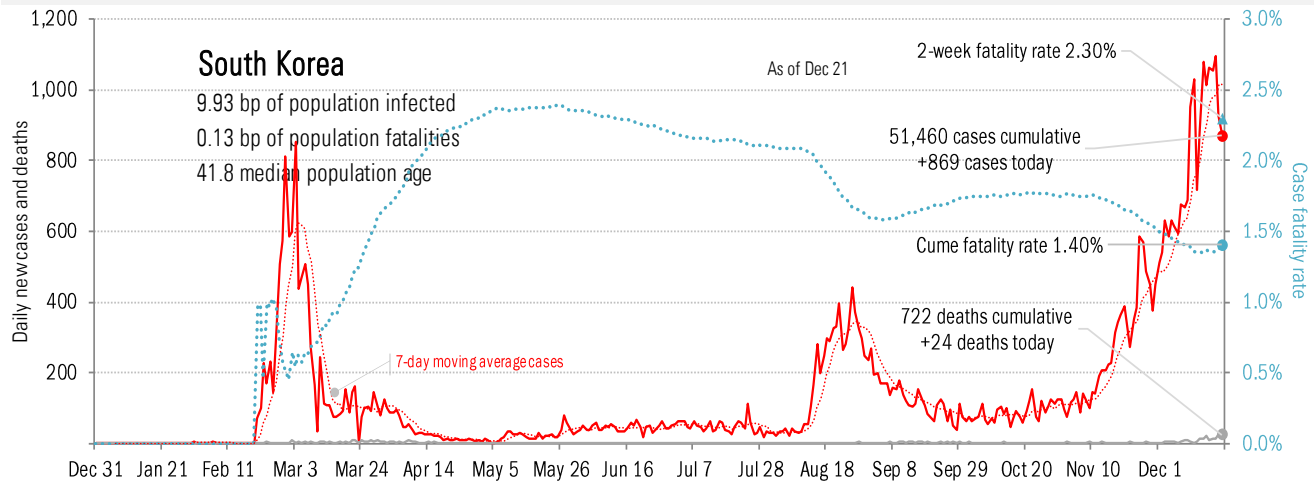
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in continental Europe



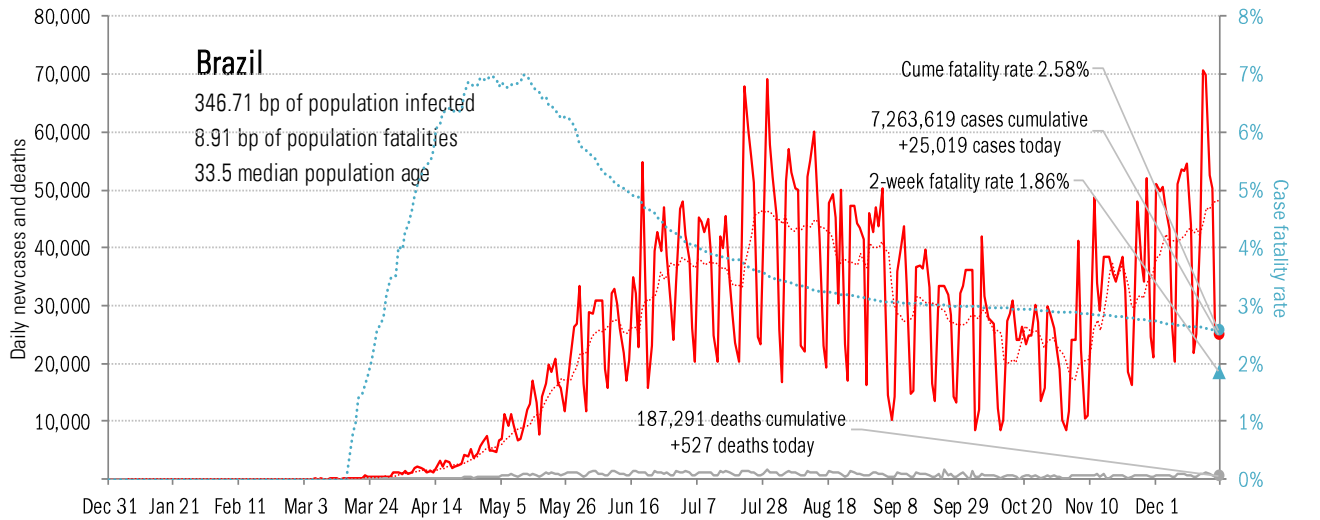
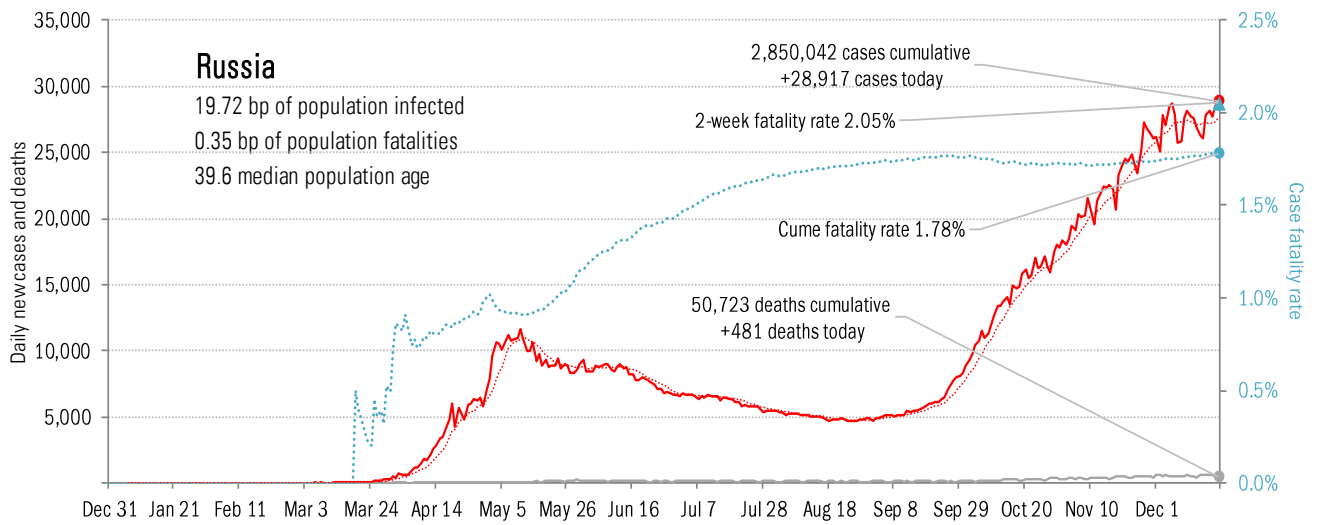
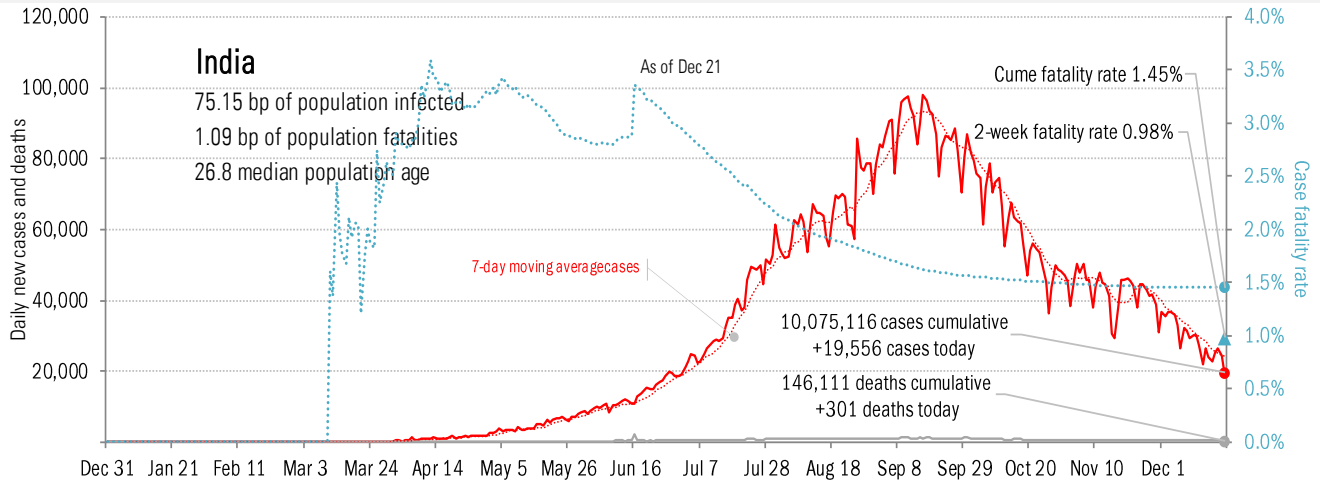
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in other hot-spots



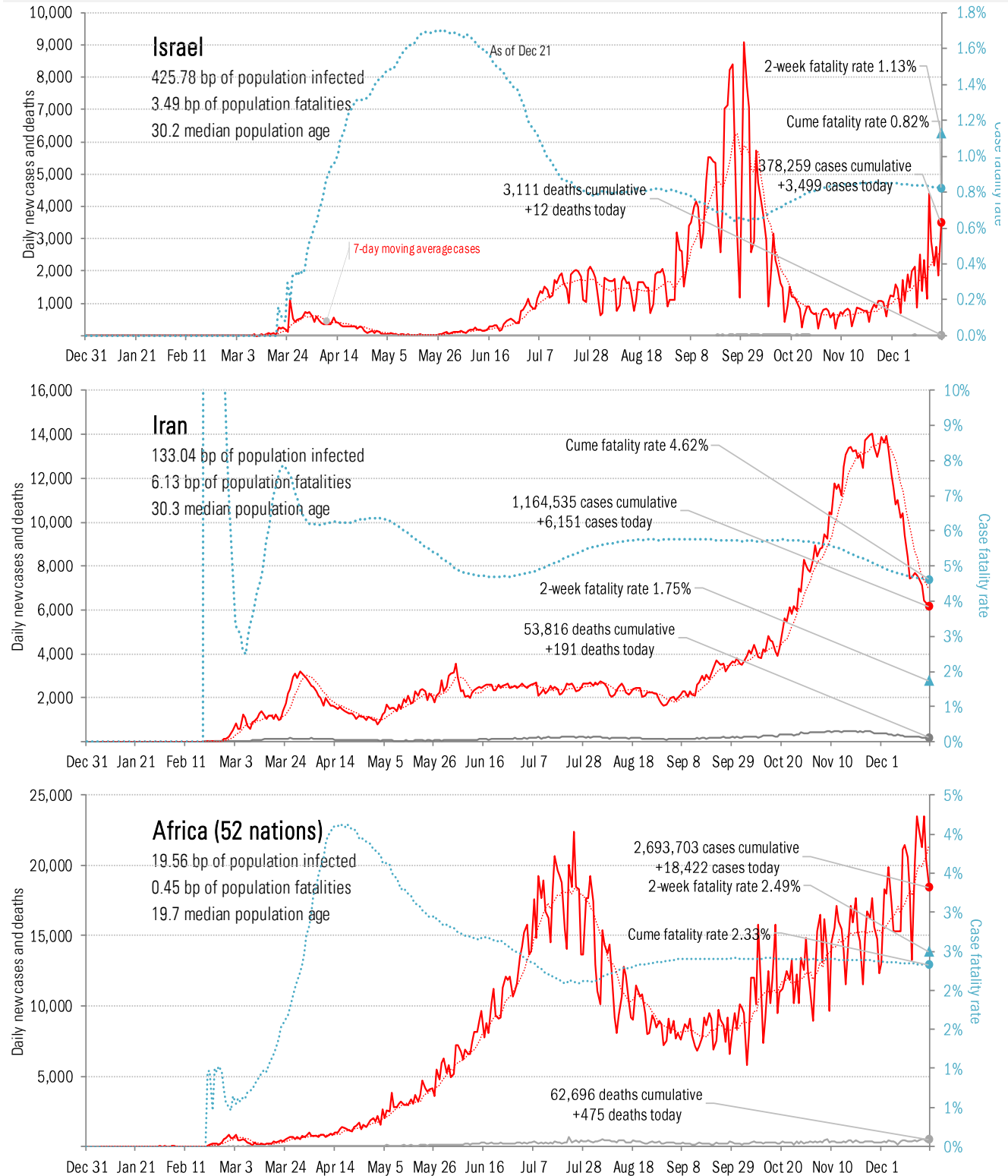
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the BRICs ex-China



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

Impact in the Middle East and Africa



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