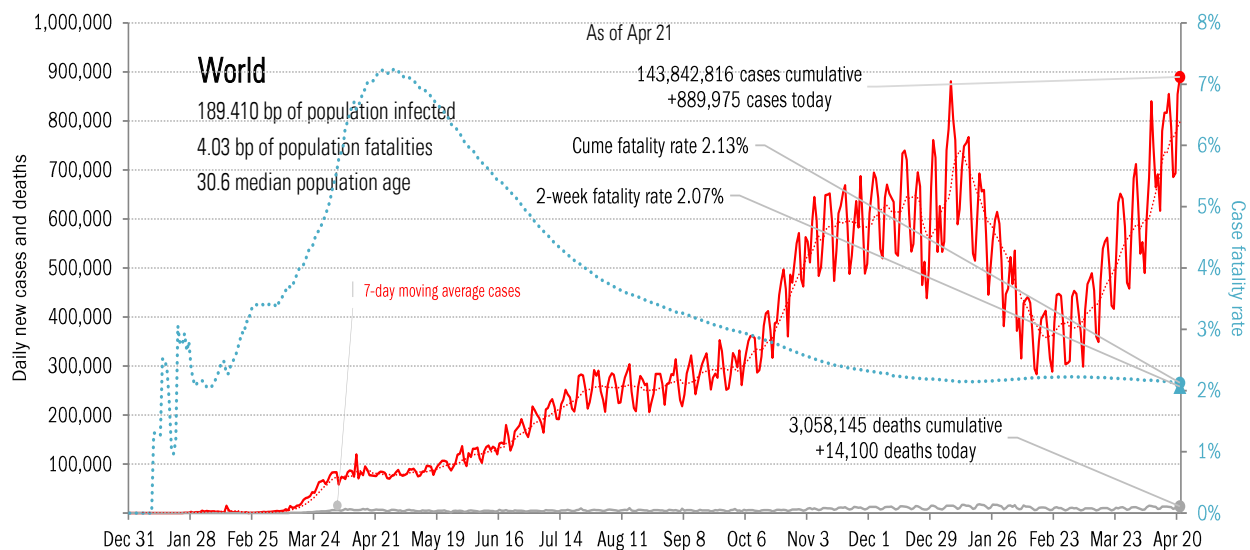
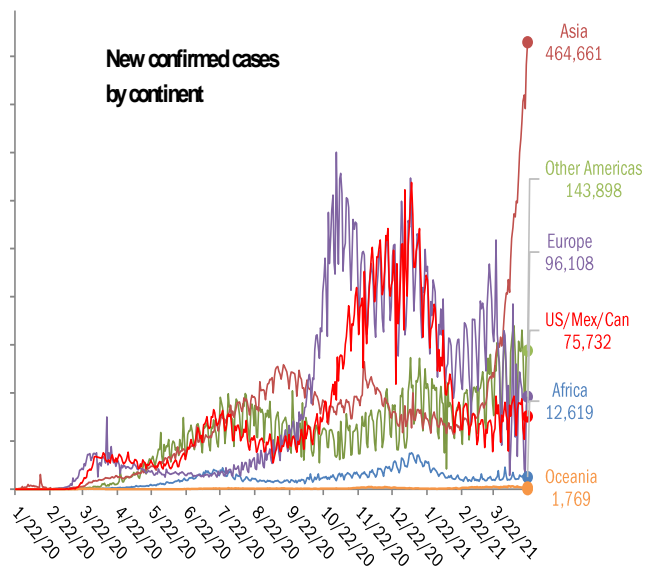


Data Insights: Covid-2019 Monitor

Thursday, April 22, 2021

The global scorecard

The worst ten countries			
New cases		New Deaths	
India	+314,644	Brazil	+3,472
Brazil	+79,719	India	+2,104
United States	+62,857	United States	+842
Turkey	+61,967	Poland	+739
France	+34,924	Mexico	+549
Argentina	+25,932	Ukraine	+436
Iran	+24,886	Colombia	+419
Germany	+24,354	Russia	+392
Spain	+17,718	Iran	+388
Colombia	+17,212	Italy	+364
+664,213		+9,705	
World	+889,975	World	+14,100
Top ten	75%	Top ten	69%



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

For more information contact us:

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 Thomas Demas: 704 552 3625 tdemas@trendmacro.com

The US scorecard

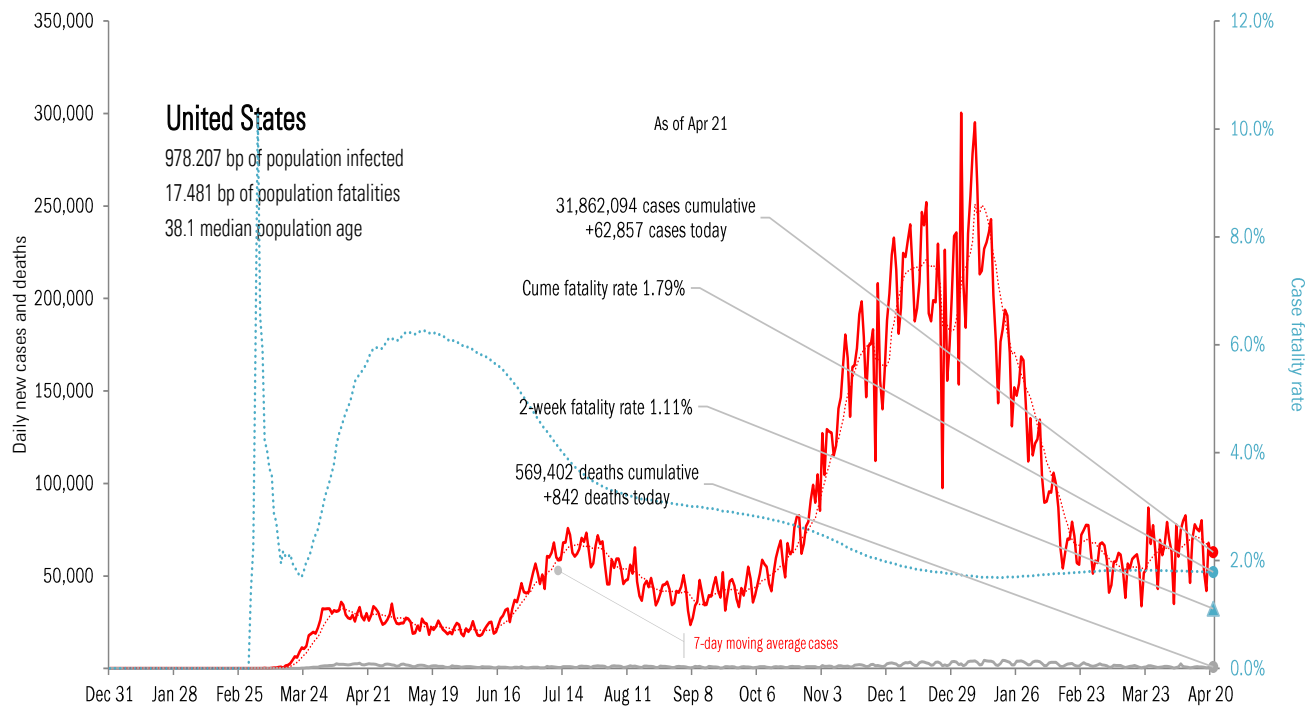
The ten worst US states

New cases			New Deaths			New in hospital			Cumulative cases			Cumulative deaths			Cumulative in hospital			Hospital use		ICU use	
MI	+5,973		FL	+83		FR	+215		CA	3,725,088		CA	61,193		TX	233,223		RI	92%	MI	31%
FL	+5,571		TX	+76		IL	+106		TX	2,864,319		NY	51,732		CA	227,481		MA	84%	MD	26%
PA	+4,537		CA	+71		MI	+41		FL	2,184,354		TX	49,748		FL	161,133		MD	82%	MN	20%
TX	+4,427		PA	+70		GA	+38		NY	2,012,806		FL	34,616		NY	124,095		PA	82%	RI	19%
NY	+4,292		NJ	+65		TN	+36		IL	1,309,459		PA	25,819		GA	98,306		MI	82%	NY	18%
NJ	+3,475		MI	+44		NY	+30		PA	1,120,581		NJ	25,271		PA	80,126		CT	81%	PA	16%
IL	+2,769		NC	+43		CH	+30		GA	1,087,791		IL	24,018		CH	79,205		MO	80%	CO	14%
NC	+1,963		NY	+43		WI	+29		CH	1,058,395		GA	19,829		IL	72,842		FL	79%	IL	14%
CH	+1,789		GA	+31		KY	+28		NJ	987,350		CH	19,033		KY	70,459		MN	79%	DC	14%
CA	+1,642		IL	+29		WA	+27		NC	952,529		MI	18,130		MI	59,811		SC	79%	ME	13%
+36,438			+555			+580			17,302,672			329,389			1,206,681						
All states	+62,857			+842			+477		All states	31,862,094			569,402			2,153,974		All states	70%		67%
Top ten	58%			66%			122%		Top ten	54%			58%			56%		Median	73%		10%

Some states not reporting

Five most improved US states

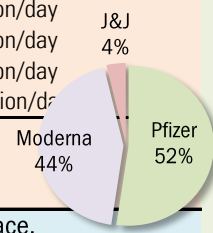
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most pop immunity growth	
AL	-1,031	MI	-46	NJ	-113	MD	+65 bp
CA	-903	CH	-42	TX	-74	PA	+61 bp
PA	-832	AZ	-34	CO	-56	MI	+59 bp
MI	-628	MO	-32	FL	-51	DE	+59 bp
CO	-471	NY	-19	PA	-47	NJ	+55 bp



Source: [Johns Hopkins](#), [Dept. of Health and Human Services](#), [CDC](#), TrendMacro calculations

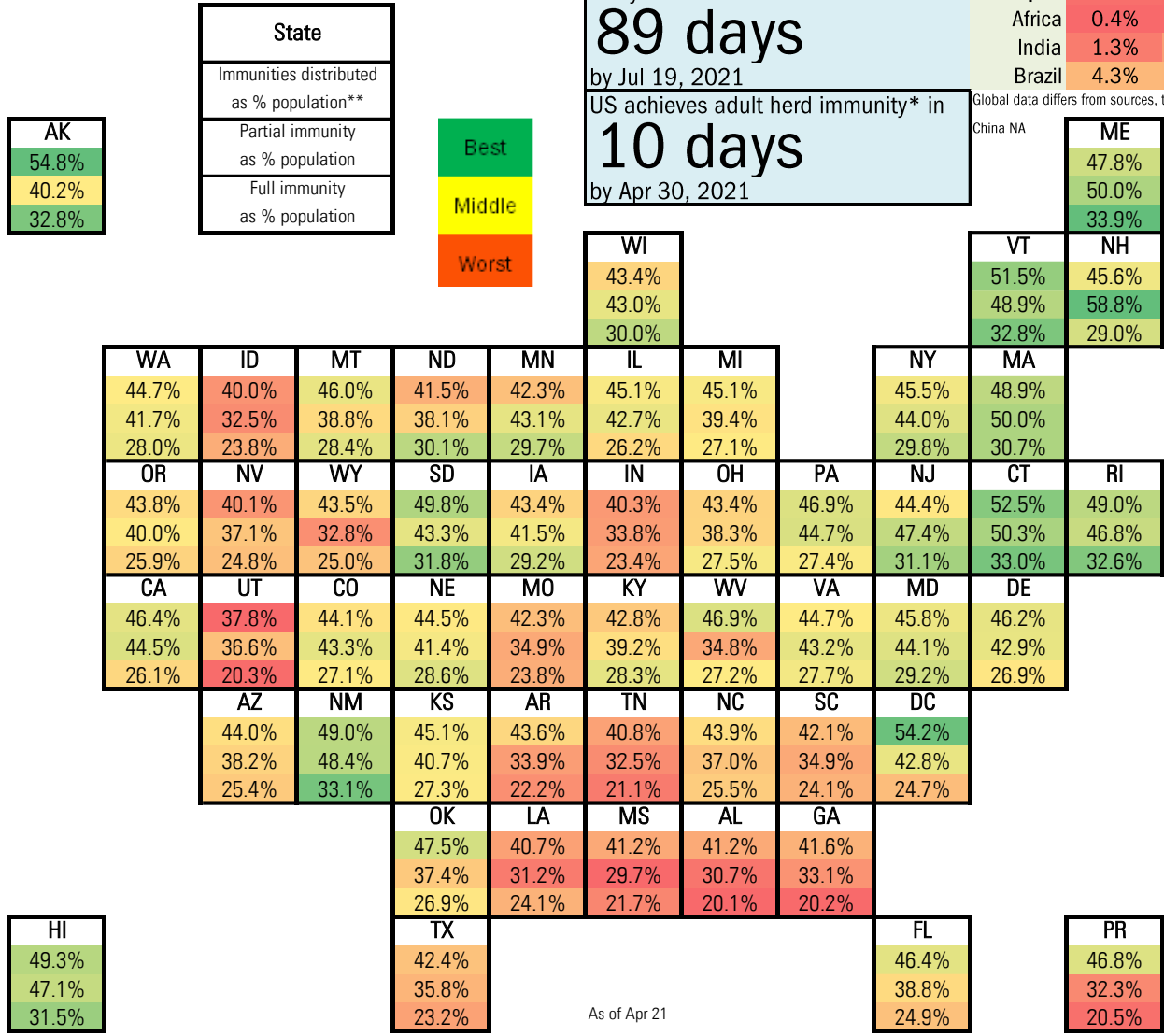
Rolling out the vaccines in the US and the world

US overall	Over last day	Immunity	Full	Partial
289.32 million doses distributed	+6.14 million/day	US	26.2%	40.2%
223.71 million doses administered	+2.62 million/day	UK	15.9%	48.8%
138.49 million persons partially immunized	+1.20 million/day	France	7.1%	19.1%
90.73 million persons fully immunized	+1.40 million/day	Spain	7.7%	21.1%
7.78 million shots long-term care residents/staff	+0.001 million/day	Germany	6.8%	21.4%
77.3% of distributed doses administered		Italy	7.9%	19.0%
41.5% of US pop partial	27.2% full immunity	Australia	1.0%	0.6%
100% of LTC partial	64.0% full immunity	Israel	57.8%	62.0%
		Canada	2.5%	26.1%
		Japan	0.7%	1.2%
		Africa	0.4%	0.8%
		India	1.3%	8.1%
		Brazil	4.3%	11.7%



At today's dosing pace,
every American >18 immune in
89 days
by Jul 19, 2021
US achieves adult herd immunity* in
10 days
by Apr 30, 2021

Global data differs from sources, timing
China NA

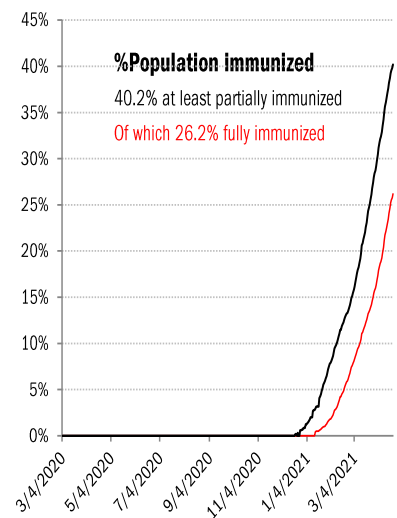
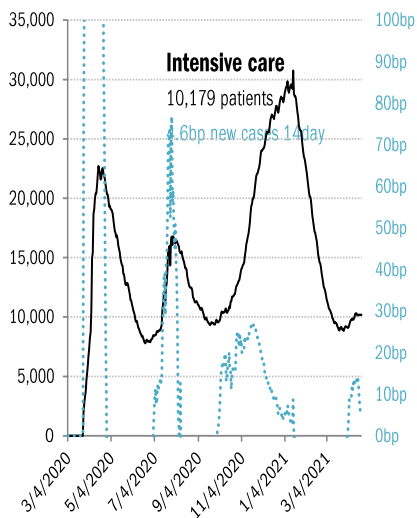
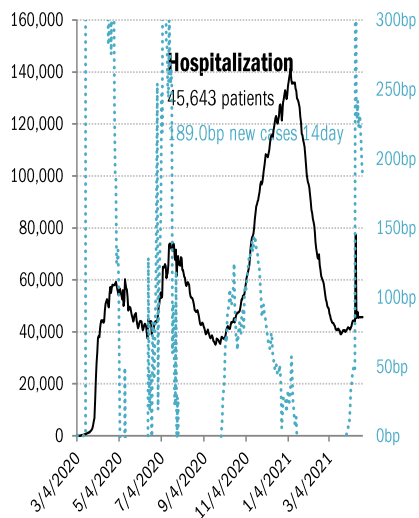
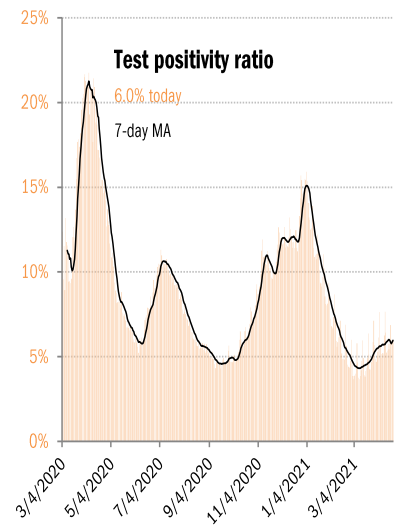
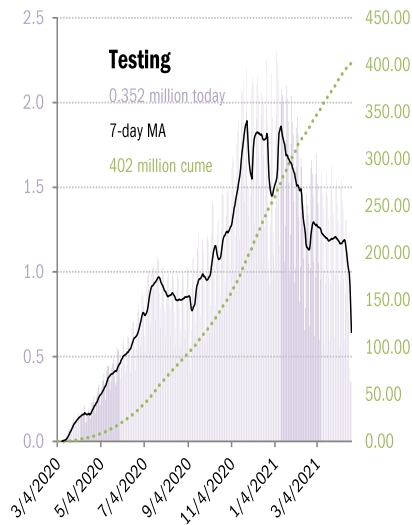
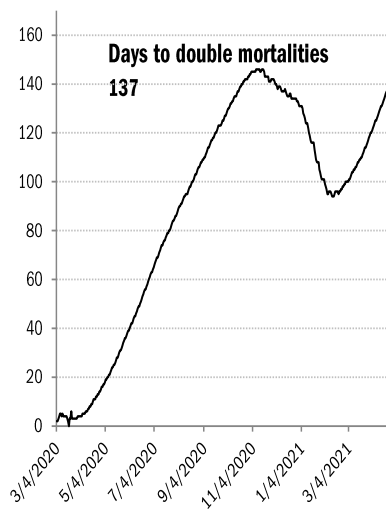
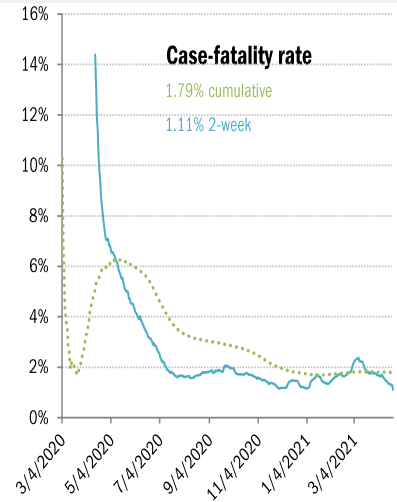
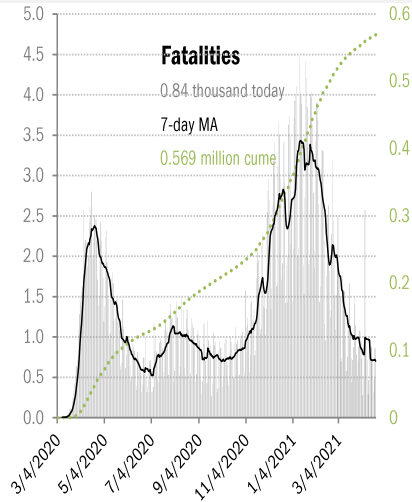
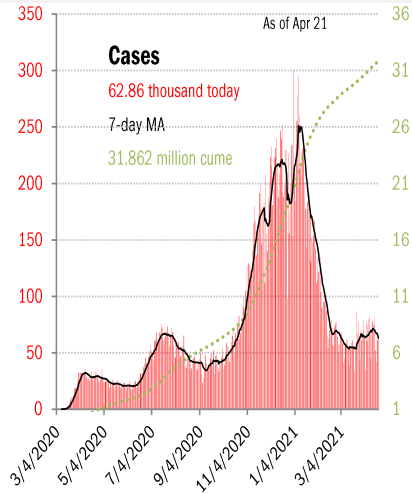


* Adult herd immunity is 60% of population over 18 years either fully vaccinated or prior tested positive, no overlap
 ** One dose of Pfizer/Moderna counts as half an immunity, one dose of J&J as a full immunity

Source: [CDC](#), [CDC](#), [Our World in Data](#), TrendMacro calculations

US deep-dive

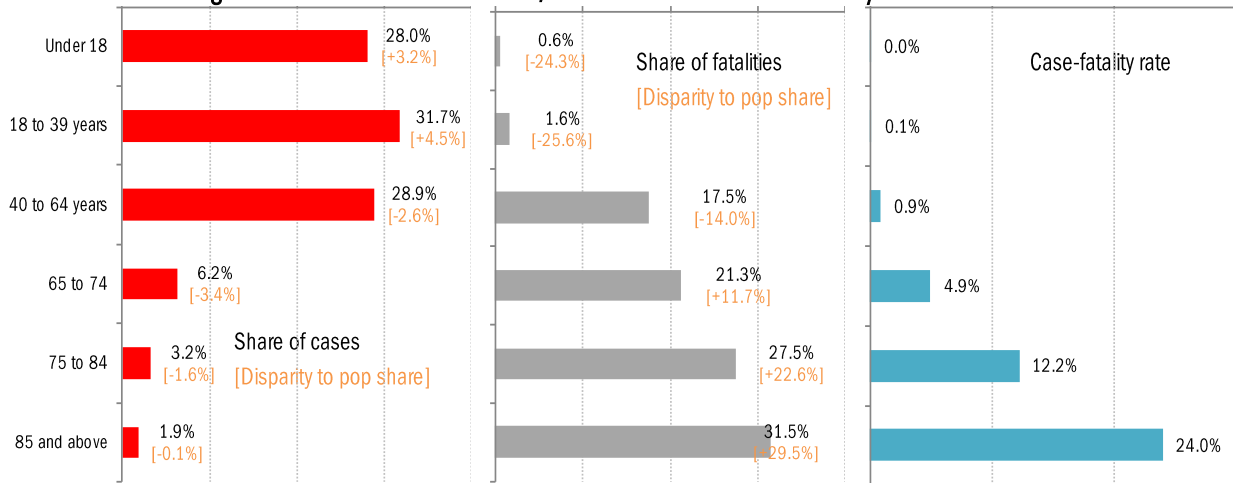
National and state-by-state data do not line up because of different sources



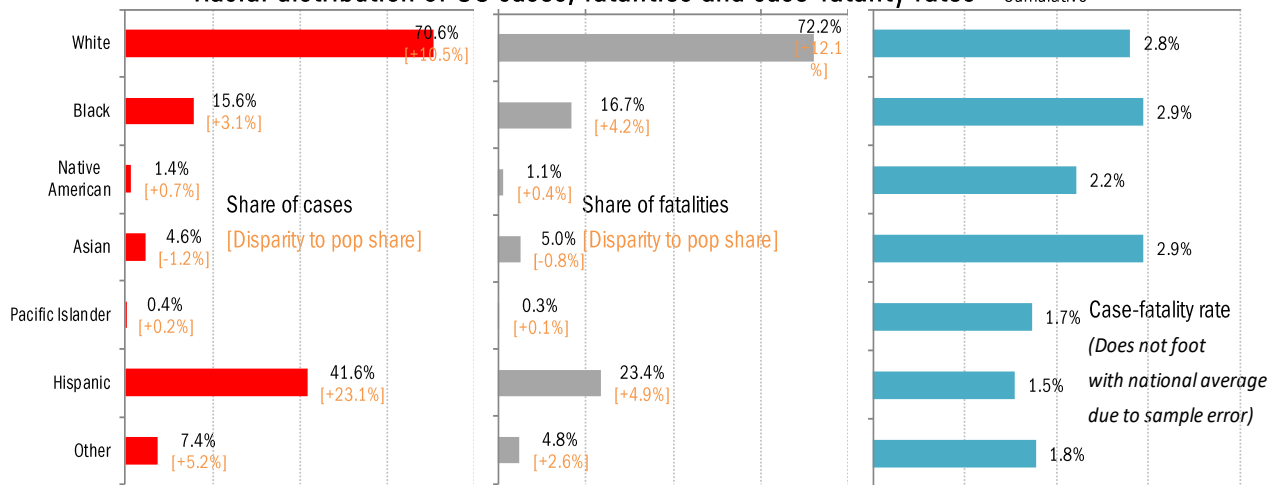
Source: [Johns Hopkins](#), [Covid Act Now](#), TrendMacro calculations

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

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

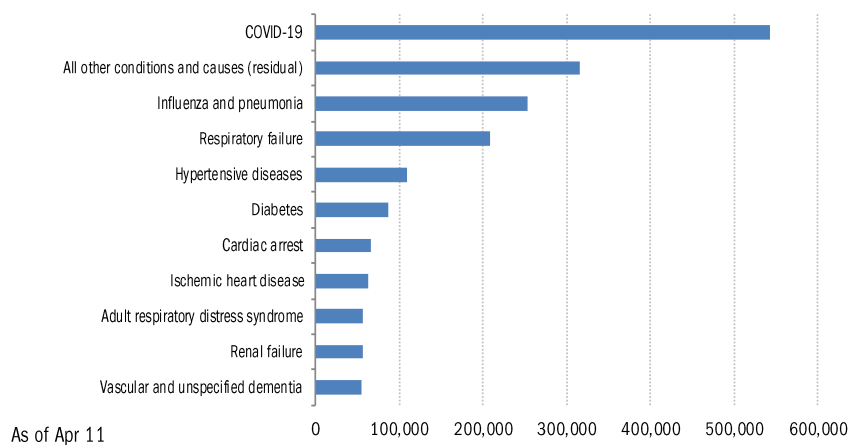


Racial distribution of US cases, fatalities and case-fatality rates



Comorbidities

Top-ten joint causes of Covid mortalities, cumulative



For over 5% of these deaths, COVID-19 was the only cause mentioned on the death certificate. For deaths with conditions or causes in addition to COVID-19, on average, there were 4.0 additional conditions or causes per death.

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

Recommended reading

[COVID 'Experts' Shut Out the Light at the End of the Tunnel](#)

J. T. Young
American Spectator
April 21, 2021

[Vaccines are working: the charts that show the Covid endgame](#)

John Burn-Murdoch
Financial Times
April 21, 2021

[Federal Inspectors Fear More Vaccines Were Exposed to Contamination](#)

Sharon LaFraniere, Sheryl Gay Stolberg and Chris Hamby
New York Times
April 21, 2021

[Quarter of Covid deaths not caused by virus, new figures show](#)

Sarah Knapton and Ben Riley-Smith
The Telegraph
April 13, 2021

[Vaccine Breakthrough Infections with SARS-CoV-2 Variants](#)

Ezgi Hacisuleyman et al.
New England Journal of Medicine
April 21, 2021

[Seven Peer-Reviewed Studies That Agree: Lockdowns Do Not Suppress the Coronavirus](#)

Will Jones
Lockdown Sceptics
April 15, 2021

[Rapid Covid testing in England may be scaled back over false positives](#)

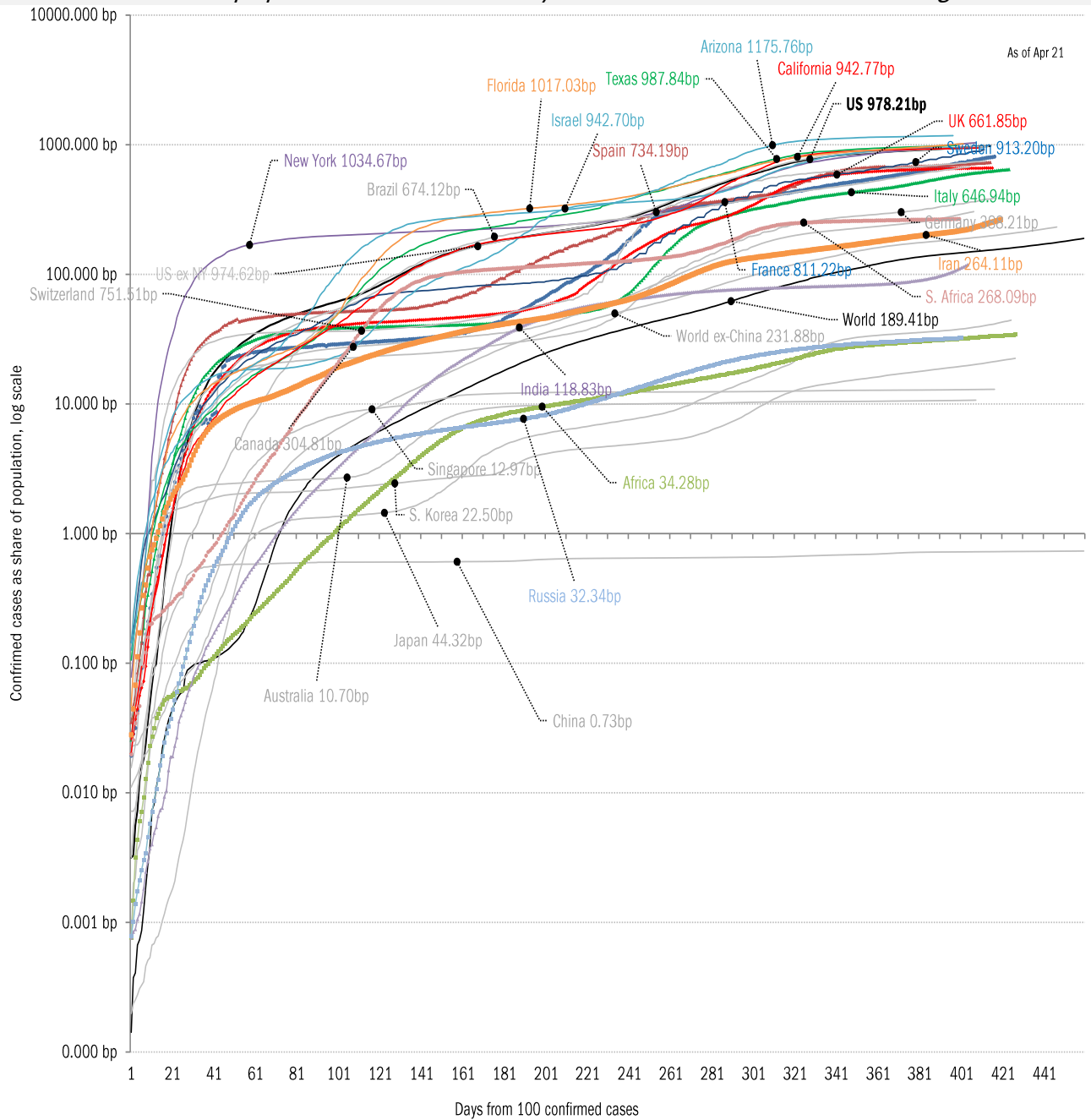
Josh Halliday
The Guardian
April 15, 2021

Meme of the day



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

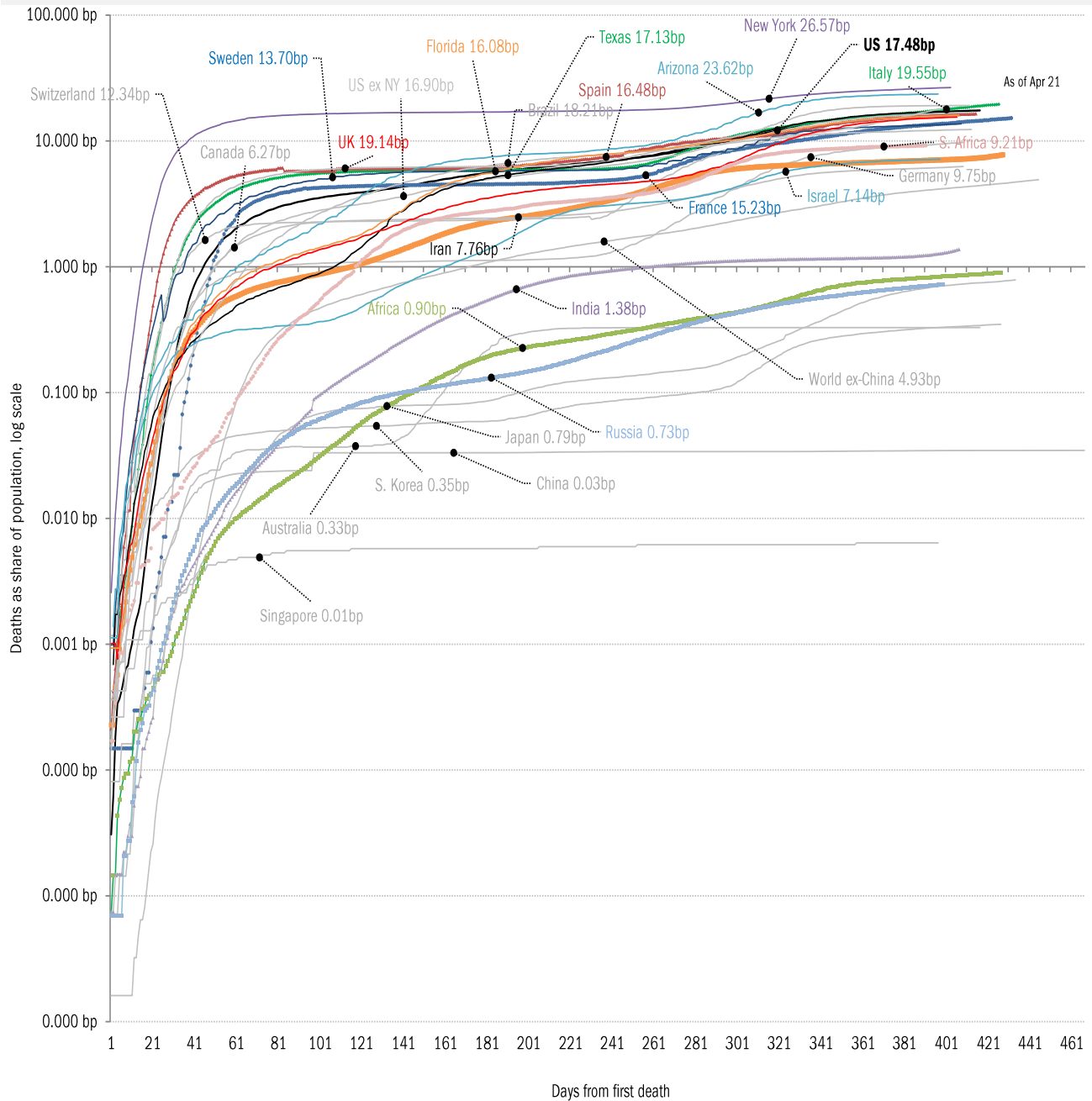
The coronavirus case accelerometer... tracking the world's infection curves
Share of infected population from first day with 100 confirmed cases, log scale



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

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

Share of deceased population from day of first fatality

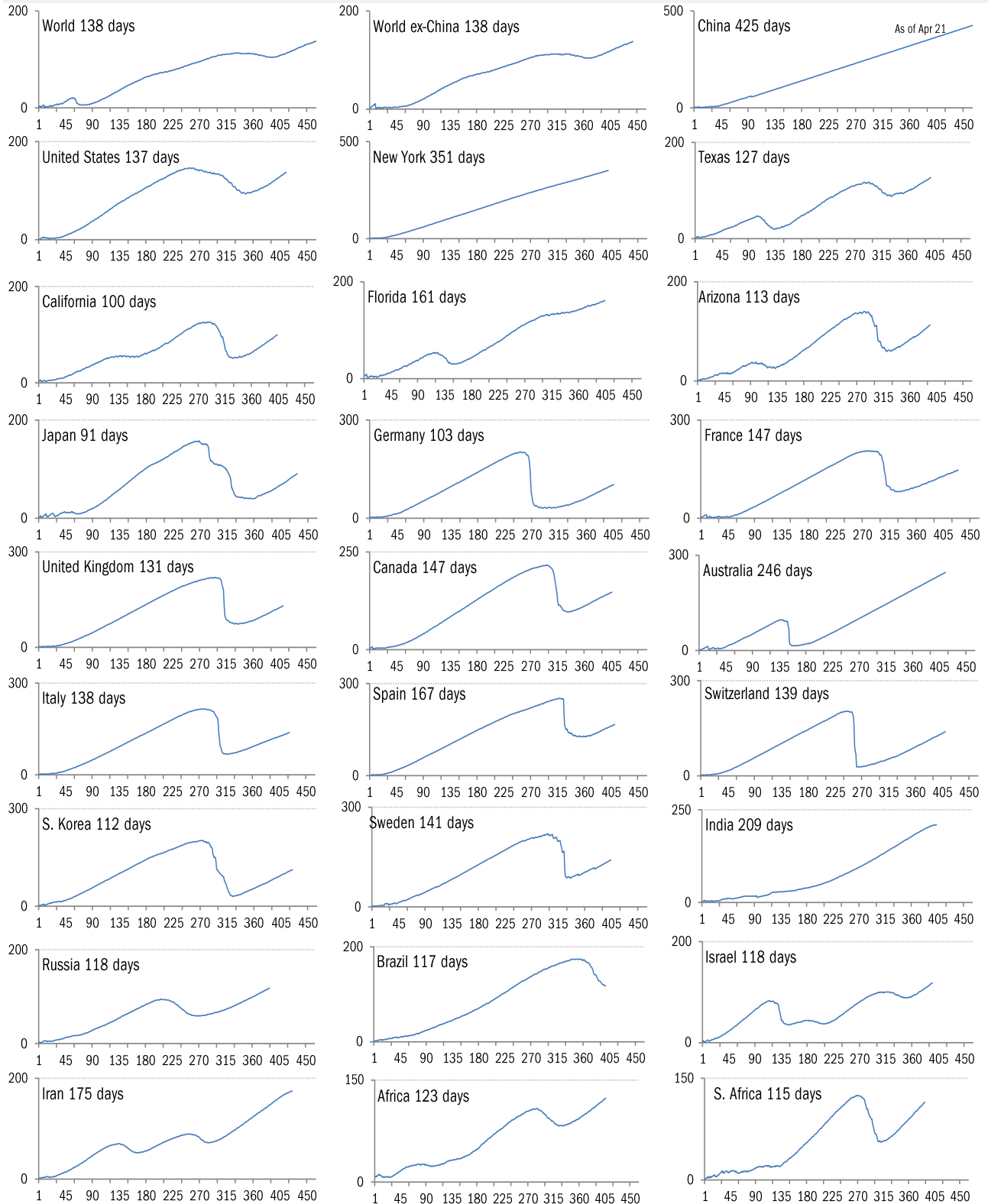


Source: [Johns Hopkins](#), TrendMacro calculations

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

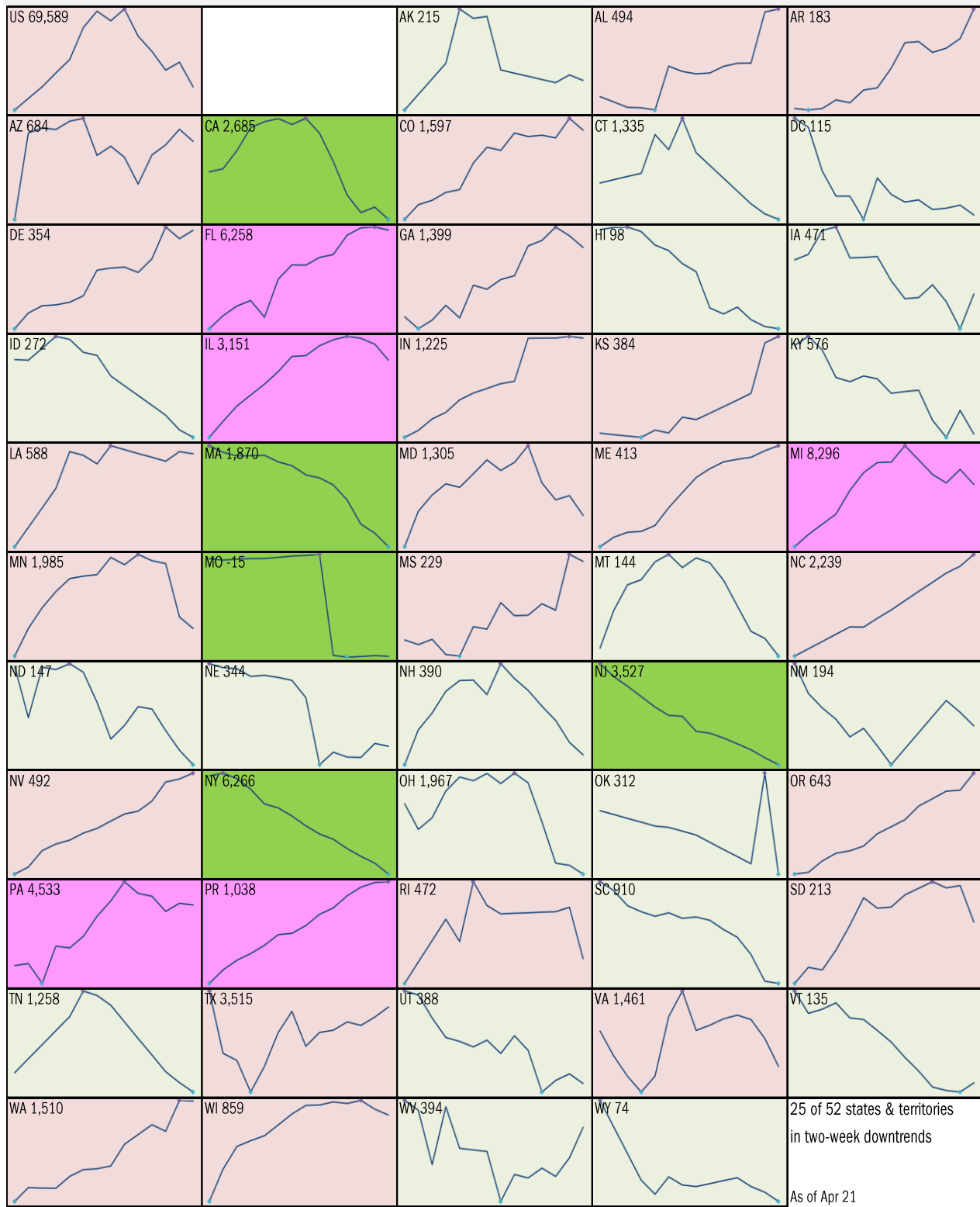
Vertical: days to double deaths Horizontal: days from first death

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



Source: [Johns Hopkins](#), 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

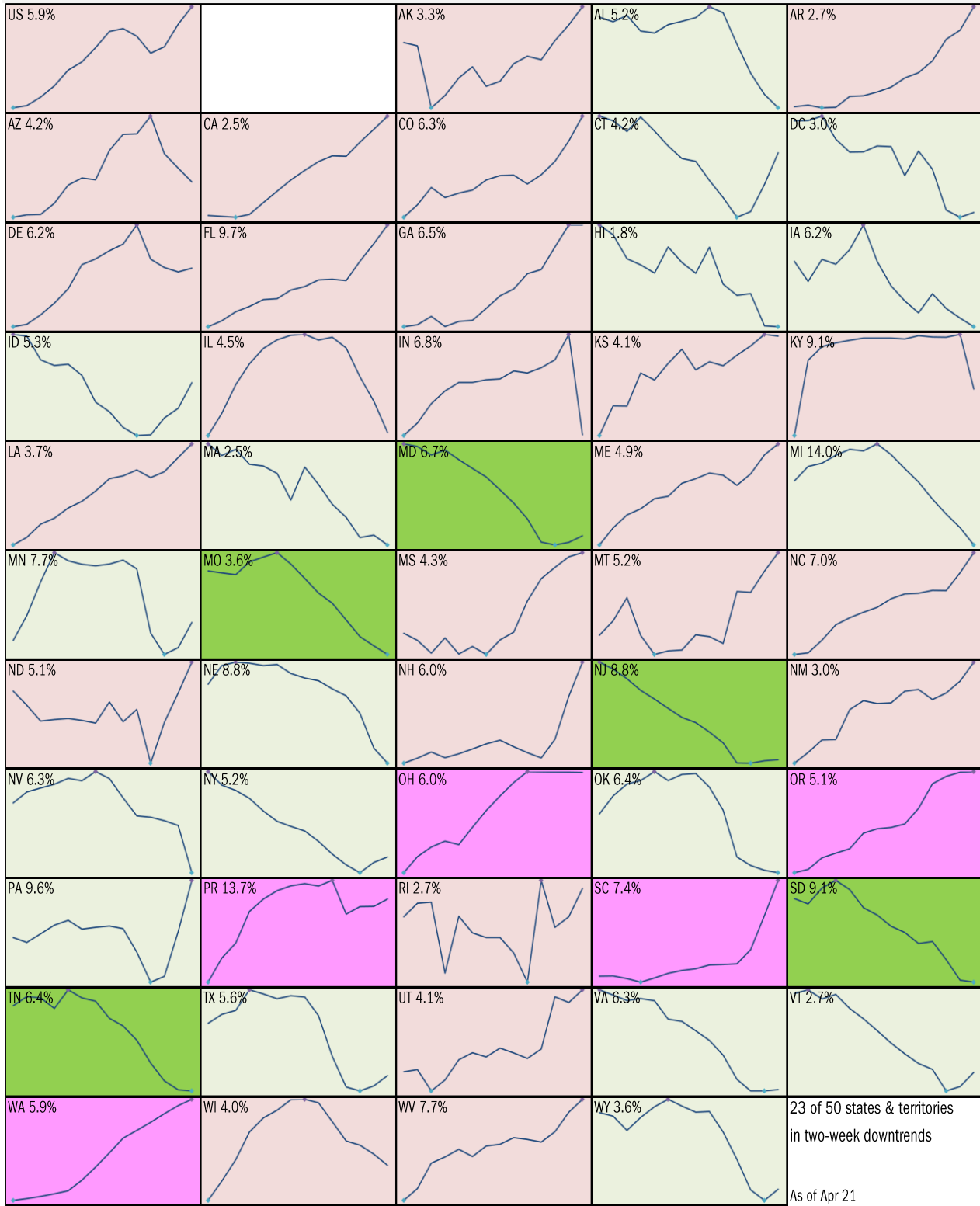


Source: [Johns Hopkins](#), TrendMacro calculations

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

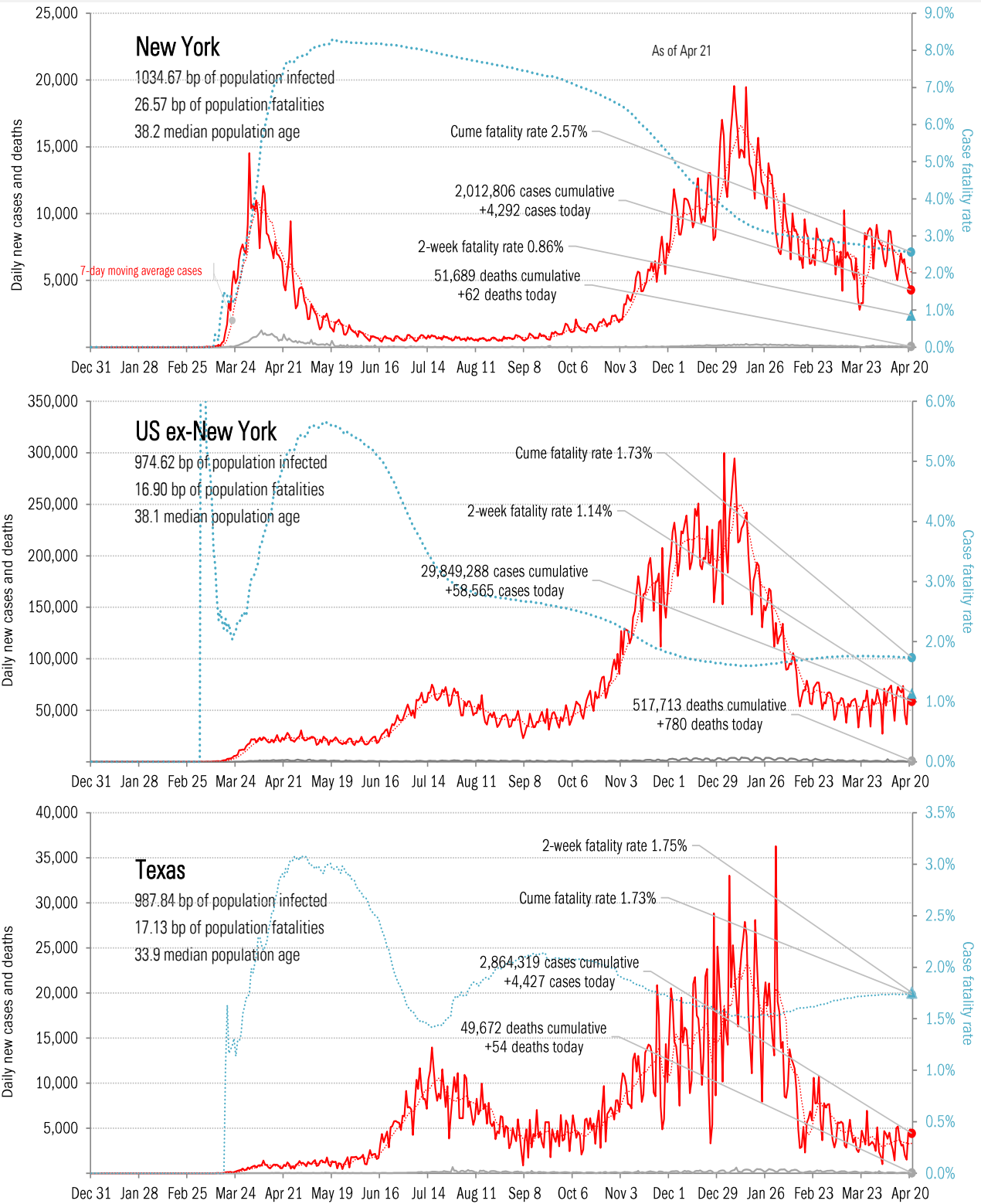
14-day moving average, last 14 days Most recent value displayed ● High ● Low

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



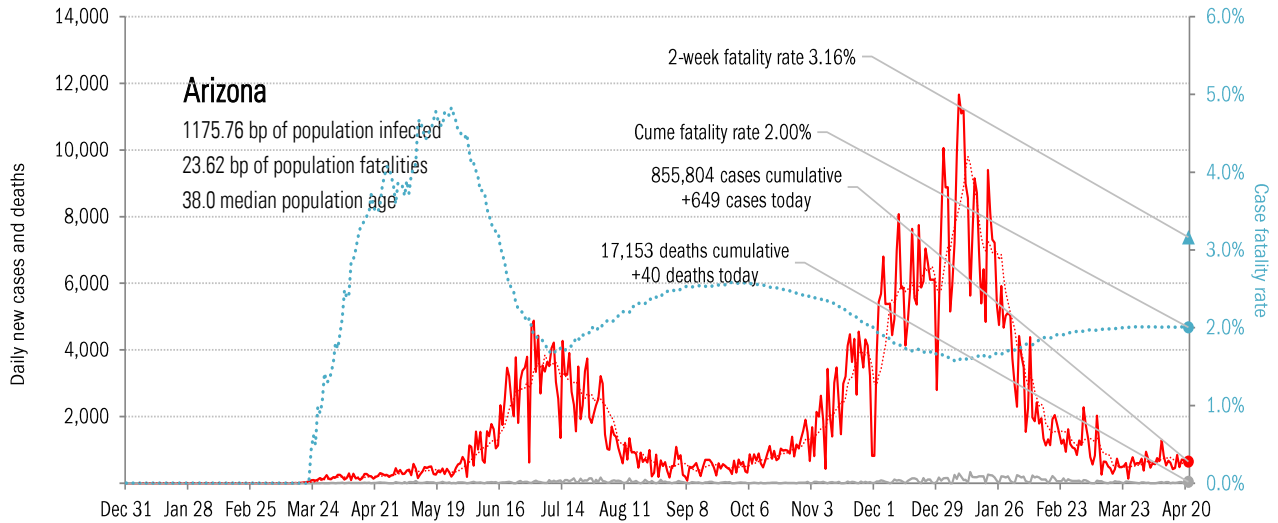
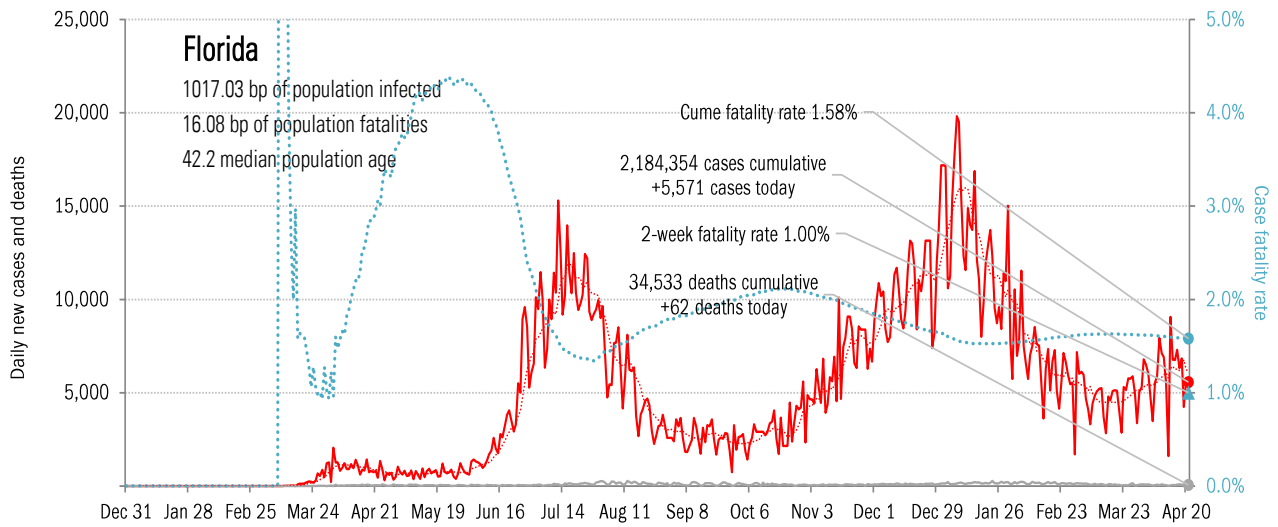
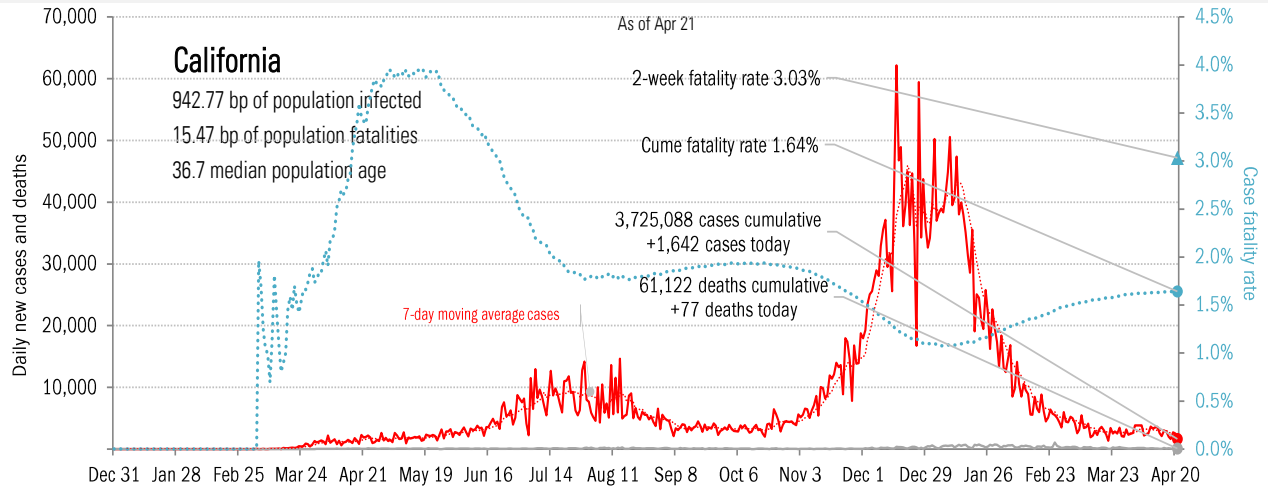
Source: [Covid Act Now](#), TrendMacro calculations

From Ground Zero to the Rio Grande



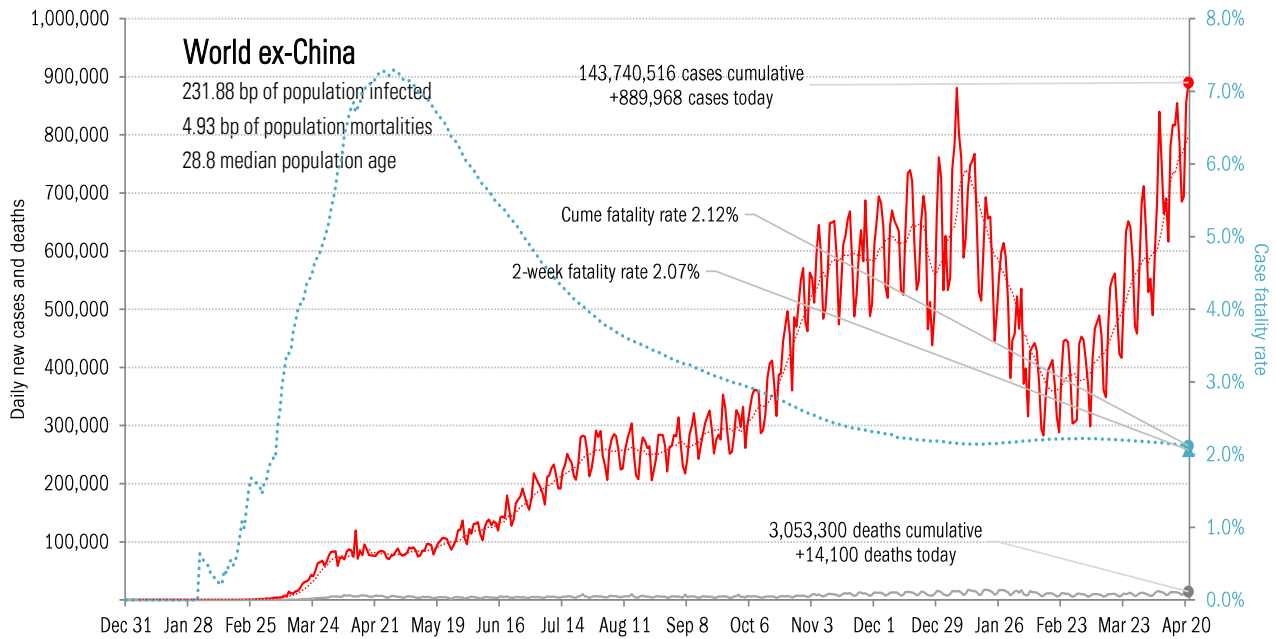
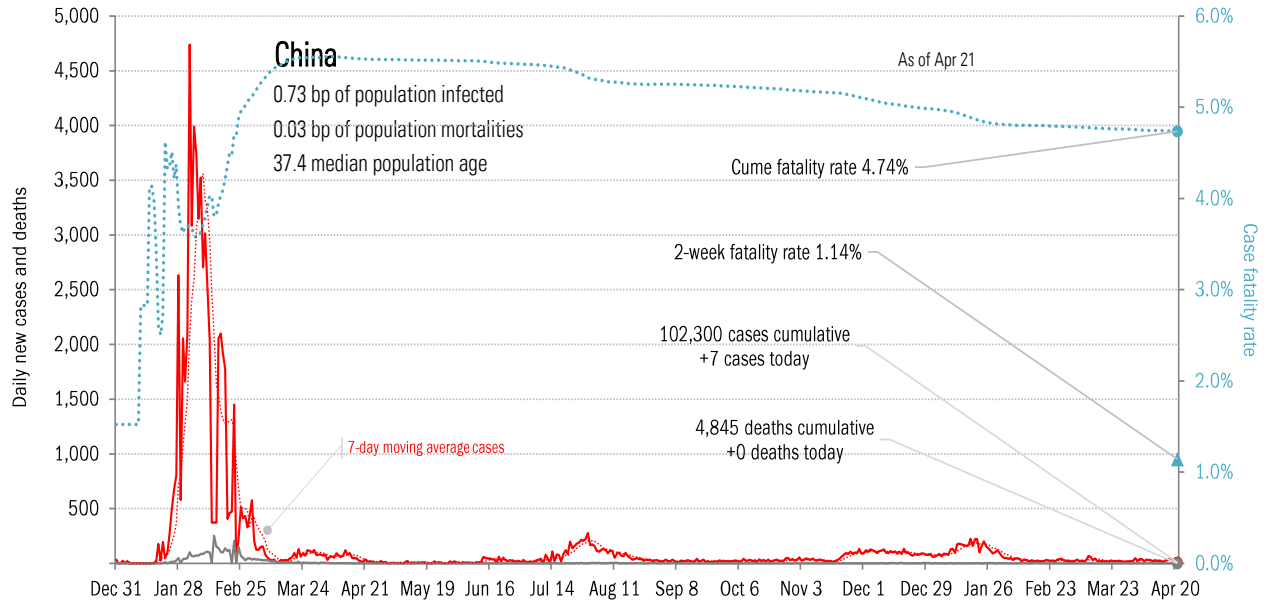
Source: [Johns Hopkins](#), TrendMacro calculations

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



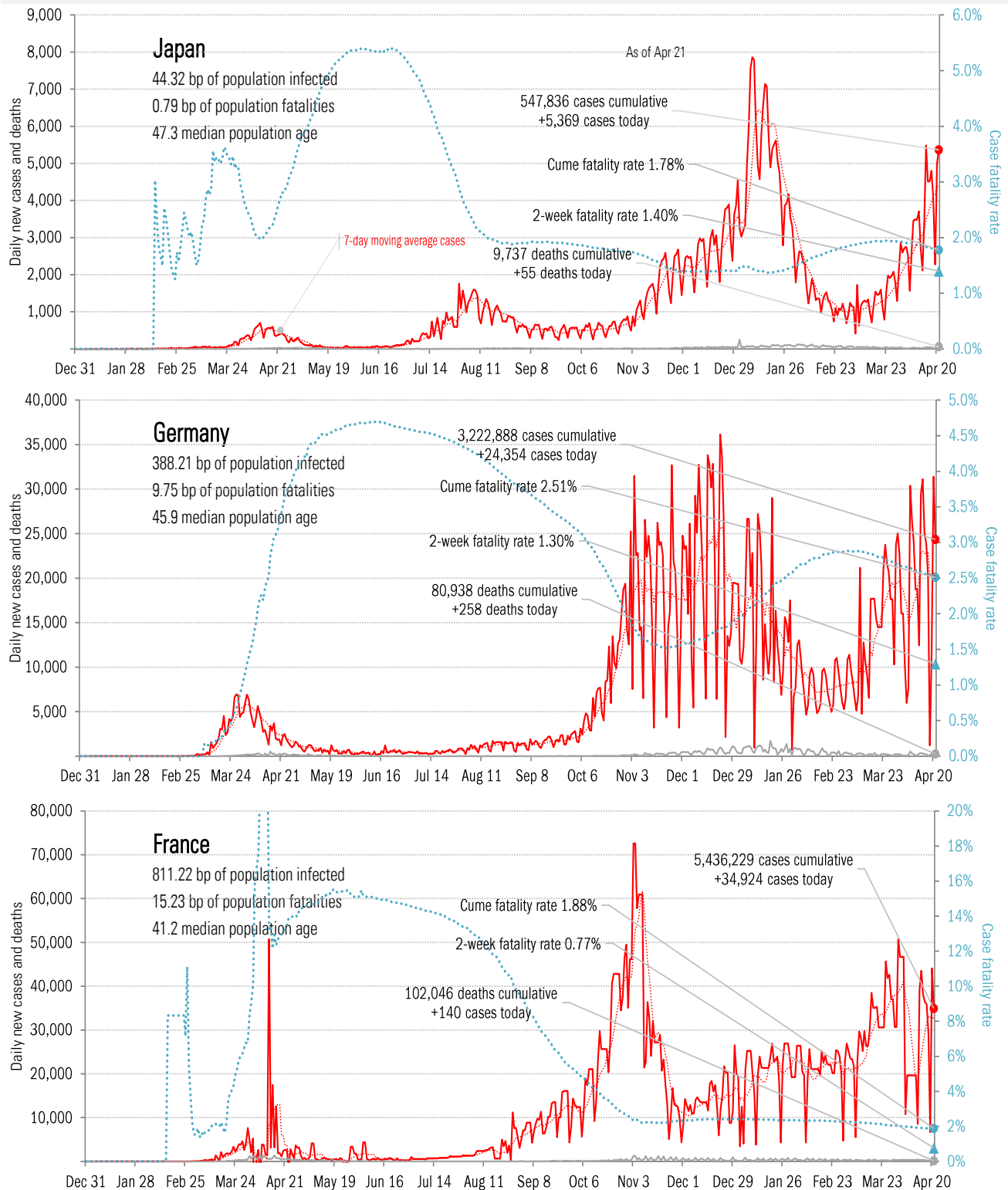
Source: [Johns Hopkins](#), TrendMacro calculations

Patient zero... and then everyone else



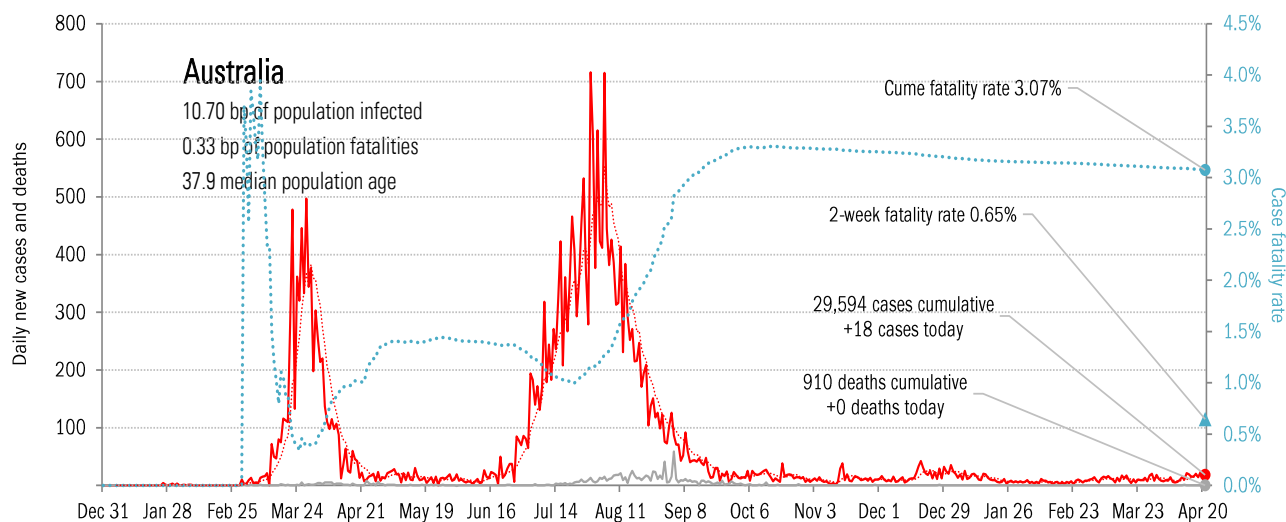
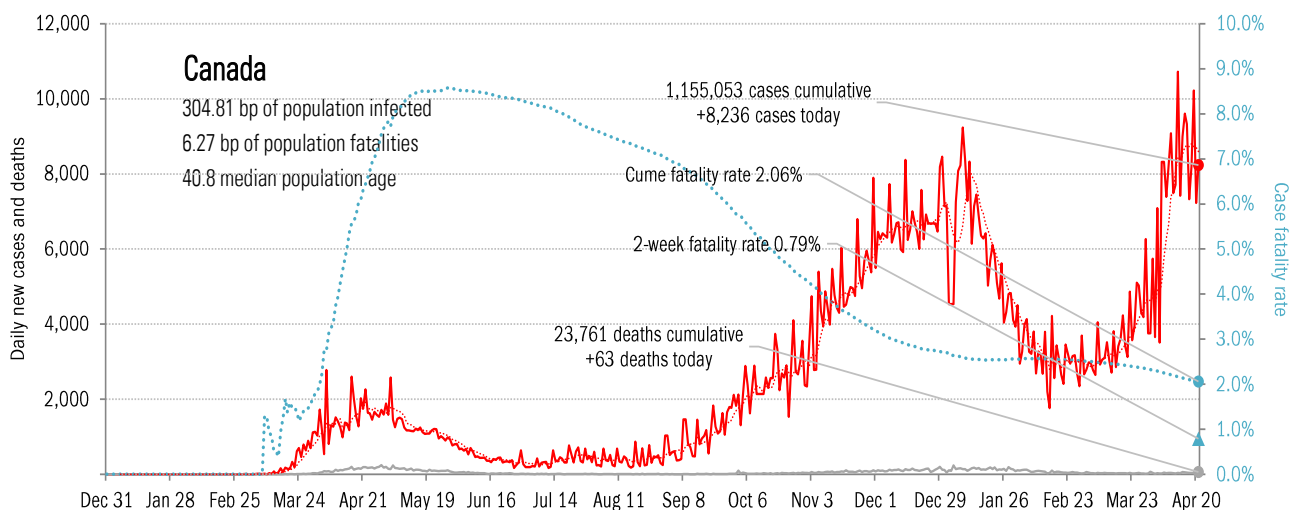
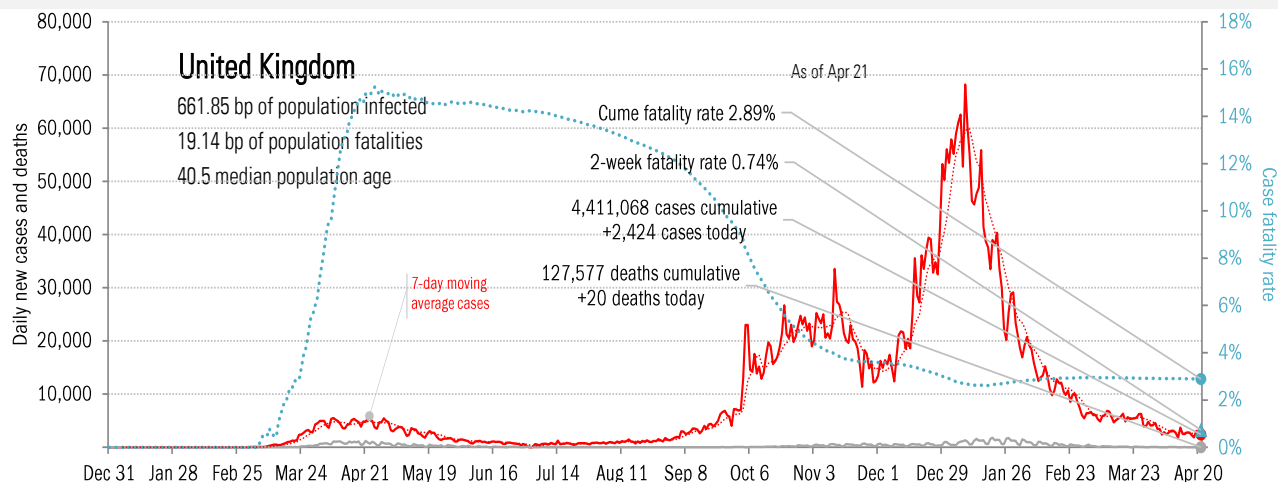
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the largest economies



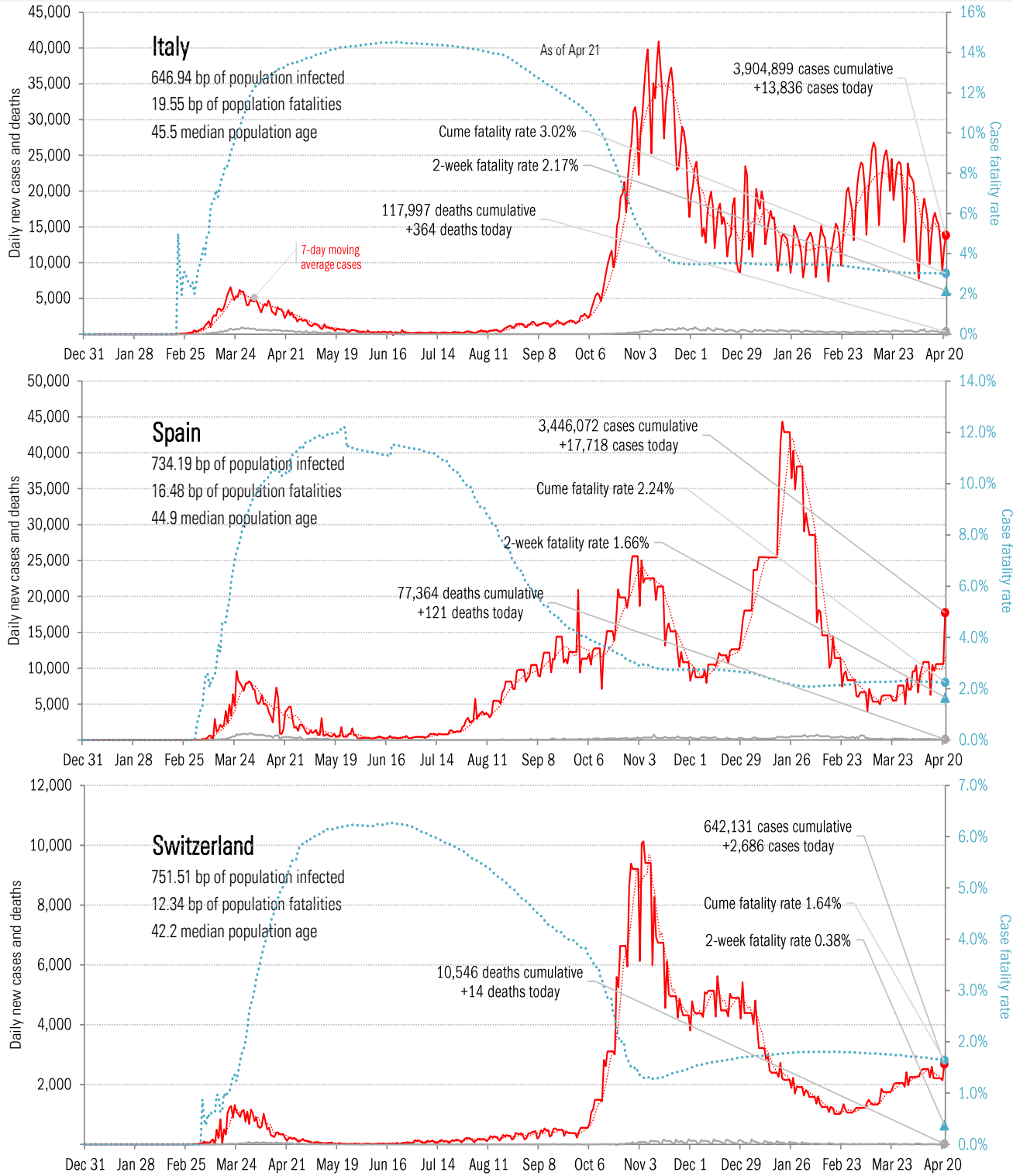
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in The Anglosphere



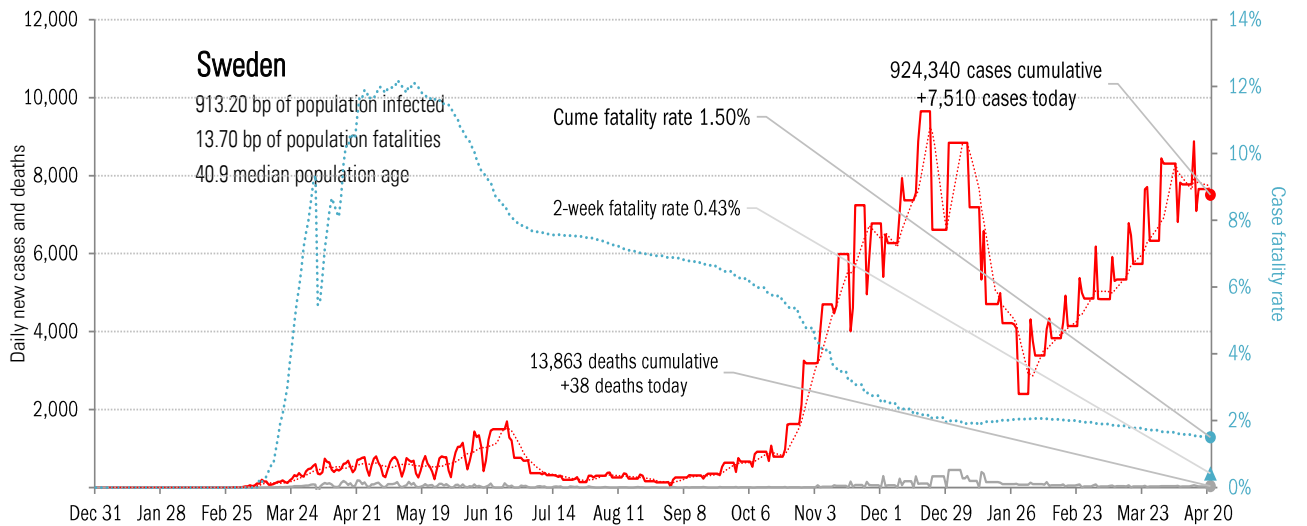
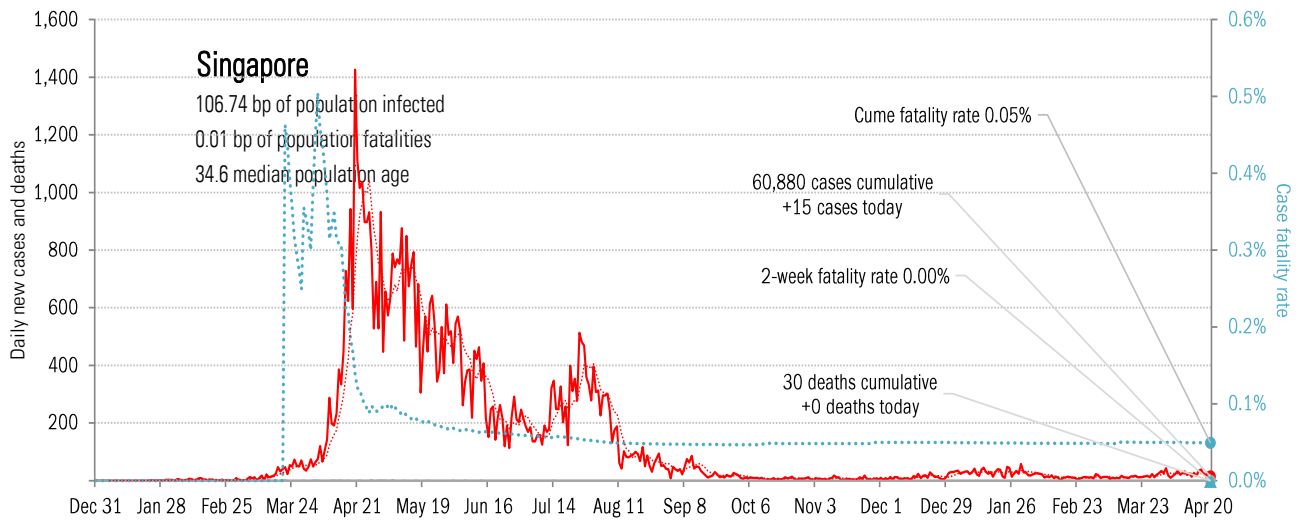
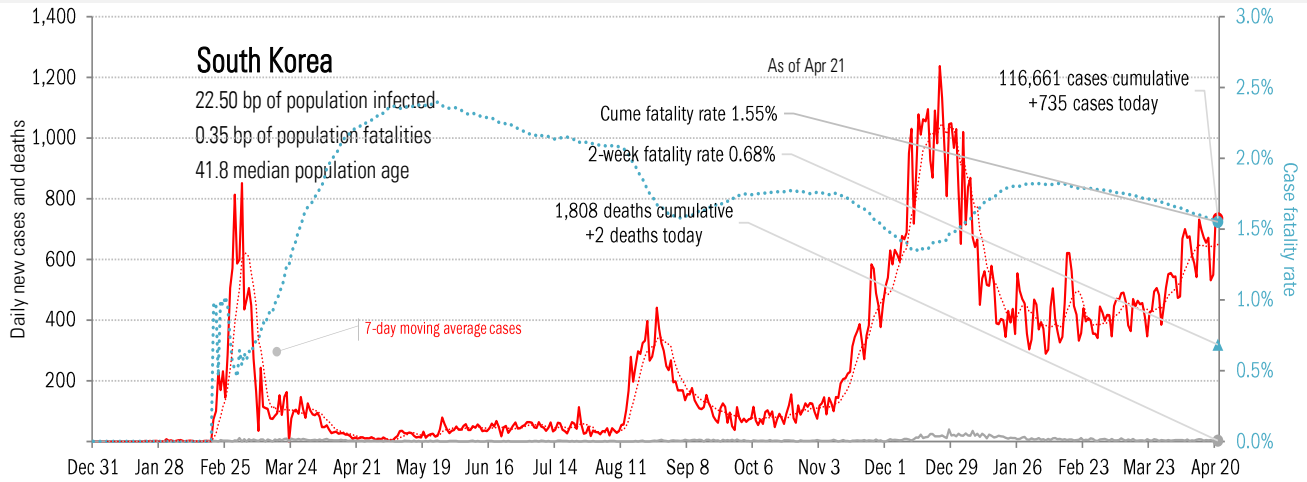
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in continental Europe



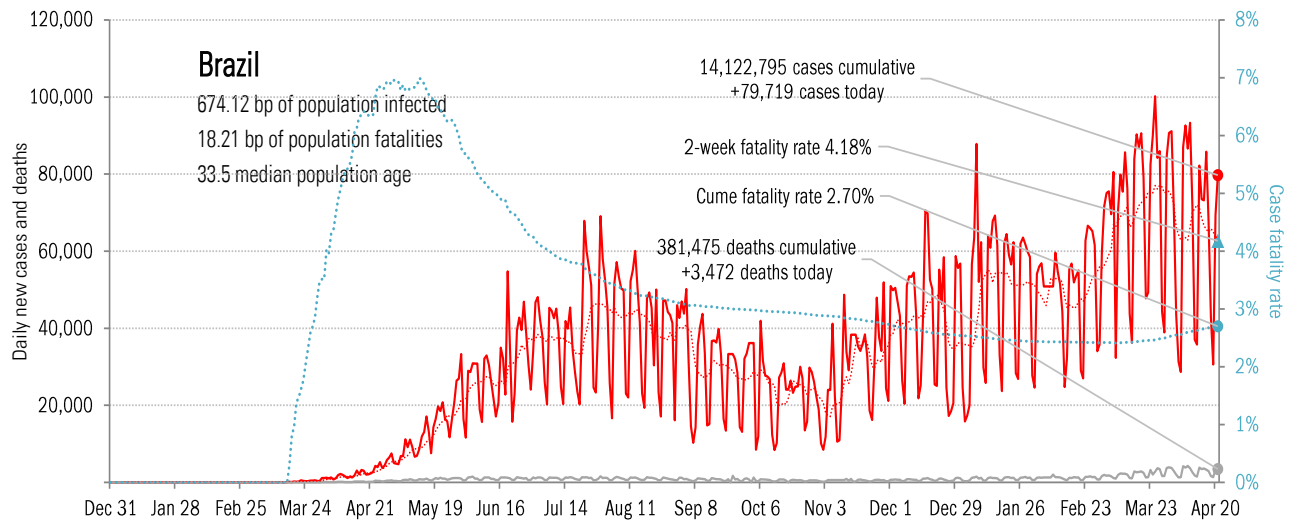
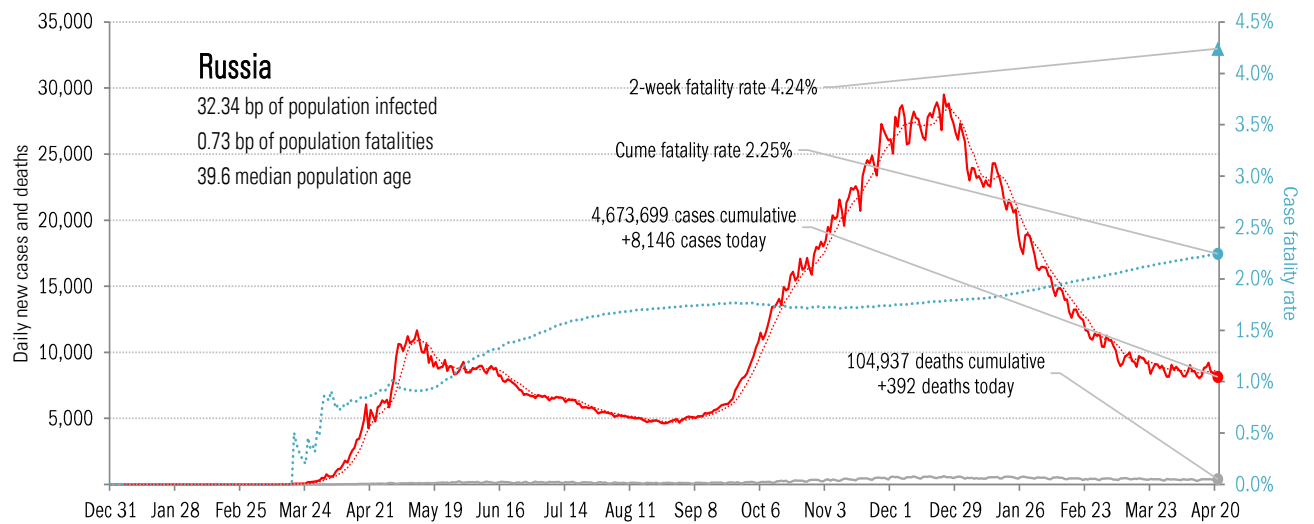
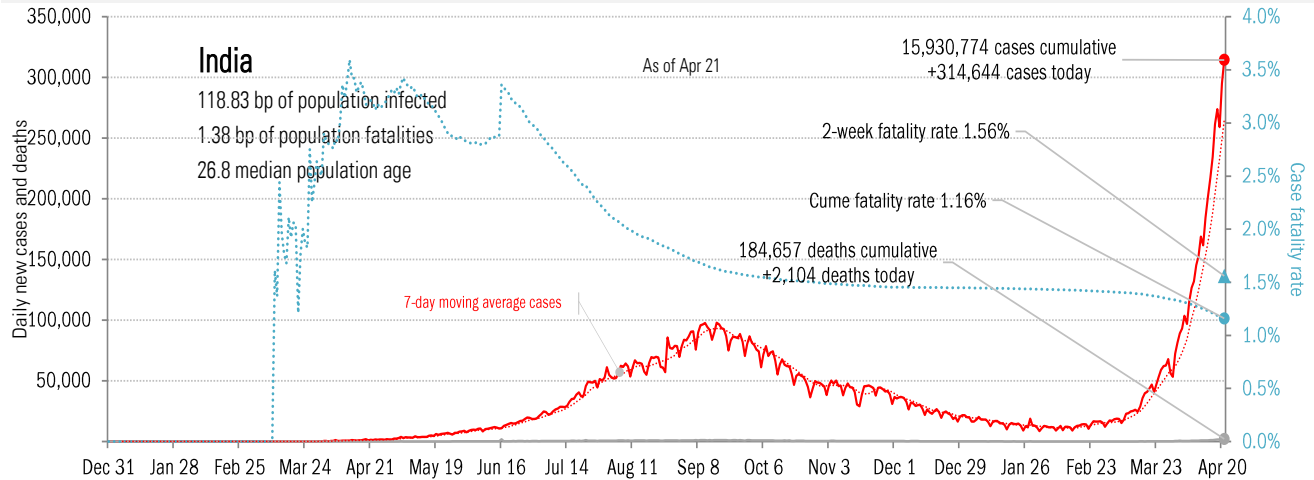
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in other hot-spots



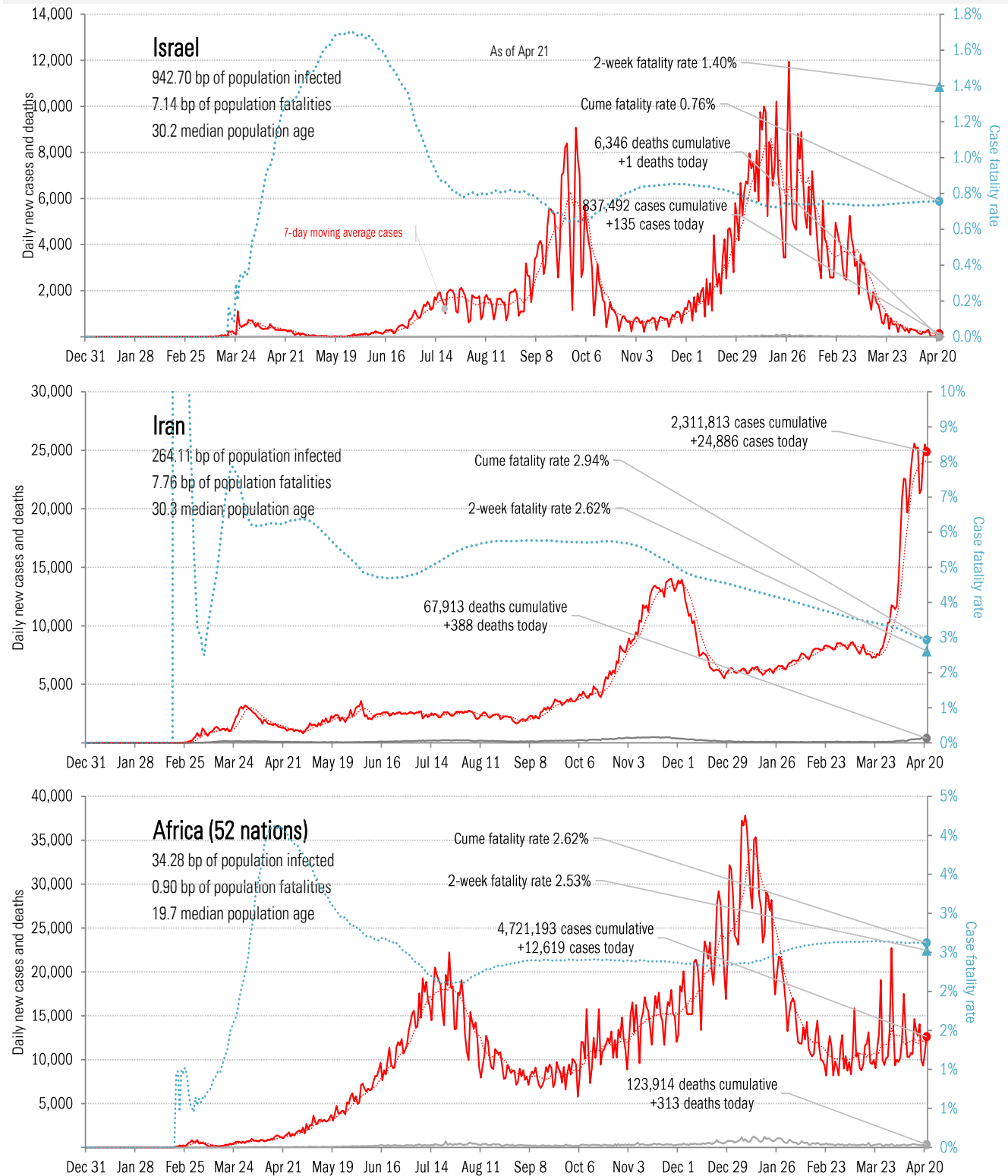
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the BRICs ex-China



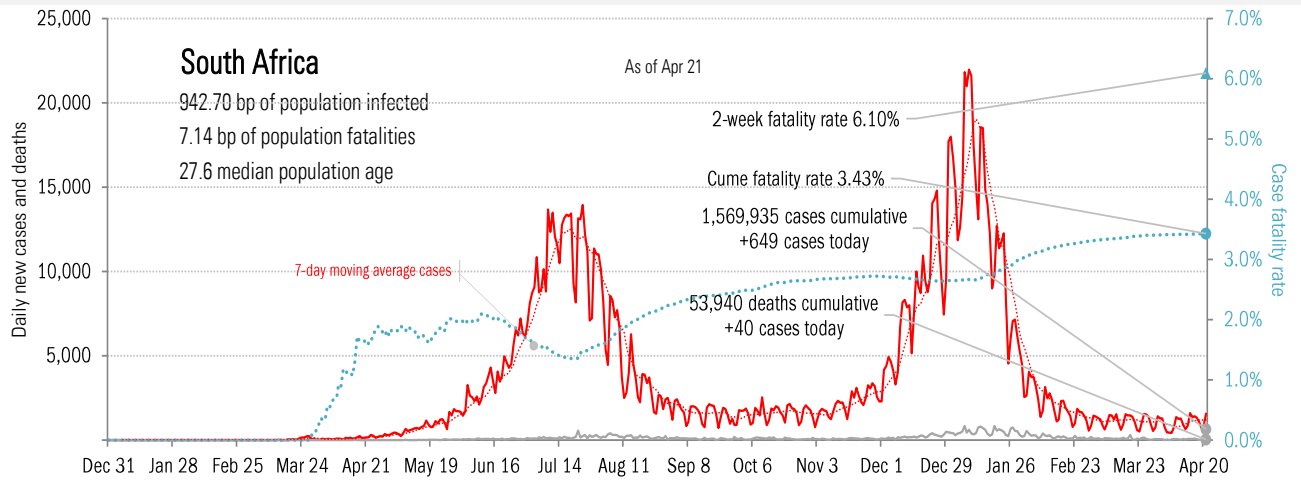
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the Middle East and Africa



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

Impact in Africa, continued



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