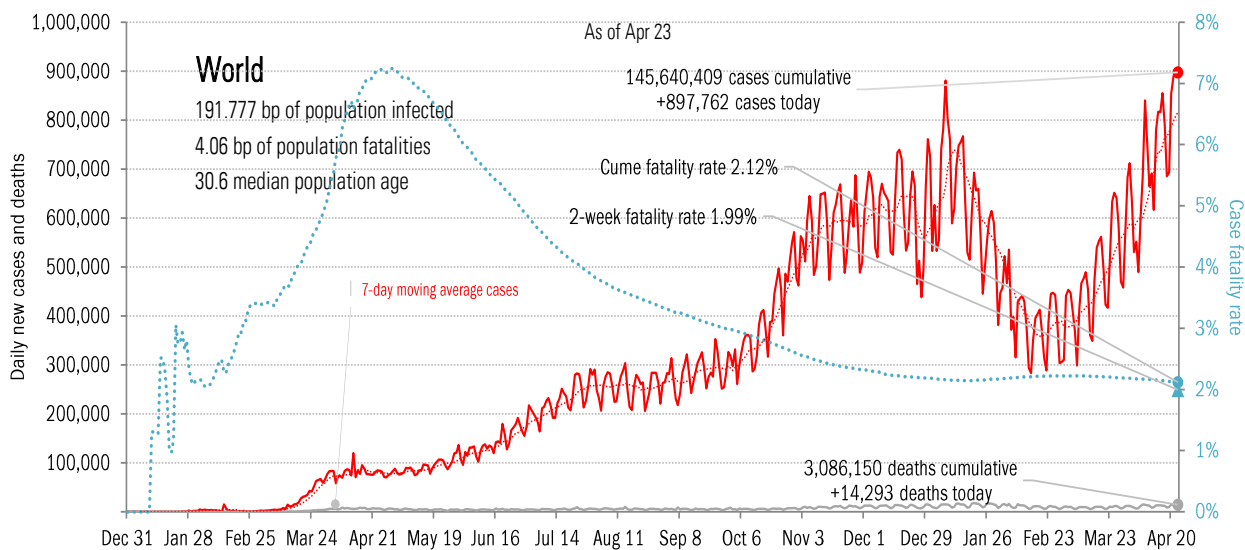
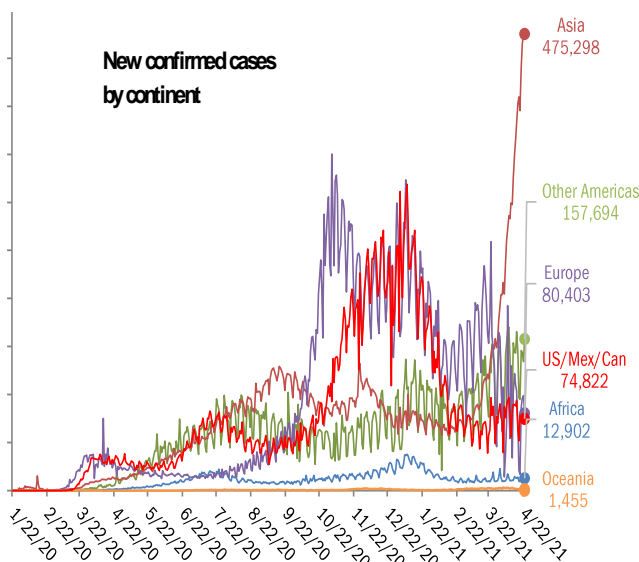


Data Insights: Covid-2019 Monitor

Saturday, April 24, 2021

The global scorecard

The worst ten countries			
New cases		New Deaths	
India	+346,786	Brazil	+2,914
Brazil	+69,105	India	+2,624
United States	+62,399	United States	+852
Turkey	+49,438	Argentina	+556
France	+32,340	Poland	+539
Argentina	+27,884	Ukraine	+442
Iran	+22,904	Mexico	+425
Germany	+22,262	Colombia	+420
Colombia	+19,925	Peru	+408
Italy	+14,758	Russia	+390
+667,801		+9,570	
World	+897,762	World	+14,293
Top ten	74%	Top ten	67%



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

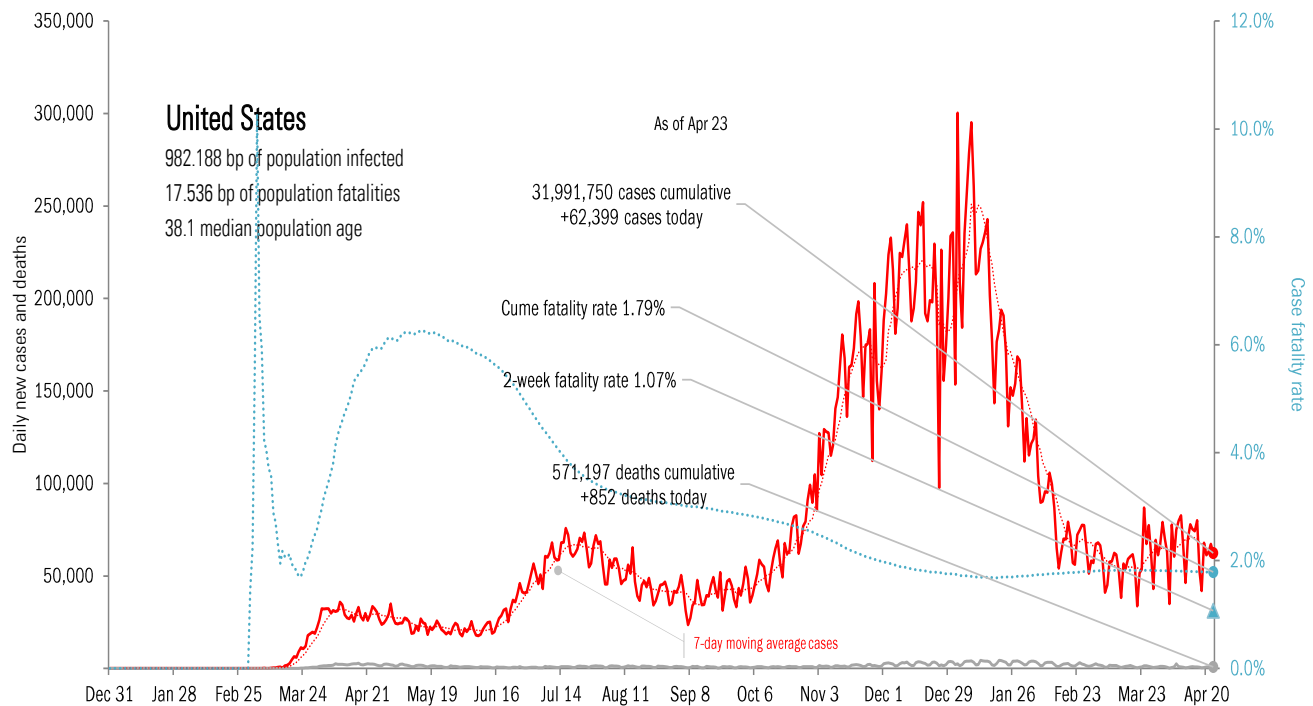
The ten worst US states

New cases			New Deaths			New in hospital			Cume cases			Cume deaths			Cume in hospital			Hospital use		ICU use	
MI	+5,640		CA	+92		FR	+215		CA	3,729,116		CA	61,401		TX	233,223		RI	92%	MI	31%
FL	+5,464		CH	+89		IL	+106		TX	2,870,407		NY	51,892		CA	227,481		MA	84%	MD	26%
NY	+4,847		FL	+63		MI	+41		FL	2,196,502		TX	49,877		FL	161,133		MD	82%	MN	20%
PA	+4,029		NY	+62		GA	+38		NY	2,022,891		FL	34,759		NY	124,095		PA	82%	RI	19%
IL	+3,363		TX	+59		TN	+36		IL	1,315,983		PA	25,927		GA	98,306		MI	82%	NY	18%
NJ	+2,834		PA	+58		NY	+30		PA	1,128,688		NJ	25,328		PA	80,126		CT	81%	PA	16%
TX	+2,659		GA	+42		CH	+30		GA	1,091,339		IL	24,083		CH	79,205		MO	80%	CO	14%
NC	+2,167		MI	+32		WI	+29		CH	1,061,907		GA	19,917		IL	72,842		FL	79%	IL	14%
MN	+2,164		IL	+27		KY	+28		NJ	993,414		CH	19,122		KY	70,459		MN	79%	DC	14%
CO	+1,876		NJ	+27		WA	+27		NC	956,932		MI	18,283		MI	59,811		SC	79%	ME	13%
+35,043			+551			+580			17,367,179			330,589			1,206,681						
All states	+62,399			+852			+477		All states	31,991,750			571,197			2,153,974		All states	70%		67%
Top ten	56%			65%			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	
CA	-1,622	MI	-89	NJ	-113	OR	+114 bp
FL	-1,220	NY	-36	TX	-74	WI	+95 bp
TN	-800	CA	-24	CO	-56	PA	+92 bp
TX	-770	FL	-17	FL	-51	ME	+91 bp
CO	-485	MD	-12	PA	-47	SD	+88 bp



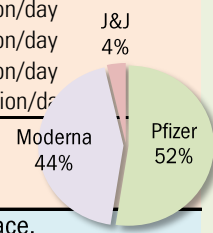
Source: [Johns Hopkins](#), [Dept. of Health and Human Services](#), [CDC](#), TrendMacro calculations

Rolling out the vaccines in the US and the world

US overall	Over last day	Immunity	Full	Partial
297.66 million doses distributed	+3.97 million/day	US	27.3%	41.0%
230.21 million doses administered	+3.44 million/day	UK	17.1%	49.2%
141.32 million persons partially immunized	+1.46 million/day	France	7.6%	19.9%
94.39 million persons fully immunized	+1.97 million/day	Spain	8.3%	22.3%
7.79 million shots long-term care residents/staff	+0.002 million/day	Germany	7.0%	22.6%
		Italy	8.3%	19.9%
		Australia	1.1%	0.6%
		Israel	57.9%	62.1%
		Canada	2.6%	27.9%
		Japan	0.7%	1.3%
		Africa	0.4%	0.8%
		India	1.5%	8.4%
		Brazil	5.0%	12.4%

77.3% of distributed doses administered
 42.3% of US pop partial
 100% of LTC partial

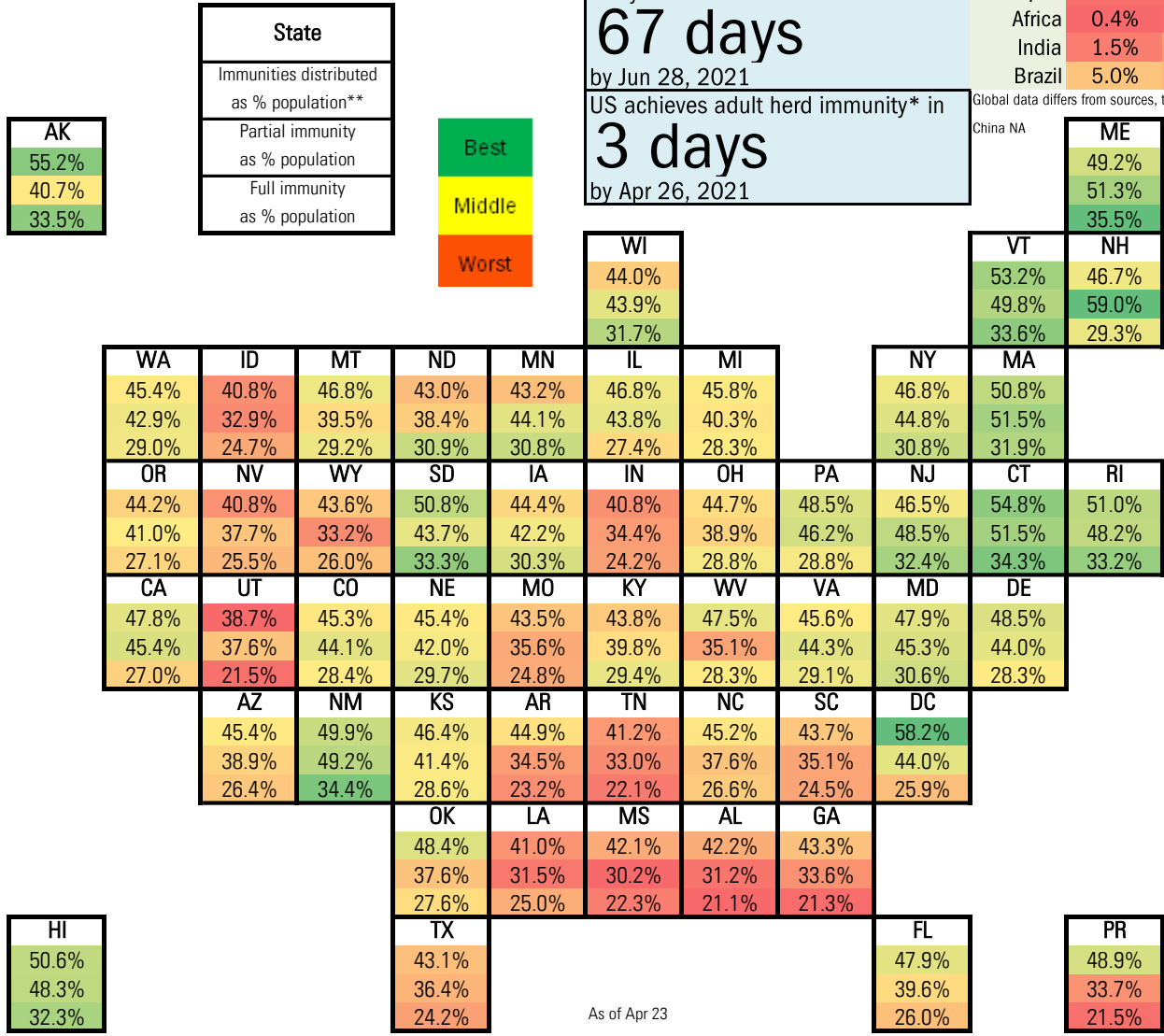
28.3% full immunity
 64.0% full immunity



At today's dosing pace,
 every American >18 immune in
67 days
 by Jun 28, 2021

US achieves adult herd immunity* in
3 days
 by Apr 26, 2021

Global data differs from sources, timing



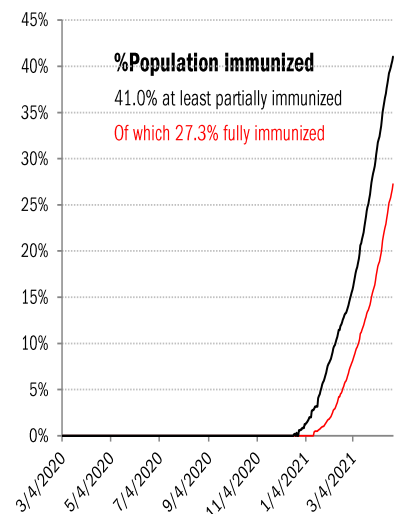
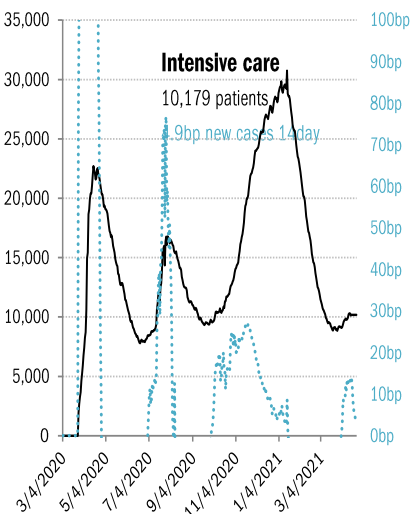
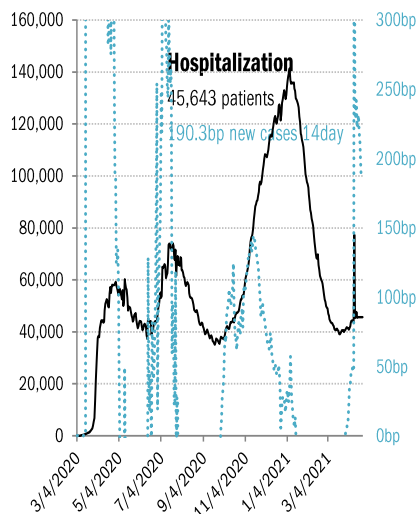
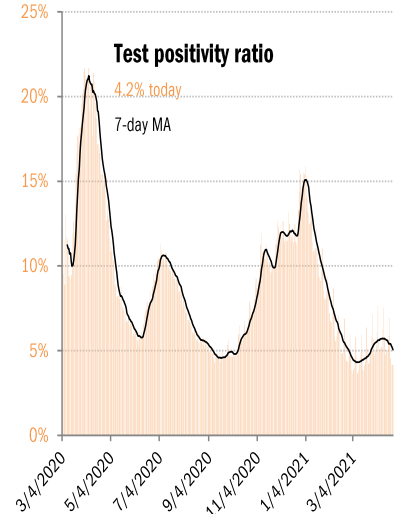
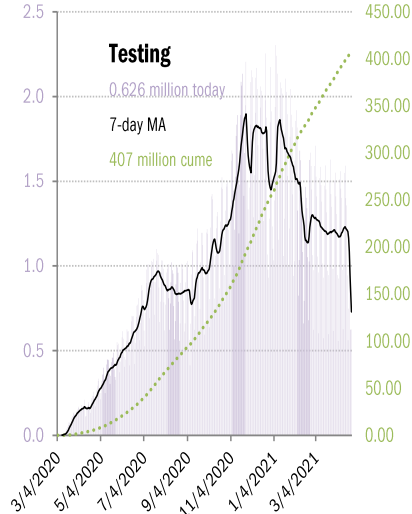
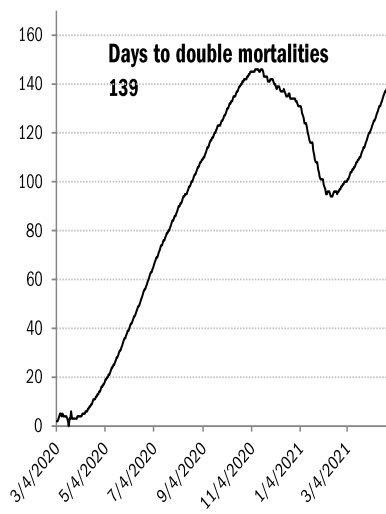
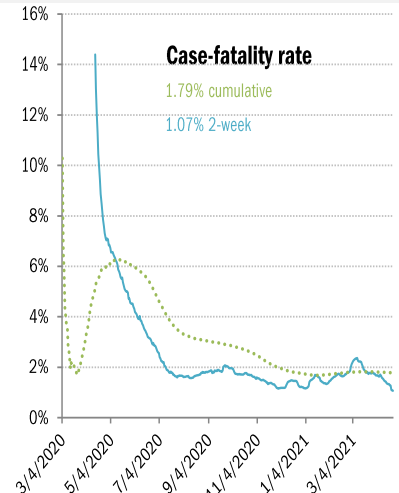
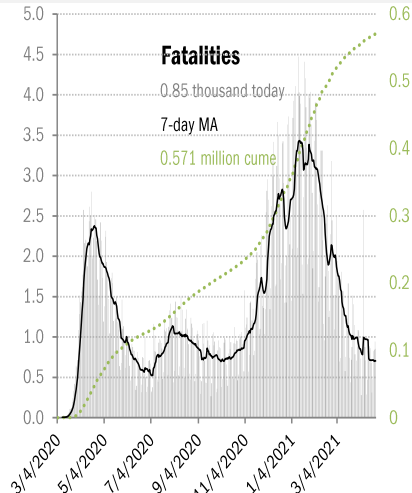
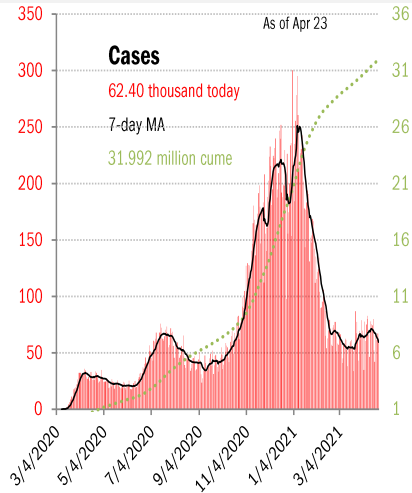
As of Apr 23

* 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

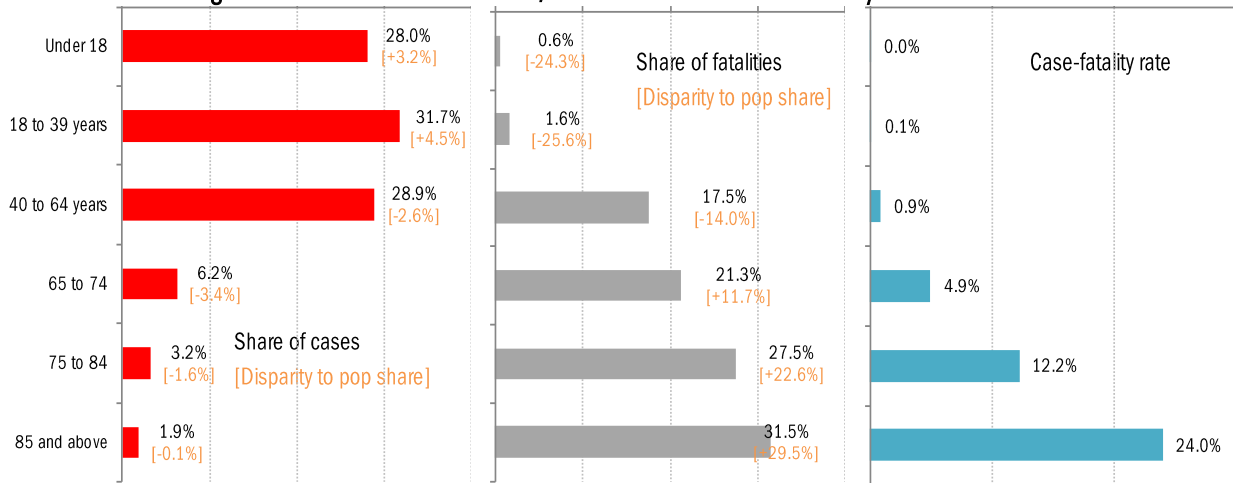
National and state-by-state data do not line up because of different sources



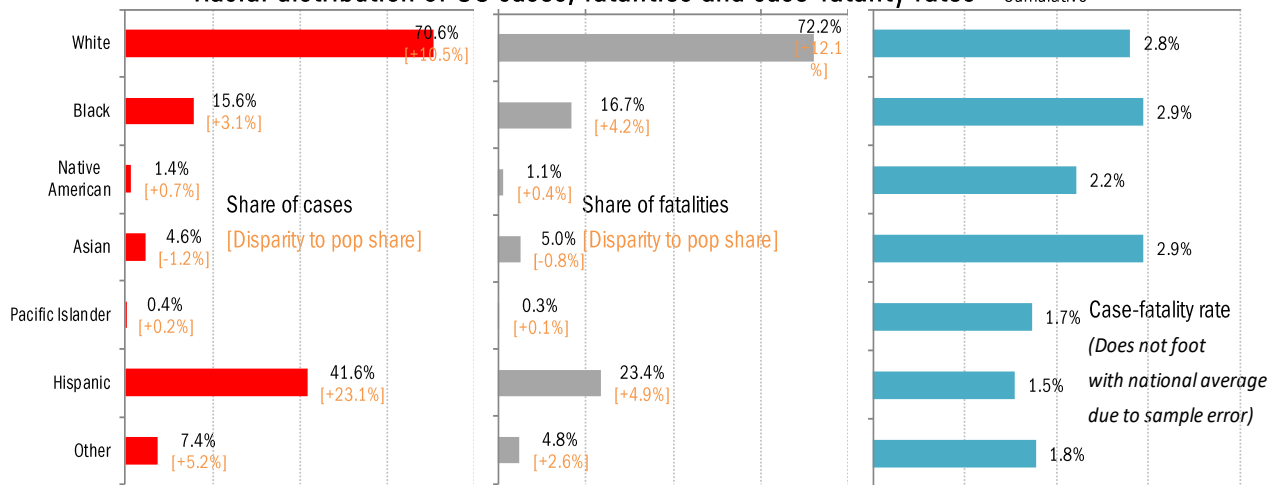
Source: [Johns Hopkins](#), [Covid Act Now](#), TrendMacro calculations

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

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

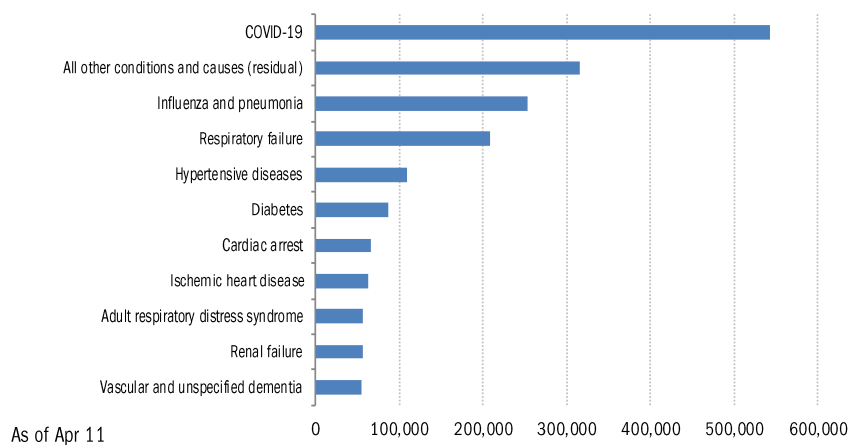


Racial distribution of US cases, fatalities and case-fatality rates



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 Unemployment Relief Makes Help Impossible to Find](#)

Jillian Kay Melchior
Wall Street Journal
April 23, 2021

[India Scrambles to Supply Oxygen as Covid-19 Patients Gasp for Breath](#)

Emily Schmall
New York Times
April 23, 2021

[U.S. Lifts Pause on J&J's Covid-19 Vaccine](#)

Peter Loftus
Wall Street Journal
April 23, 2021

[Ravaged by Covid, Brazil Faces a Hunger Epidemic](#)

Ernesto Londoño and Flávia Milhorance
New York Times
April 23, 2021

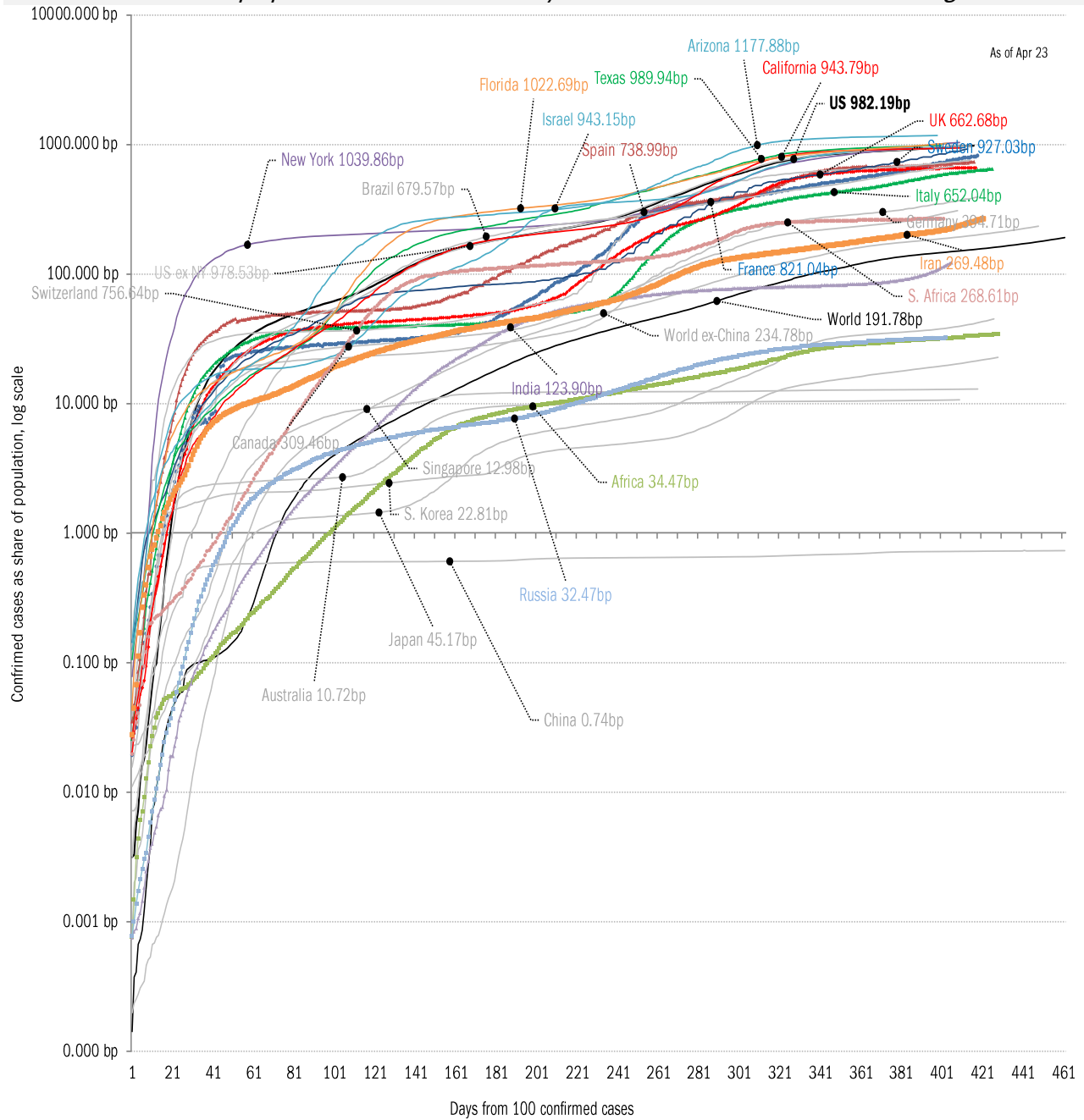
Meme of the day

Me, with a fake ID trying to buy groceries in 2022...



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

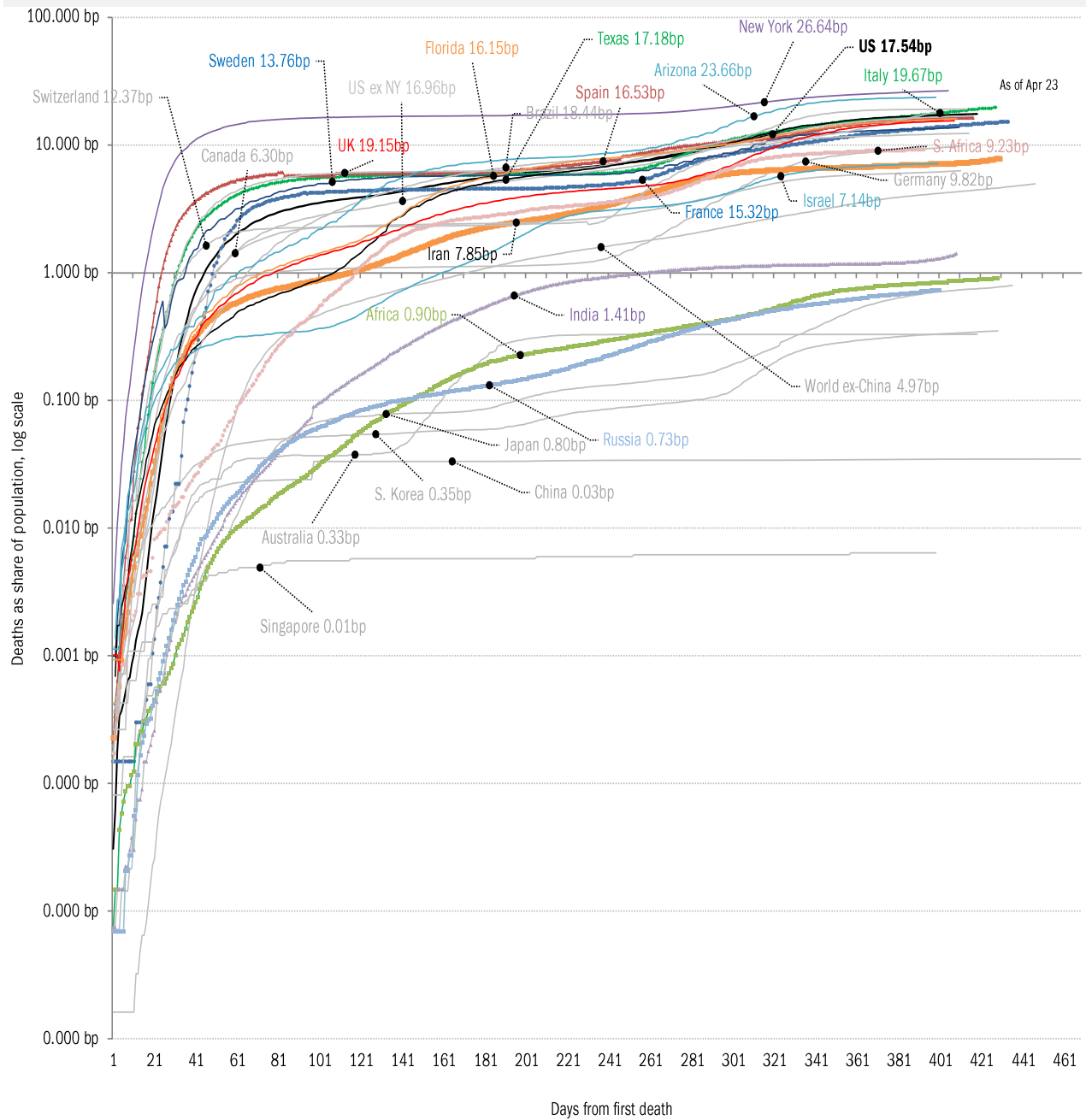
The coronavirus case accelerometer... tracking the world's infection curves
Share of infected population from first day with 100 confirmed cases, log scale



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

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

Share of deceased population from day of first fatality

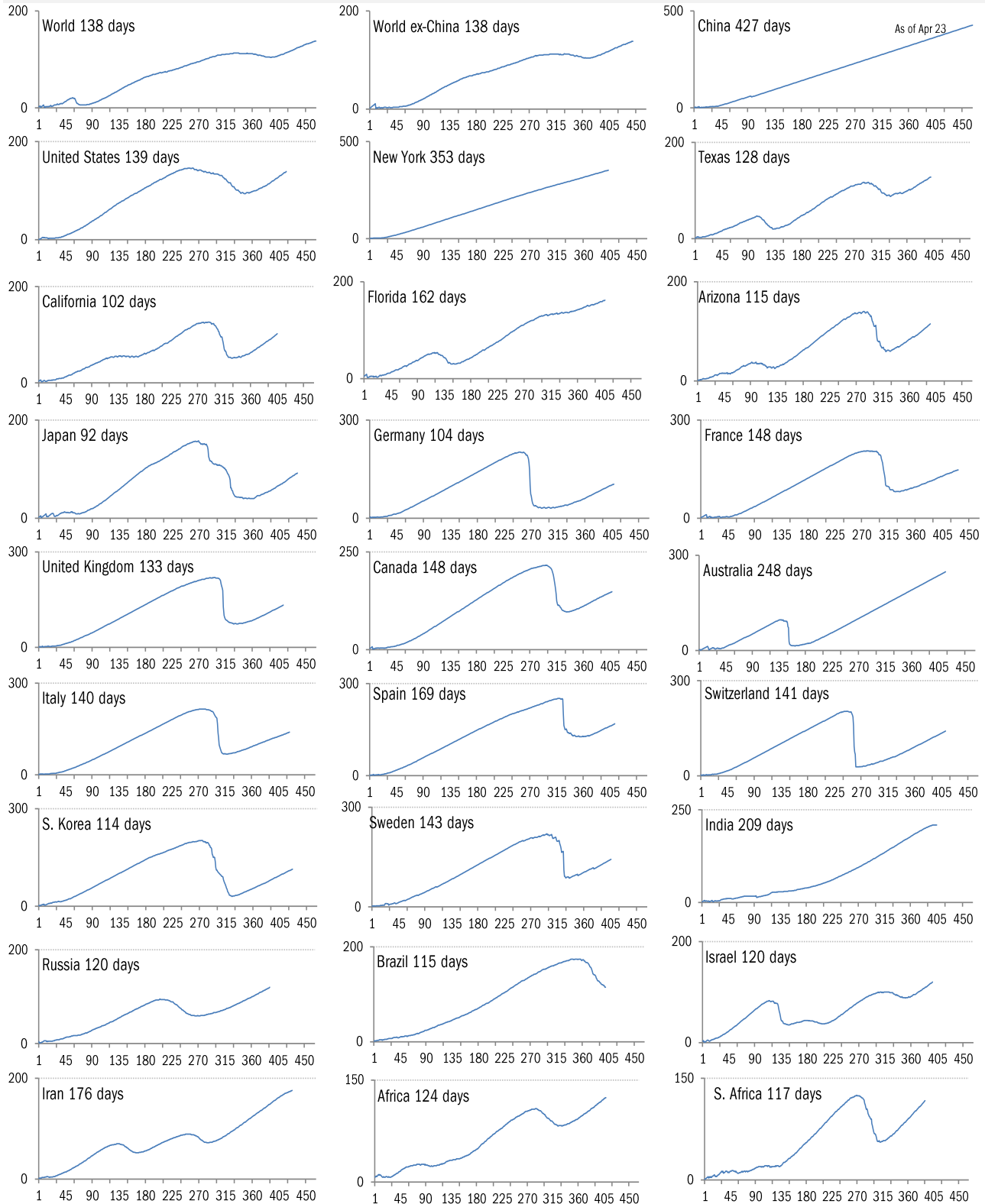


Source: [Johns Hopkins](#), TrendMacro calculations

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

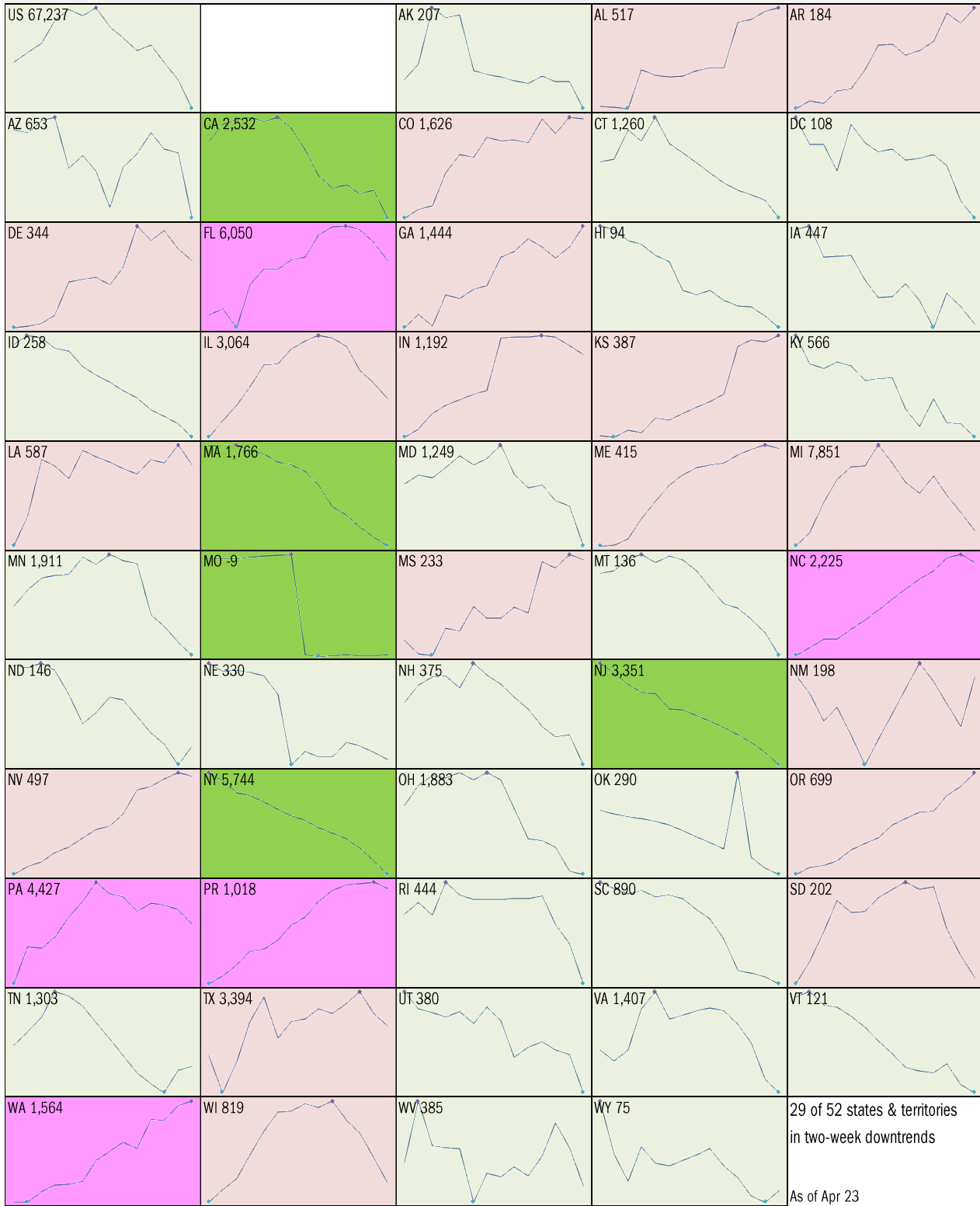
Vertical: days to double deaths Horizontal: days from first death

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

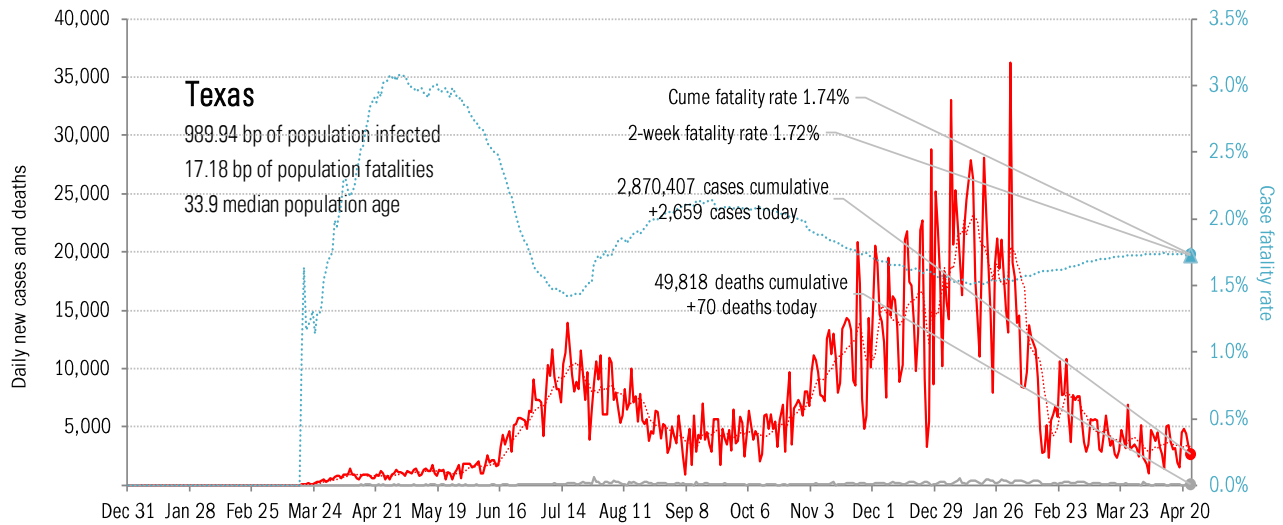
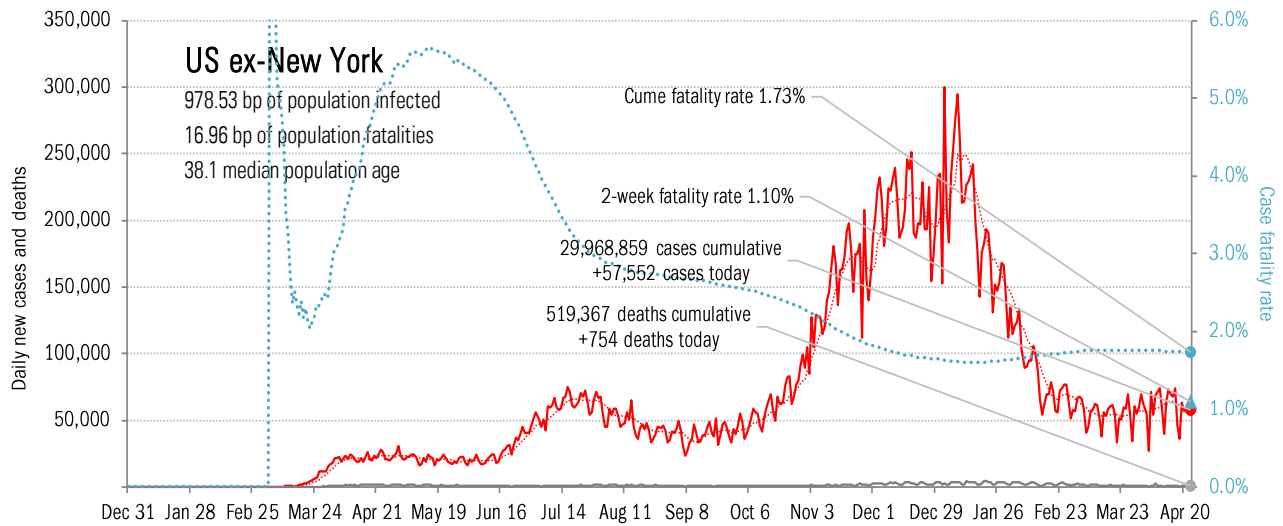
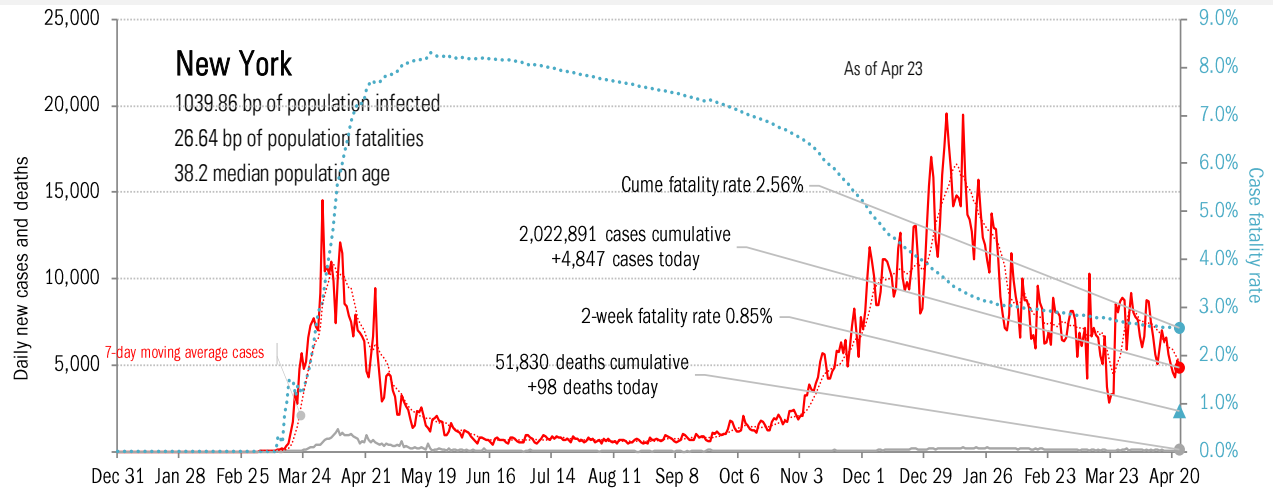
14-day moving average, last 14 days Most recent value displayed ● High ● Low

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



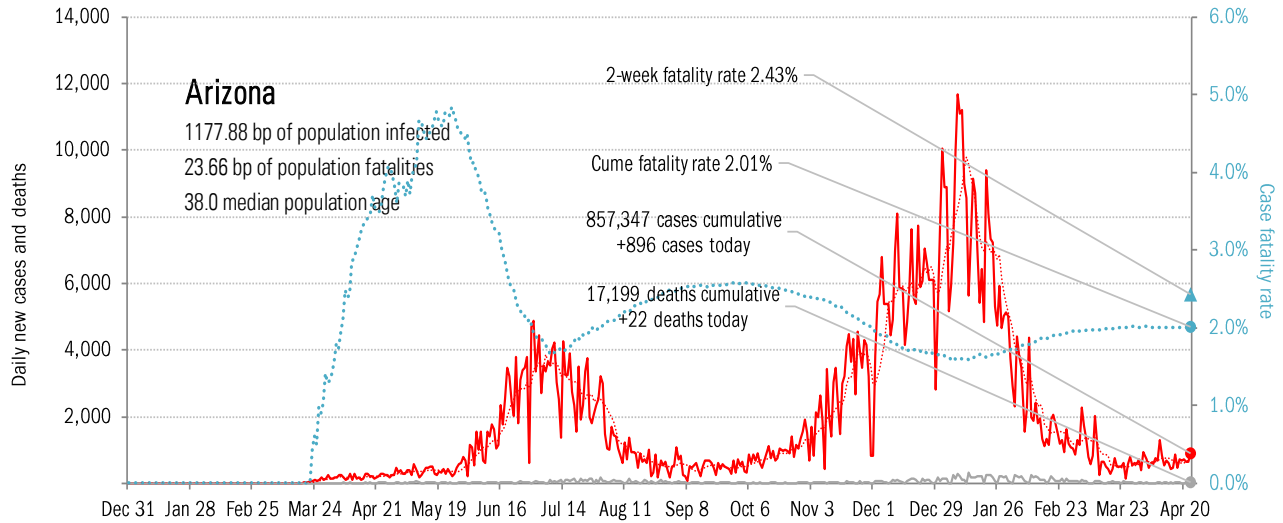
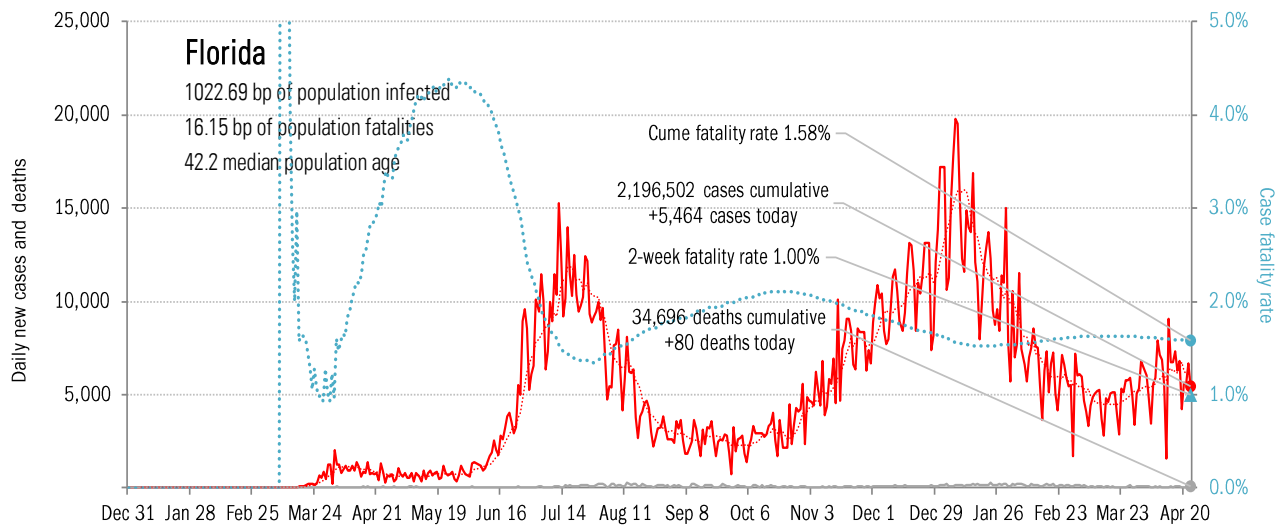
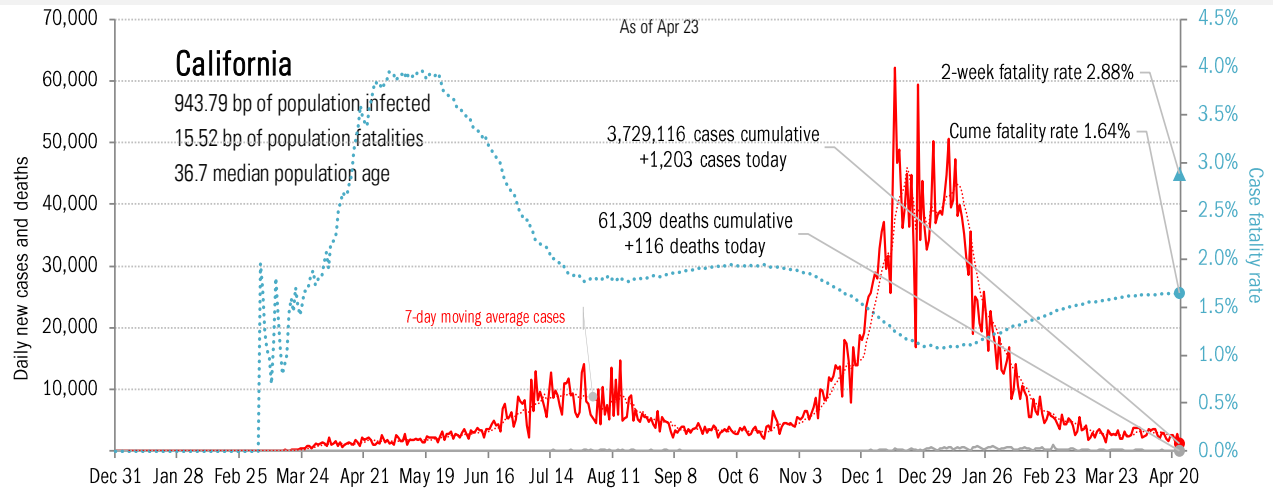
Source: [Covid Act Now](#), TrendMacro calculations

From Ground Zero to the Rio Grande



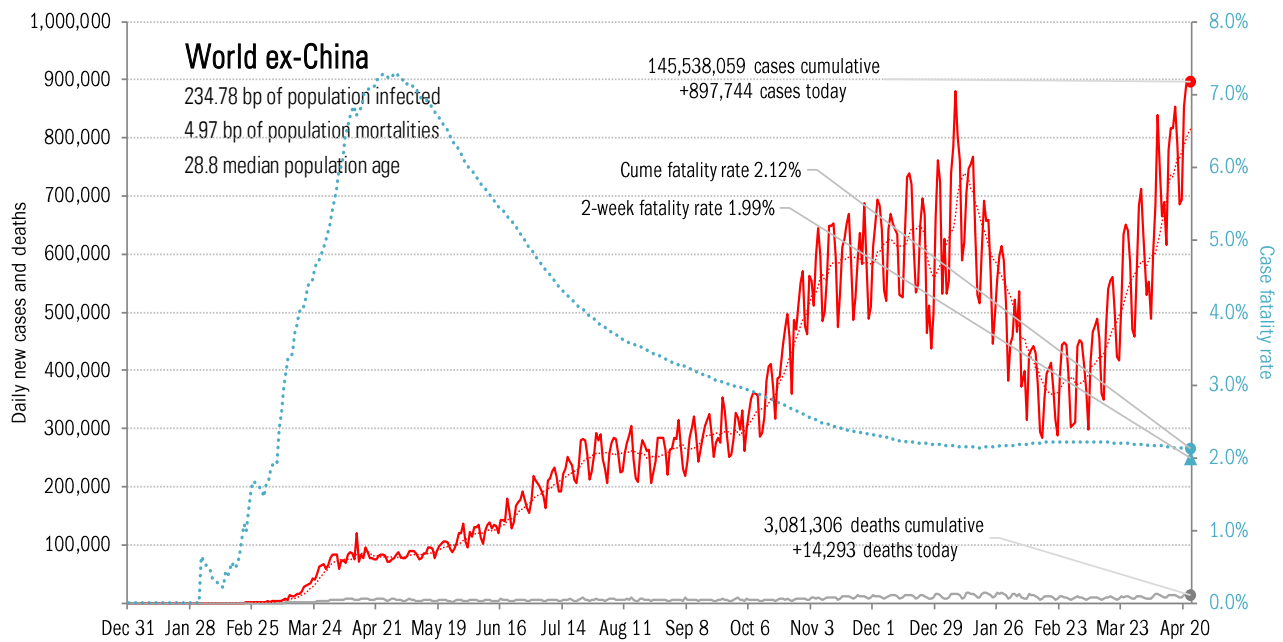
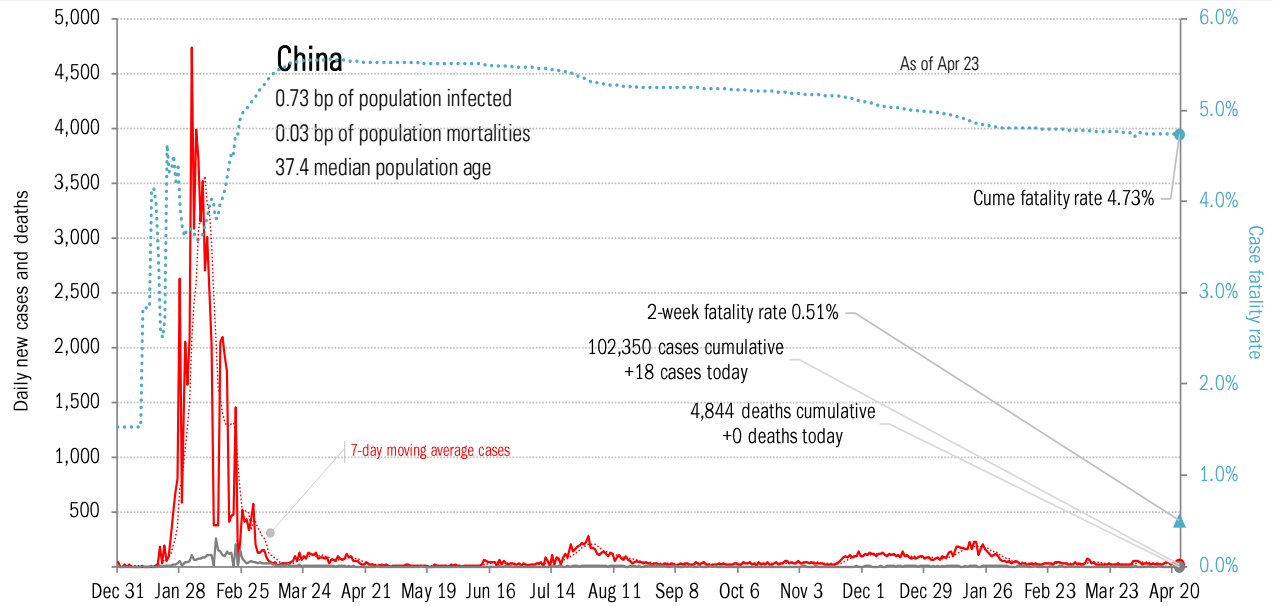
Source: [Johns Hopkins](#), TrendMacro calculations

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



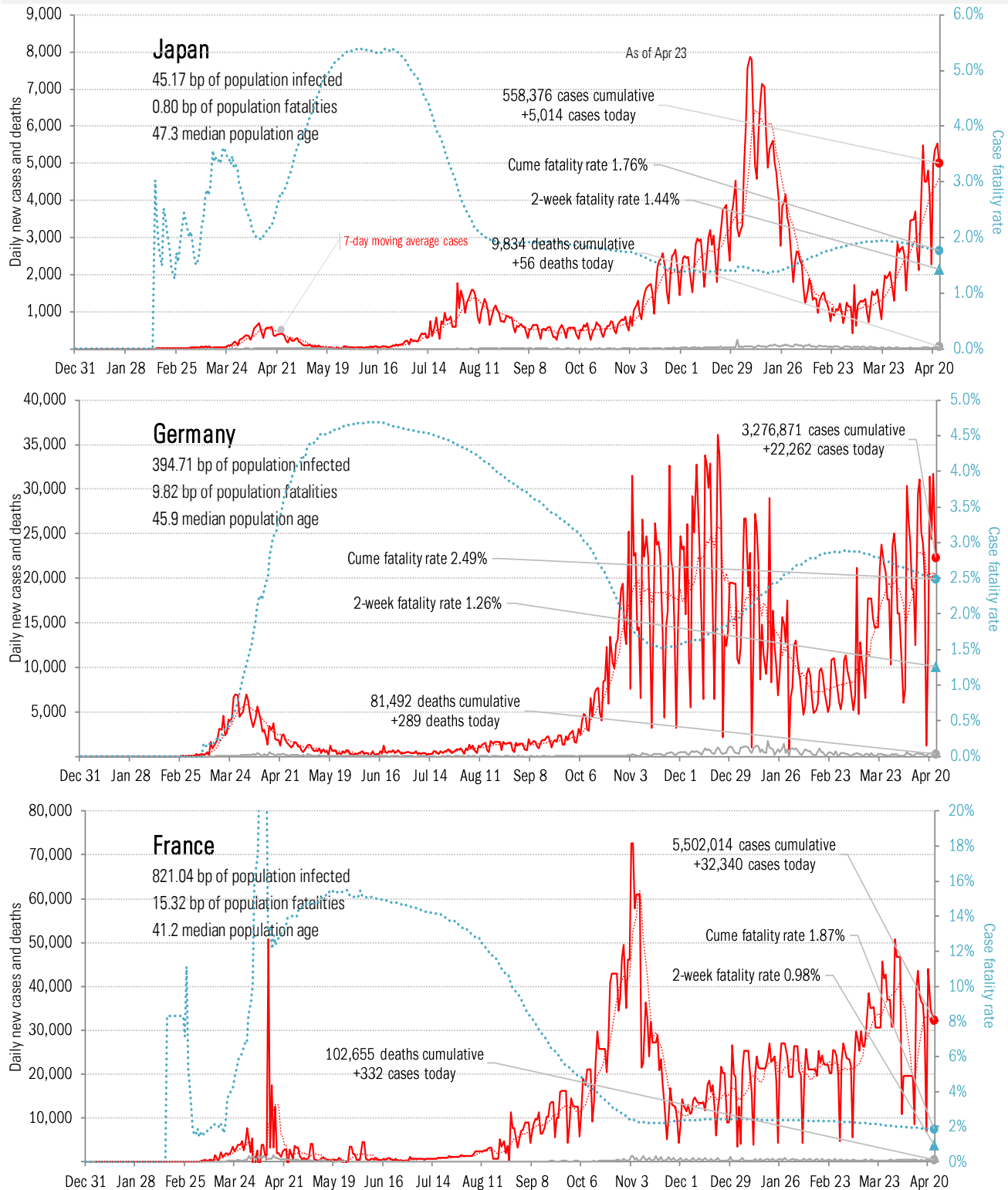
Source: [Johns Hopkins](#), TrendMacro calculations

Patient zero... and then everyone else



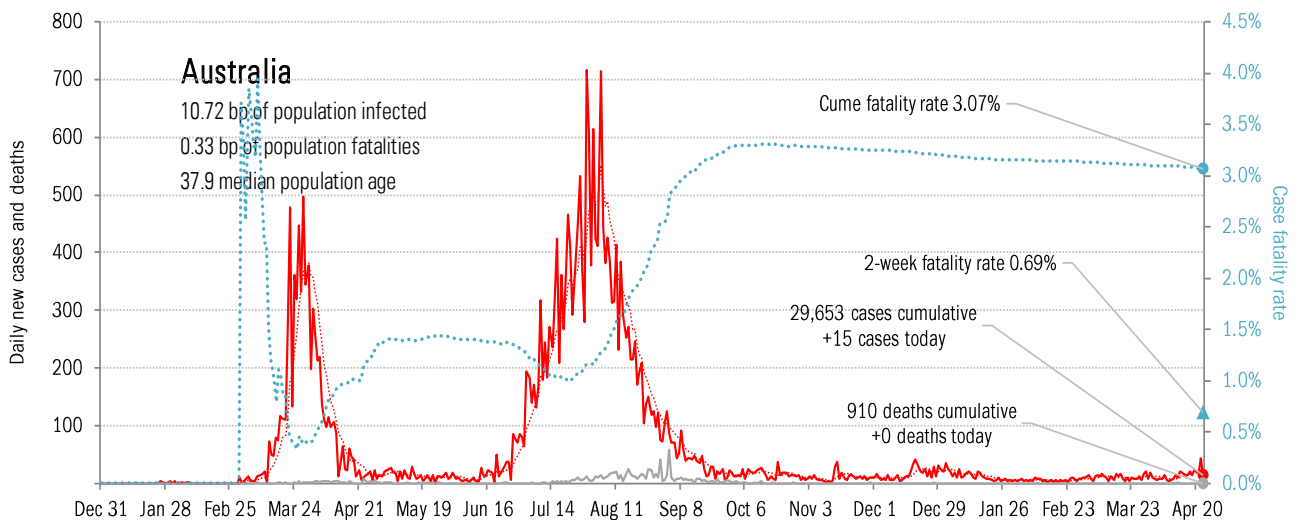
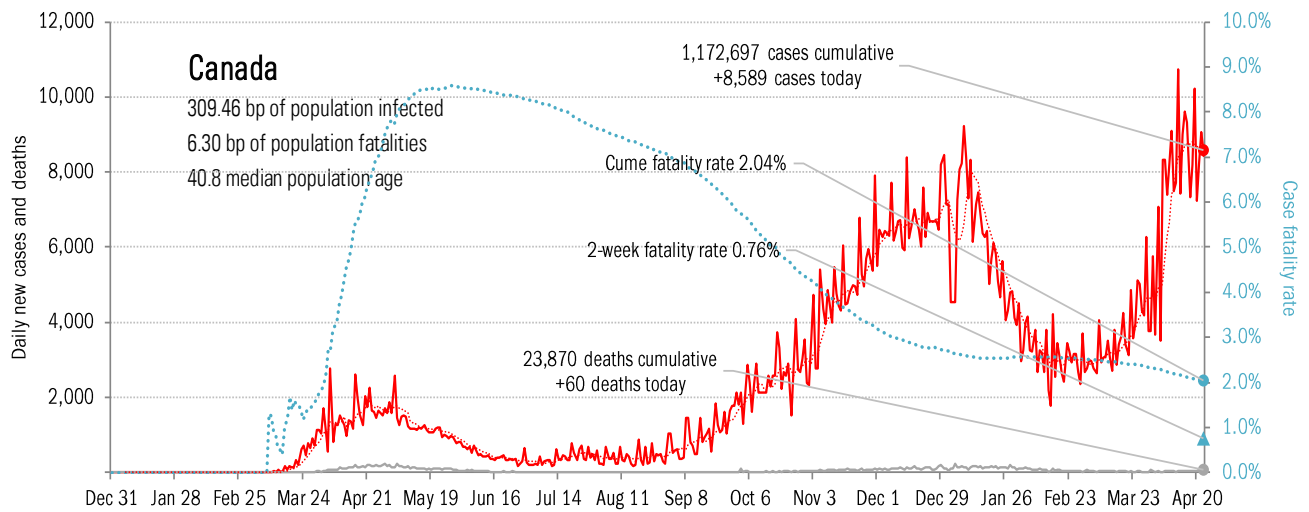
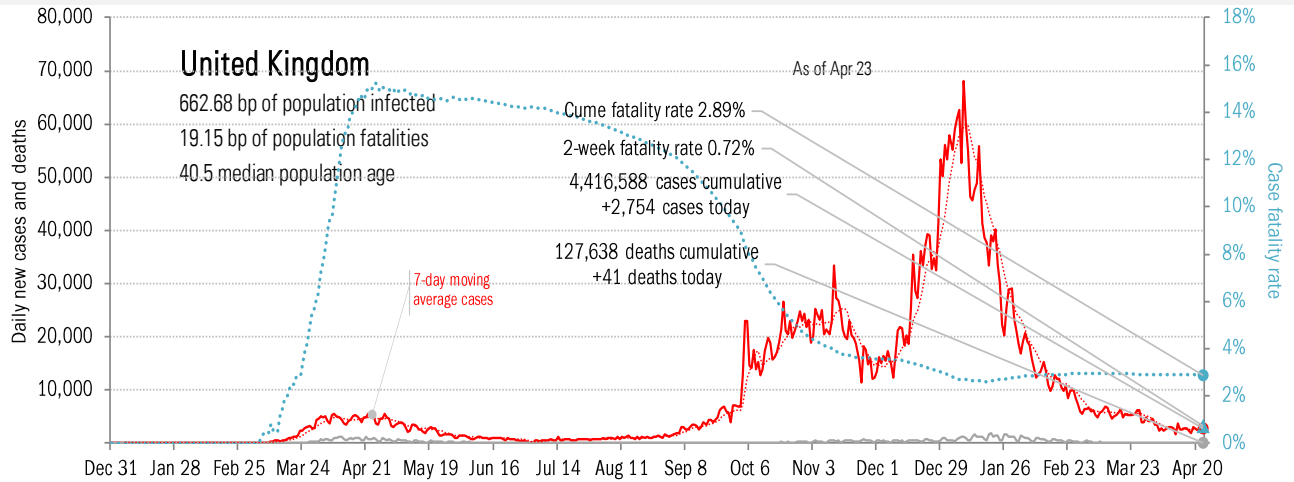
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the largest economies



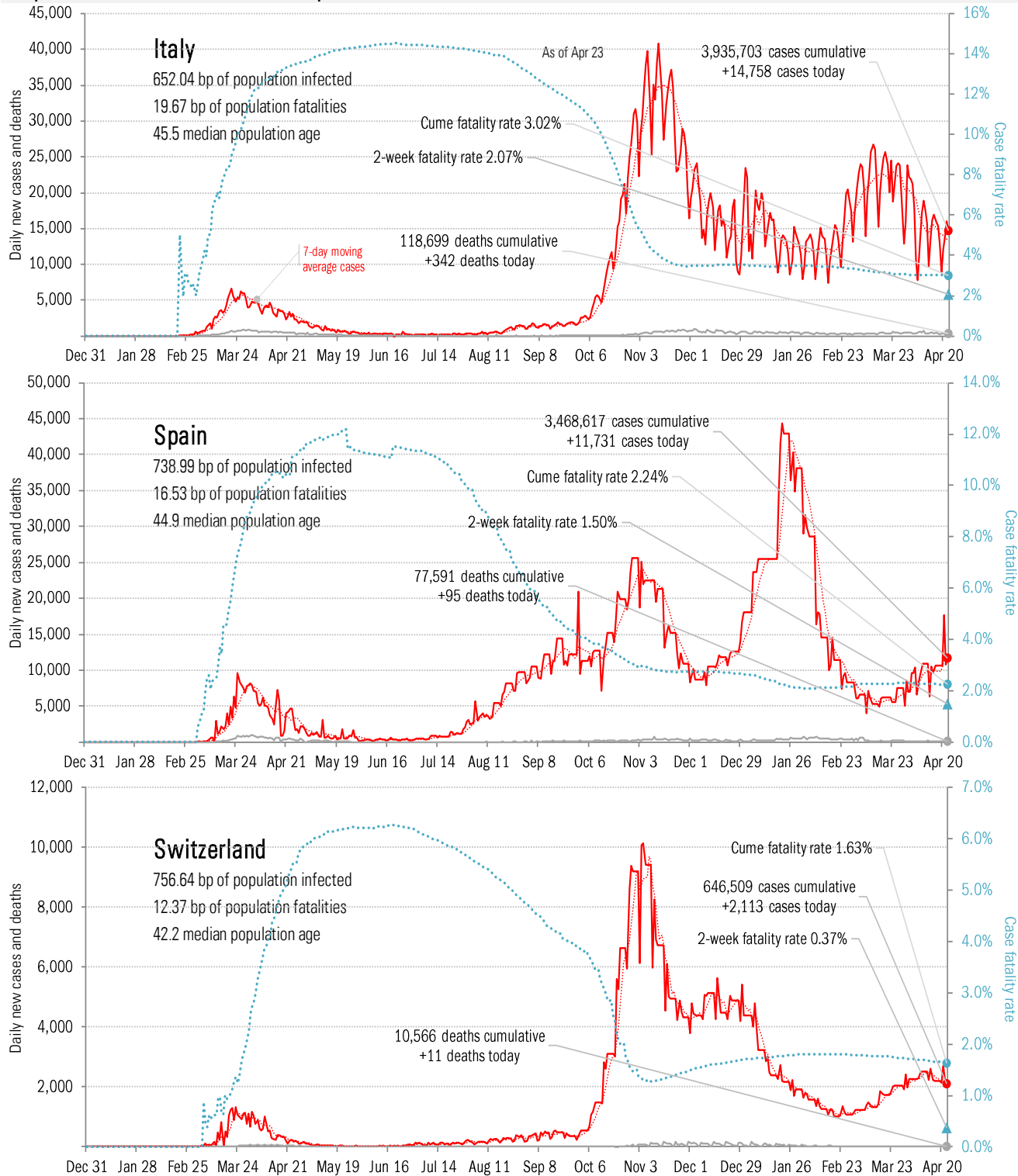
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in The Anglosphere



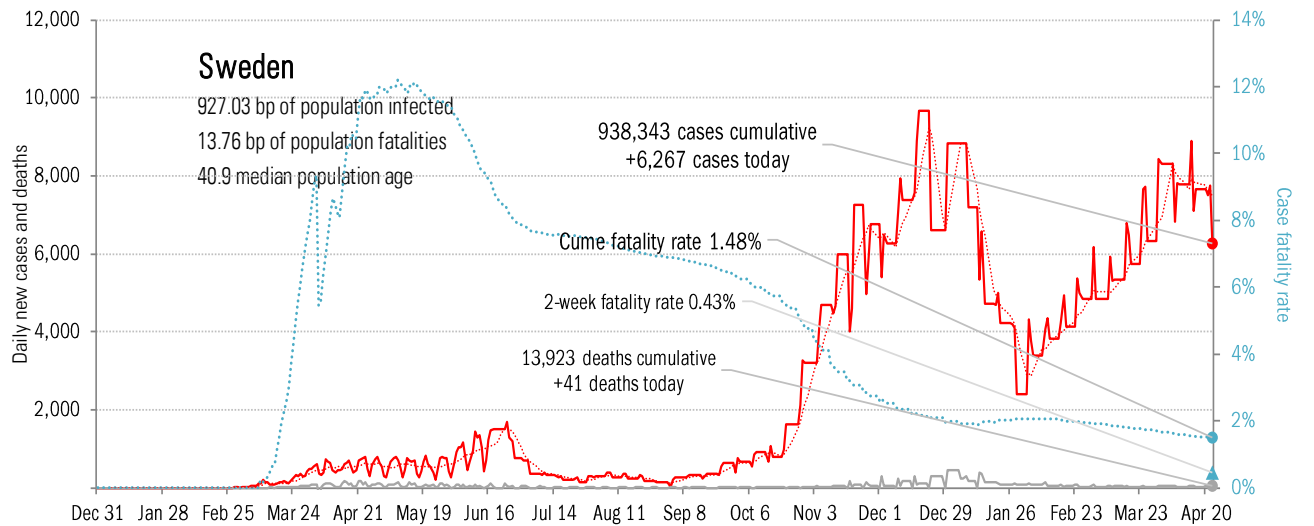
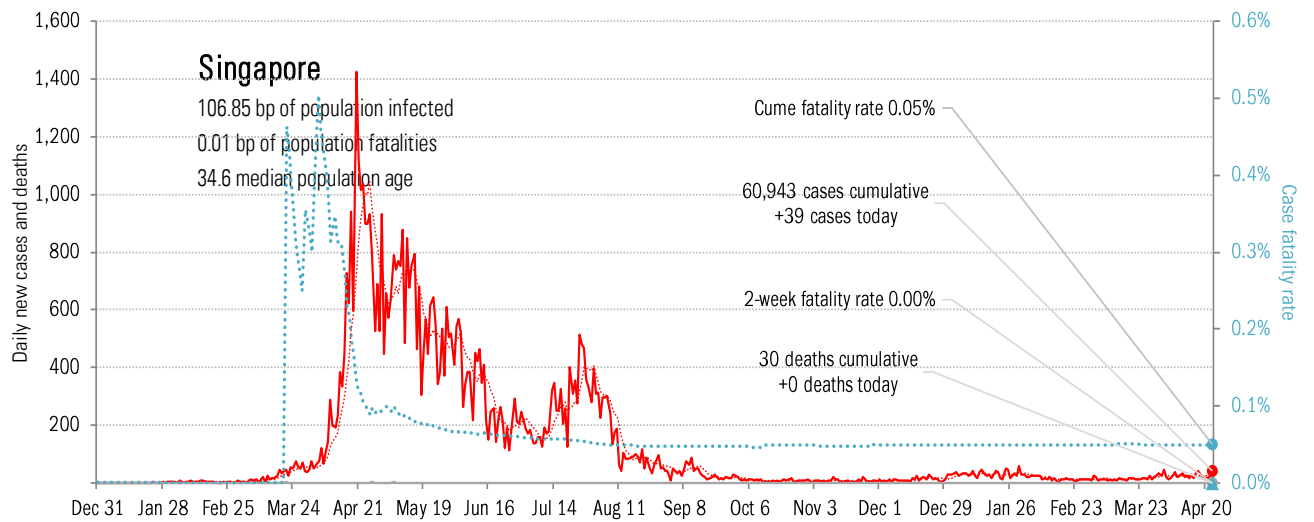
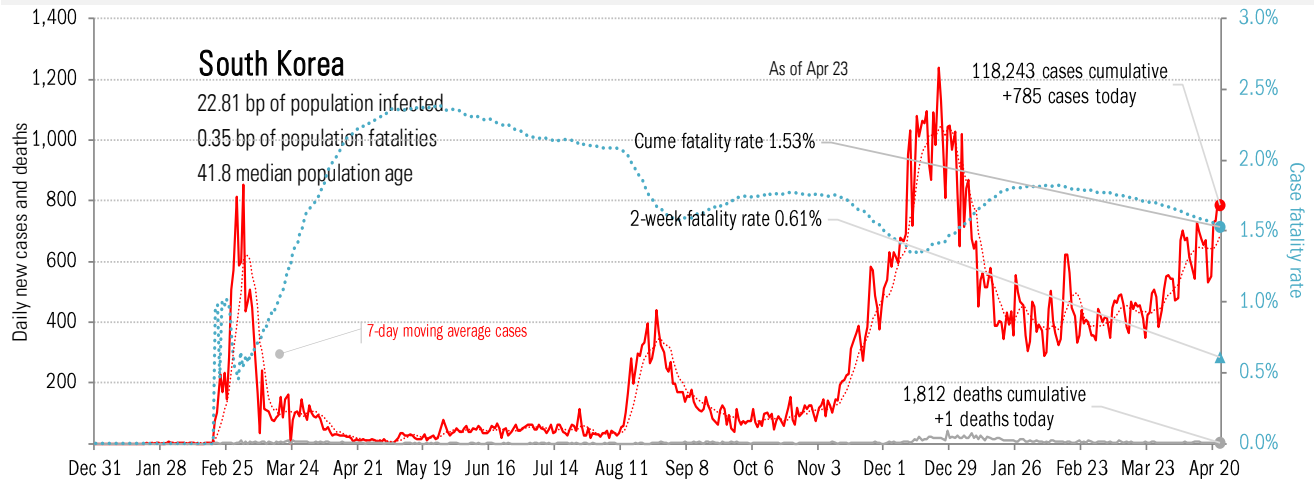
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in continental Europe



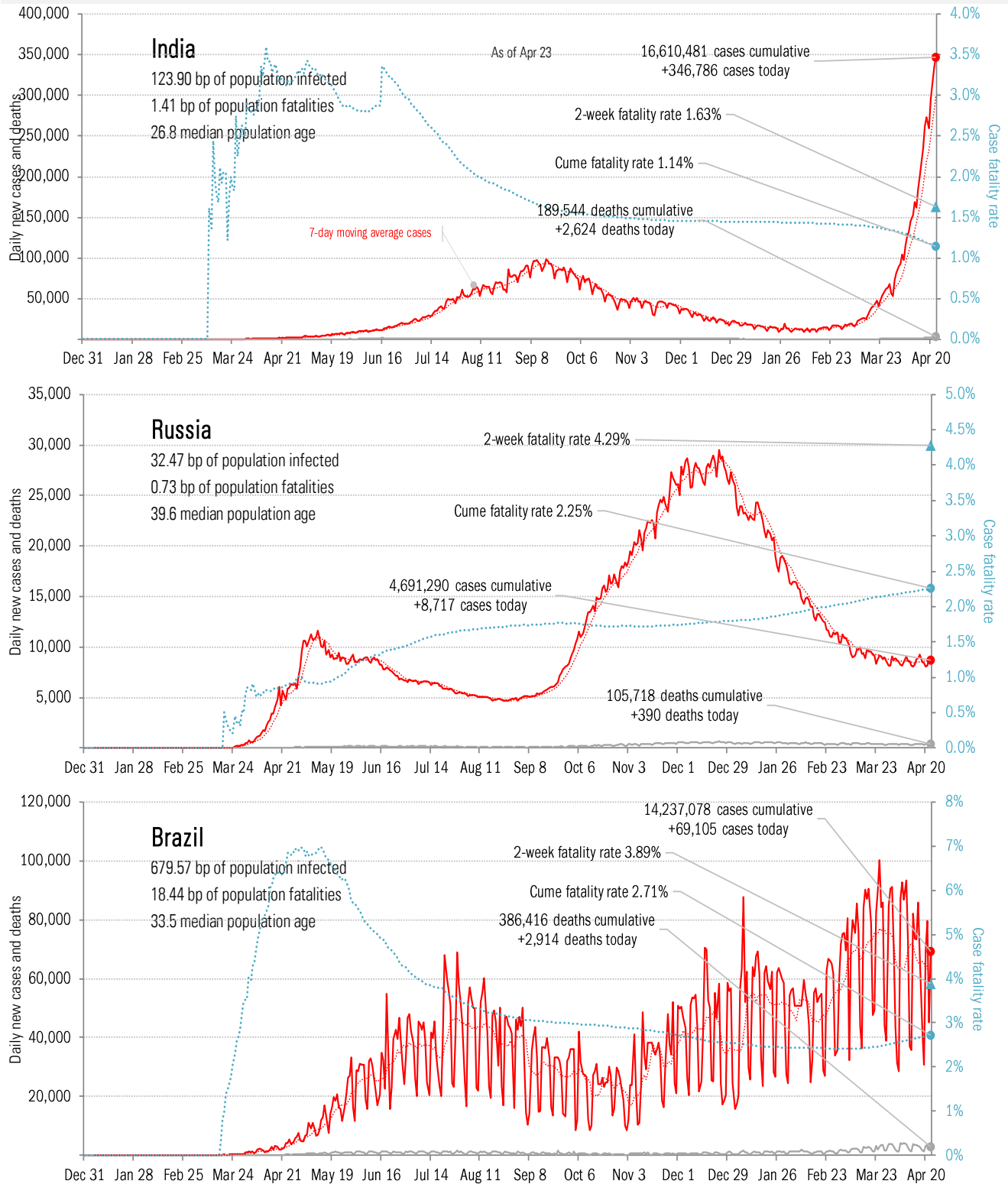
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in other hot-spots



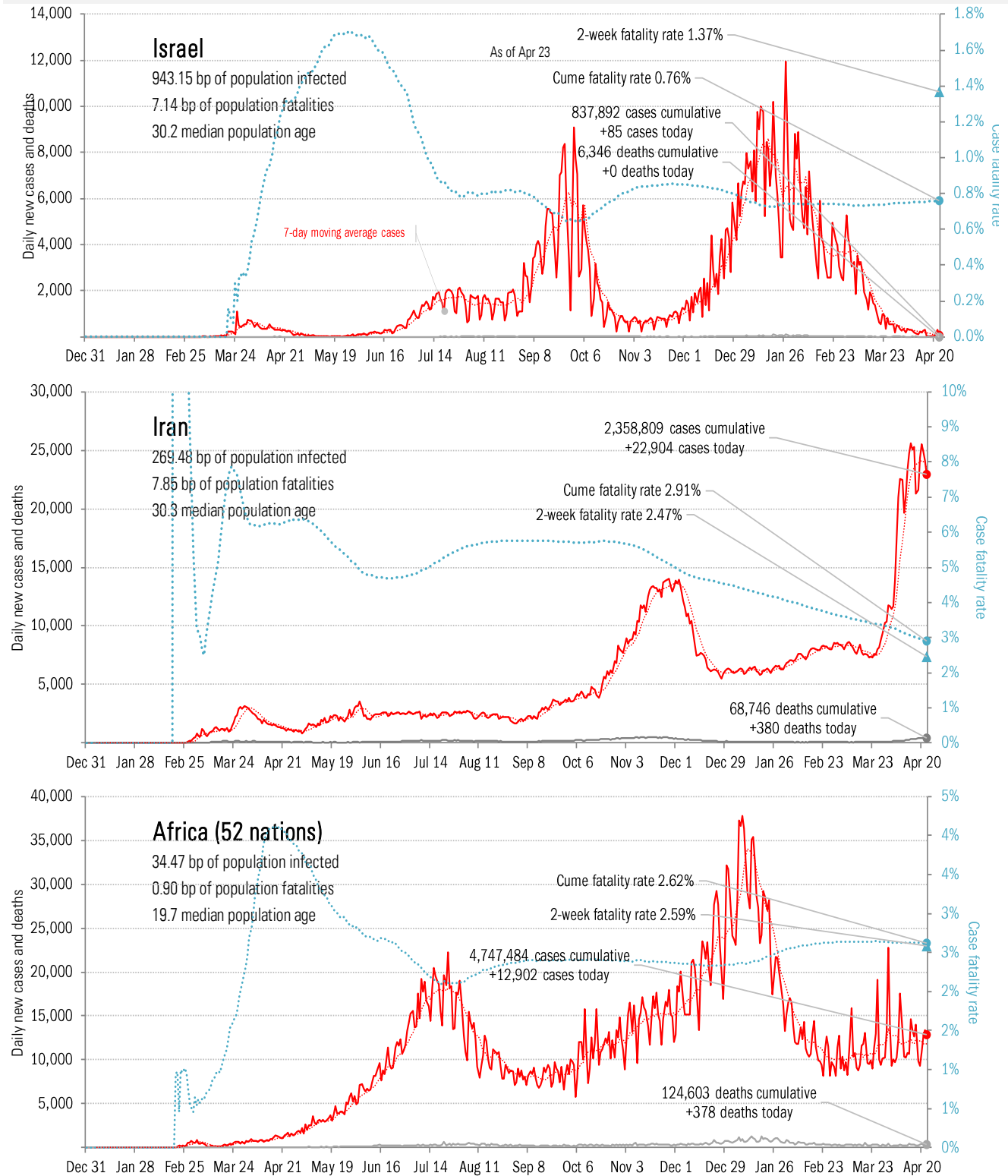
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the BRICs ex-China



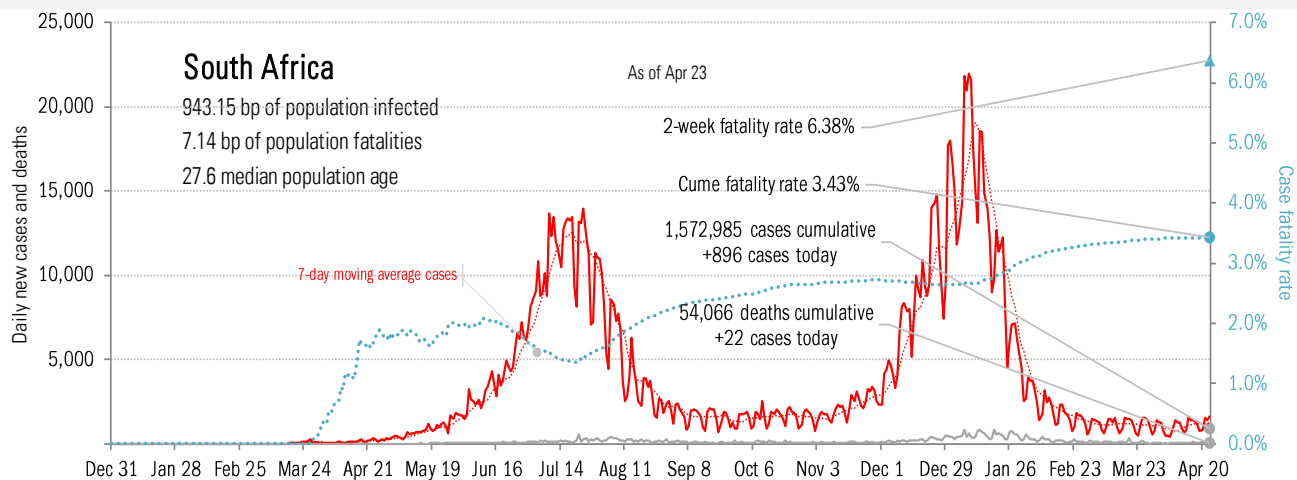
Source: [Johns Hopkins](#), TrendMacro calculations

Impact in the Middle East and Africa



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

Impact in Africa, continued



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