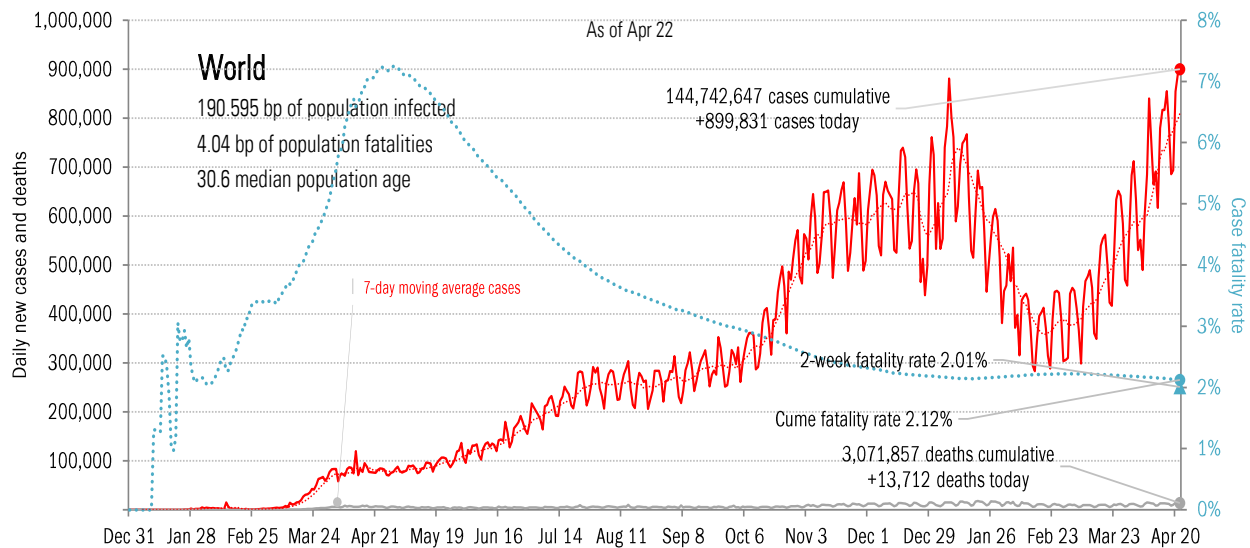
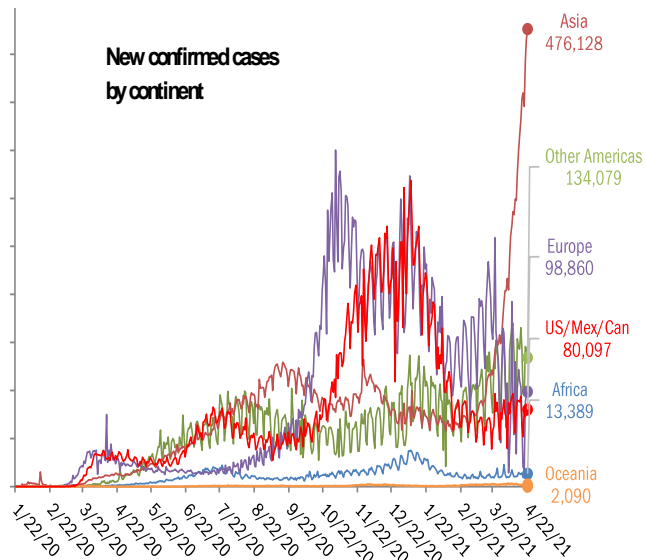


## Data Insights: Covid-2019 Monitor

Friday, April 23, 2021

### The global scorecard

The worst ten countries			
New cases		New Deaths	
India	+332,921	India	+2,263
United States	+67,257	Brazil	+2,027
Turkey	+54,791	United States	+943
Brazil	+45,178	Poland	+695
France	+33,445	Peru	+650
Germany	+31,721	Argentina	+537
Argentina	+27,216	Mexico	+482
Iran	+24,092	Ukraine	+476
Colombia	+19,306	Iran	+453
Ukraine	+16,357	Colombia	+430
<b>+652,284</b>		<b>+8,956</b>	
World	+899,831	World	+13,712
Top ten	72%	Top ten	65%



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

#### For more information contact us:

Donald Luskin: 312 273 6766 [don@trendmacro.com](mailto:don@trendmacro.com)  
 Thomas Demas: 704 552 3625 [tdemas@trendmacro.com](mailto:tdemas@trendmacro.com)

# The US scorecard

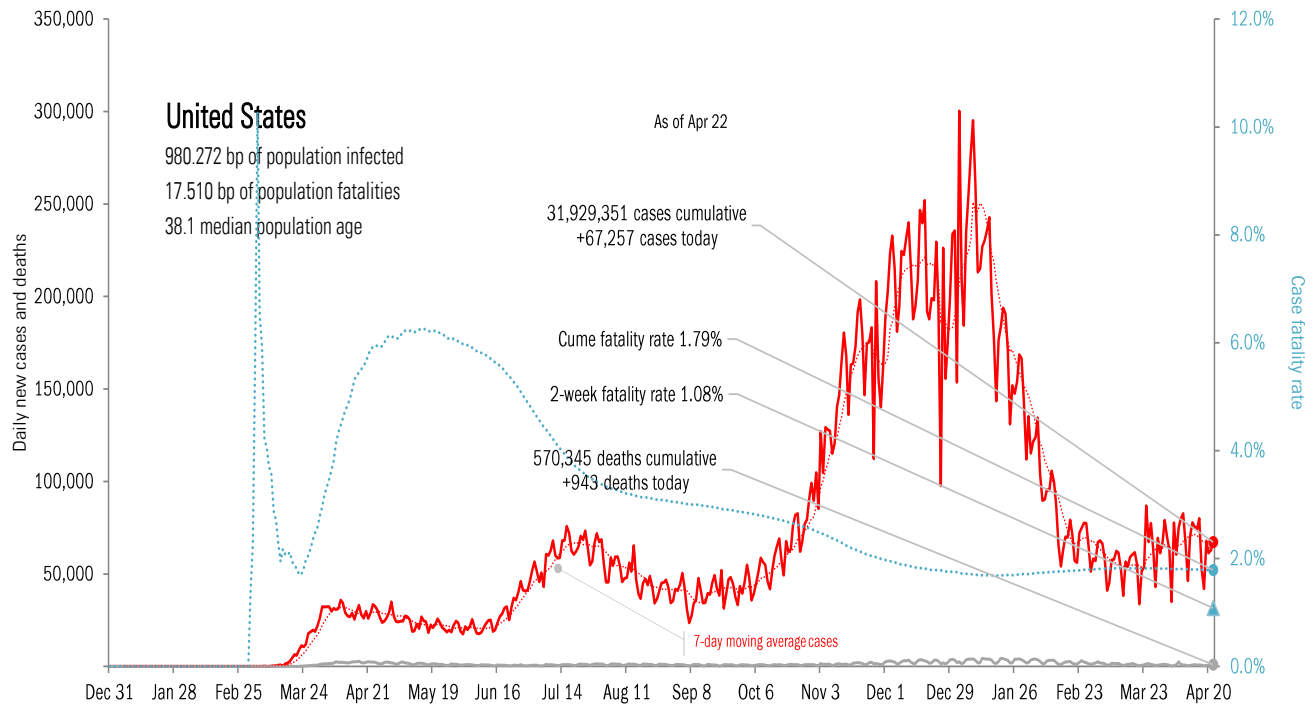
## The ten worst US states

New cases			New Deaths			New in hospital			Curre cases			Curre deaths			Curre in hospital			Hospital use		ICU use	
FL	+6,684		MI	+121		FR	+215		CA	3,727,913		CA	61,309		TX	233,223		RI	92%	MI	31%
MI	+5,511		CA	+116		IL	+106		TX	2,867,748		NY	51,830		CA	227,481		MA	84%	MD	26%
NY	+5,238		NY	+98		MI	+41		FL	2,191,038		TX	49,818		FL	161,133		MD	82%	MN	20%
PA	+4,078		FL	+80		GA	+38		NY	2,018,044		FL	34,696		NY	124,095		PA	82%	RI	19%
TX	+3,429		TX	+70		TN	+36		IL	1,312,620		PA	25,869		GA	98,306		MI	82%	NY	18%
NJ	+3,230		PA	+50		NY	+30		PA	1,124,659		NJ	25,301		PA	80,126		CT	81%	PA	16%
IL	+3,161		GA	+46		CH	+30		GA	1,089,497		IL	24,056		CH	79,205		MO	80%	CO	14%
CA	+2,825		IL	+38		WI	+29		CH	1,060,119		GA	19,875		IL	72,842		FL	79%	IL	14%
CO	+2,361		NJ	+30		KY	+28		NJ	990,580		CH	19,033		KY	70,459		MN	79%	DC	14%
NC	+2,236		NC	+25		WA	+27		NC	954,765		MI	18,251		MI	59,811		SC	79%	ME	13%
<b>+38,753</b>			<b>+674</b>			<b>+580</b>			<b>17,336,983</b>			<b>330,038</b>			<b>1,206,681</b>						
All states	+67,257			+943			+477		All states	31,929,351			570,345			2,153,974		All states	70%		67%
Top ten	58%			71%			122%		Top ten	54%			58%			56%		Median	73%		10%

Some states not reporting

## Five most improved US states

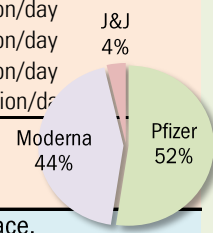
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most pop immunity growth	
TX	-998	NJ	-35	NJ	-113	NE	+77 bp
KS	-577	PA	-20	TX	-74	WI	+71 bp
MI	-462	CK	-19	CO	-56	ME	+70 bp
PA	-459	NC	-18	FL	-51	DE	+68 bp
NJ	-245	IN	-10	PA	-47	KS	+68 bp



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

# Rolling out the vaccines in the US and the world

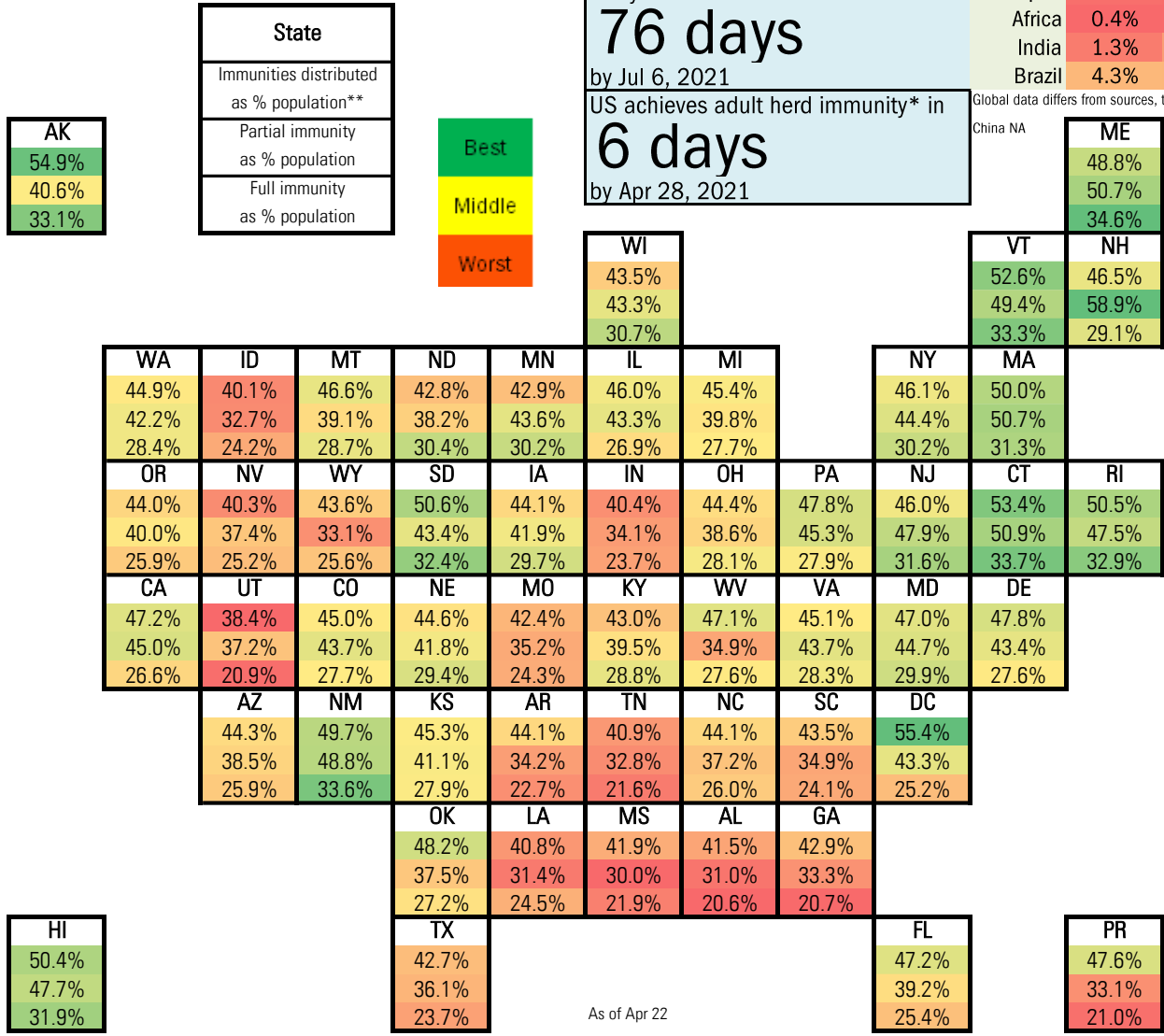
US overall	Over last day	Immunity	Full	Partial
293.69 million doses distributed	+4.36 million/day	US	26.2%	40.2%
226.77 million doses administered	+3.06 million/day	UK	15.9%	48.8%
139.86 million persons partially immunized	+1.37 million/day	France	7.1%	19.1%
92.42 million persons fully immunized	+1.69 million/day	Spain	7.7%	21.1%
7.78 million shots long-term care residents/staff	+0.002 million/day	Germany	6.8%	21.4%
<b>77.2% of distributed doses administered</b>		Italy	7.9%	19.0%
<b>41.9% of US pop partial</b>	<b>27.7% full immunity</b>	Australia	1.0%	0.6%
<b>100% of LTC partial</b>	<b>64.0% full immunity</b>	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  
**76 days**  
by Jul 6, 2021

US achieves adult herd immunity\* in  
**6 days**  
by Apr 28, 2021

Global data differs from sources, timing



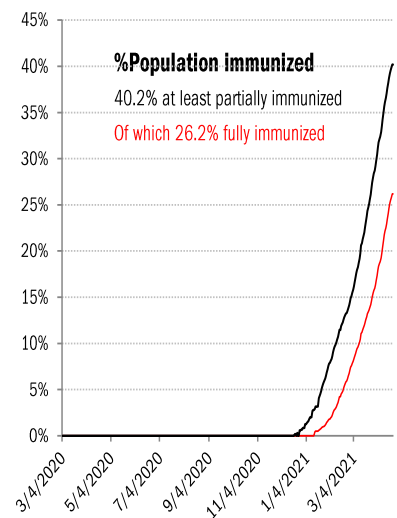
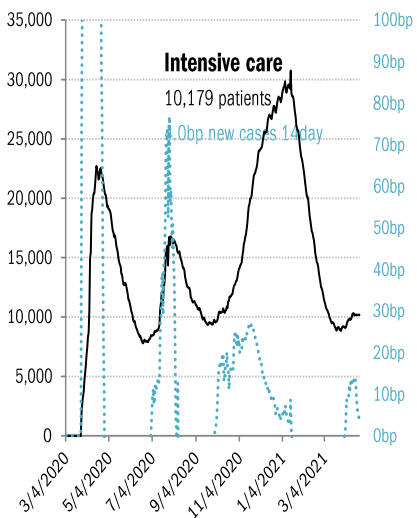
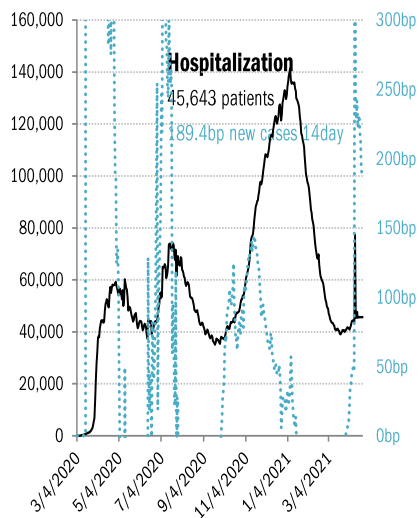
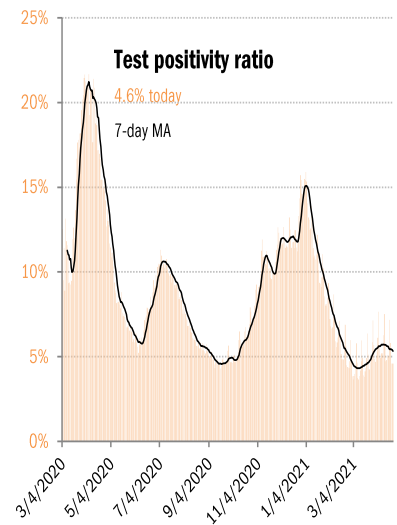
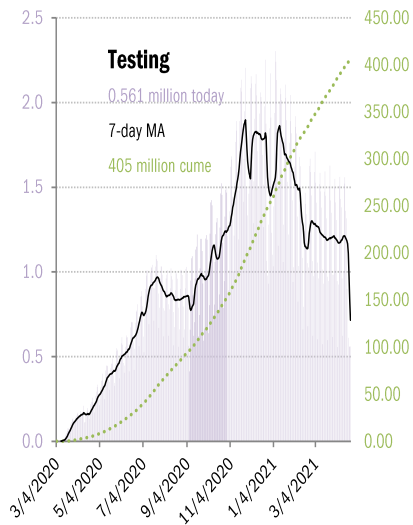
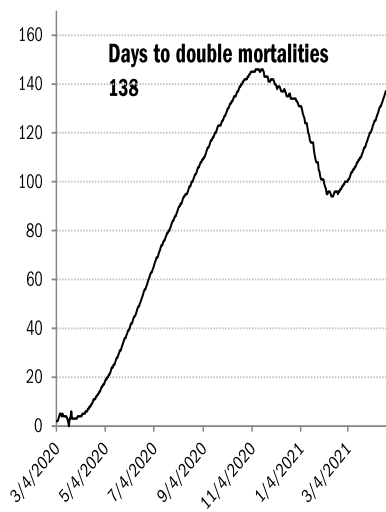
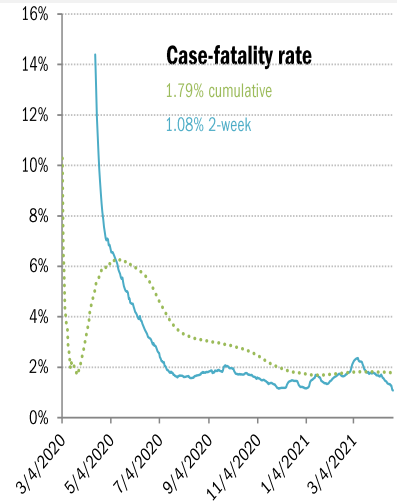
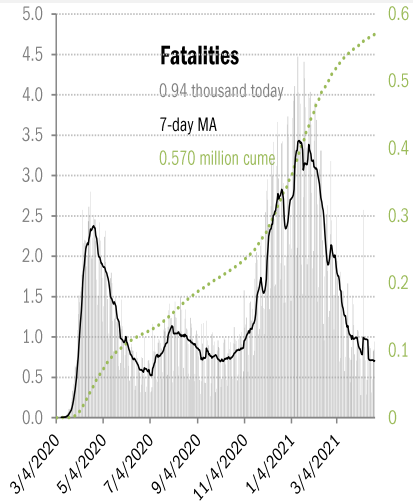
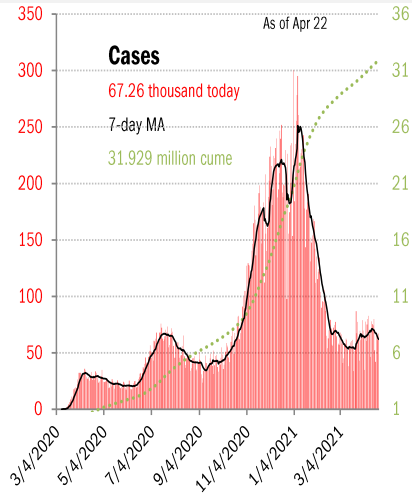
As of Apr 22

\* 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

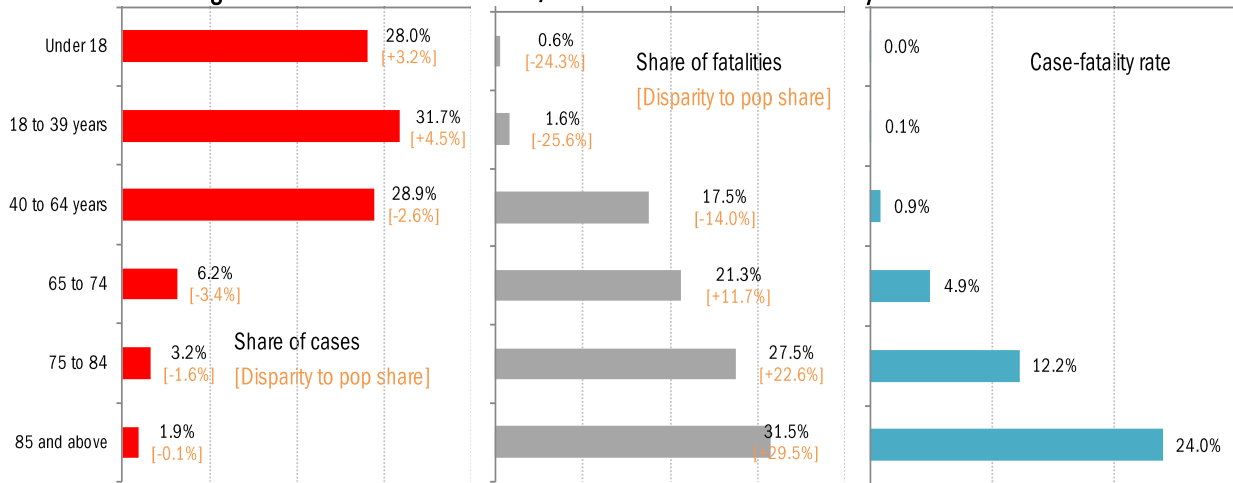
National and state-by-state data do not line up because of different sources



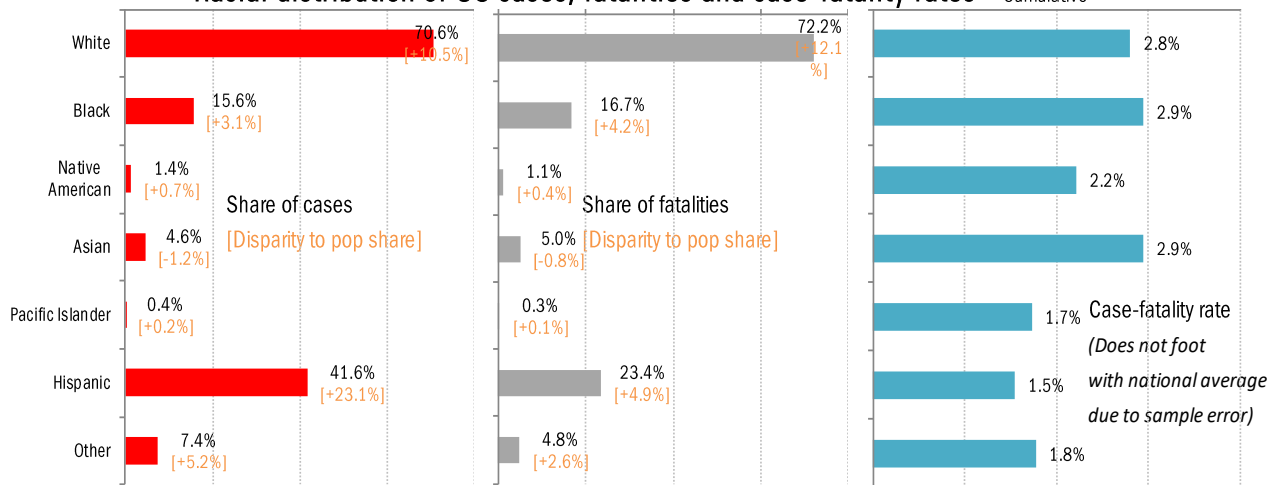
Source: [Johns Hopkins](#), [Covid Act Now](#), TrendMacro calculations

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

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

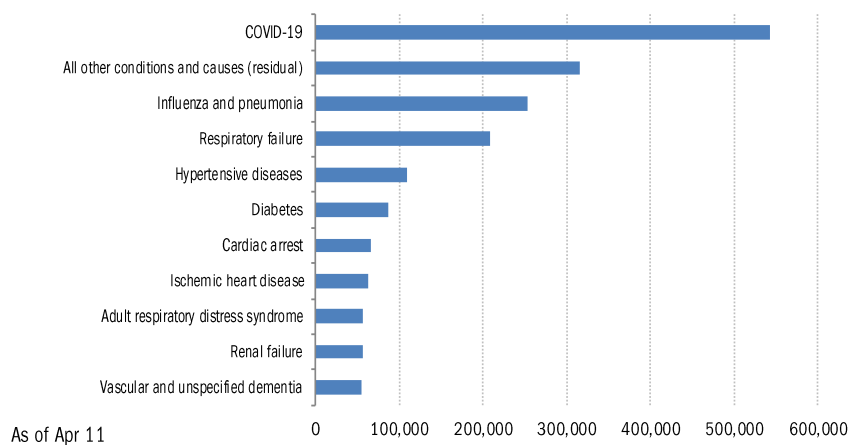


## Racial distribution of US cases, fatalities and case-fatality rates



## 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

[Cuomo Finishes the Pandemic as He Started It, by Failing Seniors](#)

Allysia Finley  
*Wall Street Journal*  
April 22, 2021

[Petition to undo Michigan Governor Whitmer's COVID executive orders has enough valid signatures](#)

Nicholas Sherman  
*Just the News*  
April 21, 2021

[Texas Ended Lockdowns and Mask Mandates. Now Locked-Down States Are Where Covid Is Growing Most](#)

Ryan McMaken  
*Mises Institute*  
April 21, 2021

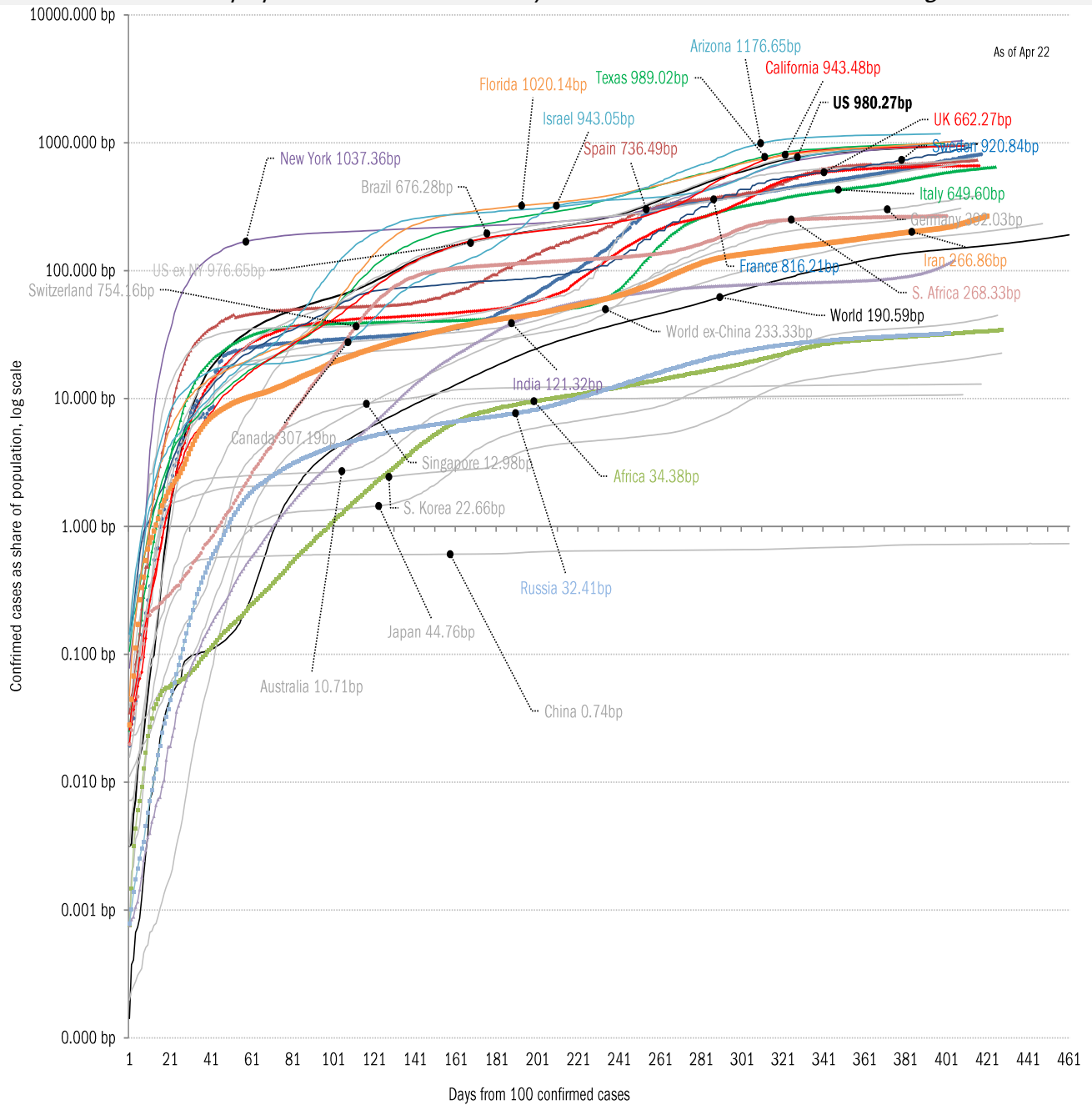
## Meme of the day

New Study Confirms  
Cats Can't Spread  
COVID-19, But Would If  
Given Option



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*

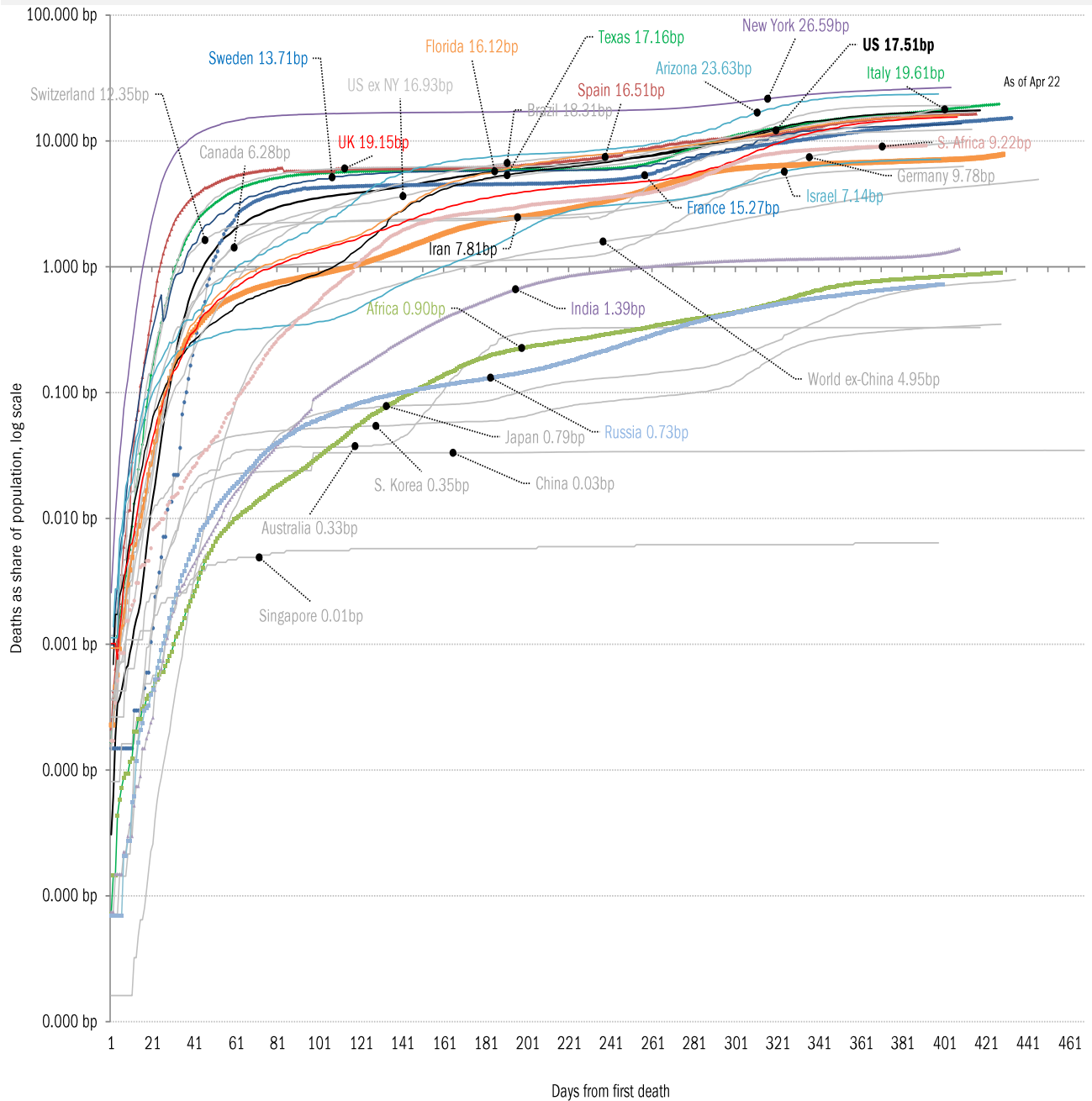


Source: [Johns Hopkins](#), TrendMacro calculations



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

## Share of deceased population from day of first fatality



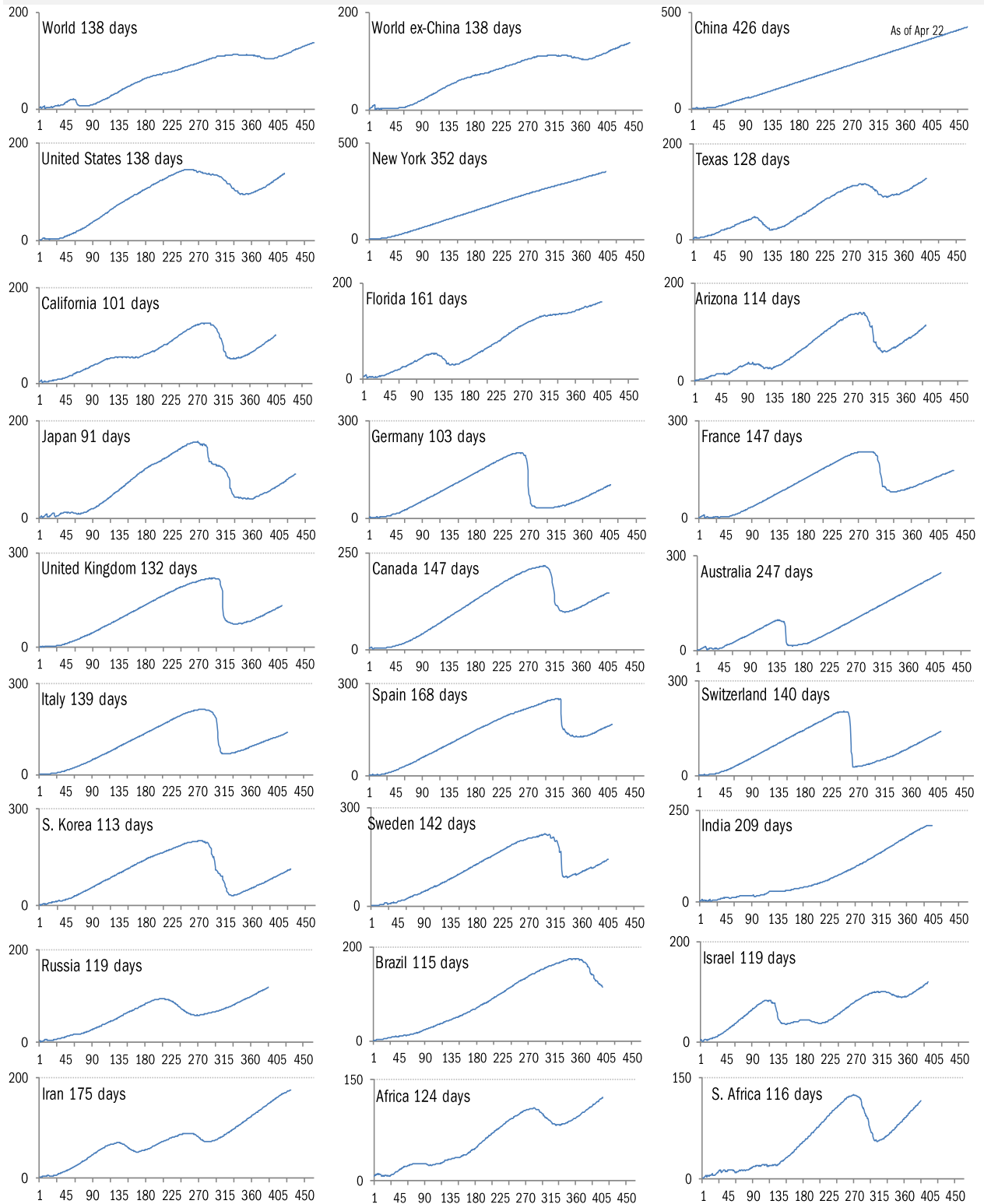
Source: [Johns Hopkins](#), TrendMacro calculations



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

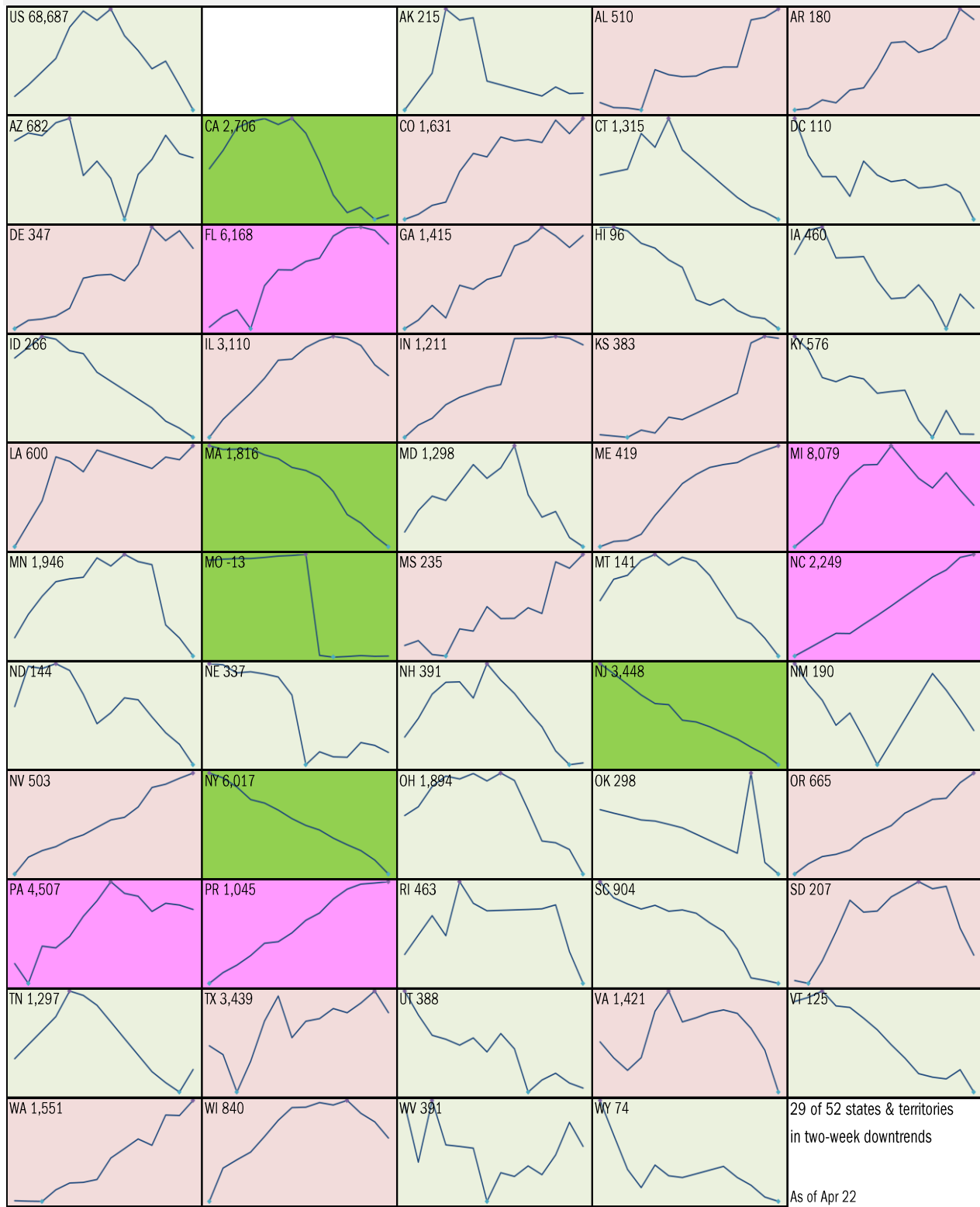


Source: [Johns Hopkins](#), TrendMacro calculations

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

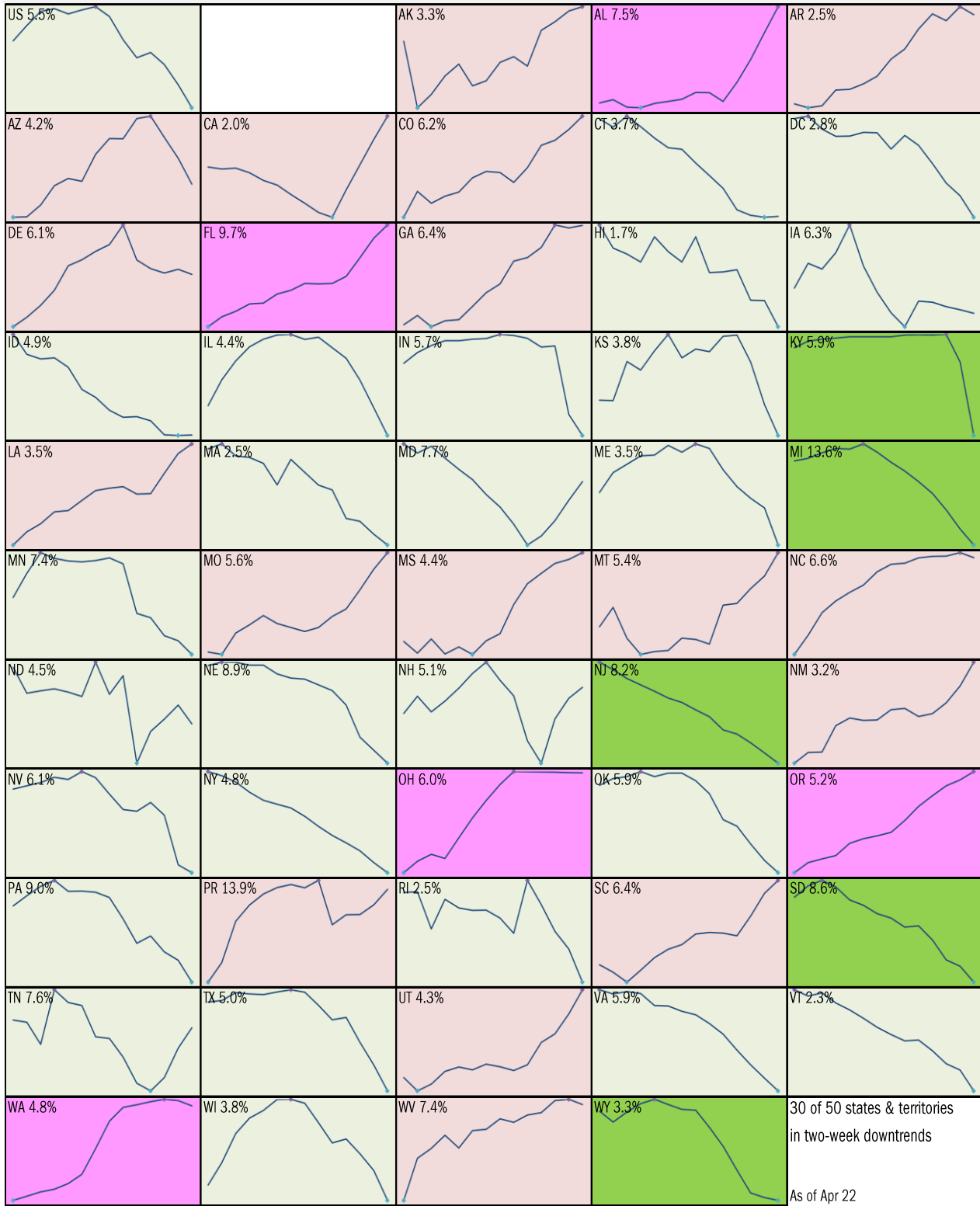


Source: [Johns Hopkins](#), TrendMacro calculations

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

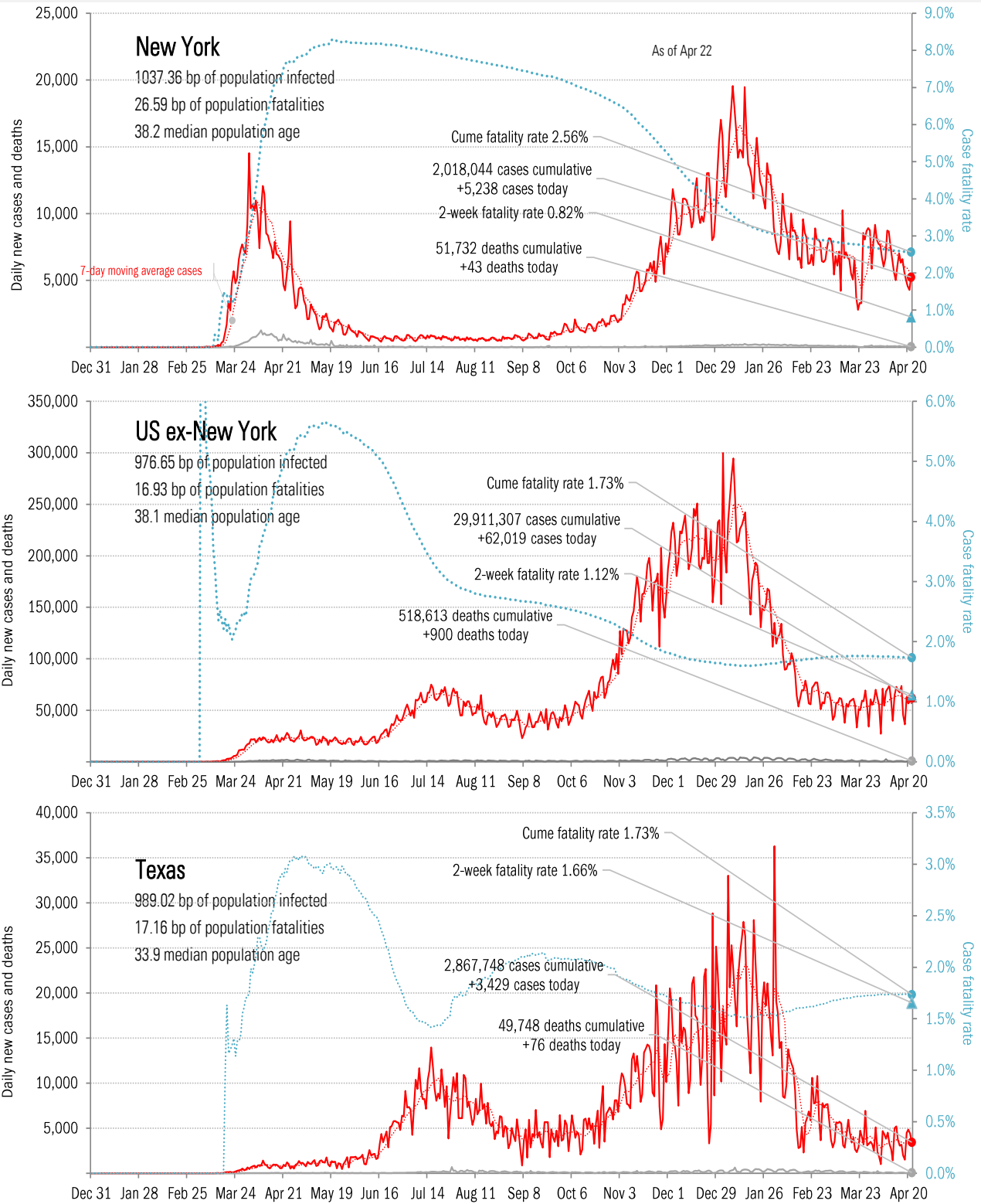
14-day moving average, last 14 days Most recent value displayed ● High ● Low

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



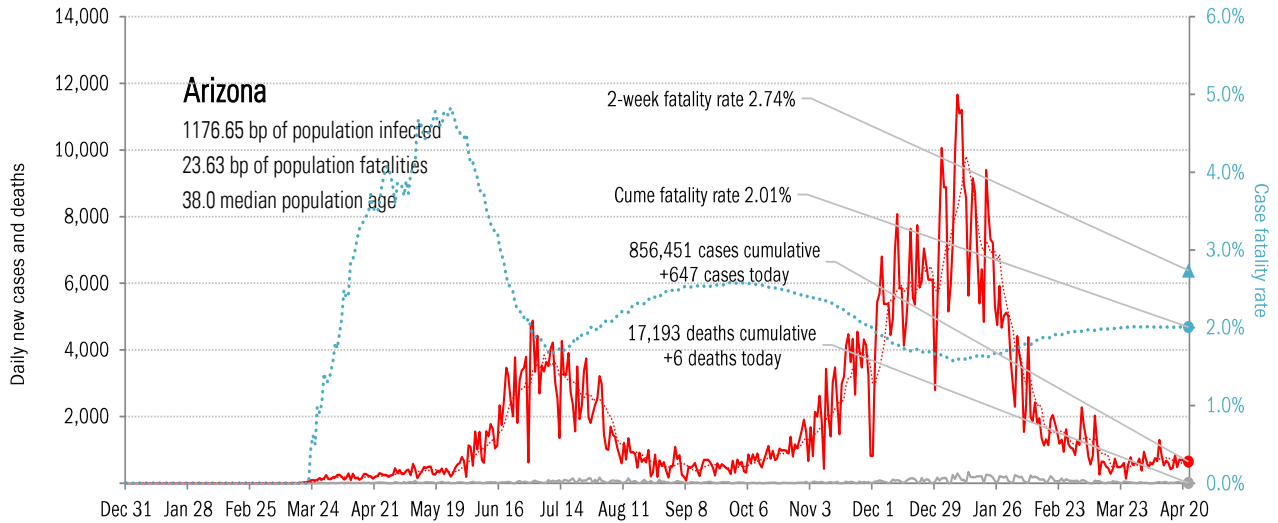
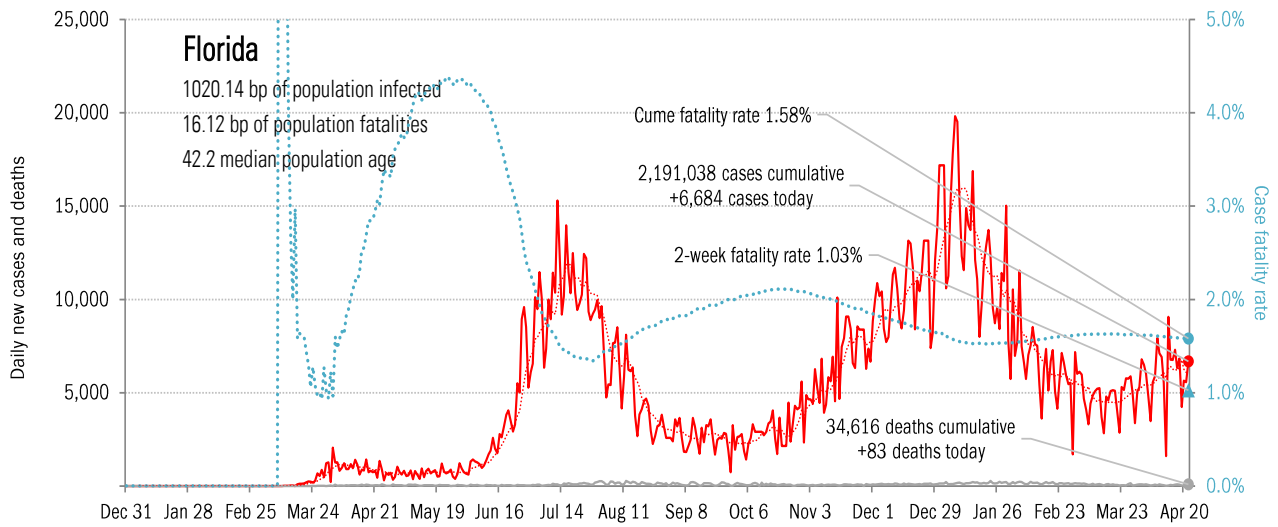
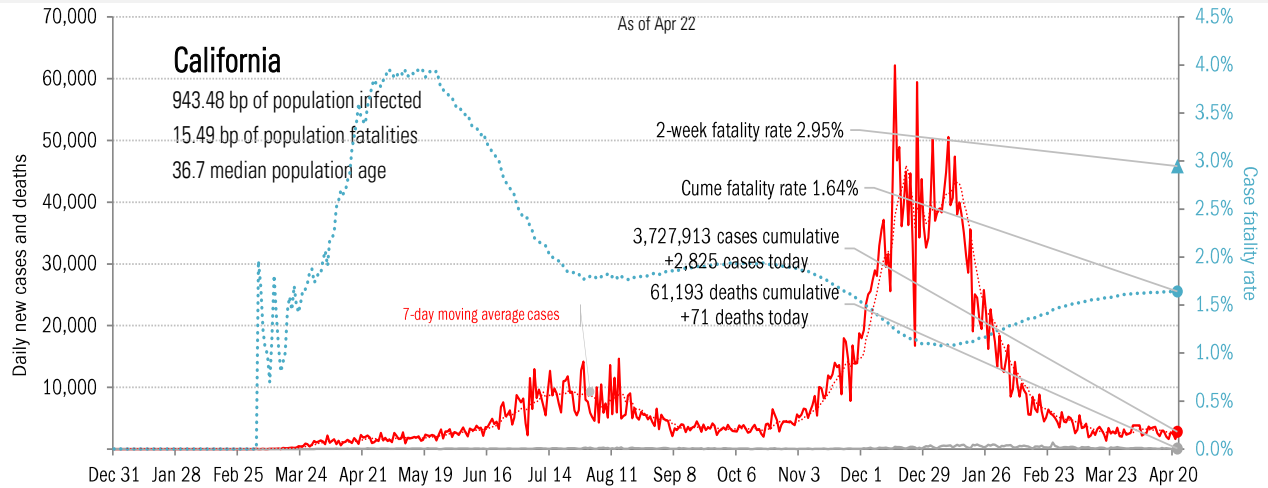
Source: [Covid Act Now](#), TrendMacro calculations

# From Ground Zero to the Rio Grande



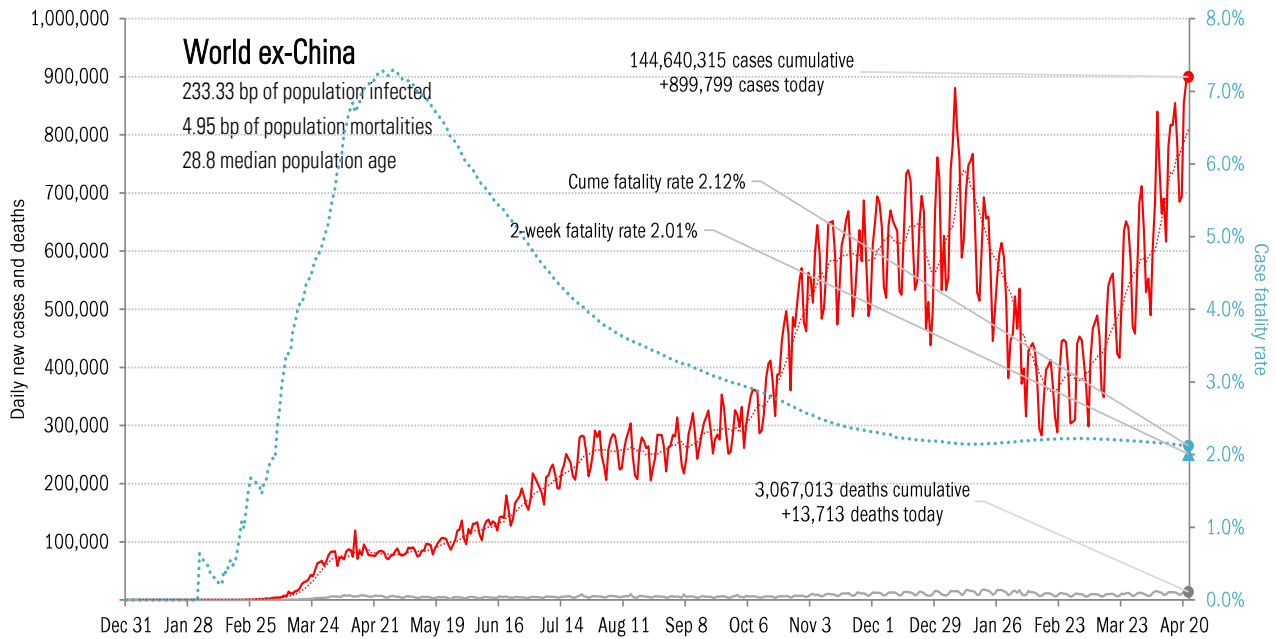
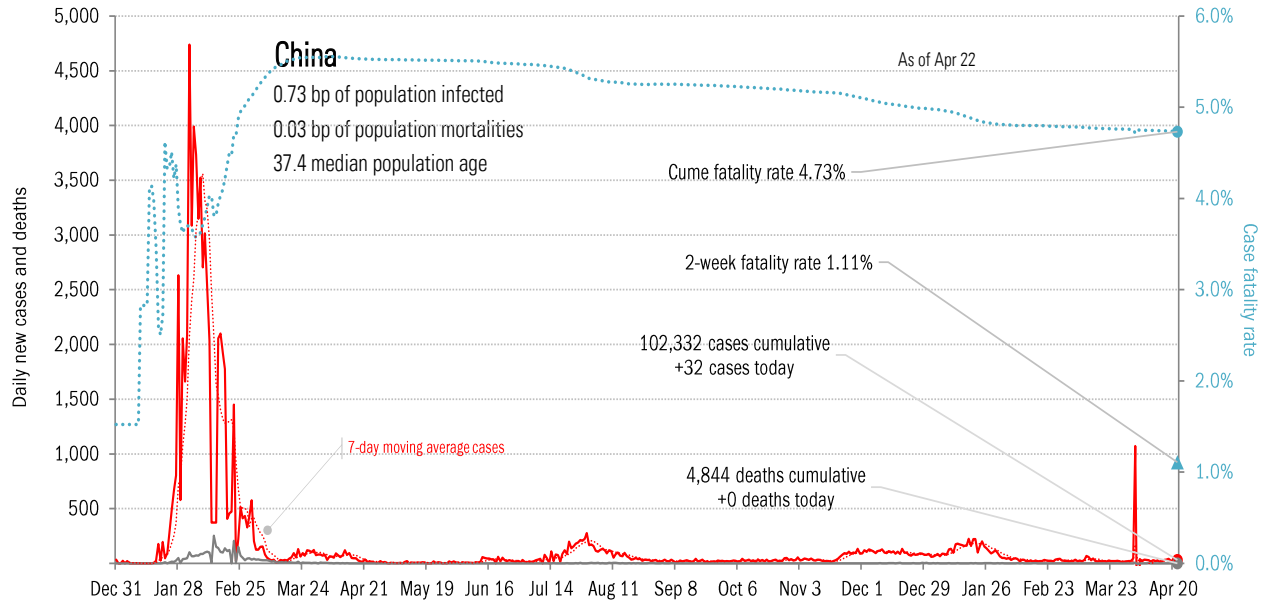
Source: [Johns Hopkins](#), TrendMacro calculations

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



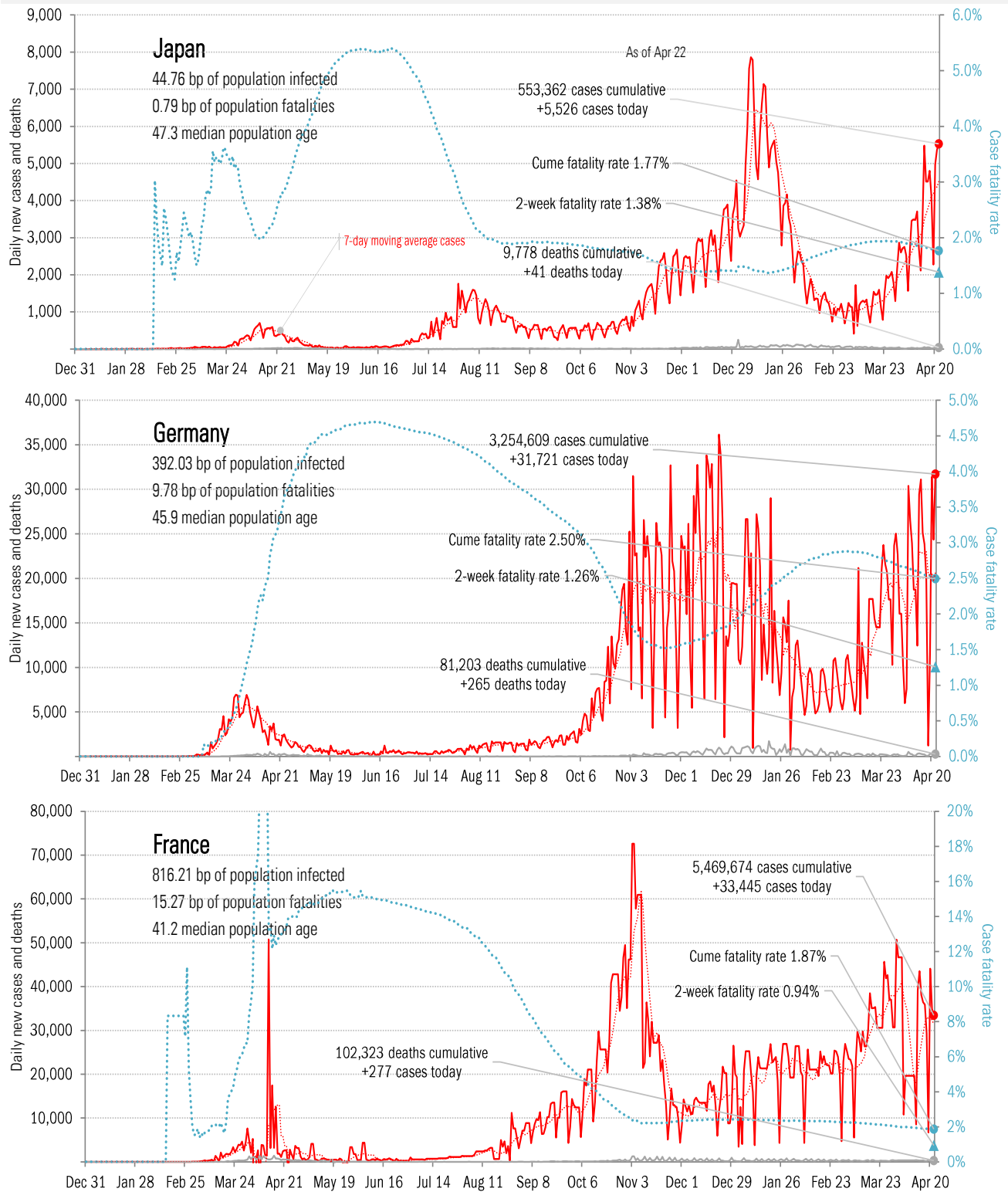
Source: [Johns Hopkins](#), TrendMacro calculations

# Patient zero... and then everyone else



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

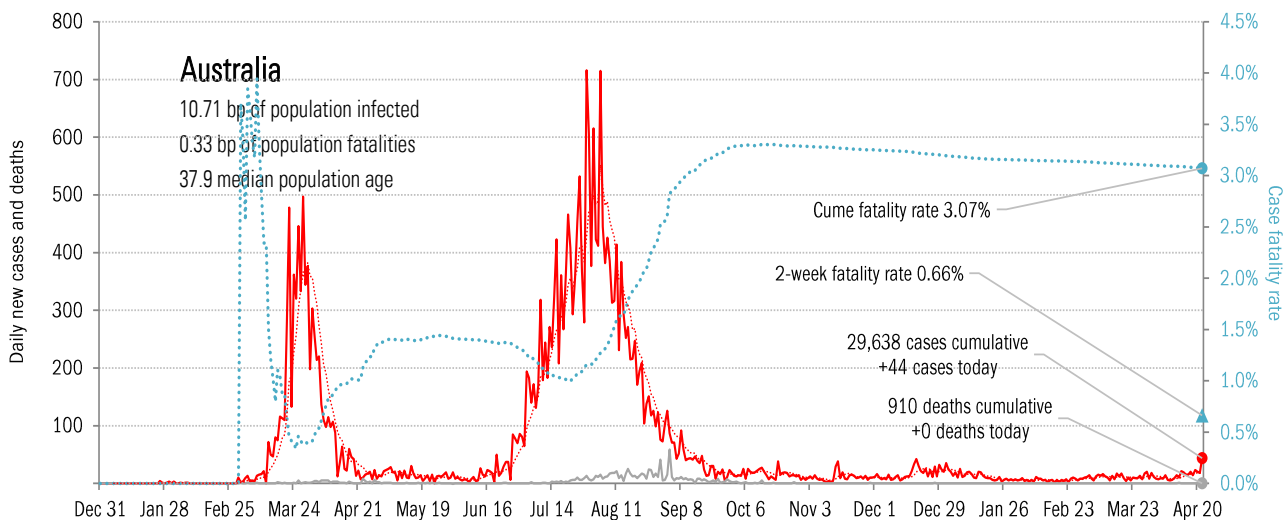
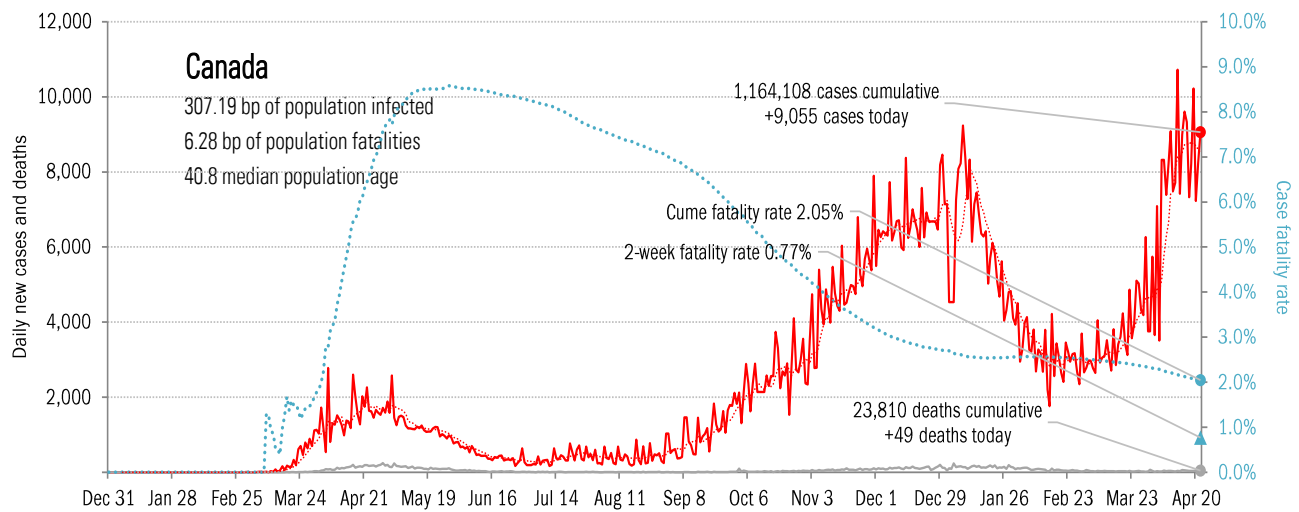
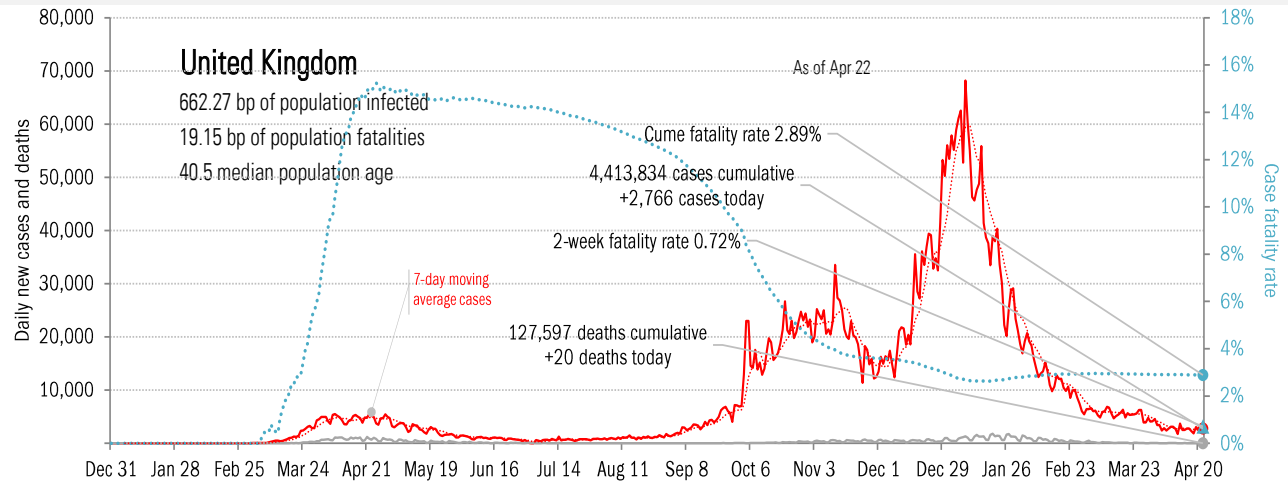
# Impact in the largest economies



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

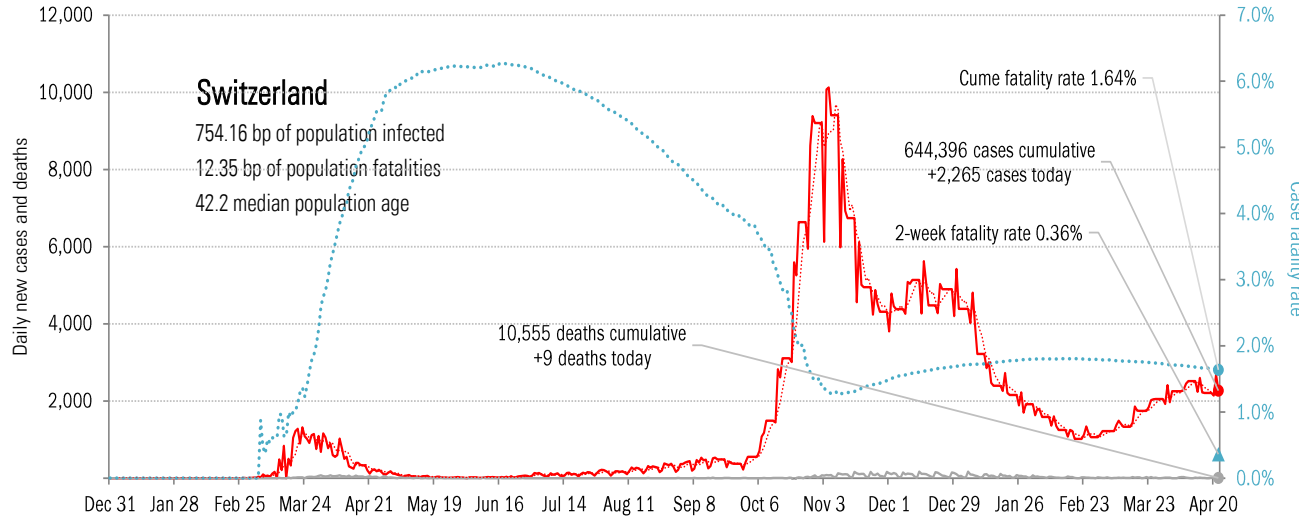
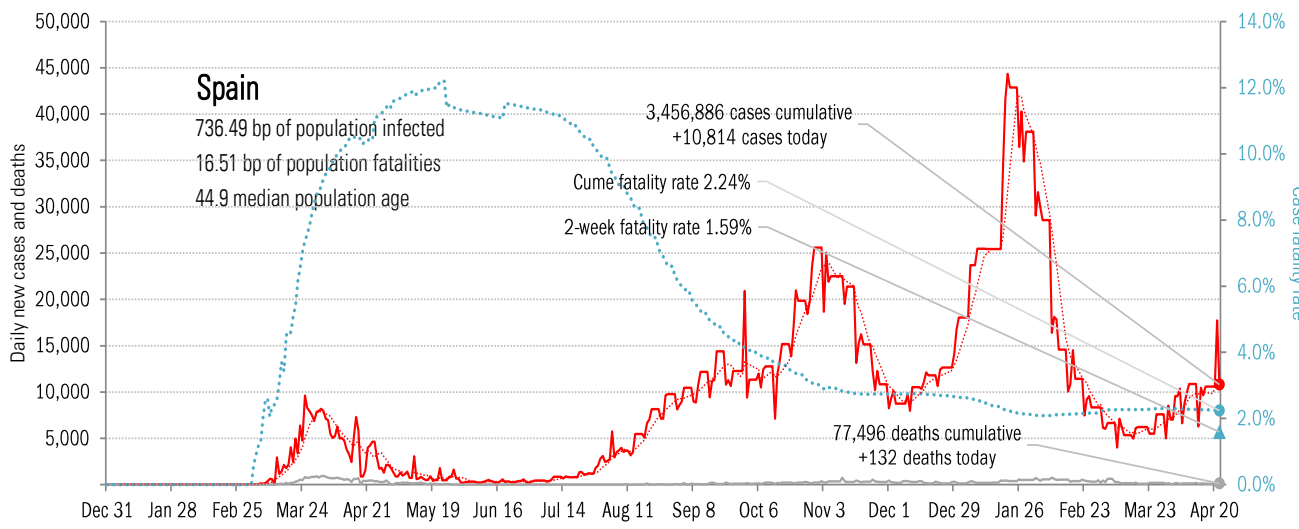
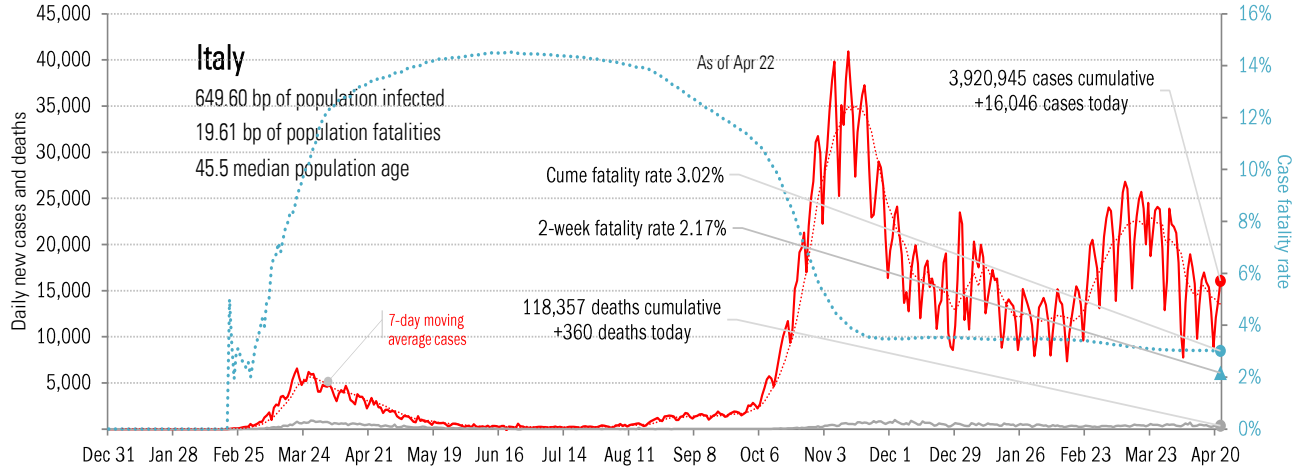


# Impact in The Anglosphere



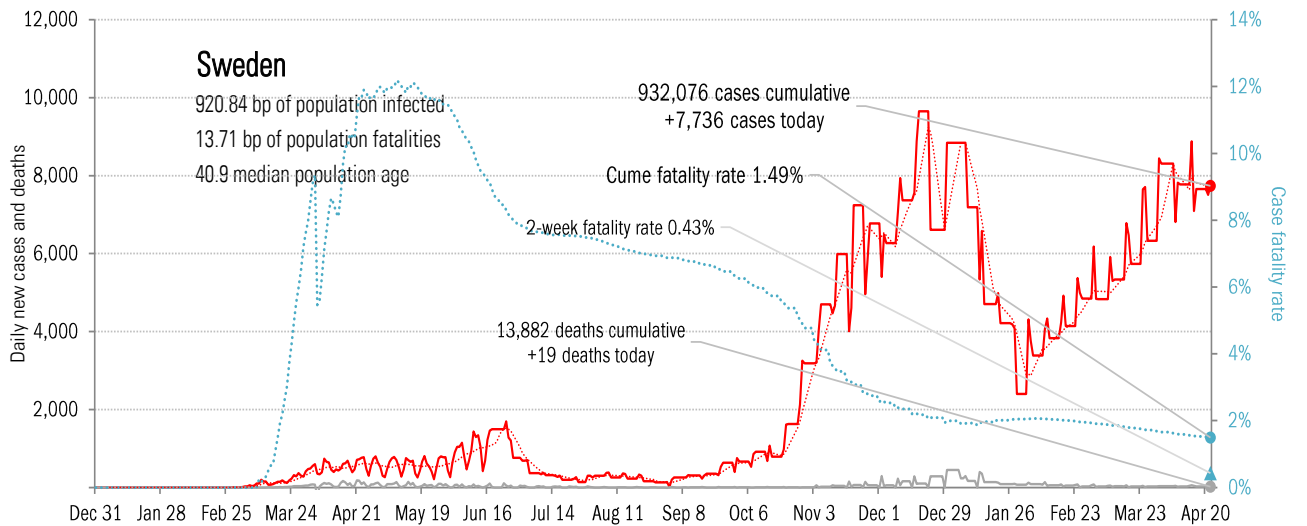
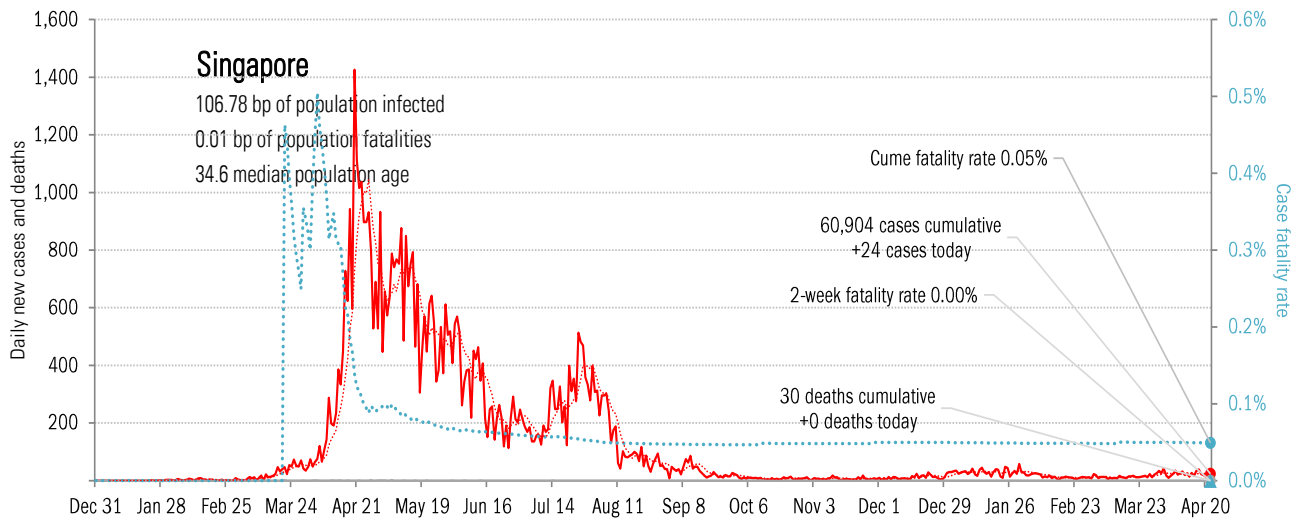
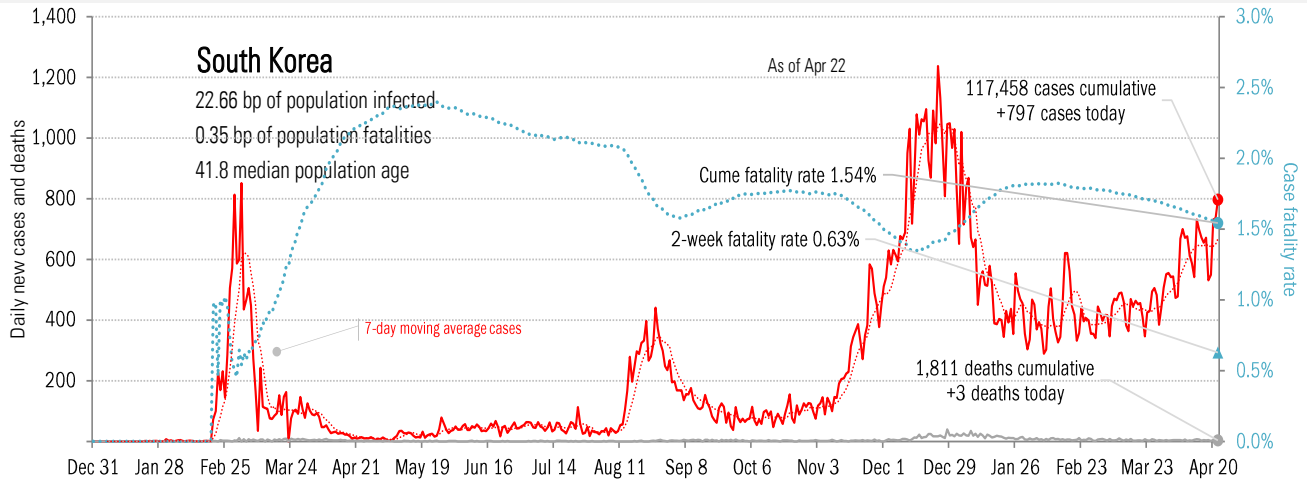
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in continental Europe



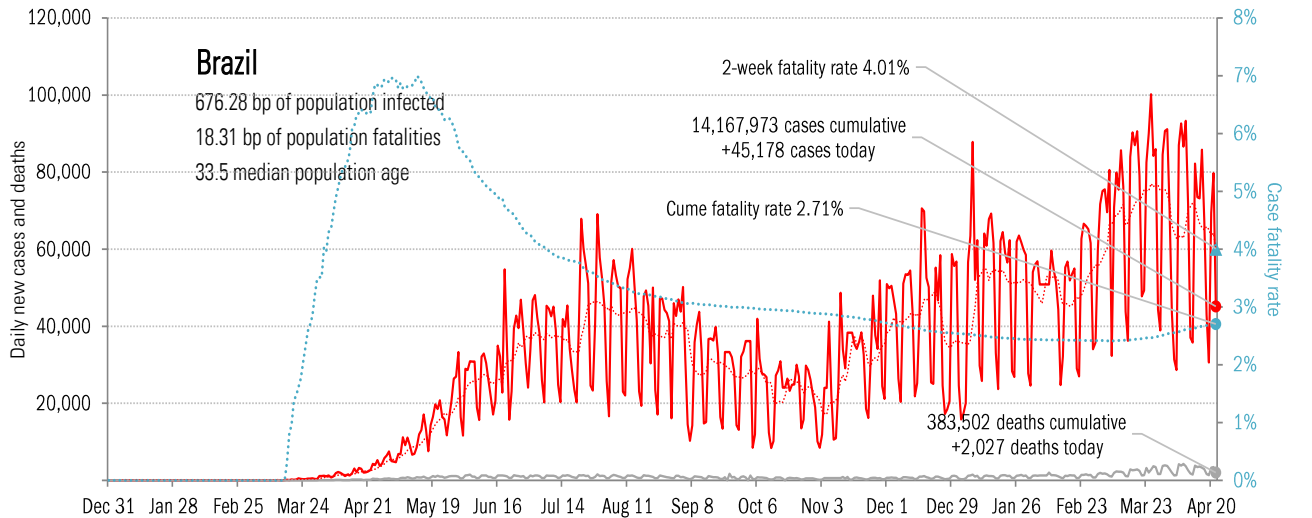
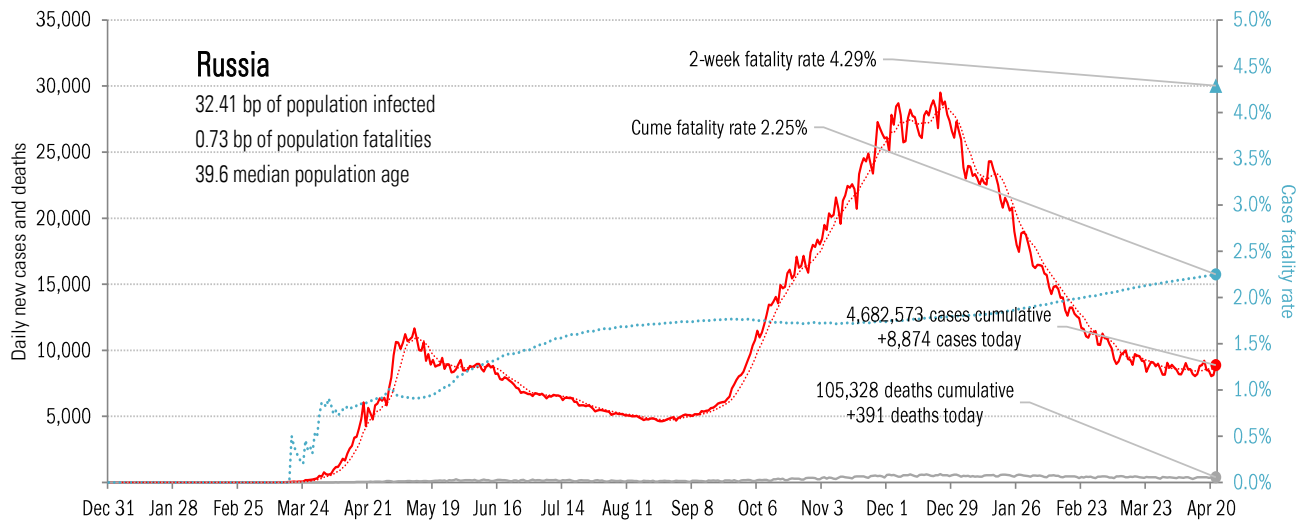
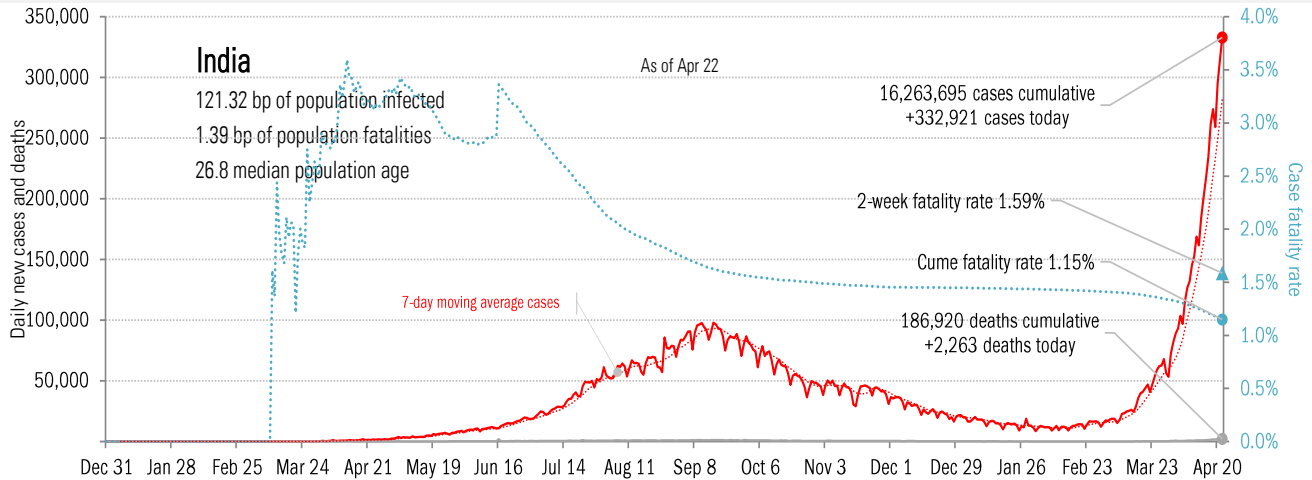
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in other hot-spots



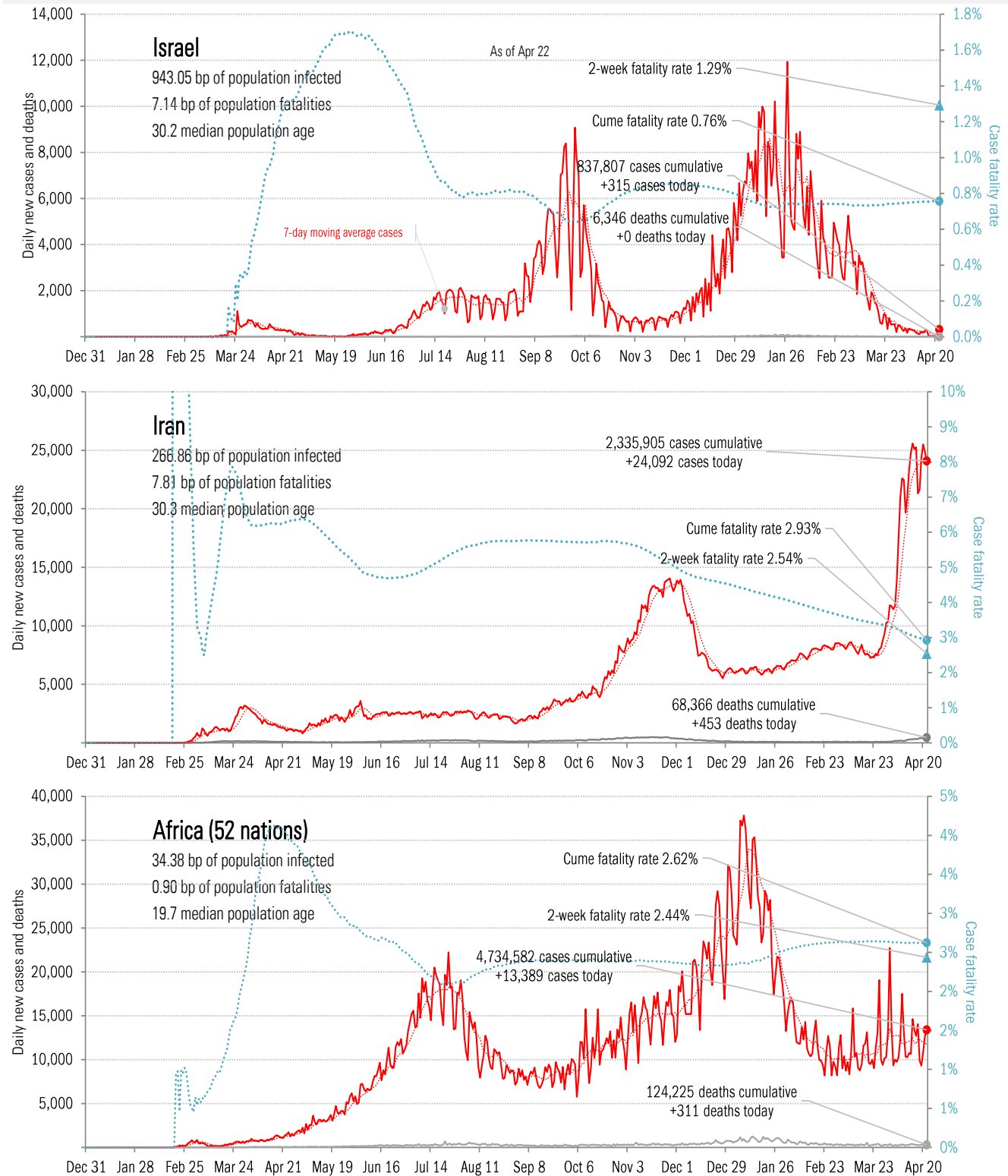
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in the BRICs ex-China



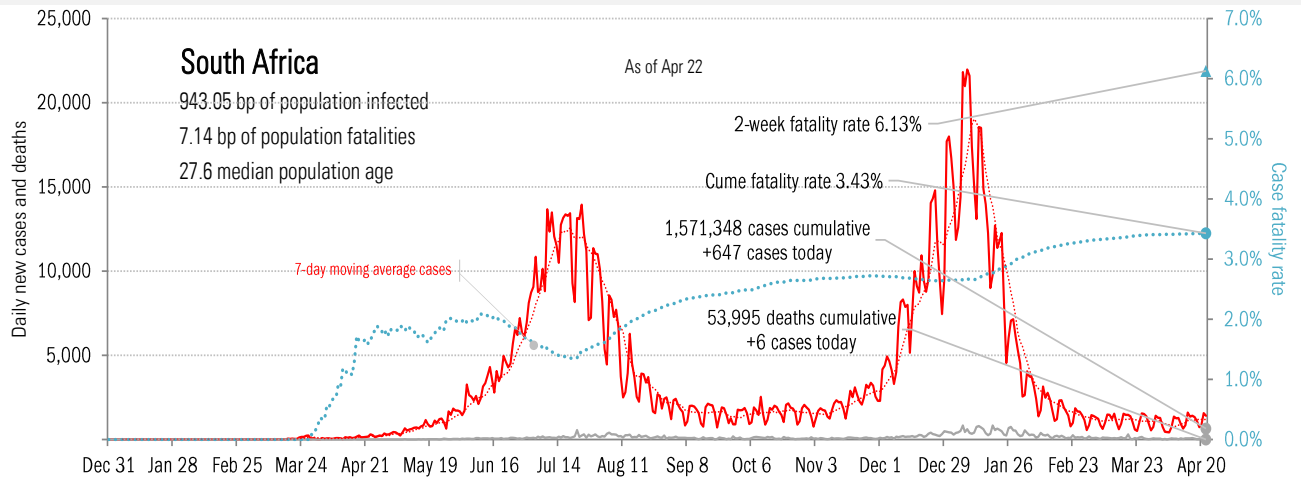
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in the Middle East and Africa



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

# Impact in Africa, continued



Source: [Johns Hopkins](https://www.jhu.edu/), TrendMacro calculations