Trend Macrolytics, LLC
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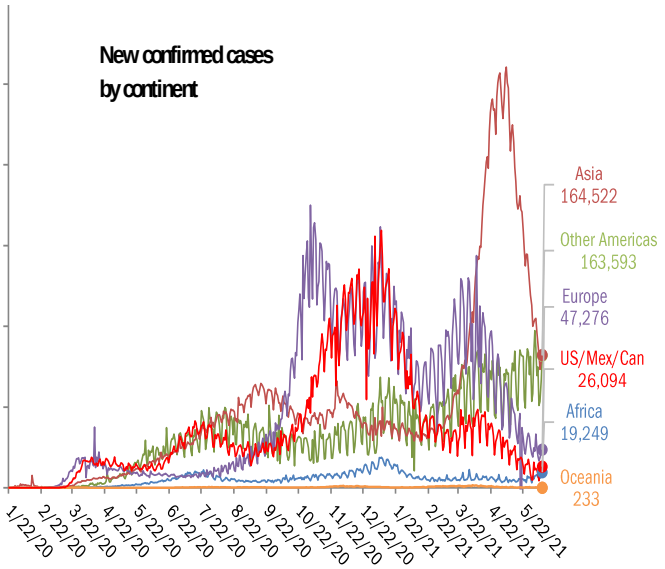
Data Insights: Covid-2019 Monitor

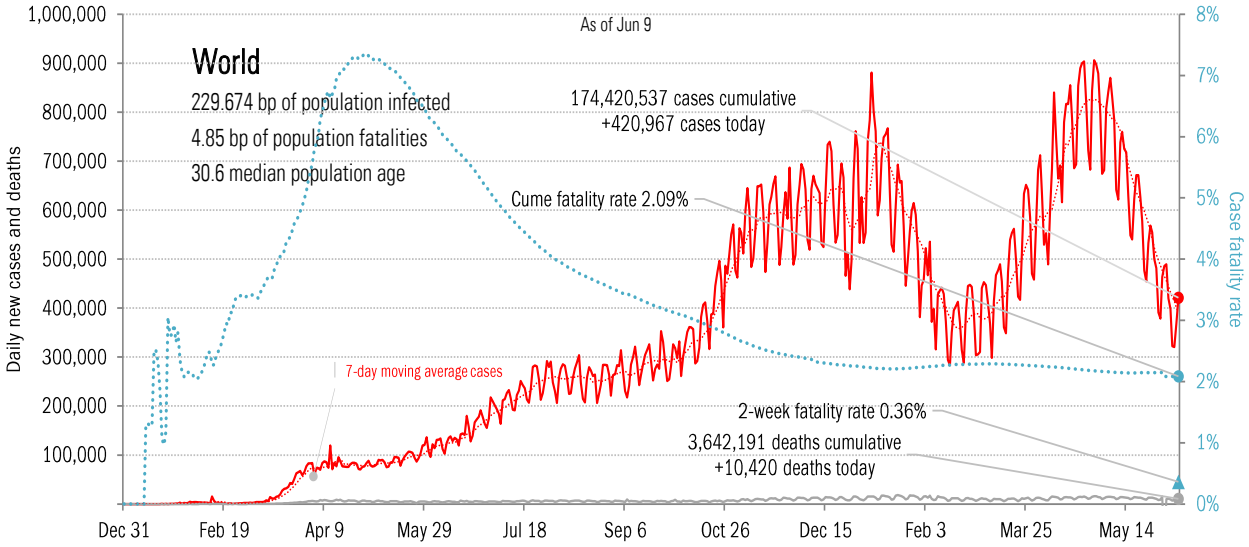
Thursday, June 10, 2021

The global scorecard

The worst ten countries

New cases		New Deaths	
India	+93,463	Brazil	+2,723
Brazil	+85,748	India	+2,177
Argentina	+29,757	Argentina	+605
Colombia	+21,879	Colombia	+471
United States	+20,779	United States	+432
Iran	+10,598	Peru	+400
Russia	+10,271	Russia	+393
South Africa	+8,881	Mexico	+253
Indonesia	+7,725	Romania	+228
United Kingdom	+7,322	Indonesia	+170
	+296,423		+7,852
World	+420,967	World	+10,420
Top ten	70%	Top ten	75%





Source: Johns Hopkins, TrendMacro calculations

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Thomas Demas: 704 552 3625 tdemas@trendmacro.com

The US scorecard

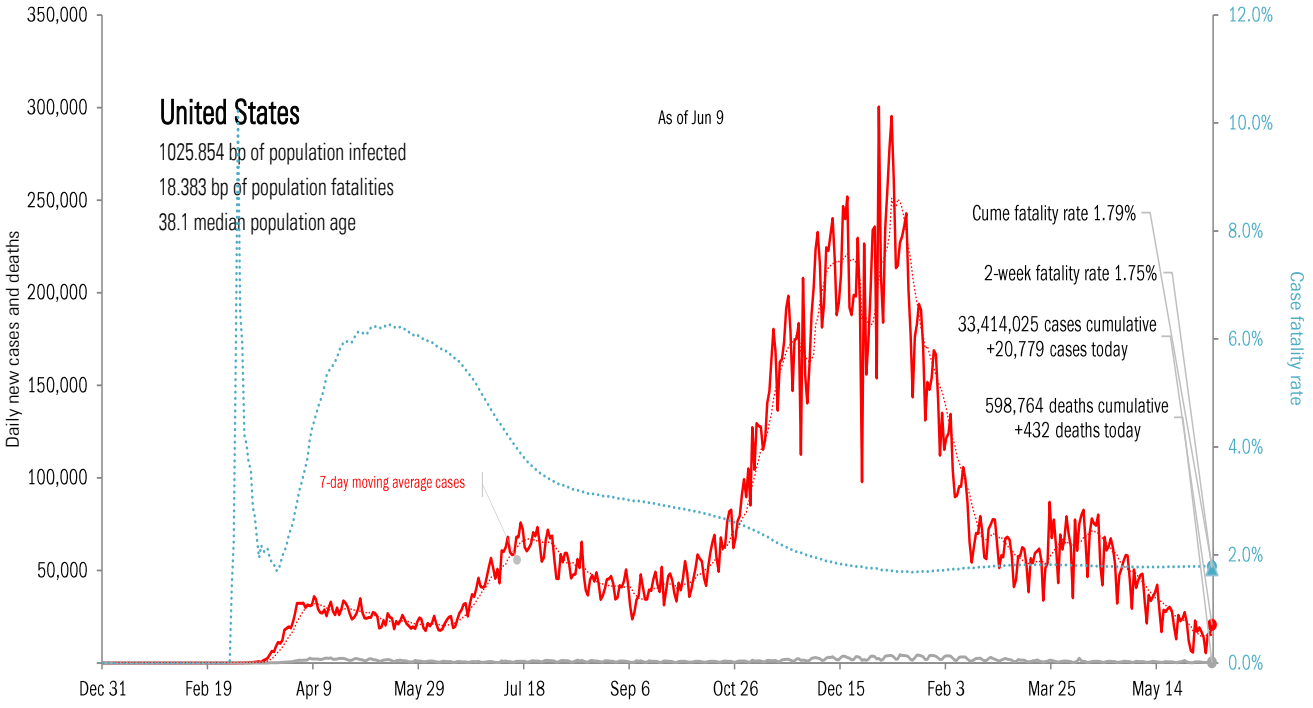
The ten worst US states

New cases		New Deaths		New in hospital		Cume cases		Cume deaths		Cume in hospital		Hospital use		ICU use	
TX	+9,071	TX	+37	CA	+38	CA	3,798,631	CA	63,615	TX	249,561	RI	92%	WA	13%
LA	+774	NJ	+31	GA	+35	TX	2,977,248	NY	53,492	CA	237,075	MA	83%	CO	13%
CO	+697	AL	+29	TX	+21	FL	2,332,867	TX	51,814	FL	181,592	PA	82%	ID	13%
CA	+694	IL	+27	WA	+20	NY	2,107,289	FL	36,973	NY	134,958	MO	82%	MO	13%
MO	+624	GA	+25	MO	+12	IL	1,386,179	PA	27,417	GA	107,230	MI	80%	MI	11%
NC	+544	WV	+24	MS	+12	PA	1,211,487	NJ	26,316	PA	90,485	MD	80%	ME	10%
WA	+507	PA	+22	WI	+7	GA	1,127,200	IL	25,413	OH	86,374	MN	79%	MS	10%
NY	+437	NC	+18	CT	+5	OH	1,105,720	GA	21,049	IL	81,317	WV	78%	OR	10%
AZ	+433	OR	+16	ND	+5	NJ	1,018,491	MI	20,667	KY	75,938	CT	78%	WV	10%
GA	+411	MO	+15	NV	+5	NC	1,006,809	OH	20,021	MI	72,198	DC	77%	UT	9%
	+14,192		+244		+160		18,071,921		346,777		1,316,728				
All states	+20,779		+432		-146	All states	33,414,025		598,764		2,344,450	All states	70%		67%
Top ten	68%		56%		-110%	Top ten	54%		58%		56%	Median	72%		7%

Some states not reporting

Five most improved US states

Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most pop immunity growth	
CA	-467	MI	-49	FL	-70	PR	+35 bp
KY	-272	OH	-41	OH	-30	MA	+31 bp
WA	-195	MO	-18	AL	-23	OR	+29 bp
NV	-130	CA	-15	VA	-22	NY	+28 bp
MO	-100	GA	-13	CO	-17	ME	+26 bp



Source: Johns Hopkins, Dept. of Health and Human Services, CDC, TrendMacro calculations

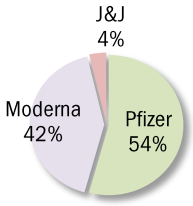
Rolling out the vaccines in the US and the world

US overall	Total				Today
Doses distributed	385,034,145				+0.396 million
Doses administered	314,001,206				+0.852 million
Administered	**One dose**	**% Pop**	**Immune**	**% pop**	**New immune today**
Total population	176,589,967	53%	144,958,248	43%	+0.550 million
Age 12 to 17	7,128,135	28%	3,455,427	14%	+0.182 million
Age 18 to 64	120,451,926	59%	98,554,893	48%	+0.312 million
Age 65 and over	48,886,416	89%	42,912,018	78%	+0.051 million

Immunity	Full	Partial
US	42.2%	51.5%
UK	42.0%	60.0%
France	19.1%	41.9%
Spain	24.7%	43.4%
Germany	23.7%	46.7%
Italy	22.3%	45.4%
Australia	2.6%	18.4%
Israel	59.4%	63.2%
Canada	9.1%	63.2%
Japan	4.1%	12.0%
Africa	0.8%	2.2%
India	3.3%	13.9%
Brazil	11.0%	24.2%

Global data differs from sources, timing

China NA



At today's dosing pace,
every American >18 immune in
194 days
by Dec 19, 2021

67.6% of population >18 immunized
14.1% previously tested positive
81.7% vs 60% adult herd immunity*

State
Immunities distributed as % population**
At least partial immunity as % population
Full immunity as % population

Best
Middle
Worst

AK		
60.0%		
46.9%		
40.2%		

					WI				VT	NH	
					54.1%				76.8%	69.3%	
					52.0%				71.7%	60.8%	
					45.8%				59.5%	52.3%	
WA	ID	MT	ND	MN	IL	MI		NY	MA		
62.9%	48.5%	54.4%	48.4%	59.9%	60.1%	60.2%		62.8%	72.3%		
58.1%	38.2%	46.3%	42.7%	55.3%	56.4%	49.7%		57.2%	68.0%		
49.0%	33.6%	40.0%	37.1%	47.6%	41.5%	43.6%		48.9%	56.8%		
OR	NV	WY	SD	IA	IN	OH	PA	NJ	CT	RI	
68.7%	51.0%	46.9%	56.8%	56.5%	51.7%	54.7%	63.9%	66.4%	68.3%	73.1%	
56.2%	46.6%	37.8%	48.8%	50.0%	42.6%	46.8%	59.9%	61.8%	64.5%	62.2%	
48.0%	38.1%	32.6%	43.1%	45.1%	36.7%	41.5%	45.7%	50.8%	55.7%	53.8%	
CA	UT	CO	NE	MO	KY	WV	VA	MD	DE		
64.1%	52.0%	62.5%	55.6%	51.3%	51.9%	55.0%	62.1%	71.6%	67.6%		
58.3%	46.0%	55.5%	49.3%	43.0%	47.3%	41.4%	56.5%	58.7%	55.9%		
45.3%	33.6%	47.1%	43.6%	35.4%	39.5%	34.7%	46.9%	50.2%	44.9%		
	AZ	NM	KS	AR	TN	NC	SC	DC			
	57.3%	58.4%	54.7%	49.2%	47.9%	57.7%	53.2%	78.2%			
	47.3%	58.7%	47.5%	40.3%	39.8%	44.0%	41.7%	58.1%			
	37.2%	49.0%	39.3%	32.0%	32.5%	37.0%	35.2%	47.8%			
			OK	LA	MS	AL	GA				
			52.9%	45.1%	46.7%	50.2%	54.1%				
			42.1%	36.5%	34.8%	36.2%	41.3%				
			34.4%	32.1%	27.9%	29.5%	33.8%				

HI										PR
69.9%			TX					FL		63.9%
67.8%			56.7%					60.1%		52.9%
48.7%			45.4%					50.6%		39.4%
			37.0%		As of Jun 9			40.7%		

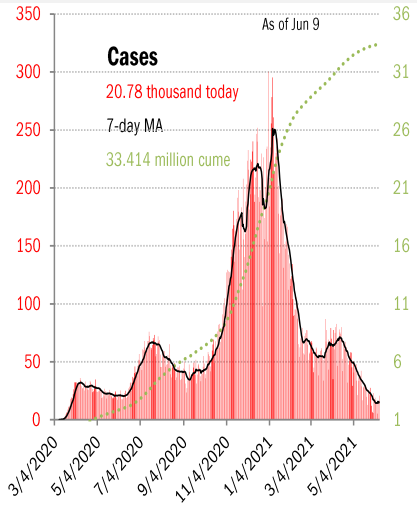
* Includes persons >18 fully immunized or previosuly tested positive, no overlap. Disregards untested positives, natural immunities.

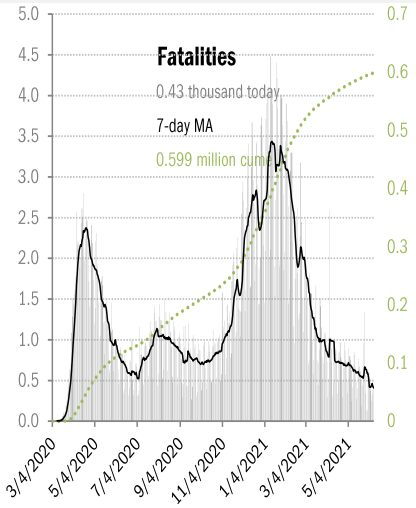
** One dose of Pfizer/Moderna counts as half an immunity, one dose of J&J as a full immunity

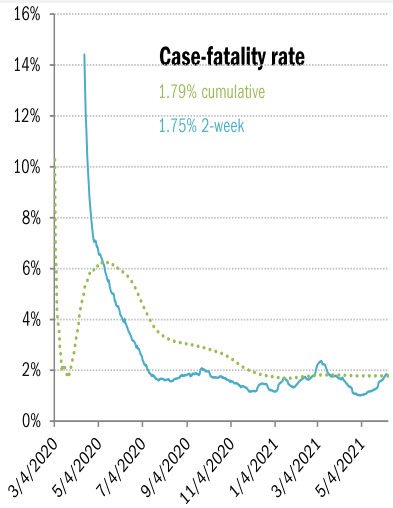
Source: CDC, CDC, Our World in Data, TrendMacro calculations

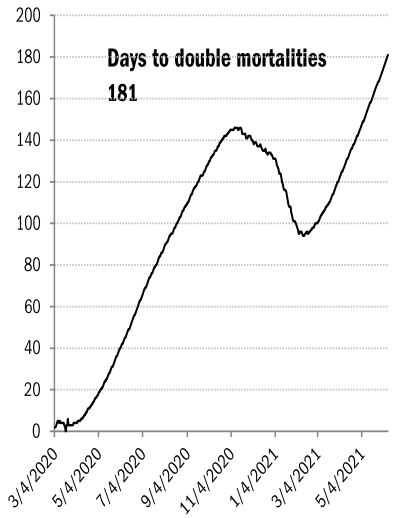
US deep-dive

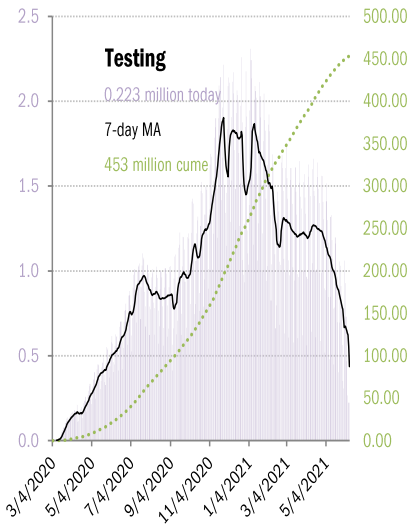
National and state-by-state data do not line up because of different sources

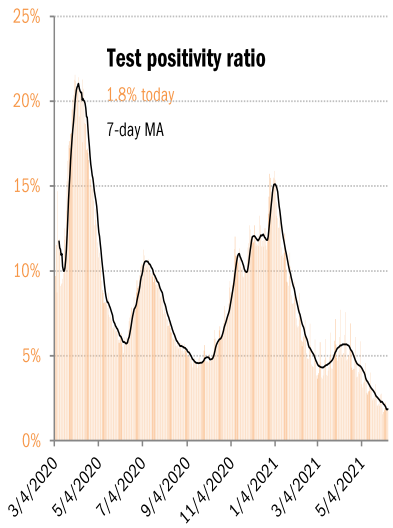


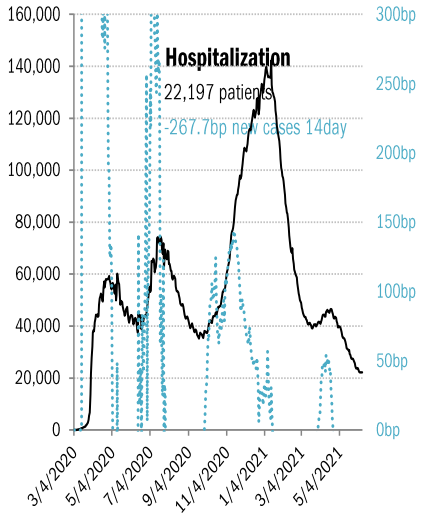


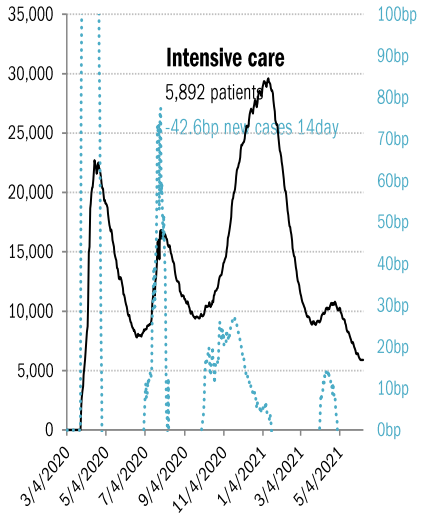


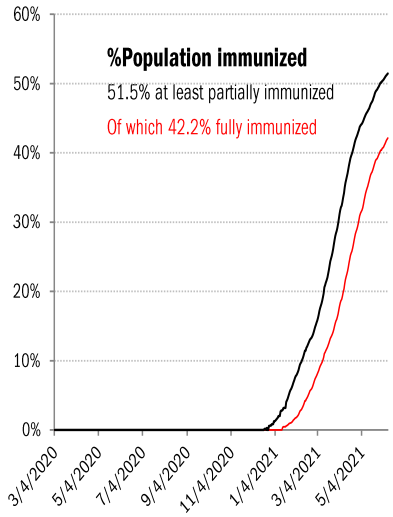












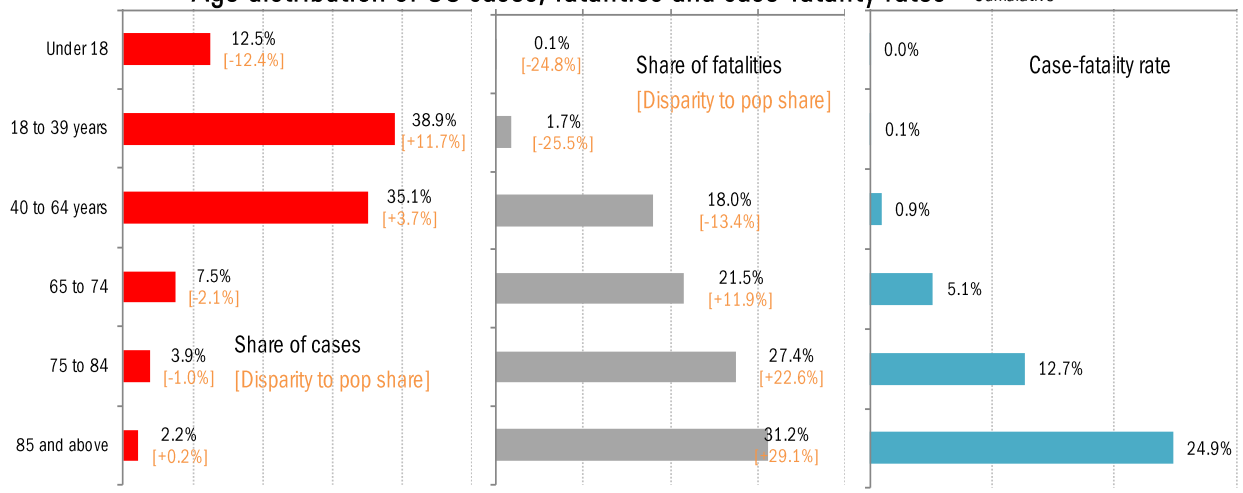
Source: Johns Hopkins, Covid Act Now, TrendMacro calculations

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

Updates weekly on Sundays

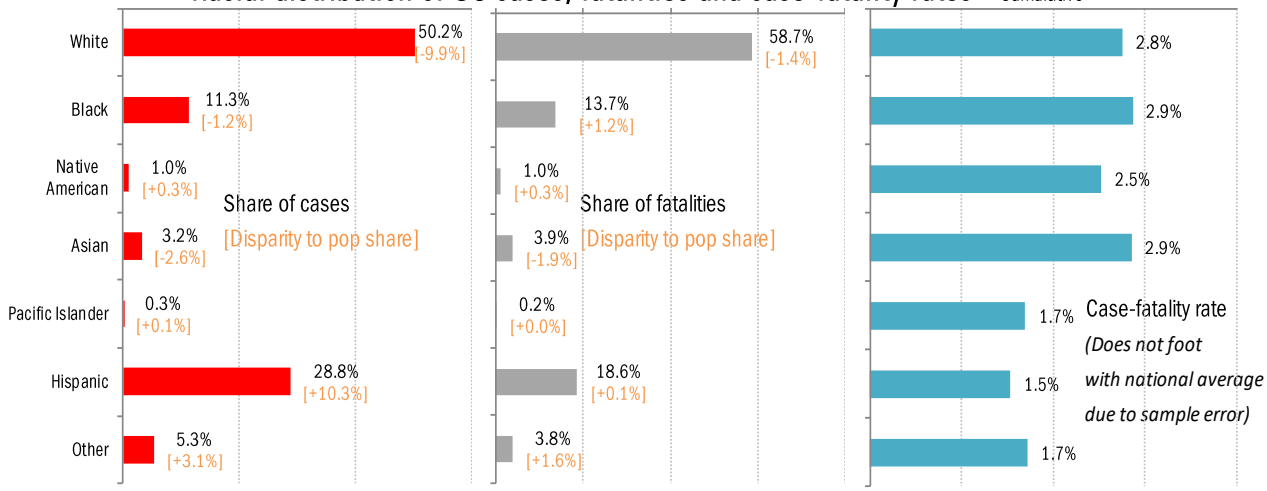
Age distribution of US cases, fatalities and case-fatality rates

Cumulative



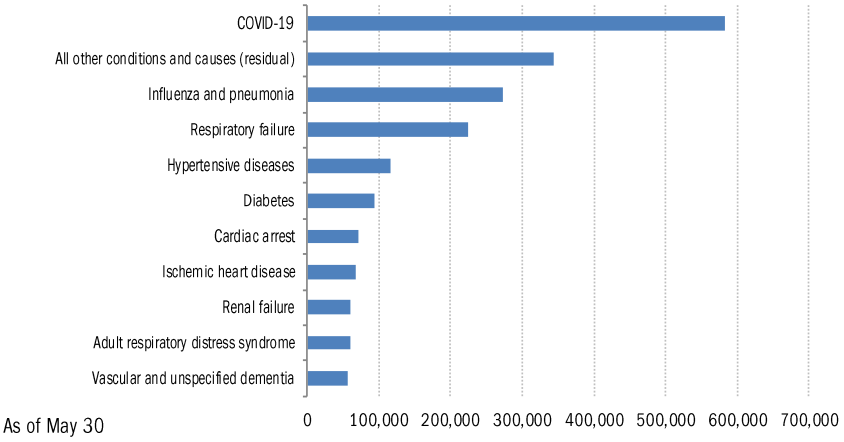
Racial distribution of US cases, fatalities and case-fatality rates

Cumulative



Comorbidities

Top-ten joint causes of Covid mortalities, cumulative



As of May 30

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

Necessity of COVID-19 vaccination in previously infected individuals
Nabin K. Shrestha et al.
medRvx
June 5, 2021

Cleveland Clinic Statement on Previous COVID-19 Infection Research
Cleveland Clinic
June 9, 2021

Johnson & Johnson vaccine effective against variants: study
Justine Coleman
The Hill
June 9, 2021

Immunogenicity of Ad26.COV2.S vaccine against SARS-CoV-2 variants in humans
Galit Alter et al.
Nature
June 9, 2021

One Fate, Two Fates. Red States, Blue States: New Data Reveal a 432-Hour In-Person Learning Gap Produced by the Politics of Pandemic Schooling
Asher Lehrer-Small
T74
June 9, 2021

Education Through the Pandemic: From Tennessee's Push to Woo New Teachers Through Higher Salaries to Indiana's Decline in HS Grads Seeking Out More Education, 11 Ways States Are Confronting COVID Slide
Joshua Parrish
T74
June 8, 2021

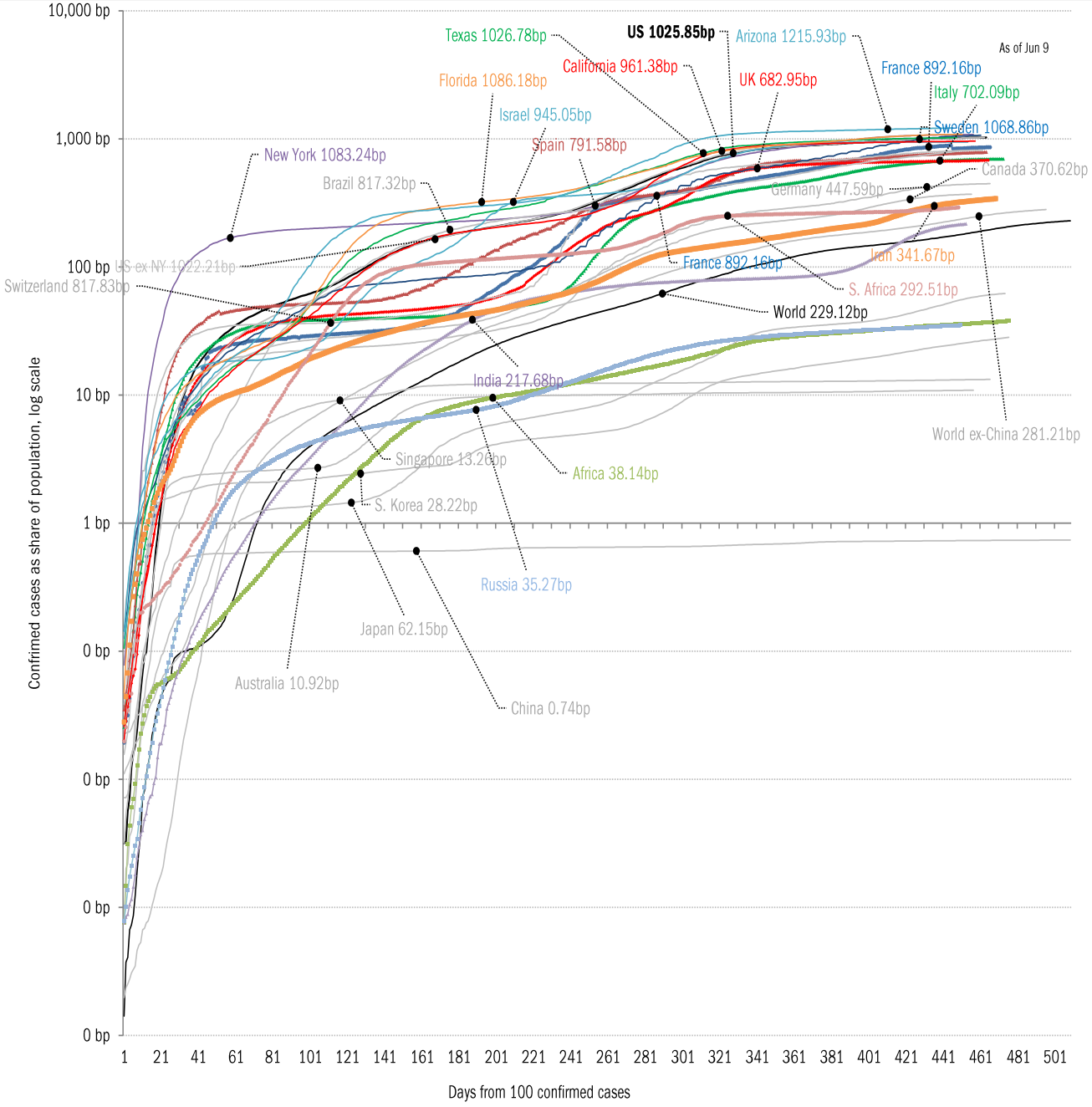
The Power of Natural Immunity
Marty Makary
Wall Street Journal
June 8, 2021

Meme of the day

Source: Our beloved clients, Power Line blog "The Week in Pictures" and CTUP

The coronavirus case accelerometer… tracking the world's infection curves

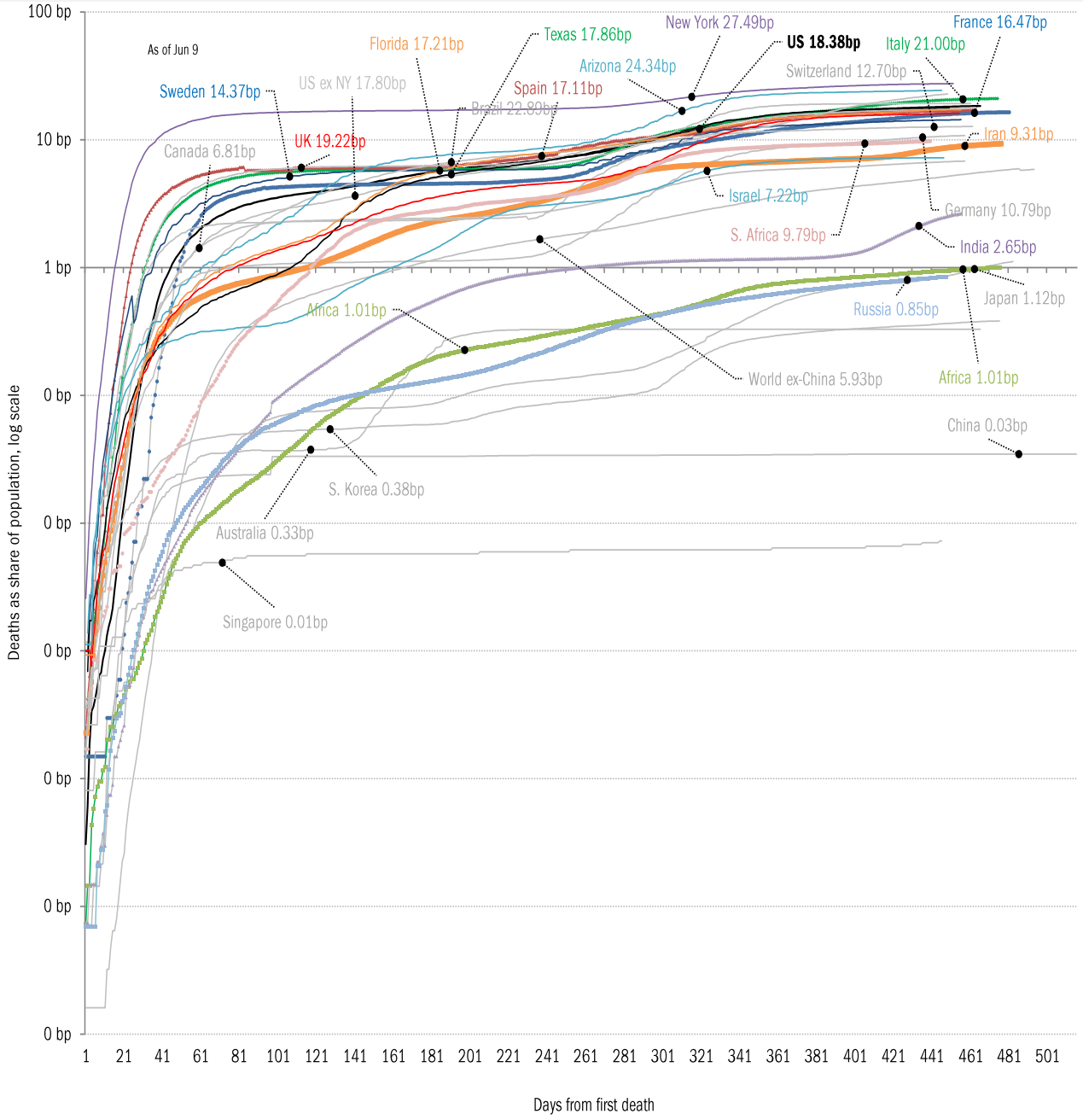
Share of infected population from first day with 100 confirmed cases, log scale



Source: Johns Hopkins, TrendMacro calculations

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

Share of deceased population from day of first fatality

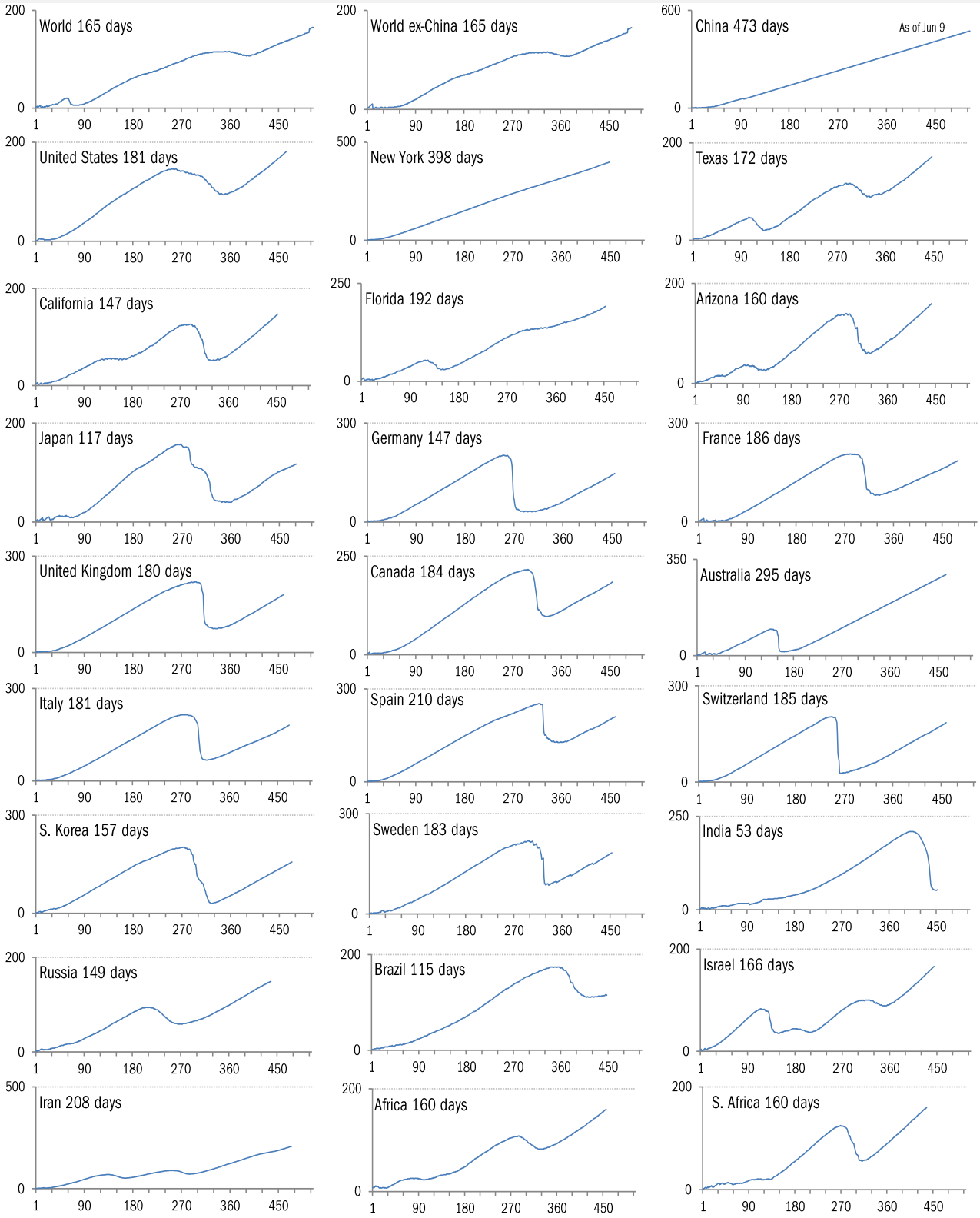


Source: Johns Hopkins, TrendMacro calculations

"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

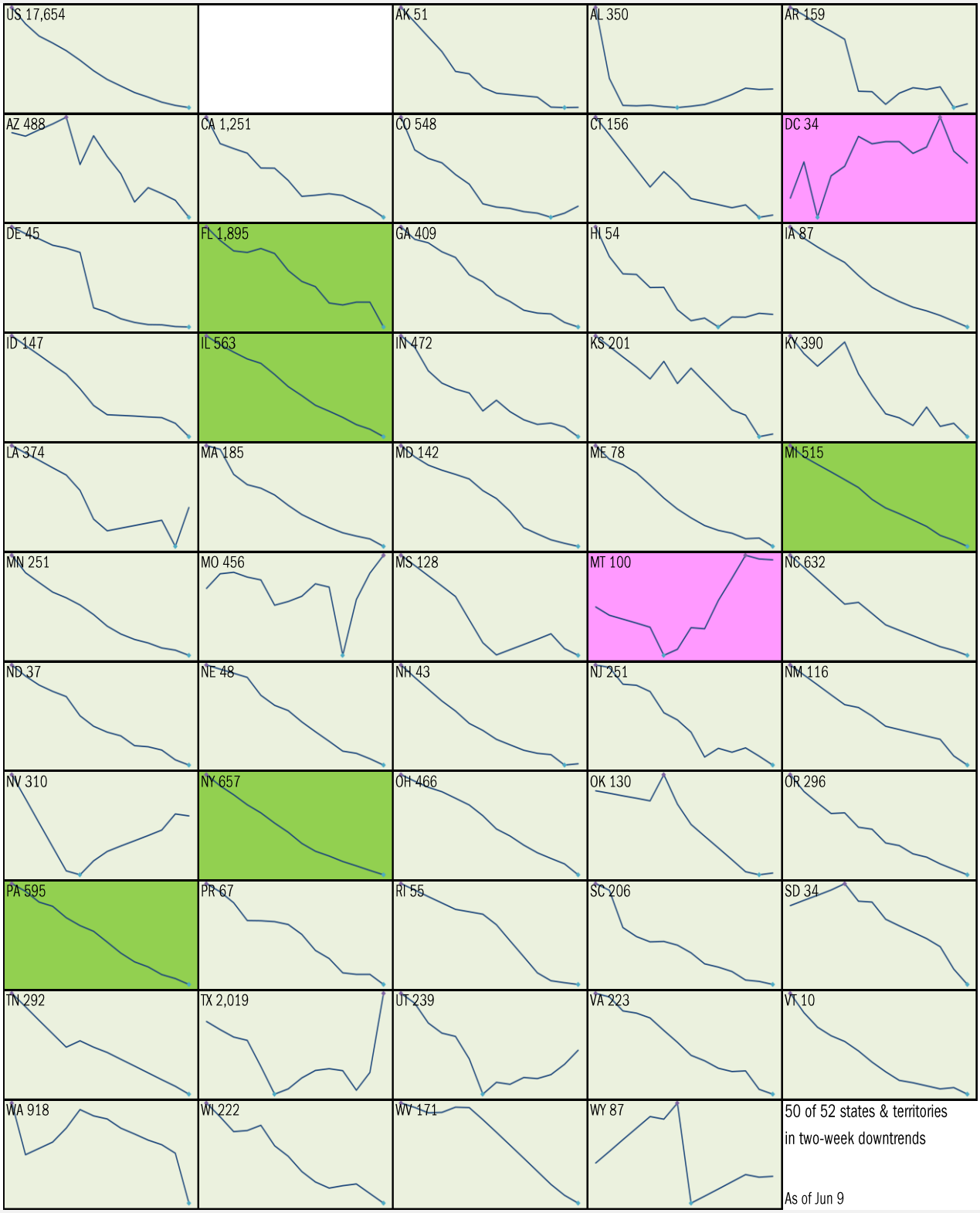


Source: Johns Hopkins, TrendMacro calculations

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

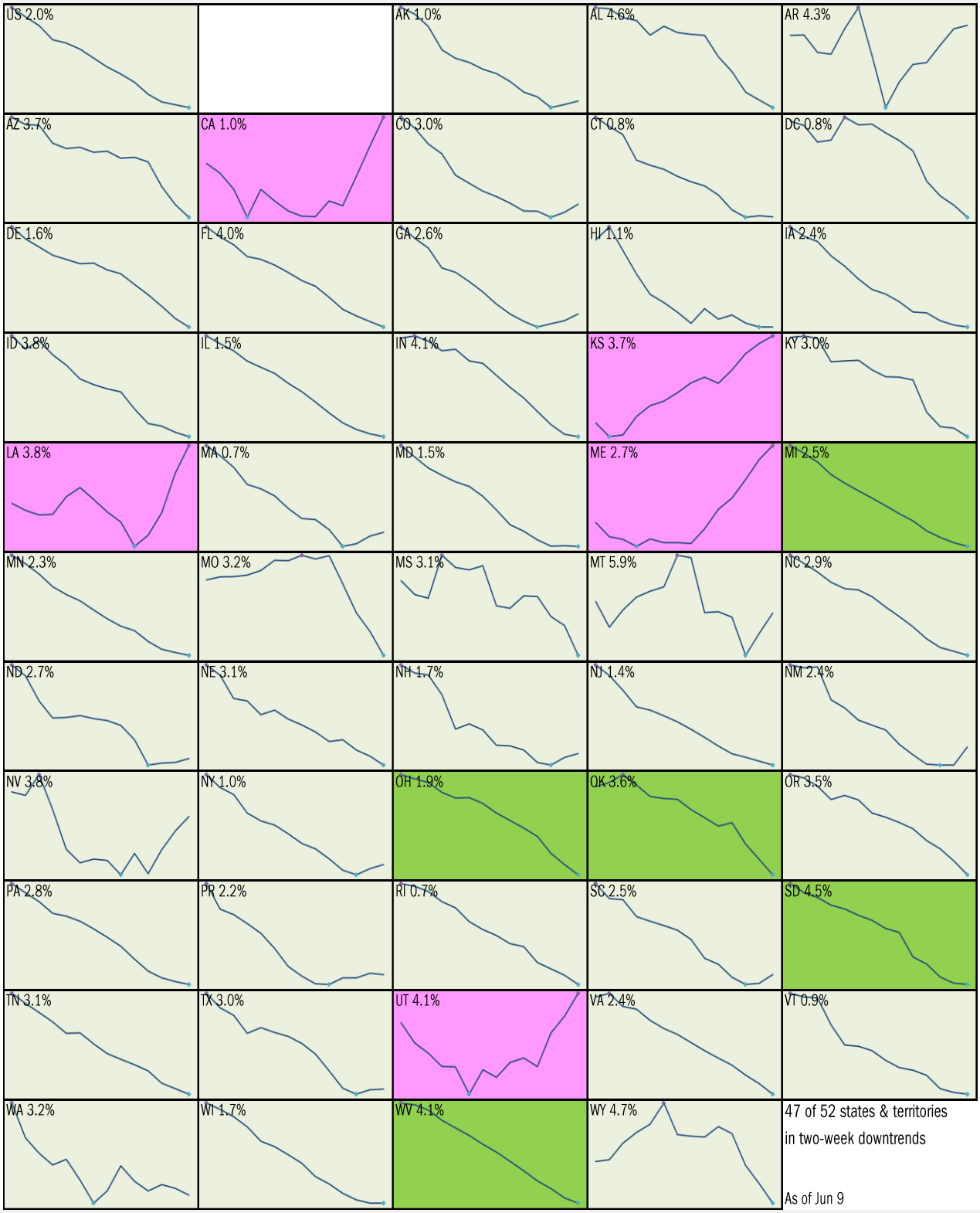


Source: Johns Hopkins, TrendMacro calculations

Alt requirement to Open Up America Again: 14-day "downward trajectory" in pos tests

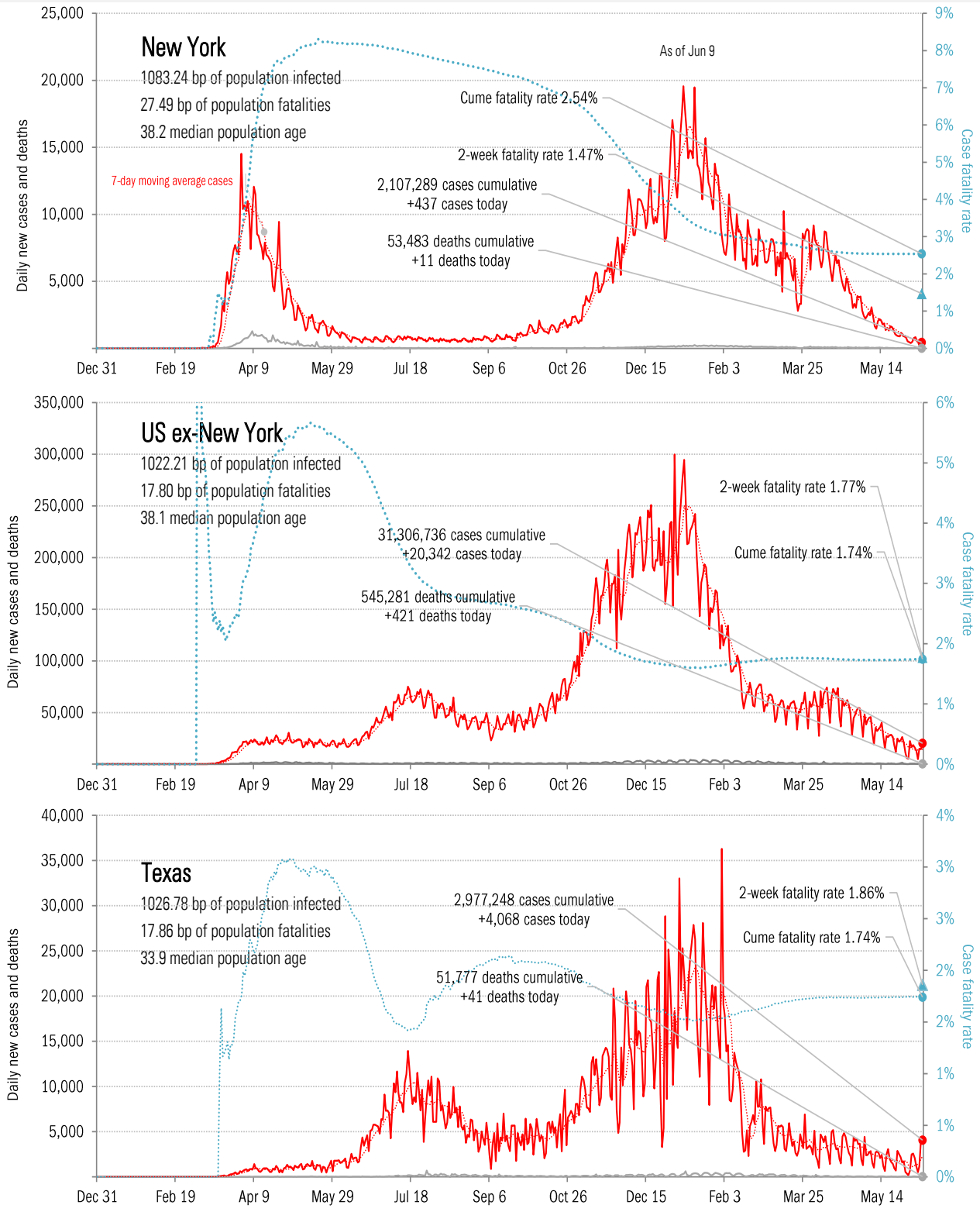
14-day moving average, last 14 days *Most recent value displayed* • High • Low

Downward trajectory Five best Upward trajectory Five worst



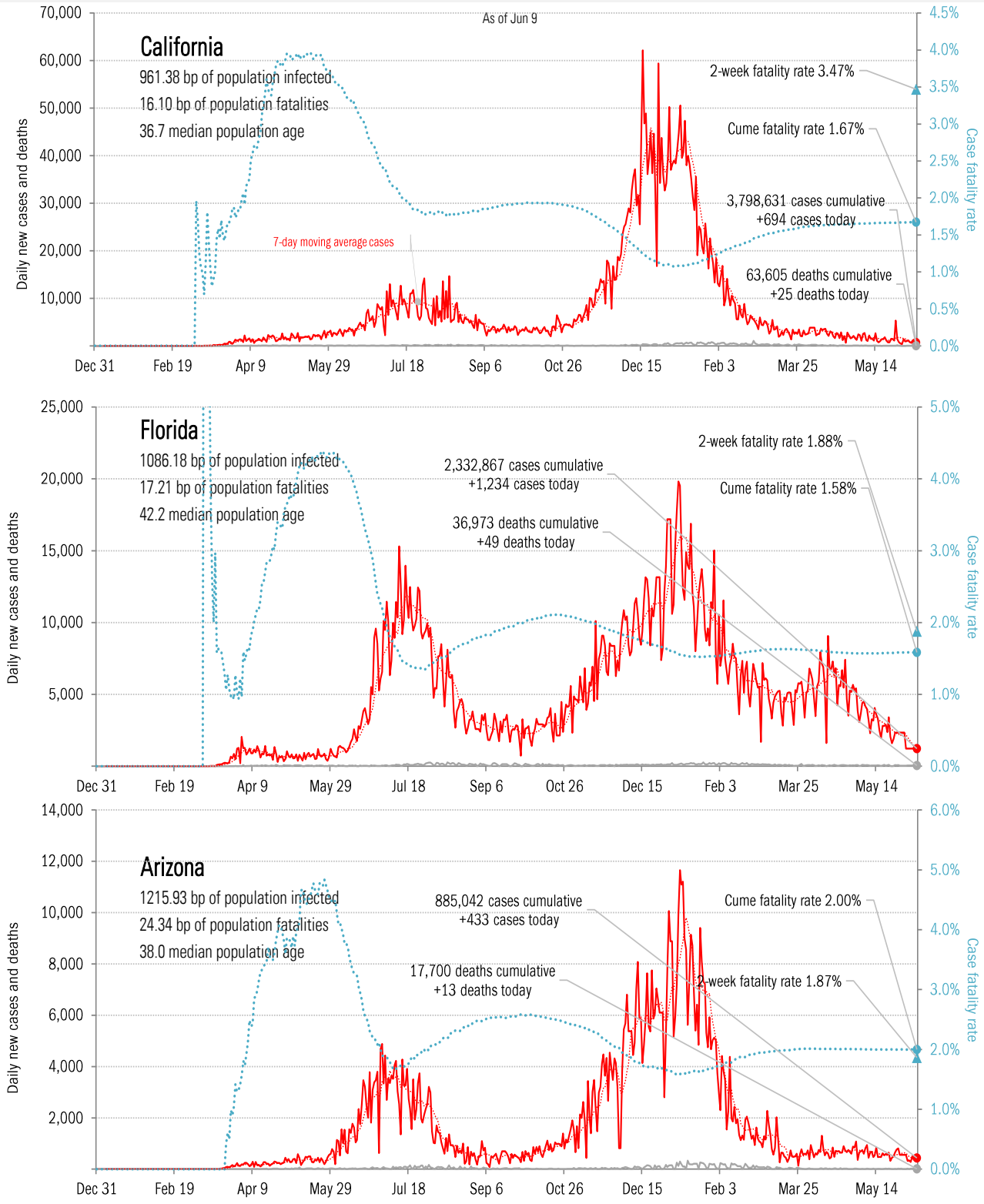
Source: Covid Act Now, TrendMacro calculations

From Ground Zero to the Rio Grande



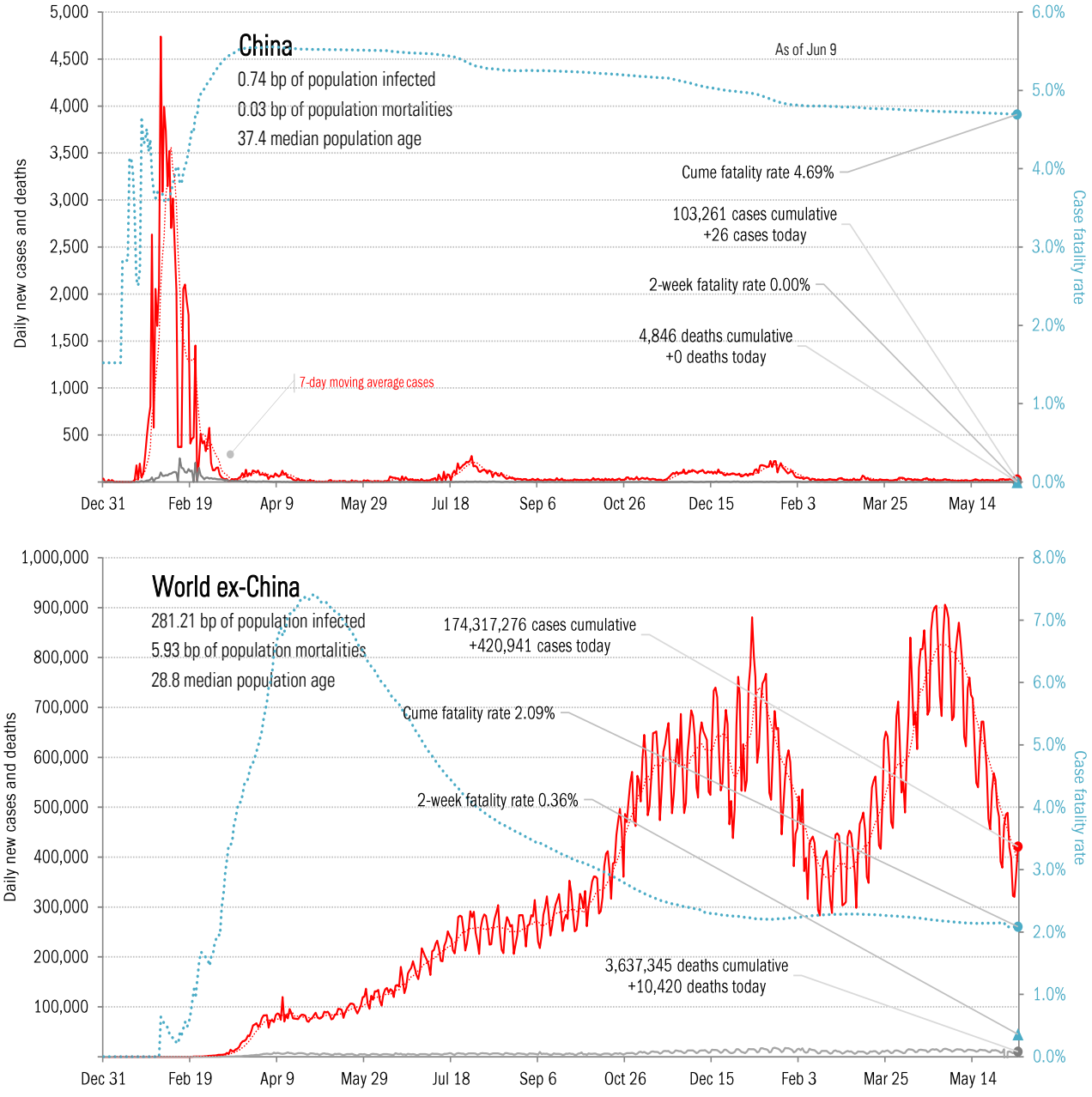
Source: Johns Hopkins, TrendMacro calculations

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



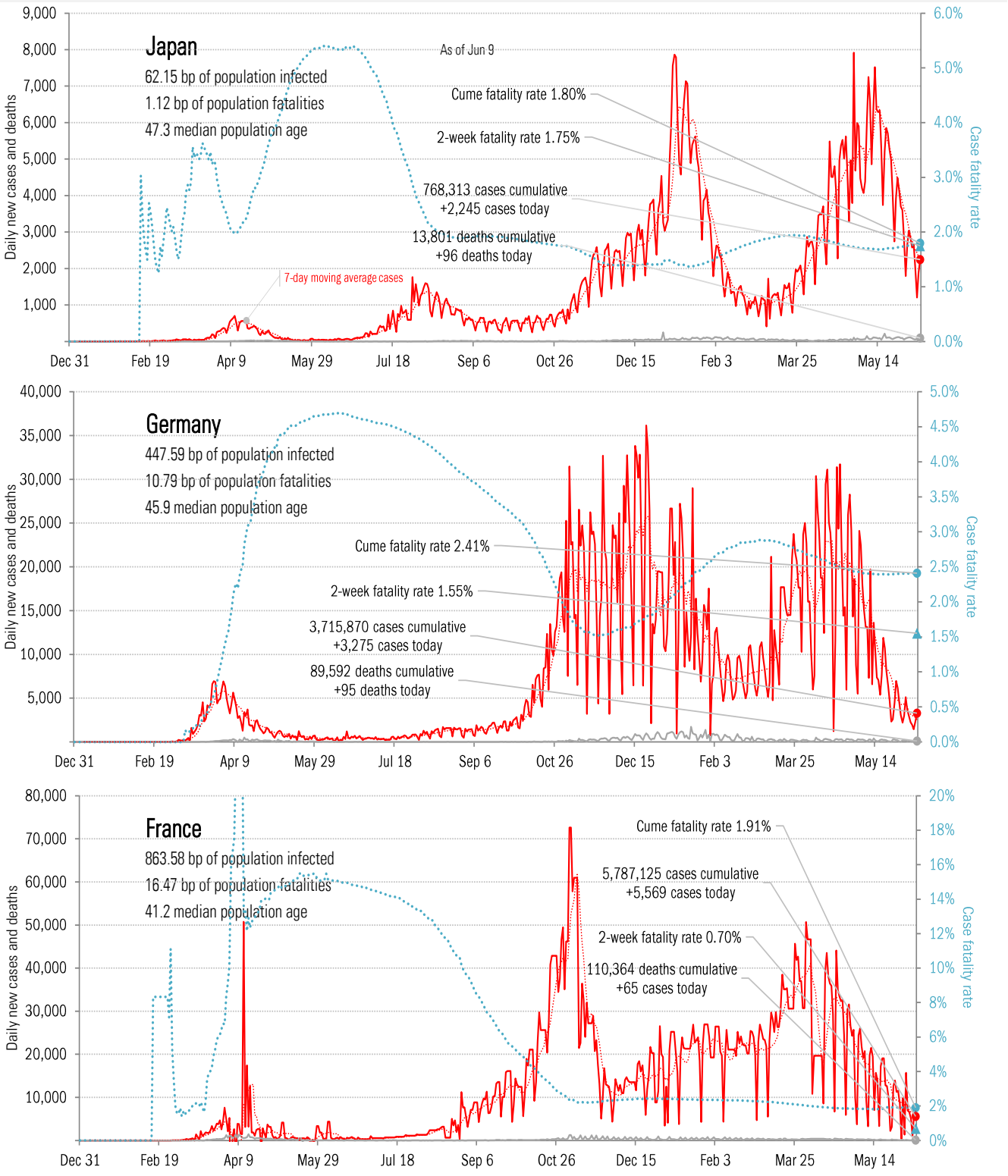
Source: Johns Hopkins, TrendMacro calculations

Patient zero… and then everyone else



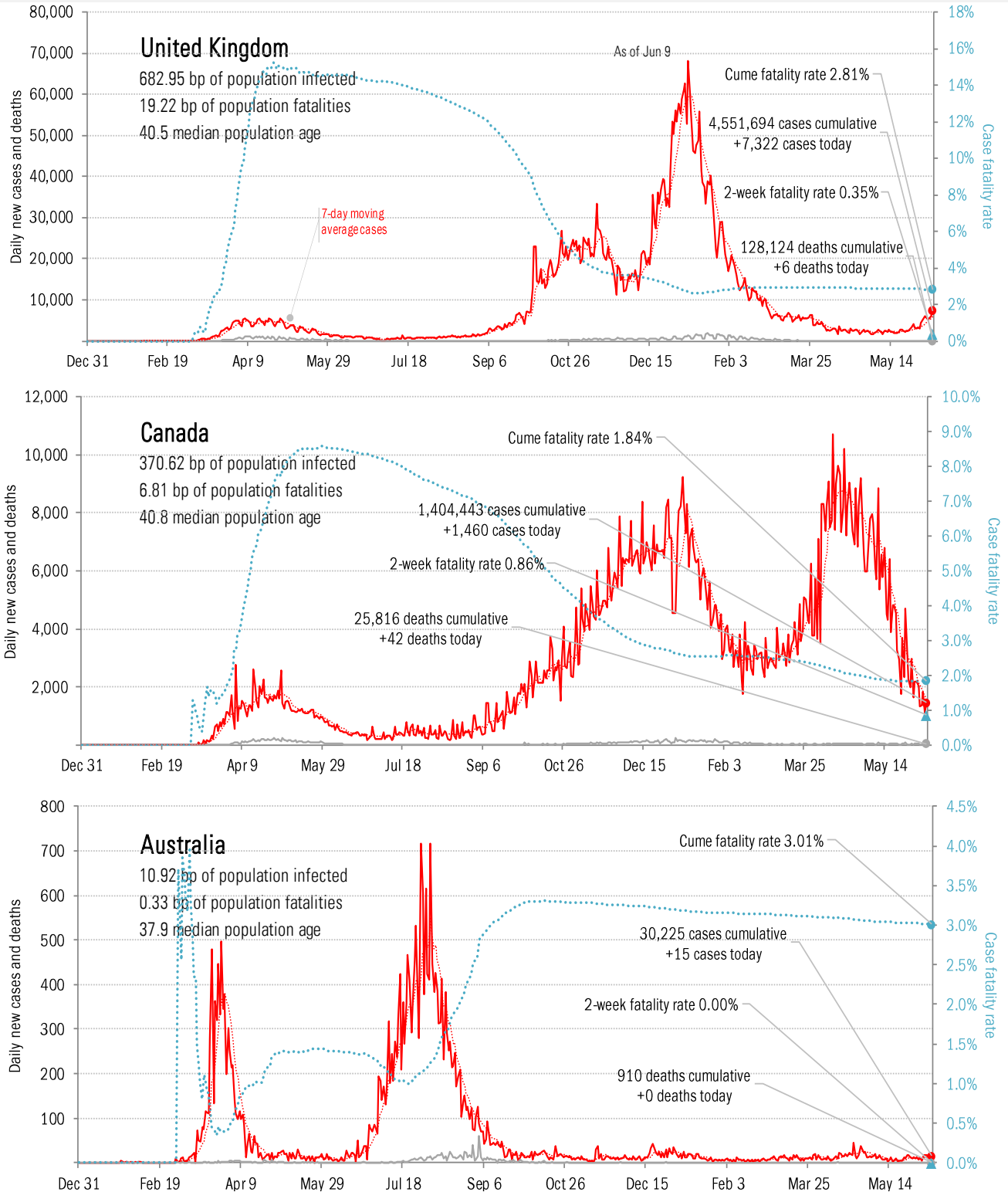
Source: Johns Hopkins, TrendMacro calculations

Impact in the largest economies



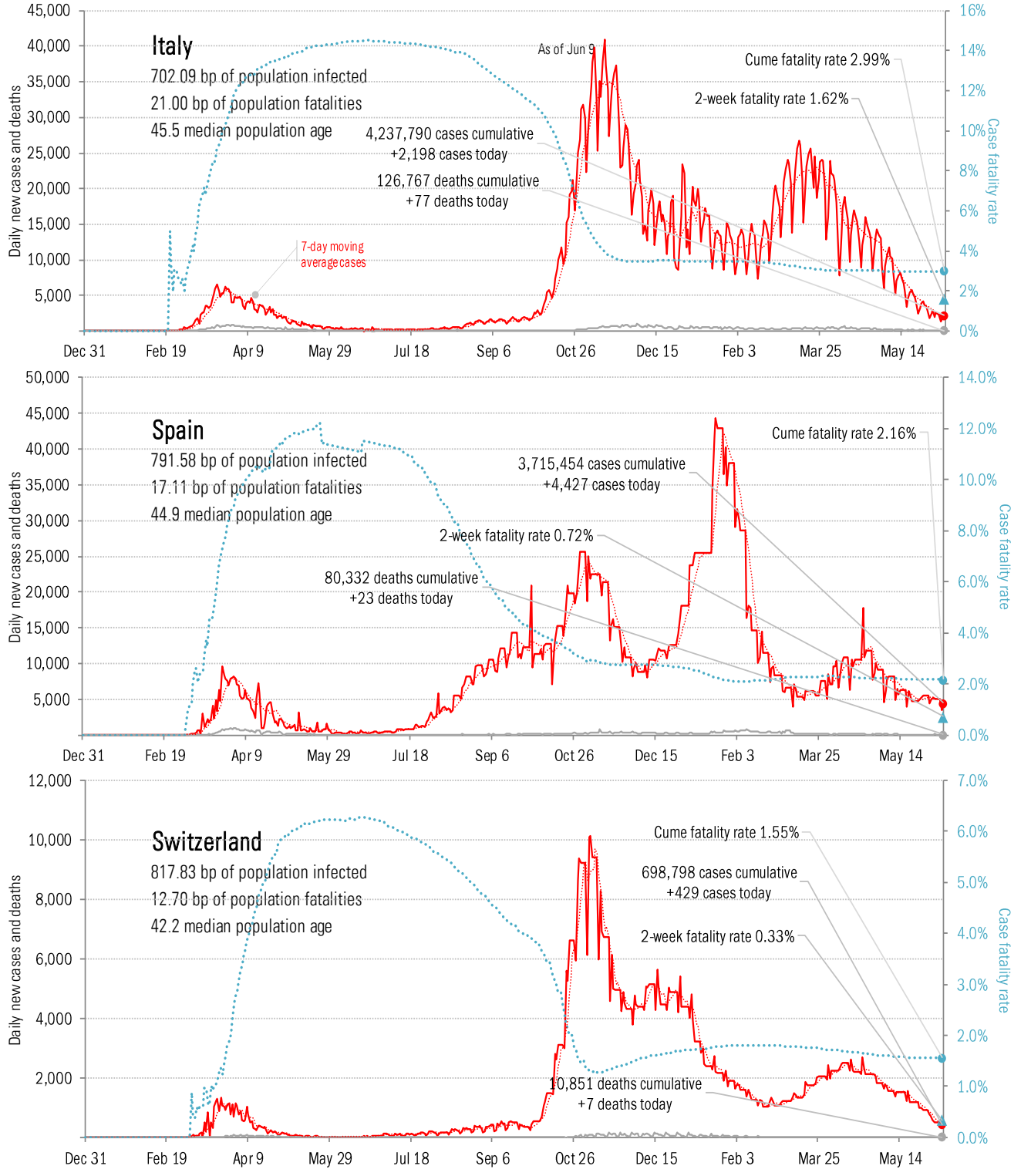
Source: Johns Hopkins, TrendMacro calculations

Impact in The Anglosphere



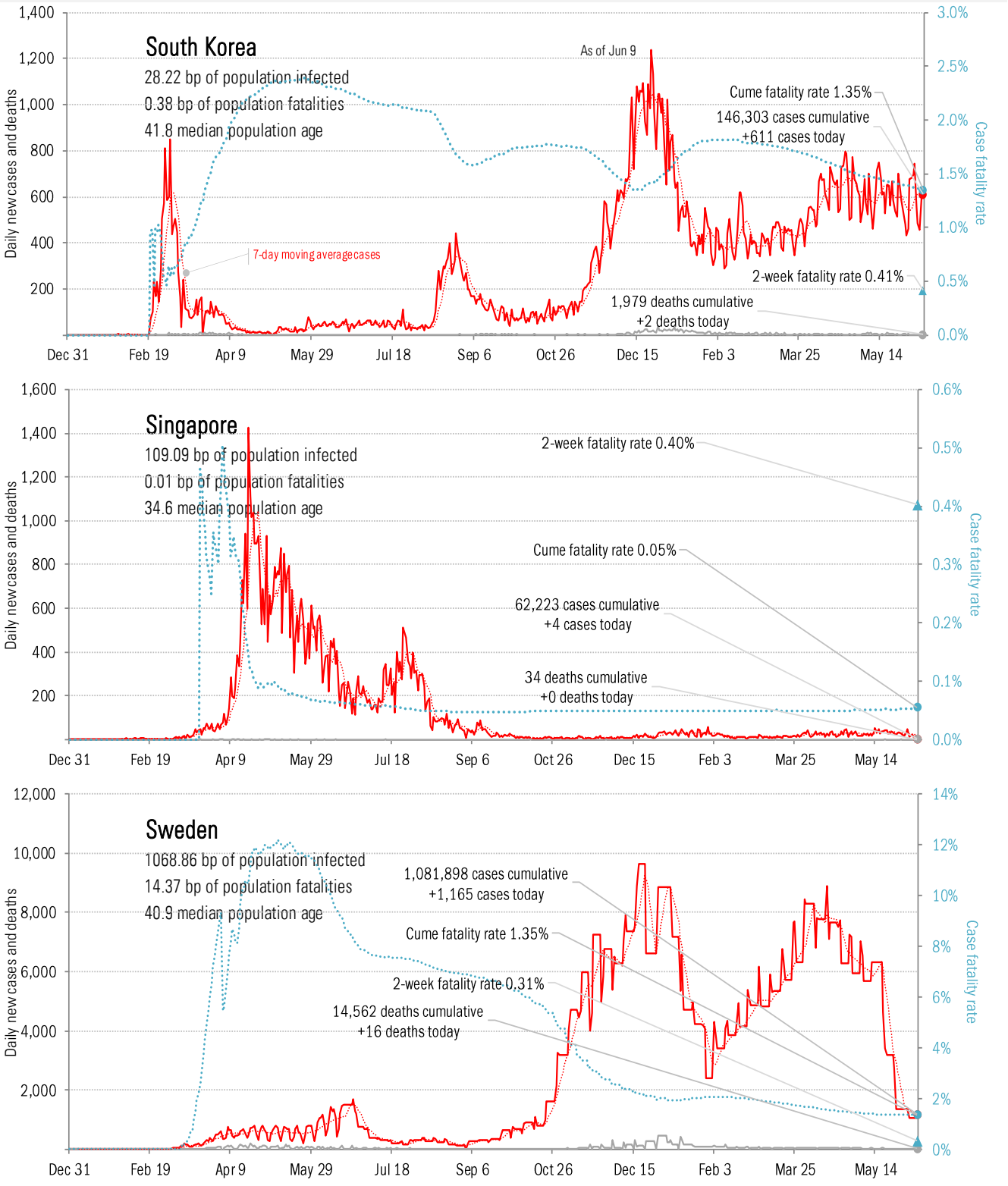
Source: Johns Hopkins, TrendMacro calculations

Impact in continental Europe



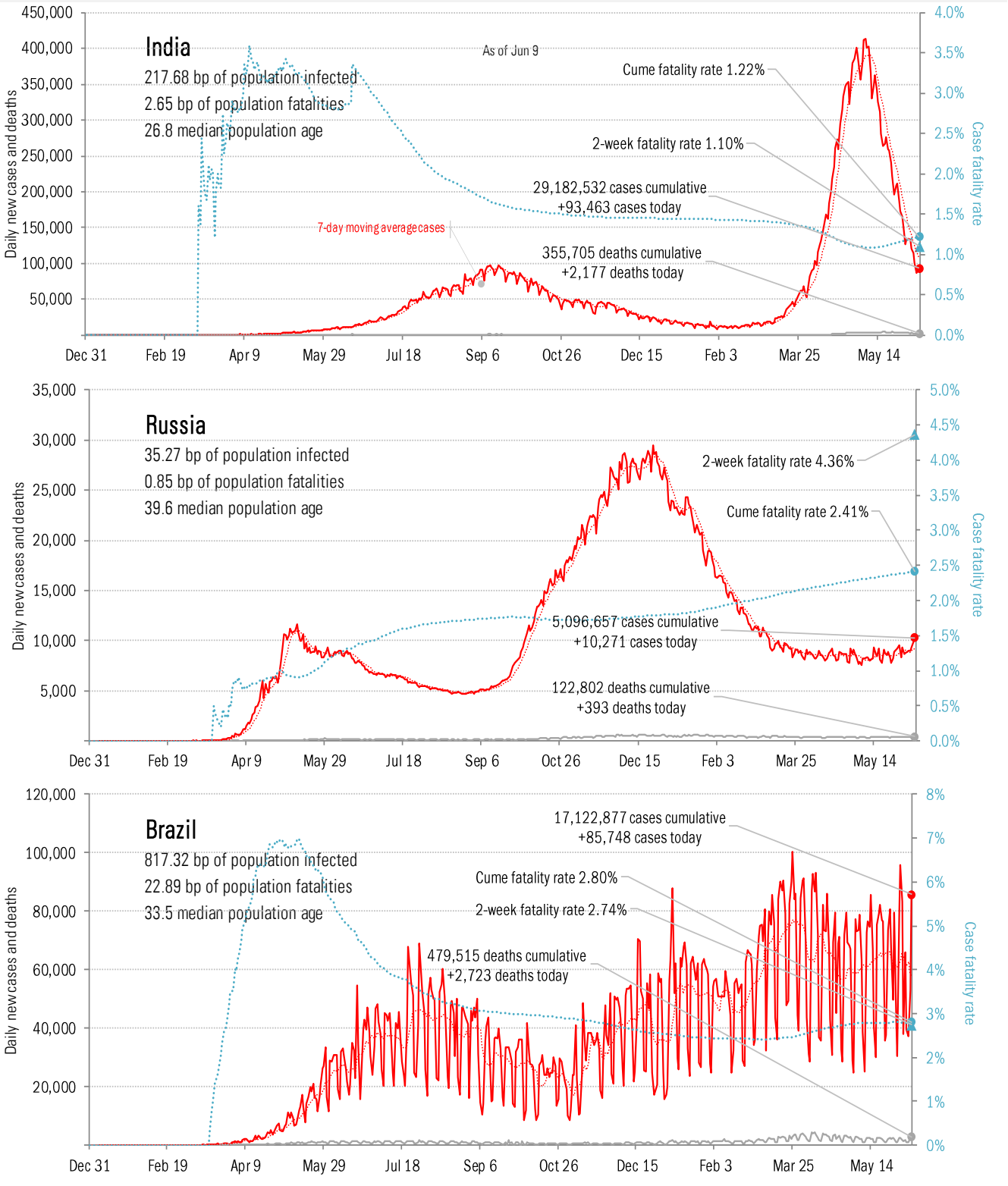
Source: Johns Hopkins, TrendMacro calculations

Impact in other hot-spots



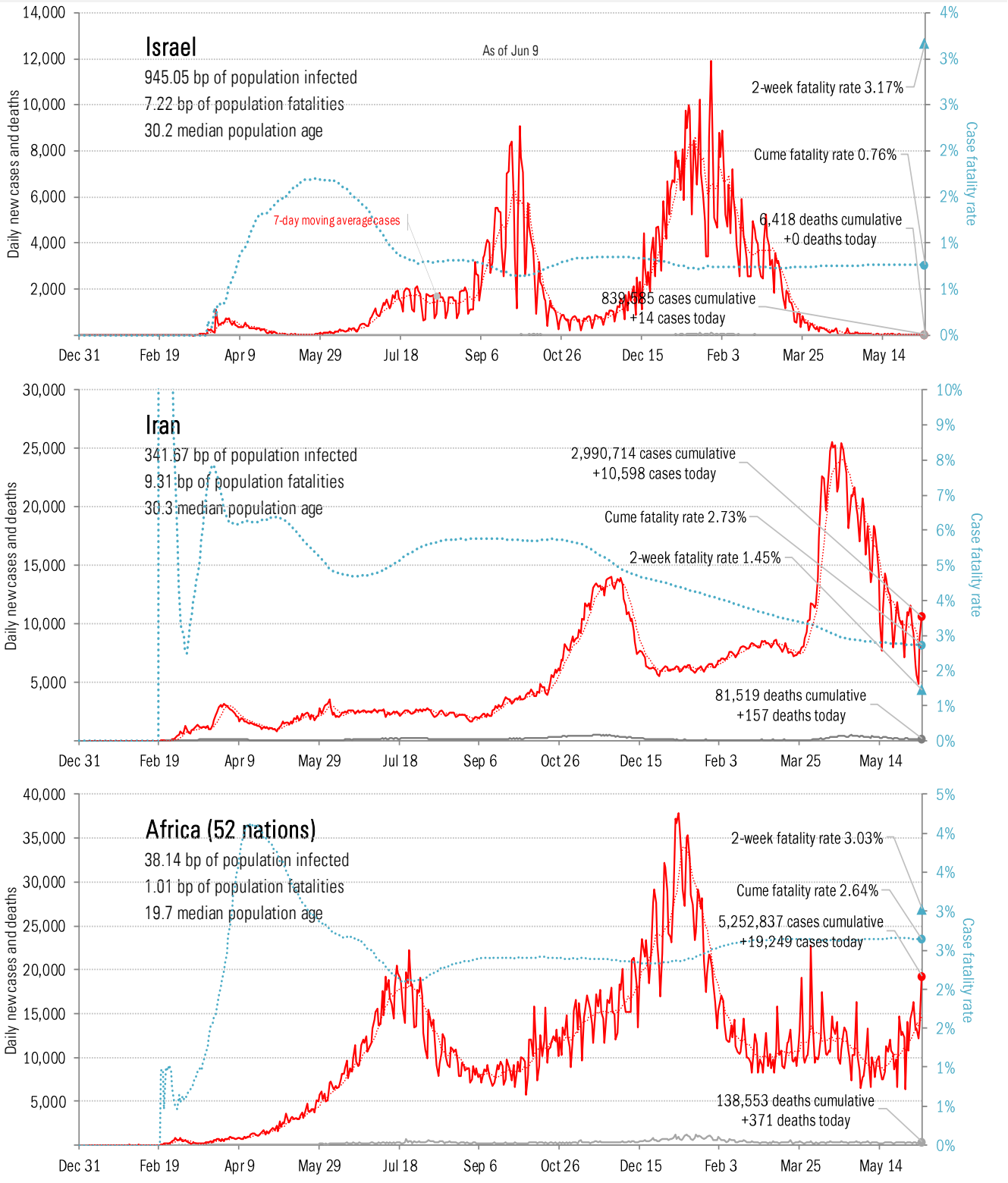
Source: Johns Hopkins, TrendMacro calculations

Impact in the BRICs ex-China



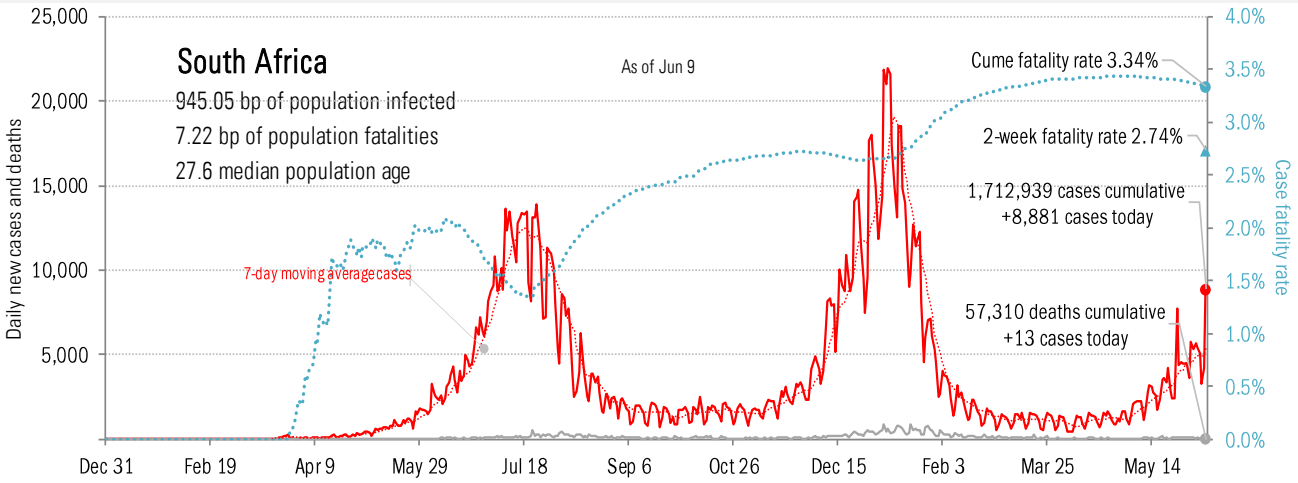
Source: Johns Hopkins, TrendMacro calculations

Impact in the Middle East and Africa



Source: Johns Hopkins, TrendMacro calculations

Impact in Africa, continued



Source: Johns Hopkins, TrendMacro calculations