Trend Macrolytics, LLC
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Data Insights: Covid-2019 Monitor

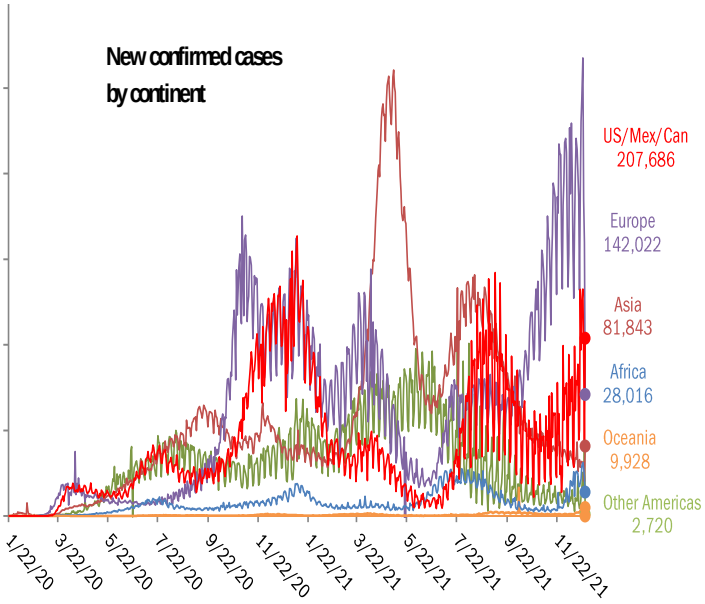
Monday, December 27, 2021

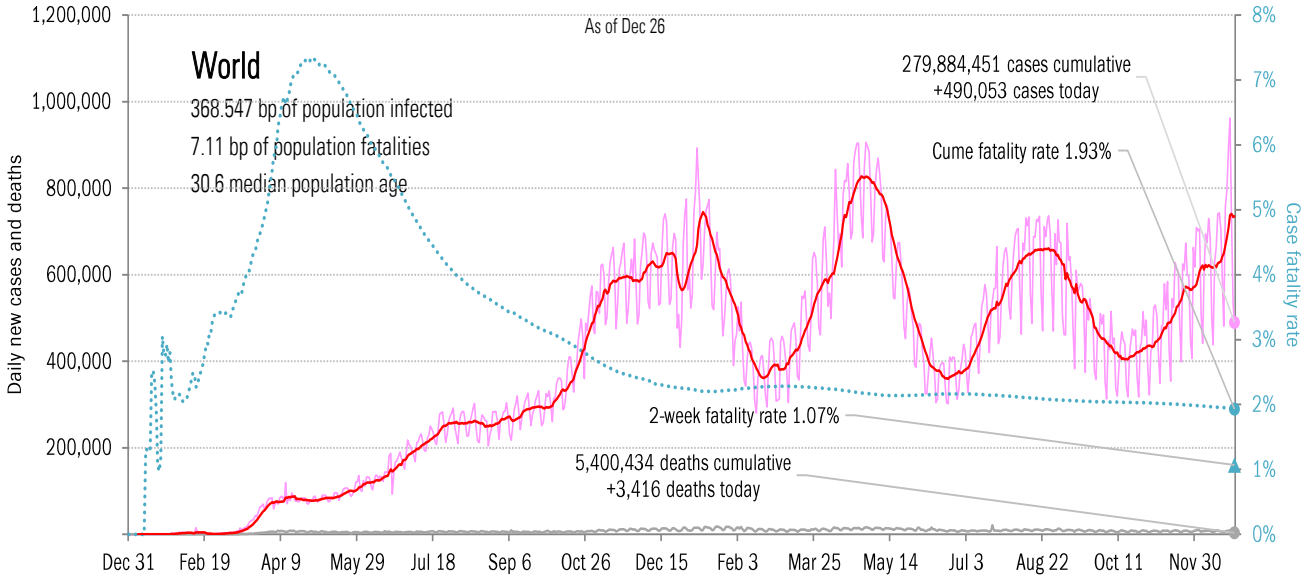
The global scorecard

Cases: 7-day average and daily Deaths: Daily

The worst ten countries

New cases		New Deaths	
United States	199,786	Russia	942
Turkey	40,608	Turkey	318
France	27,697	India	315
Italy	24,882	Vietnam	207
Russia	23,543	Ukraine	164
Vietnam	15,218	France	96
Netherlands	12,204	United States	94
Ireland	10,404	Italy	81
Germany	10,172	Greece	79
Australia	9,884	Georgia	69
	374,398		2,365
World	490,053	World	3,416
Top ten	76%	Top ten	69%





Source: Johns Hopkins, TrendMacro calculations

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Thomas Demas: 704 552 3625 tdemas@trendmacro.com

The US scorecard

Cases: 7-day average and daily Deaths: Daily

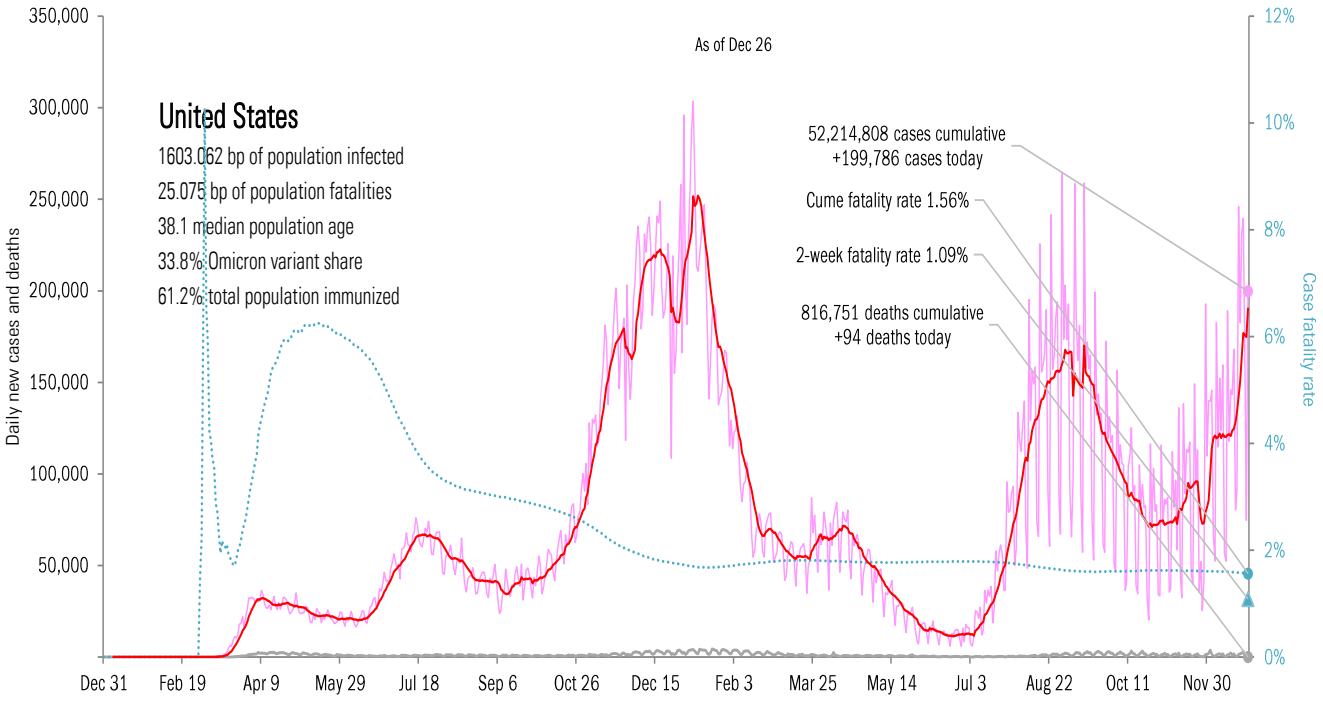
The ten worst US states

New cases		New Deaths		New in hospital		Cume cases		Cume deaths		Cume in hospital		Hospital use		ICU use	
NY	82,350	TN	69	FL	236	CA	5,310,698	CA	76,139	TX	395,989	RI	89%	RI	94%
MD	25,035	NY	43	TX	231	TX	4,476,910	TX	75,322	CA	330,812	MN	83%	NM	88%
OH	20,917	FL	18	NY	226	FL	3,841,702	FL	62,489	FL	330,733	MD	83%	NH	88%
CA	20,794	CA	13	GA	221	NY	3,184,372	NY	58,980	NY	186,381	CT	80%	MI	87%
FL	17,838	AR	8	CA	167	IL	2,021,302	PA	36,050	GA	167,957	WA	79%	MO	85%
NJ	14,159	NJ	7	NJ	132	PA	1,954,488	GA	31,209	OH	151,038	MA	79%	MN	85%
PA	6,839	MO	4	CO	116	OH	1,931,908	IL	29,868	PA	139,953	MI	79%	KY	85%
PR	6,620	MP	2	IL	109	GA	1,733,600	NJ	28,861	IL	122,491	AZ	77%	NV	84%
MO	2,238	AK	0	OH	71	MI	1,645,578	OH	28,720	KY	119,229	PA	76%	OK	84%
DE	1,264	AL	0	LA	52	NC	1,607,378	MI	28,345	MI	115,312	MO	76%	IN	84%
	198,054		164		1,561		27,707,936		455,983		2,059,895				
All states	199,786		163		1,800	All states	52,214,808		816,751		3,723,052	All states	70%		67%
Top ten	99%		101%		87%	Top ten	53%		56%		55%	Median	71%		76%

Some states not reporting

Five most improved US states

Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most pop immunity growth	
PR	-10,634	FL	-106	NC	-199	MP	+30 bp
NJ	-5,322	AZ	-71	IN	-60	DC	+20 bp
AZ	-3,151	AR	-6	KS	-28	ME	+20 bp
PA	-3,017	HI	-4	ME	-28	WY	+10 bp
HI	-1,591	PR	-3	WA	-20	ND	+10 bp



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

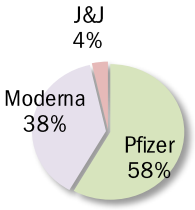
Rolling out the vaccines in the US and the world

Because of the Christmas holiday, the CDC did not update its vaccine database.

Administered	Cumulative				
Doses	513,377,812				+1.310 million
Boosters	65,466,868				
	One dose	% Pop	Immune	% pop	New immune today
Total population	247,490,310	74%	209,872,215	63%	+0.076 million
Age 12 to 17	15,052,720	63%	12,685,111	53%	+0.017 million
Age 18 to 64	167,576,818	82%	142,939,633	70%	+0.045 million
Age 65 and over	57,498,823	100%	49,552,985	90%	+0.146 million

	Partial
%	72.8%
UK	69.2%	75.7%
France	72.6%	77.9%
Spain	80.9%	84.3%
Germany	70.1%	73.1%
Italy	73.8%	79.7%
Australia	76.3%	79.1%
Israel	63.1%	69.9%
Canada	77.1%	83.1%
Japan	78.1%	79.5%
Africa	8.8%	14.4%
India	40.5%	59.8%
Brazil	66.7%	77.5%
China	82.6%	84.8%

Global data differs due to sources, timing



State
At least partial immunity as % population
Full immunity as % population

Best
Middle
Worst

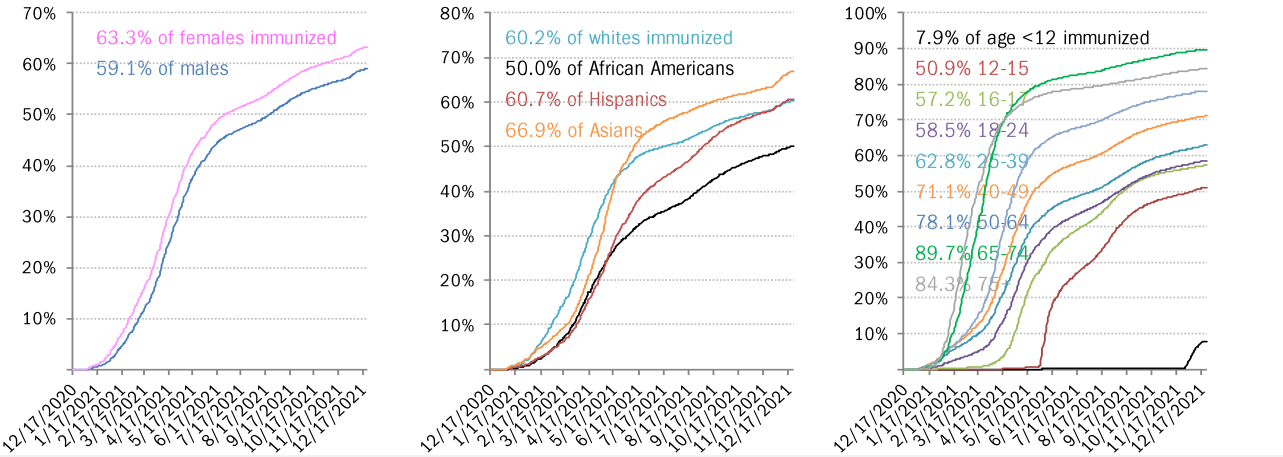
Every American >18 immunized in
254 days
by Sep 2, 2022

74.5% of population >18 immunized
18.2% previously tested positive
92.8% vs 60% adult herd immunity

As of Dec 23

AK					WI					ME
64.7%					67.8%					85.2%
56.1%					61.7%					75.5%
WA	ID	MT	ND	MN	IL	MI		NY	VT	NH
75.2%	52.0%	61.7%	61.9%	71.0%	71.6%	63.1%		82.9%	88.7%	95.0%
67.6%	46.1%	53.8%	52.3%	65.1%	63.9%	56.5%		71.3%	76.9%	66.9%
OR	NV	WY	SD	IA	IN	OH	PA	NJ	MA	
73.7%	68.9%	55.5%	70.3%	64.5%	57.6%	60.1%	77.3%	82.8%	89.8%	
66.2%	56.1%	47.3%	56.7%	58.7%	51.8%	55.0%	63.5%	70.1%	74.2%	
CA	UT	CO	NE	MO	KY	WV	VA	MD	CT	RI
82.0%	66.9%	74.0%	66.0%	62.0%	62.1%	61.6%	78.4%	79.8%	87.8%	87.8%
65.7%	58.4%	65.8%	59.5%	52.8%	54.0%	54.8%	67.6%	70.1%	74.3%	75.9%
	AZ	NM	KS	AR	TN	NC	SC	DC	DE	
	66.7%	80.2%	68.7%	62.3%	58.4%	75.4%	62.3%	87.3%	76.1%	
	56.7%	65.9%	56.6%	50.9%	51.1%	56.4%	52.9%	67.2%	63.9%	
			OK	LA	MS	AL	GA			
			65.4%	57.0%	55.2%	58.1%	60.7%			
			53.2%	50.0%	48.0%	47.3%	50.6%			
HI			TX					FL		PR
86.1%			66.3%					74.0%		88.3%
63.2%			56.6%					63.0%		76.7%

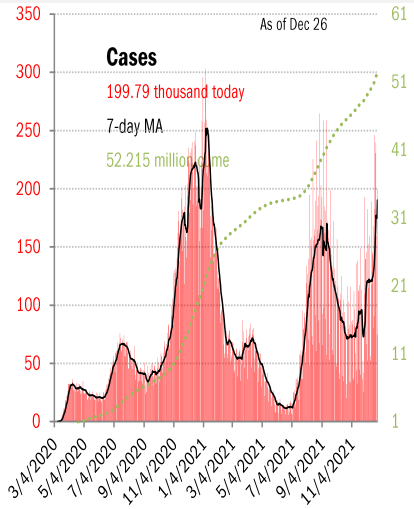
The demographics of US vaccination

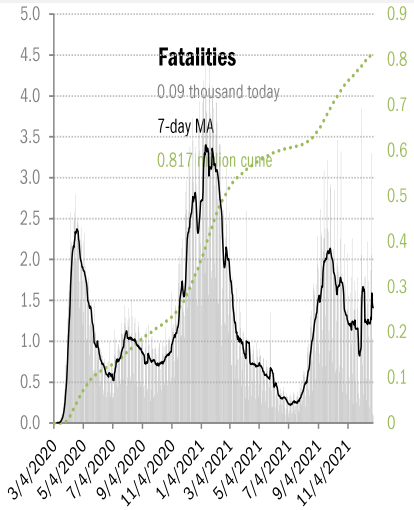


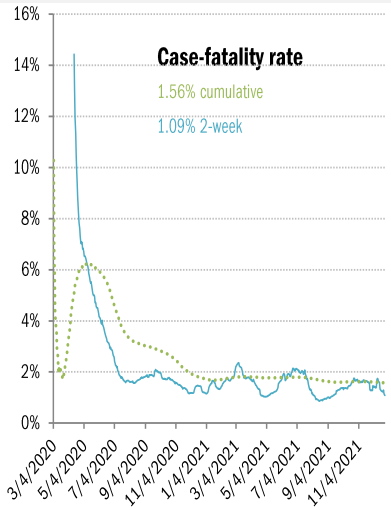
Source: CDC, CDC, Our World in Data, TrendMacro calculations

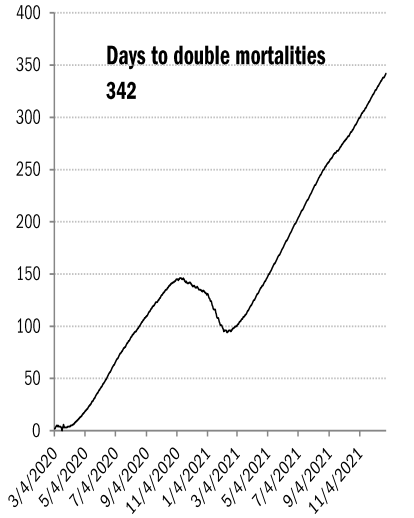
US deep-dive

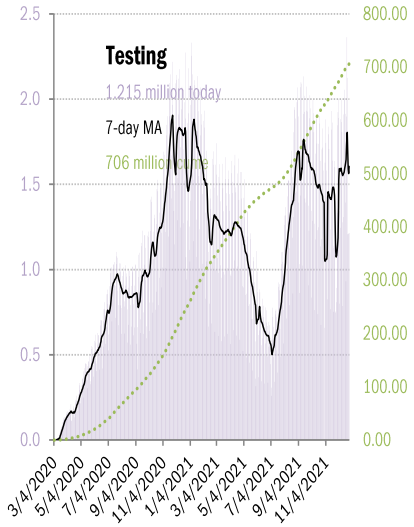
National and state-by-state data do not line up because of different sources

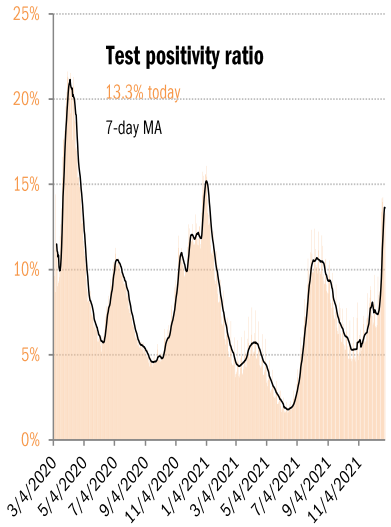


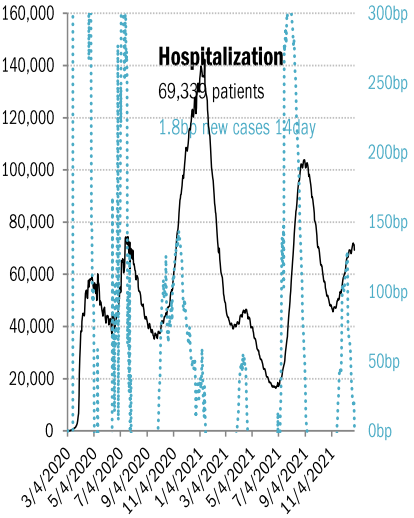


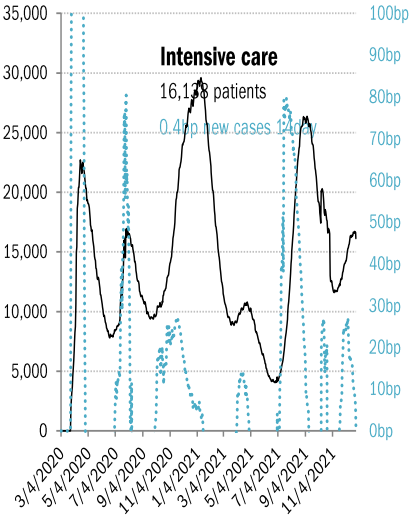


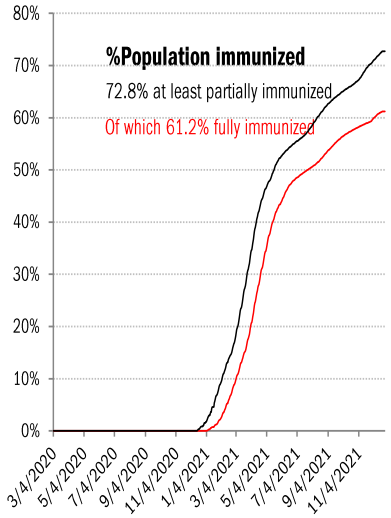












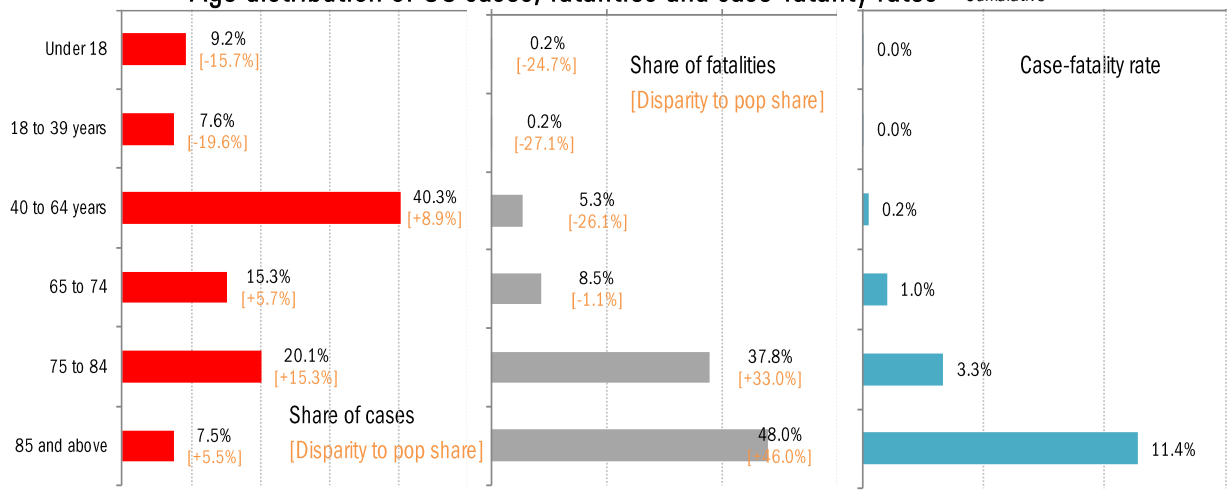
Source: Johns Hopkins, Covid Act Now, TrendMacro calculations

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

Updates weekly on Sundays

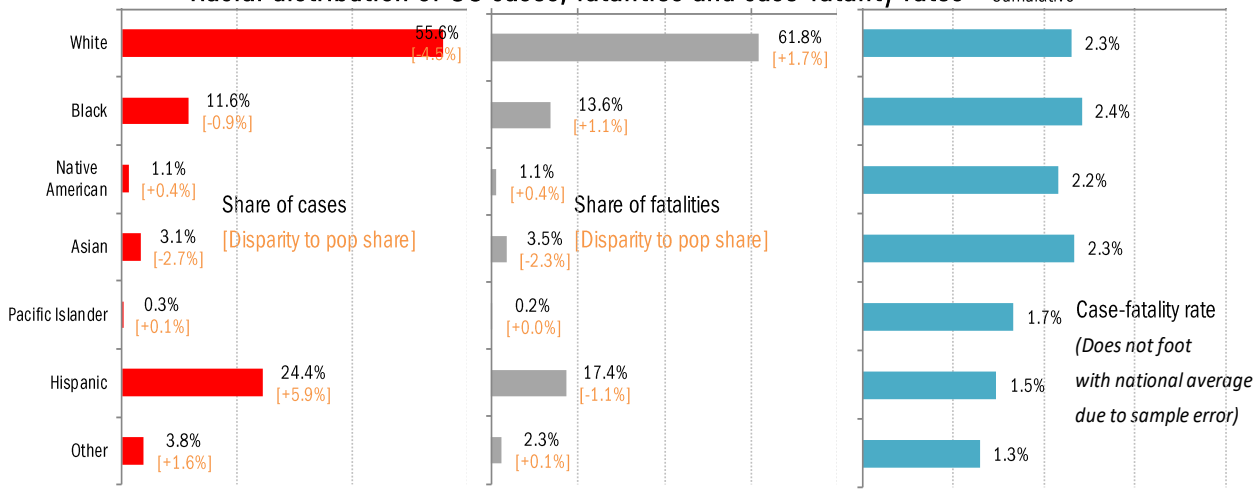
Age distribution of US cases, fatalities and case-fatality rates

Cumulative



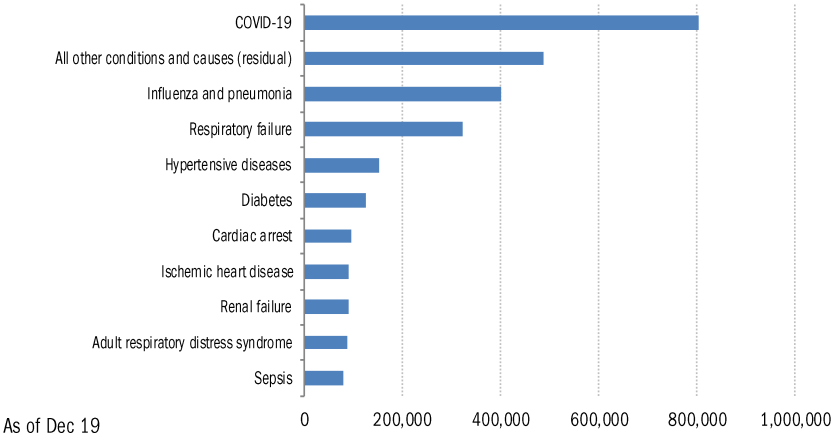
Racial distribution of US cases, fatalities and case-fatality rates

Cumulative



Comorbidities

Top-ten joint causes of Covid mortalities, cumulative



As of Dec 19

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

Judgment day: Sweden vindicated
Swiss Policy Research
December 23, 2021

A Myth is Born: How CDC, FDA, and Media Wove a Web of Ivermectin Lies That Outlives The Truth
Michael Capuzzo
RESCUE
December 23, 2021

First They Fought About Masks. Then Over the Soul of the City.
Sabrina Tavernise
New York Times
December 26, 2021

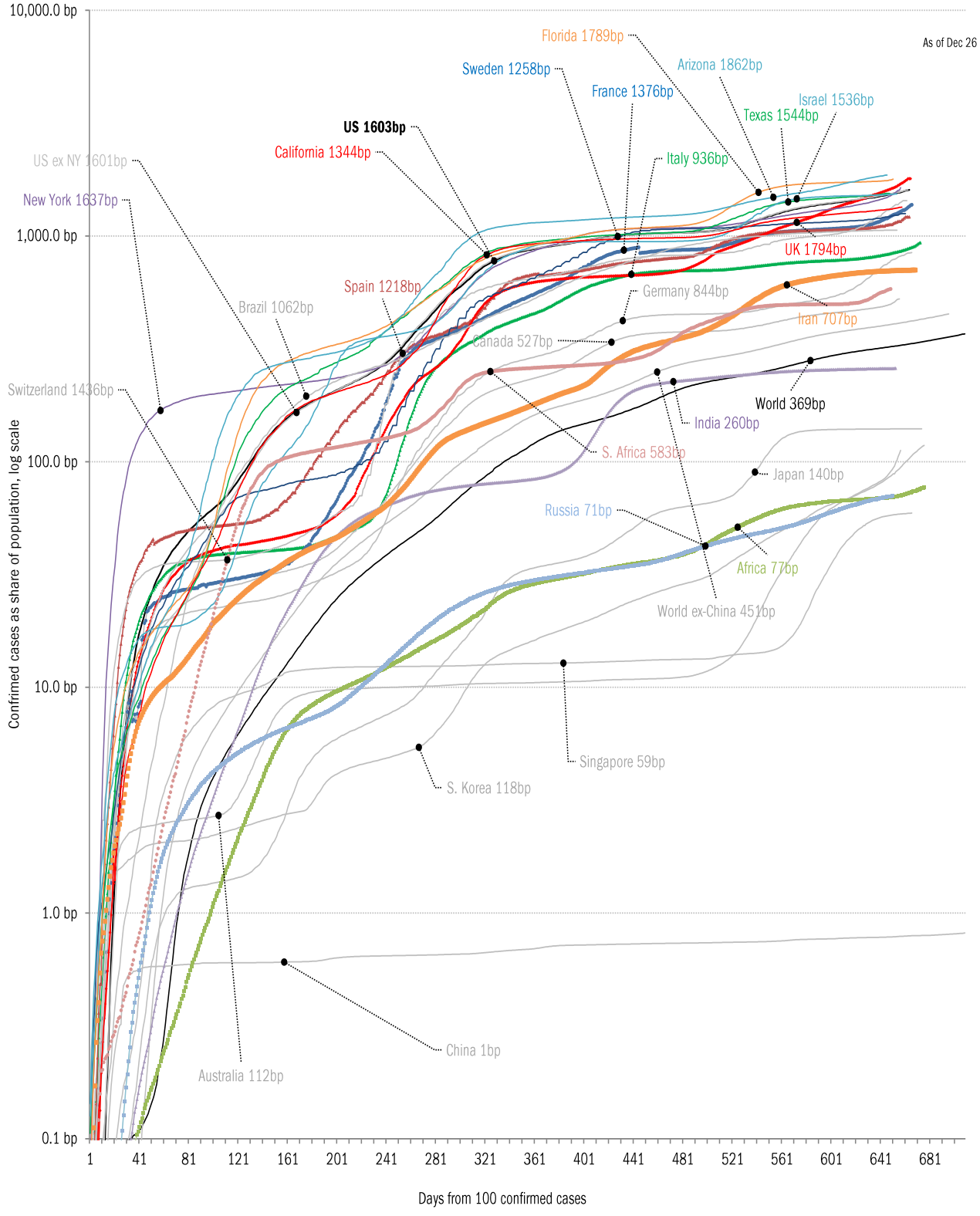
We Cannot Stop the Spread of COVID, but We Can End the Pandemic
Jay Bhattacharya
Epoch Times
December 23, 2021

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

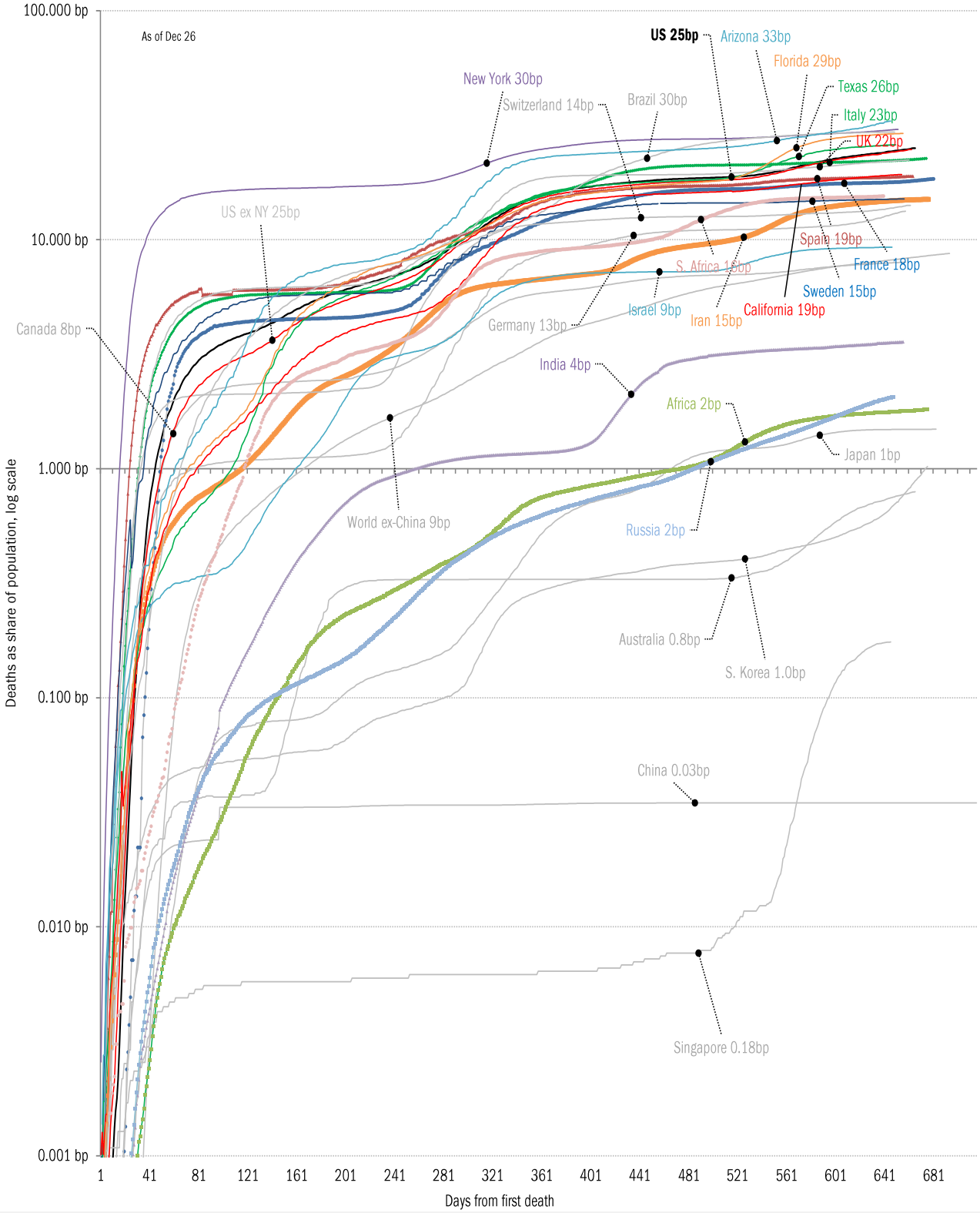
Share of infected population from first day with 100 confirmed cases, log scale



Source: Johns Hopkins, TrendMacro calculations

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

Share of deceased population from day of first fatality, log scale

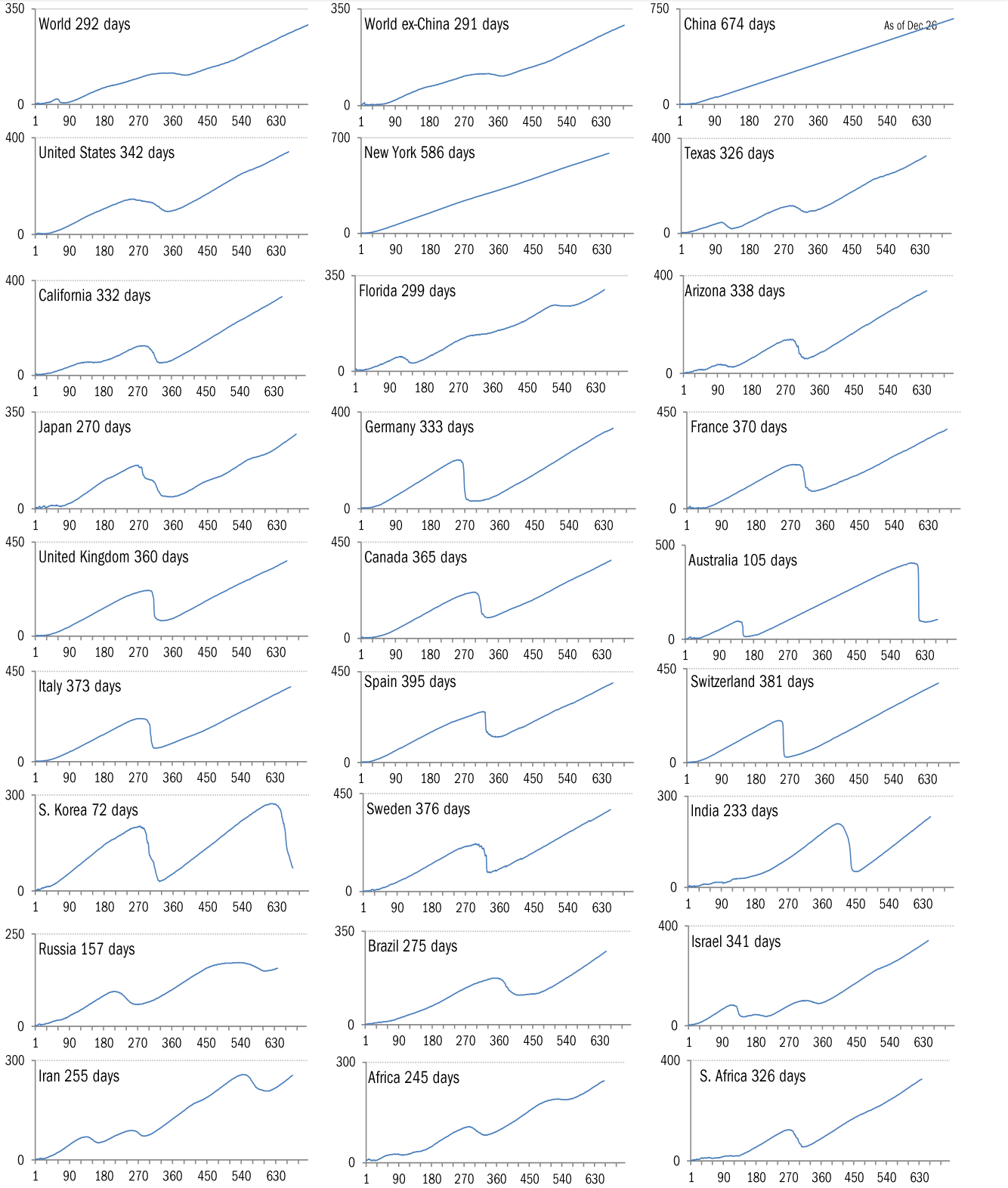


Source: Johns Hopkins, TrendMacro calculations

"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

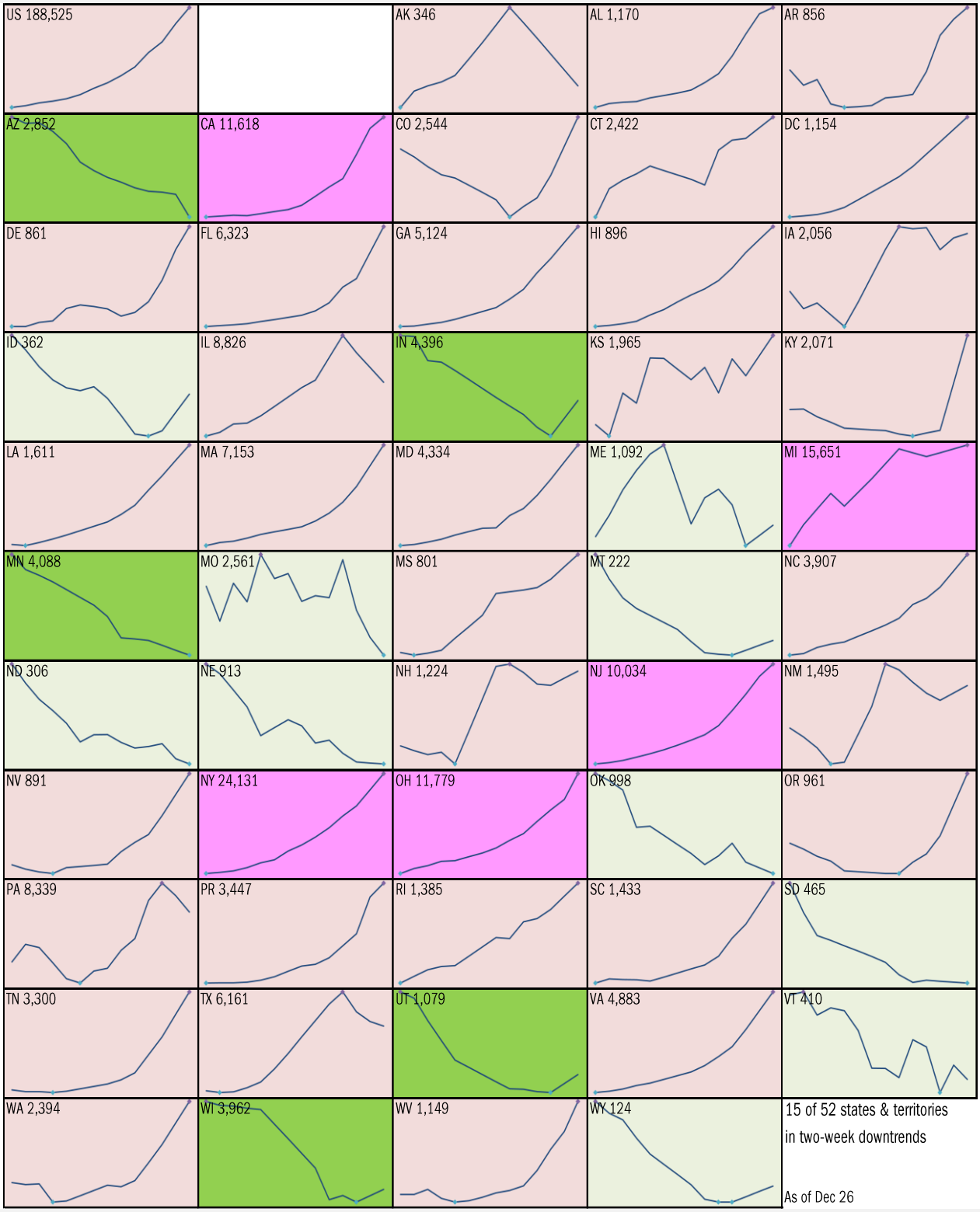


Source: Johns Hopkins, TrendMacro calculations

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

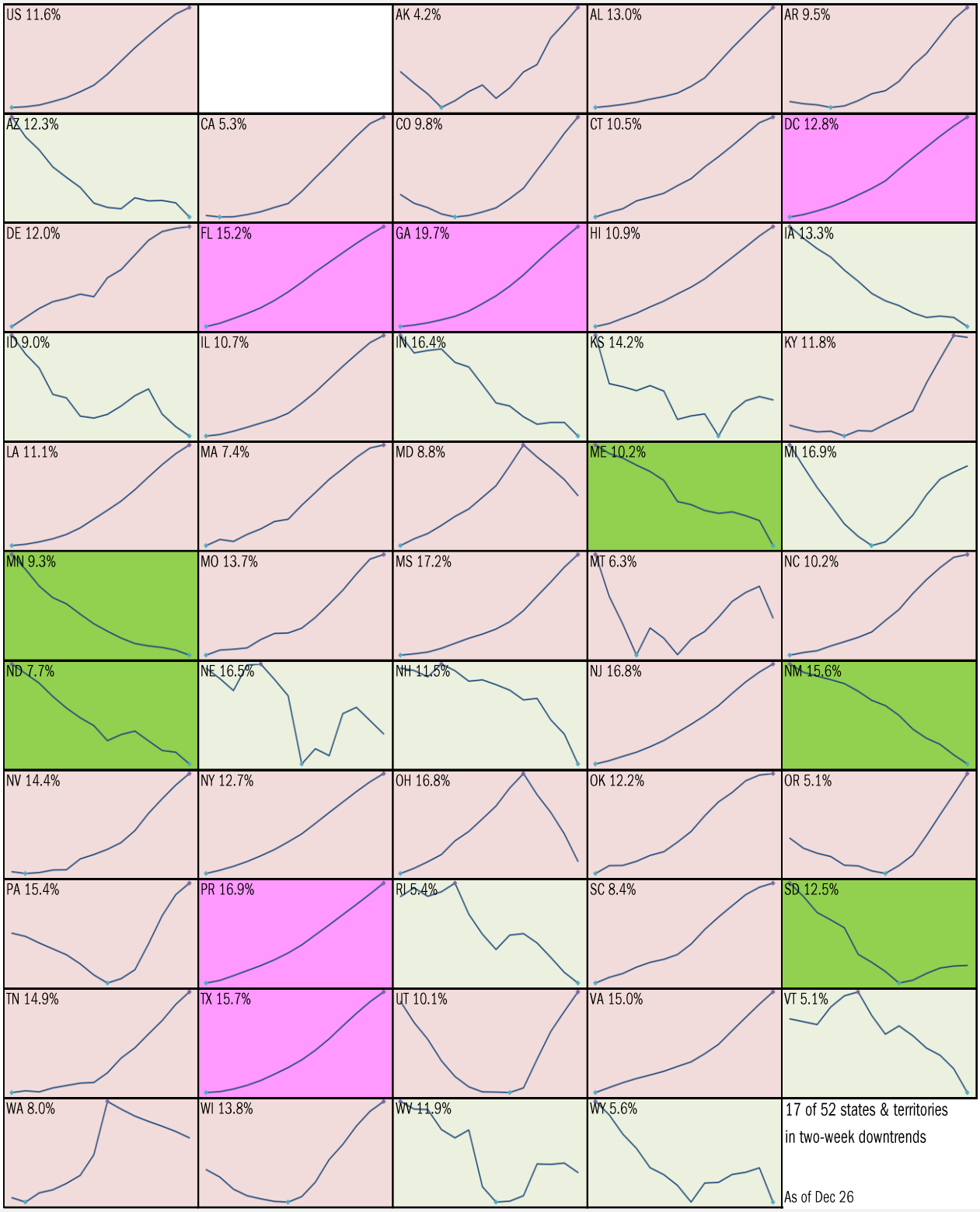


Source: Johns Hopkins, TrendMacro calculations

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

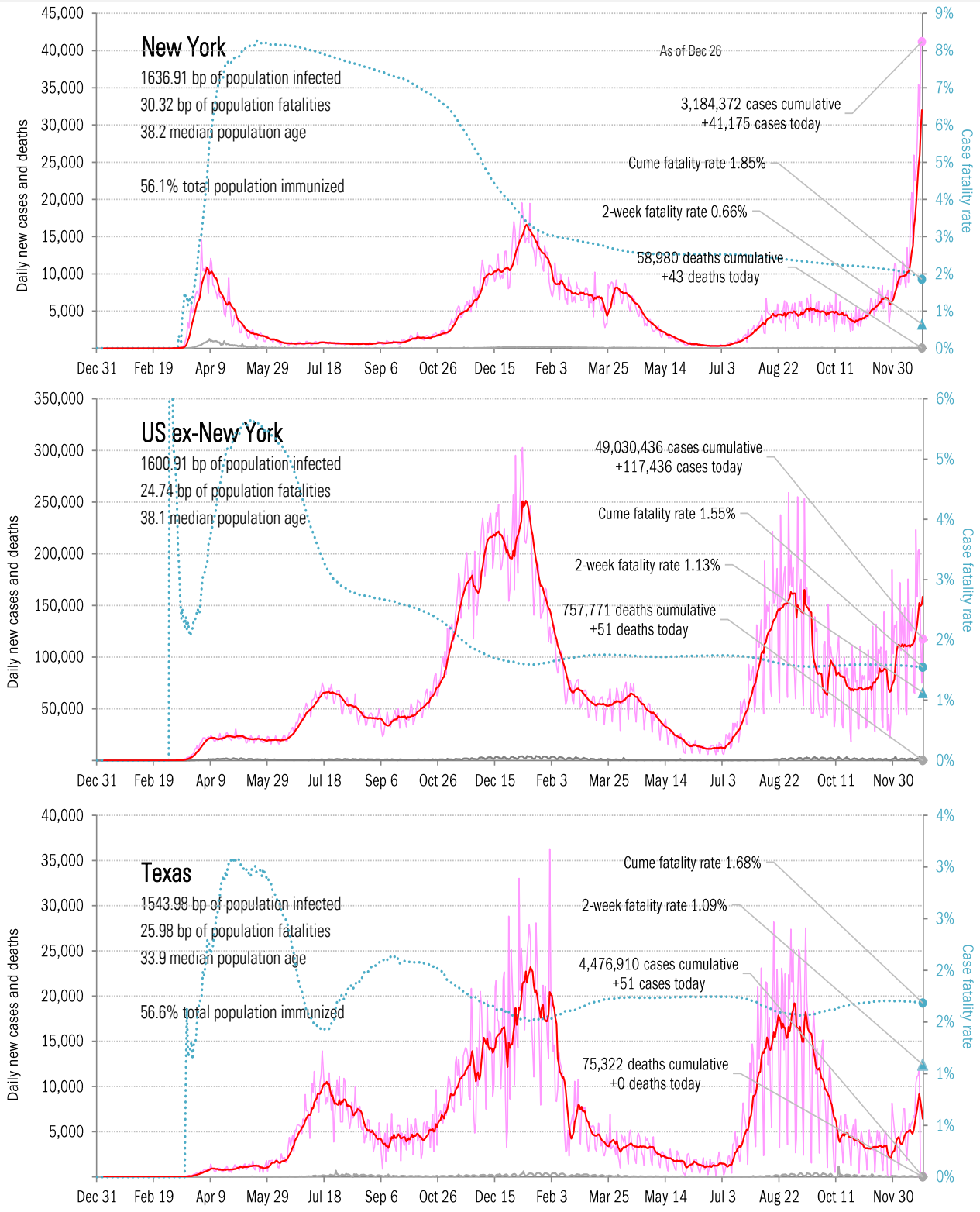
Downward trajectory Five best Upward trajectory Five worst



Source: Covid Act Now, TrendMacro calculations

From Ground Zero to the Rio Grande

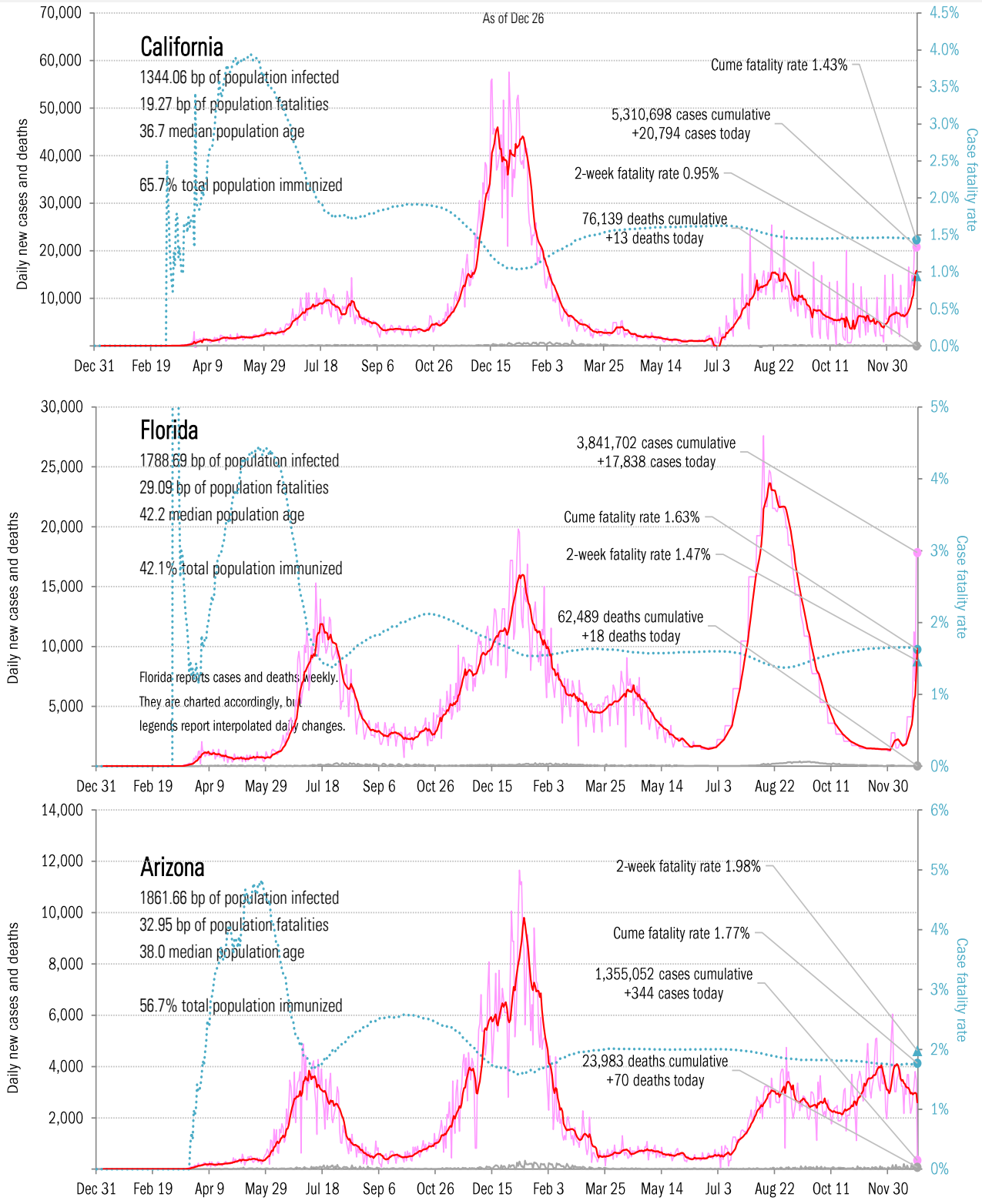
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

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

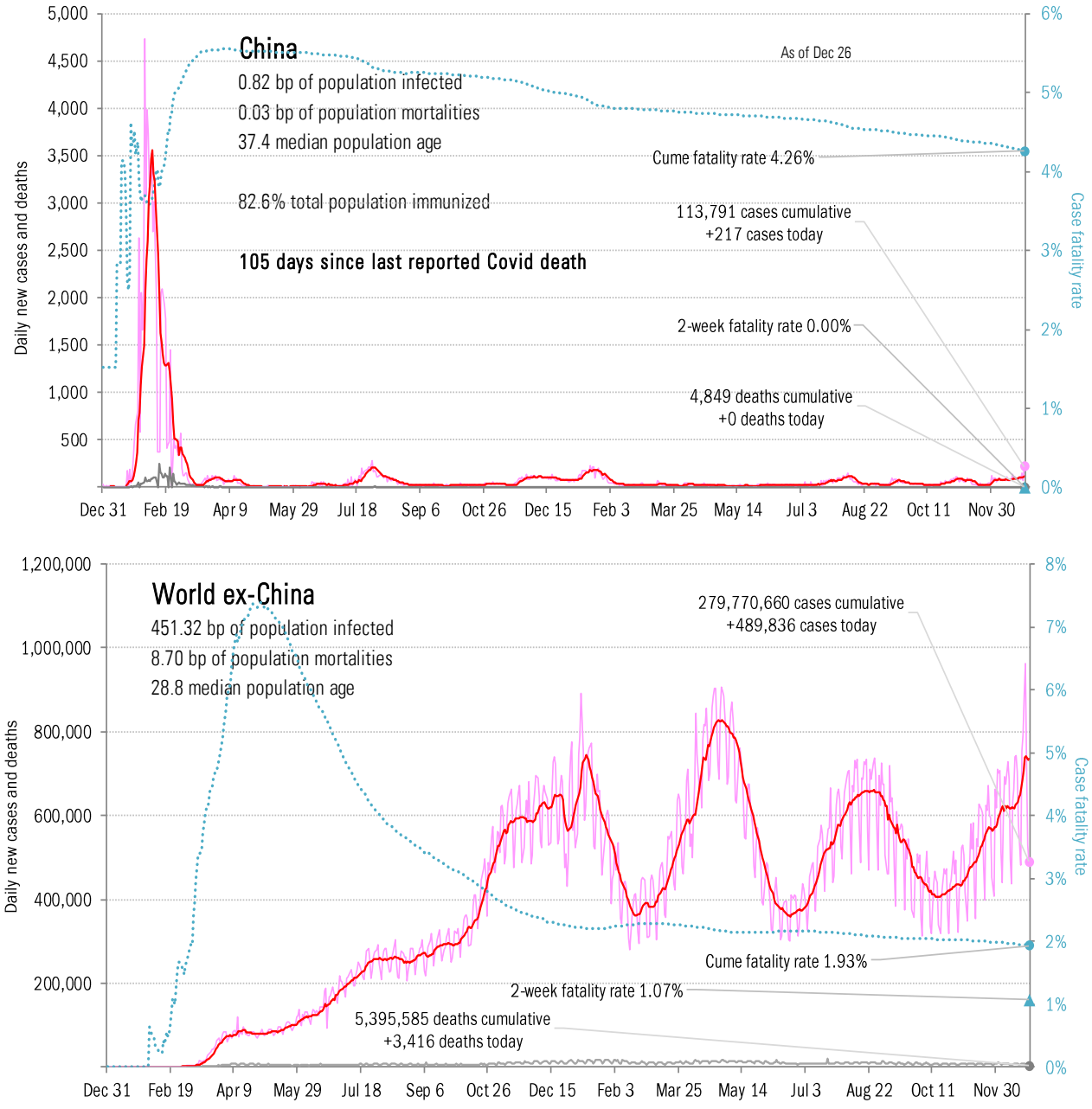
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Patient zero… and then everyone else

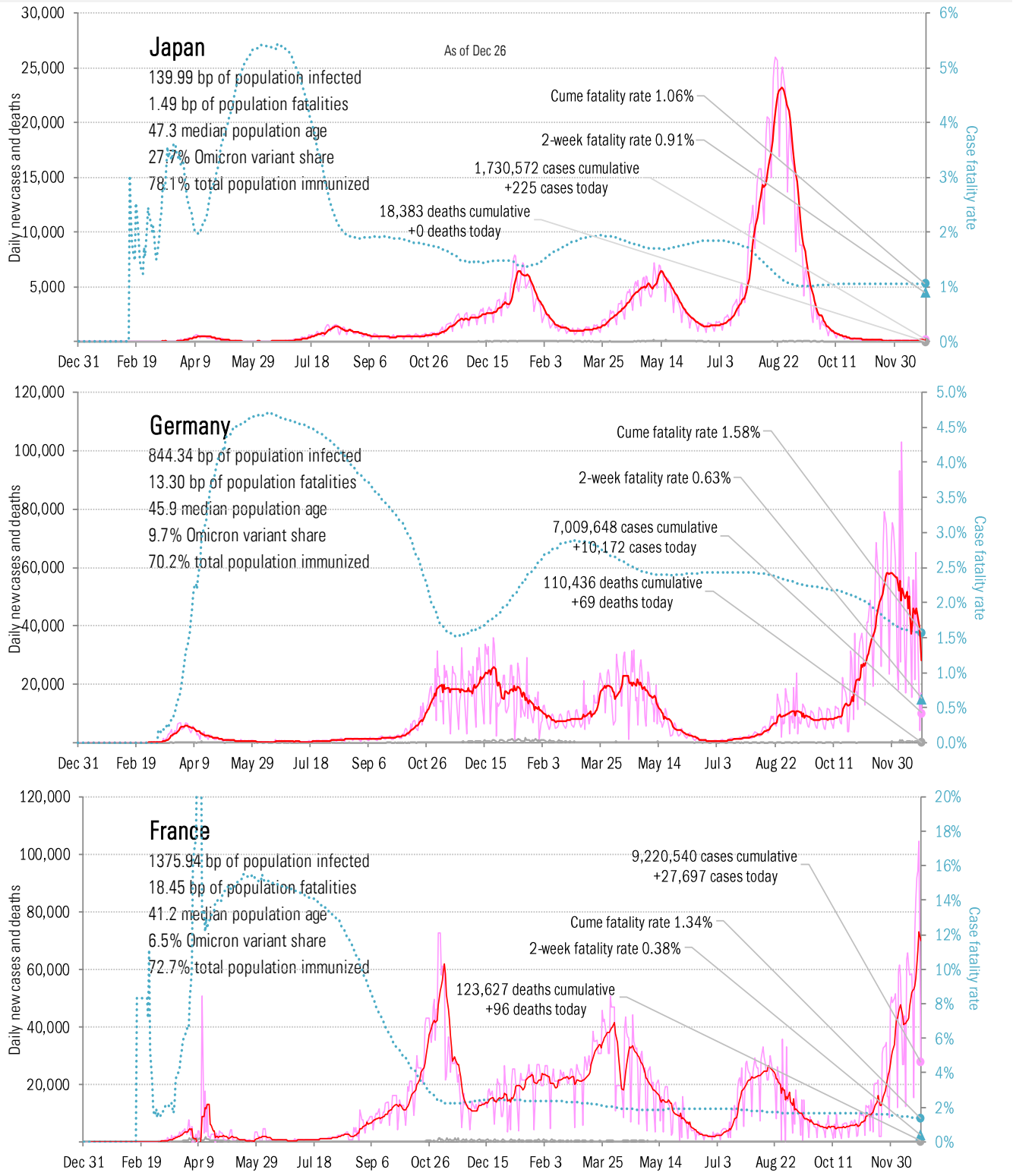
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in the largest economies

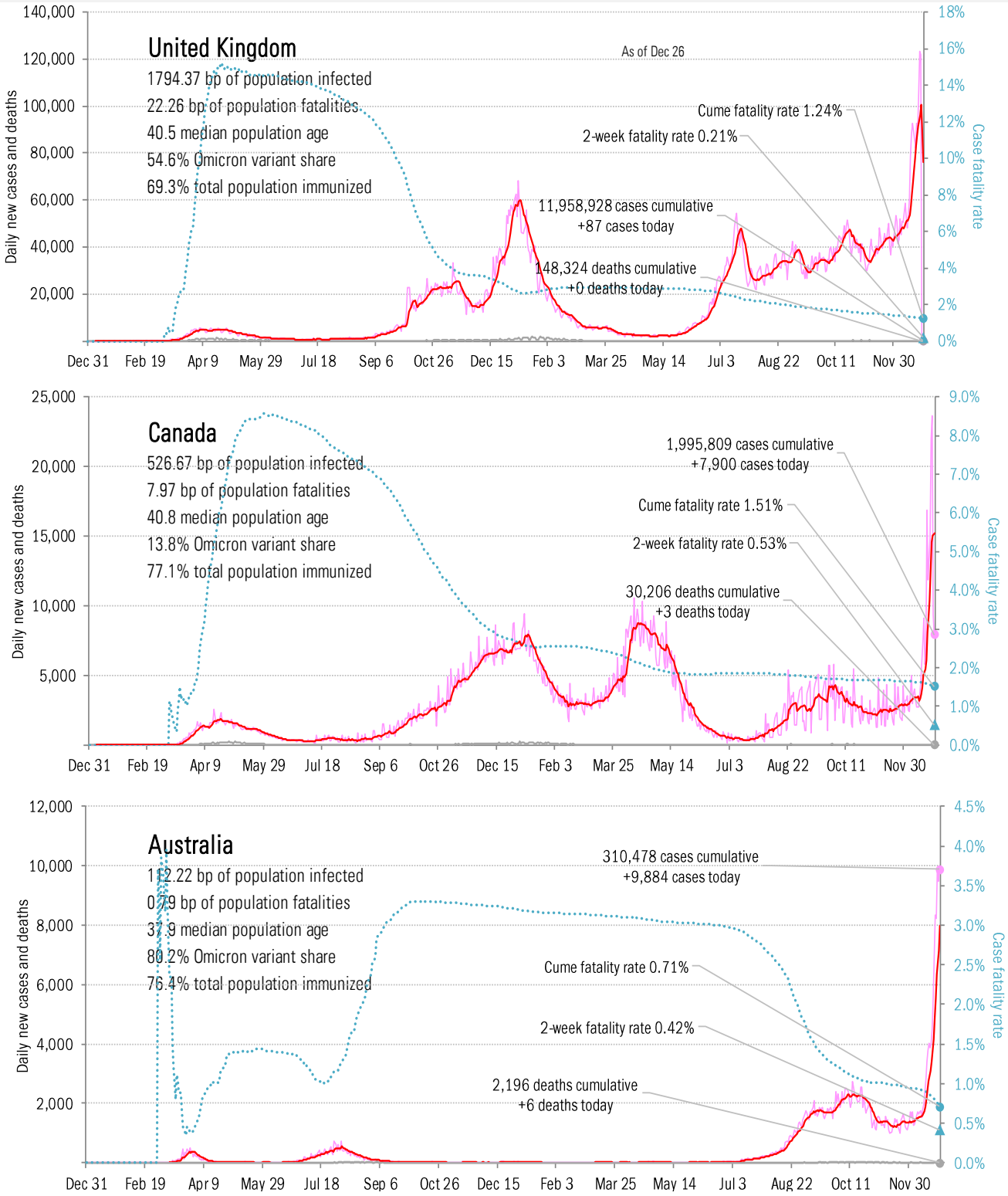
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in The Anglosphere

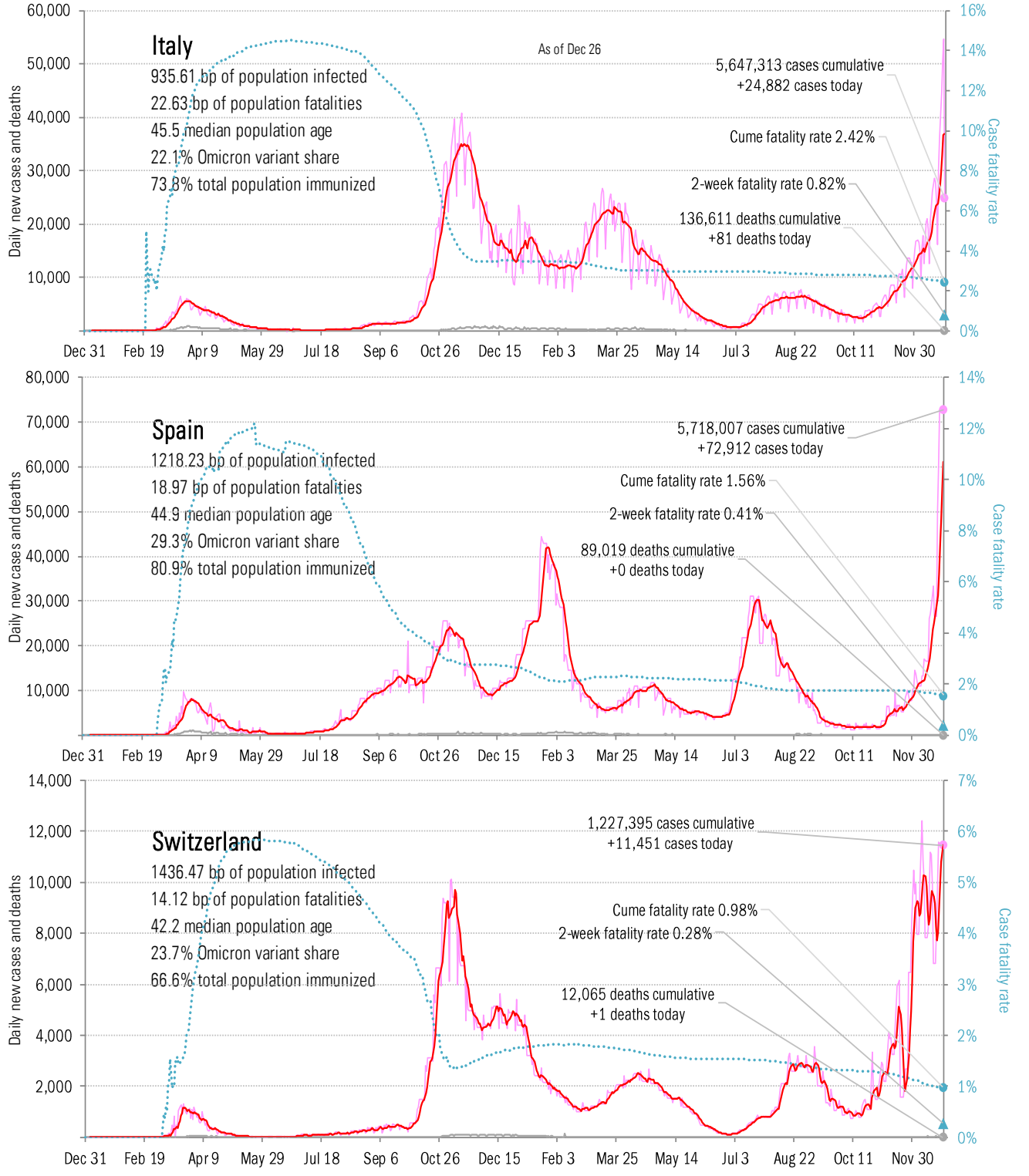
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in continental Europe

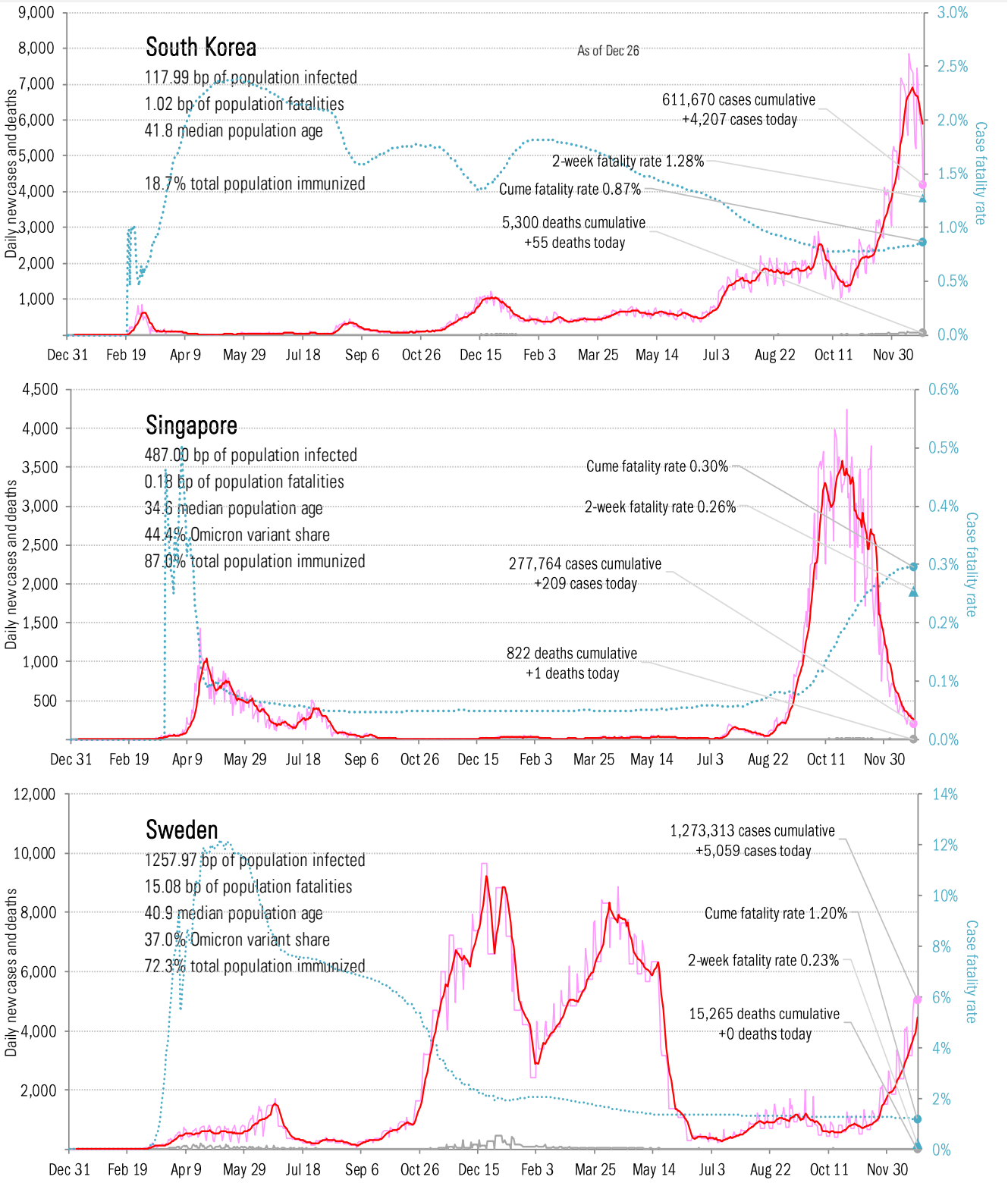
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in other hot-spots

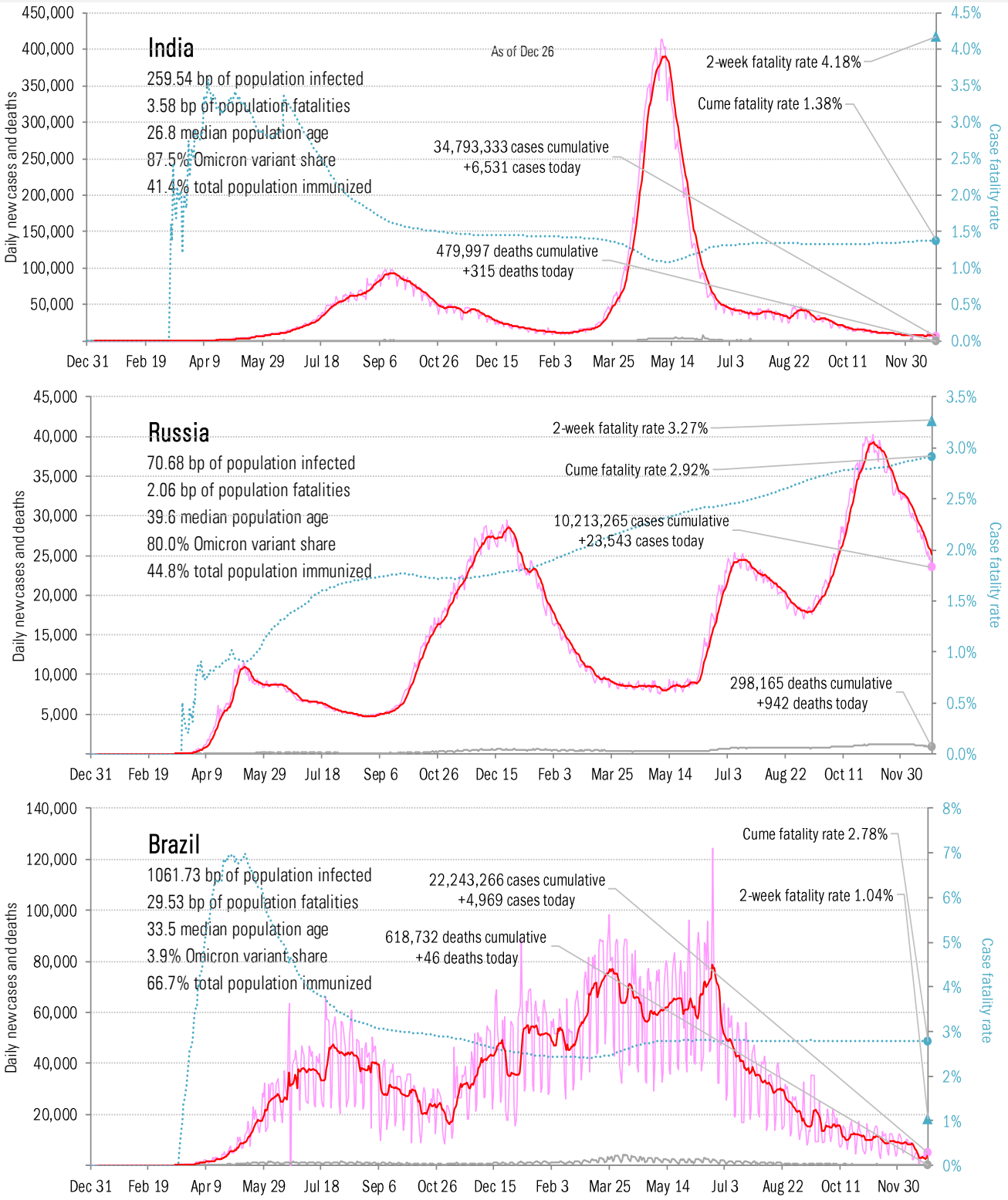
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in the BRICs ex-China

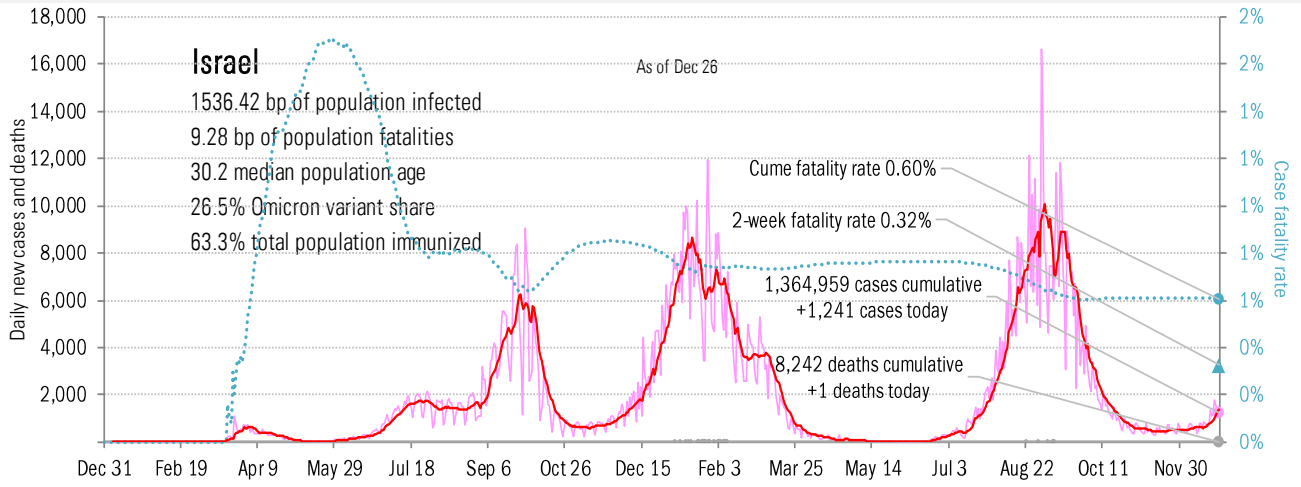
Cases: 7-day average and daily Deaths: Daily

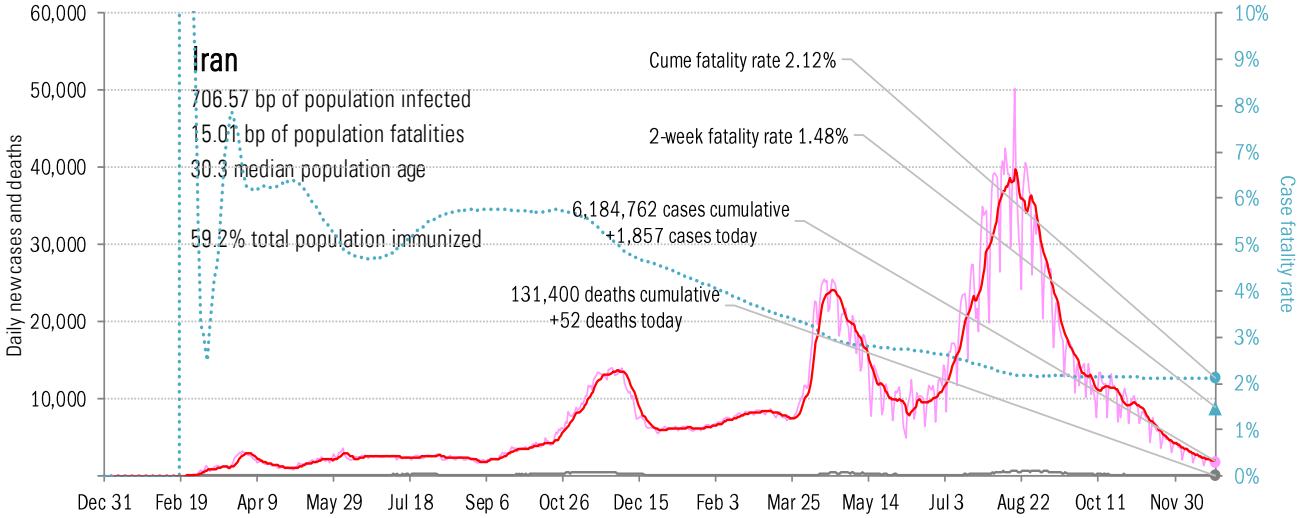


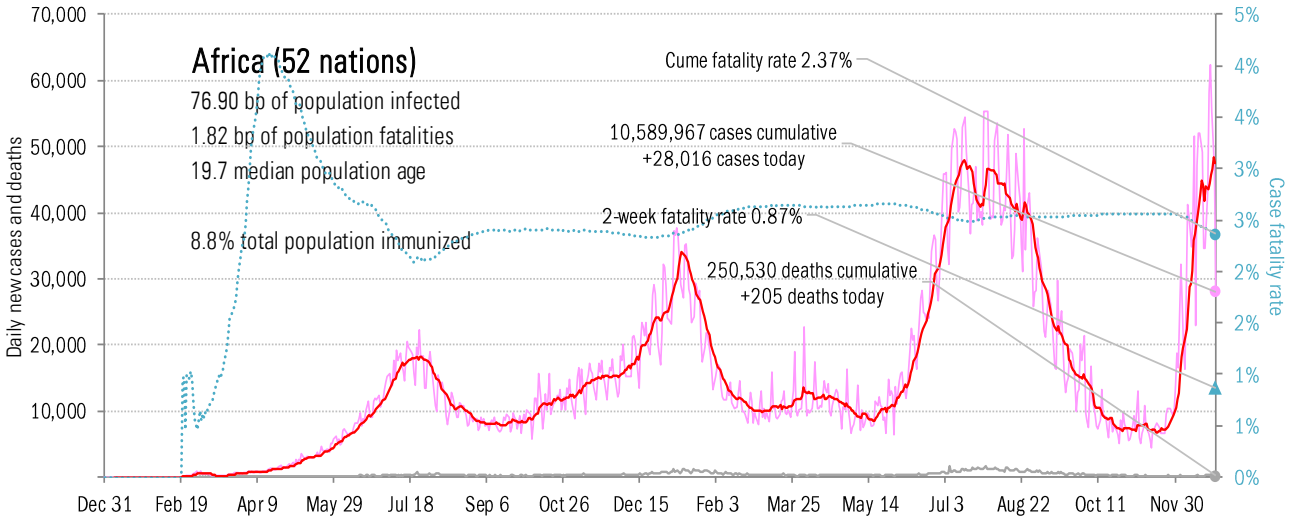
Source: Johns Hopkins, TrendMacro calculations

Impact in the Middle East and Africa

Cases: 7-day average and daily Deaths: Daily



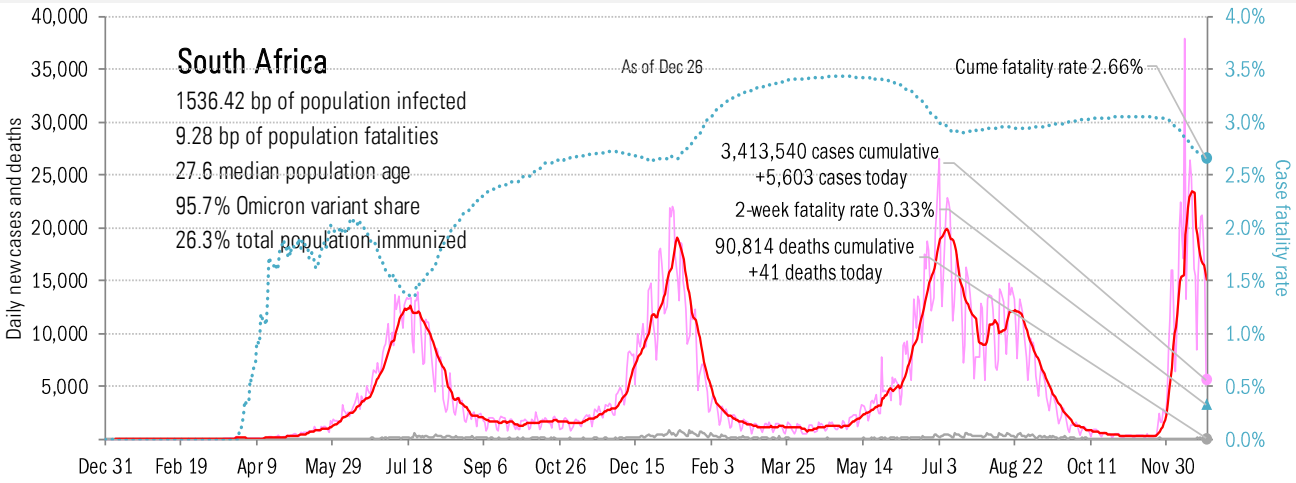




Source: Johns Hopkins, TrendMacro calculations

Impact in Africa, continued

Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations