Trend Macrolytics, LLC
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Data Insights: Covid-2019 Monitor

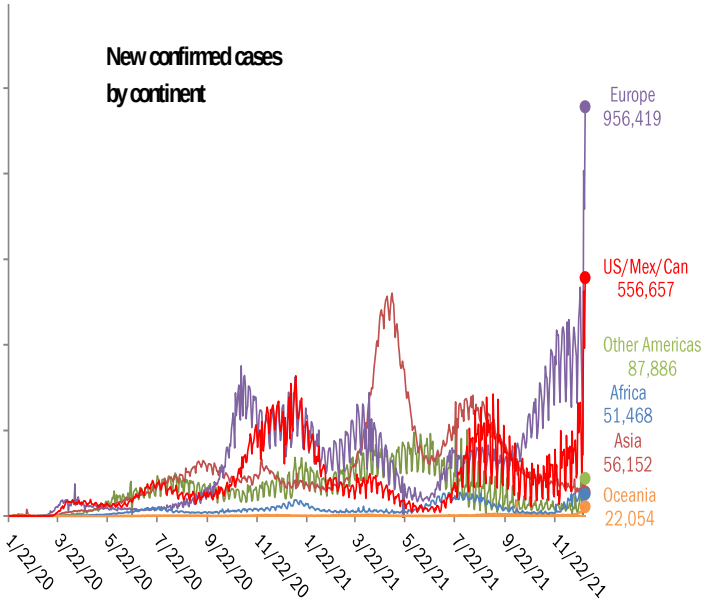
Thursday, December 30, 2021

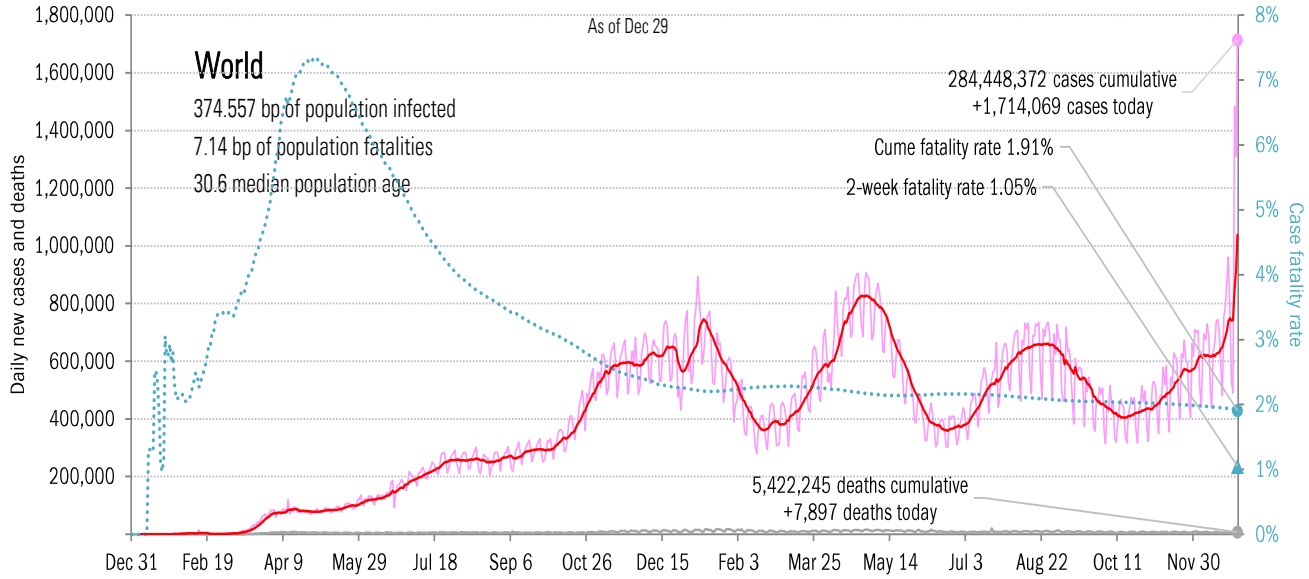
The global scorecard

Cases: 7-day average and daily Deaths: Daily

The worst ten countries

New cases		New Deaths	
United States	472,700	United States	2,233
United Kingdom	223,745	Russia	903
France	208,208	Poland	793
Spain	100,760	Germany	613
Italy	98,016	Ukraine	336
Canada	79,531	India	268
Germany	69,956	Vietnam	245
Argentina	42,032	France	184
Greece	28,828	Bulgaria	162
Portugal	26,867	Italy	136
	1,350,643		5,873
World	1,714,069	World	7,897
Top ten	79%	Top ten	74%





Source: Johns Hopkins, TrendMacro calculations

For more information contact us:
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The US scorecard

Cases: 7-day average and daily Deaths: Daily

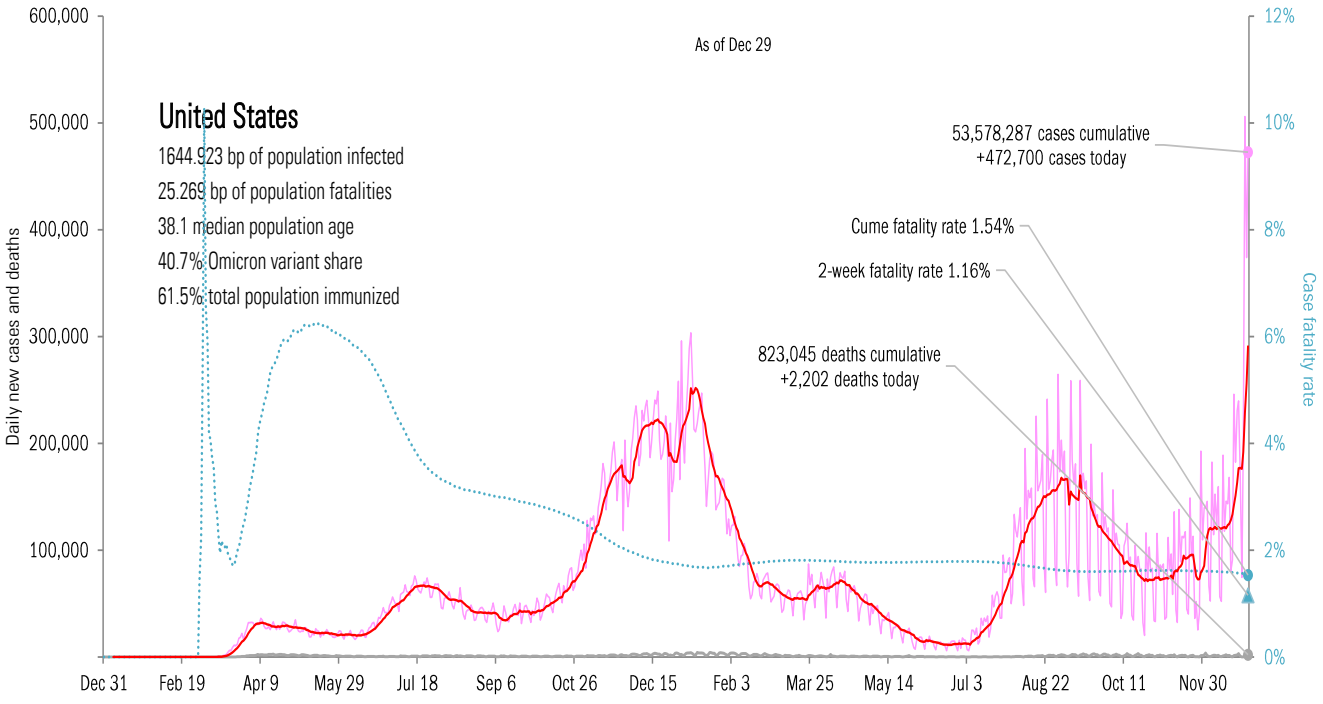
The ten worst US states

New cases		New Deaths		New in hospital		Cume cases		Cume deaths		Cume in hospital		Hospital use		ICU use	
NY	62,201	MI	373	FL	569	CA	5,407,310	CA	76,336	TX	398,657	RI	87%	KY	93%
FL	30,356	PA	304	NY	438	TX	4,560,984	TX	75,639	FL	333,678	WA	84%	RI	93%
CA	30,065	NY	167	TX	364	FL	3,930,751	FL	62,543	CA	333,020	MA	83%	IN	90%
MI	29,279	AZ	162	CA	332	NY	3,330,403	NY	59,336	NY	189,737	MN	83%	NH	89%
NJ	26,473	CA	81	NJ	232	IL	2,119,162	PA	36,504	GA	169,123	IN	83%	NM	89%
IL	21,098	TX	78	GA	228	PA	1,996,240	GA	31,354	OH	153,220	GA	82%	MO	87%
OH	20,320	MN	69	IL	182	OH	1,975,723	IL	30,167	PA	141,884	PA	82%	OK	87%
GA	19,124	TN	69	PA	156	GA	1,792,021	MI	29,020	IL	124,640	KY	81%	WV	87%
PA	16,730	SC	60	LA	144	MI	1,710,325	NJ	28,967	KY	119,829	AZ	81%	AL	86%
MA	16,165	IA	59	MD	127	NC	1,648,922	OH	28,780	MI	116,501	MI	81%	TX	85%
	271,811		1,422		2,772		28,471,841		458,646		2,080,289				
All states	472,700		2,233		3,835	All states	53,578,287		823,045		3,759,823	All states	70%		67%
Top ten	58%		64%		72%	Top ten	53%		56%		55%	Median	74%		78%

Some states not reporting

Five most improved US states

Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most pop immunity growth	
NC	-22,790	MD	-386	NC	-59	MP	+40 bp
CA	-20,073	VA	-148	MN	-25	AR	+10 bp
MN	-4,654	MO	-129	MA	-15	DC	+10 bp
RI	-3,564	FL	-118	OH	-13	DE	+10 bp
OK	-1,678	IN	-111	AZ	-11	FL	+10 bp



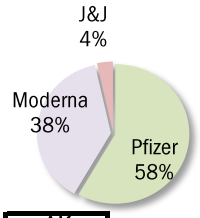
Source: Johns Hopkins, Dept. of Health and Human Services, CDC, TrendMacro calculations

Rolling out the vaccines in the US and the world

Administered	Cumulative				Today
Doses	519,536,352				+1.319 million
Boosters	69,008,315				+0.722 million
	One dose	% Pop	Immune	% pop	New immune today
Total population	249,163,721	75%	210,774,010	63%	+0.219 million
Age 12 to 17	15,151,082	64%	12,751,009	54%	+0.017 million
Age 18 to 64	168,669,512	83%	143,405,443	70%	+0.108 million
Age 65 and over	57,672,071	100%	49,622,949	91%	+0.015 million

Immunity	Full	Partial
US	61.5%	73.3%
UK	69.4%	75.8%
France	73.1%	78.1%
Spain	81.0%	84.8%
Germany	70.4%	73.4%
Italy	74.0%	79.9%
Australia	76.4%	79.2%
Israel	63.6%	70.4%
Canada	77.2%	83.3%
Japan	78.3%	79.7%
Africa	9.1%	14.0%
India	42.6%	60.5%
Brazil	67.0%	77.6%
China	83.6%	87.2%

Global data differs due to sources, timing



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

Best
Middle
Worst

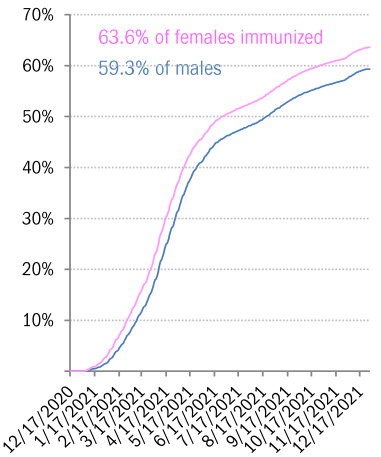
Every American >18 immunized in
385 days
by Jan 17, 2023

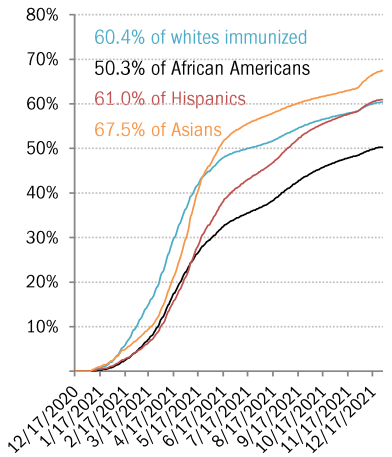
74.8% of population >18 immunized
18.9% previously tested positive
93.6% vs 60% adult herd immunity

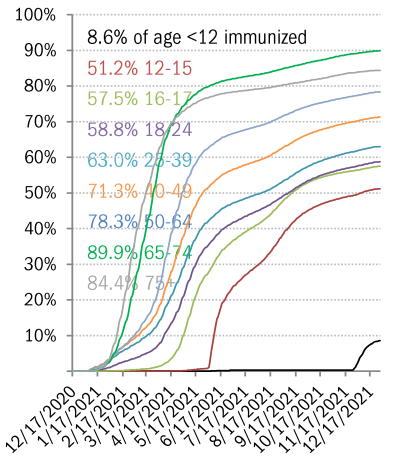
As of Dec 29

AK					WI					ME
65.0%					68.1%					85.7%
56.3%					61.9%					75.7%
WA	ID	MT	ND	MN	IL	MI		NY	VT	NH
75.6%	52.1%	62.0%	62.1%	71.3%	72.4%	63.4%		83.8%	89.2%	95.0%
67.9%	46.2%	54.0%	52.5%	65.4%	64.3%	56.7%		71.7%	77.3%	67.1%
OR	NV	WY	SD	IA	IN	OH	PA	NJ	MA	
74.0%	69.4%	55.8%	70.8%	64.8%	57.8%	60.4%	78.0%	83.5%	90.5%	
66.4%	56.4%	47.5%	57.0%	58.9%	51.9%	55.2%	63.7%	70.4%	74.5%	
CA	UT	CO	NE	MO	KY	WV	VA	MD	CT	RI
82.6%	67.3%	74.4%	66.3%	62.2%	62.4%	61.8%	78.9%	80.3%	88.4%	88.7%
66.0%	58.7%	66.1%	59.8%	53.0%	54.2%	55.0%	67.9%	70.3%	74.5%	76.3%
	AZ	NM	KS	AR	TN	NC	SC	DC	DE	
	67.2%	80.5%	69.2%	62.7%	58.6%	76.2%	62.7%	88.3%	76.5%	
	56.9%	66.2%	56.9%	51.2%	51.3%	56.7%	53.1%	67.5%	64.1%	
			OK	LA	MS	AL	GA			
			65.9%	57.3%	55.3%	58.4%	61.2%			
			53.4%	50.2%	48.1%	47.6%	51.0%			
HI			TX					FL		PR
87.8%			66.7%					74.4%		88.7%
63.5%			56.9%					63.3%		76.8%

The demographics of US vaccination



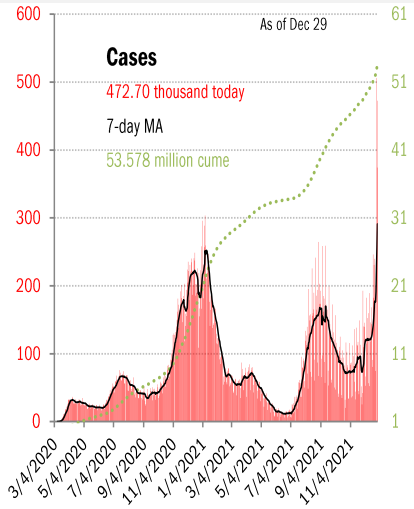


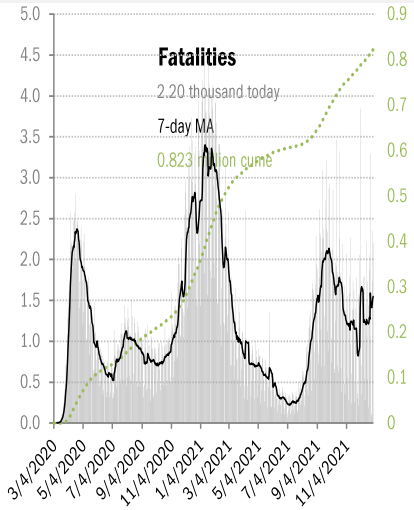


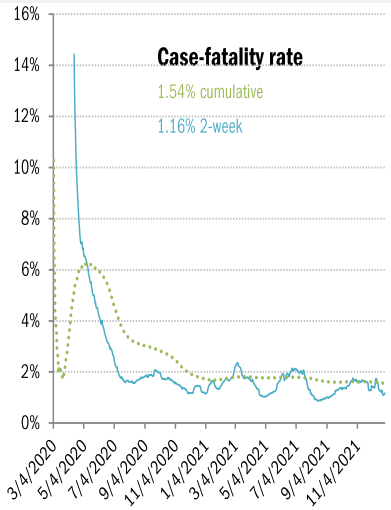
Source: CDC, CDC, Our World in Data, TrendMacro calculations

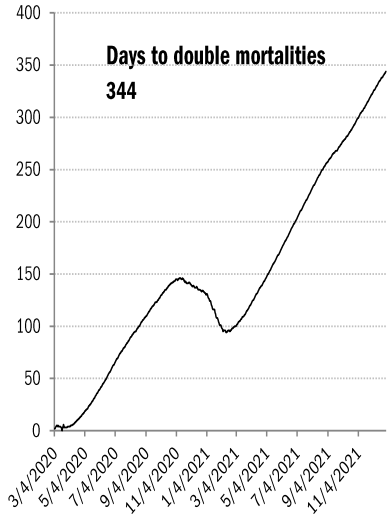
US deep-dive

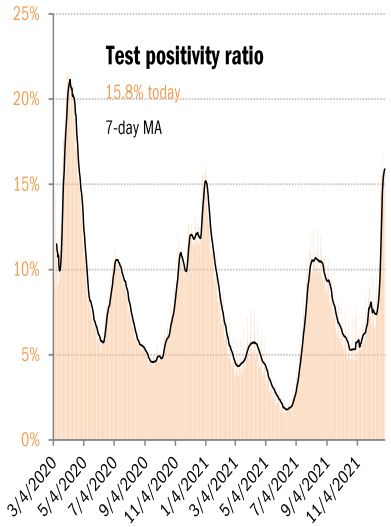
National and state-by-state data do not line up because of different sources

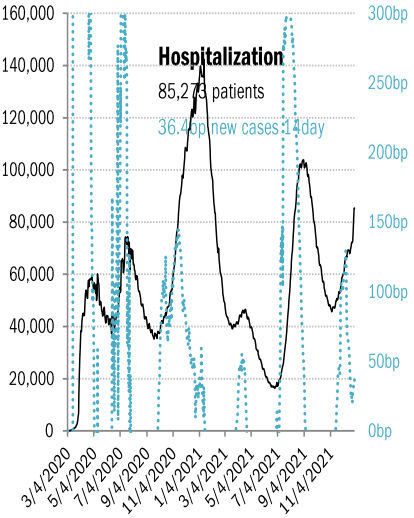


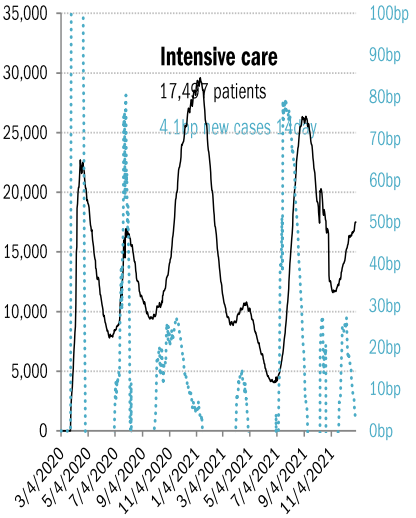


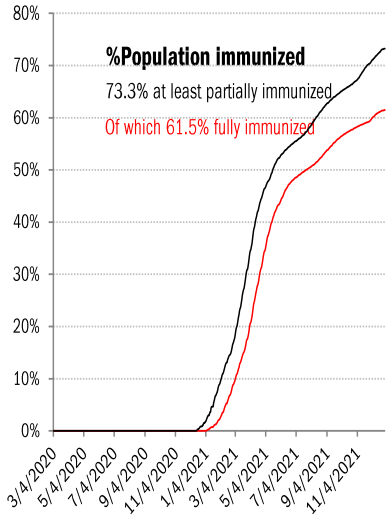












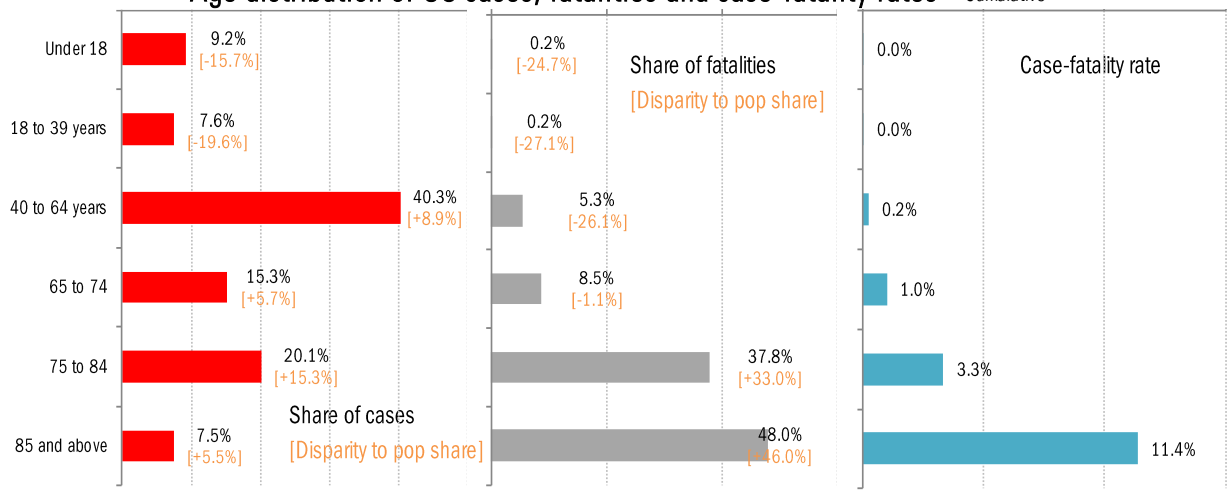
Source: Johns Hopkins, Covid Act Now, TrendMacro calculations

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

Updates weekly on Sundays

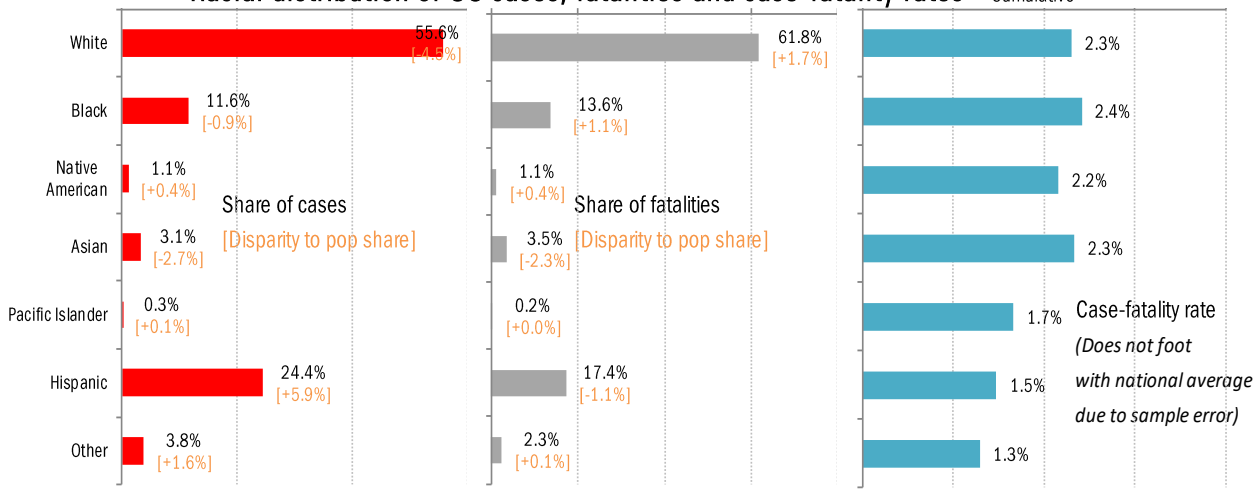
Age distribution of US cases, fatalities and case-fatality rates

Cumulative



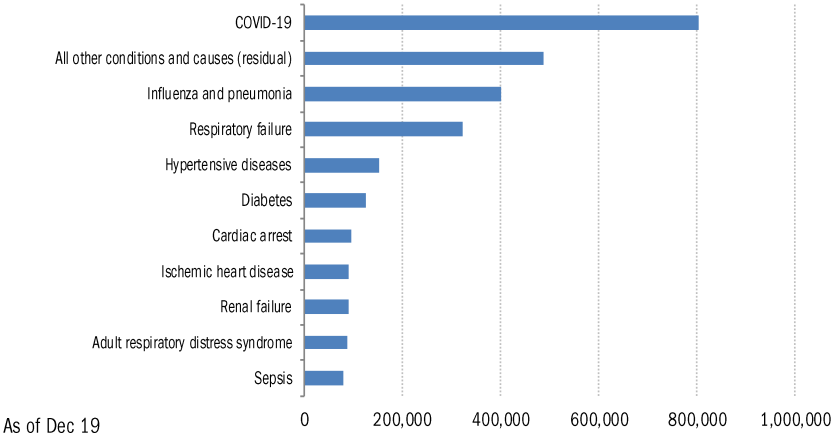
Racial distribution of US cases, fatalities and case-fatality rates

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

[As Omicron Spreads, Officials Ponder What It Means to Be 'Fully Vaccinated'](#)
Emily Anthes and Noah Weiland
New York Times
December 29, 2021

[Omicron infection enhances neutralizing immunity against the Delta variant](#)
Khadija Khan et al.
medRvx
December 27, 2021

['This was the moment': CDC defends altered guidance amid Omicron surge](#)
Quint Forgey
Politico
December 29, 2021

[Striking Antibody Evasion Manifested by the Omicron Variant of SARS-CoV-2](#)
Lihong Liu et al.
medRvx
December 21, 2021

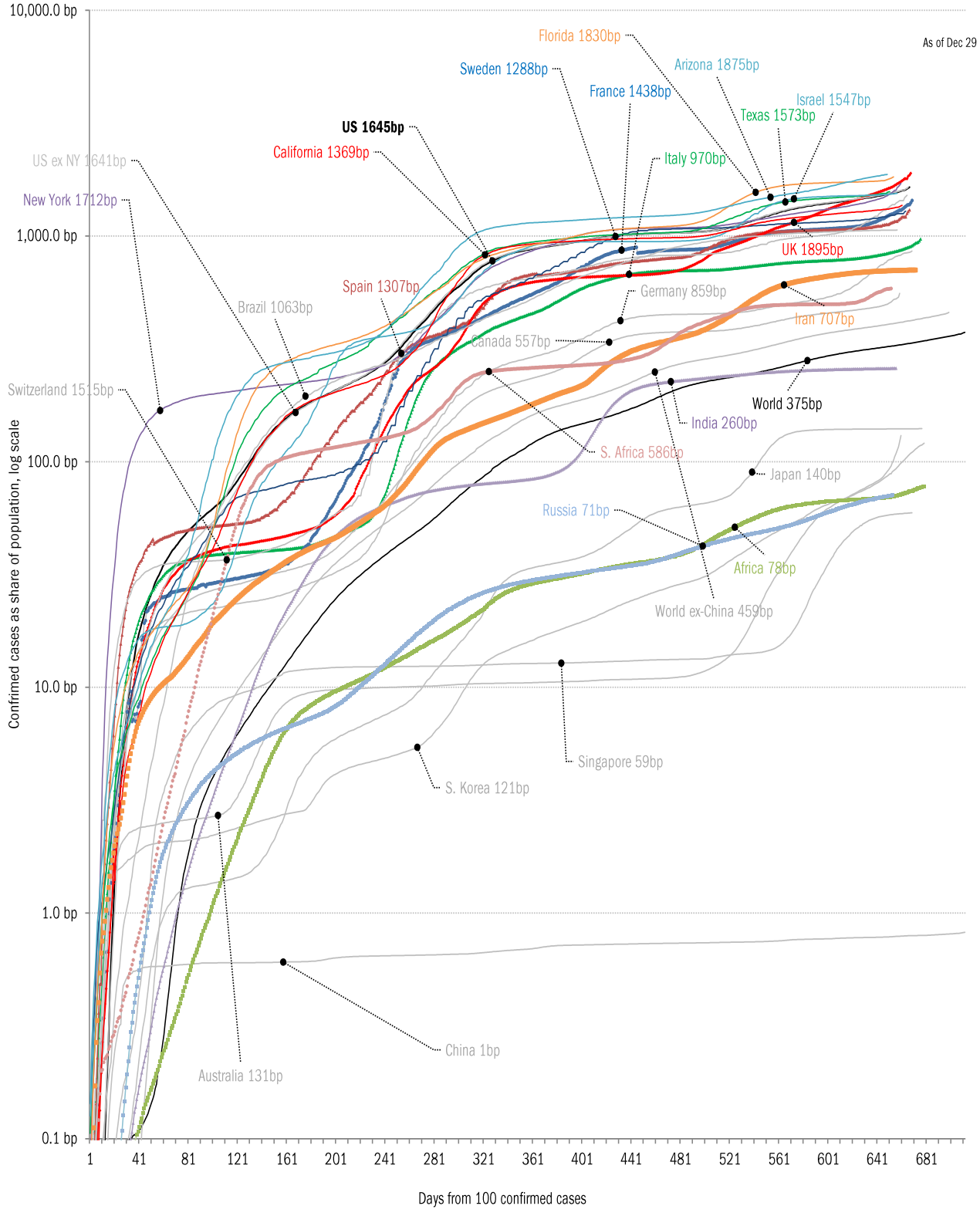
[WaPo's Jennifer Rubin roasted over COVID about-face after urging Americans to 'stop agonizing' over cases](#)
Brian Flood
Fox News
December 28, 2021

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

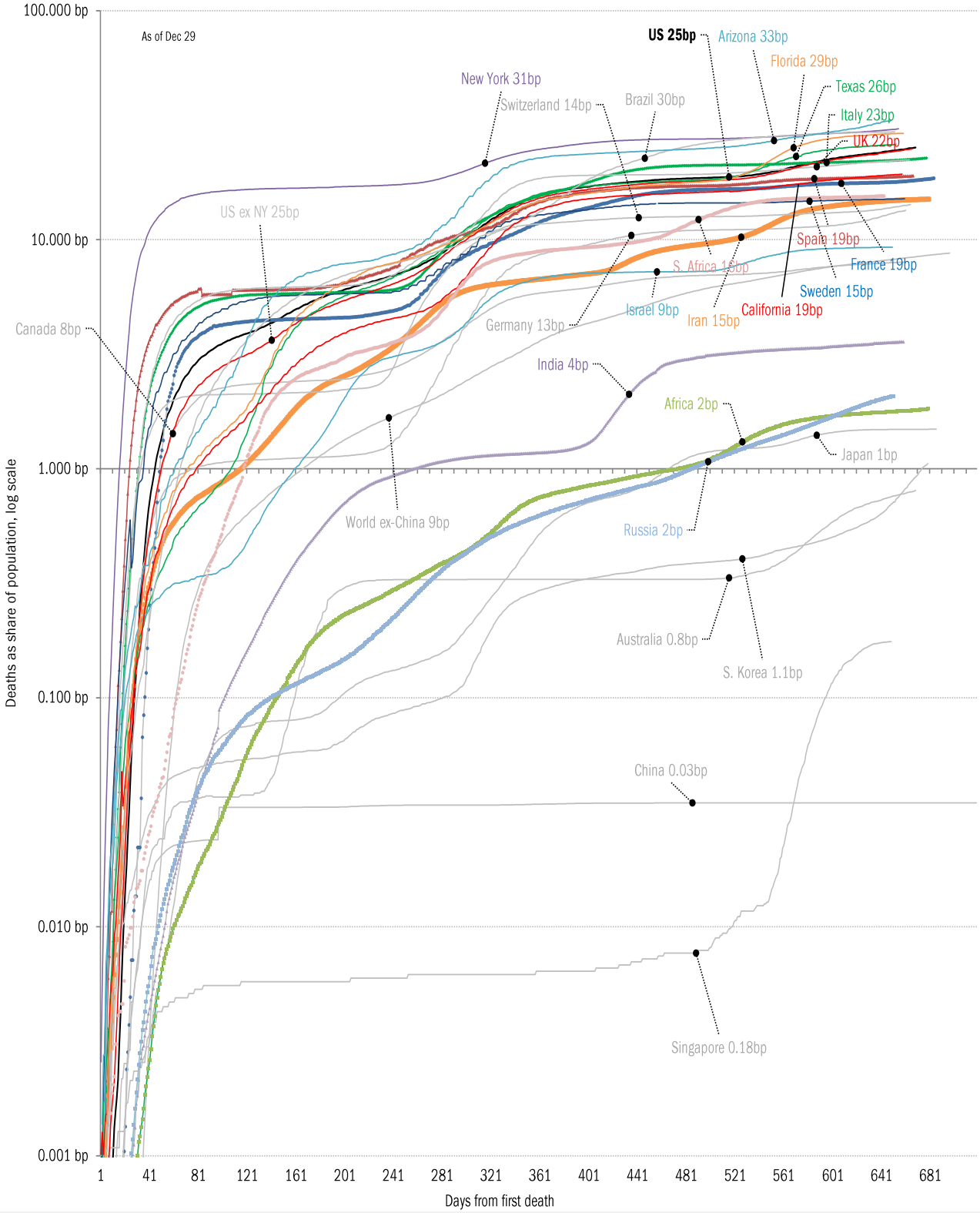
Share of infected population from first day with 100 confirmed cases, log scale



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

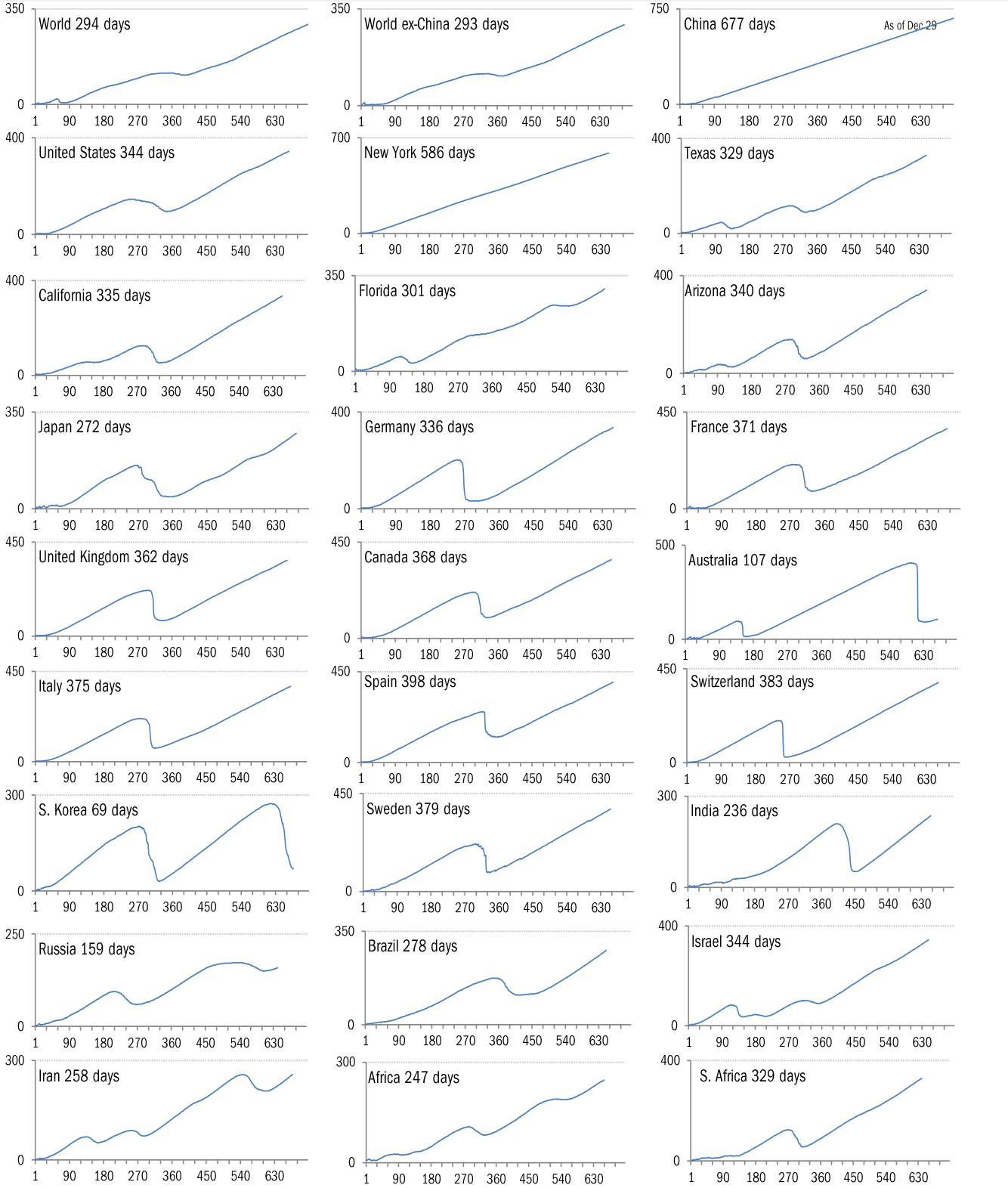


Source: Johns Hopkins, TrendMacro calculations

"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

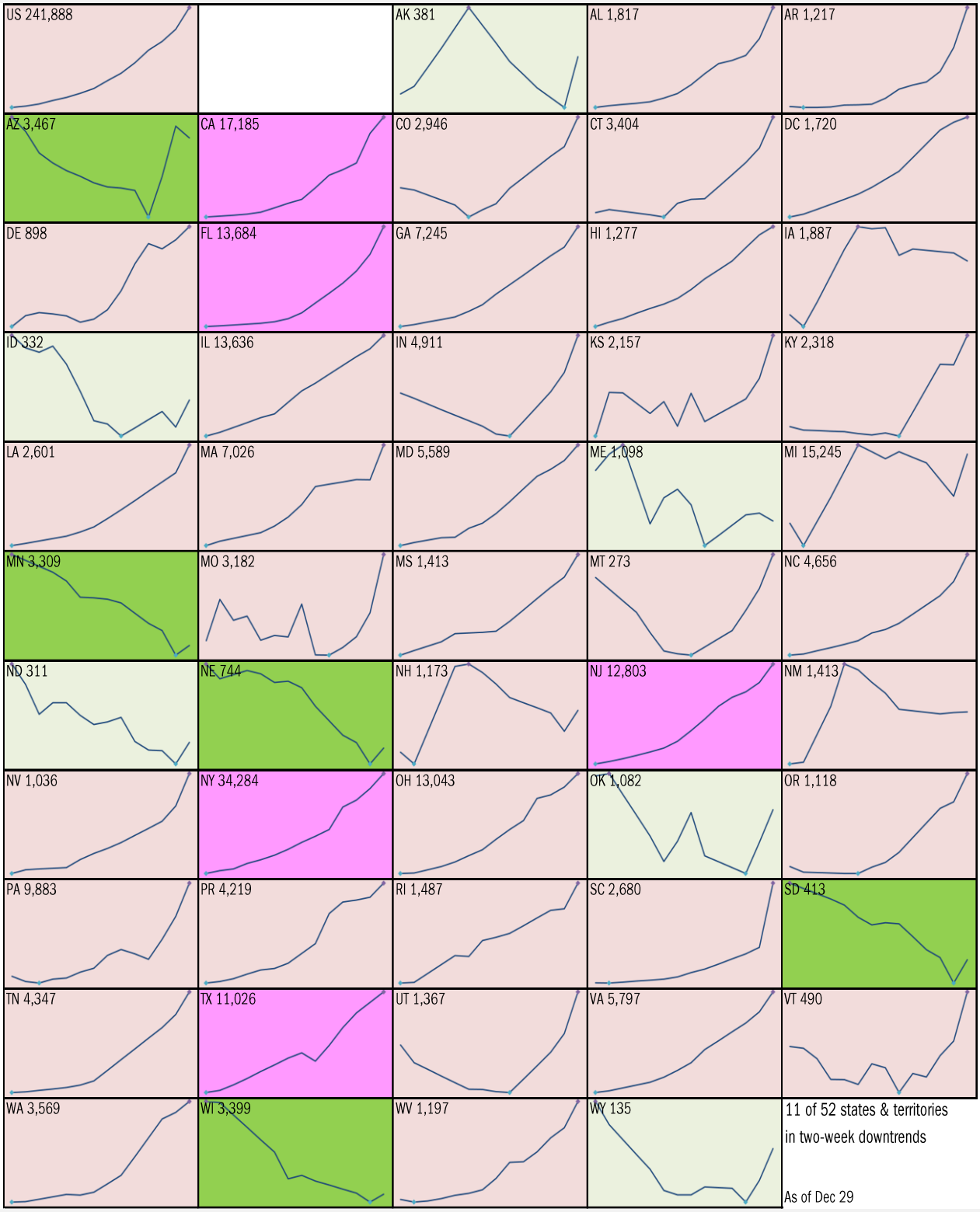


Source: Johns Hopkins, TrendMacro calculations

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

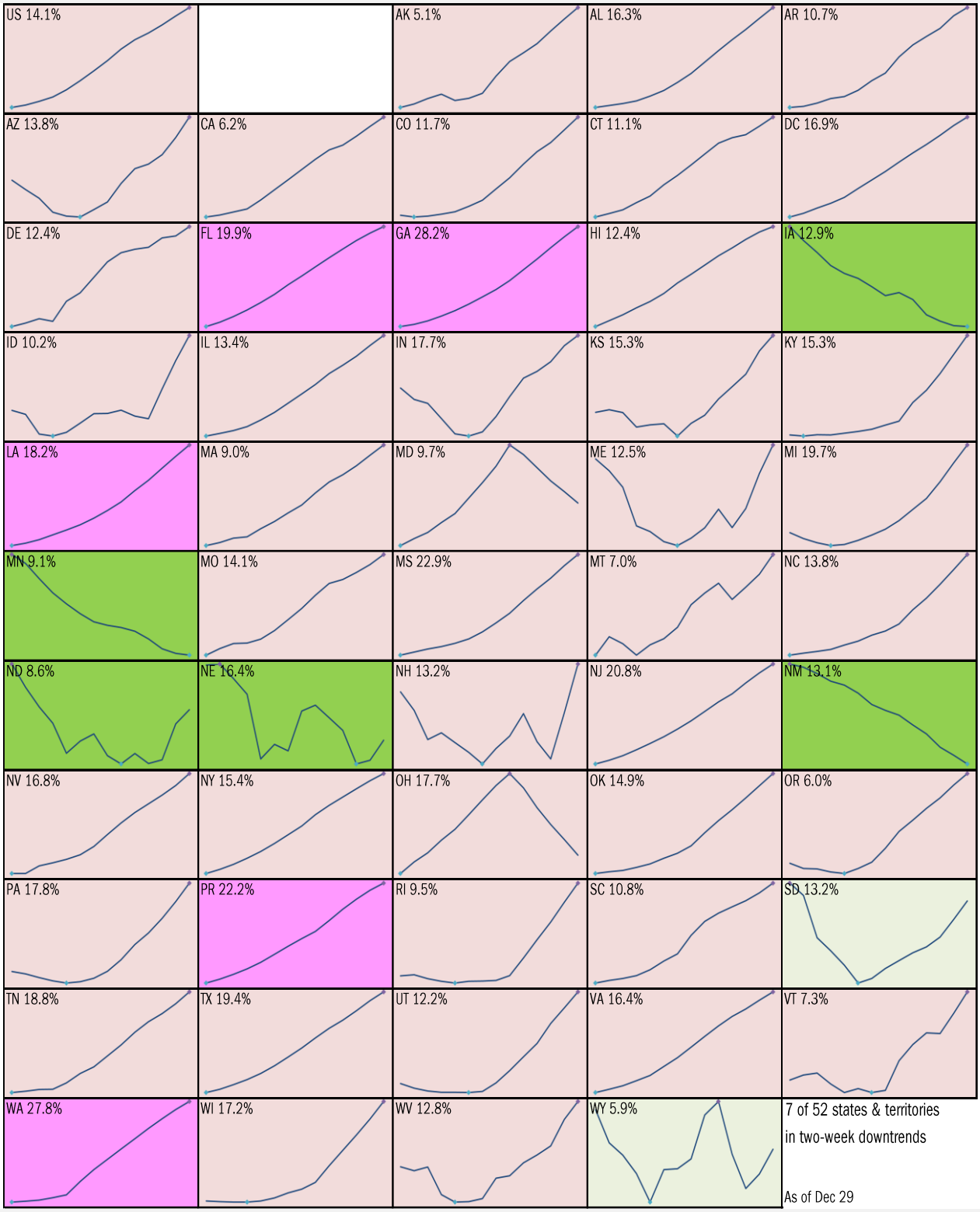


Source: Johns Hopkins, TrendMacro calculations

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

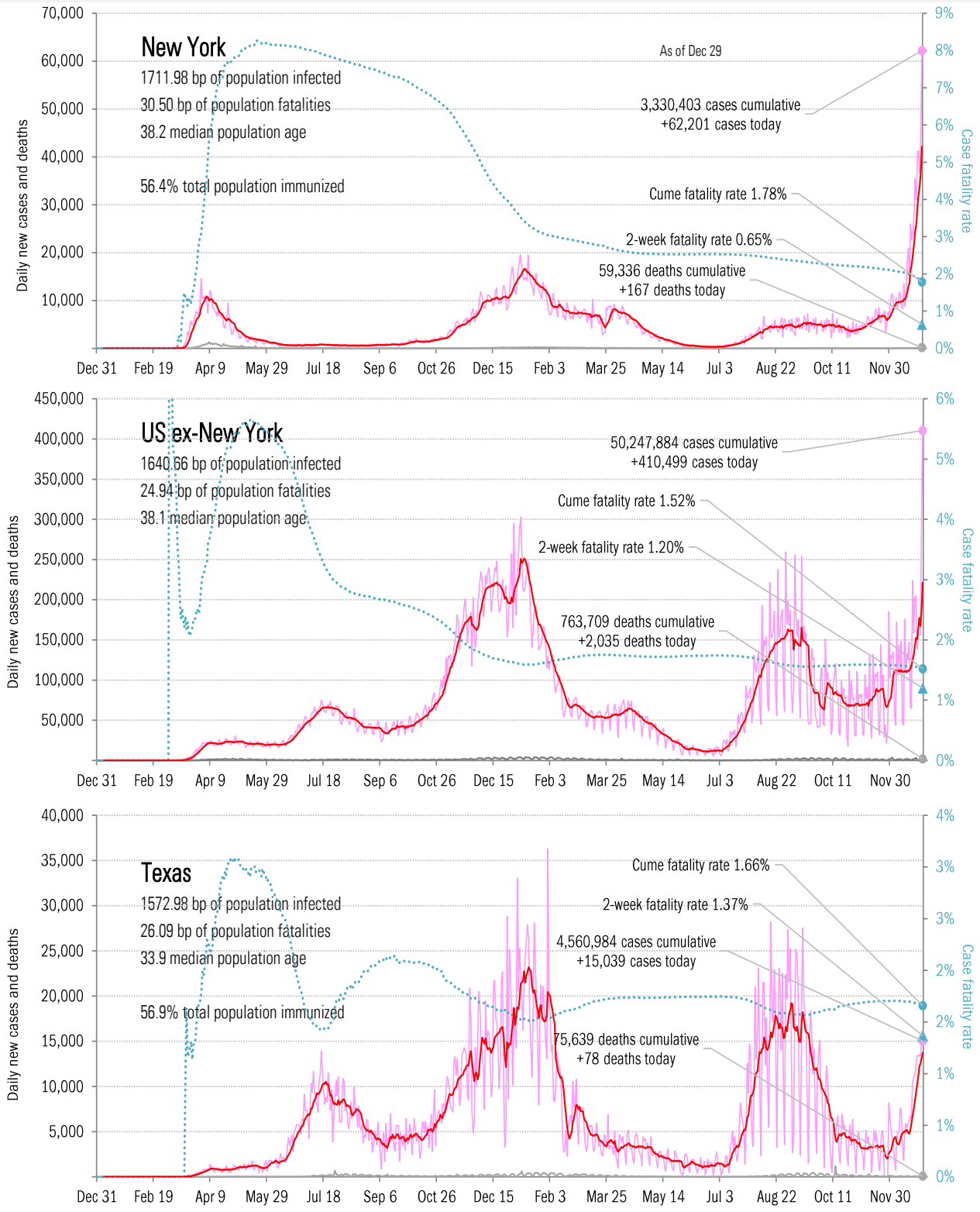
Downward trajectory Five best Upward trajectory Five worst



Source: Covid Act Now, TrendMacro calculations

From Ground Zero to the Rio Grande

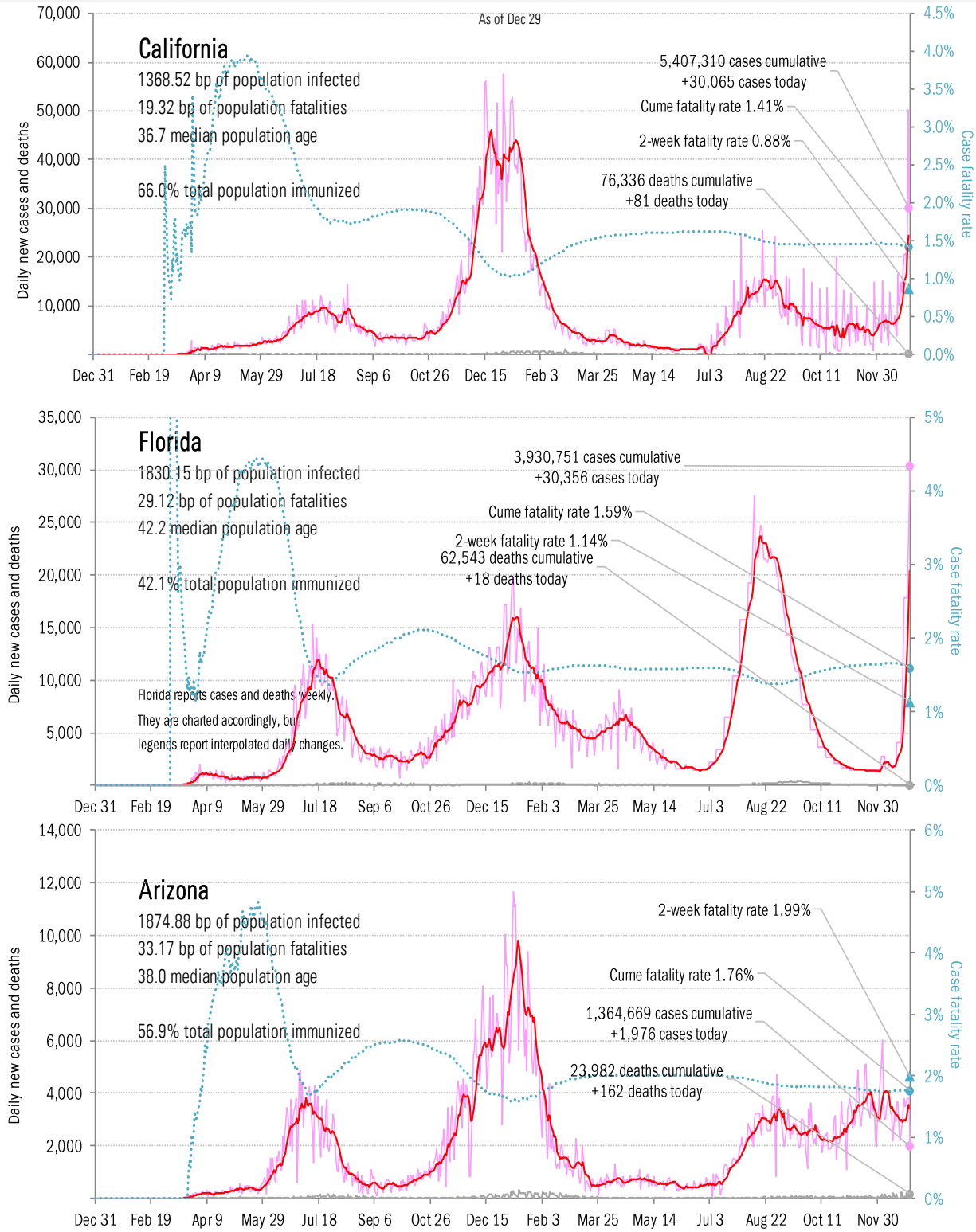
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

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

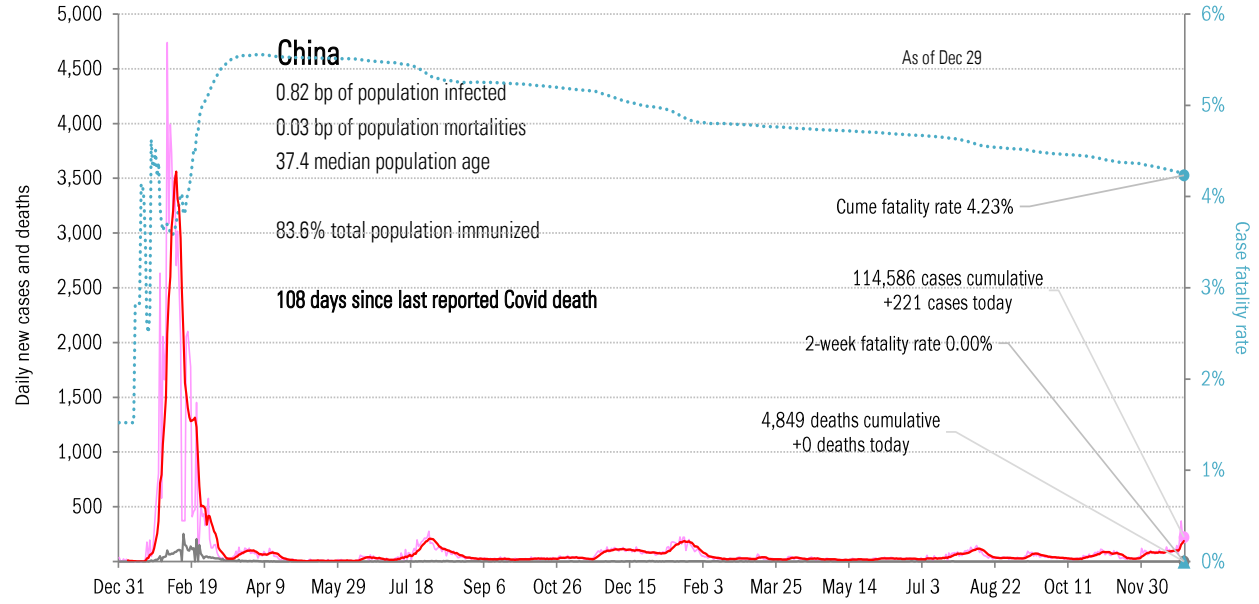
Cases: 7-day average and daily Deaths: Daily

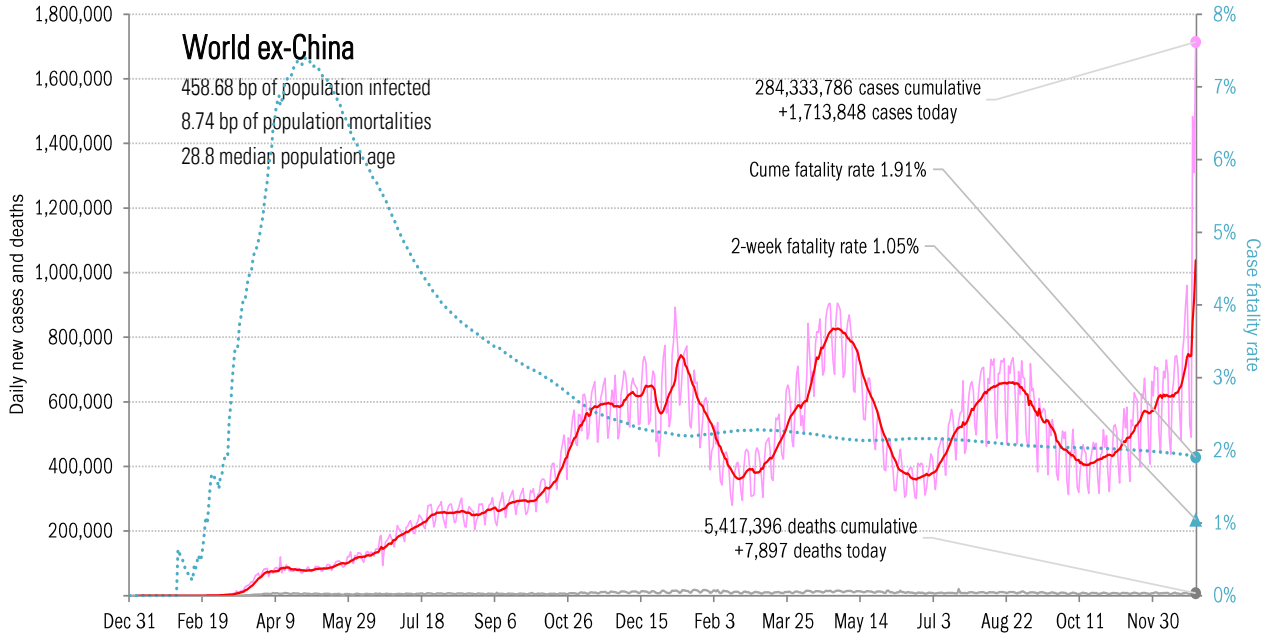


Source: Johns Hopkins, TrendMacro calculations

Patient zero… and then everyone else

Cases: 7-day average and daily Deaths: Daily

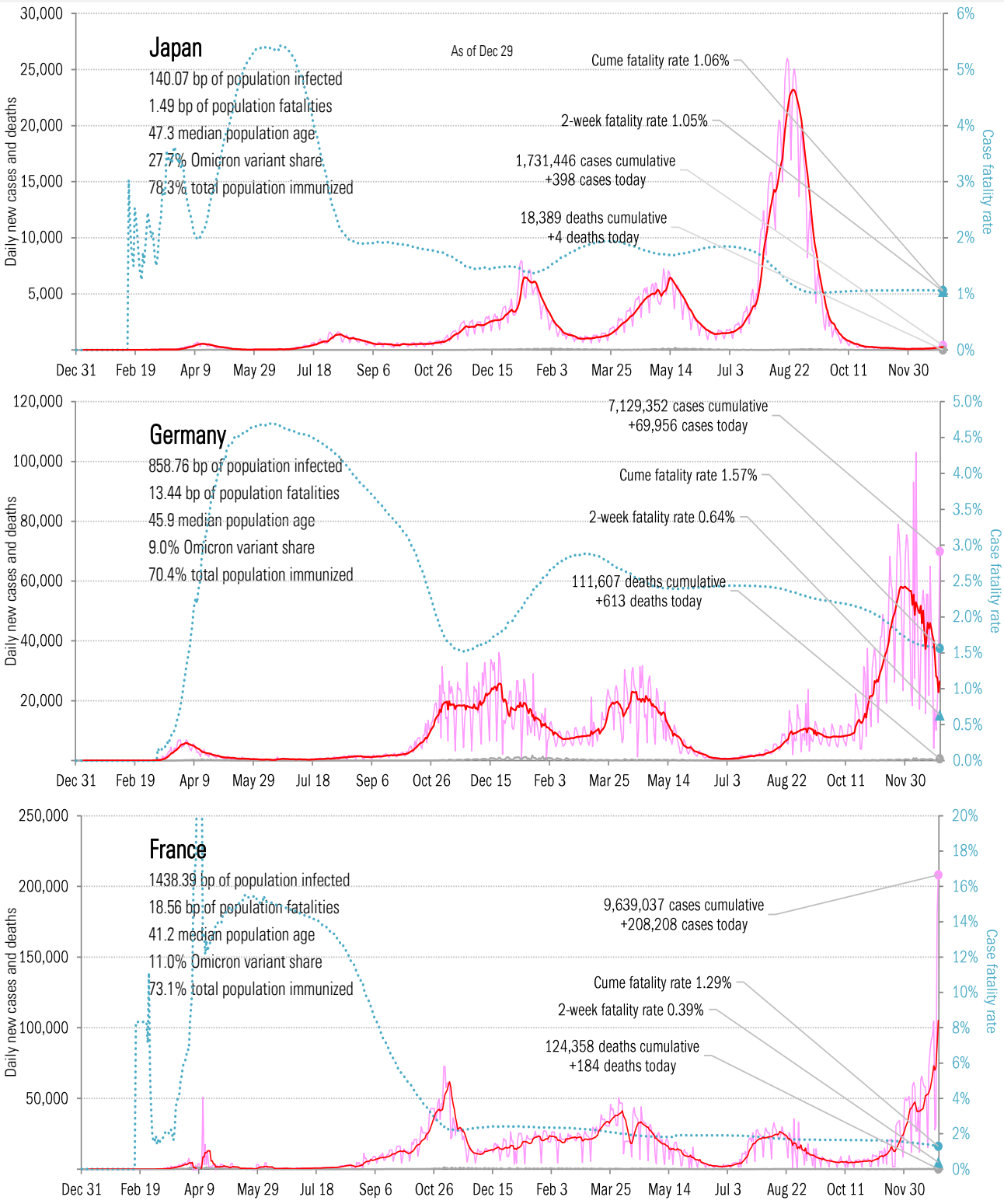




Source: Johns Hopkins, TrendMacro calculations

Impact in the largest economies

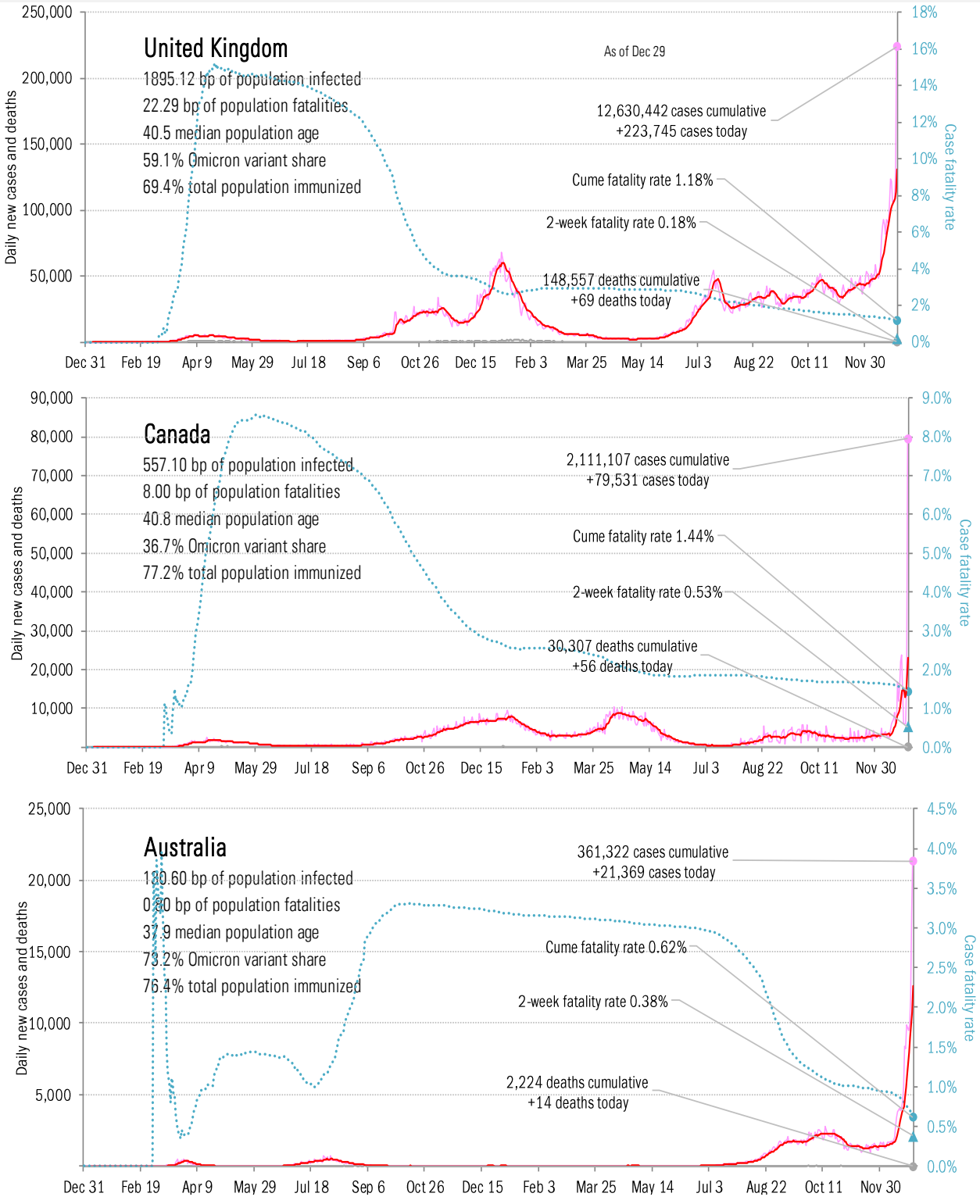
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in The Anglosphere

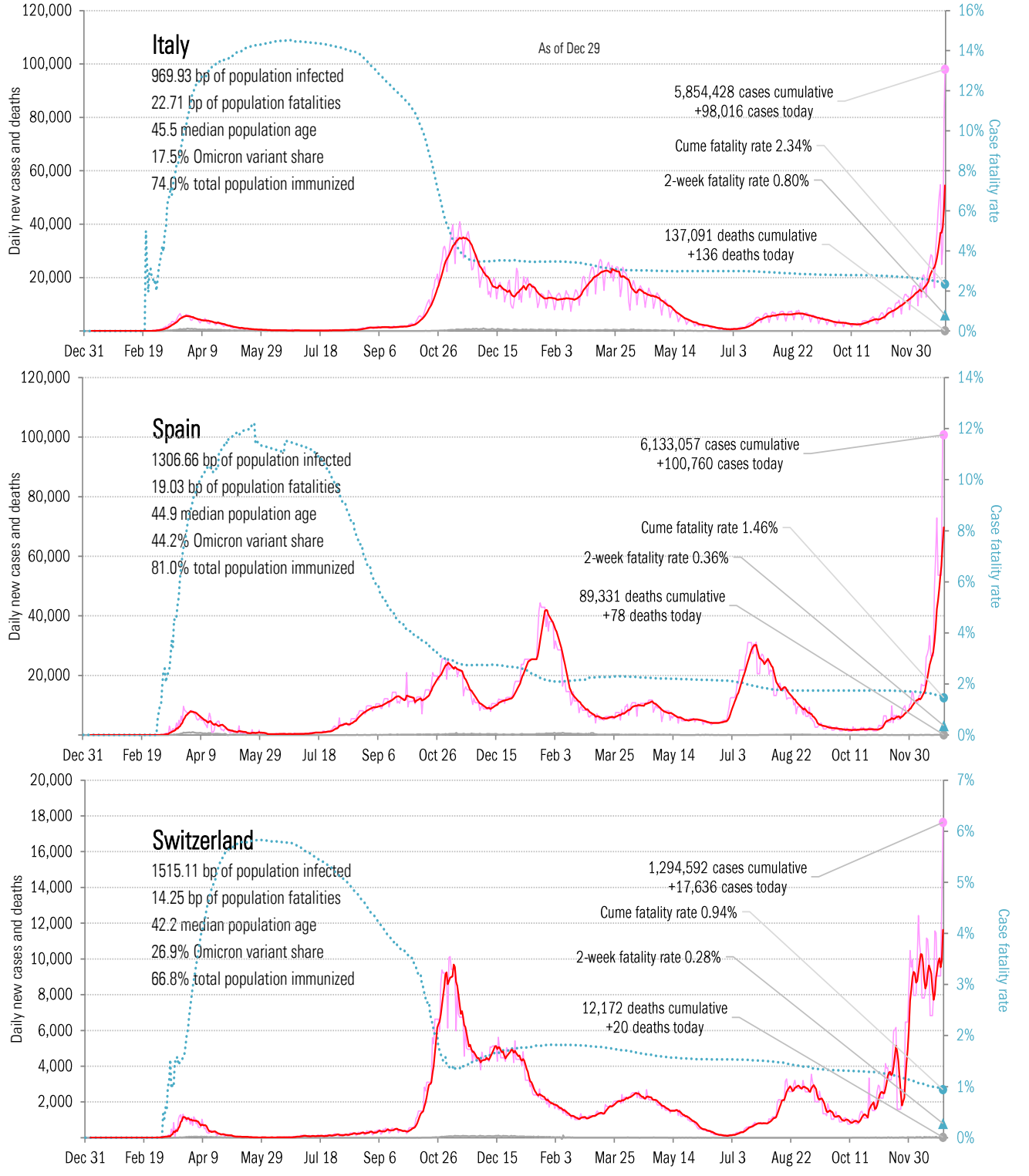
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in continental Europe

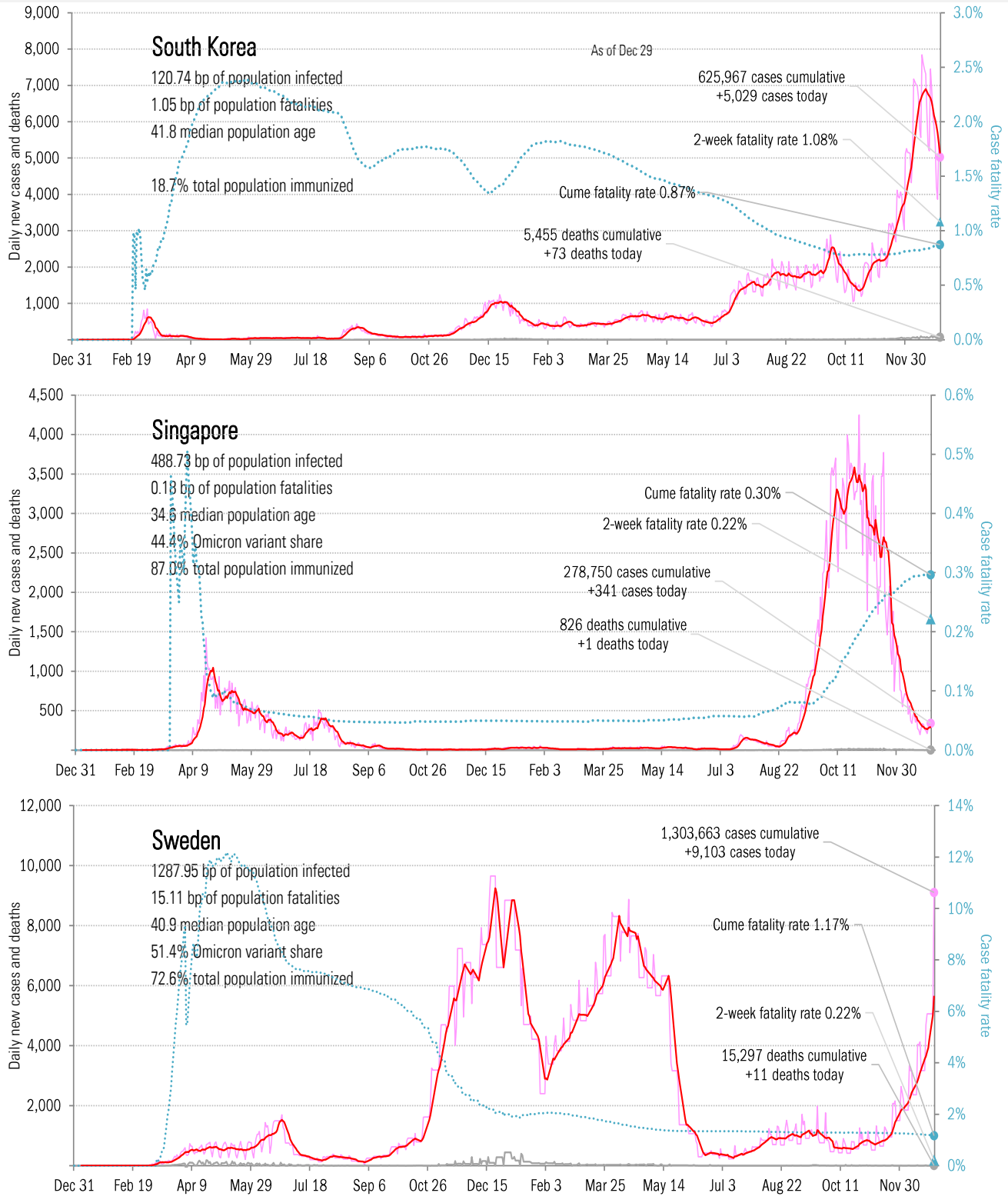
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in other hot-spots

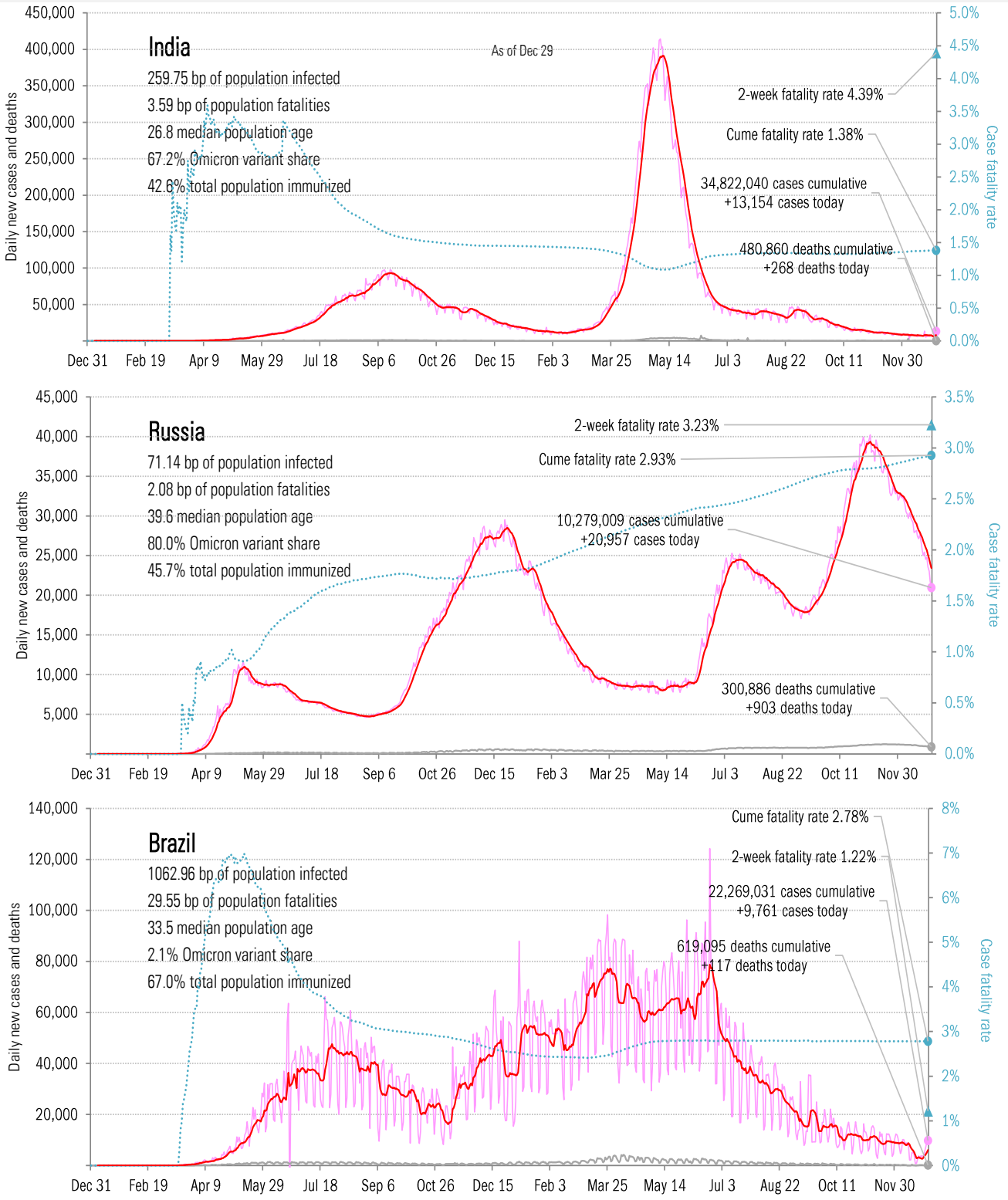
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in the BRICs ex-China

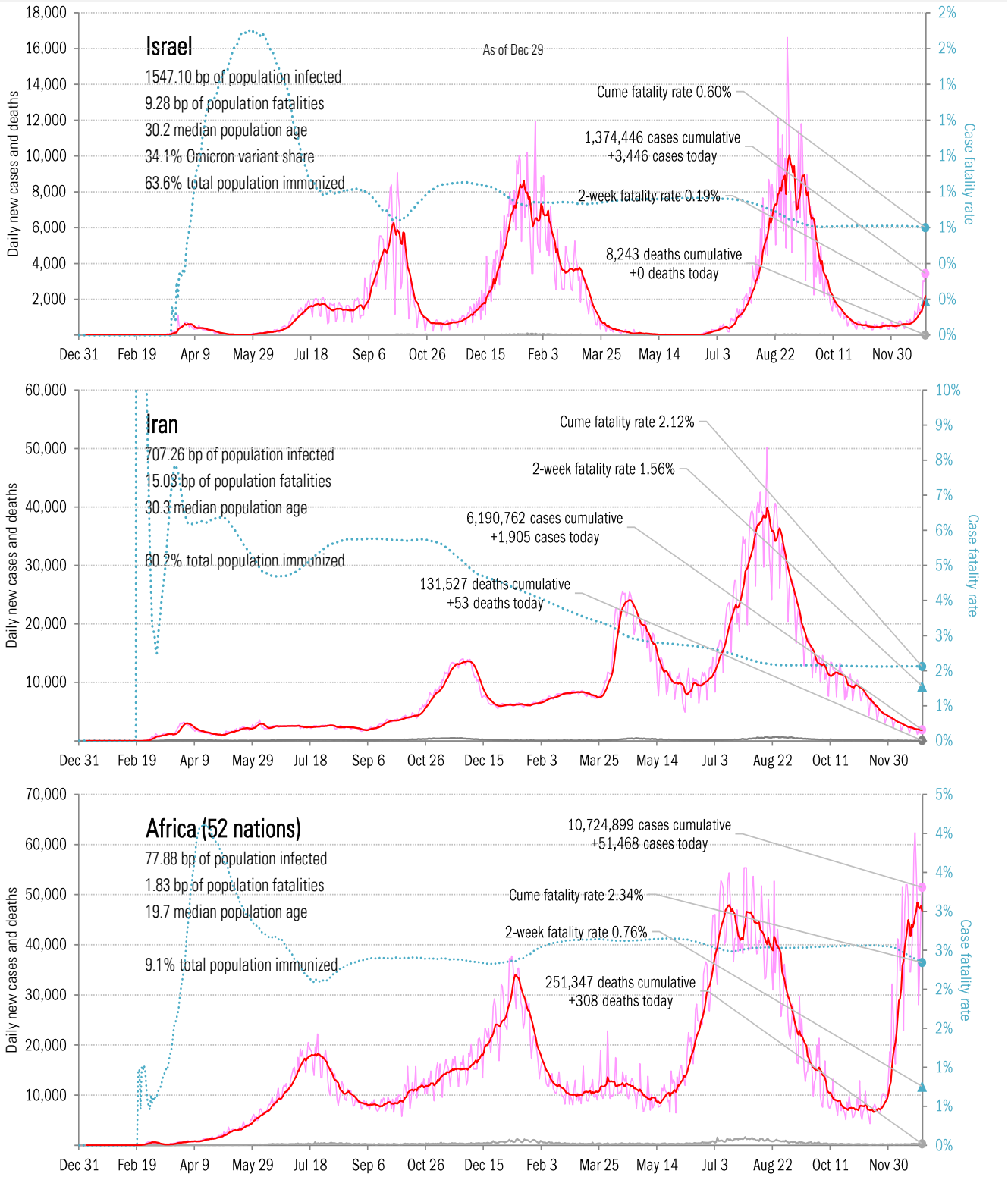
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in the Middle East and Africa

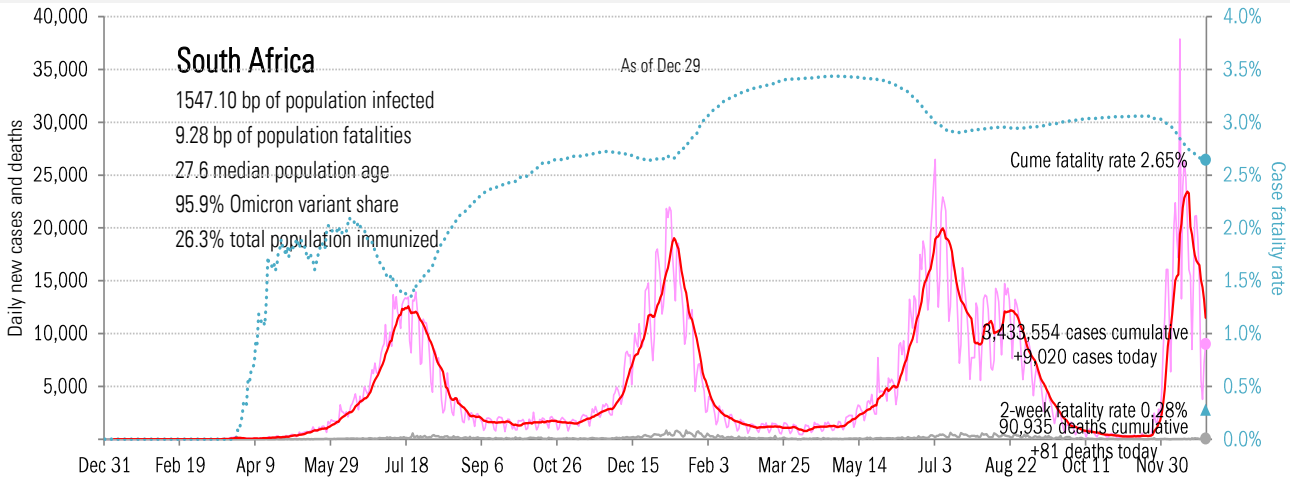
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations

Impact in Africa, continued

Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations