

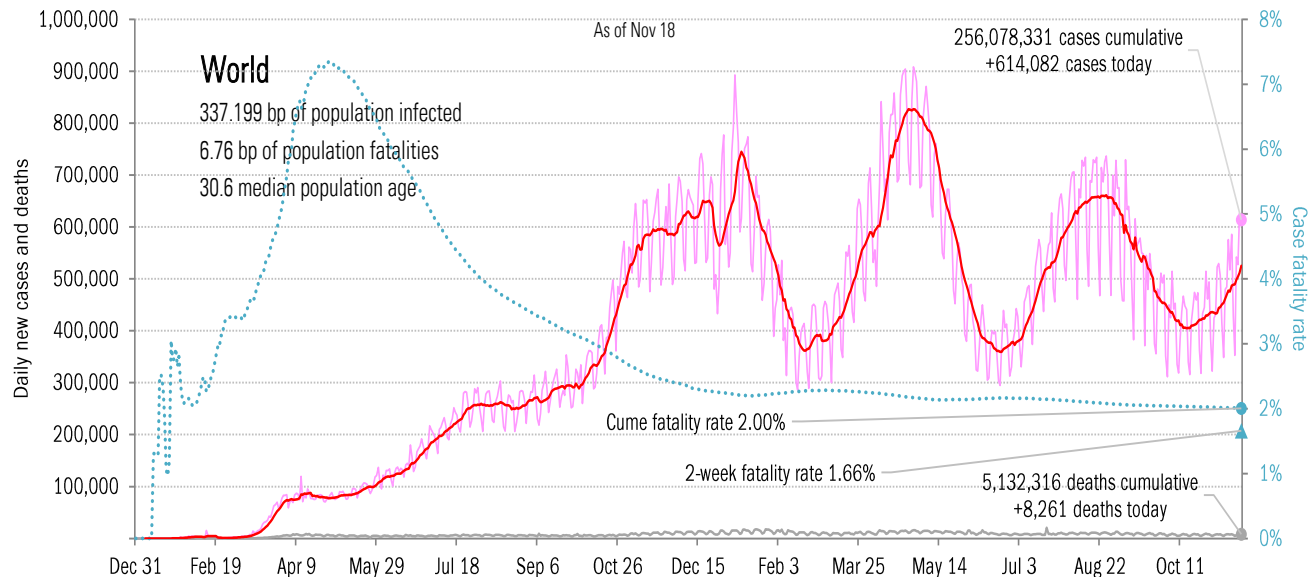
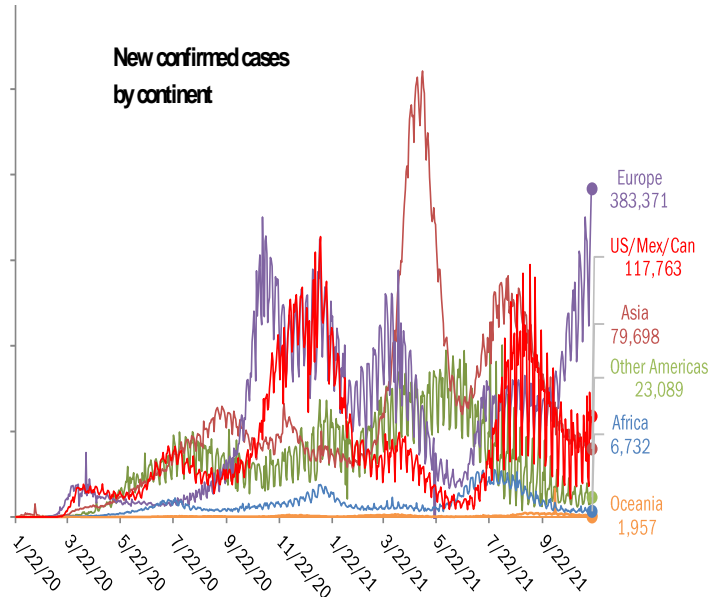
## Data Insights: Covid-2019 Monitor

Friday, November 19, 2021

### The global scorecard

Cases: 7-day average and daily Deaths: Daily

The worst ten countries			
New cases		New Deaths	
United States	+111,050	United States	+1,323
Germany	+58,768	Russia	+1,219
United Kingdom	+48,053	Ukraine	+784
Russia	+36,155	India	+459
Poland	+24,912	Poland	+370
Netherlands	+23,641	Mexico	+356
Turkey	+22,234	Romania	+332
Ukraine	+21,810	Philippines	+305
France	+20,396	Brazil	+293
Belgium	+16,699	Turkey	+226
<b>+383,718</b>		<b>+5,667</b>	
World	+614,082	World	+8,261
Top ten	62%	Top ten	69%



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

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# The US scorecard

Cases: 7-day average and daily Deaths: Daily

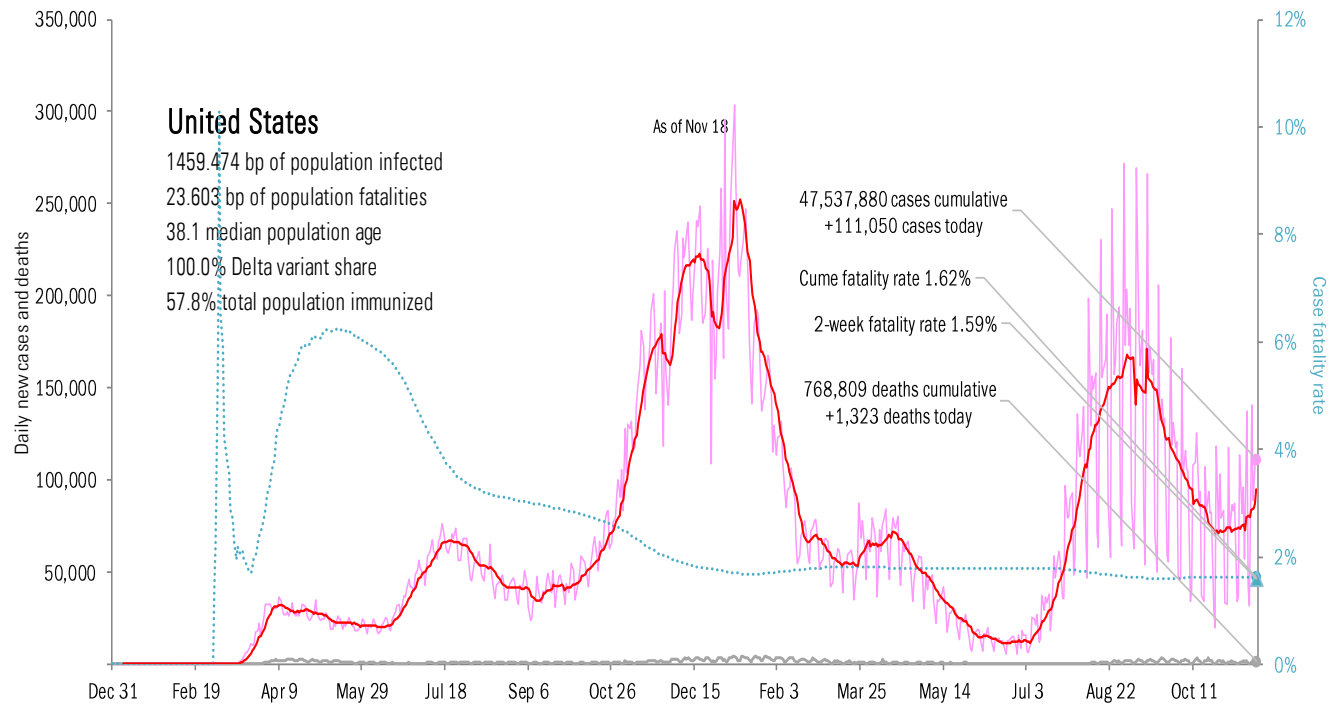
## The ten worst US states

New cases			New Deaths			New in hospital			Cume cases			Cume deaths			Cume in hospital			Hospital use		ICU use	
MO	+11,088		CA	+147		PA	+101		CA	5,028,939		CA	73,552		TX	380,206		MA	88%	GA	97%
NY	+8,103		TX	+138		MI	+100		TX	4,301,331		TX	73,176		FL	321,570		RI	87%	NM	93%
PA	+6,637		PA	+96		CH	+89		FL	3,718,173		FL	60,960		CA	316,727		PA	86%	NE	92%
CH	+6,615		MO	+76		GA	+76		NY	2,652,280		NY	57,097		NY	168,199		GA	86%	RI	91%
IL	+5,644		GA	+67		CO	+42		IL	1,758,146		PA	32,729		GA	161,818		MI	85%	VT	90%
CA	+5,026		FL	+61		TX	+39		PA	1,666,724		GA	30,094		CH	129,567		MD	83%	DE	88%
TX	+4,934		AZ	+56		NY	+38		GA	1,653,237		IL	28,623		PA	121,905		NY	83%	AL	88%
MN	+4,820		CO	+51		IA	+34		CH	1,627,051		NJ	28,230		KY	113,012		WA	83%	MN	87%
CO	+4,606		OK	+49		IL	+34		NC	1,512,478		CH	25,813		IL	107,733		MN	83%	KY	86%
WI	+4,338		NC	+48		KY	+30		MI	1,387,938		MI	24,684		MI	97,699		MO	82%	TX	85%
+61,811			+789			+583			25,306,297			434,958			1,918,436						
All states +111,050			+1,323			-585			All states 47,537,880			768,809			3,440,720			All states 70%		67%	
Top ten 56%			60%			100%			Top ten 53%			57%			56%			Median 78%		80%	

Some states not reporting

## Five most improved US states

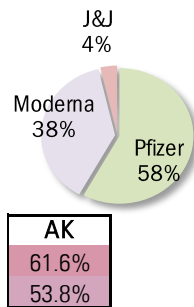
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most pop immunity growth	
MI	-17,903	MI	-276	MN	-74	WV	+30 bp
FL	-3,618	IA	-102	NC	-73	AK	+10 bp
KS	-2,880	GA	-59	NJ	-33	AZ	+10 bp
IA	-727	PA	-54	CT	-31	CA	+10 bp
VA	-637	TN	-43	NV	-26	CO	+10 bp



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	Immunity	Full	Partial
Doses	458,535,663	+1.501 million	US	57.8%	68.0%
Boosters	33,022,382	+1.026 million	UK	67.6%	74.3%
	<b>One dose</b>	<b>% Pop</b>	<b>Immune</b>	<b>% pop</b>	<b>New immune today</b>
Total population	234,345,334	70%	200,763,610	60%	+0.105 million
Age 12 to 17	14,493,150	61%	12,163,527	51%	+0.010 million
Age 18 to 64	160,414,453	79%	138,826,699	68%	+0.090 million
Age 65 and over	56,344,241	100%	48,833,993	89%	+0.004 million



State	Best
At least partial immunity as % population	Middle
Full immunity as % population	Worst

Every American >18 immunized in **273 days** by Aug 18, 2022  
 72.7% of population >18 immunized  
 16.9% previously tested positive  
**89.6%** vs 60% adult herd immunity

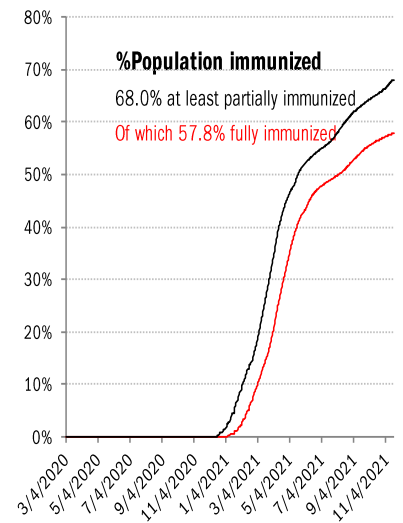
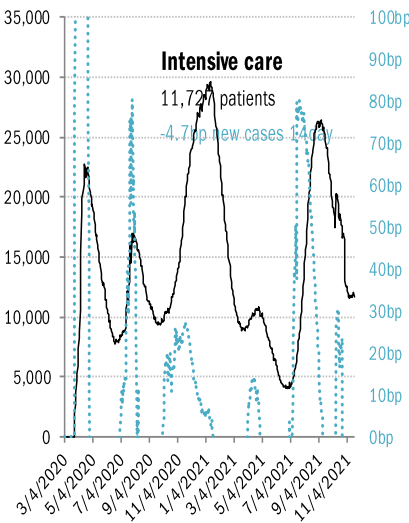
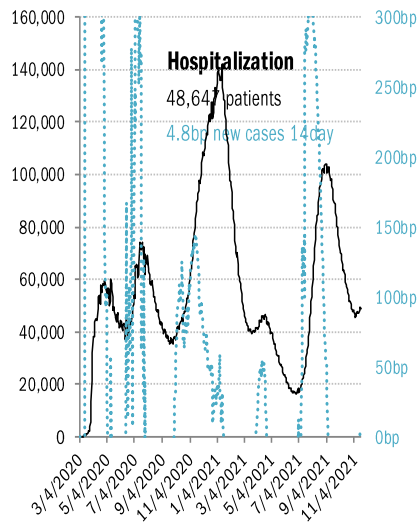
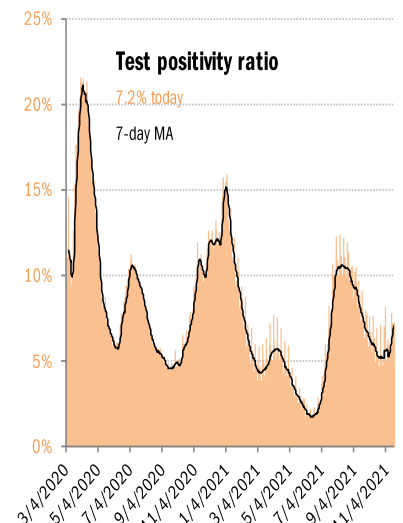
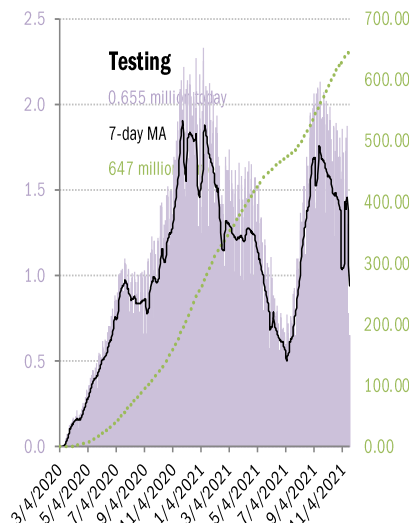
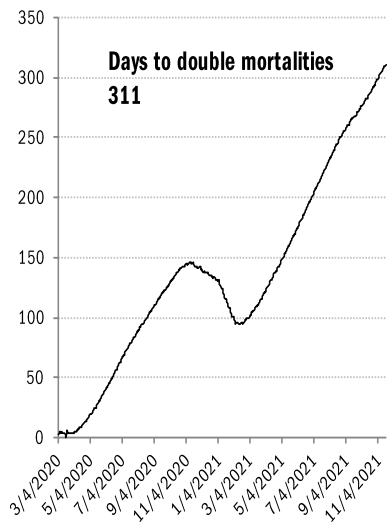
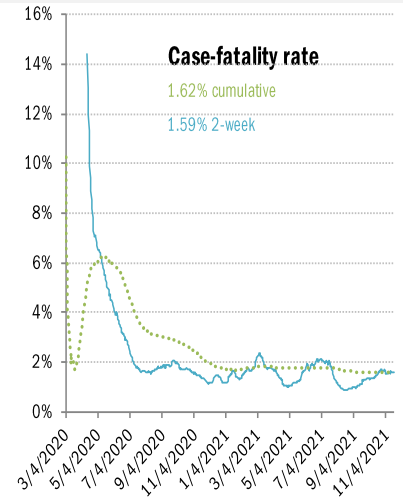
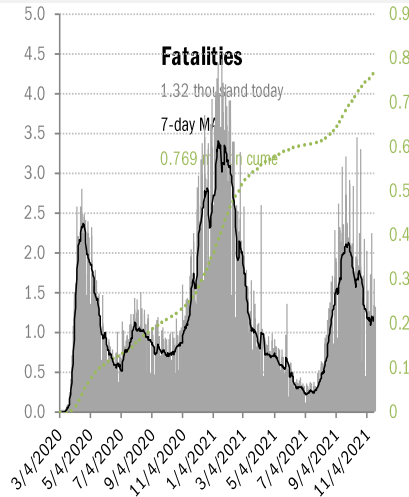
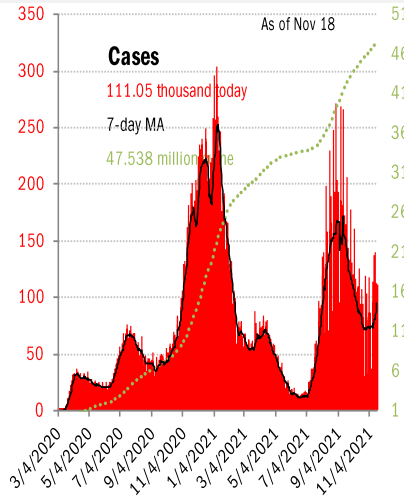
France	68.9%	76.4%
Spain	80.2%	81.7%
Germany	67.2%	69.7%
Italy	72.8%	77.8%
Australia	70.6%	76.5%
Israel	62.0%	67.4%
Canada	75.6%	79.1%
Japan	76.2%	78.9%
Africa	6.8%	10.1%
India	27.9%	54.6%
Brazil	60.0%	75.9%
China	74.4%	82.1%

Global data differs due to sources, timing

AK	HI	TX	FL	PR	GA	AL	MS	LA	OK	SC	NC	TN	AR	KS	NM	AZ	CA	UT	CO	NE	MO	KY	WV	VA	MD	CT	RI	DE	DC	PA	OH	IN	IA	SD	WY	NV	OR	WA	WI	ME	NH	VT	NY	MI	IL	MN	ND	MT	ID	WY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
61.6%	80.9%	62.5%	70.8%	84.1%	58.2%	55.7%	53.2%	54.8%	61.5%	59.3%	68.1%	56.0%	48.8%	64.8%	74.8%	63.0%	77.2%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	61.6%	64.8%	64.8%	59.4%	59.4%	54.1%	63.0%	62.9%	70.0%	63.0%	58.6%	59.2%	53.7%	73.8%	74.2%	82.1%	81.3%	78.6%	50.9%	50.9%	54.1%	63.0%	62.6%	57.0%	62.5%	60.5%	54.2%	62.5%	60.7%	79.9%	83.0%	82.8%	76.5%	60.0%	66.4%	67.5%	56.9%	58.7%	51.5%	58.3%	50.1%	71.5%	64.5%	62.0%	60.8%	54.2%	54.2%	52.6%	57.3%	52.6%	50.3%	56.3%	6

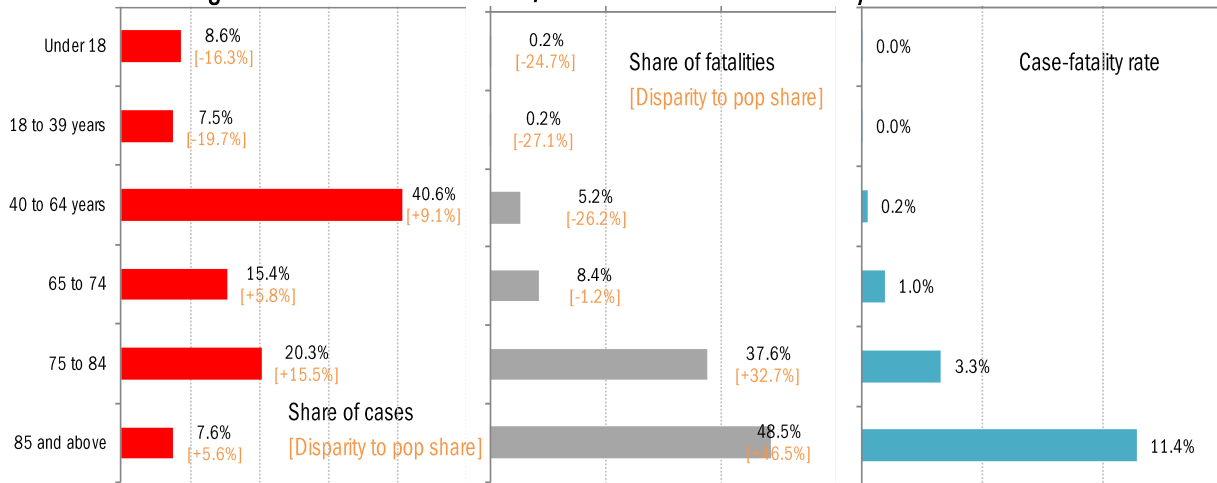
# US deep-dive

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

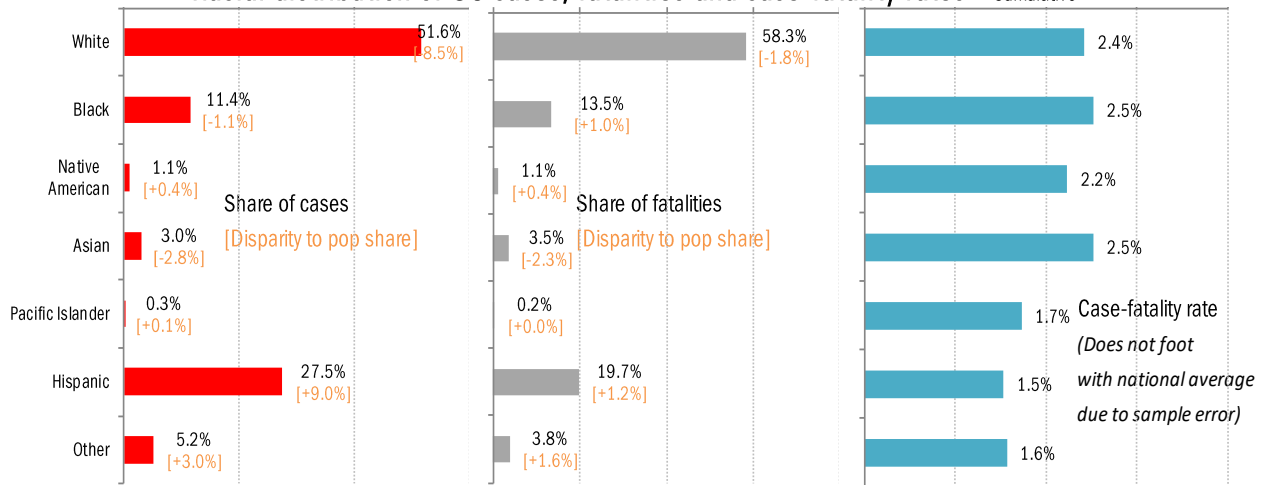


Source: [Johns Hopkins](#), [Covid Act Now](#), TrendMacro calculations

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

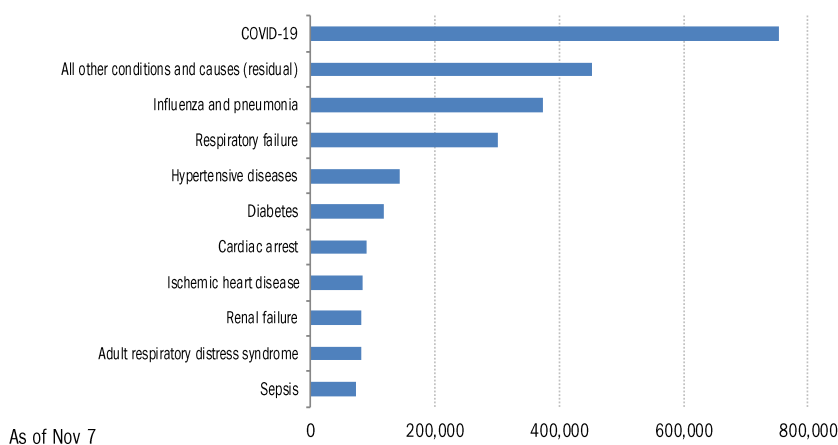


Racial distribution of US cases, fatalities and case-fatality rates



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

[Dissecting the early COVID-19 cases in Wuhan](#)

Michael Worobey  
*Science*  
November 18, 2021

[First Known Covid Case Was Vendor at Wuhan Market, Scientist Says](#)

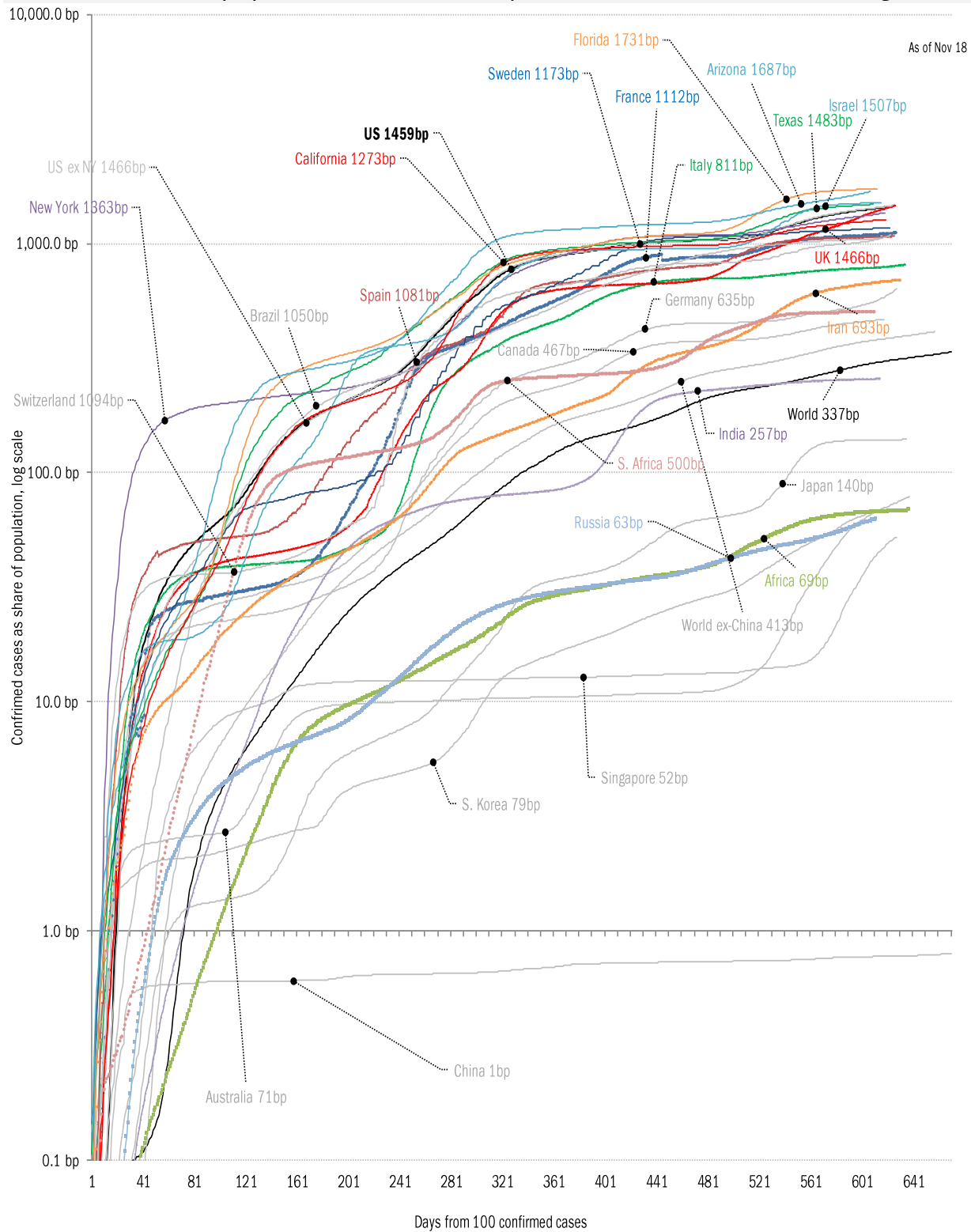
Carl Zimmer, Benjamin Mueller and Chris Buckley  
*New York Times*  
November 18, 2021

## Meme of the day



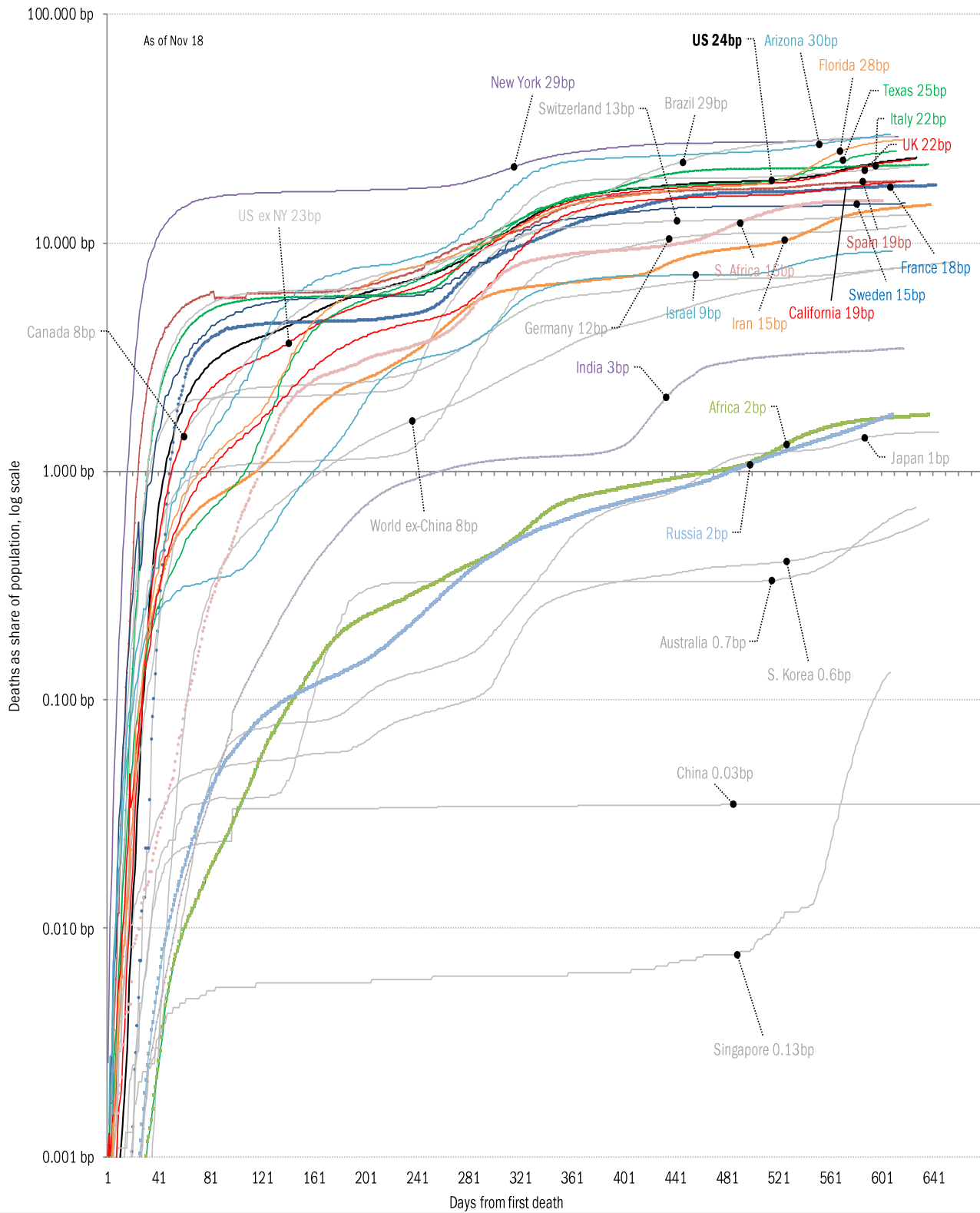
Source: Our beloved clients, [Power Line blog "The Week in Pictures"](#) and [CTUP](#)

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*



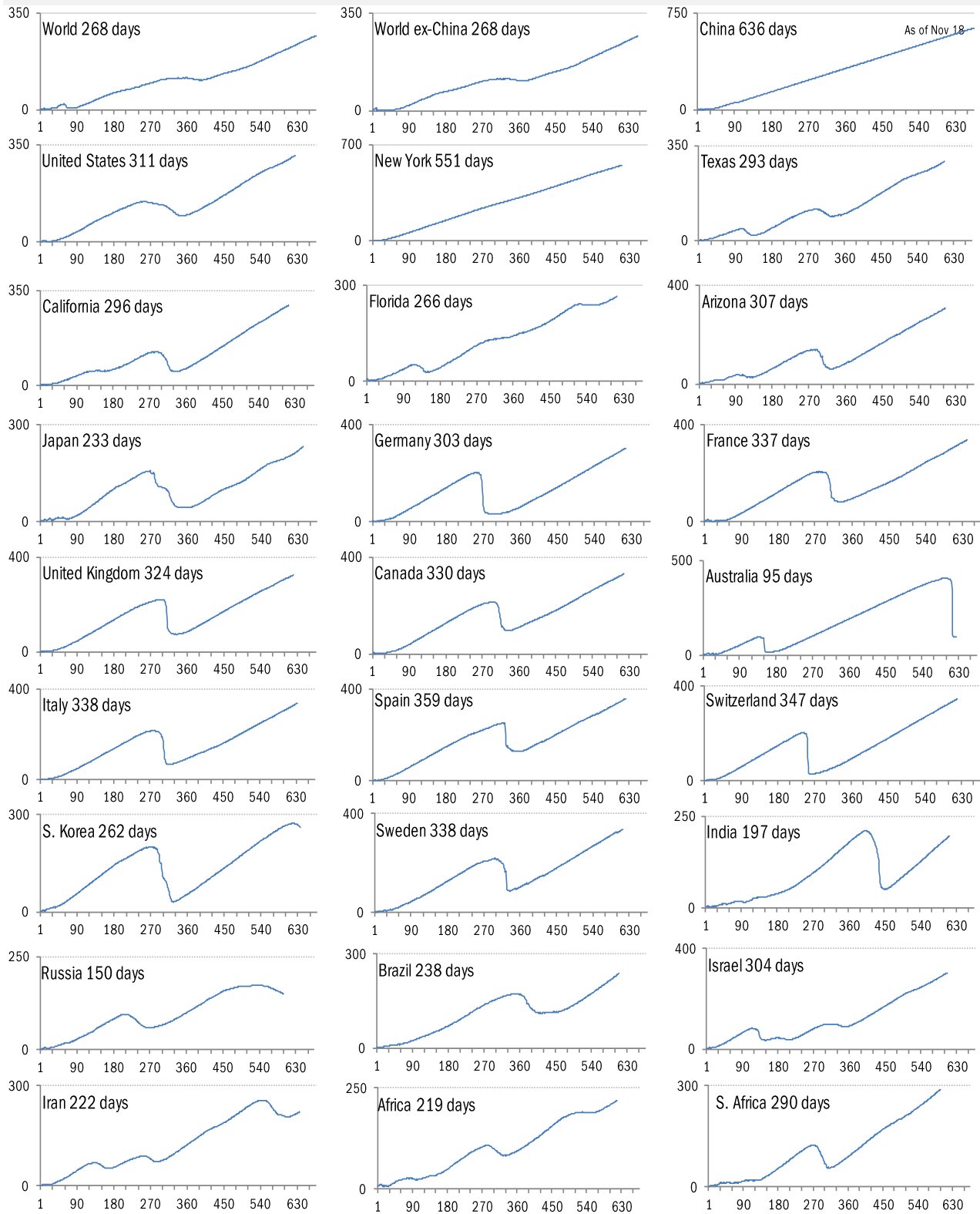
Source: [Johns Hopkins](#), TrendMacro calculations



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

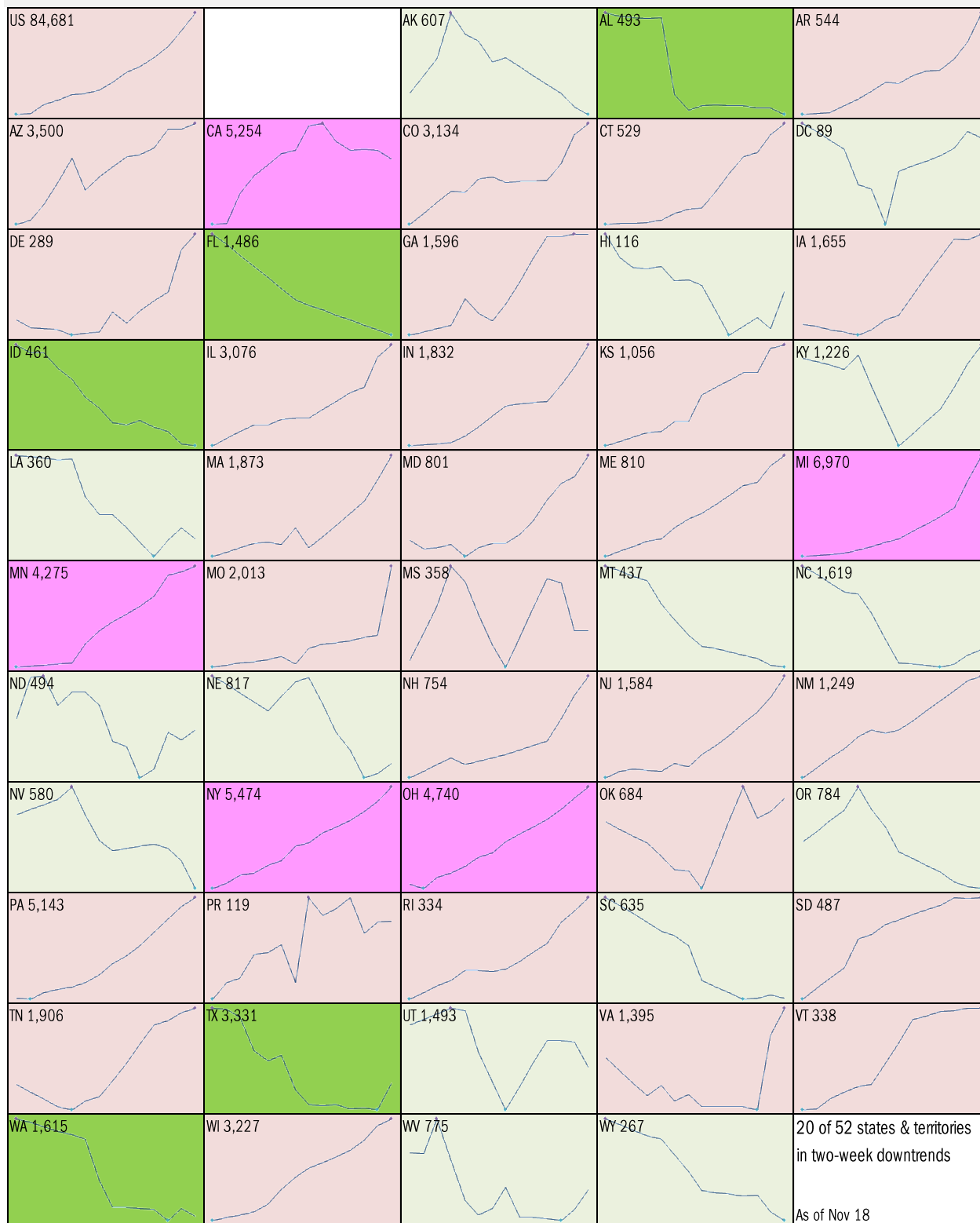
Vertical: days to double deaths Horizontal: days from first death

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

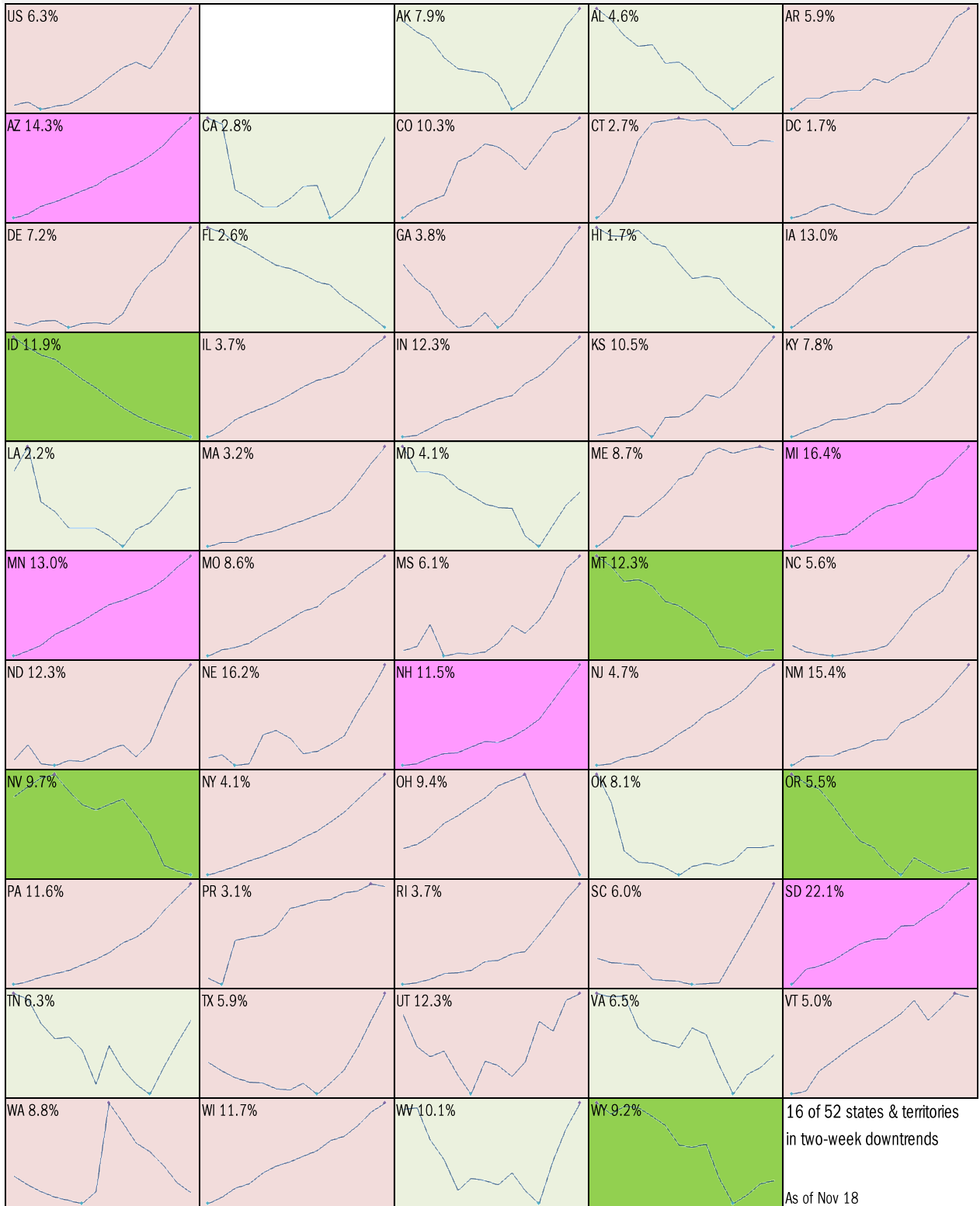


Source: [Johns Hopkins](#), TrendMacro calculations

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

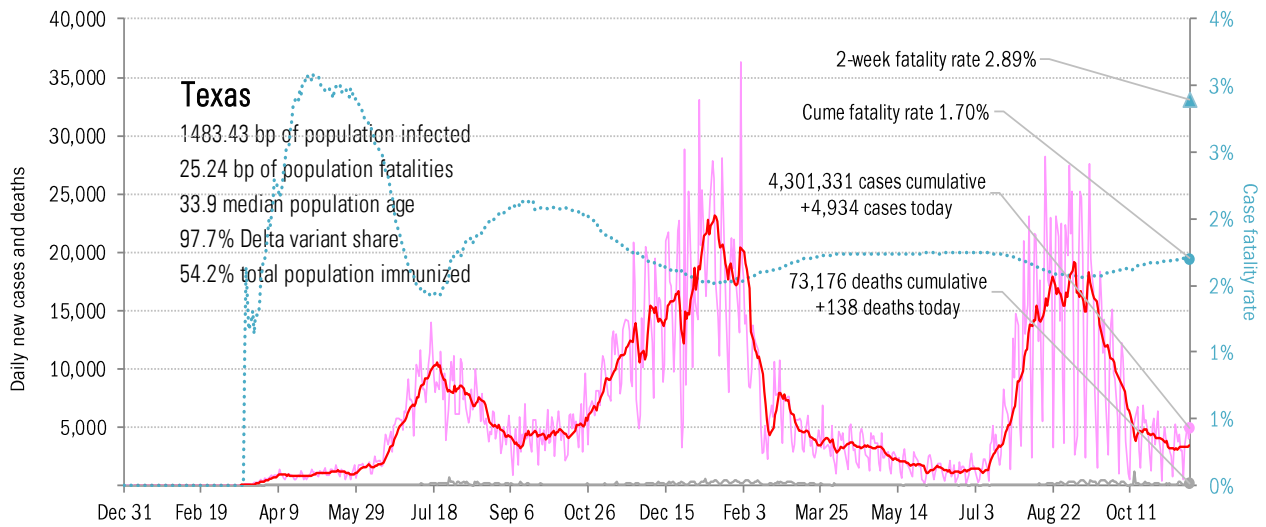
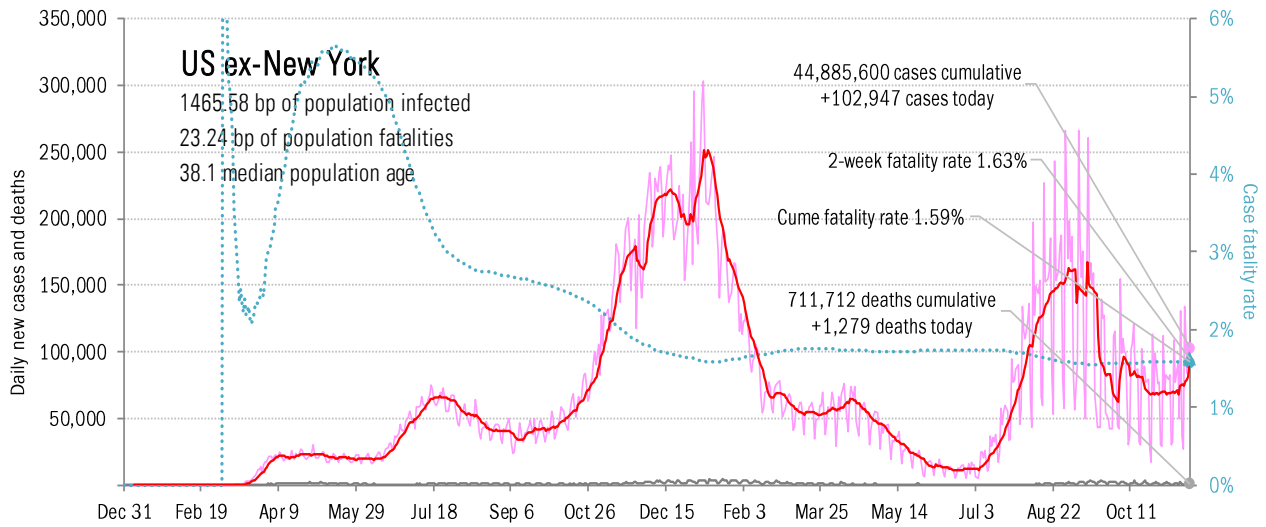
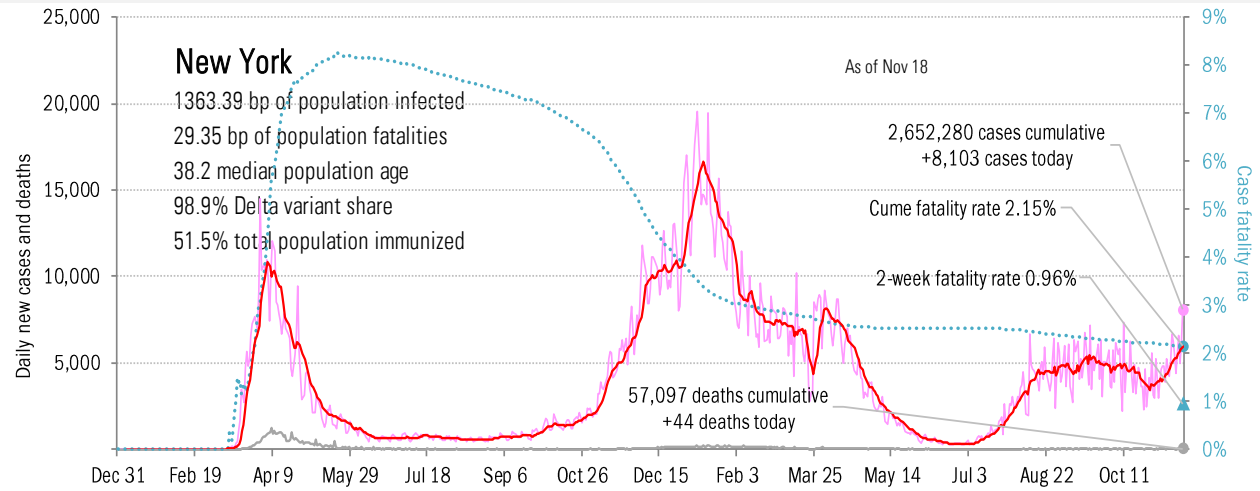
■ Downward trajectory ■ Five best ■ Upward trajectory ■ Five worst



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

# From Ground Zero to the Rio Grande

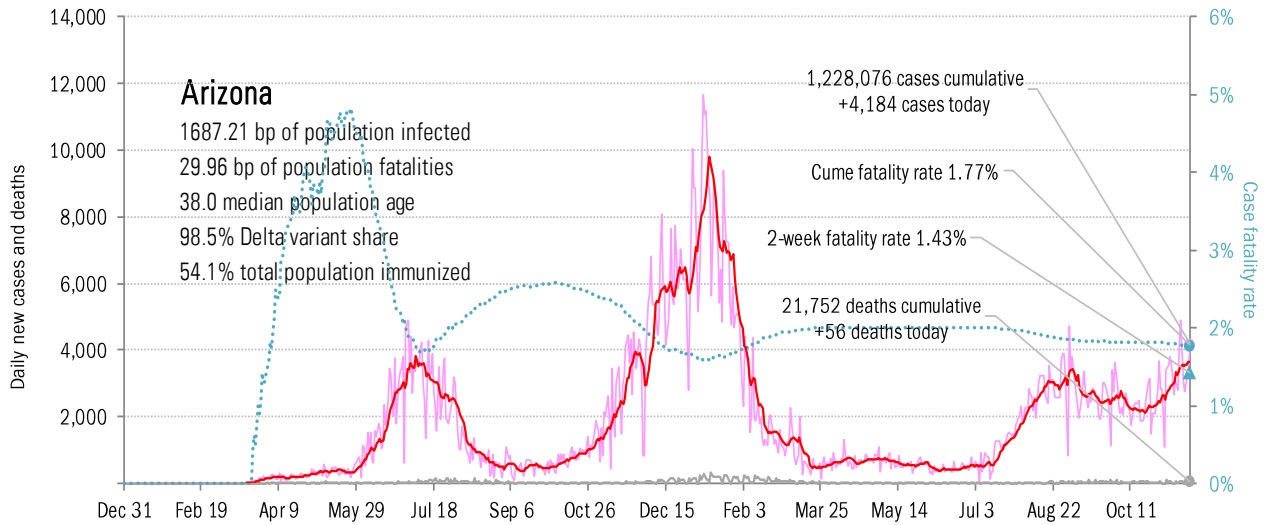
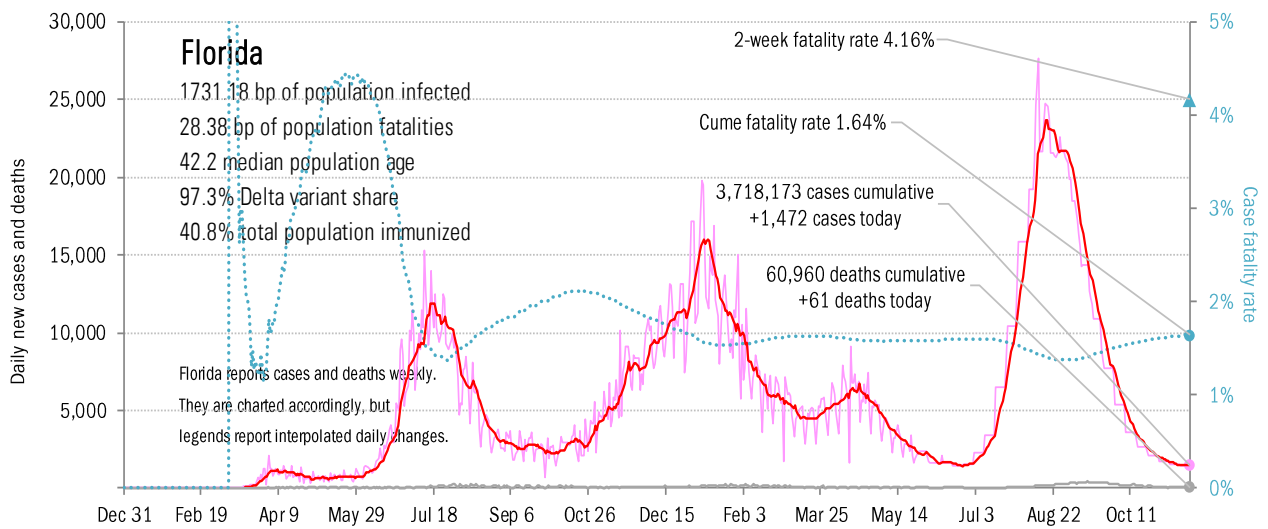
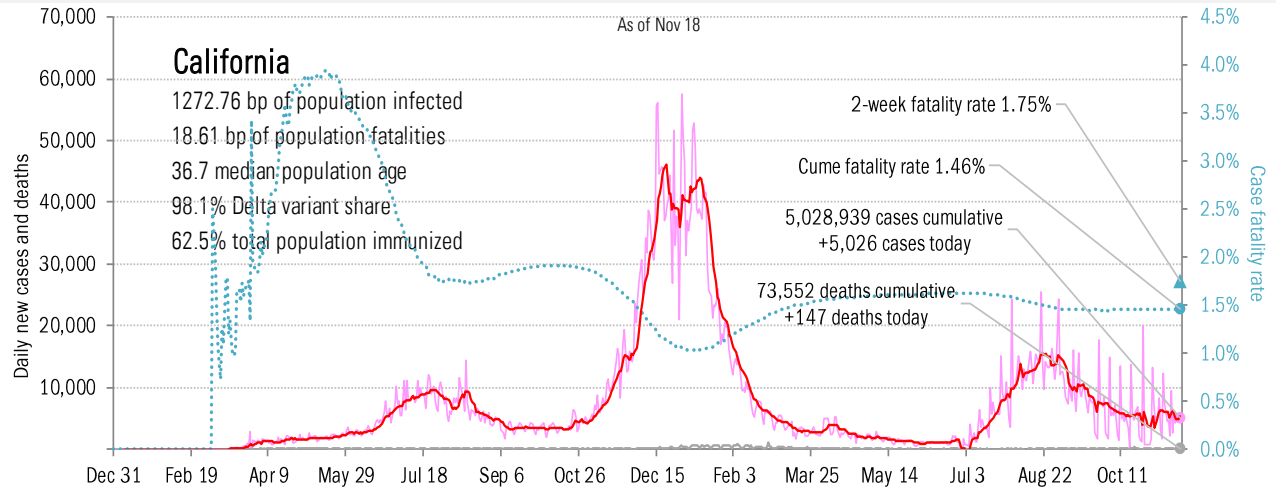
Cases: 7-day average and daily Deaths: Daily



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

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

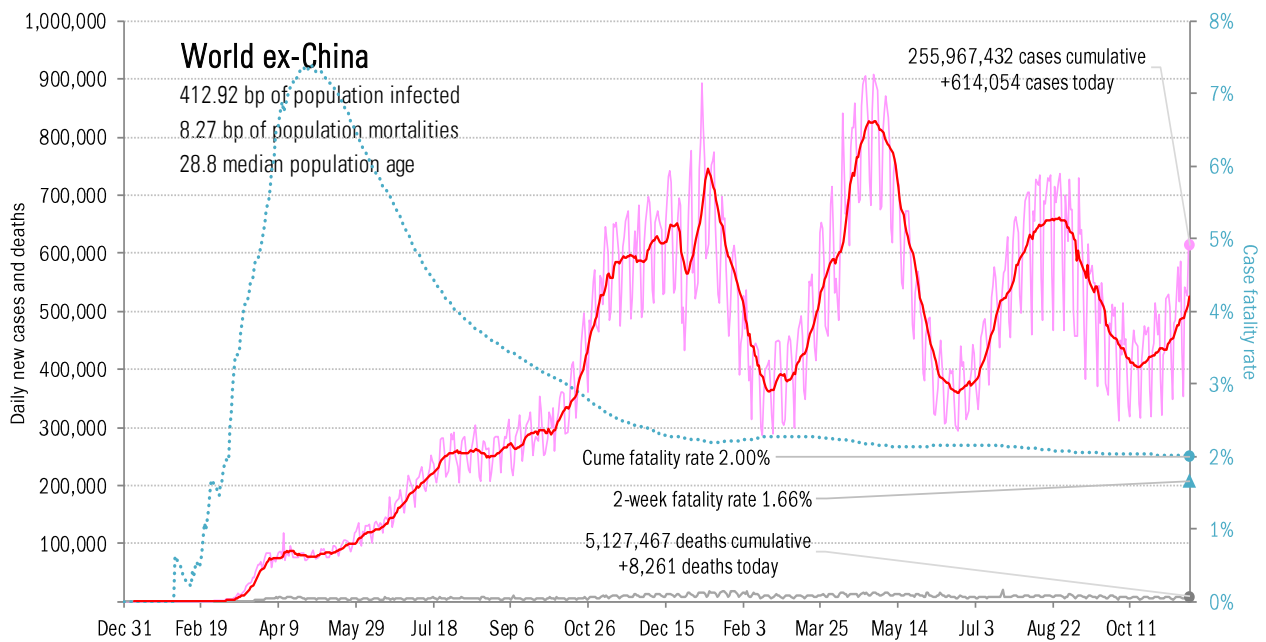
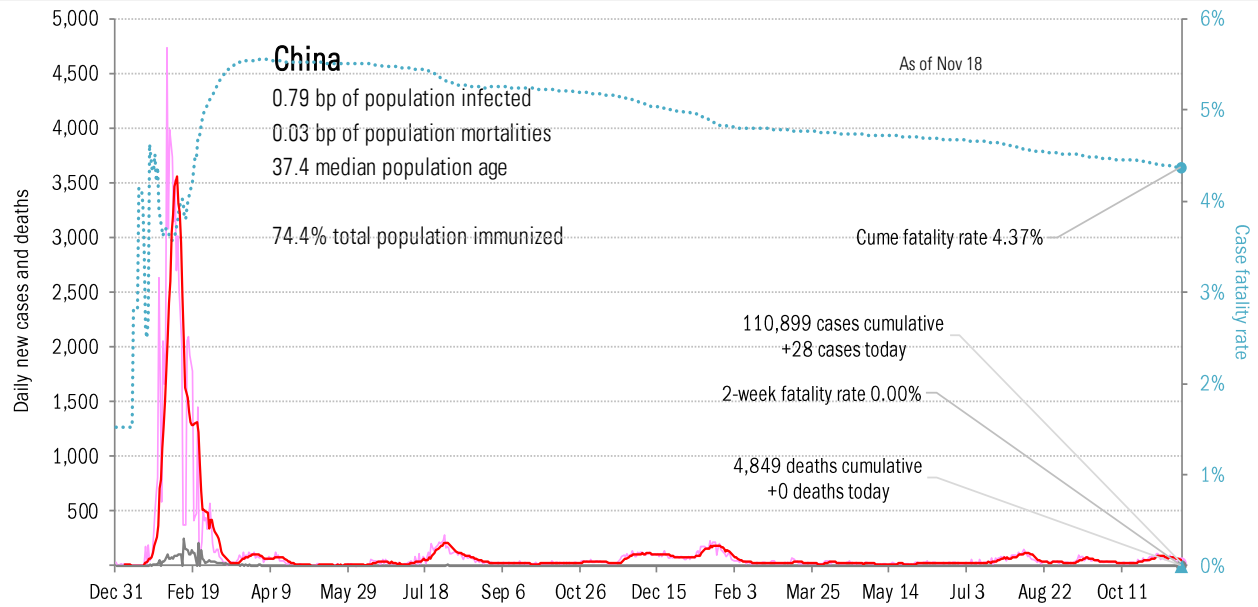
Cases: 7-day average and daily Deaths: Daily



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

# Patient zero... and then everyone else

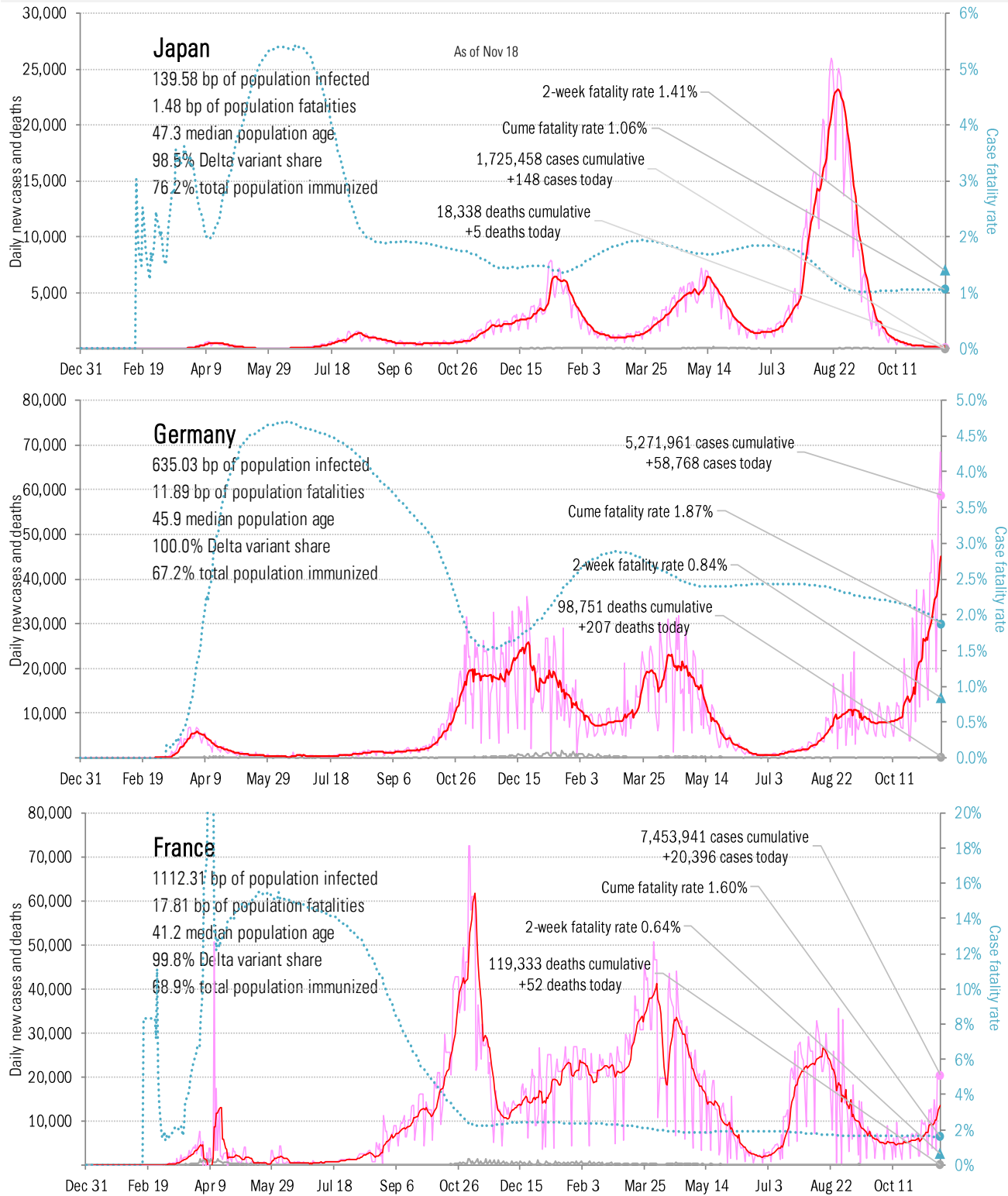
Cases: 7-day average and daily Deaths: Daily



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

# Impact in the largest economies

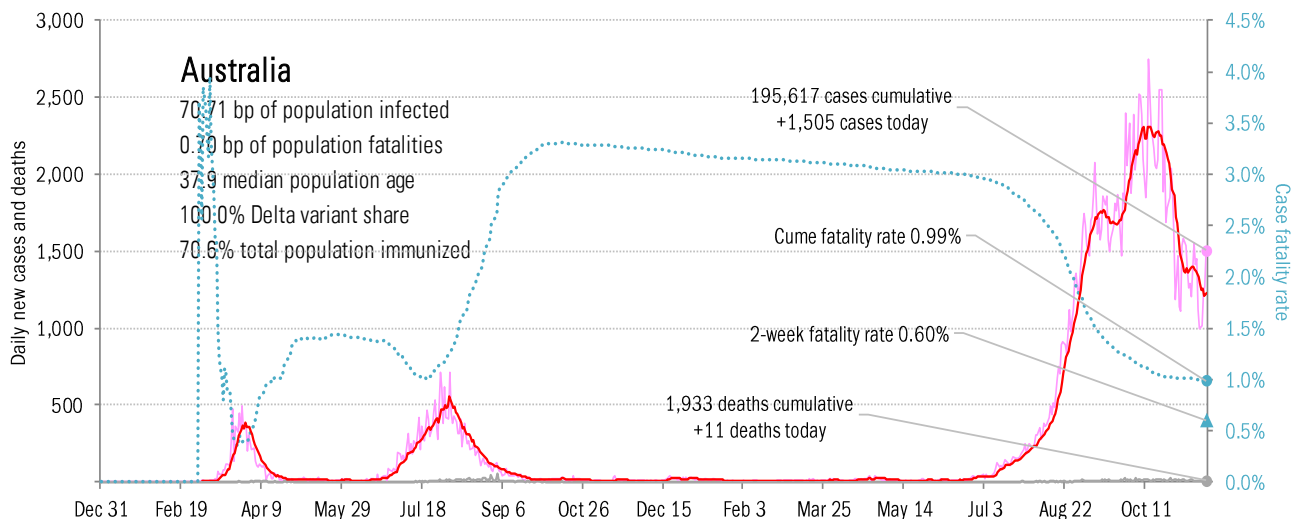
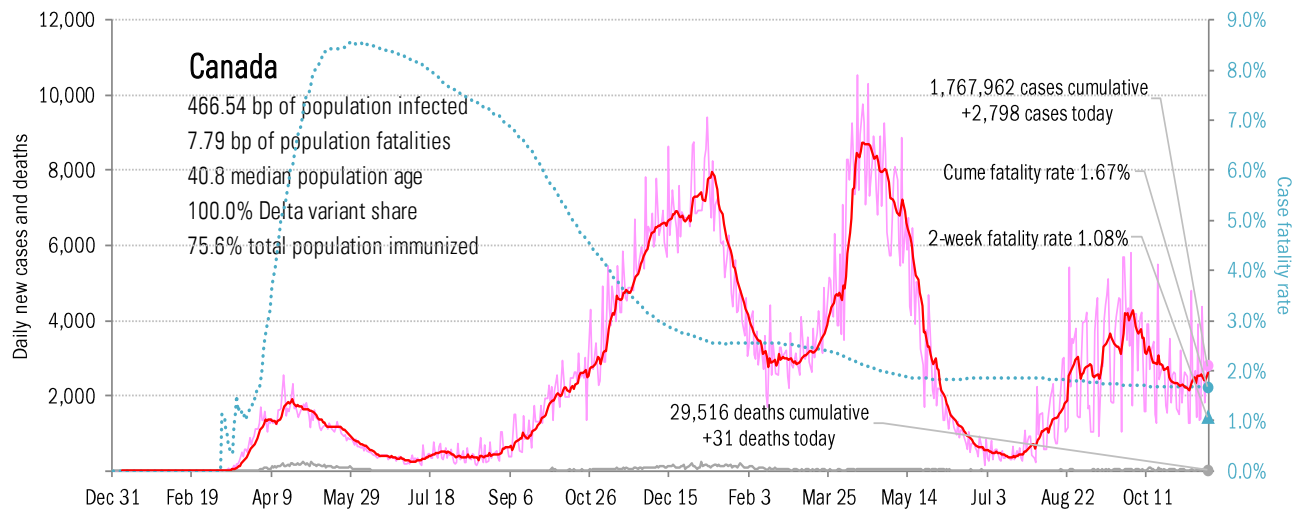
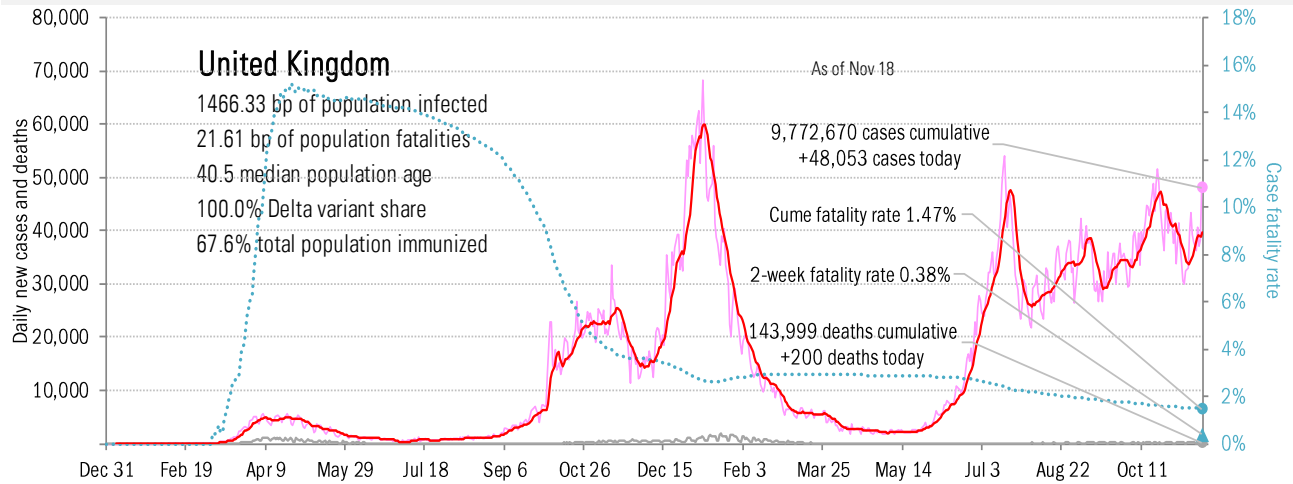
Cases: 7-day average and daily Deaths: Daily



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

# Impact in The Anglosphere

Cases: 7-day average and daily Deaths: Daily

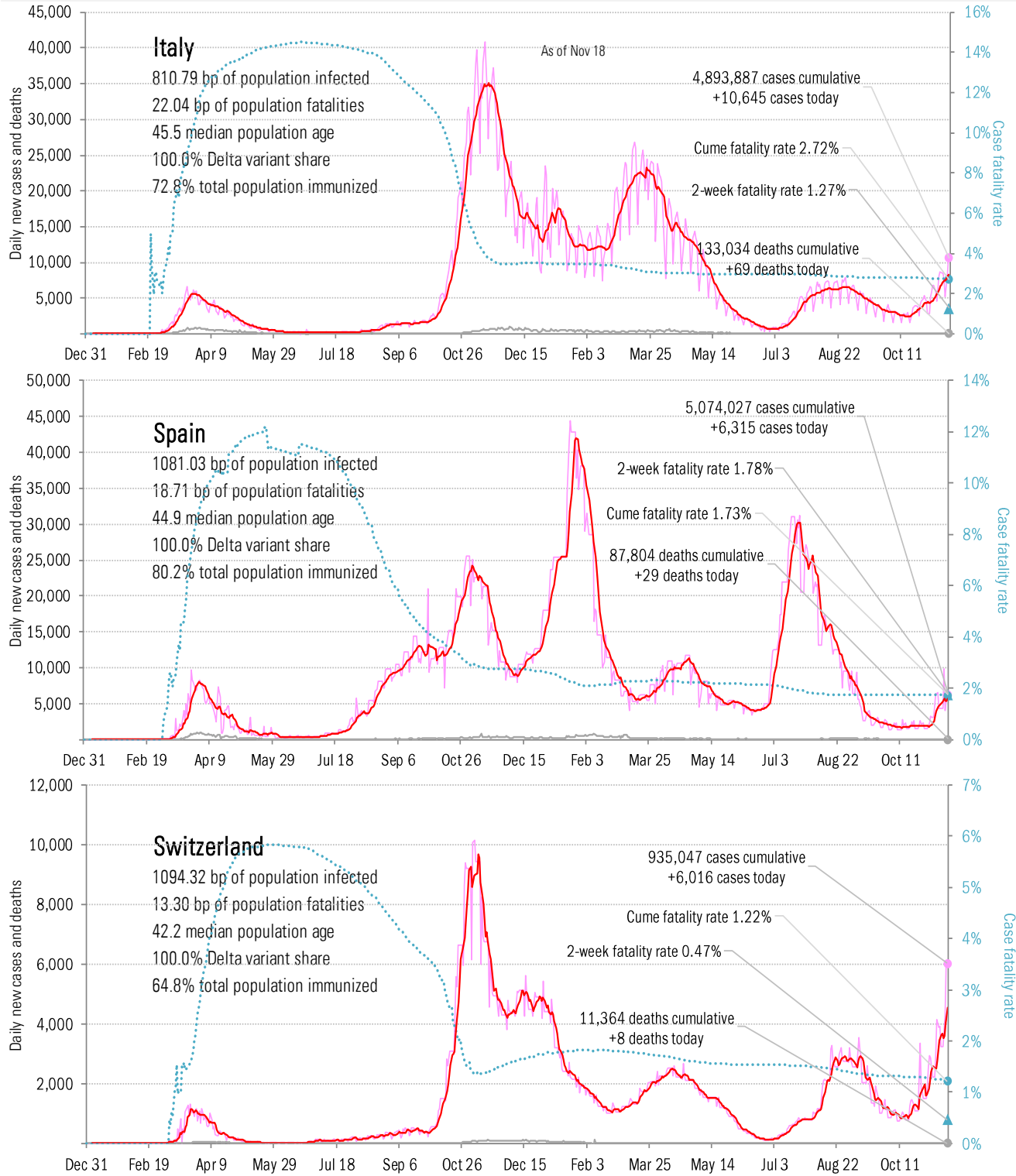


Source: [Johns Hopkins](#), TrendMacro calculations



# Impact in continental Europe

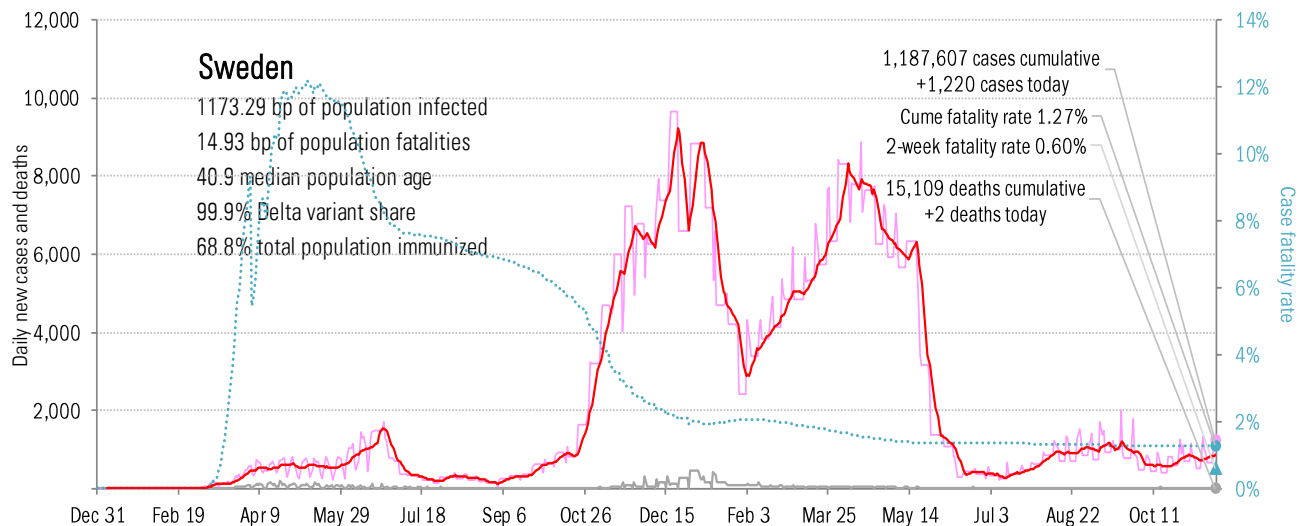
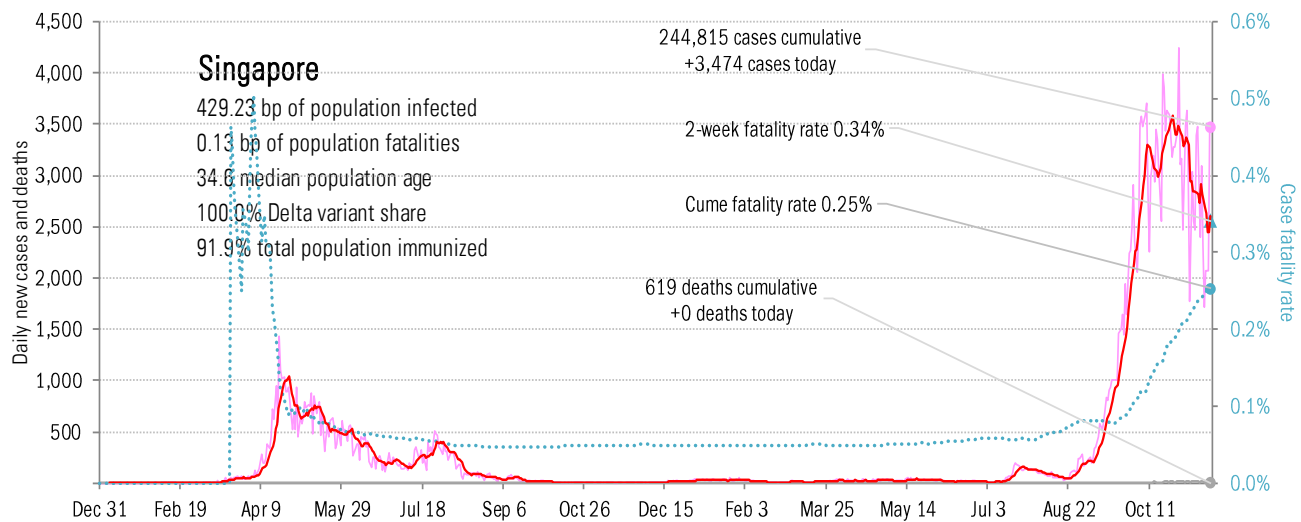
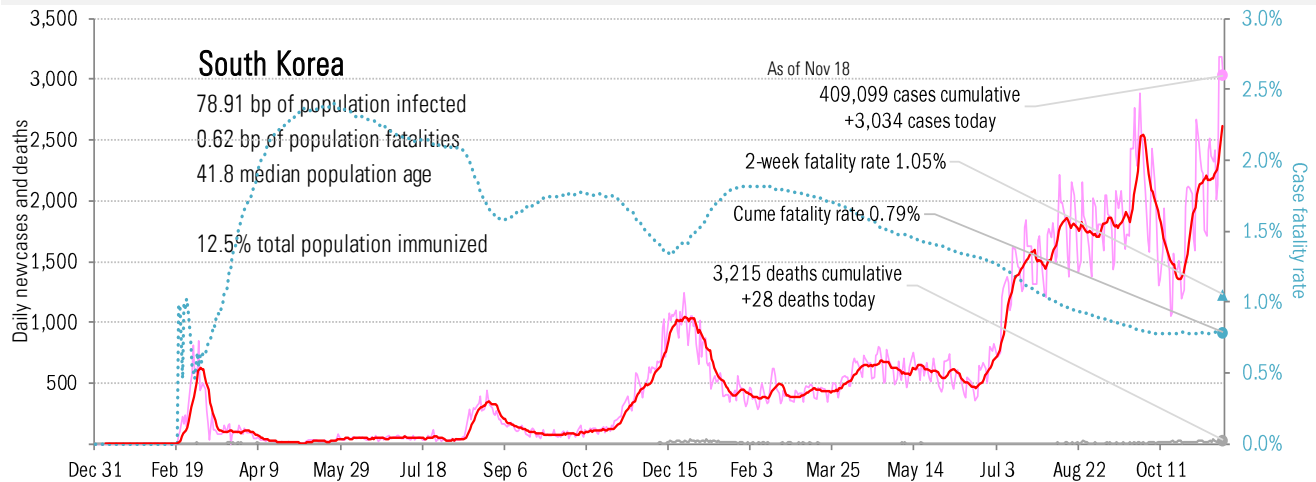
Cases: 7-day average and daily Deaths: Daily



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

# Impact in other hot-spots

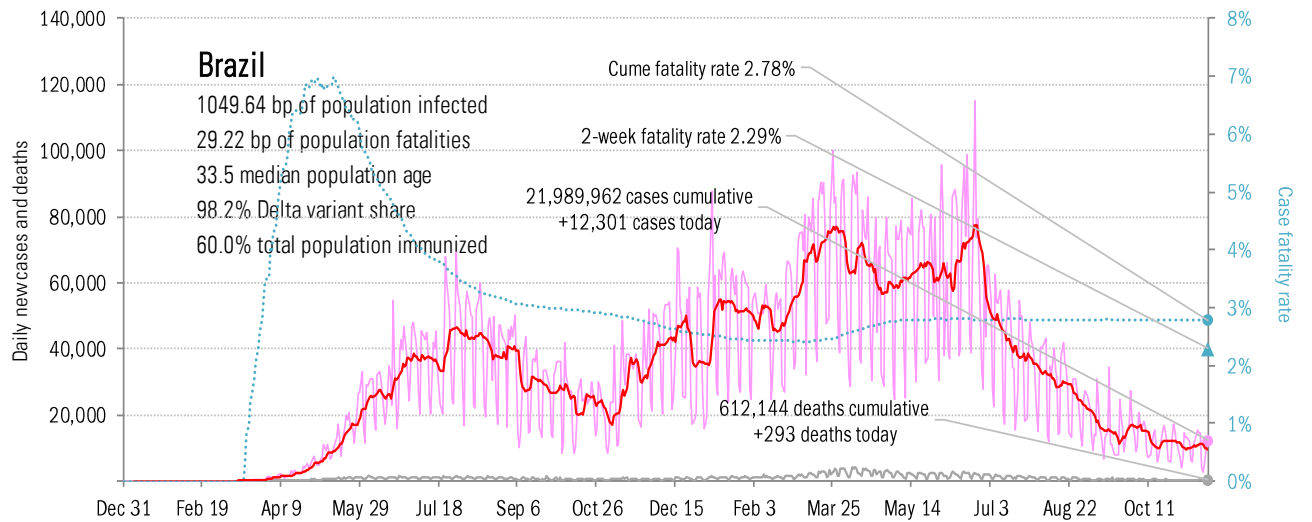
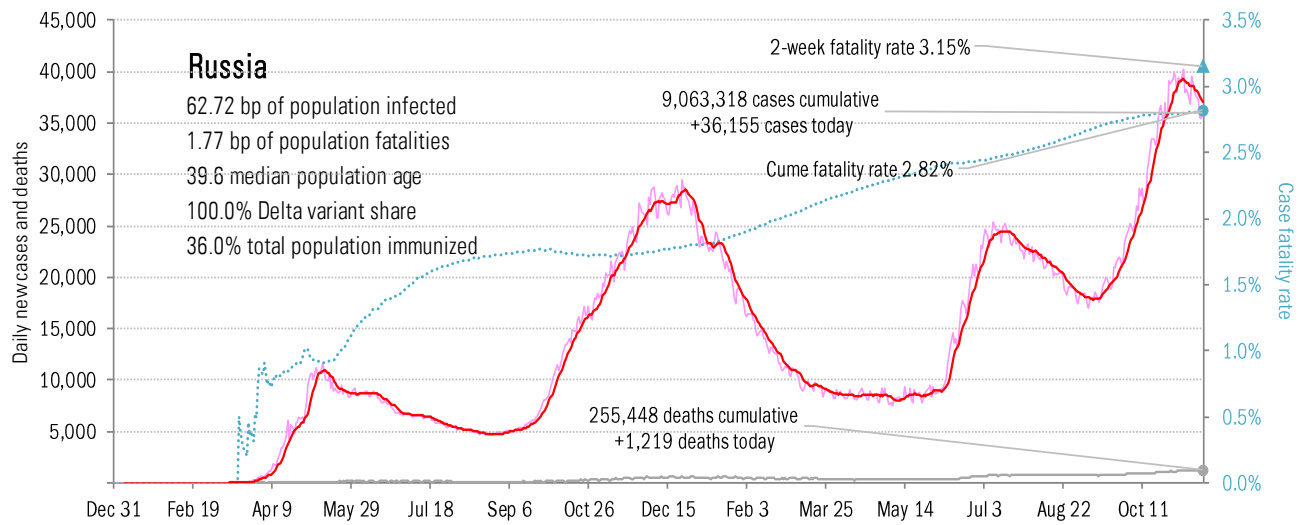
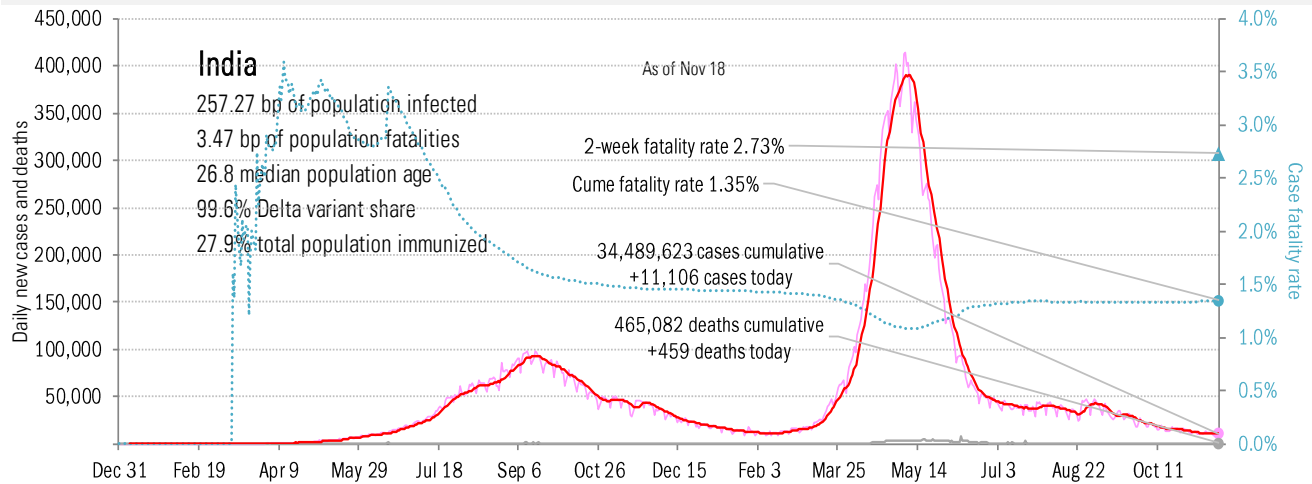
Cases: 7-day average and daily Deaths: Daily



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

# Impact in the BRICs ex-China

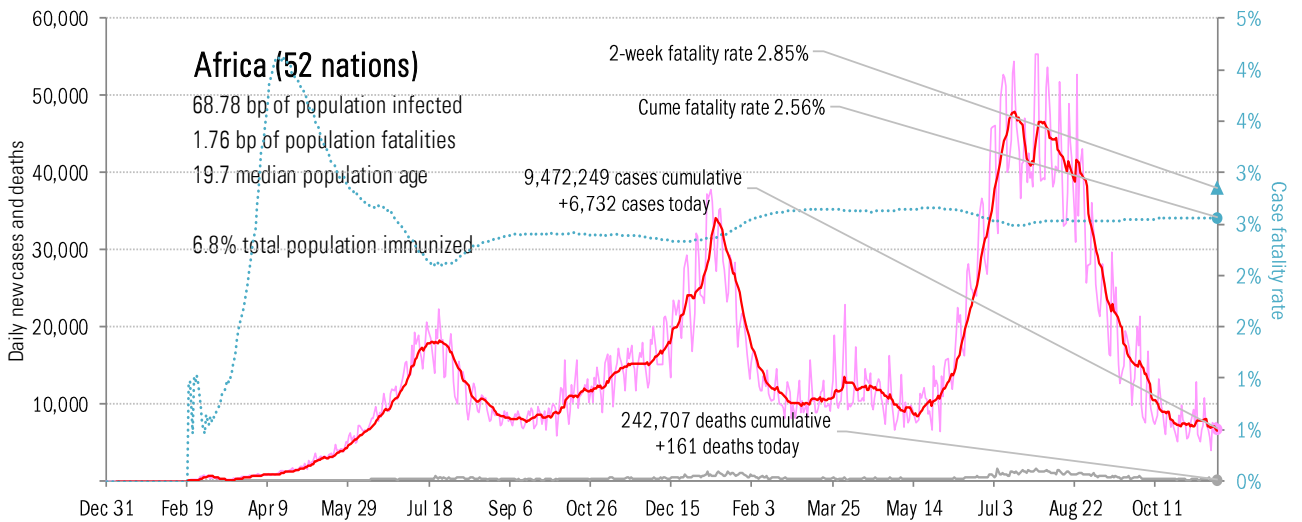
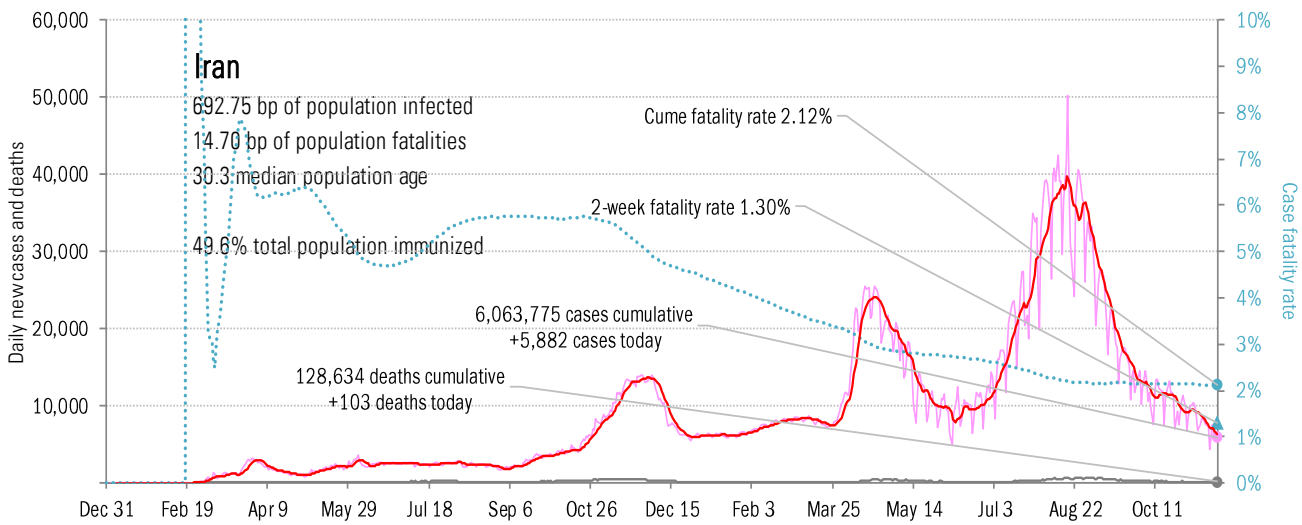
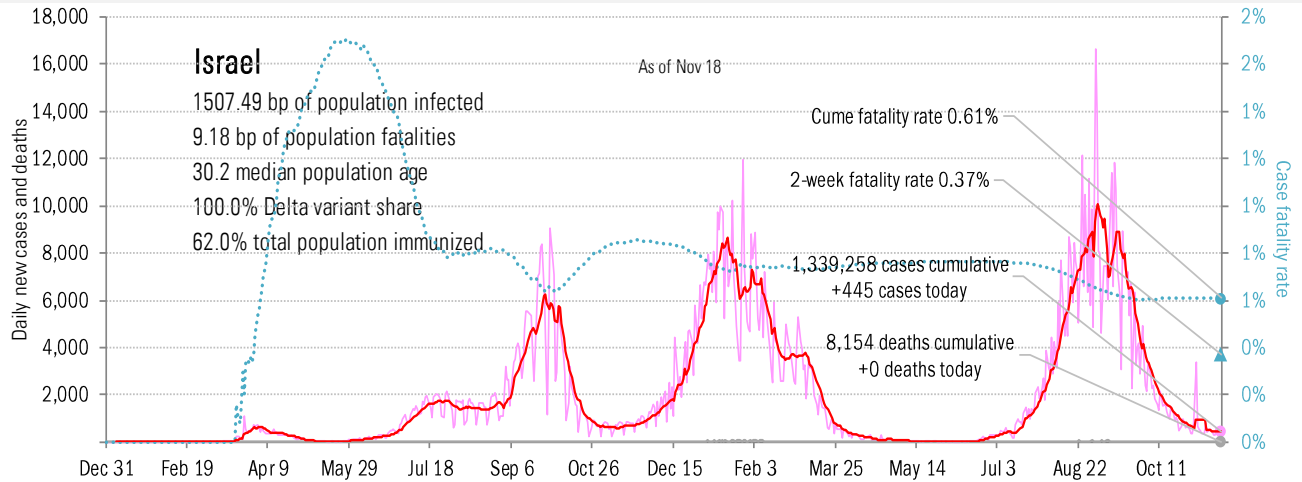
Cases: 7-day average and daily Deaths: Daily



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

# Impact in the Middle East and Africa

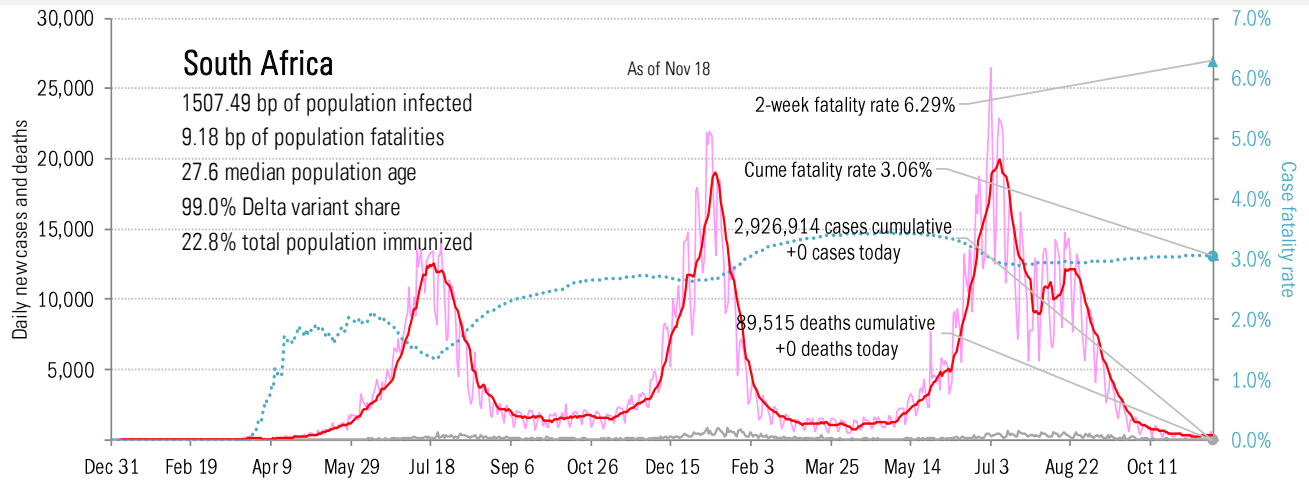
Cases: 7-day average and daily Deaths: Daily



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

# Impact in Africa, continued

Cases: 7-day average and daily Deaths: Daily



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