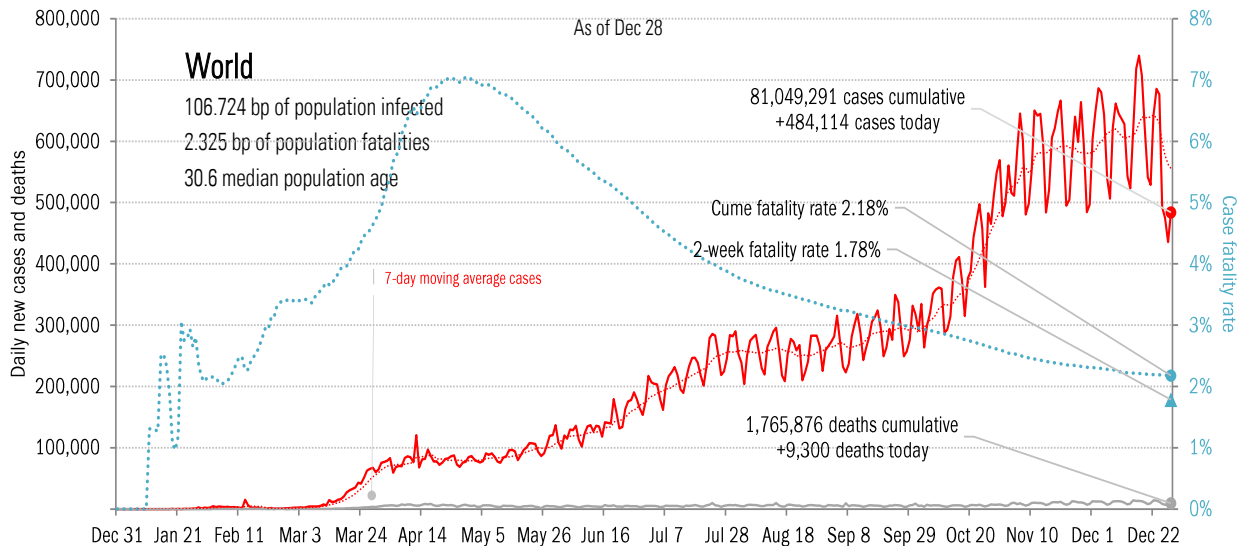
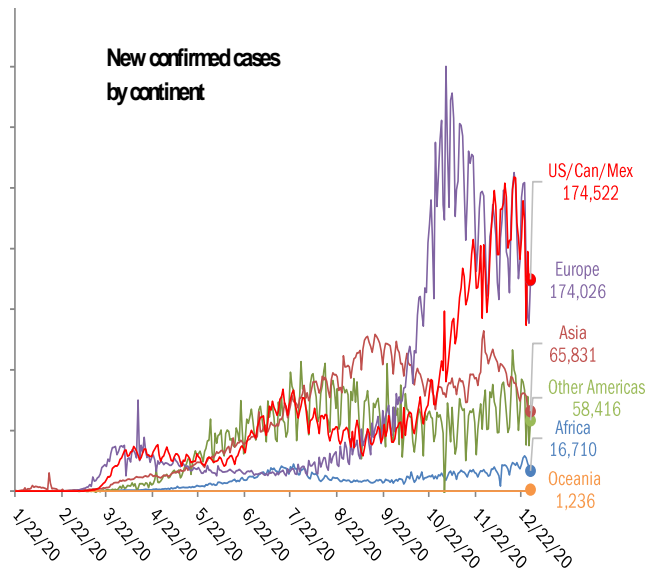


## Data Insights: Covid-2019 Monitor

Tuesday, December 29, 2020

### The global scorecard

The worst ten countries			
New cases		New Deaths	
United States	+162,190	United States	+1,491
United Kingdom	+41,460	Germany	+848
Russia	+27,363	Russia	+479
Spain	+24,462	Italy	+445
Brazil	+20,548	Brazil	+431
India	+16,432	Mexico	+429
Turkey	+15,197	France	+368
Germany	+14,004	United Kingdom	+357
Switzerland	+10,087	South Africa	+336
Colombia	+9,310	Spain	+298
<b>+341,053</b>		<b>+5,482</b>	
World	+484,114	World	+9,300
Top ten	70%	Top ten	59%



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

#### For more information contact us:

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 Thomas Demas: 704 552 3625 [tdemas@trendmacro.com](mailto:tdemas@trendmacro.com)

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# The US scorecard

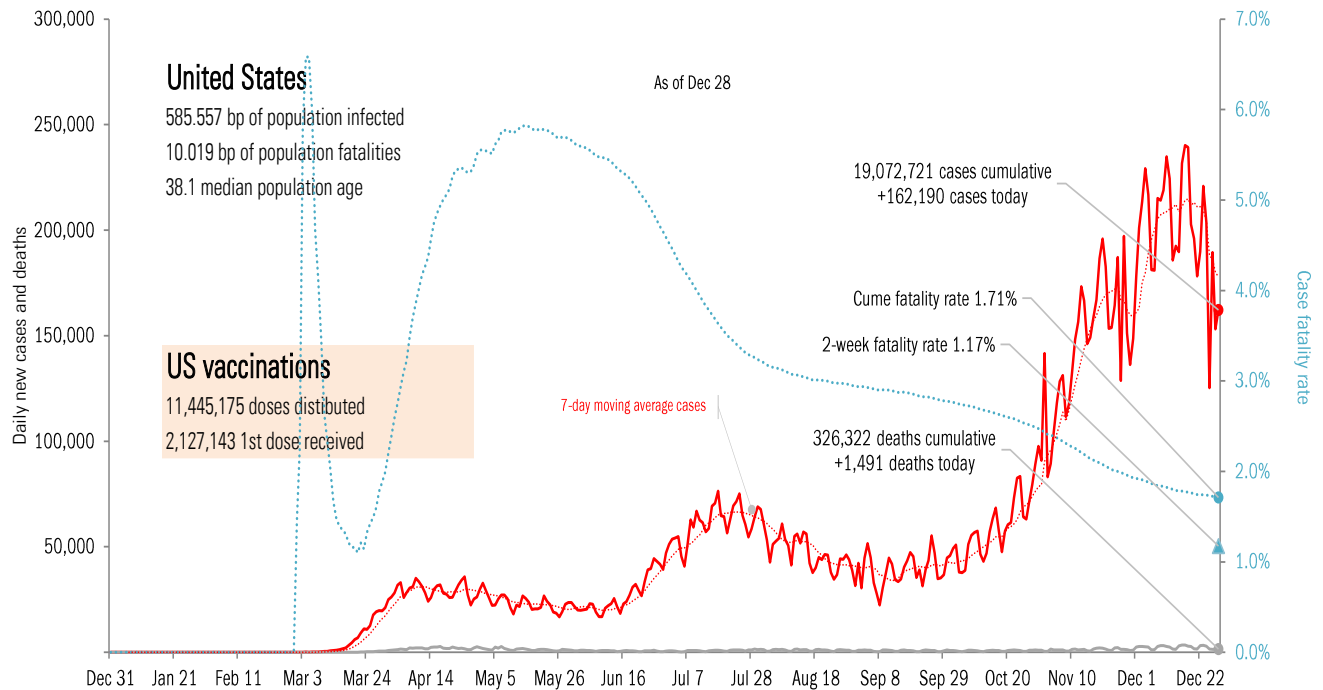
## The ten worst US states

New cases			New Deaths			New in hospital			Curre cases			Curre deaths			Curre in hospital			Hospital use		ICU use	
CA	+33,170		IL	+134		CA	+583		CA	2,155,976		NY	29,629		NY	89,995		RI	85%	RI	92%
TX	+14,829		NY	+118		TX	+465		TX	1,683,426		TX	26,521		FL	62,507		MD	78%	NV	89%
NY	+10,407		CT	+113		NY	+376		FL	1,258,315		CA	24,284		NJ	46,483		NV	78%	GA	87%
AZ	+10,086		FL	+99		GA	+230		IL	942,362		FL	21,613		GA	40,952		GA	78%	AL	87%
CT	+8,457		PA	+76		AL	+217		NY	932,552		NJ	18,651		CH	37,076		CA	77%	CA	87%
FL	+8,040		TN	+76		AZ	+200		CH	675,044		IL	17,470		AZ	35,630		DC	76%	OK	87%
KS	+6,373		CA	+64		FL	+199		PA	613,804		PA	15,086		IN	34,272		NC	75%	NM	86%
CH	+4,519		MI	+64		IL	+160		TN	567,792		MI	12,754		AL	32,999		CT	75%	TX	84%
IL	+4,453		CH	+62		NJ	+150		GA	546,859		MA	12,158		MD	26,078		AZ	73%	MS	84%
MA	+4,198		AR	+55		CH	+140		NC	520,716		GA	10,696		MN	21,420		TX	73%	NC	82%
+104,532			+861			+2,720			9,896,846			188,862			427,412						
All states	+162,190			+1,491			+2515		All states	19,072,721			326,322			671,101		All states	67%		75%
Top ten	64%			58%			108%		Top ten	52%			58%			64%		Median	63%		73%

Some states not reporting

## Five most improved US states

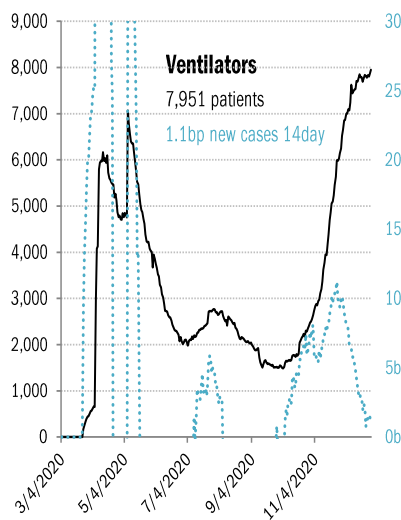
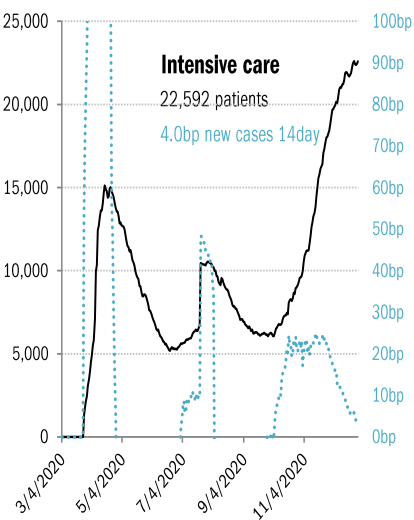
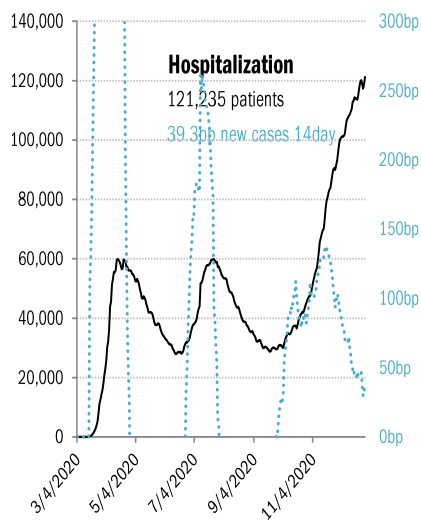
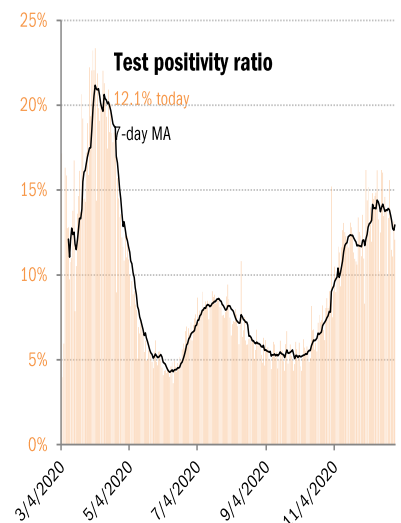
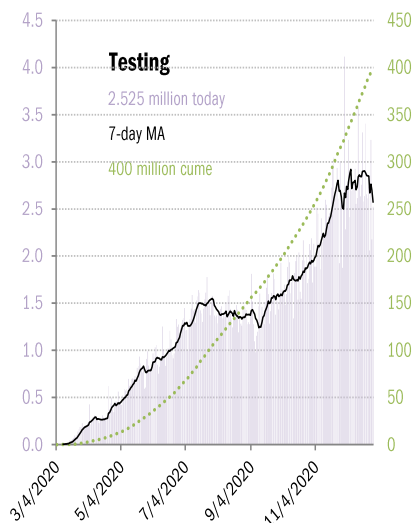
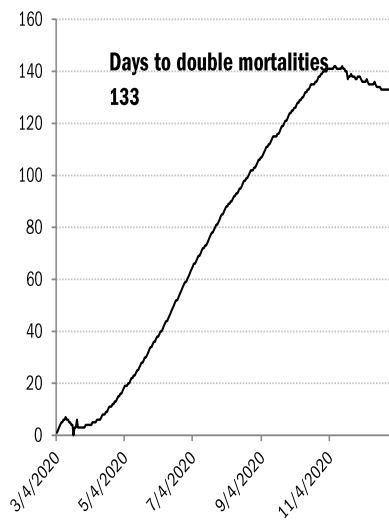
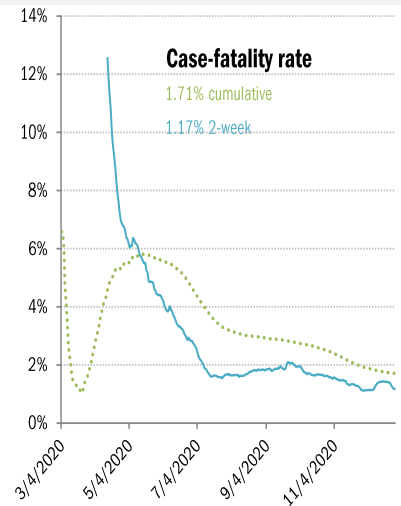
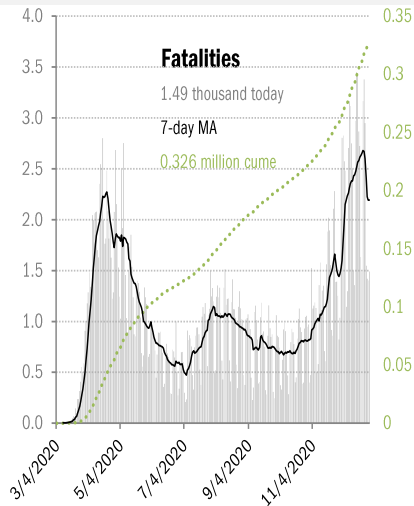
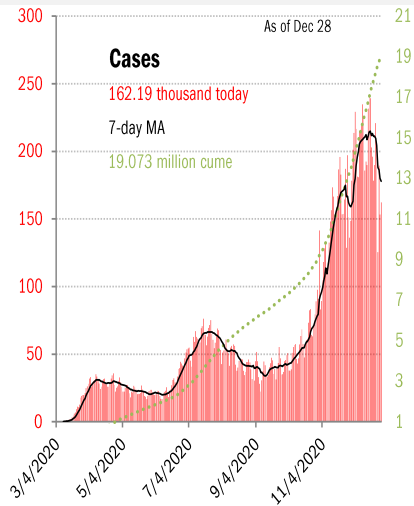
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most recoveries	
CA	-16,971	CA	-173	KS	-460	MS	+12,594
SC	-5,416	MA	-52	MI	-297	PA	+11,596
WA	-3,626	PA	-51	MN	-170	TX	+10,613
LA	-2,406	MN	-27	MO	-142	CH	+6,437
MN	-1,439	KY	-13	FL	-64	IN	+6,008



Source: [Covid Tracking Project](#), [Dept. of Health and Human Services](#), [CDC](#), TrendMacro calculations

# US deep-dive

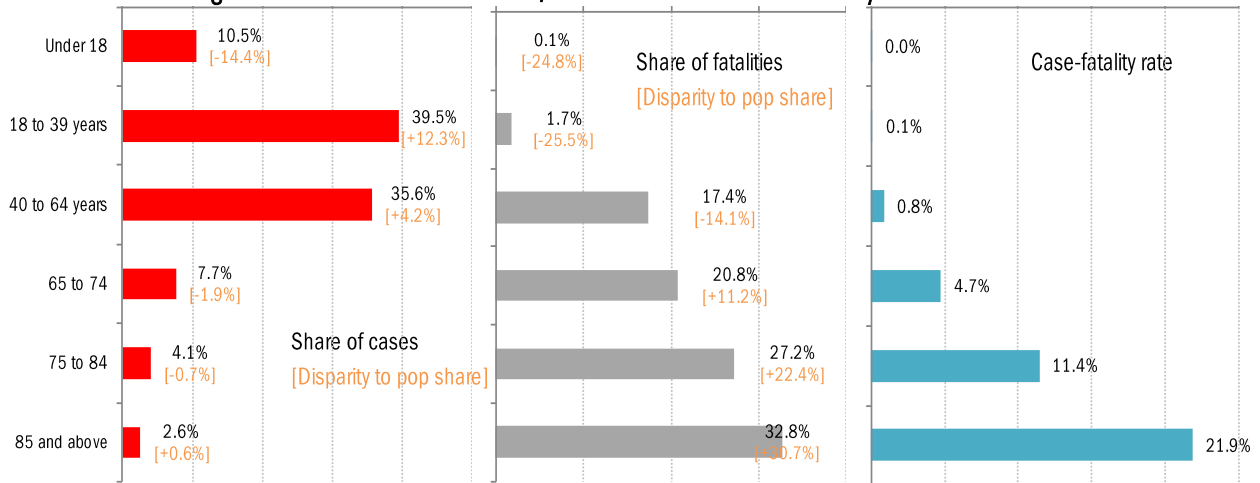
National and state-by-state data do not line up because of different sources



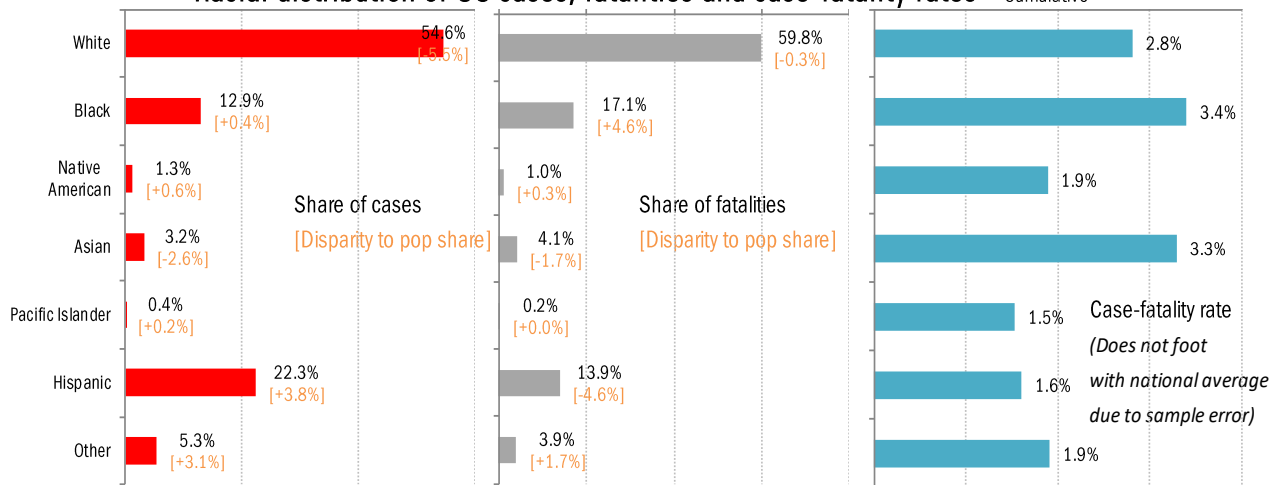
Source: [Covid Tracking Project](https://covidtracking.com), TrendMacro calculations

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

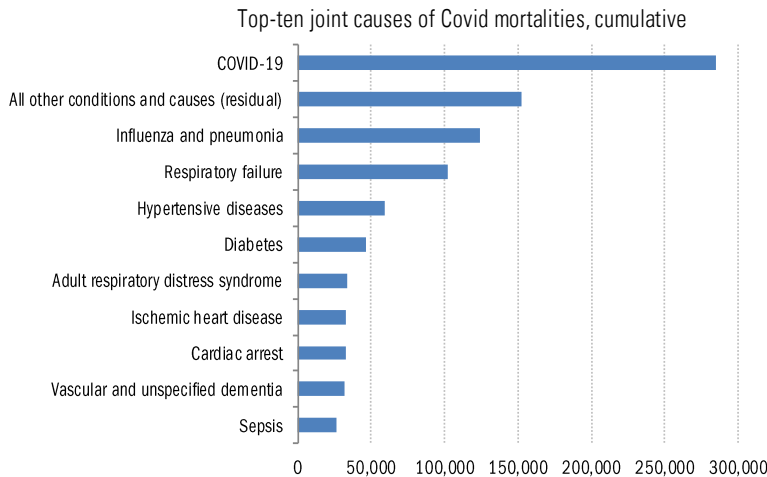
## Age distribution of US cases, fatalities and case-fatality rates



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



## Comorbidities



For 6% of the deaths, COVID-19 was the only cause mentioned. For deaths with conditions or causes in addition to COVID-19, on average, there were 2.9 additional conditions or causes per death.

Source: Distributions [CDC](#), Comorbidities [CDC](#), TrendMacro calculations

## Recommended reading

[A cost/benefit analysis of clinical trial designs for COVID-19 vaccine candidates](#)

Donald A. Berry et al.  
*PLoS One*  
December 23, 2020

[Lockdown: a deadly, failed experiment](#)

Fraser Myers  
*Spiked!*  
December 27, 2020

[Professor Neil Ferguson: People don't agree with lockdown and try to undermine the scientists](#)

Tom Whipple  
*The Times*  
December 25, 2020

[COVID-19 could complicate Pelosi's path to Speaker next year](#)

Mike Lillis and Scott Wong  
*The Hill*  
December 26, 2020

[Cashing in on COVID: Pandemic turns 50 doctors and scientists into BILLIONAIRES - with more than half hailing from China, Forbes reveals](#)

Valerie Edwards  
*Daily Mail*  
December 28, 2020

[COVID-19 Vaccination Considerations for Persons with Underlying Medical Conditions](#)

*Centers for Disease Control*  
December 26, 2020

[School choice activists upset COVID-19 stimulus bans governors from funding vouchers](#)

Carrie Sheffield  
*Just the News*  
December 24, 2020

[Majority of Americans plan to delay COVID vaccine or not get it at all](#)

Daniel Payne  
*Just the News*  
December 25, 2020

[Scientists Eye Potential Culprit Behind Covid-19 Vaccine Allergic Reactions](#)

Sarah Toy  
*Wall Street Journal*  
December 26, 2020

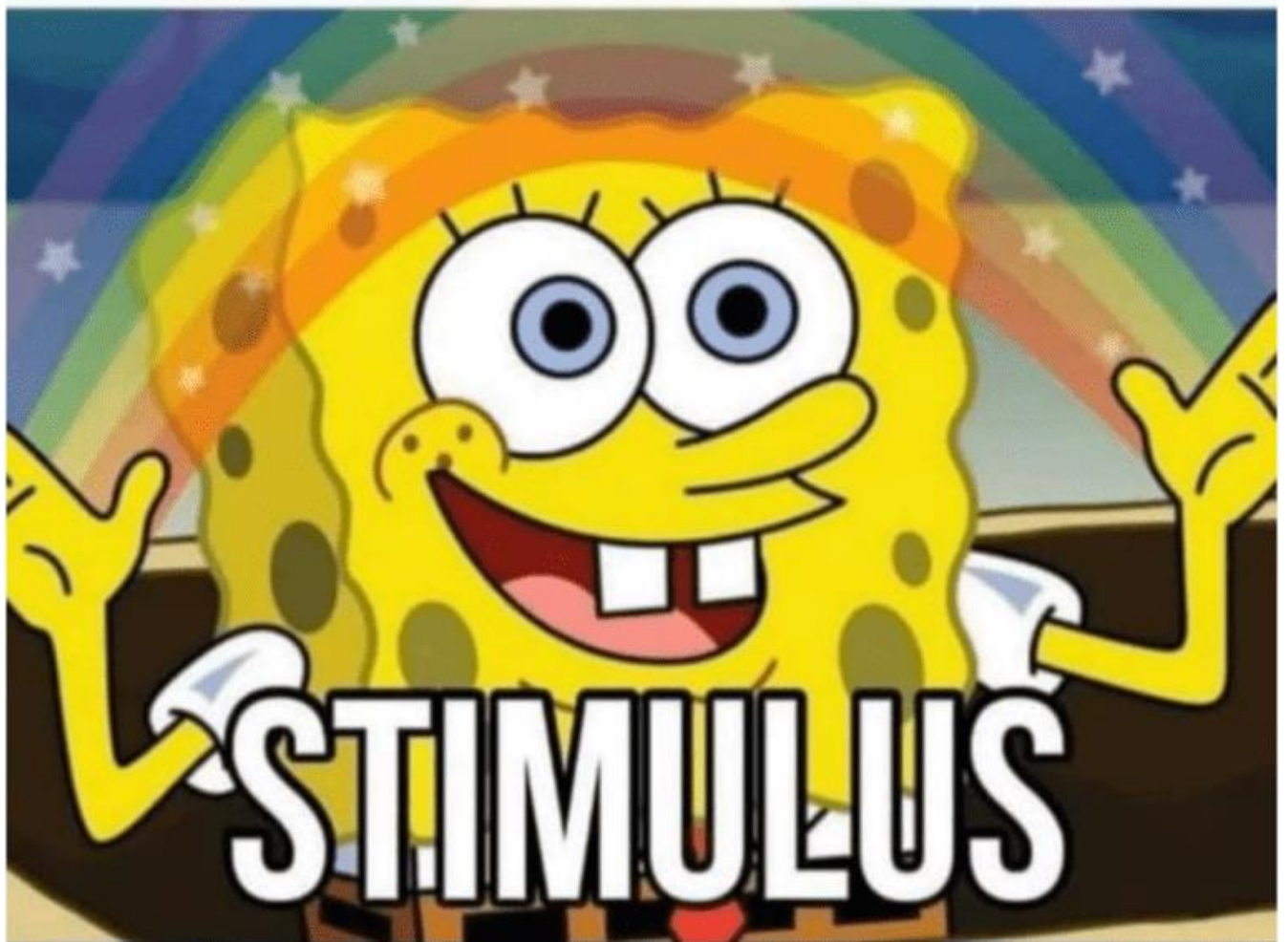
[Fauci defends shifting herd immunity goal post based on polling](#)

Tyler Van Dyke  
*Washington Examiner*  
December 27, 2020

[How Much Herd Immunity Is Enough?](#)

Donald G. McNeil Jr.  
*New York Times*  
December 24, 2020

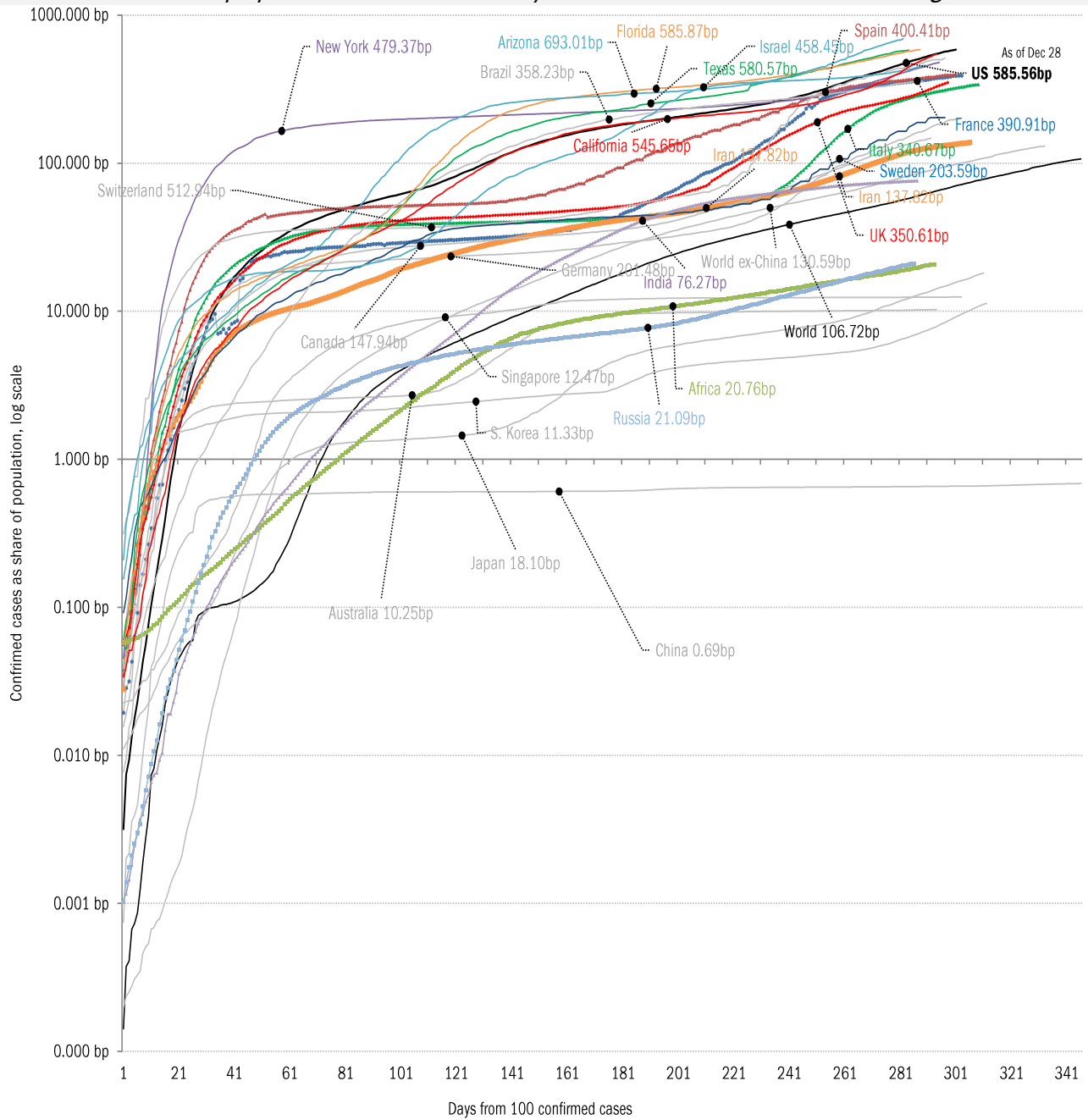
**WHEN SOMEONE TOOK  
25% OF YOUR MONEY, AND  
THEN GIVES 2% OF IT BACK**



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



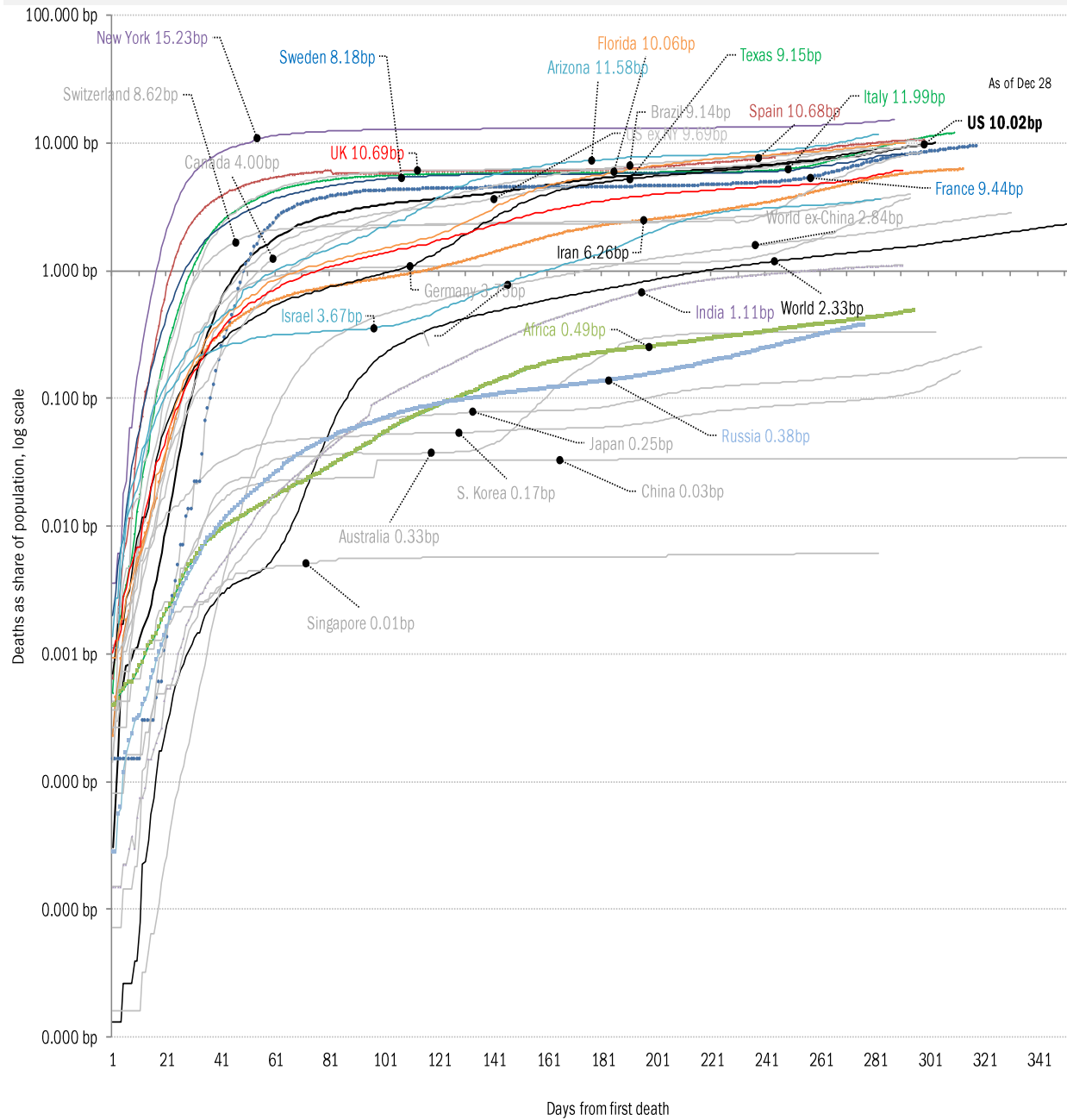
The coronavirus case accelerometer... tracking the world's infection curves  
*Share of infected population from first day with 100 confirmed cases, log scale*



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

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

## Share of deceased population from day of first fatality



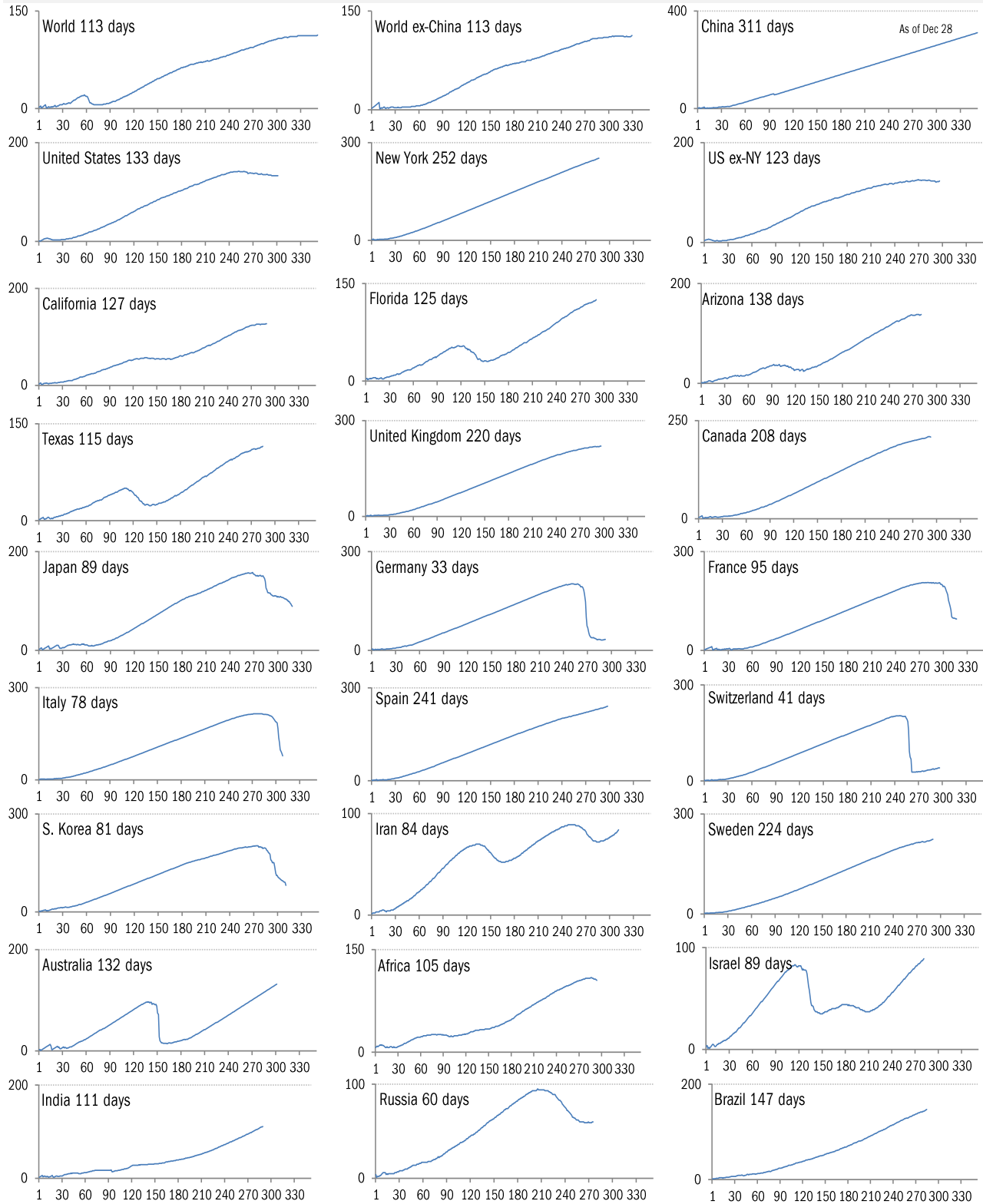
Source: [Johns Hopkins, Covid Tracking Project](#), TrendMacro calculations



# "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

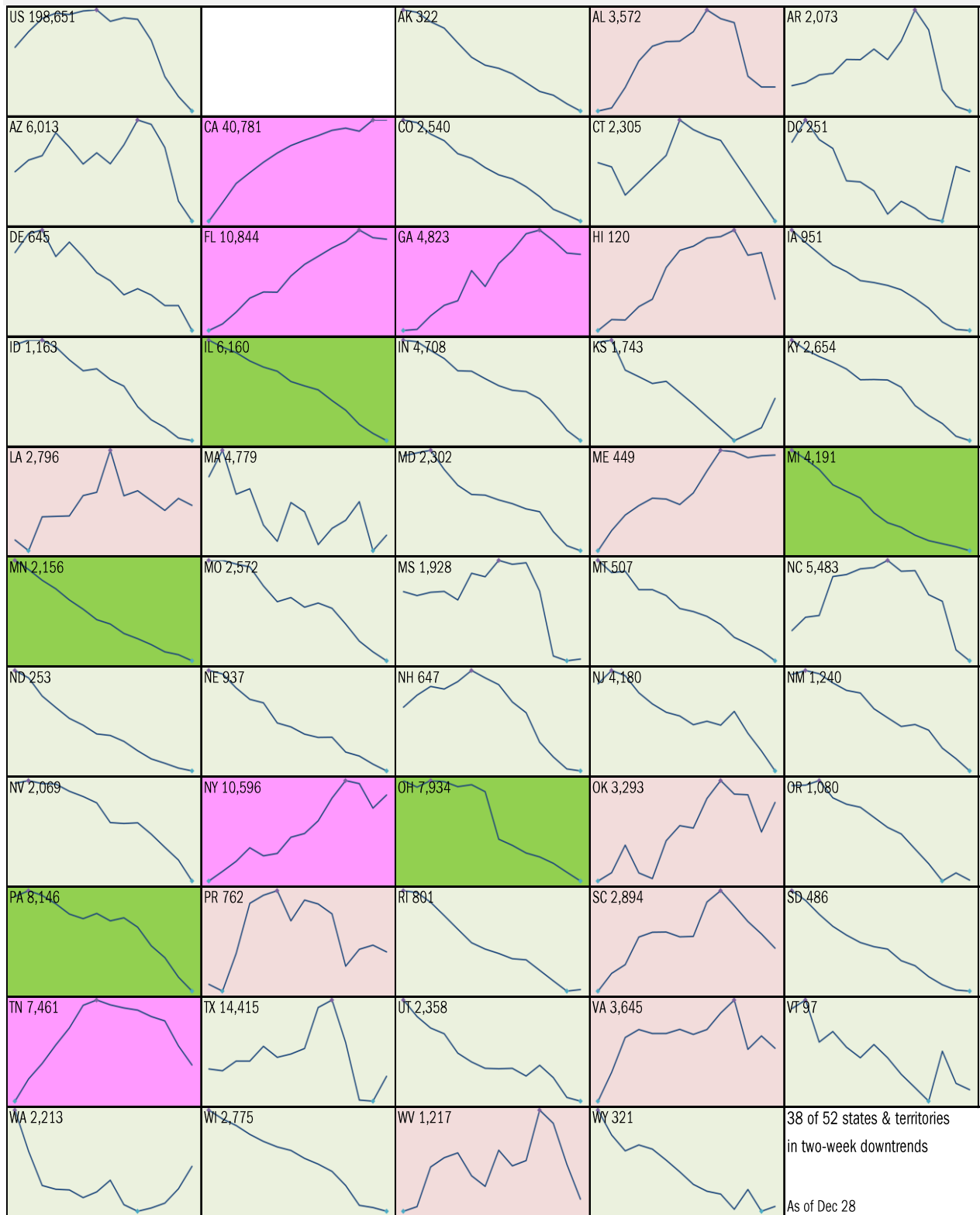


Source: [Johns Hopkins, Covid Tracking Project](#), TrendMacro calculations

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: [Covid Tracking Project](#), 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



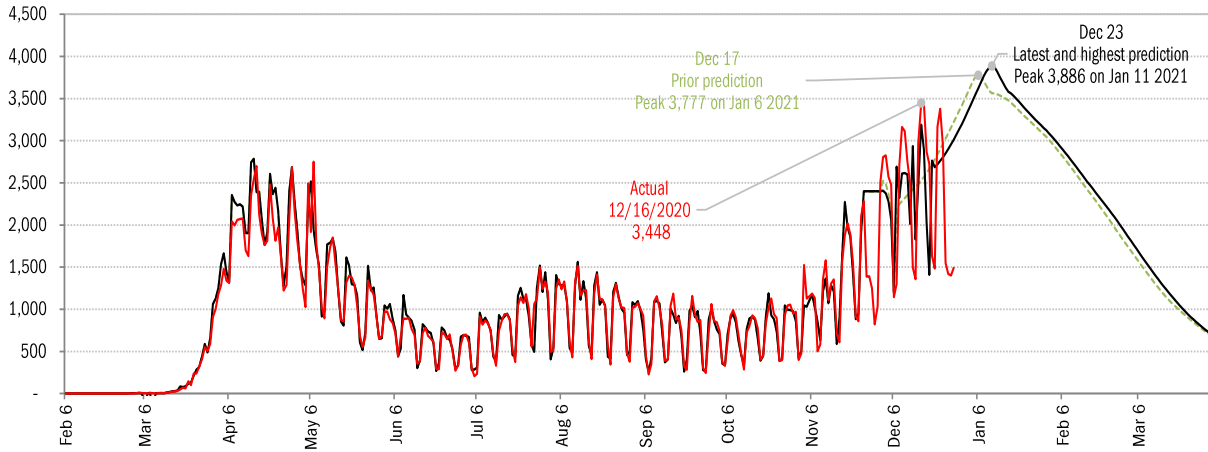
Source: [Covid Tracking Project](#), TrendMacro calculations

# Reality-checking the models: actuals versus [IHME predictions](#)

## New daily fatalities

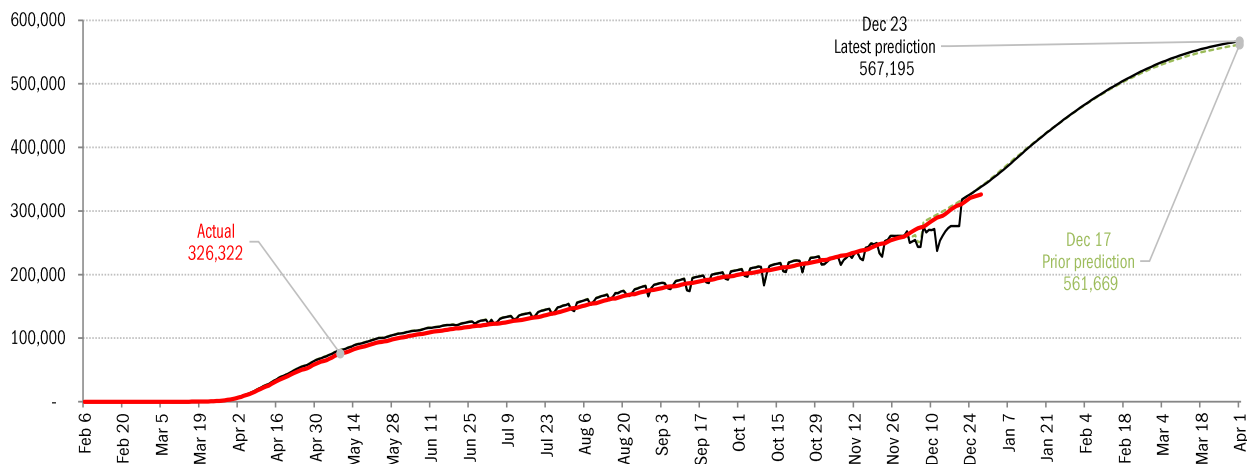
As of Dec 28

Actual versus first, highest, lowest and latest model mean predictions

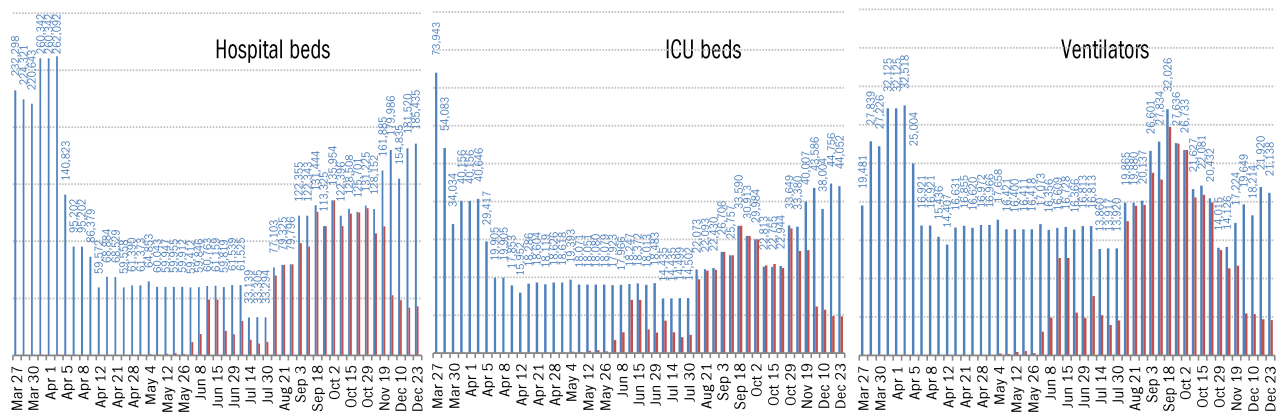


## Cumulative fatalities

Actual versus first, highest, lowest and latest model mean predictions

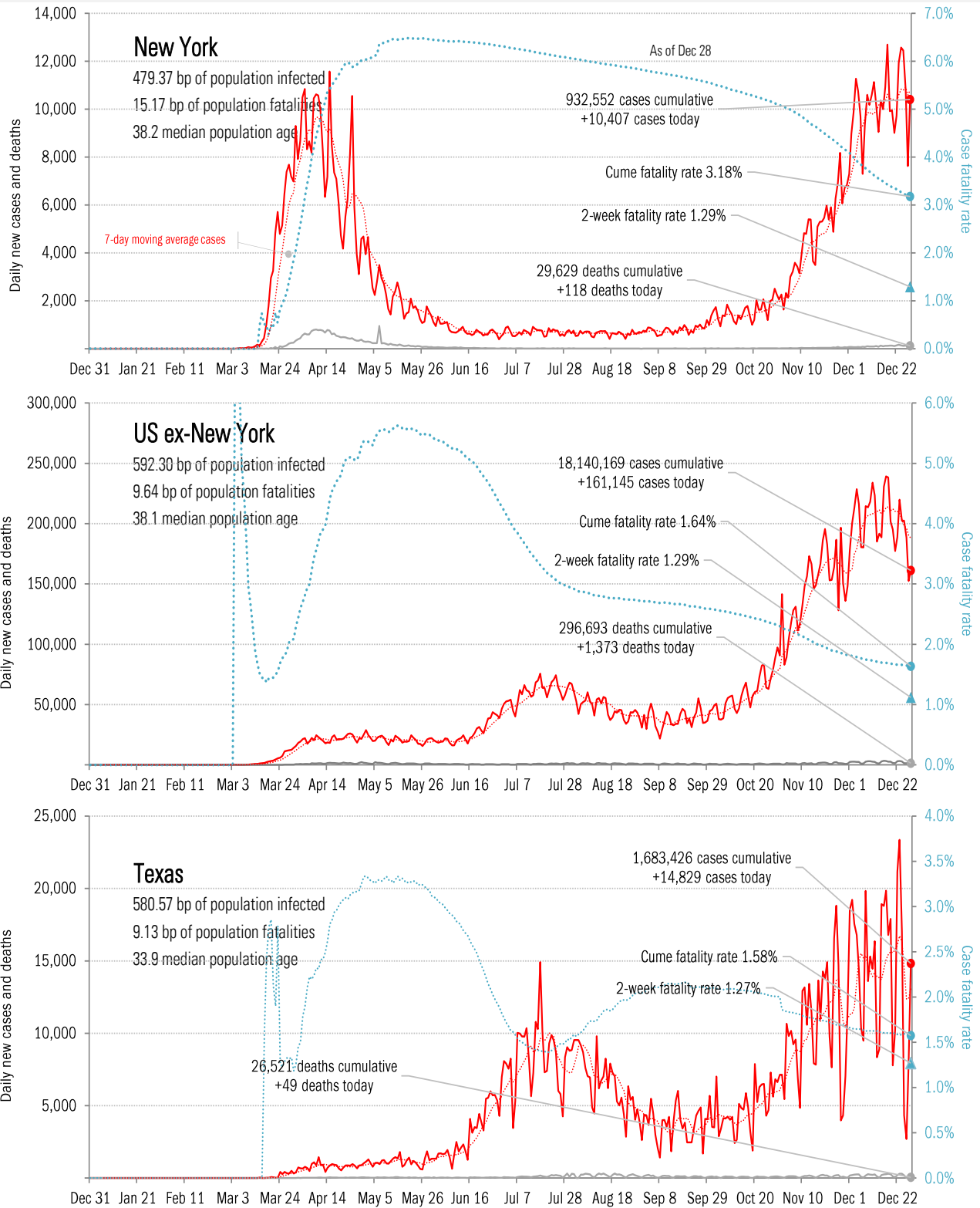


## Healthcare system stress, **peak** and **ultimate** estimated at each model revision



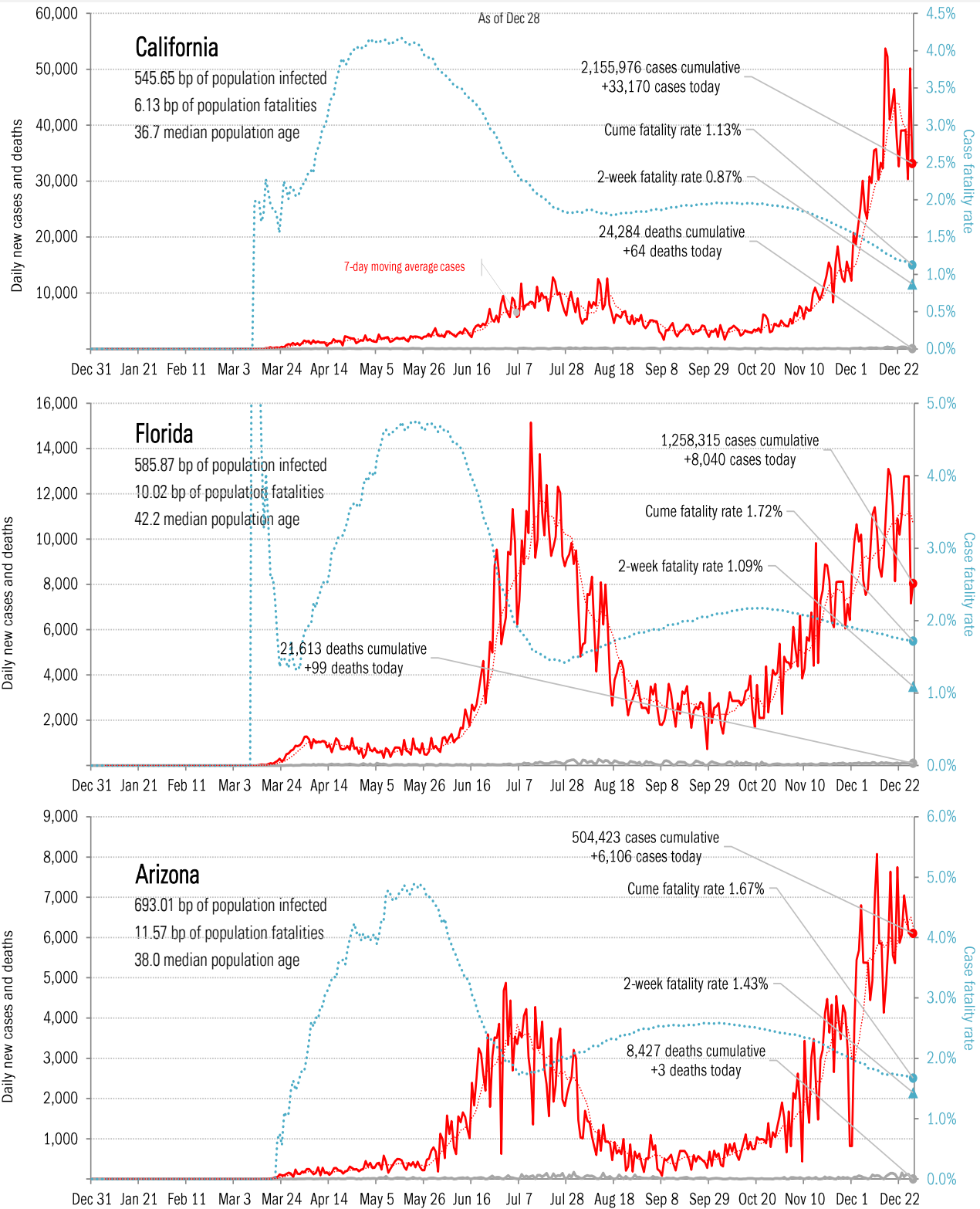
Source: [IHME](#), [Covid Tracking Project](#), TrendMacro calculations

# From Ground Zero to the Rio Grande



Source: [Covid Tracking Project](#), TrendMacro calculations

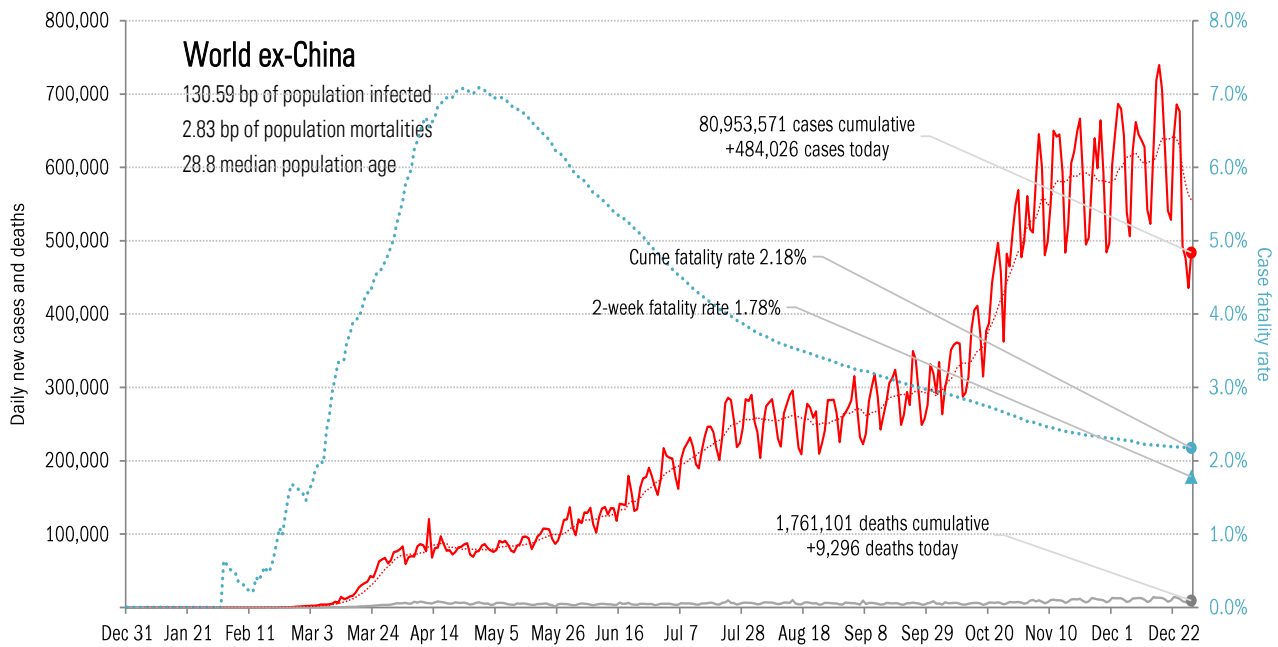
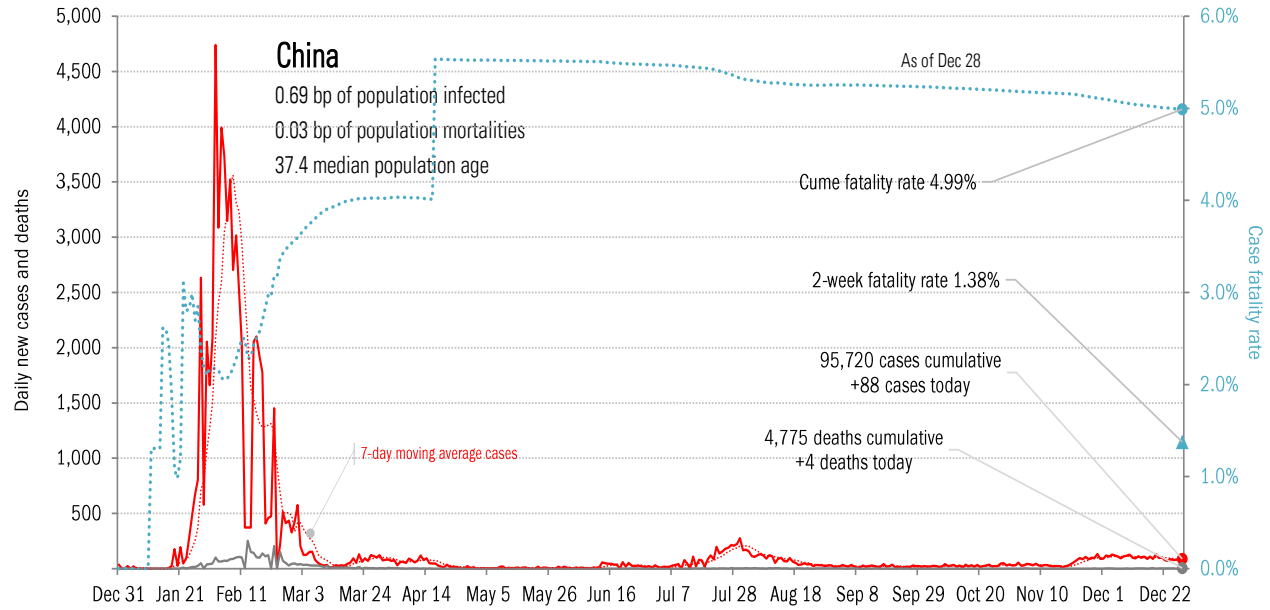
# The sun-belt hot-spot states (other than Texas)



Source: [Covid Tracking Project](#), TrendMacro calculations

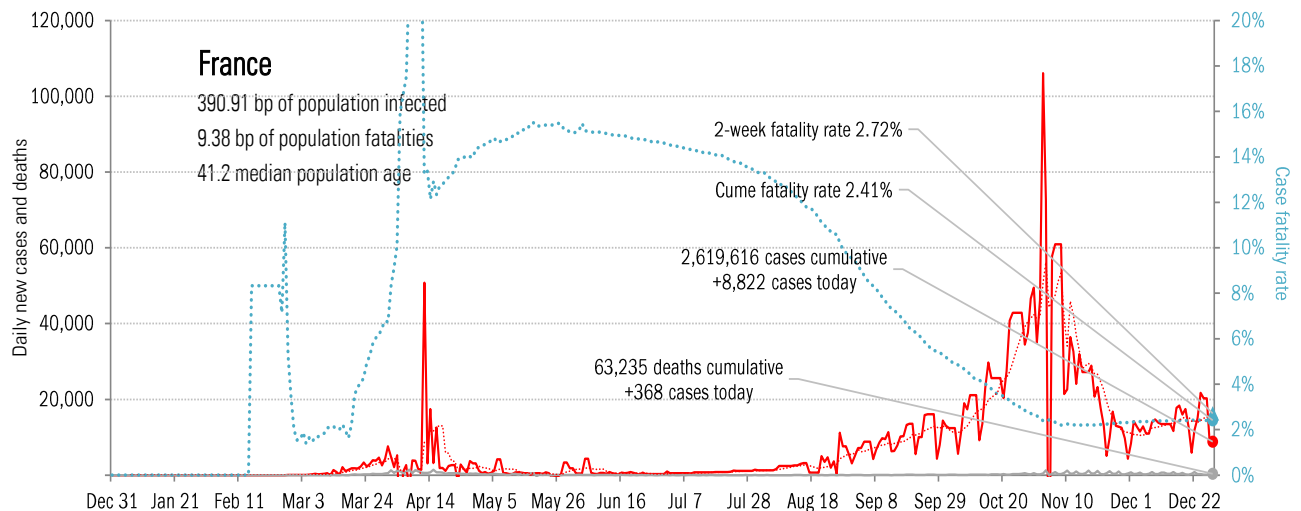
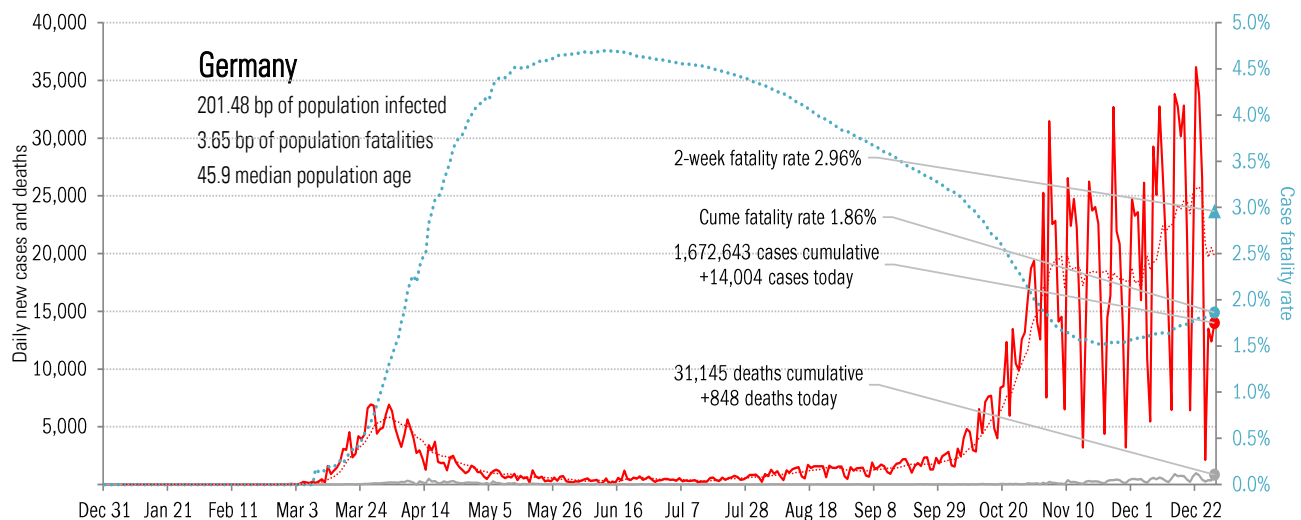
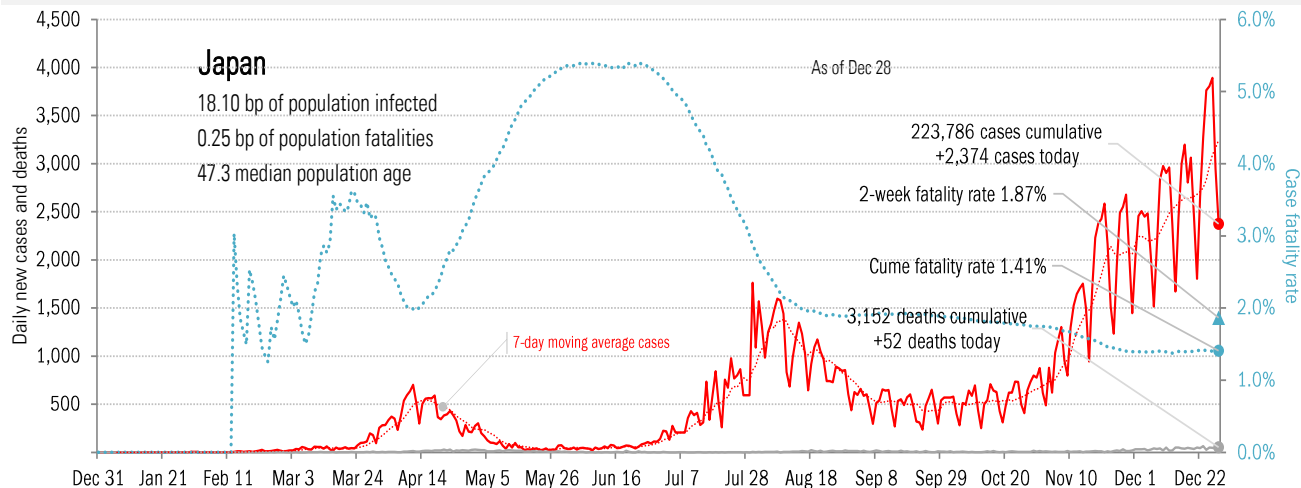


# Patient zero... and then everyone else



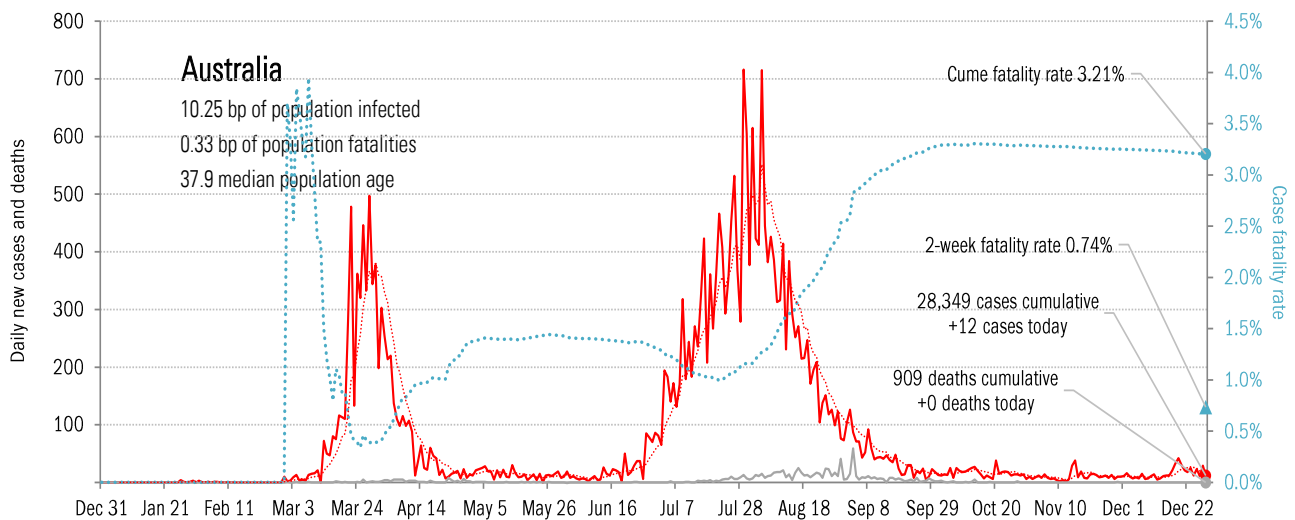
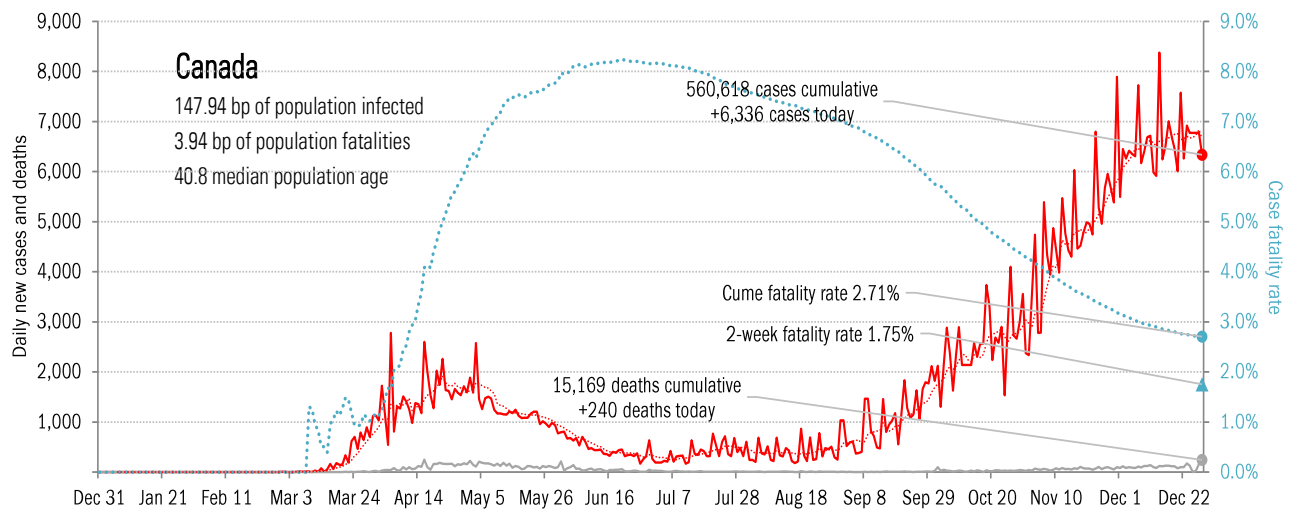
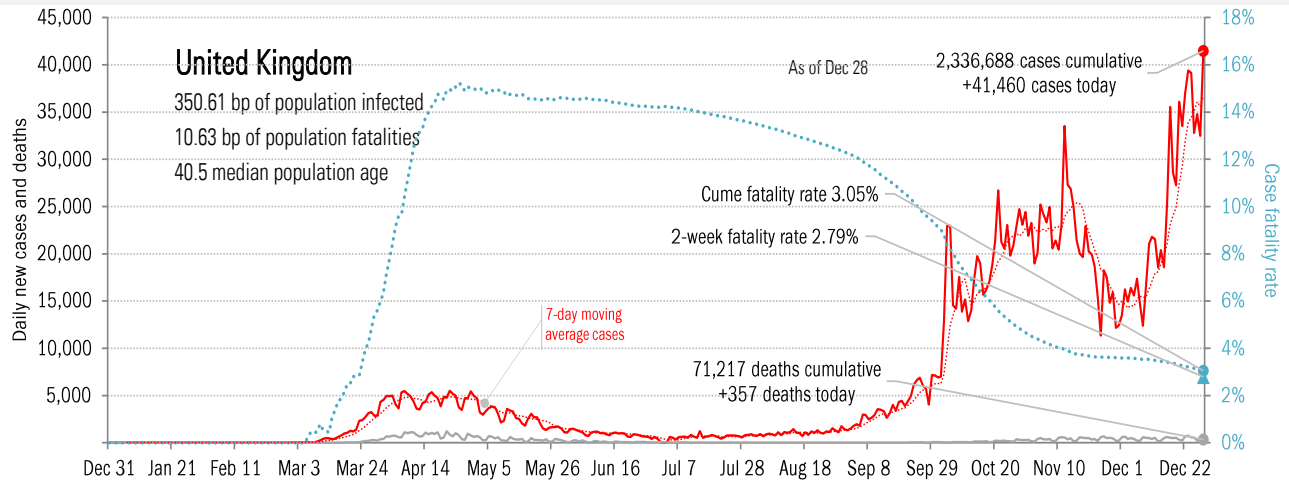
Source: [Johns Hopkins](#), [Covid Tracking Project](#), TrendMacro calculations

# Impact in the largest economies



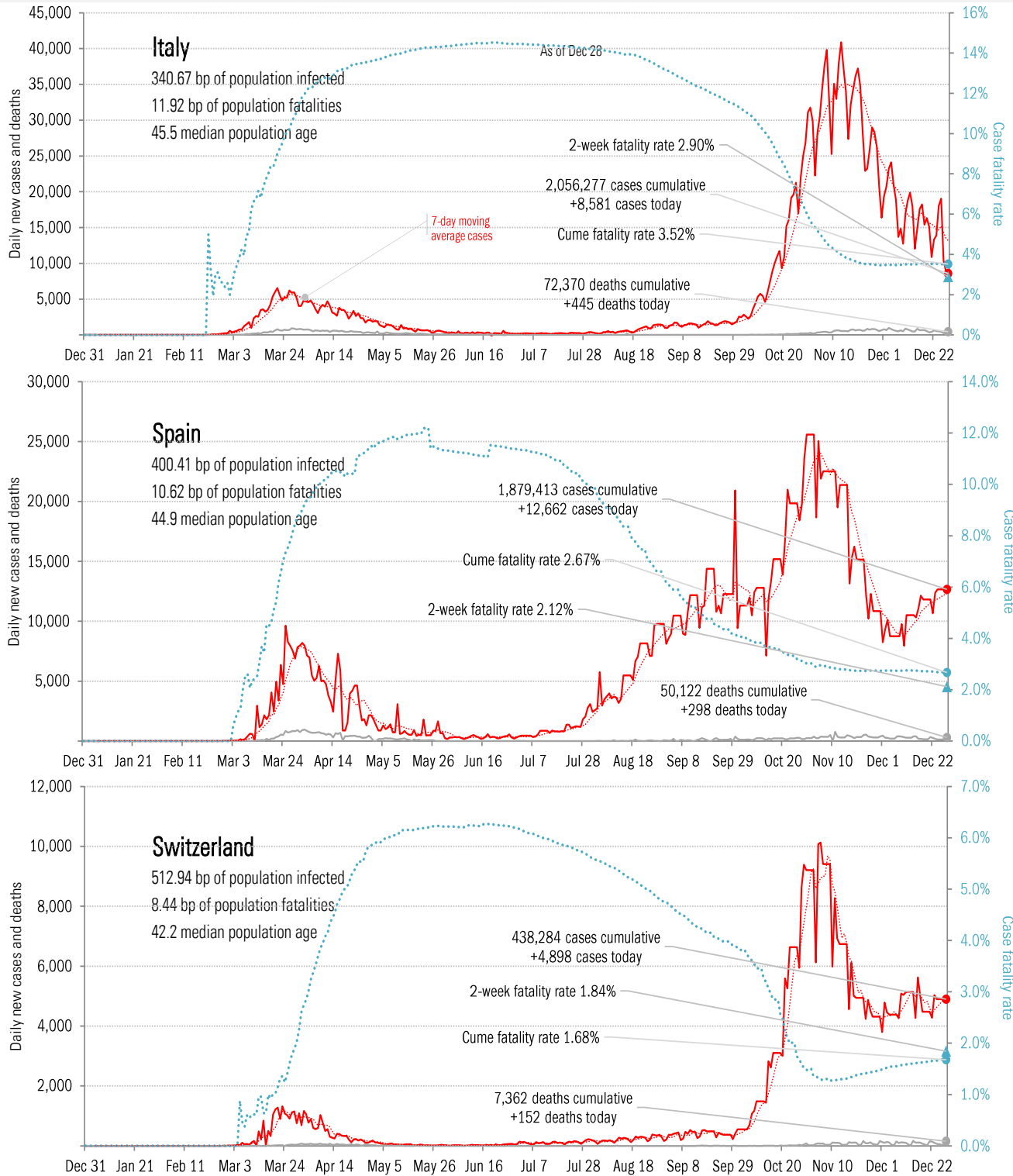
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in The Anglosphere



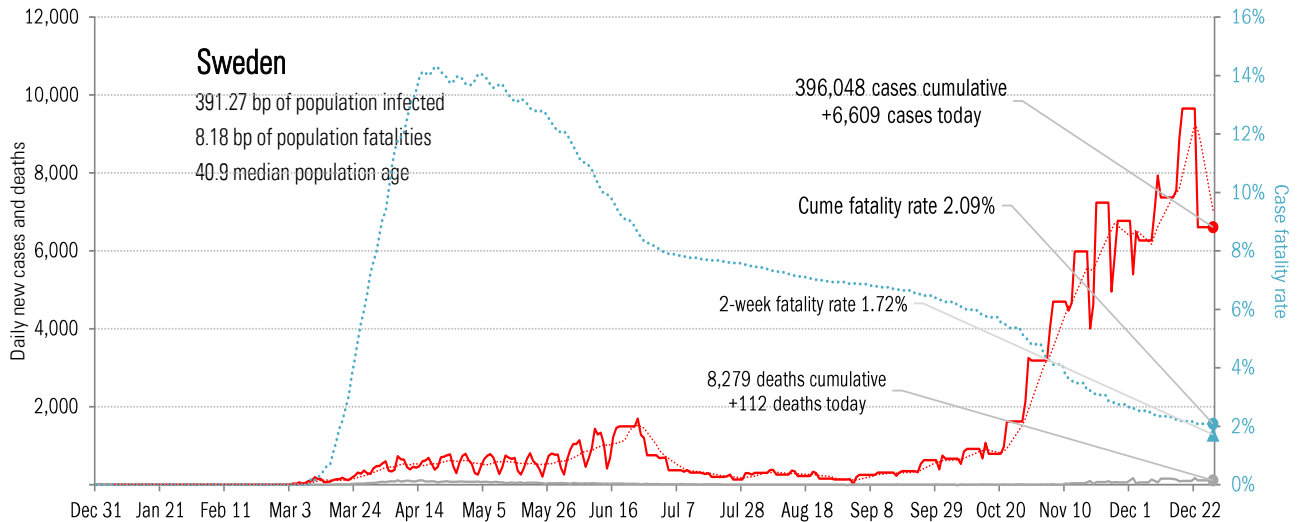
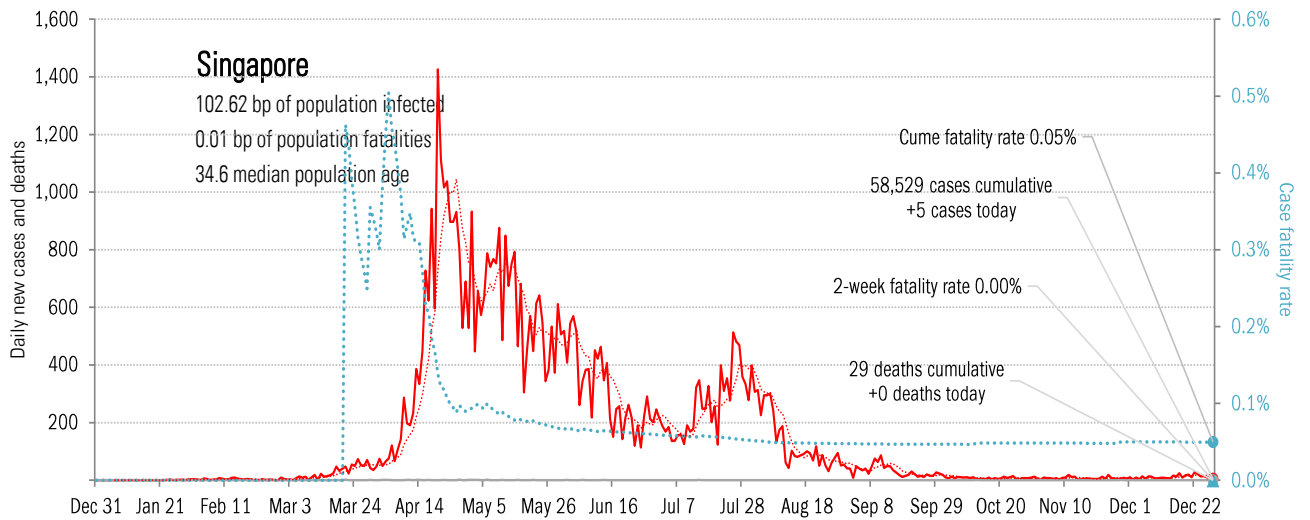
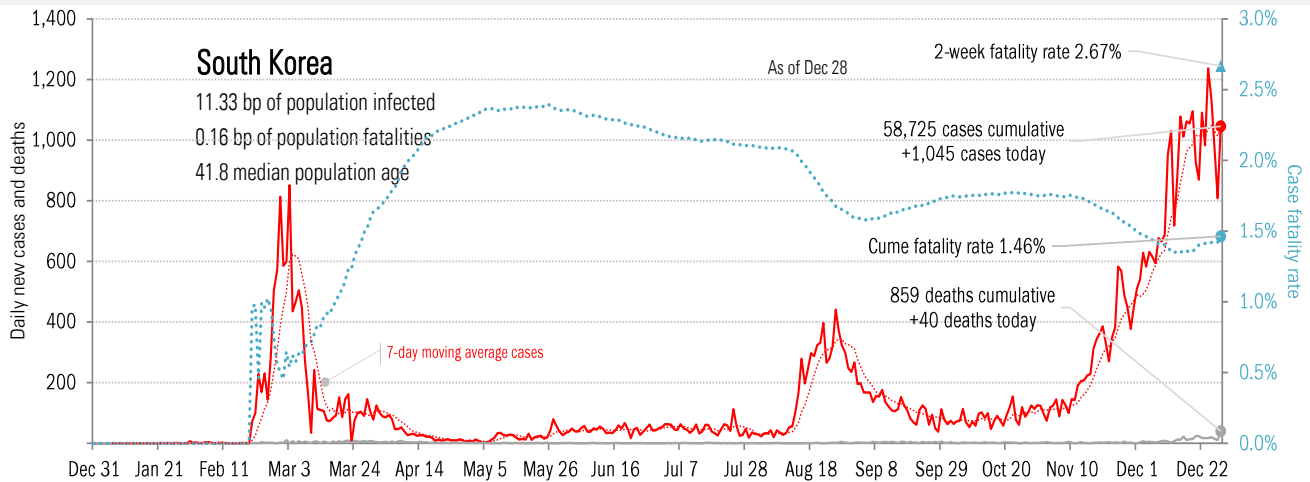
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in continental Europe



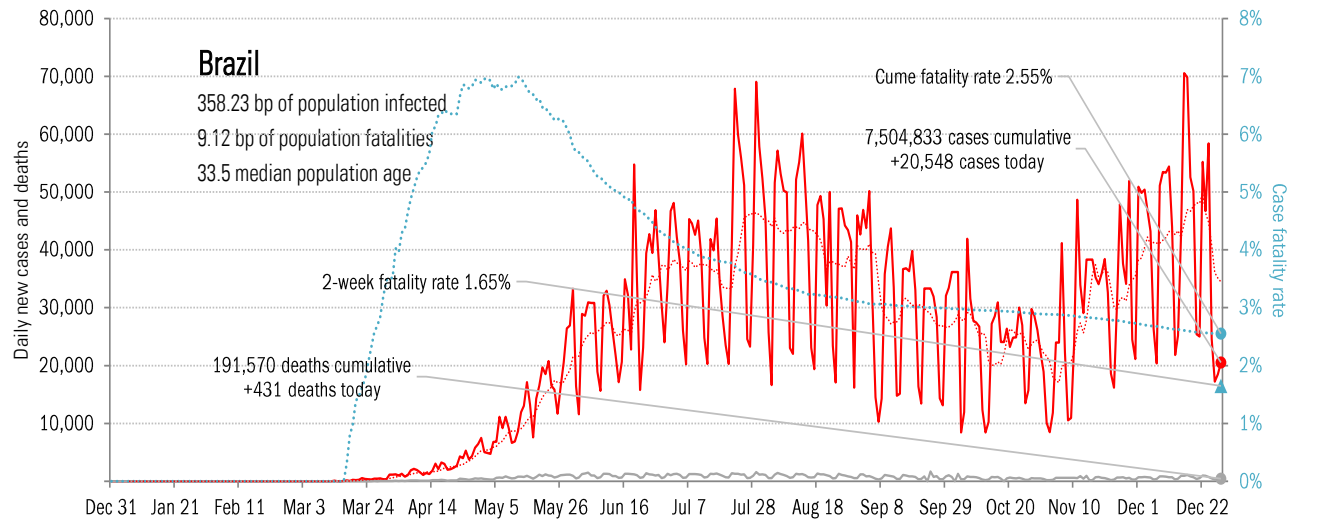
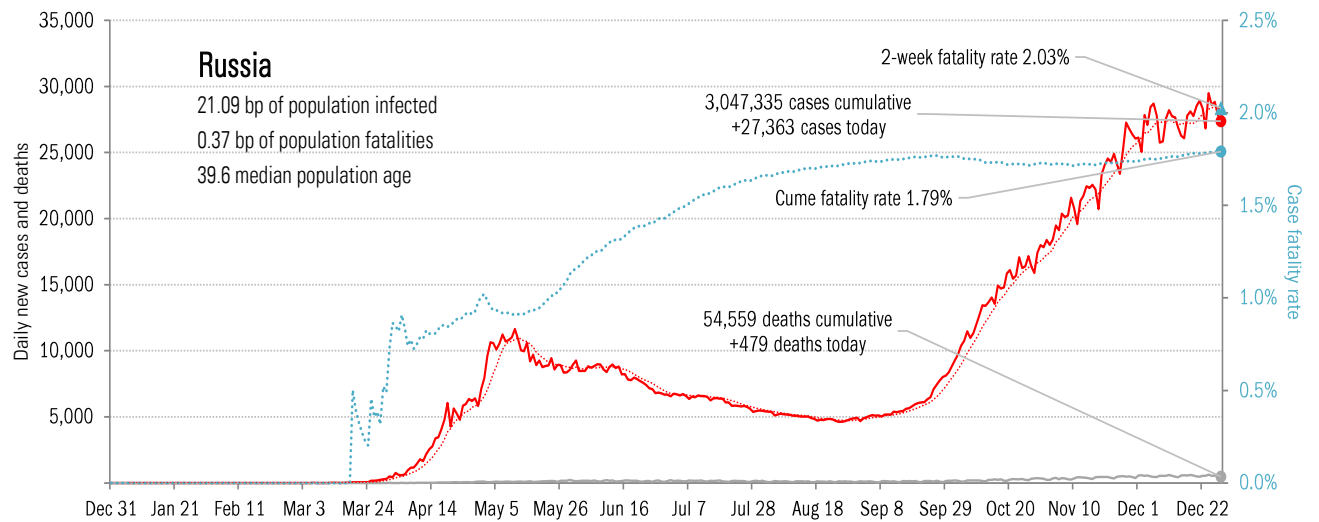
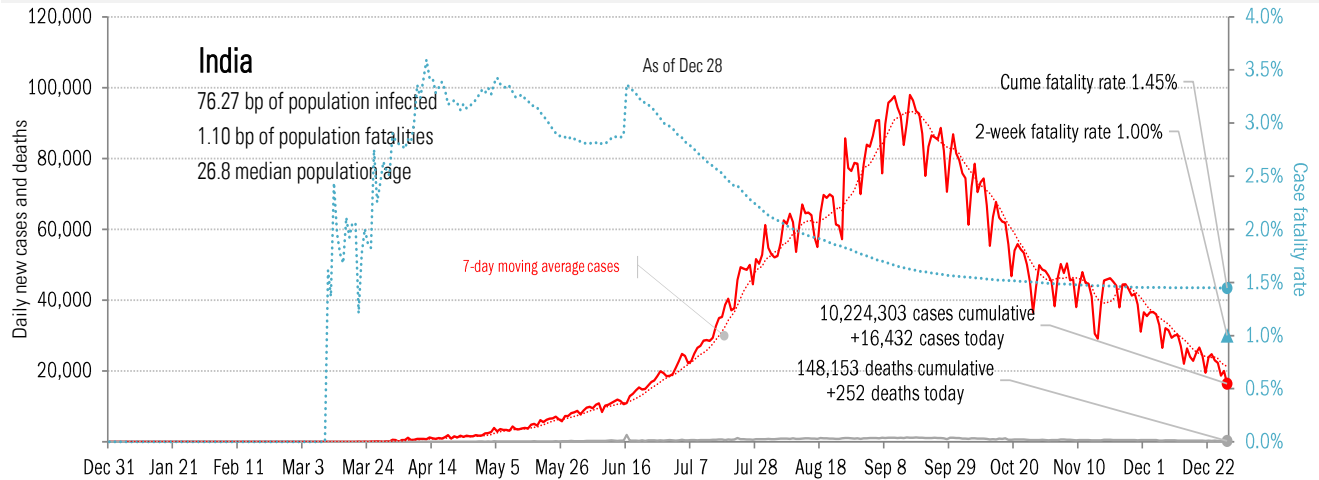
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in other hot-spots



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

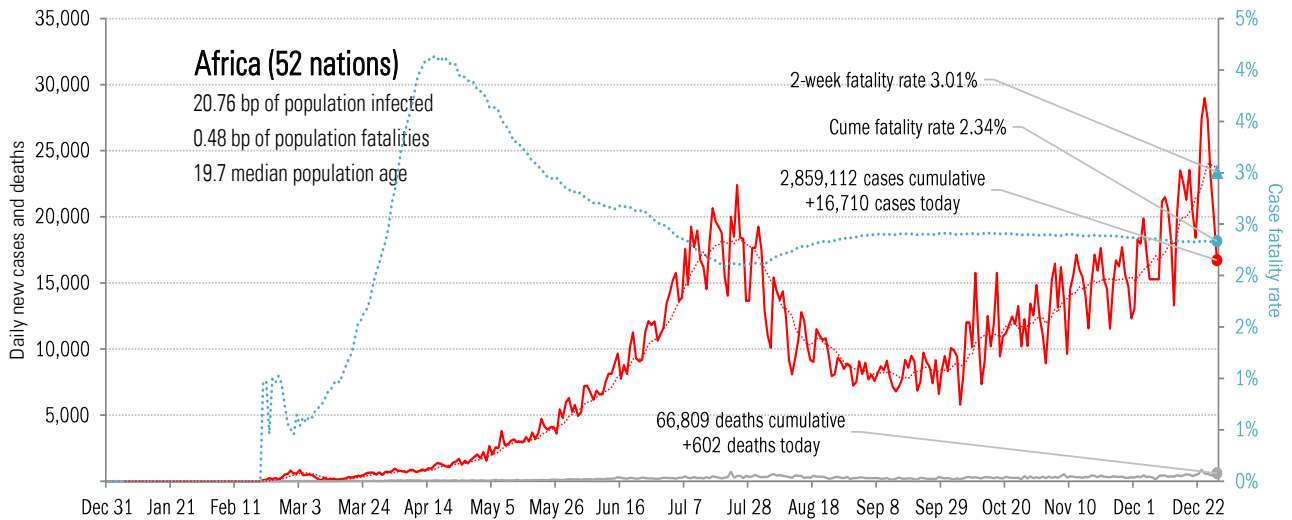
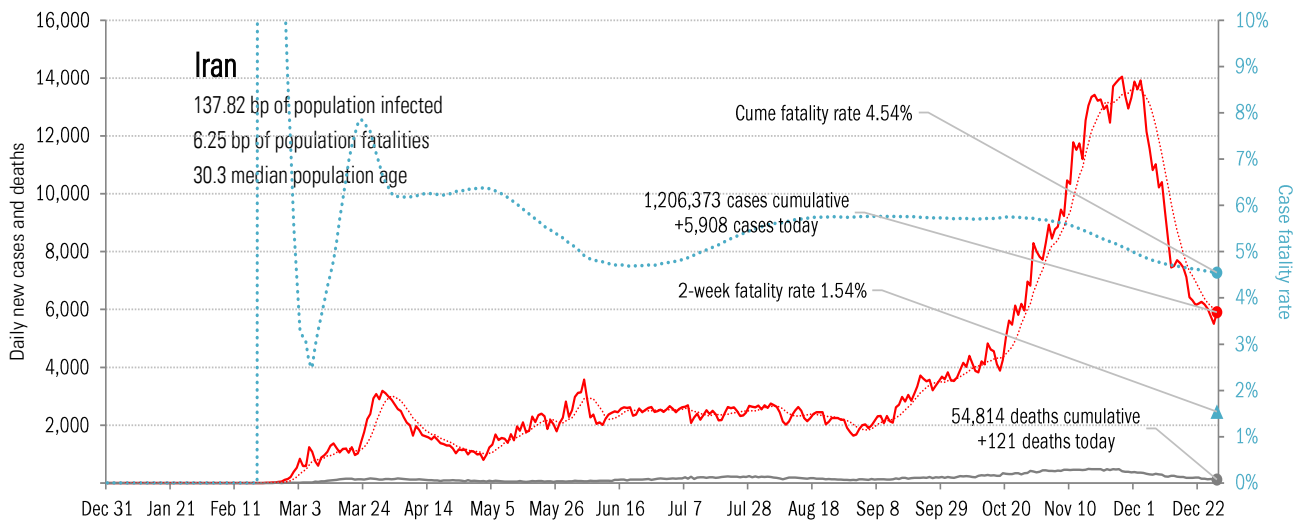
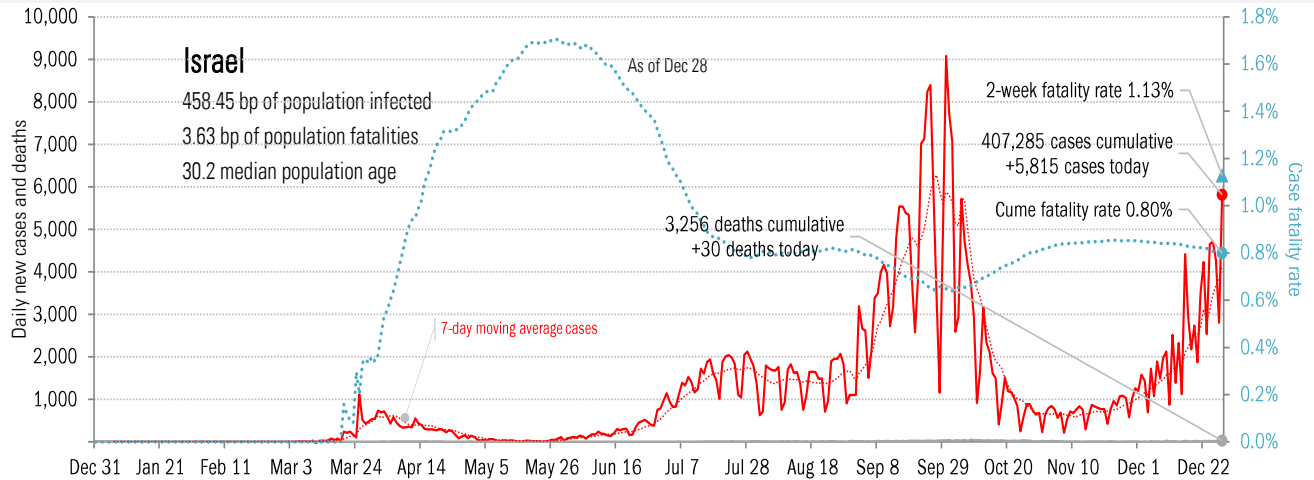
# Impact in the BRICs ex-China



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



# Impact in the Middle East and Africa



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