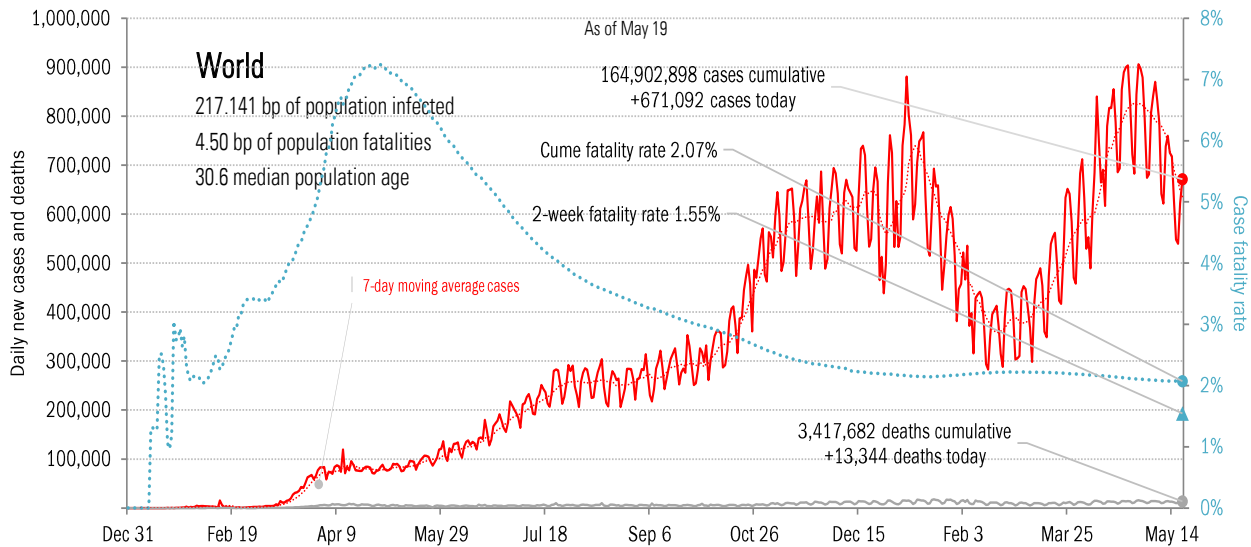
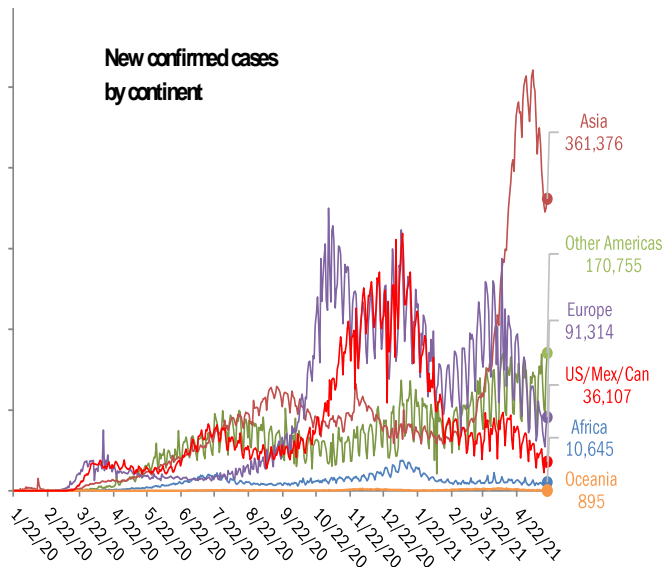


## Data Insights: Covid-2019 Monitor

Thursday, May 20, 2021

### The global scorecard

The worst ten countries			
New cases		New Deaths	
India	+276,110	India	+3,874
Brazil	+79,219	Brazil	+2,641
Argentina	+39,652	United States	+655
United States	+29,293	Peru	+563
France	+19,057	Argentina	+494
Colombia	+16,579	Colombia	+452
Iran	+12,789	Russia	+384
Germany	+11,881	Poland	+330
Turkey	+11,553	Nepal	+246
Peru	+10,281	Germany	+237
<b>+506,414</b>		<b>+9,876</b>	
World	+671,092	World	+13,344
Top ten	75%	Top ten	74%



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

#### For more information contact us:

Donald Luskin: 312 273 6766 [don@trendmacro.com](mailto:don@trendmacro.com)  
 Thomas Demas: 704 552 3625 [tdemas@trendmacro.com](mailto:tdemas@trendmacro.com)

# The US scorecard

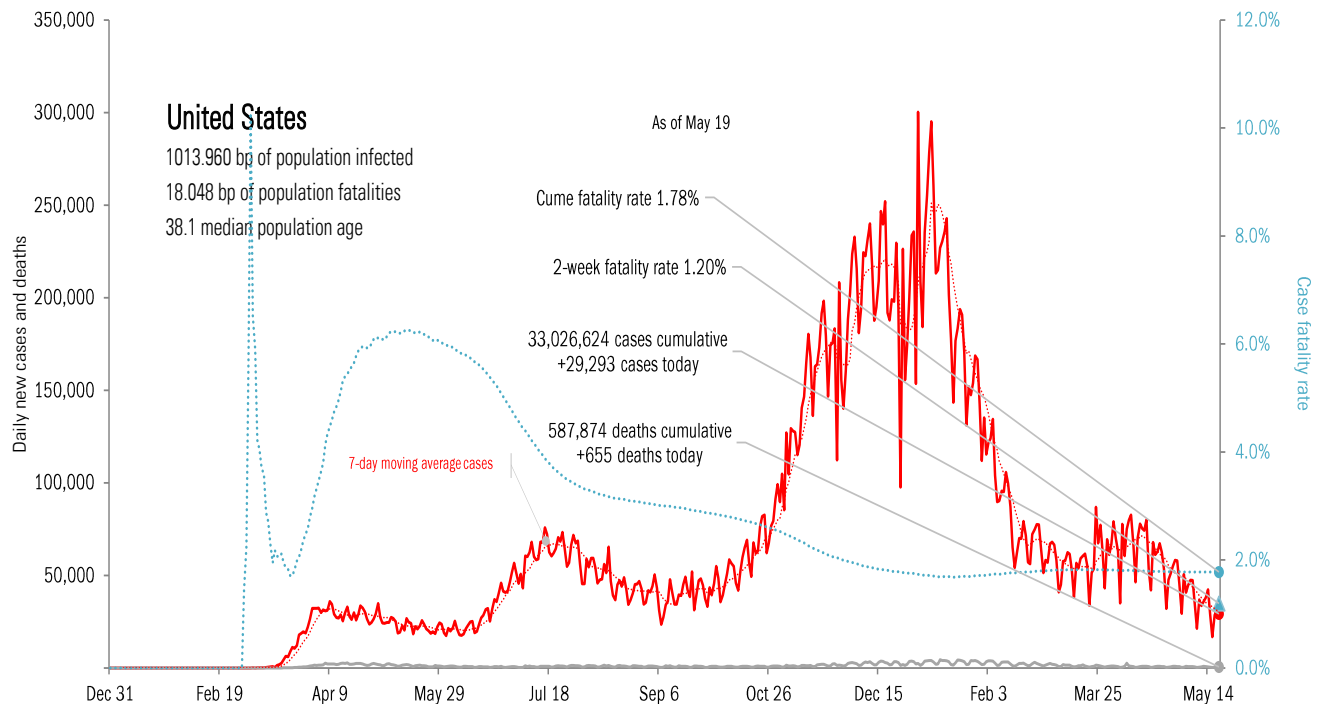
## The ten worst US states

New cases			New Deaths			New in hospital			Curre cases			Curre deaths			Curre in hospital			Hospital use		ICU use	
FL	+2,811		TX	+69		MN	+28		CA	3,772,702		CA	62,765		TX	244,459		R	92%	MI	23%
TX	+2,022		PA	+46		NV	+11		TX	2,936,614		NY	53,044		CA	233,543		MA	83%	CO	17%
MI	+1,950		FL	+44		WI	+11		FL	2,299,596		TX	51,081		FL	175,123		MD	82%	MD	15%
IL	+1,625		CK	+40		AL	+8		NY	2,089,698		FL	36,271		NY	132,106		PA	81%	MN	15%
CA	+1,462		CA	+38		UT	+7		IL	1,370,247		PA	26,874		GA	104,915		MO	80%	WA	14%
NY	+1,337		GA	+37		NC	+6		PA	1,190,969		NJ	26,030		PA	87,812		CT	79%	ME	14%
CO	+1,245		IL	+34		RI	+5		GA	1,117,475		IL	24,864		CH	83,908		FL	78%	WV	14%
PA	+1,056		MI	+32		AZ	+4		CH	1,093,534		GA	20,569		IL	78,829		DC	78%	MO	13%
NC	+969		NJ	+32		ME	+3		NJ	1,012,196		MI	19,931		KY	74,032		GA	78%	ND	12%
CH	+918		NC	+27		MS	+3		NC	993,547		CH	19,628		MI	69,526		MN	78%	GA	12%
+15,395			+399			+86			17,876,578			341,057			1,284,253						
All states	+29,293		+655			-531			All states	33,026,624		587,874			2,302,479			All states	70%	67%	
Top ten	53%		61%			-16%			Top ten	54%		58%			56%			Median	72%	9%	

Some states not reporting

## Five most improved US states

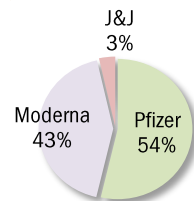
Fewer daily cases		Fewer new deaths		Fewer new hospitalizations		Most pop immunity growth	
TX	-1,070	MO	-100	NM	-156	NH	+222 bp
PA	-585	MI	-55	TX	-71	MD	+78 bp
MS	-351	FL	-50	GA	-70	NJ	+51 bp
NJ	-202	IN	-10	CA	-36	VA	+51 bp
NY	-188	MS	-10	KS	-28	PA	+50 bp



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	Immunity	Full	Partial
Doses distributed	361,560,865				+2.555 million	US	37.5%	47.6%
Doses administered	286,104,351				+1.782 million	UK	30.7%	54.5%
Administered	One dose	% Pop	Immune	% pop	New immune today	France	13.8%	31.3%
Total population	163,535,885	49%	129,220,604	39%	+1.011 million	Spain	16.0%	33.7%
Age 12 to 17	3,791,911	15%	1,702,146	7%	+0.061 million	Germany	11.8%	37.9%
Age 18 to 64	111,834,601	55%	86,110,221	42%	+0.831 million	Italy	15.3%	32.9%
Age 65 and over	47,918,078	88%	41,399,791	76%	+0.120 million	Australia	2.0%	0.6%



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



At today's dosing pace, every American >18 immune in **109 days** by Sep 4, 2021  
 61.0% of population >18 immunized  
 13.9% previously tested positive  
**74.9%** vs 60% adult herd immunity\*

Global data differs from sources, timing

AK
58.4%
44.3%
38.0%

ME
65.9%
59.8%
50.1%

<table border="1"> <tr><th>WI</th></tr> <tr><td>52.1%</td></tr> <tr><td>48.6%</td></tr> <tr><td>42.0%</td></tr> </table>	WI	52.1%	48.6%	42.0%	<table border="1"> <tr><th>VT</th></tr> <tr><td>71.3%</td></tr> <tr><td>65.8%</td></tr> <tr><td>48.4%</td></tr> </table>	VT	71.3%	65.8%	48.4%	<table border="1"> <tr><th>NH</th></tr> <tr><td>61.8%</td></tr> <tr><td>61.9%</td></tr> <tr><td>37.9%</td></tr> </table>	NH	61.8%	61.9%	37.9%																																								
WI																																																						
52.1%																																																						
48.6%																																																						
42.0%																																																						
VT																																																						
71.3%																																																						
65.8%																																																						
48.4%																																																						
NH																																																						
61.8%																																																						
61.9%																																																						
37.9%																																																						
<table border="1"> <tr><th>WA</th></tr> <tr><td>58.2%</td></tr> <tr><td>52.7%</td></tr> <tr><td>41.3%</td></tr> </table>	WA	58.2%	52.7%	41.3%	<table border="1"> <tr><th>ID</th></tr> <tr><td>46.2%</td></tr> <tr><td>36.2%</td></tr> <tr><td>31.2%</td></tr> </table>	ID	46.2%	36.2%	31.2%	<table border="1"> <tr><th>MT</th></tr> <tr><td>52.6%</td></tr> <tr><td>43.4%</td></tr> <tr><td>36.6%</td></tr> </table>	MT	52.6%	43.4%	36.6%	<table border="1"> <tr><th>ND</th></tr> <tr><td>46.4%</td></tr> <tr><td>40.8%</td></tr> <tr><td>35.3%</td></tr> </table>	ND	46.4%	40.8%	35.3%	<table border="1"> <tr><th>MN</th></tr> <tr><td>55.5%</td></tr> <tr><td>51.5%</td></tr> <tr><td>42.4%</td></tr> </table>	MN	55.5%	51.5%	42.4%	<table border="1"> <tr><th>IL</th></tr> <tr><td>56.0%</td></tr> <tr><td>51.3%</td></tr> <tr><td>37.1%</td></tr> </table>	IL	56.0%	51.3%	37.1%	<table border="1"> <tr><th>MI</th></tr> <tr><td>56.4%</td></tr> <tr><td>46.3%</td></tr> <tr><td>39.2%</td></tr> </table>	MI	56.4%	46.3%	39.2%	<table border="1"> <tr><th>NY</th></tr> <tr><td>58.3%</td></tr> <tr><td>52.5%</td></tr> <tr><td>43.4%</td></tr> </table>	NY	58.3%	52.5%	43.4%	<table border="1"> <tr><th>MA</th></tr> <tr><td>66.1%</td></tr> <tr><td>63.1%</td></tr> <tr><td>47.7%</td></tr> </table>	MA	66.1%	63.1%	47.7%										
WA																																																						
58.2%																																																						
52.7%																																																						
41.3%																																																						
ID																																																						
46.2%																																																						
36.2%																																																						
31.2%																																																						
MT																																																						
52.6%																																																						
43.4%																																																						
36.6%																																																						
ND																																																						
46.4%																																																						
40.8%																																																						
35.3%																																																						
MN																																																						
55.5%																																																						
51.5%																																																						
42.4%																																																						
IL																																																						
56.0%																																																						
51.3%																																																						
37.1%																																																						
MI																																																						
56.4%																																																						
46.3%																																																						
39.2%																																																						
NY																																																						
58.3%																																																						
52.5%																																																						
43.4%																																																						
MA																																																						
66.1%																																																						
63.1%																																																						
47.7%																																																						
<table border="1"> <tr><th>OR</th></tr> <tr><td>60.6%</td></tr> <tr><td>51.3%</td></tr> <tr><td>40.0%</td></tr> </table>	OR	60.6%	51.3%	40.0%	<table border="1"> <tr><th>NV</th></tr> <tr><td>47.4%</td></tr> <tr><td>43.0%</td></tr> <tr><td>34.3%</td></tr> </table>	NV	47.4%	43.0%	34.3%	<table border="1"> <tr><th>WY</th></tr> <tr><td>45.8%</td></tr> <tr><td>35.6%</td></tr> <tr><td>30.6%</td></tr> </table>	WY	45.8%	35.6%	30.6%	<table border="1"> <tr><th>SD</th></tr> <tr><td>55.5%</td></tr> <tr><td>46.7%</td></tr> <tr><td>41.2%</td></tr> </table>	SD	55.5%	46.7%	41.2%	<table border="1"> <tr><th>IA</th></tr> <tr><td>52.9%</td></tr> <tr><td>47.0%</td></tr> <tr><td>41.2%</td></tr> </table>	IA	52.9%	47.0%	41.2%	<table border="1"> <tr><th>IN</th></tr> <tr><td>48.0%</td></tr> <tr><td>39.7%</td></tr> <tr><td>33.0%</td></tr> </table>	IN	48.0%	39.7%	33.0%	<table border="1"> <tr><th>OH</th></tr> <tr><td>51.6%</td></tr> <tr><td>43.5%</td></tr> <tr><td>38.1%</td></tr> </table>	OH	51.6%	43.5%	38.1%	<table border="1"> <tr><th>PA</th></tr> <tr><td>59.9%</td></tr> <tr><td>55.4%</td></tr> <tr><td>40.1%</td></tr> </table>	PA	59.9%	55.4%	40.1%	<table border="1"> <tr><th>NJ</th></tr> <tr><td>61.2%</td></tr> <tr><td>56.9%</td></tr> <tr><td>45.2%</td></tr> </table>	NJ	61.2%	56.9%	45.2%	<table border="1"> <tr><th>CT</th></tr> <tr><td>64.1%</td></tr> <tr><td>59.9%</td></tr> <tr><td>49.3%</td></tr> </table>	CT	64.1%	59.9%	49.3%	<table border="1"> <tr><th>RI</th></tr> <tr><td>69.0%</td></tr> <tr><td>57.5%</td></tr> <tr><td>48.0%</td></tr> </table>	RI	69.0%	57.5%	48.0%
OR																																																						
60.6%																																																						
51.3%																																																						
40.0%																																																						
NV																																																						
47.4%																																																						
43.0%																																																						
34.3%																																																						
WY																																																						
45.8%																																																						
35.6%																																																						
30.6%																																																						
SD																																																						
55.5%																																																						
46.7%																																																						
41.2%																																																						
IA																																																						
52.9%																																																						
47.0%																																																						
41.2%																																																						
IN																																																						
48.0%																																																						
39.7%																																																						
33.0%																																																						
OH																																																						
51.6%																																																						
43.5%																																																						
38.1%																																																						
PA																																																						
59.9%																																																						
55.4%																																																						
40.1%																																																						
NJ																																																						
61.2%																																																						
56.9%																																																						
45.2%																																																						
CT																																																						
64.1%																																																						
59.9%																																																						
49.3%																																																						
RI																																																						
69.0%																																																						
57.5%																																																						
48.0%																																																						
<table border="1"> <tr><th>CA</th></tr> <tr><td>60.6%</td></tr> <tr><td>53.8%</td></tr> <tr><td>39.3%</td></tr> </table>	CA	60.6%	53.8%	39.3%	<table border="1"> <tr><th>UT</th></tr> <tr><td>48.9%</td></tr> <tr><td>43.2%</td></tr> <tr><td>30.2%</td></tr> </table>	UT	48.9%	43.2%	30.2%	<table border="1"> <tr><th>CO</th></tr> <tr><td>59.3%</td></tr> <tr><td>51.1%</td></tr> <tr><td>41.9%</td></tr> </table>	CO	59.3%	51.1%	41.9%	<table border="1"> <tr><th>NE</th></tr> <tr><td>53.2%</td></tr> <tr><td>46.2%</td></tr> <tr><td>40.0%</td></tr> </table>	NE	53.2%	46.2%	40.0%	<table border="1"> <tr><th>MO</th></tr> <tr><td>48.9%</td></tr> <tr><td>40.4%</td></tr> <tr><td>32.8%</td></tr> </table>	MO	48.9%	40.4%	32.8%	<table border="1"> <tr><th>KY</th></tr> <tr><td>49.6%</td></tr> <tr><td>44.0%</td></tr> <tr><td>36.6%</td></tr> </table>	KY	49.6%	44.0%	36.6%	<table border="1"> <tr><th>WV</th></tr> <tr><td>51.9%</td></tr> <tr><td>38.4%</td></tr> <tr><td>33.0%</td></tr> </table>	WV	51.9%	38.4%	33.0%	<table border="1"> <tr><th>VA</th></tr> <tr><td>57.3%</td></tr> <tr><td>52.1%</td></tr> <tr><td>41.3%</td></tr> </table>	VA	57.3%	52.1%	41.3%	<table border="1"> <tr><th>MD</th></tr> <tr><td>64.1%</td></tr> <tr><td>54.2%</td></tr> <tr><td>43.7%</td></tr> </table>	MD	64.1%	54.2%	43.7%	<table border="1"> <tr><th>DE</th></tr> <tr><td>61.8%</td></tr> <tr><td>51.2%</td></tr> <tr><td>39.8%</td></tr> </table>	DE	61.8%	51.2%	39.8%					
CA																																																						
60.6%																																																						
53.8%																																																						
39.3%																																																						
UT																																																						
48.9%																																																						
43.2%																																																						
30.2%																																																						
CO																																																						
59.3%																																																						
51.1%																																																						
41.9%																																																						
NE																																																						
53.2%																																																						
46.2%																																																						
40.0%																																																						
MO																																																						
48.9%																																																						
40.4%																																																						
32.8%																																																						
KY																																																						
49.6%																																																						
44.0%																																																						
36.6%																																																						
WV																																																						
51.9%																																																						
38.4%																																																						
33.0%																																																						
VA																																																						
57.3%																																																						
52.1%																																																						
41.3%																																																						
MD																																																						
64.1%																																																						
54.2%																																																						
43.7%																																																						
DE																																																						
61.8%																																																						
51.2%																																																						
39.8%																																																						
<table border="1"> <tr><th>AZ</th></tr> <tr><td>54.6%</td></tr> <tr><td>44.1%</td></tr> <tr><td>33.9%</td></tr> </table>	AZ	54.6%	44.1%	33.9%	<table border="1"> <tr><th>NM</th></tr> <tr><td>55.7%</td></tr> <tr><td>54.8%</td></tr> <tr><td>44.9%</td></tr> </table>	NM	55.7%	54.8%	44.9%	<table border="1"> <tr><th>KS</th></tr> <tr><td>52.5%</td></tr> <tr><td>44.9%</td></tr> <tr><td>36.7%</td></tr> </table>	KS	52.5%	44.9%	36.7%	<table border="1"> <tr><th>AR</th></tr> <tr><td>48.0%</td></tr> <tr><td>37.9%</td></tr> <tr><td>29.5%</td></tr> </table>	AR	48.0%	37.9%	29.5%	<table border="1"> <tr><th>TN</th></tr> <tr><td>45.3%</td></tr> <tr><td>37.5%</td></tr> <tr><td>30.2%</td></tr> </table>	TN	45.3%	37.5%	30.2%	<table border="1"> <tr><th>NC</th></tr> <tr><td>54.9%</td></tr> <tr><td>41.7%</td></tr> <tr><td>34.4%</td></tr> </table>	NC	54.9%	41.7%	34.4%	<table border="1"> <tr><th>SC</th></tr> <tr><td>50.2%</td></tr> <tr><td>39.1%</td></tr> <tr><td>32.0%</td></tr> </table>	SC	50.2%	39.1%	32.0%	<table border="1"> <tr><th>DC</th></tr> <tr><td>73.0%</td></tr> <tr><td>54.4%</td></tr> <tr><td>41.5%</td></tr> </table>	DC	73.0%	54.4%	41.5%															
AZ																																																						
54.6%																																																						
44.1%																																																						
33.9%																																																						
NM																																																						
55.7%																																																						
54.8%																																																						
44.9%																																																						
KS																																																						
52.5%																																																						
44.9%																																																						
36.7%																																																						
AR																																																						
48.0%																																																						
37.9%																																																						
29.5%																																																						
TN																																																						
45.3%																																																						
37.5%																																																						
30.2%																																																						
NC																																																						
54.9%																																																						
41.7%																																																						
34.4%																																																						
SC																																																						
50.2%																																																						
39.1%																																																						
32.0%																																																						
DC																																																						
73.0%																																																						
54.4%																																																						
41.5%																																																						
<table border="1"> <tr><th>OK</th></tr> <tr><td>51.6%</td></tr> <tr><td>40.3%</td></tr> <tr><td>32.6%</td></tr> </table>	OK	51.6%	40.3%	32.6%	<table border="1"> <tr><th>LA</th></tr> <tr><td>43.4%</td></tr> <tr><td>34.4%</td></tr> <tr><td>29.9%</td></tr> </table>	LA	43.4%	34.4%	29.9%	<table border="1"> <tr><th>MS</th></tr> <tr><td>45.4%</td></tr> <tr><td>32.9%</td></tr> <tr><td>26.2%</td></tr> </table>	MS	45.4%	32.9%	26.2%	<table border="1"> <tr><th>AL</th></tr> <tr><td>47.5%</td></tr> <tr><td>34.9%</td></tr> <tr><td>27.8%</td></tr> </table>	AL	47.5%	34.9%	27.8%	<table border="1"> <tr><th>GA</th></tr> <tr><td>51.3%</td></tr> <tr><td>37.7%</td></tr> <tr><td>29.5%</td></tr> </table>	GA	51.3%	37.7%	29.5%																														
OK																																																						
51.6%																																																						
40.3%																																																						
32.6%																																																						
LA																																																						
43.4%																																																						
34.4%																																																						
29.9%																																																						
MS																																																						
45.4%																																																						
32.9%																																																						
26.2%																																																						
AL																																																						
47.5%																																																						
34.9%																																																						
27.8%																																																						
GA																																																						
51.3%																																																						
37.7%																																																						
29.5%																																																						
<table border="1"> <tr><th>HI</th></tr> <tr><td>62.8%</td></tr> <tr><td>63.0%</td></tr> <tr><td>44.7%</td></tr> </table>	HI	62.8%	63.0%	44.7%	<table border="1"> <tr><th>TX</th></tr> <tr><td>53.1%</td></tr> <tr><td>41.7%</td></tr> <tr><td>33.1%</td></tr> </table>	TX	53.1%	41.7%	33.1%	<table border="1"> <tr><th>FL</th></tr> <tr><td>56.4%</td></tr> <tr><td>46.3%</td></tr> <tr><td>36.2%</td></tr> </table>	FL	56.4%	46.3%	36.2%	<table border="1"> <tr><th>PR</th></tr> <tr><td>61.7%</td></tr> <tr><td>46.1%</td></tr> <tr><td>32.1%</td></tr> </table>	PR	61.7%	46.1%	32.1%																																			
HI																																																						
62.8%																																																						
63.0%																																																						
44.7%																																																						
TX																																																						
53.1%																																																						
41.7%																																																						
33.1%																																																						
FL																																																						
56.4%																																																						
46.3%																																																						
36.2%																																																						
PR																																																						
61.7%																																																						
46.1%																																																						
32.1%																																																						

As of May 19

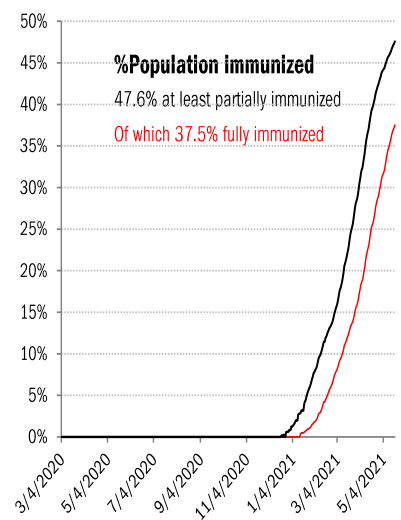
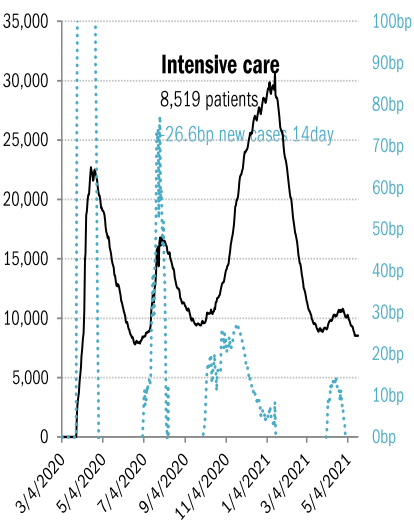
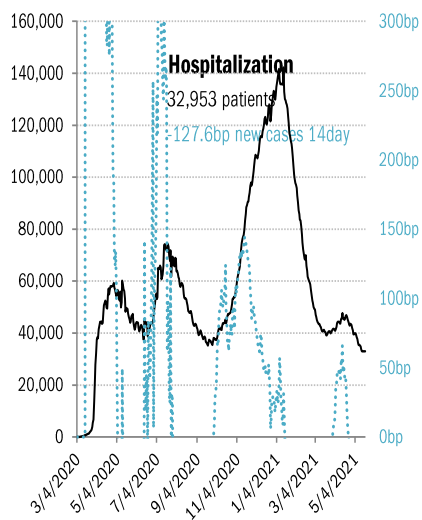
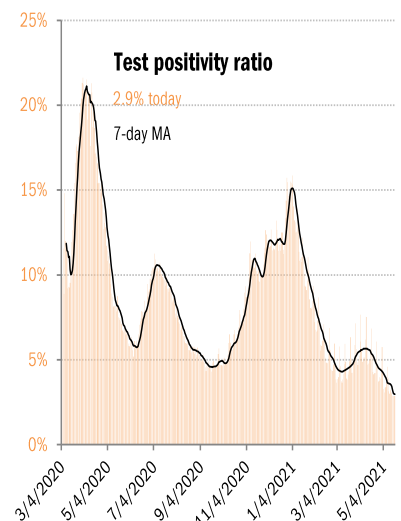
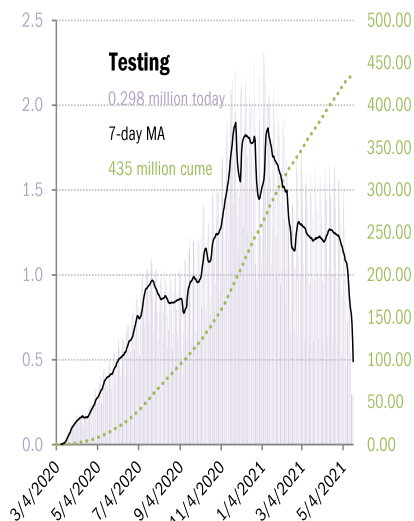
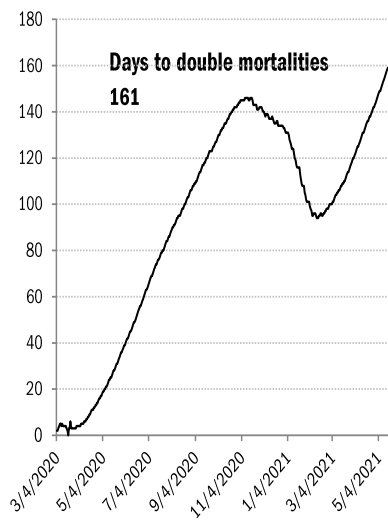
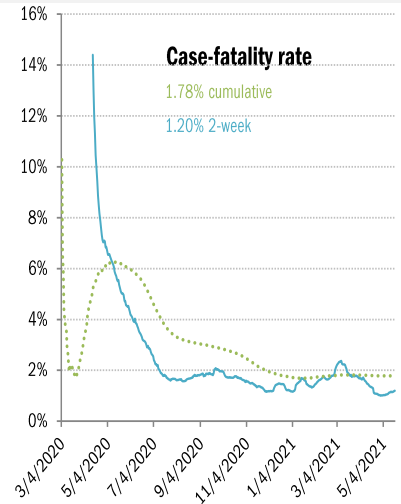
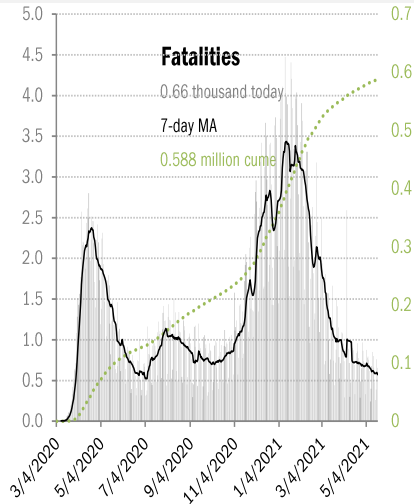
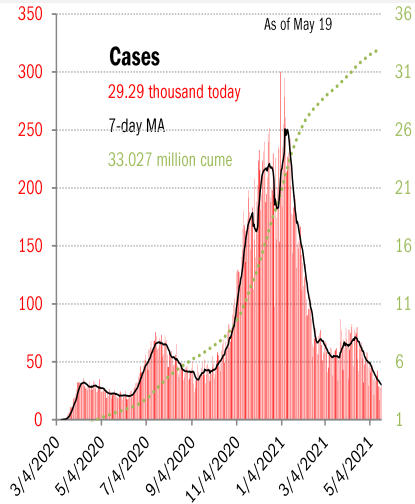
\* Includes persons >18 fully immunized or previously tested positive, no overlap. Disregards untested positives, natural immunities.

\*\* 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

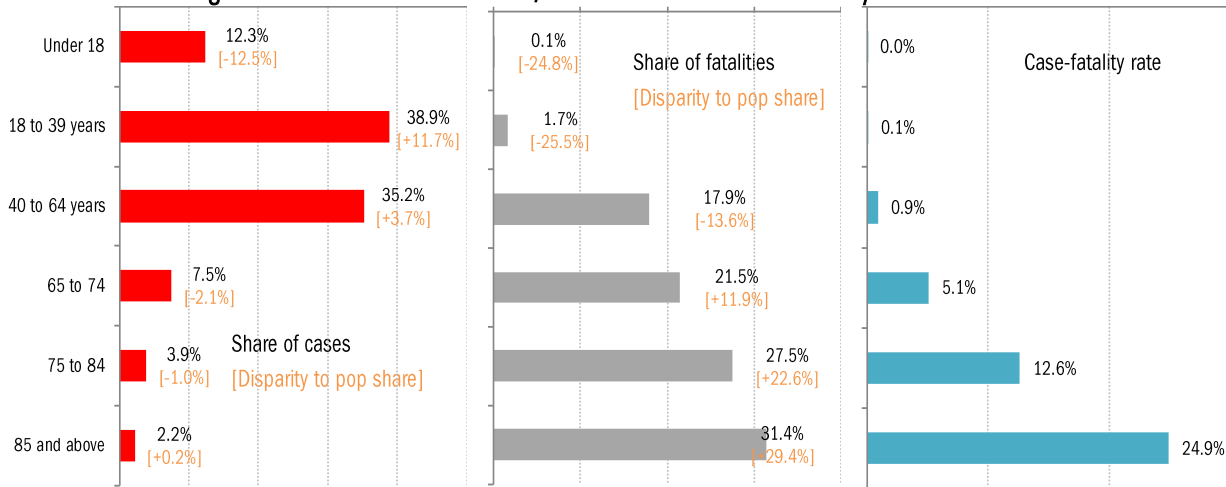
# US deep-dive

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

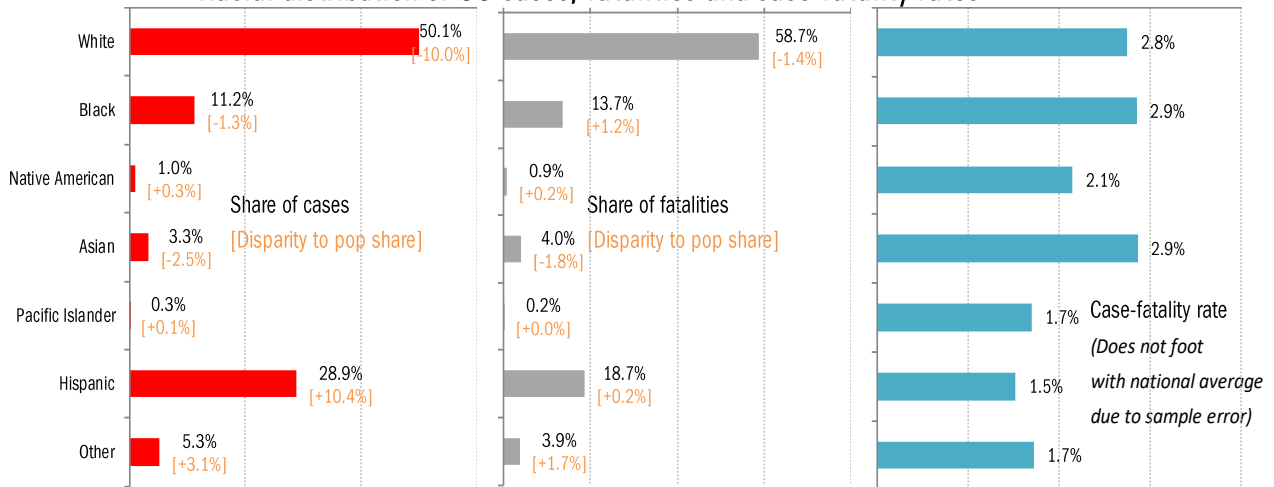


Source: [Johns Hopkins](#), [Covid Act Now](#), TrendMacro calculations

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

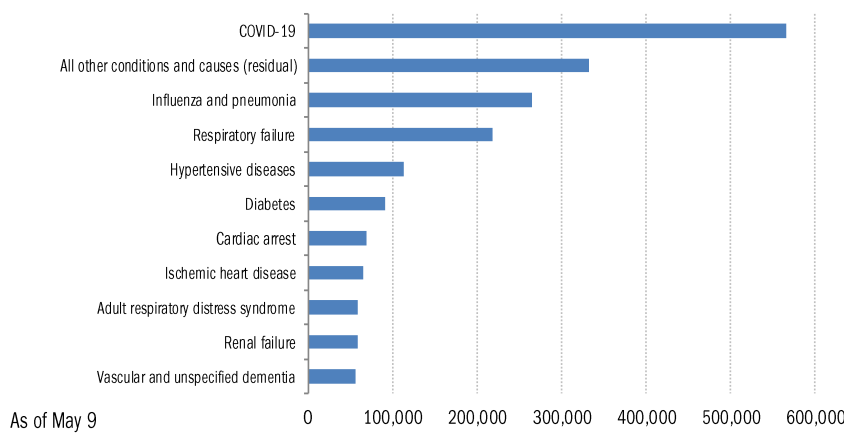


Racial distribution of US cases, fatalities and case-fatality rates



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

[CDC reportedly loses second top official in a week amid mask guidance confusion](#)

Mark Suleymanov  
*New York Post*  
May 18, 2021

[Use of fear to control behaviour in Covid crisis was 'totalitarian', admit scientists](#)

Gordon Rayner  
*The Telegraph*  
May 14, 2021

[Over 80% of Americans have had at least one symptom of depression over the course of the pandemic - and many are coping with booze, alcohol and overeating, survey finds](#)

Natalie Rahhal  
*Daily Mail*  
May 17, 2021

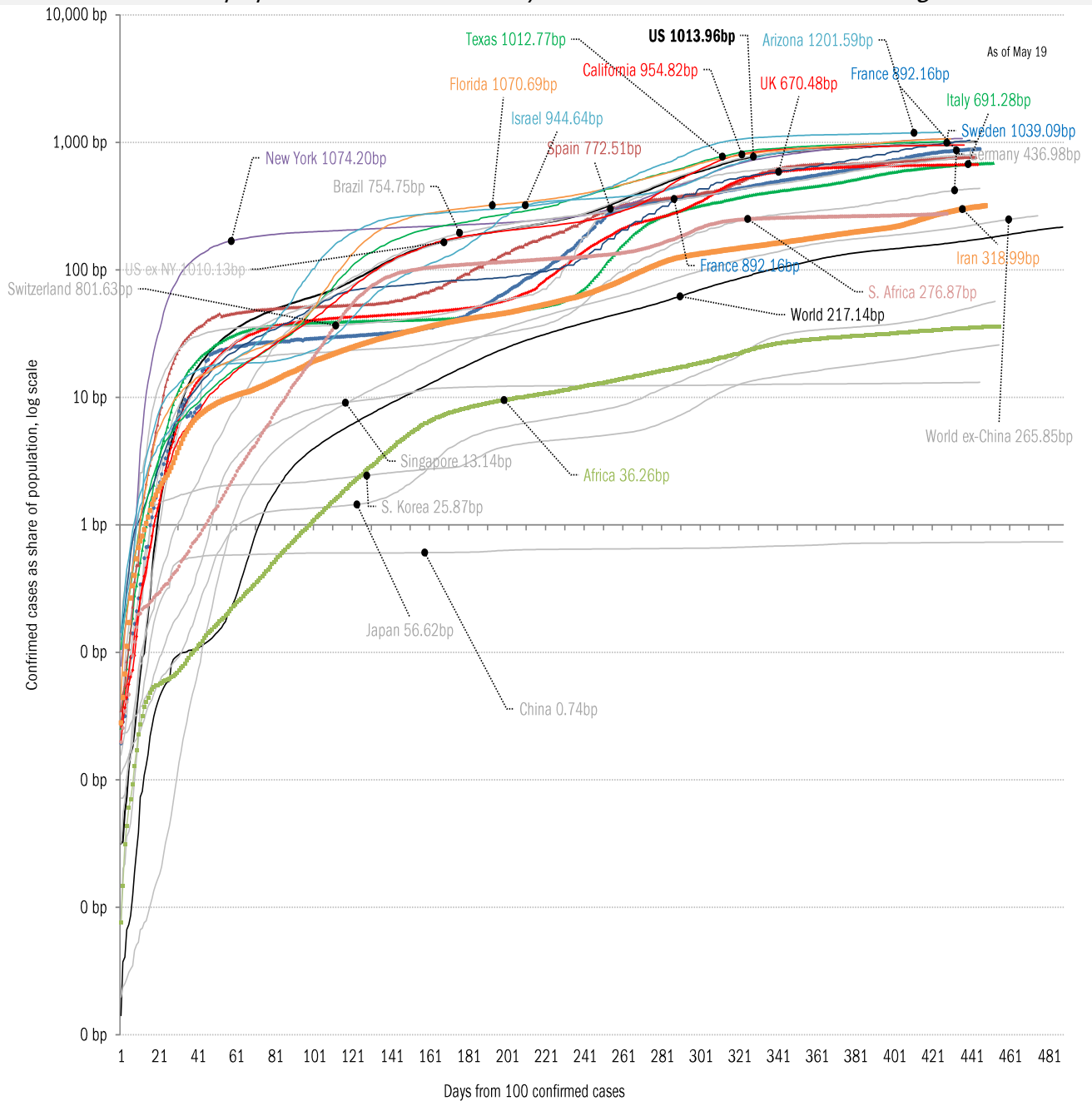
## Meme of the day



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



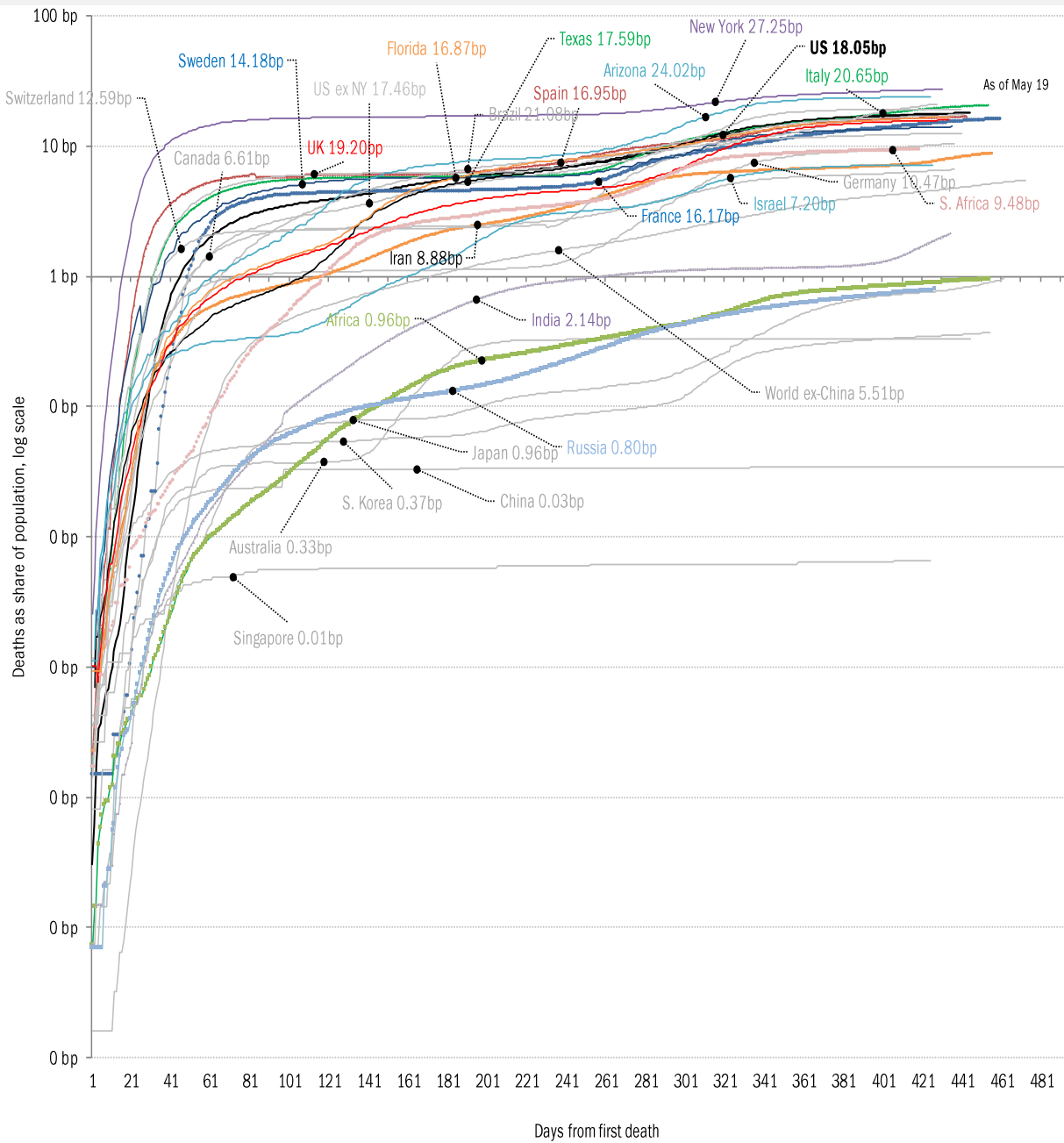
The coronavirus case accelerometer... tracking the world's infection curves  
*Share of infected population from first day with 100 confirmed cases, log scale*



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

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

## Share of deceased population from day of first fatality



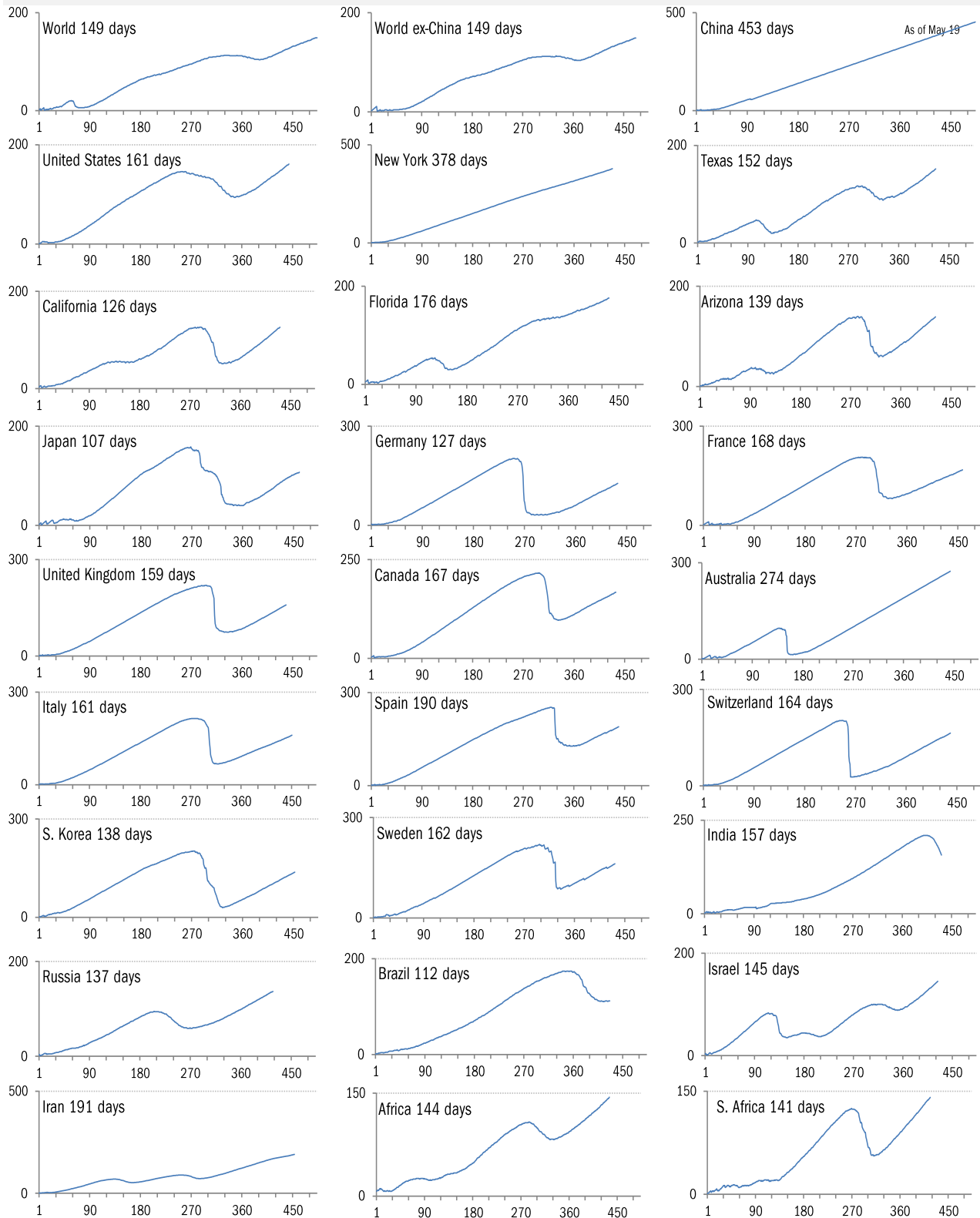
Source: [Johns Hopkins](#), TrendMacro calculations



# "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

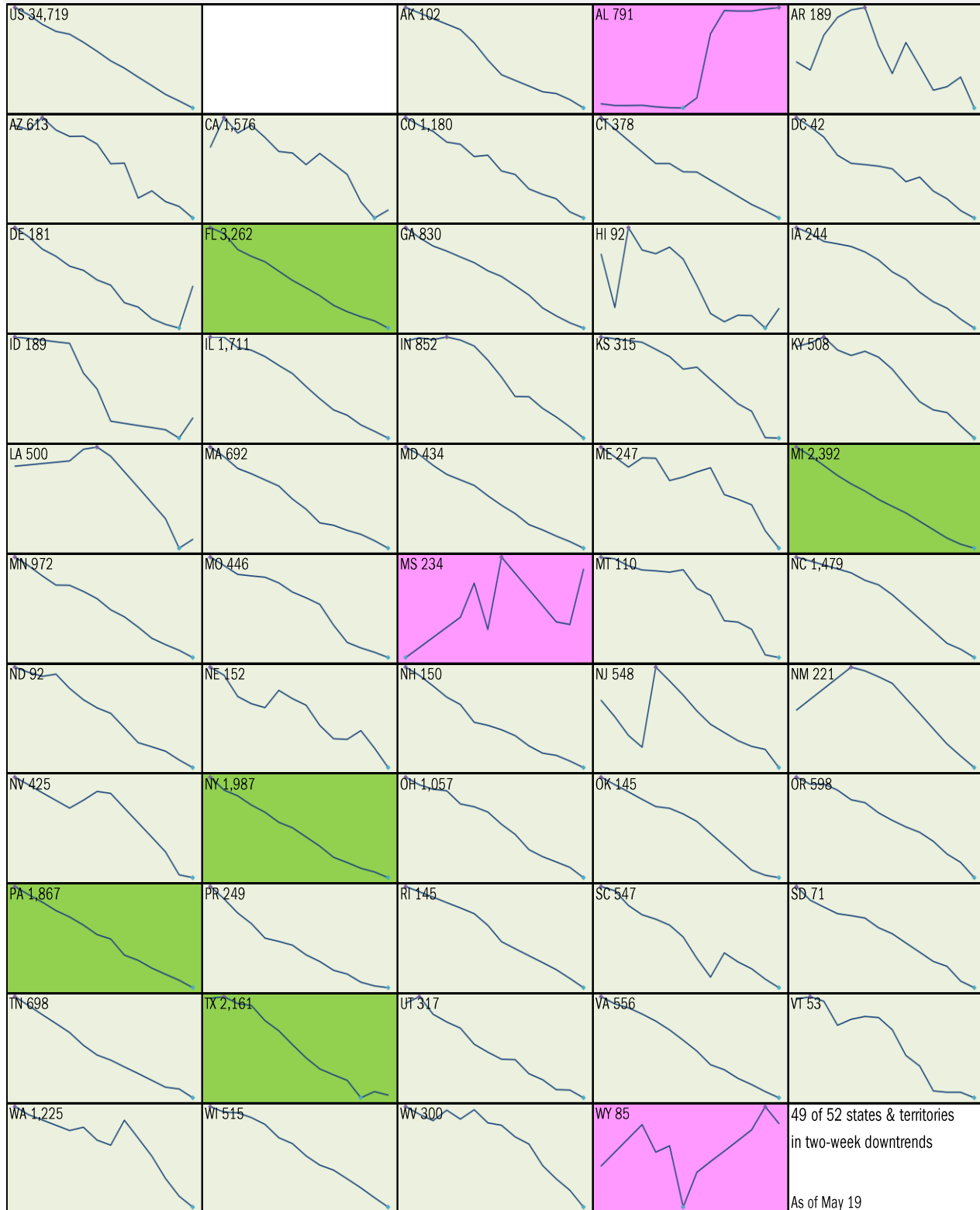


Source: [Johns Hopkins](#), TrendMacro calculations

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

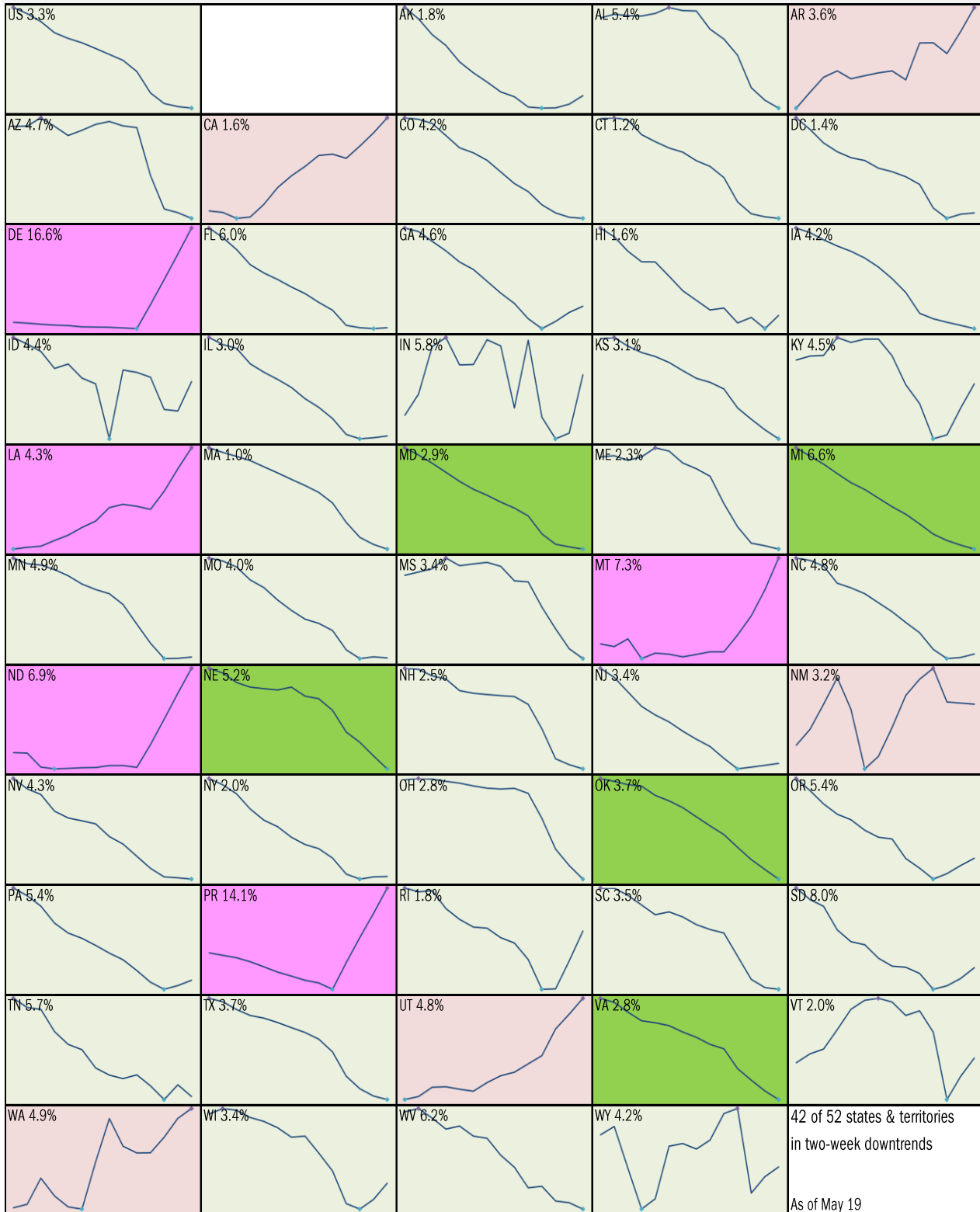


Source: [Johns Hopkins](#), TrendMacro calculations

Alt requirement to [Open Up America Again](#): 14-day "downward trajectory" in pos tests

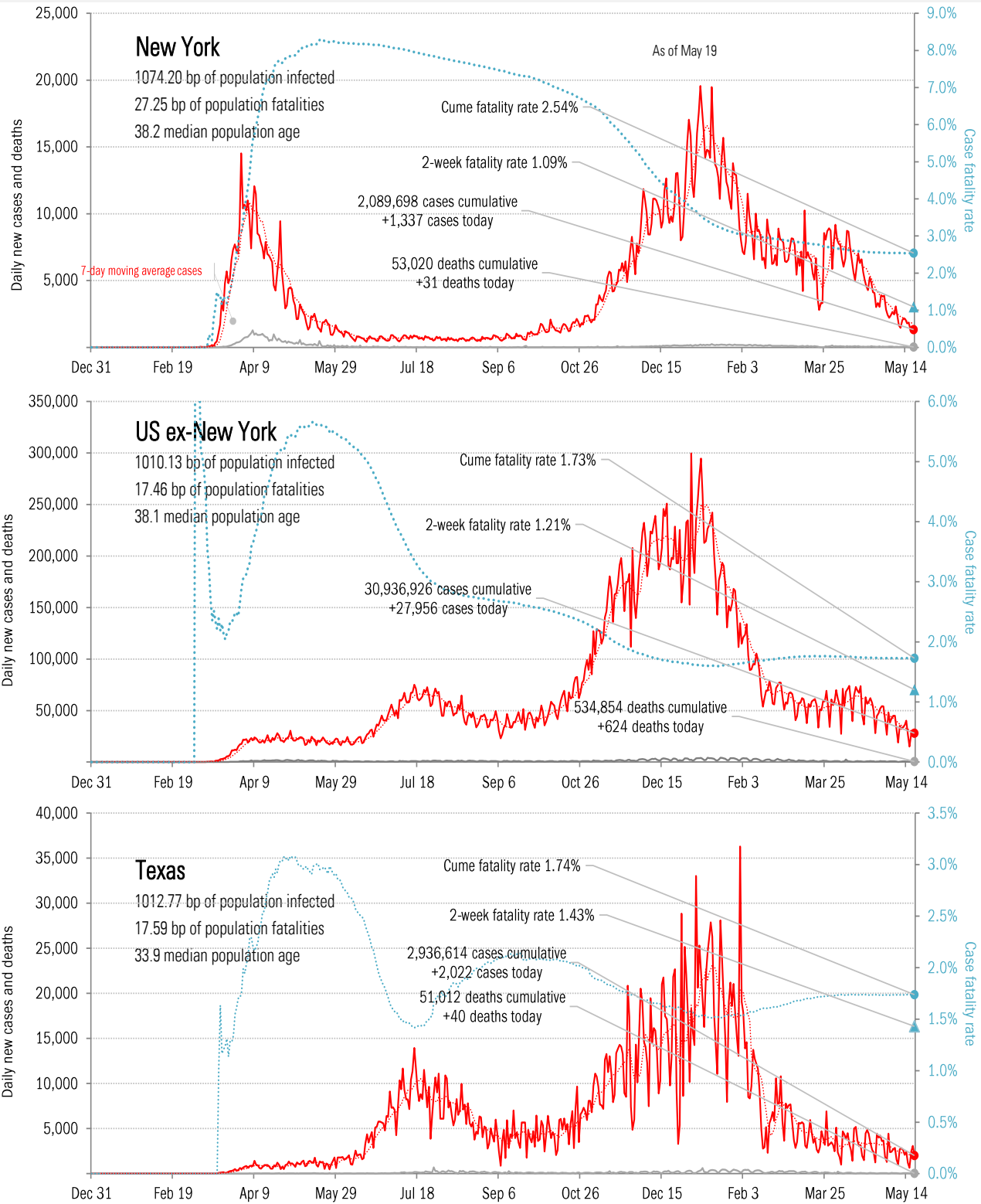
14-day moving average, last 14 days Most recent value displayed ● High ● Low

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



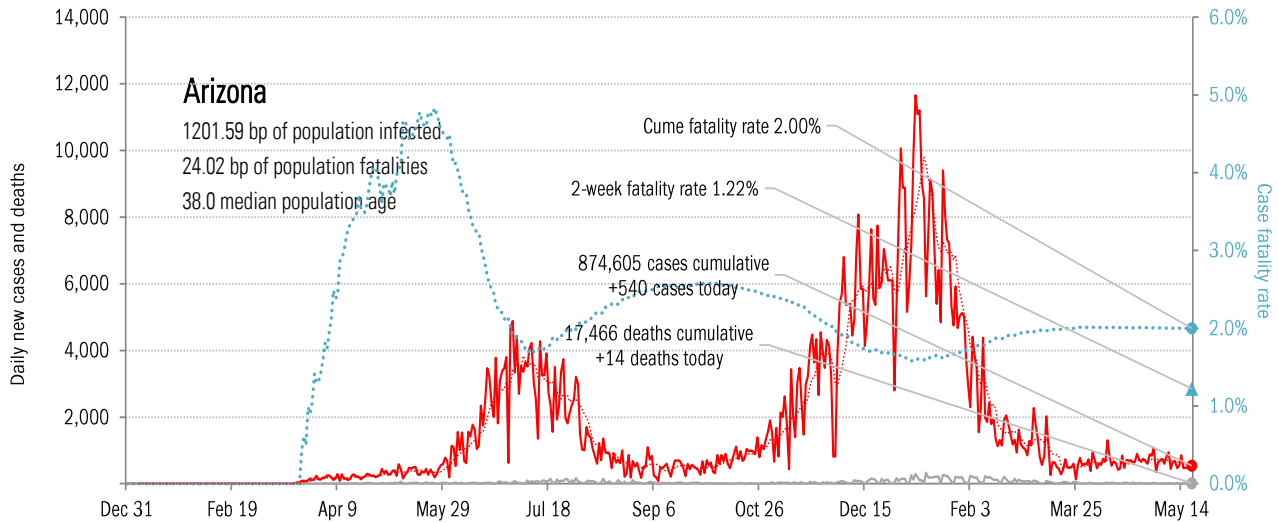
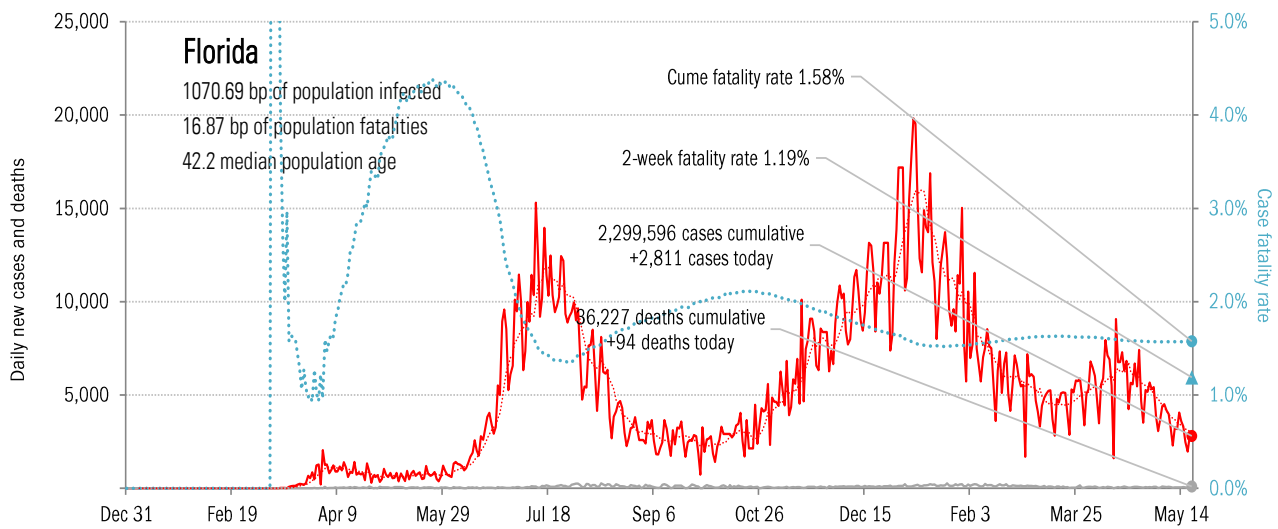
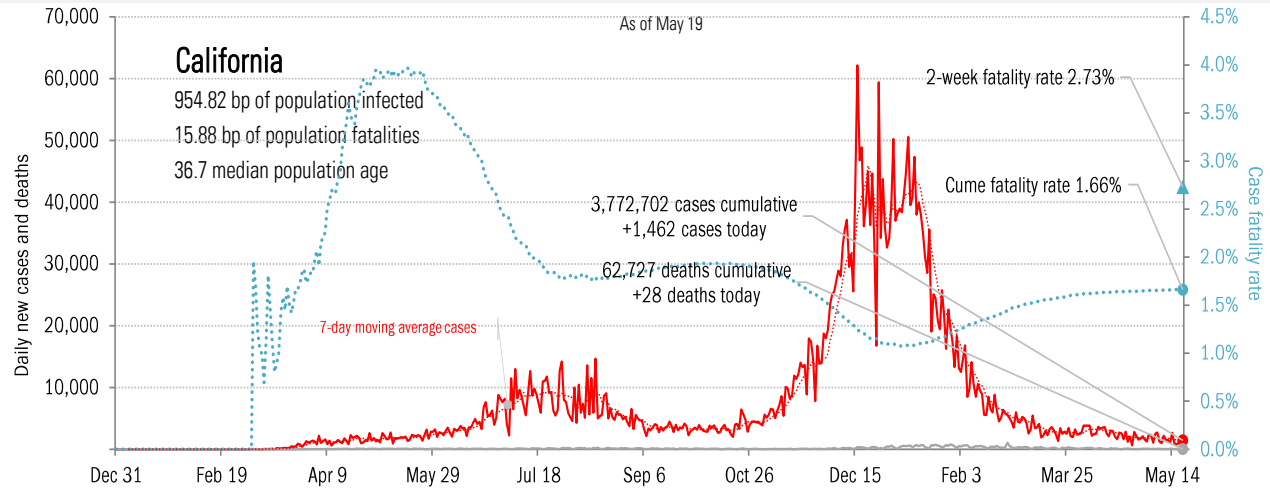
Source: [Covid Act Now](#), TrendMacro calculations

# From Ground Zero to the Rio Grande



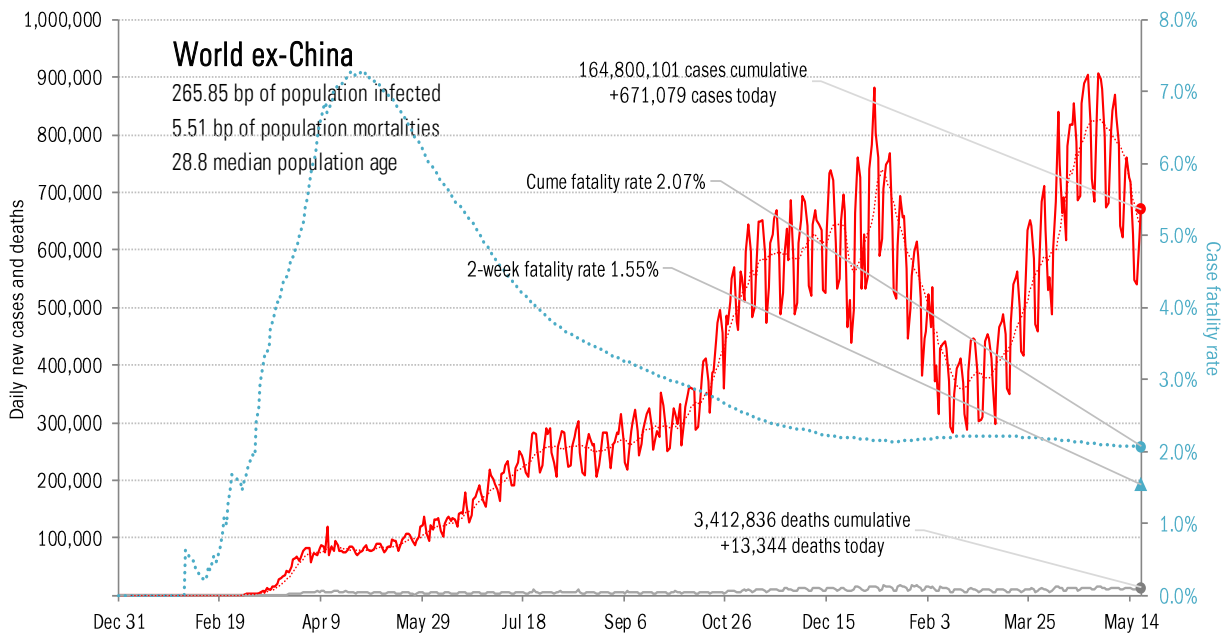
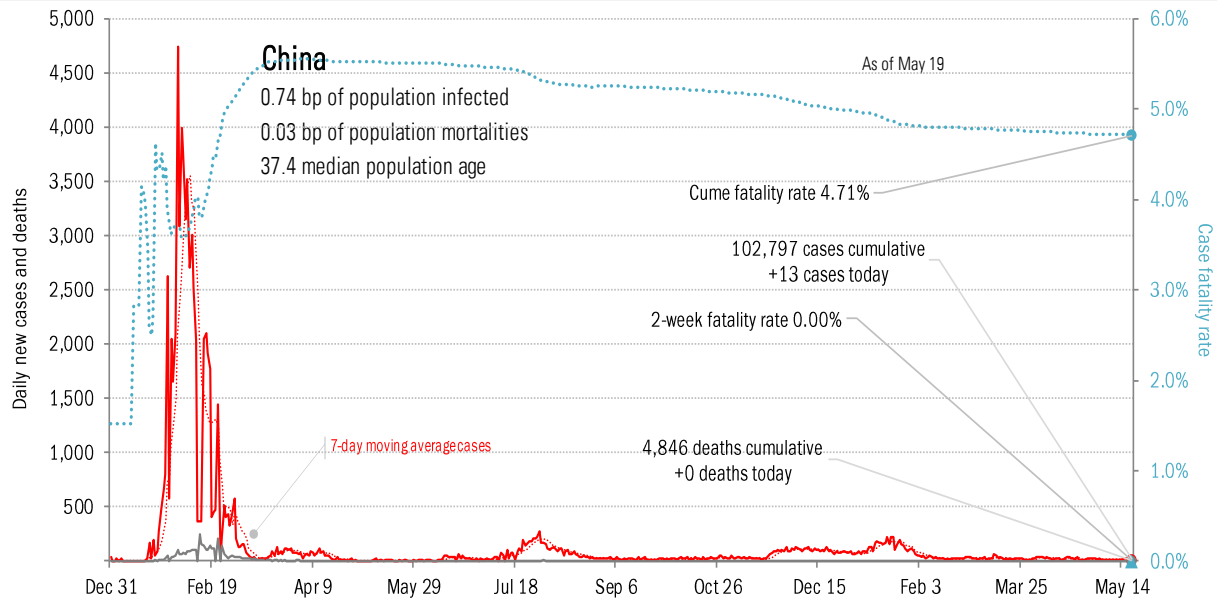
Source: [Johns Hopkins](#), TrendMacro calculations

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



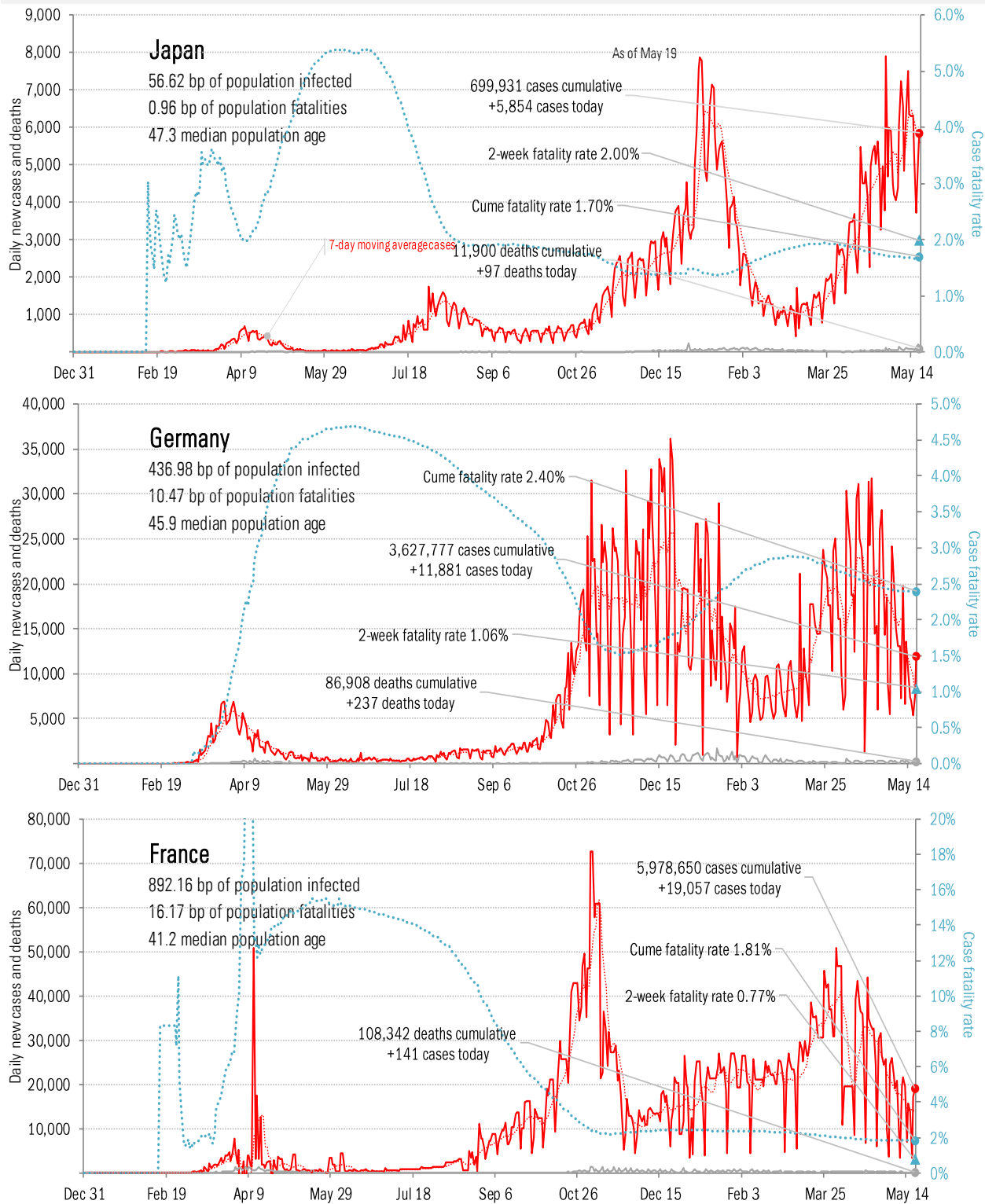
Source: [Johns Hopkins](#), TrendMacro calculations

# Patient zero... and then everyone else



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

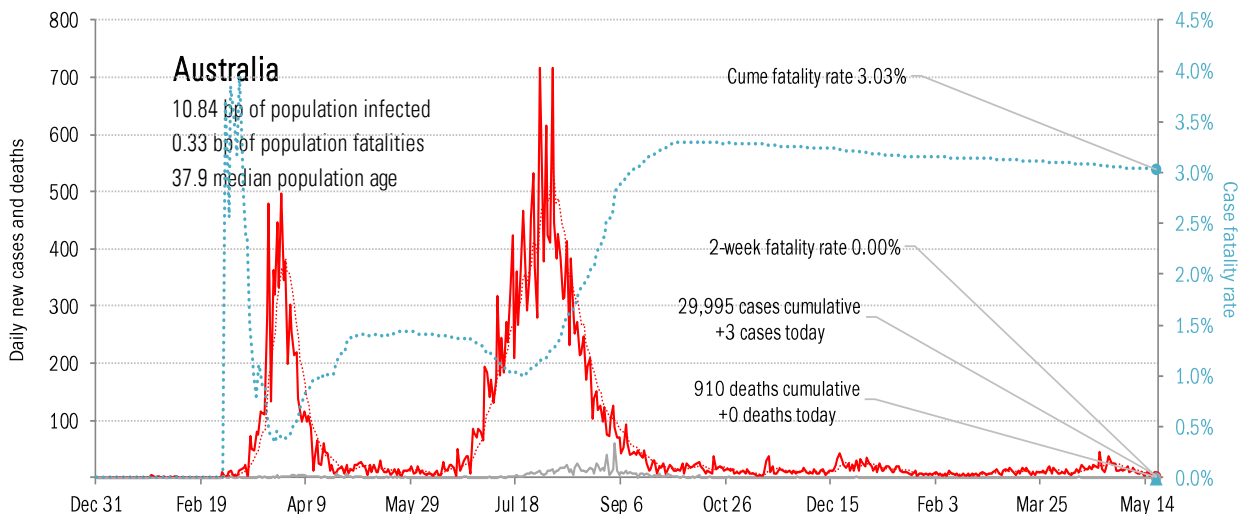
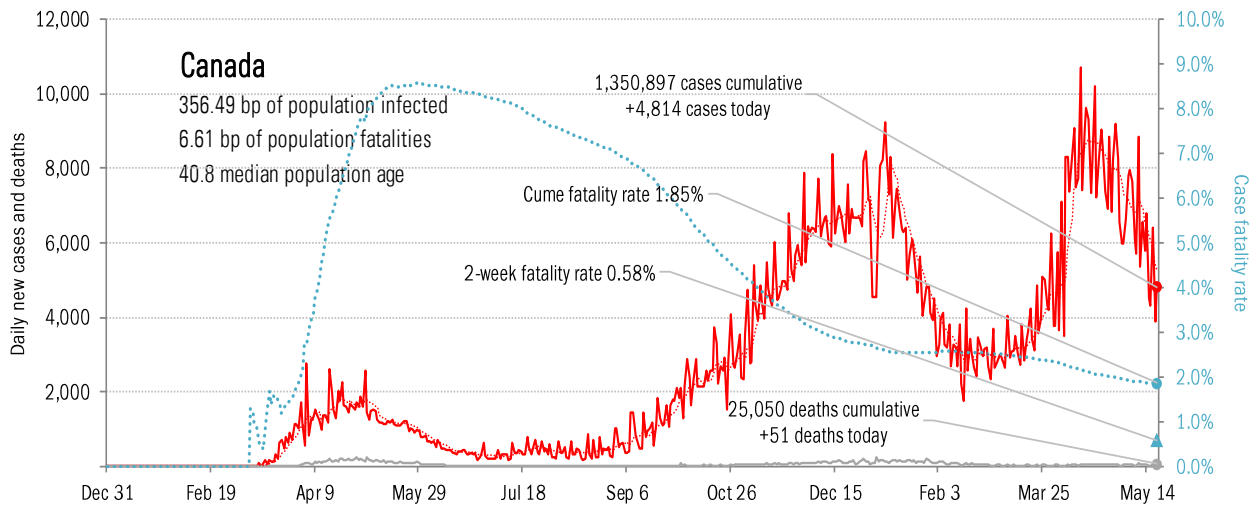
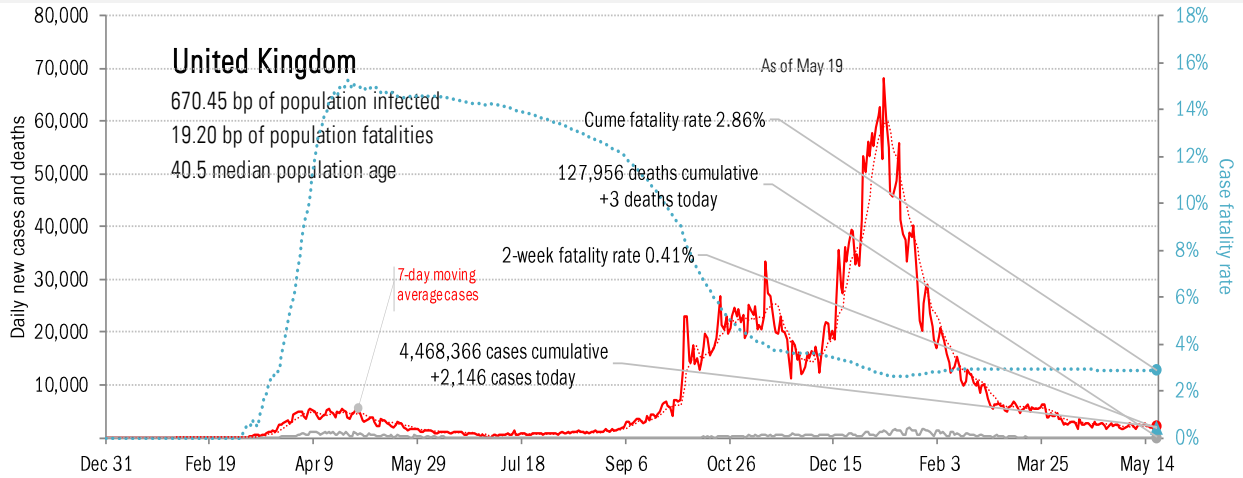
# Impact in the largest economies



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

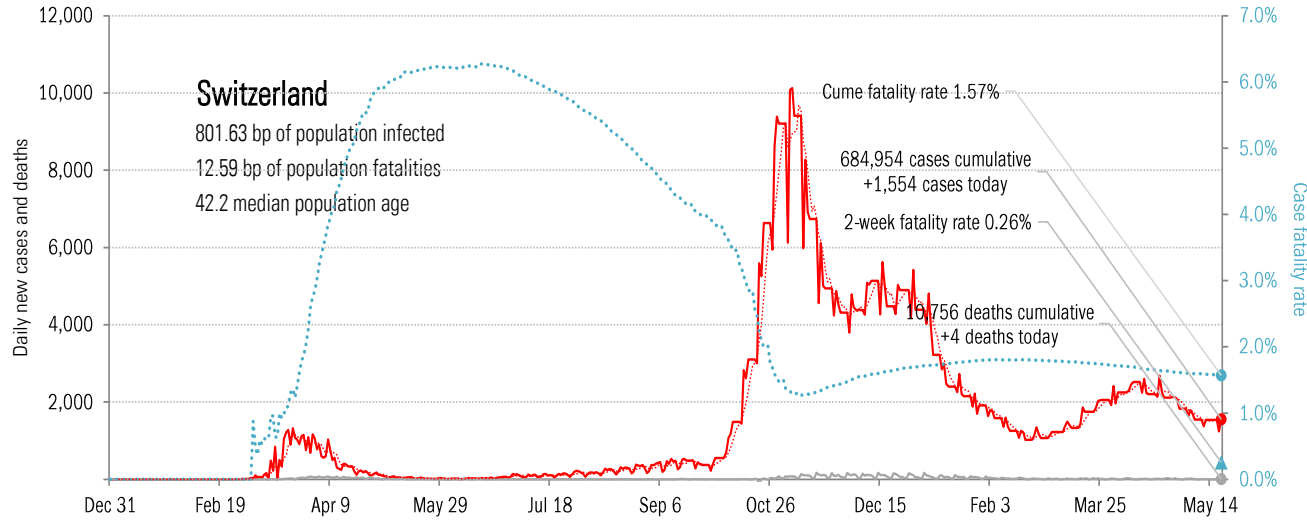
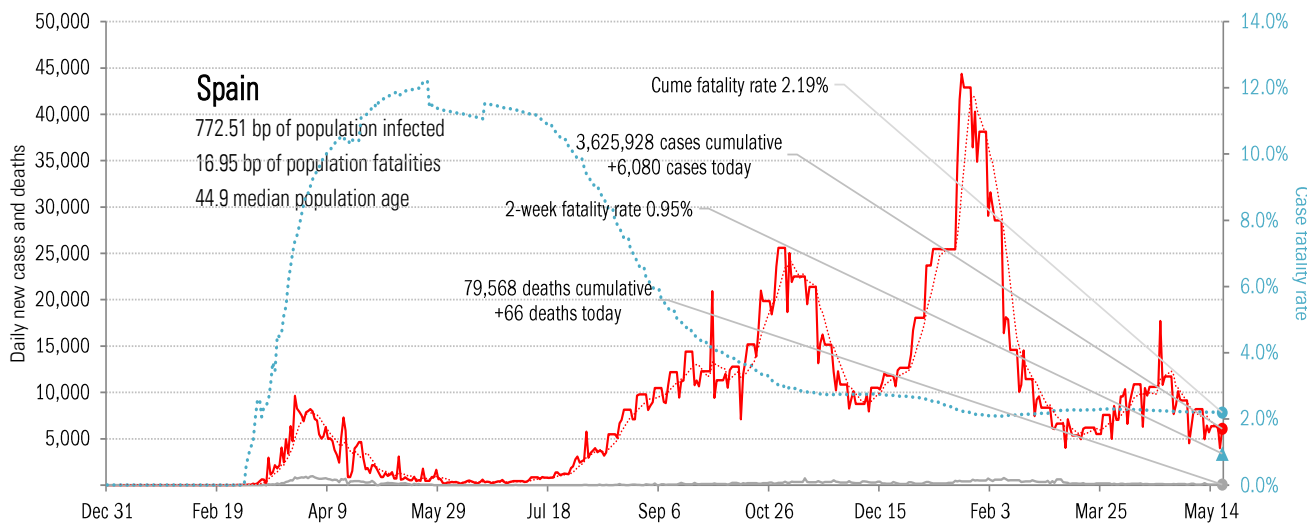
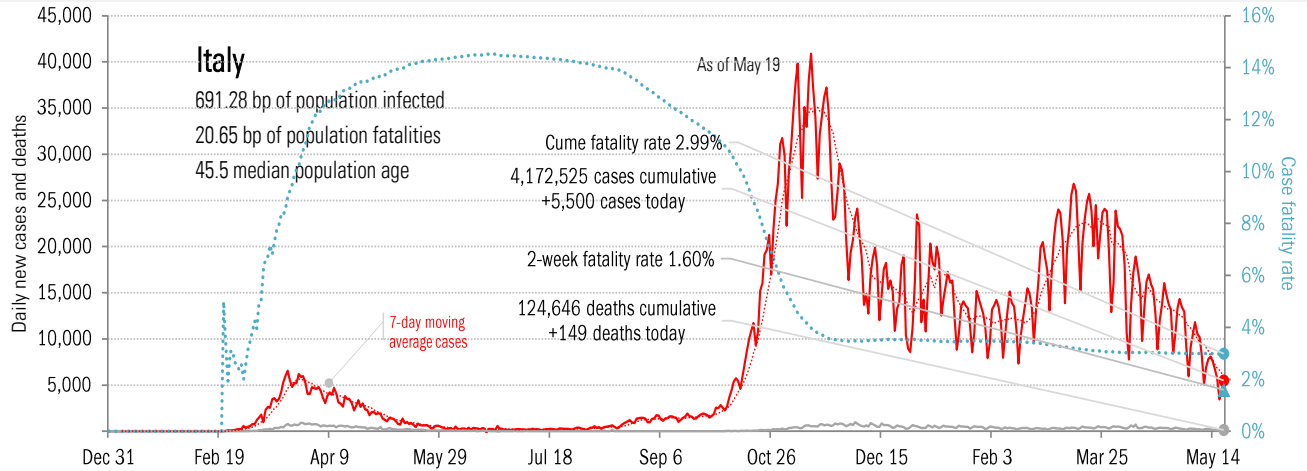


# Impact in The Anglosphere



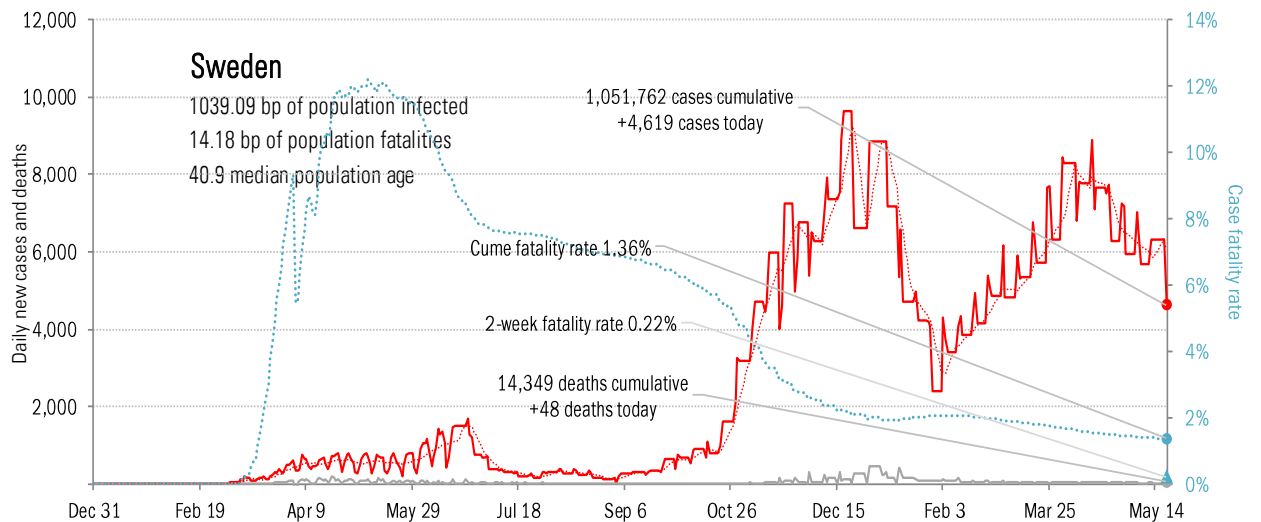
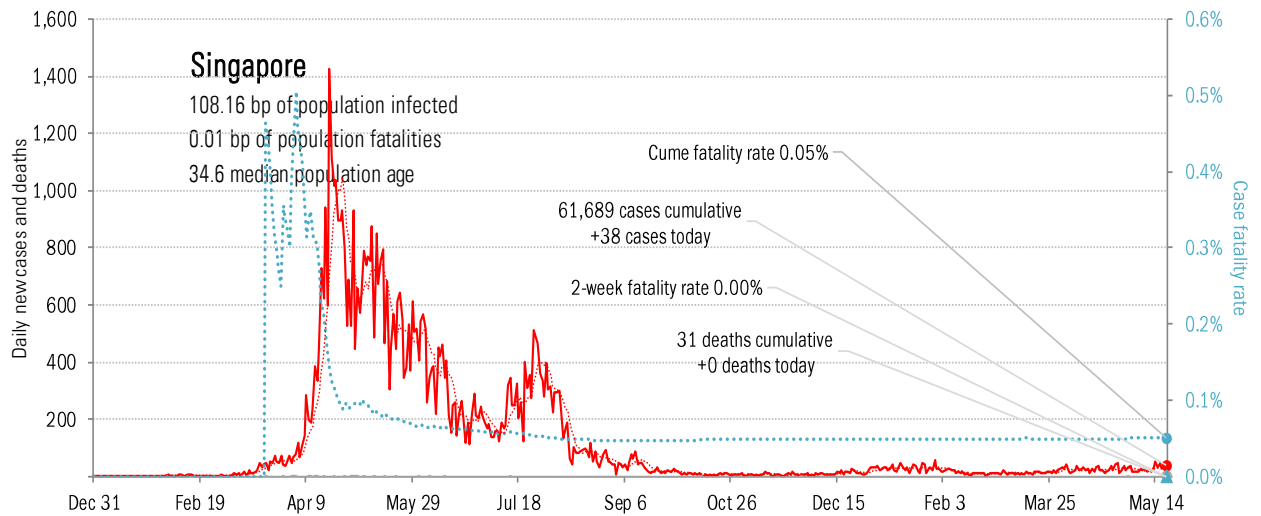
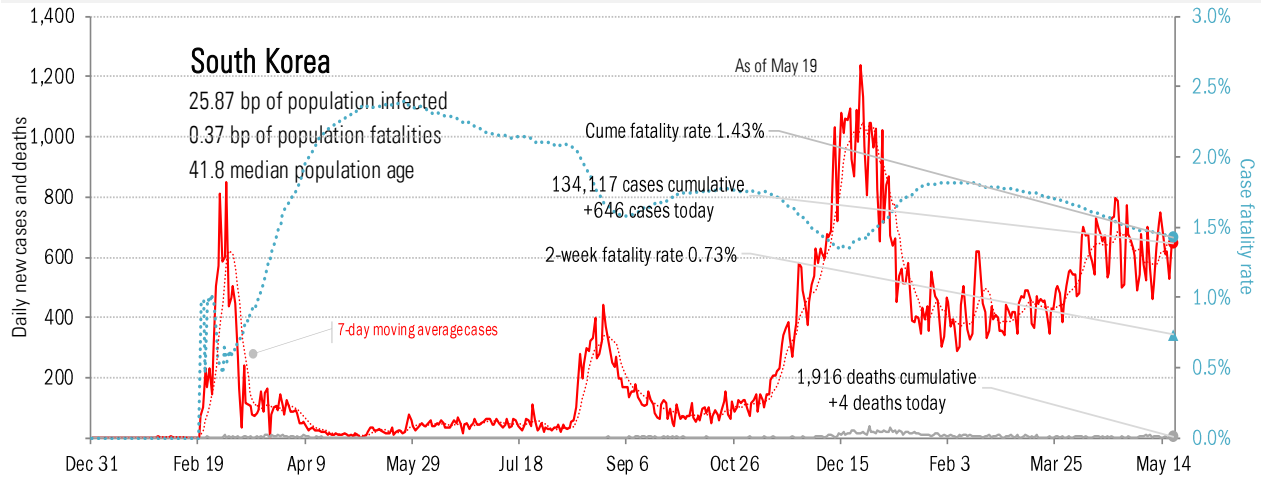
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in continental Europe



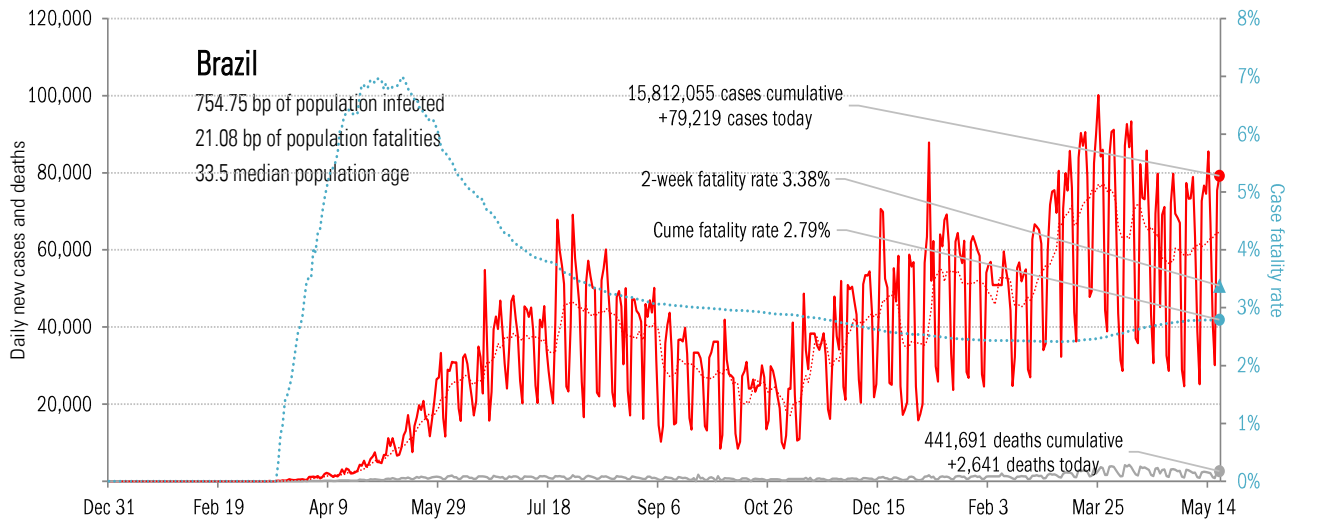
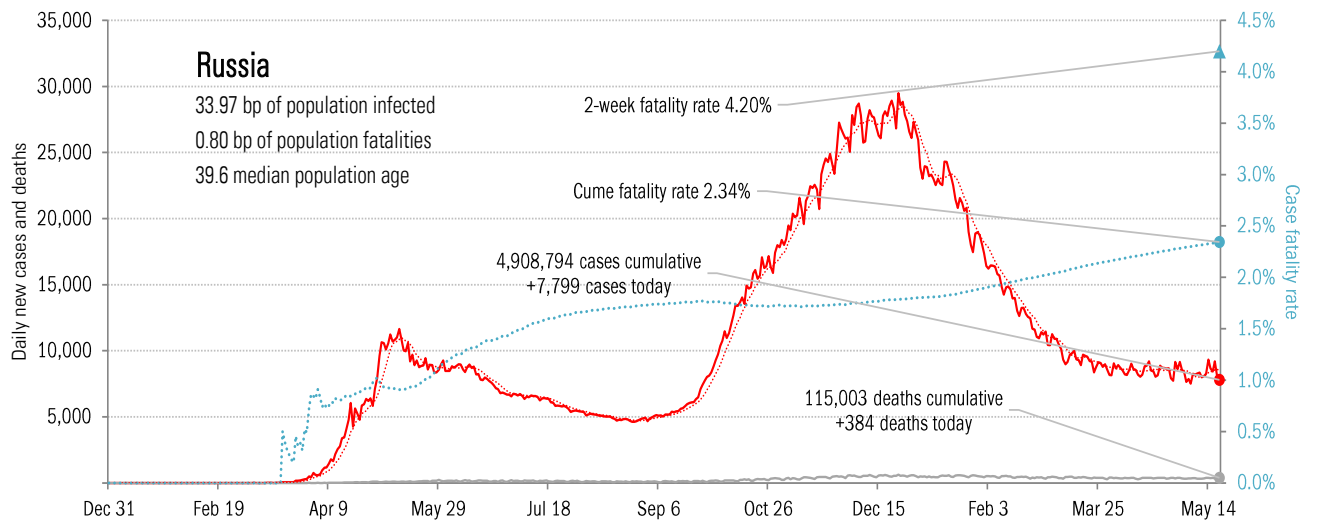
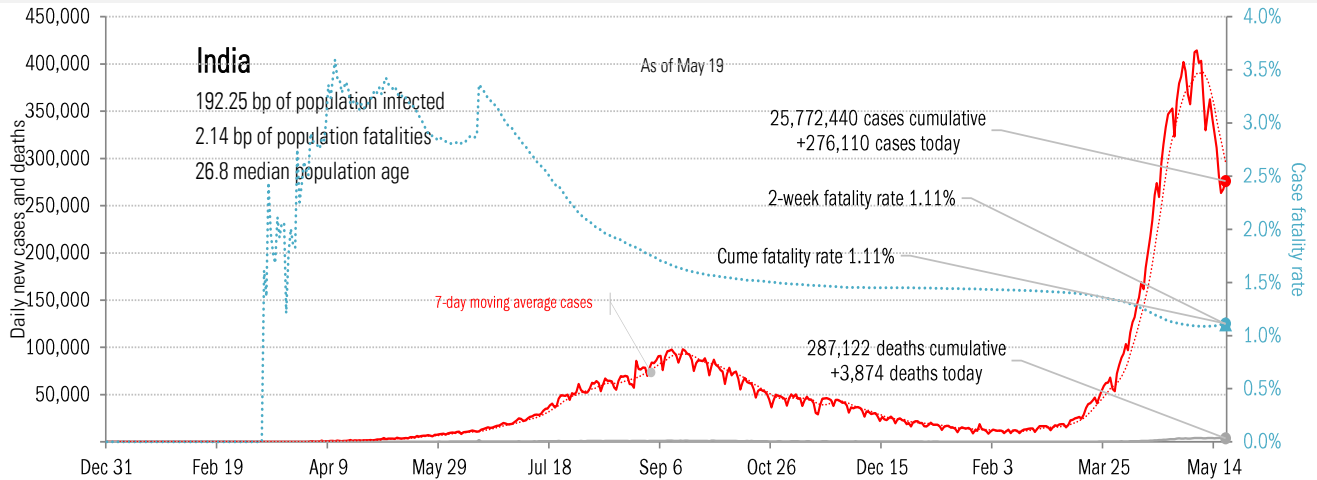
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in other hot-spots



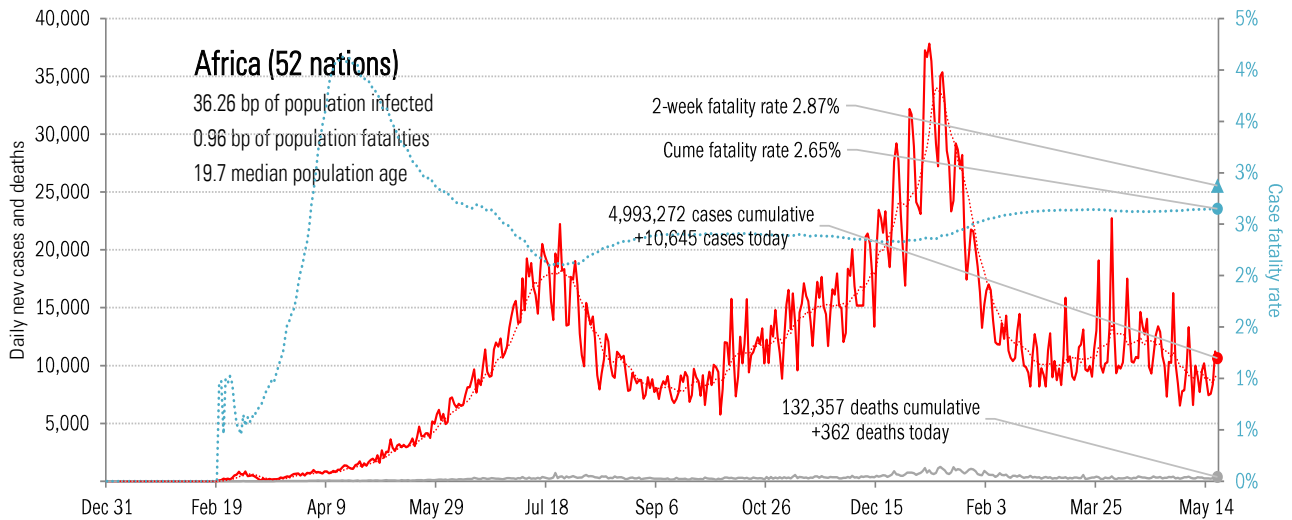
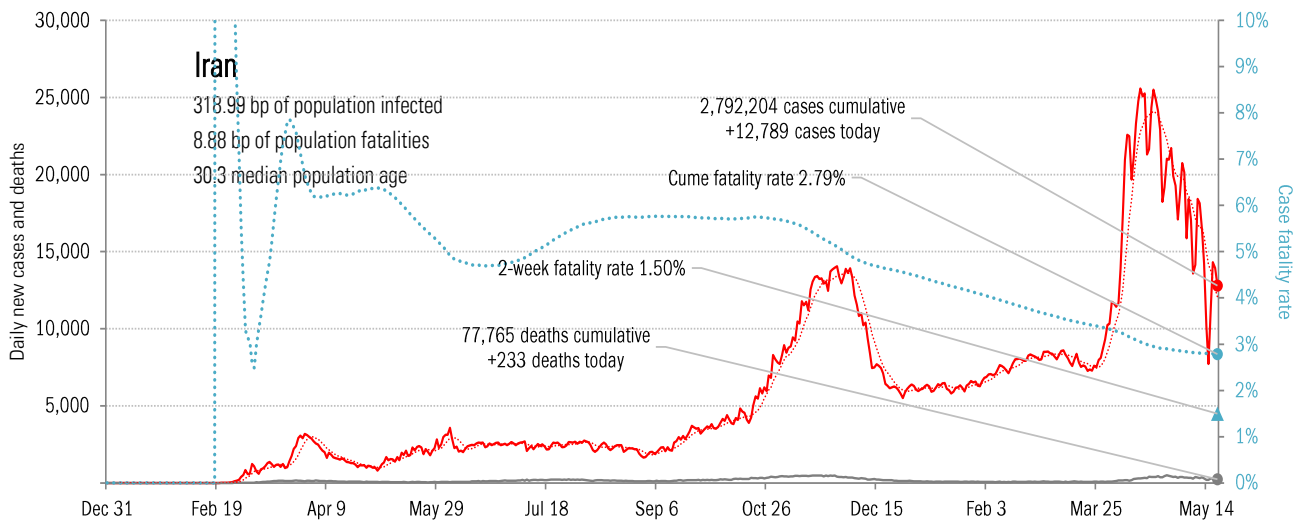
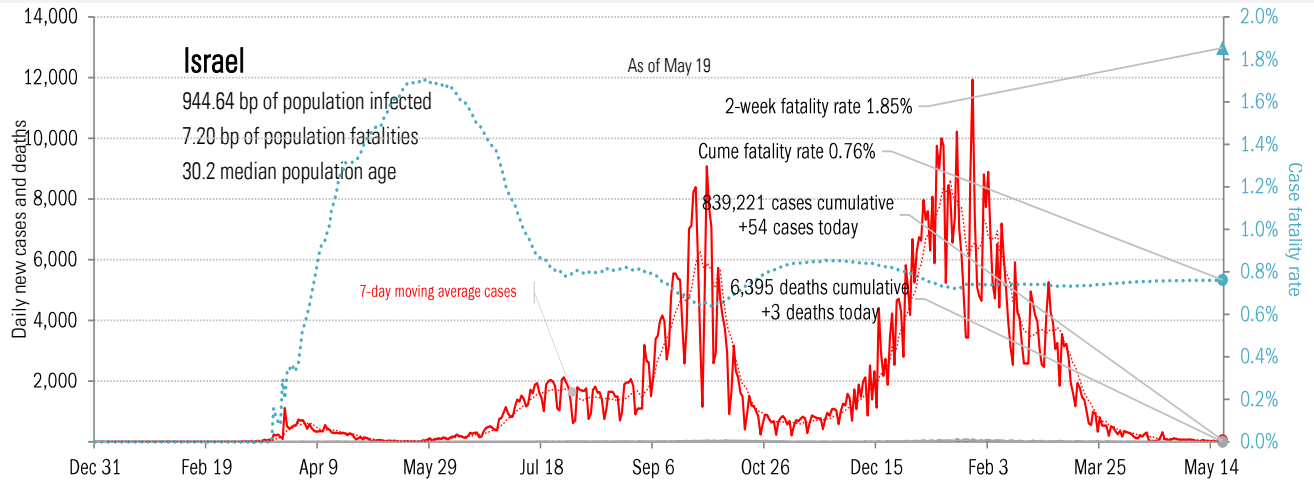
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in the BRICs ex-China



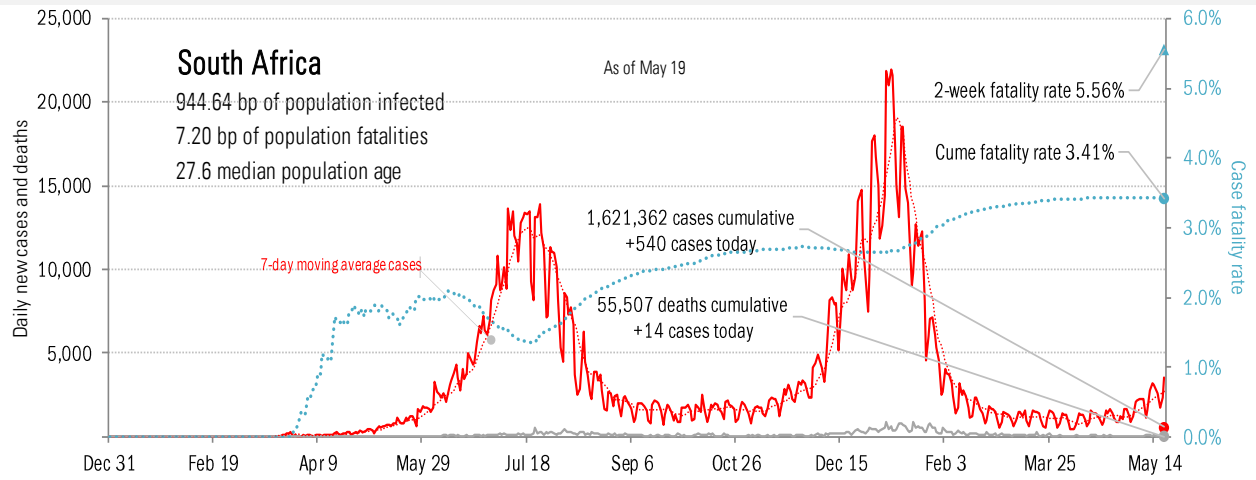
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in the Middle East and Africa



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

# Impact in Africa, continued



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