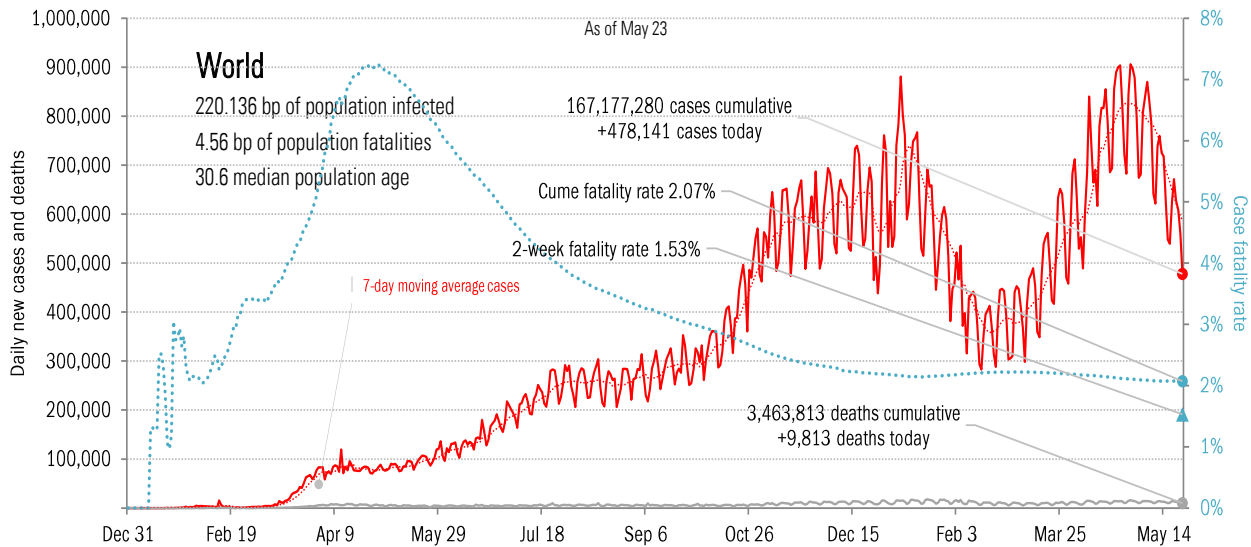
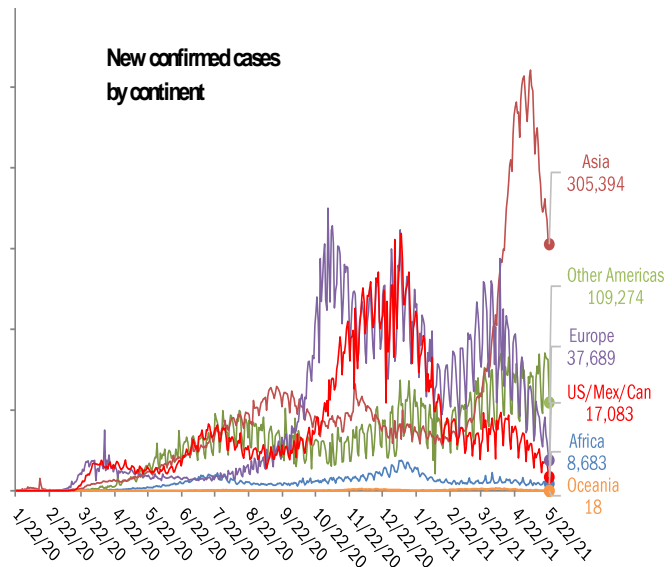


## Data Insights: Covid-2019 Monitor

Monday, May 24, 2021

### The global scorecard

| The worst ten countries |          |               |        |
|-------------------------|----------|---------------|--------|
| New cases               |          | New Deaths    |        |
| India                   | +222,315 | India         | +4,454 |
| Brazil                  | +35,819  | Brazil        | +860   |
| Argentina               | +24,801  | Colombia      | +496   |
| Colombia                | +21,669  | Indonesia     | +441   |
| Indonesia               | +16,322  | Argentina     | +375   |
| United States           | +12,853  | Russia        | +353   |
| Russia                  | +8,827   | Peru          | +246   |
| Iran                    | +8,631   | Iran          | +216   |
| Turkey                  | +7,839   | Turkey        | +197   |
| Nepal                   | +7,598   | Nepal         | +193   |
| <b>+366,674</b>         |          | <b>+7,831</b> |        |
| World                   | +478,141 | World         | +9,813 |
| Top ten                 | 77%      | Top ten       | 80%    |



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

#### For more information contact us:

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

# The US scorecard

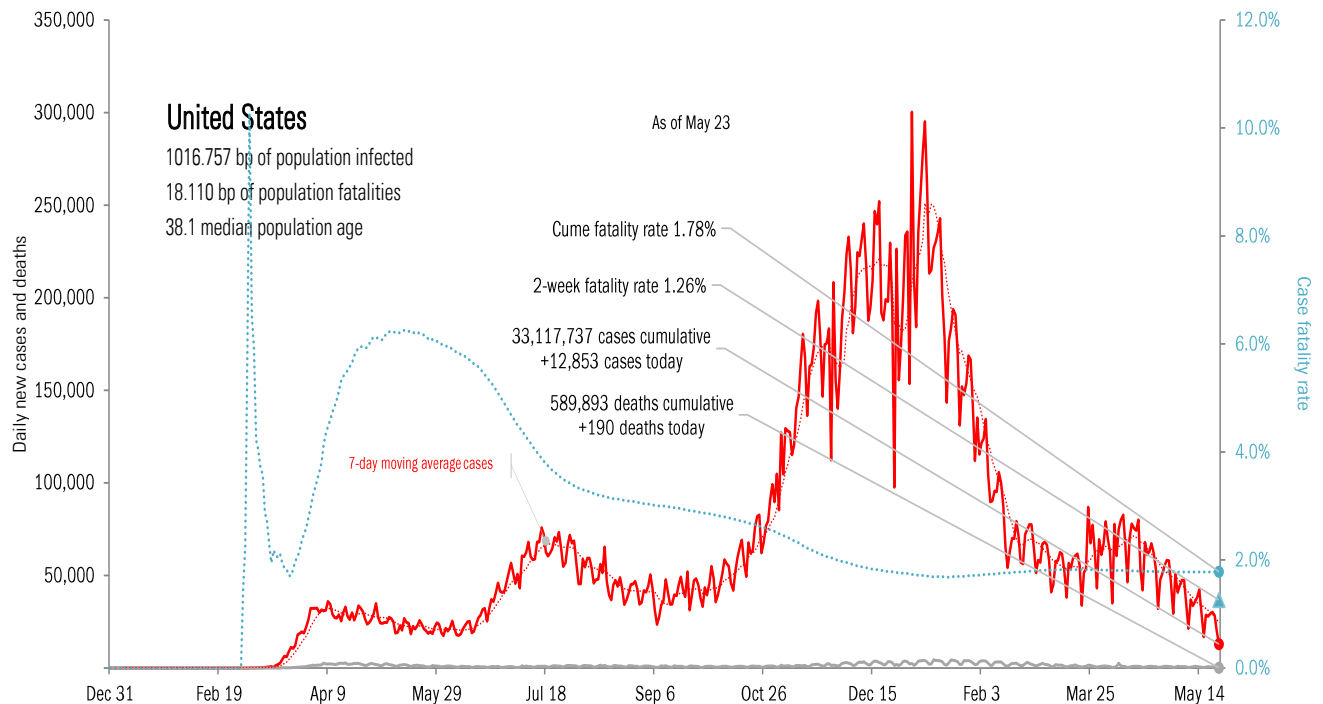
## The ten worst US states

| New cases  |         |  | New Deaths |      |  | New in hospital |      |  | Curre cases |            |  | Curre deaths |         |  | Curre in hospital |           |  | Hospital use |     | ICU use |     |
|------------|---------|--|------------|------|--|-----------------|------|--|-------------|------------|--|--------------|---------|--|-------------------|-----------|--|--------------|-----|---------|-----|
| FL         | +2,069  |  | IL         | +25  |  | GA              | +72  |  | CA          | 3,777,077  |  | CA           | 62,933  |  | TX                | 246,271   |  | R            | 92% | MI      | 19% |
| NY         | +1,074  |  | CA         | +22  |  | WA              | +23  |  | TX          | 2,941,389  |  | NY           | 53,131  |  | CA                | 234,846   |  | MA           | 83% | CO      | 18% |
| IL         | +941    |  | NY         | +19  |  | KS              | +21  |  | FL          | 2,310,335  |  | TX           | 51,225  |  | FL                | 177,500   |  | MO           | 81% | ME      | 14% |
| PA         | +799    |  | MD         | +17  |  | TX              | +17  |  | NY          | 2,095,319  |  | FL           | 36,474  |  | NY                | 133,317   |  | GA           | 81% | MN      | 13% |
| CA         | +731    |  | TX         | +16  |  | WV              | +10  |  | IL          | 1,375,420  |  | PA           | 26,987  |  | GA                | 105,793   |  | MD           | 80% | WV      | 13% |
| TX         | +710    |  | FL         | +11  |  | WY              | +10  |  | PA          | 1,196,778  |  | NJ           | 26,091  |  | PA                | 88,844    |  | CT           | 80% | MD      | 13% |
| CH         | +683    |  | KY         | +11  |  | NH              | +9   |  | GA          | 1,119,979  |  | IL           | 25,001  |  | CH                | 84,875    |  | PA           | 80% | MO      | 12% |
| IN         | +563    |  | SC         | +10  |  | NM              | +9   |  | CH          | 1,097,300  |  | GA           | 20,661  |  | IL                | 79,802    |  | MI           | 80% | NM      | 12% |
| MN         | +439    |  | PA         | +9   |  | MS              | +8   |  | NJ          | 1,014,088  |  | MI           | 20,140  |  | KY                | 74,543    |  | DC           | 78% | ID      | 12% |
| CO         | +432    |  | VA         | +9   |  | DC              | +6   |  | NC          | 995,754    |  | CH           | 19,709  |  | MI                | 70,750    |  | MN           | 78% | GA      | 12% |
| +8,441     |         |  | +149       |      |  | +185            |      |  | 17,923,439  |            |  | 342,352      |         |  | 1,296,541         |           |  |              |     |         |     |
| All states | +12,853 |  |            | +190 |  |                 | -219 |  | All states  | 33,117,737 |  |              | 589,893 |  |                   | 2,323,393 |  | All states   | 70% |         | 67% |
| Top ten    | 66%     |  |            | 78%  |  |                 | -84% |  | Top ten     | 54%        |  |              | 58%     |  |                   | 56%       |  | Median       | 72% |         | 8%  |

Some states not reporting

## Five most improved US states

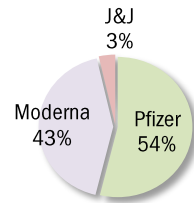
| Fewer daily cases |        | Fewer new deaths |     | Fewer new hospitalizations |     | Most pop immunity growth |        |
|-------------------|--------|------------------|-----|----------------------------|-----|--------------------------|--------|
| FL                | -1,337 | MI               | -89 | FL                         | -72 | VT                       | +87 bp |
| MI                | -1,206 | AL               | -32 | KY                         | -49 | DC                       | +61 bp |
| PA                | -437   | CA               | -27 | NC                         | -39 | WA                       | +58 bp |
| CO                | -409   | PA               | -27 | AZ                         | -34 | OR                       | +57 bp |
| AZ                | -324   | GA               | -24 | NY                         | -25 | NM                       | +56 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  | 369,656,325 |       |             |       | +0.000 million   | US        | 38.9% | 48.8%   |
| Doses administered | 294,680,164 |       |             |       | +1.812 million   | UK        | 33.4% | 55.9%   |
| Administered       | One dose    | % Pop | Immune      | % pop | New immune today | France    | 14.6% | 33.9%   |
| Total population   | 167,729,429 | 50%   | 133,852,142 | 40%   | +1.024 million   | Spain     | 16.8% | 35.0%   |
| Age 12 to 17       | 4,914,858   | 20%   | 1,962,191   | 8%    | +0.056 million   | Germany   | 13.5% | 39.7%   |
| Age 18 to 64       | 114,510,352 | 56%   | 89,973,409  | 44%   | +0.860 million   | Italy     | 16.9% | 34.9%   |
| Age 65 and over    | 48,280,933  | 88%   | 41,907,856  | 77%   | +0.108 million   | Australia | 2.1%  | 5.3%    |
|                    |             |       |             |       |                  | Israel    | 59.1% | 62.9%   |
|                    |             |       |             |       |                  | Canada    | 4.4%  | 51.3%   |
|                    |             |       |             |       |                  | Japan     | 2.1%  | 4.9%    |
|                    |             |       |             |       |                  | Africa    | 0.5%  | 1.6%    |
|                    |             |       |             |       |                  | India     | 3.0%  | 10.9%   |
|                    |             |       |             |       |                  | Brazil    | 8.7%  | 18.4%   |



| 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 **102 days** by Sep 1, 2021  
 63.1% of population >18 immunized  
 13.9% previously tested positive  
**77.0%** vs 60% adult herd immunity\*

Global data differs from sources, timing

| AK    |
|-------|
| 58.8% |
| 45.2% |
| 38.6% |

| ME    |
|-------|
| 68.1% |
| 61.4% |
| 51.9% |

|       |       |       |       |       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| WI    | VT    | NH    |       |       |       |       |       |       |       |       |
| 52.8% | 72.6% | 64.6% |       |       |       |       |       |       |       |       |
| 49.8% | 68.9% | 64.1% |       |       |       |       |       |       |       |       |
| 43.3% | 51.7% | 41.1% |       |       |       |       |       |       |       |       |
| WA    | ID    | MT    | ND    | MN    | IL    | MI    | NY    | MA    |       |       |
| 59.7% | 46.9% | 53.2% | 46.7% | 56.6% | 57.6% | 58.0% | 60.0% | 68.2% |       |       |
| 54.5% | 36.9% | 44.2% | 41.5% | 53.1% | 53.0% | 47.6% | 54.0% | 64.6% |       |       |
| 43.6% | 31.9% | 37.2% | 36.0% | 44.3% | 38.6% | 40.7% | 45.0% | 50.3% |       |       |
| OR    | NV    | WY    | SD    | IA    | IN    | OH    | PA    | NJ    | CT    | RI    |
| 61.9% | 48.5% | 46.2% | 55.9% | 53.8% | 49.4% | 52.9% | 61.1% | 63.6% | 65.4% | 70.9% |
| 52.9% | 44.2% | 36.3% | 47.4% | 48.2% | 40.7% | 44.6% | 56.7% | 58.3% | 61.2% | 59.1% |
| 42.1% | 35.4% | 31.1% | 41.9% | 42.5% | 34.2% | 39.0% | 41.6% | 46.9% | 50.9% | 49.7% |
| CA    | UT    | CO    | NE    | MO    | KY    | WV    | VA    | MD    | DE    |       |
| 61.7% | 50.0% | 60.3% | 53.7% | 49.8% | 50.5% | 53.2% | 58.8% | 66.4% | 63.9% |       |
| 55.2% | 44.1% | 52.6% | 47.3% | 41.3% | 45.2% | 39.5% | 53.5% | 55.3% | 52.6% |       |
| 41.3% | 31.3% | 43.5% | 41.1% | 33.5% | 37.4% | 33.5% | 43.1% | 45.1% | 41.2% |       |
| AZ    | NM    | KS    | AR    | TN    | NC    | SC    | DC    |       |       |       |
| 55.6% | 56.3% | 53.2% | 48.3% | 46.3% | 55.8% | 51.3% | 75.3% |       |       |       |
| 45.1% | 56.2% | 45.8% | 38.6% | 38.3% | 42.5% | 40.0% | 55.7% |       |       |       |
| 34.9% | 46.3% | 37.4% | 30.2% | 30.9% | 35.2% | 32.8% | 44.1% |       |       |       |
| OK    | LA    | MS    | AL    | GA    |       |       |       |       |       |       |
| 52.0% | 44.0% | 45.9% | 48.4% | 52.3% |       |       |       |       |       |       |
| 40.9% | 35.0% | 33.2% | 35.6% | 38.7% |       |       |       |       |       |       |
| 33.1% | 30.5% | 26.5% | 28.7% | 30.7% |       |       |       |       |       |       |
| HI    | TX    | FL    | PR    |       |       |       |       |       |       |       |
| 65.2% | 54.3% | 57.8% | 62.6% |       |       |       |       |       |       |       |
| 64.4% | 42.8% | 47.6% | 47.4% |       |       |       |       |       |       |       |
| 46.2% | 34.1% | 37.4% | 33.7% |       |       |       |       |       |       |       |

As of May 23

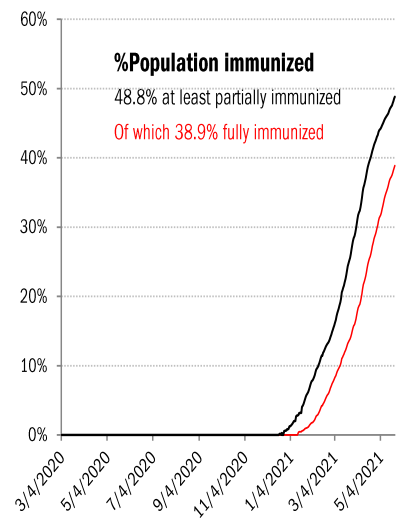
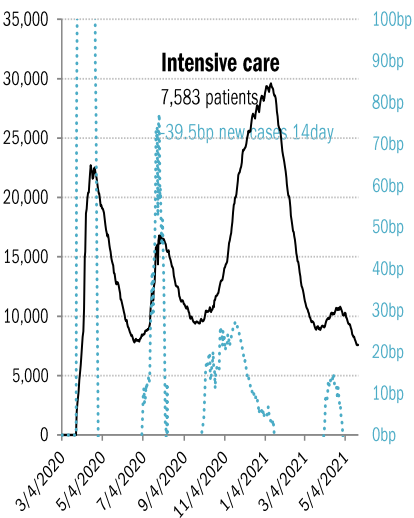
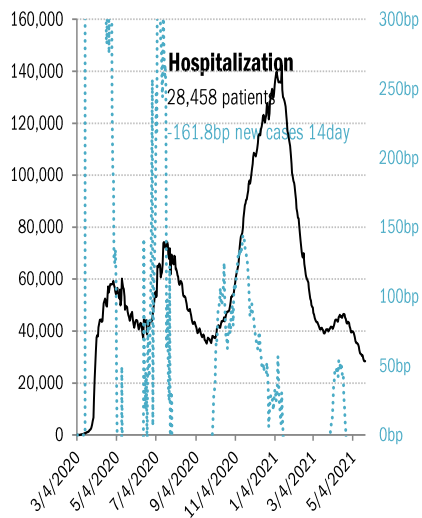
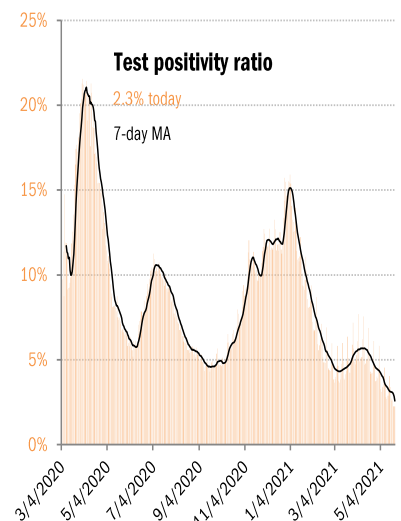
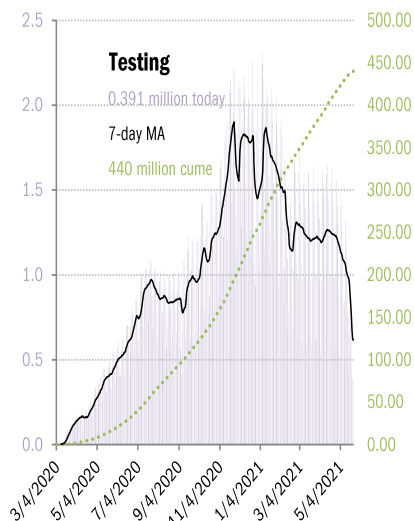
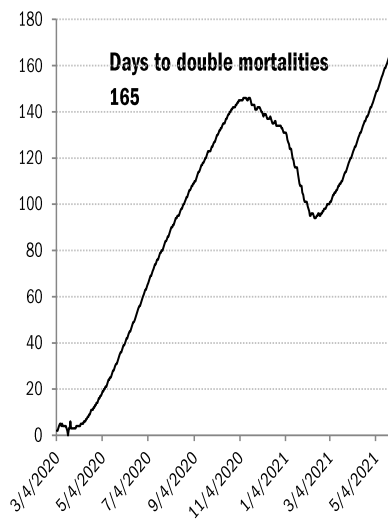
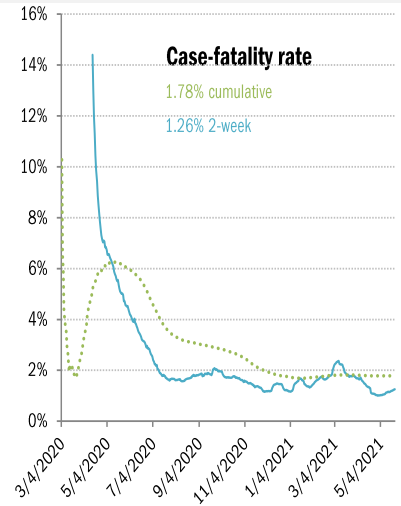
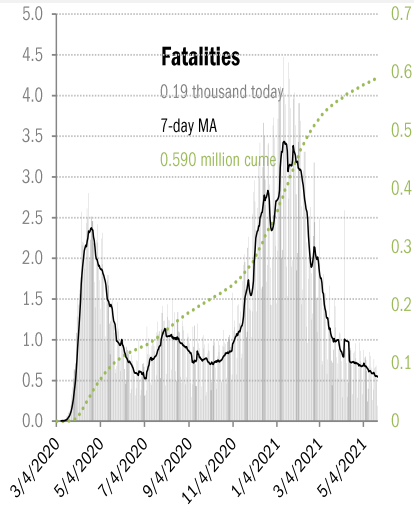
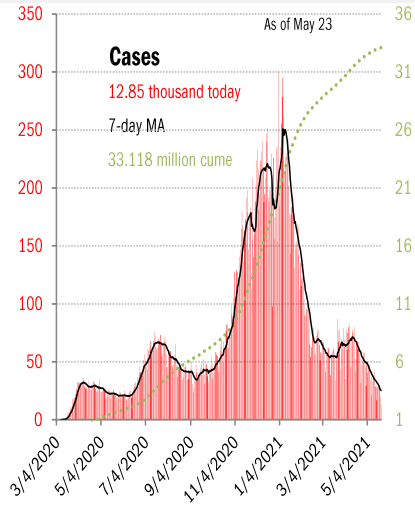
\* Includes persons >18 fully immunized or previously tested positive, no overlap. Disregards untested positives, natural immunities.

\*\* 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

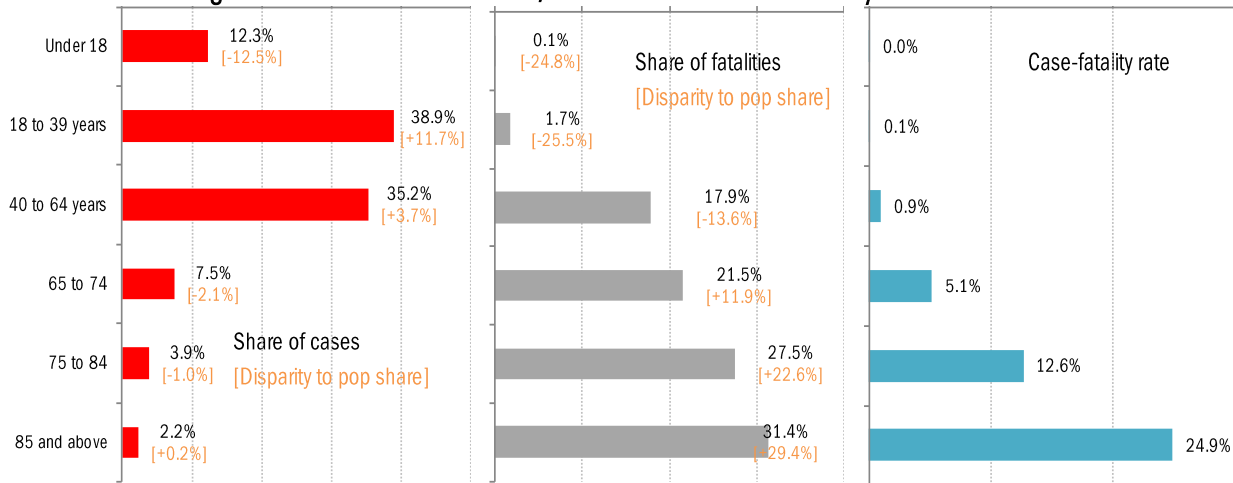
# US deep-dive

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

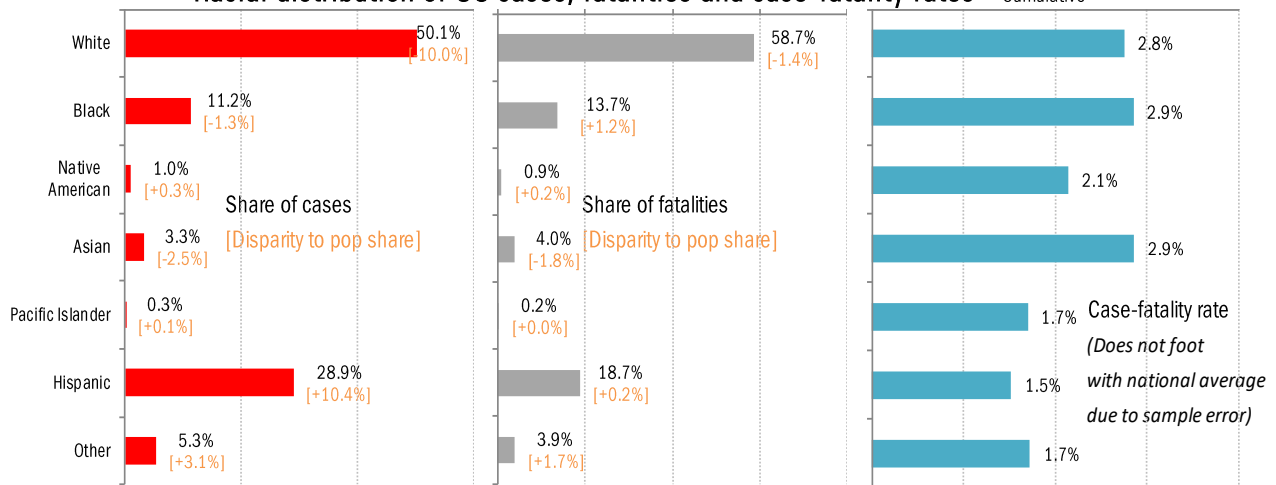


Source: [Johns Hopkins](#), [Covid Act Now](#), TrendMacro calculations

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

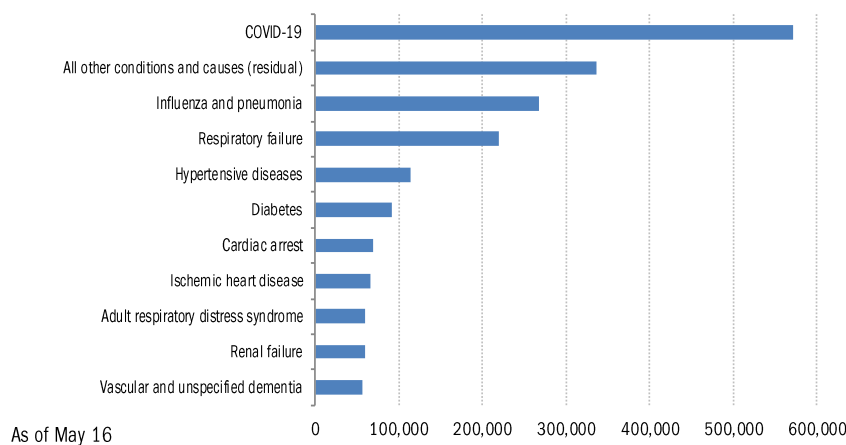


Racial distribution of US cases, fatalities and case-fatality rates



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

[Intelligence on Sick Staff at Wuhan Lab Fuels Debate on Covid-19 Origin](#)

Michael R. Gordon, Warren P. Strobel and Drew Hinshaw  
*Wall Street Journal*  
March 23, 2021

[Fauci 'not convinced' COVID-19 developed naturally](#)

Morgan Phillips  
*Fox News*  
May 23, 2021

[Rand Paul Declares He Has 'Natural Immunity' And Won't Get Covid-19 Vaccine](#)

Jemima McEvoy  
*Forbes*  
May 23, 2021

[Britons Shun Boris Johnson's Call to Take 2 Covid Tests Per Week](#)

Emily Ashton  
*Bloomberg*  
May 23, 2021

[U.K. Denies Claims by Cummings It Pursued Covid Herd Immunity](#)

David Goodman  
*Bloomberg*  
May 23, 2021

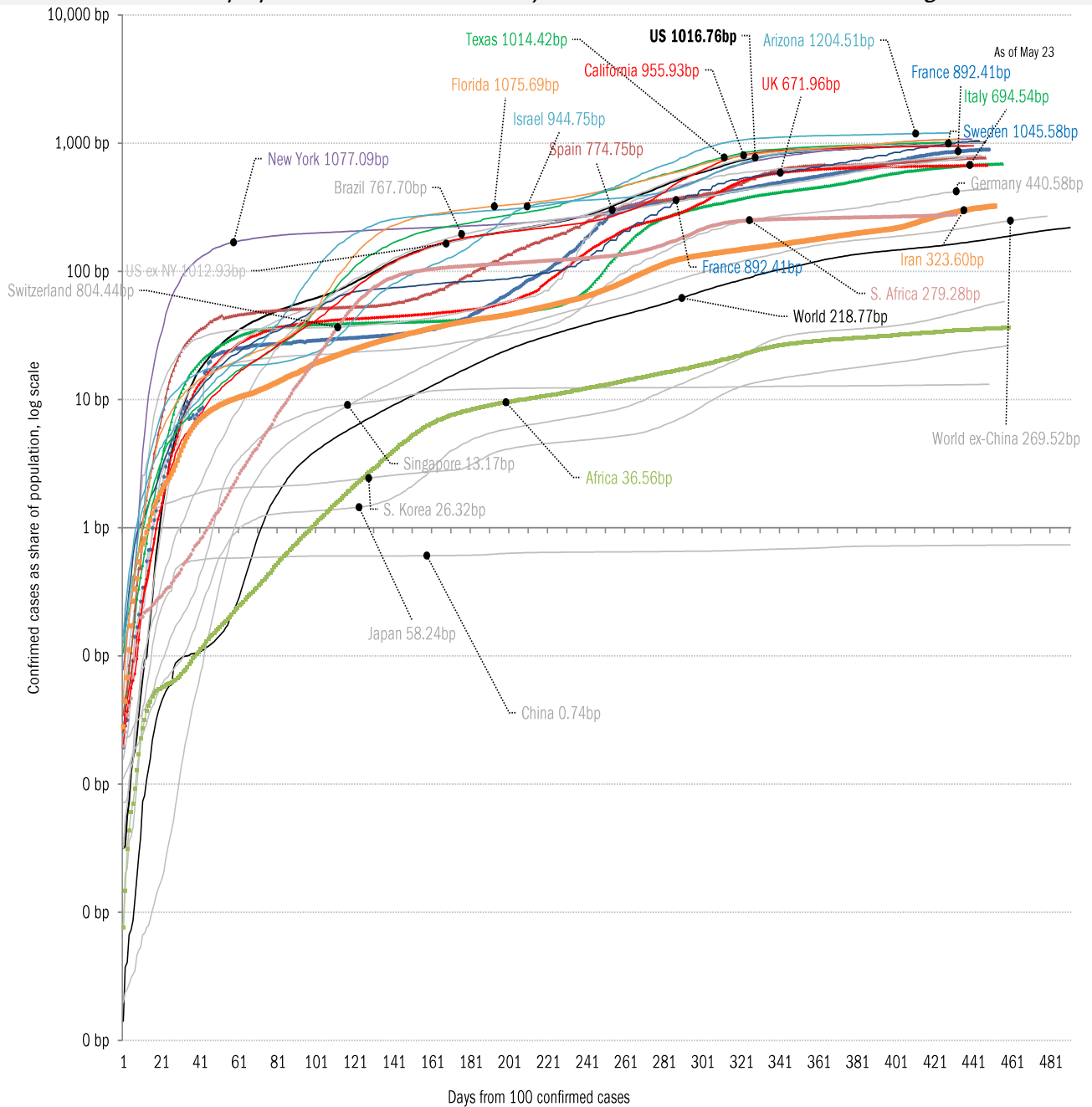
## Meme of the day

The shortage of workers is hitting everywhere



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*

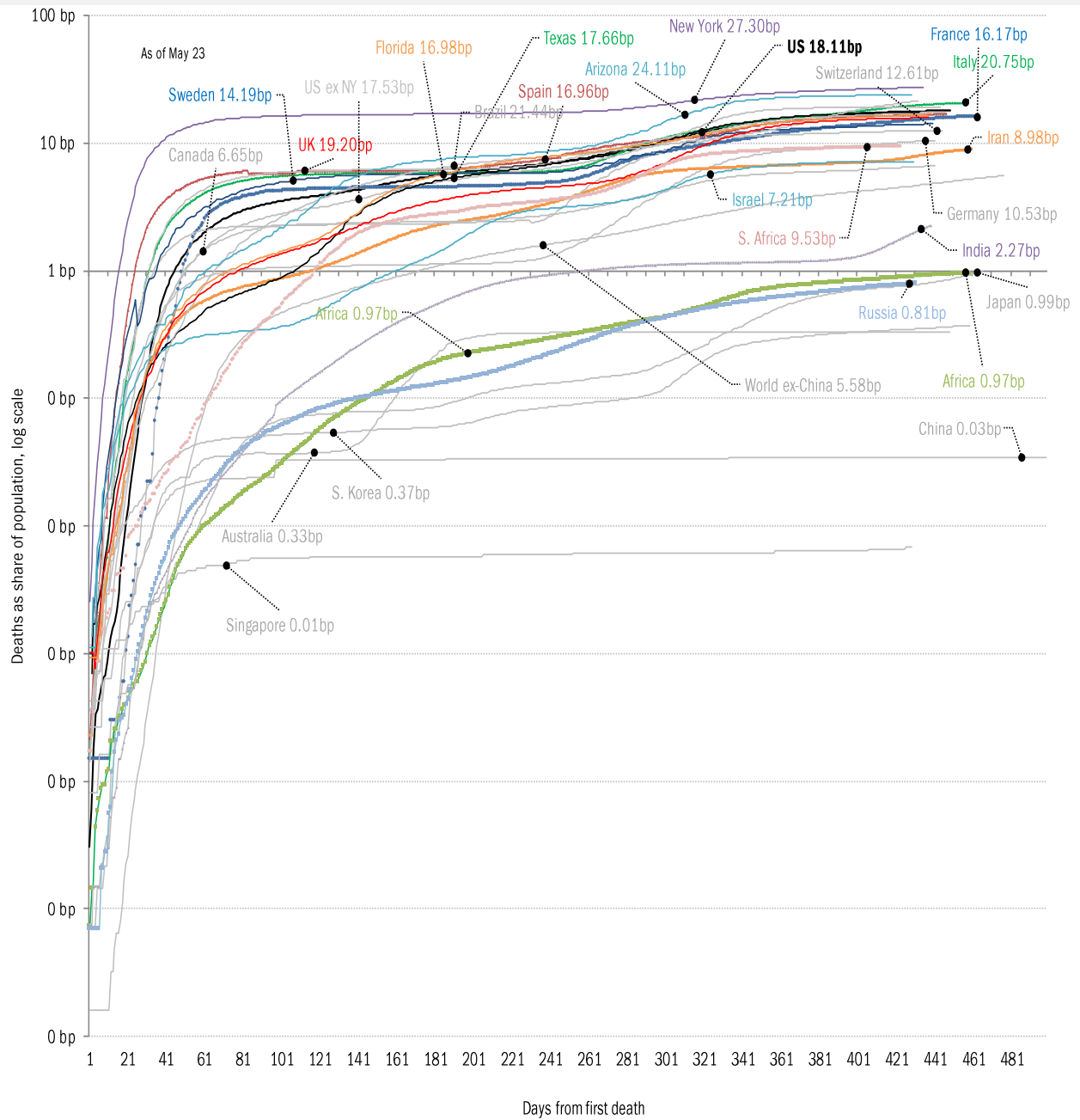


Source: [Johns Hopkins](#), TrendMacro calculations



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

## Share of deceased population from day of first fatality



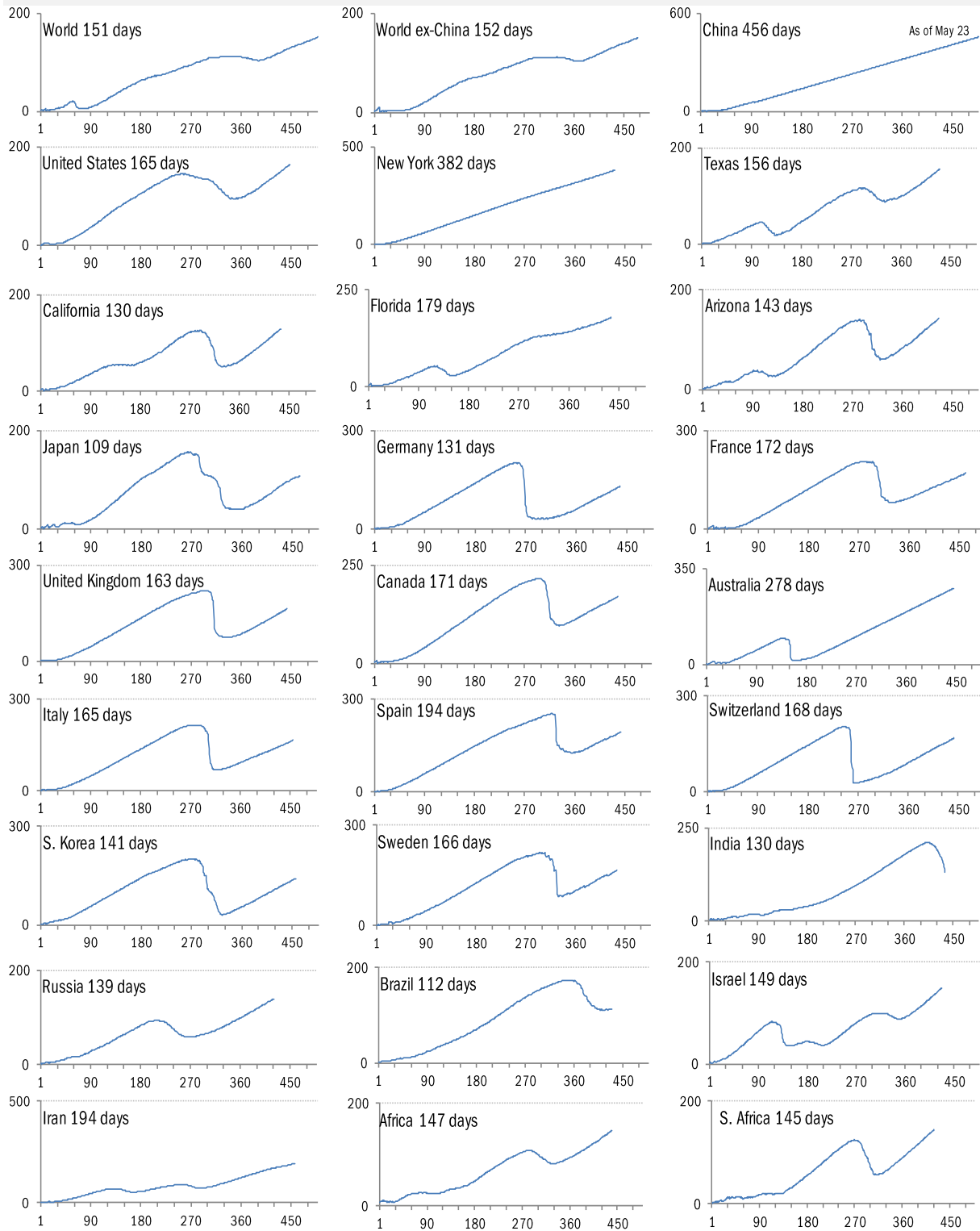
Source: [Johns Hopkins](#), TrendMacro calculations



# "Exponential"? Our most reliable evidence of the rate of spread of Covid-2019

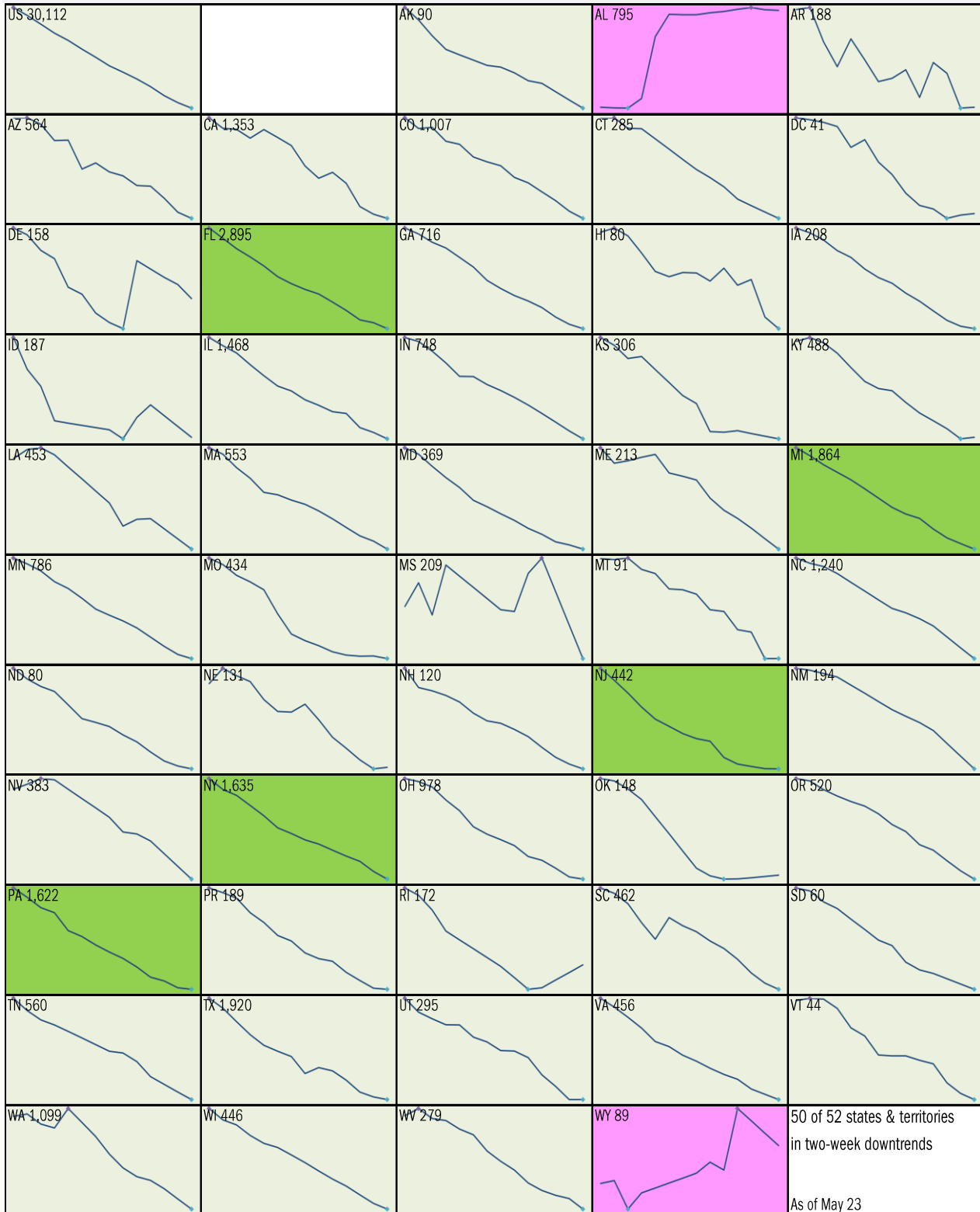
Vertical: days to double deaths Horizontal: days from first death

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

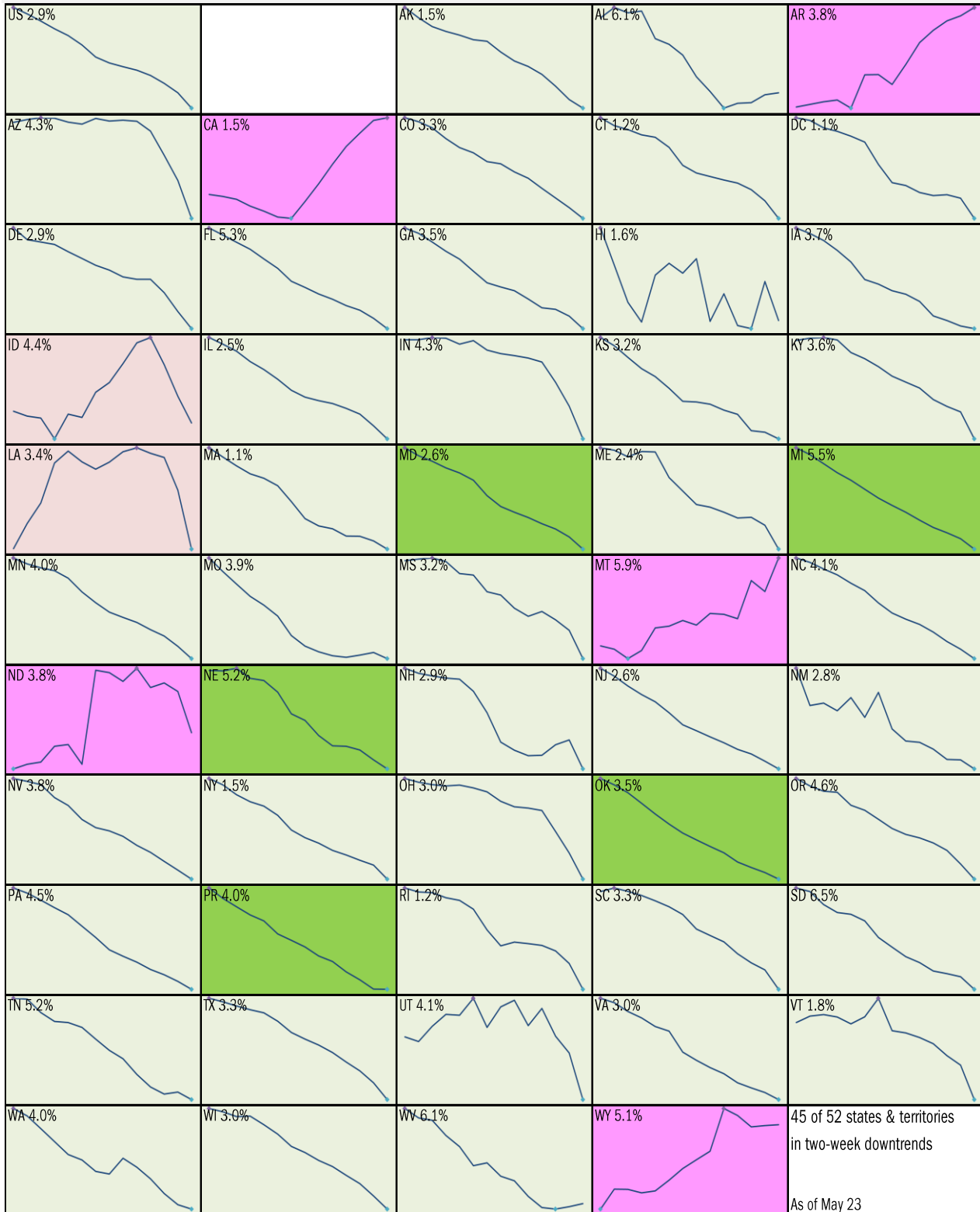


Source: [Johns Hopkins](#), TrendMacro calculations

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

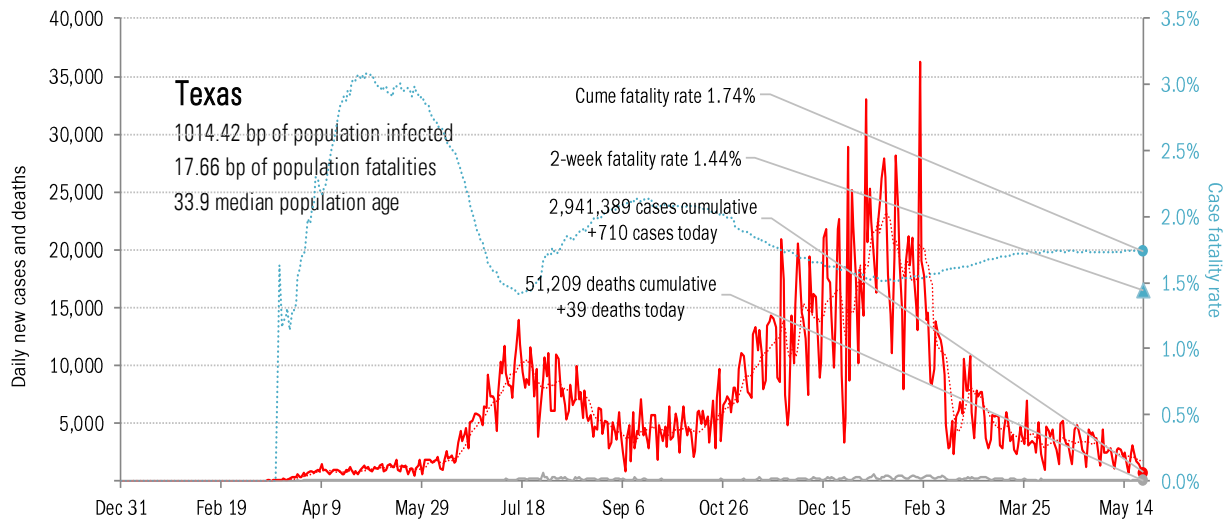
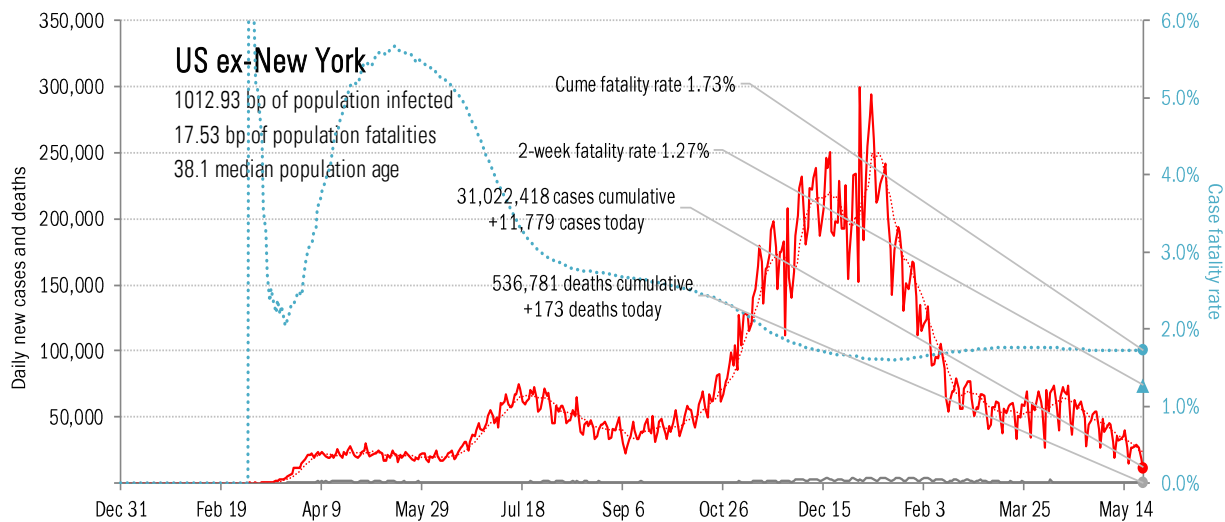
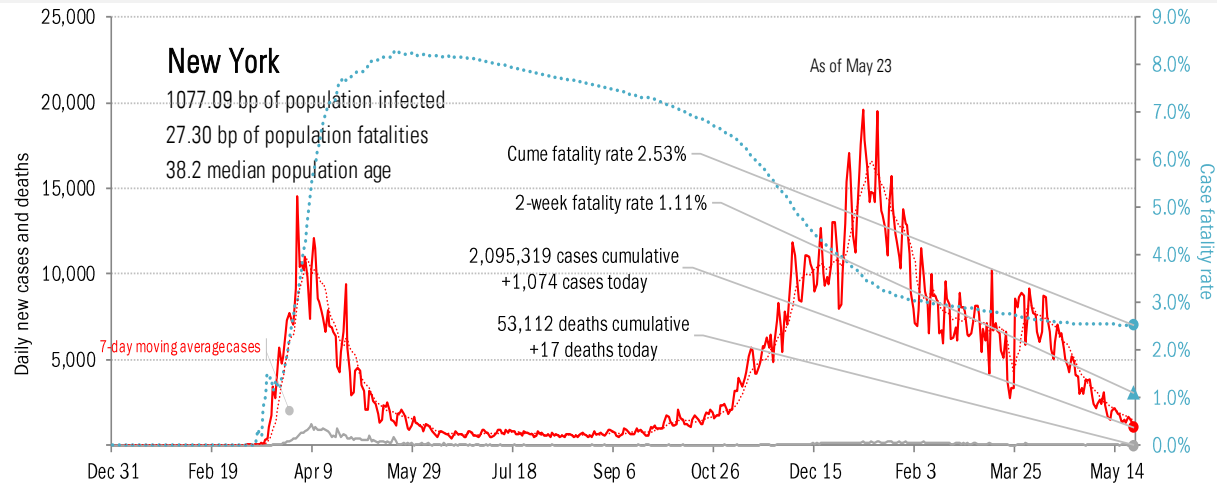
14-day moving average, last 14 days Most recent value displayed ● High ● Low

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



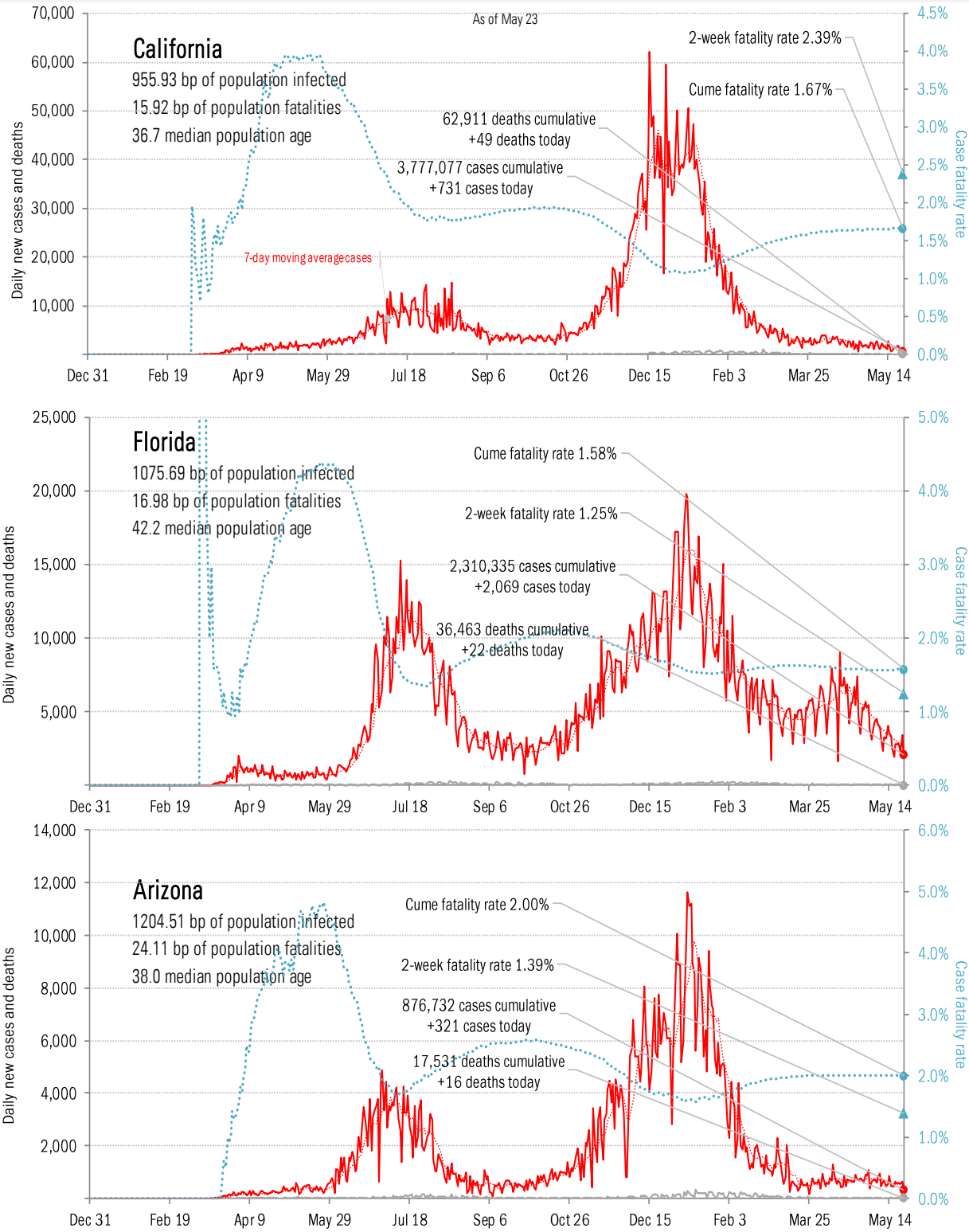
Source: [Covid Act Now](#), TrendMacro calculations

# From Ground Zero to the Rio Grande



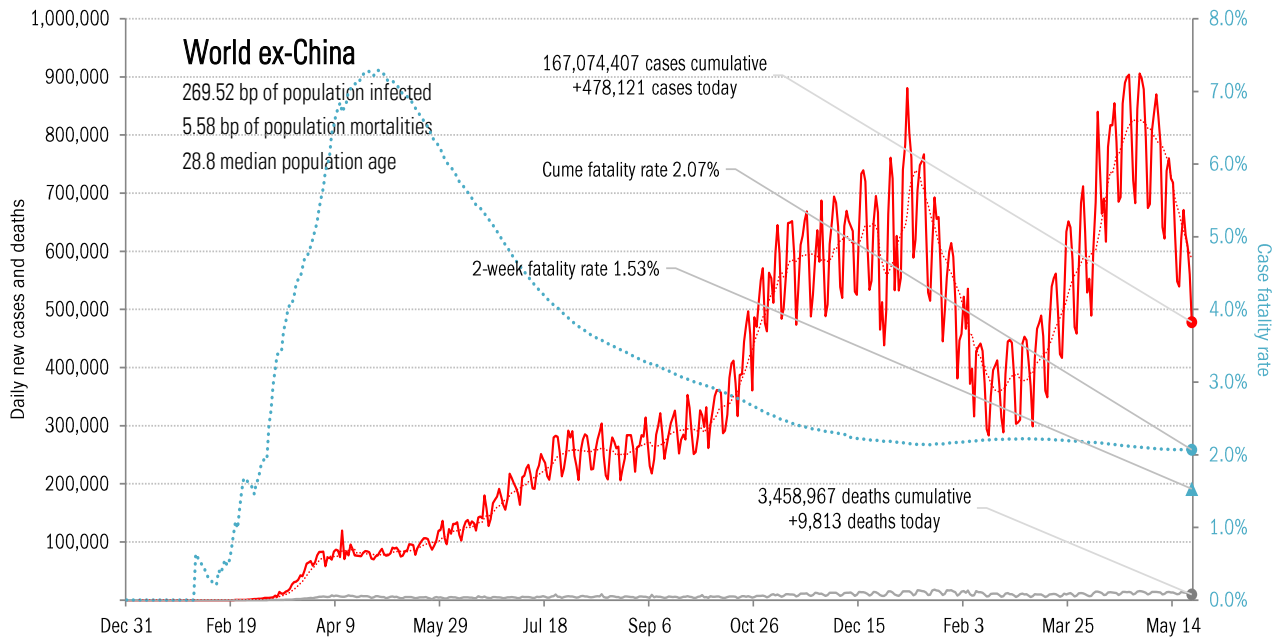
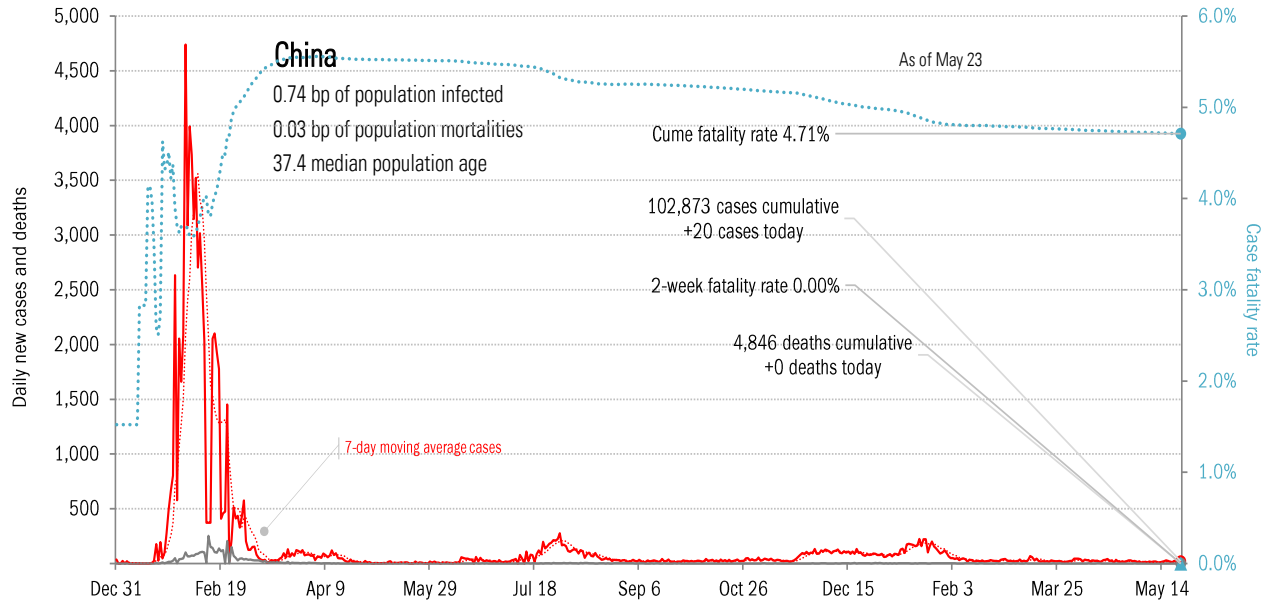
Source: [Johns Hopkins](#), TrendMacro calculations

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



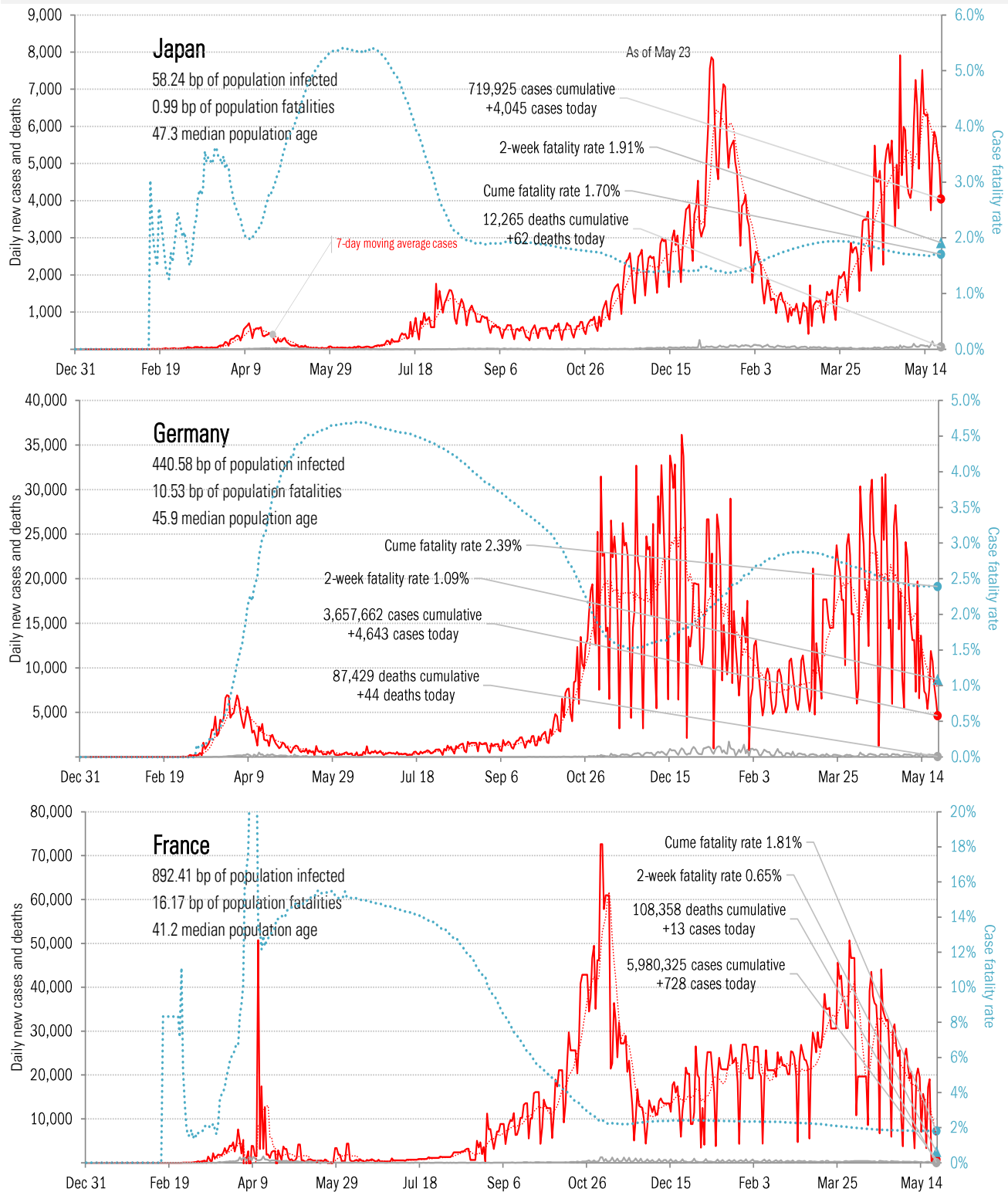
Source: [Johns Hopkins](#), TrendMacro calculations

# Patient zero... and then everyone else



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

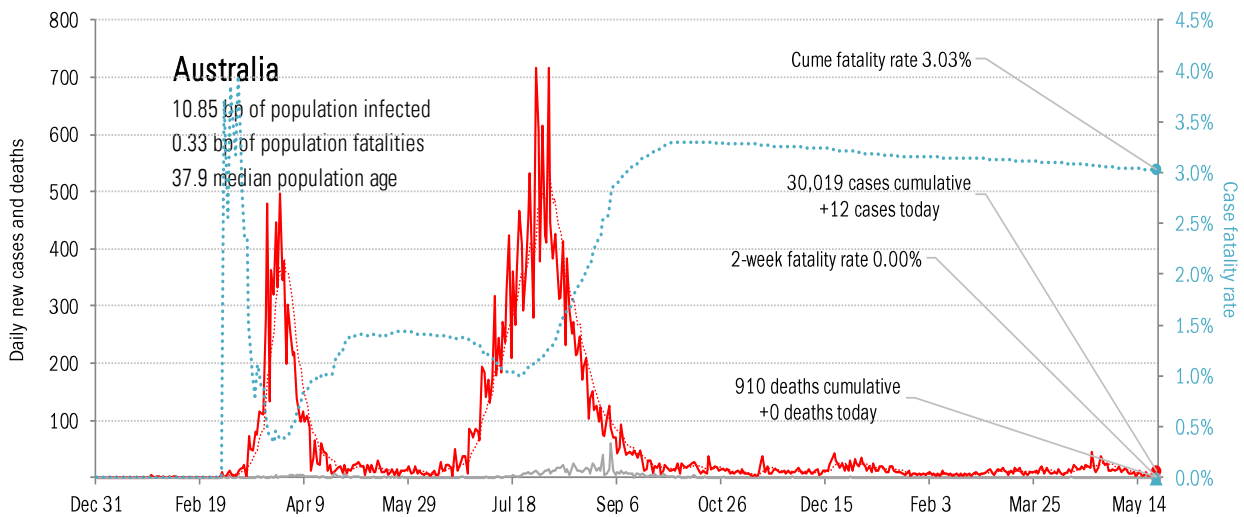
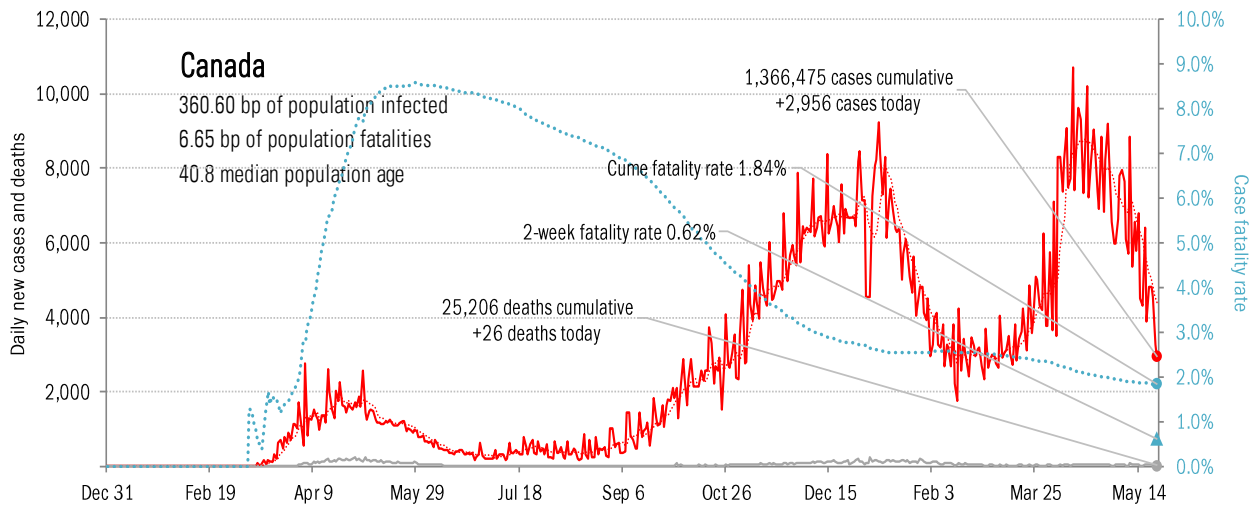
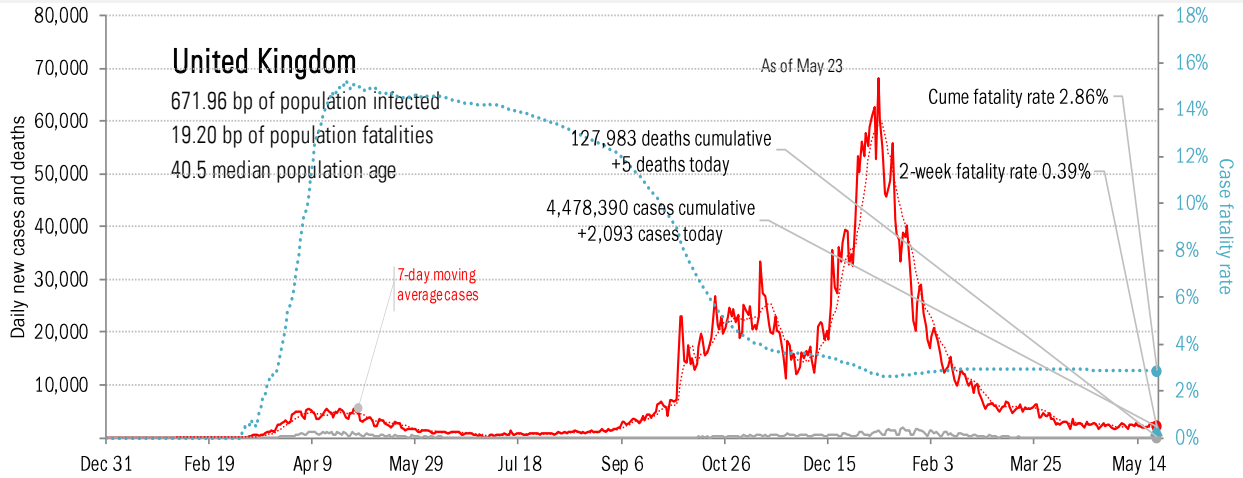
# Impact in the largest economies



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

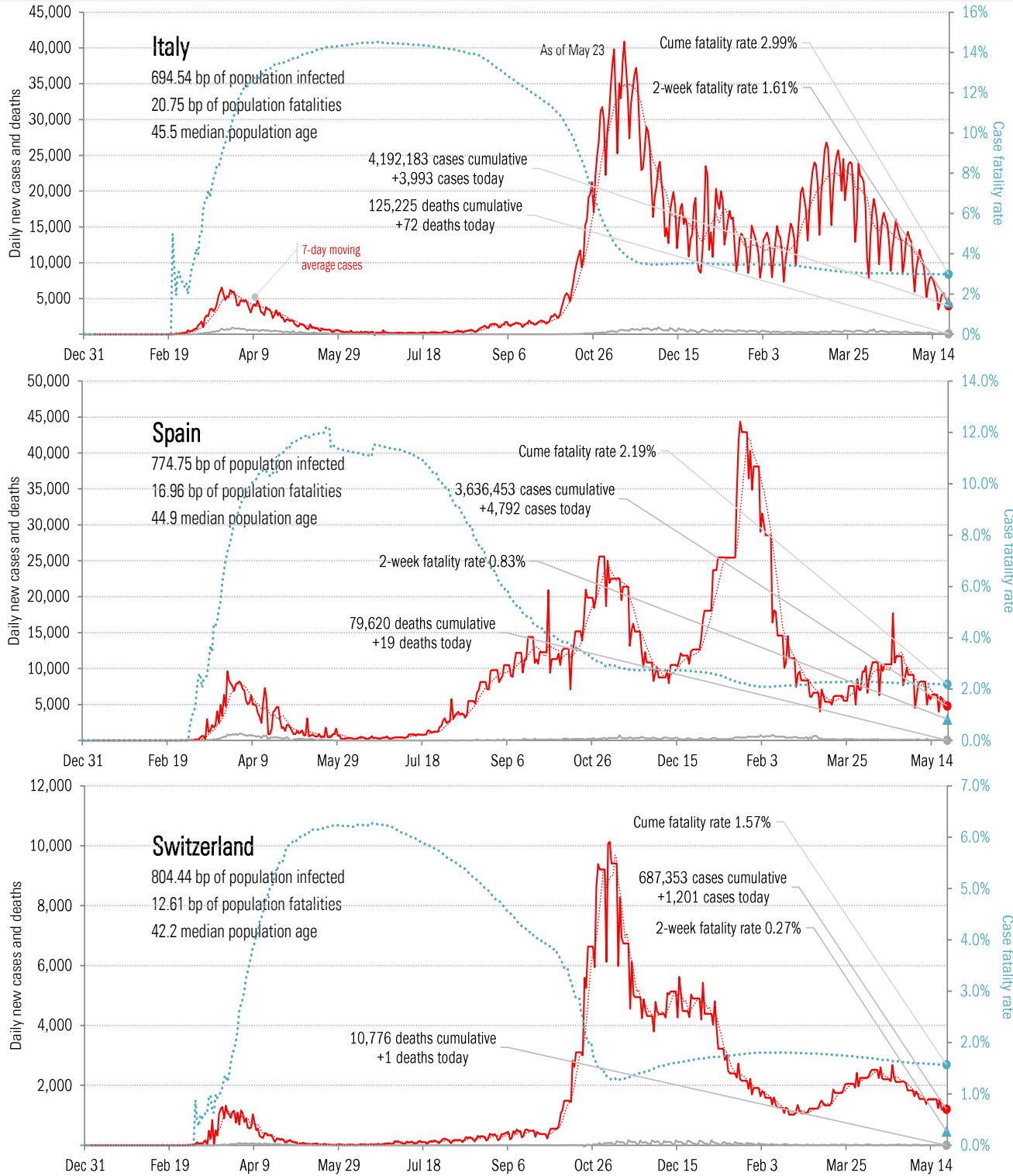


# Impact in The Anglosphere



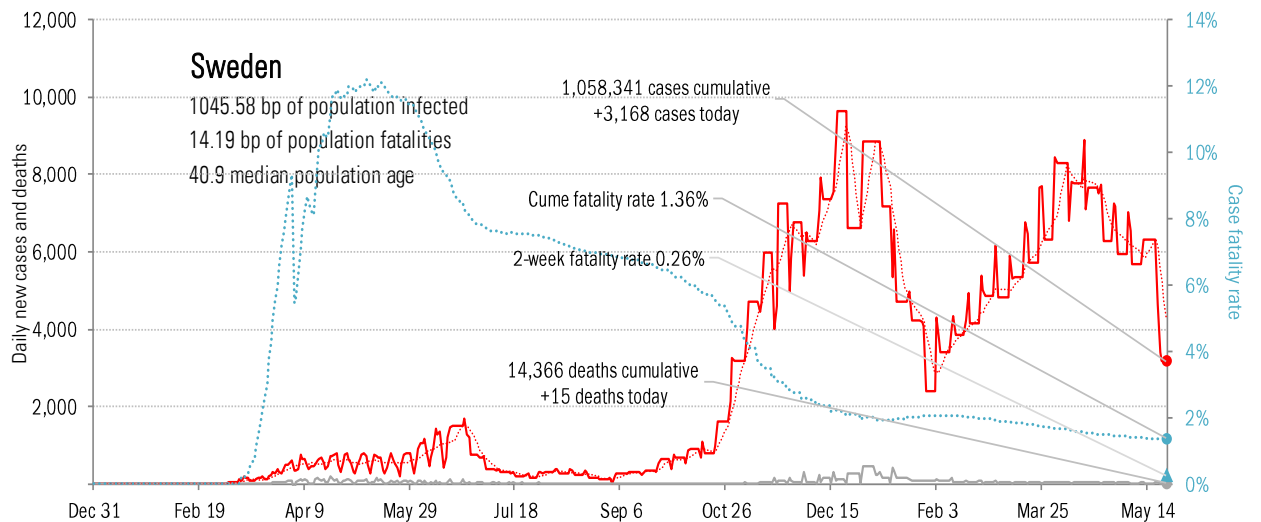
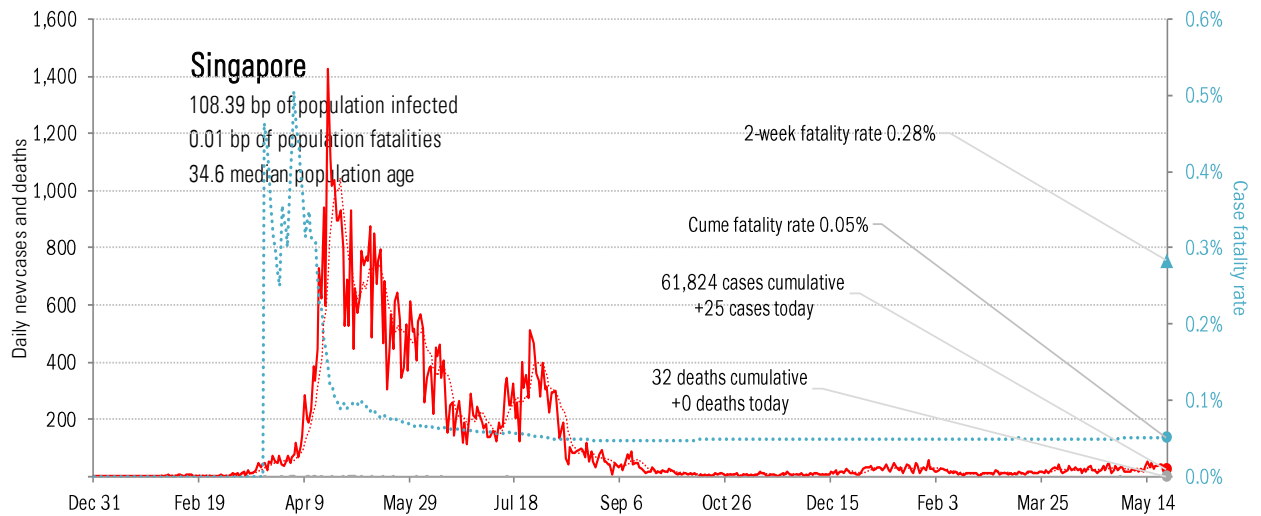
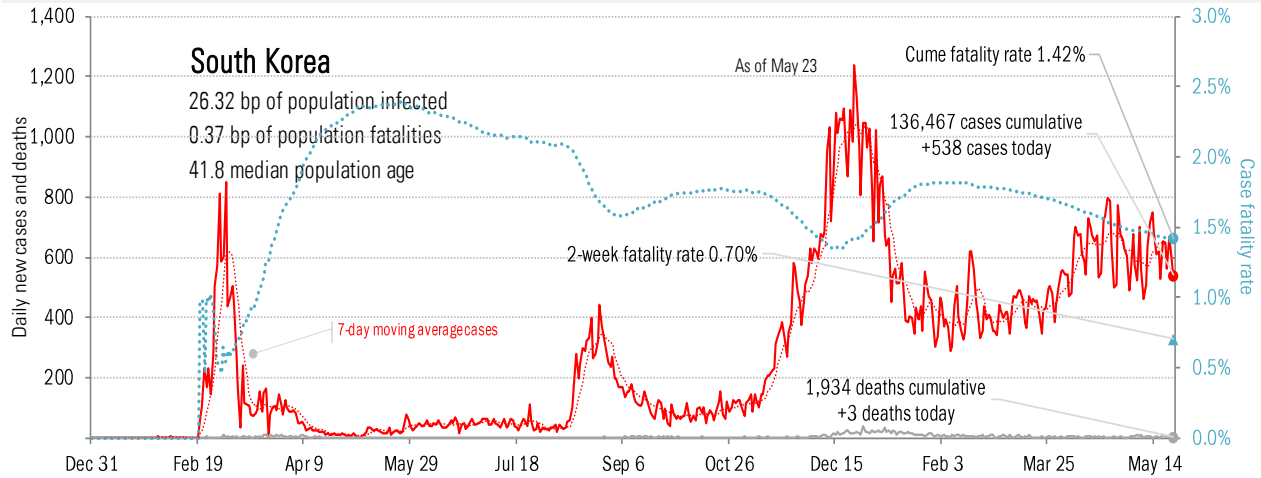
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in continental Europe



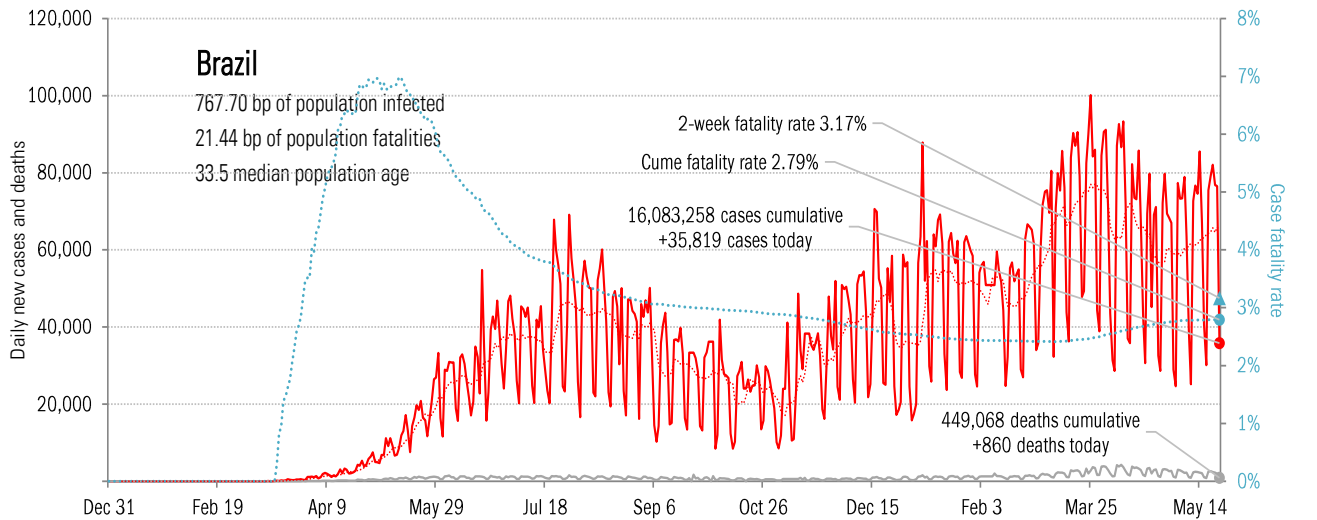
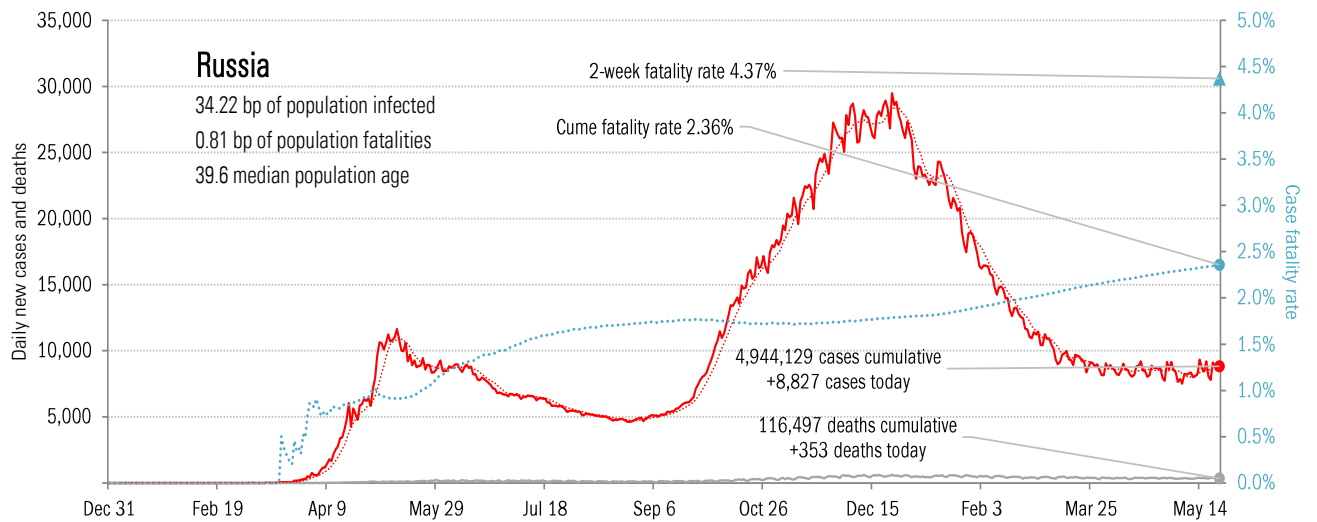
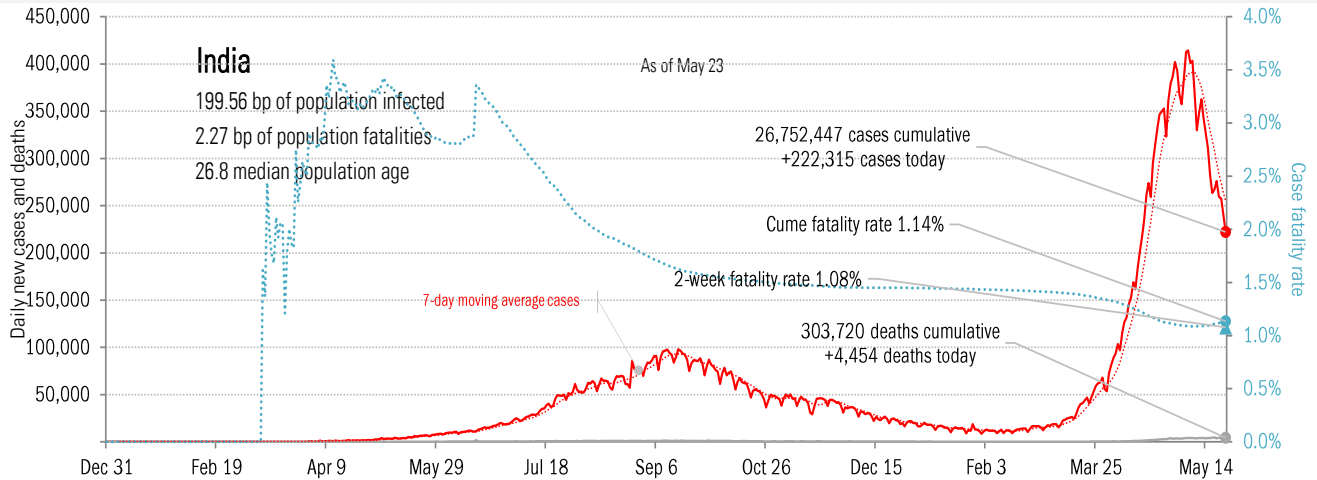
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in other hot-spots



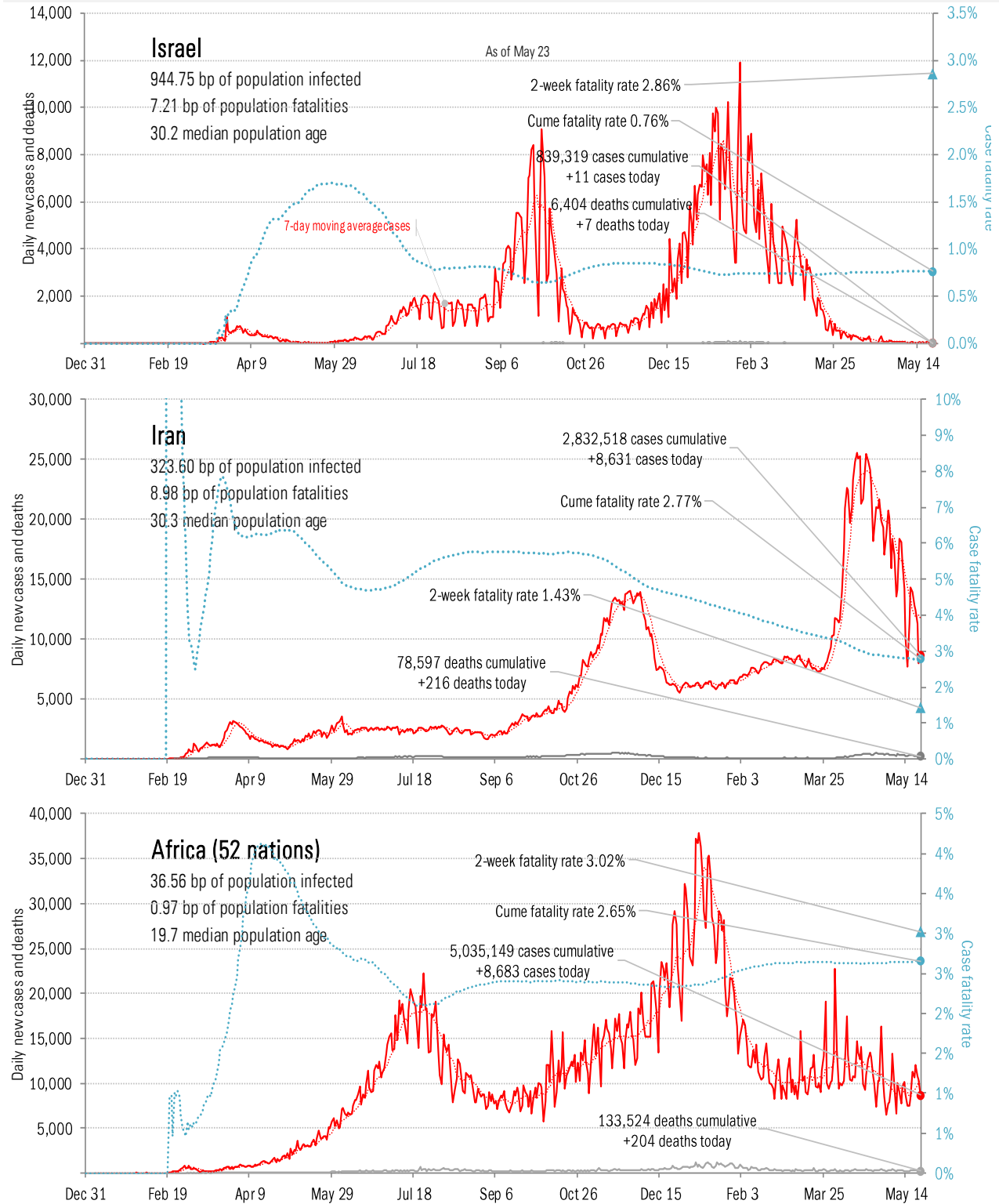
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in the BRICs ex-China



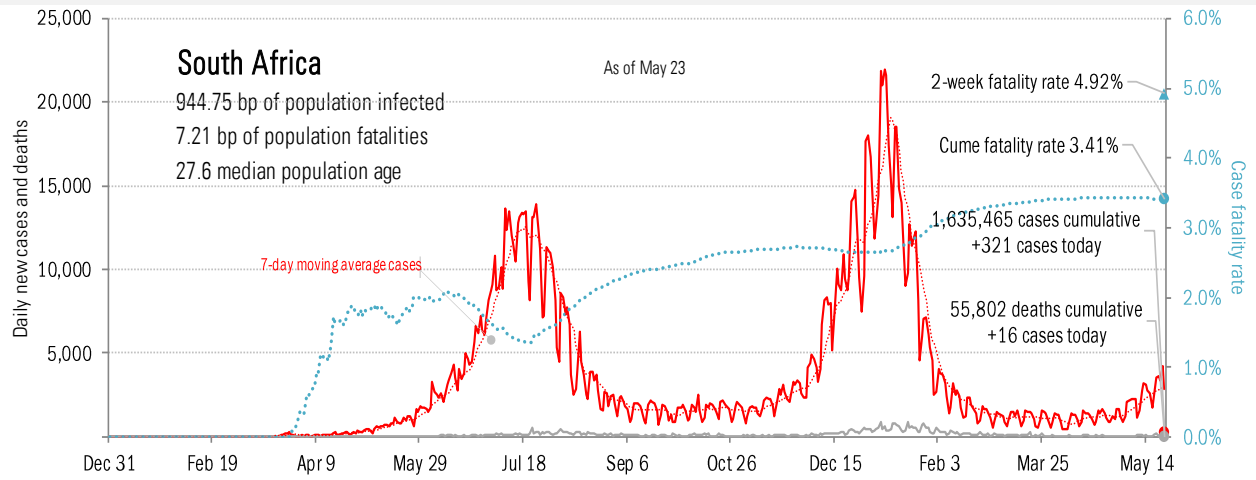
Source: [Johns Hopkins](#), TrendMacro calculations

# Impact in the Middle East and Africa



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

## Impact in Africa, continued



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