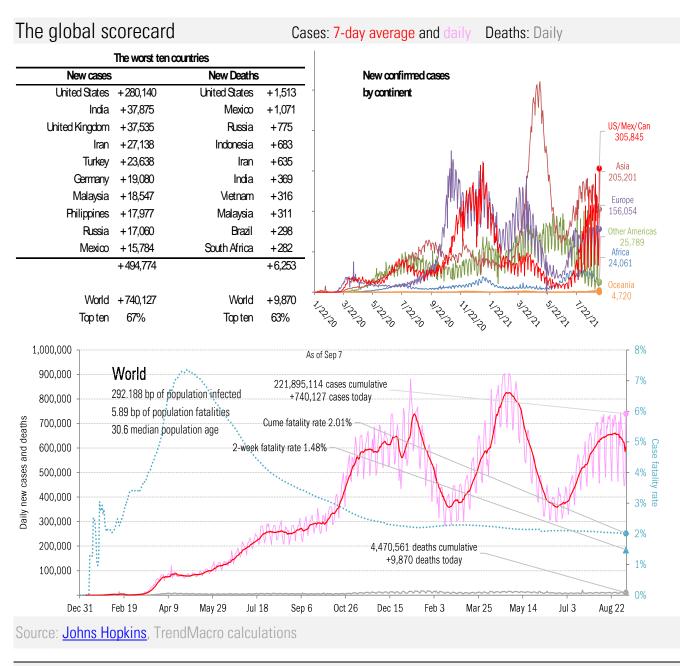


Trend Macrolytics, LLC Donald Luskin, Chief Investment Officer Thomas Demas, Managing Director Michael Warren, Energy Strategist

Data Insights: Covid-2019 Monitor

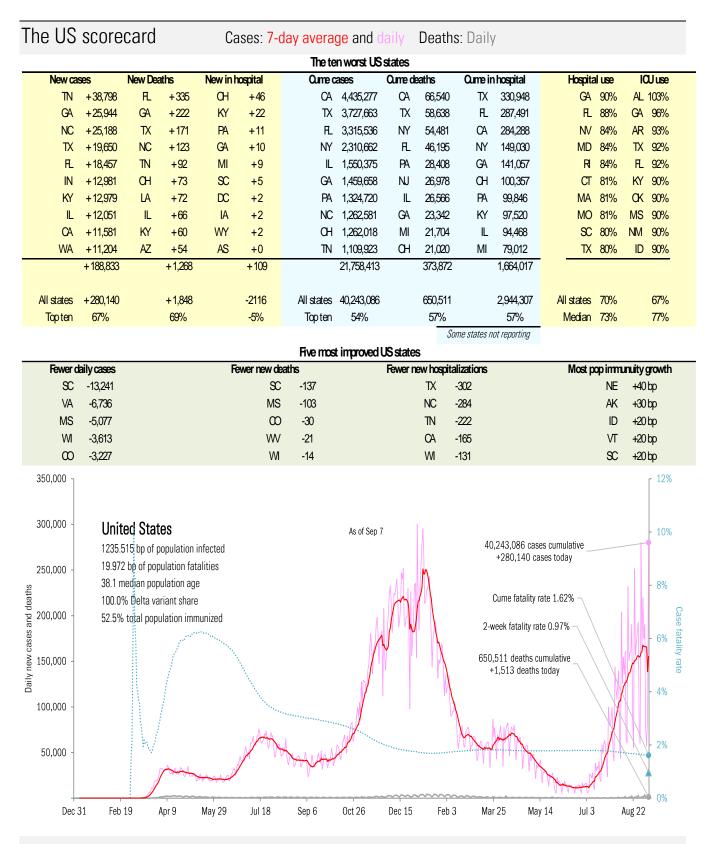
Wednesday, September 8, 2021



For more information contact us: Donald Luskin: 312 273 6766 don@trendmacro.com

Thomas Demas: 704 552 3625 tdemas@trendmacro.com

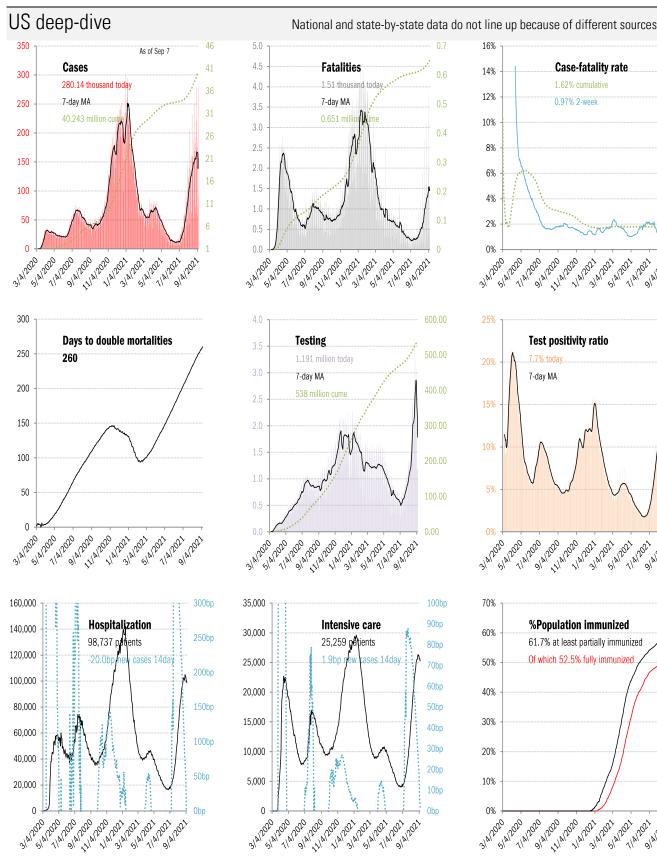
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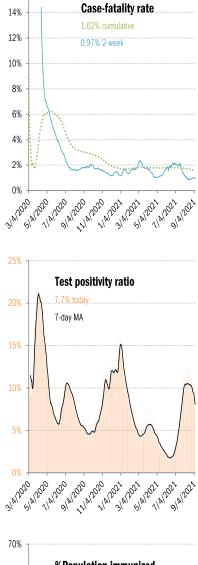


Source: Johns Hopkins, Dept. of Health and Human Services, CDC, TrendMacro calculations

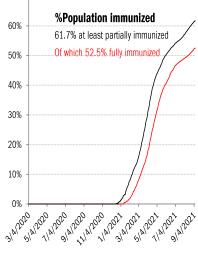
Rolling out the vaccines in the US and the world											
Administered	Cumulative						To	day	Immunity	Full	Partial
Doses	386,528,002		% Pop					million	US	52.5%	61.7%
		One dose			nune	% рор	New immune today		UK	63.8%	70.8%
Total population	212,596,630		64%	1	81,139,522	54%	+0.698 million		France	61.7%	72.6%
Age 12 to 17	12,868,367		54%		9,957,890	42%		million	Spain	73.6%	78.9%
Age 18 to 64		46,487,242	72% 95%		23,877,038	61%		million	Germany	61.1%	65.4%
Age 65 and over		52,208,501			46,462,586	85%		million	ltaly	62.6%	71.9%
	4%				Every Am				Australia	31.0%	51.4%
						days			Israel	62.7%	68.4%
Moderna	State								Canada	67.7% 49.2%	74.0% 61.2%
39% Pfizer	er At least partial immunity				by Nov 12	2, 2021 population >18 immunized			Japan Africa	49.2% 3.2%	5.5%
57%			Middle		13.7% previously tested				India	11.8%	38.5%
	Full immunity			10.7 % pic			vs 60% adult herd immunity			31.5%	65.1%
	as % population		Worst			10 00 /0 40			Brazil China	61.6%	74.3%
AK				As of Sep 7					Global data differ		
55.1%				WI				ſ	ME	1	
48.0%					59.4%					72.0%	
					54.6%					66.2%	
WA	ID	MT	ND	MN	IL	MI	1	NY	VT	NH	1
68.5%	44.9%	52.7%	49.0%	62.3%	66.7%	55.6%		68.4%	76.5%	67.8%	
60.6%	39.7%	46.4%	42.2%	56.6%	51.8%	50.9%		61.0%	68.3%	60.2%	
OR	NV	WY	SD	IA	IN	OH	PA	NJ	MA		_
64.8%	58.7%	46.0%	56.9%	56.6%	50.7%	53.0%	70.2%	70.7%	75.9%		
58.7%	48.6%	39.3%	49.7%	52.1%	46.7%	48.9%	55.8%	62.2%	66.5%		
CA	UT	CO	NE	MO	KY	WV	VA	MD	СТ	RI	
69.6%	56.9%	63.9%	58.0%	53.2%	58.1%	47.3%	66.0%	68.8%	74.3%	72.5%	
56.6%	48.2%	57.5% NM	52.8% KS	45.8% AR	49.4% TN	39.8% NC	58.0% SC	62.1% DC	66.6% DE	65.5%	J
	AZ 57.6%	70.7%	58.0%	54.0%	50.2%	56.7%	52.7%	68.4%	64.6%		
	49.3%	60.8%	48.9%	42.9%	42.4%	47.1%	44.3%	58.1%	55.9%		
	43.3 /0	00.0 /0	0K	42.370 LA	42.4 /0 MS	47.170 AL	GA	JU.1 /0	JJ.J /0		
			54.2%	50.2%	47.7%	50.7%	52.0%				
HI			44.7%	42.6%	39.6%	39.4%	42.1%				
74.9%			TX					FL	l í	PR	1
55.8%			57.9%					64.5%		75.7%	
			48.4%					53.8%		64.4%	
		-		-					-		-
The demographics of	US vaccinat	tion									
60% TE 0% af fa				70%			90% T	0.00/ 5	-10 : '	1	
51.00/ (55.2% of females immunized			54.2% of whites immunized 60%			80% -		<12 immunize	u	
50% - 51.2% of m	50%51.2%.01.Inales			60% 42.5% of African Americans 51.0% of Hispanics			70% -	38.6% 12-15			
40%			50% 60.1% of Asians					48.7% 18-2			
40%							60%	52.9% 25-39			
30%			40%				50% -	62.1% 40-4			
			30%				40% -	70.9% 50-6			
20%								84.1% 65	4		
				20%				0% 84.1% 65-14 0% 79.5% 75+			
10%			10%		///////////////////////////////////////		10%				
									\mathcal{I}		
							+				
212722222222222222222222222222222222222			213222 2021 2021 2021 2021 2021 2021 202				2)13)120 213312 1202 202 202 202 202 202 202 202 202				
212 12 212 312 412 5	1	2/2 1/2 2/2 3/2 A/2 6/2 6/2 1/2 8/2				212 212 312 812 312 612 112 812					

Source: <u>CDC</u>, <u>CDC</u>, <u>Our World in Data</u>, TrendMacro calculations

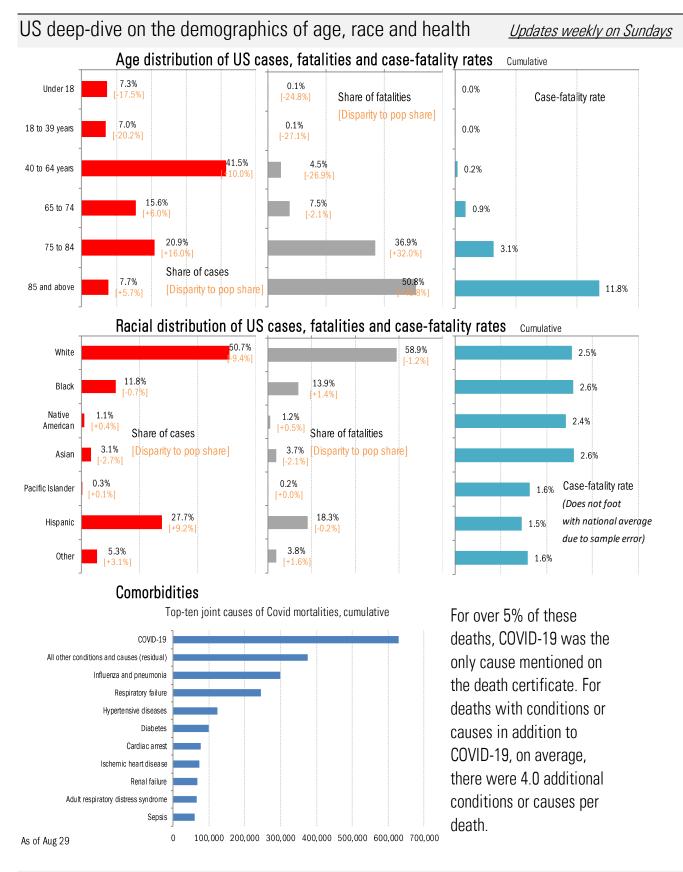




16%



Source: Johns Hopkins, Covid Act Now, TrendMacro calculations



Source: Distributions <u>CDC</u>, Comorbidities <u>CDC</u>, TrendMacro calculations

Recommended reading

U.S. Reaches 75% of Adults With at Least One Vaccine

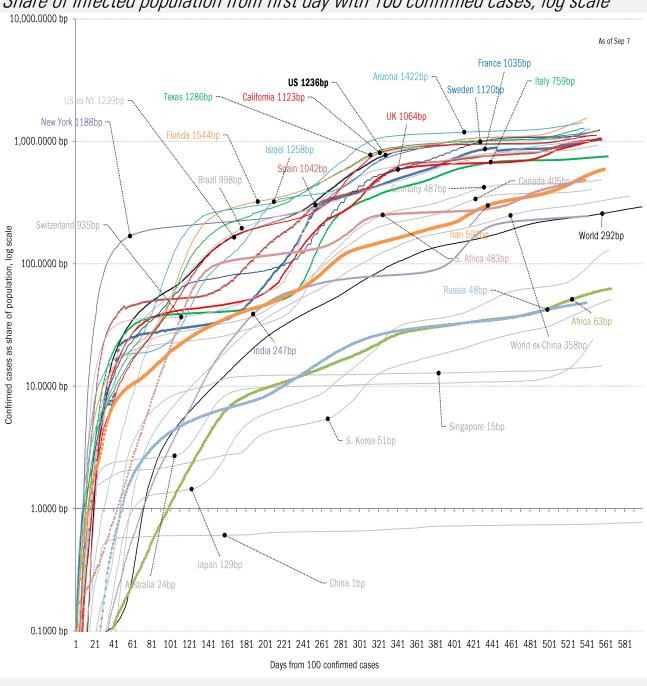
<u>Dose</u>

Josh Wingrove *Bloomberg* September 7, 2021

Meme of the day

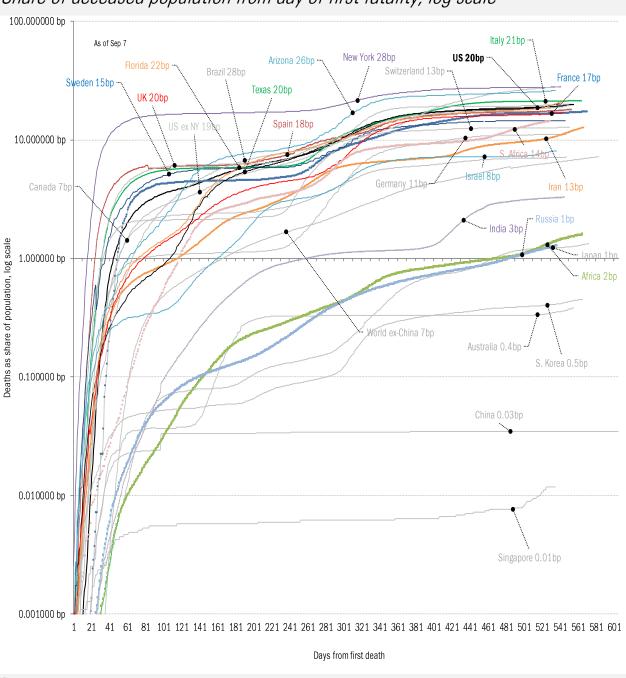


Source: Our beloved clients, Power Line blog "The Week in Pictures" and CTUP



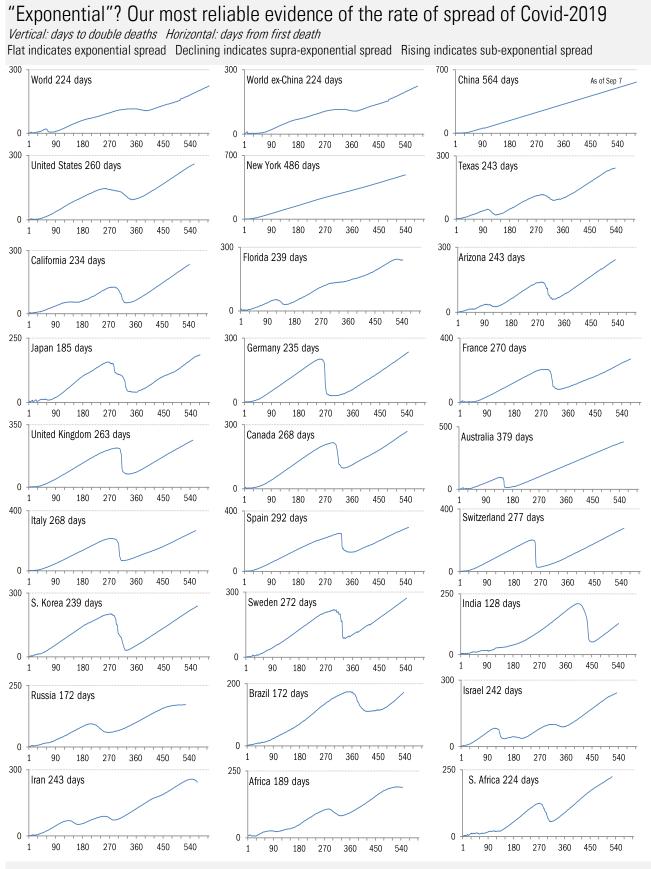
The coronavirus <u>case</u> accelerometer... tracking the world's infection curves *Share of infected population from first day with 100 confirmed cases, log scale*





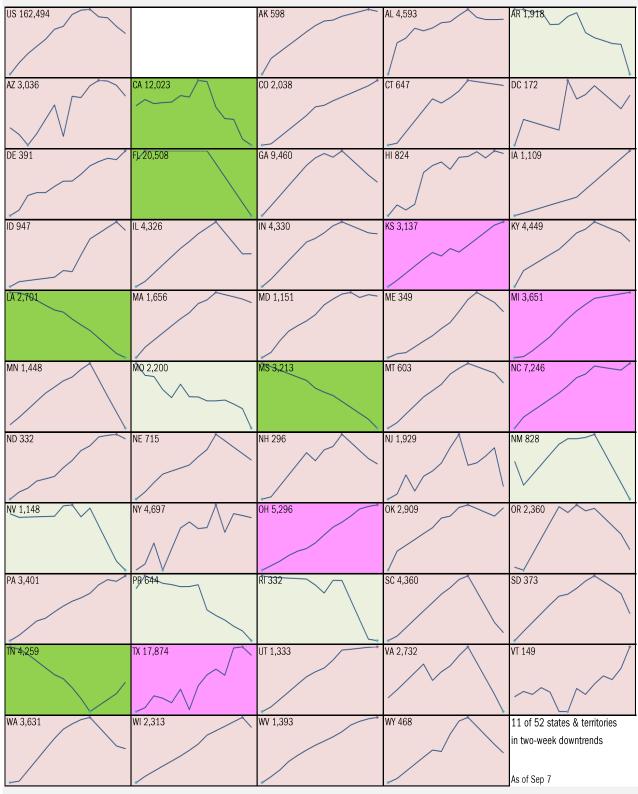
The coronavirus <u>mortality</u> accelerometer ... tracking the world's fatality curves *Share of deceased population from day of first fatality, log scale*

Source: Johns Hopkins, TrendMacro calculations



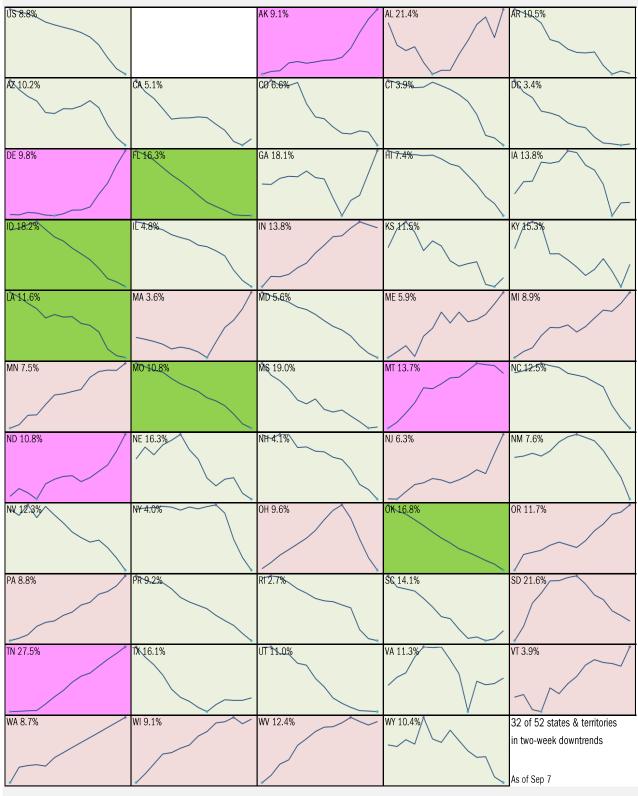
Source: Johns Hopkins, TrendMacro calculations

Requirement to <u>Open Up America Again</u>: 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

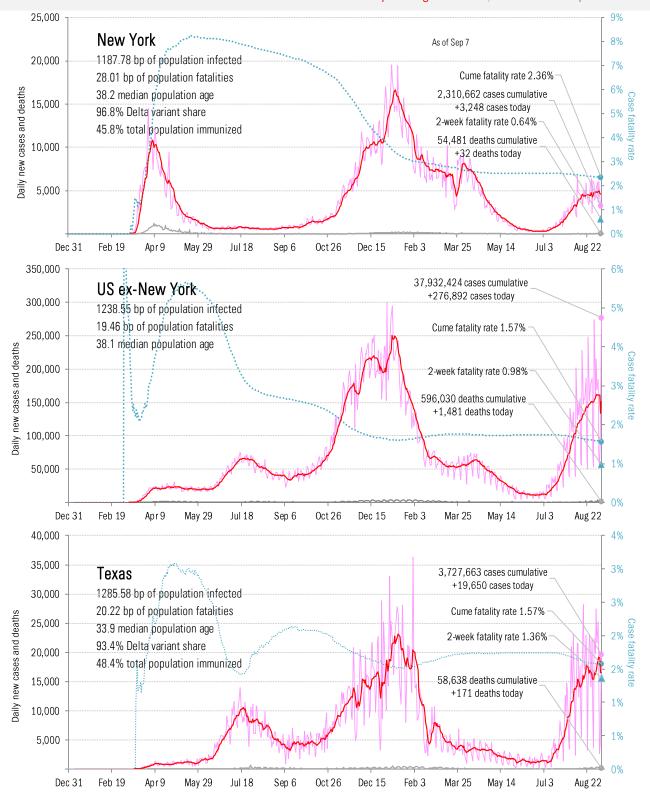
Alt requirement to <u>Open Up America Again</u>: 14-day "downward trajectory" in pos tests *14-day moving average, last 14 days Most recent value displayed* • High • Low Downward trajectory Five best Upward trajectory Five worst



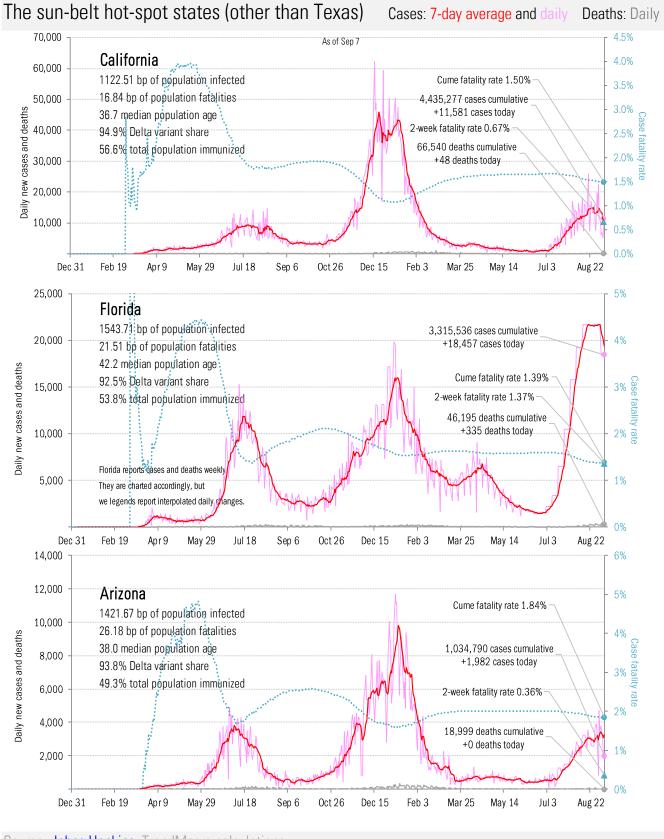
Source: Covid Act Now, TrendMacro calculations

From Ground Zero to the Rio Grande

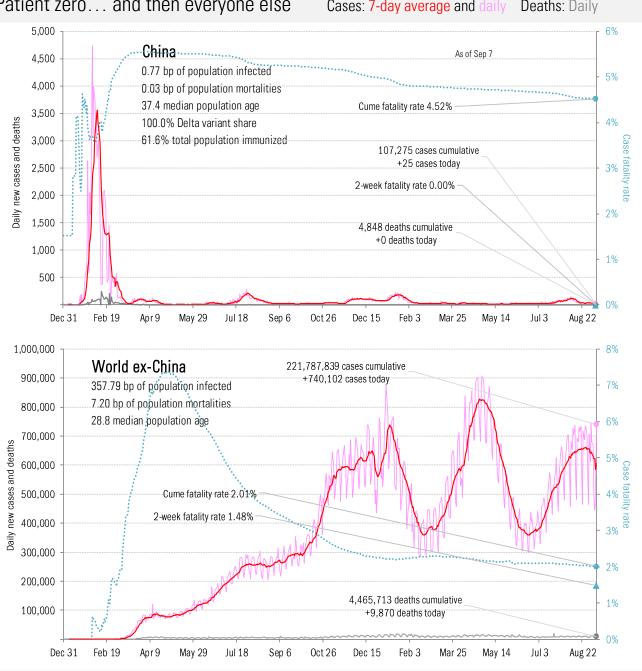
Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, TrendMacro calculations



Source: Johns Hopkins, TrendMacro calculations



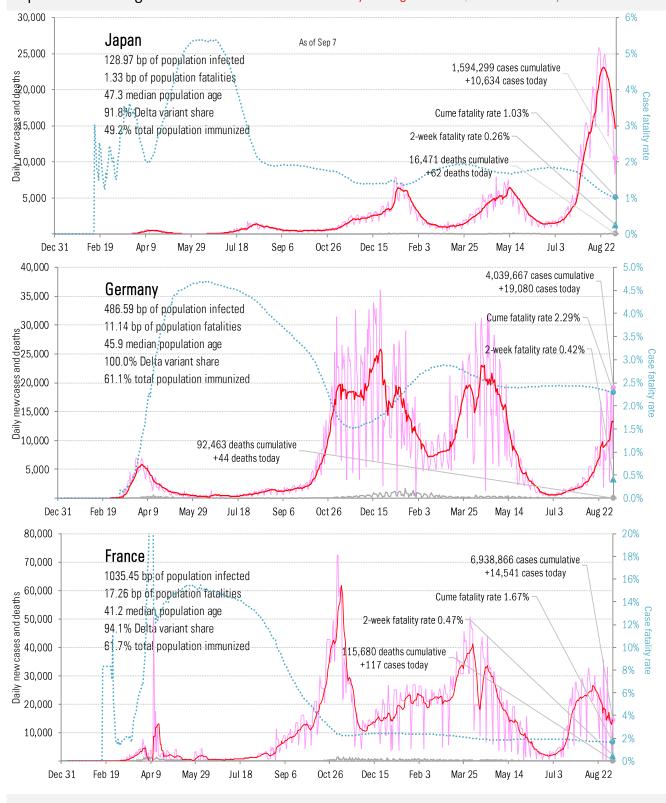
Patient zero... and then everyone else

Cases: 7-day average and daily Deaths: Daily

Source: Johns Hopkins, TrendMacro calculations

Impact in the largest economies Cases: 7

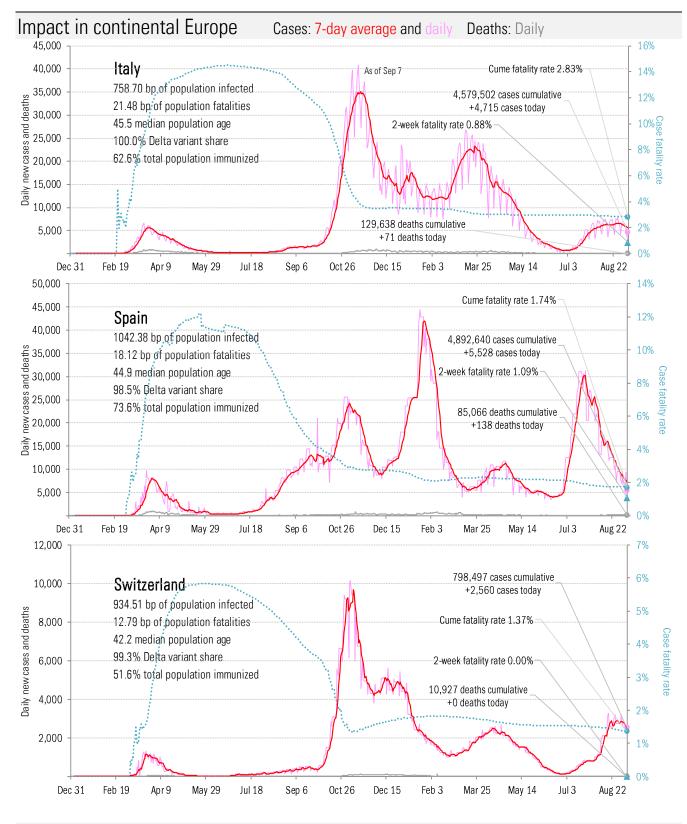
Cases: 7-day average and daily Deaths: Daily



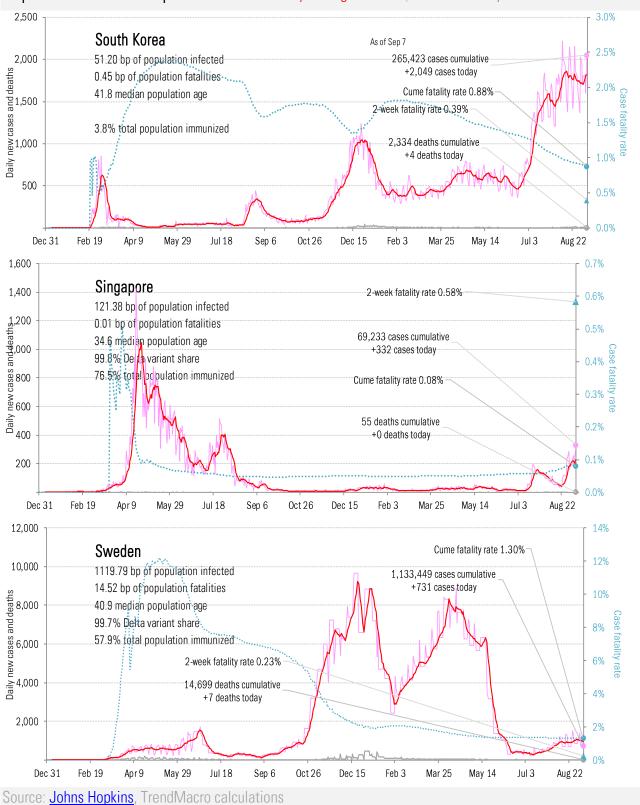
Source: Johns Hopkins, TrendMacro calculations

Impact in The Anglosphere Cases: 7-day average and daily Deaths: Daily 80,000 18% United Kingdom 16% 70,000 As of Sep 7 1063.67 bp of population infected န္<u></u> 60,000 14% 7,089,051 cases cumulative 20.08 bp of population fatalities tases and deat 20,000 20,000 40,000 +37,535 cases today 12% 40.5 median population age 99.8% Delta variant share Cume fatality rate 1.89% 10% 63.8% total population immunized 8% 2-week fatality rate 0.37% ₹ 30,000 6% 20,000 133,808 deaths cumulative 4% +210 deaths today... 10,000 2% 0% Feb 19 Apr 9 Dec 31 May 29 Jul 18 Sep 6 Oct 26 Dec 15 Mar 25 May 14 Jul 3 Aug 22 Feb 3 12,000 9.0% Cume fatality rate 1.77% Canada 8.0% 2-week fatality rate 0.95% 10,000 404.70 bp of population infected 7.0% 7.16 bp of population fatalities Daily new cases and deaths 8,000 1,533,589 cases cumulative 6.0% 40.8 median population age +1,043 cases today 95.2% Delta variant share 5.0% 6,000 67.7% total population immunized 4.0% 4,000 3.0% 2.0% 2,000 27,122 deaths cumulative 1.0% +49 deaths today 0.0% Dec 31 Feb 19 Apr 9 May 29 Jul 18 Sep 6 Oct 26 Dec 15 Feb 3 Mar 25 May 14 Jul 3 Aug 22 2,000 4.5% 1,800 66,317 cases cumulative Australia 4.0% +1,696 cases today 23.97 bp of population infected 1,600 3.5% 0.38 bp of population fatalities Daily new cases and deaths 1,400 3.0% 37.9 median population age Cume fatality rate 1.60% 1,200 99.9% Delta variant share 2.5% 1,000 31.0% total population immunized 2-week fatality rate 0.82% 2.0% 800 1.5% 600 1,063 deaths cumulative 1.0% 400 +11 deaths today 0.5% 200 0.0% Dec 31 Feb 19 Apr 9 May 29 Jul 18 Sep 6 0ct 26 Dec 15 Feb 3 Mar 25 May 14 Jul 3 Aug 22



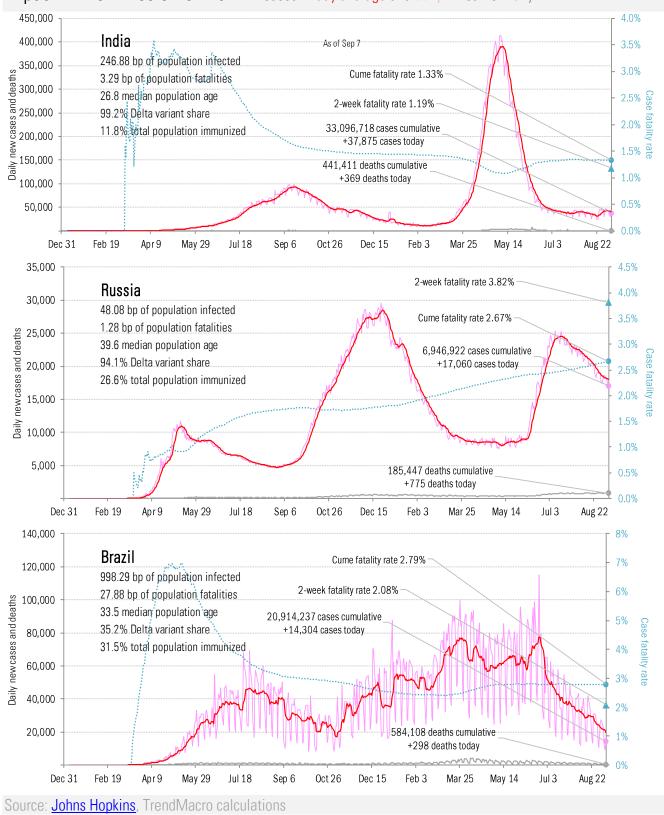


Source: Johns Hopkins, TrendMacro calculations



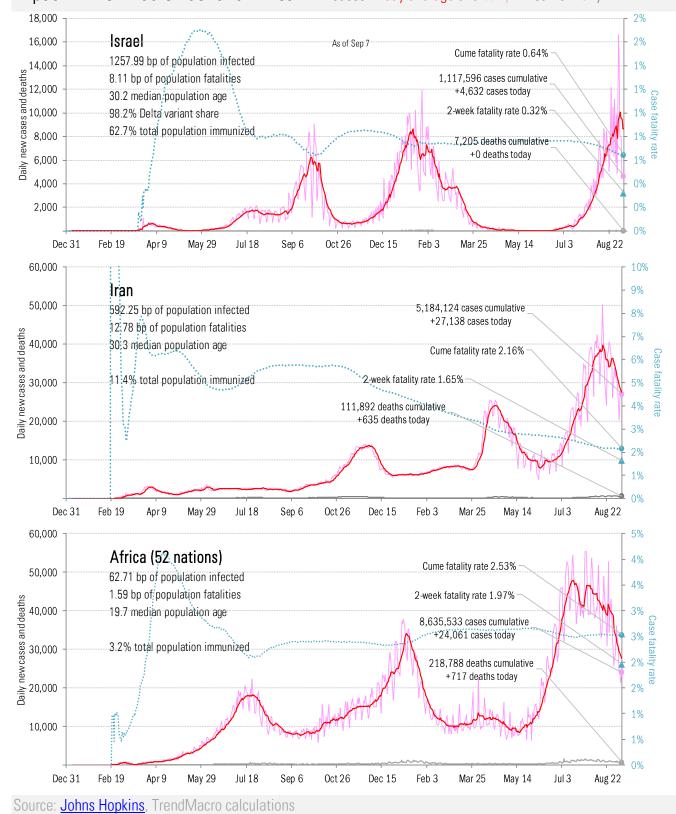
Impact in other hot-spots Cases: 7-day average and daily Deaths: Daily

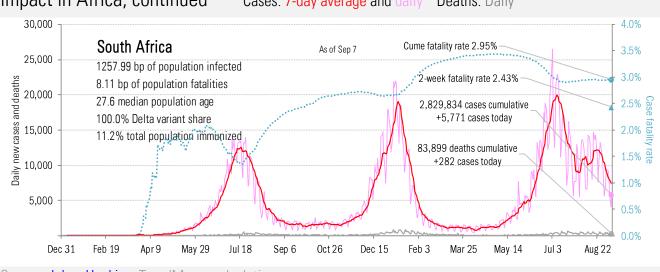
Impact in the BRICs ex-China Cases: 7-day average and daily Deaths: Daily



Impact in the Middle East and Africa

Cases: 7-day average and daily Deaths: Daily





Impact in Africa, continued Cases: 7-day average and daily Deaths: Daily

Source: Johns Hopkins, TrendMacro calculations