

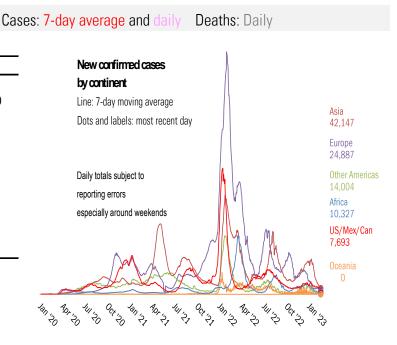
Trend Macrolytics, LLC Donald Luskin, Chief Investment Officer Thomas Demas, Managing Director Michael Warren, Energy Strategist

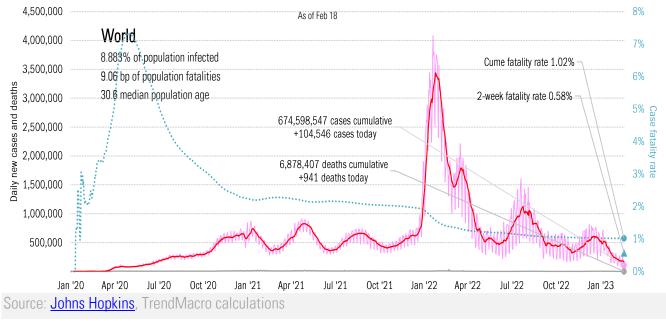
Data Insights: Covid-2019 Monitor

Sunday, February 19, 2023

The global scorecard

New cases		New Deaths	
United States	38,644	United States	431
Italy	28,347	Japan	130
Brazil	17,169	Germany	87
Japan	17,124	Australia	63
Germany	15,364	Taiwan*	55
Russia	15,137	Italy	43
Taiwan*	15,085	Russia	35
Korea, South	10,274	Brazil	32
China	8,847	Spain	30
Spain	7,038	France	28





For more information contact us: Donald Luskin: 214 550 2020 <u>don@trendmacro.com</u> Thomas Demas: 704 552 3625 <u>tdemas@trendmacro.com</u>

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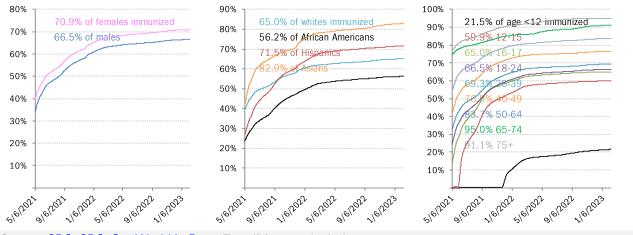
The US scorecard

Cases: 7-day average and daily Deaths: Daily

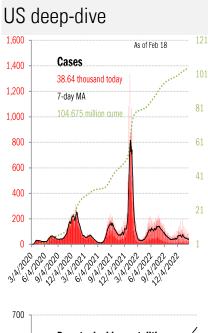
						The te	n worst US	states								
	New cases New deaths New in hospital				-	Quine cases Quine deaths				Qume in	n hospital	Hospital use		ICU use		
R.	4,721	R.	83	PA	212		12,059,365	CA	100,581	TX	587,441		90%		92%	
CA	4,041	CA	38	СН	175	TX		TX	93,041	CA	565,148	MA			89%	
NY	2,633	NY DE	28 20	CA	435 95		7,516,906	FL NV	86,294 76.056	FL NV	531,416 252,092	DC			87%	
CO NC	1,690 1,673	VA	20 20	IN PR	85 33	NY	6,758,560 4,050,952	NY PA	76,956 50,055	NY CH	353,083 243,450	DE MN			86% 84%	
NJ	1,612	PA	20 19	MA	33 104	PA	4,000,902	GA	42,245	GA	243,400 241,728	WA			83%	
IL	1,545	MA	18	W	77	NC		M	41,868	PA	229,657	MO			83%	
PA	1,499	W	14	NC	111	CH	3,373,859	СН	41,615	IL.	212,866	NH			83%	
СН	1,286	WA	13	OR	37	GA	3,049,248	IL	41,335	M	180,142	W			83%	
VA	1,050	GA	12	ME	22	MI	3,043,192	NJ	35,918	NJ	162,634		82%		82%	
	21,750		265		1,291		55,221,577		609,908		3,307,565					
	20.044		404		0.000		404 075	140	4 4 4 4 4 200		F 000 770		700/		C7 0/	
All states	38,644 56%		431 61%		3,698 35%	All states	104,675, 54%	118	1,144,429 55%		5,992,770 55%	All states Median			67% 77%	
Topten	30%		0170		30%	Topten	04%			no etatoe i	ot reporting	IVIEUIAI	1070		1170	
						Five mos	t improved l	US state		10 310103 1	lot reporting					
Fewer da	aily cases			F	ewer new de				ew hospital	izations						
AK	0				AR	-3			FL ·	-66						
AL	0				MT	-3			VA ·	-53						
AZ	0				ND	-1			MN ·	-38						
CA	0				WV	-1				-35						
œ	0				AK	0			TN ·	-35						
1,600,000															12%	
	As of F	eb 18														
1,400,000	Uni	ted Stat														
											Cume fatality	rate 1.09% –			10%	
1,200,000		% of popul														
_,,		bp of popu								2	week fatality ra	to 1 05%	\			
st 1,000,000	· · · · · · · · · · · · · · · · · · ·	median pop 6 Omicron v	-							Ζ-	week idiality ia	ate 1.05%			8%	
1,000,000 gaths up deaths	:	6 total popu														0
	00.07			numzeu					k		075 440		$\langle \rangle$			Case f
000,008 Gase 000,000,008 Gase 000,008 Gase 000,000,000 Gase 000,000,000,000,000,000,000,000,000,00		12	N.						A.	104	675,118 case, +38,644 case				6%	fatality rate
- war			\mathcal{A}						/"			,	$\langle \rangle \rangle$			ty rat
- <u></u>										1.1	.44,429 death	s cumulative		\		œ
			$\sim \sqrt{2}$								+431 death		, \		4%	
400,000			N.	·····					11							
,				1111111111												
200.000	1				MA							d.			2%	
200,000					\mathcal{M}		بالزار	W.								
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Jan	'20 Ar	or '20	Jul '20	Oct '20	Jan '21	Apr '21	Jul '21	Oct '21	Jan '22	Apr '	22 Jul '2	2 Oct '22	lar	יייייי ו '23	0%	
IIPC	20 AL	JI 20	Jui 20	061 20	Jail 21	Ahi ZT	JUI ZI	Ο ΟΙ ΖΙ	Jan 22	Арг	ZZ JUIZ	2 001 22	IPC	1 20		
Source: <mark>Jo</mark>	hns Ho	pkins, I	Dept. c	of Healt	h and H	uman Ser	vices, <mark>CE</mark>	<mark>)C</mark> , Tre	endMac	ro cal	culations	5				

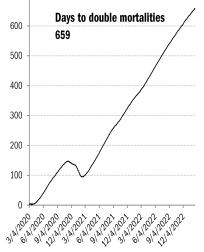
Rolling out the vaccines in the US and the world <u>Updates weekly on Friday</u>												
Administered Cumulative									day	Immunity	Full	Partial
Doses 687,757,07			7,757,074					+0.100	million	US	69.3%	81.1%
							n boosters:		million	UK	75.2%	79.7%
		One		%	Immune				<mark>une today</mark> France		78.4%	80.6%
Total popul		277,766,983		83%		236,754,227		71% +0.014		Spain	85.6%	86.9%
Age 12 to 17			8,473,231	73%		5,810,010	62%		million	Germany	76.2%	77.8%
Age 18 to 64			4,660,818	91% 100%		6,918,716	77% 98%		million	Italy	81.3%	86.2%
Age 65 and over		6	61,081,851		5	53,508,406		+0.002 million		Australia	82.7%	85.0%
Other										Israel	65.2%	71.1%
3% Moderna 38%										Canada	82.6%	90.4%
		Sta	ate	Best						Japan	83.3%	84.5%
				2000						Africa	28.5%	34.7%
	Pfizer		tial immunity	Midd	e					India	67.2%	72.5%
59% as % population				Wildle						Brazil	81.6%	87.9%
			munity	Wors	*					China	89.5%	91.9%
AK			pulation				1			Global data diff		rces, timing
73.0% "Immunity" = two doses						WI		As of Feb 17			ME	
65.1%				75.1%							95.0%	
-						68.2%					83.3%	
	WA	ID	MT	ND	MN	IL	MI		NY	VT	NH	
	85.2%	63.9%	68.3%	69.4%	78.8%	79.2%	69.4%		94.4%	95.0%	88.2%	
	76.0%	56.4%	59.2%	58.7%	72.1%	71.3%	62.3%		80.8%	85.7%	71.9%	
	OR	NV	WY	SD	IA	IN	ОН	PA	NJ	MA		
	81.6%	77.6%	60.9%	83.9%	70.7%	64.4%	65.7%	90.6%	94.6%	95.0%		
	72.4%	63.7%	53.0%	66.3%	64.4%	57.7%	60.4%	73.4%	79.1%	84.3%		-
	CA	UT	CO	NE	M0	KY	WV	VA	MD	СТ	RI	
	84.7%	75.3%	83.7%	73.4%	69.3%	68.8%	67.5%	91.0%	91.7%	95.0%	95.0%	
	74.7%	66.7%	73.5%	66.3%	59.0%	59.6%	59.7%	76.6%	79.7%	83.0%	87.7%	
		AZ	NM	KS	AR	TN	NC	SC	DC	DE		
		77.6%	94.4%	76.2%	69.9%	64.4%	92.2%	71.0%	95.0%	88.2%		
		66.0%	75.2%	65.3%	56.9%	56.3%	67.1%	59.9%	90.4%	73.3%		
				OK	LA	MS	AL	GA				
				74.6%	62.8%	61.6%	65.0%	68.4%				
HI				60.5%	55.0%	53.7%	53.2%	57.3%		, -		•
91.4%				ТΧ					FL	1 L	PR	
81.5%		76.4%					82.5%		90.9%			
				63.2%					69.4%	J L	84.1%	l

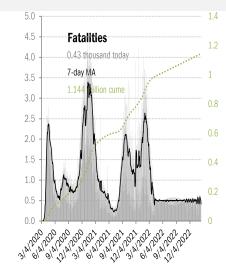
The demographics of US vaccination



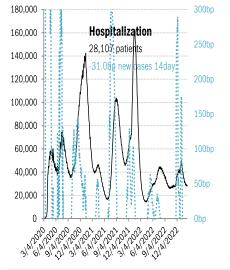
Source: CDC, CDC, Our World in Data, TrendMacro calculations

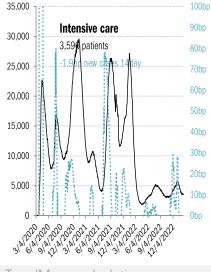


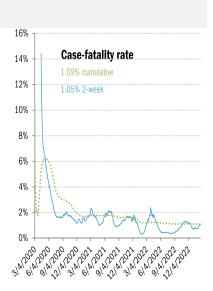


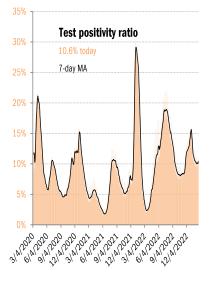


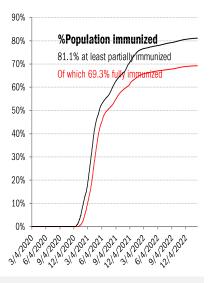




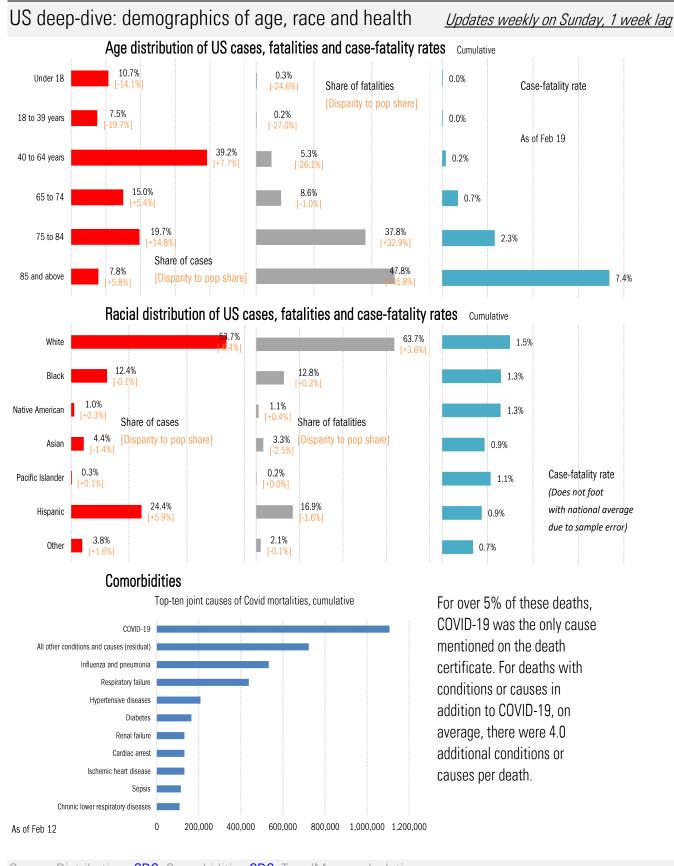








Source: Johns Hopkins, Covid Act Now, TrendMacro calculations



Recommended reading

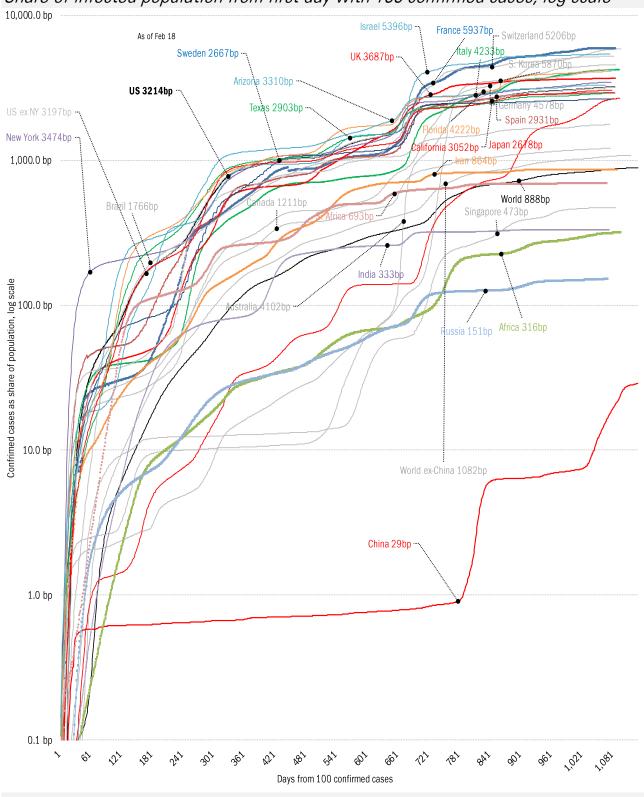
<u>Feds are sending medical experts to Ohio toxic train</u> <u>wreck site as residents' safety concerns simmer</u> Aya Elamroussi *CNN* February 17, 2023 Past SARS-CoV-2 infection protection against reinfection: a systematic review and meta-analysis COVID-19 Forecasting Team *The Lancet* February 16, 2023

Immunity acquired from a Covid infection is as protective as vaccination against severe illness and death, study finds Akshay Syal *NBC* February 16, 2023

Meme of the Day

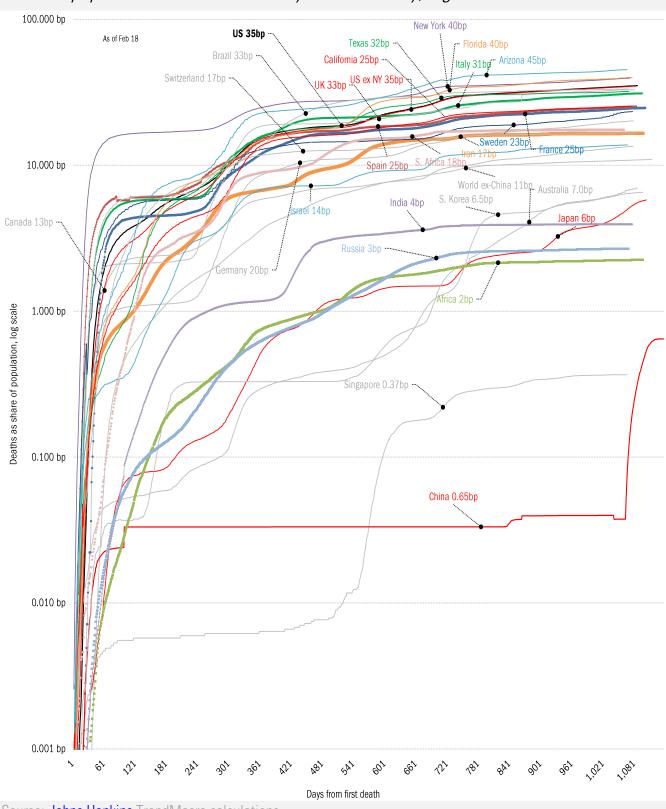


Source: Our beloved clients, Power Line blog "The Week in Pictures" and CTUP



The global coronavirus <u>case</u> 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

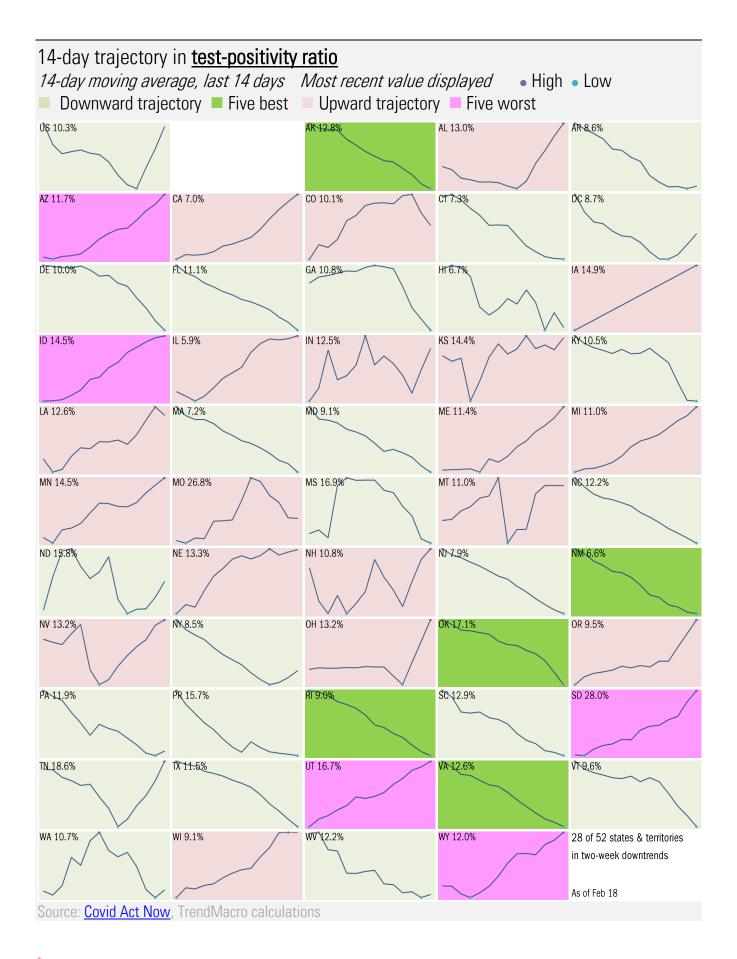


The global coronavirus <u>mortality</u> accelerometer ... tracking the world's fatality curves *Share of population deceased from day of first fatality, log scale*

Source: Johns Hopkins, TrendMacro calculations







From Ground Zero to the Rio Grande Cases: 7-day average and daily Deaths: Daily 140,000 As of Feb 18 New York 120,000 Cume fatality rate 1.14% 34.74% of population infected 39.56 bp of population fatalities 2-week fatality rate 0.93% 100,000 Daily new cases and deaths 38.2 median population age 80,000 25.6% Omicron variant share including 3.6% BA.5 subvariant 6,758,560 cases cumulative 60,000 +2.633 cases today 80.8% total population immunized 40,000 76,956 deaths cumulative +28 deaths today 20,000 Jan '20 Apr '20 Jul '20 Oct '20 Jan '21 Apr '21 Jul '21 Oct '21 Jan '22 Apr '22 Jul '22 Oct '22 Jan '23 1,400,000 US ex-New York 1,200,000 31.97% of population infected 2-week fatality rate 1.17% 34.85 bp of population fatalities 1,000,000 38.1 median population age Daily new cases and deaths Cume fatality rate 1.09% 800,000 97,916,558 cases cumulative 600,000 +7,280 cases today 400,000 1,067,473 deaths cumulative +593 deaths today 200,000 Oct '20 Jul '21 Jan '20 Apr '20 Jul '20 Jan '21 Apr '21 Oct '21 Jan '22 Jul '22 Oct '22 Jan '23 Apr '22 100,000 90,000 Cume fatality rate 1.11% Texas 80,000 29.03% of population infected 2-week fatality rate 0.40% 70,000 32.09 bp of population fatalities Daily new cases and deaths 33.9 median population age 60,000 8,417,810 cases cumulative 74.5% Omicron variant share +545 cases today 50,000 including 4.4% BA.5 subvariant

Apr '21

Jul '21

Oct '21

Jan '22

Apr '22

Jan '21

40,000

30,000 20,000

10,000

Jan '20

Jul '20

Oct '20

63.2% total population immunized

9%

8%

7%

6%

5%

4%

3%

2%

1%

6%

5%

4%

3%

2%

1%

0%

5%

4%

Case fatality rate

1%

0%

Jan '23

Oct '22

93,041 deaths cumulative

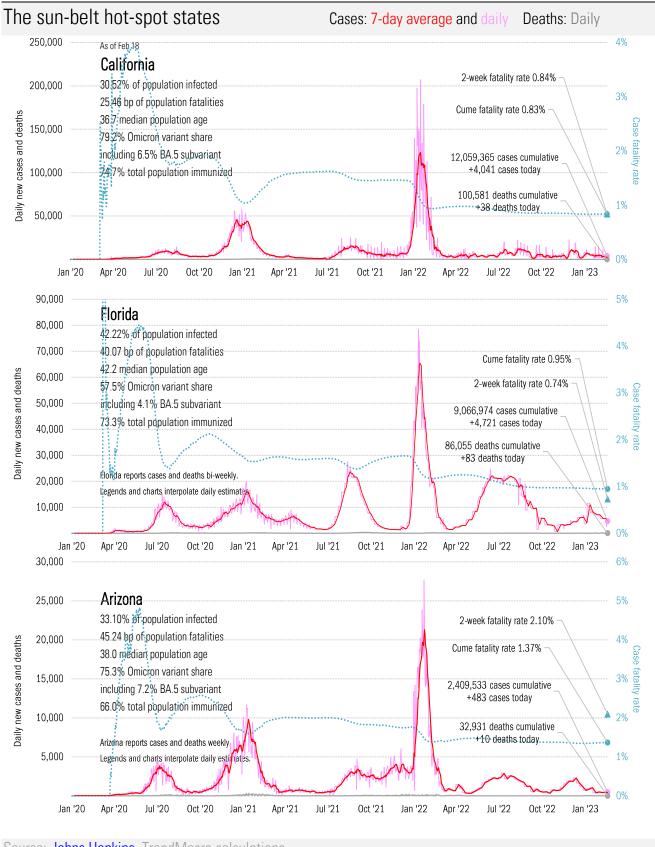
+0 deaths today

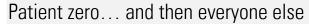
Jul '22

Case

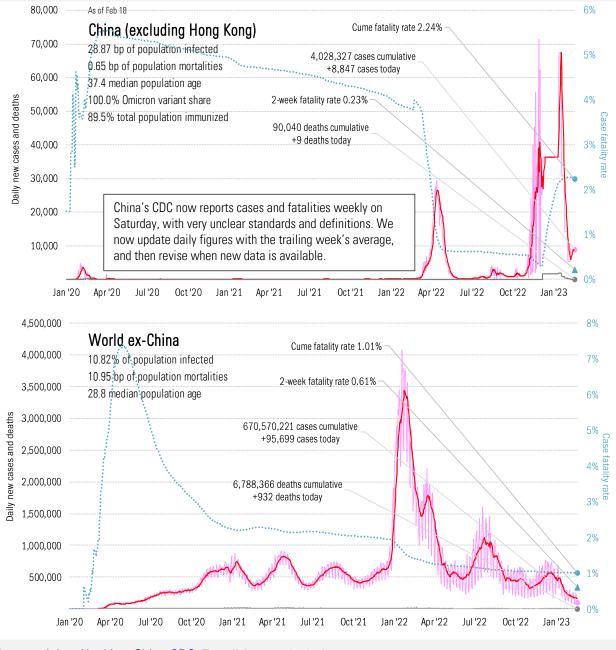
rate

Source: Johns Hopkins, TrendMacro calculations





Cases: 7-day average and daily Deaths: Daily



Source: Johns Hopkins, China CDC, TrendMacro calculations

Impact in the largest economies Cases: 7-day average and daily Deaths: Daily 300,000 6% As of Feb 18 Japan 250,000 5% 26.78% of population infected 33,098,835 cases cumulative +17,124 cases today 5.79 bp of population fatalities Daily new cases and deaths 200,000 47.3 median population age Case fatality rate 2-week fatality rate 0.31% 100.0% Omicron variant share 150,000 3% 83.3% total population immunized Cume fatality rate 0.22% 100,000 2% 71,587 deaths cumulative 50,000 1% +130 deaths today 0% Jan '20 Apr '20 Jul '20 Oct '20 Jan '21 Apr '21 Jul '21 Oct '21 Apr '22 Jan '22 Jul '22 Oct '22 Jan '23 500,000 5% Germany 450,000 2-week fatality rate 1.21% 45.78% of population infected 400.000 4% 20.15 bp of population fatalities Cume fatality rate 0.44% Daily new cases and deaths 350,000 45.9 median population age 3% Case 300,000 99.9% Omicron variant share 38,002,114 cases cumulative +15,364 cases today 76.2% total population immunized fatality 250,000 rat 200,000 167,301 deaths cumulative 150,000 +87 deaths today 100,000 1% 50,000 Apr '21 Jul '21 Oct '21 Apr '22 Jul '22 Jan '20 Apr '20 Jul '20 Oct '20 Jan '21 Jan '22 Oct '22 Jan '23 600,000 20% France 18% 2-week fatality rate 0.96% 500,000 59.37% of population infected 16% 24.73 bp of population fatalities Cume fatality rate 0.42% Daily new cases and deaths 14% 400,000 412 median population age 12% 99.9% Omicron variant share 39,786,983 cases cumulative 78.4% total population immunized 300,000 10% +3,589 cases today 8% 200,000 6% 165,753 deaths cumulative +28 deaths today 4% 100,000

Jul '21

Apr '21

Oct '21

Jan '22

Apr '22

Jul '22

Source: Johns Hopkins, TrendMacro calculations

Jul '20

Oct '20

Jan '21

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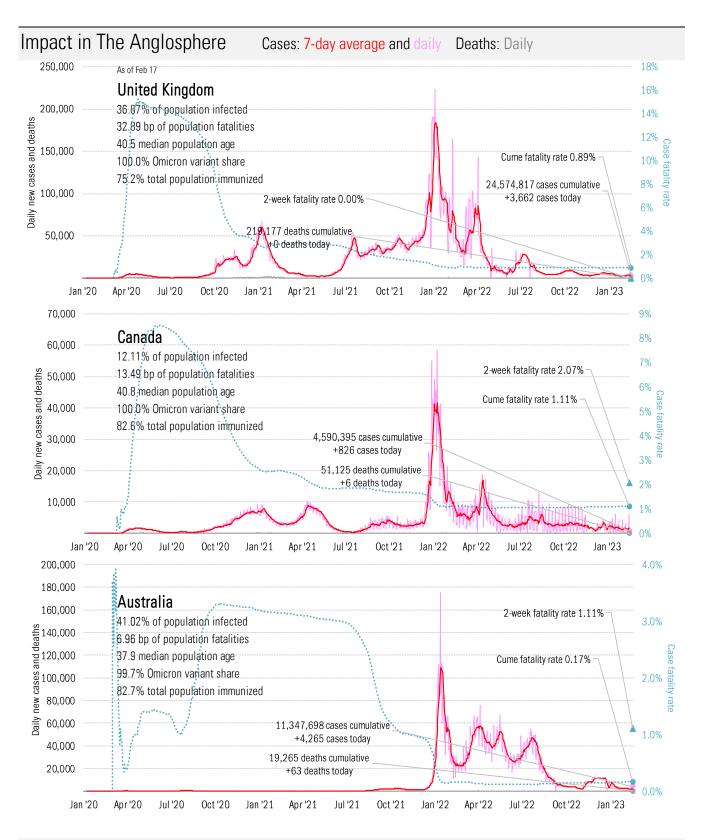
Apr '20

Jan '20

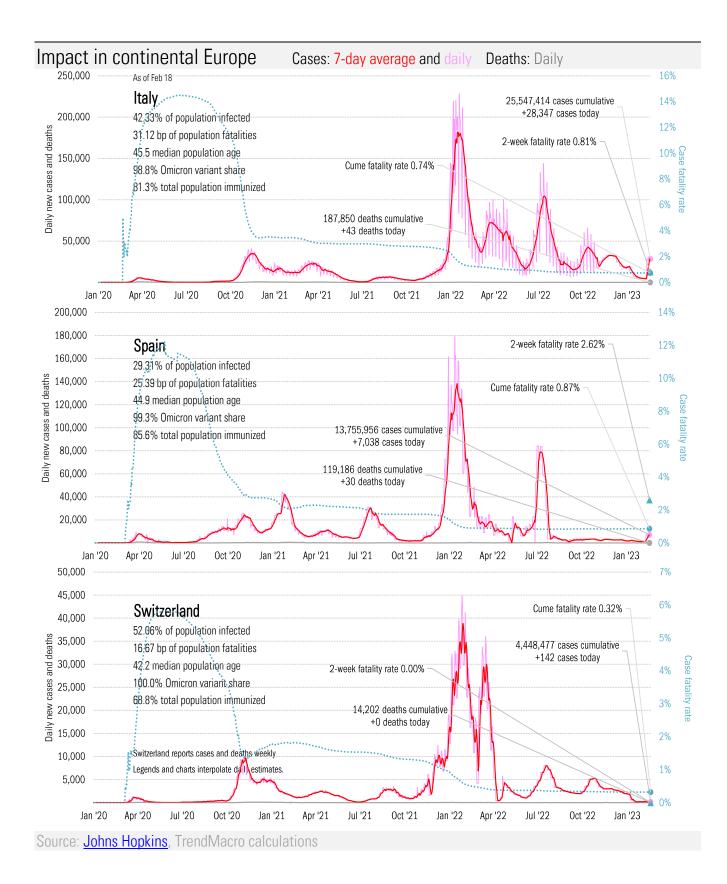
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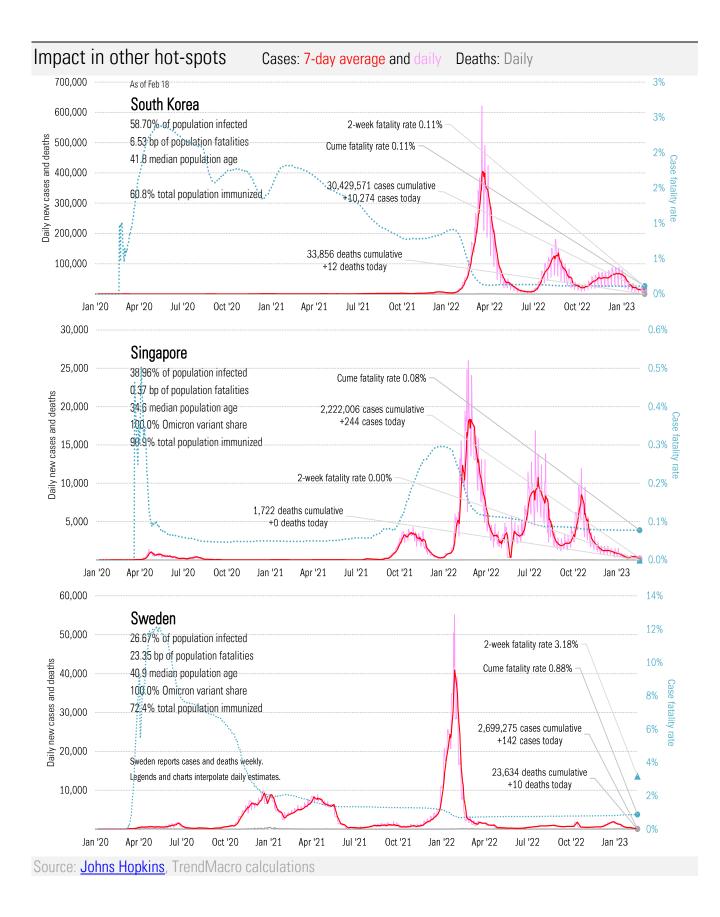
Jan '23

Oct '22



Source: Johns Hopkins, TrendMacro calculations

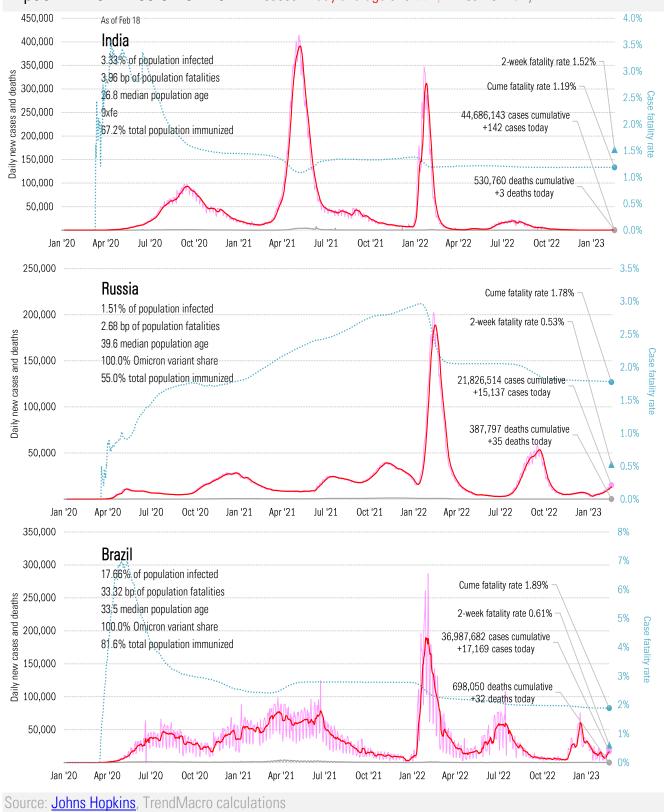


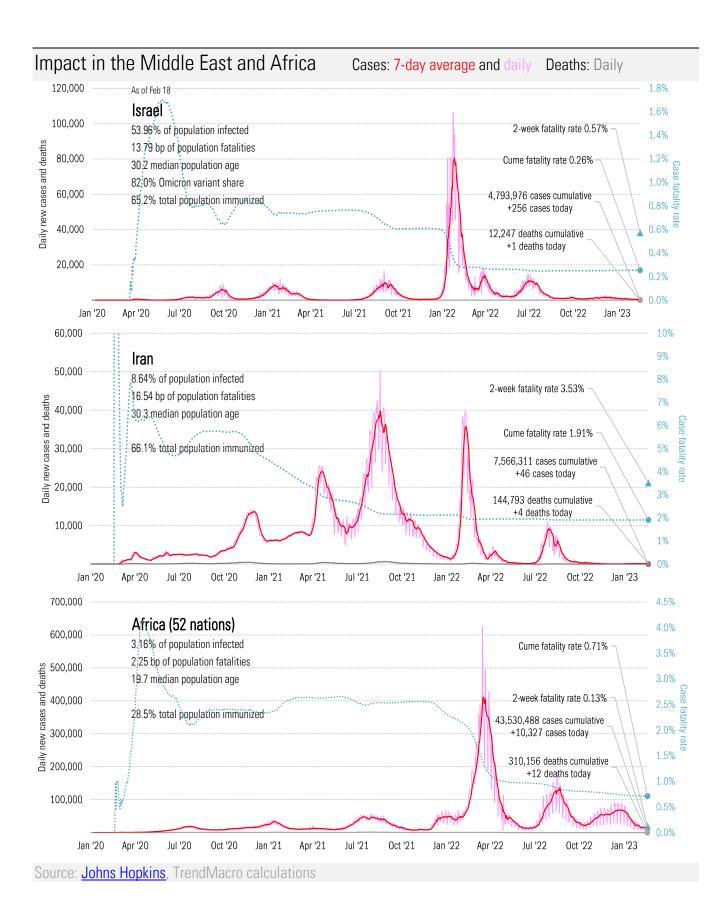


TrendMacro Data Insights: Covid-2019 Monitor

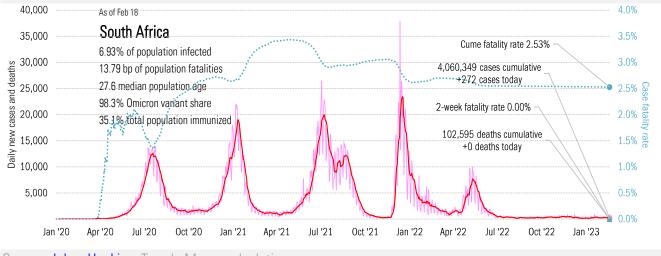
Impact in the BRICs ex-China Ca

Cases: 7-day average and daily Deaths: Daily





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



Source: Johns Hopkins, Trend Macro calculations