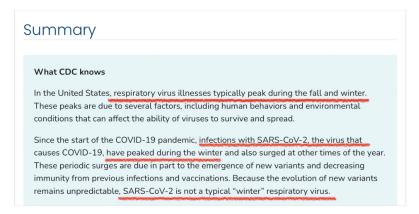
covid has seasons, but is not "seasonal"

by bowerbird intelligentleman (a twitter thread in august 2024)

http://www.twitter.com/bbirdiman

the cdc finally admitted covid goes year-round. that's a big deal because up to now the cdc pretended covid is a winter respiratory disease.



since covid appeared, the cdc has treated it as a "seasonal" disease. it has been one of the most basic (mis)understandings the cdc has had.

in this thread, i show you that was wrong, and cdc had more than enough evidence to know it. it is a long thread, since i have lots to show.

if you would rather read the thread on the web instead of here on twitter, you can find it here: http://zenmagiclove.com/covid-seasonal.html

of if you would rather read the thread as a .pdf instead of here on the web, it's available here: http://zenmagiclove.com/covid-seasonal.pdf

in epidemiology-speak, a "seasonal" disease is one that's most prevalent for a couple months (generally cold-weather, november to february).

after this high prevalence, a "seasonal" disease largely disappears for the rest of that year; thus it might be absent for roughly 8 months.

so when the cdc deemed covid "seasonal", the dishonest implication of that term was that covid would largely disappear for most of the year.

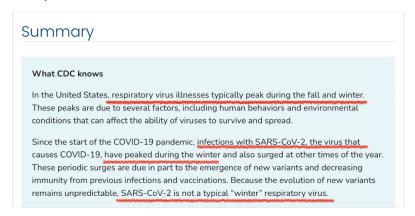
the inference the cdc wanted americans to draw is that we had to fret about covid in winter, but could forget about it the rest of the time.

the problem with that is that scads of people saw that covid was not "largely disappearing" for "most of the year". it was here, constantly.

and again, the cdc has maintained that charade for four full years of the covid experience, so this has been an ongoing sore-point for many.

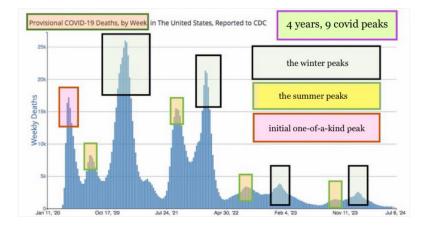
so this is a big deal, that the cdc admitted covid isn't "seasonal". it finally relented to those who'd called out its dishonesty all along.

the cdc made this announcement quietly, mounting that webpage on july 3rd, 2024, so burying it from the press on the eve of a 4-day weekend.



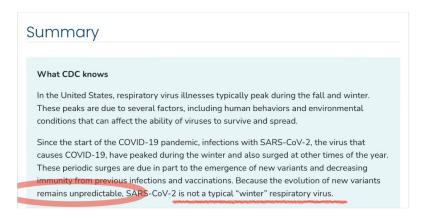
it is only now, 4 years into covid, that the cdc admits something that has been very obvious if it had only looked at one of its own graphs.

for all 4 years of covid, the cdc deaths graph shows 2 peaks per year, plainly visible to all: one in the summers, the other in the winters.



(i'll be using cdc graphs on covid deaths here in the thread, even though deaths are an unduly limited way to assess damages done by covid.) (but i use cdc death graphs because they are one of the only constant measures kept. others (cases, hospitalizations) have been turned off.)

thus now calling covid an "unpredictable" virus is just a different way to gaslight us, since there are indeed spikes, that come in seasons.



we have covid surges in both winter and summer. (and no, in case you wondered, that doesn't mean covid is "seasonal", as typically defined.)

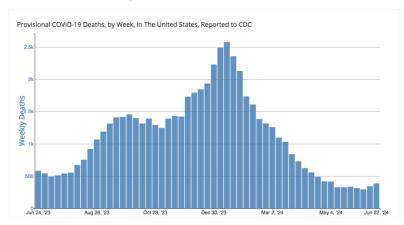
for those of us trying to surf the covid waves, it's useful to have a good grasp of them, and after 4 years of them, we can see the pattern.

indeed, one quite specific pattern emerges. as with anything in nature, there is variability. but this pattern is robust, and remarkably so.

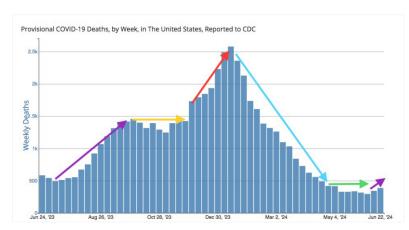
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it is basically one big wave per year, or might as well be. to show this wave, i'll use a graph of the last 365 days, as it does a fine job.



this wave starts on the 4th of july (purple), sits on a plateau for 2 months in fall (yellow), then rises up to a peak in mid-january (red).

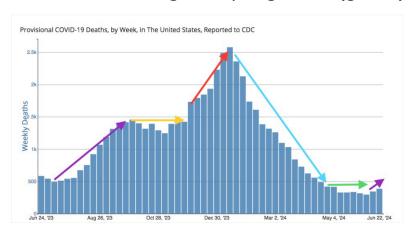


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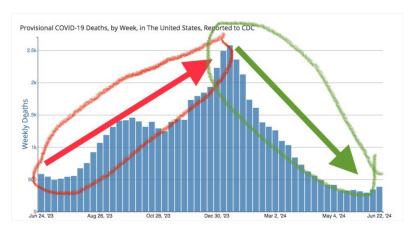
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after hitting that annual mid-january peak, the wave declines in winter and spring (cyan), and levels at its trough at spring's end (green).



thus, we have our wave, from start to finish. the rise is july through january, the second half the year. the decline is half the next year.

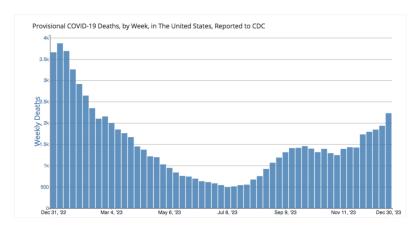


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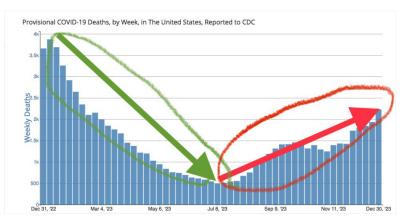
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i'll show you covid has this pattern each year (albeit at different levels) but we will start by looking at the data for calendar year 2023.



(we're looking at the data from january 2023 though december 2023, so we get the last half of one wave and the first half of the next wave.)

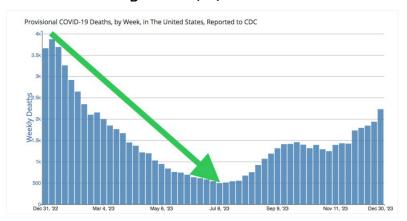


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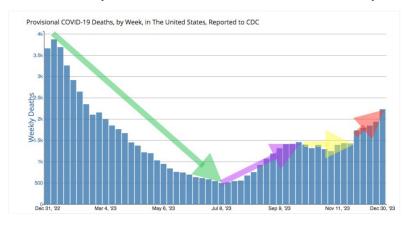
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you see the peak, on 1/7/23. then the decline, afterward, is steady and fast; uninterrupted, it's easy to see, down to the trough on 7/8/23.



the decline of the wave is very straightforward. the deaths per week go down week after week, from peak to trough. it's quite uncomplicated.

the next yearly wave starts in summer. its peak will come next winter, but the rise to it isn't as steady as the decline from the last peak.



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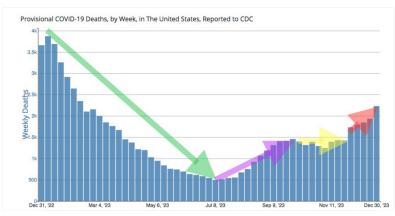
8 of 24

the start of the yearly wave is always a surge beginning in summer. and the wave's peak always results from a surge that comes in late-fall.

you might be asking yourself why i talk about "one yearly wave" at the same time i talk about "two surges" and "two spikes" and "two peaks".

the answer is easy:
yes, there are 2 yearly surges:
summer and winter,
but the summer surge never declines back
to the level it starts from.

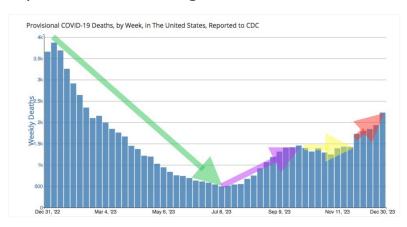
indeed, as this data here for 2023 shows you, sometimes the summer spike does not decline back at all. it sits flat on a plateau for months.



this means that the winter surge always starts from a much higher level than the summer surge. which is part of the reason it peaks highest.

but also, contrary to the summer surge, the winter surge always declines to a lower level than it started from (i.e., to the annual trough).

one way to think about this that makes it clear is that you get the one yearly wave when you stack the winter surge on top the summer surge.



or, for any mountain climbers here, the summer spike takes us up to our autumn base-camp, where we stay until we make our wintertime summit.

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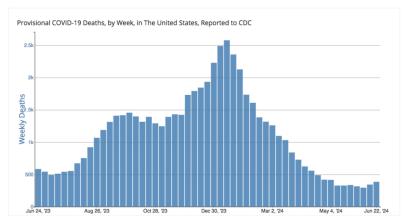
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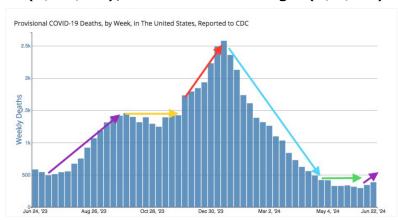
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we can see this by looking, again, at the data starting in summer 2023 and continuing for 366 (leap-year) days until the end of spring 2024.



here you see the yearly wave nicely highlighted. it rises from the 2023 trough (7/8/23), to its peak (1/13/24), to the 2024 trough (6/8/24).

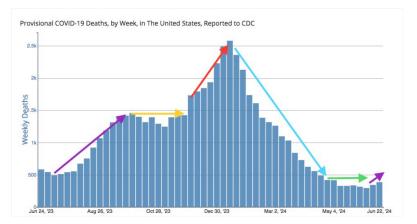


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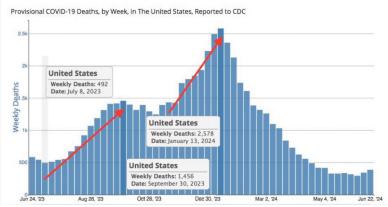
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but between the spike at the start of summer and the spike in late fall, we have that plateau in fall for two months (october and november).



some people think the summer surge is smaller. not always. in 2023, the summer surge rose from \sim 5k to \sim 15k deaths; autumn went \sim 15k to \sim 25k.

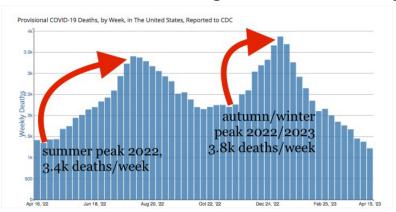


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in 2022, the summer surge was a similar size (nearly exactly) to the fall surge that followed. (because that summer surge did decline back.)



so one more wrinkle: we have one (1) yearly wave, composed of two (2) annual surges, which are the result of three (3) superspreader events.

there are 3 yearly covid superspreaders in the u.s. the first is the 4th of july. the second one is thanksgiving. and the last is christmas.

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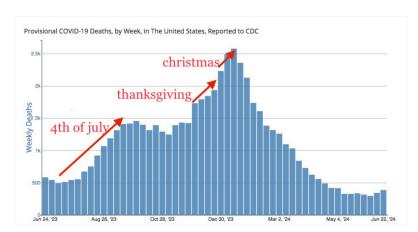
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the first is the primary source of the summer surge. always. and the last two are the genesis of the fall surge. always. we can count on it.



it comes as no surprise that these occasions are three of the biggest travel holidays in the u.s. and are associated with family gatherings.

when folks gather from various locations and socialize freely and comfortably with each other, it maximizes the damage any sick can inflict.

when you have family events, everybody knows everybody else, so everybody interacts closely, and even one ill person might infect everybody.

this is why events like marriages or funerals are superspreaders, because close interactions happen, even between people who live far apart.

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then of course you have the airports to navigate: baggage-check, t.s.a., and the plane itself, crammed for hours next to unmasked strangers.

the 4th of july produces the summer surge. every week in july, after the 4th of july, shows increased weekly deaths. every week. every year.

post 4-of-july rise in	n weekly deaths
August 5, 2023	672
July 29, 2023	553
July 22, 2023	540
July 15, 2023	510
July 8, 2023	492
July 30, 2022	3,401
July 23, 2022	3,226
July 16, 2022	2,929
July 9, 2022	2,588
July 2, 2022	2,420
August 7, 2021	6,484
July 31, 2021	4,105
July 24, 2021	2,760
July 17, 2021	1,991
July 10, 2021	1,645
July 3, 2021	1,543
August 1, 2020	8,285
July 25, 2020	8,229
July 18, 2020	7,166
July 11, 2020	5,770
July 4, 2020	4,540
Jun 27, 2020	3,835

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that's cdc data for covid deaths in july for every year since 2020. (the 2024 data hasn't come in yet.) every single week shows an increase.

every week in july, after the 4th, your number of covid deaths for that week increases over the week before it. that is a surge. every year.

of course we know intuitively that the 4th of july is a superspreader. but here we see evidence for it, unequivocally exhibited in the data.

the summer surge is amazingly predictable. yet it seems to take many people by surprise. every year they're just amazed covid is still here.

the 4th of july is 2 weeks after summer starts. the summer surge will often last all summer, until fall starts, toward the end of september.

the summer surge typically reaches a plateau lasting through october and most of november, until the 4th thursday in november, thanksgiving.

thanksgiving, a big weekend family gathering, is the second dependable covid superspreader; you can bet on a spike in covid deaths after it.

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indeed, just like the rise after the 4th of july, every week from thanksgiving to christmas has seen a rise in deaths every year since 2020.

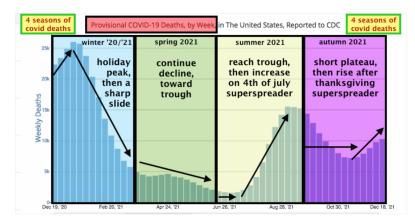


and if the thanksgiving weekend starts a wave, we know quite well a long holiday period from pre-christmas to post-new year will prolong it.

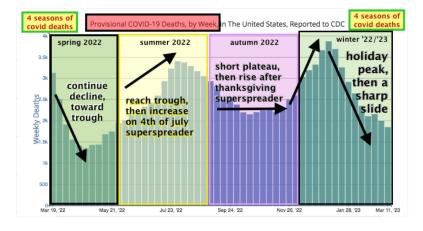
and yes of course it does. the spike continues for 2-3 weeks after christmas up to its peak; it's so regular you can set the calendar by it.

you saw it every year. covid deaths rose each week in july after the 4th of july, and again each week from thanksgiving through mid-january.

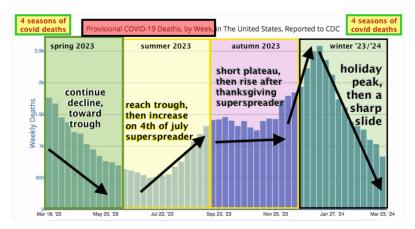
i told you i would show you that this pattern presents itself in every year of the pandemic, so here is the data for the 2021 calendar year.



and here it is for 2022. again, a sharp decline, to the annual trough, then the summer surge starting the next wave, a plateau, then a peak.



and here is the season-based 2023 breakdown. (seasons are a nice way to split up the year, but aren't too different from the calendar year.)



the other aspect is the winter/spring decline. it is easy to see on the graphs, so no surprise that the data also supports it unequivocally.

	2024	== weekly deaths, spi	ing 2022
== weekly deaths, spr	3,		
june 22, 2024	351	june 18, 2022	2,194
june 15, 2024	327	june 11, 2022	2,139
june 8, 2024	290	june 4, 2022	2,007
june 1, 2024	313	may 28, 2022	1,940
may 25, 2024	333	may 21, 2022	1,742
may 18, 2024	327	may 14, 2022	1,676
may 11, 2024	326	may 7, 2022	1,433
may 4, 2024	413	april 30, 2022	1,426
april 27, 2024	416	april 23, 2022	1,345
april 20, 2024	487	april 16, 2022	1,410
april 13, 2024	556	april 9, 2022	1,552
april 6, 2024	623	april 2, 2022	1,908
march 30, 2024	727	march 26, 2022	2,505
march 23, 2024	838	march 19, 2022	3,125
march 25, 2024	050		-,
== weekly deaths, spring, 2023 ==		== weekly deaths, spring, 2021 ==	
== weekly deaths, spri	ing, 2023 ==		
== weekly deaths, spri june 24, 2023	ing, 2023 == 583	june 26, 2021	1,635
		june 26, 2021 june 19, 2021	1,635 1,776
june 24, 2023	583	june 26, 2021 june 19, 2021 june 12, 2021	1,635 1,776 2,035
june 24, 2023 june 17, 2023	583 612	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021	1,635 1,776 2,035 2,347
june 24, 2023 june 17, 2023 june 10, 2023	583 612 633	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021	1,635 1,776 2,035 2,347 2,770
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023	583 612 633 693	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021	1,635 1,776 2,035 2,347 2,770 3,238
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023	583 612 633 693 742	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021	1,635 1,776 2,035 2,347 2,770
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023	583 612 633 693 742 757	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021	1,635 1,776 2,035 2,347 2,770 3,238
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023 may 6, 2023	583 612 633 693 742 757 838 945	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021 may 15, 2021	1,635 1,776 2,035 2,347 2,770 3,238 3,678
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023	583 612 633 693 742 757 838	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021 may 15, 2021 may 8, 2021	1,635 1,776 2,035 2,347 2,770 3,238 3,678 4,006 4,165 4,601
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023 may 6, 2023 april 29, 2023	583 612 633 693 742 757 838 945 1,027	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021 may 15, 2021 may 8, 2021 may 1, 2021	1,635 1,776 2,035 2,347 2,770 3,238 3,678 4,006 4,165
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023 may 6, 2023 april 29, 2023 april 22, 2023 april 15, 2023	583 612 633 693 742 757 838 945 1,027 1,195 1,217	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021 may 15, 2021 may 8, 2021 may 1, 2021 april 24, 2021	1,635 1,776 2,035 2,347 2,770 3,238 3,678 4,006 4,165 4,601
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023 may 6, 2023 april 29, 2023 april 22, 2023 april 15, 2023 april 8, 2023	583 612 633 693 742 757 838 945 1,027 1,195 1,217 1,373	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021 may 15, 2021 may 8, 2021 may 1, 2021 april 24, 2021 april 17, 2021	1,635 1,776 2,035 2,347 2,770 3,238 3,678 4,006 4,165 4,601 4,450
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023 may 6, 2023 april 29, 2023 april 22, 2023 april 15, 2023 april 8, 2023 april 1, 2023	583 612 633 693 742 757 838 945 1,027 1,195 1,217 1,373 1,449	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021 may 15, 2021 may 8, 2021 may 1, 2021 april 24, 2021 april 17, 2021 april 10, 2021	1,635 1,776 2,035 2,347 2,770 3,238 3,678 4,006 4,165 4,601 4,450 4,313
june 24, 2023 june 17, 2023 june 10, 2023 june 3, 2023 may 27, 2023 may 20, 2023 may 13, 2023 may 6, 2023 april 29, 2023 april 22, 2023 april 15, 2023 april 8, 2023	583 612 633 693 742 757 838 945 1,027 1,195 1,217 1,373	june 26, 2021 june 19, 2021 june 12, 2021 june 5, 2021 may 29, 2021 may 22, 2021 may 15, 2021 may 1, 2021 april 24, 2021 april 17, 2021 april 10, 2021 april 3, 2021	1,635 1,776 2,035 2,347 2,770 3,238 3,678 4,006 4,165 4,601 4,450 4,313 4,197

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what we see is that the pattern has been repeated throughout the entire pandemic, right up to the summer surge we're now experiencing today.

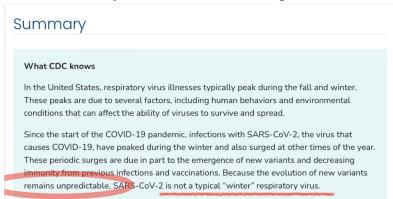
what is important for us to remember is that these are not equinox/solstice "seasons" per se. they have nothing to do with cold/hot weather.

(this is not to say that cold weather does not contribute to transmission. but it is clearly not the sole factor, or even the most crucial.)

these are "holiday seasons", human events where people-gathering is a vital component. these are dates we know are coming, and exactly when.

this pattern has manifested itself clearly in every single one of the 4 years of covid, and it is high time for the cdc to stop ignoring it.

so, i'll repeat, to call covid "unpredictable" is an attempt by the cdc to dodge responsibility for the fact they've botched their job here.



(it is disingenuous to blame the summer surge on "new variants" or "decreasing immunity" too, because those factors are present year-round.)

covid has laid down a solid pattern which is extremely predictable, and linked to actions that are entirely within our abilities to control.

can we tell people that they shouldn't gather on the 4th of july, thanksgiving, and christmas? maybe. maybe not. but we can do other things.

first, we can (and we should) inform them that their gatherings have consequences which are completely predictable, and quite discomforting.

we need to make these surges salient to people, put them in the spotlight, make people confront the reality, the senseless repetitive cycle.

second, we can (and we should) put in place measures to help mitigate those consequences. the best time to stop a spike is before it starts.

mandating masks in airports on busy travel days is common sense, and a properly-informed public would support such a rule if it is enforced.

(polling as recent as one from last month shows that a majority of people support mask mandates; we want action to stop the endless surges.) again, the time to stop a spike is at its start. we know that the 4th of july always creates a summer surge, so that is when we can stop it.

and we know that thanksgiving and christmas also cause a big spike. it's not "winter" per se. (january is usually just as cold as december.)

the fact that the annual peak, yearly, always arrives 2-3 weeks after the christmas holiday is a testament that our behavior is responsible.

it is the humans gathering that causes spikes. our superspreaders cause big infection chains. even if we did not know it, the data tells us.

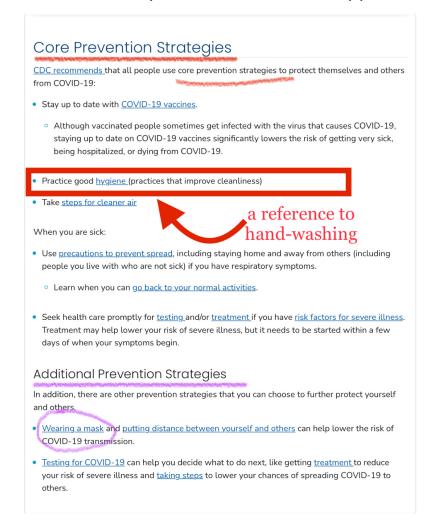
the notion that we can't do anything to stop these waves of the covid roller-coaster is simply ridiculous. we can do something. and we must.

most of all we've gotta slap some sense into the cdc. it's abdicated its responsibilities and does little more than gaslight the public now.

even when the cdc actually tries to "come clear" on some issue, they cannot make a clean break. this "seasonal" confession is far too messy.

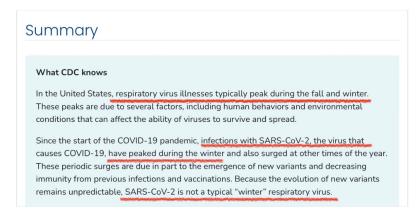
there are other problems with its webpages, and we should mention them, briefly, before we end this thread, to let the cdc know we see them.

for example, the cdc used its other webpages to propagate its droplet dogma, instead of the more scientifically-validated airborne approach.



the "hygiene" mention (i.e., hand-washing) is an implicit reference to the droplet philosophy; its presence here is an embarrassing anomaly.

and facemasks have been relegated to an "additional strategies" mention, not the "core prevention" they should have for an airborne disease. finally the cdc webpage makes reference to "respiratory illnesses" but scientific consensus is now that covid is more of a vascular disease.



so, again, to promulgate such an outdated and limited view of covid's wide-ranging effects on the body is an embarrassment to public health.

so there are still problems with the cdc approach to covid, 4 years in, as seen on its webpages, but let's cheer this victory on "seasonal".