



CURRENT NEWS ON ECOLOGICAL WELLNESS AND GLOBAL HEALTH

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<https://planetaryhealthweekly.com>

May 27,

Hi,

I don't know about you, but I just feel exhausted from all the covid news, both the good and the bad, relentlessly bombarding every day in all media. It just seems that it's too much, all the time, not enough balance. But then those sending it must feel the demand, from me too. The big news continues to be that of the great vaccine rollout. Oddly enough it's the rich countries that have the most, but then they need it most, having been struck so hard by the virus with such poor handling right from the start. And now there's more news about the start - where did the virus come from? The WHO is being asked to conduct another study and President Biden has requested an intelligence report on it in 90 days. Knowing where the virus originated and how it initially spread would be useful knowledge for saving lives next time and perhaps directing blame, should anyone want to do that considering the blatant and widespread missteps of so many political and public health leaders ever since the beginning. Usually it takes years to establish viral origin, if at all. But that will do nothing to help get the current situation under control, with the pandemic still raging, and still so many countries having serious trouble (as you can see in the Endshots charts and data at the end of this newsletter).

We know, too, there is so much else happening all around the world, also good and bad. The good includes that in the run-up to the COP26 climate change conference in Scotland in November there is more effort and policy being directed at limiting CO2 pollution from fossil fuels and setting new directions with Green Economy thinking and action. Such is being enacted by all sectors of society including government, private sector and civil society. It gets even better when we see youths from around the world continuing to organize to protect their future.

The bad, continues as well, with so many news items documenting the continuing and compounding effects of everything we've done to date to assault the wondrous and beautiful world around us. The really bad news is that the assault continues mostly unabated. The one that particularly nags at me lately is the continued, and likely illegal, logging of original old growth forests in Canada, particularly in British Columbia (B.C.) and I believe here too in Ontario. I saw the other day that the 9th largest tree in Canada (a ~2000 year old yellow cedar 3 meters in diameter) was just cut down in the Fairy Creek area of B.C. There should be stricter enforcement of laws protecting our biological inheritances. Once they're spent, they're gone for ever; their replacements are 80 generations away. I feel that such logging, and especially clear cutting, is a crime. But instead our governments, law enforcement and courts punish the protectors and not the perpetrators. I cry for environmental justice for all these beloved forests.

In today's ***Planetary Health Weekly*** (#22 of 2021) there is much news of what's beloved in nature and how it's being willfully exploited to profit a few and harm us all, including:

- 'Invisible killer': fossil fuels caused 8.7 million deaths globally in 2018,
- CORONAVIRUS UPDATES:
 - 'Devastating effects': student learning gaps due to fallout of Covid-19 must be addressed say pediatricians,
 - Covid variant from India could become dominant in the UK in a matter of days,
 - Britain confident existing vaccines protect against the Indian variant,
 - A new coronavirus that usually infects canines is found in a pneumonia patient in Malaysia,
 - Indigenous herbal medicines helpful in treating mild to moderate Covid in India,
 - Mozambique's Covid crisis,
 - China's vaccination rates skyrocket as millions respond to Covid-19 outbreaks,
 - Sweden's pandemic experiment,
 - Melbourne, Australia set for 4th lockdown as cluster grows, THEN
- Air pollutants cost Canada \$120B a year according to Health Canada,
- U.K. Met Office says atmospheric CO2 now hitting 50% higher than pre-industrial levels,
- Global gas flaring tracker report targets nine countries,
- How does a state use 40% less water?
- If you build it, they will bike: pop-up lanes increased cycling during pandemic,
- Ryerson University MBA graduate works to make menstrual products more sustainable,
- Here's what planetary scientists think of Krispy Kreme's Mars donut,
- Why ASEAN needs to care about Mekong issues like it did with haze,
- Indigenous patients face higher risk of death after surgery,
- Quote by the WMO secretary-general on melting sea ice and acidification from GHG emissions,
- New virtual event: Net Zero Festival Sept. 29 – Oct. 1,

- Three great podcasts about climate change all hosted by women,
- Europe leads in electric vehicle sales,
- Ocean acidification could make tiny fish lose their hearing,
- Namibia's Chobe River lions face an uncertain future & South Africa says NO to captive lions,
- New book: "At What Cost: Modern Capitalism and the Future of Health,"
- Special journal issue on 'pedagogy for global health and health promotion,' and
- ENDSHOTS from Ontario's beautiful Killbear Provincial Park on the shores and islands of eastern Georgian Bay (Lake Huron) amid Covid-19 global and Canadian stats and charts.

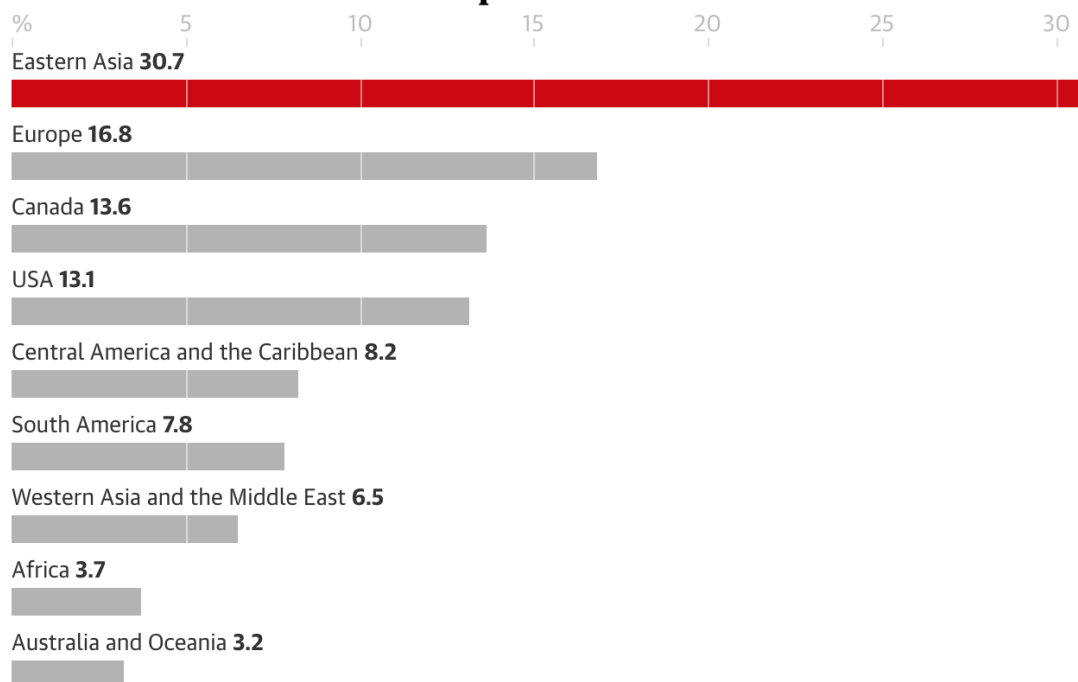
Do keep reading and don't get too exhausted.

Best, david

David Zakus, Editor and Publisher

'Invisible Killer': Fossil Fuels Caused 8.7m Deaths Globally in 2018

An average of more than 30% of deaths in adults aged 14 and over in Eastern Asia are attributable to pollution from fossil fuels



Credit: Guardian graphic. Source: Harvard University. Deaths attributable to exposure to fine particulate matter (PM2.5) generated by fossil fuel combustion

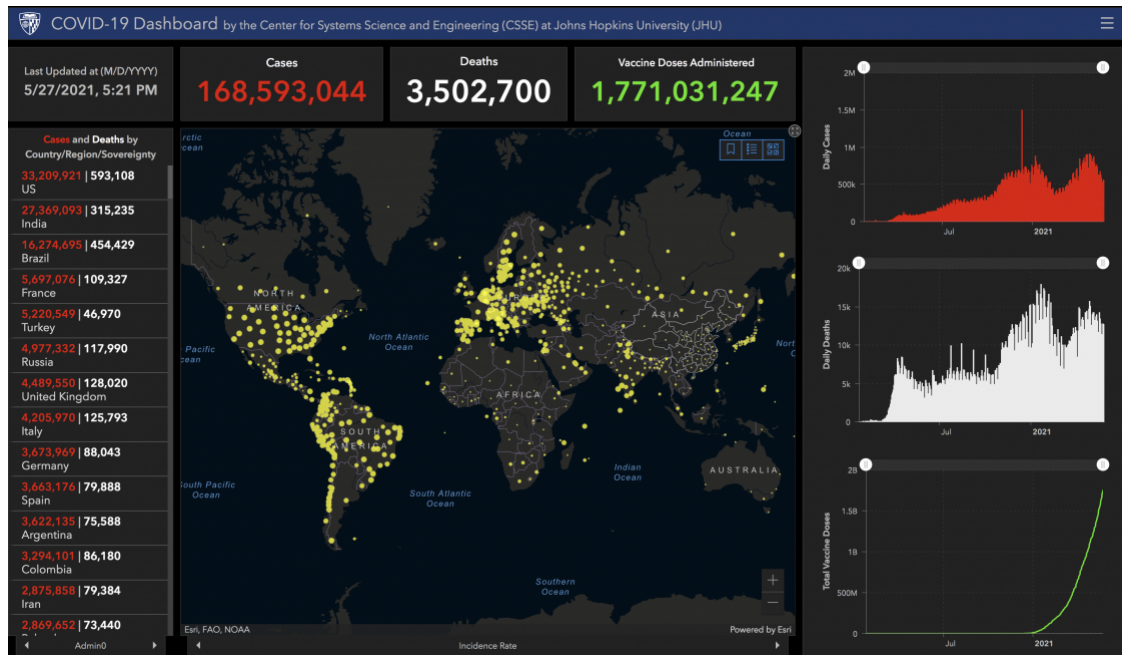
Air pollution caused by the burning of fossil fuels such as coal and oil was responsible for 8.7m deaths globally in 2018, a staggering one in five of all people who died that year, [new research](#) has found.

Countries with the most prodigious consumption of fossil fuels to power factories, homes and vehicles are suffering the highest death tolls, with the study finding more than one in 10 deaths in both the US and Europe were caused by the

resulting pollution, along with nearly a third of deaths in eastern Asia, which includes China. Death rates in South America and Africa were significantly lower.

The death toll outlined in the study may even be an underestimate of the true picture, according to George Thurston, an expert in air pollution and health at the NYU school of medicine who was not involved in the research. "Overall, however, this new work makes clearer than ever that, when we talk about the human cost of air pollution or climate change, the major causes are one and the same – fossil fuel combustion," he said. Read more at [the Guardian](https://www.theguardian.com/environment/2021/may/27/covid-19-death-toll-study)

SARS-CoV-2 & COVID-19 UPDATES



Source: <https://coronavirus.jhu.edu/map...>

Globally, it's continues badly but with some improvement, including in the USA and India, but not good in Latin America. Some 30 million vaccines are being given each day, mostly in the richer hard hit countries. Over the last week there were about 3.5 million new cases of Covid-19 (down about 20%) and 80,000 new related deaths (same as last week).

(See also ENDSHOTS at the end of this newsletter for various COVID-19 charts and stats from Canada and around the world.)

"It is the plague in seemingly all sincerity." Bob Woodward

'Devastating Effects': Student Learning Gaps Due To Fallout of Covid-19 Must Be Addressed, Pediatricians Say



Credit: Toronto Star

Students switching back and forth between in-school and online learning because of COVID-19 are struggling and will need significant supports in place to help close learning gaps, say the country's leading pediatric experts who are urging the province to immediately start making plans.

In a letter to Ontario Premier Doug Ford, the 3600-member Canadian Pediatric Society says the province can no longer afford to be "reactive" when dealing with the fallout of COVID-19 on kids, academic and otherwise."

Research conducted by the Toronto public school board found that compared to before the pandemic, reading achievement in Grade 1 has fallen for students attending in-person class, decreasing 3%, but for those learning online, they've seen a drop of about 10%. A recent report said the pandemic has "disrupted literacy learning for many elementary students to large degrees," and given the importance of reading and writing, "these data are concerning."

"International data is absolutely consistent across the board and shows that kids are behind ... and there is considerable variation in achievement where kids facing disadvantages are further behind, and often considerably behind." Read more at [Toronto Star](#)

READ MORE COVID-19 STORIES:

At CNBC: [Covid Variant From India Could Become Dominant In The UK 'In A Matter Of Days,' Posing Unknown Dangers](#)

At SCMP: [Coronavirus: Britain 'Confident' Existing Vaccines Protect Against B1.617.2 Variant, Health Secretary Says](#)

At SCMP: [A New Coronavirus That Usually Infects Canines Is Found In A Pneumonia Patient In Malaysia](#)

At the Economic Times: [Ministry Of Ayush: Indigenous Herbal Medicines Helpful In Treating Mild To Moderate Covid](#)

At Telegraph: [There's A Big Difference Between The First Variant And This One': Mozambique's Covid Crisis](#)

At SCMP: [China Vaccination Rates Skyrocket As Millions Respond To Covid-19 Outbreaks](#)

At the New Yorker: [Sweden's Pandemic Experiment](#)

At AP: [Melbourne, Australia, set for 4th lockdown as cluster grows](#)

Air Pollutants Cost Canada \$120B a Year: Health Canada



Credit: United Nations/ Libae Park

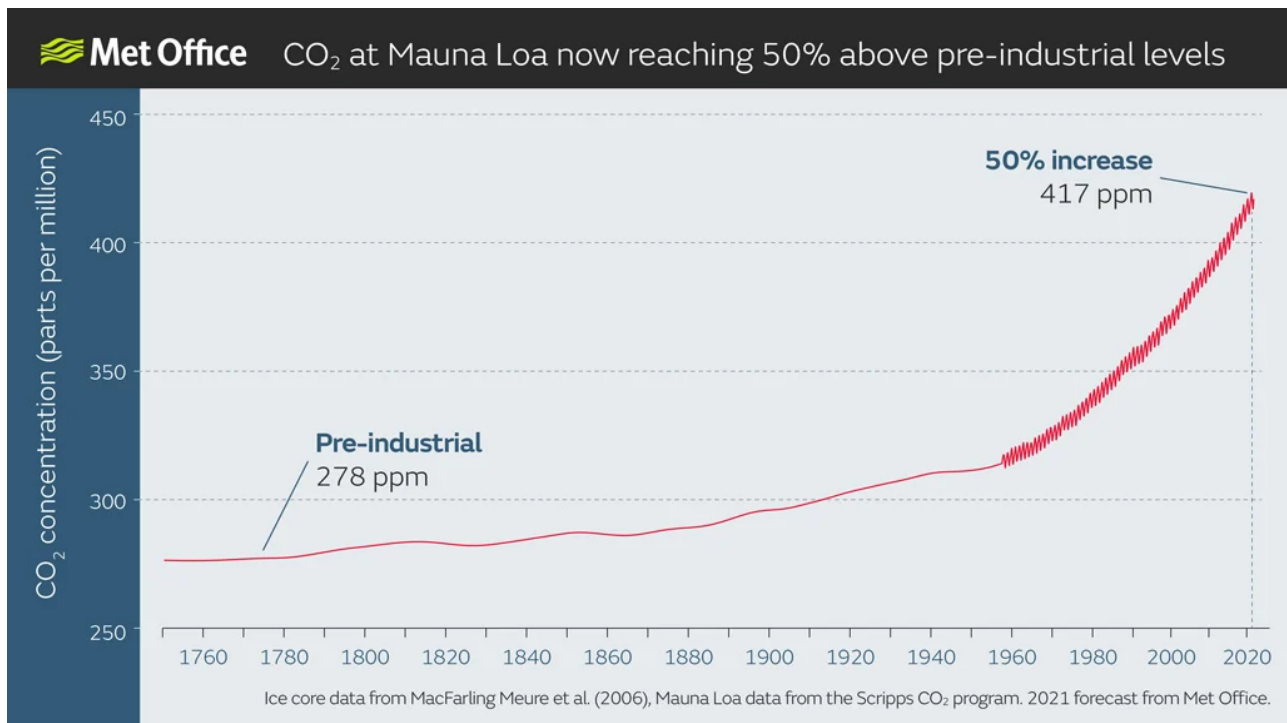
Air pollutants have cost Canada \$120 billion per year, according to recently released figures from (Ministry of) Health Canada, a toll that roughly equals the value of all oil and gas exports.

The health burden from pollutants in the air that come from industrial activities like oil and gas extraction, mining, manufacturing, construction and transportation — as well as natural events like forest fires — contributed to 15,300 premature Canadian deaths in 2016, the most recent year figures are available.

Air pollutants are harmful chemical compounds like nitrogen dioxide and particulate matter that come out of factory or power plant smokestacks or vehicle tailpipes when those sources burn fossil fuels. Ground-level ozone, the main ingredient in smog, is also an air pollutant.

The total economic cost of all health impacts from air pollution was calculated to be \$120 billion, expressed in 2016 dollars, equivalent to about 6% of Canada's GDP that year. By comparison, oil and gas domestic exports [totalled roughly \\$122 billion](#) in 2019, according to Natural Resources Canada." Read more at [National Observer](#)

U.K. Met Office: Atmospheric CO₂ Now Hitting 50% Higher Than Pre-Industrial Levels



Credit: Met Office

Records derived from [ice core measurements](#) show that the average global CO₂ concentration in the atmosphere for 1750 to 1800 was around 278ppm. This is the value that the [Intergovernmental Panel on Climate Change](#) (IPCC) used as the pre-industrial baseline for CO₂ in its [fifth assessment report](#) (pdf), published in 2013-14.

Atmospheric CO₂ has been rising ever since – [driving ongoing warming](#) of the global climate. Now, in March 2021, levels have reached around 417ppm – a 50% increase over the 1750-1800 average.

The plot above shows atmospheric CO₂ levels from 1700 to 2021. This is based on [ice core data](#) before 1958, then the instrumental record at Mauna Loa from the [Scripps CO₂ program](#) and, finally, the 2021 CO₂ forecast from the [Met Office](#). (The apparent change in 1958 is because ice core records do not capture the seasonal cycle seen in instrumental records. Read more at [Carbon Brief](#)

Global Gas Flaring Tracker Report

Top gas flaring countries:

These **seven countries** have been the **top gas flarers** for the last **nine years**.

Together they produce **40%** of the world's oil each year, but account for roughly **2/3 (65%) of global gas flaring**.



Credit: World Bank

Gas flaring, the burning of natural gas associated with oil extraction, takes place due to a range of issues, from market and economic constraints, to a lack of appropriate regulation and political will. The practice results in a range of pollutants released into the atmosphere, including carbon dioxide, methane and black carbon (soot).

The Global Gas Flaring Tracker finds that oil production declined by 8% (from 82 million barrels per day (b/d) in 2019 to 76 million b/d in 2020), while global gas flaring reduced by 5% (from 150 billion cubic meters (bcm) in 2019 to 142 bcm in 2020).

Russia, Iraq, Iran, the United States, Algeria, Venezuela and Nigeria remain the top seven gas flaring countries for nine years running. These seven countries produce 40% of the world's oil each year, but account for roughly two-thirds (65%) of global gas flaring. Read more at [World Bank](#)

How Does a State Use 40 Percent Less Water?



Credit: JUSTIN SULLIVAN/GETTY IMAGES

Arizona, California, and Nevada will need to cut their use of Colorado River water by nearly 40% by 2050. [A study](#) by researchers at Utah State University, which the *Arizona Daily Star* [reported](#), noted that Colorado, New Mexico, Utah and Wyoming—the Upper Basin states—will have to reduce their usage as well, though not by as much as those pulling water from the Lower Basin.

While Arizona water officials declined to engage with these findings when asked by the *Star*, Kathryn Sorensen, the research director of Arizona State University's Kyl Center for Water Policy, told the paper that she agreed with “everything” in the study. “We are going to have to take a much harder look at how water is used in the basin,” Sorensen said.

Negotiations scheduled for 2026 will need to pay attention to every part of the research being produced on long-term over-usage and climate change, while also considering and correcting the lasting impact of the past century's anti-Indigenous water deals. It's a hairy spot for 40 million people to be in, to say the least. As of last fall, Lake Powell and Lake Mead, which serve as the river's largest reservoirs, [sat at](#) 48% and 40% of their respective capacity levels—teetering close to the emergency level that triggers automatic reductions across the Lower and Upper Basins. Read more at [New Republic](#)

GOOD NEWS

If You Build It, They Will Bike: Pop-Up Lanes Increased Cycling During Pandemic



*Credit: Dmitry Kostyukov for The
New York Times*

Adding bike lanes to urban streets can increase the number of cyclists across an entire city, not just on the streets with new bike lanes, according to a new study. The finding adds to a growing body of research indicating that investments in cycling infrastructure can encourage more people to commute by bike, which helps reduce greenhouse gas emissions and improve health.

"It's the first piece of evidence we have trying to, at a larger scale, link the bikeway infrastructure — these pop-up bike lanes and things that were built — to cycling levels during Covid," said Ralph Buehler, chairman of urban affairs and planning in the School of Public and International Affairs at Virginia Tech.

The research, [published online in the Proceedings of the National Academy of Sciences](#), found that in cities where bike infrastructure was added, cycling had increased up to 48% more than in cities that did not add bike lanes." Read more at [New York Times](#)

MORE GOOD NEWS

Ryerson University MBA Graduate Works To Make Menstrual Products More Sustainable



Credit: Chirag Virani (right) with his business partner at a banana farm in India

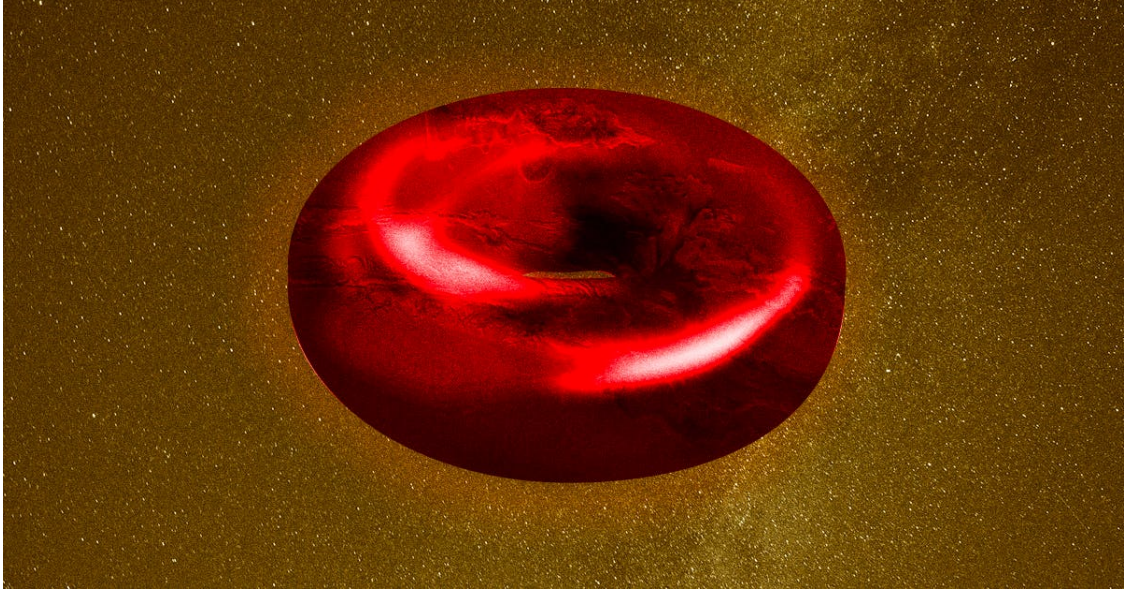
Chirag Virani took the entrepreneurial acumen he developed in his Ted Rogers MBA and applied it to a global problem -- access to sanitary pads that were more environmentally sustainable.

Learning about the lack of access to sanitary pads in many countries and that most products contained harsh chemicals and a lot of plastic, Virani (Ted Rogers MBA, 2012) wanted to change that. This led him and his business partner to create the company [Sparkle](#), which makes plastic-free, chemical-free and sustainable sanitary pads from plant-based ingredients, and donates a pad to a girl in need for every one sold.

Coming from a technical engineering background, Virani gained the critical business skills needed to start his own business through the program. Read more at [Ryerson University](#).

OPINION

Here's What Planetary Scientists Think of Krispy Kreme's Mars Donut



Credit: Futurism

As NASA [prepared to land its first rover in nine years](#) on the surface of Mars this week, famed donut chain Krispy Kreme [stole the headlines](#) with its own contribution to the scientific discourse: a Mars-themed donut, dipped in caramel and filled with chocolate cream.

Ever skeptical, Futurism reached out to a variety of planetary scientists to ask whether the donut looks like an accurate model of the Red Planet. The consensus was that the planetary pastry might fall a bit short in the fidelity department — but that regardless, scientists are psyched that it's drawing attention to space research.

"Well, it's a little bit smaller than Mars is in reality," Bruce Jakosky, a Mars researcher at the University of Colorado at Boulder and NASA, told Futurism. "And, of course, Mars is not actually coated with caramel or filled with chocolate cream. I take this as an abstract representation of Mars, and accept their view of what each component is intended to represent. My biggest disappointment with this is that the nearest Krispy Kreme outlet to me is too far away to get to." Read more at [Futurism](#)

SPOTLIGHT ON POLICY

Why ASEAN Needs To Care About Mekong Issues Like It Did With Haze



Credit: Adam Dean for The New York Times

The Mekong river, which runs through [China](#), [Myanmar](#), [Laos](#), [Thailand](#), [Cambodia](#) and [Vietnam](#), is the beating heart of mainland [Southeast Asia](#), sustaining the livelihoods of around 66 million people. Yet the river is running dry, with its water levels at their lowest in 100 years. Its ecosystem nears the verge of collapse from the accumulative effects of [climate change](#), dam-building and other man-made activities such as deforestation, sand mining, extensive irrigation and wetland conversion.

Unpredictable and more frequent droughts, as well as floods and reduced river sediments, have wreaked havoc on riverside communities' agricultural production and inland fisheries. Tonle Sap lake, which provides two-thirds of Cambodia's annual catch of fish, has seen its resources dwindle in recent years. The Mekong River Commission estimated that by last year the amount of sediment reaching the Mekong Delta, which produces more than 50% of Vietnam's rice output, had fallen to one-third of what it was in 2007. Read more at [SouthChinaMorningPost](#)

SPOTLIGHT ON INDIGENOUS WELLNESS

Indigenous Patients Face Higher Risk Of Death After Surgery, Study Suggests



Credit: Dustin Godfrey

Indigenous patients who have had surgery are nearly a third more likely to die after their procedures than other populations in Canada and face higher risks of complications, new research suggests as doctors warn these inequities could worsen with the COVID-19 crisis.

The [Canadian Medical Association Journal](#) published a systemic review on Monday consisting of 28 separate studies. The research involved roughly 1.9 million participants, about 10% of whom identified as Indigenous, to assess the surgical outcomes for Indigenous patients in Canada across a range of procedures.

Lead author Dr. Jason McVicar said the findings underscore the need for the First Nations, Inuit and Métis communities to lead a data-informed overhaul of [health care](#), particularly as the pandemic raises concerns that Indigenous patients will fall behind in the mounting backlog of surgeries.

"This study tells Canadians two things: that we need better data, and the data that we have tells us that we need to do better," said McVicar, a Métis anesthesiologist at The Ottawa Hospital.

Researchers found Indigenous Peoples face a 30% higher death rate after surgery compared to non-Indigenous patients, according to data from four studies with a combined 7,135 participants. Read more at [The Canadian Press](#)



Credit: Desmog

Quote Of The Week

“Ocean heat is at record levels because of greenhouse gas emissions, and ocean acidification continues unabated. The impact of this will be felt for hundreds of years because the ocean has a long memory. Ice is melting, with profound repercussions for the rest of the globe, through changing weather patterns and accelerating sea level rise.”

“In 2020, the annual Arctic sea ice minimum was among the lowest on record, exposing Polar communities to abnormal coastal flooding, and stakeholders such as shipping and fisheries, to sea ice hazards,” also noting that “warm ocean temperatures helped fuel a record Atlantic hurricane season, and intense tropical cyclones in the Indian and South Pacific Oceans.”

**World Meteorological Organization (WMO) Secretary-General
Petteri Taalas**

For More See at Desmog: Experts Urge World Leaders to 'Put Marine Ecosystems at the Heart of Climate Policy'

Upcoming Events

- May 12 - June 8, 2021: [CoPEH-Canada Multisite Course and Webinar Series on Ecosystem Approaches to Health](#) (8 sessions virtually)
- May 31 - June 18, 2021: [The McGill Summer Institute of Infectious Diseases and Global Health](#) (100% online from McGill University, Montreal, Canada)
- June 7-9, 2021: [Executive Course: Global Health Diplomacy](#) (Dalla Lana School of Public Health, University of Toronto, Canada)
- June 29-30, 2021: [Telemedicine International Summit on Innovation & Technology](#)
- September 16-18, 2021: [North American Refugee Health Conference \(NARHC\)](#) (Faculty of Medicine, University of Toronto). This year's conference will be offered completely online.
- September 27 - October 1, 2021: [12th European Congress On Tropical Medicine And International Health: Global Challenges In Health, Migration And Equity](#)
- Sept. 29 – Oct. 1, 2021: [Net Zero Festival by Business Green \(London and Online\)](#)
- October 6-8, 2021: [Public Health 2021: Annual conference of the CPHA](#)
- November 1-12, 2021: [2020/2021 UN Climate Change Conference UNFCCC COP26](#) - Postponed in 2020 and now to be held November, 2021 (Glasgow, Scotland).
- November 11, 2021: [Evidenced Based Research Being Carried Out in Low and Middle Income Countries](#) ADAPT will host their second online conference by Physios in Global Health.

FYI#1 SPOTLIGHT ON MEDIA

3 Great Podcasts About Climate Change, All Hosted By Women



Credit: iStock

Climate change is going to hurt women more than men. The reasons, as outlined by the [United Nations](#), [Oxfam](#) and [others](#), are stark, and plentiful—including that women are more likely to live in poverty just about everywhere on earth. Women are also most often responsible for making sure their families have basic resources, particularly water, that are becoming increasingly scarce. And gendered health concerns, including pregnancy and sexual violence, make women and girls particularly vulnerable when they're displaced by natural disasters.

As such, it's crucial that women lead discussions about how to mitigate the impact of climate change (which, by the way, is likely to trigger [more pandemics](#)). Here, three podcasts that focus on the female aspect of this monumental issue:

1. Mothers of Invention

2. Drilled

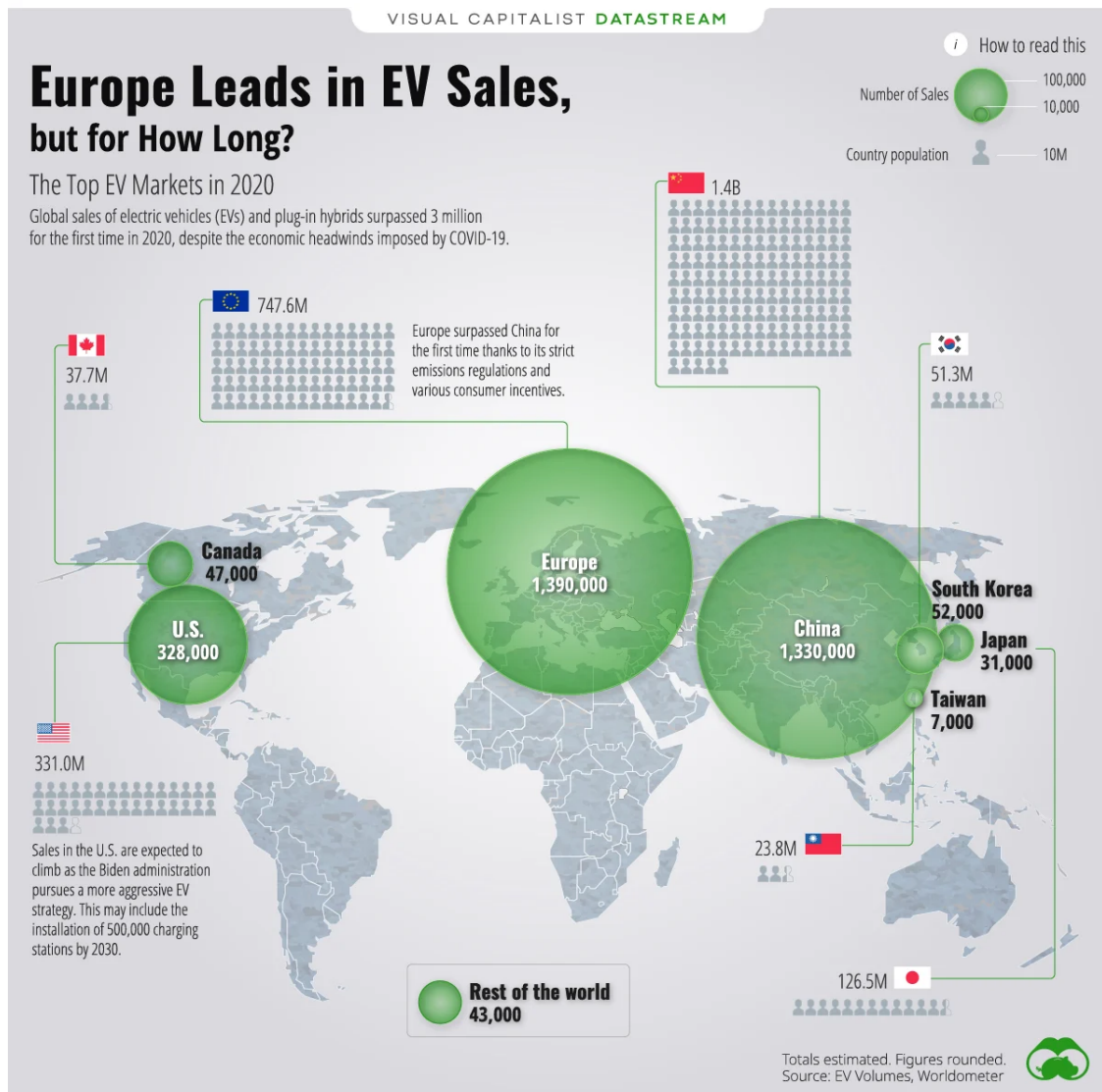
3. No Place Like Home

Read More and Listen at Chatelaine

FYI #2

Europe Leads in Electric Vehicle

Sales, But for How Long?



Credit: Visual Capitalist

The EU was the largest market by a margin of **60,000 cars**, but given China's larger population, it's likely the two will switch places in the near future.

Government incentives have boosted the transition to battery power in recent years. For example, many countries offer a buyer rebate, which effectively reduces the price a consumer pays for an EV or PHEV.

In Germany, buyers can receive a subsidy of \$10,800 when purchasing an EV with a list price of less than \$48,000. China also offers a rebate program, where buyers of an EV with a travel range of at least 186 miles can receive a subsidy of \$2,500.

Consumers should be aware that these incentives are likely to diminish over time, especially as EVs become more mainstream. In January 2021, the Chinese government announced it would reduce its existing subsidies by 20%.

In a 2020 survey, 71% of U.S. drivers said they were interested in getting an EV—so why are sales so far behind Europe and China?

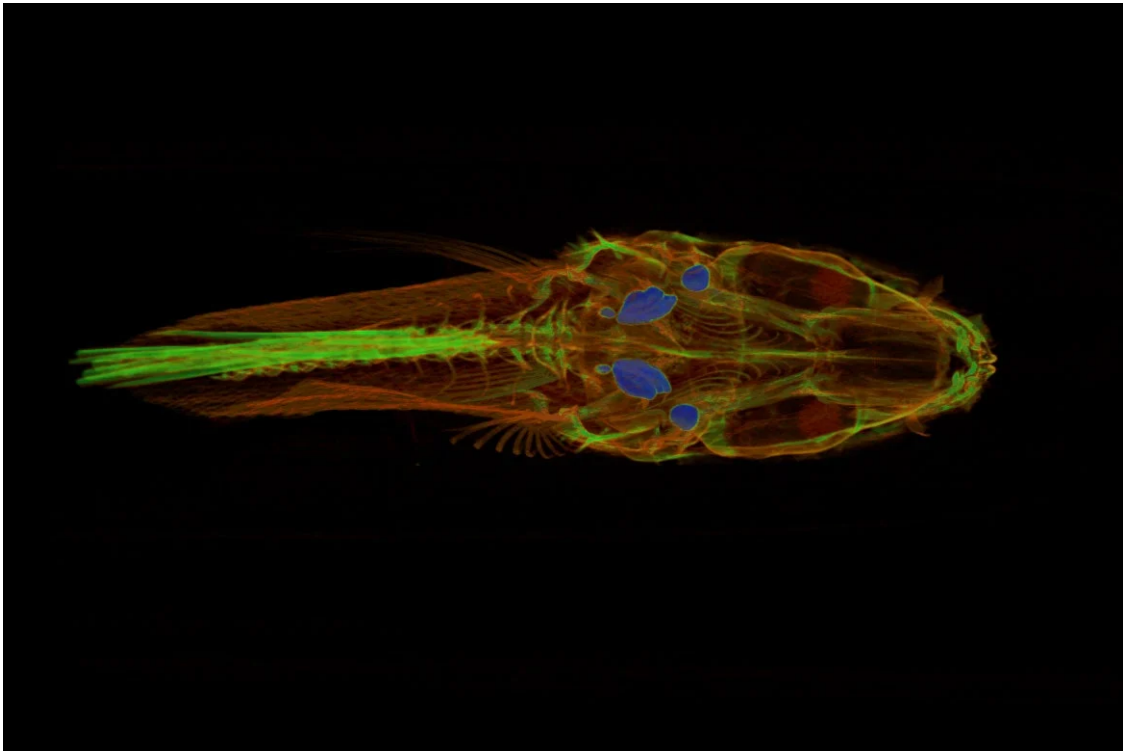
In that same survey, 50% of drivers cited a lack of public charging stations as the main factor for preventing them from buying an EV. Concerns like these have led

the Biden administration to propose a more aggressive EV strategy, which includes the installation of at least **500,000 charging stations** by 2030.

[Read More at Visual Capitalist](#)

FYI #3

Ocean Acidification Could Make Tiny Fish Lose Their Hearing



Credit: CRAIG RADFORD/UNIVERSITY OF AUCKLAND

Life-forms lurking in Earth's oceans depend a lot on what humans do above the surface. After we burn the carbon-rich fuels that nations mine, chop and slurp out of the ground, they meander into the atmosphere as pollution, such as carbon dioxide. Increased CO₂ in the atmosphere leads to more dissolved CO₂ in the oceans, too, where it acidifies plant and animal habitats. In some cases, the consequences make intuitive sense: A more acidic ocean corrodes coral reefs and the symbiotic microorganisms hanging around them. But other effects are less straightforward; and Professor Radford and his team from the University of Auckland, New Zealand, and James Cook University in Australia, found a weird one: The CO₂ levels can morph the inner ears of fish, leading to hearing loss.

Radford's team actually measured how ocean acidification could weaken hearing. they placed tiny sensors on each fish immobilized in the modelling clay, right near their brainstems. Then once the fish were back in the tank, the researchers played tones and measured "auditory evoked potentials"—the electrical signals the brain receives.

They found that the low-frequency part of the hearing dropped. At frequencies between 80 and 200 hertz, hearing sensitivity collapsed roughly 10 decibels. [Most vocal fish](#) communicate at frequencies between 100 and 300 Hz, [a deep hum](#) to a [mild ooo](#). "It's bad news, particularly for fish, if they can't hear at these low frequencies," Radford says.

[Read More at Wired](#)

FYI #4

Chobe River Lions Face an Uncertain Future



Namibia's Chobe River lions face an uncertain future with various barriers hampering recruitment, dispersal and immigration. To the north, hostile farmers in the Zambezi region of Namibia are intolerant of apex predators on their farms. In every other direction, fragmented protected areas and human settlements impede lion movement.

Lions are a major attraction for tourists and their absence will drastically, negatively affect tourism along the Chobe River.

All the tourism enterprises on both the Namibian and the Botswana sides would like to see better protection for wildlife and cooperation between Namibia and Botswana. Tourism could have long-term benefits for the area. Not only does it create jobs, but it trains people who can form their own tourism-related businesses. Rural communities need to see the potential in tourism without necessarily giving up their farming practices.

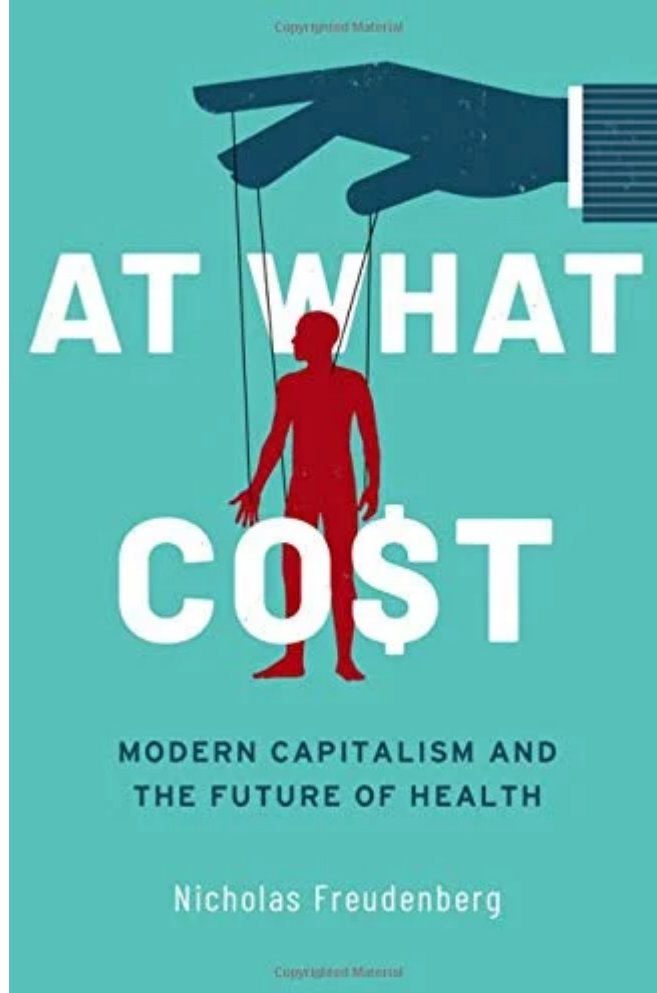
Negotiations with various stakeholders in Namibia continue and seem to be bearing fruit. A lion group has been created with several Namibian officials and a few cross-border meetings have seen some commitment from both sides. There are already several lodges on the Namibian side, thanks to the vaunted community conservancy model. The future for the Chobe River lions is uncertain but hopeful.

[See Also: Captive Lions: NO – Says South Africa's Minister](#)

Read More at Africa Geographic

FYI #5: END OF MAY READING

New Book by Nicholas Freudenberg: "At What Cost: Modern Capitalism and the Future of Health"



Credit: Book Cover

An incisive and powerful investigation of corporate impact on human and planetary well-being. Freedom of choice lies at the heart of American society. Every day, individuals decide what to eat, which doctors to see, who to connect with online, and where to educate their children. Yet, many Americans don't realize that these choices are illusory at best. By the start of the 21st century, every major industrial sector in the global economy was controlled by no more than five transnational corporations, and in about a third of these sectors, a single company accounted for more than 40% of global sales. The available options in food, healthcare, education, transportation, and even online presence are largely constructed by corporations, whose sweeping influence have made them the public face and executive agents of 21st-century capitalism. **At What Cost** confronts how globalization, financial speculation, monopolies, and control of science and technology have enhanced the ability of corporations and their allies to overwhelm influences of government, family, community and faith.

As corporations manipulate demand through skillful marketing and veto the choices that undermine their bottom line, free consumer choice has all but disappeared, and with it, the personal protections guarding our collective health. *At What Cost* argues that the world created by 21st-century capitalism is simply not fit to solve our most serious public health problems, from climate change to opioid addiction.

However, author and public health expert Nicholas Freudenberg also shows that though the road is steep, human and planetary well-being constitute a powerful mobilizing idea for a new social movement, one that will restore the power of individual voice to our democracy. With impeccably detailed research and an eye towards a better future, **At What Cost** arms ordinary citizens, activists and health

professionals with an understanding of how we've arrived at the precipice, and what we can do to ensure a healthier collective future.

Available on Amazon

FYI#6: SPOTLIGHT ON EDUCATION

Special Theme Issue of Pedagogy in Health Promotion: "Pedagogy for Global Health and Health Promotion"



Credit: Getty Images

The following articles are included in a Special Theme Issue of *Pedagogy in Health Promotion*, with a focus on Global Health!

Guest Editorial:

- How Do We Teach for Global Health? Reviewing and Renewing to Advance Pedagogy for Global Health and 6

Perspectives on Pedagogy:

- Transforming Undergraduate Global Health Education Through a Humanities-Focused Curriculum 9
Kearsley A. Stewart, PhD
- *Master of Science (MS) and Master of Arts (MA) Degrees in Global Health: Applying Interdisciplinary 14
Research Skills to the Study of Globalization-Related Health Disparities
Kathryn H. Jacobsen, PhD, MPH, Xiaojie Li, MBBS, MS, Meredith Gartin, PhD, MA,
Rebecca A. Malouin, PhD, MPH, MS, and Caryl E. Waggett, PhD
- Developing a High-Impact Learning Program for Global Health Professionals: The STAR Project 23
Bhakti Hansoti, MBCHB, MPH, PhD, Meike Schleiff, DrPH, MSPH, Anike Akridge, MPH, Caroline Dolive, MA,
Angelina Gordon, MA, Daniela C. Rodríguez, MPH, DrPH, David Hausner, PhD, MPH, MIA,
George Pariyo, PhD, Thomas Quinn, MD, Sharon Rudy, PhD, Sean Tackett, MD, MPH, and Sara Bennett, PhD

Descriptive Best Practices

- A Decade of Training in Global Public Health: Achievements and Lessons Learned 31
Anne Paxton, DrPH, MPH, MIA, Aravind Pillai, MBBS, MPH, MPhil, Batya Elul, PhD, MPH,
and Wafaa M. El-Sadr, MD, MPH, MPA
- Global U: Exploring Curricular Development and Outcomes in Three University of Utah Experiential 36
Learning Abroad Programs
Lisa H. Gren, PhD, MSPH, L. Scott Benson, MD, PhD, MPH, and Caren J. Frost, PhD, MPH
- Developing a Field of Study in Implementation Science for the Africa Region: The Wits-UNC AIDS 46
Implementation Science Fogarty D43
Rohit Ramaswamy, PhD, MS, MPH, Tobias Chirwa, PhD, Kathryn Salisbury, MPH, Jabulani Ncayiyana, PhD, MS,
Latifat Ibisomi, PhD, MSc, Laetitia Rispel, PhD, MSc, Charles van der Horst, MD, and Audrey Pettifor, PhD
- Community-Based Education in Global Low-Resource Settings: A Unique Interprofessional Collaborative 56
Experience in Primary Care Delivery
Mabel Ezeonwu, PhD
- Barriers and Strategies for Teaching About the U.S. Health Care System in China 63
Donald L. Zimmerman, PhD, Lisheng Yu, PhD, Ruoh-yi Cheng, MA, and Randy Kearns, DHA

Coaching Article

- Excellence in the Design and Delivery of an Online Global Health Survey
- Course: A Roadmap for Educators 70
Steven R. Hawks, EdD, MBA, MCHES, and Hailey A. Judd, BS

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ENDSHOTS

WONDERS OF SPRING AT KILLBEAR PROVINCIAL PARK, ONTARIO

May 30, 2021

Amid Latest World and Canadian COVID-19 Stats & Charts



Coronavirus Cases:

169,435,581

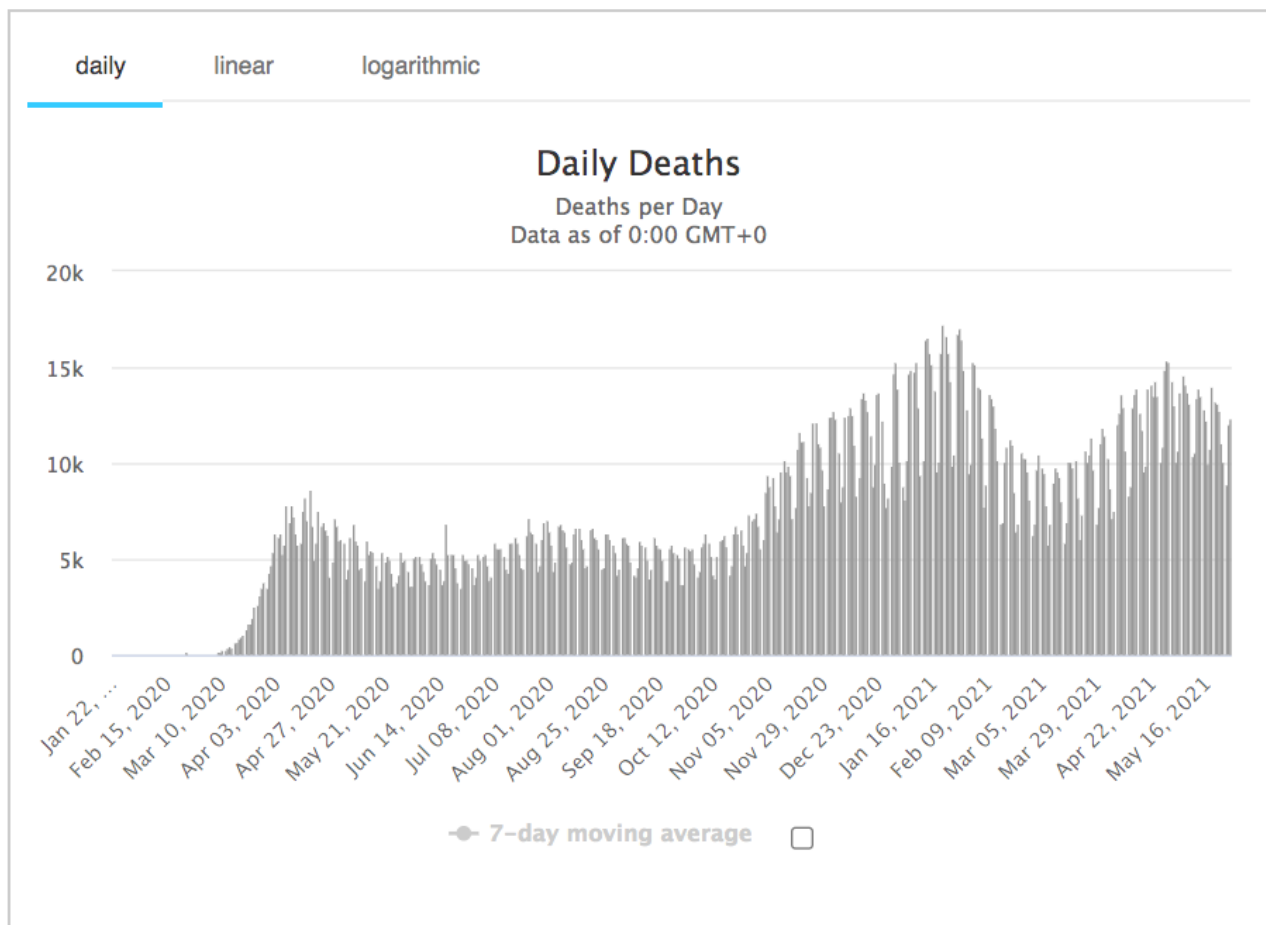
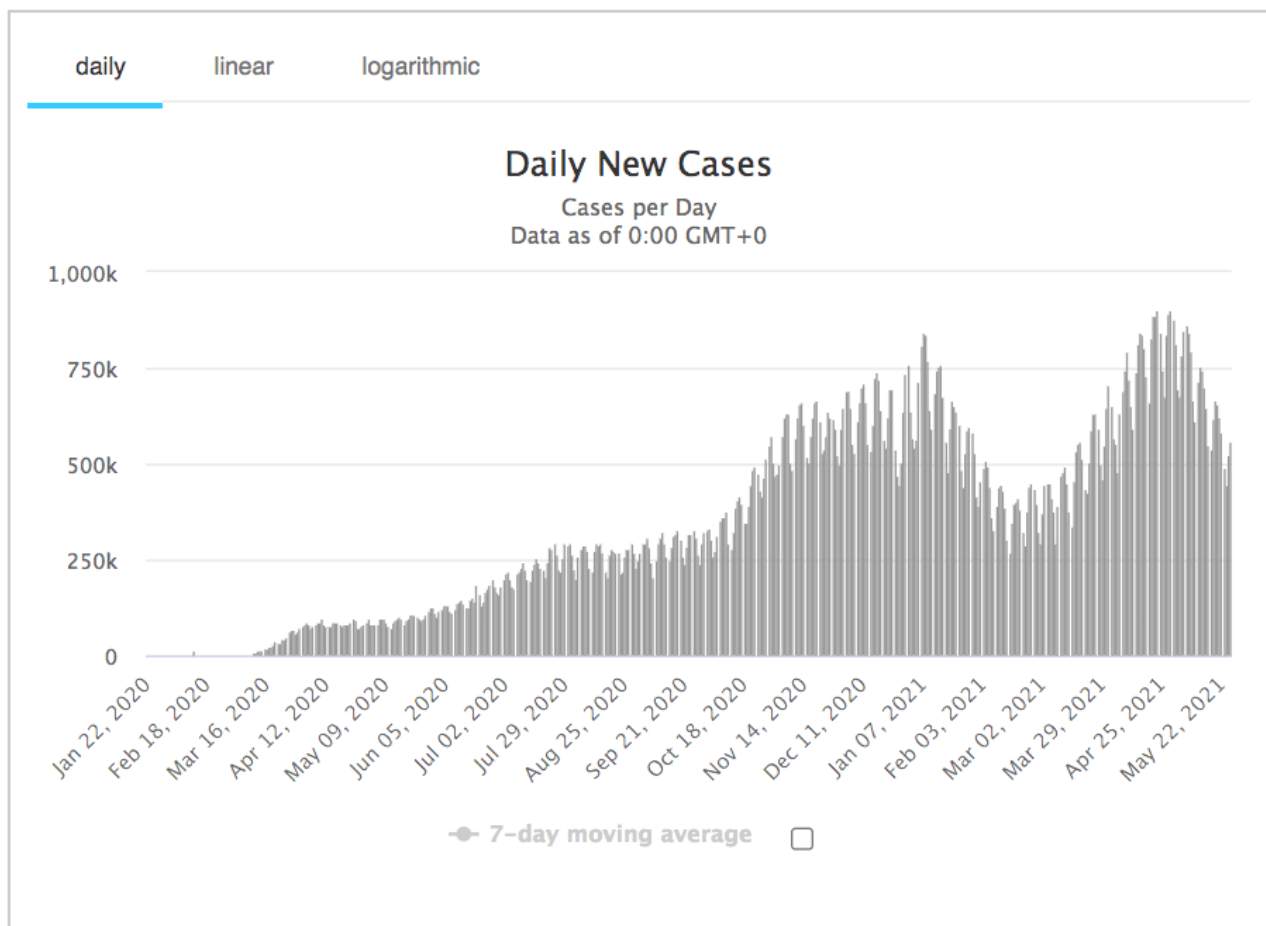
[view by country](#)

Deaths:

3,519,523

Recovered:

151,183,548



Source: <https://www.worldometers.info/coronavirus/>

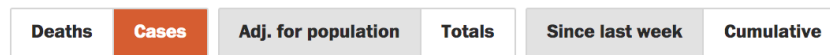


COVID-19 CASES & DEATHS (May 27, 2021), as follows... Source:
https://www.washingtonpost.com/graphics/2020/world/mapping-spread-new-coronavirus/?itid=sf_coronavirus

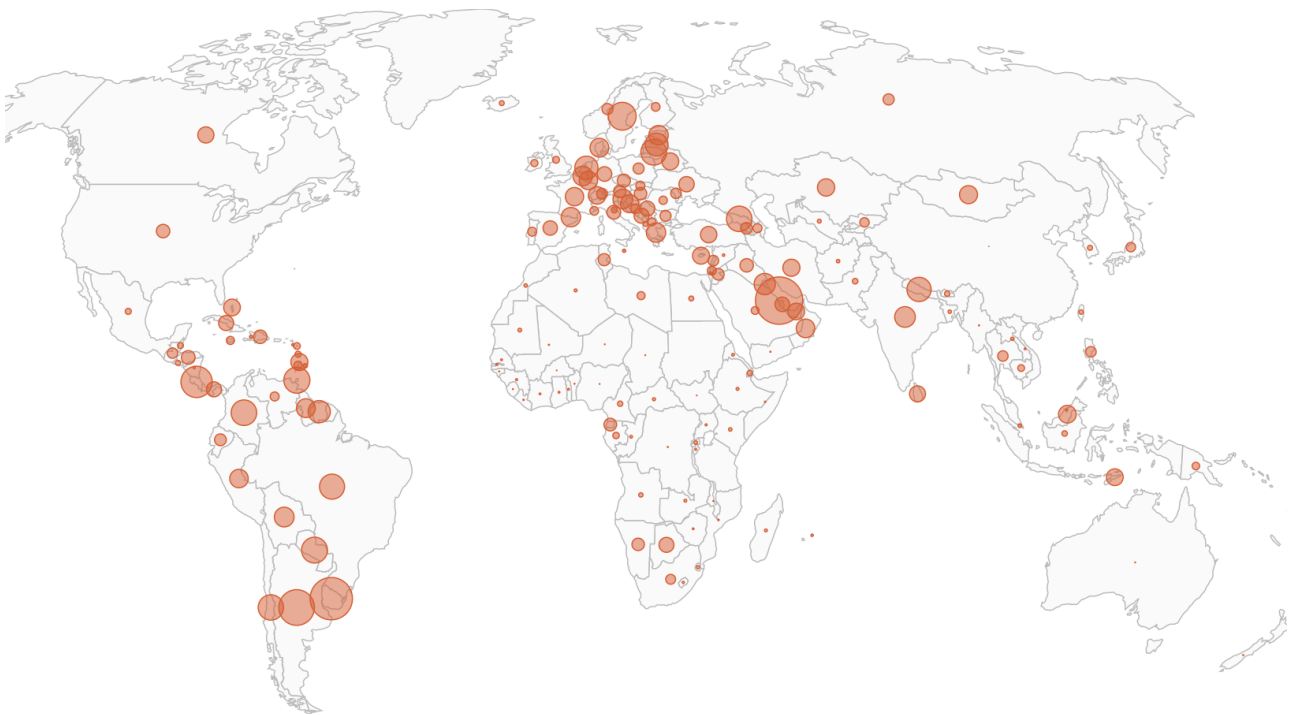
More than 3,504,000 people have died from the coronavirus worldwide

More than **169 million** cases have been reported.

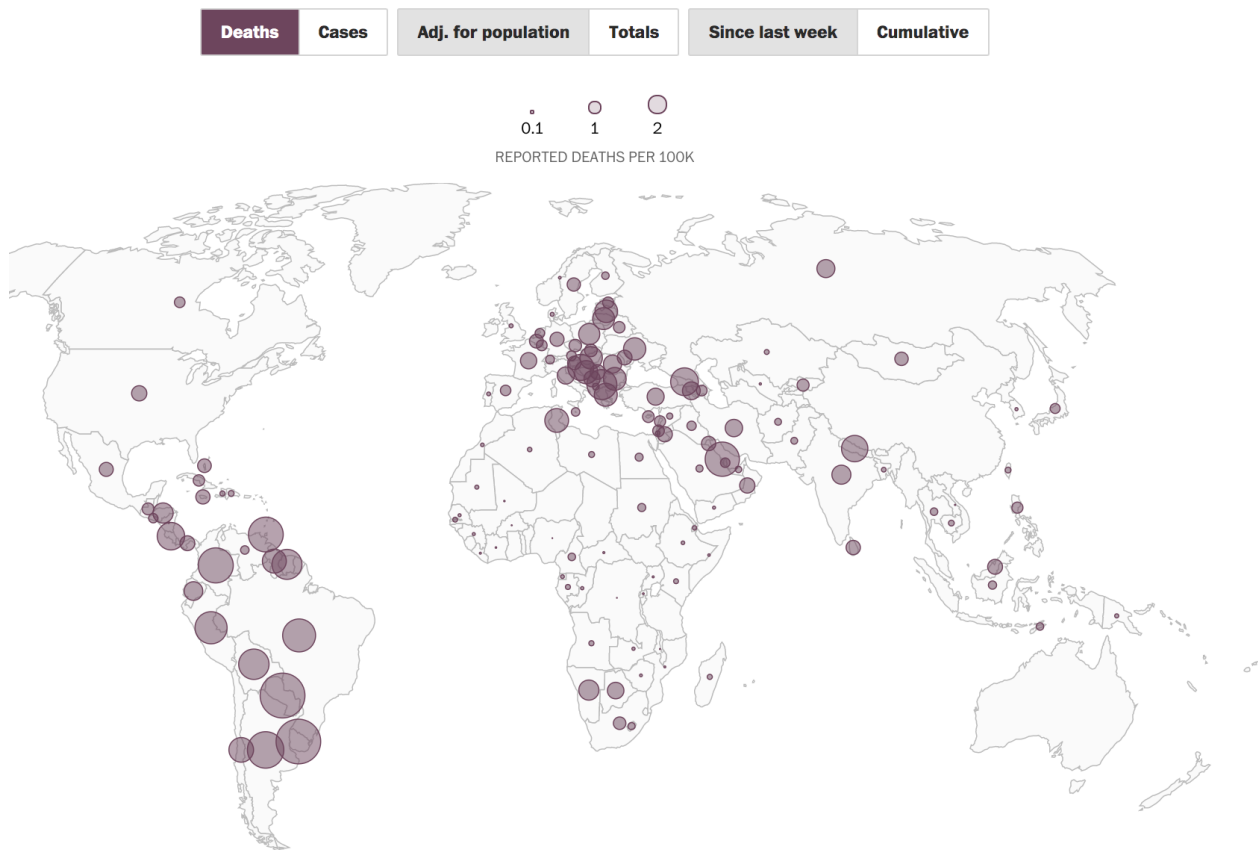
Where the virus is surging



5 25 100
REPORTED CASES PER 100K



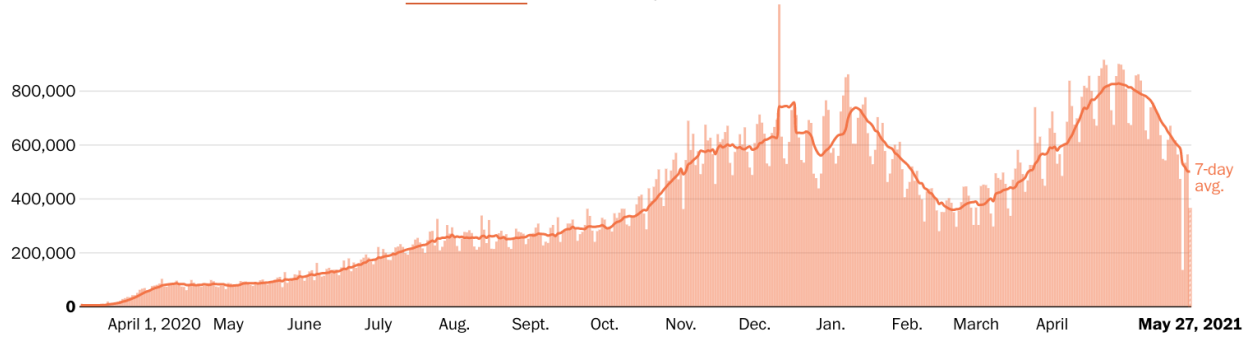
Where the virus is surging



New daily reported cases across the world

Deaths Cases

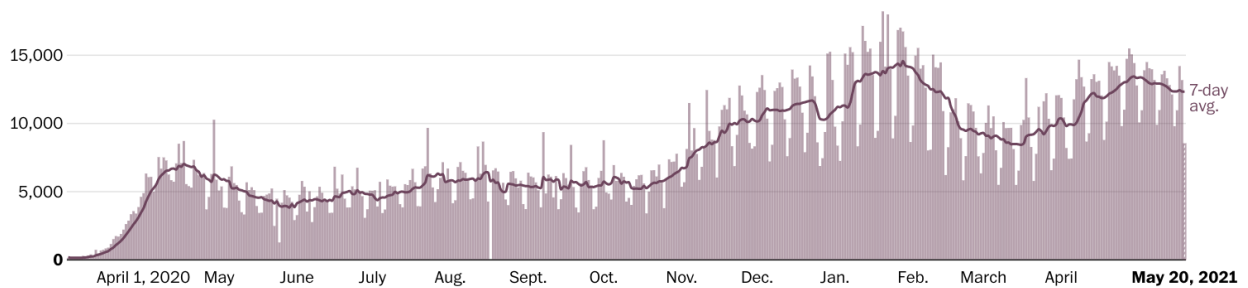
At least 168,744,242 have been reported since Feb. 29, 2020.



New daily deaths reported across the world

Deaths Cases

At least 3,424,636 have been reported since Feb. 29, 2020.



The spike in reported cases on Dec. 11 is due to a change in Turkey's reporting standards. To prevent distorting the overall daily trends, the day's full value may not be shown on this chart.





Global hot spots for reported cases per capita

— 7-day rolling average of daily new reported cases per 100,000 residents



Global hot spots for reported deaths per capita

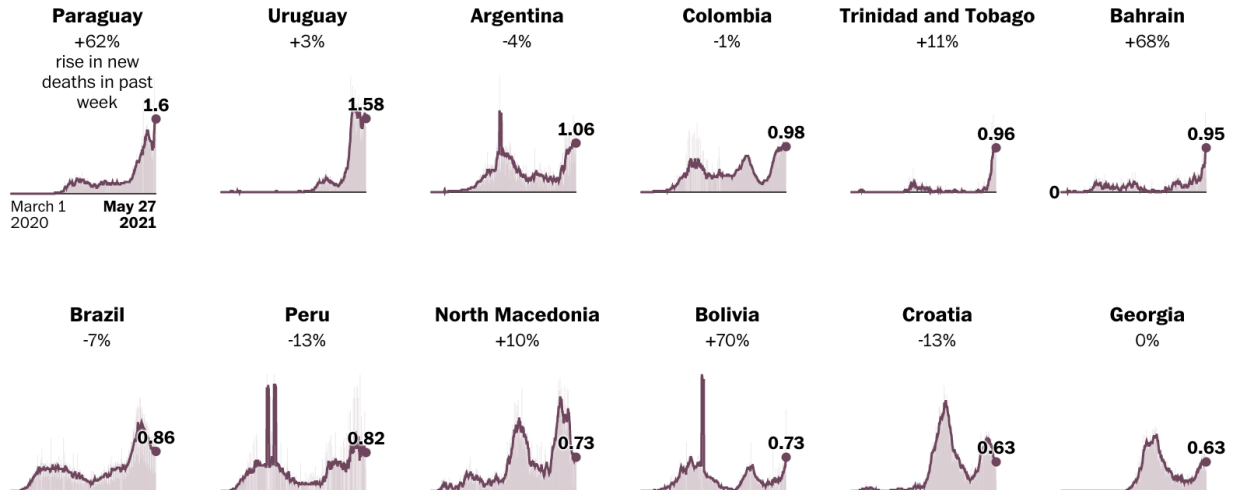
— 7-day rolling average of daily new deaths per 100,000 residents

Deaths

Cases

Adj. for population

Totals



Note: Only countries with a population of more than 1 million are shown.



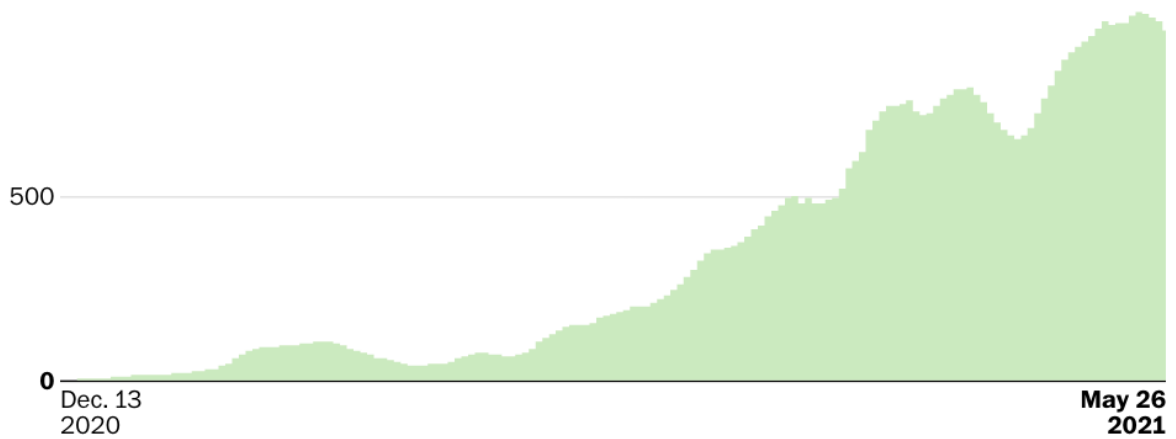
Doses of covid-19 vaccines administered per 100,000 residents

Adj. for population

Totals

Reported doses administered per day

Show by **Canada**



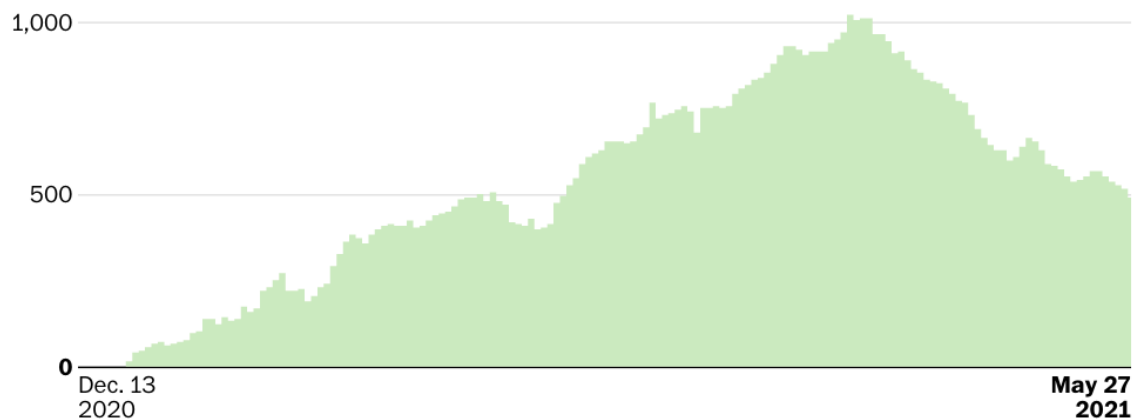
Doses of covid-19 vaccines administered per 100,000 residents

Adj. for population

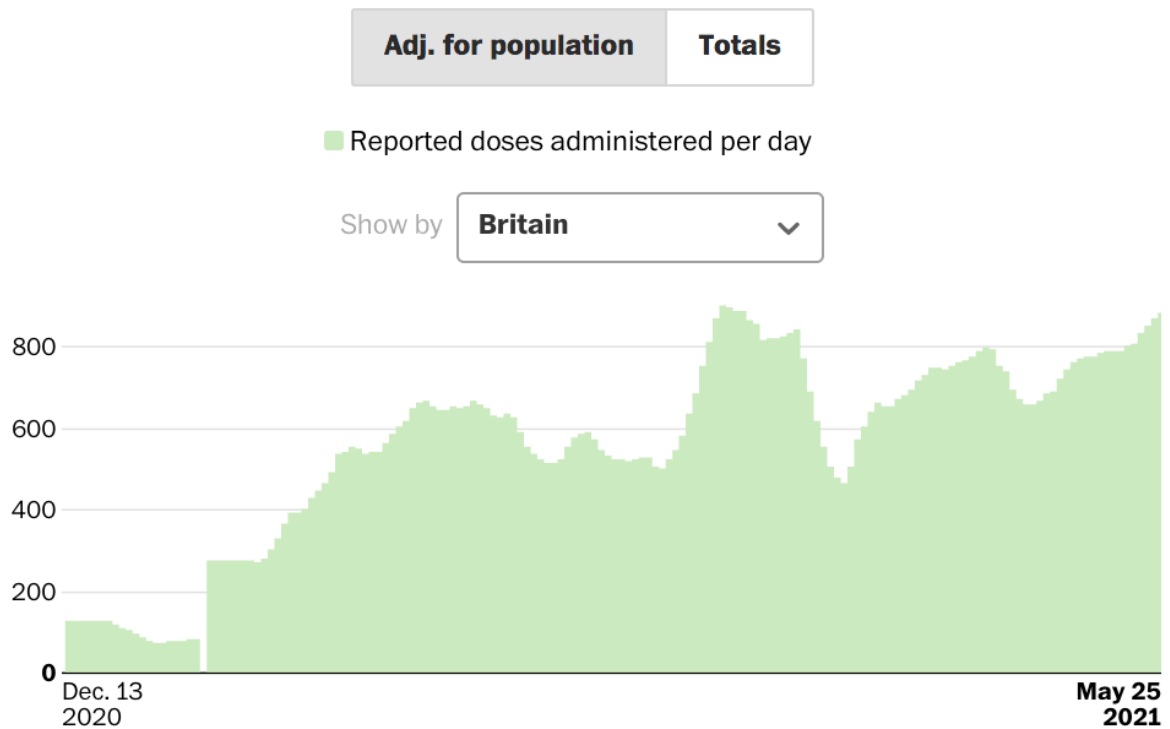
Totals

Reported doses administered per day

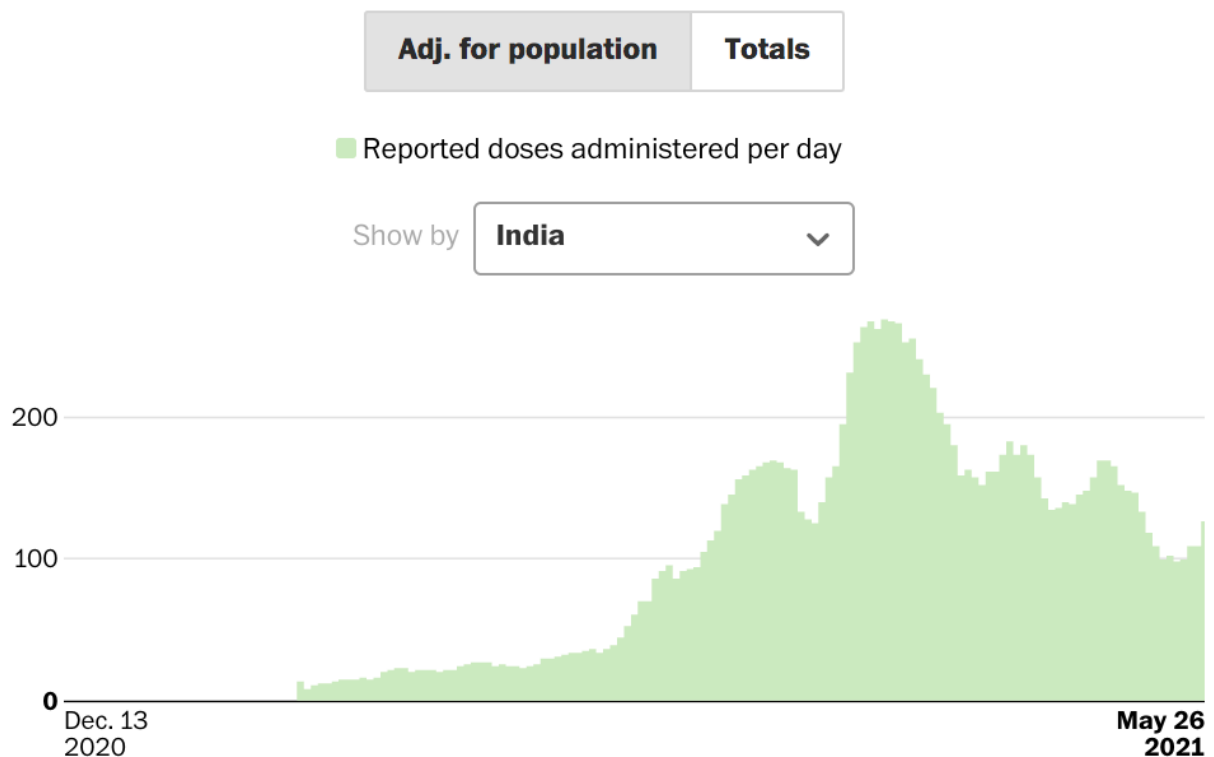
Show by **U.S.**



Doses of covid-19 vaccines administered per 100,000 residents



Doses of covid-19 vaccines administered per 100,000 residents



Doses of covid-19 vaccines administered per 100,000 residents

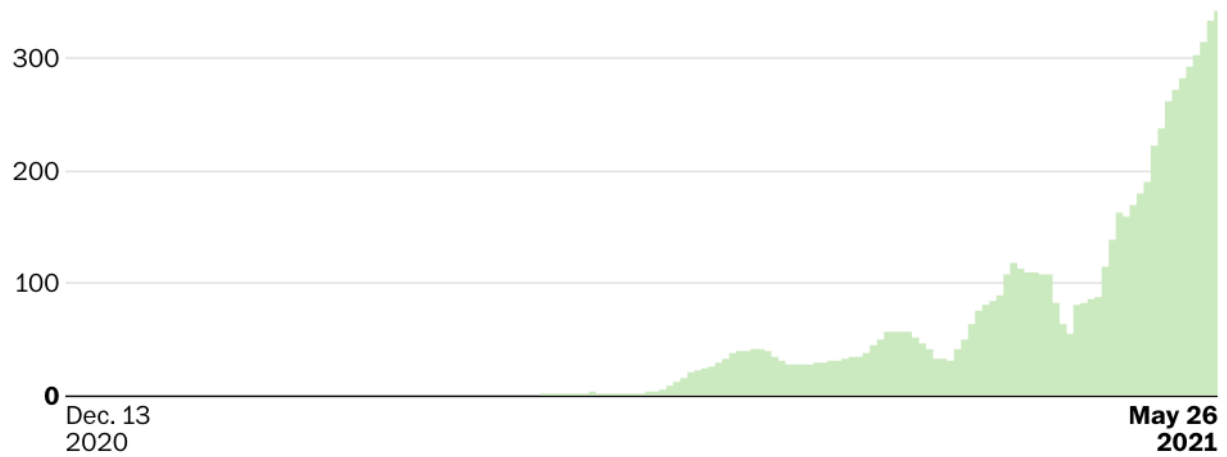
Adj. for population

Totals

Reported doses administered per day

Show by

Japan



Country	Total doses given per 100k	Pct. of pop. partially vaccinated	Pct. of pop. completed vaccination
Seychelles	134,392	71.3%	63.1%
UAE	128,263	—	—
Israel	116,768	60.2%	56.6%
Malta	112,952	70.6%	44.4%
Bahrain	96,269	52.4%	43.8%
Chile	93,892	52.7%	41.2%
Britain	92,759	57.4%	35.3%
U.S.	87,569	49.9%	40.0%
Maldives	86,835	57.0%	29.9%
Mongolia	86,442	57.2%	29.3%
Hungary	85,817	51.8%	34.1%
Qatar	84,856	48.8%	36.1%
Uruguay	77,061	48.5%	28.6%
Monaco	73,563	40.3%	33.3%
Iceland	64,111	45.5%	22.3%
Singapore	63,738	36.1%	27.6%
Bhutan	63,252	63.3%	—
Serbia	62,706	35.0%	27.7%
Canada	58,365	53.7%	4.6%
Germany	56,968	41.8%	15.7%
Denmark	55,041	34.1%	20.9%
Lithuania	54,778	34.9%	19.9%
Belgium	54,573	39.0%	16.0%
Austria	53,712	38.8%	15.2%
Spain	53,701	36.5%	17.9%
Italy	53,681	36.4%	18.1%
Luxembourg	52,413	36.0%	16.4%
Portugal	51,785	35.8%	16.0%
Finland	50,915	43.0%	7.9%
France	50,226	35.4%	15.1%
Liechtenstein	50,180	30.0%	20.2%
Estonia	50,106	34.1%	16.0%
Switzerland	49,698	32.2%	17.5%
Poland	49,473	34.6%	16.0%

Netherlands	49,286	35.7%	14.4%
Greece	48,588	31.9%	17.5%
Slovenia	48,235	30.9%	17.4%
Ireland	47,541	35.1%	—
Dominica	47,532	26.9%	20.6%
Norway	47,008	30.3%	16.7%
Sweden	46,880	34.9%	12.0%
Cyprus	46,778	31.4%	15.4%
Czechia	46,158	34.1%	12.4%
Barbados	45,933	26.6%	19.3%
Slovakia	44,658	30.3%	14.3%
Kuwait	43,260	—	—
Andorra	41,893	35.8%	6.1%
China	40,546	—	—
Croatia	40,451	30.0%	10.4%
Antigua and Barbuda	40,355	33.2%	7.2%
Saint Kitts and Nevis	40,343	29.4%	11.0%
Saudi Arabia	39,106	—	—
Romania	38,884	21.7%	17.6%
Dominican Republic	36,763	28.0%	8.8%
Greenland	36,649	21.8%	14.8%
Morocco	36,098	22.4%	13.7%
Latvia	34,914	24.4%	11.2%
Turkey	34,174	19.6%	14.6%
Guyana	31,378	23.9%	7.5%
Brazil	30,594	20.5%	10.1%
Montenegro	29,067	20.4%	8.6%
Costa Rica	28,881	17.2%	11.7%
El Salvador	27,698	17.3%	10.4%
Albania	26,242	16.8%	9.4%
Argentina	25,214	19.8%	5.5%
Cambodia	24,950	14.3%	10.6%
Panama	22,810	14.8%	8.0%
Mexico	21,720	15.1%	9.3%
Azerbaijan	20,512	11.8%	8.7%
Russia	19,125	11.2%	7.9%
Bulgaria	18,687	11.1%	7.5%



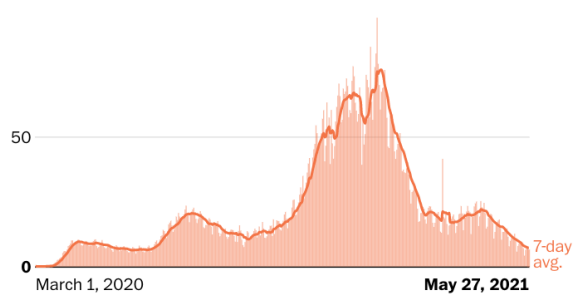
Compare countries by new daily reported cases per 100k

Deaths Cases Adj. for population Totals

Select a country:

U.S.

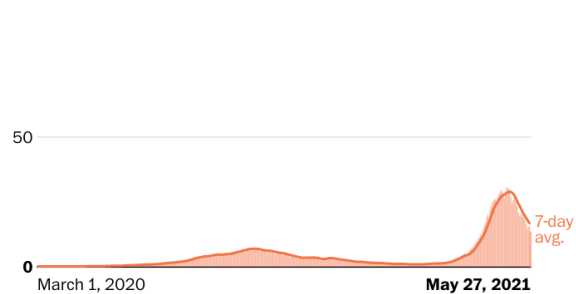
At least 33,190,611 have been reported since Feb. 29, 2020.



Select a country:

India

At least 27,547,705 have been reported since Feb. 29, 2020.



Compare countries by new daily deaths reported per 100k

Deaths

Cases

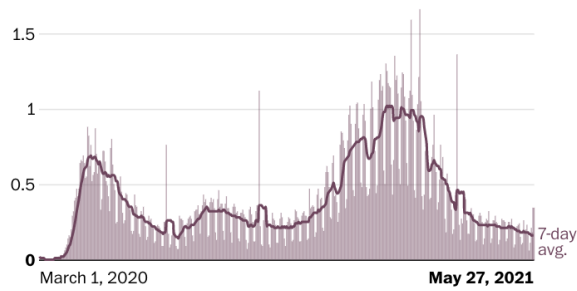
Adj. for population

Totals

Select a country:

U.S.

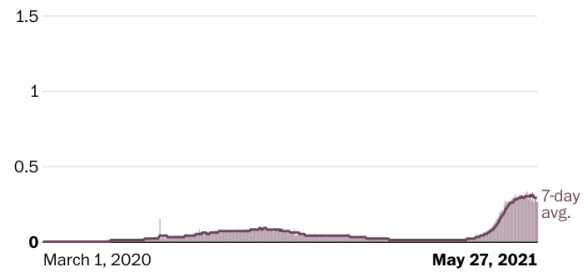
At least 591,863 have been reported since Feb. 29, 2020.



Select a country:

India

At least 318,821 have been reported since Feb. 29, 2020.



Note: there is likely large under-reporting in India of both cases and deaths.

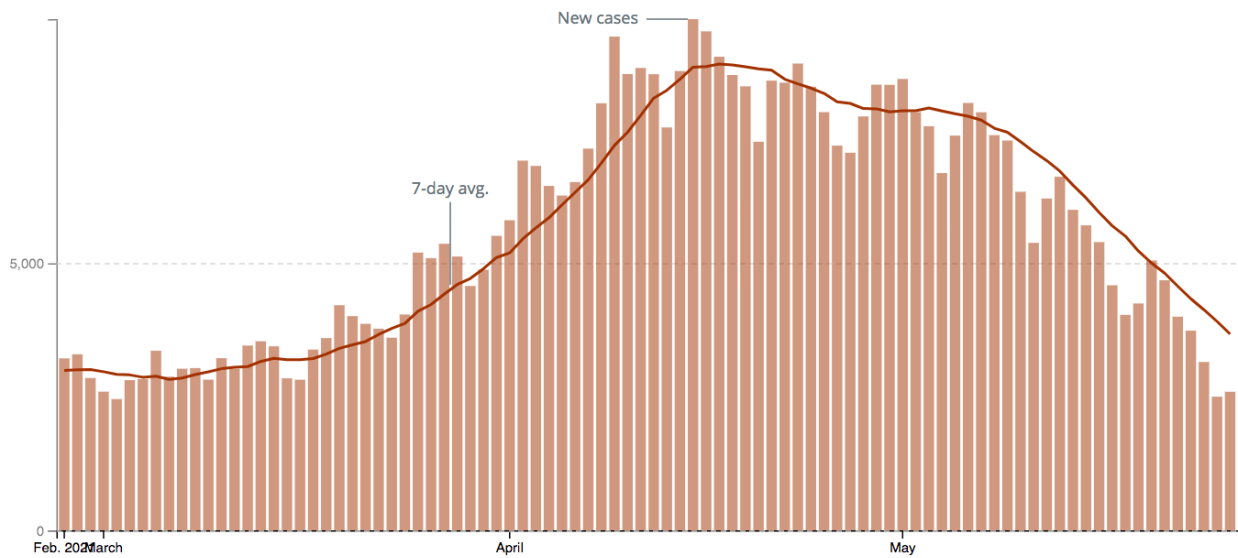


Source of Canadian Data Below (May 26, 2021):
<https://newsinteractives.cbc.ca/coronavirustracker/>

In Canada 1,368,106 cases have been reported.

90 DAYS

ALL TIME

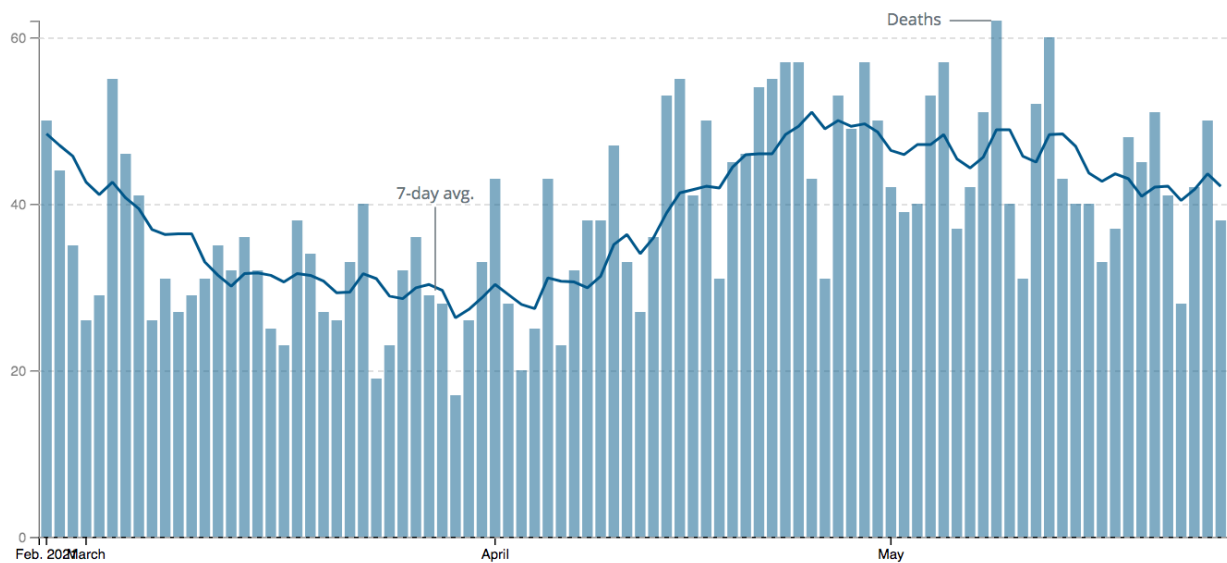


Source: Public Health Agency of Canada.

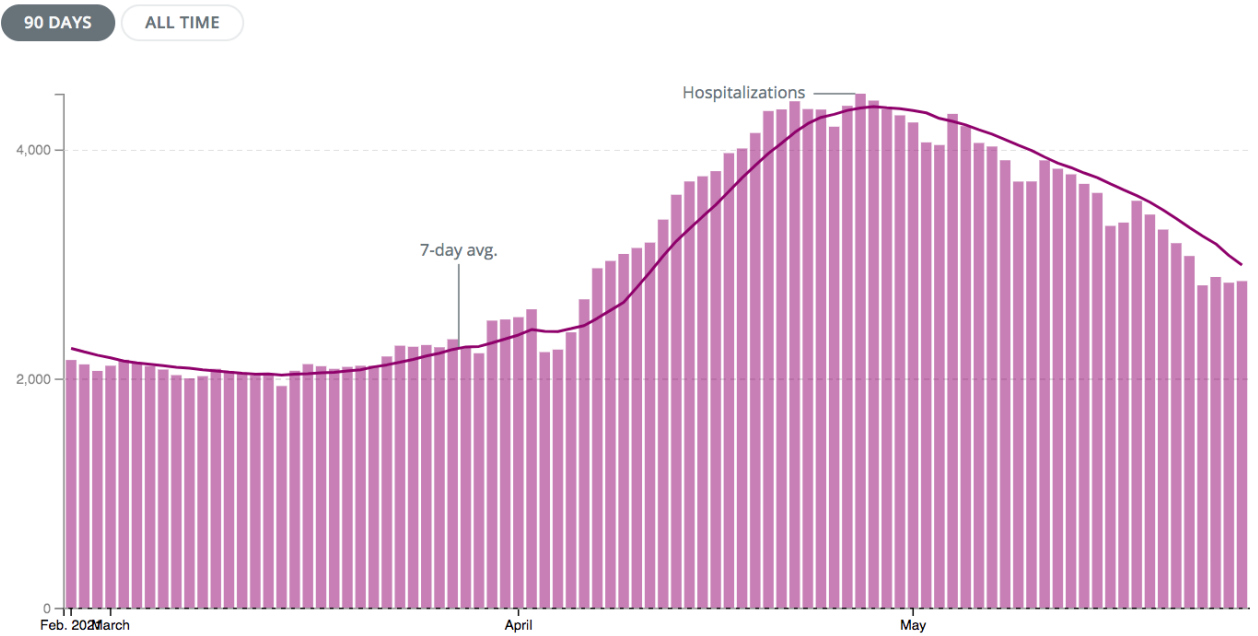
In Canada 25,360 deaths have been reported.

90 DAYS

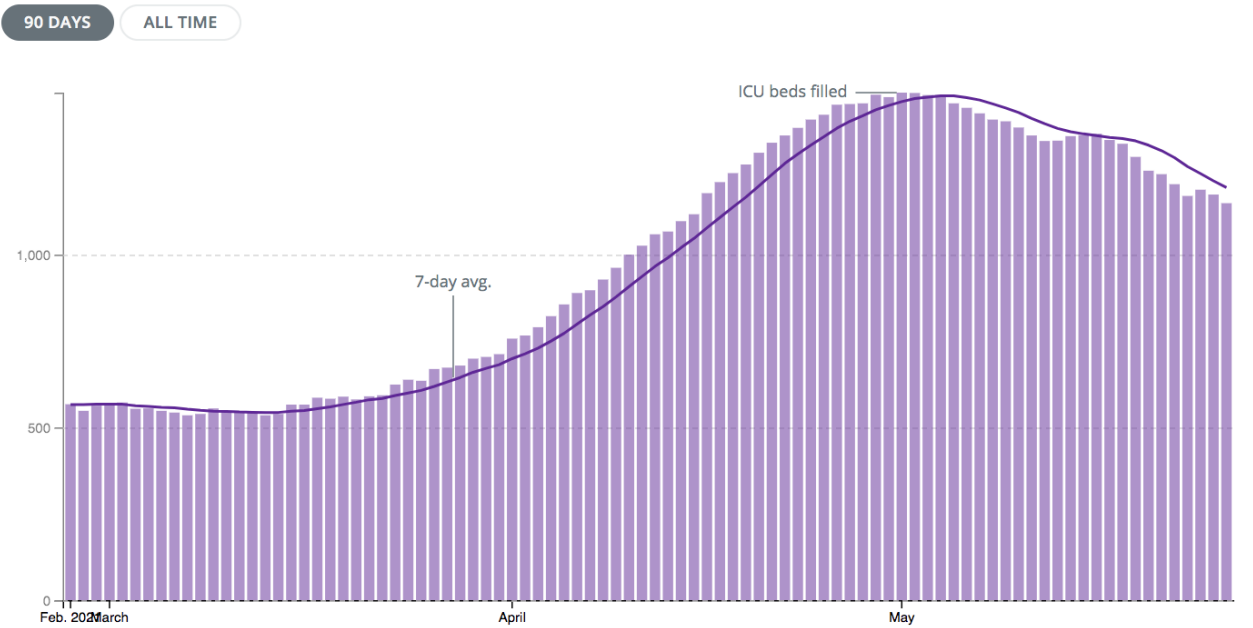
ALL TIME



In Canada there are currently 2,851 people hospitalized.



In Canada there are currently 1,149 ICU beds filled.



In the past week in Canada...

<p>New cases</p> <p>↓</p> <p>There were 25,719 new cases, a decrease of 30 per cent. That's 67.6 cases per 100,000 people.</p>	<p>Active cases</p> <p>↓</p> <p>The number of active cases declined 27 per cent.</p>	<p>Deaths</p> <p>↓</p> <p>There were 295 deaths, or 0.8 per 100,000 people, a decrease of 2 per cent.</p>	<p>Hospitalizations</p> <p>↓</p> <p>Hospitalizations declined 14 per cent and ICU beds filled declined 8 per cent.</p>
---	---	--	---

Cases and deaths

Cases give a sense of whether the number of new infections is growing and how quickly. However, there are a few days between each of the following: infection, the onset of symptoms, testing and test results, meaning that the numbers typically reflect new infections from several days and sometimes more than a week ago.

Because the number of reported cases depends on how much testing is done and how targeted or widespread it is, epidemiologists consider deaths to be a better gauge of the actual number of infections and the progress of the epidemic. While it takes a couple of weeks for an infected person to be reported as a positive case, death occurs, on average, more than three weeks after a person has been infected.

Cases Deaths

View as table

View as chart

Region	New cases in the last 7-days per 100K		Change in daily cases in the last 7-days	Total cases per 100K	Total cases
Canada	67.6	↓	-30%	3,595.7	1,368,106
Alberta	89.2	↓	-49%	5,081.4	225,424
British Columbia	44.4	↓	-32%	2,772.8	142,886
Manitoba	220.4	↓	-4%	3,573.7	49,350
New Brunswick	9.2	↑	7%	276.1	2,159
Newfoundland and Labrador	11.7	↑	33%	241.5	1,257
Nova Scotia	43.3	↓	-40%	553.8	5,424
Ontario	77.0	↓	-26%	3,565.1	526,045
Prince Edward Island	0.6	↓	-92%	125.1	200
Quebec	40.6	↓	-27%	4,296.5	368,463
Saskatchewan	86.4	↓	-20%	3,902.2	46,000
Northwest Territories	2.2	↓	-92%	281.4	127
Nunavut	33.0	↓	-68%	1,641.8	647
Yukon	0.0	—	0%	199.1	84

CasesDeaths

View as table

View as chart

Region	New deaths in the last 7-days per 100K		Change in daily deaths in the last 7-days	Total deaths per 100K	Total deaths
Canada	0.8	↓	−2%	66.7	25,360
Alberta	0.9	↑	14%	49.5	2,198
British Columbia	0.5	↓	−24%	32.7	1,683
Manitoba	1.4	↑	12%	74.9	1,035
New Brunswick	0.0	↓	−100%	5.5	43
Newfoundland and Labrador	0.0	—	0%	1.2	6
Nova Scotia	0.5	↑	67%	8.1	79
Ontario	1.0	↑	1%	58.8	8,678
Prince Edward Island	0.0	—	0%	0	0
Quebec	0.5	↑	2%	129.5	11,105
Saskatchewan	0.5	↓	−57%	44.8	528
Northwest Territories	0.0	—	0%	0	0
Nunavut	0.0	—	0%	10.2	4
Yukon	0.0	—	0%	4.7	2



Source of Vaccination Data Below (May 27, 2021):

<https://www.bloomberg.com/graphics/covid-vaccine-tracker-global-distribution/>

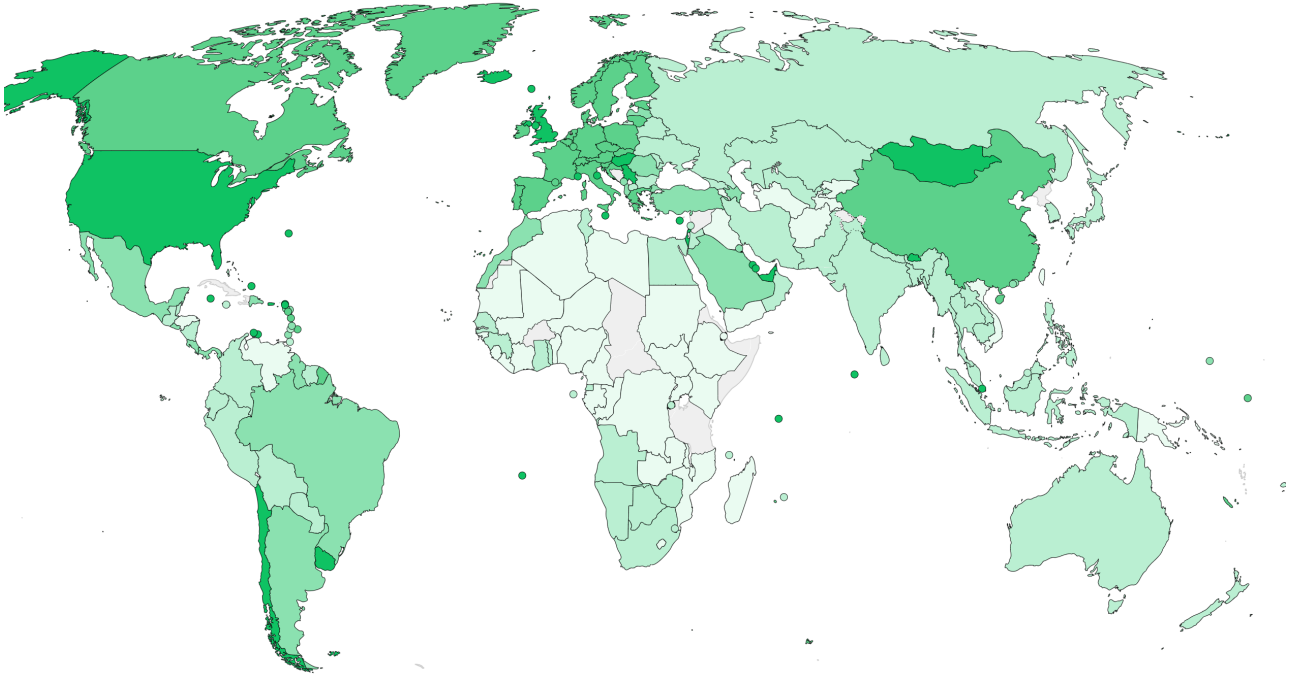
More Than 1.78 Billion Shots Given: Covid-19 Tracker

In the U.S., 291 million doses have been administered

World Map of Vaccinations

More than 1.78 billion doses have been administered—enough to fully vaccinate 11.6% of the global population

no data 1 10 20 30% of population covered



The biggest vaccination campaign in history is underway. More than **1.78 billion doses** have been administered across 176 countries, according to data collected by Bloomberg. The latest rate was roughly **30.6 million doses a day**.

Enough doses have now been administered to fully vaccinate 11.6% of the global population—but the distribution has been lopsided. Countries and regions with the highest incomes are getting vaccinated more than 30 times faster than those with the lowest.

Uneven Access to Vaccines

Least wealthy Most wealthy

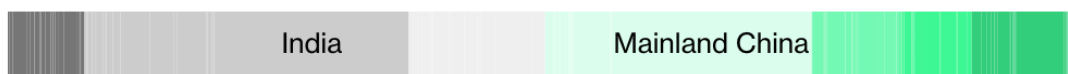
The wealthiest 27 places have **30.7%** of the vaccinations...

Vaccines



Hover for more comparisons

Population



...but **10.4%** of the world's population



Source of U.S. and Canadian Data Below (May 27, 2021):
<https://www.ctvnews.ca/health/coronavirus/covid-19-curves-compare-canada-and-other-key-nations-1.4881500#link-top>

Comparing COVID-19 in states and provinces

Showing 7-day avg. cases, per million

Ranked by highest current cases Scale: all same



#10

Pennsylvania

100.1

avg. daily, per million
on 5/26/21

in U.S.



#4

Ontario

98.0

avg. daily, per million
on 5/27/2021

in Canada



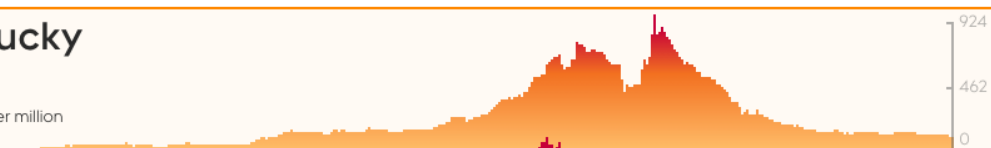
#11

Kentucky

96.5

avg. daily, per million
on 5/26/21

in U.S.



#12

Minnesota

94.3

avg. daily, per million
on 5/26/21

in U.S.



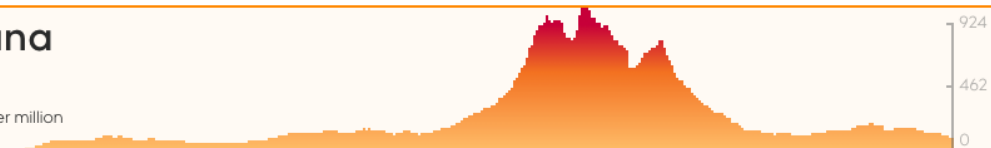
#13

Indiana

93.7

avg. daily, per million
on 5/26/21

in U.S.



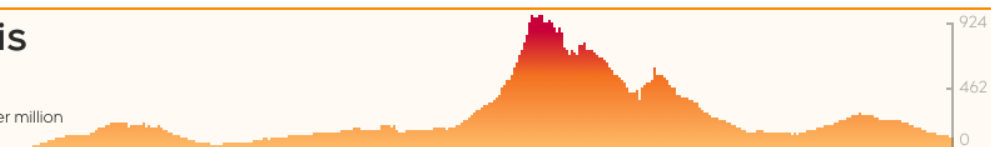
#14

Illinois

90.8

avg. daily, per million
on 5/26/21

in U.S.



#15

Delaware

88.6

avg. daily, per million
on 5/26/21

in U.S.



#16

Louisiana

86.3

avg. daily, per million
on 5/26/21

in U.S.



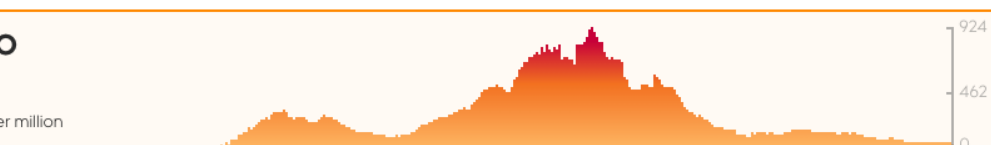
#17

Idaho

82.0

avg. daily, per million
on 5/26/21

in U.S.



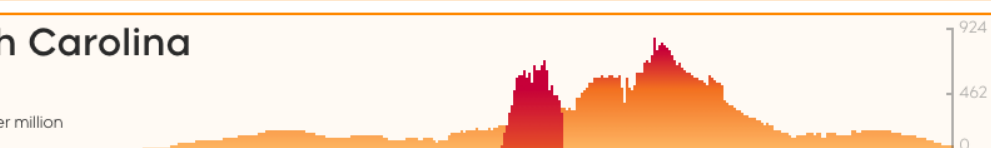
#18

North Carolina

82.0

avg. daily, per million
on 5/26/21

in U.S.



#19

North Dakota

78.4

avg. daily, per million
on 5/26/21

in U.S.



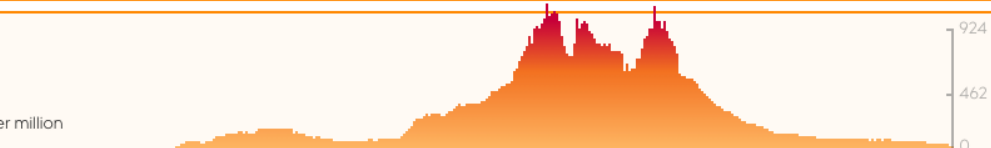
#20

Utah

74.0

avg. daily, per million
on 5/26/21

in U.S.



#21

Ohio

195.0

avg. daily, per million
on 2/18/21

in U.S.



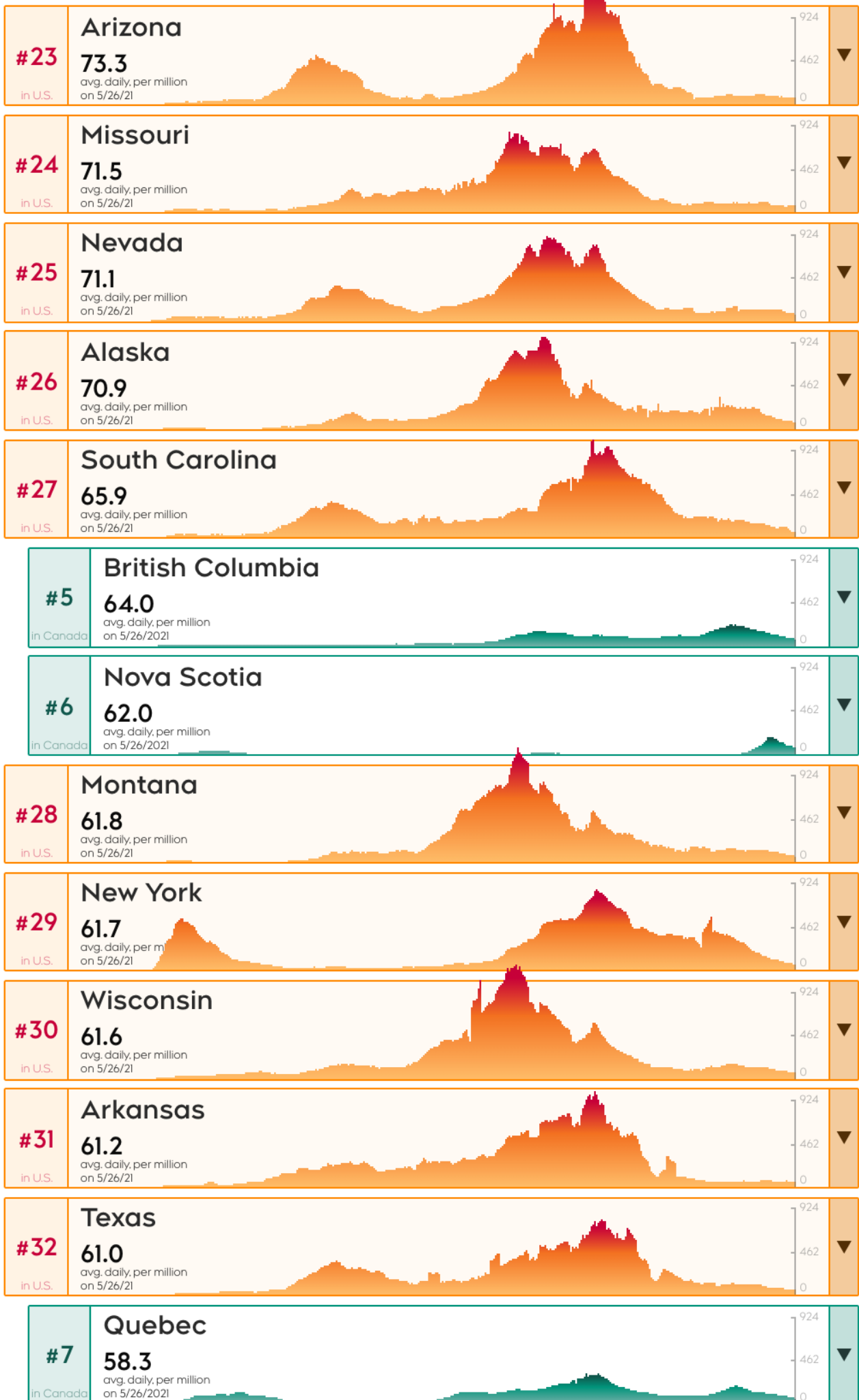
#22

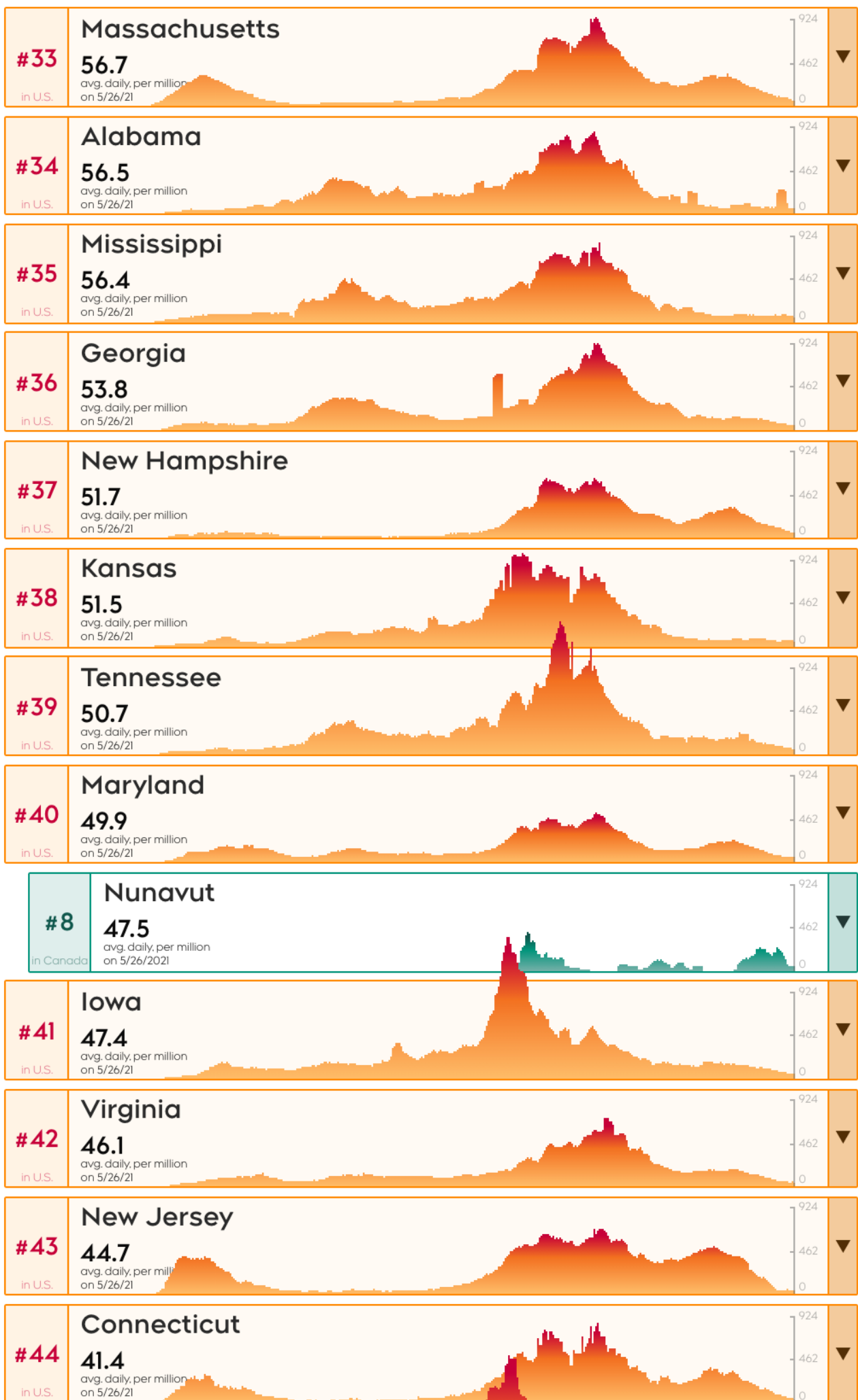
New Mexico

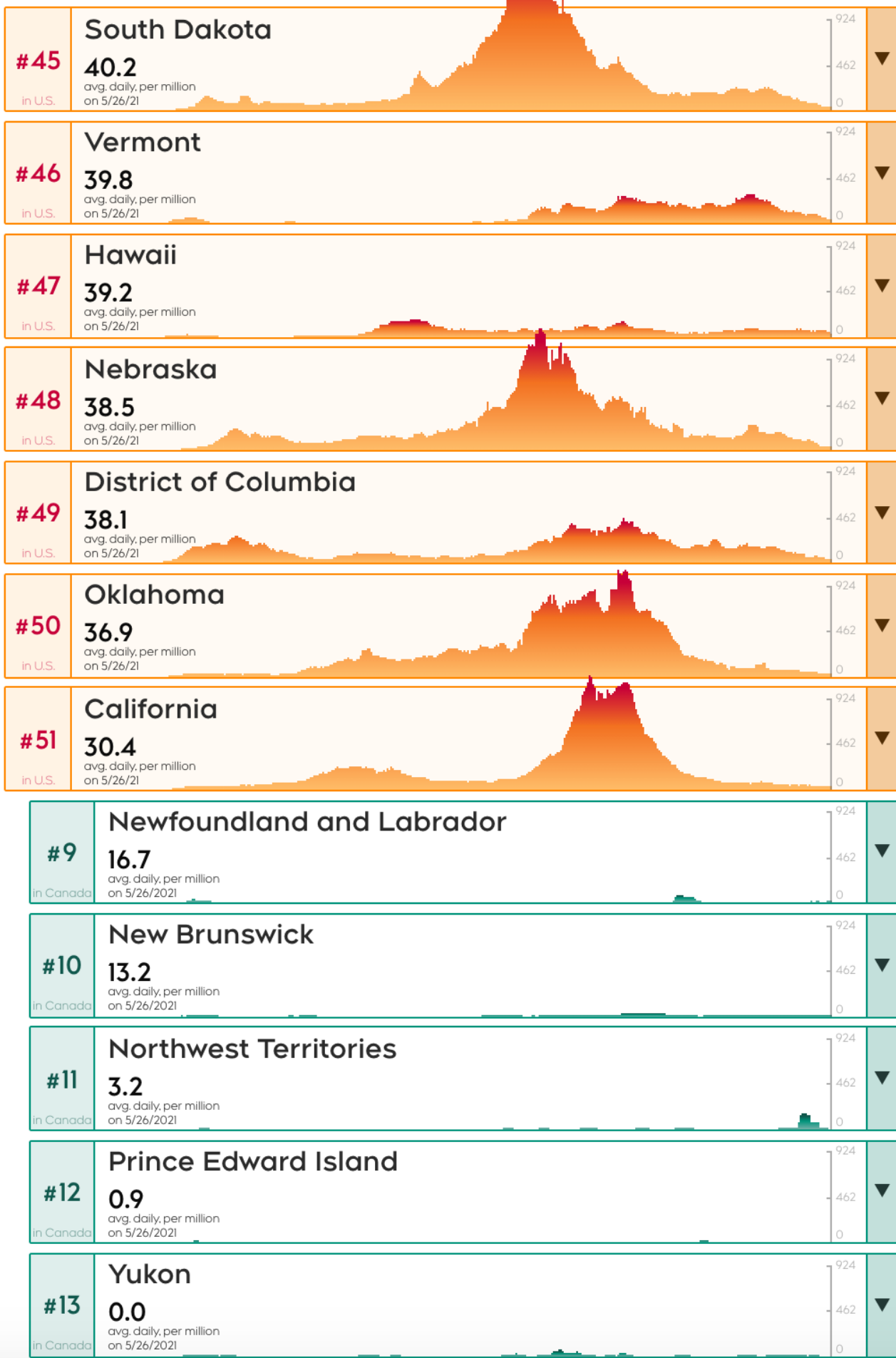
73.6

avg. daily, per million











Source of Canadian Data Below (May 27, 2021):
<https://www.macleans.ca/society/health/covid-19-in-canada-how-our-battle-against-the-second-wave-is-going/>

No. of daily COVID-19 cases

Daily, starting on day Canada reported its 100th case

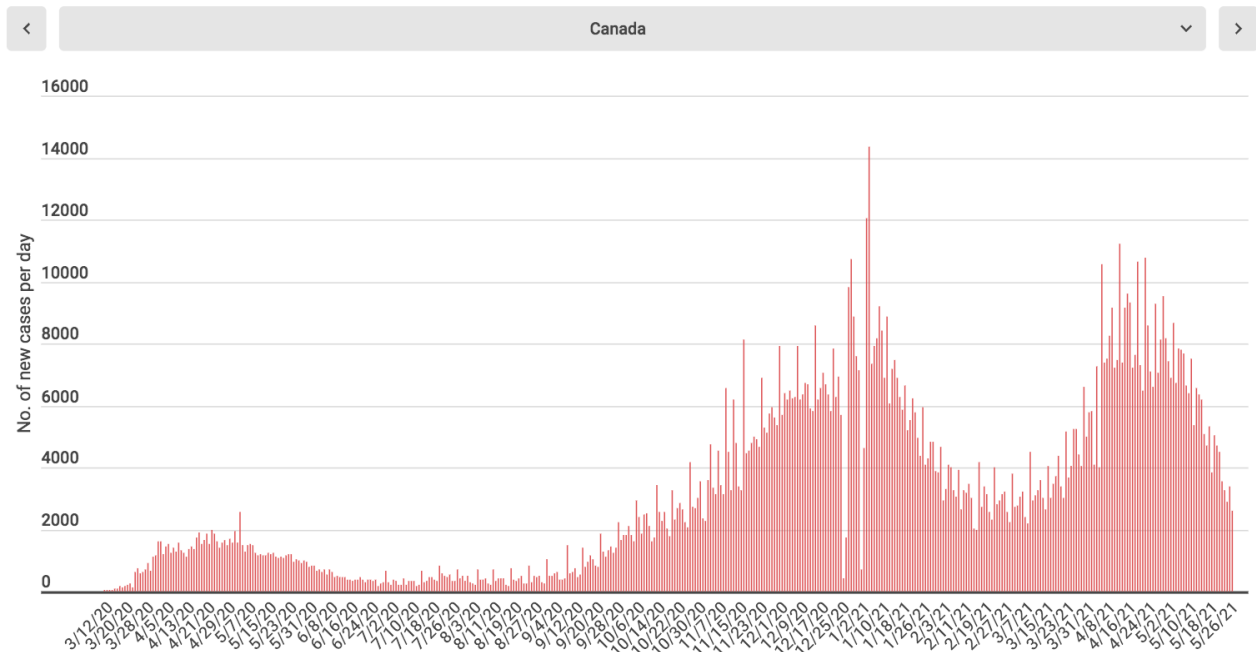


Chart by Patricia Treble. Source: Canadian federal and provincial coronavirus updates

COVID-19 cases in Canada

Cumulative total, starting with day of 100th case

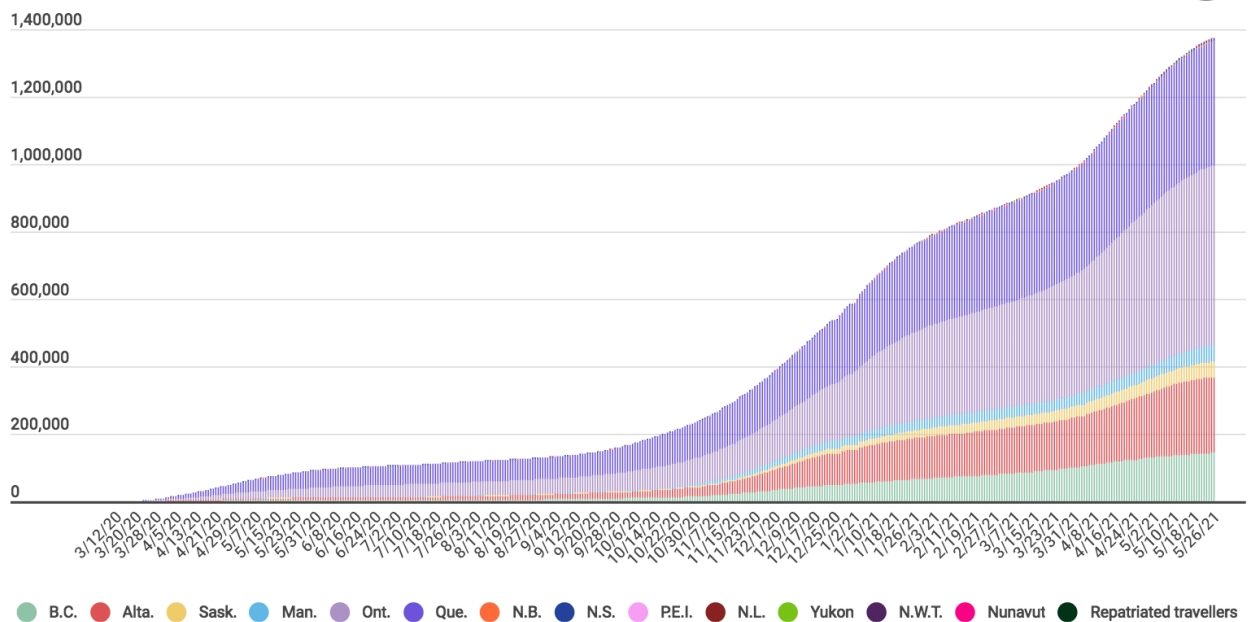
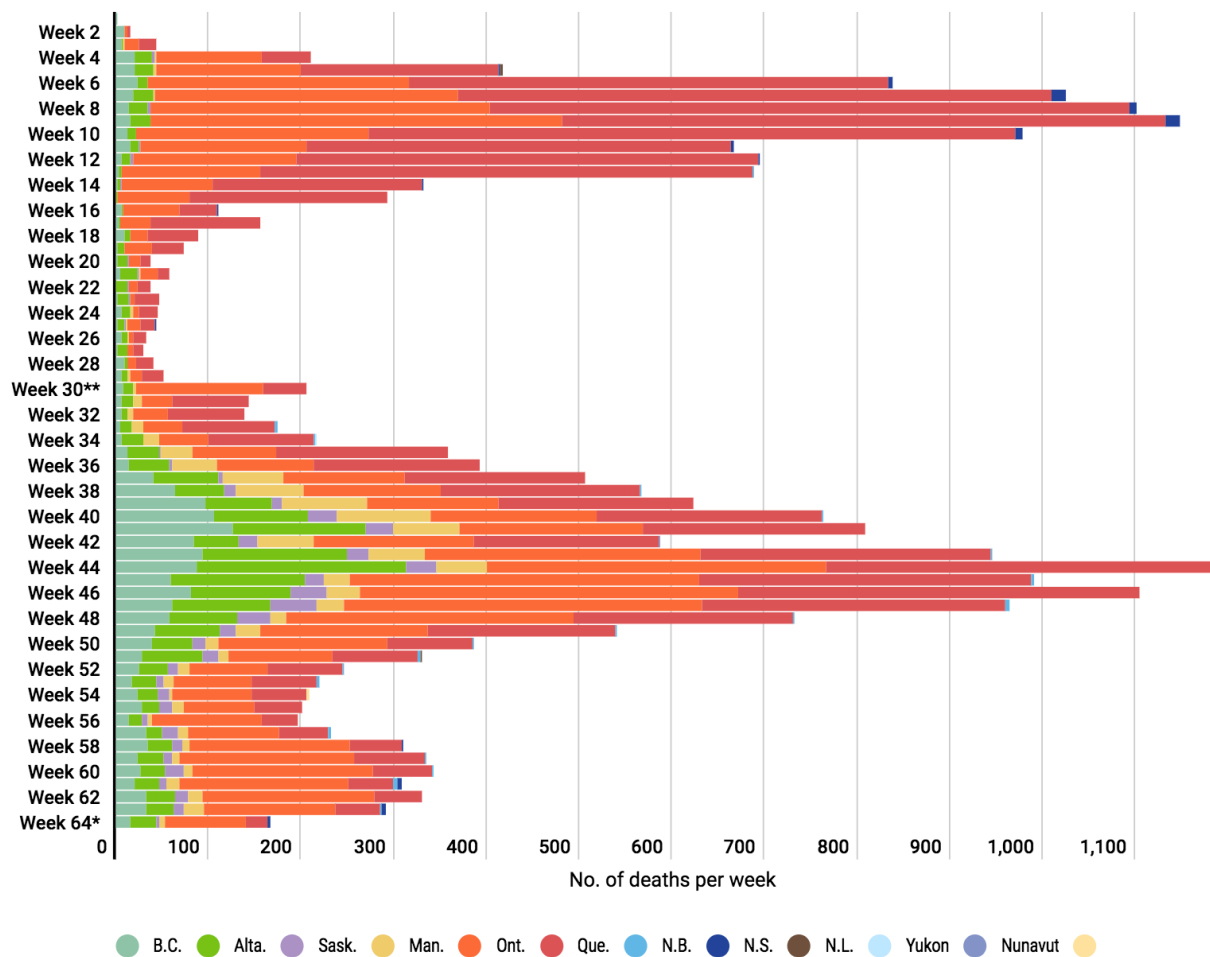


Chart by Patricia Treble and Lauren Cattermole - Source: Canadian federal and provincial coronavirus updates

COVID-19 deaths in Canada

(starting the week of the first death on March 8)



Counting the doses of COVID-19 vaccines

(past distributions and forecasted allocations of the Moderna and Pfizer vaccines to the provinces and territories, as well as doses administered to date)

DATE (week of)	Moderna doses	Pfizer doses	AstraZeneca doses	WEEKLY total of doses distributed	CUMULATIVE total of doses distributed	WEEKLY total of doses administered	CUMULATIVE total of doses administered
Mar. 29		1,195,740	1,504,200	2,699,940	9,536,180	1,119,776	6,233,533
Apr. 5	855,600	1,019,070	316,800	2,191,470	11,727,650	1,758,194	7,991,727
Apr. 12		1,019,070		1,019,070	12,746,720	1,981,916	9,973,643
Apr. 19		1,019,070		1,019,070	13,765,790	2,071,098	12,044,741
Apr. 26	650,000	1,019,070		1,669,070	15,434,860	1,780,735	13,825,476
May 3		2,022,930		2,022,930	17,457,790	2,092,079	15,917,555
May 10	1,046,400	2,025,270		3,071,670	20,529,460	2,497,981	18,415,536
May 17	1,046,400	2,025,270	655,200	3,726,870	24,256,330	2,610,271	21,025,807
May 24		2,026,440		2,026,440	26,282,770		

Note as of May 27: As of May 26, 60.8 per cent of **eligible Canadians 12 and older** (and 66 per cent of adults) have received at least one dose of vaccine as 300,000 doses were administered across the country on that day.



Photo Credits: David Zakus



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