SOTSIAALMINISTEERIUM

TARTU ÜLIKOOL 1632

Euroopa Liit
Euroopa
Regionaalarengu Fond

Eesti
tuleviku heaks

Targemana tulevikku

Toivo Maimets, Teadusnõukoja esimees,
Tartu Ülikooli rakubioloogia professor

Teaduskonverents “Viirustega tulevikku”, Tallinn, 28. nov. 2023

WORLD / COUNTRIES / ESTONIA

Last updated: November 23, 2023, 11:43 GMT

Estonia

Coronavirus Cases:

622,146 *(laboratoorselt kinnitatud)*

Deaths:

3,001

*Maksimaalne ühes päevas registreeritud nakatunute arv **9 225** oli 2. märtsil 2022*

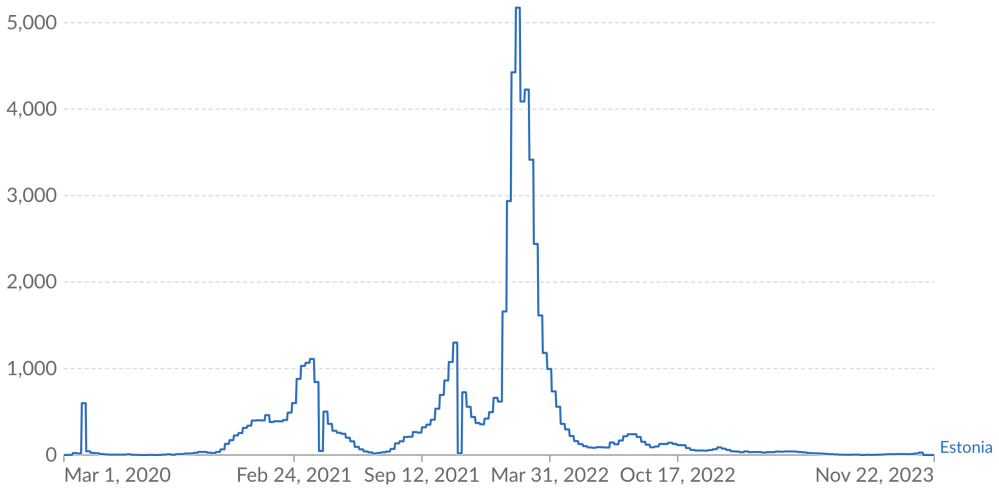
https://www.worldometers.info/coronavirus/country/estonia/

Daily new confirmed COVID-19 cases per million people

Our World in Data

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.

Table | Map | Chart | Settings

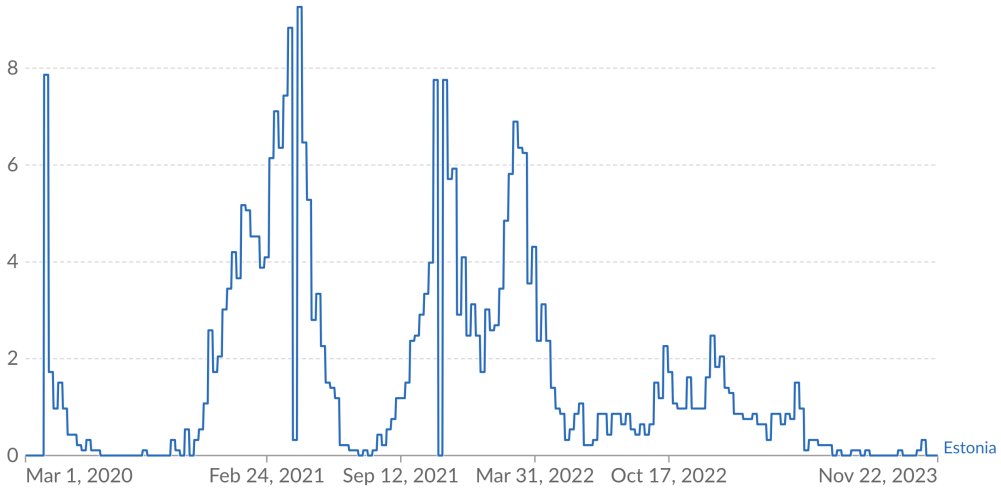


Daily new confirmed COVID-19 deaths per million people

Our World in Data

7-day rolling average. Due to varying protocols and challenges in the attribution of the cause of death, the number of confirmed deaths may not accurately represent the true number of deaths caused by COVID-19.

Table | Map | Chart | Settings



Jan 8, 2020 — Nov 22, 2023

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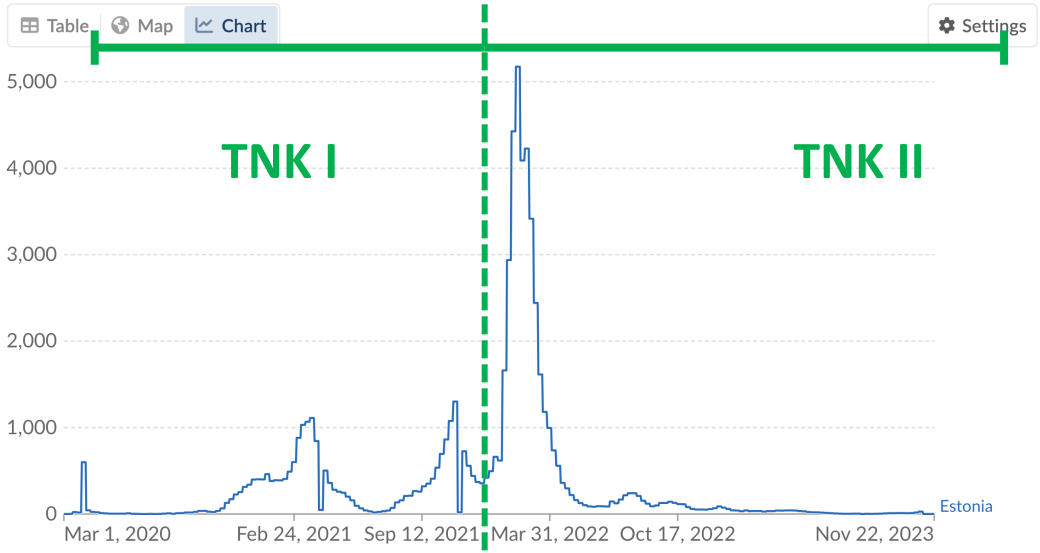
Our World in Data

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



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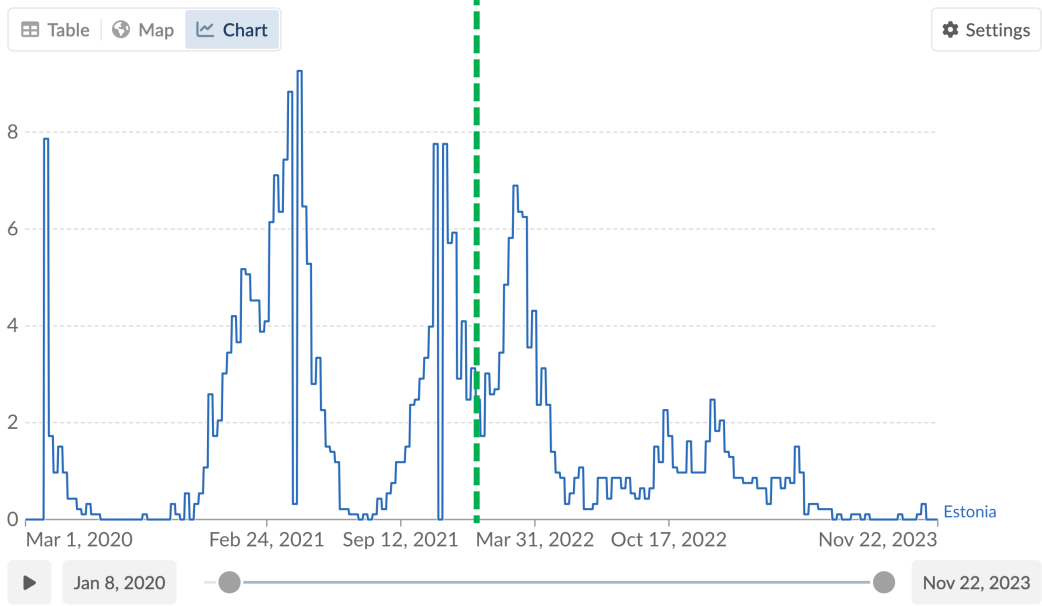
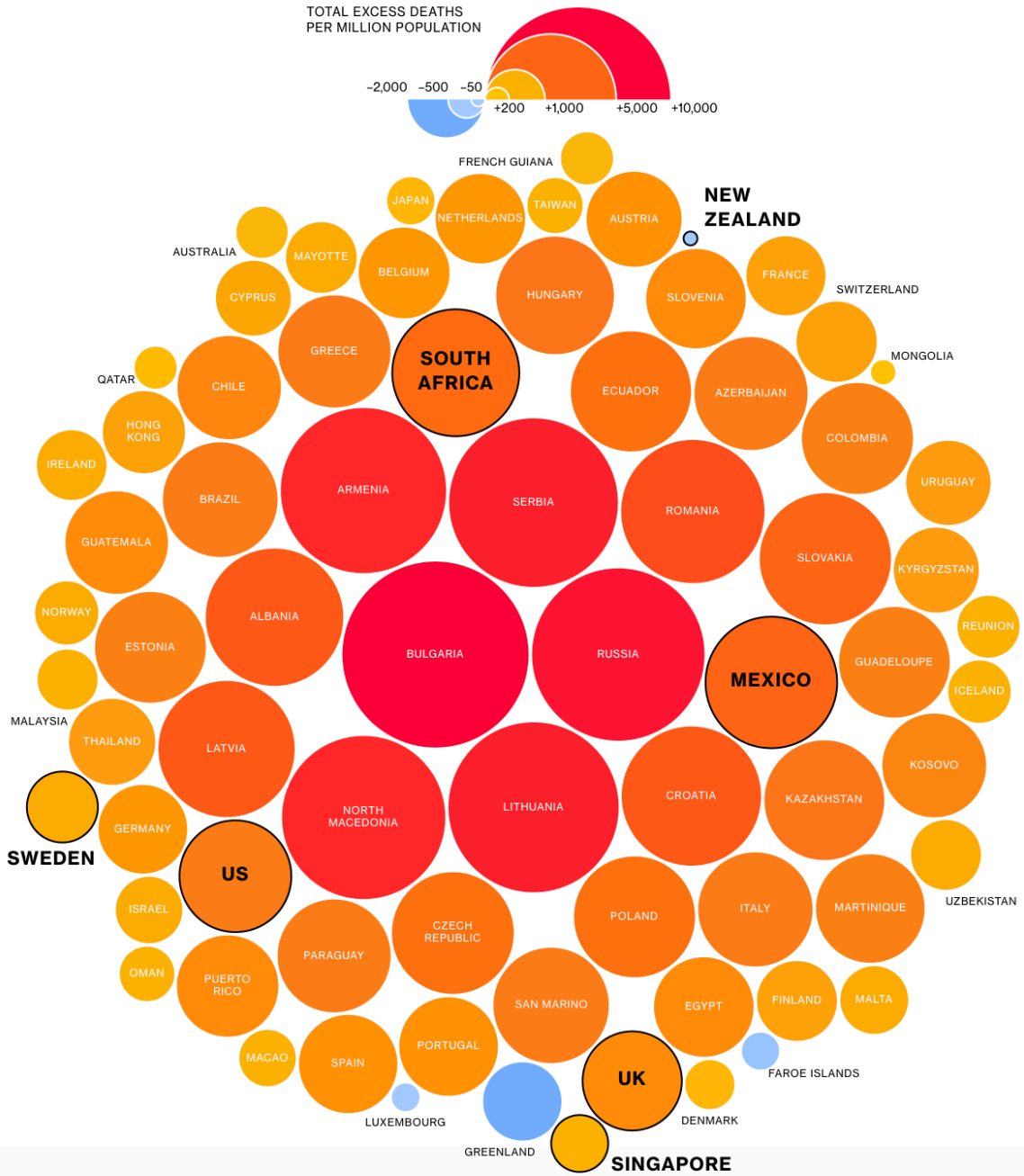


LIIGSURMAD, MILJONI KOHTA

By Bloomberg Opinion + Follow
15 March 2023 at 07:00 EET, *Corrected on 15 March 2023 at 15:45 EET*



https://www.bloomberg.com/graphics/2023-opinion-lessons-learned-from-covid-pandemic-global-comparison/

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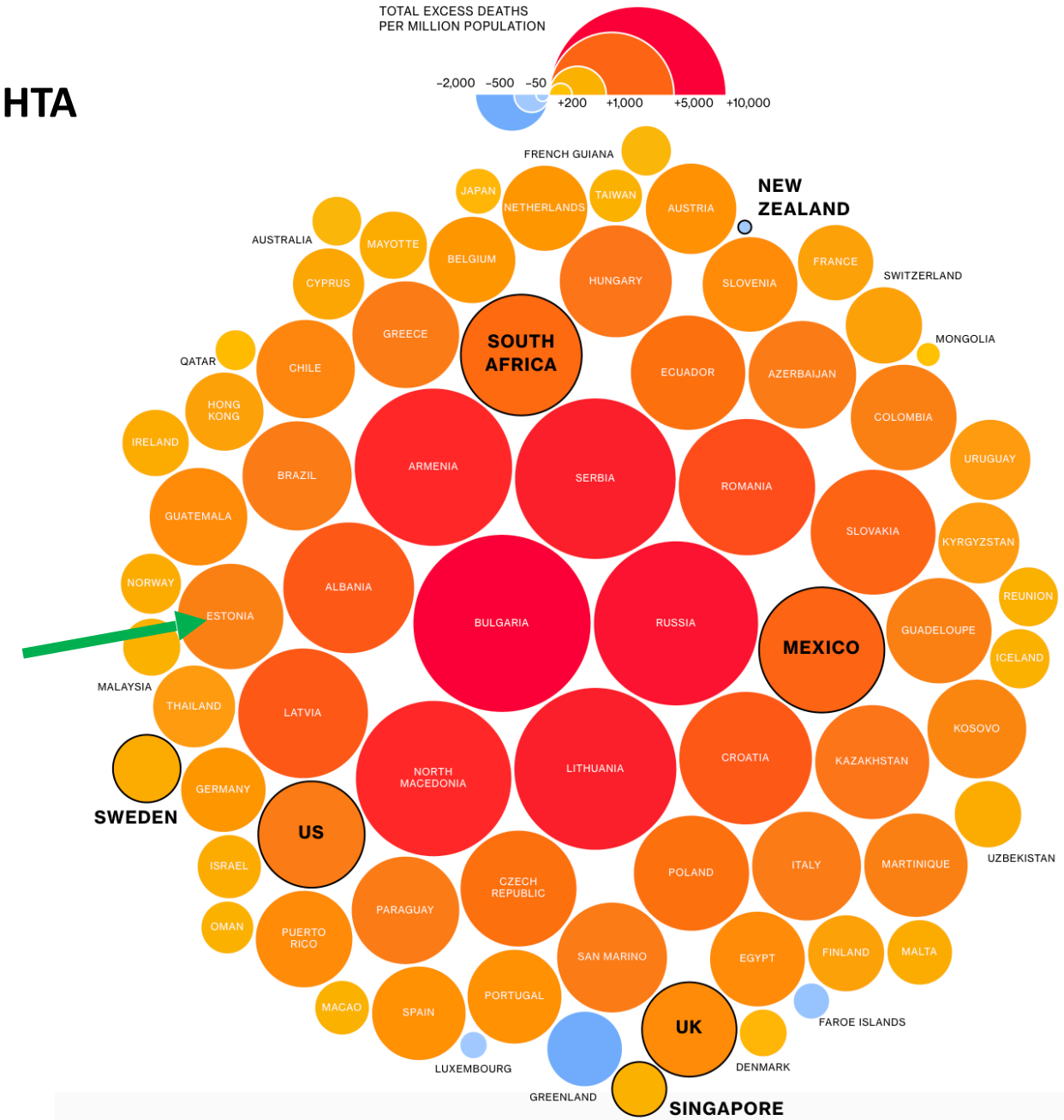


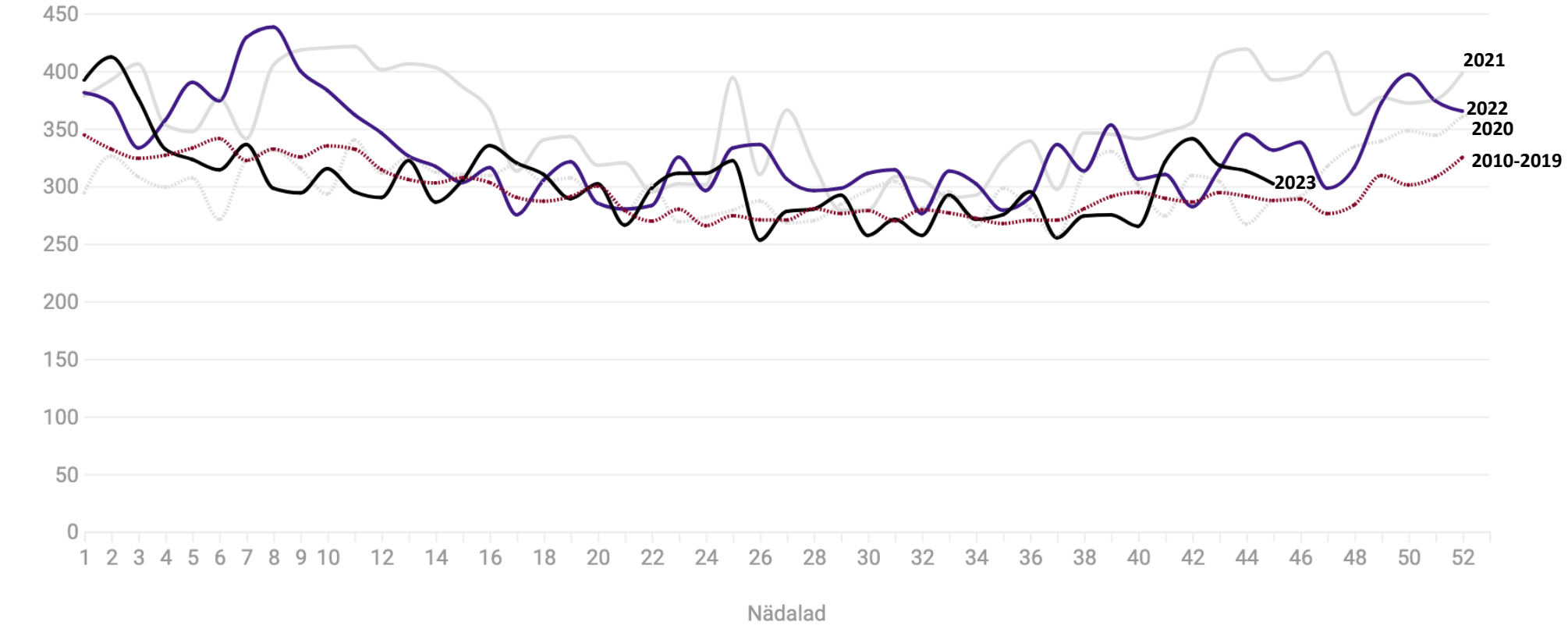
https://www.bloomberg.com/graphics/2023-opinion-lessons-learned-from-covid-pandemic-global-comparison/

Eesti elanike surmad nädalate kaupa

Periood 2010-2023 ja 2010-2019 keskmine

EESTI STATISTIKA

2021 × 2022 × 2023* × 2010-2019 keskmine surmade arv × 2020 × Vali aasta



Allikas: statistikaamet • * 2023. aasta surmade arv on esialgne.

Rahastanud Euroopa Liit

MIS OLID SUURIMAD PROBLEEMID, MIS LAHENDUST OOTAVAD?

- õigusruum

- libainformatsioon

- vaktsineerimine

MIS OLID SUURIMAD PROBLEEMID?

- õigusruum

“Praegu on õige aeg teha korda COVID-19 pandeemia kolme aasta jooksul ilmnenud tõrked seadusandluses, ametkondade vastutusalades ja ülesannetes jms. Eriti oluline on lahendada Nakkushaiguste ennetamise ja tõrje seadusega seonduv problemaatika uute võimalike pandeemiate valguses ning anda õiguslik alus paindlikuks ja kiireks reageerimiseks riigi tasandil.”

Kolm aastat COVID-19-ga. Kuidas edasi?
T. Maimets, M. Altmets, J. Harro, R. Kalda, P. Peterson, M. Varjak, T. Vihalemm. Riigikogu Toimetised 46/2022.

Nakkushaiguste ennetamise ja tõrje seaduse muutmise ning sellega seonduvalt teiste seaduste muutmise seadus. “Välja langenud koosseisu lõppemisega 23.02.2022”

Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine. Riigikantselei 28.02.23

Number	Saatja viit	Pealkiri	Vastutaja	Kuupäev	Liik
21-0915/14		Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	31.03.2023 13:47	KKKIRI
21-0915/17	1-12/308-2	Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	17.04.2023 10:02	KKKIRI
21-0915/18		Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	17.04.2023 18:18	KKKIRI
21-0915/19	1-12/308-2	Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	18.04.2023 11:42	KKKIRI
21-0915/20		Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	27.04.2023 16:48	KKKIRI
21-0915/21	1.1-11/1523-3	Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	19.05.2023 09:40	KKKIRI
21-0915/22	1.1-11/1523-3	Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	19.05.2023 09:42	KKKIRI
21-0915/23	1.1-11/1523-4	Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	29.05.2023 10:06	KKKIRI
21-0915/24	1.1-11/1523-3	Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	29.05.2023 10:24	KKKIRI
21-0915/25	2-7/2023/1188	Tsiviilkriisi ja riigikaitse seaduse eelnõu kooskõlastamiseks ja arvamuse avaldamiseks esitamine	Riigikantselei	10.07.2023 11:07	KKKIRI

Erinevate alama astme dokumentide (määrused, korraldused) valmisolek

MIS OLID SUURIMAD PROBLEEMID?

- libainformatsioon

CellPress

Trends in Microbiology

Opinion

The COVID misinfodemic: not new, never more lethal

Cristian Apetrei, [1,2,*] Preston A. Marx, [3,4] John W. Mellors, [1,2] and Ivona Pandrea [2,5]

VOLUME 30, ISSUE 10 PP.948-958, 01.OCT.22

Misinfodemic = misinformation + epidemic

Libainformatsioon, kõik erinevad valeinformatsiooni liigid:

- mittetäielik informatsioon
- väärinfo
- teadlik valeinfo (desinformatsioon)

Edward Jenner
1794 - rõugevaktsiin

James Gillray, 1802

https://www.britishmuseum.org/collection/object/P_1851-0901-1091

David Rothkopf (20 a. tagasi, eelmise SARS ajal):

Libainformatsiooni ja viirusepideemia segunemisena tekib situatsioon, kus **„üksikud faktid segatakse hirmu, spekulatsioonide ja kuulujuttudega, mida võimendatakse ning levitatakse kaasaegsete infotehnoloogiate abil sujuvalt üle kogu maailma“.**

Tagajärjed majandusele, poliitikale, julgeolekule ja rahvatervisele.

HIV/AIDS ja SARS-2/Covid-19 aja libainfo sarnasused:

maskide või vaktsiinide efektiivsuse eitamine
sobimatute ja tõestamata toimega ravimite kasutamine
ravimite kõrvaltoimete suur ülespaisutamine
kahtluse alla seatakse nii viiruse olemasolu üldse (Kochi postulaatide „mittetäitmine“), viiruse patogeensus kui haiguse diagnoosimine.

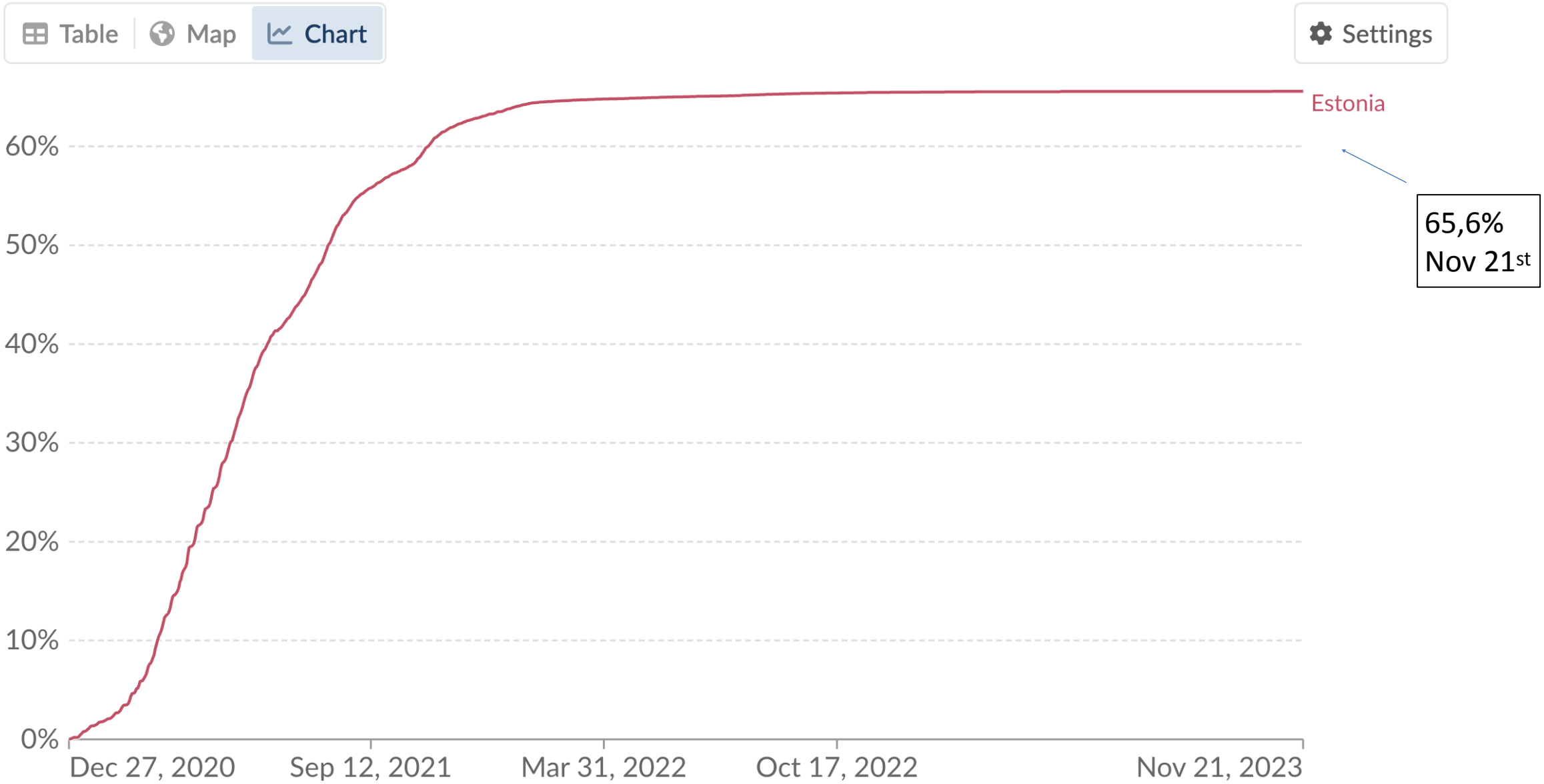
MIS OLID SUURIMAD PROBLEEMID?

- vaktsineerimine

Share of people who received at least one dose of COVID-19 vaccine

Our World in Data

Total number of people who received at least one vaccine dose, divided by the total population of the country.



Share of people who received at least one dose of COVID-19 vaccine

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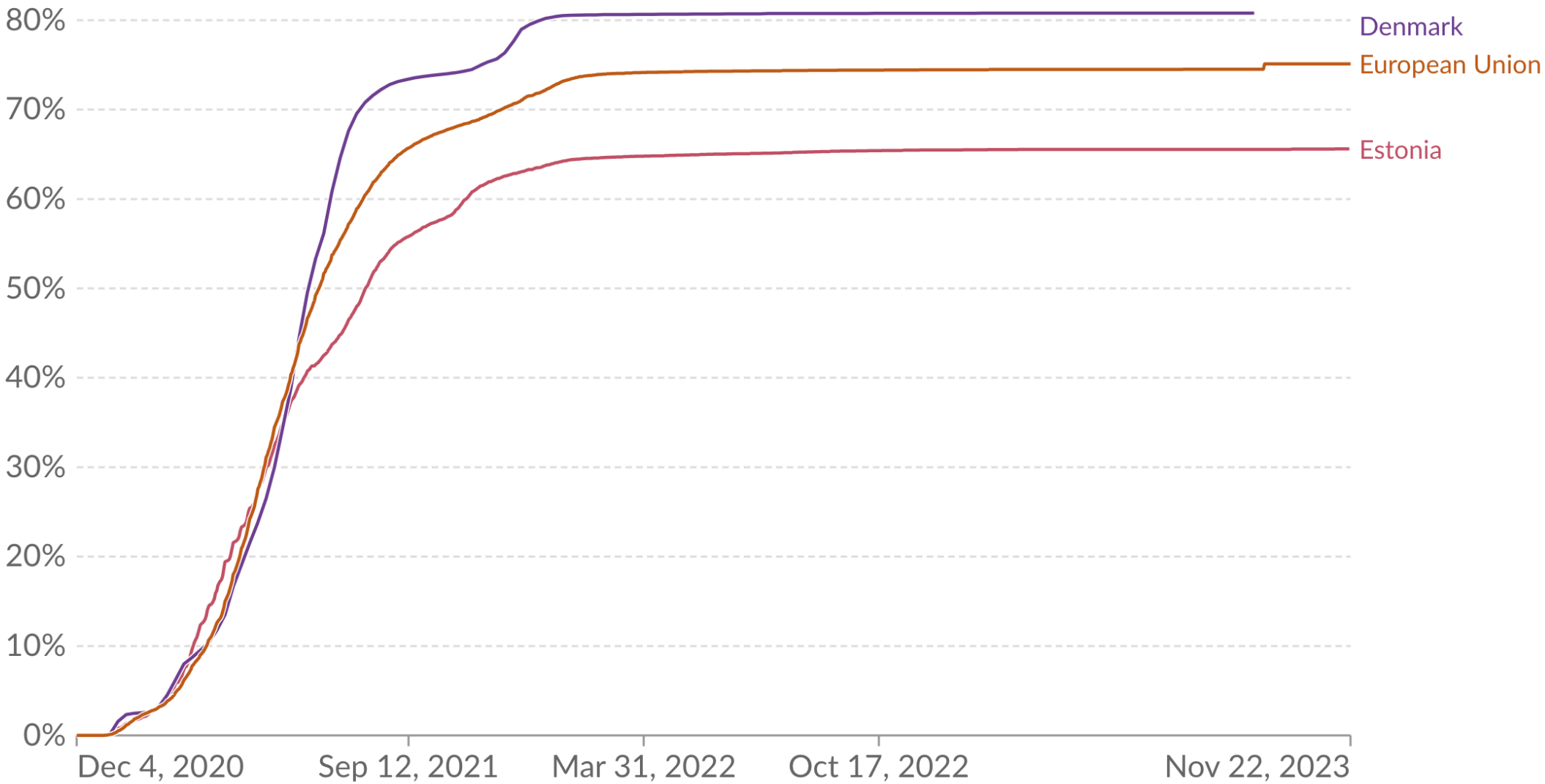
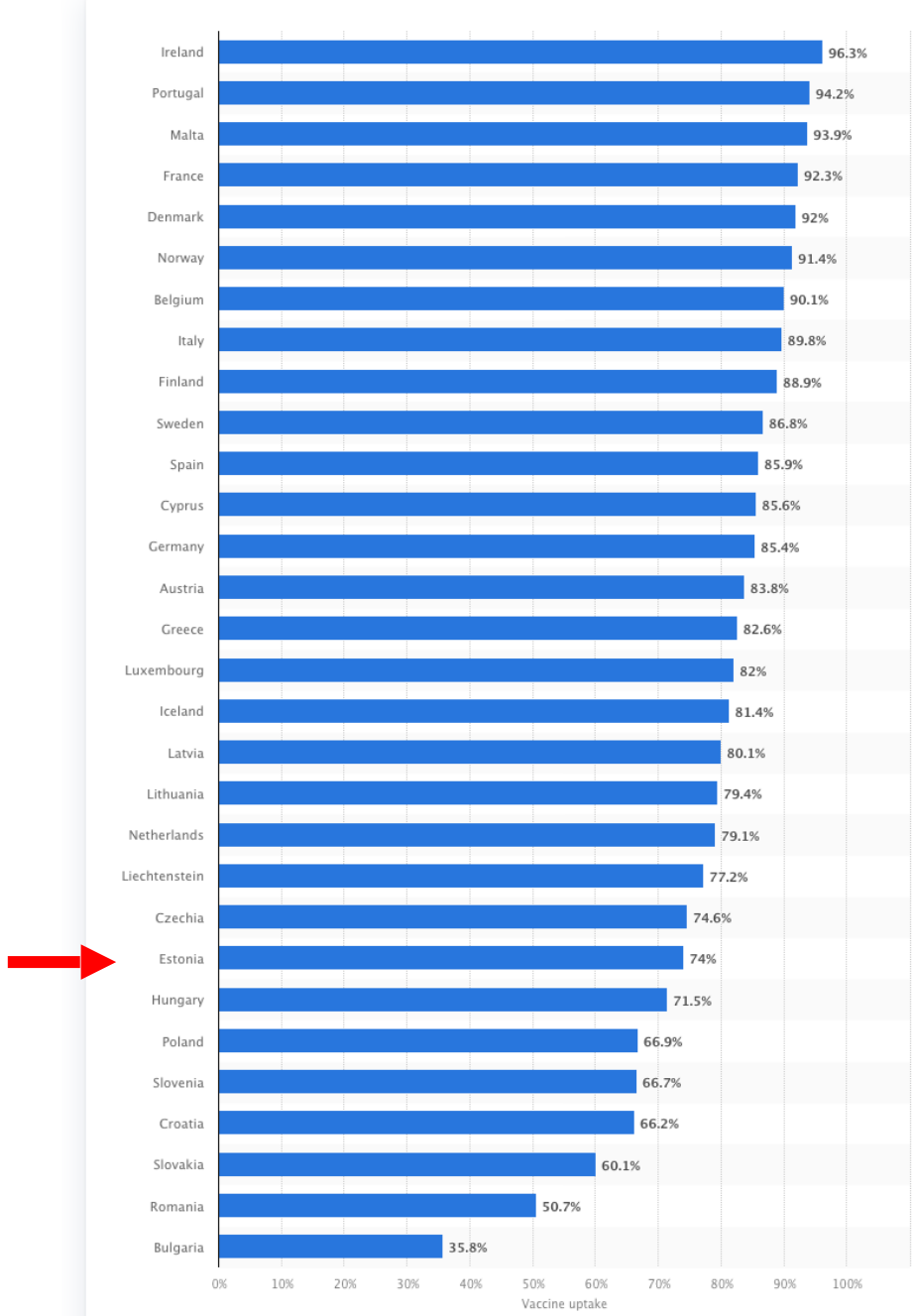
Our World in Data

Table | Map | Chart

Settings



Share of adults who are fully vaccinated against COVID-19 in the European Economic Area (EEA) as of January 17, 2023, by country



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Source
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Release date
January 2023

Region
Europe

Survey time period
As of January 17, 2023

Age group
18 years and older

Supplementary notes
Fully vaccinated according to the manufacturers' instructions. Fully vaccinated means a primary course has been administered but does not count the booster.
Data shown is a percentage of the countries' population aged 18 years and over.

Share of adults who are fully vaccinated against COVID-19 in the European Economic Area (EEA) as of January 17, 2023, by country

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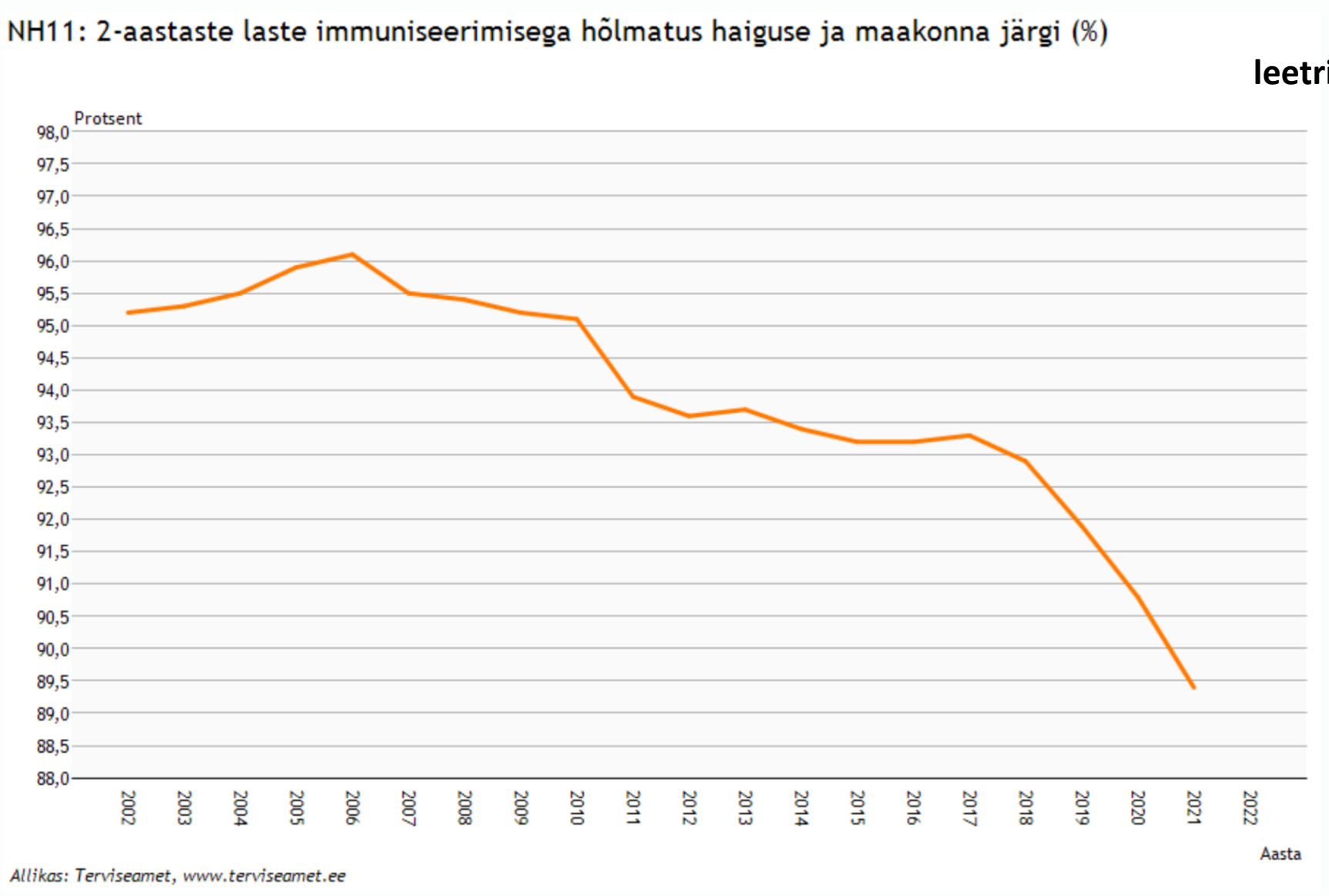
"... analüüsi tulemusena leidsime, et keskmiselt hoidis 2022. aasta alguseks saavutatud vaktsineerituse tase Eestis ära ligi 1400 surma." Krista Fischer (2023)

leetrid, mumps, punetised (MMR)

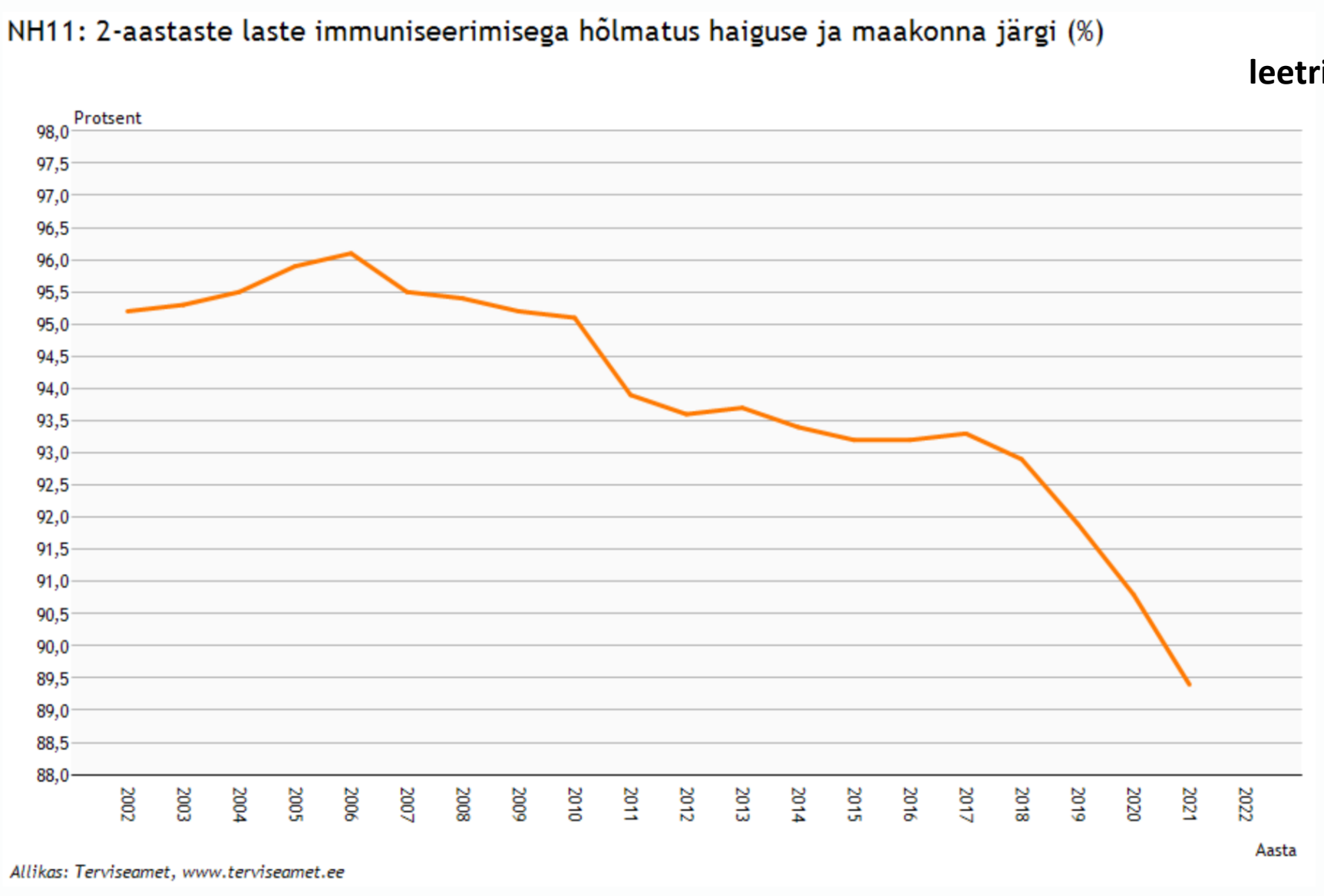


leetrid

R_o=12-18

WHO 95%

leetrid, mumps, punetised (MMR)



leetrid
R_o=12-18
WHO 95%

HIT = 1-1/R_0

Measles	Aerosol	12–18[40][7]	92–94%
Chickenpox (varicella)	Aerosol	10–12[41]	90–92%
Mumps	Respiratory droplets	10–12[42]	90–92%
Rubella	Respiratory droplets	6–7[b]	83–86%

Leedus tuvastati esimesed leetrite juhtumid

BNS
19. november 2023, 13:58

Leedus tuvastati tänavu kolm esimest leetritesse haigestumist, kõik on nelja- kuni 12-aastased Klaipėda lapsed, kes ei ole leetrite, punetiste ja mumpsi vastu vaktsineeritud, teatas rahvatervise keskus reedel.

MIS OLID SUURIMAD PROBLEEMID, MIS LAHENDUST OOTAVAD?

- õigusruum

- libainformatsioon

- vaktsineerimine

LISAKS VAJA:

- õppetundide ja kogemuste kogumine ja üldistamine

- uuteks pandeemiateks valmistumise juhised

“Koroonapandeemiaks ei oldud Eestis nagu mujal maailmaski valmis, terviseametit tabas see kriis nagu hiidlaine ja koostöö teiste asutustega oli alguses väga konarlik, selgus Kantar Emori värskest uuringust...”
ERR 21.11.2023

Prosotsiaalne käitumine

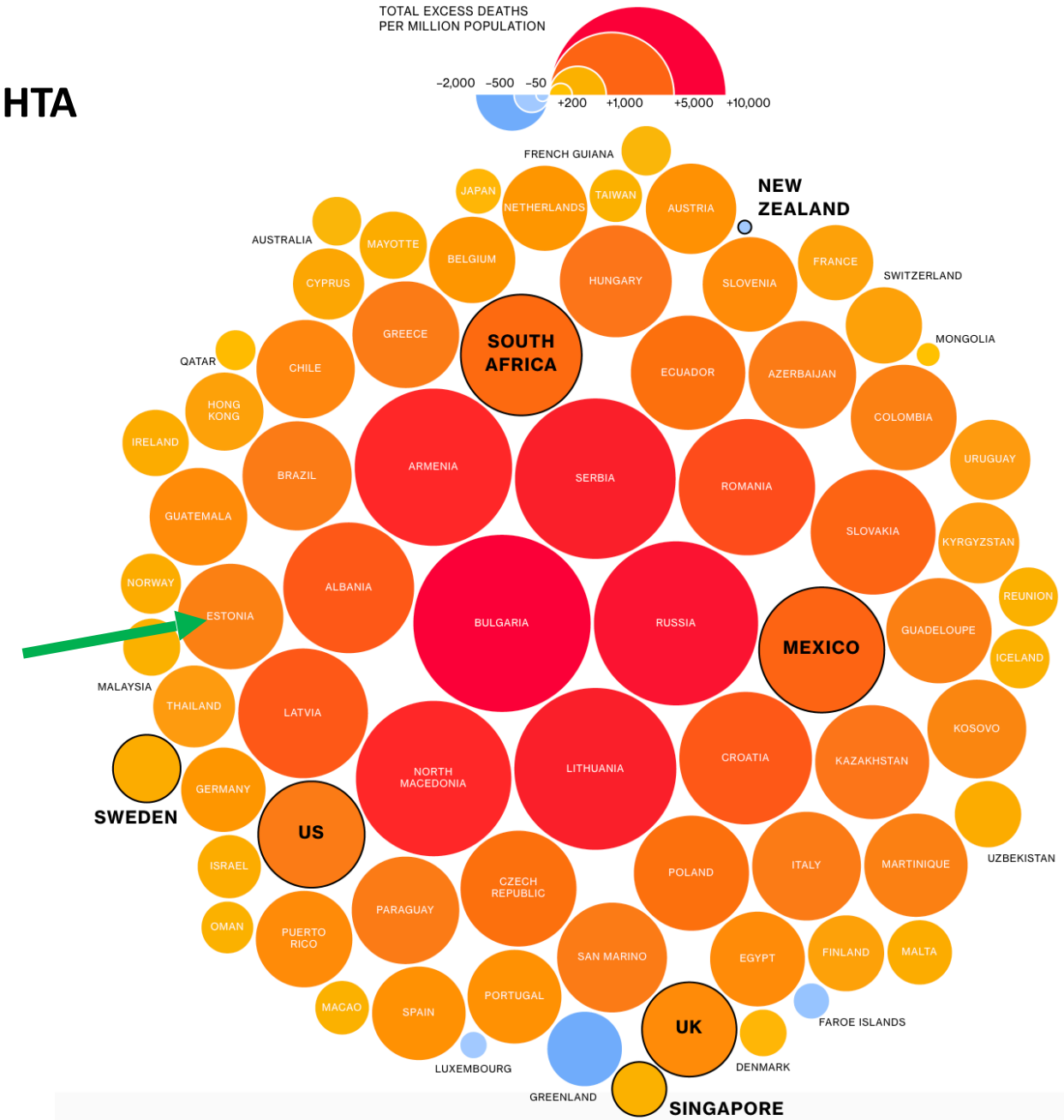
Prosotsiaalne käitumine on vabatahtlik käitumisviis, mille eesmärgiks on aidata teisi inimesi või ühiskonda tervikuna (Eisenberg et al. 2007).

Indiviidide, riikide ja globaalsel tasandil.

Pandeemias said paremini hakkama need riigid, kus ühiskonna prosotsiaalsuse tase on kõrgem (Lancet Editorial 2022).

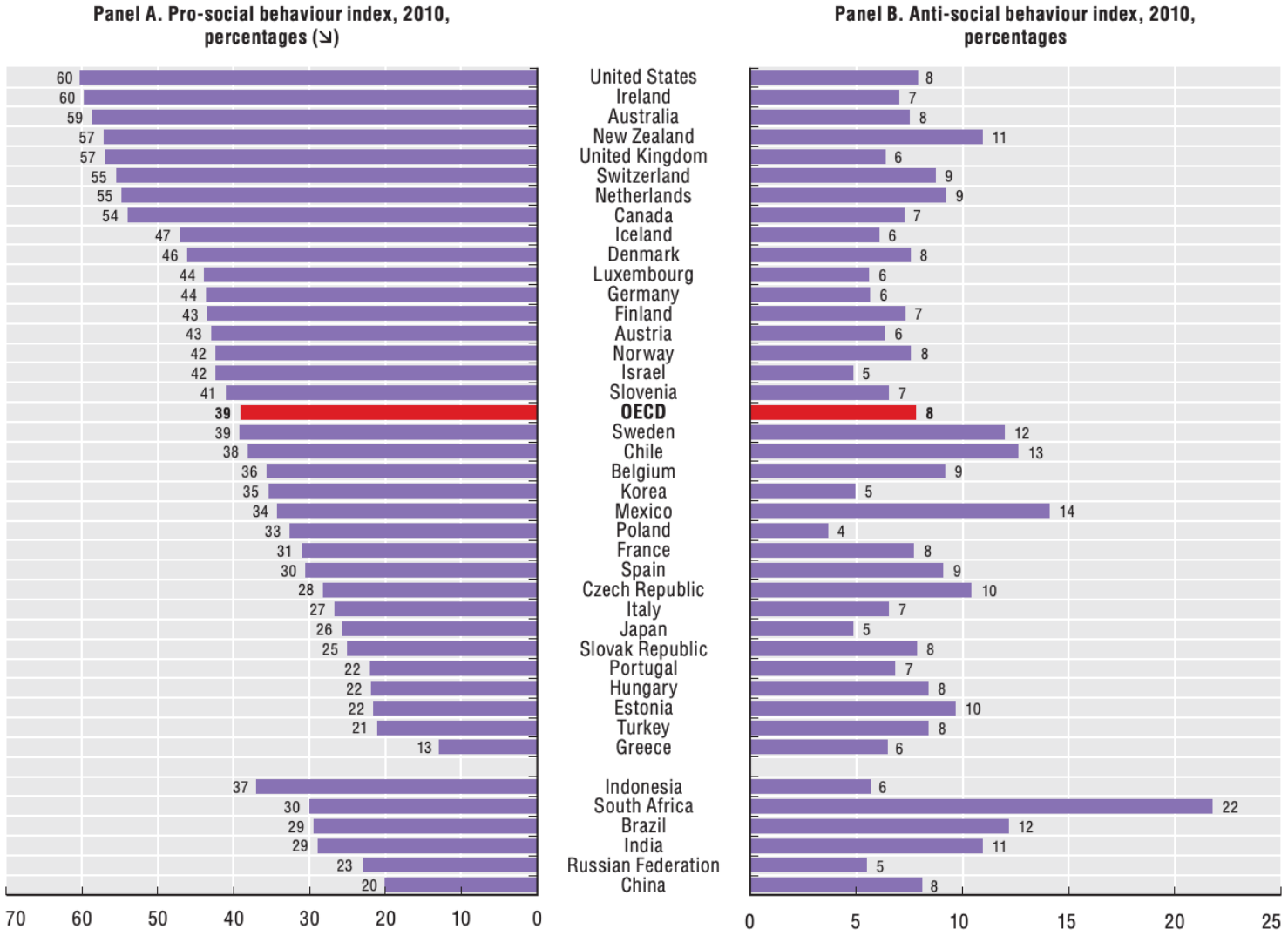
LIIGSURMAD, MILJONI KOHTA

By Bloomberg Opinion + Follow
15 March 2023 at 07:00 EET, *Corrected on 15 March 2023 at 15:45 EET*



https://www.bloomberg.com/graphics/2023-opinion-lessons-learned-from-covid-pandemic-global-comparison/

CO3.1. Anglophone countries show the highest levels of pro-social behaviour



Eesti COVID-19 Teadusnõukoda 2022-2023

Prof. Jaanus Harro, Dr. Mait Altmets, Prof. Triin Vihalemm, Prof. Toivo Maimets, Prof. Ruth Kalda, Prof. Pärt Peterson, Kaasprof. Margus Varjak

ideas the chatbots present.

Vanderbilt University in Nashville, Tennessee, has an initiative called the Future of Learning and Generative AI. Students who need to use ChatGPT, for courses such as computer science, get access to a paid version. This variant of the chatbot can use other programs to execute computer code, augmenting the bot's mathematical capabilities.

As understanding of the LLMs' power and limitations increases, more university-wide initiatives will no doubt emerge. Using LLMs without considering their downsides is counterproductive. For many educational purposes, error-prone tools are unhelpful at best and, at worst, damage students' ability to learn. But some institutes, such as ASU, are trying to reduce the LLMs' weaknesses — even aiming to turn those into strengths by, for example, using them to improve students' critical-thinking skills. Educators must be bold to avoid missing a huge opportunity — and vigilant to ensure that institutions everywhere use LLMs in a way that makes the world better, not worse.

1. OpenAI. Preprint at https://arxiv.org/abs/2303.08774 (2023).
2. Shakarian, P. *et al.* Preprint at https://arxiv.org/abs/2302.13814 (2023).
3. Chen, L. *et al.* Preprint at https://arxiv.org/abs/2307.09009 (2023).

How our memories of COVID are biased, and why it matters

Our vaccination status skews our perception of the pandemic's severity, with consequences for people and policy.

Lives are still being lost to COVID-19 every day. And for many left with debilitating after-effects of the disease, it remains a very real, immediate experience. But for many others, the circumstances of the pandemic are becoming a matter of memory. These memories might still be fresh and painful, or more distant and neutralized by the passage of time. Either way, they are almost undoubtedly unreliable.

This is not, in itself, a surprise: that different people can have very different memories of the same past events, and that pre-existing biases can influence these memories, is an established facet of human psychology. But a series of studies reported in a paper[1] this month in *Nature* shows that our impressions of the COVID-19 pandemic's severity, as well as of measures taken to limit the disease's spread, are reliably skewed by a related factor: our vaccination status.

The results give pause for thought as countries exercise their collective memories to examine how authorities handled the pandemic and what should be done differently next time. "When looking back, we should all be aware that we have biased memories," says Cornelia Betsch at the University of Erfurt in Germany, an author of the *Nature* paper. "You could be right or wrong. I could be right or wrong. Or, most likely, we're all wrong."

> **"Many of the conflicts we struggle with today stem from how we view past events now."**

Betsch and her colleagues' project involved surveying more than 10,000 people across 11 countries. For one study, they resurveyed German adults who had been asked in summer 2020 or winter 2020–21 to estimate their risk of SARS-CoV-2 infection, asking them to recall their earlier answers. They embarked on the project in late 2022, after a journalist commented during a conference that people who opposed vaccination seemed to be shifting their narrative of the pandemic. The authors' analysis revealed that unvaccinated individuals who identified strongly with their unvaccinated status were more likely to remember their earlier estimation of the risk as lower than it actually was. Conversely, and more markedly, those who had been vaccinated overestimated their earlier perception of their risk of catching the disease.

As with any study, there are caveats. The data were collected online, and most of the countries sampled are wealthy and in the Northern Hemisphere. The study did not evaluate the effect of the different pandemic policies enacted in different regions. The researchers also surveyed only adults. At this stage, there is no way of knowing how children will remember the pandemic when they are older — or how those memories might colour their decisions should another pandemic occur when they are adults.

Memory bias has been observed in other politically charged settings, including recall of COVID-19 vaccine misinformation[2], the campaign surrounding Ireland's 2018 referendum on legalizing abortion[3] and the 2021 US Capitol riots[4]. Such bias feeds polarization. Communication is difficult when shared memories diverge. It can influence discussions at every level: within families, in the media and within governments and other authorities.

The conclusions of the latest study are highly relevant to investigations such as the ongoing inquiry into the United Kingdom's handling of COVID-19, a process that has been garnering headlines in the past weeks. Those overseeing such investigations must recognize that personal recollections are clouded by bias. In drawing conclusions about which pandemic interventions were warranted or effective and which were not, it is imperative that investigators rely as much as possible on hard data and evidence.

Many of the conflicts we struggle with today stem from how we view past events now, rather than how we experienced them then. The divergence in our collective memory is also likely to be a significant factor in future pandemics, determining, for example, whether individuals are willing to comply with the associated public-health mandates. How to counter these effects in the future must be a subject for more research today.

1. Sprengholz, P., Henkel, L., Böhm, R. & Betsch, C. *Nature* https://doi.org/10.1038/s41586-023-06674-5 (2023).
2. Greene, C. M., De Saint Laurent, C., Hegarty, K. & Murphy, G. *Appl. Cogn. Psychol.* **36**, 1200–1208 (2022).
3. Murphy, G., Loftus, E. F., Grady, R. H., Levine, L. J. & Greene, C. M. *Psychol. Sci.* **30**, 1449–1459 (2019).
4. Calvillo, D. P., Harris, J. D. & Hawkins, W. C. *Memory* **31**, 137–146 (2022).

Sprengholz, P., Henkel, L., Böhm, R. *et al.* Historic narratives about the COVID-19 pandemic are motivationally biased. *Nature* **623**, 588–593 (2023

SOTSIAALMINISTEERIUM

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1632

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Tänan!

Konverentsi korraldamist rahastatakse Euroopa Liidu COVID-19 pandeemiale reageerimise raames.
Konverentsi korraldab Tartu Ülikool koostöös Sotsiaalministeeriumiga