



Regional perspectives on COVID-19 vaccines: Perspectives from CEE

Prof. Miłosz Parczewski MD Ph.D.

Department of Infectious, Tropical Diseases and Immune
Deficiency, Pomeranian Medical University, Szczecin, Poland

International COVID-19 Vaccines Workshop (4th Edition) 14.12.2022



EACS
European
AIDS
Clinical
Society

Overall vaccine uptake in Europe

1,368,602,181

959,526,626

Total doses administered in EU/EEA countries

Country: All EU/EEA countries

Adults 18+

Adults 60+

Total Population

EU

EU/EEA

Cumulative vaccine uptake (%) in the total population in EU/EEA countries

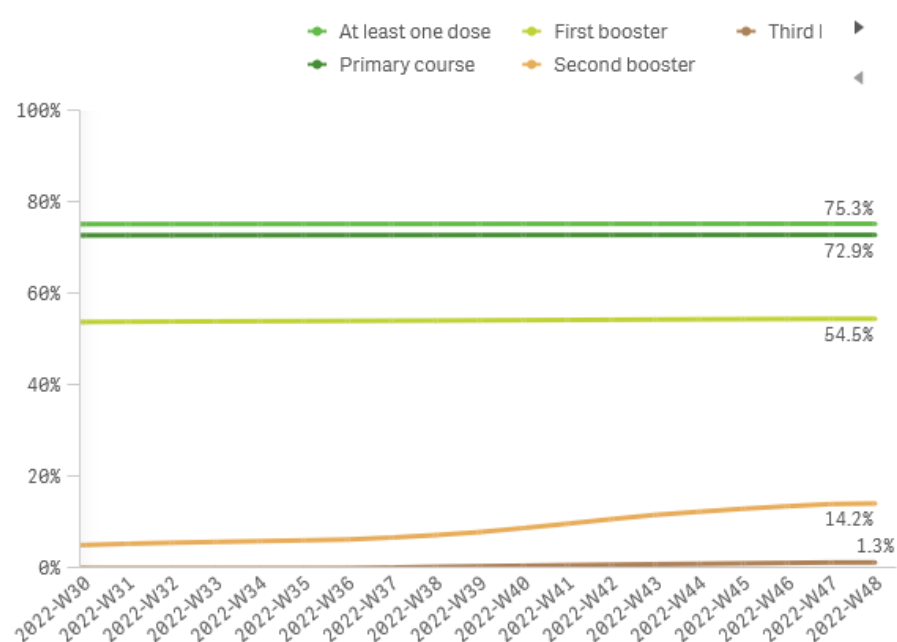
One dose	Primary course	First booster	Second booster	Third booster
75.3%	72.9%	54.4%	11.8%	0.9%

Number of people vaccinated in the total population in EU/EEA countries

One dose	Primary course	First booster	Second booster	Third booster
341,204,182	330,161,885	246,625,619	53,604,752	2,263,148

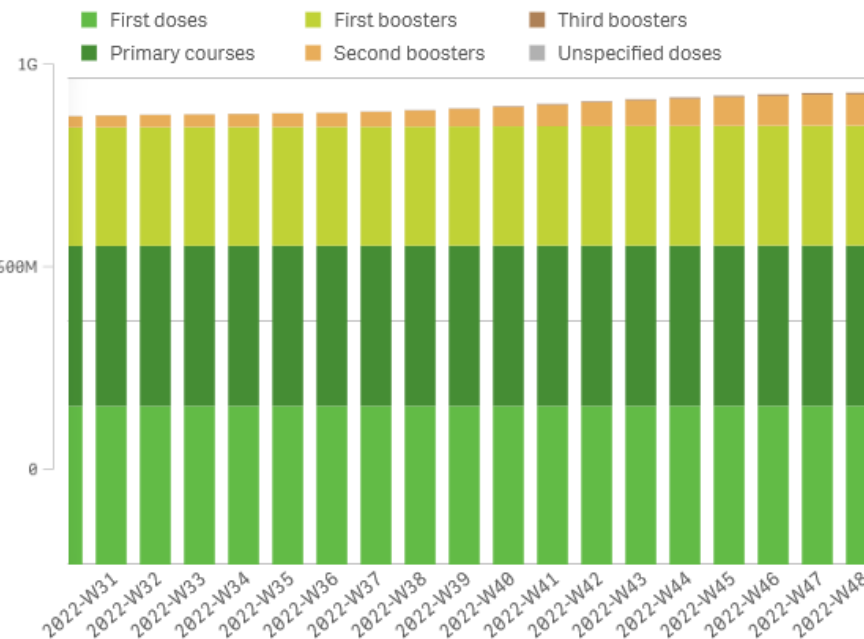
Cumulative vaccine uptake (%) in the total population in EU/EEA countries as of 2022-12-02

by reporting week (data for the current week are preliminary)

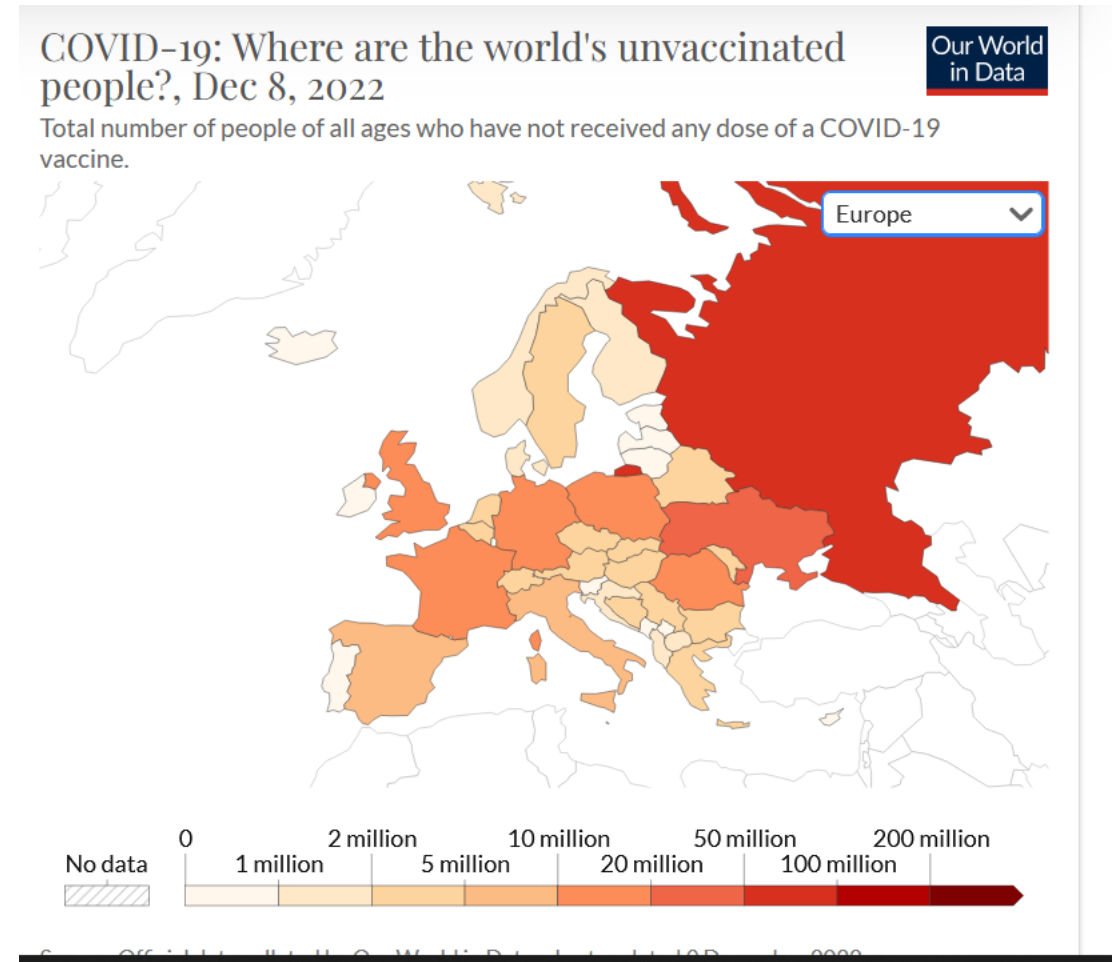
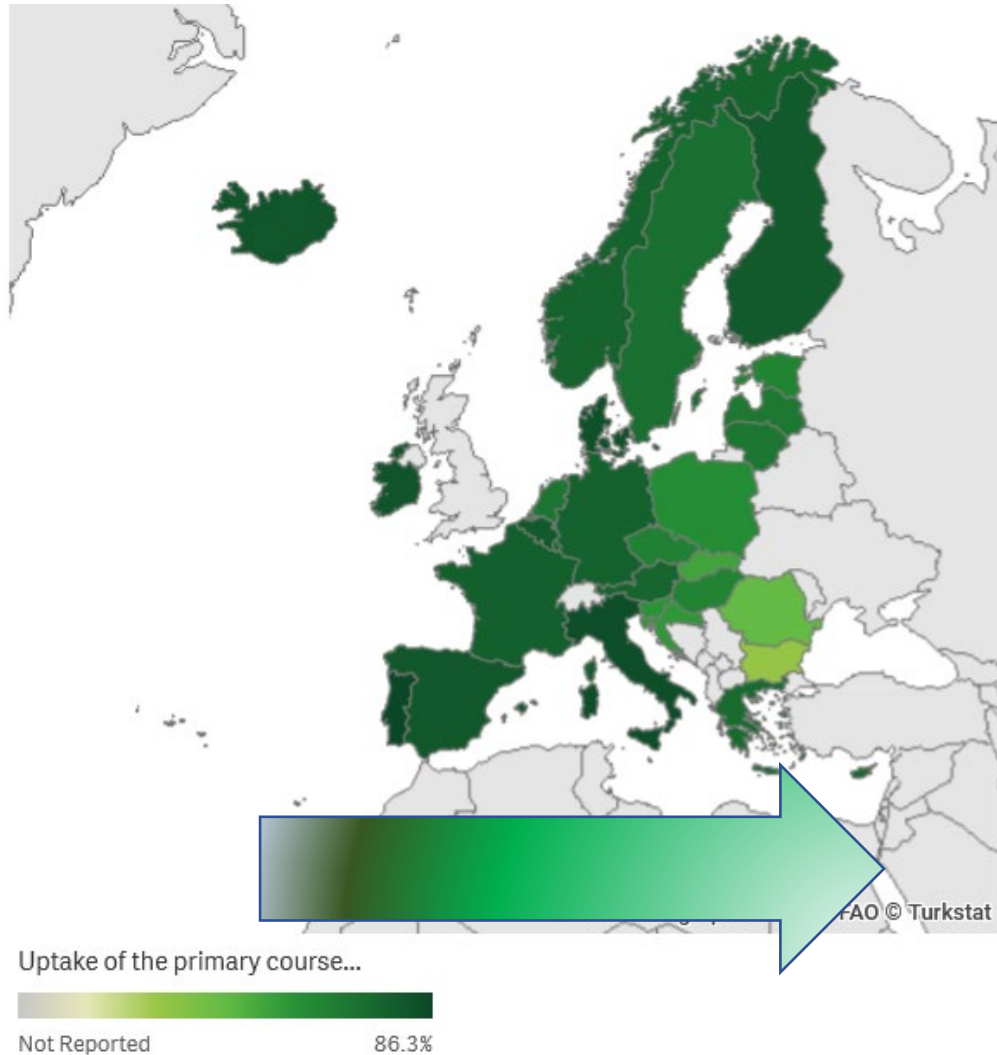


Cumulative number of vaccine doses administered to the total population in EU/EEA countries as of 2022-12-02

by reporting week (data for current week are preliminary)



Gradient of vaccine uptake in Europe (primary course)



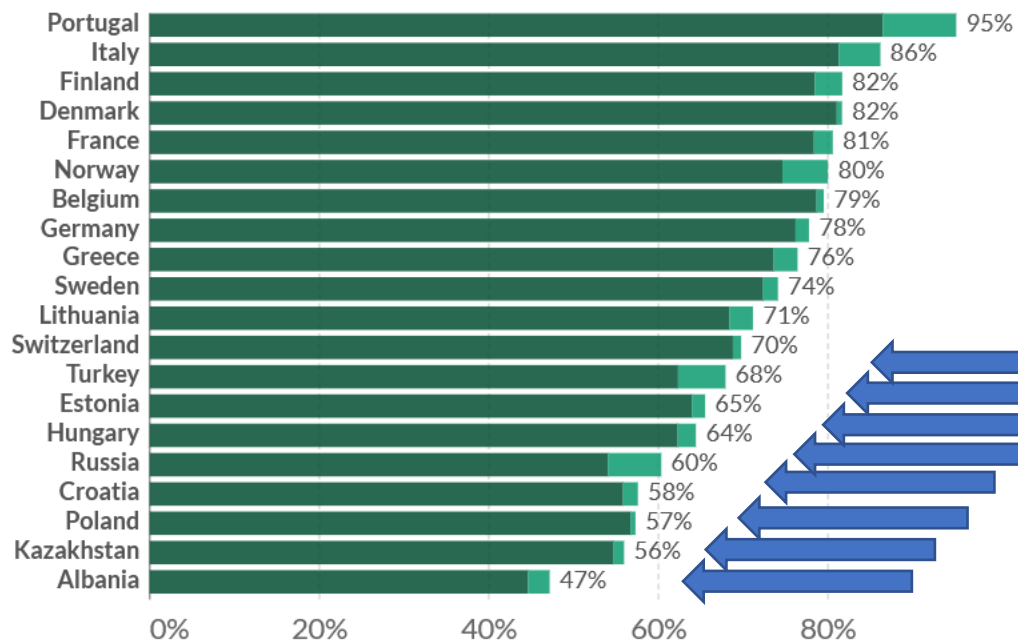
Population vaccinated: CEE vs. Rest of Europe

Share of people vaccinated against COVID-19, Dec 8, 2022

Our World in Data

+ Add country

■ Share of people with a complete initial protocol
 ■ Share of people only partly vaccinated

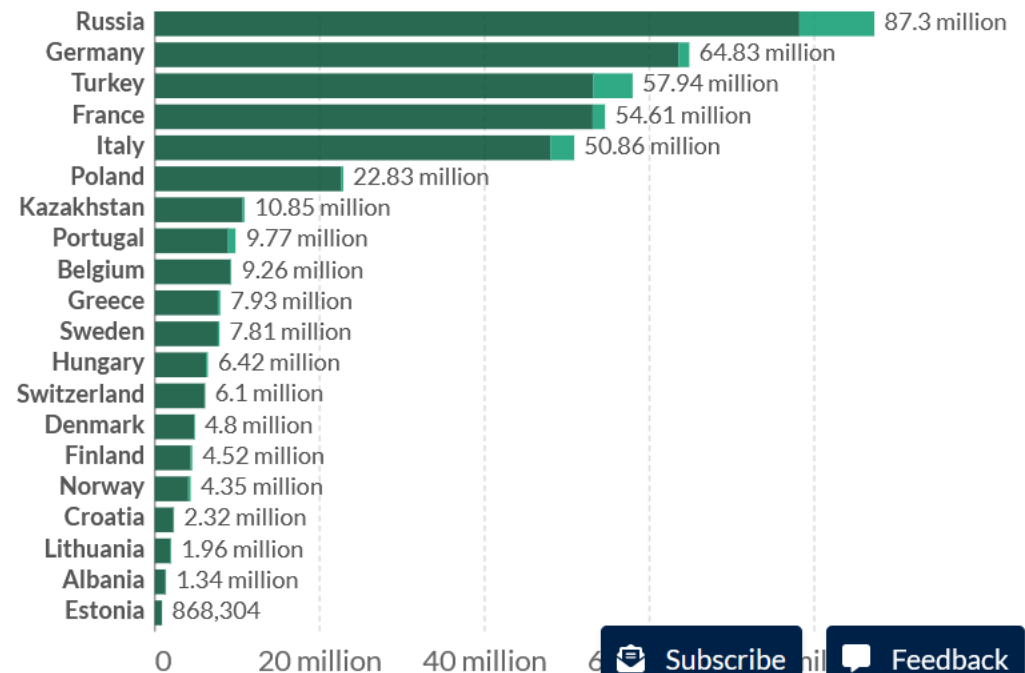


Number of people vaccinated against COVID-19, Dec 8, 2022

Our World in Data

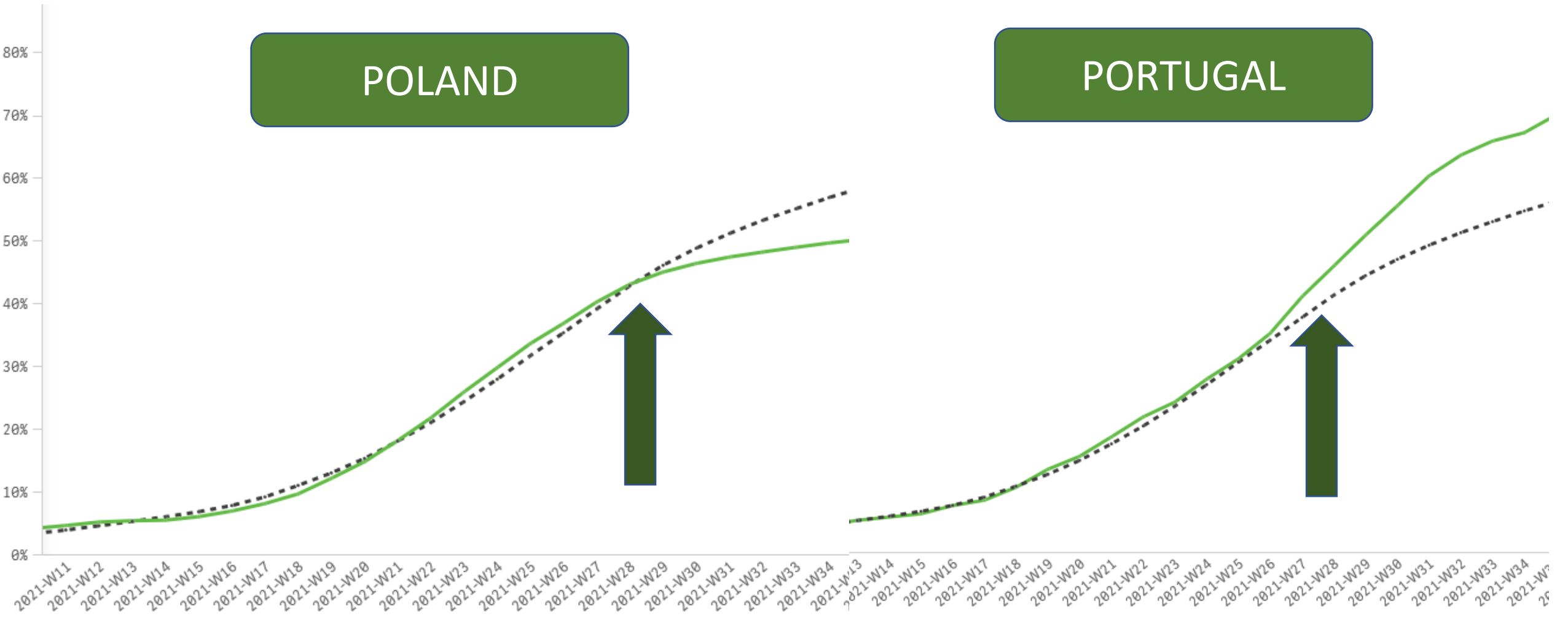
+ Add country

■ People with a complete initial protocol ■ People only partly vaccinated

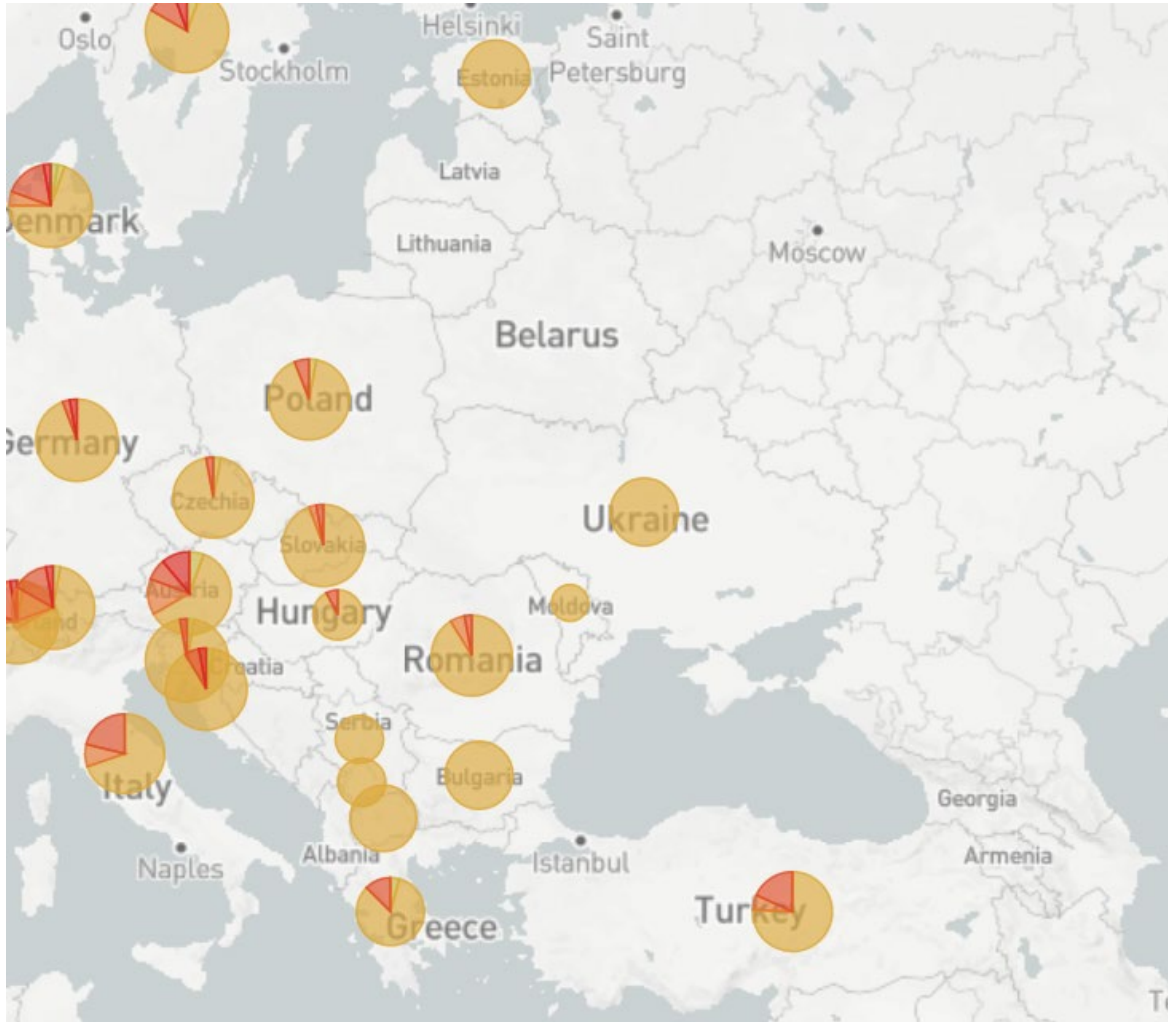


Subscribe Feedback

Vaccine uptake tipping point: summer 2021



SARS CoV-2 variant evolution in CEE

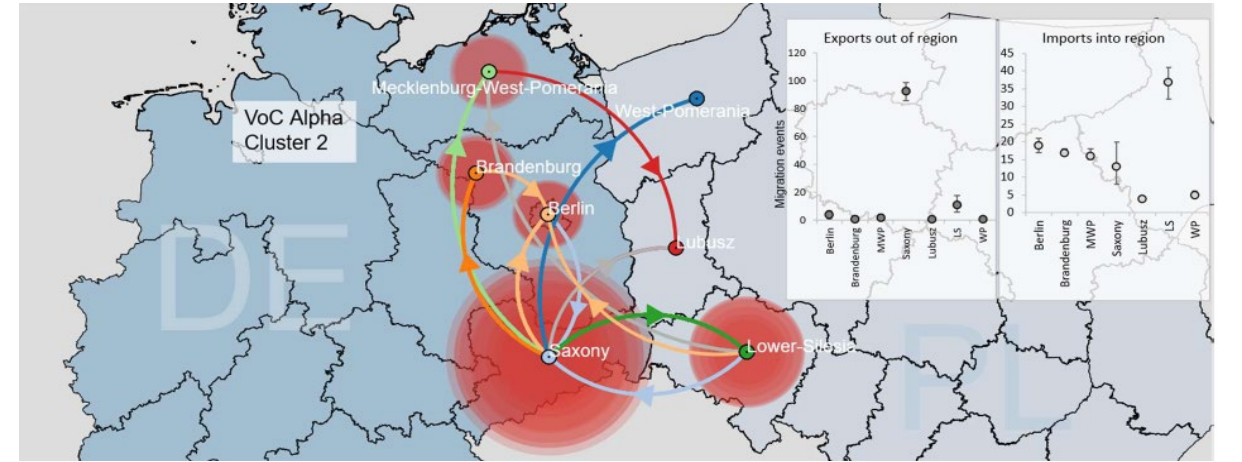
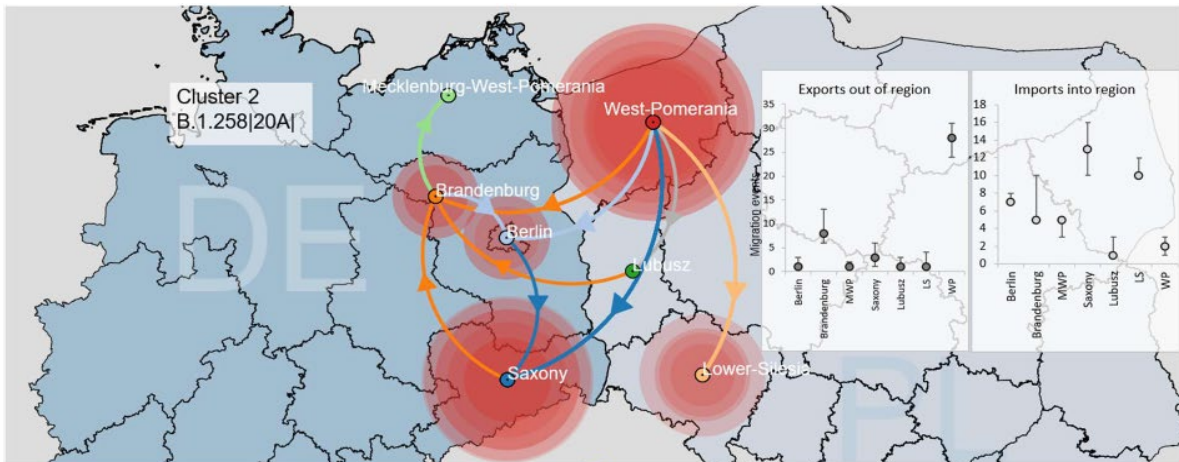
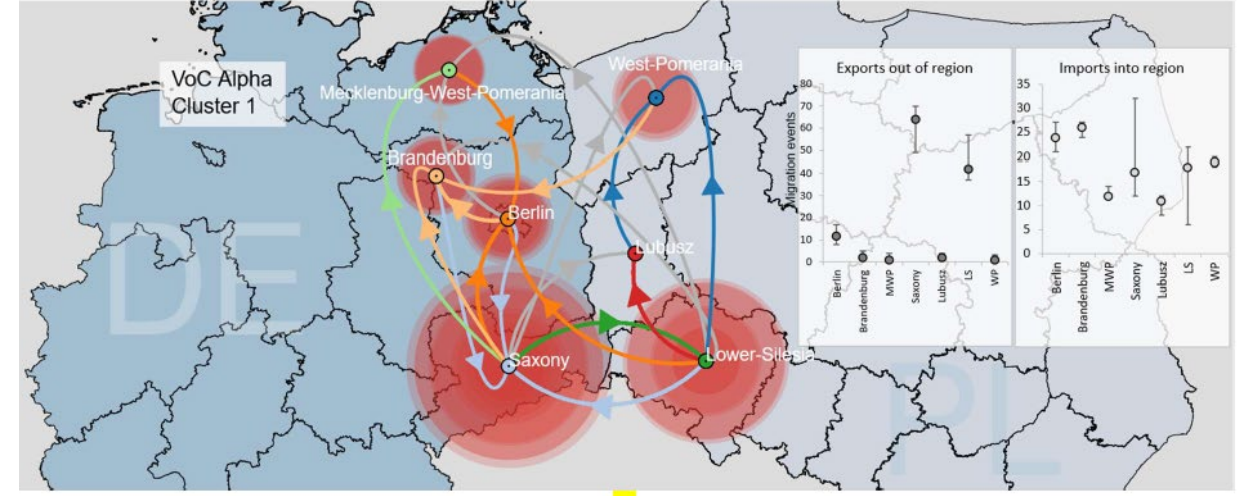
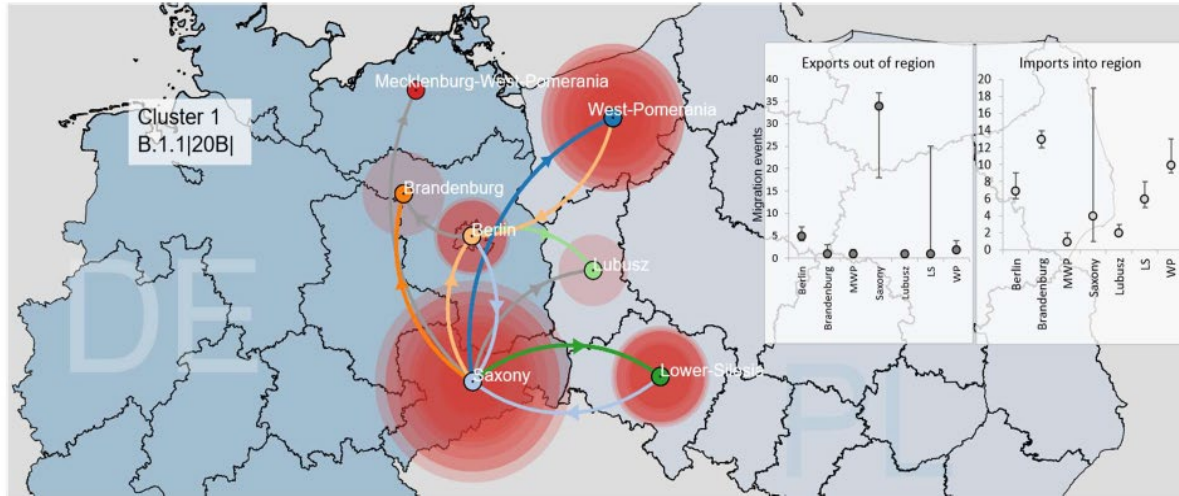


21K (Omicron)	BA.1
21L (Omicron)	BA.2
22A (Omicron)	BA.4
22B (Omicron)	BA.5
22C (Omicron)	BA.2.12.1
22D (Omicron)	BA.2.75
22E (Omicron)	BQ.1
22F (Omicron)	XBB

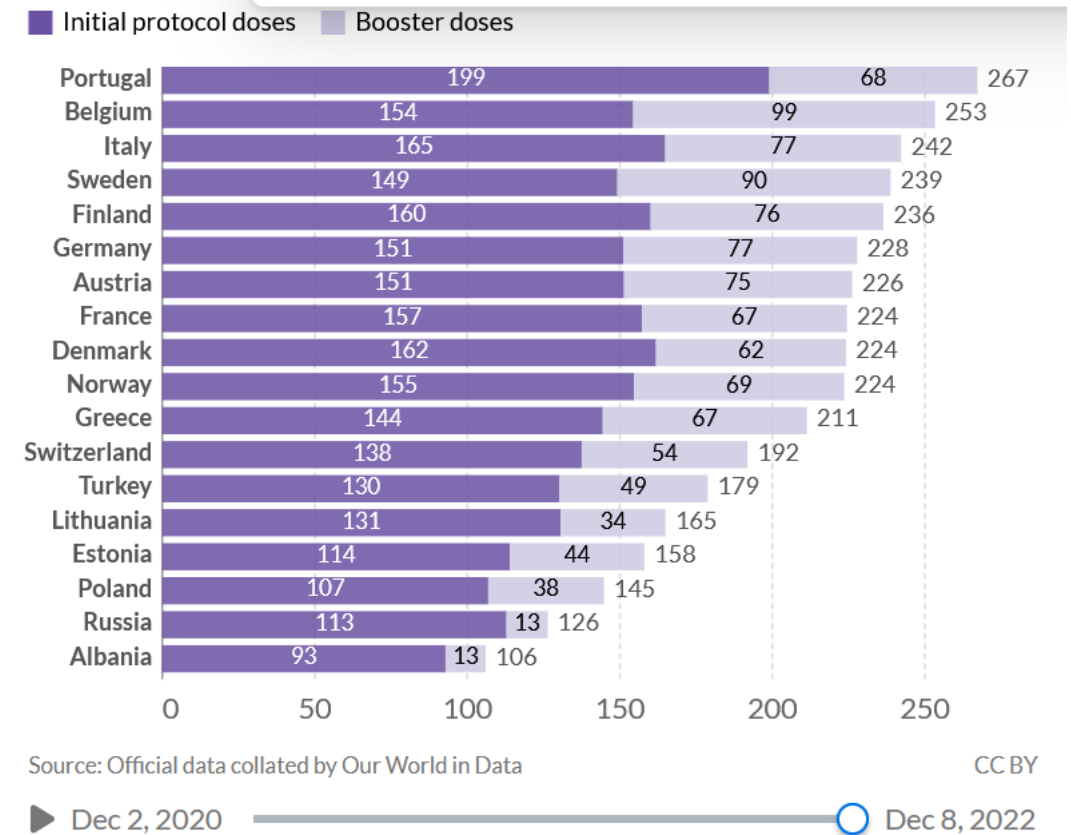
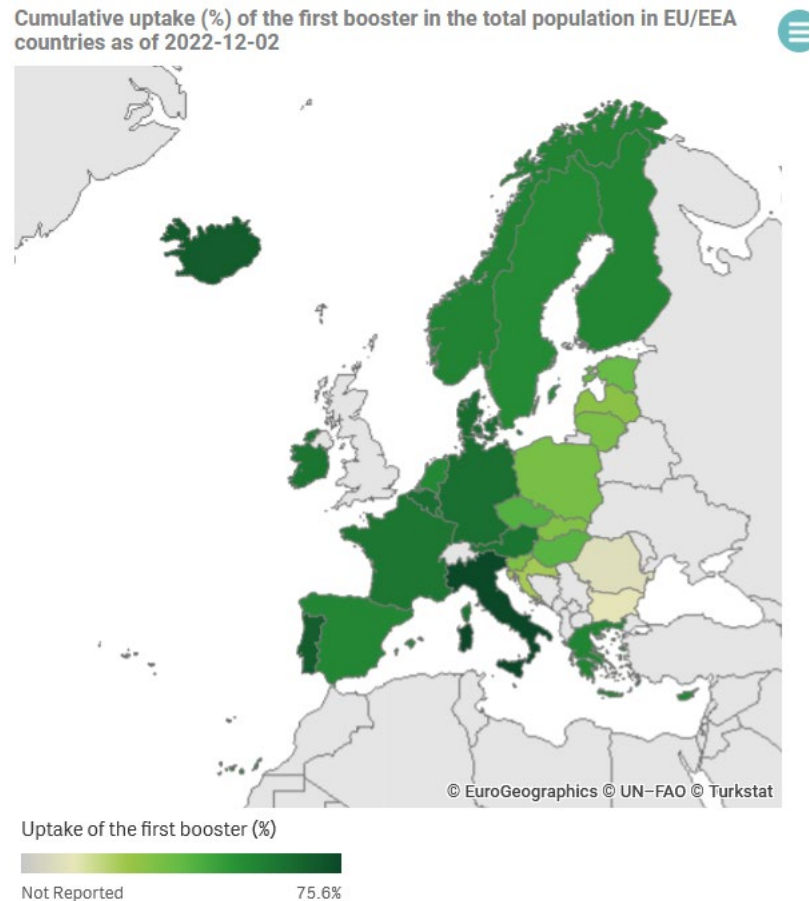
mRNA bivalent vaccines are available in the EU-CEE region

https://nextstrain.org/ncov/gisaid/global?c=pango_lineage&l=scatter&scatterY=S1_mutations&tl=S1_mutations

Example of variant dispersal and transmission Poland/Germany

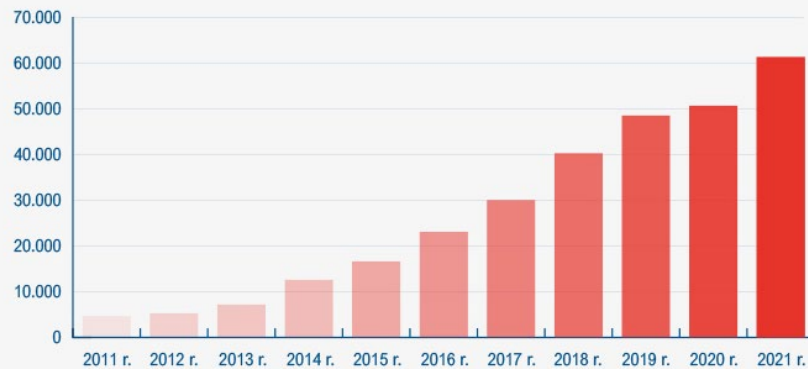


Poor uptake of booster dose in CEE – lack of consistent booster vaccination campaigns



Anti-vaccine movement was already strong before COVID-19 pandemics – Polish example

Pre-pandemic vaccination refusal numbers were increasing



Źródło danych: Biuletyny roczne „Szczepienia ochronne w Polsce” (wyd. NIZP PZH – PIB, GIS).



Źródło: ciobkowiczka.pl na podstawie danych Narodowego Instytutu Zdrowia Publicznego PZH – Państwowego Instytutu Badań.

POLSKA
LICZBA ODMÓW
50.575



Poland- refusal for 2020 - > 50 thousand cases

Poland has lost measles herd immunity due to parents refusing vaccines, warns UNICEF



Experts blame “disinformation and harmful myths” spread by anti-vaccine groups.

NFP Notes From Poland



Russian war associated migration in Ukraine and COVID-19 vaccination

Key health risks over the coming 3 months			
Public health risk	Level of risk		Rationale
	1	2 - 3	
Months starting now	1	2 - 3	
COVID-19			Decreasing trends, but from very high level of incidence and bed occupancy for ICU care. Limited oxygen supplies substantially impact capacity to treat severe patients. Unsanitary, crowded living conditions with poor ventilation; low vaccination coverage.
Other infectious respiratory diseases, including influenza			Poor hygiene and sanitation, overcrowding, poor shelter, cold. Low risk of influenza-associated morbidity given low levels of seasonal circulation, further reducing as season abates.
Diarrhoeal diseases			Poor hygiene and sanitation, overcrowding.
Measles			Increased risk of measles transmission given crowded living conditions with poor ventilation, prior endemicity, and reduced vaccine coverage in recent years.
Maternal and neonatal health			Caesarean deliveries accounted for roughly one quarter of all deliveries in 2019; access is likely to be limited. Substantial risk of unsafe deliveries in immediate term.
Polio			Ongoing outbreak of circulating vaccine-derived poliovirus type 2 (cVDVP2), and low uptake mass immunization campaign (22%). Risk of spread into surrounding countries.
Cholera			Last outbreak in 2011. Poor hygiene and sanitation, overcrowding, poor shelter and disruption to water and sanitation.
STIs			Poor hygiene and sanitation, social conditions, GBV

War associated migration (6.12.2022)

Refugees from Ukraine recorded by country

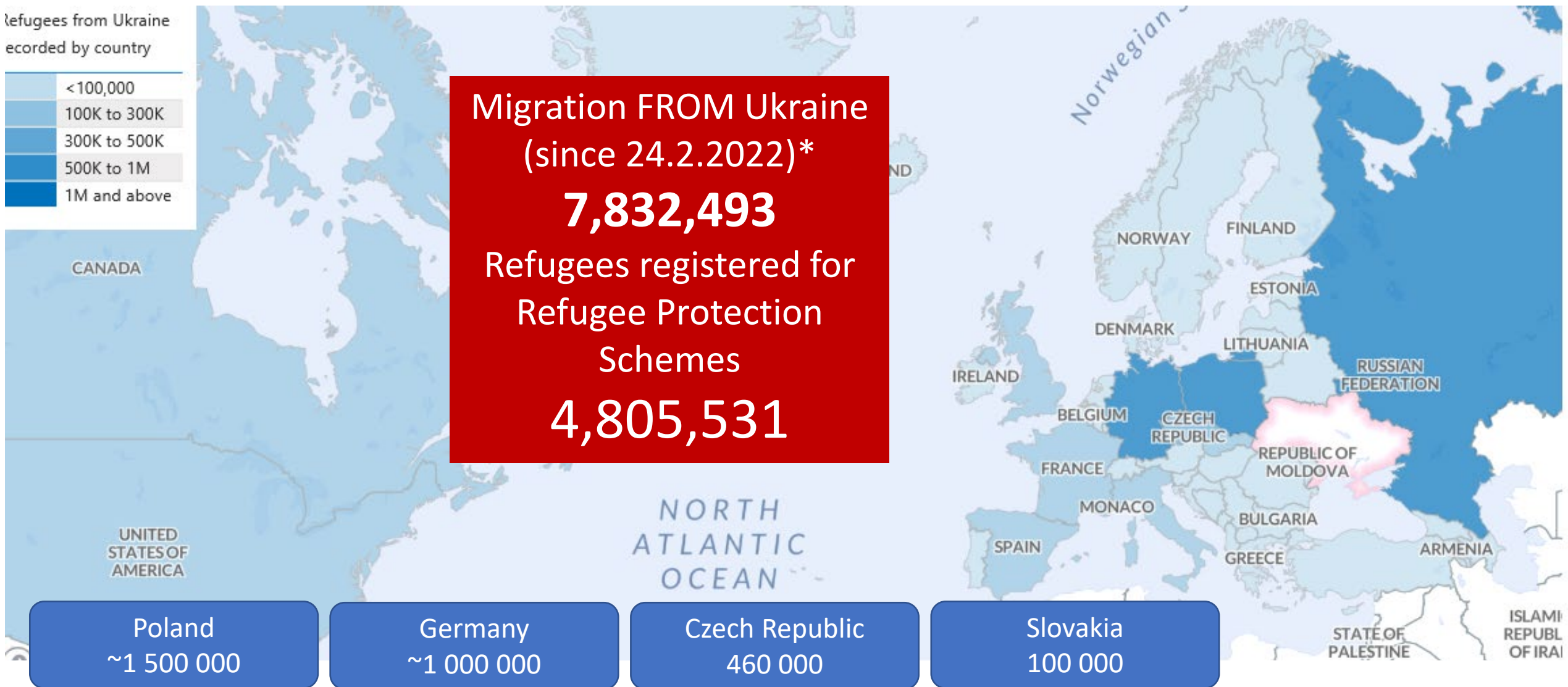


Migration FROM Ukraine (since 24.2.2022)*

7,832,493

Refugees registered for Refugee Protection Schemes

4,805,531



*Beginning of Russian invasion and war in Ukraine

<https://data2.unhcr.org/en/situations/ukraine>

Pre-War COVID-19 vaccination in Ukraine

COVID-19 Vaccination

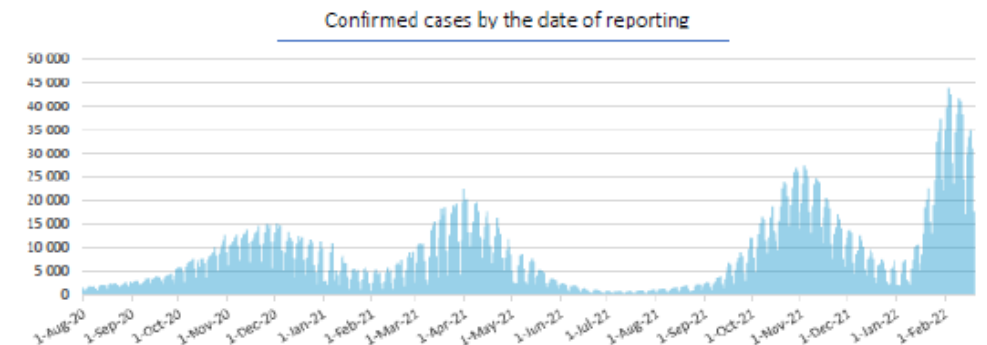
Vaccination roll-out has been slow. Ukraine currently has the seventh lowest rate of vaccine uptake in Europe, with 36% uptake of at least one dose and 34% uptake of a complete vaccine series, increasing the risk of severe disease, particularly given the high burden of comorbidities in the population⁵. WHO has set a target of 70% coverage by mid-2022.

Table 2: COVID-19 vaccination coverage for Ukraine, as of 20 February 2022

Vaccinated with at least one dose			Fully-Vaccinated			Booster dose		
#	%	per 100 000	#	%	per 100 000	#	%	per 100 000
15 718 610	36	41 272	15 061 823	34	39 547	675 521	2	1774

Table 4: Cases of COVID-19 in Ukraine, as of 20 February 2022

Cases	#	per 100 000
Confirmed	4 720 771	12 395
Deaths	104 518	274
Recovered	3 938 459	10 341
Active	677 794	1780



<https://reliefweb.int/sites/reliefweb.int/files/resources/ukraine-phsa-shortform-030322.pdf>

Necessary comment – other vaccination in war refugee populations

Table 1: Coverage estimates for immunizations administered in 2021 for Ukraine

Vaccine	Ukraine %	Target* %
BCG (Tuberculosis)	82	>79
DTP3 (Diphtheria, Tetanus, Pertussis - 3rd dose)	80	>79
Pol3 (Polio - 3rd dose)	80	>89
MCV1 (Measles - 1st dose)	89	
MCV2 (Measles - 2nd dose)	87	>95
HepB3 (Hepatitis B - 3rd dose)	79	>90
Hib3 (Haemophilus influenzae type b - 3rd dose)	87	>79
RCV1 (Rubella - 1st dose)	89	>79

* Coverage needed for immunity sufficient to likely confer either herd (community) protection or a high level of individual protection.

<https://reliefweb.int/sites/reliefweb.int/files/resources/ukraine-phsa-shortform-030322.pdf>

Issues for discussion

Increasing uptake in primary and boosting in the light of the new variant evolution

Is it (still) possible to convince vaccine hesitant population at this stage?

How to better reach migrant population with COVID-19 vaccines?

How to strengthen population confidence in system provided prophylactic programmes?

Thank you!

19th EUROPEAN AIDS CONFERENCE

18–21 October, 2023
Warsaw, Poland



EACS European
AIDS Clinical Society



EACS European
AIDS Clinical Society

www.eacs-conference2023.com