

Shifting the narrative: Inspiring increased vaccine confidence across Central and Eastern Europe

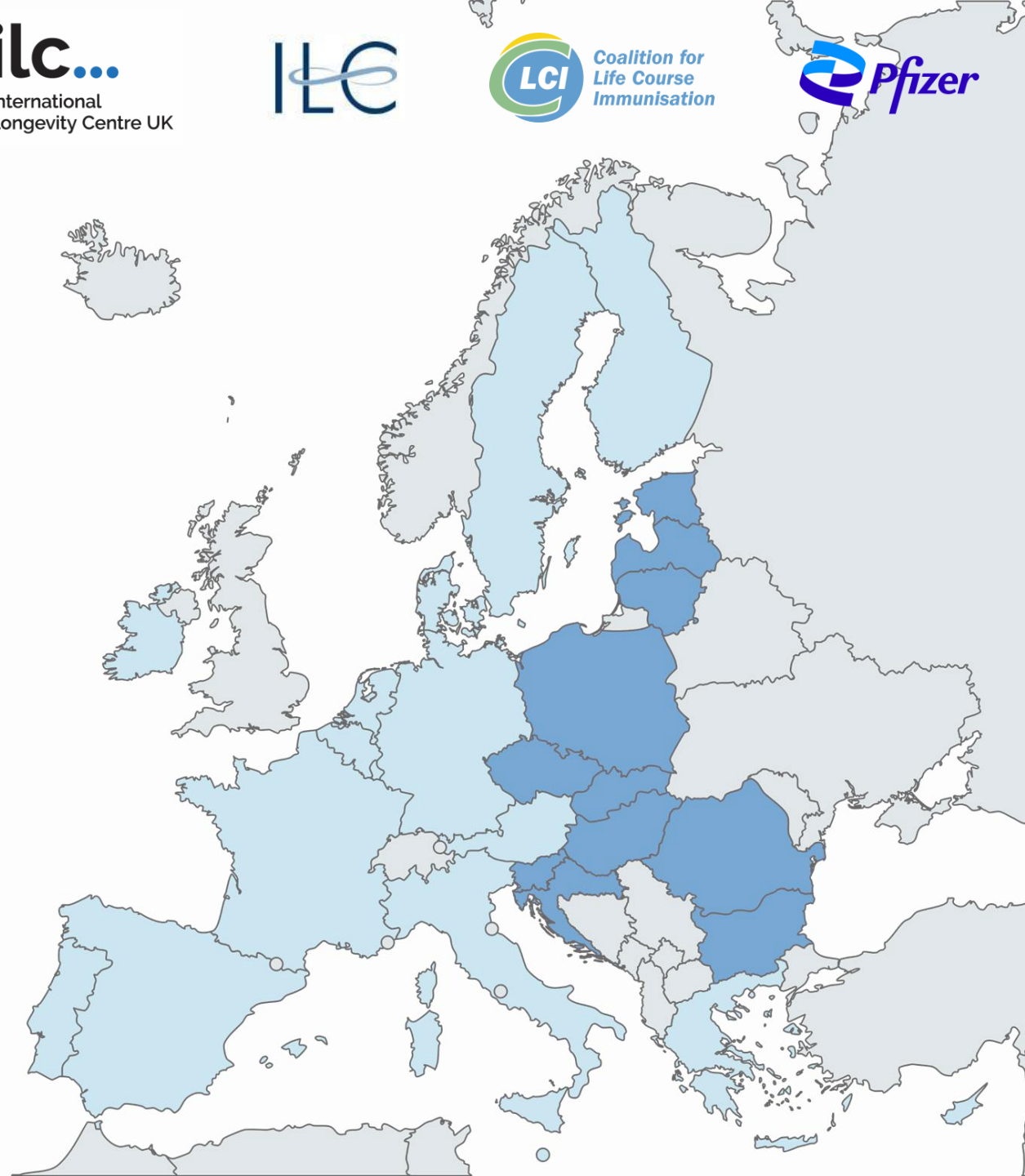
The state of life course vaccination across EU countries in the region

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Life Course
Immunisation

Pfizer



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About this fact pack






This fact pack assesses the state of life course immunisation – including policies, recommendations and coverage – across 11 EU member states in Central & Eastern Europe. Data has been collated from the ECDC, WHO and IVAC.



Bulgaria
Croatia
Czechia
Estonia
Hungary
Latvia
Lithuania
Romania
Poland
Slovakia
Slovenia

About this fact pack

In this fact pack, we look at five immunisation programmes across the life course, from childhood and adolescent vaccinations, to vaccines recommended for specific health groups and adult populations.

- 1) DTP-containing** 
- 2) MMR** 
- 3) HPV** 
- 4) Pneumococcal** 
- 5) Influenza** 

Notes:

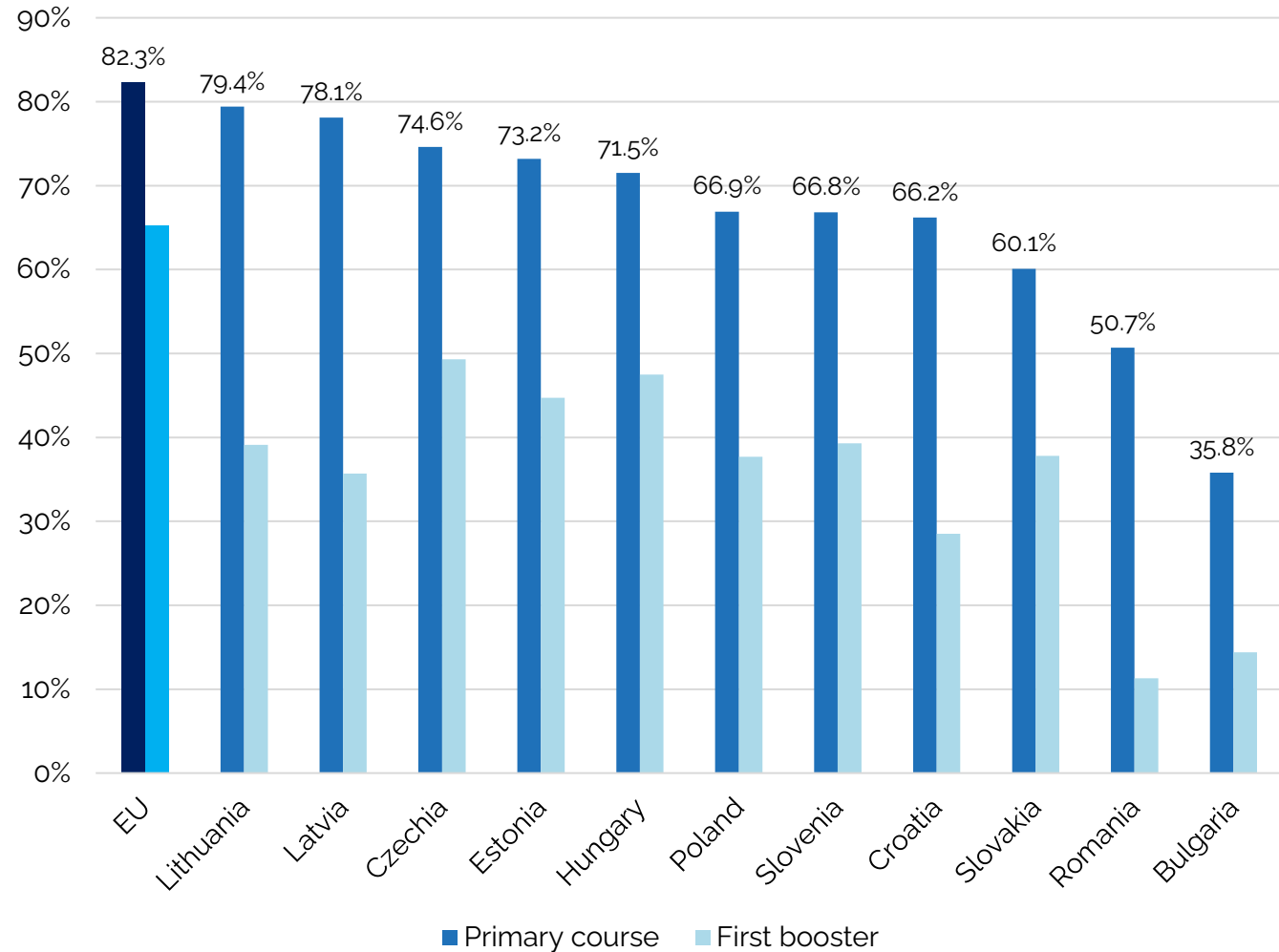
"DTP-containing" vaccination refers to vaccines that cover at least diphtheria, tetanus, and pertussis (DTP). Some countries use combination vaccines which include coverage for additional diseases (see Slide 9).

Icons taken from [flaticon.com](https://www.flaticon.com)

Context

COVID-19 has shown the poor level of engagement with vaccination in C&E Europe. Vaccination is considerably lower than the EU average, although it has been strong in the Baltics and some Central states. However, booster rates are all below 50%.

COVID-19 vaccination in EU adults (18+) versus Central & Eastern EU states (as of 14/12/2022)



Vaccination recommendations

While Central and Eastern European countries make strong recommendations for childhood and influenza vaccinations, recommendations are limited for adult pneumococcal and HPV vaccination.

Vaccination	Recommendation made (% of CEE countries)
HPV (all adolescents)	45%
Pneumococcal (older adults)	64%
Pneumococcal (at-risk groups)	73%
HPV (females)	82%
Influenza (children)	82%
Pneumococcal (children)	91%
DTP-containing	100%
MMR	100%
Influenza (at-risk groups)	100%
Influenza (older adults)	100%

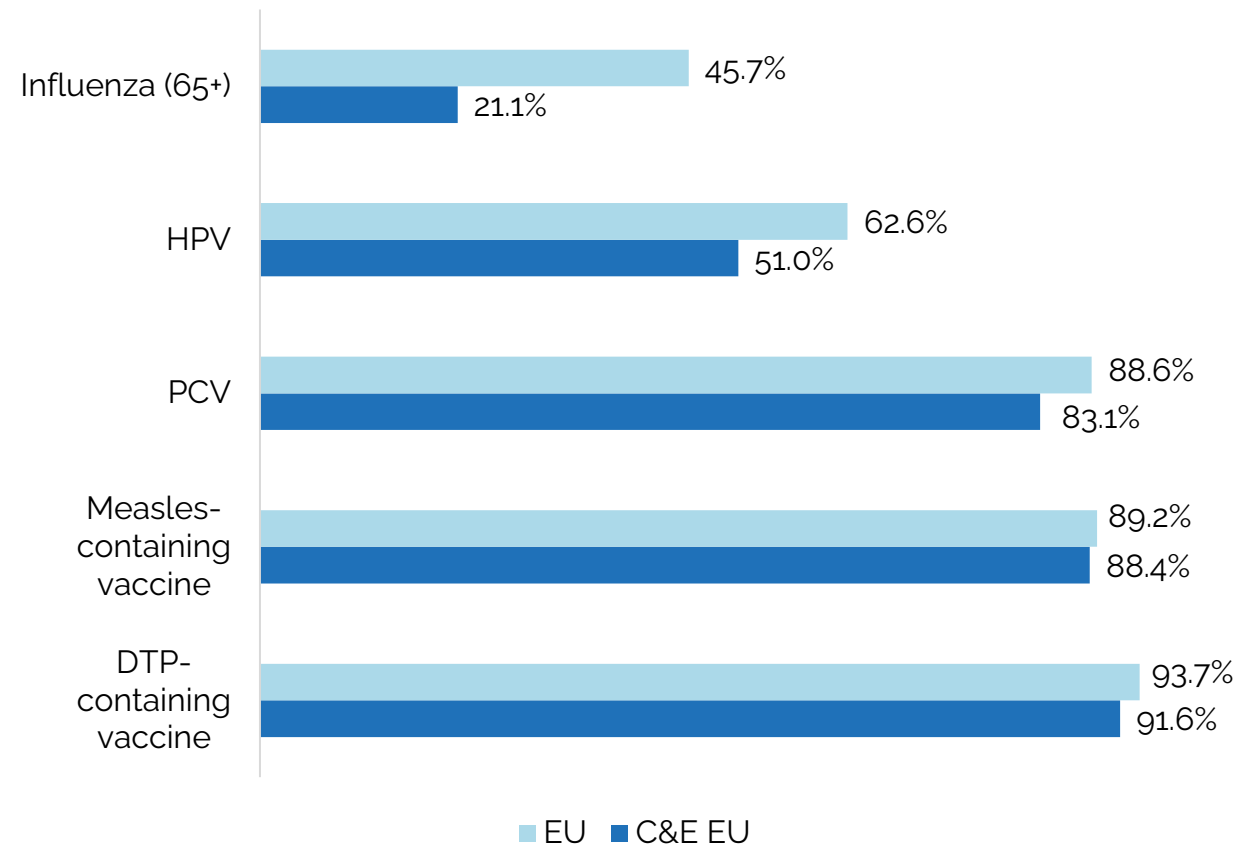
Notes:

"At-risk groups" include individuals with underlying health conditions. Recommendations for different groups vary by country.

Coverage across the life course

Coverage rates vary in Central and Eastern EU countries, but average figures fall below the EU average across the five programmes. Childhood vaccination coverage is very similar.

Average coverage in C&E EU versus EU, 2021



Notes:

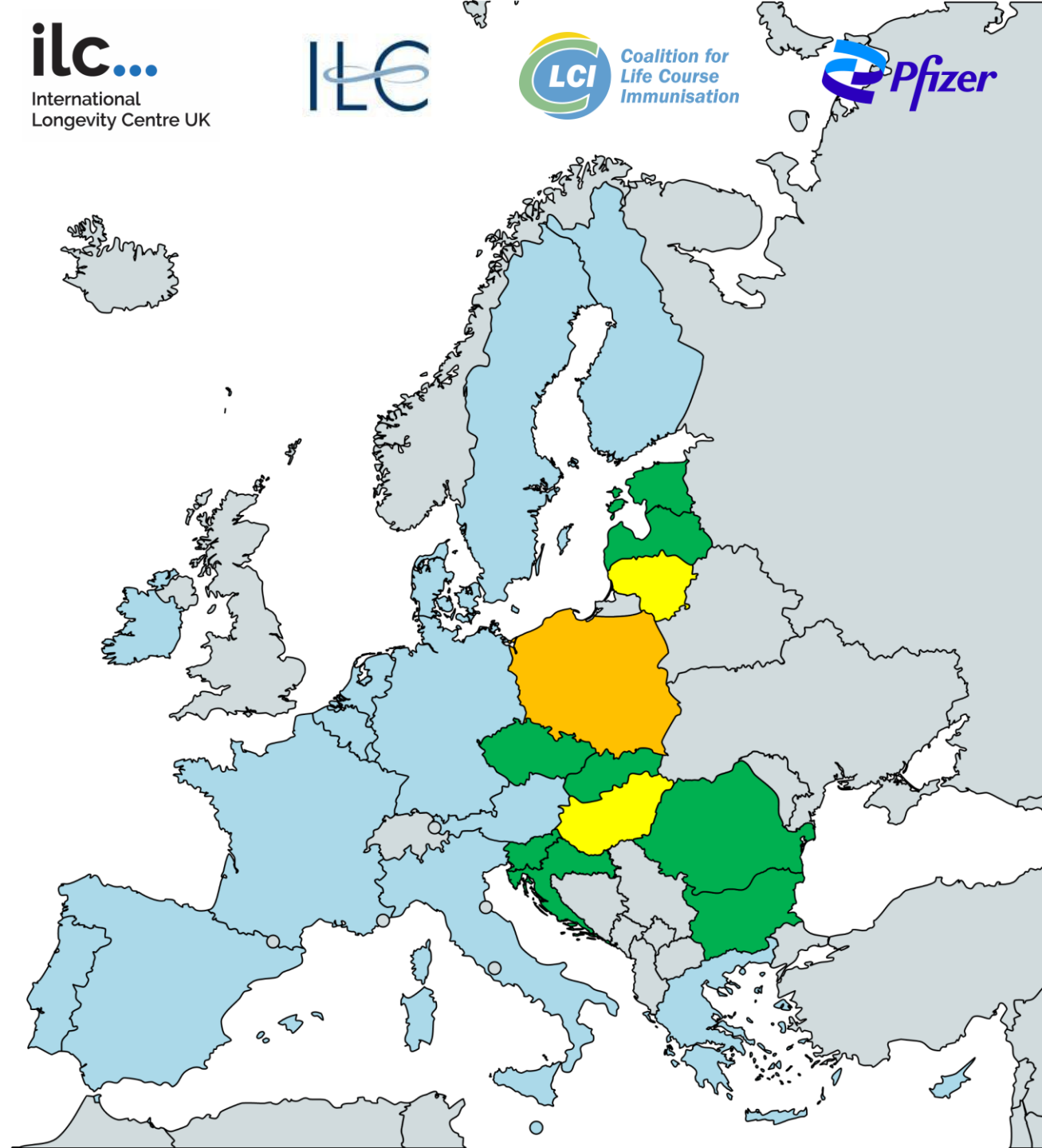
Influenza (65+) coverage figures from 2020 and missing Polish data

DTP-containing vaccination

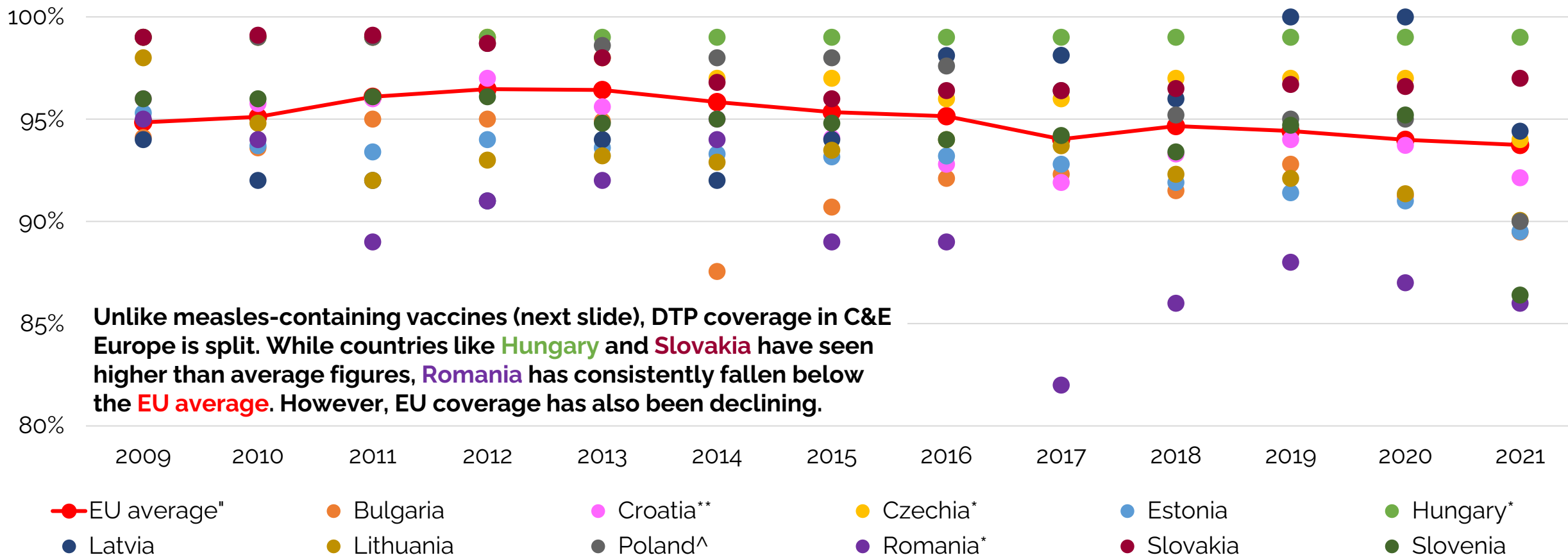
DTP-containing vaccination is recommended in all 11 countries. 8 countries recommend the **6-in-1** vaccine; 2 recommend the **5-in-1**; Poland recommends the **3-in-1**.

Notes

6-in-1 is a combination vaccine that protects against diphtheria, tetanus, pertussis, polio, Haemophilus influenzae type B and hepatitis B. 5-in-1 excludes hepatitis B. 3-in-1 is just diphtheria, tetanus and pertussis (DTP).



DTP-containing vaccine 3rd dose coverage in the EU versus Central & Eastern EU member states, 2009-2021



Unlike measles-containing vaccines (next slide), DTP coverage in C&E Europe is split. While countries like Hungary and Slovakia have seen higher than average figures, Romania has consistently fallen below the EU average. However, EU coverage has also been declining.

“EU average doesn’t include all members for each year; average figure based on collation of member states’ yearly coverage figures from WHO data (including UK)

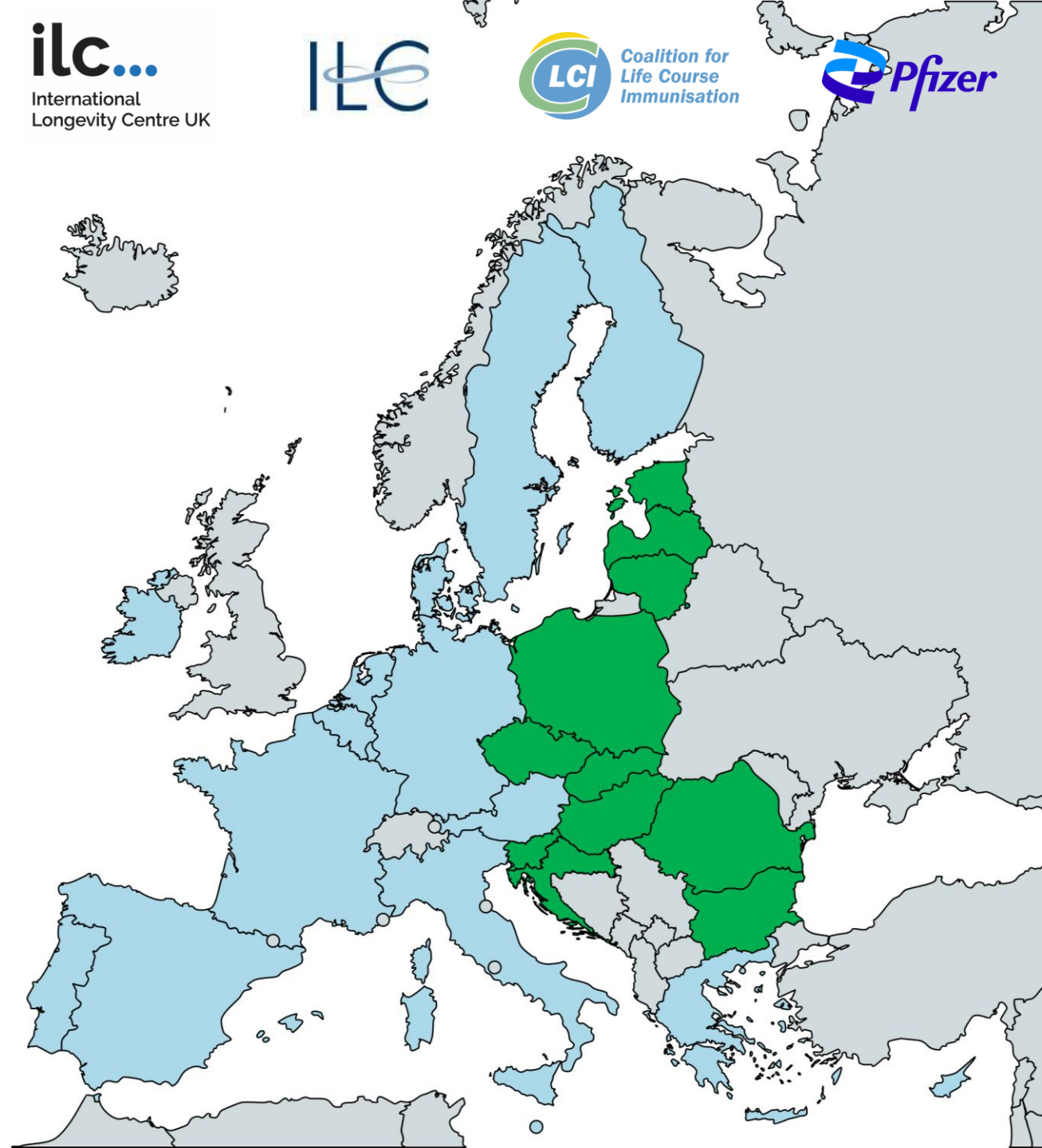
*WHO and UNICEF estimates of national immunization coverage (WUENIC)

**2009 and 2019 figures based on WUENIC; Croatia was a non-EU member pre-2013

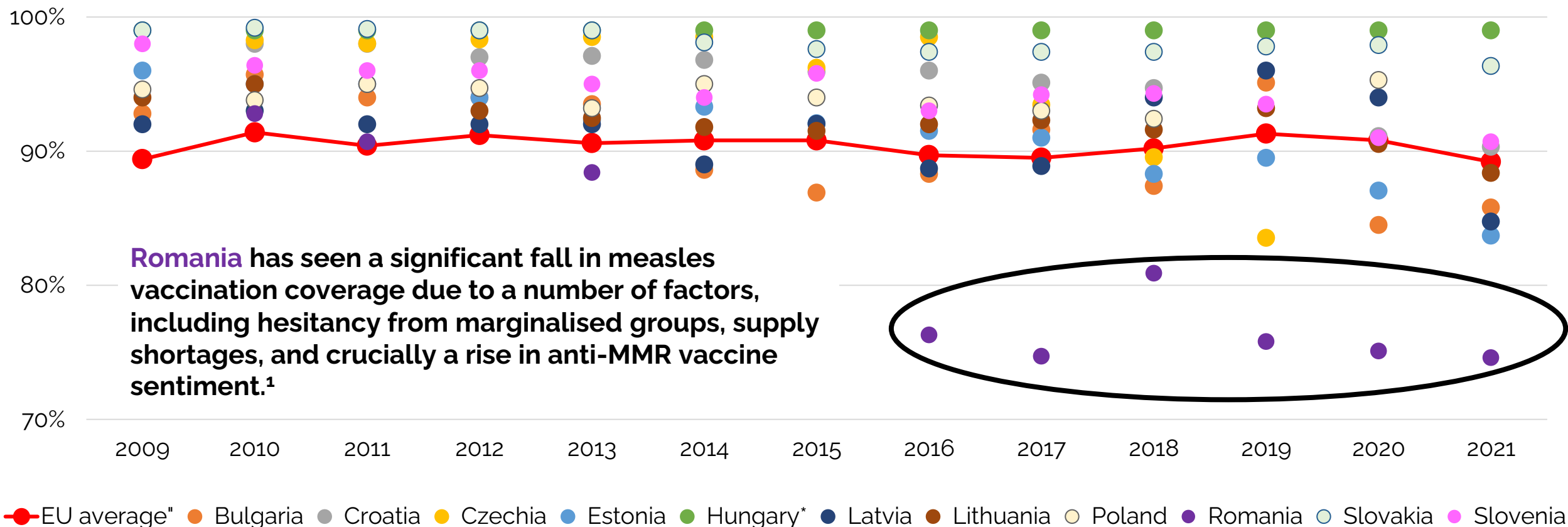
^2019 and 2021 figures based on WUENIC

MMR vaccination

Measles, Mumps, and Rubella (MMR) vaccination is recommended in all 11 countries. Coverage is strong and has often been in line with or above the EU average, although there has been a decline in recent years.



Measles-containing vaccine 2nd dose coverage in the EU vs Central & Eastern EU member states, 2009-2021



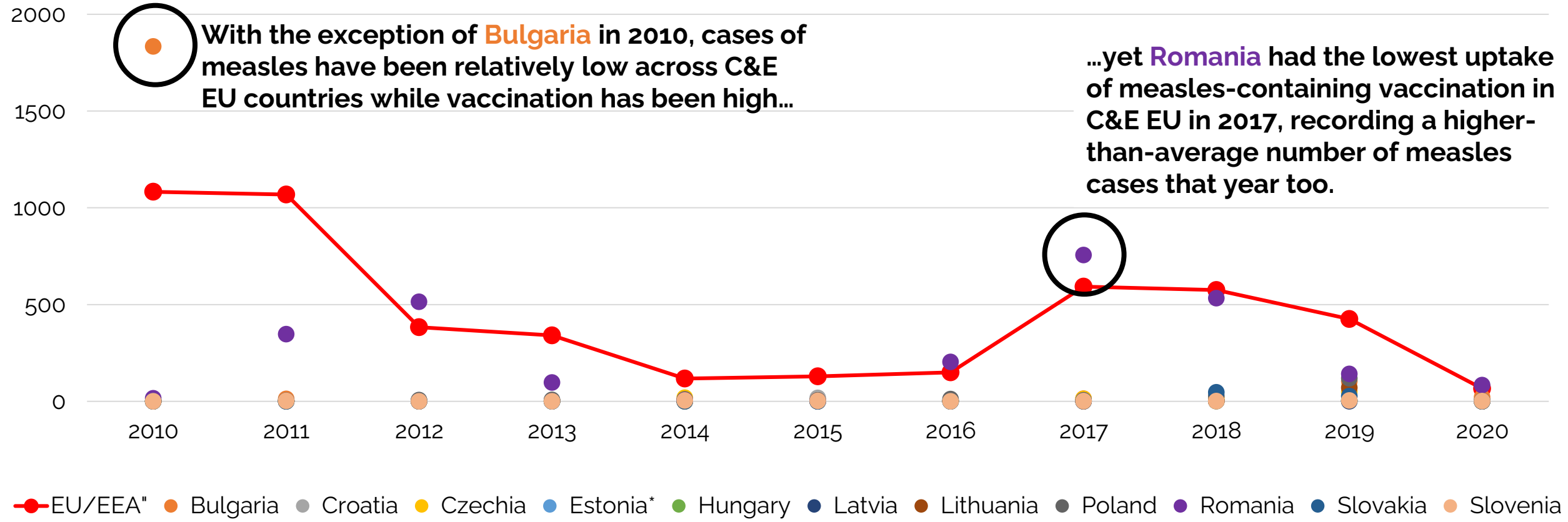
1. Byrne, A. (2017) Romania fights worst outbreak of measles for decades. Available at: <https://www.ft.com/content/4c87ae80-7760-11e7-90c0-90a9d1bc9691>

"EU average doesn't include all members for each year; average figure based on collation of member states' yearly coverage figures from WHO data (including UK); includes Croatia pre-2013

*WHO and UNICEF estimates of national immunization coverage (WUENIC)

Measles cases

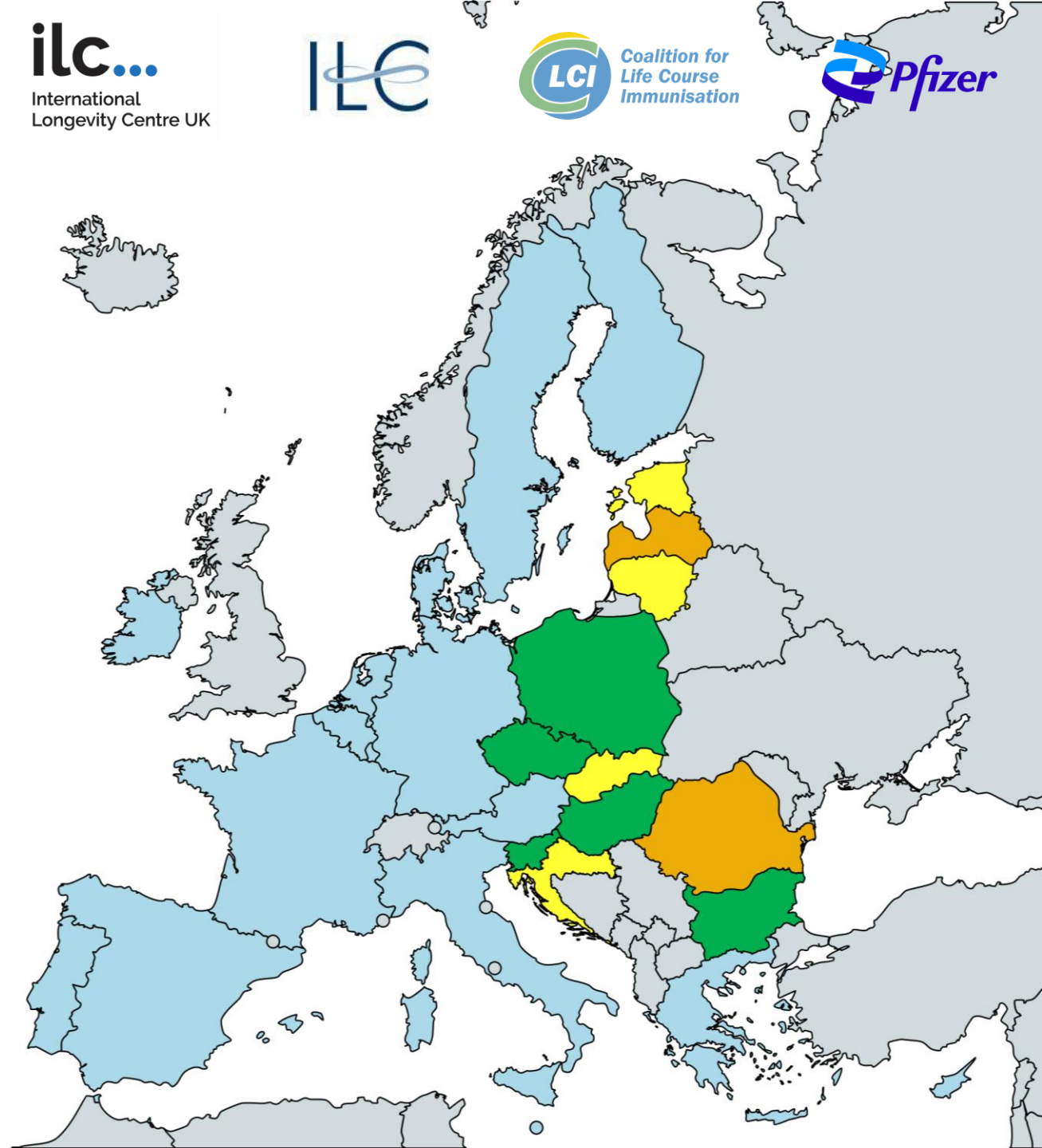
Monthly average cases of measles in the EU/EEA, 2010-2020



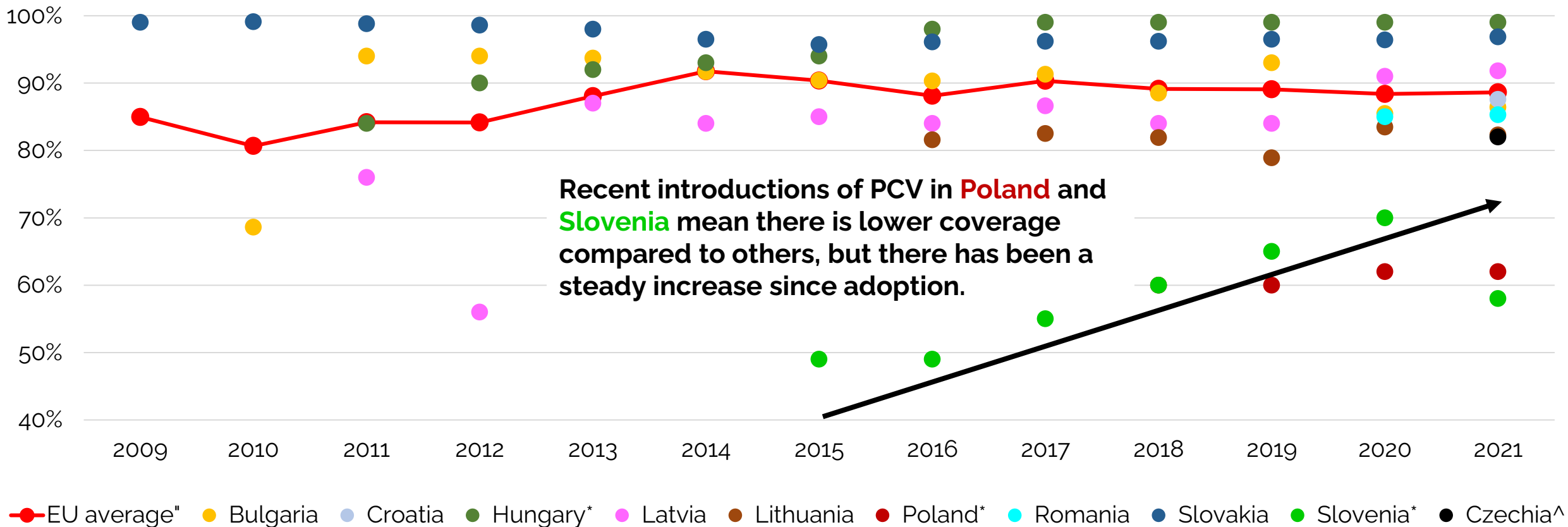
“EU/EEA figures equate to monthly average per EU/EEA member. Excludes Croatia 2010-2012
 *Missing data from 2020
 ECDC data

Pneumococcal vaccination

Pneumococcal vaccination is recommended for children, at-risk groups and older adults in **5 countries**. 4 countries make recommendations for **only 2 groups** and 2 countries recommend the vaccine for **children only**.



PCV final dose coverage in the EU vs Central & Eastern EU member states, 2009-2021



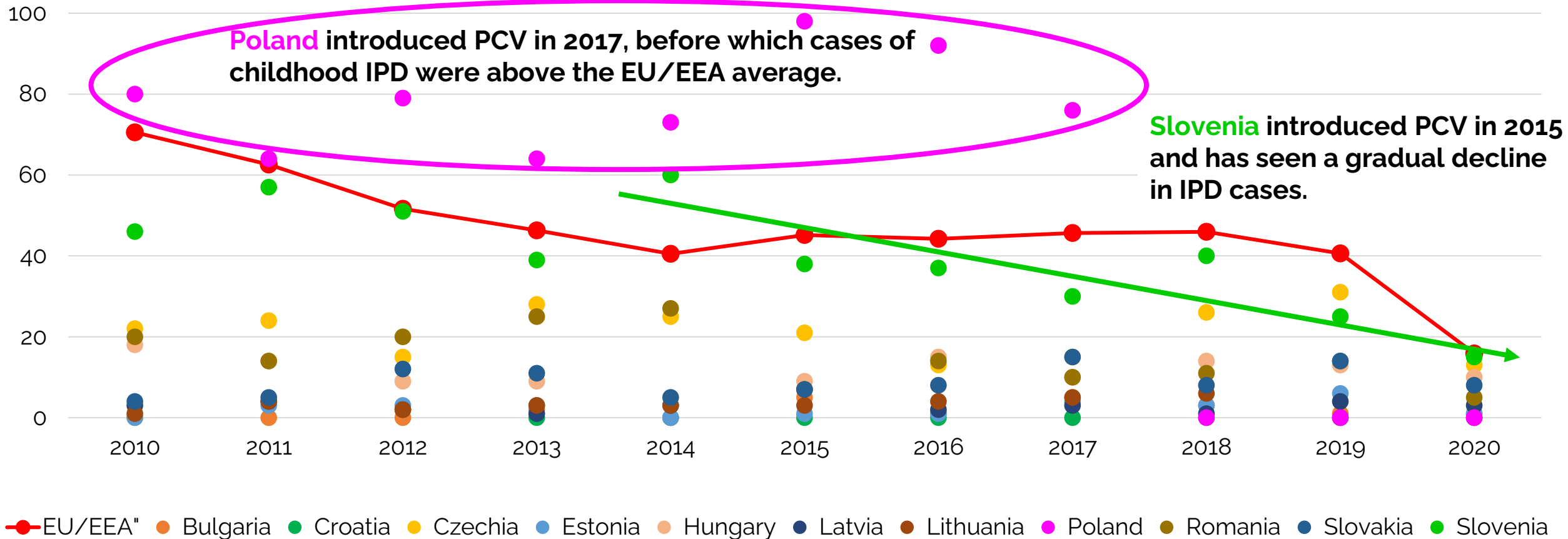
“EU average doesn’t include all members for each year; average figure based on collation of member states’ yearly coverage figures from WHO data (including UK)

*WHO and UNICEF estimates of national immunization coverage (WUENIC)

^International Vaccine Access Center (IVAC) data

PCV administered to children in these countries – data reflects vaccination coverage in childhood population groups

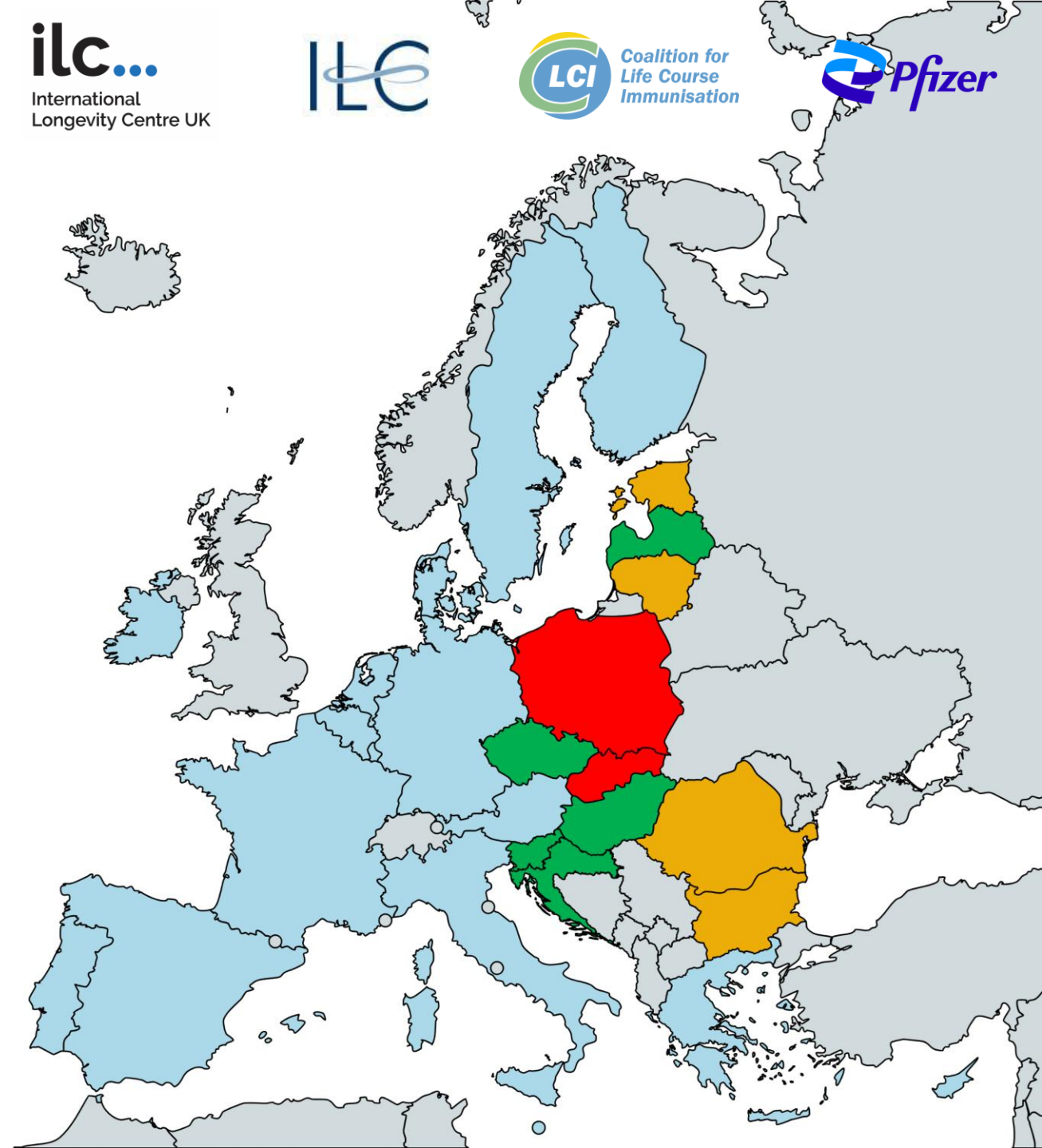
Invasive pneumococcal disease (IPD) cases in children (0-4 years) in the EU/EEA, 2010-2020



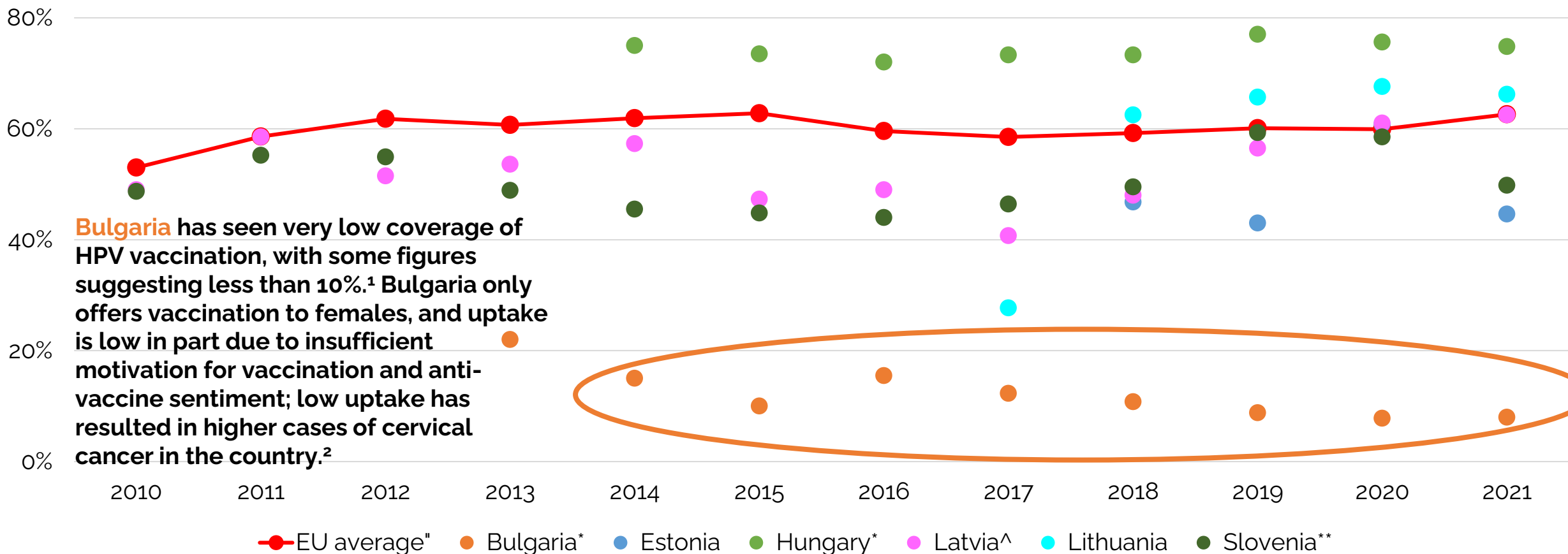
“EU/EEA figures equate to average yearly cases per EU/EEA member. Excludes Croatia 2010-2012
ECDC data & information from WHO

HPV vaccination

HPV vaccination in females is recommended in 9 C&E EU countries; only around half (5 countries) make **recommendations for all adolescents** to receive a vaccine.



HPV vaccination coverage in the EU versus Central & Eastern EU member states, 2010-2021



1. HPV Information Centre (2021) Bulgaria: Human Papillomavirus and Related Cancers, Fact Sheet 2021. Available at: [Link](#)

2. Karcheva, M. (2020) An overview of cervical cancer epidemiology and prevention in Bulgaria. Available at: [Link](#)

"EU average doesn't include all members for each year; average figure based on collation of member states' yearly coverage figures from WHO data (including UK)

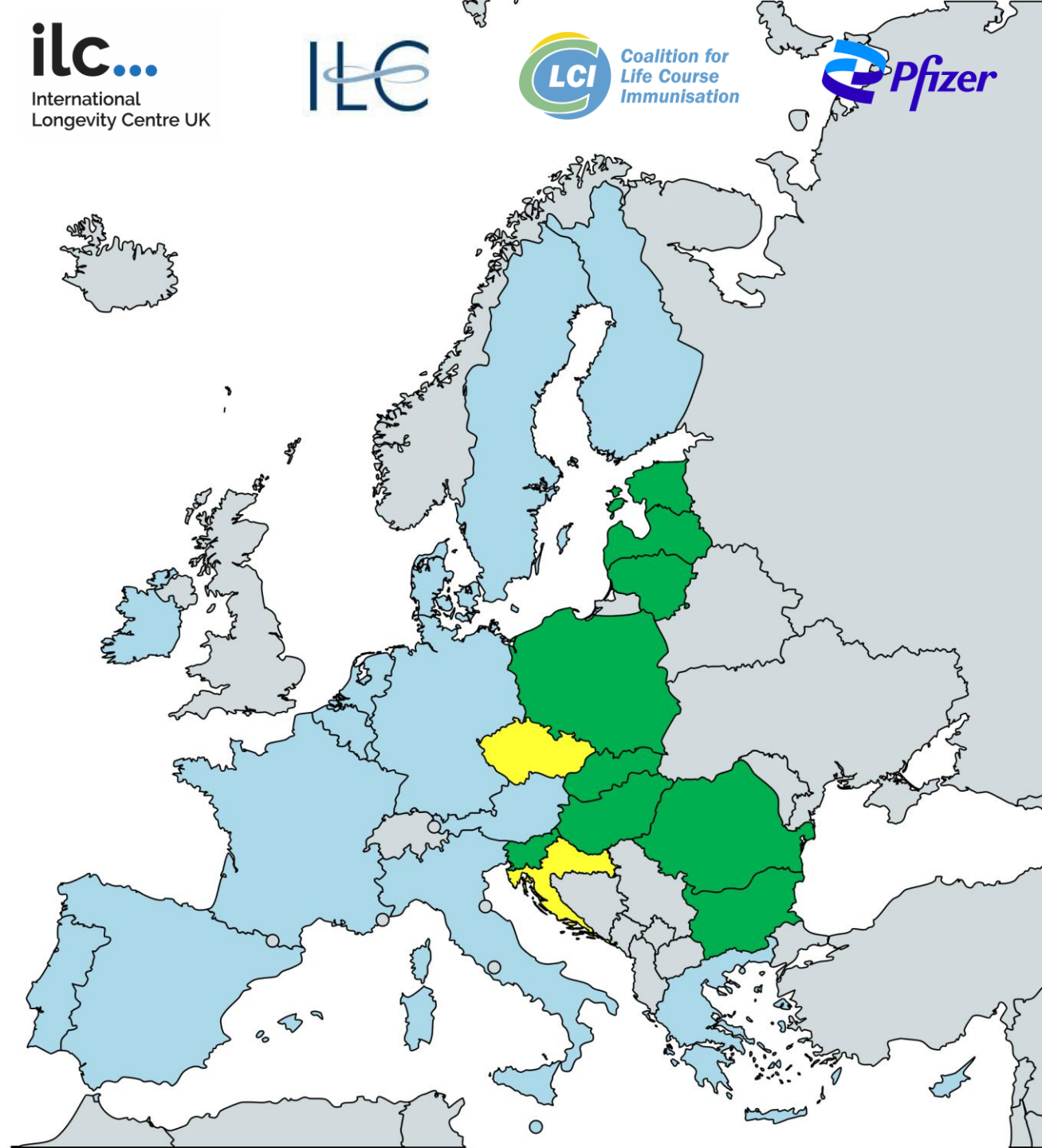
*Figures based on averages of WHO estimates

**Official coverage figure for female final dose only

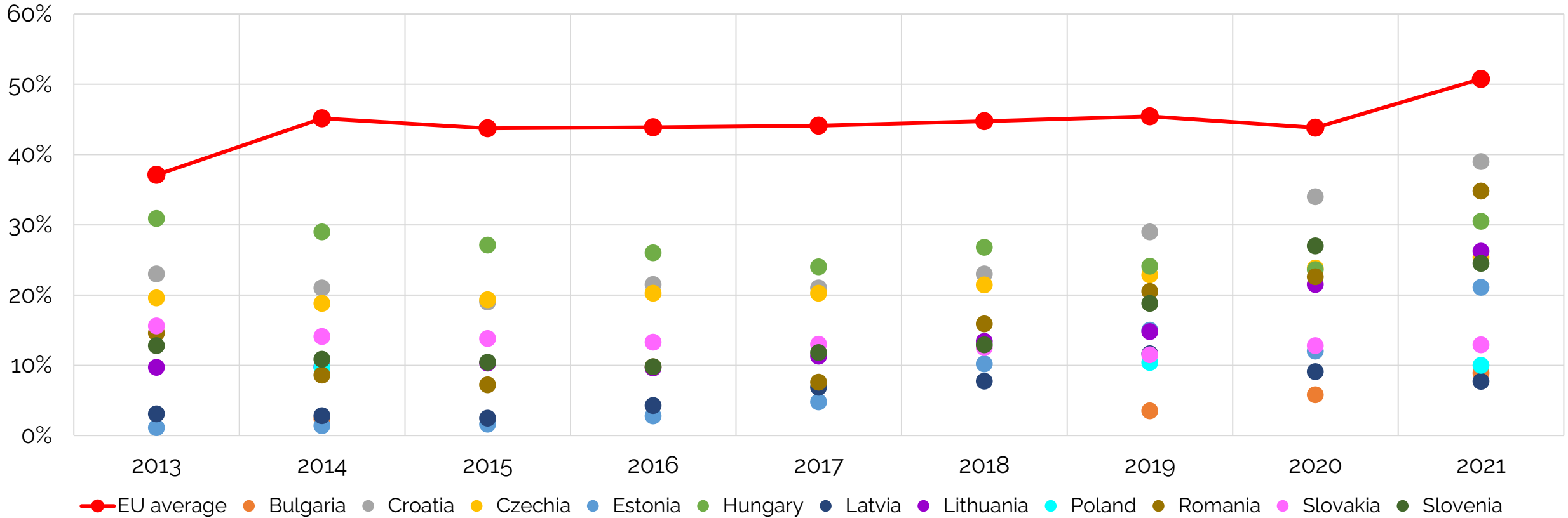
^2010-2016 figures based on average of WHO estimates

Influenza vaccination

Influenza vaccination is recommended for all 3 life course groups across **11 countries**, except for 2 who make recommendations for **at-risk groups and older adults only**.



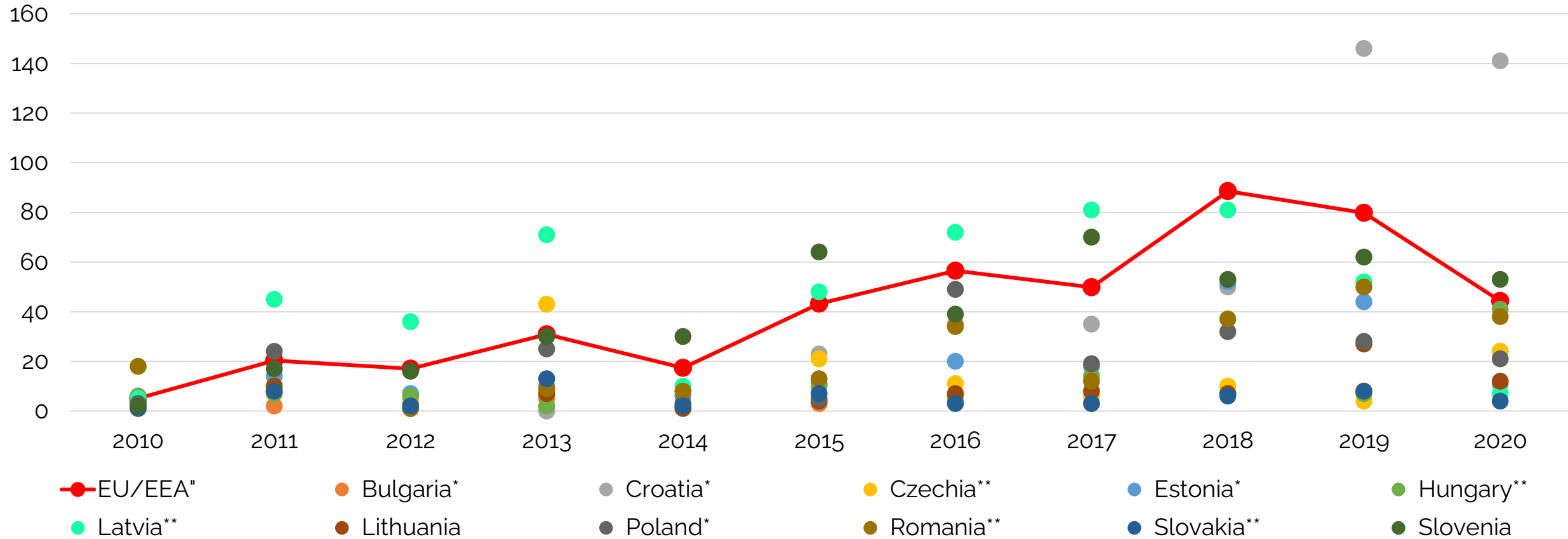
Influenza vaccination coverage in over-65s in the EU versus Central & Eastern EU member states, 2013-2021



NB: EU average for 2013 is an average of Eurostat figures combined; 2020-21 EU average data excludes the UK; Bulgaria and Poland missing data ([see Eurostat website for more details](#)).

Influenza cases

Weekly average cases of influenza in the EU/EEA, 2010-2020



"Figures equate to weekly average per EU/EEA member. Excludes Croatia 2010-2012.

*Missing data from 2020

**Missing weeks for various years

ECDC data

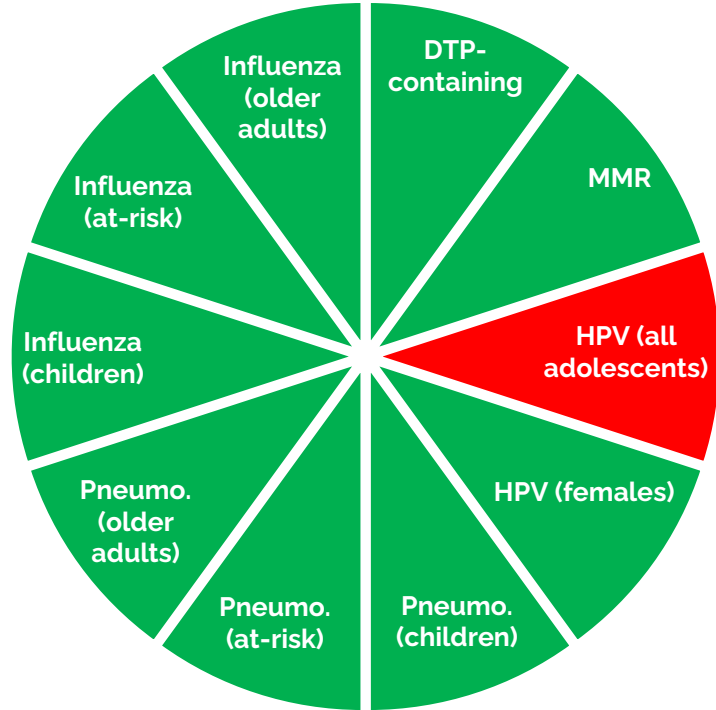
Country profiles

What does each country look like when it comes to life course immunisation?

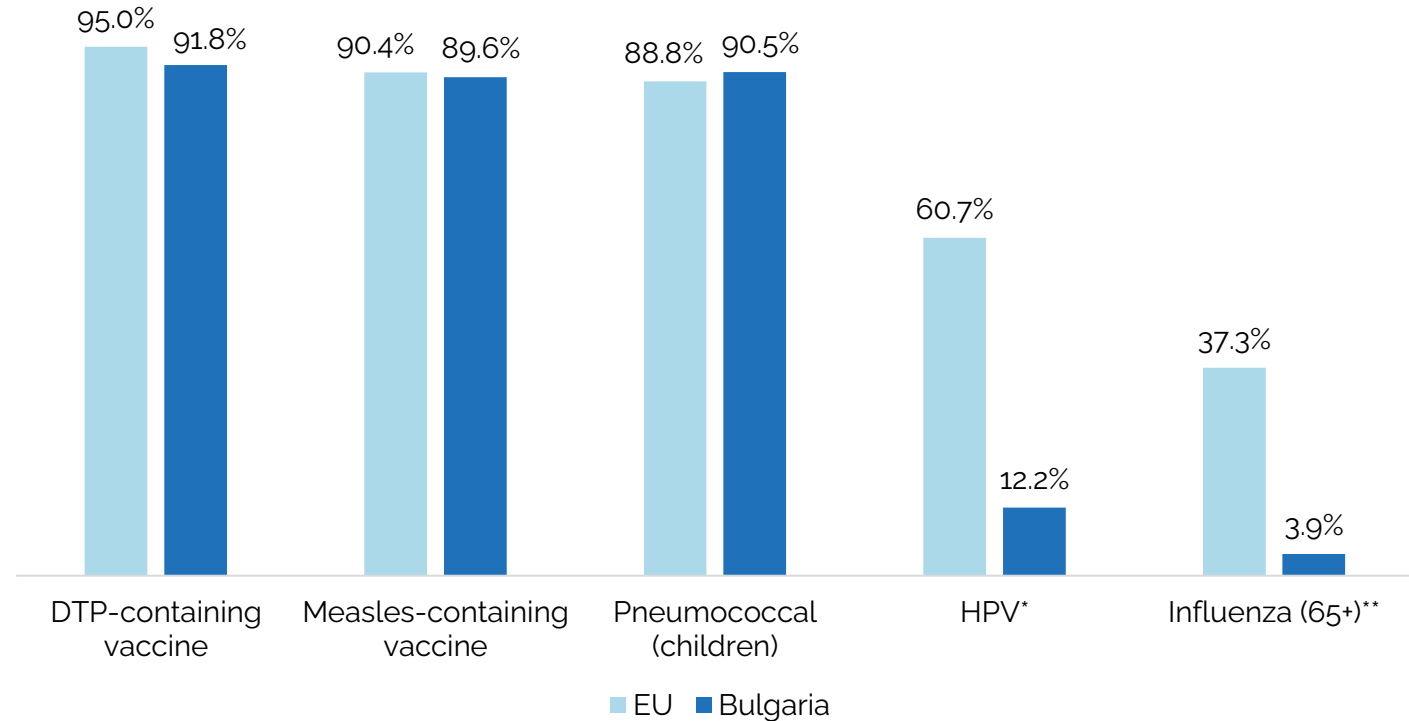
Coverage data has been taken from WHO unless stated in the footnotes. Recommendations taken from ECDC and WHO.



Vaccine recommendations:



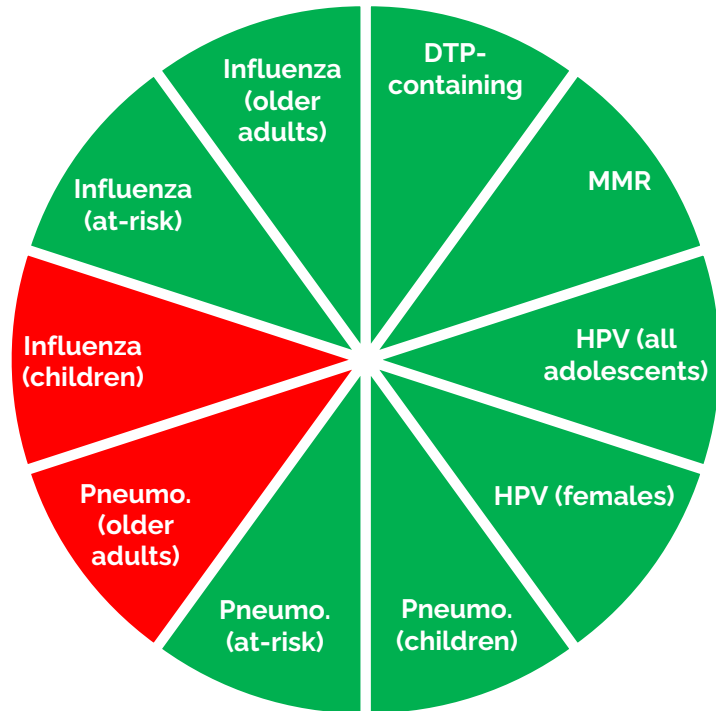
Life course immunisation coverage, 10-year average
(2012-2021)



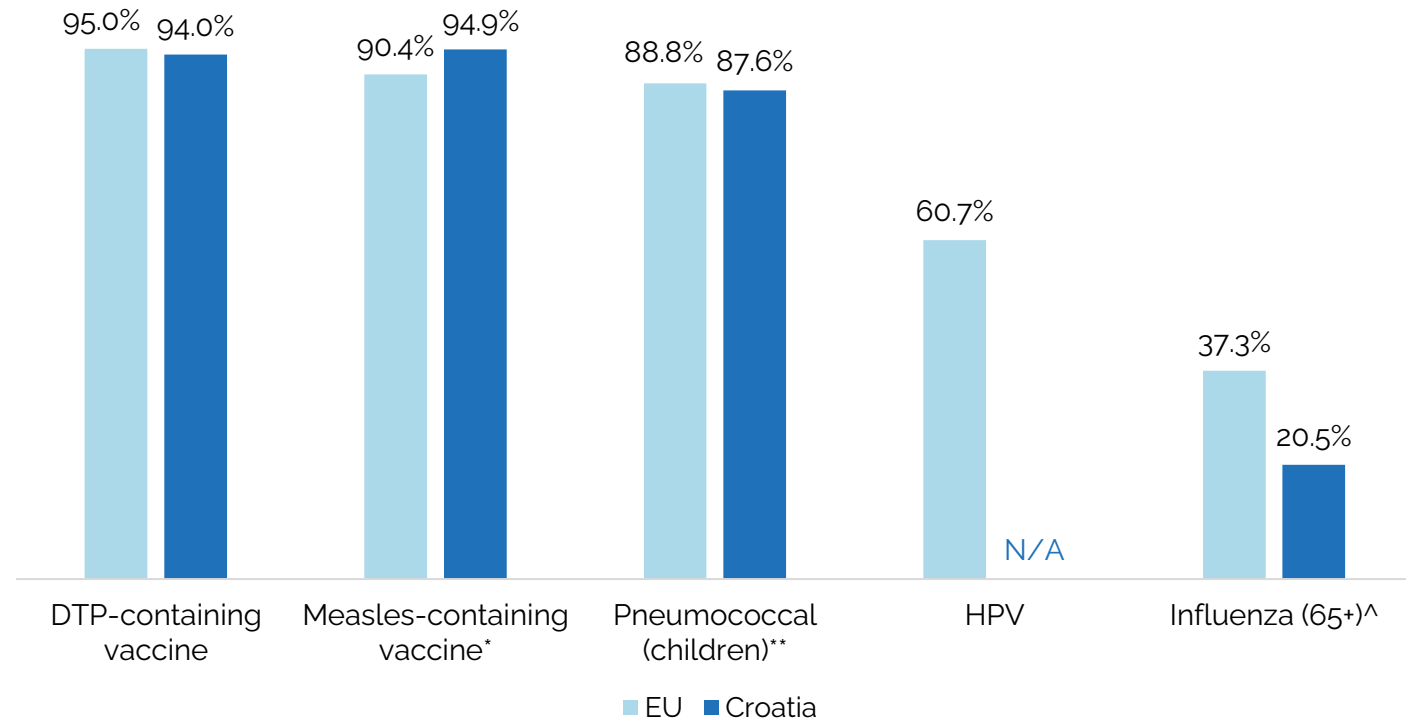
*Missing 2012 Bulgarian data; Bulgarian female population only

**Influenza figures from 2012-2020; Bulgarian data includes 2014, 2019 & 2020 only

Vaccine recommendations:



Life course immunisation coverage, 10-year average
(2012-2021)



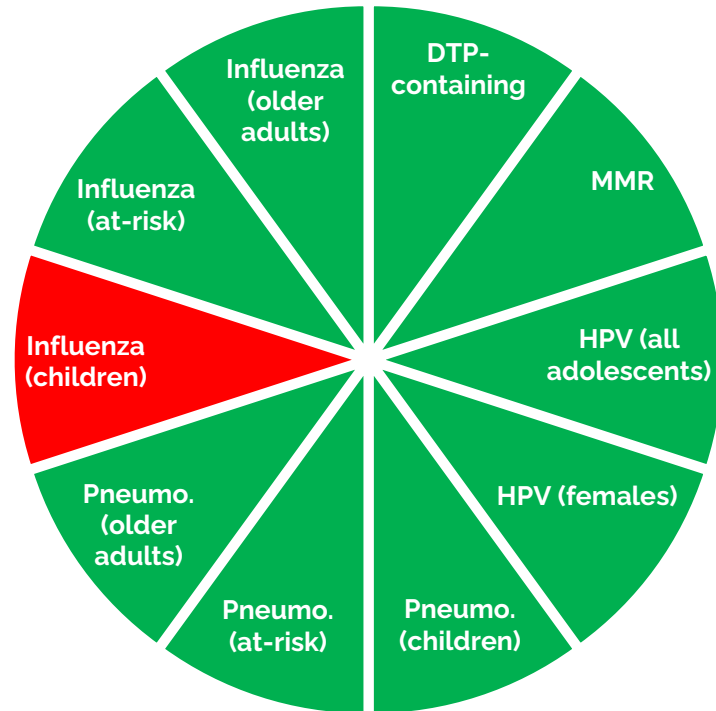
*Missing 2019 Croatian data

**PCV introduced in Croatia in 2019; 2021 data only

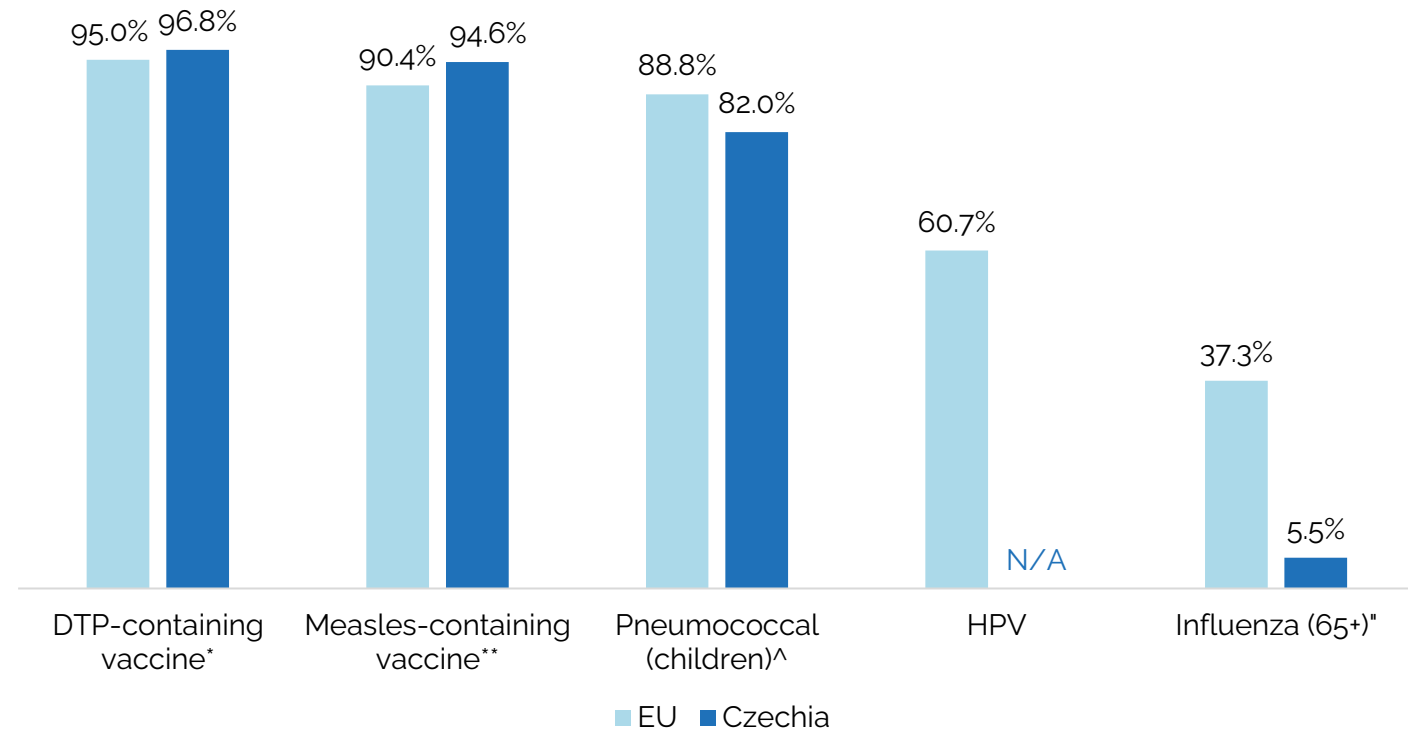
^Influenza figures from 2012-2020

NB: Croatia non-EU member pre-2013

Vaccine recommendations:



Life course immunisation coverage, 10-year average
(2012-2021)



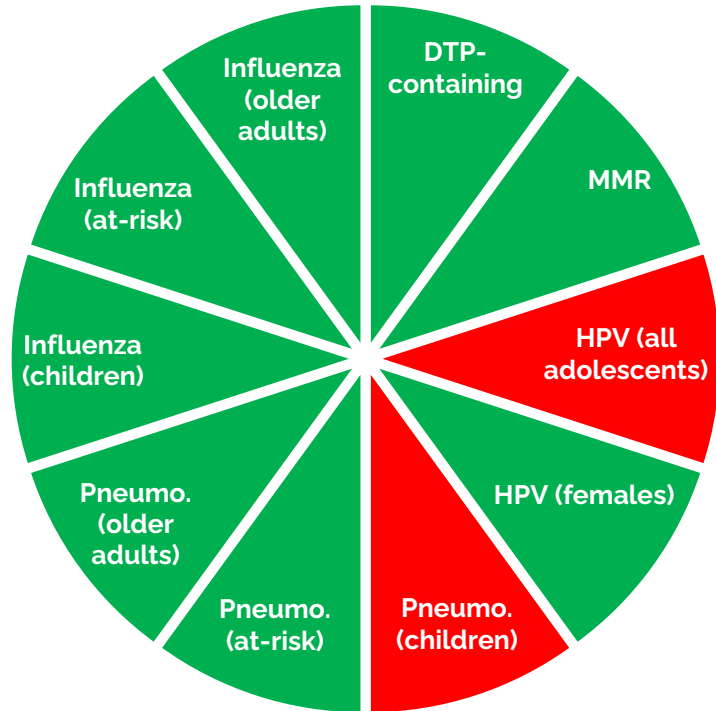
*WHO and UNICEF estimates of national (Czech) immunization coverage (WUENIC)

**Missing 2020 & 2021 Czech data

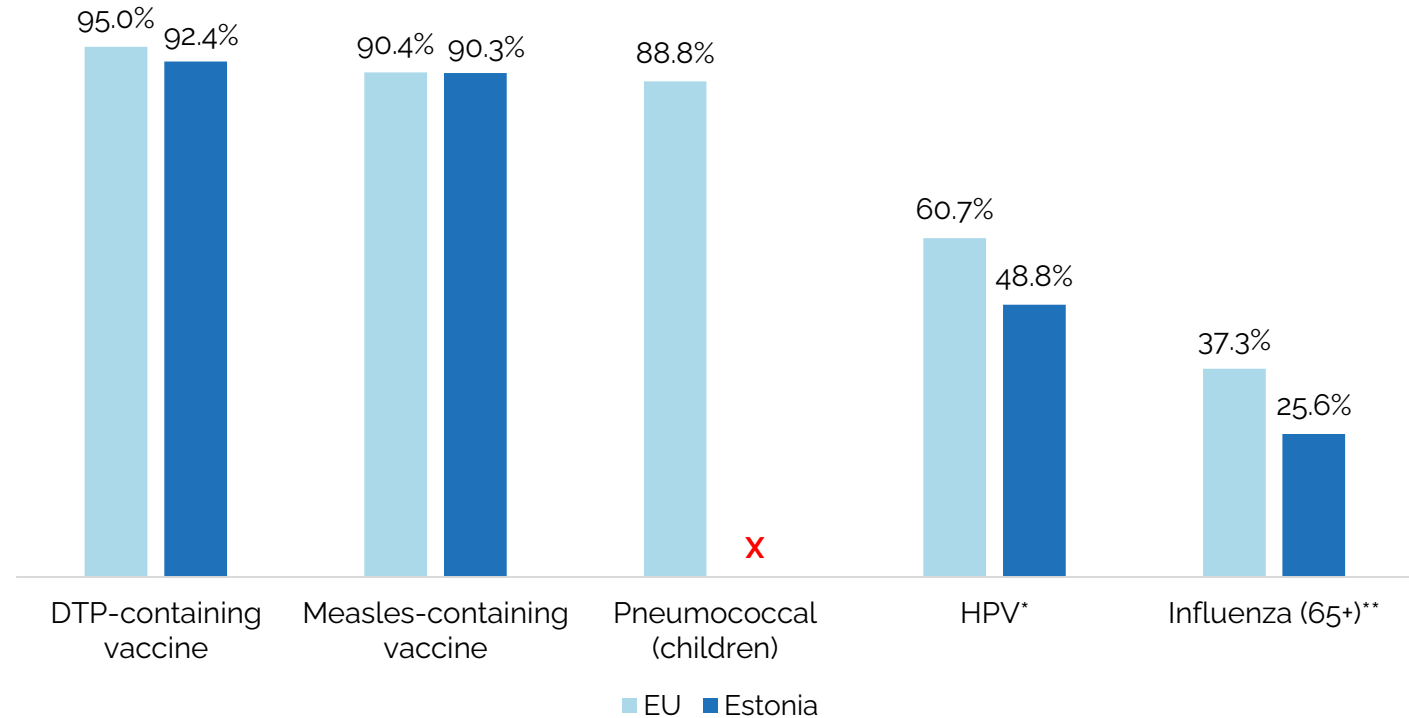
^2021 Czech data only; IVAC data

"Influenza figures from 2012-2020

Vaccine recommendations:



Life course immunisation coverage, 10-year average
(2012-2021)

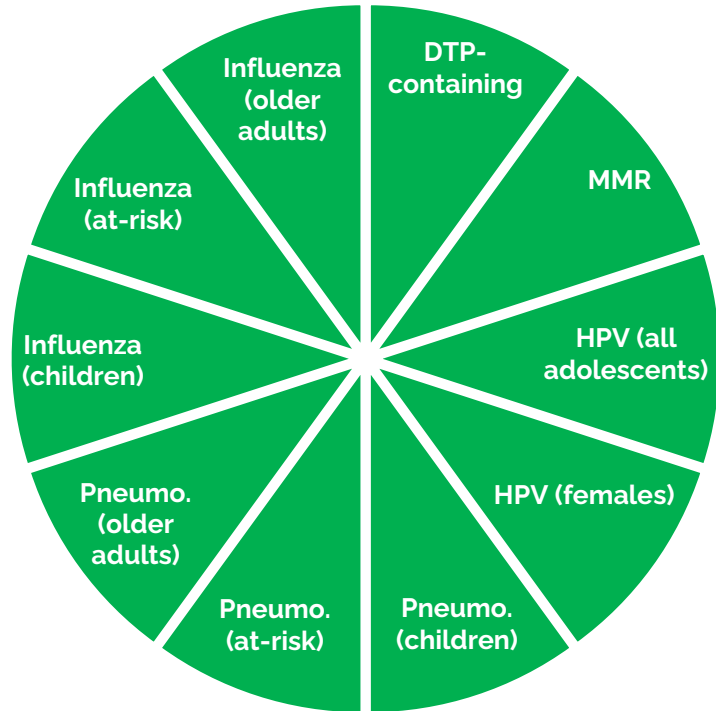


X No pneumococcal vaccination recommendation for children in Estonia

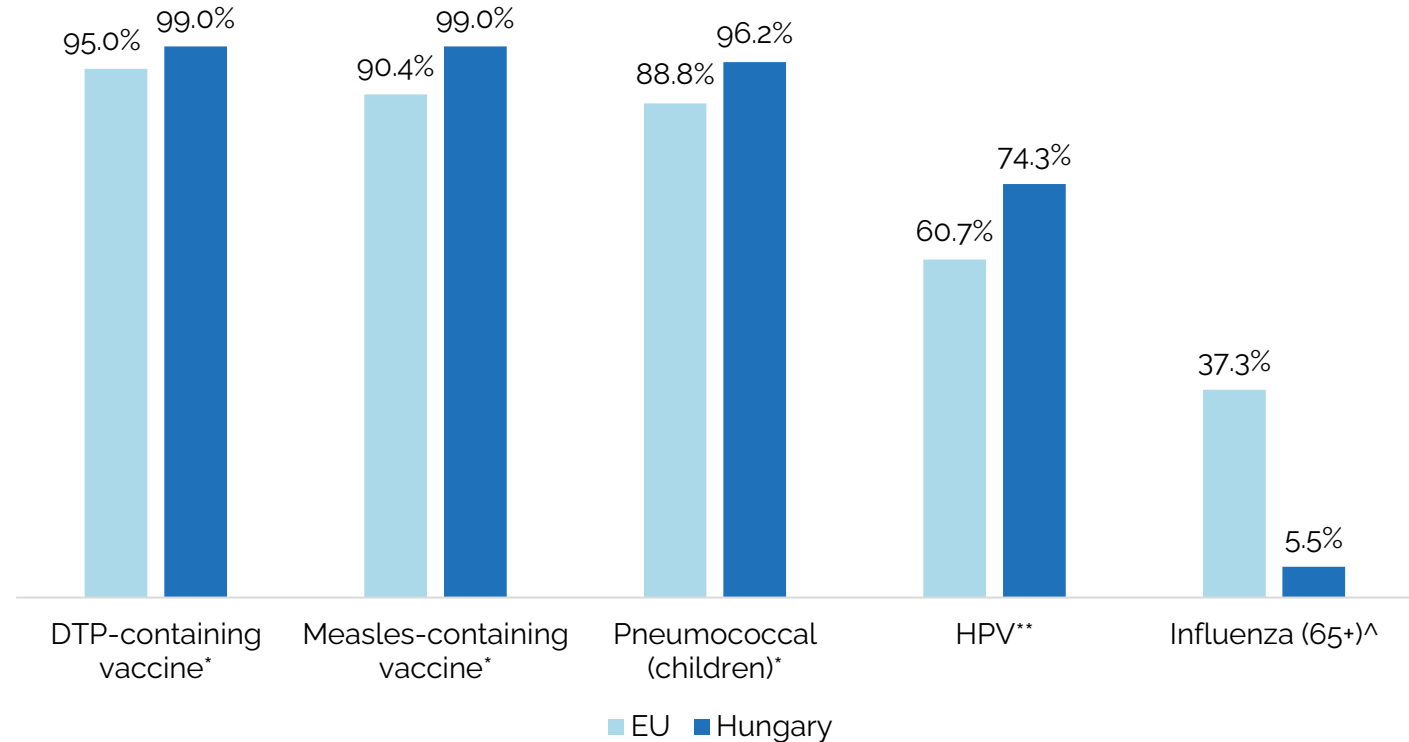
*2018-2021 Estonian data only; Estonian female population only

**Influenza figures from 2012-2020

Vaccine recommendations:



Life course immunisation coverage, 10-year average (2012-2021)

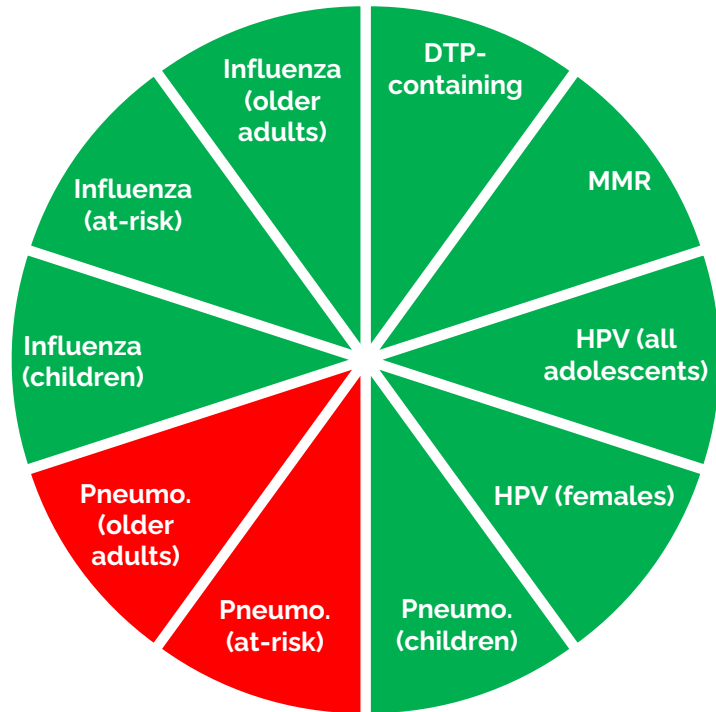


*WHO and UNICEF estimates of national (Hungarian) immunization coverage (WUENIC)

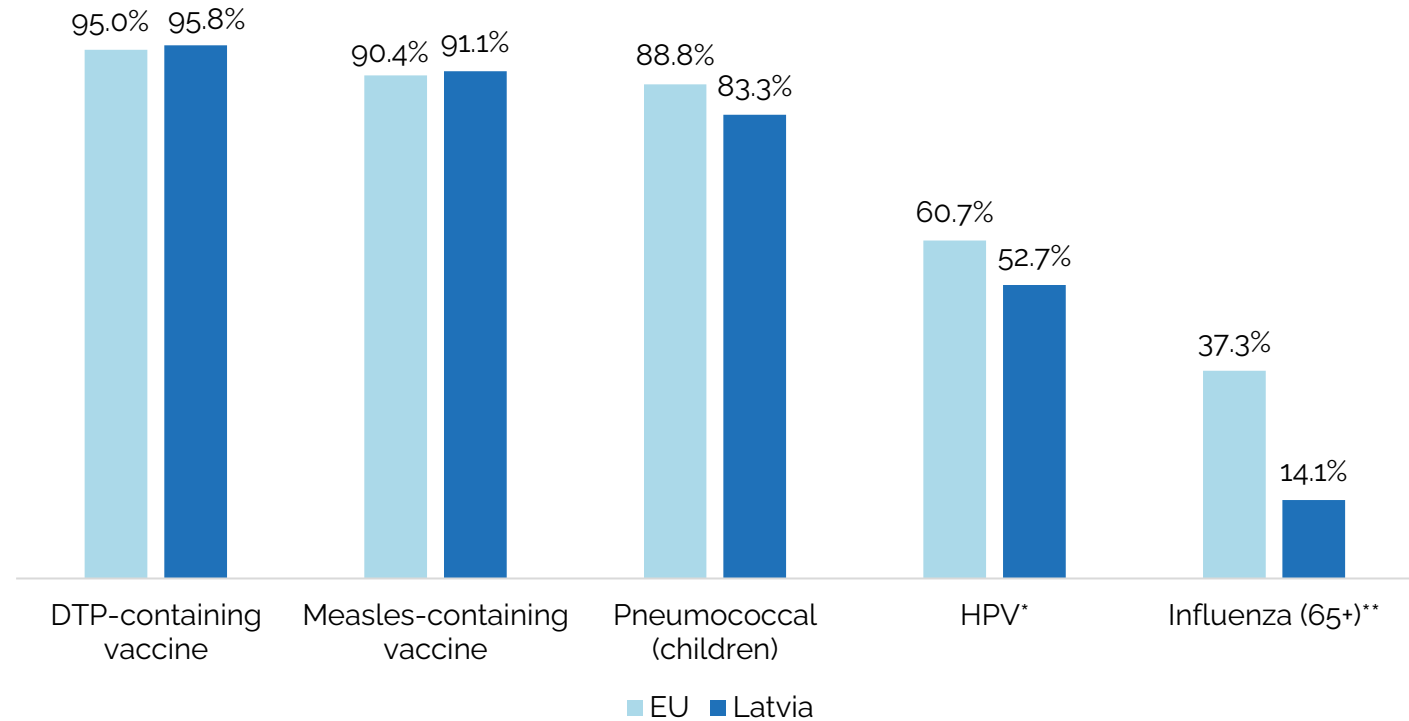
**Hungarian figures based on averages of WHO estimates

^Influenza figures from 2012-2020

Vaccine recommendations:



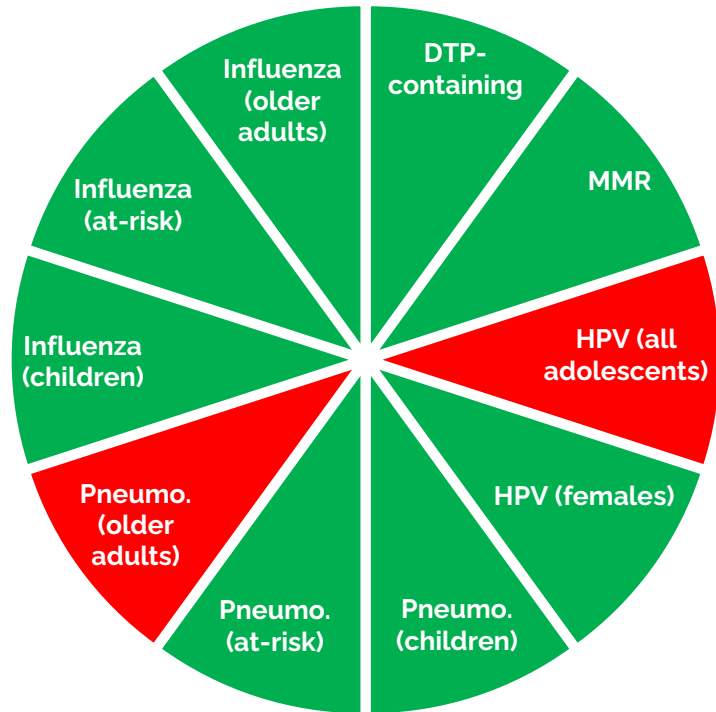
Life course immunisation coverage, 10-year average
(2012-2021)



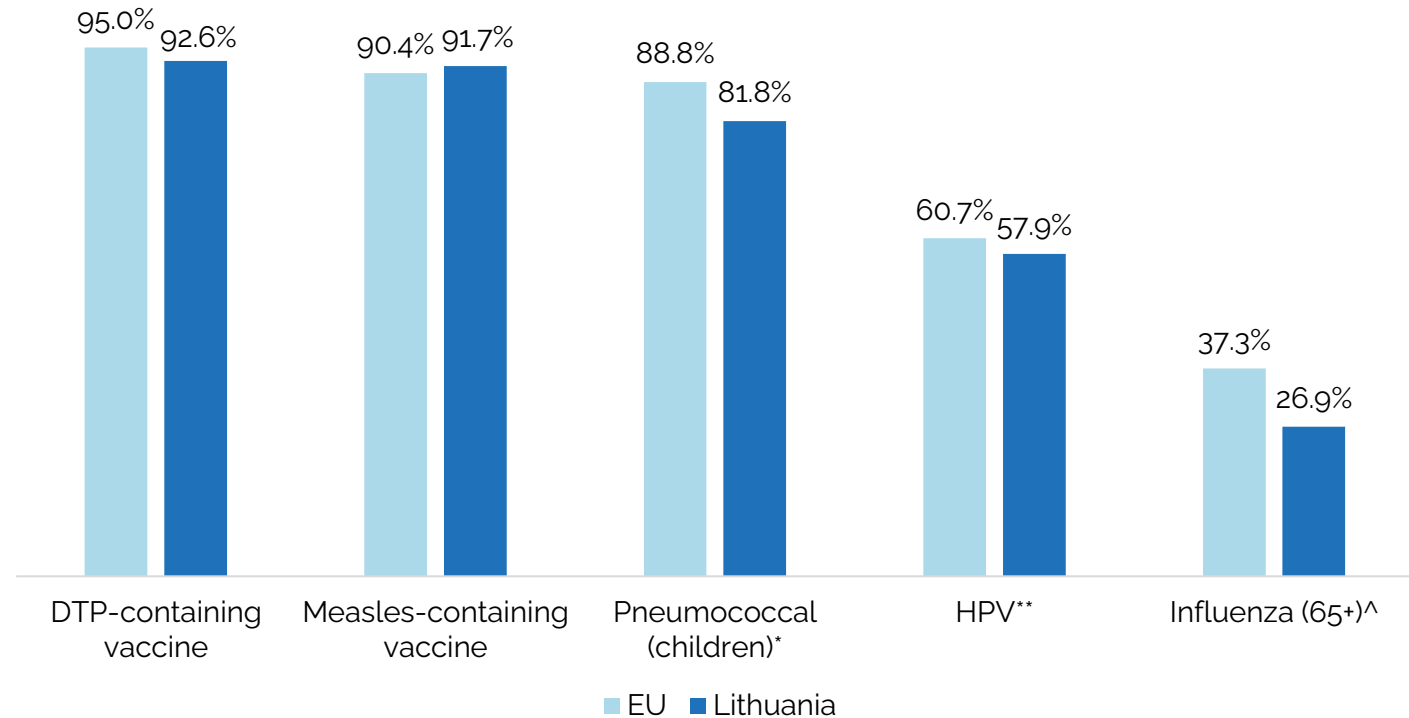
*2010-2016 Latvian figures based on average of WHO estimates; Latvia female population only (although new recommendations for all adolescents was made in 2022)

**Influenza figures from 2012-2020

Vaccine recommendations:



Life course immunisation coverage, 10-year average
(2012-2021)

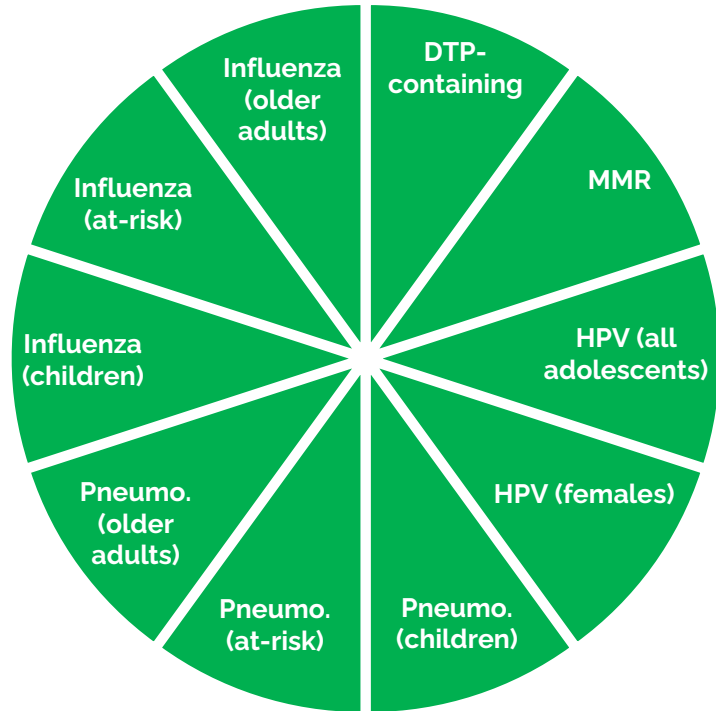


*PCV introduced in Lithuania in 2014; 2016-2021 data only

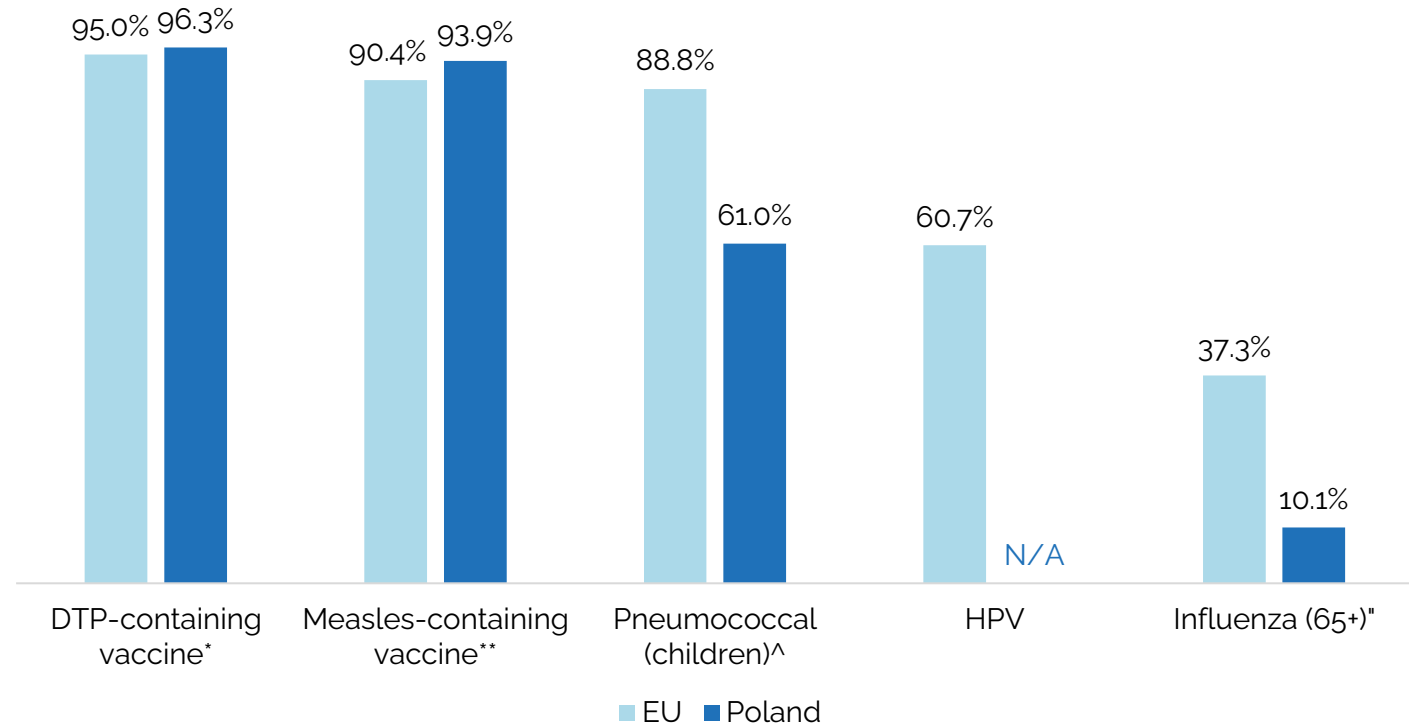
**2017-2021 Lithuanian data only; Lithuanian female population only

^Influenza figures from 2012-2020

Vaccine recommendations:



Life course immunisation coverage, 10-year average (2012-2021)



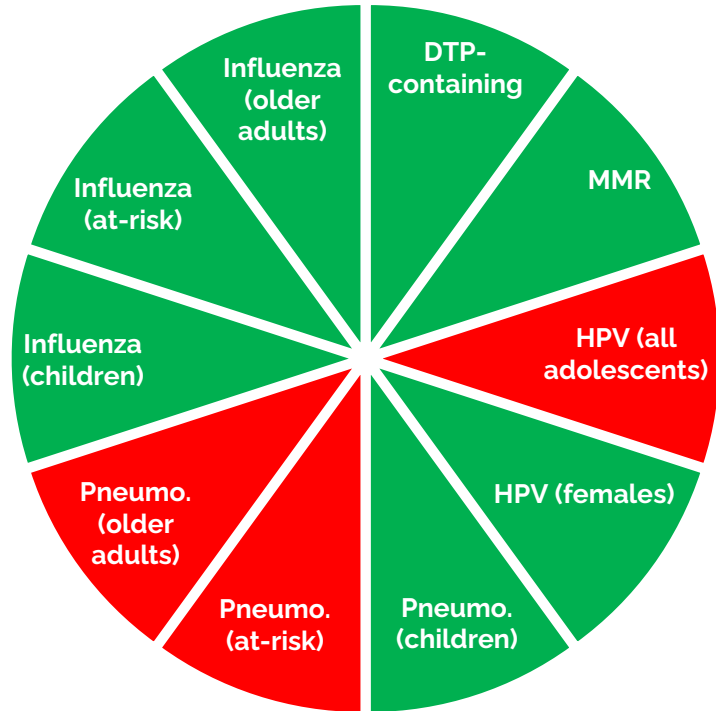
*2019 and 2021 Polish figures based on WHO and UNICEF estimates of national immunization coverage (WUENIC)

**2019 and 2021 Polish figures missing

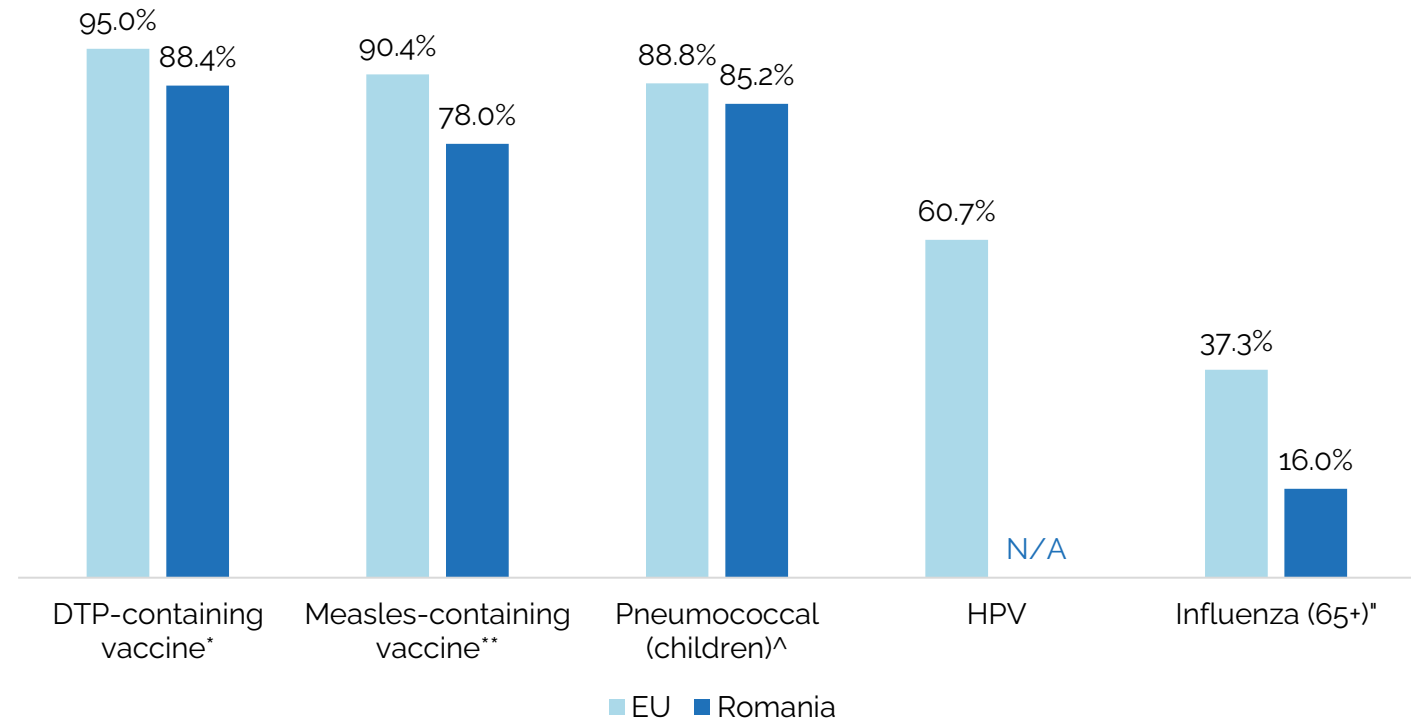
**PCV introduced in Poland in 2017; 2018-2021 data only

"Influenza figures from 2012-2020

Vaccine recommendations:



Life course immunisation coverage, 10-year average
(2012-2021)



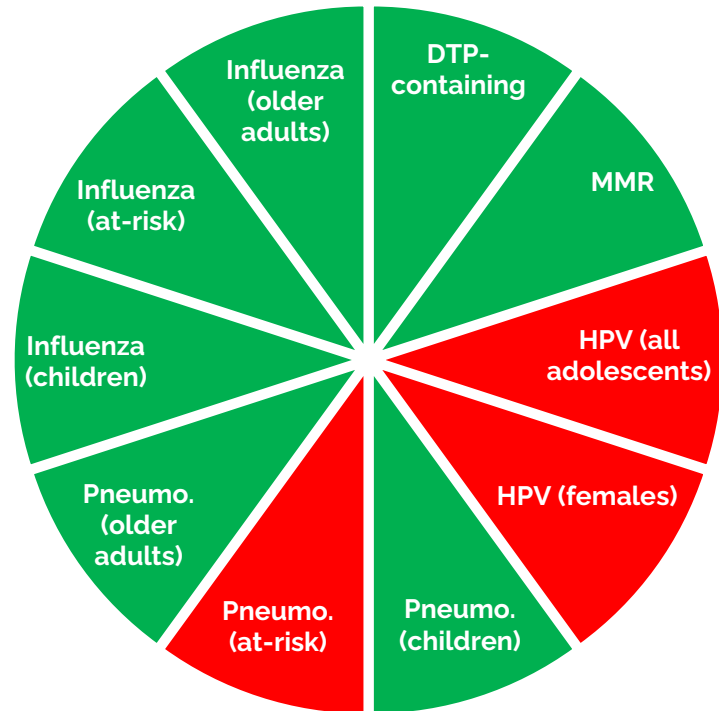
*WHO and UNICEF estimates of national (Romanian) immunization coverage (WUENIC)

**Missing 2012, 2014 & 2015 Romanian data

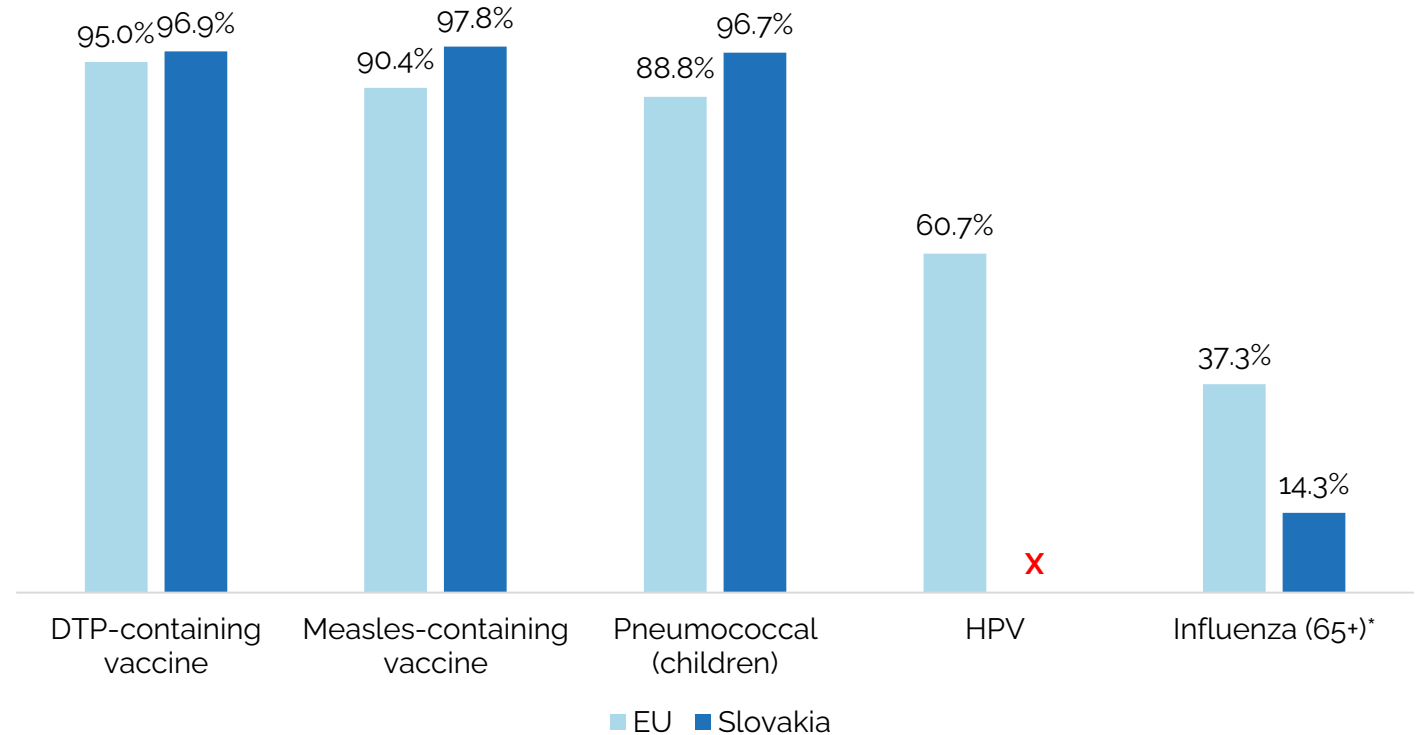
^PCV introduced in Romania in 2017; 2020-2021 data only

"Influenza figures from 2012-2020

Vaccine recommendations:



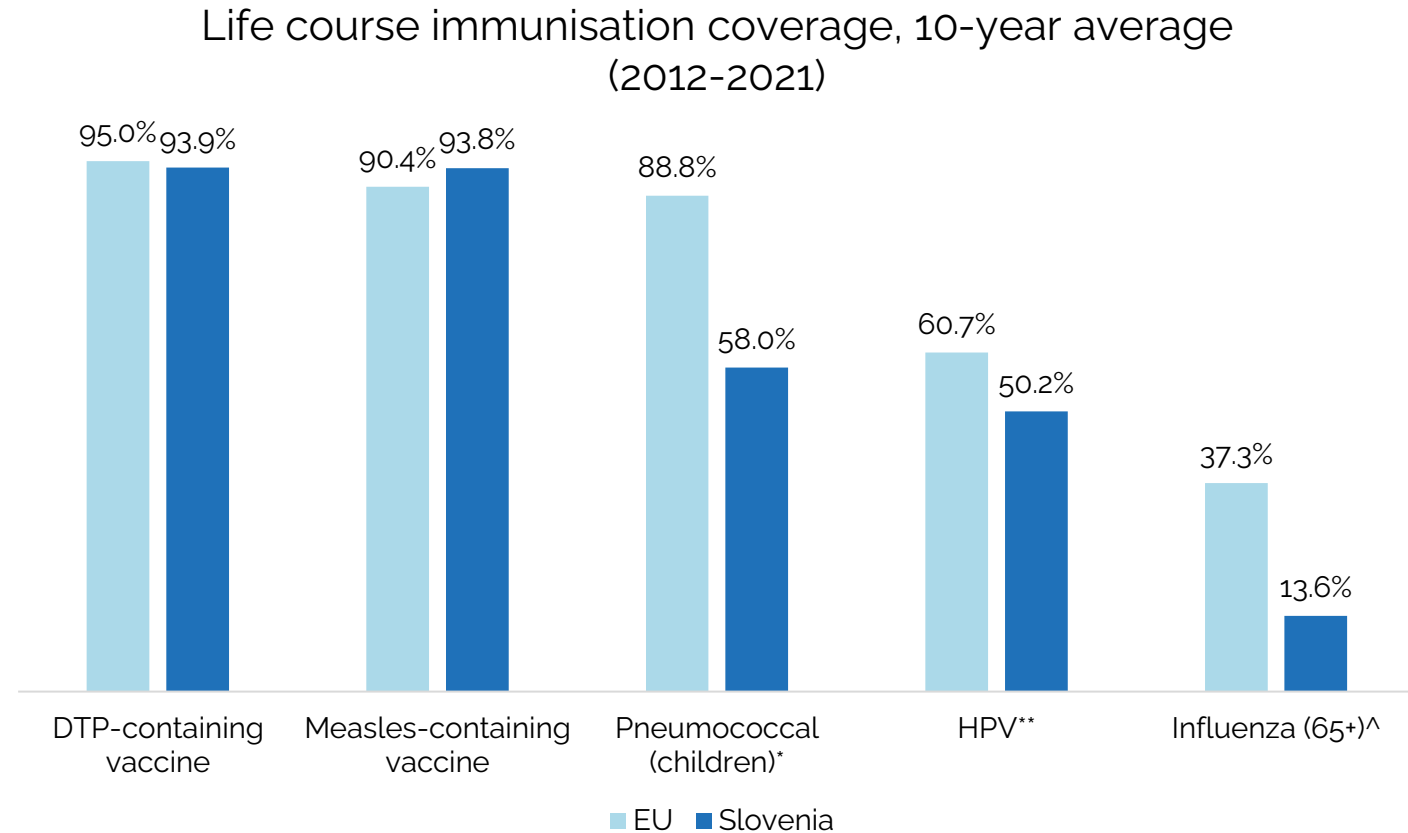
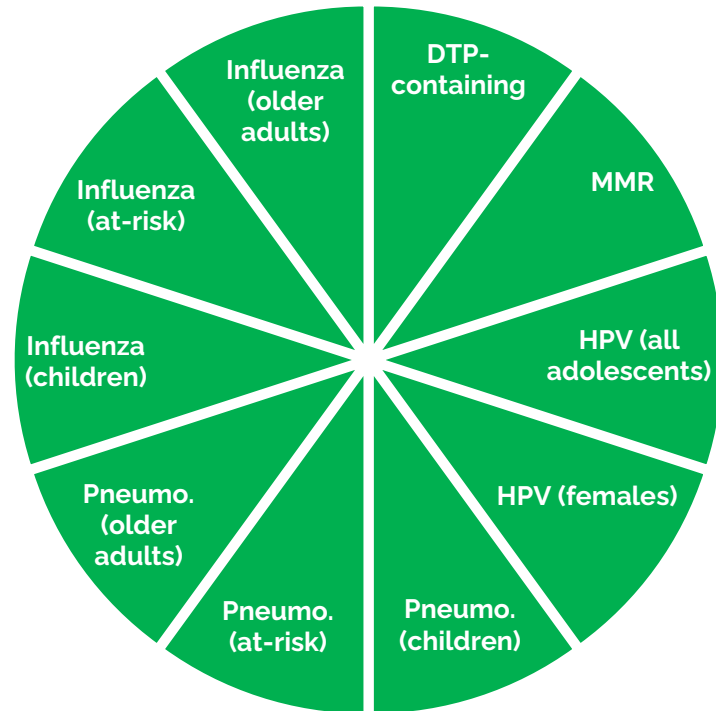
Life course immunisation coverage, 10-year average (2012-2021)



X No HPV vaccination recommendation in Slovakia

***Influenza figures from 2012-2020**

Vaccine recommendations:



*WHO and UNICEF estimates of national (Slovenian) immunization coverage (WUENIC); PCV introduced in Slovenia in 2015; 2015-2021 data only

**Official Slovenian coverage figure for female final dose only (makes recommendation for males and females)

^Influenza figures from 2012-2020

Opportunities & considerations

Looking across the life course, how can we improve confidence in vaccination and increase uptake across different immunisation programmes?

What are the key barriers to vaccination?

What can we do to improve vaccine confidence?

How can uptake be increased across the life course?

Want to find out more?

For more information about this project,
[visit our programme page.](#)