

European Centre for Disease Prevention and Control

HPV burden and prevention through vaccination

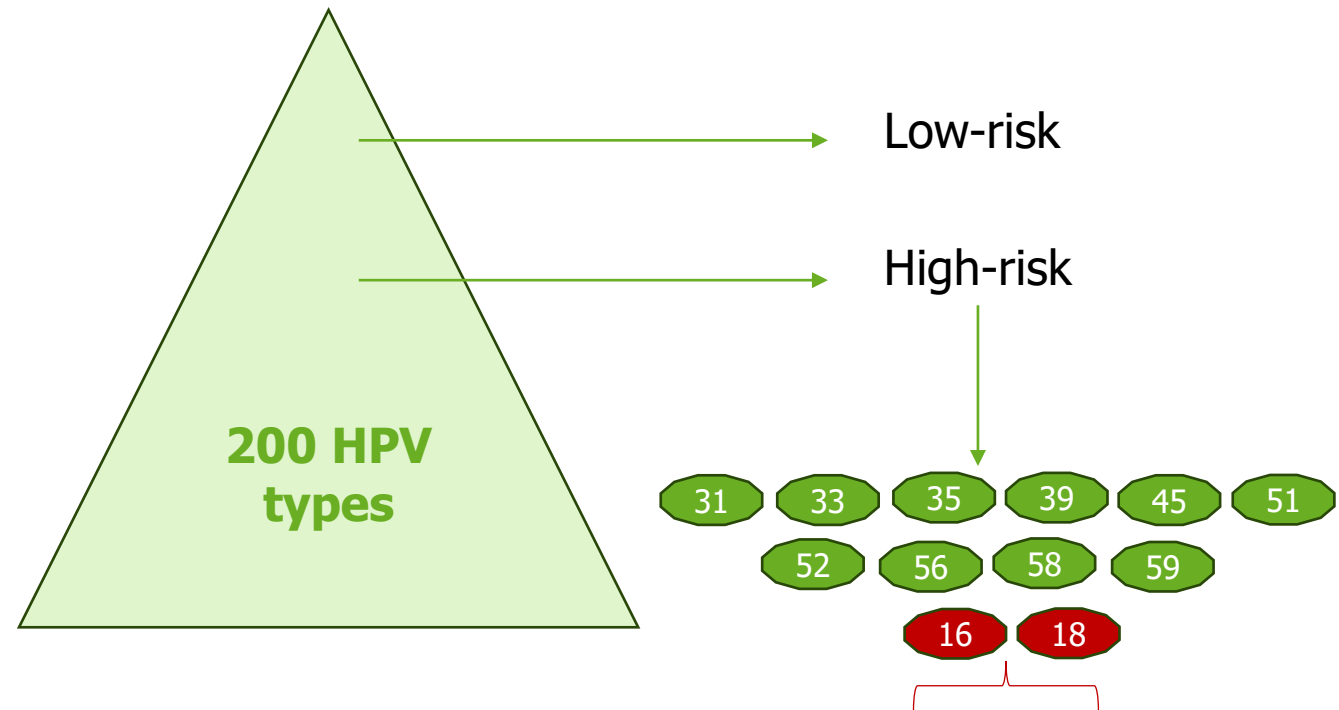
#EUHPP LIVE WEBINAR Health and medical students as HPV vaccination ambassadors

25 January 2024

ECDC

HPV infection

- Most common viral infection of the reproductive tract, causing a range of conditions in men and women, incl. **precancerous lesions that may progress to cancer**
- Majority of infections are asymptomatic and resolve on their own (70-90% within 1-2 years) but **persistent infection** may result in disease
- In women, it can lead to cervical intraepithelial neoplasia (CIN) which, may progress to **invasive cervical cancer**
- In **both men and women**, associated with **other cancers**, e.g. of the head, neck, oropharynx and anogenital area, as well as with anogenital warts and respiratory papillomatosis



- 71% of all cervical cancers
- 85% of HPV-related head & neck cancers
- 87% of all anal cancers

Burden of HPV and cervical cancer in Europe

- HPV infection causes about 5% of all cancers worldwide, with an estimated 625 600 women and 69 400 men getting an HPV-related cancer each year
- Cervical cancer accounts for 82% of all HPV-related cancers and 93% of HPV-related cancers in women

In the WHO European Region, 2020:

- 66 821 new diagnosed cervical cancer cases and 30 608 deaths
- 10.1 cases per 100 000 women age-standardised incidence rate
- 3.8 deaths per 100 000 women

In the EU/EEA*, 2020:

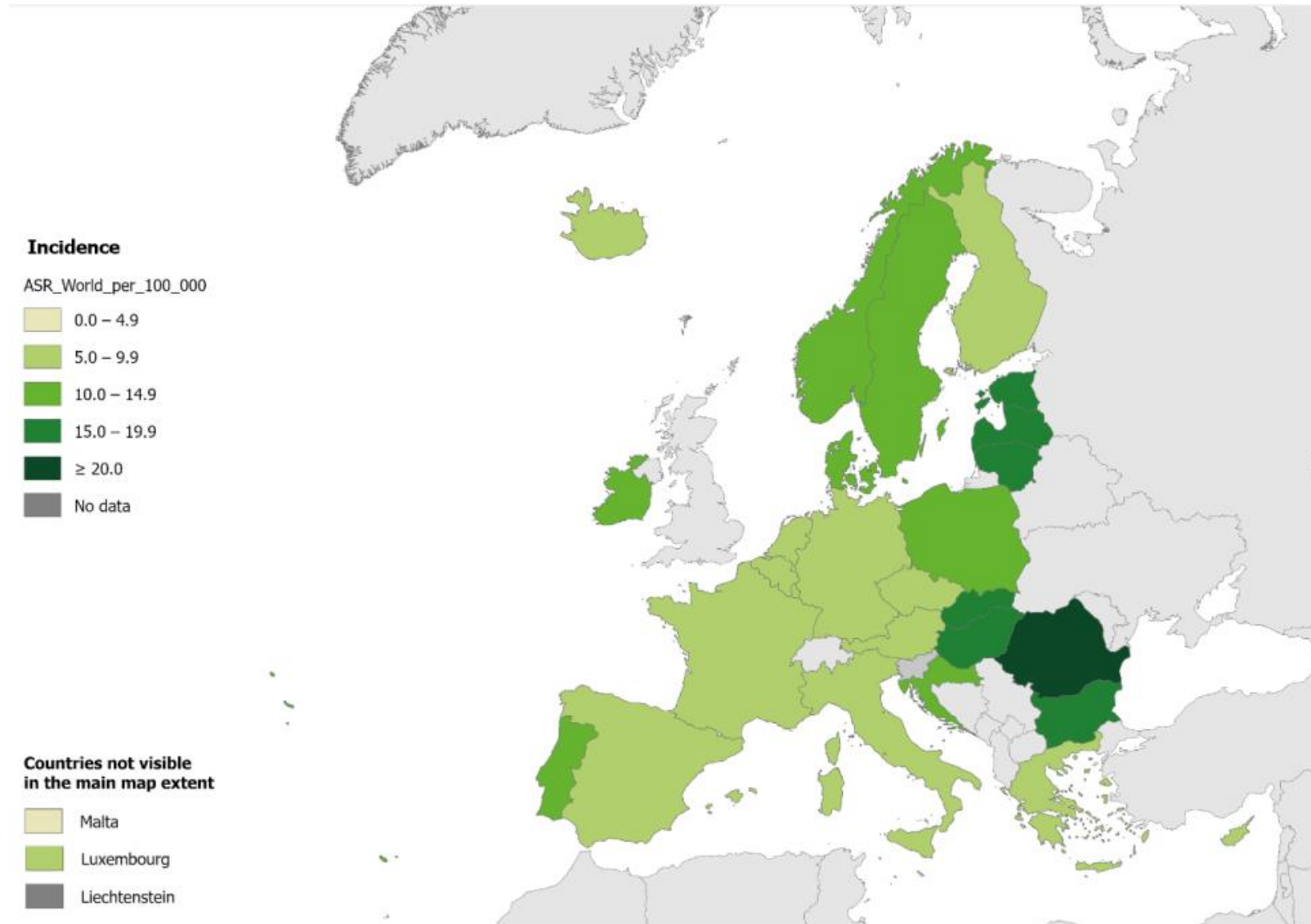
- 30 860 new diagnosed cervical cancer cases and 13 538 deaths
- 9.1 cases per 100 000 women age-standardised incidence rate
- 2.9 deaths per 100 000 women

- Cervical cancer is the **ninth most commonly occurring cancer** and the **tenth most common cause of cancer death** in women in the WHO European Region

*Data available for 29/30 countries

Source: Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: <https://gco.iarc.fr/today>, accessed [23 Jan 2024] & <https://www.who.int/news-room/fact-sheets/detail/human-papilloma-virus-and-cancer>

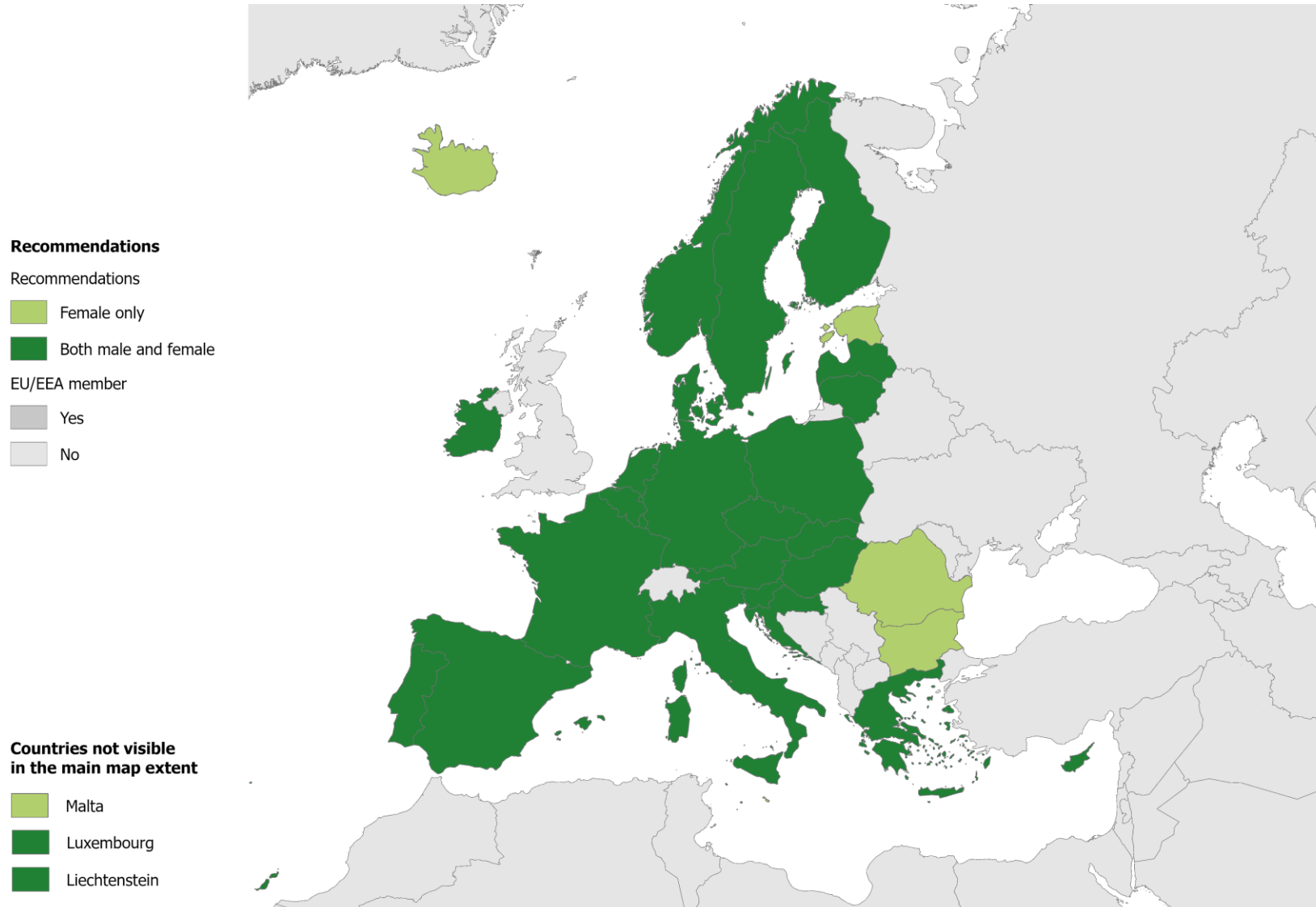
Age-standardised incidence rate of cervical cancer cases by country in the EU/EEA, 2020



Map produced on: 23 Jan 2024. Administrative boundaries: © EuroGeographics © UN-FAO © Turkstat. The boundaries and names shown on this map do not imply official endorsement or acceptance by the European Union.

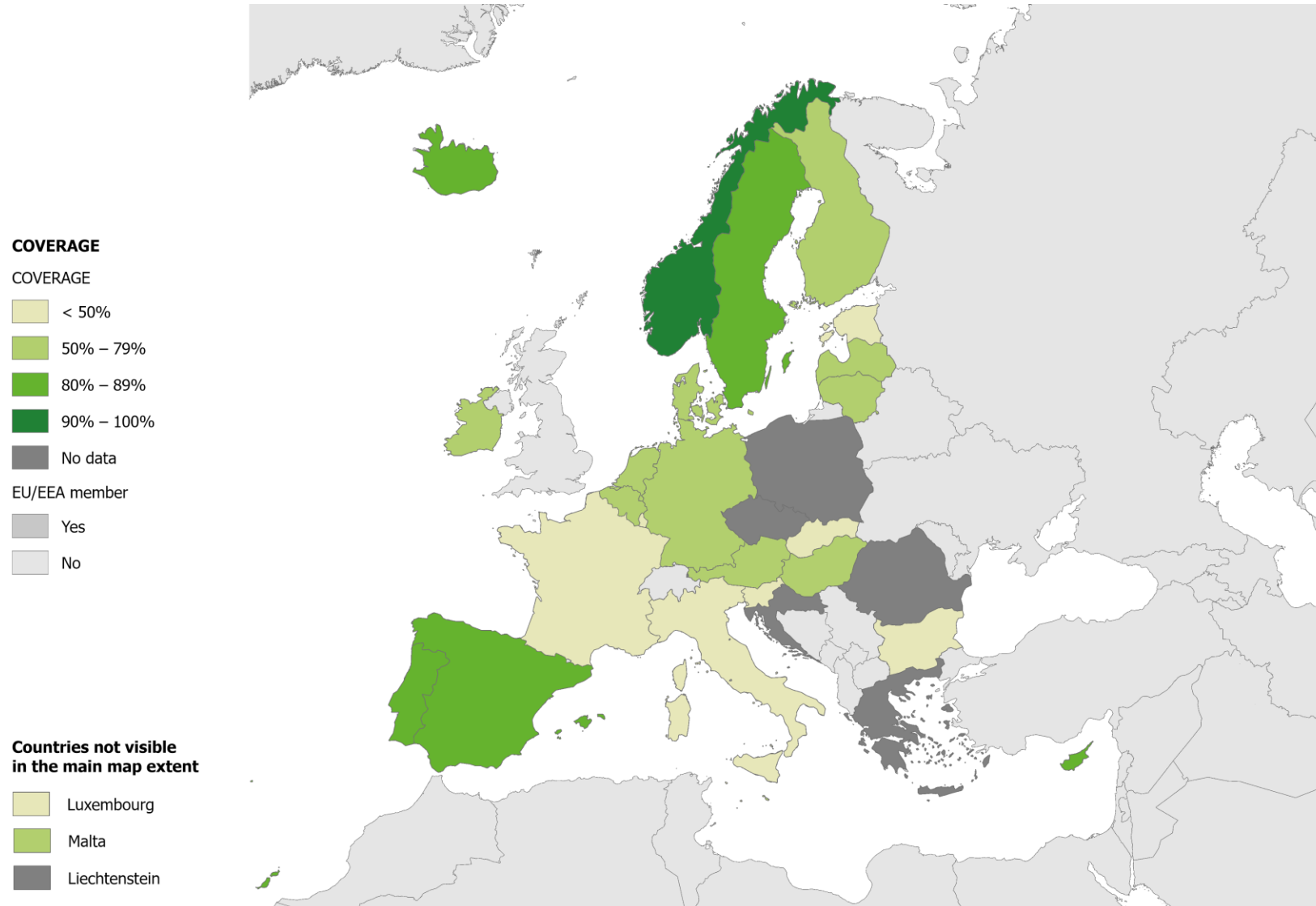
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HPV vaccine recommendations in the EU/EEA, 2023



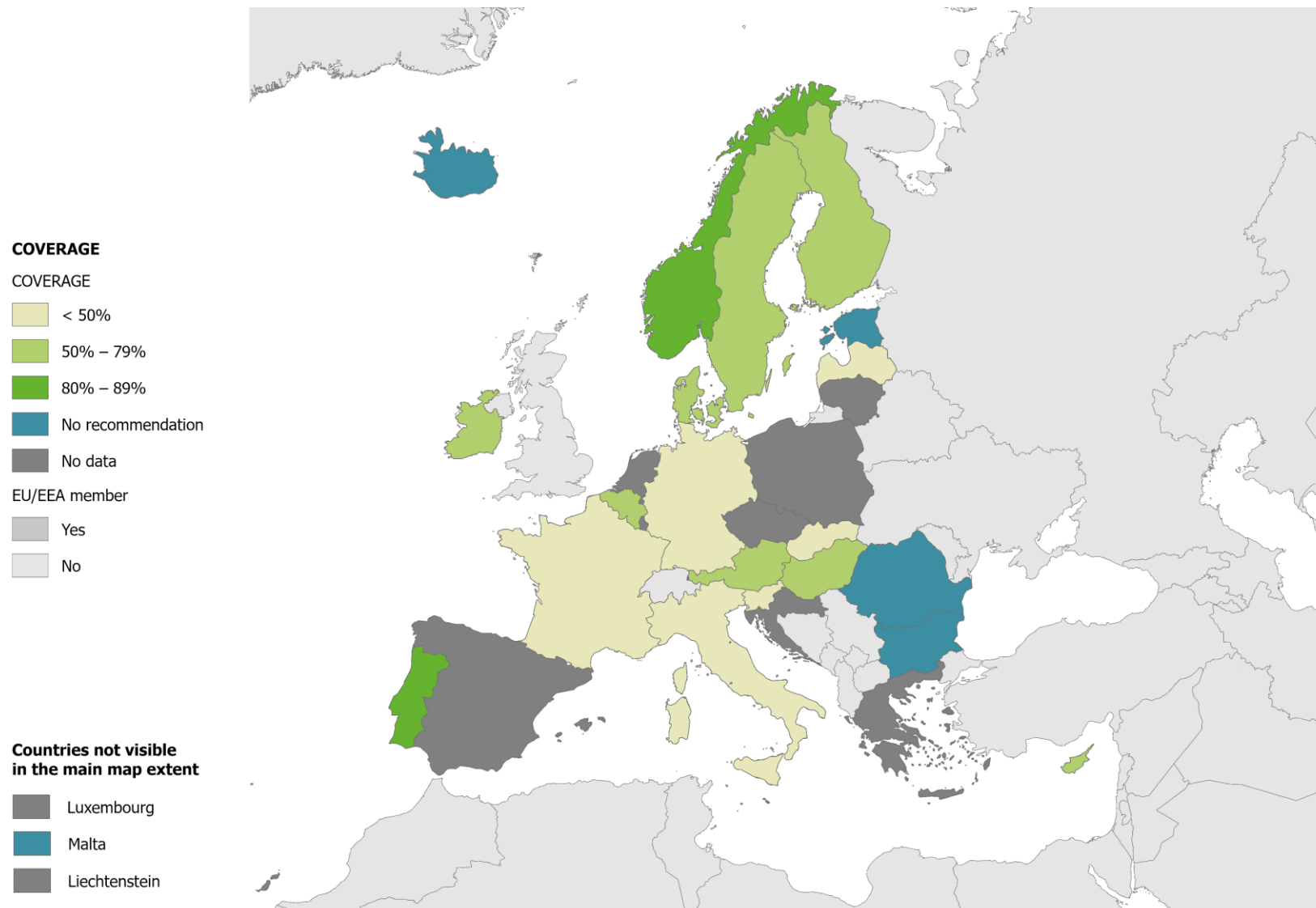
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Last dose HPV vaccination coverage (%) in female individuals, EU/EEA countries, 2022



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Last dose HPV vaccination coverage (%) in male individuals, EU/EEA countries, 2022



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Key programmatic considerations

- Comprehensive strategy to prevent cervical cancer and HPV-related disease is critical
 - Behavioural education re risks of acquiring HPV infection
 - Screening, diagnosis and treatment of precancerous lesions, cancer, risk factors
- Vaccination is a crucial primary prevention tool but does not eliminate the need for screening
- Programmatic opportunities to integrate HPV vaccination with other health interventions targeting adolescents are critical; vaccination should however never be deferred
- Key objective of vaccination programme is to achieve highest possible VCR by 15 years of age; relentless efforts to ease access and multiple opportunities to vaccinate
- A gender-neutral HPV vaccination is more equitable/resilient to sudden drops in vaccine uptake; universal vaccination demands more resources, but likely provides:
 - more resilient herd protection
 - more pronounced decrease of HPV circulation
 - protect all population and risk groups by providing more equitable access to direct protection

HPV vaccine acceptance and access issues



- A critical barrier remains confidence in the vaccine itself, incl. by healthcare workers (vaccine is new and may cause undesired side effects); exacerbated for minority/socially disadvantaged groups
- Lack of information and health literacy related to HPV, as well as the HPV vaccine. In various studies participants, both children, parents, and young adults have consistently reported lack of awareness of the consequences of HPV, especially for boys (complacency towards disease risks)
- Access constraints have been noted in HPV vaccine programs, both when the programme is run in schools and when it is done through GP or pharmacists + struggled to achieve full vaccination course (despite school-based programmes achieving higher uptake)
- Cost is also reported as an issue and varies significantly across EU Member States. In most countries the cost is fully covered for the target group; cost for catch-up groups is sometimes covered but not always, and in some countries 2nd and 3rd doses are not fully covered. Depending on the healthcare system in question and the vaccination strategy, individuals may be asked to pay upfront and then be reimbursed.

Key sources



European Centre for Disease Prevention and Control – HPV and HPV vaccines

[Human papillomavirus \(europa.eu\)](#)

European Vaccination Information Portal

[European Vaccination Information Portal / Home page | European Vaccination Information Portal \(europa.eu\)](#)

European Medicines Agency – HPV vaccine safety

[Human papillomavirus vaccines - Cervarix, Gardasil, Gardasil 9, Silgard - referral | European Medicines Agency \(europa.eu\)](#)

WHO – Cervical Cancer

[Cervical cancer \(who.int\)](#)