

Evolving publicly-funded eligibility for HPV immunization in Canada: Impact on Alberta youth aged 16–26

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Disclosure

No conflicts of interest to declare



Western Canada Immunization Forum 2026

Learning goals

- Recognize publicly funded HPV vaccine eligibility policy across Canada
- Examine the potential impact of changing policy on HPV vaccine uptake among older adolescents/young adults in Alberta.

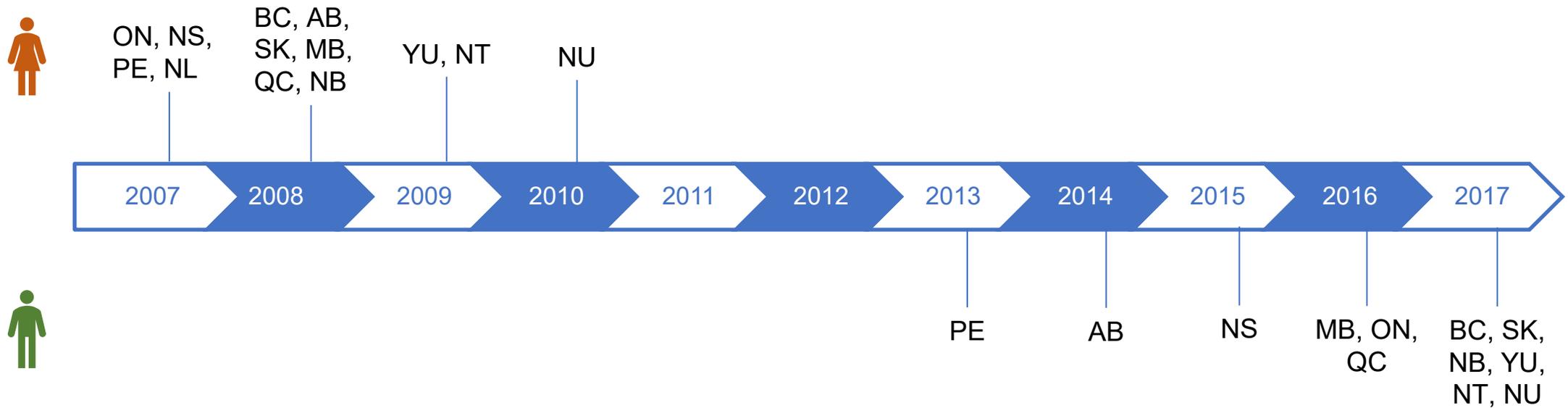
HPV Vaccination Programs in Canada



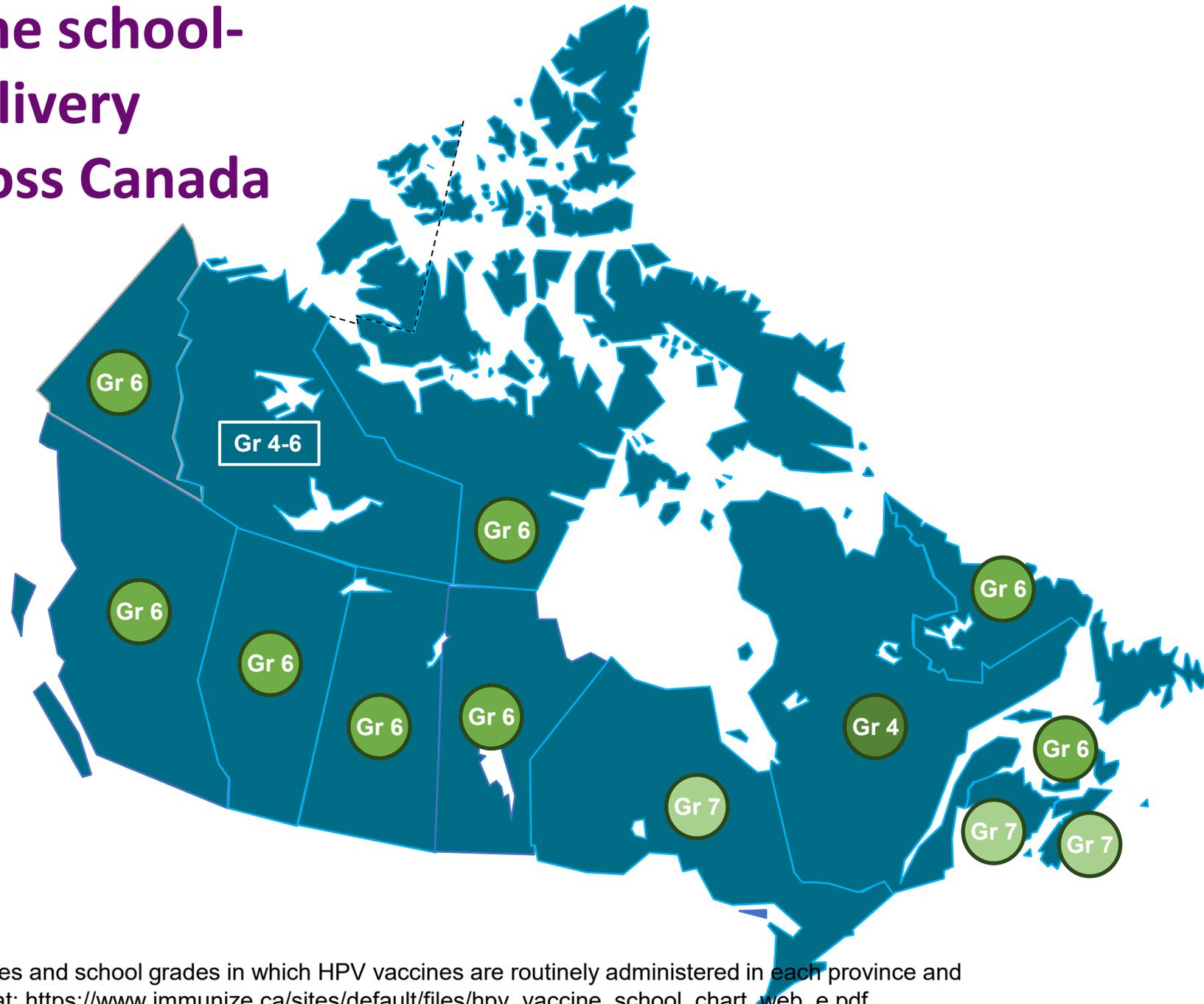
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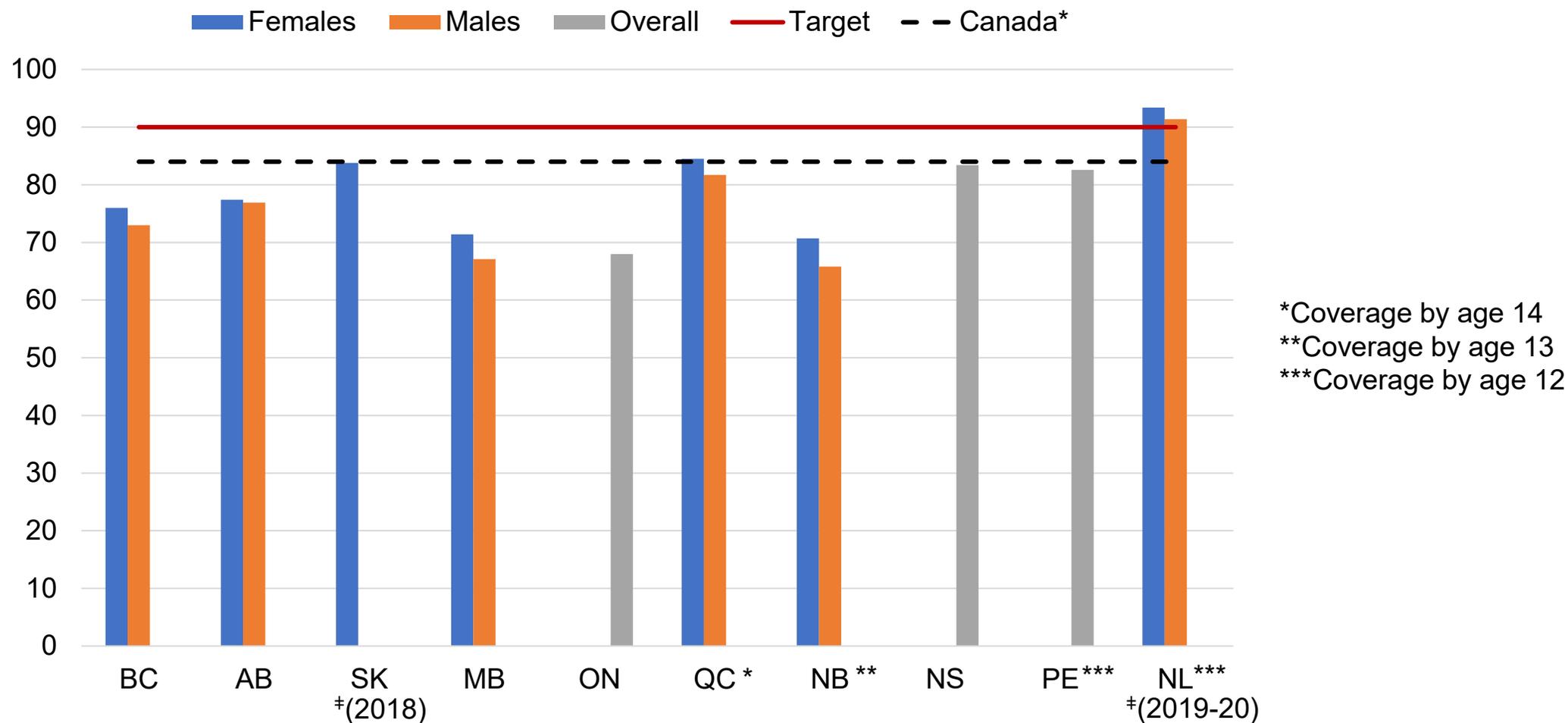
Publicly-funded HPV vaccination: school-aged



Current routine school-based HPV delivery programs across Canada



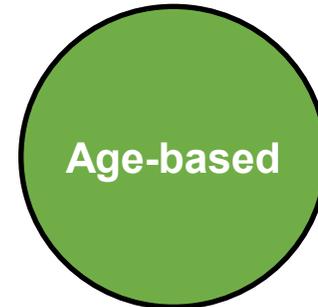
HPV vaccine coverage in Canada by age 17 years* (1+ doses), 2023-24‡



Publicly-funded HPV vaccination: >18 years

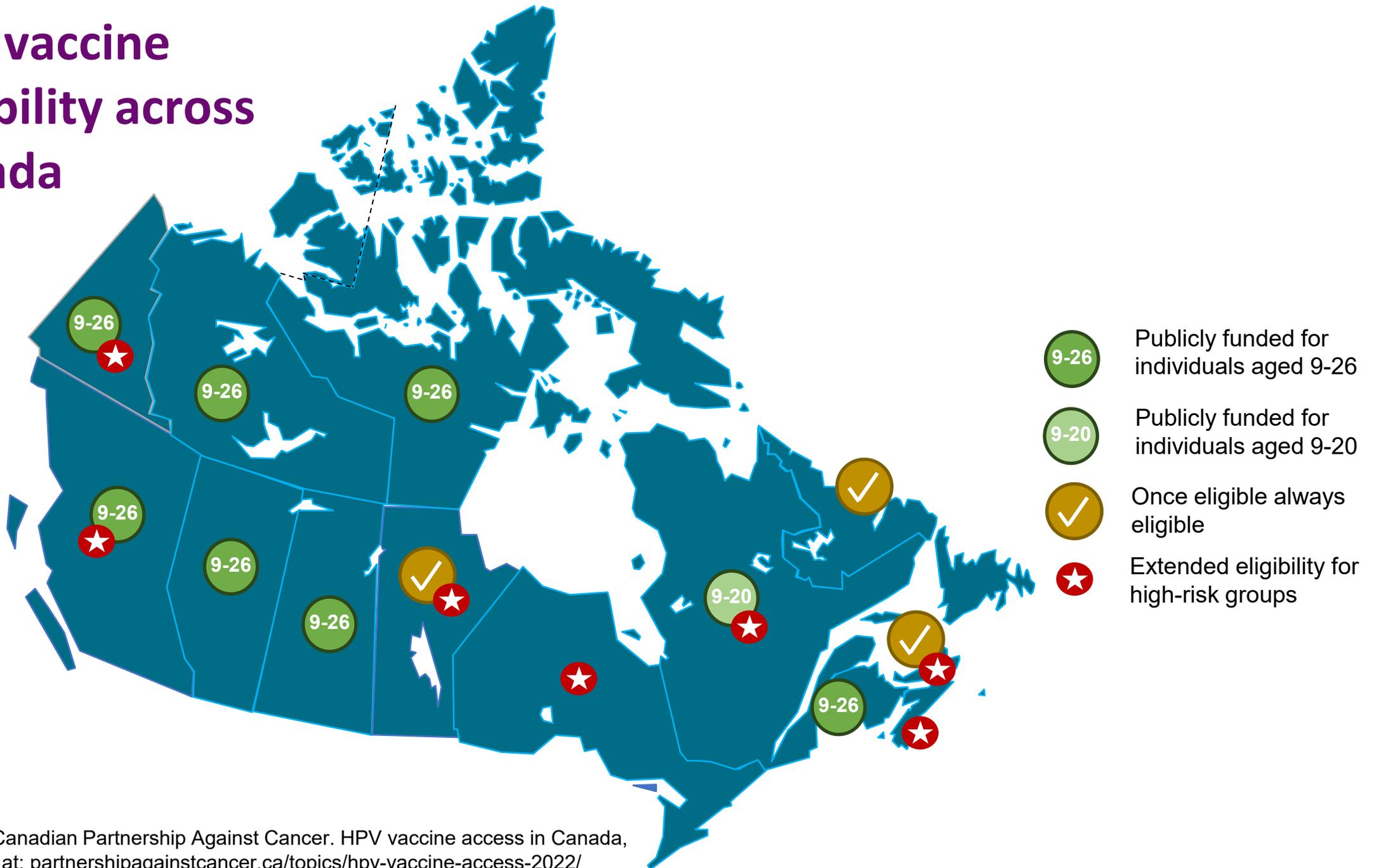


Eligibility limited to those at elevated risk for HPV infection and/or progression to disease

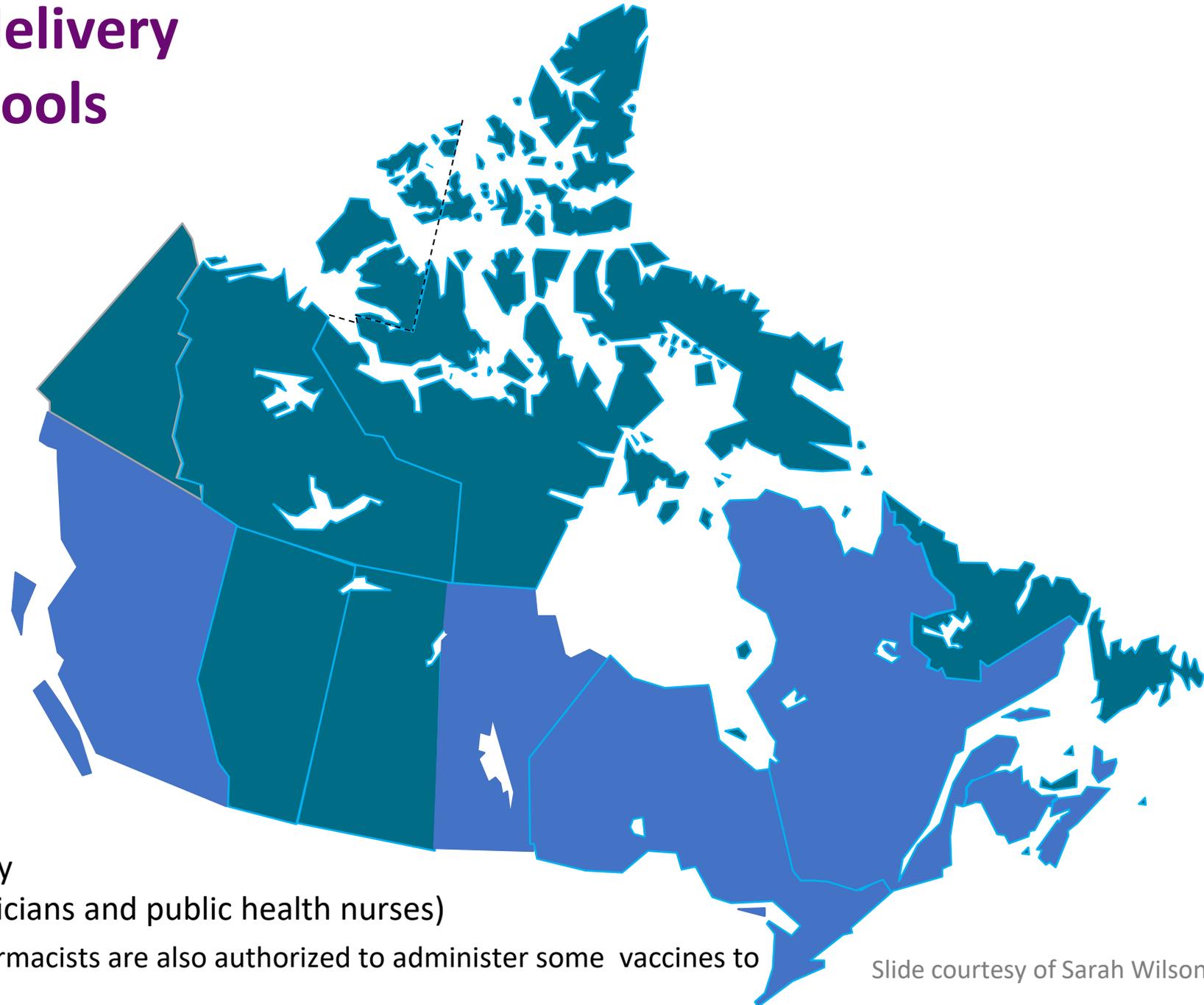


All individuals within specified age limits and/or birth cohorts

HPV vaccine eligibility across Canada



HPV vaccine delivery outside of schools



- Public Health Delivery
- Mixed delivery (physicians and public health nurses)

- In some jurisdictions, pharmacists are also authorized to administer some vaccines to older children

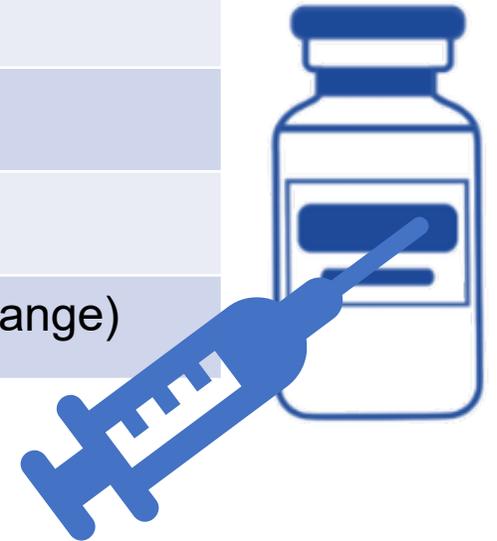
Slide courtesy of Sarah Wilson

Evolving National Recommendations (NACI)

Age Group	NACI 2015 Schedule	NACI 2024 Update
9-14 years	2 doses	1 dose*
15-20 years	3 doses	1 dose*
21-26 years	3 doses	2 doses
27+ years	3 doses	2 doses
Immunocompromised	3 doses	3 doses (no change)

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*QC is currently the only province to offer 1-dose HPV immunization (2024-25)



HPV vaccine coverage in Canada among older age groups (1+ dose)

- **Momentum Health Study¹** (Vancouver), risk-based funding:
 - <30% (2012-27) among ≤ 26 years
 - Uptake increased after publicly-funded eligibility increased
- **Engage Study²** (Montreal, Toronto, Vancouver), risk-based funding:
 - 47-55% at baseline (2017-19), 60-73% at follow-up (2018-21) among ≤ 26 years
- **aNCIS 2023³** (national), mixed funding models:
 - 18-26 yrs: 62.9%; 27+ years: 12.5%
 - Females 22.5% vs males 12%

Opportunities and barriers for youth HPV vaccination



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Opportunities

Gaps in school programs

- Explicit parental refusal explains less than half of missed doses⁴
- Difficulties engaging parents in decision-making and consent⁵⁻⁷
- School absence may be a factor for those at highest risk⁸⁻¹³

Older age = unique opportunity

- Some young adults are newly eligible¹⁴
- Knowledge and awareness is low, willingness is high^{15,16}
- Newly autonomous decision making¹⁷

Individual & population-level benefits

- Crucial protection before exposure to all strains^{18,19}
- Reduces circulating virus to break transmission chains (Herd Immunity)²⁰

Barriers

Costs

- Out-of-pocket cost is a commonly cited barrier³
- Significantly lower coverage outside of funded cohorts^{2,3}

Risk perception

- Knowledge and awareness is low^{15, 16}

The Provider Gap

- Few adults report receiving a recommendation during routine physicals or STI screenings²¹
- Men are significantly less likely to be offered the vaccine^{22,23}

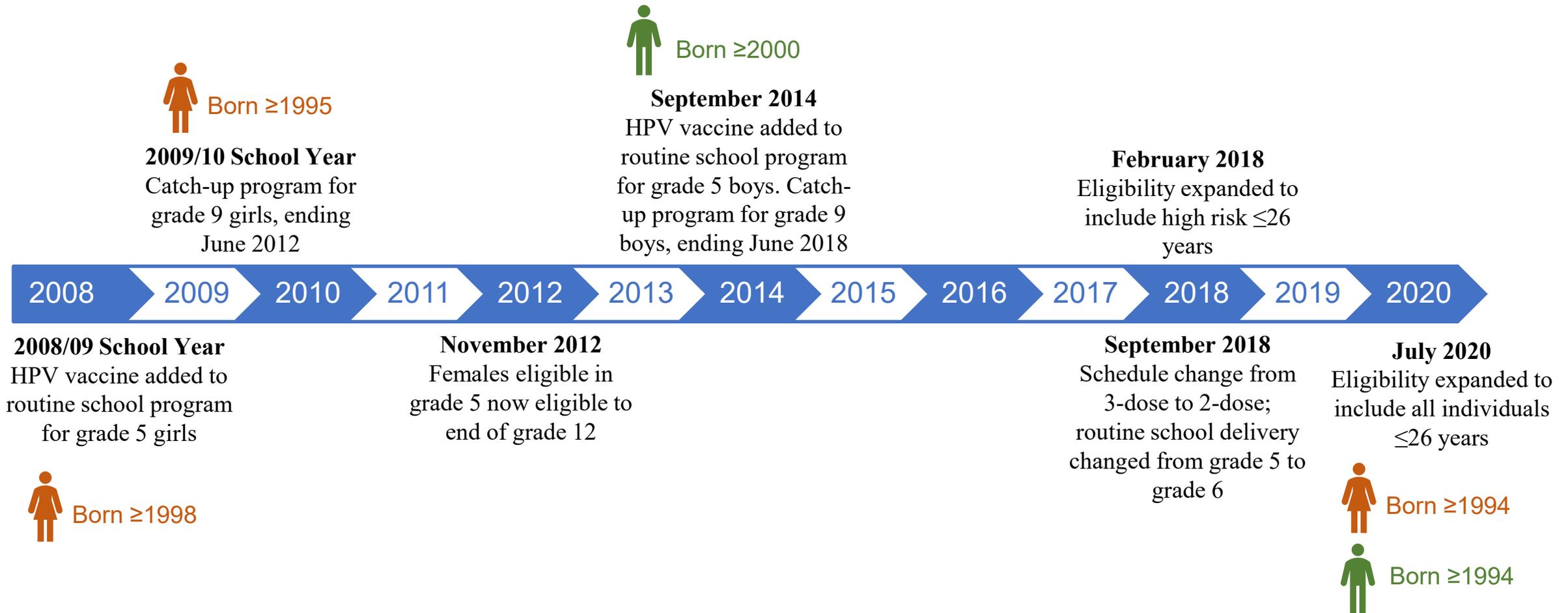
Alberta's Policy Shift from Risk-based to Age-based



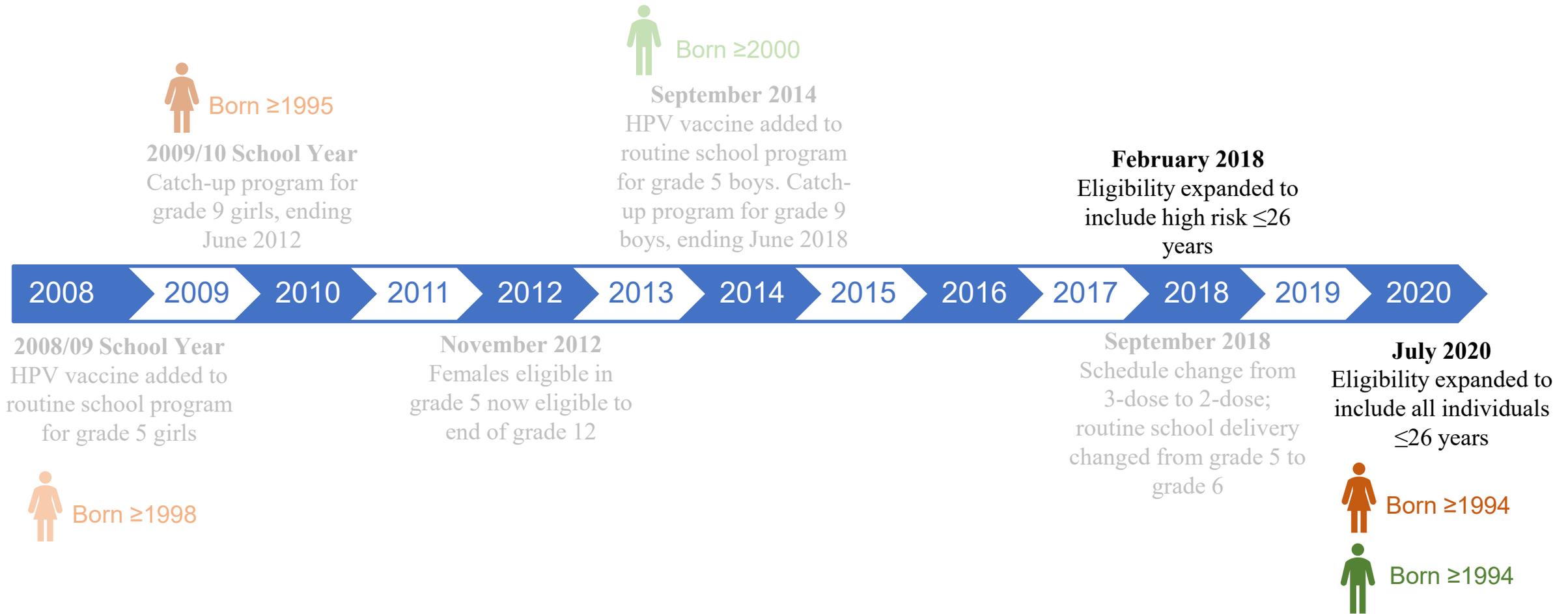
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Publicly funded HPV vaccine eligibility in Alberta



Publicly funded HPV vaccine eligibility in Alberta

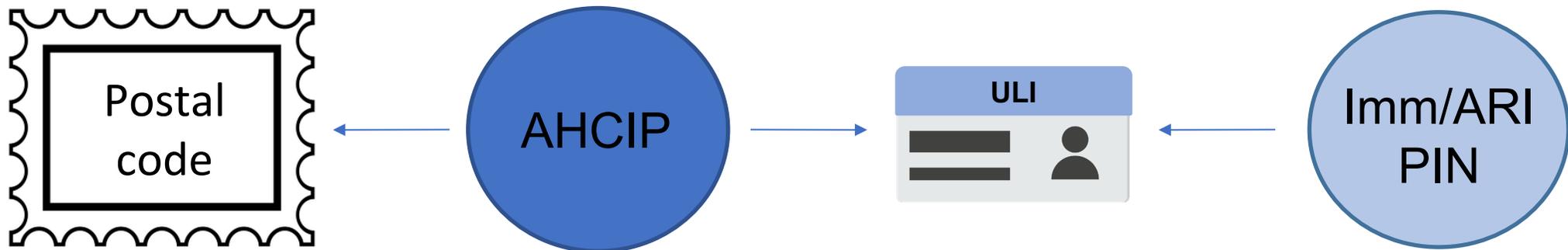


Methods

Study Design: Retrospective cross-sectional study using population-wide administrative health data

Time frame & population: February 2018–December 2023, 16-26 year olds

Data: Held by the Alberta Ministry of Primary & Preventative Health Services



Methods

$$\text{Vaccine coverage} = \frac{\# \text{ vaccinated}}{\# \text{ eligible for vaccination}}$$

$$\text{Dose Administration Rate} = \frac{\# \text{ doses delivered per quarter}}{\text{quarterly population estimates}}$$

Age group

Sex

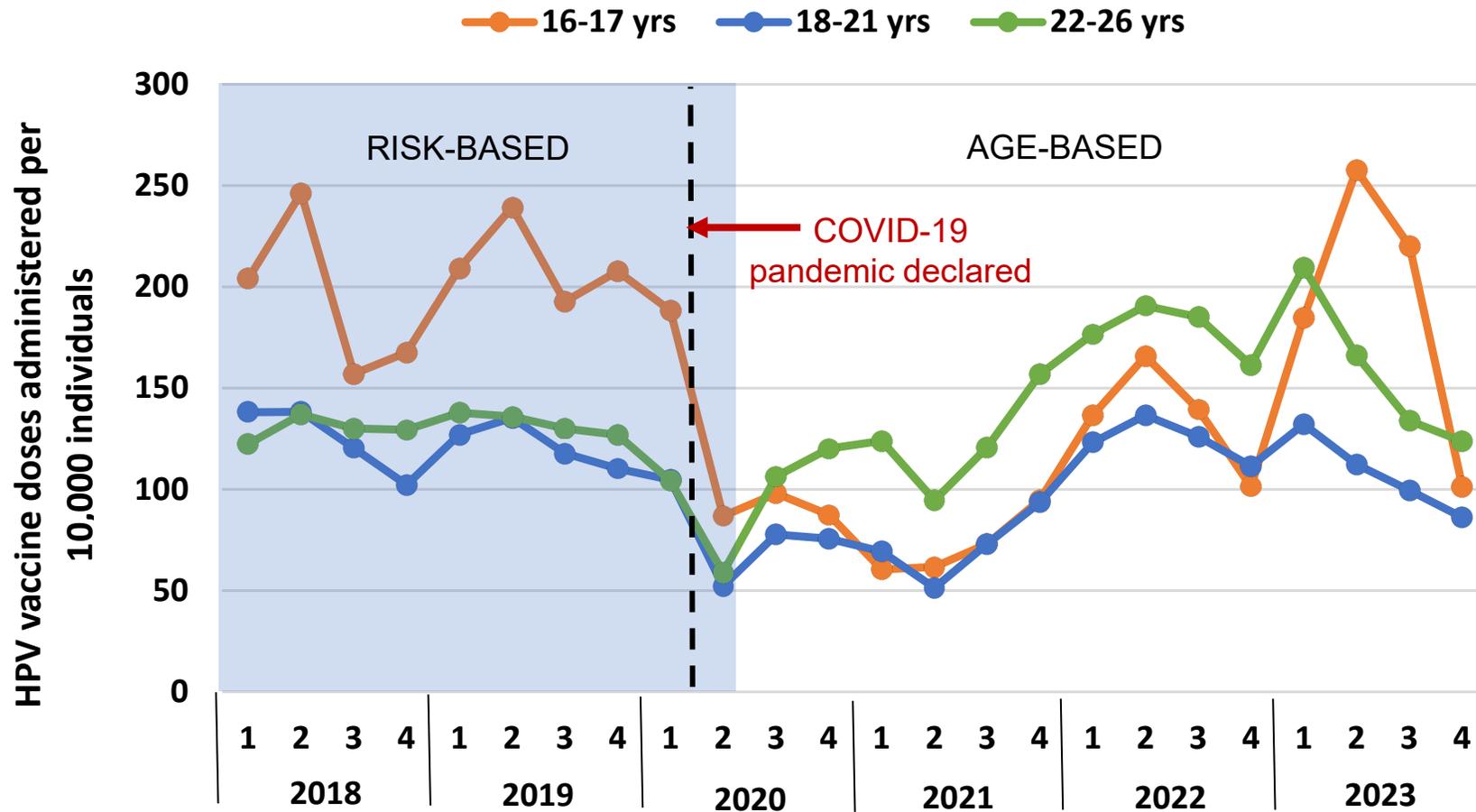
$$\text{Dose Administration Count} = \# \text{ doses delivered per quarter}$$

Delivery site

Entry to province

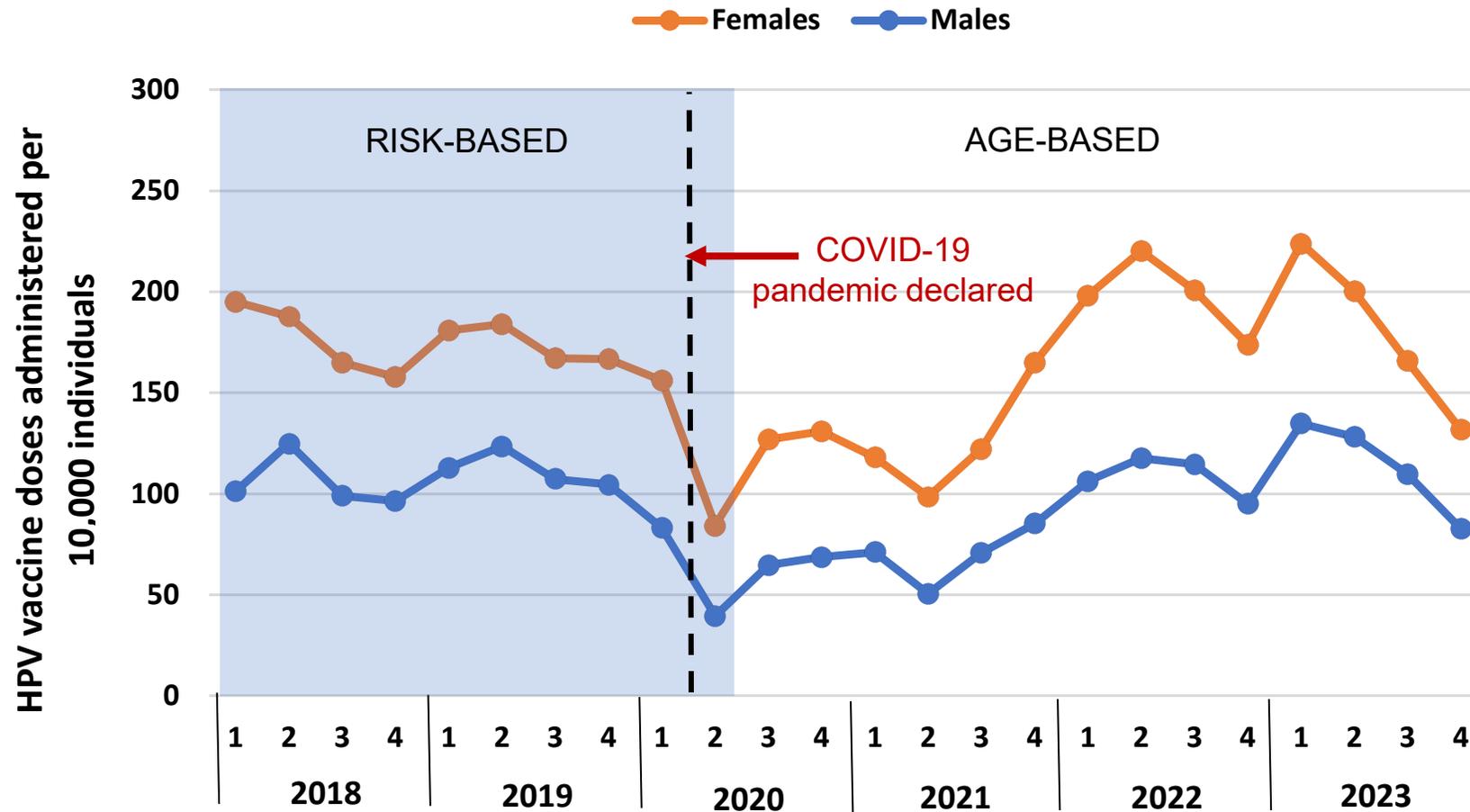
Residence

Findings: HPV administration rate by age group



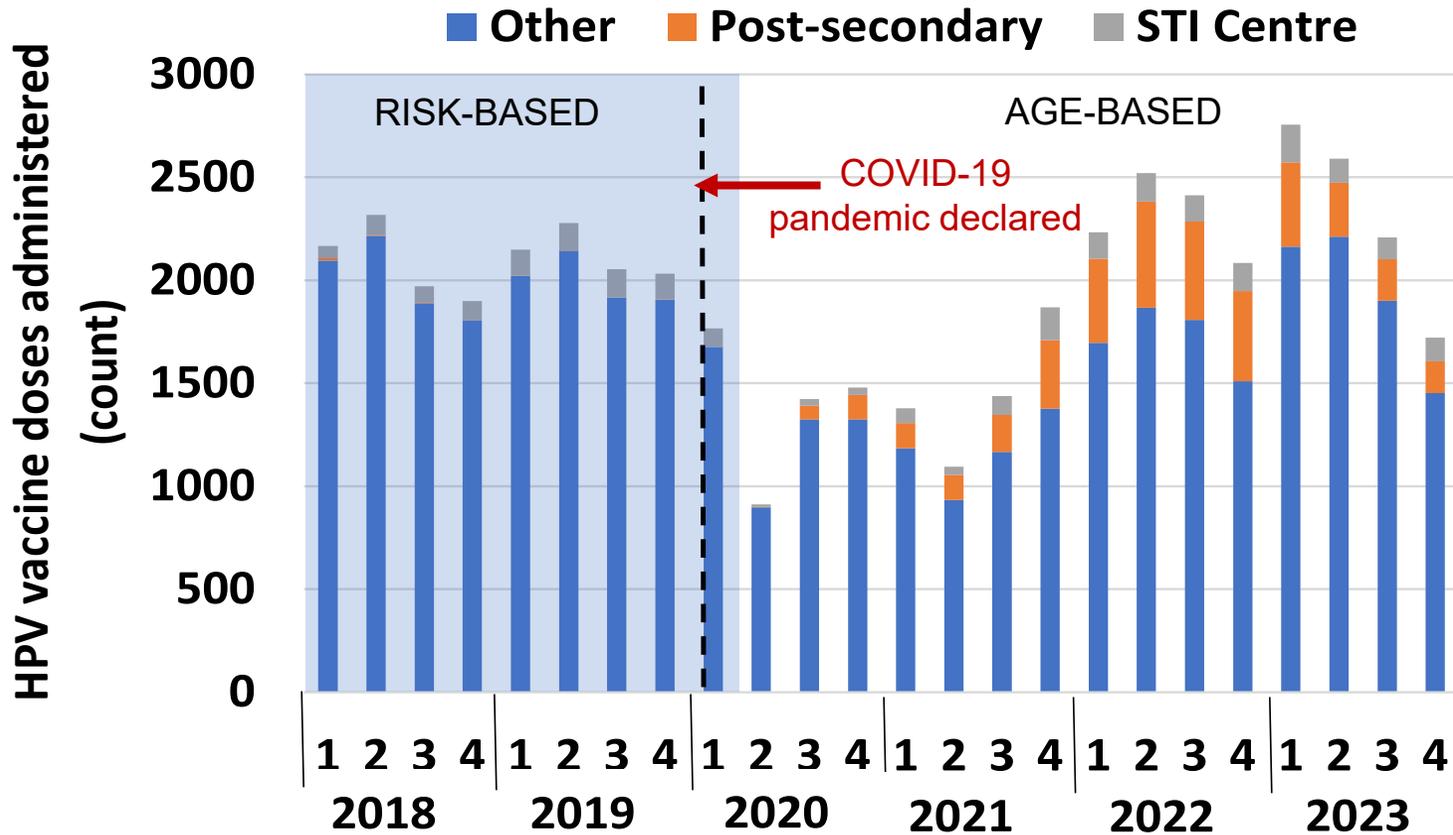
Already eligible 16-17 year olds: largest and most sustained drops
Newly eligible 18-26 year olds: minimal/short-lived drops in vaccination rates during the pandemic

Findings: HPV administration rate by sex



Consistently higher among females, despite males having expanded eligibility during the risk-based program, and fewer who were offered vaccination through school-based programs

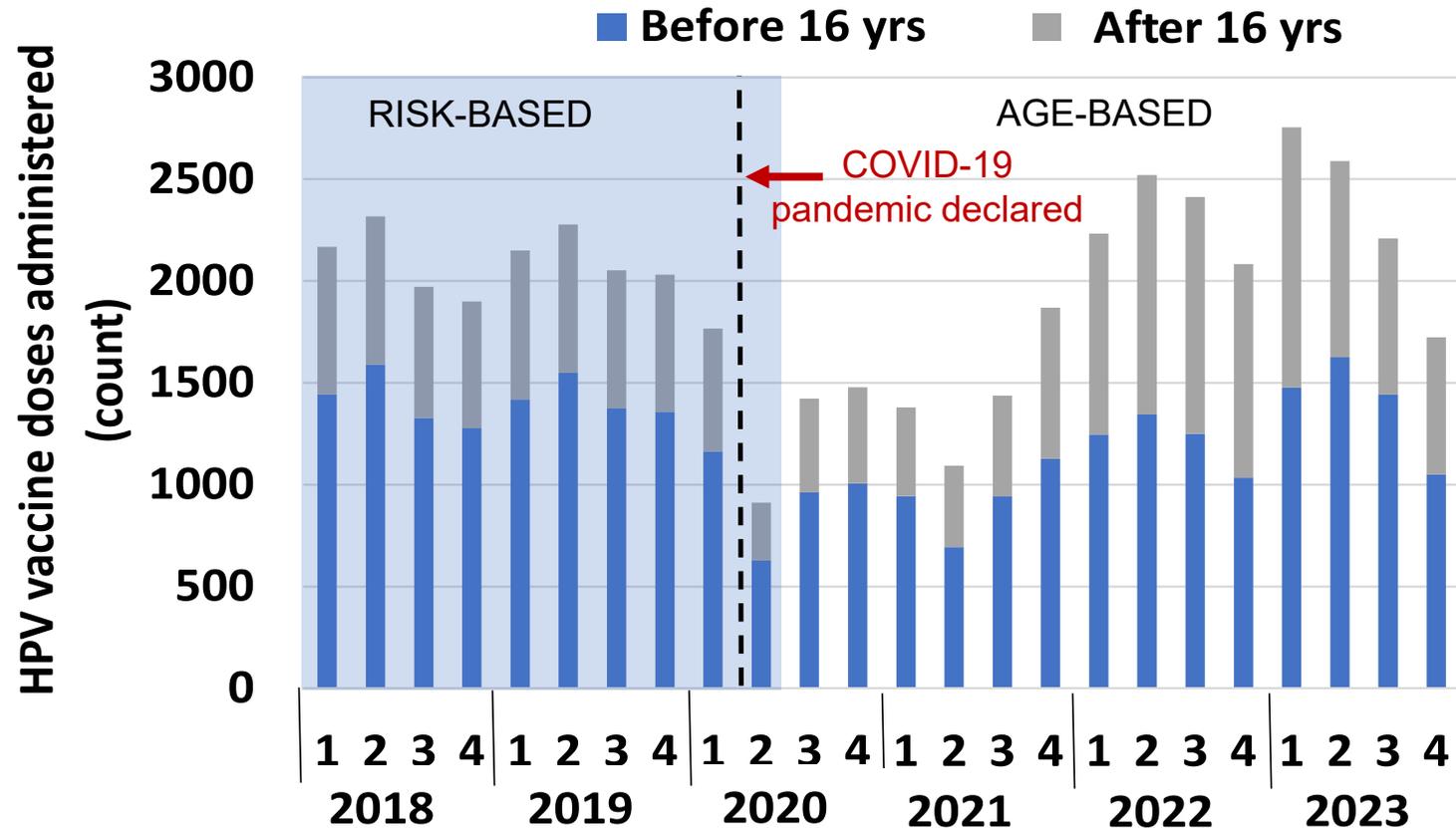
Findings: HPV vaccine dose administration counts by delivery site



All other public health centres, pharmacies

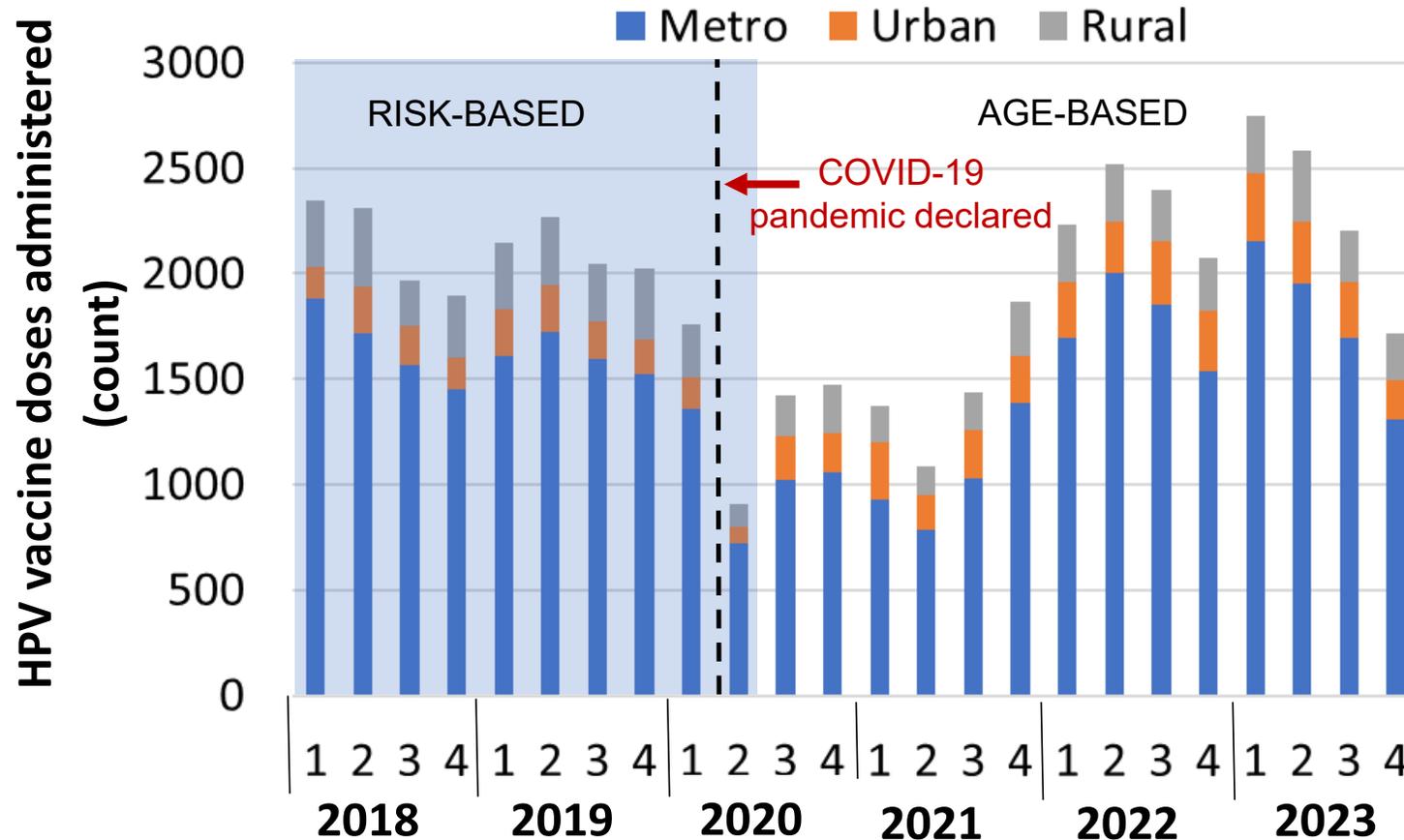
Delivery through post-secondary health centres increased from <1% to 14%; smaller increase in STI centre delivery (4.8% to 5.4%)

Findings: HPV vaccine dose administration counts by age of entry to province



Proportion delivered to those who entered the province after age 16 (too old for school program) increased from 33% to 40%, potentially reflecting higher immigration levels.

Finding: Persistent geographic barriers



Rural doses increased from 9% to 13%; disproportionately low (15-17% of the population is rural)

Summary of findings

- Expansion to an age-based HPV vaccination program may have mitigated pandemic-related declines in vaccination rates among older youth, though overall administration remained low.
- Results indicate persistent inequities by sex and geography, underscoring the importance of targeted promotion, improved service delivery, and expanded provider engagement to optimize HPV vaccine uptake outside school-based settings.

Opportunities to improve coverage

- Improved promotion
- Delivery locations
- Providers
- Dosing
- Eligibility

Ongoing work



Assess cumulative coverage by age 27, and explore determinants of uptake for primary vs. secondary uptake



Determine the frequency and type of missed opportunities for HPV vaccination within the healthcare system



Identify potential opportunities for HPV vaccine delivery within the broader community

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