#EPH88

Human Papillomavirus (HPV) vaccination coverage among French adolescents: PAPILLON Study

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Introduction

- While the HPV vaccine program performance coverage is among the lowest in high-income countries (1), the French cancer control strategy 2021-2030 aims to achieve 80% HPV vaccination coverage.
- Vaccination against HPV infections is now recommended for girls and boys aged 11 to 14 y (2-dose schedule), with a catch-up vaccination recommended for unvaccinated individuals aged ≤ 19 y (3-dose schedule) (2).

July 2007
Introduction of HPV vaccination in girls only

January 2021
Extension of recommendations to boys

Objectives

- The PAPILLON study used claims data to monitor the evolution of HPV vaccination coverage rate (VCR) among 11–19 year-olds. The results presented here are from an interim analysis covering the period 2017-2021.

Methods

- This was a retrospective cohort study using the French National Healthcare Data System (i.e., Système National de Données de Santé - SNDS) covering 99% of the French population (3).
- The description of the vaccinated population was performed on individuals who were vaccinated between 2017 and 2021 and aged between 11 and 19 at initiation.
- Vaccination coverage was estimated on individuals whose first HPV vaccination was dispensed between 1 July 2007 and 31 December 2021. It was presented over 2017-2021 in females, and over a limited period (2019-2021) in males, as data was poor before the recommendations were implemented.

Definitions

Partial scheme
At least one pharmacy dispensing of HPV vaccine

Full scheme
Two (for 11-14) or three (for 15-19) pharmacy dispensing's over an 18-month period

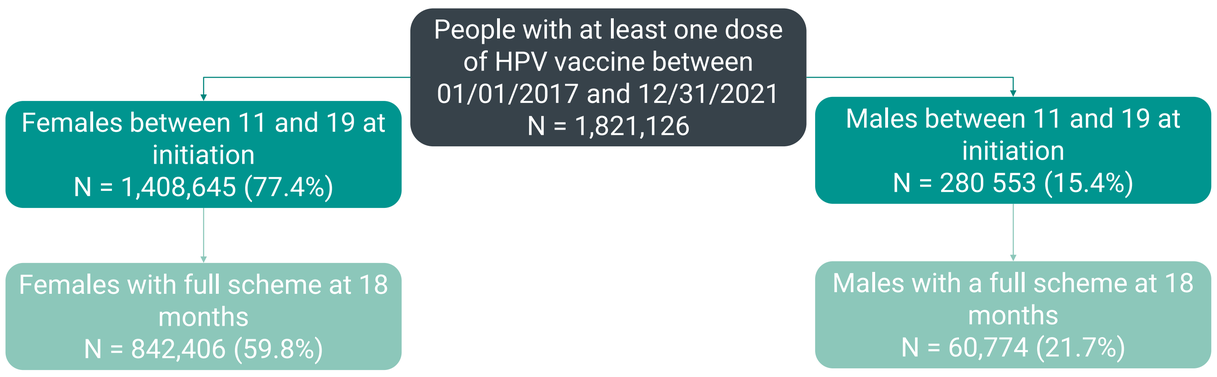
$$\text{Annual HPV vaccination intiation rate} = \frac{\text{Number of individuals of a birth year initiating HPV vaccine in the study year}}{\text{Number of individuals of the same birth year who have not initiated HPV vaccine in previous years}}$$

$$\text{Cumulative HPV vaccination rate} = \frac{\text{Number of individuals in a year of birth who were dispensed at least one dose of HPV vaccine during or before the study year}}{\text{Number of individuals of the same year of birth who have not initiated HPV vaccine in previous years}}$$

Results (1/2)

Description of the vaccinated population (2017-2021)

Figure 1. Population who were dispensed a first dose of HPV vaccine between 2017 and 2021 and aged between 11 and 19 at initiation



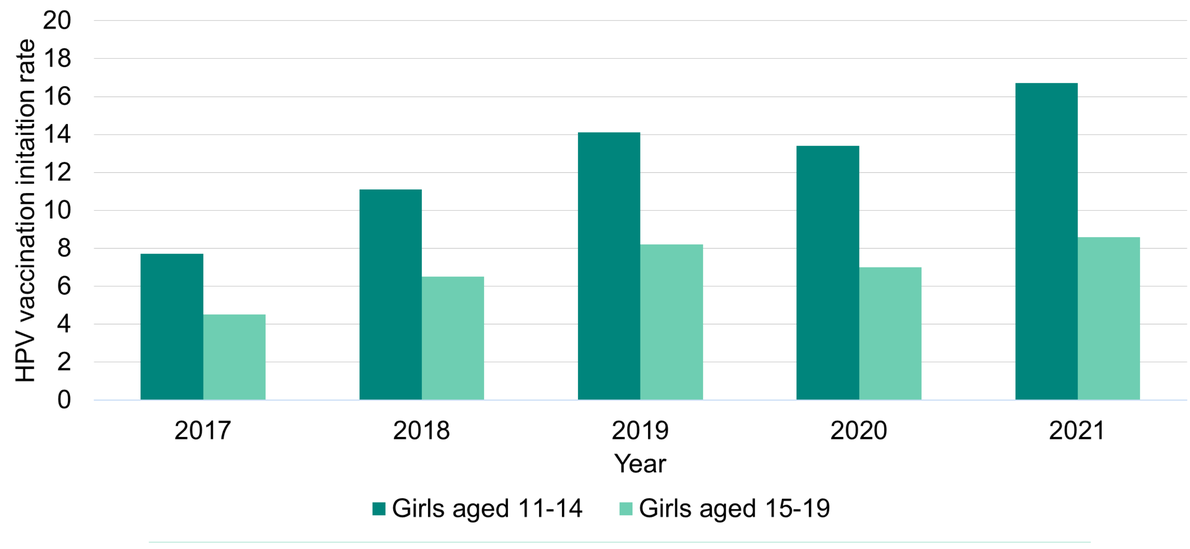
- Initiations occurred between 11 and 14 years for 65.9% of females and 60.8% of males with a median time between the first two doses of 192 days and 180 days, respectively.

Vaccination coverage among 11 – 19 y females

- Among 11-14 year-olds, annual HPV vaccination initiation rates increased from 7.7% in 2017 to 14.1% in 2019, decreased to 13.4% in 2020 and increased to 16.7% in 2021. The same dynamic was observed among 15-19 year-olds, with annual HPV vaccination initiation rates of 4.5% in 2017, 8.2% in 2019, 7.0% in 2020 and 8.6% in 2021.

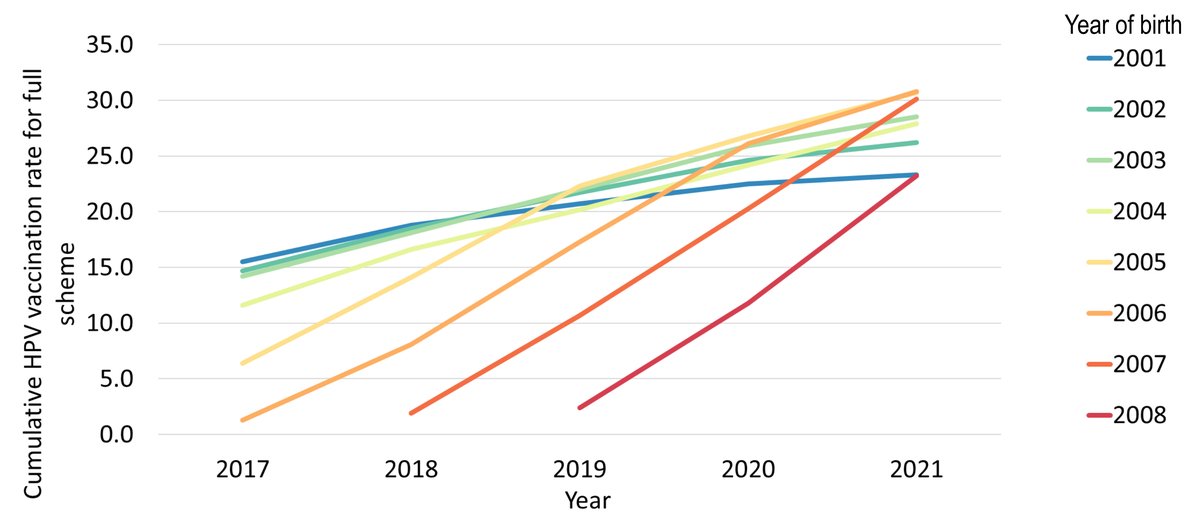
Results (2/2)

Figure 2. Annual HPV vaccination initiation rates among 11-14 and 15-19 y



- Between 2017 and 2021, an increase in cumulative HPV vaccination rates for a full scheme of 18.3 and 16.6 percentage points was observed at 15 and 16 y, respectively. In contrast between 2017 and 2021 these rates decreased from 31.6% to 23.3% and from 36.7% to 21.0% at 20 and 21 y, respectively.

Figure 3. Annual cumulative HPV vaccination rates for full scheme at 18-mo by birth cohorts



Vaccination coverage among 11 – 19 y males

- Initiation rates increased between 2019 and 2021, reaching 6.4% in 2021 for the overall 11–19-year-old male population (see Table 2 for details by age).

Table 2. Annual HPV vaccination initiation rates by age in the year of vaccination

Year of vaccination	By age in the year of vaccination								
	11	12	13	14	15	16	17	18	19
2019	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1
2020	1.3	1.4	1.5	1.6	1.3	1.0	0.7	0.4	0.3
2021	7.8	8.7	8.9	9.3	7.7	6.1	4.4	2.6	1.4

- The cumulative HPV vaccination rate at 15 years old for the partial vaccination scheme increased from 0.3% in 2019 to 9.4% in 2021. At 19 years it increased from 0.2% in 2019 to 2.1% in 2021 (see Table 3).

Table 3. Annual cumulative HPV vaccination rates for partial scheme at 18 mo by birth cohorts

Year	By age in the year of vaccination								
	11	12	13	14	15	16	17	18	19
2019	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2
2020	1.3	1.5	1.7	1.9	1.6	1.3	1.0	0.7	0.5
2021	7.9	9.9	10.3	10.7	9.4	7.6	5.7	3.6	2.1

Conclusion

- The results of this study show an increase in HPV vaccination coverage between 2017 and 2021 among women, although it remains below the 80% target. It also shows a promising start to vaccination among boys.
- Results for HPV vaccination initiation among girls in 2020 suggest that the COVID-19 pandemic has slowed vaccination progress.
- This study will monitor the effects of actions taken to improve vaccination, including the extension of vaccination competencies to community pharmacists since 2022.

References: 1. Bruni L et al.Prev Med. 2021; 2. Institut de Veille Sanitaire. BEH. 2016; 3. Tuppin P et al. Rev Epidemiol Sante Publique. 2017