



SOCIOECONOMIC DETERMINANTS OF HPV VACCINE HESITANCY – AGE 18-25

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HPV Vaccination in Croatia

→ Since 2016 available **at the national level to all students (M/F)** at the age of 15 (the 8th grade elementary School)

→ Conducted within School Medicine service

→ Vaccination coverage: 2017 about **10%** vaccinated of 15-year-old students

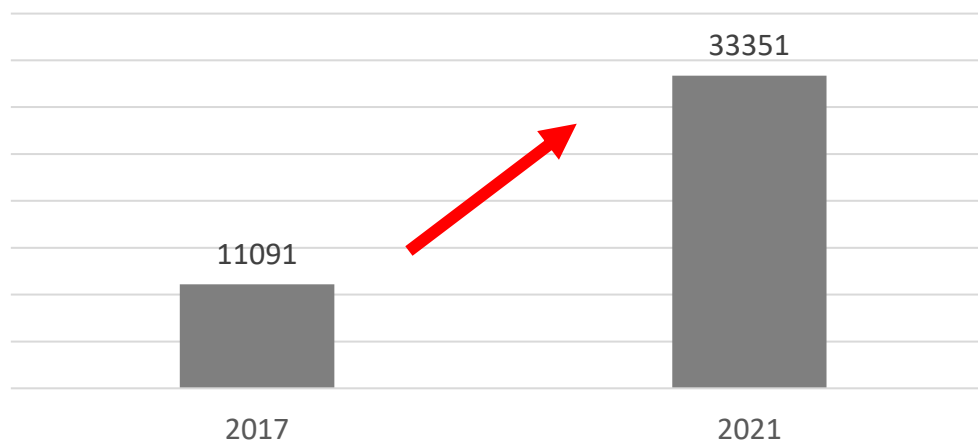
2019/2020 **38%** of first grade high school girls and **24%** of male students were fully vaccinated

Cijepljenjem
protiv raka

Cijepljenjem
protiv HPV-a



Trend of increasing vaccination coverage according to doses used



Slovenia: 50%



England: 75%



Global aim: 90%



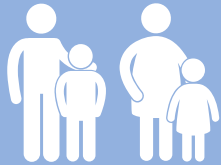


Population-based survey on sexuality related attitudes, knowledge and behaviours among young adults

- National cross-sectional bio-behavioural survey*

SAMPLE:

- young Croatian adults aged 18-25
- examinees were recruited from a commercial national online panel of young adults (stratified by region and settlement size and quota-based with respect to age, gender and education, post-hoc weighted for gender and age and adjusted for clustering effects)



– > **Behavioural self-administrated online questionnaire and biological part** with collecting urine sample for **testing for *C trachomatis***

– > Bio marker: urine samples were tested for chlamydia infection using the RT-PCR test (Cobas 4800 CT/NG Test), at the Referent Center for Diagnostics of Sexually Transmitted Diseases at the microbiological laboratory of the Andrija Stampar Teaching Institute of Public Health in Zagreb, Croatia.



*„SERZAM2020: Dynamics of reproductive and sexual health among youth in Croatia 2005-2020”

- continuation of national studies of sexual and reproductive health among youth 18-25 years of age conducted in 2005 and 2010



Population-based survey on HPV vaccine hesitancy among young adults

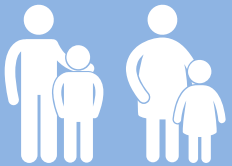


- Data collection: November 2021 - February 2022



- **Questionnaire:**

- Knowledge – STIs
- Attitudes – HPV vaccination intention
- Behavior – sexual behaviour



- N=1197
- median age 21.7
- 48.0% F
- Overall response rate: 29% - 84% completion rate
- In the biological part response rate was 46% - 82% who consented to providing a urine sample actually sending in their sample

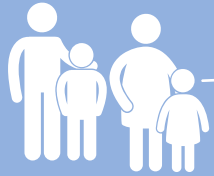


Population-based survey on HPV vaccine hesitancy among young adults



AIM:

to investigate data on self-reported vaccination status against HPV and characteristics of vaccine hesitancy among young Croatian people aged 18-25 years



METHODS AND SAMPLE:

- respondents who answered „no” to both questions about whether they had been vaccinated against HPV and whether they intended to be vaccinated
- N= 547 (442 weighted)



ANALYSIS:

- descriptive statistics and multivariate analyses

Rezultati

Have you personally been vaccinated against HPV?

- **59.3%** (710/1197) respondents **were not vaccinated** against HPV, and **22.1%** (264/1197) **did not remember** their vaccination status

If you have not been vaccinated against HPV, would you like to get vaccinated against HPV?

- **56.2%** (547/974) answered that they would not want to be vaccinated
 - **61%** men
 - **50,2%** women



Cijepljenjem protiv raka Cijepljenjem protiv HPV-a

Cijepljenje ne uklanja rizik već ga smanjuje, pa se redoviti preventivni ginekološki pregledi preporučuju jednako cijepljenim i necijepljenim djevojkama i ženama radi ranog otkrivanja premalignih promjena i raka vrata maternice (PAPA test).

Factors associated with HPV vaccine hesitancy among those who answered that they were not HPV vaccinated and don't intend to be vaccinated

	Not vaccinated and not intend to HPVantivax (%)	N	Adjusted OR	(95% CI)
Total	56,2	547		
	36,9	442 (weighted)		
Gender				
Male	61,0		1,62	1,28-2,05
Female	50,1		-	-
Age			1,03	0,95-1,12
Statistical regions (NUTS2)				
Northwest	—		1,31	0,90-1,91
Adriatic (costal)			1,76	1,24-2,49
Pannonian			1,42	0,92-2,19
City of Zagreb			-	
Settlement type				
Urban			1,11	0,83-1,51
Rural			-	
Relationship				
Married or cohabiting			0,93	0,60-1,44
In relationship, but not cohabiting			0,97	0,72-1,31
single			-	
Employment				
Employed			1,12	0,70-1,78
Unemployed			0,88	0,55-1,42
Student			-	
Socioeconomic status				
Frequent of church attendance			1,14	0,97-1,33
			1,10	1,03-1,18
Years of formal education			0,98	0,91-1,06





National research on attitudes and awareness of parents about HPV infection and HPV vaccination, 2018, sample: parents N=500, telephone survey *

- **Awareness about HPV and HPV vaccination:**
 - **50%** of parents thinks that is **insufficiently informed** about HPV infection - know nothing or know very little
 - **50%** of parents **does not know that HPV can cause six types of cancer** in men and women
 - **30%** of parents think that HPV **infection is a confirmation of irresponsible/risk sexual behavior**, and that they are not informed enough about the HPV vaccine for decision
- **Vaccination coverage: 11% families** in which at least one child has been vaccinated against HPV (**all families**); **23%** families in which at least one **child is older than 14 years**
- **Probability of vaccination** (parents of a minor child): **30% parents** of female child answered that they **do not plan to vaccinate their daughter** against HPV; **50% parents** of male child **do not plan to vaccinate their son** (lack of information and trust, the vaccine is unexplored, education and upbringing are sufficient prevention)



Conclusion

- We found a very high proportion of persons who have not been vaccinated against HPV or are not aware of their vaccination HPV status (81%)
- Significantly higher odds of vaccine hesitancy were found in men, residents of the coastal counties of Croatia and those who more often practice faith.
- There is a need to increase uptake of HPV vaccination by increasing awareness of vaccine availability and effectiveness. This can be done by targeted media campaigns but also via more effective involvement of health care staff, in particular specialists of adolescent (school) medicine

Some possibilities of increasing HPV coverage rates...

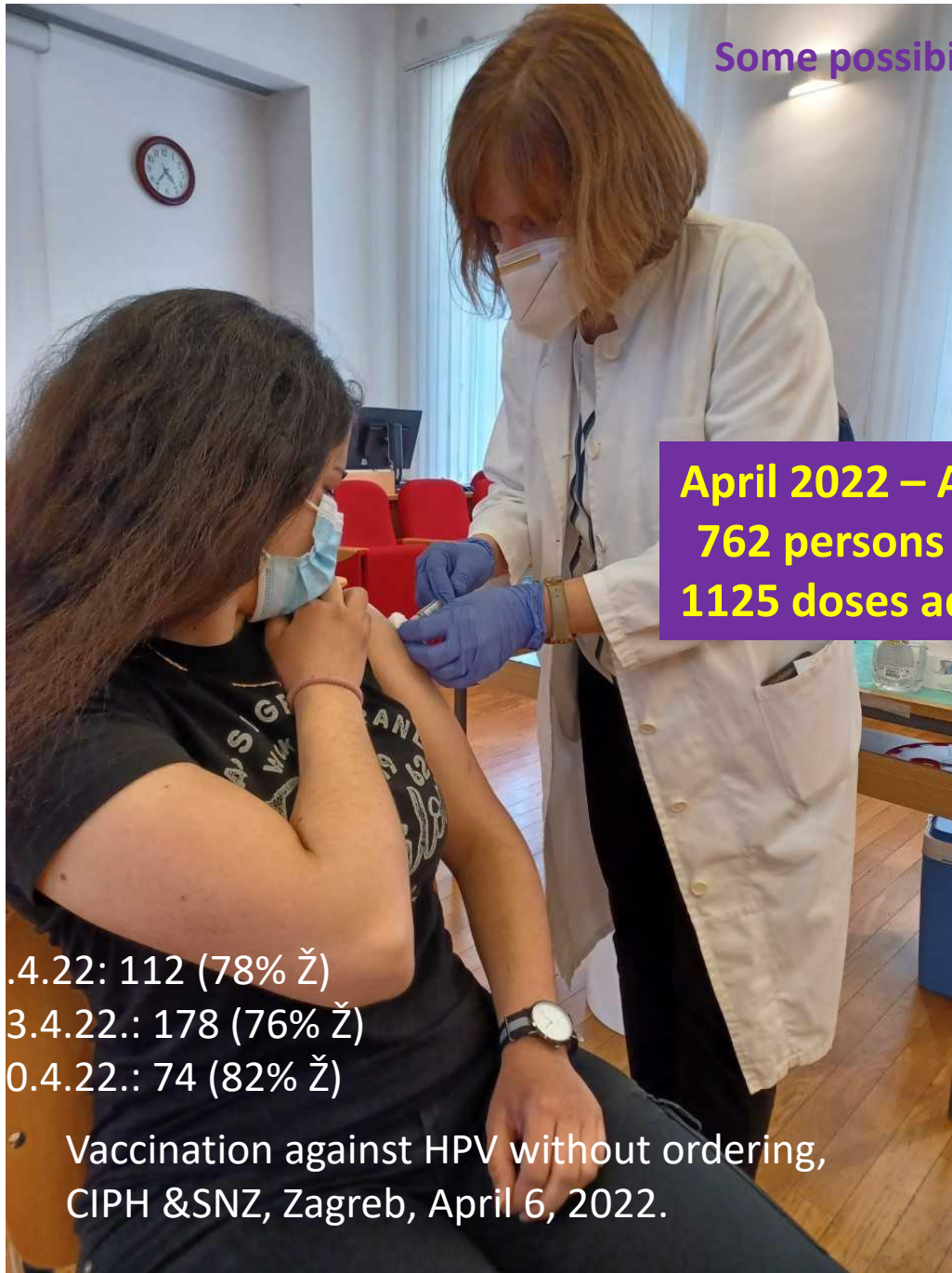
April 2022 – August 2022
762 persons vaccinated
1125 doses administered

.4.22: 112 (78% ž)

3.4.22.: 178 (76% ž)

0.4.22.: 74 (82% ž)

Vaccination against HPV without ordering,
CIPH & SNZ, Zagreb, April 6, 2022.





Thank you