

North Macedonia

Human Papillomavirus and Related Cancers, Fact Sheet 2023 (2023-03-10)



I. Key data on HPV and HPV-related cancers



North Macedonia has a population of 890,171 women ages 15 years and older who are at risk of developing cervical cancer. Current estimates indicate that every year 113 women are diagnosed with cervical cancer and 62 die from the disease.

Cervical cancer ranks as the 5th most frequent cancer among women in North Macedonia and the 3rd most frequent cancer among women between 15 and 44 years of age. Data is not yet available on the HPV burden in the general population of North Macedonia. However, in Southern Europe, the region North Macedonia belongs to, about 3.8% of women in the general population are estimated to harbour cervical HPV-16/18 infection at a given time, and 68.0% of invasive cervical cancers are attributed to HPVs 16 or 18.

Table 1. Crude incidence rates of HPV-related cancers

	Male	Female
Cervical cancer	-	10.9
Anal cancer	0.48	0.19
Vulva cancer	-	1.25
Vaginal cancer	-	0.58
Penile cancer	3.17	-
Oropharyngeal cancer	1.25	0.19
Oral cavity cancer	3.65	1.34
Laryngeal cancer	15.9	1.44

Table 2. Burden of cervical cancer

	Incidence	Mortality
Annual number of new cases/deaths	113	62
Crude rate	10.9	5.95
Age-standardized rate	7.51	3.64
Cumulative risk 0-74 years (%)	0.77	0.41
Ranking of cervical cancer (all years)	5th	10th
Ranking of cervical cancer (15-44 years)	3rd	4th

Table 3. Burden of cervical HPV infection North Macedonia

	No. Tested	% (95% CI)
HPV 16/18 prevalence:		
Normal cytology	-	-
Low-grade cervical lesions	-	-
High-grade cervical lesions	-	-
Cervical cancer	-	-

Figure 1. Comparison of the ten most frequent HPV oncogenic types in North Macedonia among women with and without cervical lesions



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II. Complementary data on cervical cancer prevention

Table 4. Factors contributing to cervical cancer (co-factors)

Smoking prevalence (%) [95% UI], women	- [—]
Total fertility rate (live births per women)	1.5
Hormonal contraception use (%)	1.60
HIV prevalence (%) [95% UI] (15-49 years)	<0.1 [<0.1 - <0.1]

Table 5. Sexual behaviour

MEN	
Percentage of 15-year-old who have had sexual intercourse	36.0
Range of median age at first sexual intercourse	15.5
WOMEN	
Percentage of 15-year-old who have had sexual intercourse	3.0
Range of median age at first sexual intercourse	16.3

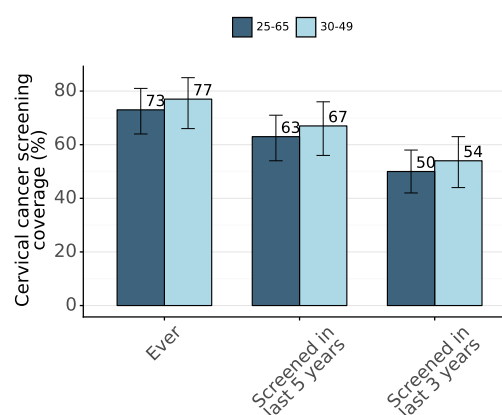
Table 6. HPV vaccine introduction

Females	
HPV vaccination programme	Introduced
Year of introduction	2009
Year of estimation	2021
HPV coverage – first dose (%)	32
HPV coverage – last dose (%)	21
Males	
HPV vaccination programme	Not Available/Not Introduced
Year of introduction	-
Year of estimation	-
HPV coverage – first dose (%)	-
HPV coverage – last dose (%)	-

Table 7. Cervical screening practices and recommendations

Existence of official national recommendations	Yes
Starting year of recommendations	2006
Active invitation to screening	Yes
Screening ages (years), primary screening test used, and screening interval or frequency of screenings	24-60 (cytology, 3 years)

Figure 2. Estimated coverage of cervical cancer screening in North Macedonia*



* Estimated coverage and 95% confidence interval in 2019

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