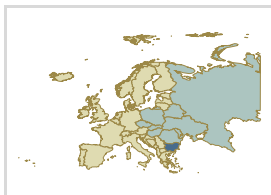


Bulgaria

Human Papillomavirus and Related Cancers, Fact Sheet 2009 (Jan 29, 2010)



I. Key data on HPV and HPV-related cancers



Bulgaria has a population of 3.47 millions women ages 15 years and older who are at risk of developing cervical cancer. Current estimates indicate that every year 979 women are diagnosed with cervical cancer and 506 die from the

disease. Cervical cancer ranks as the 3rd most frequent cancer among women in Bulgaria, and the 2nd 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 Bulgaria. However, in Eastern Europe, the region Bulgaria belongs to, about 22.3% of women in the general population are estimated to harbour cervical HPV infection at a given time, and 74.5% of invasive cervical cancers are attributed to HPV types 16 or 18.

Table 1. Crude incidence rates of HPV-related cancers

	Male	Female
Cervical cancer	-	24.4
Anal cancer [‡]	1.1	0.7
Vulva cancer [‡]	-	2.4
Vaginal cancer [‡]	-	0.7
Penile cancer [‡]	1.1	-
Oral cavity	10.0	3.4
Pharynx (excluding nasopharynx)	3.8	0.7

Rates are per 100,000 per year.

[‡]Care should be taken in interpreting the estimates. Some limitations were present in determining the number of cases or the population at risk that could affect the ability to make direct comparisons with other registry datasets.

Table 2. Burden of cervical cancer

	Incidence	Mortality
Crude rate	24.4	12.6
Age-standardized rate	18.7	8
Cumulative risk 0-64 years (%)	1.4	0.5
SIR/SMR	101	87
Annual number of new cases/deaths	979	506
Ranking of cervical cancer (all ages) [†]	3rd	5th
Ranking of cervical cancer (15-44 years) [†]	2nd	2nd

Rates are per 100,000 women per year.

SIR/SMR: Standardized Incidence/Mortality Ratio.

[†]Ranking among all cancers.

Table 3. Burden of cervical HPV infection(!)

	No. Tested	% (95% CI)
HPV prevalence in women with normal cytology:	4053	22.3* (21.0-23.6)
HPV 16/18 prevalence:		
Normal cytology	3562	9.7* (8.8-10.7)
Low-grade cervical lesions ^a	241	32.6* (26.9-39.1)
High-grade cervical lesions ^b	254	56.9* (50.8-63.3)
Cervical cancer	652	74.5* (71.0-77.8)

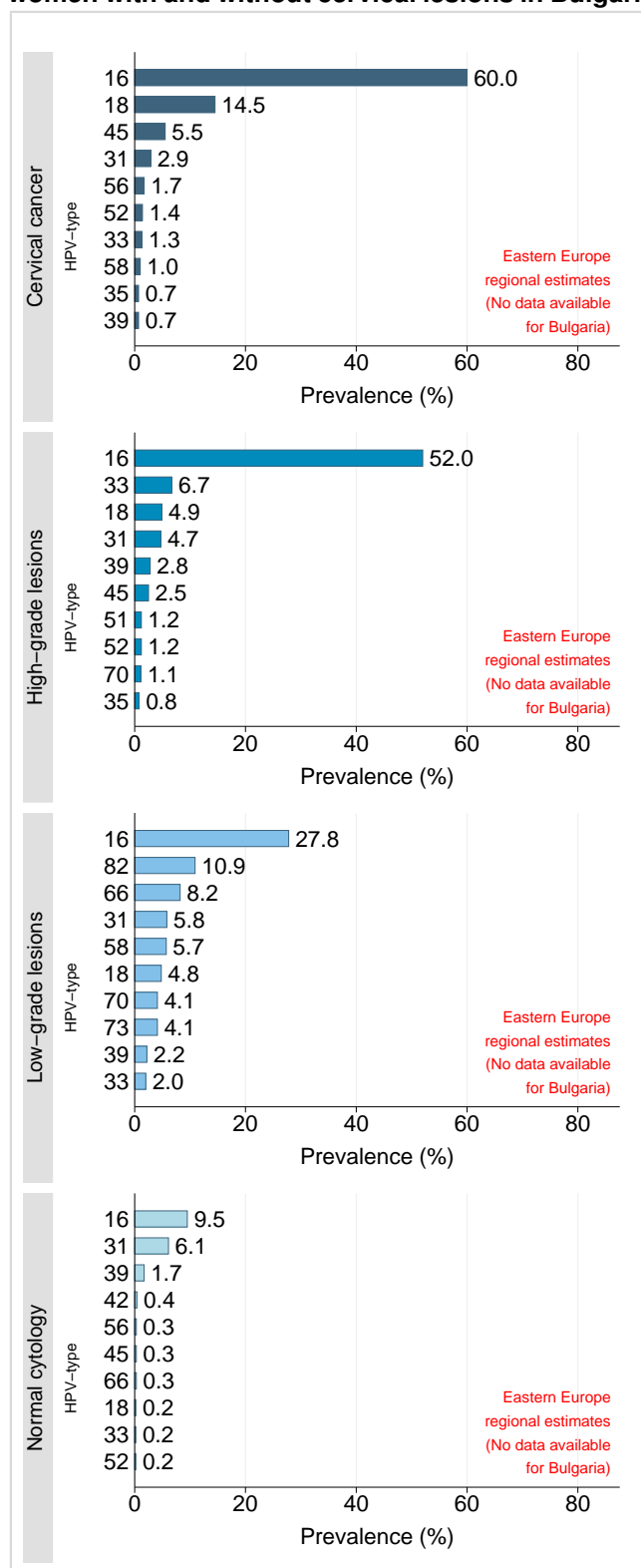
(!) At least one indicator in the table is not available for Bulgaria; regional estimates are used instead as follows:

*Eastern Europe regional estimate.

^a Low-grade cervical lesions: LSIL or CIN-1.

^b High-grade cervical lesions: CIN-2, CIN-3, CIS or HSIL.

Figure 1. Ten most frequent HPV types among women with and without cervical lesions in Bulgaria



The samples for HPV testing come from cervical specimens (fresh / fixed biopsies or exfoliated cells).

The ranking of the ten most frequent HPV types may present less than ten types because only a limited number of types were tested or were HPV-positive.

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II. Complementary data on cervical cancer prevention

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

Smoking prevalence (%), women	21.8
Total fertility rate (live births per women)	1.2
Oral contraceptive use (%)	7.0
HIV prevalence (%), adults (15-49 years)	-

Table 5. Sexual behaviour

Median age at first sexual intercourse among men (25-54 years) / women (25-49 years)	- / -
% of young men/women (15-24 years) who had sex before the age of 15	- / -

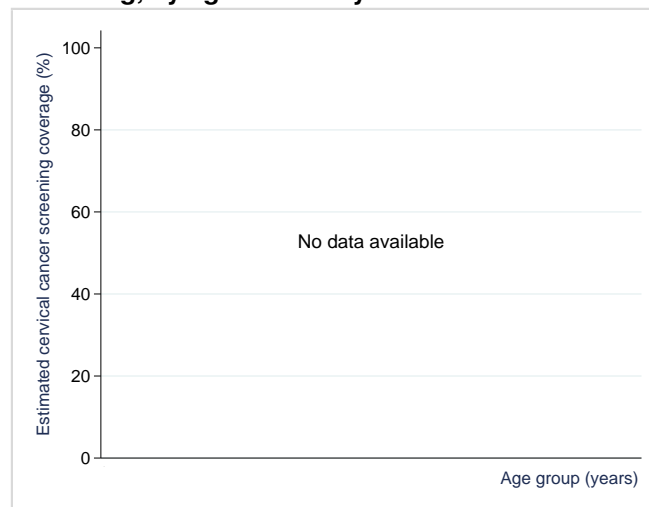
Table 6. HPV vaccine introduction

Bivalent Vaccine (Cervarix)	Yes
Quadrivalent Vaccine (Gardasil/Silgard)	Yes
HPV vaccine schedule	-
Introduction in entire or part of the country	-
Comments: A national cancer plan has been proposed to the government that includes HPV vaccination that includes HPV vaccination for females aged 13 but this is not adopted	

Table 7. Cervical screening practices and recommendations

Cervical cancer screening coverage, % (age and screening interval, reference)	14.0% (All women aged 25-60 yrs; Valkov 2004)
Screening ages (years)	-
Screening interval (years) or frequency of screens	-

Figure 2. Estimated coverage of cervical cancer screening, by age and study



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