

Human Papillomavirus and Related Diseases Report

FRANCE

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Executive summary

Human papillomavirus (HPV) infection is now a well-established cause of cervical cancer and there is growing evidence of HPV being a relevant factor in other anogenital cancers (anus, vulva, vagina and penis) and head and neck cancers. HPV types 16 and 18 are responsible for about 70% of all cervical cancer cases worldwide. HPV vaccines that prevent against HPV 16 and 18 infection are now available and have the potential to reduce the incidence of cervical and other anogenital cancers.

This report provides key information for France on cervical cancer, other anogenital cancers and head and neck cancers, HPV-related statistics, factors contributing to cervical cancer, cervical cancer screening practices, and HPV vaccine introduction. The report is intended to strengthen the guidance for health policy implementation of primary and secondary cervical cancer prevention strategies in the country.

Table 1: Key Statistics

Population			
	er (Female population aged >=15 yrs)		27.9 million
Burden of cervical cancer as	nd other HPV-related cancers		
Annual number of cervical cand	er cases		3379
Annual number of cervical cand	er deaths		1452
Crude incidence rates per 100,0	000 population:	Male	Female
	Cervical cancer	-	10.0
	Anal cancer	1.31	5.12
	Vulva cancer	-	3.31
	Vaginal cancer	-	0.61
	Penile cancer	1.80	-
	Oropharyngeal cancer	11.1	3.93
	Oral cavity cancer	13.4	6.93
	Laryngeal cancer	8.58	1.64
Burden of cervical HPV infe	ection		
Prevalence (%) of HPV 16 and/o	or HPV 18 among women with:		
		Normal cytology	4.7
	Low-grade cervical le	esions (LSIL/CIN-1)	26.3
	High-grade cervical lesions (HSI	L/CIN-2/CIN-3/CIS)	60.6
		Cervical cancer	75.6
Other factors contributing t	o cervical cancer		
Smoking prevalence (%) [95% U	JI], women		24.9 [19.1-30.7]
Total fertility rate (live births p	er women)		2.0
Oral contraceptive use (%)			36.6
HIV prevalence (%) [95% UI], w	vomen (15-49 years)		0.2 [0.2-0.2]
Sexual behaviour			
Percentage of 15-year-old who h	nave had sexual intercourse (men/women)		26.0/16.0
Range of median age at first sex			16.0-18.4/17.0-22.0
Cervical screening practices	s and recommendations		
Existence of official national red			Yes
Starting year of current recomm	nendations		2020
Active invitation to screening			Yes
Screening ages (years), primary	screening test used, and screening interval or f	requency of screen-	25-29 (cytology, 3
ings			years); 30-65 (HPV
			test, 5 years)
HPV vaccine in females			
HPV vaccination programme			Introduced
Year of introduction			2007
Year of estimation of HPV vacci	nation coverage		2021
HPV coverage – first dose (%)			46
HPV coverage – last dose (%)			37
: 55,51age last 4656 (76)			

^{*} Please see the specific sections for more information.

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1 INTRODUCTION -2

1 Introduction

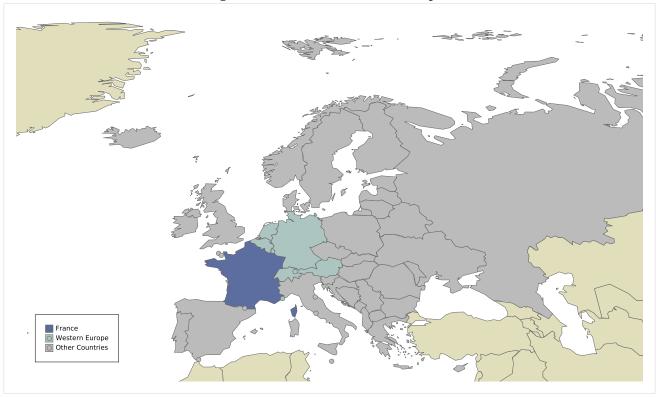


Figure 1: France and Western Europe

Information Centre aims to compile and centralise updated data and statistics on human papillomavirus (HPV) and related cancers. This report aims to summarise the data available to fully evaluate the burden of disease in France and to facilitate stakeholders and relevant bodies of decision makers to formulate recommendations on the prevention of cervical cancer and other HPV-related cancers. Data include relevant cancer statistic estimates, epidemiological determinants of cervical cancer such as demographics, socioeconomic factors, risk factors, burden of HPV infection in women and men, cervical screening and immunization practices. The report is structured into the following sections:

Section 2, Demographic and socioeconomic factors. This section summarises the socio-demographic profile of France. For analytical purposes, France is classified in the geographical region of Western Europe (Figure 1, lighter blue), which is composed of the following countries: Belgium, Switzerland, Germany, Liechtenstein, Luxembourg, Monaco, and Netherlands. Throughout the report, France estimates will be complemented with corresponding regional estimates.

Section 3, Burden of HPV related cancers. This section describes the current burden of invasive cervical cancer and other HPV-related cancers in France ith estimates of prevalence, incidence, and mortality rates. Information in other HPV-related cancers includes other anogenital cancers (anus, vulva, vagina, and penis) and head and neck cancers (oral cavity, oropharyngeal, and larynx).

Section 4, HPV related statistics. This section reports on prevalence of HPV and HPV type-specific distribution in France, in women with normal cytology, precancerous lesions and invasive cervical cancer. In addition, the burden of HPV in other anogenital cancers (anus, vulva, vagina, and penis), head and neck cancers (oral cavity, oropharynx, and larynx) and men are presented.

Section 5, Factors contributing to cervical cancer. This section describes factors that can modify the natural history of HPV and cervical carcinogenesis such as smoking, parity, oral contraceptive use, and co-infection with HIV.

1 INTRODUCTION -3-

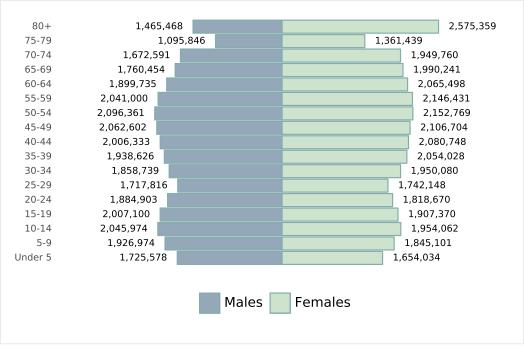
Section 6, Sexual and reproductive health behaviour indicators. This section presents sexual and reproductive behaviour indicators that may be used as proxy measures of risk for HPV infection and anogenital cancers, such as age at first sexual intercourse, average number of sexual partners, and anal intercourse among others.

Section 7, HPV preventive strategies. This section presents preventive strategies that include basic characteristics and performance of cervical cancer screening status, status of HPV vaccine licensure introduction, and recommendations in national immunisation programmes.

Section 8, Protective factors for cervical cancer. This section presents male circumcision and the use of condoms.

$\mathbf{2}$ Demographic and socioeconomic factors

Figure 2: Population pyramid of France for 2022



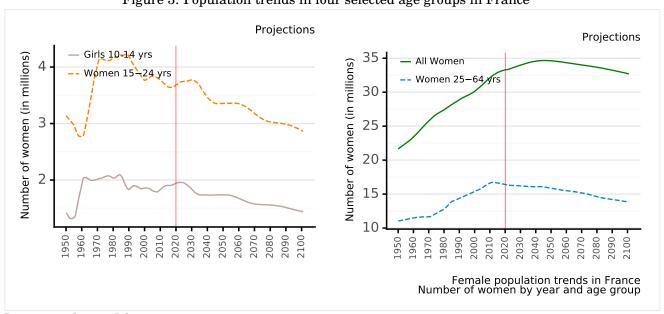
Data accessed on 30 Jul 2022

For statistical purposes, the data for France do not include French Guiana, French Polynesia, Guadeloupe, Martinique, Mayotte, New Caledonia, Réunion, Saint Pierre and Miquelon, Saint Barthélemy, Saint Martin (French part), Wallis and Futuna Islands. Please refer to original source for methods of estimation

Year of estimate: 2022

Data Sources:
United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. [Accessed on July 30, 2022].

Figure 3: Population trends in four selected age groups in France



Data accessed on 30 Jul 2022

For statistical purposes, the data for France do not include French Guiana, French Polynesia, Guadeloupe, Martinique, Mayotte, New Caledonia, Réunion, Saint Pierre and Miquelon, Saint Barthélemy, Saint Martin (French part), Wallis and Futuna Islands. Please refer to original source for methods of estimation

Year of estimate: 2022

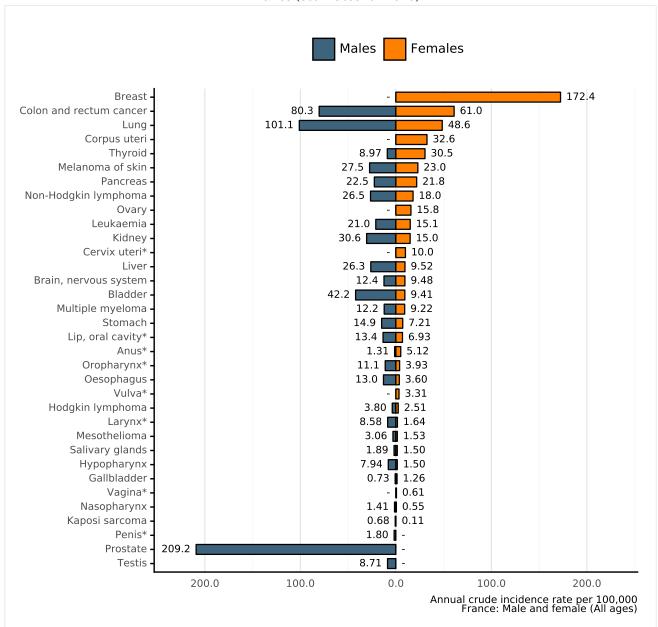
United Nations, Department of Economic and Social Affairs, Population Division (2022). World Population Prospects 2022, Online Edition. [Accessed on July 30, 2022].

3 **Burden of HPV related cancers**

HPV is the cause of almost all cervical cancer cases and is responsible for an important fraction of other anogenital and head and neck cancer. Here, we present the most recent estimations on the burden of HPV-associated cancer.

3.1 HPV related cancers incidence

Figure 4: Comparison of HPV related cancers incidence to other cancers in men and women of all ages in France (estimates for 2020)



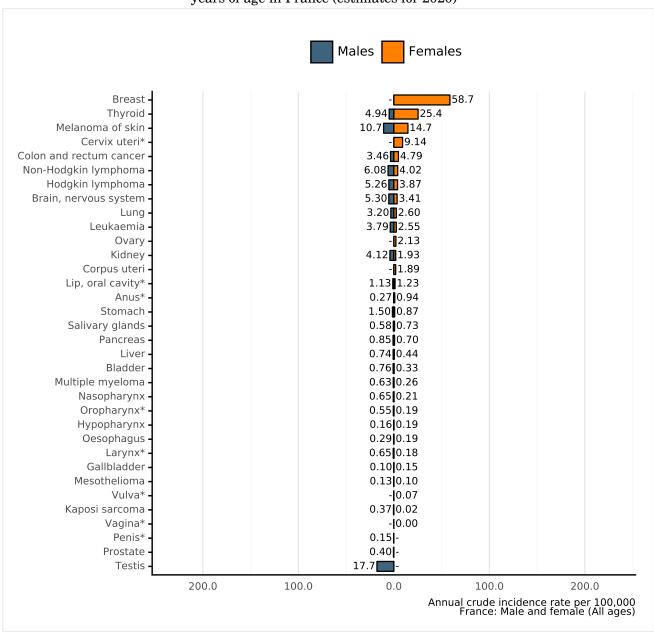
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Non-melanoma skin cancer is not included

Rates per 100,000 men per year.

Rates per 100,000 women per year.

Figure 5: Comparison of HPV related cancers incidence to other cancers among men and women 15-44 years of age in France (estimates for 2020)



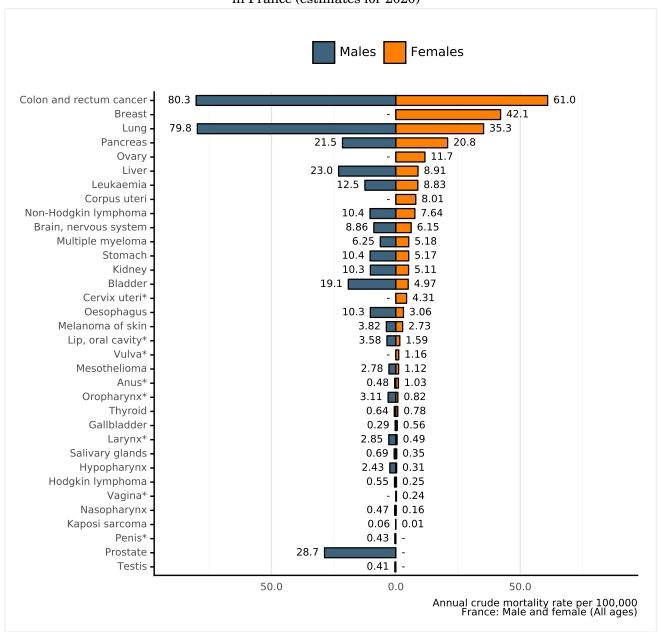
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Non-melanoma skin cancer is not included

Rates per 100,000 men per year. Rates per 100,000 women per year.

3.2 HPV related cancers mortality

Figure 6: Comparison of HPV related cancers mortality to other cancers in men and women of all ages in France (estimates for 2020)

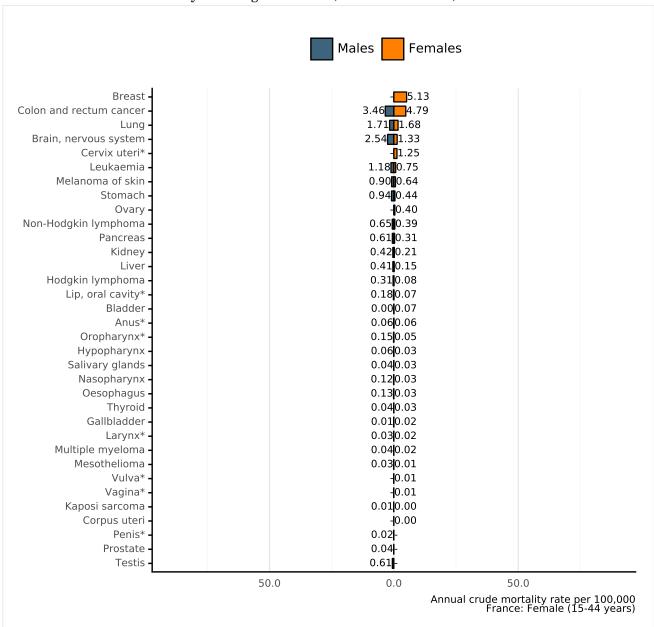


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Non-melanoma skin cancer is not included

Rates per 100,000 men per year. Rates per 100,000 women per year.

Figure 7: Comparison of HPV related cancers mortality to other cancers among men and women 15-44 years of age in France (estimates for 2020)



For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Non-melanoma skin cancer is not included

Rates per 100,000 men per year. Rates per 100,000 women per year.

3.3 Cervical cancer

Cancer of the cervix uteri is the 4^{th} most common cancer among women worldwide, with an estimated 604,127 new cases and 341,831 deaths in 2020. Worldwide, mortality rates of cervical cancer are substantially lower than incidence with a ratio of mortality to incidence to 57% (GLOBOCAN 2020). The majority of cases are squamous cell carcinoma followed by adenocarcinomas. (Vaccine 2006, Vol. 24, Suppl 3; Vaccine 2008, Vol. 26, Suppl 10; Vaccine 2012, Vol. 30, Suppl 5; IARC Monographs 2007, Vol. 90)

This section describes the current burden of invasive cervical cancer in France and in comparison to geographic region, including estimates of the annual number of new cases, deaths, incidence, and mortality rates.

3.3.1 Cervical cancer incidence in France

Key Stats.

About 3,379 new cervical cancer cases are diagnosed annually in France (estimations for 2020).

Cervical cancer ranks* as the 12th leading cause of female cancer in France.

Cervical cancer is the 4th most common female cancer in women aged 15 to 44 years in France.

Table 2: Cervical cancer incidence in France (estimates for 2020)

Indicator	France	Western Europe	World
Annual number of new cancer cases	3,379	10,102	604,127
Uncertainty intervals of new cancer cases [95% UI]	[2,995-3,812]	[9,651-10,574]	[582,031-627,062]
Crude incidence rate ^b	10.0	10.1	15.6
Age-standardized incidence rate ^b	6.99	7.03	13.3
Cumulative risk (%) at 75 years old ^a	0.65	0.67	1.39

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods
^a Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

Location

**Loca

^{*} Ranking of cervical cancer incidence to other cancers among all women according to highest incidence rates (ranking 1st) excluding non-melanoma skin cancer. Ranking is based on crude incidence rates (actual number of cervical cancer cases). Ranking using age-standardized rate (ASR) may differ

Table 3: Cervical cancer incidence in France by cancer registry

Cancer registry	Period	N cases ^a	Crude rate ^b	ASR ^b
Bas-Rhin ¹	2003-2007	240	8.7	6
Calvados ¹	2003-2007	175	10.2	7
Cote d'Or ²	1993-1997	151	11.6	7.7
Doubs ¹	2003-2007	168	12.8	9.6
Haut-Rhin ¹	2003-2007	182	9.7	6.9
Herault ¹	2003-2007	310	12	8.3
Isere ¹	2003-2007	231	7.8	5.5
La Martinique ³	1998-2002	220	21.9	16.5
Martinique ¹	2003-2007	165	15.6	10.1
La Reunion ²	1993-1994	109	16.9	17.7
Loire-Atlantique ³	1998-2002	240	8.1	5.6
Loire Atlantique ¹	2003-2007	230	7.4	5.2
Manche ¹	2003-2007	113	9.1	6.7
Somme ¹	2003-2007	184	12.8	9.1
Tarn ¹	2003-2007	121	13	8.3
Vendee ¹	2003-2007	97	6.5	4
Martinique ⁴	2008-2012	129	12.2	7.1
Bas-Rhin ⁴	2008-2011	169	7.5	5
Calvados ⁴	2008-2012	144	8.1	5.5
Doubs^4	2008-2012	120	8.9	6.3
${ m Gironde}^4$	2008-2012	335	8.8	5.7
Haut-Rhin ⁴	2008-2012	150	7.8	5.6
Hérault ⁴	2008-2012	313	11.4	7.8
Isère ⁴	2008-2012	$\overline{}$	7.9	5.1
Lille-Métropole ⁴	2008-2012	219	10.5	8.1
Limousin ⁴	2009-2012	70	8.9	6.3
Loire-Atlantique ⁴	2008-2012	210	6.3	4.6
Manche ⁴	2008-2011	99	9.7	6.5
Somme ⁴	2008-2012	164	11.1	8.2
Tarn ⁴	2008-2012	101	10.3	6.3
Territoire de Belfort ⁴	2008-2012	30	8.4	6.4
Vendée ⁴	2008-2012	119	7.3	5
Data accessed on 5 Oct 2018	•	•	•	

Data accessed on 5 Oct 2018

Please refer to original source (available at http://ci5.iarc.fr/Ci5-XI/Default.aspx)

ASR: Age-standardized rate, Standardized rates have been estimated using the direct method and the World population as the reference.

Accumulated number of cases during the period in the population covered by the corresponding registry.

Data Sources:

1 Forman D, Bray F, Brewster DH, Gombe Mbalawa C, Kohler B, Piñeros M, Steliarova-Foucher E, Swaminathan R and Ferlay J eds (2013). Cancer Incidence in Five Continents, Vol. X (electronic version) Lyon, IARC. http://ci5.iarc.fr
2 Parkin, D.M., Whelan, S.L., Ferlay, J., Teppo, L., and Thomas, D.B., eds (2002). Cancer Incidence in Five Continents, Vol. VIII. IARC Scientific Publications No. 155, Lyon, IARC.

³ Curado. M. P., Edwards, B., Shin. H.R., Storm. H., Ferlay. J., Heanue. M. and Boyle. P., eds (2007). Cancer Incidence in Five Continents, Vol. IX. IARC Scientific Publications No. 160,

Lyon, IARC.

4 Bray F, Colombet M, Mery L, Piñeros M, Znaor A, Zanetti R and Ferlay J, editors (2017). Cancer Incidence in Five Continents, Vol. XI (electronic version). Lyon: International Agency for Research on Cancer. Available from: http://ci5.iarc.fr, accessed [05 October 2018].

20 Age-specific rates of cervical cancer 10 20-24 60-64 69-59 70-74 80-84

Figure 8: Age-specific incidence rates of cervical cancer in France (estimates for 2020)

For more detailed methods of estimation please refer to $\texttt{http://gco.iarc.fr/today/data-sources-methods}^a$ Rates per 100,000 women per year.

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

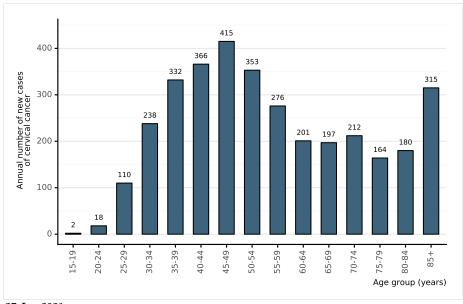


Figure 9: Annual number of new cases of cervical cancer in France (estimates for 2020)

Data accessed on 27 Jan 2021

e refer to http://gco.iarc.fr/today/data-sources-methods

Data Sources. Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

- For age-standardised incidence rates of cervical cancer of France (estimates for 2020) please refer to Figure 73
- For annual number of new cases of cervical cancer by age group in France (estimates for 2020) please refer to Figure 74
- · For comparison of age-specific cervical cancer incidence rates in France, within the region, and the rest of world please refer to Figure 75

Age group (years)

3.3.2 Cervical cancer incidence by histology in France

Table 4: Age-standardised incidence rates of cervical cancer in France by histological type and cancer registry

Cancer registry ¹	Period	Squamo	Adeno	Other	Unspec.
Martinique	2008-2012	5.7	1.1	0.2	-
Bas-Rhin	2008-2011	3.7	0.8	0.2	0.2
Calvados	2008-2012	4.6	0.8	0.1	0
Doubs	2008-2012	4.7	1.2	0.1	0.1
Gironde	2008-2012	4.2	1.1	0.1	0.2
Haut-Rhin	2008-2012	4.6	0.8	0.2	-
Hérault	2008-2012	6.2	1.3	0.1	0.1
Isère	2008-2012	3.9	1	0.1	0
Lille-Métropole	2008-2012	6.1	1.5	0.3	0.1
Limousin	2009-2012	4.8	1.1	0.2	-
Loire-Atlantique	2008-2012	3.7	0.7	0.2	0.1
Manche	2008-2011	5.2	1	0.1	0
Somme	2008-2012	6.1	1.8	0.1	0.2
Tarn	2008-2012	4.7	1.4	0	0
Territoire de Belfort	2008-2012	5.2	0.6	0.2	0.2
Vendée	2008-2012	3.8	0.8	0.1	0.1

Data accessed on 5 Oct 2018

Rates per 100,000 women per year.
Standarized rates have been estimated using the direct method and the World population as the references.
Adeno: adenocarcinoma; Other: Other carcinoma; Squamous: Squamous cell carcinoma; Unspecified carcinoma;

Adeno: Ad

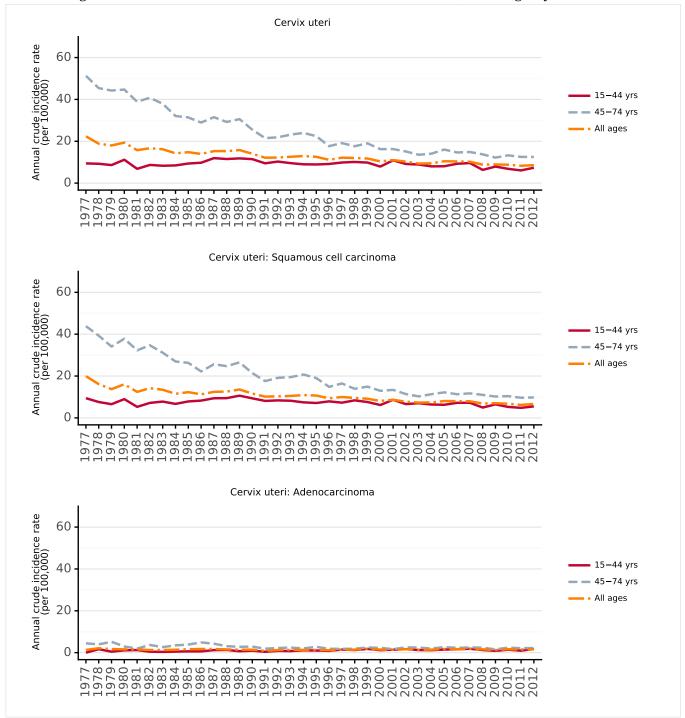


Figure 10: Time trends in cervical cancer incidence in France (cancer registry data)

Data accessed on 28 Aug 2018

The following regional cancer registries provided data and contributed to their national estimate: Bas-Rhin, Calvados, Doubs, Haut-Rhin, Manche, Herault, Isere, Somme, Loire-Atlantique, Martinique

^a Estimated annual percentage change based on the trend variable from the net drift for 20 years, from 1983-2002.

Data Sources:
Ferlay J, Colombet M and Bray F. Cancer Incidence in Five Continents, CI5plus: IARC CancerBase No. 9 [Internet]. Lyon, France: International Agency for Research on Cancer; 2018. Available from: http://ci5.iarc.fr
Vaccarella S, Lortet-Tieulent J, Plummer M, Franceschi S, Bray F. Worldwide trends in cervical cancer incidence: Impact of screening against changes in disease risk factors. eur J Cancer 2013;49:3262-73.

3.3.3 Cervical cancer mortality in France

Key Stats.

About 1,452 cervical cancer deaths occur annually in France are diagnosed annually (estimations for 2020).

Cervical cancer ranks* as the 15th leading cause of cancer deaths of female cancer deaths in France.

Cervical cancer is the 5th leading cause of cancer deaths in women aged 15 to 44 years in France.

Table 5: Cervical cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World
Annual number of deaths	1,452	4,296	341,831
Uncertainty intervals of mortality cancer cases [95% UI]	[1,321-1,596]	[4,064-4,541]	[324,231-360,386]
Crude mortality rate ^b	4.31	4.31	8.84
Age-standardized mortality rate ^b	2.20	2.05	7.25
Cumulative risk (%) at 75 years old ^a	0.24	0.22	0.82

Data accessed on 27 Jan 2021

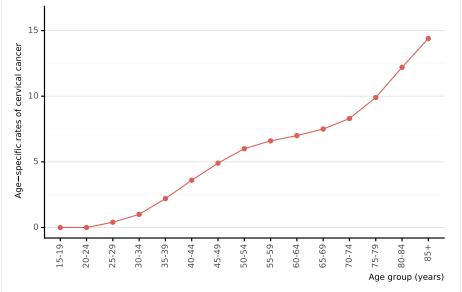
^{*} Ranking of cervical cancer incidence to other cancers among all women according to highest incidence rates (ranking 1st) excluding non-melanoma skin cancer. Ranking is based on crude incidence rates (actual number of cervical cancer cases). Ranking using age-standardized rate (ASR) may differ.

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

^b Rates per 100,000 women per year.

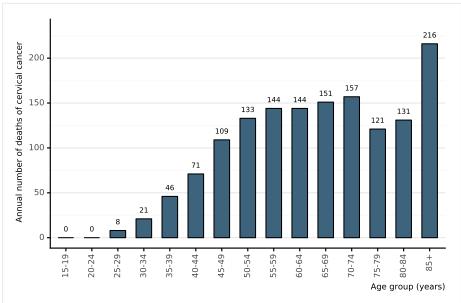
Figure 11: Age-specific mortality rates of cervical cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods ^a Rates per 100,000 women per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 12: Annual number of deaths of cervical cancer in France (estimates for 2020)

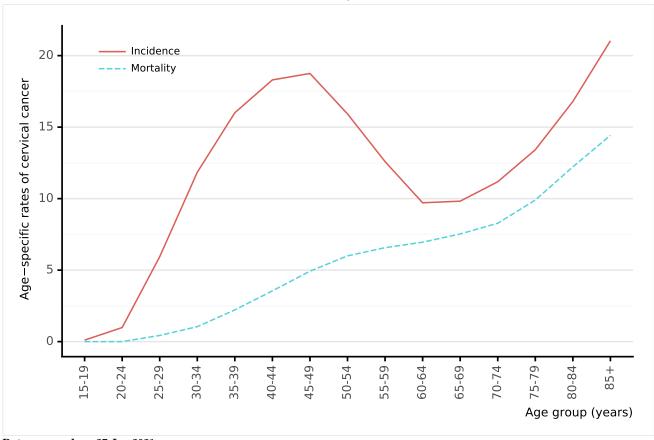


Data accessed on 27 Jan 2021

- · For age-standardised mortality rates of cervical cancer of France (estimates for 2020) please refer to Figure 105
- For annual number of deaths of cervical cancer by age group in France (estimates for 2020) please refer to Figure 106
- For comparison of age-specific cervical cancer mortality rates in France, within the region, and the rest of world please refer to Figure 107

3.3.4 Cervical cancer incidence and mortality comparison in France

Figure 13: Comparison of age-specific cervical cancer incidence and mortality rates in France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Rates per 100,000 women per year.

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Table 6: Premature deaths and disability from cervical cancer in France, Europe and the rest of the world (estimates for 2019)

France		Europe		World		
Number	Rate	Number	Rate	Number	Rate	
42,686 (36,719-48,129)	125 (108-141)	824,336 (726,198-913,992)	189 (166-209)	8,955,013 (7,547,733-9,978,462)	232 (196-259)	
40,887 (35,397-45,914)	120 (104-135)	793,756 (703,004-877,841)	182 (161-201)	8,712,962 (7,365,279-9,728,886)	226 (191-252)	
1,799 (1,156-2,702)	5 (3-8)	30,580 (21,266-42,064)	7 (5-10)	242,051 (171,644-326,024)	6 (4-8)	
	Number 42,686 (36,719-48,129) 40,887 (35,397-45,914) 1,799	Number Rate 42,686 125 (36,719-48,129) (108-141) 40,887 120 (35,397-45,914) (104-135) 1,799 5 (3-8)	Number Rate Number 42,686 125 824,336 (36,719-48,129) (108-141) (726,198-913,992) 40,887 120 793,756 (35,397-45,914) (104-135) (703,004-877,841) 1,799 5 (3-8) 30,580	Number Rate Number Rate 42,686 125 824,336 189 (36,719-48,129) (108-141) (726,198-913,992) (166-209) 40,887 120 793,756 182 (35,397-45,914) (104-135) (703,004-877,841) (161-201) 1,799 5 (3-8) 30,580 7 (5-10)	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	

Data accessed on 29 Apr 2021

Rate per 100,000 women

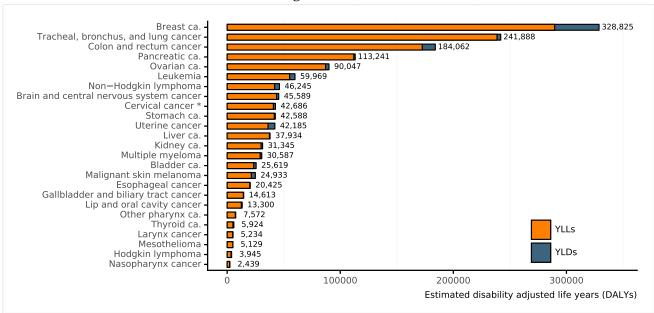
^a DALYs (95% UI): estimated disability adjusted life years (95% uncertainty interval)

 b YLLs (95% UI): years of life lost (95% uncertainty interval)

^c YLDs (95% UI): estimated years lived with disability (95% uncertainty interval)

GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020 Oct 17;396(10258):1204-1222

Figure 14: Comparison of annual premature deaths and disability from cervical cancer in France to other cancers among women (estimates for 2019)



Data accessed on 29 Apr 2021

YLLs: years of life lost YLDs: years lived with disability

<u>Data Sources:</u>
GBD 2019 Diseases and Injuries Collaborators. Global burden of 369 diseases and injuries in 204 countries and territories, 1990-2019: a systematic analysis for the Global Burden of Disease Study 2019. Lancet. 2020 Oct 17;396(10258):1204-1222

Anogenital cancers other than the cervix

Data on HPV role in anogenital cancers other than cervix are limited, but there is an increasing body of evidence strongly linking HPV DNA with cancers of anus, vulva, vagina, and penis. Although these cancers are much less frequent compared to cervical cancer, their association with HPV make them potentially preventable and subject to similar preventative strategies as those for cervical cancer. (Vaccine 2006, Vol. 24, Suppl 3; Vaccine 2008, Vol. 26, Suppl 10; Vaccine 2012, Vol. 30, Suppl 5; IARC Monographs 2007, Vol. 90).

3.4.1 Anal cancer

Anal cancer is rare in the general population with an average worldwide incidence of 1 per 100,000, but is reported to be increasing in more developed regions. Globally, there are an estimated 29,000 new cases in 2018 every year (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). Women have higher incidences of anal cancer than men. Incidence is particularly high among populations of men who have sex with men (MSM), women with history of cervical or vulvar cancer, and immunosuppressed populations, including those who are HIV-infected and patients with a history of organ transplantation. These cancers are predominantly squamous cell carcinoma, adenocarcinomas, or basaloid and cloacogenic carcinomas.

3.4.1.1 Anal cancer incidence in France

Table 7: Anal cancer incidence in France (estimates for 2020)

Indicator	France	Western Europe	World
MEN			
Annual number of new cancer cases	413	1,711	21,706
Uncertainty intervals of new cancer cases [95% UI]	[287-594]	[1,533-1,910]	[18,432-25,561]
Crude incidence rate ^b	1.31	1.78	0.55
Age-standardized incidence rate ^b	0.75	0.96	0.49
Cumulative risk (%) at 75 years old ^a	0.08	0.11	0.06
WOMEN			
Annual number of new cancer cases	1,726	3,949	29,159
Uncertainty intervals of new cancer cases [95% UI]	[1,378-2,162]	[3,659-4,262]	[25,656-33,140]
Crude incidence rate ^c	5.12	3.96	0.75
Age-standardized incidence rate ^c	2.53	1.95	0.58
Cumulative risk (%) at 75 years old ^a	0.29	0.22	0.07

Data accessed on 27 Jan 2021

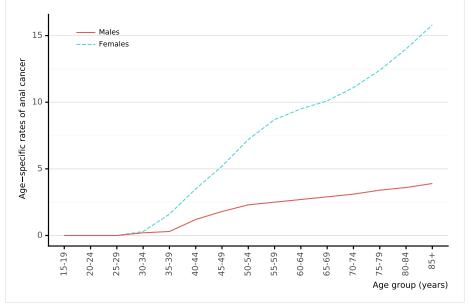
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.

 $^{^{}c}$ Rates per 100,000 women per year.

Figure 15: Age-specific incidence rates of anal cancer in France (estimates for 2020)

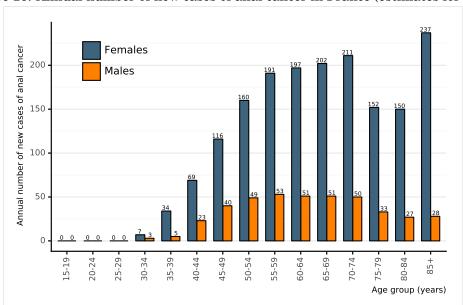


For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}, \ accessed \ [27 \ January \ 2021].$

Figure 16: Annual number of new cases of anal cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

b Rates per 100,000 women per year.

3.4.1.2 Anal cancer mortality in France

Table 8: Anal cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World
MEN			
Annual number of new cancer cases	152	510	9,416
Uncertainty intervals of new cancer cases [95% UI]	[115-201]	[433-601]	[7,282-12,175]
Crude incidence rate ^b	0.48	0.53	0.24
Age-standardized incidence rate ^b	0.23	0.24	0.21
Cumulative risk (%) at 75 years old ^a	0.02	0.03	0.02
WOMEN			
Annual number of new cancer cases	348	884	9,877
Uncertainty intervals of new cancer cases [95% UI]	[293-414]	[782-999]	[7,795-12,516]
Crude incidence rate ^c	1.03	0.89	0.26
Age-standardized incidence rate ^c	0.39	0.31	0.19
Cumulative risk (%) at 75 years old ^a	0.04	0.03	0.02

Data accessed on 27 Jan 2021

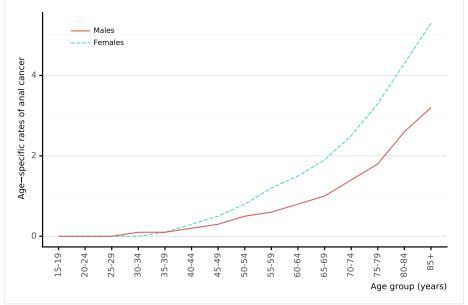
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.
c Rates per 100,000 women per year.

C Rates per 100,000 women per year.

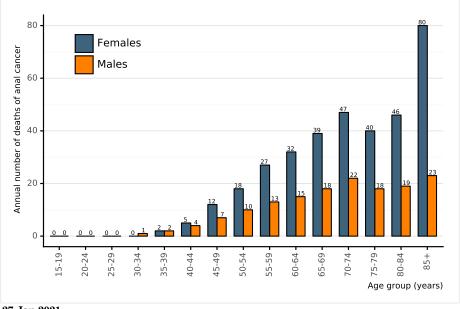
Figure 17: Age-specific mortality rates of anal cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to $\texttt{http://gco.iarc.fr/today/data-sources-methods}^a$ Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \verb|https://gco.iarc.fr/today|, \ accessed \ [27 \ January \ 2021].$

Figure 18: Annual number of deaths of of anal cancer in France (estimates for 2020)



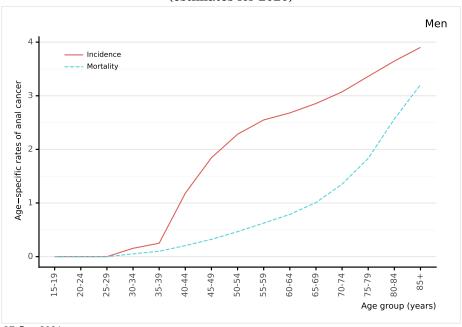
Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Data Sources

b Rates per 100,000 women per year.

3.4.1.3 Anal cancer incidence and mortality comparison in France

Figure 19: Comparison of age-specific anal cancer incidence and mortality rates among men in France (estimates for 2020)



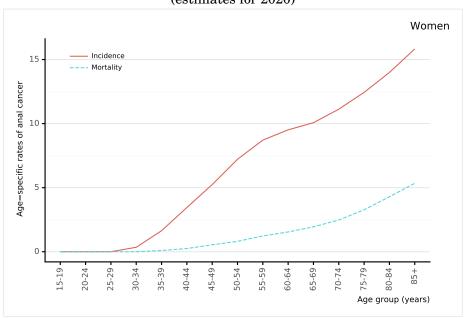
Data accessed on 27 Jan 2021

 $For more \ detailed \ methods \ of \ estimation \ please \ refer \ to \ http://gco.iarc.fr/today/data-sources-methods$

 $^{\alpha}$ Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 20: Comparison of age-specific anal cancer incidence and mortality rates among women in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Rates per 100,000 women per year.

3.4.2 Vulva cancer

Cancer of the vulva is rare among women worldwide, with an estimated 44,000 new cases in 2018, representing 6% of all gynaecologic cancers (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). Worldwide, about 60% of all vulvar cancer cases occur in more developed countries. Vulvar cancer has two distinct histological patterns with two different risk factor profiles: (1) basaloid/warty types (2) keratinising types. Basaloid/warty lesions are more common in young women, are very often associated with HPV DNA detection (75-100%), and have a similar risk factor profile as cervical cancer. Keratinising vulvar carcinomas represent the majority of the vulvar lesions (>60%), they occur more often in older women and are more rarely associated with HPV (IARC Monograph Vol 100B).

3.4.2.1 Vulva cancer incidence in France

Table 9: Vulva cancer incidence in France (estimates for 2020)

Indicator	France	Western Europe	World
Annual number of new cancer cases	1,114	6,219	45,240
Uncertainty intervals [95% UI]	[845-1,469]	[5,900-6,555]	[40,656-50,342]
Crude incidence rate ^b	3.31	6.23	1.17
Age-standardized incidence rate ^b	1.06	2.43	0.85
Cumulative risk (%) at 75 years old ^a	0.11	0.26	0.09

Data accessed on 27 Jan 2021

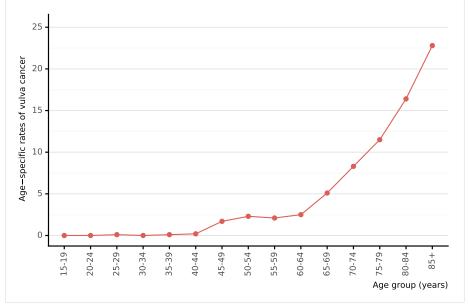
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Data Sources

^a Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

 $[^]b$ Rates per 100,000 women per year.

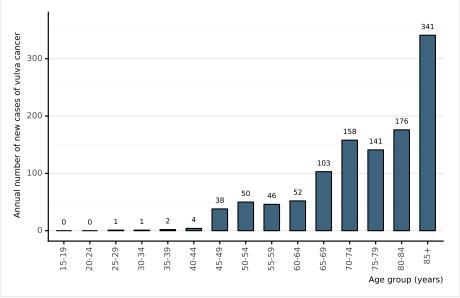
Figure 21: Age-specific incidence rates of vulva cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 22: Annual number of new cases of vulva cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

3.4.2.2 Vulva cancer mortality in France

Table 10: Vulva cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World
Annual number of deaths	391	1,854	17,427
Uncertainty intervals [95% UI]	[316-484]	[1,705-2,016]	[14,497-20,950]
Crude mortality rate ^b	1.16	1.86	0.45
Age-standardized mortality rate ^b	0.28	0.49	0.30
Cumulative risk (%) at 75 years old ^a	0.03	0.05	0.03

Data accessed on 27 Jan 2021

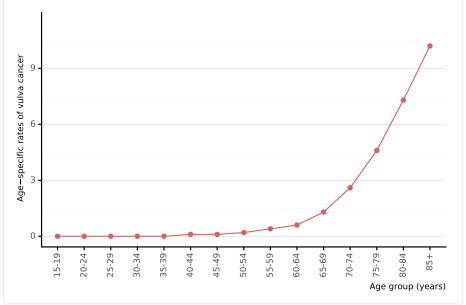
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 women per year.

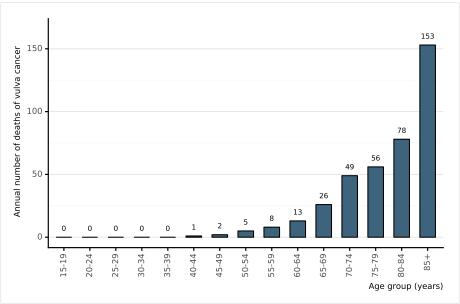
Figure 23: Age-specific mortality rates of vulva cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Rates per 100,000 women per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}\ ,\ accessed\ [27\ January\ 2021].$

Figure 24: Annual number of deaths of vulva cancer in France (estimates for 2020)

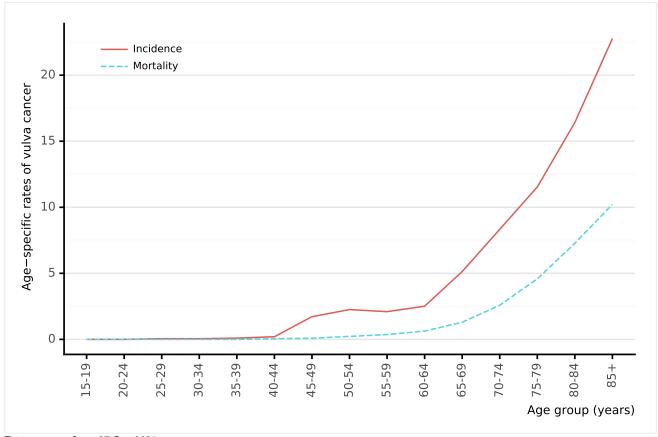


Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 women per year.

3.4.2.3 Vulva cancer incidence and mortality comparison in France

Figure 25: Comparison of age-specific vulva cancer incidence and mortality rates in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

3.4.3 Vaginal cancer

Cancer of the vagina is a rare cancer, with an estimated 18,000 new cases in 2018, representing 3% of all gynaecologic cancers (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). Similar to cervical cancer, the majority of vaginal cancer cases (68%) occur in less developed countries. Most vaginal cancers are squamous cell carcinoma (90%) generally attributable to HPV, followed by clear cell adenocarcinomas and melanoma. Vaginal cancers are primarily reported in developed countries. Metastatic cervical cancer can be misclassified as cancer of the vagina. Invasive vaginal cancer is diagnosed primarily in old women (>= 65 years) and the diagnosis is rare in women under 45 years whereas the peak incidence of carcinoma in situ is observed between ages 55 and 70 (Vaccine 2008, Vol. 26, Suppl 10).

3.4.3.1 Vaginal cancer incidence in France

Table 11: Vaginal cancer incidence in France (estimates for 2020)

Indicator	France	France Western Europe				
Annual number of new cancer cases	207	939	17,908			
Uncertainty intervals [95% UI]	[120-357]	[813-1,084]	[14,678-21,848]			
Crude incidence rate ^b	0.61	0.94	0.46			
Age-standardized incidence rate ^b	0.22	0.36	0.36			
Cumulative risk (%) at 75 years old ^a	0.02	0.04	0.04			

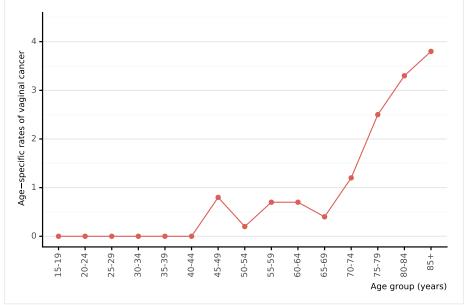
Data accessed on 27 Jan 2021

Perlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

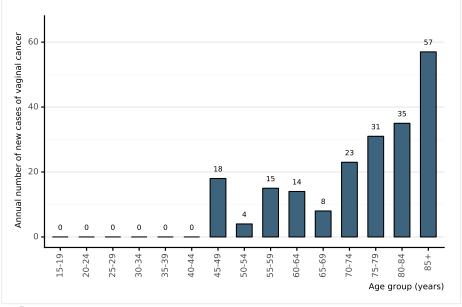
Figure 26: Age-specific incidence rates of vaginal cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Rates per 100,000 women per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}\ ,\ accessed\ [27\ January\ 2021].$

Figure 27: Annual number of new cases of vaginal cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

<u>Data Sources:</u>
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}\ ,\ accessed\ [27\ January\ 2021].$

3.4.3.2 Vaginal cancer mortality in France

Table 12: Vaginal cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World	
Annual number of deaths	81	350	7,995	
Uncertainty intervals [95% UI]	ls [95% UI] [53-123] [287-426]		[5,983-10,684]	
Crude mortality rate ^b	0.24	0.35	0.21	
Age-standardized mortality rate ^b	0.07	0.10	0.16	
Cumulative risk (%) at 75 years old ^a	0.01	0.01	0.02	

Data accessed on 27 Jan 2021

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

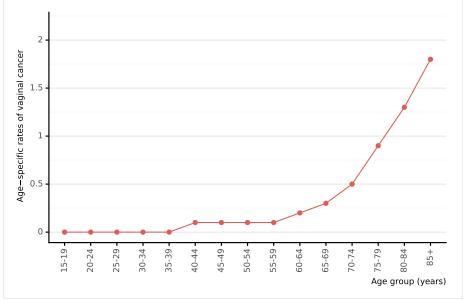
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 women per year.

Figure 28: Age-specific mortality rates of vaginal cancer in France (estimates for 2020)

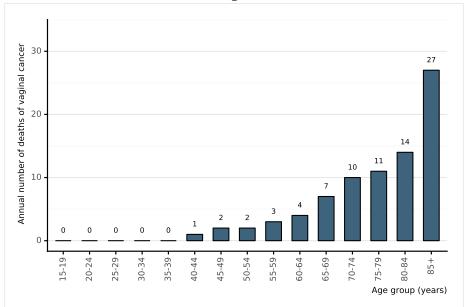


For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 29: Annual number of deaths of vaginal cancer in France (estimates for 2020)



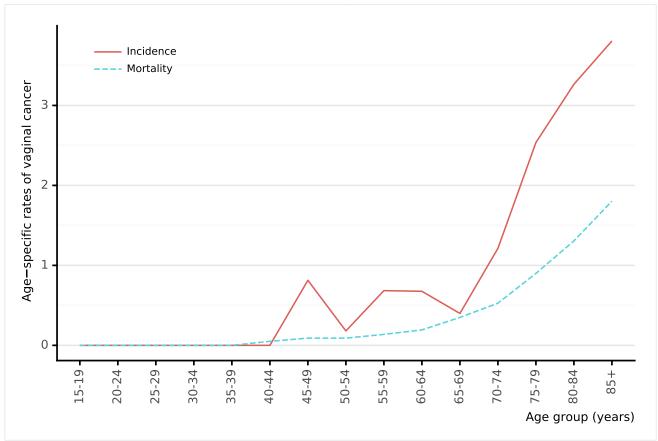
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

3.4.3.3 Vaginal cancer incidence and mortality comparison in France

Figure 30: Comparison of age-specific vaginal cancer incidence and mortality rates in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 women per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

3.4.4 Penile cancer

The annual burden of penile cancer has been estimated to be 34,000 cases in 2018 worldwide with incidence rates strongly correlating with those of cervical cancer (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). Penile cancer is rare and most commonly affects men aged 50-70 years. Incidence rates are higher in less developed countries than in more developed countries, accounting for up to 10% of male cancers in some parts of Africa, South America and Asia. Precursor cancerous penile lesions (PeIN) are rare.

Cancers of the penis are primarily of squamous cell carcinomas (SCC) (95%) and the most common penile SCC histologic sub-types are keratinising (49%), mixed warty-basaloid (17%), verrucous (8%) warty (6%), and basaloid (4%). HPV is most commonly detected in basaloid and warty tumours but is less common in keratinising and verrucous tumours. Approximately 60-100% of PeIN lesions are HPV DNA positive.

3.4.4.1 Penile cancer incidence in France

Table 13: Penile cancer incidence in France (estimates for 2020)

Indicator	France	Western Europe	World
Annual number of new cancer cases	569	2,098	36,068
Uncertainty intervals [95% UI]	[399-811]	[1,892-2,326]	[30,963-42,015]
Crude incidence rate ^b	1.80	2.18	0.92
Age-standardized incidence rate ^b	0.76	0.95	0.80
Cumulative risk (%) at 75 years old ^a	0.09	0.11	0.09

Data accessed on 27 Jan 2021

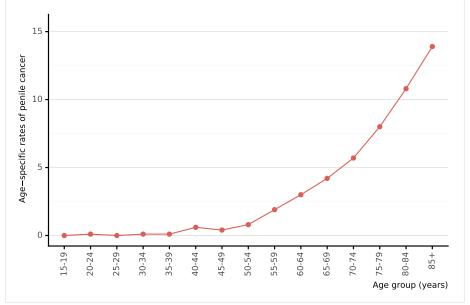
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

 $[\]stackrel{\cdot}{b}$ Rates per 100,000 men per year.

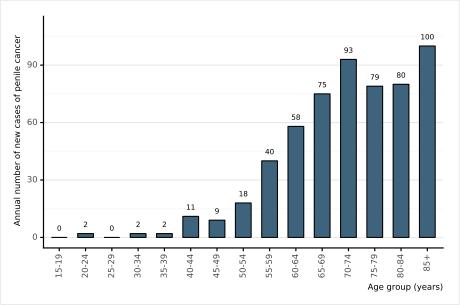
Figure 31: Age-specific incidence rates of penile cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 32: Annual number of new cases of penile cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}\ ,\ accessed\ [27\ January\ 2021].$

3.4.4.2 Penile cancer mortality in France

Table 14: Penile cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World	
Annual number of deaths	136	136 510		
Uncertainty intervals [95% UI]	[104-178]	[434-599]	[10,687-16,332]	
Crude mortality rate ^b	0.43	0.53	0.34	
Age-standardized mortality rate ^b	0.17	0.20	0.29	
Cumulative risk (%) at 75 years old ^a	0.02	0.02	0.03	

Data accessed on 27 Jan 2021

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

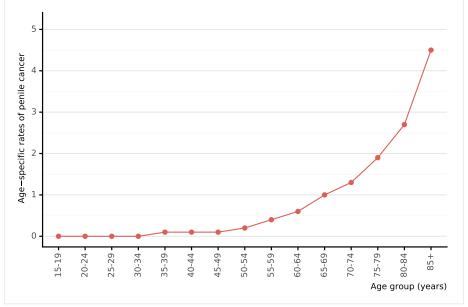
a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.

Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

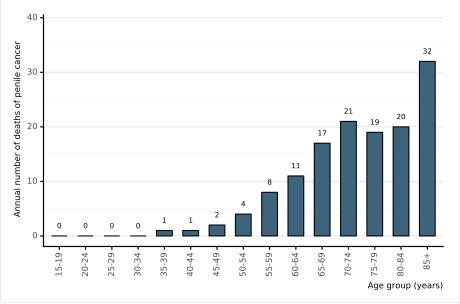
Figure 33: Age-specific mortality rates of penile cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}\ ,\ accessed\ [27\ January\ 2021].$

Figure 34: Annual number of deaths of penile cancer in France (estimates for 2020)



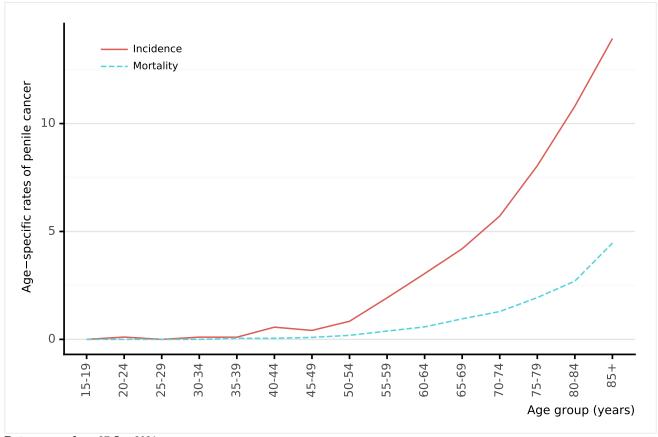
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

<u>Data Sources:</u>
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}\ ,\ accessed\ [27\ January\ 2021].$

3.4.4.3 Penile cancer incidence and mortality comparison in France

Figure 35: Comparison of age-specific penile cancer incidence and mortality rates in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

3.5 Head and neck cancers

The majority of head and neck cancers are associated with high tobacco and alcohol consumption. However, increasing trends in the incidence at specific sites suggest that other aetiological factors are involved, and infection by certain high-risk types of HPV (i.e. HPV16) have been reported to be associated with head and neck cancers, in particular with oropharyngeal cancer. Current evidence suggests that HPV16 is associated with tonsil cancer (including Waldeyer ring cancer), base of tongue cancer and other oropharyngeal cancer sites. Associations with other head and neck cancer sites such as oral cancer are neither strong nor consistent when compared to molecular-epidemiological data on HPV and oropharyngeal cancer. Association with laryngeal cancer is still unclear (IARC Monograph Vol 100B)

3.5.1 Oropharyngeal cancer

3.5.1.1 Oropharyngeal cancer incidence in France

Table 15: Oropharyngeal cancer incidence in France (estimates for 2020)

Indicator	France	Western Europe	World
MEN			
Annual number of new cancer cases	3,522	7,039	79,045
Uncertainty intervals of new cancer cases [95% UI]	[3,036-4,086]	[6,609-7,497]	[72,769-85,862]
Crude incidence rate sa ^b	11.1	7.30	2.01
Age-standardized incidence rate sa ^b	6.48		1.79
Cumulative risk (%) at 75 years old ^a	0.82	0.51	0.22
WOMEN			
Annual number of new cancer cases	1,323	2,966	19,367
Uncertainty intervals of new cancer cases [95% UI]	[1,018-1,719]	[2,699-3,259]	[16,279-23,041]
Crude incidence rate sa ^c	3.93	2.97	0.50
Age-standardized incidence rate sa ^c	2.25	1.53	0.40
Cumulative risk (%) at 75 years old ^a	0.27	0.19	0.05

Data accessed on 27 Jan 2021

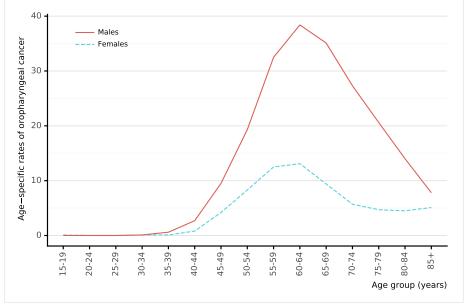
Feriay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.

Figure 36: Age-specific incidence rates of oropharyngeal cancer in France (estimates for 2020)

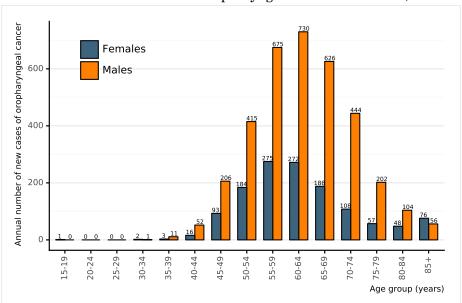


For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}, \ accessed \ [27 \ January \ 2021].$

Figure 37: Annual number of new cases of oropharyngeal cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

b Rates per 100,000 women per year.

3.5.1.2 Oropharyngeal cancer mortality in France

Table 16: Oropharyngeal cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World	
MEN				
Annual number of deaths	983	3,109	39,590	
Uncertainty intervals of mortality cancer cases [95% UI]	[877-1,102]	[2,912-3,320]	[35,255-44,458]	
Crude mortality rate sa ^b	3.11	3.23	1.01	
Age-standardized mortality rate sa ^b	1.70	1.64	0.89	
Cumulative risk (%) at 75 years old ^a	0.21	0.21	0.11	
WOMEN				
Annual number of deaths	277	921	8,553	
Uncertainty intervals of mortality cancer cases [95% UI]	[227-339]	[817-1,038]	[6,684-10,945]	
Crude mortality rate sa ^c	0.82	0.92	0.22	
Age-standardized mortality rate sa ^c	0.41	0.40	0.17	
Cumulative risk (%) at 75 years old ^a	0.05	0.05	0.02	

Data accessed on 27 Jan 2021

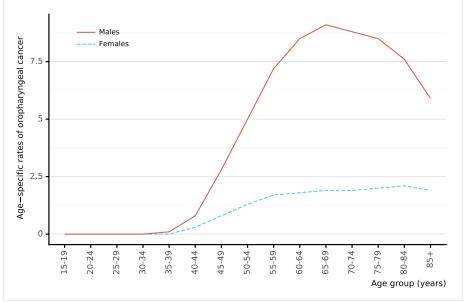
Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \verb|https://gco.iarc.fr/today|, \ accessed \ [27 \ January \ 2021].$

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.
c Rates per 100,000 women per year.

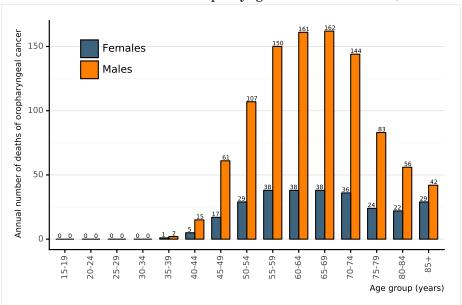
Figure 38: Age-specific mortality rates of oropharyngeal cancer in France (estimates for 2020)



For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 39: Annual number of deaths of oropharyngeal cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021

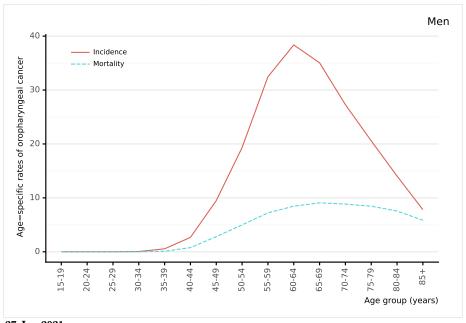
 $For more \ detailed \ methods \ of \ estimation \ please \ refer \ to \ http://gco.iarc.fr/today/data-sources-methods$

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

b Rates per 100,000 women per year

3.5.1.3 Oropharyngeal cancer incidence and mortality comparison in France

Figure 40: Comparison of age-specific oropharyngeal cancer incidence and mortality rates among men in France (estimates for 2020)

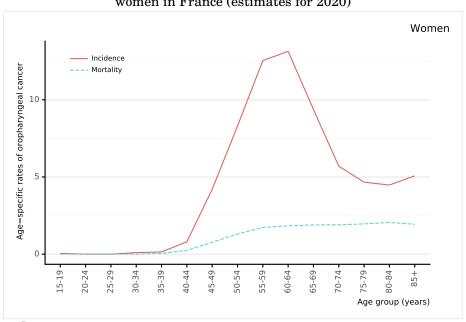


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

Bata Doutes.
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 41: Comparison of age-specific oropharyngeal cancer incidence and mortality rates among women in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Rates per 100,000 women per year.

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

3.5.2 Oral cavity cancer

3.5.2.1 Oral cavity cancer incidence in France

Table 17: Oral cavity cancer incidence in France (estimates for 2020)

Indicator	France	Western Europe	World
MEN			
Annual number of new cancer cases	4,244	11,127	264,211
Uncertainty intervals of new cancer	[3,725-4,836]	[10,647-11,629]	[251,153-
cases [95% UI] Crude incidence rate sa ^b	13.4	11.5	277,948] 6.72
Age-standardized incidence rate sa ^b	7.49	6.20	5.96
Cumulative risk (%) at 75 years old ^a	0.93	0.76	0.68
WOMEN			
Annual number of new cancer cases	2,333	6,643	113,502
Uncertainty intervals of new cancer	[1 050 0 040]	[6 950 7 061]	[105,599-
cases [95% UI]	[1,852-2,940]	[6,250-7,061]	121,997]
Crude incidence rate sa ^c	6.93	6.66	2.94
Age-standardized incidence rate sa ^c	3.40	3.06	2.28
Cumulative risk (%) at 75 years old ^a	0.38	0.36	0.26

Data accessed on 27 Jan 2021

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

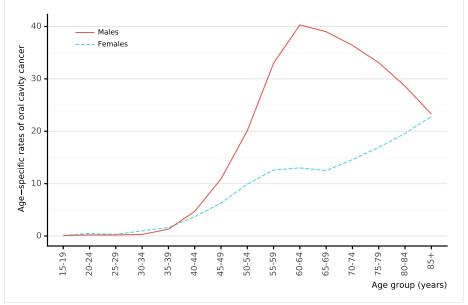
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.

c Rates per 100,000 women per year.

Figure 42: Age-specific incidence rates of oral cavity cancer in France (estimates for 2020)

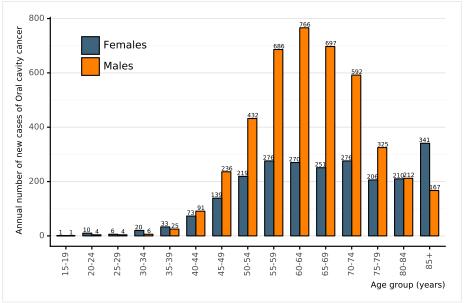


For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}, \ accessed \ [27 \ January \ 2021].$

Figure 43: Annual number of new cases of oral cavity cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

East Doubles.
Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

b Rates per 100,000 women per year.

3.5.2.2 Oral cavity cancer incidence and mortality comparison in France

Table 18: Oral cavity cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World	
MEN				
Annual number of deaths	1,131	3,419	125,022	
Uncertainty intervals of mortality	[1,023-1,250]	[3,208-3,644]	[116,573-	
cancer cases [95% UI]	[1,020-1,200]	[5,200-5,044]	134,084]	
Crude mortality rate sa ^b	3.58	3.55	3.18	
Age-standardized mortality rate sa ^b	ndardized mortality rate 1.86		2.82	
Cumulative risk (%) at 75 years	0.23	0.21	0.32	
olda	0.20	0.21	0.02	
WOMEN				
Annual number of deaths	534	1,714	52,735	
Uncertainty intervals of mortality	[447-638]	[1,563-1,879]	[47,690-58,313]	
cancer cases [95% UI]	[441-000]		[41,000-00,010]	
Crude mortality rate sa ^c	1.59	1.72	1.36	
Age-standardized mortality rate sa ^c	0.58	0.59	1.04	
Cumulative risk (%) at 75 years old ^a	0.07	0.07	0.12	

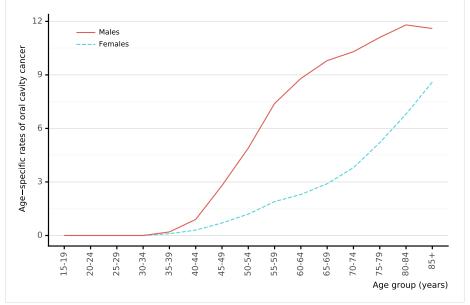
Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \verb|https://gco.iarc.fr/today|, \ accessed \ [27 \ January \ 2021].$

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.
c Rates per 100,000 women per year.

Figure 44: Age-specific mortality rates of oral cavity cancer in France (estimates for 2020)

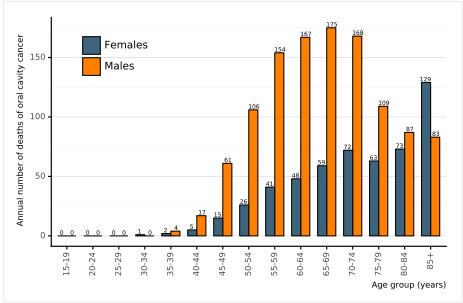


For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}, \ accessed \ [27 \ January \ 2021].$

Figure 45: Annual number of deaths of oral cavity cancer in France (estimates for 2020)



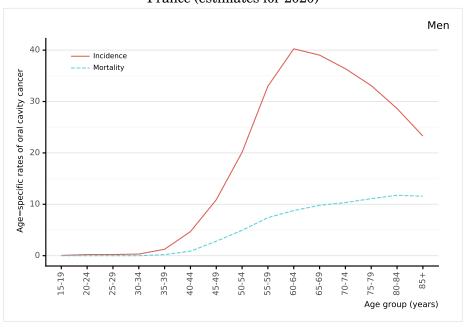
Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

East Doubles.
Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

b Rates per 100,000 women per year.

3.5.2.3 Oral cavity cancer incidence and mortality comparison in France

Figure 46: Comparison of age-specific oral cavity cancer incidence and mortality rates among men in France (estimates for 2020)



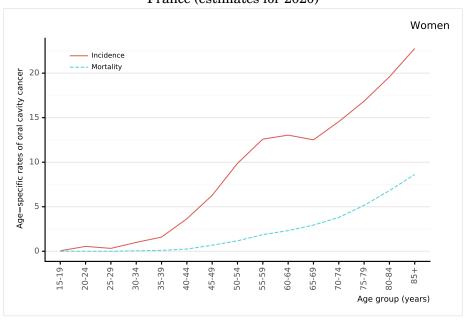
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 47: Comparison of age-specific oral cavity cancer incidence and mortality rates among women in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \verb|https://gco.iarc.fr/today|, \ accessed \ [27 \ January \ 2021].$

3.5.3 Laryngeal cancer

3.5.3.1 Laryngeal cancer incidence in France

Table 19: Laryngeal cancer incidence in France (estimates for 2020)

Indicator	France	Western Europe	World
MEN			
Annual number of new cancer cases	2,710	7,037	160,265
Uncertainty intervals of new cancer cases [95% UI]	[2,377-3,090]	[6,640-7,458]	[150,633- 170,513]
Crude incidence rate sa ^b	8.58	7.30	4.08
Age-standardized incidence rate sa ^b	4.55	3.55	3.59
Cumulative risk (%) at 75 years old ^a	0.55	0.46	0.45
WOMEN			
Annual number of new cancer cases	552	1,595	24,350
Uncertainty intervals of new cancer cases [95% UI]	[368-828]	[1,413-1,800]	[20,845-28,444]
Crude incidence rate sa ^c	nce rate sa ^c 1.64		0.63
Age-standardized incidence rate sa ^c	0.89	0.80	0.49
Cumulative risk (%) at 75 years old ^a	0.10	0.10	0.06

Data accessed on 27 Jan 2021

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

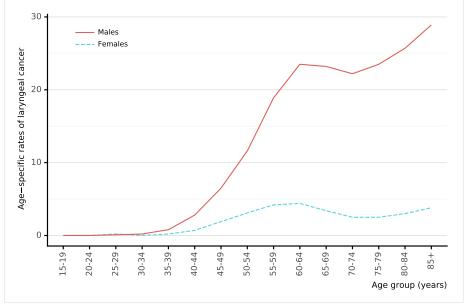
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Cumulative risk (incidence) is the probability or risk of individuals getting from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to develop from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.

c Rates per 100,000 women per year.

Figure 48: Age-specific incidence rates of laryngeal cancer in France (estimates for 2020)

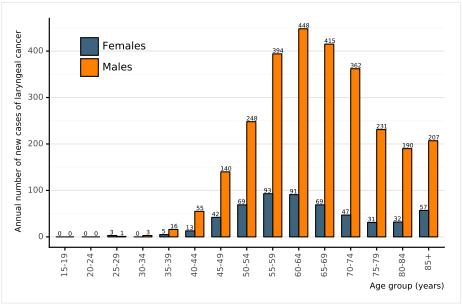


For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}, \ accessed \ [27 \ January \ 2021].$

Figure 49: Annual number of new cases of laryngeal cancer in France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

East Doubles.
Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

b Rates per 100,000 women per year.

3.5.3.2 Laryngeal cancer incidence and mortality comparison in France

Table 20: Laryngeal cancer mortality in France (estimates for 2020)

Indicator	France	Western Europe	World
MEN			
Annual number of deaths	901	2,823	85,351
Uncertainty intervals of mortality cancer cases [95% UI]	[815-996]	[2,633-3,027]	[78,895-92,335]
Crude mortality rate sa ^b	2.85	2.93	2.17
Age-standardized mortality rate sa ^b	1.29	1.26	1.89
Cumulative risk (%) at 75 years old ^a	0.15	0.15	0.23
WOMEN			
Annual number of deaths	165	519	14,489
Uncertainty intervals of mortality cancer cases [95% UI]	[121-225]	[441-611]	[11,902-17,639]
Crude mortality rate sa ^c	0.49	0.52	0.37
Age-standardized mortality rate sa ^c	0.22	0.22	0.28
Cumulative risk (%) at 75 years old ^a	0.03	0.03	0.03

Data accessed on 27 Jan 2021

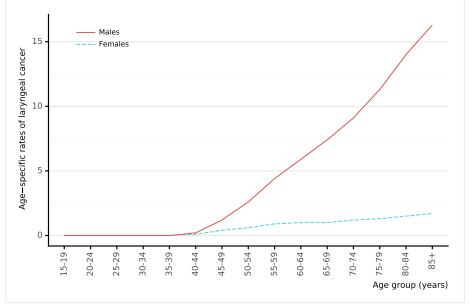
Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \verb|https://gco.iarc.fr/today|, \ accessed \ [27 \ January \ 2021].$

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Cumulative risk (mortality) is the probability or risk of individuals dying from the disease during ages 0-74 years. For cancer, it is expressed as the % of new born children who would be expected to die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.

b Rates per 100,000 men per year.
c Rates per 100,000 women per year.

Figure 50: Age-specific mortality rates of laryngeal cancer in France (estimates for 2020)

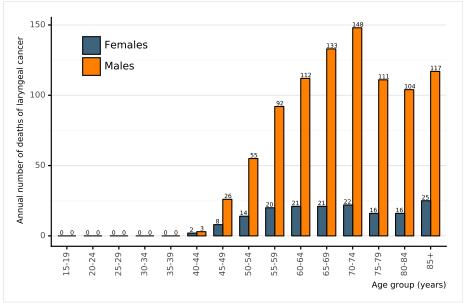


For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}, \ accessed \ [27 \ January \ 2021].$

Figure 51: Annual number of deaths of of laryngeal cancer in France (estimates for 2020)



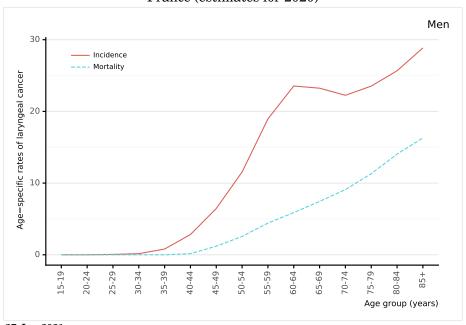
Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

Bata Doutes.
Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

b Rates per 100,000 women per year.

3.5.3.3 Laryngeal cancer incidence and mortality comparison in France

Figure 52: Comparison of age-specific laryngeal cancer incidence and mortality rates among men in France (estimates for 2020)

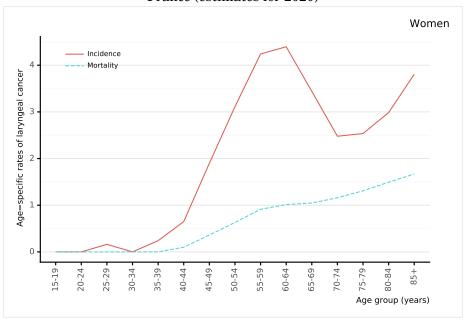


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

Bata Doutes.
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Figure 53: Comparison of age-specific laryngeal cancer incidence and mortality rates among women in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods Rates per 100,000 women per year.

Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

4 HPV related statistics

HPV infection is commonly found in the anogenital tract of men and women with and without clinical lesions. The aetiological role of HPV infection among women with cervical cancer is well-established, and there is growing evidence of its central role in other anogenital sites. HPV is also responsible for other diseases such as recurrent juvenile respiratory papillomatosis and genital warts, both mainly caused by HPV types 6 and 11 (Lacey CJ, Vaccine 2006; 24(S3):35). For this section, the methodologies used to compile the information on HPV burden are derived from systematic reviews and meta-analyses of the literature. Due to the limitations of HPV DNA detection methods and study designs used, these data should be interpreted with caution and used only as a guide to assess the burden of HPV infection within the population. (Vaccine 2006, Vol. 24, Suppl 3; Vaccine 2008, Vol. 26, Suppl 10; Vaccine 2012, Vol. 30, Suppl 5; IARC Monographs 2007, Vol. 90).

4.1 HPV burden in women with normal cervical cytology, cervical precancerous lesions or invasive cervical cancer

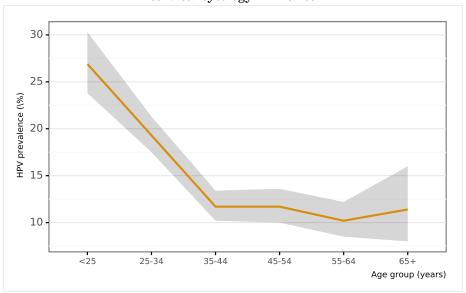
The statistics shown in this section focus on HPV infection in the cervix uteri. HPV cervical infection results in cervical morphological lesions ranging from normalcy (cytologically normal women) to different stages of precancerous lesions (CIN-1, CIN-2, CIN-3/CIS) and invasive cervical cancer. HPV infection is measured by HPV DNA detection in cervical cells (fresh tissue, paraffin embedded or exfoliated cells). The prevalence of HPV increases with lesion severity. HPV causes virtually 100% of cervical cancer cases, and an underestimation of HPV prevalence in cervical cancer is most likely due to the limitations of study methodologies. Worldwide, HPV16 and 18 (the two vaccine-preventable types) contribute to over 70% of all cervical cancer cases, between 41% and 67% of high-grade cervical lesions and 16-32% of low-grade cervical lesions. After HPV16/18, the six most common HPV types are the same in all world regions, namely 31, 33, 35, 45, 52 and 58; these account for an additional 20% of cervical cancers worldwide (Clifford G, Vaccine 2006;24(S3):26).

Methods: Prevalence and type distribution of human papillomavirus in cervical carcinoma, low-grade cervical lesions, high-grade cervical lesions and normal cytology: systematic review and meta-analysis

A systematic review of the literature was conducted regarding the worldwide HPV-prevalence and type distribution for cervical carcinoma, low-grade cervical lesions, high-grade cervical lesions and normal cytology from 1990 to 'data as of' indicated in each section. The search terms for the review were 'HPV' AND cerv* using Pubmed. There were no limits in publication language. References cited in selected articles were also investigated. Inclusion criteria were: HPV DNA detection by means of PCR or HC2, a minimum of 20 cases for cervical carcinoma, 20 cases for low-grade cervical lesions, 20 cases for highgrade cervical lesions and 100 cases for normal cytology and a detailed description of HPV DNA detection and genotyping techniques used. The number of cases tested and HPV positive extracted for each study were pooled to estimate the prevalence of HPV DNA and the HPV type distribution globally and by geographical region. Binomial 95% confidence intervals were calculated for each HPV prevalence. For more details refer to the methods document.

4.1.1 HPV prevalence in women with normal cervical cytology

Figure 54: Crude age-specific HPV prevalence (%) and 95% confidence interval in women with normal cervical cytology in France



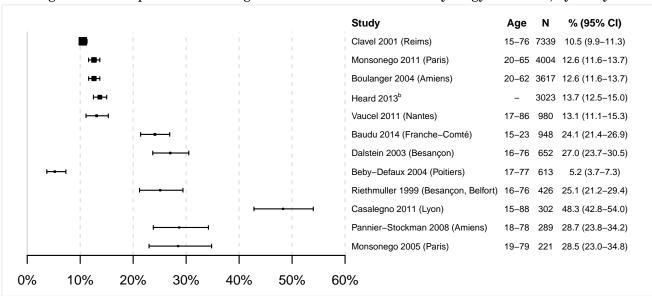
Data updated on 30 Jun 2015 (data as of 30 Jun 2014)

Beby-Defaux A, J Med Virol 2004; 73: 262 | Dalstein V, Int J Cancer 2003; 106: 396 | Monsonego J, Gynecol Oncol 2005; 99: 160 | Monsonego J, Int J Cancer 2011; 129: 691 | Pannier-Beby-Deliatix A, a new vitor 2004, 13, 202 | Daissein V, Into Cantel 2004, 150, 150 | Stockman C, J Clin Virior 2008; 42: 535 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

Based on systematic reviews and meta-analysis performed by ICO. The ICO HPV Information Centre has updated data until June 2014. Reference publications: 1) Bruni L, J Infect Dis

2010; 202: 1789. 2) De Sanjosé S, Lancet Infect Dis 2007; 7: 453

Figure 55: HPV prevalence among women with normal cervical cytology in France, by study



Data updated on 30 Jun 2015 (data as of 30 Jun 2014)

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

In Samples of Variation of Women tested b Alsace, Auvergne, Centre - Pays de Loire, Ile-de-France and Vaucluse Data Sources:

Baudu A, J Epidemiol Glob Health 2014; 4: 35 | Beby-Defaux A, J Med Virol 2004; 73: 262 | Boulanger JC, Gynecol Obstet Fertil 2004; 32: 218 | Casalegno JS, Int J Gynaecol Obstet 2011; 114: 116 | Clavel C, Br J Cancer 2001; 84: 1616 | Dalstein V, Int J Cancer 2003; 106: 396 | Heard I, PLoS ONE 2013; 8: e79372 | Monsonego J, Gynecol Oncol 2005; 99: 160 | Monsonego J, Int J Cancer 2011; 129: 691 | Pannier-Stockman C, J Clin Virol 2008; 42: 353 | Riethmuller D, Diagn Mol Pathol 1999; 8: 157 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989
Based on systematic reviews and meta-analysis performed by ICO. The ICO HPV Information Centre has updated data until June 2014. Reference publications: 1) Bruni L, J Infect Dis 2010; 202: 1789. 2) De Sanjosé S, Lancet Infect Dis 2007; 7: 453

4.1.2 HPV type distribution among women with normal cervical cytology, precancerous cervical lesions and cervical cancer

Table 21: Prevalence of HPV16 and HPV18 by cytology in France

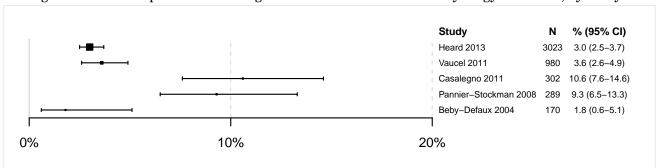
	No. tested	HPV 16/18 Prevalence % (95% CI)
Normal cytology ^{1,2}	4764	4.7 (4.1-5.3)
Low-grade lesions ^{3,4}	639	26.3 (23.0-29.8)
High-grade lesions ^{5,6}	688	60.6 (56.9-64.2)
Cervical cancer ^{7,8}	1434	75.6 (73.3-77.7)

Data updated on 19 May 2017 (data as of 30 Jun 2015 / 30 Nov 2014)

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

Data Sources

Figure 56: HPV 16 prevalence among women with normal cervical cytology in France, by study



Data updated on 30 Jun 2015 (data as of 30 Jun 2014)

The samples for HPV testing come from cervical specimens (fresh/fixed biopsies or exfoliated cells) a Number of women tested

Data Sources:
Beby-Defaux A, J Med Virol 2004; 73: 262 | Casalegno JS, Int J Gynaecol Obstet 2011; 114: 116 | Heard I, PLoS ONE 2013; 8: e79372 | Pannier-Stockman C, J Clin Virol 2008; 42: 353 | Vaucel E. Arch Gynecol Obstet 2011: 284: 989

Based on systematic reviews and meta-analysis performed by ICO. The ICO HPV Information Centre has updated data until June 2014. Reference publications: 1) Bruni L, J Infect Dis 2010; 202: 1789. 2) De Sanjosé S, Lancet Infect Di
s $2007;\,7:\,453$

b 95% Confidence Interval

¹ Baudu A, J Epidemiol Glob Health 2014; 4: 35 | Beby-Defaux A, J Med Virol 2004; 73: 262 | Casalegno JS, Int J Gynaecol Obstet 2011; 114: 116 | Heard I, PLoS ONE 2013; 8: e79372 | Monsonego J, Gynecol Obstet Fertil 2013; 41: 305 | Pannier-Stockman C, J Clin Virol 2008; 42: 353 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

² Based on systematic reviews and meta-analysis performed by ICO. The ICO HPV Information Centre has updated data until November 2014. Reference publications: 1) Bruni L, J Infect Dis 2010; 202: 1789. 2) De Sanjosé S, Lancet Infect Dis 2007; 7: 453

³ Contributing studies: Bergeron C, Am J Surg Pathol 1992; 16: 641 | Humbey O, Eur J Obstet Gynecol Reprod Biol 2002; 103: 60 | Monsonego J, Int J STD AIDS 2008; 19: 385 | Prétet JL, Gynecol Oncol 2008; 110: 179 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

⁴ Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Clifford GM, Cancer Epidemiol Biomarkers Prev 2005;14:1157

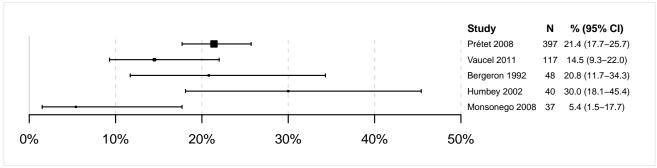
⁵ Contributing studies: Monsonego J, Int J STD AIDS 2008; 19: 385 | Prétet JL, Int J Cancer 2008; 122: 424 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

⁶ Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P. Int J Cancer 2012:131:2349 2) Smith JS. Int J Cancer 2007:121:621 3) Clifford GM, Br J Cancer 2003:89:101.

⁷ Contributing studies: de Cremoux P, Int J Cancer 2009; 124: 778 | Lombard I, J Clin Oncol 1998; 16: 2613 | Prétet JL, Int J Cancer 2008; 122: 424 | Riou G, Lancet 1990; 335: 1171

⁸ Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Li N, Int J Cancer 2011;128:927 3) Smith JS, Int J Cancer 2007;121:621 4) Clifford GM, Br J Cancer 2003;88:63 5) Clifford GM, Br J Cancer 2003;89:101.

Figure 57: HPV 16 prevalence among women with low-grade cervical lesions in France, by study

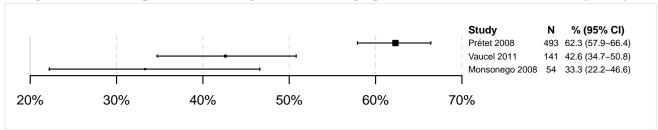


Data updated on 27 Jan 2017 (data as of 30 Jun 2015)

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

110: 179 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989
Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Refer $ence\ publications:\ 1)\ Guan\ P,\ Int\ J\ Cancer\ 2012;\\ 131:2349\ 2)\ Clifford\ GM,\ Cancer\ Epidemiol\ Biomarkers\ Prev\ 2005;\\ 14:1157$

Figure 58: HPV 16 prevalence among women with high-grade cervical lesions in France, by study



Data updated on 27 Jan 2017 (data as of 30 Jun 2015)

The samples for HPV testing come from cervical specimens (fresh/fixed biopsies or exfoliated cells) Number of women tested

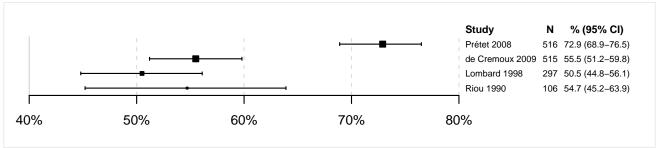
Data Sources:

Monsonego J, Int J STD AIDS 2008; 19: 385 | Prétet JL, Int J Cancer 2008; 122: 424 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Smith JS, Int J Cancer 2007;121:621 3) Clifford GM, Br J Cancer 2003;89:101.

Number of women tested

Figure 59: HPV 16 prevalence among women with invasive cervical cancer in France, by study



Data updated on 19 May 2017 (data as of 30 Jun 2015)

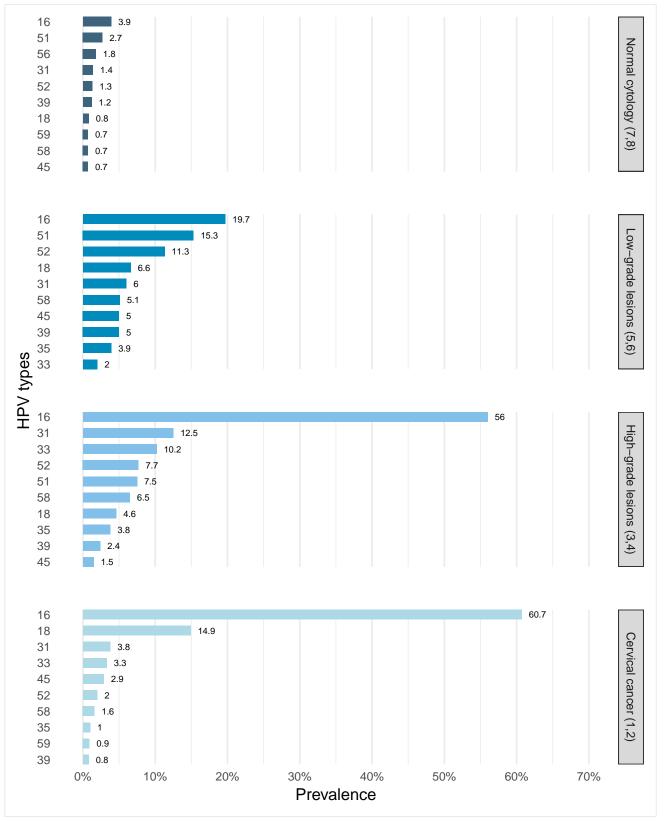
The samples for HPV testing come from cervical specimens (fresh/fixed biopsies or exfoliated cells) $^{\alpha}$ Number of women tested

Example of women tested Data Sources:

de Cremoux P, Int J Cancer 2009; 124: 778 | Lombard I, J Clin Oncol 1998; 16: 2613 | Prétet JL, Int J Cancer 2008; 122: 424 | Riou G, Lancet 1990; 335: 1171

Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Li N, Int J Cancer 2011;128:927 3) Smith JS, Int J Cancer 2007;121:621 4) Clifford GM, Br J Cancer 2003;88:63 5) Clifford GM, Br J Cancer 2003;89:101.

Figure 60: Comparison of the ten most frequent HPV oncogenic types in France among women with and without cervical lesions



Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

¹ Contributing studies: de Cremoux P, Int J Cancer 2009; 124: 778 | Lombard I, J Clin Oncol 1998; 16: 2613 | Prétet JL, Int J Cancer 2008; 122: 424 | Riou G, Lancet 1990; 335: 1171

² Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Li N, Int J Cancer 2011;128:927 3) Smith JS, Int J Cancer 2007;121:621 4) Clifford GM, Br J Cancer 2003;88:63 5) Clifford

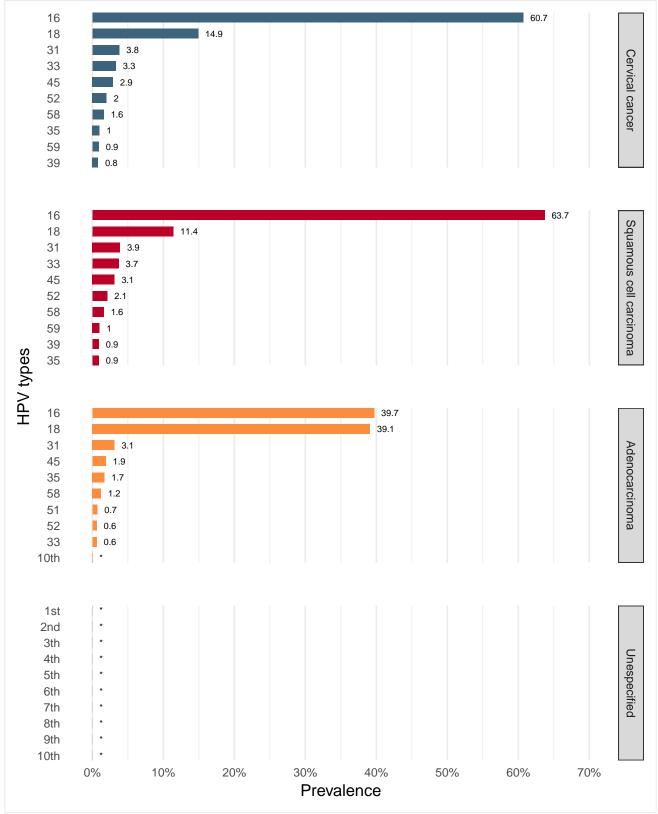
³ Contributing studies: Monsonego J, Int J STD AIDS 2008; 19: 385 | Prétet JL, Int J Cancer 2008; 122: 424 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

⁴ Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Smith JS, Int J Cancer 2007;121:621 3) Clifford GM, Br J Cancer 2003;89:101.

⁵ Contributing studies: Bergeron C, Am J Surg Pathol 1992; 16: 641 | Humbey O, Eur J Obstet Gynecol Reprod Biol 2002; 103: 60 | Monsonego J, Int J STD AIDS 2008; 19: 385 | Prétet JL, Gynecol Oncol 2008; 110: 179 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989 | 6 Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Clifford GM, Cancer Epidemiol Biomarkers Prev 2005;14:1157 | 7 Baudu A, J Epidemiol Glob Health 2014; 4: 35 | Beby-Defaux A, J Med Virol 2004; 73: 262 | Casalegno JS, Int J Gynaecol Obstet 2011; 114: 116 | Heard I, PLoS ONE 2013; 8: e79372 |

Monsonego J, Gynecol Obstet Fertil 2013; 41: 305 | Pannier-Stockman C, J Clin Virol 2008; 42: 353 | Vaucel E, Arch Gynecol Obstet 2011; 243: 989 | Based on systematic reviews and meta-analysis performed by ICO. The ICO HPV Information Centre has updated data until November 2014. Reference publications: 1) Bruni L, J Infect Dis 2010; 202: 1789. 2) De Sanjosé S, Lancet Infect Dis 2007; 7: 453

Figure 61: Comparison of the ten most frequent HPV oncogenic types in France among women with invasive cervical cancer by histology



Data updated on $30~\mathrm{Jun}~2015$ (data as of $30~\mathrm{Jun}~2015$)

 $^{^{\}ast}$ No data available. No more types than shown were tested or were positive <code>Data Sources</code>:

¹ Contributing studies: de Cremoux P, Int J Cancer 2009; 124: 778 | Lombard I, J Clin Oncol 1998; 16: 2613 | Prétet JL, Int J Cancer 2008; 122: 424 | Riou G, Lancet 1990; 335: 1171

² Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2014. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Li N, Int J Cancer 2011;128:927 3) Smith JS, Int J Cancer 2007;121:621 4) Clifford GM, Br J Cancer 2003;88:63 5) Clifford GM, Br J Cancer 2003;89:101.

³ Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Li N, Int J Cancer 2011;128:927 3) Smith JS, Int J Cancer 2007;121:621 4) Clifford GM, Br J Cancer 2003;88:63 5) Clifford GM, Br J Cancer 2003;89:101.

Table 22: Type-specific HPV prevalence in women with normal cervical cytology, precancerous cervical lesions and invasive cervical cancer in France

	lesions and invasive cervical cancer in France Normal cytology ^{1,2} Low-grade lesions ^{3,4} High-grade lesions ^{5,6} Cervical cancer ^{7,8}							
HPV	Norn No.	HPV Prev %	No.	rade lesions ^{3,1} HPV Prev %	High-	HPV Prev %	No.	HPV Prev %
Type	tested	(95% CI)	tested	(95% CI)	tested	(95% CI)	tested	(95% CI)
	ENIC HPV			(5511 52)		(0011 02)		(0011 02)
	High-risk HPV types							
16	4764	3.9 (3.4-4.5)	639	19.7 (16.8-23.0)	688	56.0 (52.2-59.6)	1434	60.7 (58.1-63.2)
18	4764	0.8 (0.5-1.0)	602	6.6 (4.9-8.9)	634	4.6 (3.2-6.5)	1434	14.9 (13.1-16.8)
31	4764	1.4 (1.1-1.8)	599	6.0 (4.4-8.2)	688	12.5 (10.2-15.2)	1328	3.8 (2.9-4.9)
33	4764	0.5 (0.4-0.8)	639	2.0 (1.2-3.4)	688	10.2 (8.1-12.7)	1434	3.3 (2.5-4.4)
35	3784	0.3 (0.2-0.6)	485	3.9 (2.5-6.0)	572	3.8 (2.6-5.8)	1434	1.0 (0.6-1.6)
39	3784	1.2 (0.9-1.6)	562	5.0 (3.5-7.1)	493	2.4 (1.4-4.2)	1434	0.8 (0.4-1.4)
45	3784	0.7 (0.5-1.1)	522	5.0 (3.4-7.2)	547	1.5 (0.7-2.9)	1328	2.9 (2.2-4.0)
51	3784	2.7 (2.3-3.3)	522	15.3 (12.5-18.7)	547	7.5 (5.6-10.0)	1031	0.7 (0.3-1.4)
52	3784	1.3 (1.0-1.7)	522	11.3 (8.9-14.3)	688	7.7 (5.9-9.9)	1328	2.0 (1.3-2.9)
56	3784	1.8 (1.4-2.3)	482	1.0 (0.4-2.4)	547	0.0 (0.0-0.7)	1031	0.3 (0.1-0.9)
58	4764	0.7 (0.5-0.9)	602	5.1 (3.7-7.2)	634	6.5 (4.8-8.7)	1328	1.6 (1.0-2.4)
59	3784	0.7 (0.5-1.0)	445	1.3 (0.6-2.9)	493	0.2 (0.0-1.1)	1031	0.9 (0.5-1.7)
Proba	ble/possibl	e carcinogen						
26	761	0.0 (0.0-0.5)	37	0.0 (0.0-9.4)	54	0.0 (0.0-6.6)	515	0.0 (0.0-0.7)
30	-	-	48	4.2 (1.2-14.0)	-	-	-	-
34	-	-	-	-	-	-	-	-
53	1741	2.0 (1.4-2.7)	551	15.2 (12.5-18.5)	688	2.2 (1.3-3.6)	1031	0.7 (0.3-1.4)
66	1741	0.8 (0.5-1.3)	599	17.7 (14.8-21.0)	626	2.7 (1.7-4.3)	1031	0.2 (0.1-0.7)
67	459	0.0 (0.0-0.8)	37	0.0 (0.0-9.4)	54	0.0 (0.0-6.6)	515	0.0 (0.0-0.7)
68	3784	1.0 (0.7-1.4)	437	5.5 (3.7-8.0)	493	2.8 (1.7-4.7)	1031	1.6 (1.0-2.6)
69	459	0.0 (0.0-0.8)	37	0.0 (0.0-9.4)	54	0.0 (0.0-6.6)	515	0.0 (0.0-0.7)
70	761	0.9 (0.4-1.9)	397	2.3 (1.2-4.3)	493	0.0 (0.0-0.8)	1031	0.0 (0.0-0.4)
73	761	0.5 (0.2-1.3)	-	-	-	-	515	1.0 (0.4-2.3)
82	761	0.8 (0.4-1.7)	-	-	-	-	515	0.0 (0.0-0.7)
85	302	0.0 (0.0-1.3)	-	-	-	-	-	-
97	-	-	-	-	-	-	-	-
LOW RIS	SK HPV TY	YPES						
6	5837	0.5 (0.4-0.7)	602	5.6 (4.1-7.8)	634	2.5 (1.6-4.1)	1434	0.4 (0.2-0.9)
11	5837	0.1 (0.1-0.2)	602	2.0 (1.1-3.5)	634	1.1 (0.5-2.3)	1434	0.1 (0.0-0.5)
32	-	-	-	-	-	-	-	-
40	761	0.0 (0.0-0.5)	-	-	-	-	515	0.0 (0.0-0.7)
42	761	1.4 (0.8-2.6)	-	-	-	-	918	0.0 (0.0-0.4)
43	761	0.0 (0.0-0.5)	-	-	-	-	-	-
44	761	1.1 (0.5-2.1)	-	-	-	-	-	-
54	761	2.1 (1.3-3.4)	-	-	-	-	515	0.0 (0.0-0.7)
55	-	-	-	-	-	-	-	-
57	459	0.0 (0.0-0.8)	-	-	-	-	-	-
61	1741	1.1 (0.7-1.7)	-	-	-	-	515	0.0 (0.0-0.7)
62	1741	0.7 (0.4-1.2)	-	-	-	-	515	0.0 (0.0-0.7)
64	-	-	-	-	-	-	-	-
71	761	0.1 (0.0-0.7)	-	-	-	-	515	0.0 (0.0-0.7)
72	761	0.1 (0.0-0.7)	-	-	-	-	515	0.0 (0.0-0.7)
74	459	0.0 (0.0-0.8)	-	-	-	-	-	-
81	761	1.2 (0.6-2.2)	-	-	-	-	515	0.0 (0.0-0.7)
83	761	0.9 (0.4-1.9)	-	-	-	-	515	0.0 (0.0-0.7)
84	761	1.3 (0.7-2.4)	-	-	-	-	515	0.0 (0.0-0.7)
86	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-
89	761	0.3 (0.1-1.0)	-	-	-	-	515	0.0 (0.0-0.7)
90	-	-	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-

Data updated on 30 Jun 2015 (data as of 30 Jun 2015 / 30 Nov 2014)

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

¹ Baudu A, J Epidemiol Glob Health 2014; 4: 35 | Beby-Defaux A, J Med Virol 2004; 73: 262 | Casalegno JS, Int J Gynaecol Obstet 2011; 114: 116 | Heard I, PLoS ONE 2013; 8: e79372 | $Monsonego\ J,\ Gynecol\ Obstet\ Fertil\ 2013;\ 41:\ 305\ |\ Pannier-Stockman\ C,\ J\ Clin\ Virol\ 2008;\ 42:\ 353\ |\ Vaucel\ E,\ Arch\ Gynecol\ Obstet\ 2011;\ 284:\ 989$

² Based on systematic reviews and meta-analysis performed by ICO. The ICO HPV Information Centre has updated data until November 2014. Reference publications: 1) Bruni L, J Infect Dis 2010; 202: 1789. 2) De Sanjosé S, Lancet Infect Dis 2007; 7: 453

3 Contributing studies: Bergeron C, Am J Surg Pathol 1992; 16: 641 | Humbey O, Eur J Obstet Gynecol Reprod Biol 2002; 103: 60 | Monsonego J, Int J STD AIDS 2008; 19: 385 | Prétet

JL, Gynecol Oncol 2008; 110: 179 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

⁴ Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Clifford GM, Cancer Epidemiol Biomarkers Prev 2005;14:1157

5 Contributing studies: Monsonego J, Int J STD AIDS 2008; 19: 385 | Prétet JL, Int J Cancer 2008; 122: 424 | Vaucel E, Arch Gynecol Obstet 2011; 284: 989

⁶ Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015.

Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Smith JS, Int J Cancer 2007;121:621 3) Clifford GM, Br J Cancer 2003;89:101.

Contributing studies: de Cremoux P, Int J Cancer 2009; 124: 778 | Lombard I, J Clin Oncol 1998; 16: 2613 | Prétet JL, Int J Cancer 2008; 122: 424 | Riou G, Lancet 1990; 335: 1171

Contributing studies: de Cremoux P, Int J Cancer 2009; 124: 778 | Lombard I, J Clin Oncol 1998; 16: 2613 | Prêtet JL, Int J Cancer 2008; 122: 424 | Riou G, Lancet 1990; 335: 1171 | Sased on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Li N, Int J Cancer 2011;128:927 3) Smith JS, Int J Cancer 2007;121:621 4) Clifford GM, Br J Cancer 2003;88:63 5) Clifford GM, Br J Cancer 2003;89:101.

Table 23: Type-specific HPV prevalence among invasive cervical cancer cases in France by histology

HPV		ny Histology HPV Prev %		us cell carcinoma HPV Prev %		nocarcinoma HPV Prev %		especified HPV Prev %
	No.		No. tested		No.		No.	
Type	tested ENIC HPV	(95% CI)	testea	(95% CI)	tested	(95% CI)	tested	(95% CI)
	risk HPV ty							
16	1434	60.7 (58.1-63.2)	1255	63.7 (61.0-66.3)	179	39.7 (32.8-47.0)	-	<u>-</u>
18	1434	14.9 (13.1-16.8)	$-\frac{1255}{1255}$	11.4 (9.8-13.3)	179	39.1 (32.3-46.4)		
31	1328	3.8 (2.9-4.9)	1166	3.9 (2.9-5.1)	162	3.1 (1.3-7.0)		-
33	1434	3.3 (2.5-4.4)	$-\frac{1100}{1255}$	3.7 (2.8-4.9)	179	0.6 (0.1-3.1)		-
35	1434	1.0 (0.6-1.6)	$-\frac{1255}{1255}$	0.9 (0.5-1.6)	179	1.7 (0.6-4.8)	-	<u>-</u>
39	1434	0.8 (0.4-1.4)	$-\frac{1255}{1255}$	0.9 (0.5-1.6)	179	0.0 (0.0-2.1)		<u>-</u>
45	1328	2.9 (2.2-4.0)	1166	3.1 (2.2-4.2)	162	1.9 (0.6-5.3)		<u>-</u>
51	1031	0.7 (0.3-1.4)	897	0.7 (0.3-1.5)	134	0.7 (0.1-4.1)	_ -	<u>-</u>
52	1328	2.0 (1.3-2.9)	1166	2.1 (1.5-3.1)	162	0.6 (0.1-3.4)		<u> </u>
56	1031	0.3 (0.1-0.9)	897	0.3 (0.1-1.0)	134	0.0 (0.0-2.8)	-	<u> </u>
58	1328	1.6 (1.0-2.4)	1166	1.6 (1.0-2.5)	162	1.2 (0.3-4.4)		<u>-</u>
59	1031	0.9 (0.5-1.7)	897	1.0 (1.0-2.9)	134	0.0 (0.0-2.8)		<u>-</u>
		e carcinogen		1.0 (0.0-1.3)	104	0.0 (0.0-2.0)		-
26	515	0.0 (0.0-0.7)	<u> </u>	<u>-</u>	-	<u> </u>	-	<u>-</u>
30	- 515	0.0 (0.0-0.1)						
34						<u>-</u>		-
53	1031	0.7 (0.3-1.4)						<u>-</u>
66	1031	0.2 (0.1-0.7)	897	0.2 (0.1-0.8)	134	0.0 (0.0-2.8)		<u> </u>
67	515	0.0 (0.0-0.7)	451	0.0 (0.0-0.8)	64	0.0 (0.0-5.7)		<u> </u>
68	1031	1.6 (1.0-2.6)	897	1.9 (1.2-3.0)	134	0.0 (0.0-2.8)		<u> </u>
69	515	0.0 (0.0-0.7)	-	1.0 (1.2-0.0)	-	- 0.0 (0.0-2.0)	-	
70	1031	0.0 (0.0-0.4)	-	-			-	-
73	515	1.0 (0.4-2.3)						
82	515	0.0 (0.0-0.7)	451	0.0 (0.0-0.8)	64	0.0 (0.0-5.7)		_
85	-	-	-	-	-	-		
97			-					-
	SK HPV TY	PES						
6	1434	0.4 (0.2-0.9)	-	-			-	
11	1434	0.1 (0.0-0.5)		-		-		-
32	-	-		-		-		-
40	515	0.0 (0.0-0.7)		-		-		-
42	918	0.0 (0.0-0.4)	809	0.0 (0.0-0.5)	109	0.0 (0.0-3.4)	-	-
43	-	-	-	-		-	-	-
44	-	-	-	-		-	-	-
54	515	0.0 (0.0-0.7)	-	-	-	-	-	-
55	-	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-	-
61	515	0.0 (0.0-0.7)	-	-	-	-	-	-
62	515	0.0 (0.0-0.7)	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-
71	515	0.0 (0.0-0.7)	-	-	-	-	-	-
72	515	0.0 (0.0-0.7)	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-
81	515	0.0 (0.0-0.7)	-	-	-	-	-	-
83	515	0.0 (0.0-0.7)	-	-	-	-	-	-
84	515	0.0 (0.0-0.7)	-	-	-	-	-	-
86	-	-	-	-	-	-	-	-
87	-	-	-	-	-	-	-	-
89	515	0.0 (0.0-0.7)	-	-	-	-	-	-
90	-	-	-	-	-	-	-	-
91				-	-	-		-

Data updated on 19 May 2017 (data as of 30 Jun 2015)

The samples for HPV testing come from cervical specimens (fresh/fixed biopsies or exfoliated cells) a Number of women tested b 95% Confidence Interval

Data Sources:

Contributing studies: de Cremoux P, Int J Cancer 2009; 124: 778 | Lombard I, J Clin Oncol 1998; 16: 2613 | Prétet JL, Int J Cancer 2008; 122: 424 | Riou G, Lancet 1990; 335: 1171

Based on meta-analysis performed by IARC's Infections and Cancer Epidemiology Group up to November 2011, the ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Guan P, Int J Cancer 2012;131:2349 2) Li N, Int J Cancer 2011;128:927 3) Smith JS, Int J Cancer 2007;121:621 4) Clifford GM, Br J Cancer 2003;88:63 5) Clifford GM, Br J Cancer 2003;89:101.

4.1.3 HPV type distribution among HIV+ women with normal cervical cytology

Table 24: Studies on HPV prevalence among HIV+ women with normal cytology in France

	HPV Prevalence				
Study	HPV detection method and targeted HPV types	No. Tested ^a	%	(95% CI) ^b	Prevalence of 5 most frequent HPVs, HPV type (%)
-	-	-	-	-	

Data updated on 31 Dec 2011 (data as of 31 Dec 2011)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; PCR: Polymerase Chain Reaction; TS: Type Specific a Number of women tested b 95% Confidence Interval

Data Sources:

Systematic review and meta-analysis were performed by the ICO HPV Information Centre up to December 2011. Selected studies had to include at least 20 HIV positive women who had both normal cervical cytology and HPV test results (PCR or HC2).

Data Sources:

4.1.4 Terminology

Cytologically normal women

No abnormal cells are observed on the surface of their cervix upon cytology.

Cervical Intraepithelial Neoplasia (CIN) / Squamous Intraepithelial Lesions (SIL)

SIL and CIN are two commonly used terms to describe precancerous lesions or the abnormal growth of squamous cells observed in the cervix. SIL is an abnormal result derived from cervical cytological screening or Pap smear testing. CIN is a histological diagnosis made upon analysis of cervical tissue obtained by biopsy or surgical excision. The condition is graded as CIN 1, 2 or 3, according to the thickness of the abnormal epithelium (1/3, 2/3 or the entire thickness).

Low-grade cervical lesions (LSIL/CIN-1)

Low-grade cervical lesions are defined by early changes in size, shape, and number of abnormal cells formed on the surface of the cervix and may be referred to as mild dysplasia, LSIL, or CIN-1.

High-grade cervical lesions (HSIL/CIN-2/CIN-3/CIS)

High-grade cervical lesions are defined by a large number of precancerous cells on the surface of the cervix that are distinctly different from normal cells. They have the potential to become cancerous cells and invade deeper tissues of the cervix. These lesions may be referred to as moderate or severe dysplasia, HSIL, CIN-2, CIN-3 or cervical carcinoma in situ (CIS).

Carcinoma in situ (CIS)

Preinvasive malignancy limited to the epithelium without invasion of the basement membrane. CIN 3 encompasses the squamous carcinoma in situ.

Invasive cervical cancer (ICC) / Cervical cancer

If the high-grade precancerous cells invade the basement membrane is called ICC. ICC stages range from stage I (cancer is in the cervix or uterus only) to stage IV (the cancer has spread to distant organs, such as the liver).

Invasive squamous cell carcinoma

Invasive carcinoma composed of cells resembling those of squamous epithelium.

Adenocarcinoma

Invasive tumour with glandular and squamous elements intermingled.

4.2 HPV burden in anogenital cancers other than cervix

Methods: Prevalence and type distribution of human papillomavirus in carcinoma of the vulva, vagina, anus and penis: systematic review and meta-analysis

A systematic review of the literature was conducted on the worldwide HPV-prevalence and type distribution for anogenital carcinomas other than cervix from January 1986 to 'data as of' indicated in each section. The search terms for the review were 'HPV' AND (anus OR anal) OR (penile) OR vagin* OR vulv* using Pubmed. There were no limits in publication language. References cited in selected articles were also investigated. Inclusion criteria were: HPV DNA detection by means of PCR, a minimum of 10 cases by lesion and a detailed description of HPV DNA detection and genotyping techniques used. The number of cases tested and HPV positive cases were extracted for each study to estimate the prevalence of HPV DNA and the HPV type distribution. Binomial 95% confidence intervals were calculated for each HPV prevalence.

4.2.1 Anal cancer and precancerous anal lesions

Anal cancer is similar to cervical cancer with respect to overall HPV DNA positivity, with approximately 100% of anal squamous cell carcinoma cases associated with HPV infection worldwide (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). HPV16 is the most common type detected, representing 73% of all HPV-positive tumours. HPV18 is the second most common type detected and is found in approximately 5% of cases. HPV DNA is also detected in the majority of precancerous anal lesions (AIN) (91.5% in AIN1 and 93.9% in AIN2/3) (De Vuyst H et al. Int J Cancer 2009; 124: 1626-36). In this section, the burden of HPV among cases of anal cancers and precancerous anal lesions in France are presented.

Table 25: Studies on HPV prevalence among anal cancer cases in France (male and female)

		HPV Prevalence				
Study	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)	
Abramowitz 2011	PCR-SPF10, (HPV 6, 11, 16, 18, 26, 31, 33, 35, 39, 40, 43, 44, 45, 51, 52, 53, 54, 56, 58, 59, 66, 68, 69, 70, 71, 73, 82)	728	96.7 (95.1-97.8) (5.9),		HPV 16 (75.5), HPV 18 (5.9), HPV 11 (3.7), HPV 6 (3.0), HPV 52 (2.6)	
Alemany 2015 ^b	PCR-SPF10, EIA, (HPV 6, 11, 16, 18, 26, 30, 31, 33, 34, 35, 39, 40, 42, 43, 44, 45, 51, 52, 53, 54, 56, 58, 59, 61, 66, 67, 68, 69, 70, 73, 74, 82, 83, 87, 89, 91)	169	87.6	(81.8-91.7)	HPV 16 (73.4), HPV 18 (3.6), HPV 6 (3.6), HPV 11 (3.0), HPV 33 (2.4)	
Valmary-Degano 2013	PCR-E6, (HPV 6, 11, 16, 18, 26, 31, 33, 35, 39, 40, 43, 44, 45, 51, 52, 53, 54, 56, 58, 59, 66, 68, 69, 70, 71, 73, 74, 82)	73	98.6	(92.6-99.8)	HPV 16 (89.0), HPV 39 (4.1), HPV 33 (2.7), HPV 11 (1.4), HPV 18 (1.4)	
Vincent-Salomon 1996	PCR L1-Consensus primer, PCR-E6, TS (HPV 6, 11, 16, 18, 33)	27	74.1	(55.3-86.8)	HPV 16 (63.0), HPV 18 (7.4)	

Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

DBH: Dot Blot Hybridization: EIA: Enzyme ImmunoAssay: HC2: Hybrid Capture 2: ISH: In Situ Hybridization: LBA: Line-Blot Assay: LiPA: Line Probe Assay: PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific;

Abramowitz L, Int J Cancer 2011; 129: 433 | Alemany L, Int J Cancer 2015; 136: 98 | Valmary-Degano S, Hum Pathol 2013; 44: 992 | Vincent-Salomon A, Mod Pathol 1996; 9: 614 Based on systematic reviews (up to 2008) performed by ICO for the IARC Monograph on the Evaluation of Carcinogenic Risks to Humans volume 100B and IARC's Infections and Cancer Epidemiology Group. The ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Bouvard V, Lancet Oncol 2009;10:321 2) De Vuyst H, Int J Cancer 2009;124:1626

Table 26: Studies on HPV prevalence among cases of AIN2/3 in France

HPV Prevalence							
Study ^b	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)		
Alemany 2015	PCR-SPF10, EIA, (HPV 6, 11, 16, 18, 26, 30, 31, 33, 34, 35, 39, 40, 42, 43, 44, 45, 51, 52, 53, 54, 56, 58, 59, 61, 66, 67, 68, 69, 70, 73, 74, 82, 83, 87, 89, 91)	23	95.7	(79.0-99.2)	HPV 16 (65.2), HPV 18 (8.7), HPV 51 (8.7), HPV 6 (8.7), HPV 74 (8.7)		

Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific;

AIN 2/3: Anal intraepithelial neoplasia of grade 2/3

b Includes cases from Bosnia-Herzegovina, Czech Republic, France, Germany, Poland, Portugal, Slovenia, Spain and United Kingdom

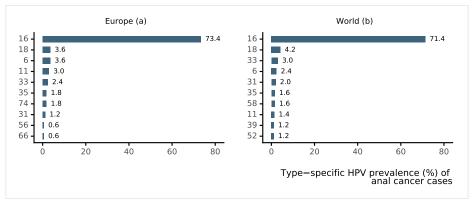
Alemany L, Int J Cancer 2015; 136: 98

Based on systematic reviews (up to 2008) performed by ICO for the IARC Monograph on the Evaluation of Carcinogenic Risks to Humans volume 100B and IARC's Infections and Cancer Epidemiology Group. The ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Bouvard V, Lancet Oncol 2009;10:321 2) De Vuyst H, Int J Cancer 2009;124:1626

 $[^]a$ 95% Confidence Interval b Includes cases from Bosnia-Herzegovina, Czech Republic, France, Germany, Poland, Portugal, Slovenia, Spain and United Kingdom

^{95%} Confidence Interval

Figure 62: Comparison of the ten most frequent HPV types in anal cancer cases in Europe and the World

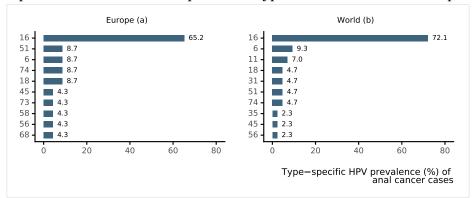


Data updated on 9 Feb 2017 (data as of 30 Jun 2014)

^a Includes cases from Bosnia-Herzegovina, Czech Republic, France, Germany, Poland, Portugal, Slovenia, Spain and United Kingdom

Data from Alemany L, Int J Cancer 2015; 136: 98. This study has gathered the largest international series of anal cancer cases and precancerous lesions worldwide using a standard protocol with a highly sensitive HPV DNA detection assay.

Figure 63: Comparison of the ten most frequent HPV types in AIN 2/3 cases in Europe and the World



Data updated on 7 Feb 2017 (data as of 30 Jun 2014)

AIN 2/3: Anal intraepithelial neoplasia of grade 2/3

Data Sources:
Data from Alemany L, Int J Cancer 2015; 136: 98. This study has gathered the largest international series of anal cancer cases and precancerous lesions worldwide using a standard protocol with a highly sensitive HPV DNA detection assay

b Includes cases from Europe (Bosnia-Herzegovina, Czech Republic, France, Germany, Poland, Portugal, Slovenia, Spain and United Kingdom); America (Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay and United States); Africa (Mali, Nigeria and Senegal); Asia (Bangladesh, India and South Korea) Data Sources:

Includes cases from Bosnia-Herzegovina, Czech Republic, France, Germany, Poland, Portugal, Slovenia, Spain and United Kingdom

b Includes cases from Europe (Bosnia-Herzegovina, Czech Republic, France, Germany, Poland, Portugal, Slovenia, Spain and United Kingdom); America (Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay)

4.2.2 Vulvar cancer and precancerous vulvar lesions

HPV attribution for vulvar cancer is 48% among age 15-54 years, 28% among age 55-64 years, and 15% among age 65+ worldwide (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). Vulvar cancer has two distinct histological patterns with two different risk factor profiles: (1) basaloid/warty types (2) keratinising types. Basaloid/warty lesions are more common in young women, are frequently found adjacent to VIN, are very often associated with HPV DNA detection (86%), and have a similar risk factor profile as cervical cancer. Keratinising vulvar carcinomas represent the majority of the vulvar lesions (>60%). These lesions develop from non HPV-related chronic vulvar dermatoses, especially lichen sclerosus and/or squamous hyperplasia, their immediate cancer precursor lesion is differentiated VIN, they occur more often in older women, and are rarely associated with HPV (6%) or with any of the other risk factors typical of cervical cancer. HPV prevalence is frequently detected among cases of high-grade VIN (VIN2/3) (85.3%). HPV 16 is the most common type detected followed by HPV 33 (De Vuyst H et al. Int J Cancer 2009; 124: 1626-36). In this section, the HPV burden among cases of vulvar cancer cases and precancerous vulvar lesions in France are presented.

Table 27: Studies on HPV prevalence among vulvar cancer cases in France

HPV Prevalence						
Study ^b	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)	
de Sanjosé 2013	PCR-SPF10, EIA, (HPV 6, 11, 16, 18, 26, 30, 31, 33, 34, 35, 39, 40, 42, 43, 44, 45, 51, 52, 53, 54, 56, 58, 59, 61, 66, 67, 68, 69, 70, 73, 74, 82, 83, 87, 89, 91)	903	19.3	(16.8-22.0)	HPV 16 (13.8), HPV 33 (1.2), HPV 18 (0.6), HPV 31 (0.6), HPV 44 (0.4)	

Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific;

Based on systematic reviews (up to 2008) performed by ICO for the IARC Monograph on the Evaluation of Carcinogenic Risks to Humans volume 100B and IARC's Infections and Cancer Epidemiology Group. The ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Bouvard V, Lancet Oncol 2009;10:321 2) De Vuyst H, Int J Cancer

Table 28: Studies on HPV prevalence among VIN 2/3 cases in France

HPV Prevalence							
Study ^b	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)		
de Sanjosé 2013	PCR-SPF10, EIA, (HPV 6, 11, 16, 18, 26, 30, 31, 33, 34, 35, 39, 40, 42, 43, 44, 45, 51, 52, 53, 54, 56, 58, 59, 61, 66, 67, 68, 69, 70, 73, 74, 82, 83, 87, 89, 91)	312	86.9	(82.7-90.2)	HPV 16 (69.6), HPV 33 (11.2), HPV 18 (2.2), HPV 6 (1.6), HPV 52 (1.3)		

Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific;

de Saniosé S. Eur J Cancer 2013: 49: 3450

Based on systematic reviews (up to 2008) performed by ICO for the IARC Monograph on the Evaluation of Carcinogenic Risks to Humans volume 100B and IARC's Infections and Cancer Epidemiology Group. The ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Bouvard V, Lancet Oncol 2009;10:321 2) De Vuyst H, Int J Cancer

^{95%} Confidence Interval

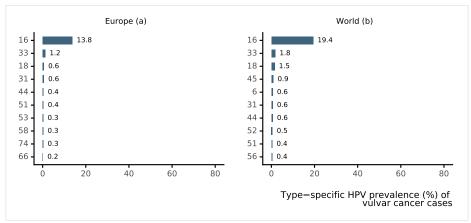
b Includes cases from Austria, Belarus, Bosnia-Herzegovina, Czech Republic, France, Germany, Greece, Italy, Poland, Portugal, Spain and United Kingdom

Data Sources: de Sanjosé S, Eur J Cancer 2013; 49: 3450

VIN 2/3: Vulvar intraepithelial neoplasia of grade 2/3

a 95% Confidence Interval
b Includes cases from Austria, Belarus, Bosnia-Herzegovina, Czech Republic, France, Germany, Greece, Italy, Poland, Portugal, Spain and United Kingdom Data Sources

Figure 64: Comparison of the ten most frequent HPV types in cases of vulvar cancer in Europe and the World



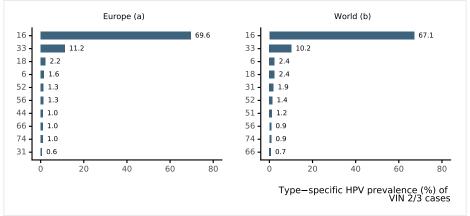
Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

^a Includes cases from Austria, Belarus, Bosnia-Herzegovina, Czech Republic, France, Germany, Greece, Italy, Poland, Portugal, Spain and United Kingdom.

Data Sources:

Data from de Sanjosé S, Eur J Cancer 2013; 49: 3450. This study has gathered the largest international series of vulva cancer cases and precancerous lesions worldwide using a standard protocol with a highly sensitive HPV DNA detection assay.

Figure 65: Comparison of the ten most frequent HPV types in VIN 2/3 cases in Europe and the World



Data updated on 30 Jun 2014 (data as of 30 Jun 2014)

VIN 2/3: Vulvar intraepithelial neoplasia of grade 2/3

Data from de Sanjosé S, Eur J Cancer 2013; 49: 3450. This study has gathered the largest international series of vulva cancer cases and precancerous lesions worldwide using a standard protocol with a highly sensitive HPV DNA detection assay.

b Includes cases from America (Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay, Uruguay, United States of America and Venezuela); Africa (Mali, Mozambique, Nigeria, and Senegal); Oceania (Australia and New Zealand); Europe (Austria, Belarus, Bosnia-Herzegovina, Czech Republic, France, Germany, Greece, Italy, Poland, Portugal, Spain and United Kingdom); and in Asia (Bangladesh, India, Israel, South Korea, Kuwait, Lebanon, Philippines, Taiwan and Turkey)
Data Sources:

a Includes cases from Austria, Belarus, Bosnia-Herzegovina, Czech Republic, France, Germany, Greece, Italy, Poland, Portugal, Spain and United Kingdom.

b Includes cases from America (Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay, Uruguay and Venezuela); Oceania (Australia and New Zealand); Europe (Austria, Belarus, Bosnia-Herzegovina, Czech Republic, France, Germany, Greece, Italy, Poland, Portugal, Spain and United Kingdom); and in Asia (Bangladesh, India, Israel, South Korea, Kuwait, Lebanon, Philippines, Taiwan and Turkey)
Data Sources:

Vaginal cancer and precancerous vaginal lesions

Vaginal and cervical cancers share similar risk factors and it is generally accepted that both carcinomas share the same aetiology of HPV infection although there is limited evidence available. Women with vaginal cancer are more likely to have a history of other ano-genital cancers, particularly of the cervix, and these two carcinomas are frequently diagnosed simultaneously. HPV DNA is detected among 78% of invasive vaginal carcinomas and 91% of high-grade vaginal neoplasias (VaIN2/3). HPV16 is the most common type in high-grade vaginal neoplasias and it is detected in at least 78% of HPV-positive carcinomas (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190; De Vuyst H et al. Int J Cancer 2009; 124:1626-36). In this section, the HPV burden among cases of vaginal cancer cases and precancerous vaginal lesions in France are presented.

Table 29: Studies on HPV prevalence among vaginal cancer cases in France

		HPV Prevalence			
Study ^b	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)
Alemany 2014	PCR-SPF10, EIA, (HPV 6, 11, 16, 18, 26, 30, 31, 33, 35, 39, 42, 45, 51, 52, 53, 56, 58, 59, 66, 67, 68, 69, 73, 82)	152	71.1	(63.4-77.7)	HPV 16 (47.4), HPV 18 (3.3), HPV 73 (3.3), HPV 33 (2.6), HPV 56 (2.6)

Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment, TS: Type Specific;

Alemany L, Eur J Cancer 2014; 50: 2846

Based on systematic reviews (up to 2008) performed by ICO for the IARC Monograph on the Evaluation of Carcinogenic Risks to Humans volume 100B and IARC's Infections and Cancer Epidemiology Group. The ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Bouvard V, Lancet Oncol 2009;10:321 2) De Vuyst H, Int J Cancer 2009:124:1626

Table 30: Studies on HPV prevalence among VaIN 2/3 cases in France

HPV Prevalence						
Study	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)	
Alemany 2014	PCR-SPF10, EIA, (HPV 6, 11, 16, 18, 26, 30, 31, 33, 35, 39, 42, 45, 51, 52, 53, 56, 58, 59, 66, 67, 68, 69, 73, 82)	96	97.9	(92.7-99.4)	HPV 16 (65.6), HPV 33 (7.3), HPV 18 (5.2), HPV 52 (3.1), HPV 73 (3.1)	

Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific;

VAIN 2/3: Vaginal intraepithelial neoplasia of grade 2/3

a 95% Confidence Interval

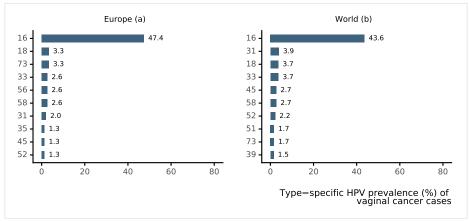
Alemany L. Eur J Cancer 2014: 50: 2846

Based on systematic reviews (up to 2008) performed by ICO for the IARC Monograph on the Evaluation of Carcinogenic Risks to Humans volume 100B and IARC's Infections and Cancer Epidemiology Group. The ICO HPV Information Centre has updated data until June 2015. Reference publications: 1) Bouvard V, Lancet Oncol 2009;10:321 2) De Vuyst H, Int J Cancer 2009;124:1626

^{95%} Confidence Interval

b Includes cases from Austria, Belarus, Czech Republic, France, Germany, Greece, Poland, Spain and United Kingdom Data Sources:

Figure 66: Comparison of the ten most frequent HPV types in cases of vaginal cancer in Europe and the World

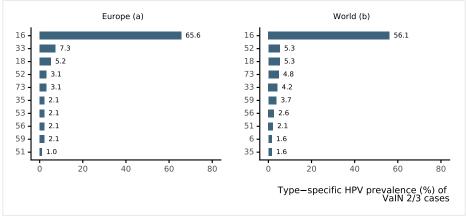


Data updated on 30 Jun 2015 (data as of 30 Jun 2015)

a Includes cases from Austria, Belarus, Czech Republic, France, Germany, Greece, Poland, Spain and United Kingdom.

Data Sources:
Data from Alemany L, Eur J Cancer 2014; 50: 2846. This study has gathered the largest international series of vaginal cancer cases and precancerous lesions worldwide using a standard protocol with a highly sensitive HPV DNA detection assay.

Figure 67: Comparison of the ten most frequent HPV types in VaIN 2/3 cases in Europe and the World



Data updated on 30 Jun 2014 (data as of 30 Jun 2014)

VAIN 2/3: Vaginal intraepithelial neoplasia of grade 2/3

Data Sources

Data from Alemany L, Eur J Cancer 2014; 50: 2846. This study has gathered the largest international series of vaginal cancer cases and precancerous lesions worldwide using a standard protocol with a highly sensitive HPV DNA detection assay.

b Includes cases from Europe (Austria, Belarus, Czech Republic, France, Germany, Greece, Poland, Spain and United Kingdom); America (Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, Paraguay, Uruguay, United states of America and Venezuela); Africa (Mozambique, Nigeria); Asia (Bangladesh, India, Israel, South Korea, Kuwait, Philippines, Taiwan and Turkey); and Oceania (Australia)

a Includes cases from Austria, Belarus, Czech Republic, France, Germany, Greece, Poland, Spain and United Kingdom.

b Includes cases from Europe (Austria, Belarus, Czech Republic, France, Germany, Greece, Poland, Spain and United Kingdom); America (Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, Paraguay, Uruguay, United states of America and Venezuela); Asia (Bangladesh, India, Israel, South Korea, Kuwait, Philippines, Taiwan and Turkey); and Oceania

4.2.4 Penile cancer and precancerous penile lesions

HPV DNA is detectable in approximately 51% of all penile cancers (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). Among HPV-related penile tumours, HPV16 is the most common type detected, followed by HPV18 and HPV types 6/11 (Miralles C et al. J Clin Pathol 2009;62:870-8). Over 95% of invasive penile cancers are SCC and the most common penile SCC histologic sub-types are keratinising (49%), mixed warty-basaloid (17%), verrucous (8%), warty (6%), and basaloid (4%). HPV is commonly detected in basaloid and warty tumours but is less common in keratinising and verrucous tumours. In this section, the HPV burden among cases of penile cancer cases and precancerous penile lesions in France are presented.

Table 31: Studies on HPV prevalence among penile cancer cases in France

HPV Prevalence						
Study	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)	
Humbey 2003	PCR-(MY09/MY11, FAP59/FAP64), TS (HPV 5, 6, 8, 11, 16, 18, 31, 33, 35, 45, 51, 52, 58, 68), sequencing	36	66.7	(50.3-79.8)	HPV 16 (25.0)	

Data updated on 5 Mar 2015 (data as of 30 Jun 2014)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific;

a 95% Confidence Interval

Humbey O, Eur J Cancer 2003; 39: 684

The ICO HPV Information Centre has updated data until June 2014. Reference publications (up to 2008): 1) Bouvard V, Lancet Oncol 2009;10:321 2) Miralles-Guri C,J Clin Pathol 2009;62:870

Table 32: Studies on HPV prevalence among PeIN 2/3 cases in France

Study	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)
No data available	-	-	-	-	

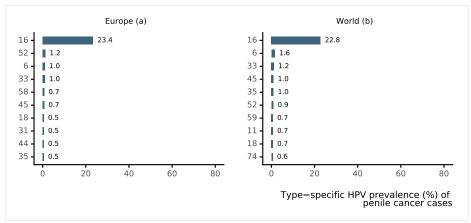
Data updated on 10 Feb 2015 (data as of 30 Jun 2014)

PeIN 2/3: Penile intraepithelial neoplasia of grade 2/3

DBH: Dot Blot Hybridization; ElA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific; a 95% Confidence Interval

The ICO HPV Information Centre has updated data until June 2014. Reference publication (up to 2008): Bouvard V, Lancet Oncol 2009;10:321

Figure 68: Comparison of the ten most frequent HPV types in cases of penile cancer in Europe and the World



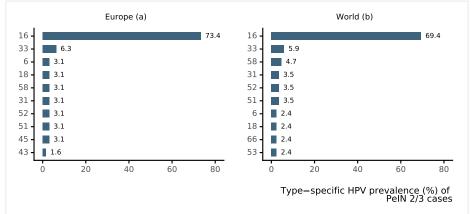
Data updated on 9 Feb 2017 (data as of 30 Jun 2015)

a Includes cases from Czech Republic, France, Greece, Poland, Portugal, Spain and United Kingdom

b Includes cases from Australia, Bangladesh, India, South Korea, Lebanon, Philippines, Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay, Venezuela and United States, Mozambique, Nigeria, Senegal, Czech Republic, France, Greece, Poland, Portugal, Spain and United Kingdom.

Alemany L, Eur Urol 2016; 69: 953

Figure 69: Comparison of the ten most frequent HPV types in PeIN 2/3 cases in Europe and the World



Data updated on 9 Feb 2017 (data as of 30 Jun 2015)

Pe
IN 2/3: Penile intraepithelial neoplasia of grade 2/3
 $\,$

Based on systematic reviews and meta-analysis performed by ICO. Reference publications: 1) Ndiaye C, Lancet Oncol 2014; 15: 1319 2) Kreimer AR, Cancer Epidemiol Biomarkers Prev 2005; 14: 467

a Includes cases from Czech Republic, France, Greece, Poland, Portugal, Spain and United Kingdom

b Includes cases from Australia, Bangladesh, India, South Korea, Lebanon, Philippines, Chile, Colombia, Ecuador, Guatemala, Honduras, Mexico, Paraguay, Venezuela, Mozambique, Nigeria, Senegal, Czech Republic, France, Greece, Poland, Portugal, Spain and United Kingdom.

Data Sources:

4.3 HPV burden in men

The information to date regarding anogenital HPV infection is primarily derived from cross-sectional studies of selected populations such as general population, university students, military recruits, and studies that examined husbands of control women, as well as from prospective studies. Special subgroups include mainly studies that examined STD (sexually transmitted diseases) clinic attendees, MSM (men who have sex with men), HIV positive men, and partners of women with HPV lesions, CIN (cervical intraepithelial neoplasia), cervical cancer or cervical carcinoma in situ. Globally, prevalence of external genital HPV infection in men is higher than cervical HPV infection in women, but persistence is less likely. As with genital HPV prevalence, high numbers of sexual partners increase the acquisition of oncogenic HPV infections (Vaccine 2012, Vol. 30, Suppl 5). In this section, the HPV burden among men in France is presented.

Methods

HPV burden in men was based on published systematic reviews and meta-analyses (Dunne EF, J Infect Dis 2006; 194: 1044, Smith JS, J Adolesc Health 2011; 48: 540, Olesen TB, Sex Transm Infect 2014; 90: 455, and Hebnes JB, J Sex Med 2014; 11: 2630) up to October 31, 2015. The search terms for the review were human papillomavirus, men, polymerase chain reaction (PCR), hybrid capture (HC), and viral DNA. References cited in selected articles were also investigated. Inclusion criteria were: HPV DNA detection by means of PCR or HC (ISH if data are not available for the country), and a detailed description of HPV DNA detection and genotyping techniques used. The number of cases tested and HPV positive cases were extracted for each study to estimate the anogenital prevalence of HPV DNA. Binomial 95% confidence intervals were calculated for each anogenital HPV prevalence.

Table 33: Studies on HPV prevalence among men in France

						HPV	Prevalence	ı
Study	Anatomic sites samples	HPV detection method	Population	Age (years)	No. Tested	%	(95% CI) ^a	
-	-	-	-	-	-	-	-	

Data updated on 31 Oct 2015 (data as of 31 Oct 2015)

HC2: Hybrid Capture 2; ISH: In Situ Hybridization; PCR: Polymerase Chain Reaction; RT-PCR: Real Time Polymerase Chain Reaction; SPF: Short Primer Fragment; TS: Type Specific; MSM: Men who have sex with men; MSW:Men who have sex with men; MSW:Men who have sex with women; STD: sexually transmitted diseases

a 95% Confidence Interval

Data Sources

Based on published systematic reviews, the ICO HPV Information Centre has updated data until October 2015. Reference publications: 1) Dunne EF, J Infect Dis 2006; 194: 1044 2) Smith JS. J Adolesc Health 2011; 48: 540 3) Olesen TB. Sex Transm Infect 2014; 90: 455 4) Hebnes JB. J Sex Med 2014; 11: 2630.

Table 34: Studies on HPV prevalence among men from special subgroups in France

						HPV Prevalence	
Study	Anatomic ites samples	HPV detection method	Population	Age (years)	No. Tested	%	(95% CI) ^a
Aynaud 2003 M	Ieatal urethra	PCR-TS 6,11,42,16,18,33	Men with normal peniscopy whose female partners have genital HPV lesions	Mean 30	34	2.9	(0.1-15.3)
Aynaud 2003 M	Ieatal urethra	PCR-TS 6,11,42,16,18,33	Men with penile and urethral lesions whose female partners have genital HPV lesions	Mean 29	55	87.3	(75.5-94.7)
Damay 2010	Anal canal	PCR- PapilloCheck®	HIV+ MSM	Median 45 (39- 49.5)	67	74.6	(62.5-84.5)
Philibert 2014	Anus	PCR-Cobas HR-HPV	HIV+ MSM	Mean 46.4 (SD=9.4)	82	76.8	(66.2-85.4)
Philibert 2014	Anus	PCR-Cobas HR-HPV	HIV- MSM	Mean 46.4 (SD=9.4)	16	75.0	(47.6-92.7)
Piketty 2004	Anal canal	PCR-MY09/11	HIV+ MSM	27-62	45	80.0	(65.4-90.4)

Data updated on 31 Oct 2015 (data as of 31 Oct 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLH: Reverse Line Hybridisation; RT-PCR: Real Time Polymerase Chain Reaction; SPF: Short Primer Fragment; TS: Type Specific; MSM: Men who have sex with men;

MSW:Men who have sex with women; STD: sexually transmitted diseases ^a 95% Confidence Interval Data Sources:

Aynaud O, Urology 2003; 61: 1098 | Damay A, J Med Virol 2010; 82: 592 | Philibert P, J Clin Med 2014; 3: 1386 | Piketty C, Sex Transm Dis 2004; 31: 96

Based on published systematic reviews, the ICO HPV Information Centre has updated data until October 2015. Reference publications: 1) Dunne EF, J Infect Dis 2006; 194: 1044 2) Smith JS, J Adolesc Health 2011; 48: 540 3) Olesen TB, Sex Transm Infect 2014; 90: 455 4) Hebnes JB, J Sex Med 2014; 11: 2630.

4.4 HPV burden in the head and neck

The last evaluation of the International Agency for Research in Cancer (IARC) on the carcinogenicity of HPV in humans concluded that (a) there is enough evidence for the carcinogenicity of HPV type 16 in the oral cavity, oropharynx (including tonsil cancer, base of tongue cancer and other oropharyngeal cancer sites), and (b) limited evidence for laryngeal cancer (IARC Monograph Vol 100B). There is increasing evidence that HPV-related oropharyngeal cancers constitute an epidemiological, molecular and clinical distinct form as compared to non HPV-related ones. Some studies indicate that the most likely explanation for the origin of this distinct form of head and neck cancers associated with HPV is a sexually acquired oral HPV infection that is not cleared, persists and evolves into a neoplastic lesion. Around 30% of oropharyngeal cancers (which mainly comprises the tonsils and base of tongue sites) are caused by HPV with HPV16 being the most frequent type (de Martel C et al. Int J Cancer 2017;141(4):664-670). Attributable fraction varies greatly worldwide, being highest in more developed countries (60% in Republic of Korea, 51% in North America, 50% in Eastern Europe, 46% in Japan, 42% in North-Western Europe, 41% in Australia/New Zealand, 24% in South Europe, 23% in China, 22% in India, and 13% in elsewhere) (de Martel C et al. Lancet Glob Health 2020;8(2):e180-e190). In this section, the HPV burden in the head and neck in France is presented.

4.4.1 Burden of oral HPV infection in healthy population

Table 35: Studies on oral HPV prevalence among healthy in France

Study	Specimen collection method / anatomic site	$\begin{array}{c} \text{HPV} \\ \text{detec-} \\ \text{tion} \\ \text{method}^a \end{array}$	Population	% males	$\mathbf{Age} \\ (\mathbf{years})^b$	No. \mathbf{tested}^c	HPV prevalence % (95% CI)	High-Risk HPV prevalence % (95% CI)	$egin{array}{ll} 5 \ \mathbf{most} \\ \mathbf{frequent} \\ \mathbf{HPVs}, \\ \mathbf{HPV} \\ \mathbf{type} \ (\mathbf{n})^d \end{array}$
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Data updated on 19 Oct 2021 (data as of 19 May 2015)

(95% CI): 95% Confidence Interval

TS: type-specific; RT-PCR: real-time PCR; qPCR: quantitative PCR

 b NS: not specified

number of cases tested for HPV DNA

d number of cases positive for the specific HPV-type

Systematic review and meta-analysis was performed by ICO HPV Information Centre until May 19, 2015. Reference publication: Mena M et al. J Infect Dis 2019;219(10):1574-1585

4.4.2 HPV burden in head and neck cancers

Table 36: Studies on HPV prevalence among cases of oral cavity cancer in France

Study	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)	
MEN						
No data available	-	-	-	-	-	
WOMEN						
No data available	-	-	-	-	-	
BOTH OR UNSPECIFIE	ED .					
No data available	-		-	-	-	

Data updated on 9 May 2016 (data as of 31 Dec 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific;

Only for European countries ^a 95% Confidence Interval

Data Sources:

Based on systematic reviews and meta-analysis performed by ICO. Reference publications: 1) Ndiaye C, Lancet Oncol 2014; 15: 1319 2) Kreimer AR, Cancer Epidemiol Biomarkers Prev

Table 37: Studies on HPV prevalence among cases of oropharyngeal cancer in France

	-		TIDV	Ducualanaa				
	HPV Prevalence							
Study	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)			
MEN								
Charfi 2008	GP5+/GP6+ (L1) and TS-PCR for 6/11/16/18/33 Amplification with TS primers (6. 11. 16. 18. 33)	36	55.6	(39.6-70.5)	-			
WOMEN								
Charfi 2008	GP5+/GP6+ (L1) and TS-PCR for 6/11/16/18/33 Amplification with TS primers (6. 11. 16. 18. 33)	16	75.0	(50.5-89.8)	-			
BOTH OR UNSPECIFIE	ED .							
Charfi 2008	GP5+/GP6+ (L1) and TS-PCR for 6/11/16/18/33 Amplification with TS primers (6. 11. 16. 18. 33)	52	61.5	(48.0-73.5)	HPV 16 (51.9) HPV 33 (1.9)			
Fouret 1997	TS-PCR E6 for 16/18/31/33/45 Hybridization with TS probes (16. 18. 31. 33. 45)	58	17.2	(9.6-28.9)	HPV 16 (15.5)			

Data updated on 9 May 2016 (data as of 31 Dec 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific

Data Sources:

Charfi L, Cancer Lett 2008; 260: 72 | Fouret P, Arch Otolaryngol Head Neck Surg 1997; 123: 513

Based on systematic reviews and meta-analysis performed by ICO. Reference publications: 1) Ndiaye C, Lancet Oncol 2014; 15: 1319 2) Kreimer AR, Cancer Epidemiol Biomarkers Prev

Table 38: Studies on HPV prevalence among cases of hypopharyngeal or laryngeal cancer in France

Study	HPV detection method and targeted HPV types	No. Tested	%	(95% CI) ^a	Prevalence of 5 most frequent HPVs, HPV type (%)
MEN					
No data available	-	-	-	-	-
WOMEN					
No data available	-	-	-	-	-
BOTH OR UNSPECIFIE	ED .				
Fouret 1997	TS-PCR E6 for 16/18/31/33/45 Hybridization with TS probes (16. 18. 31. 33. 45)	103	6.8	(3.3-13.4)	HPV 16 (6.8)

Data updated on 9 May 2016 (data as of 31 Dec 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific

Only for European countries a 95% Confidence Interval

Fouret P, Arch Otolaryngol Head Neck Surg 1997; 123: 513

Only for European countries ^a 95% Confidence Interval

Based on systematic reviews and meta-analysis performed by ICO. Reference publications: 1) Ndiaye C, Lancet Oncol 2014; 15: 1319 2) Kreimer AR, Cancer Epidemiol Biomarkers Prev 2005; 14: 467

5 Factors contributing to cervical cancer

HPV is a necessary cause of cervical cancer, but it is not a sufficient cause. Other cofactors are necessary for progression from cervical HPV infection to cancer. Tobacco smoking, high parity, long-term hormonal contraceptive use, and co-infection with HIV have been identified as established cofactors. Co-infection with Chlamydia trachomatis and herpes simplex virus type-2, immunosuppression, and certain dietary deficiencies are other probable cofactors. Genetic and immunological host factors and viral factors other than type, such as variants of type, viral load and viral integration, are likely to be important but have not been clearly identified. (Muñoz N, Vaccine 2006; 24(S3): 1-10). In this section, the prevalence of smoking, parity (fertility), oral contraceptive use, and HIV in France are presented.

Table 39: Factors contributing to cervical carcinogenesis (cofactors) in France

INDICATOR		MALE	FEMALE	TOTAL
Smoking				
Smoking of any tobacco adjusted	Current ^a	32.2 [24.9-40]	24.9 [19.1-30.7]	28.4 [21.9-35.1]
prevalence (%) [95% UI]	Daily ^b	26.9 [21.3-32.7]	20.6 [15.9-24.8]	23.6 [18.5-28.6]
Cigarette smoking adjusted	Current ^c	32.2 [24.9-40]	24.9 [19.1-30.7]	28.4 [21.9-35.1]
prevalence (%) [95% UI]	Daily ^d	26.9 [21.3-32.7]	20.6 [15.9-24.8]	23.6 [18.5-28.6]
				·
Parity				
Total fertility rate per woman		-	2.0	-
	15-19 yrs	-	8.0	-
	20-24 yrs	-	50.2	-
Age-specific fertility rate	25-29 yrs	-	118.2	-
(per 1000 women)	30-34 yrs	-	123.3	-
(per 1000 women)	35-39 yrs	-	63.7	-
	40-44 yrs	-	14.7	-
	45-49 yrs	-	0.9	-
Hormonal contraception				
Oral contraceptive use (%) among we	omen who are	-	36.6	-
married or in union				
Injectable contraception use (%) as	mong women	-	-	-
who are married or in union				
Implant contraceptive use (%) amon	g women who	-	2	-
are married or in union				

HIV		2.50 / 2.07	0.050.007	0.050.0.01
Estimated percent of adults aged 1 living with HIV [95% UI]	5-49 who are	0.5 [0.4-0.6]	0.2 [0.2-0.2]	0.3 [0.3-0.4]
Estimated percent of young adults ag	ged 15-24 who	<0.1 [<0.1 - <0.1]	<0.1 [<0.1-<0.1]	-[—]
are living with HIV [95% UI]	504 10 21 1110	(0.17 (0.17)	(0.12[10.12]	. ,
HIV prevalence (%) among sex work	ers	-	-	-
HIV prevalence (%) among men who	have sex with	14	-	14
men				
Estimated number of people living with HIV [95%		-	-	180000 [150000-210000]
UI]				
Estimated number of adults (15+ yrs) living with HIV [95% UI]		130000 [110000-160000]	46000 [40000-52000]	180000 [150000-210000]
Estimated number of AIDS-related	deaths [95%	-	-	<500 [<500-<1000]
UI]				
		·		

Data accessed on 12 Nov 2019

Year of estimate: 2016

WHO global report on trends in prevalence of tobacco use 2000-2025, third edition. Geneva: World Health Organization; 2019. Available at https://www.who.int/publications/i/ who global report on trends in prevalence of words use 2000-2025, third center. Which reports on trends in prevalence of tobacco-use 2000-2025-third-edition

Eurostat - Statistical office of the European Commission [web site]. Luxembourg: European Commission; 2017. Available at: https://ec.europa.eu/eurostat/web/products-datasets/

United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision, DVD Edition. Available at: https://www.un.org/

em/development/desa/population/publications/dataset/fertility/wf42017. asp. [Accessed on November 13, 2019].

United Nations, Department of Economic and Social Affairs, Population Division (2019). World Contraceptive Use 2019 (POP/DB/CP/Rev2019). https://www.un.org/en/development/desa/population/publications/dataset/contraception/wcu2019.asp. Available at: [Accessed on November 18, 2019]. UNAIDS database [internet]. Available at: http://aidsinfo.unaids.org/[Accessed on November 21, 2019]

Crude adjusted prevalence (%) estimates of tabacco use among people aged >= 15 years by country, for the year 2016.

^a "Current" means smoking at the time of the survey, including both daily and non-daily or occasional smoking. "Tobacco smoking" means smoking any form of tobacco, including cigarettes, cigars, pipes, or any other smoked tobacco products and excluding smokeless products.

b "Daily" means smoking every day at the time of the survey. "Tobacco smoking" means smoking any form of tobacco, including cigarettes, cigars, pipes, or any other smoked tobacco products and excluding smokeless products. c "Current" means smoking at the time of the survey, including both daily and non-daily or occasional smoking.

d "Daily" means smoking every day at the time of the survey.

6 Sexual and reproductive health behaviour indicators

Sexual intercourse is the primary route of transmission of genital HPV infection. Information about sexual and reproductive health behaviours is essential to the design of effective preventive strategies against anogenital cancers. In this section, we describe sexual and reproductive health indicators that may be used as proxy measures of risk for HPV infection and anogenital cancers. Several studies have reported that earlier sexual debut is a risk factor for HPV infection, although the reason for this relationship is still unclear. In this section, information on sexual and reproductive health behaviour in France are presented.

Table 40: Percentage of 15-year-olds who have had sexual intercourse in France

e •		
Indicator	Male	Female
Percentage of 15-year-old subjects who report sexual intercourse	26.0	16.0

Data accessed on 16 Mar 2017

Please refer to original source for methods of estimation

Fifteen-year-olds teenagers only were asked whether they had ever had sexual intercourse

Indicates a significant gender difference (at p<0.05).

Year of estimation: 2013-2014

<u>Data Sources</u>:

Growing up unequal: gender and socioeconomic differences in young people's health and well-being. Health Behaviour in School-aged Children (HBSC) study: international report from the 2013/2014 survey. Inchley J, Currie D, Young T, et al. Copenhagen, WHO Regional Office for Europe, 2016 (Health Policy for Children and Adolescents, No. 7). Available at: http://www.euro.who.int/__data/assets/pdf_file/0003/303438/HSBC-No.7-Growing-up-unequal-Full-Report.pdf?ua=1

Table 41: Median age at first sex in France

				MALE		FEMALE		TOTAL	
Study	Year/period	Birth cohort N	N	Median age at first sex	N	Median age at first sex	N	Median age at first sex	
Bajos 2010 ¹	1970	1939	-	18.1	-	22.0	-	-	
Bajos 2010 ¹	2006	1937-1988	-	17.2	-	17.6	-	-	
Crochard 2009 ²	2006-2007	1982-1988	446	16.0	482	17.0	-	-	
France KABP 2005 ³	2001	1947-1983	1149	16.8	1452	17.3	-	-	
France KABP 2005 ³	1994	1940-1976	516	16.6	653	17.6	-	-	
France KABP 2005 ³	2004	1950-1986	1281	16.6	1609	17.2	-	-	
France KABP 2005 ³	1998	1944-1980	838	16.7	874	17.4	-	-	
France KABP 2010 ^{4,a}	2010	1956-1992	-	16.5	-	17.2	-	-	
Hubert $1998^{5,b,c}$	1992	1942-1951	432	18.1	341	19.3	-	-	
Hubert 1998 ^{5,b,c}	1992	1952-1961	679	17.6	560	18.3	-	-	
Hubert 1998 ^{5,b,c}	1992	1972-1973	150	17.0	159	18.1	-	-	
Hubert 1998 ^{5,b,c}	1992	1967-1971	539	17.7	471	18.3	-	-	
Hubert 1998 ^{5,b,c}	1992	1962-1966	502	17.4	386	18.2	-	-	
Hubert 1998 ^{5,b,c}	1992	1922-1931	140	18.0	100	21.1	-	-	
Hubert 1998 ^{5,b,c}	1992	1932-1941	200	18.4	161	20.6	-	-	

Data accessed on 16 Mar 2017

Please refer to original source for methods of estimation

a Ile-de-France

Data from the Analysis on Sexual Behaviour in France (ACSF).

 $^{^{}c}$ Not especified if estimations are among sexually active or surveyed.

Data Sources:

¹ Bajos N, Bozon M, Beltzer N, Laborde C, Andro A, Ferrand M, et al. Changes in sexual behaviours: from secular trends to public health policies. AIDS. 2010 may 15;24(8):1185-91.

² Crochard A, Luyts D, di Nicola S, Gonçalves MAG. Self-reported sexual debut and behavior in young adults aged 18-24 years in seven European countries: implications for HPV vaccination programs. Gynecol. Oncol. 2009 Dic;115(3 Suppl):S7-S14.

Paris: Observatoire régional de la santé d'Île-de-France, 2005.

Beltzer N, Lagarde M, Wu-Zhou X, Vongmany N, Grémy I. Les connaissances, attitudes, croyances et comportements face au VIH/sida en France-Evolutions 1992, 1994, 1998, 2001, 2004.

Paris: Observatoire régional de la santé d'Île-de-France, 2005.

Beltzer N, Saboni L, Sauvage C, Sommen C et l'équipe KABP. Les connaissances, attitudes, croyances et comportements face au VIH/sida en Île-de-France en 2010. Observatoire régional

de santé d'Île-de-France 5 Hubert M, Bajos N, Sandfort T. Sexual behaviour and HIV/AIDS in Europe: comparisons of national surveys. London: UCL Press; 1998.

Table 42: Marriage patterns in France

Indicator		Male	Female
Average age at first marriage ¹		33.6	32
Age-specific % of ever married ²	15-19 years	0.05	0.21
	20-24 years	2.24	5.91
	25-29 years	14.91	25.24
	30-34 years	36.44	46.57
	35-39 years	52.44	59.75
	40-44 years	62.21	68.01
	45-49 years	69.46	74.75
	50-54 years	76.38	81.36
	55-59 years	83.01	86.8
	60-64 years	88.16	90.23
	65-69 years	91.06	92.2
	70-74 years	92.25	93.29
	+75	92.63	93.28

Data accessed on 20 Feb 2020

Please refer to original source for methods of estimation.

Table 43: Average number of sexual partners in France

1 able 45: Average number of sexual partners in Fra							
Study Period of estimate		Year/Period Birth cohort		Female Mean(N)	Total Mean(N)		
Lifetime	1970	<=1950	11.8(1250)	1.8(1375)	-(-)		
Lifetime	1970	<=1920	12.2(1250)	1.6(1375)	-(-)		
Lifetime	1970	(1921-1940)	12.8(1250)	1.9(1375)	-(-)		
Lifetime	1970	(1941-1950)	9.4(1250)	2.0(1375)	-(-)		
Lifetime	1992	(1923-1942)	10.3(8948)	2.0(11098)	-(-)		
Lifetime	1992	(1923-1974)	11.0(8948)	3.3(11098)	-(-)		
Lifetime	1992	(1943-1962)	12.6(8948)	4.0(11098)	-(-)		
Lifetime	1992	(1963-1972)	10.4(8948)	3.9(11098)	-(-)		
Lifetime	2006	(1937-1956)	12.9(5540)	3.9(6824)	-(-)		
Lifetime	2006	(1937-1988)	11.6(5540)	4.4(6824)	-(-)		
Lifetime	2006	(1957-1976)	12.9(5540)	5.1(6824)	-(-)		
Lifetime	2006	(1977-1986)	7.7(5540)	3.8(6824)	-(-)		
Lifetime	1991-1992	(1942-1974)	11.5(6551)	3.8(7777)	-(-)		
Last year	1991-1992	(1942-1974)	1.4(6252)	1.1(7403)	-(-)		
Lifetime	2006-2007	(1982-1989)	4.0(419)	3.0(460)	-(-)		
	Lifetime Last year	Period of estimate Year/Period Lifetime 1970 Lifetime 1970 Lifetime 1970 Lifetime 1992 Lifetime 1992 Lifetime 1992 Lifetime 1992 Lifetime 2006 Lifetime 2006 Lifetime 2006 Lifetime 2006 Lifetime 2006 Lifetime 1991-1992 Last year 1991-1992	Period of estimate Year/Period Birth cohort Lifetime 1970 <=1950	Period of estimate Year/Period Birth cohort Male Mean(N) Lifetime 1970 <=1950	Period of estimate Year/Period Birth cohort Male Mean(N) Mean(N) Lifetime 1970 <=1950		

Data accessed on 8 Aug 2013

Please refer to original source for methods of estimation ^a Number of surveyed people (not all sexually active).

Data Sources:

a 2013 Estimate b UNSD

Data Sources:

The world bank: health nutrition and population statistics. Updated 20-Dec-2019. Accessed on February 20 2020. Available at http://data.worldbank.org/data-catalog/

health-nutrition-and-population-statistics

United Nations, Department of Economic and Social Affairs, Population Division (2019). World Marriage Data 2019 (POP/DB/Marr/Rev2019). Available at: https://population.un. org/MarriageData/Index.html#/home Accessed on February 24, 2020.

 $^{^{}b}$ Data from the Analysis on Sexual Behaviour in France (ACSF).

 $^{^{\}it c}$ Data among responders who ever had a heterosexual partner.

d Median number of sexual partners.

¹ Bajos N, Bozon M, Beltzer N, Laborde C, Andro A, Ferrand M, et al. Changes in sexual behaviours: from secular trends to public health policies. AIDS. 2010 may 15;24(8):1185-91.

² Hubert M, Bajos N, Sandfort T. Sexual behaviour and HIV/AIDS in Europe: comparisons of national surveys. London: UCL Press; 1998.

³ Crochard A, Luyts D, di Nicola S, Gonçalves MAG. Self-reported sexual debut and behavior in young adults aged 18-24 years in seven European countries: implications for HPV vaccination programs. Gynecol. Oncol. 2009 Dic;115(3 Suppl):S7-S14.

Table 44: Lifetime prevalence of anal intercourse among women in France

	_		FEMALE					
Study	Year/Period	Birth cohort	N surveyed	N sexual active	% among sexually active			
Bajos 2010	1970	<=1950	1375	-	15.0			
Bajos 2010	1970	(1941-1950)	1375	-	16.0			
Bajos 2010	1970	(1921-1940)	1375	-	14.0			
Bajos 2010	1992	(1923-1974)	11098	-	28.1			
Bajos 2010	1992	(1963-1972)	11098	-	23.8			
Bajos 2010	1992	(1943-1962)	11098	-	30.3			
Bajos 2010	2006	(1937-1988)	6824	-	40.8			
Bajos 2010	2006	(1977-1986)	6824	-	36.8			
Bajos 2010	2006	(1957-1976)	6824	-	42.5			

Data accessed on 8 Aug 2013
Please refer to original source for methods of estimation
Data Sources:
Bajos N, Bozon M, Beltzer N, Laborde C, Andro A, Ferrand M, et al. Changes in sexual behaviours: from secular trends to public health policies. AIDS. 2010 may 15;24(8):1185-91.

7 HPV preventive strategies

It is established that well-organised cervical screening programmes or widespread good quality cytology can reduce cervical cancer incidence and mortality. The introduction of HPV vaccination could also effectively reduce the burden of cervical cancer in the coming decades. This section presents indicators on basic characteristics and performance of cervical cancer screening, status of HPV vaccine licensure and introduction in France.

7.1 Cervical cancer screening practices

Screening strategies differ between countries. Some countries have population-based programmes, where in each round of screening women in the target population are individually identified and invited to attend screening. This type of programme can be implemented nationwide or only in specific regions of the country. In opportunistic screening, invitations depend on the individual's decision or on encounters with health-care providers. The most frequent method for cervical cancer screening is cytology, and there are alternative methods such as HPV DNA tests and visual inspection with acetic acid (VIA). VIA is an alternative to cytology-based screening in low-resource settings (the 'see and treat' approach). HPV DNA testing is being introduced into some countries as an adjunct to cytology screening ('co-testing') or as the primary screening test to be followed by a secondary, more specific test, such as cytology.

Table 45: Main characteristics of cervical cancer screening in France

Region	Existence of official national recommendations	Starting year of current recommendations	Active invitation to screening	Screening ages (years), primary screening test used, and screening interval or frequency of screenings
France	Yes	2020	Yes	25-29 (cytology, 3 years); 30-65 (HPV test, 5 years)

Data accessed on 31 Aug 2022

<u>Data Sources</u>:

Bruin L, Serrano B, Roura E, Alemany L, Cowan M, Herrero R, et al. Cervical cancer screening programmes and age-specific coverage estimates for 202 countries and territories worldwide: a review and synthetic analysis. Lancet Glob Health. 2022;10(8):e1115.

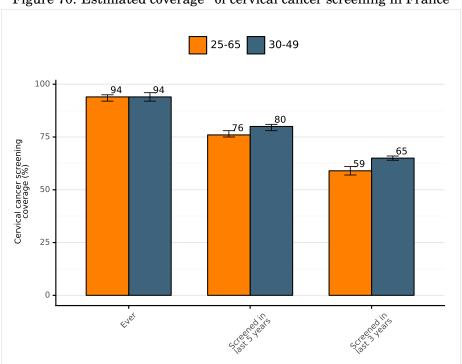


Figure 70: Estimated coverage* of cervical cancer screening in France

Data accessed on 31 Aug 2022

* Estimated coverage and 95% confidence interval in 2019

Data Sources:

Bruni L, Serrano B, Roura E, Alemany L, Cowan M, Herrero R, et al. Cervical cancer screening programmes and age-specific coverage estimates for 202 countries and territories worldwide: a review and synthetic analysis. Lancet Glob Health. 2022;10(8):e1115.

7.2 HPV vaccination

Table 46: National HPV Immunization programme in France

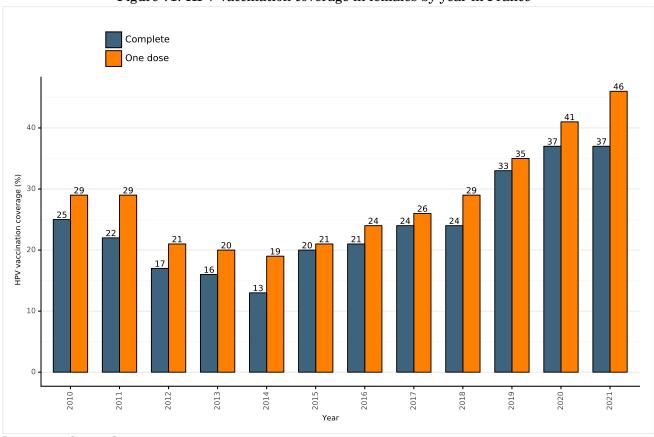
	Female	Male
HPV vaccination programme	Introduced	Not Available/Not Introduced
Year of introduction	2007	-
Year of estimation of HPV vaccination coverage	2021	-
HPV coverage – first dose (%)	46	-
HPV coverage – last dose (%)	37	-

Data accessed on 24 Oct 2022

Data Sources:
Human papillomavirus (HPV) vaccination coverage. World Health Organization. 2022. Available from: https://immunizationdata.who.int/pages/coverage/hpv.html, accessed [24]

Oct 2022]
Bruni L, Saura-Lázaro A, Montoliu A, Brotons M, Alemany L, Diallo MS, et al. HPV vaccination introduction worldwide and WHO and UNICEF estimates of national HPV immunization coverage 2010-2019. Prev Med. 2021;144(106399):106399.

Figure 71: HPV vaccination coverage in females by year in France



Data accessed on 24 Oct 2022

Data Sources:
Human papillomavirus (HPV) vaccination coverage. World Health Organization. 2022. Available from: https://immunizationdata.who.int/pages/coverage/hpv.html, accessed [24]

Bruni L, Saura-Lázaro A, Montoliu A, Brotons M, Alemany L, Diallo MS, et al. HPV vaccination introduction worldwide and WHO and UNICEF estimates of national HPV immunization coverage 2010-2019. Prev Med. 2021;144(106399):106399.

Figure 72: HPV vaccination coverage in males by year in France					
	No data available				
	NO data available				

Data accessed on 24 Oct 2022

Data Sources:

Human papillomavirus (HPV) vaccination coverage. World Health Organization. 2022. Available from: https://immunizationdata.who.int/pages/coverage/hpv.html, accessed [24 Oct 2022]

Bruni L, Saura-Lázaro A, Montoliu A, Brotons M, Alemany L, Diallo MS, et al. HPV vaccination introduction worldwide and WHO and UNICEF estimates of national HPV immunization coverage 2010-2019. Prev Med. 2021;144(106399):106399.

Protective factors for cervical cancer 8

Male circumcision and the use of condoms have shown a significant protective effect against HPV transmission.

Table 47: Prevalence of male circumcision in France

Reference	Prevalence % (95% CI)	Methods	
WHO 2007	<20	Data from Demographic and Health Surveys (DHS) and other publications to categorize the country-wide prevalence of male circumcision as <20%, 20-80%, or >80%.	

Data accessed on 31 Aug 2015

Data Sources:
WHO 2007: Male circumcision: Global trends and determinants of prevalence, safety and acceptability
Based on systematic reviews and meta-analysis performed by ICO. The ICO HPV Information Centre has updated data until August 2015. Reference publication: Albero G, Sex Transm Dis. 2012 Feb;39(2):104-13.

Table 48: Prevalence of condom use in France

Indicator	Age range	Year of estimate	Prevalence $\%^a$
Condom use	15-49	2010-2011	7

Data accessed on 18 Nov 2019

Please refer to original source for methods of estimation.

^a Condom use: Proportion of male partners who are using condoms with their female partners of reproductive age to whom they are married or in union by country.

<u>Data Sources</u>: 2010 Enquête Fecond

United Nations, Department of Economic and Social Affairs, Population Division (2019). World Contraceptive Use 2019 (POP/DB/CP/Rev2019). https://www.un.org/en/development/desa/population/publications/dataset/contraception/wcu2019.asp. Available at: [Accessed on November 18, 2019].

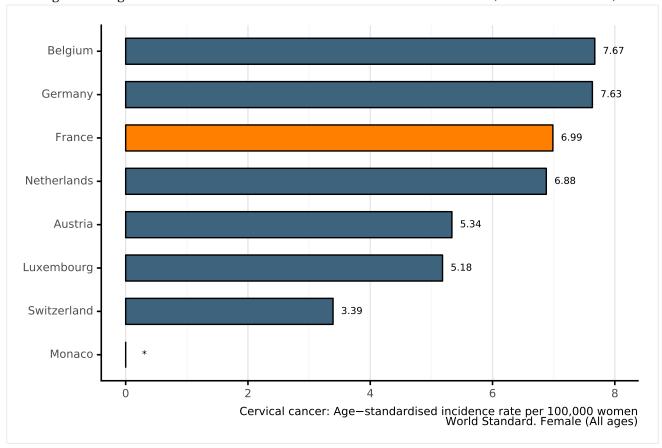
9 ANNEX -90-

9 Annex

9.1 Incidence

9.1.1 Cervical cancer incidence in France across Western Europe

Figure 73: Age-standardised incidence rates of cervical cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Rates per 100,000 women per year.

* Rates are not available

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for $Research \ on \ Cancer. \ Available \ from: \ \texttt{https://gco.iarc.fr/today}\ ,\ accessed\ [27\ January\ 2021].$

9 ANNEX -91-

1200 -1120 France Annual number of new cases of cervical cancer 1058 1020 Western Europe 944 900 813 678 605 600 389 300 0 45-49 20-24 25-29 35-39 40-44 50-54 55-59 60-64 69-59 70-74 75-79 80-84 30-34 85+

Figure 74: Annual number of new cases of cervical cancer by age group in France (estimates for 2020)

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

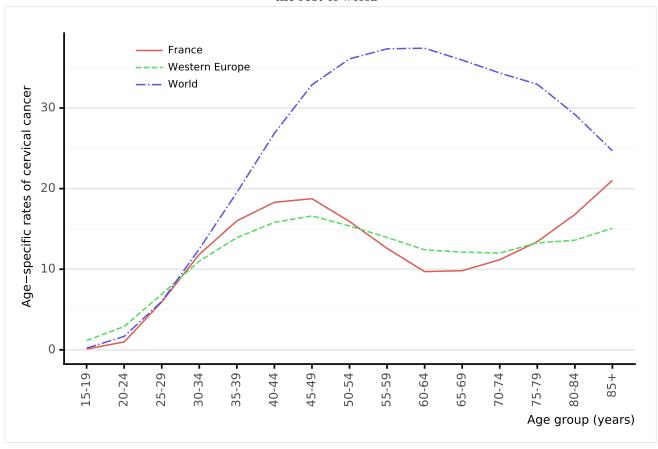
a 2 cases for France and 59 cases for Western Europe in the 15-19 age group.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

Age group (years)

9 ANNEX -92-

Figure 75: Comparison of age-specific cervical cancer incidence rates in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods ^a Rates per 100,000 women per year.

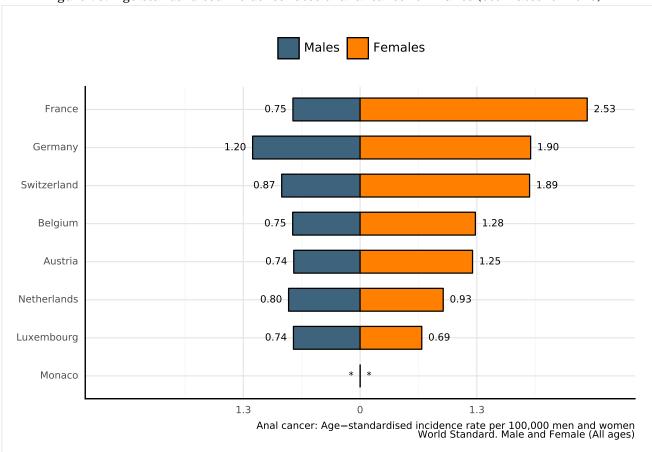
Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX -93-

9.1.2 Anal cancer incidence in France across Western Europe

Figure 76: Age-standardised incidence rates of anal cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

^a Rates per 100,000 men per year.

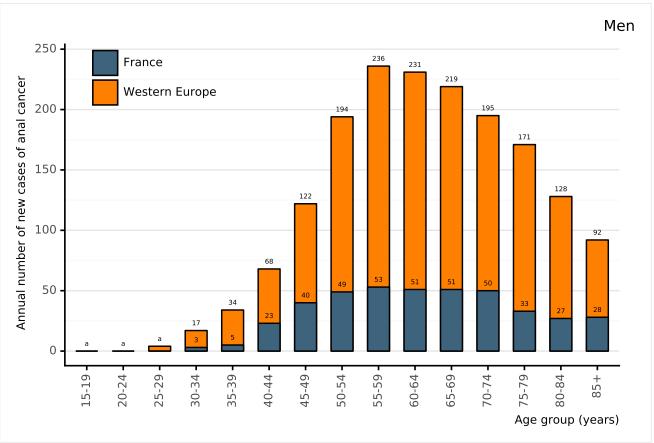
^b Rates per 100,000 women per year.

<u>Data Sources:</u>

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

- 94 -9 ANNEX

Figure 77: Annual number of new cases of anal cancer among men by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

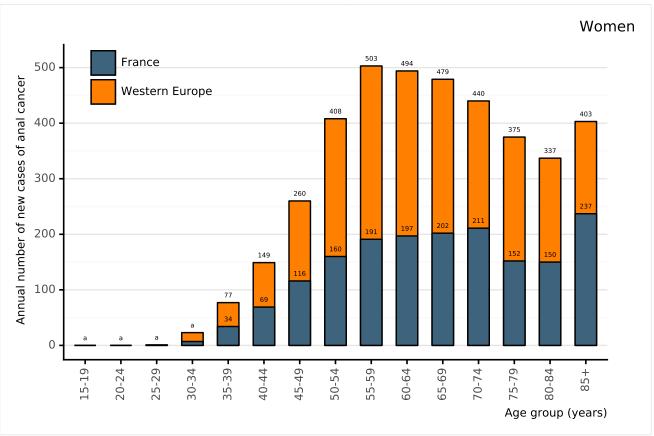
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 20-24 age group. 0 cases for France and 4 cases for Western Europe in the 25-29 age group.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 95 -

Figure 78: Annual number of new cases of anal cancer among women by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

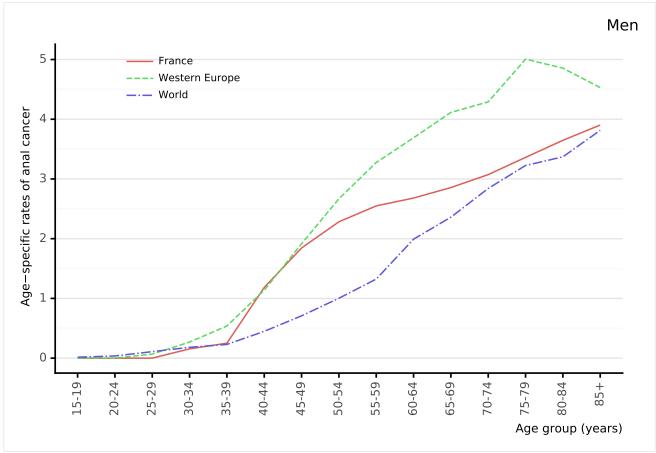
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 7 cases for France and 23 cases for Western Europe in the 30-34 age group.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 96 -

Figure 79: Comparison of age-specific anal cancer incidence rates among men by age in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

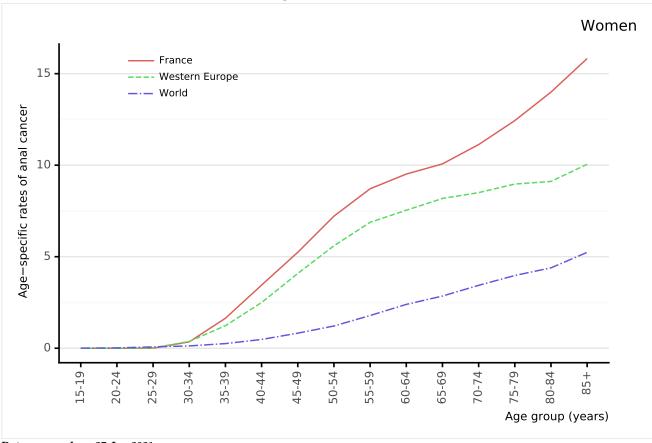
^a Rates per 100,000 men per year.

Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX -97-

Figure 80: Comparison of age-specific anal cancer incidence rates among women by age in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

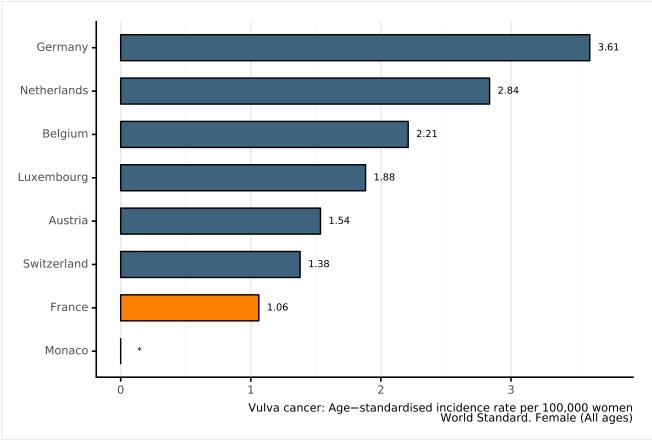
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 98 -

9.1.3 Vulva cancer incidence in France across Western Europe

Figure 81: Age-standardised incidence rates of vulva cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year. * Rates are not available

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 99 -

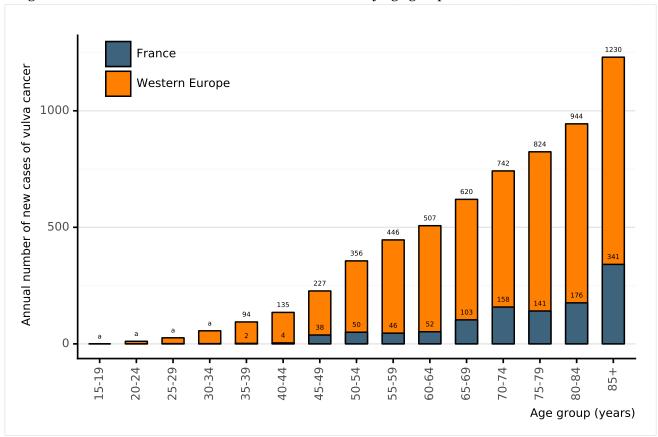


Figure 82: Annual number of new cases of vulva cancer by age group in France (estimates for 2020)

Data accessed on 27 Jan 2021

Bata Doutes.
Ferlay J. Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

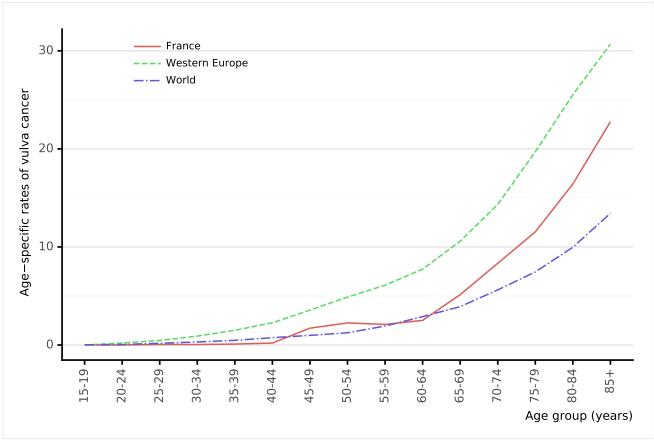
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 11 cases for Western Europe in the 20-24 age group. 1 cases for France and 26 cases for Western Europe in the 25-29 age group. 1 cases for France and 56 cases for Western Europe in the 30-34 age group.

Data Sources:

9 ANNEX - 100 -

Figure 83: Comparison of age-specific vulva cancer incidence rates in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Rates per 100,000 women per year.

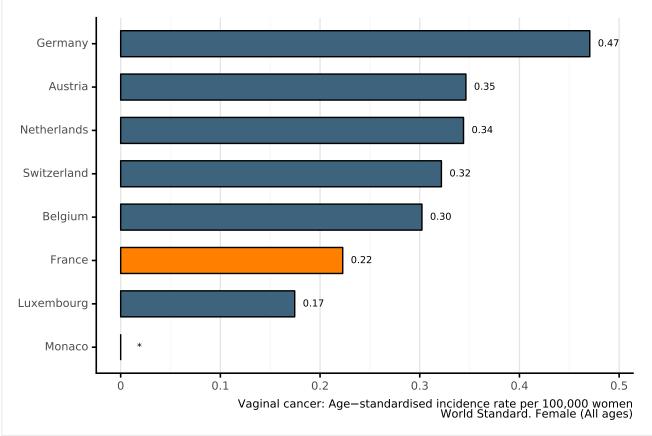
Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 101 -

9.1.4 Vaginal cancer incidence in France across Western Europe

Figure 84: Age-standardised incidence rates of vaginal cancer of France (estimates for 2020)

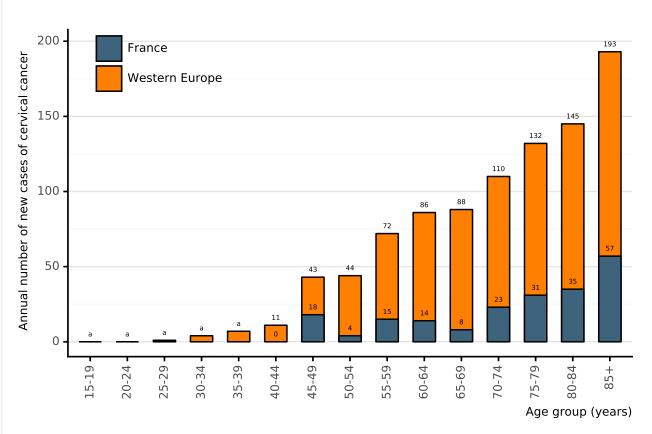


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year. * Rates are not available

9 ANNEX - 102 -

Figure 85: Annual number of new cases of cervical cancer by age group in France (estimates for 2020)



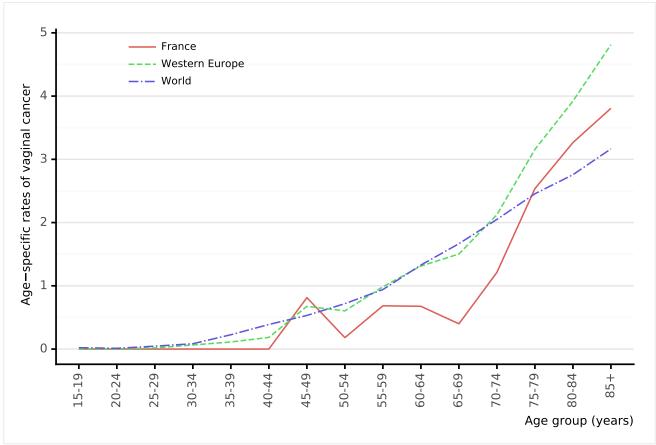
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 4 cases for Western Europe in the 30-34 age group. 0 cases for France and 7 cases for Western Europe in the 35-39 age group.

9 ANNEX - 103 -

Figure 86: Comparison of age-specific vaginal cancer incidence rates in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Rates per 100,000 women per year.

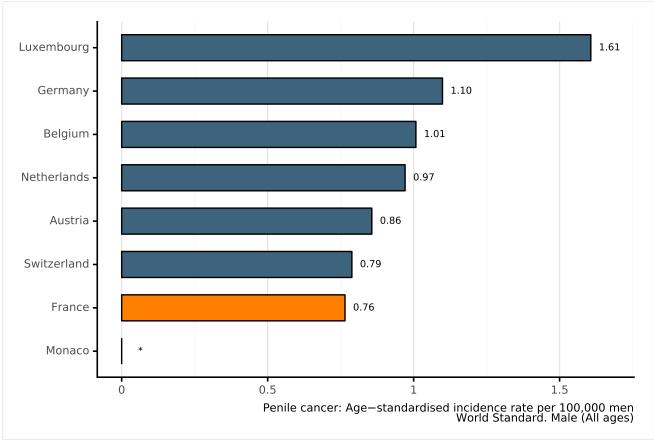
Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 104 -

9.1.5 Penile cancer incidence in France across Western Europe

Figure 87: Age-standardised incidence rates of penile cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods ^a Rates per 100,000 men per year.

* Rates are not available

9 ANNEX - 105 -

311 France 308 296 300 Annual number of new cases of penile cancer 278 Western Europe 250 200 189 100 0 35-39 75-79 30-34 40-44 55-59 69-59 70-74 80-84 85+ 50-54 60-64 Age group (years)

Figure 88: Annual number of new cases of penile cancer by age group in France (estimates for 2020)

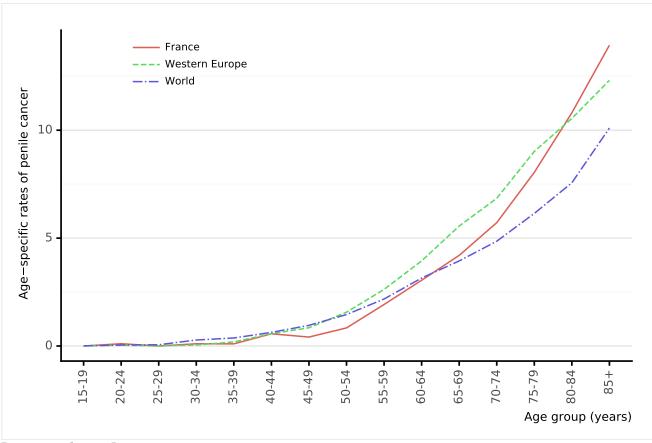
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 2 cases for France and 2 cases for Western Europe in the 20-24 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 2 cases for France and 3 cases for Western Europe in the 30-34 age group. 2 cases for France and 12 cases for Western Europe in the 35-39 age

9 ANNEX - 106 -

Figure 89: Comparison of age-specific penile cancer incidence rates in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Rates per 100,000 men per year.

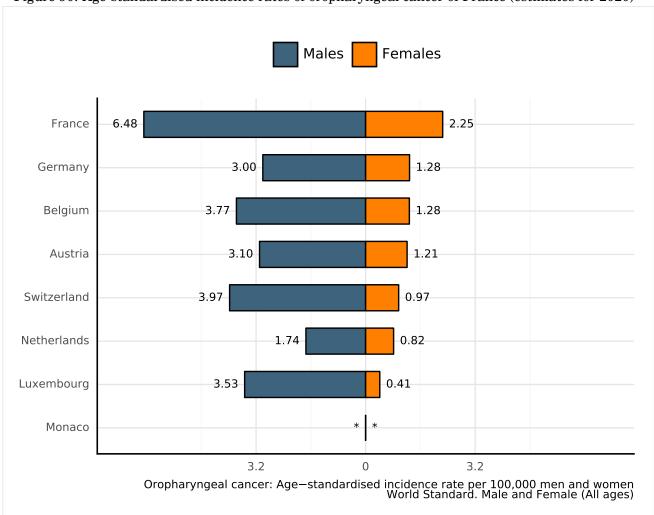
Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 107 -

9.1.6 Oropharyngeal cancer incidence in France across Western Europe

Figure 90: Age-standardised incidence rates of oropharyngeal cancer of France (estimates for 2020)



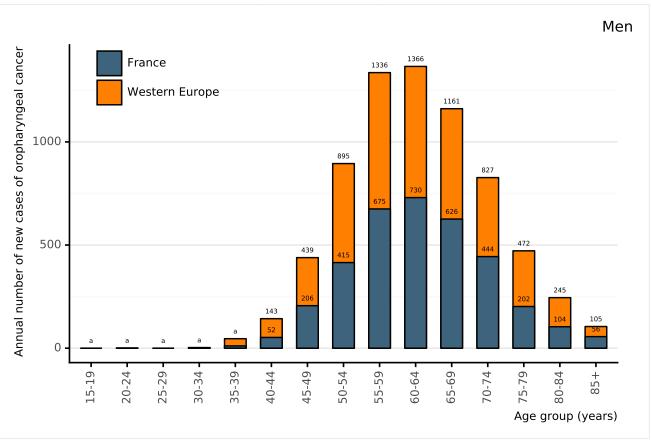
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

b Rates per 100,000 women per year.

9 ANNEX - 108 -

Figure 91: Annual number of new cases of oropharyngeal cancer among men by age group in France (estimates for 2020)



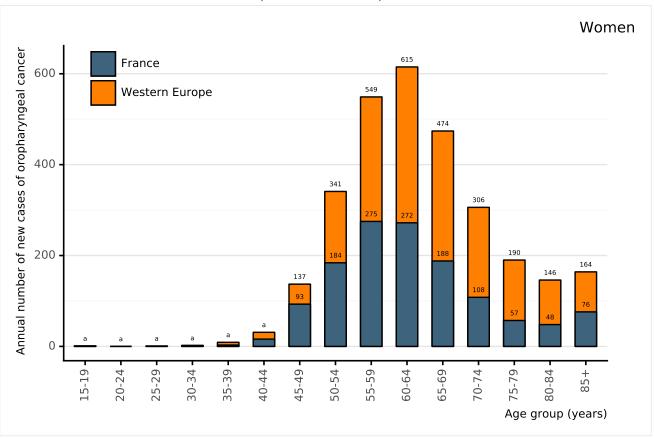
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 1 cases for Western Europe in the 20-24 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 1 cases for France and 3 cases for Western Europe in the 30-34 age group. 11 cases for France and 46 cases for Western Europe in the 35-39 age Western Europe in the 25-25 age group. I cases for France and 6 cases for restard and 6 cases for rest

9 ANNEX - 109 -

Figure 92: Annual number of new cases of oropharyngeal cancer among women by age group in France (estimates for 2020)

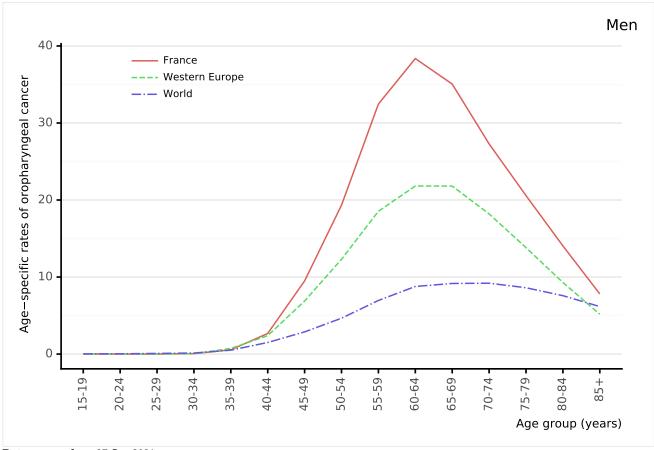


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods
a 1 cases for France and 1 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 2 cases for France and 2 cases for Western Europe in the 30-34 age group. 3 cases for France and 9 cases for Western Europe in the 35-39 age group.
16 cases for France and 31 cases for Western Europe in the 40-44 age group.
Data Sources:

9 ANNEX -110-

Figure 93: Comparison of age-specific oropharyngeal cancer incidence rates among men by age in France, within the region, and the rest of world

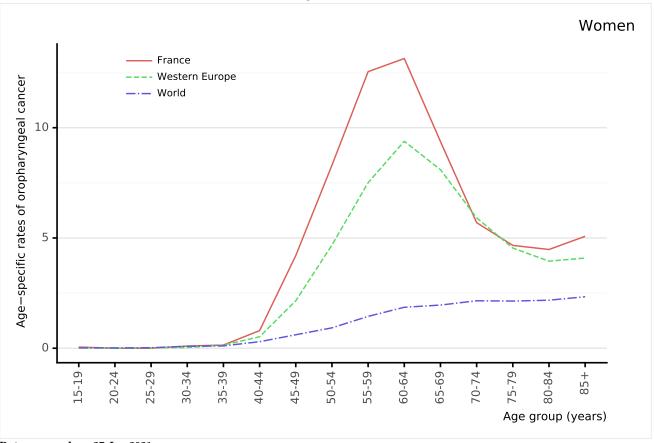


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

9 ANNEX -111-

Figure 94: Comparison of age-specific oropharyngeal cancer incidence rates among women by age in France, within the region, and the rest of world



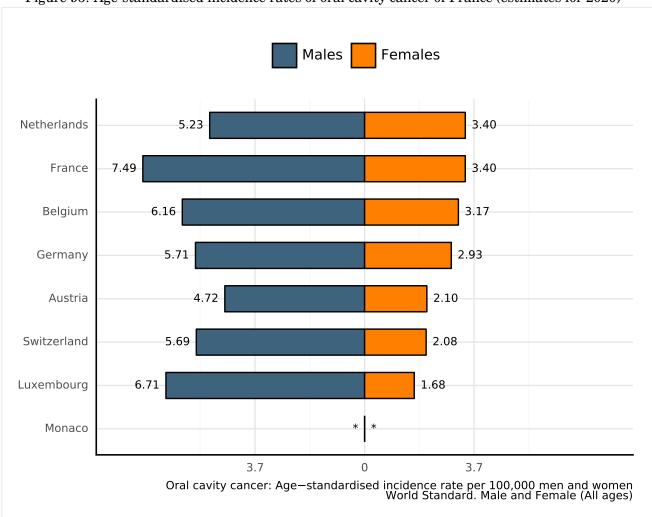
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

9 ANNEX - 112 -

9.1.7 Oral cavity cancer incidence in France across Western Europe

Figure 95: Age-standardised incidence rates of oral cavity cancer of France (estimates for 2020)



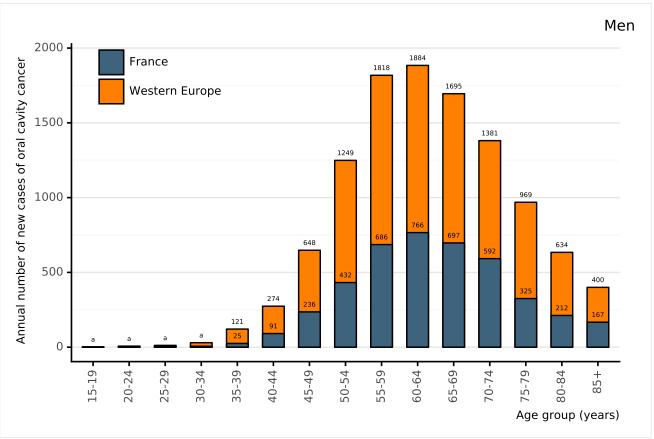
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

b Rates per 100,000 women per year.

9 ANNEX - 113 -

Figure 96: Annual number of new cases of oral cavity cancer among men by age group in France (estimates for 2020)



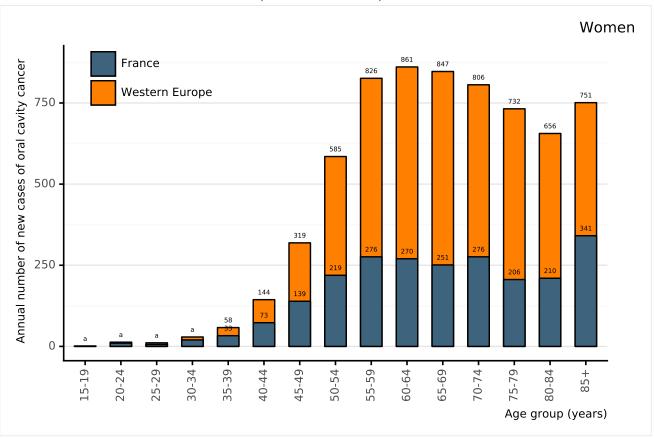
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 1 cases for France and 2 cases for Western Europe in the 15-19 age group. 4 cases for France and 7 cases for Western Europe in the 20-24 age group. 4 cases for France and 12 cases for Western Europe in the 25-29 age group. 6 cases for France and 30 cases for Western Europe in the 30-34 age group.

9 ANNEX - 114 -

Figure 97: Annual number of new cases of oral cavity cancer among women by age group in France (estimates for 2020)



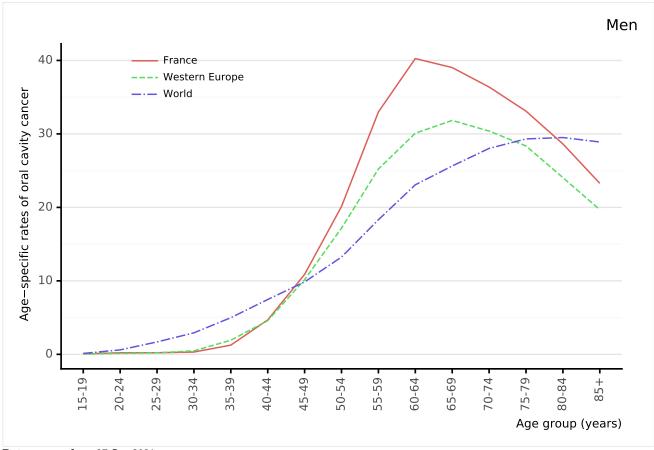
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 1 cases for France and 1 cases for Western Europe in the 15-19 age group. 10 cases for France and 13 cases for Western Europe in the 20-24 age group. 6 cases for France and 11 cases for Western Europe in the 25-29 age group. 20 cases for France and 29 cases for Western Europe in the 30-34 age group.

9 ANNEX - 115 -

Figure 98: Comparison of age-specific oral cavity cancer incidence rates among men by age in France, within the region, and the rest of world

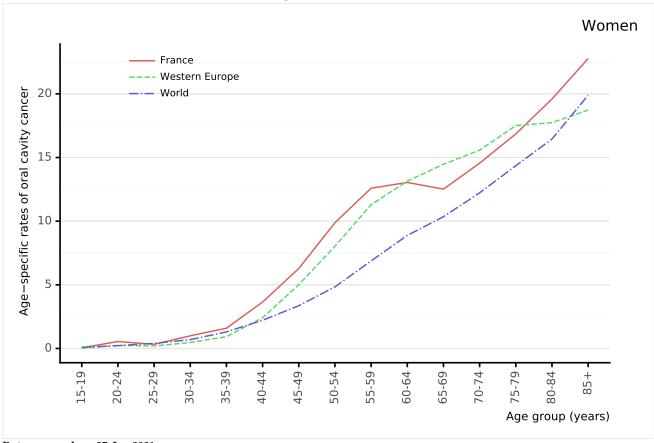


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

9 ANNEX - 116 -

Figure 99: Comparison of age-specific oral cavity cancer incidence rates among women by age in France, within the region, and the rest of world



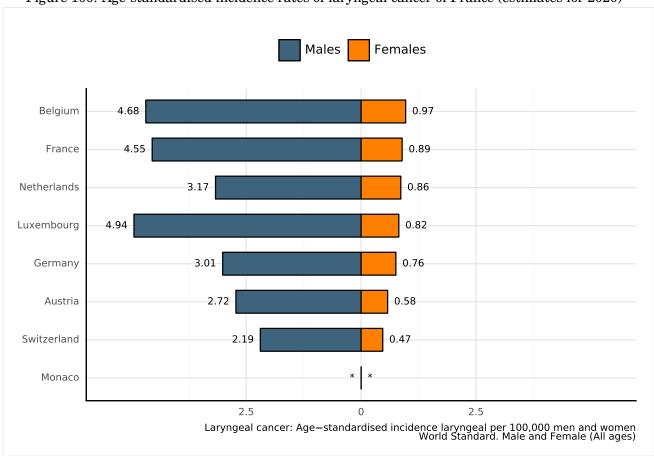
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

9 ANNEX - 117 -

9.1.8 Laryngeal cancer incidence in France across Western Europe

Figure 100: Age-standardised incidence rates of laryngeal cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021

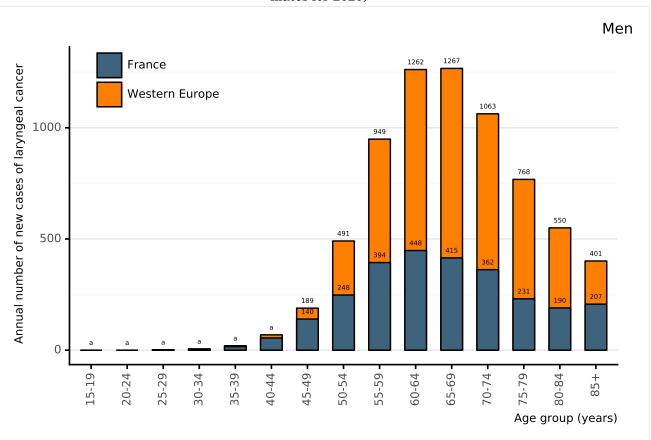
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

b Rates per 100,000 women per year.

9 ANNEX - 118 -

Figure 101: Annual number of new cases of laryngeal cancer among men by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

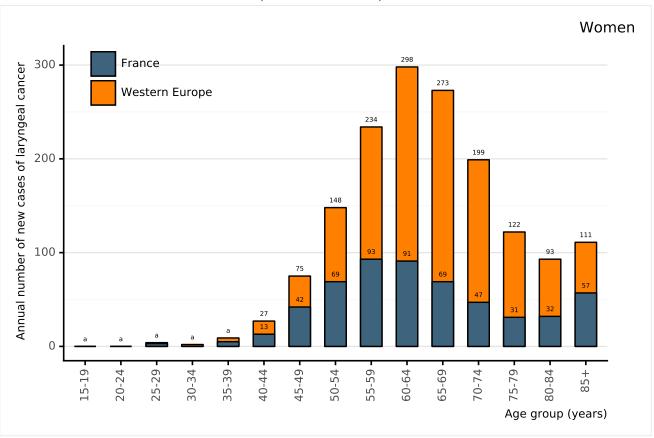
a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 20-24 age group. 1 cases for France and 2 cases for Western Europe in the 25-29 age group. 3 cases for France and 6 cases for Western Europe in the 30-34 age group. 16 cases for France and 20 cases for Western Europe in the 35-39 age western Europe in the 20-29 age group. 3 cases for France and 6 cases for western Europe in the 30-39 age group. 16 cases for France and 60 cases for Western Europe in the 40-44 age group.

Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 119 -

Figure 102: Annual number of new cases of laryngeal cancer among women by age group in France (estimates for 2020)



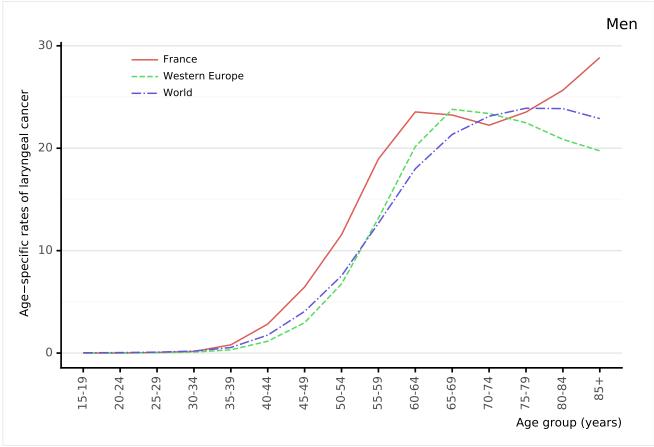
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 2 cases for Western Europe in the 35-39 age group. 5 cases for France and 9 cases for Western Europe in the 35-39 age group.

9 ANNEX - 120 -

Figure 103: Comparison of age-specific laryngeal cancer incidence rates among men by age in France, within the region, and the rest of world

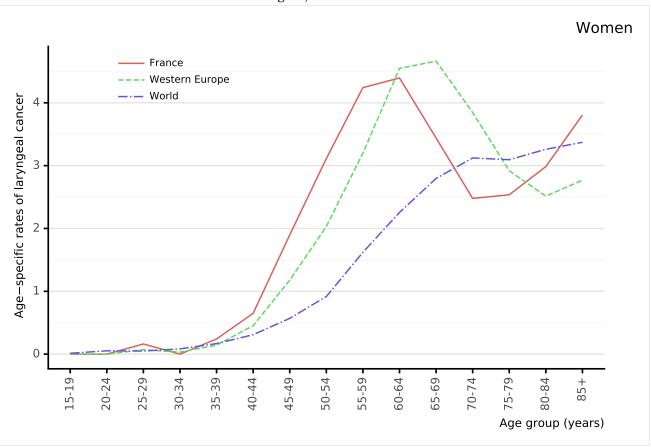


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

9 ANNEX - 121 -

Figure 104: Comparison of age-specific laryngeal cancer incidence rates among women by age in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

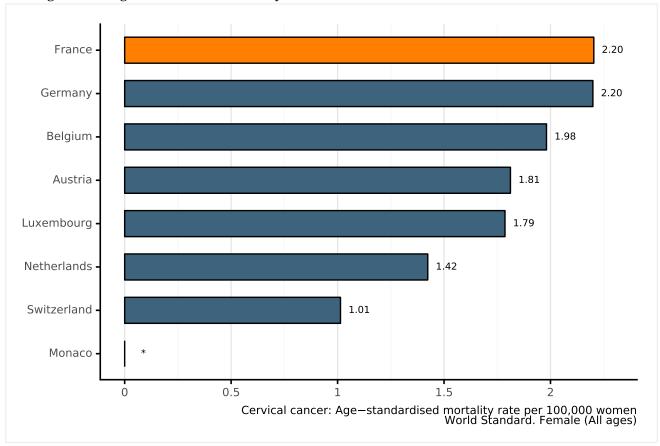
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

9 ANNEX - 122 -

9.2 Mortality

9.2.1 Cervical cancer mortality in France across Western Europe

Figure 105: Age-standardised mortality rates of cervical cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1$

* Rates are not available

9 ANNEX - 123 -

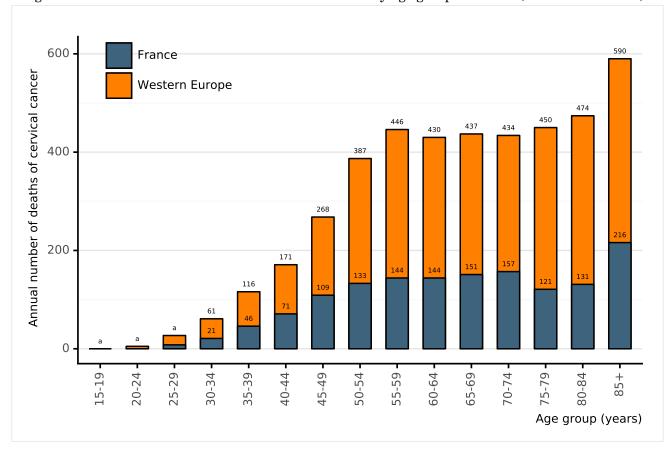


Figure 106: Annual number of deaths of cervical cancer by age group in France (estimates for 2020)

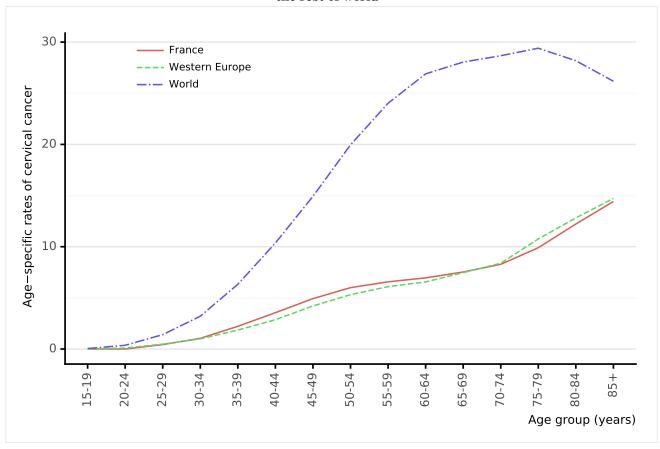
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 5 cases for Western Europe in the 20-24 age group. 8 cases for France and 27 cases for

9 ANNEX - 124 -

Figure 107: Comparison of age-specific cervical cancer mortality rates in France, within the region, and the rest of world



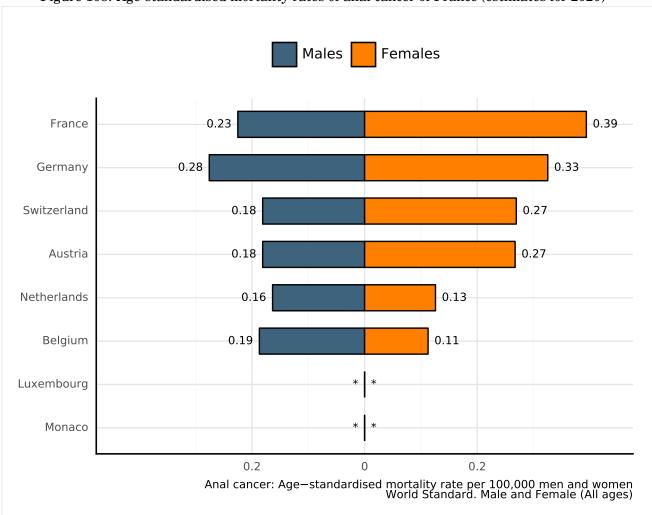
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

9 ANNEX - 125 -

9.2.2 Anal cancer mortality in France across Western Europe

Figure 108: Age-standardised mortality rates of anal cancer of France (estimates for 2020)



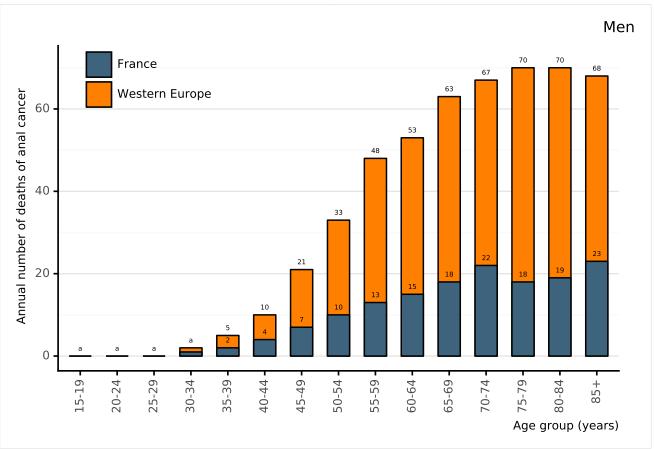
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

b Rates per 100,000 women per year.
* Rates are not available

9 ANNEX - 126 -

Figure 109: Annual number of deaths of anal cancer among men by age group in France (estimates for 2020)



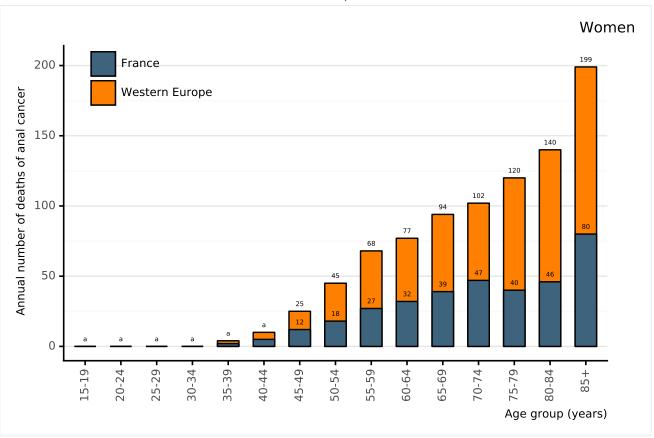
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 1 cases for France and 2 cases for Western Europe in the 30-34 age group.

9 ANNEX - 127 -

Figure 110: Annual number of deaths of anal cancer among women by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

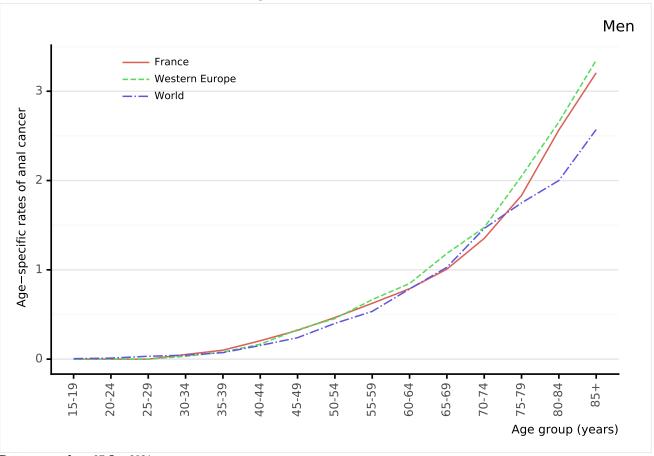
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 25-39 age group. 0 cases for Western Europe in the 30-34 age group. 2 cases for France and 4 cases for Western Europe in the 35-39 age group. 5 cases for France and 10 cases for Western Europe in the 40-44 age group.

Bata Sources:

9 ANNEX - 128 -

Figure 111: Comparison of age-specific anal cancer mortality rates among men by age in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

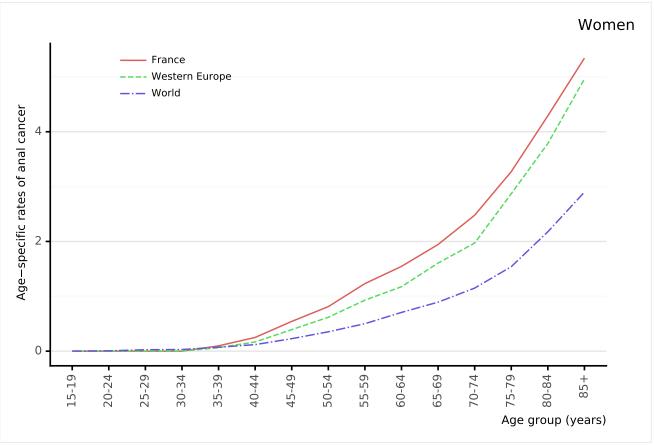
^a Rates per 100,000 men per year.

Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 129 -

Figure 112: Comparison of age-specific anal cancer mortality rates among women by age in France, within the region, and the rest of world



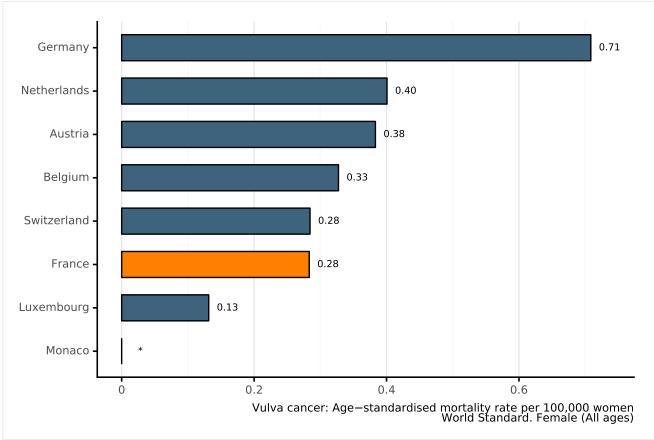
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

9 ANNEX - 130 -

9.2.3 Vulva cancer mortality in France across Western Europe

Figure 113: Age-standardised mortality rates of vulva cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year. * Rates are not available

ANNEX - 131 -

600 France Annual number of deaths of vulva cancer Western Europe 400 314 212 200 0 35-39 45-49 75-79 30-34 40-44 55-59 69-59 70-74 80-84 50-54 60-64 Age group (years)

Figure 114: Annual number of deaths of vulva cancer by age group in France (estimates for 2020)

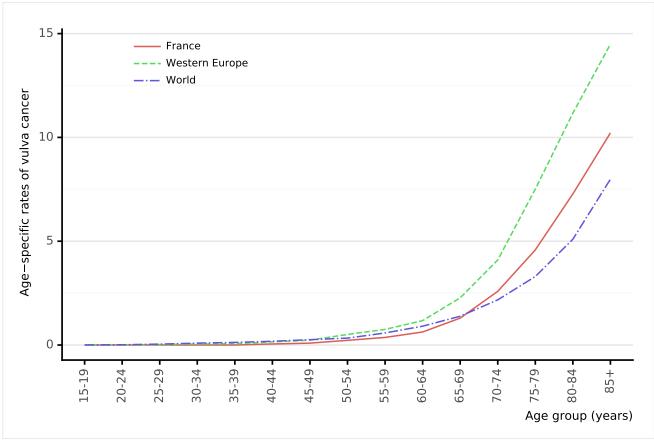
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 20-24 age group. 0 cases for France and 1 cases for Western Europe in the 25-29 age group. 0 cases for France and 3 cases for Western Europe in the 30-34 age group. 0 cases for France and 4 cases for Western Europe in the 35-39 age group. 1 cases for France and 9 cases for Western Europe in the 40-44 age group. 2 cases for France and 15 cases for Western Europe in the 45-49 age group.

9 ANNEX - 132 -

Figure 115: Comparison of age-specific vulva cancer mortality rates in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Rates per 100,000 women per year.

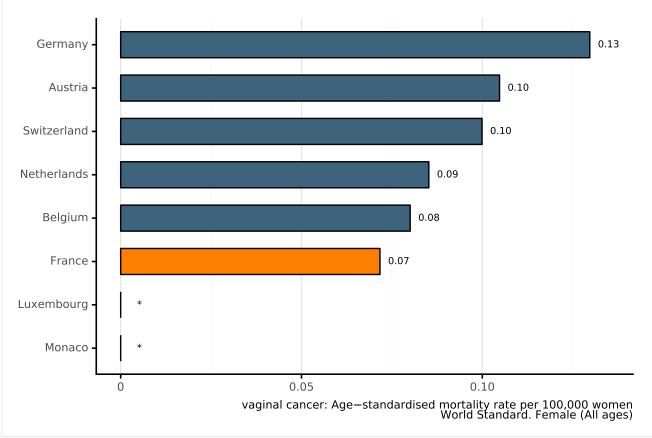
Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 133 -

9.2.4 Vaginal cancer mortality in France across Western Europe

Figure 116: Age-standardised mortality rates of vaginal cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year. * Rates are not available

9 ANNEX - 134 -

120 -114 France Annual number of deaths of cervical cancer Western Europe 90 60 30 0 35-39 45-49 75-79 30-34 40-44 55-59 69-59 70-74 80-84 50-54 60-64 Age group (years)

Figure 117: Annual number of deaths of cervical cancer by age group in France (estimates for 2020)

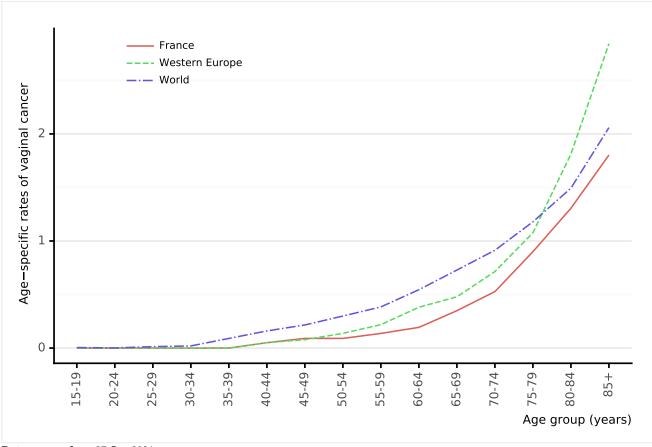
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 20-24 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 30-34 age group. 0 cases for France and 0 cases for Western Europe in the 40-44 age group. 2 cases for France and 5 cases for Western Europe in the 45-49 age group.

9 ANNEX - 135 -

Figure 118: Comparison of age-specific vaginal cancer mortality rates in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

^a Rates per 100,000 women per year.

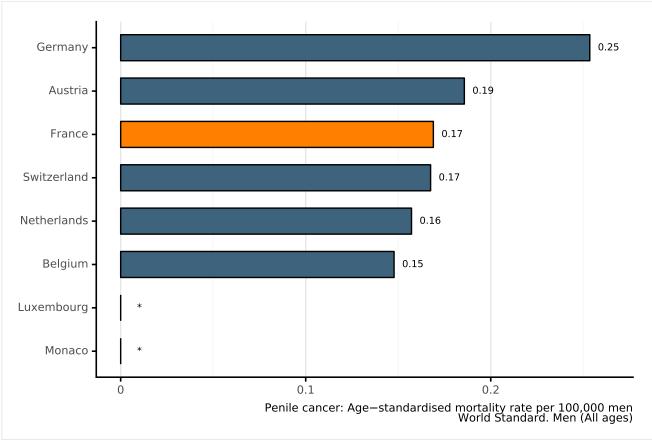
Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 136 -

9.2.5 Penile cancer mortality in France across Western Europe

Figure 119: Age-standardised mortality rates of penile cancer of France (estimates for 2020)



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods ^a Rates per 100,000 men per year.

* Rates are not available

9 ANNEX - 137 -

101 France 100 Annual number of deaths of penile cancer Western Europe 85 75 70 50 25

Figure 120: Annual number of new deaths of penile cancer by age group in France (estimates for 2020)

0

30-34

35-39

40-44

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 20-24 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 30-34 age group. 1 cases for France and 2 cases for Western Europe in the 35-39 age group.

1 cases for France and 4 cases for Western Europe in the 40-44 age group.

1 cases for France and 5 cases for Western Europe in the 40-44 age group.

55-59

60-64

50-54

69-59

Data Sources:
Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

75-79

80-84

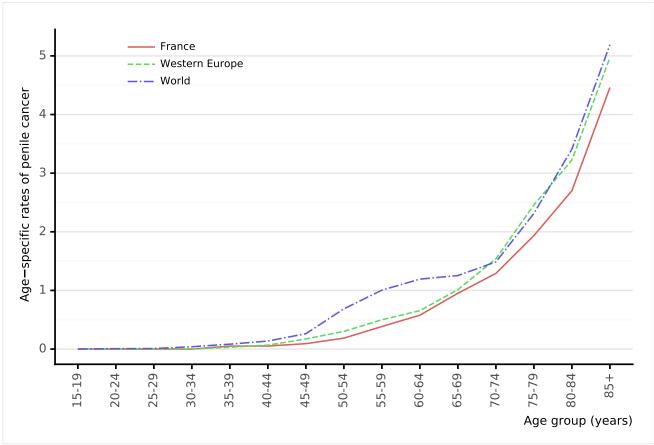
Age group (years)

85+

70-74

9 ANNEX - 138 -

Figure 121: Comparison of age-specific penile cancer mortality rates in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a Rates per 100,000 men per year.

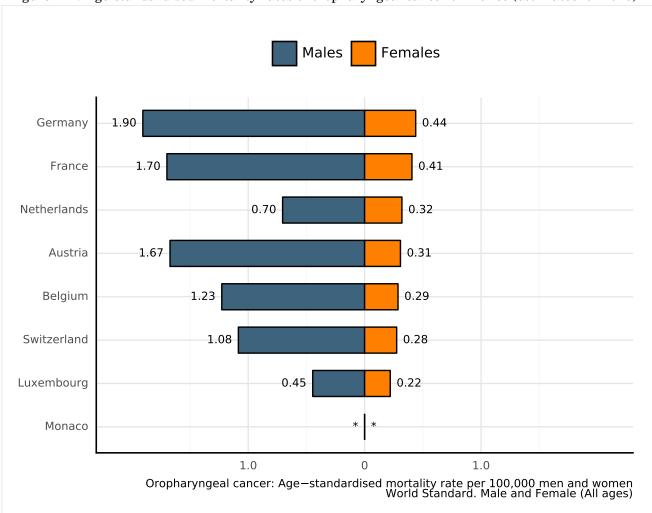
Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 139 -

9.2.6 Oropharyngeal cancer mortality in France across Western Europe

Figure 122: Age-standardised mortality rates of oropharyngeal cancer of France (estimates for 2020)



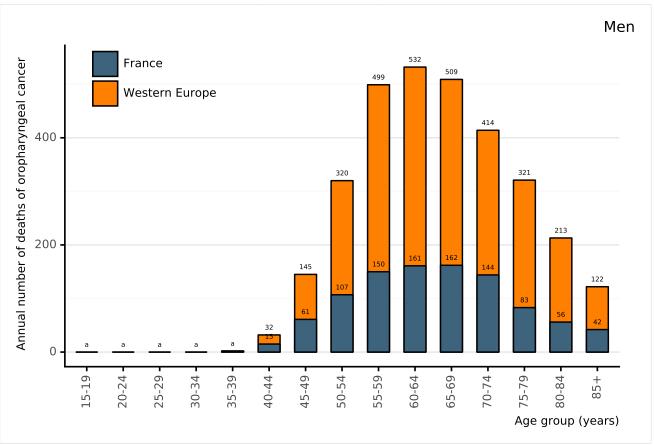
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

b Rates per 100,000 women per year.

9 ANNEX - 140 -

Figure 123: Annual number of deaths of oropharyngeal cancer among men by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

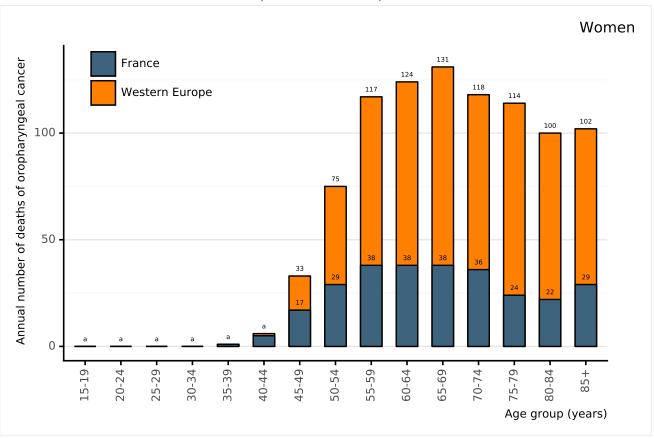
a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 20-24 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 30-34 age group. 2 cases for France and 2 cases for Western Europe in the 35-39 age group.

Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 141 -

Figure 124: Annual number of deaths of oropharyngeal cancer among women by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

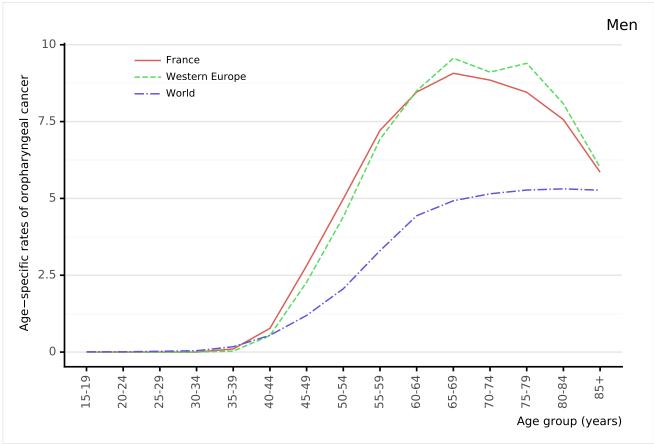
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 35-39 age group. 5 cases for France and 6 cases for Western Europe in the 40-44 age group.

Bata Sources:

9 ANNEX - 142 -

Figure 125: Comparison of age-specific oropharyngeal cancer mortality rates among men by age in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

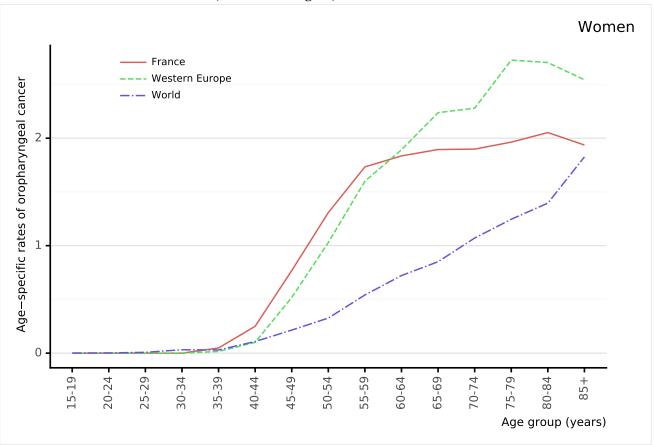
^a Rates per 100,000 men per year.

Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 143 -

Figure 126: Comparison of age-specific oropharyngeal cancer mortality rates among women by age in France, within the region, and the rest of world



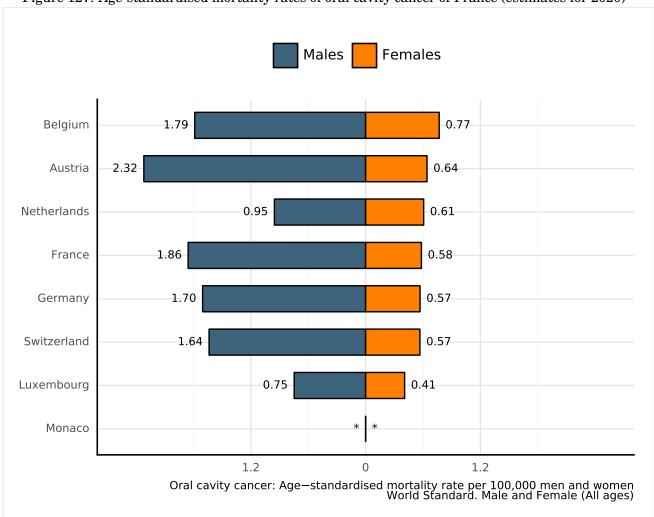
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

9 ANNEX - 144 -

9.2.7 Oral cavity cancer mortality in France across Western Europe

Figure 127: Age-standardised mortality rates of oral cavity cancer of France (estimates for 2020)



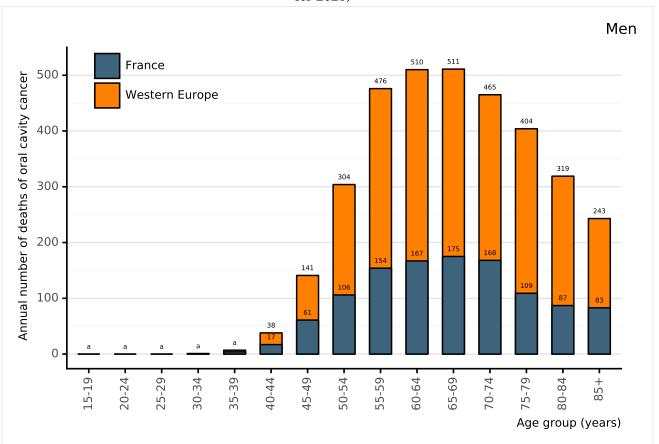
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

b Rates per 100,000 women per year.

9 ANNEX - 145 -

Figure 128: Annual number of deaths of oral cavity cancer among men by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

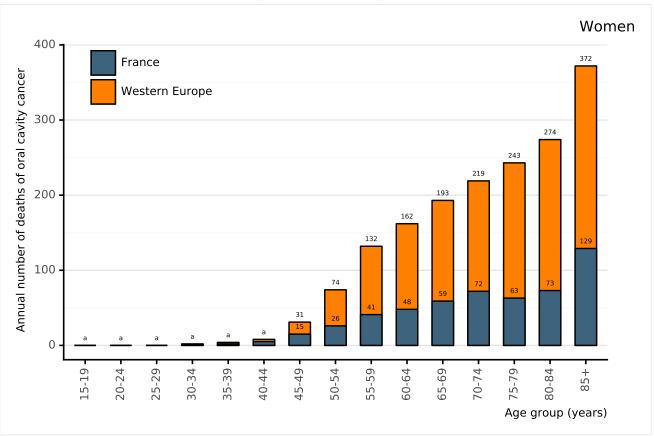
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 1 cases for Western Europe in the 30-34 age group. 4 cases for France and 7 cases for Western Europe in the 35-39 age group. Data Sources:

Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: https://gco.iarc.fr/today, accessed [27 January 2021].

9 ANNEX - 146 -

Figure 129: Annual number of deaths of oral cavity cancer among women by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

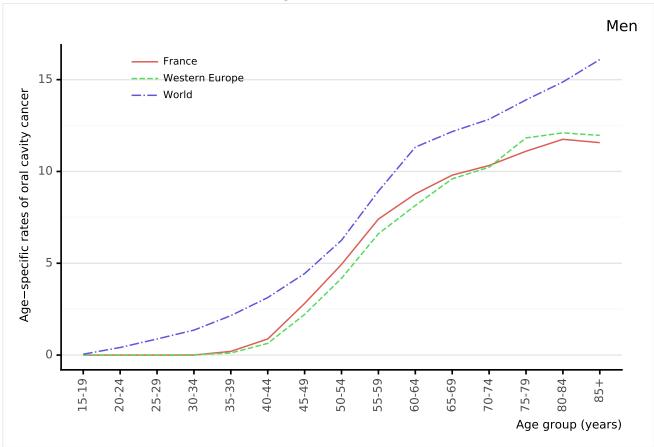
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 1 cases for France and 2 cases for Western Europe in the 30-34 age group. 2 cases for France and 4 cases for Western Europe in the 35-39 age group. 5 cases for France and 8 cases for Western Europe in the 40-44 age group.

Bata Sources:

9 ANNEX - 147 -

Figure 130: Comparison of age-specific oral cavity cancer mortality rates among men by age in France, within the region, and the rest of world

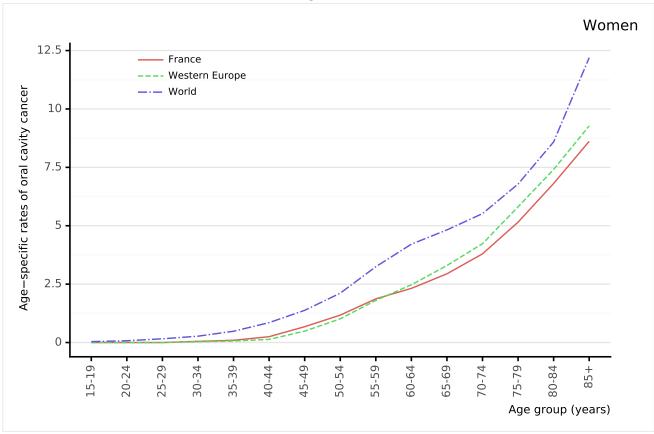


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

9 ANNEX - 148 -

Figure 131: Comparison of age-specific oral cavity cancer mortality rates among women by age in France, within the region, and the rest of world



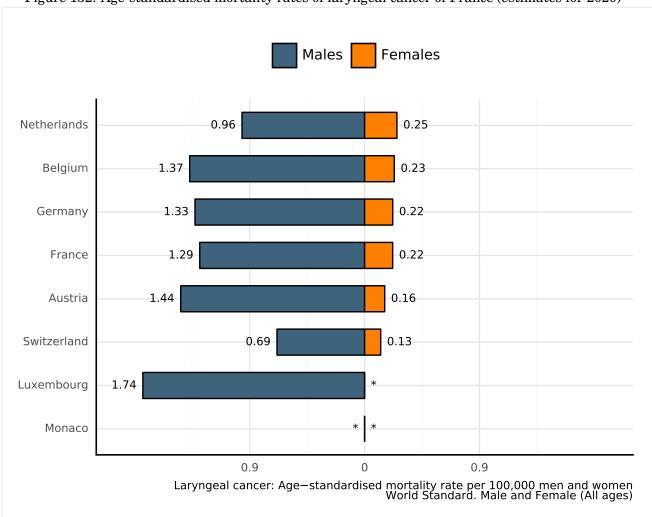
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods ^a Rates per 100,000 women per year.

9 ANNEX - 149 -

9.2.8 Laryngeal cancer mortality in France across Western Europe

Figure 132: Age-standardised mortality rates of laryngeal cancer of France (estimates for 2020)



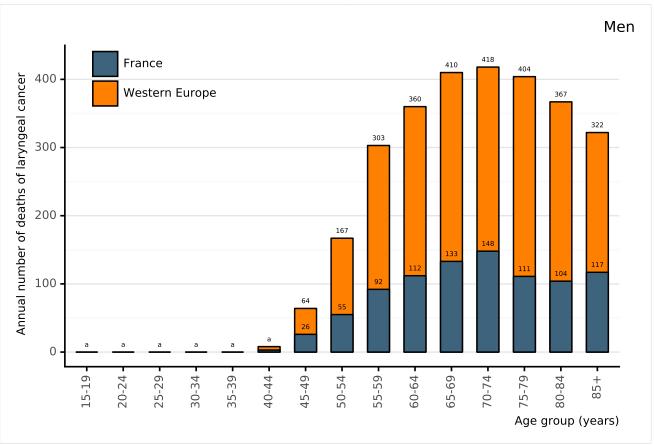
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 men per year.

b Rates per 100,000 women per year.
* Rates are not available

9 ANNEX - 150 -

Figure 133: Annual number of deaths of laryngeal cancer among men by age group in France (estimates for 2020)



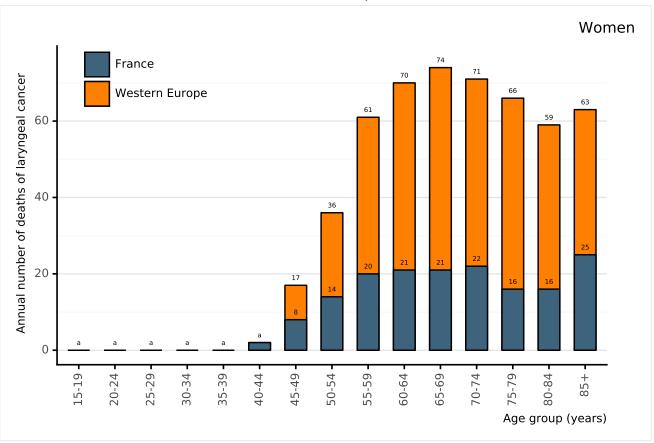
Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 25-39 age group. 0 cases for France and 0 cases for France and 0 cases for France and 0 cases for Western Europe in the 35-39 age group.
3 cases for France and 8 cases for Western Europe in the 40-44 age group.

9 ANNEX - 151 -

Figure 134: Annual number of deaths of laryngeal cancer among women by age group in France (estimates for 2020)



Data accessed on 27 Jan 2021

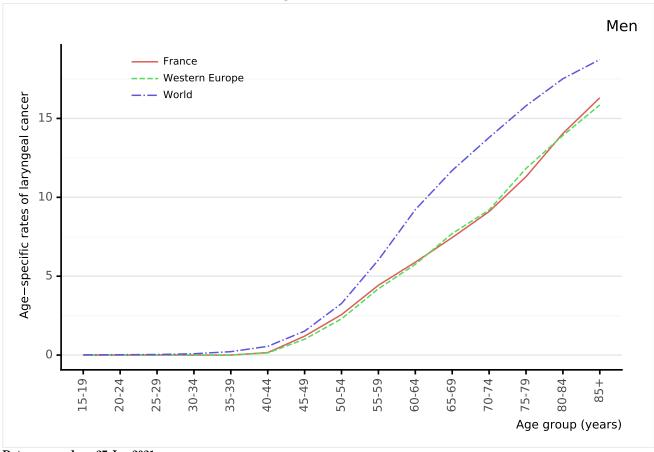
For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods

a 0 cases for France and 0 cases for Western Europe in the 15-19 age group. 0 cases for France and 0 cases for Western Europe in the 20-24 age group. 0 cases for France and 0 cases for Western Europe in the 25-29 age group. 0 cases for France and 0 cases for Western Europe in the 30-34 age group. 0 cases for France and 0 cases for Western Europe in the 35-39 age group.

a cases for France and 2 cases for Western Europe in the 40-44 age group.

9 ANNEX - 152 -

Figure 135: Comparison of age-specific laryngeal cancer mortality rates among men by age in France, within the region, and the rest of world

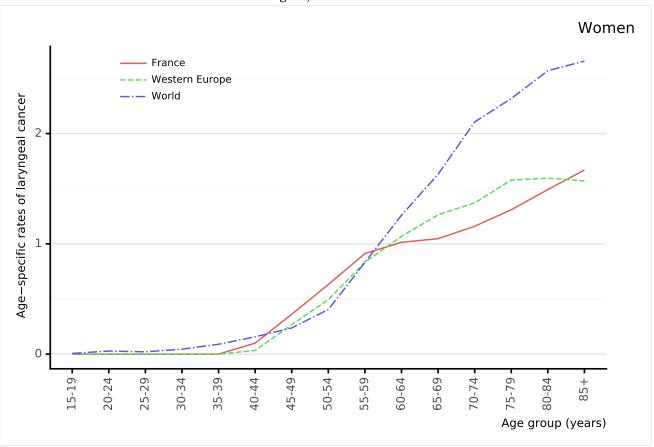


Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to $\frac{1}{2} \frac{1}{2} \frac{1}$

9 ANNEX - 153 -

Figure 136: Comparison of age-specific laryngeal cancer mortality rates among women by age in France, within the region, and the rest of world



Data accessed on 27 Jan 2021

For more detailed methods of estimation please refer to http://gco.iarc.fr/today/data-sources-methods a Rates per 100,000 women per year.

10 GLOSSARY -154-

10 Glossary

Table 49: Glossary

	Table 49: Glossary
Term	Definition
Incidence	Incidence is the number of new cases arising in a given period in a specified population. This information is collected routinely by cancer registries. It can be expressed as an absolute number of cases per year or as a rate per 100,000 persons per year (see Crude rate and ASR below). The rate provides an approximation of the average risk of developing a cancer.
Mortality	Mortality is the number of deaths occurring in a given period in a specified population. It can be expressed as an absolute number of deaths per year or as a rate per 100,000 persons per year.
Prevalence	The prevalence of a particular cancer can be defined as the number of persons in a defined population who have been diagnosed with that type of cancer, and who are still alive at the end of a given year, the survivors. Complete prevalence represents the number of persons alive at certain point in time who previously had a diagnosis of the disease, regardless of how long ago the diagnosis was, or if the patient is still under treatment or is considered cured. Partial prevalence, which limits the number of patients to those diagnosed during a fixed time in the past, is a particularly useful measure of cancer burden. Prevalence of cancers based on cases diagnosed within one, three and five are presented as they are likely to be of relevance to the different stages of cancer therapy, namely, initial treatment (one year), clinical follow-up (three years) and cure (five years). Patients who are still alive five years after diagnosis are usually considered cured since the death rates of such patients are similar to those in the general population. There are exceptions, particularly breast cancer. Prevalence is presented for the adult population only (ages 15 and over), and is available both as numbers and as proportions per 100,000 persons.
Crude rate	Data on incidence or mortality are often presented as rates. For a specific tumour and population, a crude rate is calculated simply by dividing the number of new cancers or cancer deaths observed during a given time period by the corresponding number of person years in the population at risk. For cancer, the result is usually expressed as an annual rate per 100,000 persons at risk.
ASR (age-standardised rate)	An age-standardised rate (ASR) is a summary measure of the rate that a population would have if it had a standard age structure. Standardization is necessary when comparing several populations that differ with respect to age because age has a powerful influence on the risk of cancer. The ASR is a weighted mean of the age-specific rates; the weights are taken from population distribution of the standard population. The most frequently used standard population is the World Standard Population. The calculated incidence or mortality rate is then called age-standardised incidence or mortality rate (world). It is also expressed per 100,000. The world standard population used in GLOBOCAN is as proposed by Segi [1] and modified by Doll and al. [2]. The age-standardised rate is calculated using 10 age-groups. The result may be slightly different from that computed using the same data categorised using the traditional 5 year age bands.

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То	Defenition
Term	Definition
Cumulative risk	Cumulative incidence/mortality is the probability or risk of individuals getting/dying from the disease during a specified period. For cancer, it is expressed as the number of new born children (out of 100, or 1000) who would be expected to develop/die from a particular cancer before the age of 75 if they had the rates of cancer observed in the period in the absence of competing causes.
Cytologically normal women	No abnormal cells are observed on the surface of their cervix upon cytology.
Cervical Intraepithe- lial Neoplasia (CIN) / Squamous Intraepithe- lial Lesions (SIL)	SIL and CIN are two commonly used terms to describe precancerous lesions or the abnormal growth of squamous cells observed in the cervix. SIL is an abnormal result derived from cervical cytological screening or Pap smear testing. CIN is a histological diagnosis made upon analysis of cervical tissue obtained by biopsy or surgical excision. The condition is graded as CIN 1, 2 or 3, according to the thickness of the abnormal epithelium (1/3, 2/3 or the entire thickness).
Low-grade cervical lesions (LSIL/CIN-1)	Low-grade cervical lesions are defined by early changes in size, shape, and number of ab-normal cells formed on the surface of the cervix and may be referred to as mild dysplasia, LSIL, or CIN-1.
High-grade cervical lesions (HSIL / CIN-2 / CIN-3 / CIS)	High-grade cervical lesions are defined by a large number of precancerous cells on the sur-face of the cervix that are distinctly different from normal cells. They have the potential to become cancerous cells and invade deeper tissues of the cervix. These lesions may be referred to as moderate or severe dysplasia, HSIL, CIN-2, CIN-3 or cervical carcinoma in situ (CIS).
Carcinoma in situ (CIS)	Preinvasive malignancy limited to the epithelium without invasion of the basement membrane. CIN 3 encompasses the squamous carcinoma in situ.
Invasive cervical can- cer (ICC) / Cervical cancer	If the high-grade precancerous cells invade the basement membrane is called ICC. ICC stages range from stage I (cancer is in the cervix or uterus only) to stage IV (the cancer has spread to distant organs, such as the liver).
Adenocarcinoma	Invasive tumour with glandular and squamous elements intermingled

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International Agency for Research on Cancer (IARC)

Note to the reader

Anyone who is aware of relevant published data that may not have been included in the present report is encouraged to contact the HPV Information Centre for potential contributions.

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