

Culture and its influence on an increase of cervical cancer cases in Angola

Cultura e a sua influência no aumento dos casos de câncer cervical em Angola

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ABSTRACT

Cervical cancer is the second most common cancer among women worldwide and also in Angola. Its highest incidence occurs in women between 45 and 55 years of age; the main etymological factor is the infection with human papilloma virus (HPV), whose DNA is detectable in more than 99% of cases. This article review demonstrates some socio-cultural, socio-economic, ethnic, and linguistic factors as influencing the increase of cervical cancer cases in Angola.

Keywords: Uterine neoplasms; Culture; Angola.

RESUMO

O câncer cervical é o segundo tipo de câncer mais comum entre as mulheres em todo o mundo e também em Angola. Sua incidência maior ocorre em mulheres entre 45 e 55 anos de idade; o principal fator etimológico é a infecção pelo papiloma vírus humano (HPV), cujo DNA é detectável em mais de 99% dos casos. A revisão deste artigo demonstra alguns fatores socioculturais, socioeconômicos, étnicos e linguísticos que influenciam o aumento dos casos de câncer cervical na Angola.

Descritores: Neoplasias uterinas; Cultura; Angola.

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DEAR EDITOR,

The word 'cancer' has a Greek origin. The surface of a solid tumor, with its vascularization in various directions, suggests a multi-legged crab. Cancer comprises a significant group of diseases characterized by unregulated cell growth. In cancer, the cells divide and grow wildly, forming 'malignant tumors'.

Cervical cancer is the third most common type of cancer among women worldwide, with approximately 80% of cases occurring in developing countries. The highest incidence rates of this neoplasm are observed in South America, Africa, and South Asia.

It is estimated that more than 266,000 women die each year from cervical cancer, and 87% of these deaths occur in less developed regions around the world, notably in the WHO African Region. If nothing is done, the death toll will reach 416,000 by 2035. In Sub-Saharan Africa, 34.8 new cases of cervical cancer are diagnosed annually by 100,000 women, and 22.5 out of 100,000 women die from this disease.

The intraepithelial neoplasia (CIN), adenocarcinoma, and squamous (or squamous cell) carcinoma of the cervix share many risk factors. These include early onset of sex life, multiple sexual partners, promiscuity, history of sexually transmitted disease (such as *Chlamydia trachomatis* and herpes simplex virus), multiparity, immunosuppression, low socioeconomic status, prolonged oral contraceptive use, and previous history of dysplasia, and scaly areas of the vulva or vagina. In the case of squamous cell carcinoma, smoking is also a risk factor.

The main etiological factor of cervical cancer is HPV infection, whose DNA is detected in over 99% of cases. These viruses are transmitted primarily through sexual contact and approximately 20% of the sexually active population is infected. HPV is responsible for over 99.7% of cervical cancers, about 90% of the anal

canal, 70% of vulva and vagina, 70% oropharynx, and 60% penis.

The HPV infection is widespread in the population. More than 50% of women with active sex lives acquire the virus at some point in their lives. Infection is a necessary but not sufficient condition for the development of the disease. When the infection becomes persistent, the time between initial infection and the development of invasive dysplasia/cancer is approximately 15 years, although faster courses have been described.

From infection to the development of invasive cancer, four stages are described:

1. Infection of the transformation zone metaplastic epithelium by oncogenic virus strain;
2. Persistence of infection;
3. Progression of a clone of infected epithelial cells to a precancerous lesion (dysplasia and intraepithelial neoplasia);
4. Development of carcinoma with invasion of the epithelium basement membrane.

According to data from the Global Cancer Observatory (2018),^[x] there was an increase in cases in Angola, in 2018.

Factors that influence increasing rates of cervical cancer in Angola: social-cultural factors: human papillomavirus (HPV), the necessary cause of cervical cancer, is endemic in Africa. Many of the factors that increase HPV acquisition and promote the oncogenic effect of the virus are also widespread in Angola. These include early marriage, polygamous marriages, and high parity.

Polygamy is accepted in many regions of Angola. In some cultures, very young girls, usually virgins, are given marriage to much older men, some with three or more wives. This practice can increase the likelihood of

Table 1. Number of new cases in 2018, both sexes, all ages (Angola Source: GLOBOCAN 2018).^[x]

Types	N	%
Cervix uteri	2,949	18.5%
Breast	2,158	13.5%
Prostate	2,016	12.6%
Colorectal	733	4.6%
Hodgkin lymphoma	631	4%
Others cancers	7,462	46.8%
Total	15,949	100%

Table 2. Number of new cases in 2018, males, all ages (Angola Source: GLOBOCAN 2018).^[x]

Types	N	%
Prostate	2,016	30%
Liver	382	5.7%
Colorectal	374	5.6%
Non-Hodgkin lymphoma	339	5%
Lip, oral cavity	241	3.6%
Others cancers	3,379	50.2%
Total	6,731	100%

Table 3. Number of new cases in 2018, females, all ages (Angola Source: GLOBOCAN 2018).^[6]

Types	N	%
Cervix uteri	2,949	32%
Breast	2,158	23.4%
Ovary	265	2.9%
Non-Hodgkin lymphoma	292	3.2%
Colorectal	359	3.9%
Others cancers	3,195	34.7%
Total	9,218	100%

a girl getting an HPV infection at first sexual intercourse with her husband. Polygamy is reported to increase the risk of cervical cancer by two-fold, and the risk increases with the increasing number of wives. High parity, which is the norm in some cultures, is also a recognized and independent HPV-related cofactor for the development of cervical cancer.

Socioeconomic factors: women around the world with low socioeconomic status have a higher risk of cervical cancer. Cervical cancer is often referred to as a disease of poverty and poor women. Poverty is endemic in Sub-Saharan Africa. A recent study in Mali, West Africa, showed that within a population widely infected with HPV, poor social conditions, high parity, and poor hygiene were the primary co-factors for cervical cancer, in Angola is not different. Poverty, in its many ramifications, is also a significant barrier to the prevention and treatment of this disease.

Biological factors: poor nutritional status and infections, *P. malariae*, HIV, and tuberculosis are causing many people to be immunologically compromised. Reproductive tract infections are also endemic. Recent studies associate sexually transmitted infections (STIs) other than HPV with cervical cancer.

Cultural, ethnic, and linguistic taboos have a major influence on the increase in cervical cancer cases in Angola. In some regions of Angola, there is a disbelief in Western medicine, medical means, and procedures (in vaccines).

Non-adherence to gynecology consultation, reduced availability of HPV vaccine, and the belief that vaccines make women sterile are cited as critical conditions for the increase in cases.

Illiteracy, low academic level, lack of information, and sex education are proving to be a *sine quo* condition for the high prevalence of cases. Early age in the first coitus is one of the risk factors for the onset of the disease, in Angola sexual activity generally starts at 13-15 years.

Although polygamy is not constitutionally approved, it is practiced in all regions of Angola; there is an example of a man known worldwide for having 49 women and 160 children in the province of Namibe, southern Angola.

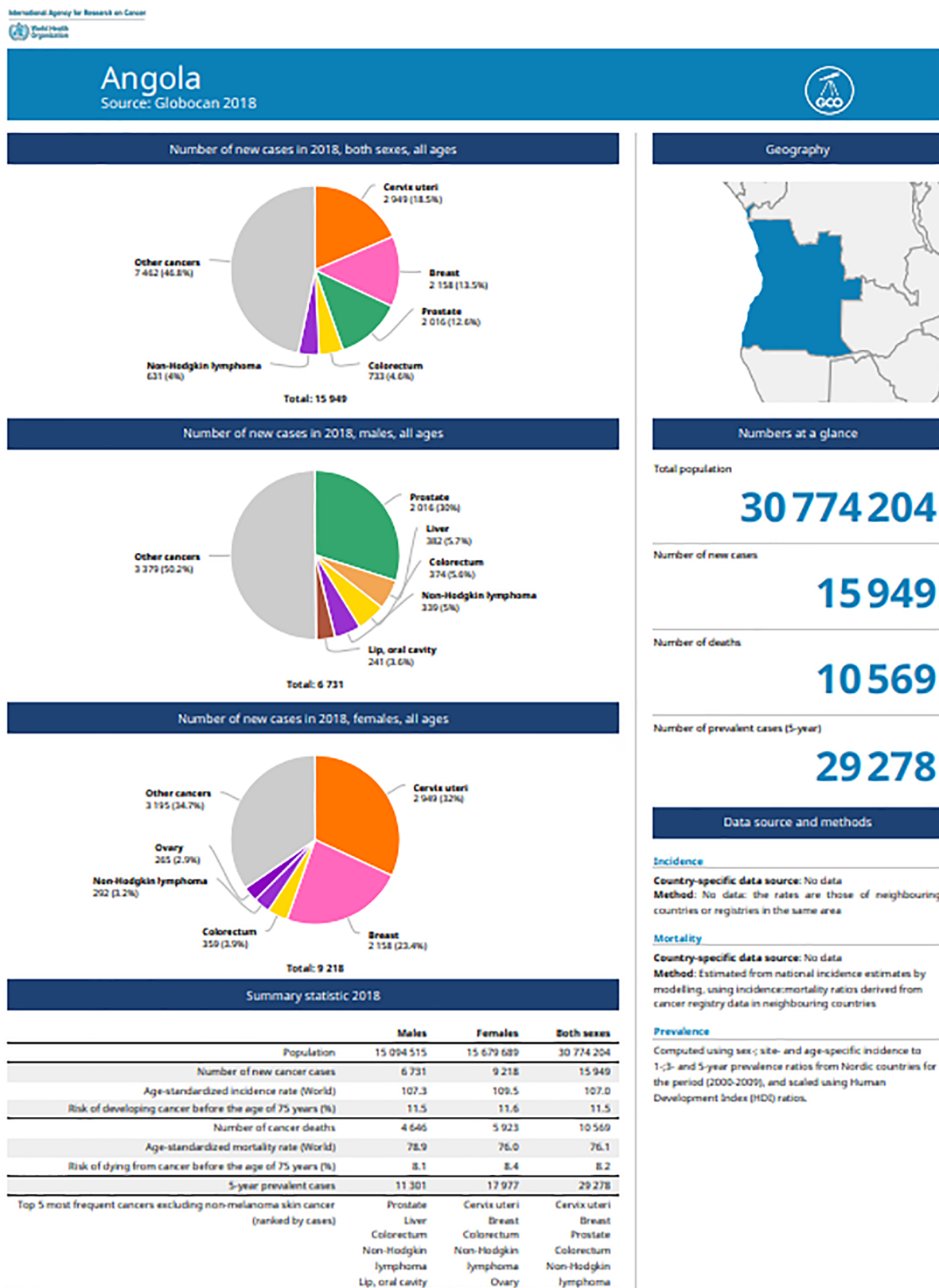
Multiparity is considered a normal phenomenon and prostitution is common in all spheres and regions of the country.

As long as the high numbers of low-educated, low-income women with peer-to-peer partners, and low-discernment in Western medicine, prevail the numbers will be difficult to reverse.

REFERENCES

1. World Health Organization (WHO). Advocacy for cervical or cervical cancer prevention and control in Africa: facilitator manual. Brazzaville: WHO; 2017.
2. Schmauz R, Okong P, Villiers EM, Dennin R, Brade L, Lwanga SK, et al. Multiple infections in cases of cervical cancer from a high incidence area in tropical Africa. *Int J Cancer*. 1989 May;43(5):805-9.
3. Serwadda D, Wawer MJ, Shah KV, Sewankambo NK, Daniel R, Lorincz A, et al. Use of a hybrid capture assay of self-collected vaginal swabs in rural Uganda for detection of human papillomavirus. *J Infect Dis*. 1999 Oct;180(4):1316-9.
4. Bayo S, Bosch FX, Sanjosé S, Muñoz N, Combita AL, Coursaget P, et al. Risk factors of invasive cervical cancer in Mali. *Int J Epidemiol*. 2002 Feb;31(1):202-9.
5. Chaouki N, Bosch FX, Munoz N, Meijer CJ, El Gueddari B, El Ghazi A, et al. The viral origin of cervical cancer in Rabat, Morocco. *Int J Cancer*. 1998 Feb;75(4):546-54.
6. Brinton LA, Reeves WC, Brenes MM, Herrero R, Britton RC, Gaitan E, et al. Parity as a risk factor for cervical cancer. *Am J Epidemiol*. 1989 Sep;130(3):486-96.
7. Hildesheim A, Herrero R, Castle PE, Wacholder S, Bratti MC, Sherman ME, et al. HPV co-factors related to the development of cervical cancer: results from a population-based study in Costa Rica. *Br J Cancer*. 2001 May;84(9):1219-26.
8. Munoz N, Franceschi S, Bosetti C, Moreno V, Herrero R, Smith JS, et al. Role of parity and human papillomavirus in cervical cancer: the IARC multicentre case-control study. *Lancet*. 2002 Mar;359(9312):1093-101.
9. Palacio-Mejía LS, Range-Gómez G, Hernández-Ávila M, Lazcano-Ponce E. Cervical cancer, a disease of poverty: mortality difference between urban and rural areas in Mexico. *Salud Publica Mex*. 2003;45(Suppl 3):S315-S25.
10. Denny L. The prevention of cervical cancer in the developing world. *BJOG*. 2005 Sep;112(9):1204-12.

Figure 1. Angola Source: GLOBOCAN 2018.



Angola

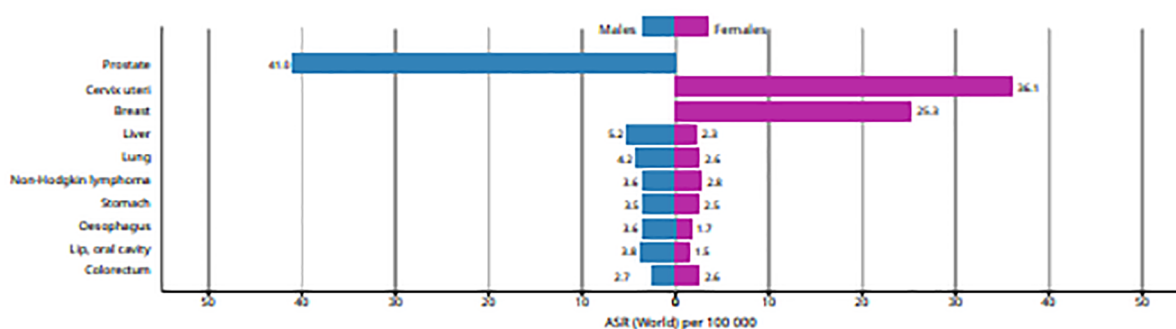
Source: Globocan 2018



Incidence, Mortality and Prevalence by cancer site

Cancer	New cases				Deaths				5-year prevalence (all ages)	
	Number	Rank	(%)	Cum.risk	Number	Rank	(%)	Cum.risk	Number	Prep.
Cervix uteri	2 949	1	18.5	4.02	1 987	1	18.8	3.06	5 825	37.15
Breast	2 158	2	13.5	2.75	1 138	3	10.8	1.51	4 464	28.47
Prostate	2 016	3	12.6	4.70	1 151	2	10.9	2.30	3 211	21.27
Non-Hodgkin lymphoma	631	4	4.0	0.34	404	6	3.8	0.26	1 294	4.20
Liver	581	5	3.6	0.41	547	4	5.2	0.39	621	2.02
Leukaemia	429	6	2.7	0.24	349	8	3.3	0.23	927	3.01
Lung	413	7	2.6	0.42	408	5	3.9	0.42	399	1.30
Stomach	394	8	2.5	0.34	357	7	3.4	0.31	507	1.65
Colon	378	9	2.4	0.35	270	11	2.6	0.25	629	2.04
Lip, oral cavity	353	10	2.2	0.29	299	10	2.8	0.26	676	2.20
Oesophagus	337	11	2.1	0.32	317	9	3.0	0.31	321	1.04
Ovary	265	12	1.7	0.35	212	12	2.0	0.32	509	3.25
Bladder	261	13	1.6	0.25	168	13	1.6	0.16	508	1.65
Rectum	258	14	1.6	0.22	142	17	1.3	0.13	452	1.47
Kaposi sarcoma	233	15	1.5	0.10	130	20	1.2	0.05	474	1.54
Melanoma of skin	221	16	1.4	0.20	139	18	1.3	0.13	452	1.47
Kidney	201	17	1.3	0.10	118	21	1.1	0.07	503	1.63
Larynx	193	18	1.2	0.19	147	14	1.4	0.15	369	1.20
Multiple myeloma	170	19	1.1	0.17	147	15	1.4	0.15	289	0.94
Brain, nervous system	160	20	1.0	0.08	131	19	1.2	0.08	326	1.06
Pancreas	155	21	0.97	0.15	143	16	1.4	0.13	109	0.35
Corpus uteri	142	22	0.89	0.24	81	23	0.77	0.14	319	2.03
Hodgkin lymphoma	117	23	0.73	0.04	51	27	0.48	0.03	272	0.88
Salivary glands	104	24	0.65	0.09	83	22	0.79	0.08	177	0.58
Vulva	102	25	0.64	0.15	23	30	0.22	0.04	242	1.54
Thyroid	98	26	0.61	0.08	20	32	0.19	0.02	236	0.77
Anus	97	27	0.61	0.09	68	24	0.64	0.06	177	0.58
Penis	92	28	0.58	0.13	34	28	0.32	0.05	184	1.22
Nasopharynx	77	29	0.48	0.05	54	26	0.51	0.04	177	0.58
Oropharynx	70	30	0.44	0.07	62	25	0.59	0.07	151	0.49
Vagina	49	31	0.31	0.07	21	31	0.20	0.03	95	0.61
Gallbladder	36	32	0.23	0.03	26	29	0.25	0.02	36	0.12
Testis	30	33	0.19	0.03	13	34	0.12	0.02	84	0.56
Hypopharynx	16	34	0.10	0.02	16	33	0.15	0.02	18	0.06
Mesothelioma	11	35	0.07	0.01	11	35	0.10	0.01	13	0.04
All cancer sites	15 949	-	-	11.49	10 569	-	-	8.19	29 278	95.14

Age-standardized (World) incidence rates per sex, top 10 cancers



Age-standardized (World) incidence and mortality rates, top 10 cancers

