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JAPAN

Human Papillomavirus and Related Cancers, Fact Sheet 2019 (LAST UPDATED: JUNE 26TH 2019)



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COMMENT

In Japan, opportunistic cervical cancer screening started in the 1960s. A national, organized screening program was enacted in 1982 and consequently, incidence and mortality rates have been decreasing until the mid-1990s. However, limited scientific investment in cancer prevention and the absence of scientific renovation has caused serious problems. In addition, national data surveillance is immature and is not organized as a developed public health program. Linkage with other databases related to screening programs such as a regional cancer registry, laboratory files, and treatment files is not possible. Lessons learned from HPV vaccine concerns are that surveillance with a well-designed registry system is necessary, and risk communication based on epidemiology is important to maintain the national health policy. Improving medical trust in vaccine safety and effectiveness and in cervical cancer screening is crucial for success in cervical cancer prevention. Japan needs to issue strong recommendations for the HPV vaccine and HPV-based cervical cancer screening based on scientific evidences to break the stigma. Otherwise, Japan is likely to continue witnessing increased incidence and mortality rates in the near future.^{1,2}

REFERENCES:

1. Sauvaget C, Nishino Y, Konno R, et al. Challenges in breast and cervical cancer control in Japan. *The Lancet Oncology* 2016;17:e305–12. Available from: <http://www.sciencedirect.com/science/article/pii/S1470204516301218>

2. Konno R, Konishi H, Sauvaget C, et al. Effectiveness of HPV vaccination against high grade cervical lesions in Japan. *Vaccine* 2018;36:7913–5. Available from: <http://www.sciencedirect.com/science/article/pii/S0264410X18306686>

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**HPV
INFORMATION
CENTRE**

The Catalan Institute of Oncology (ICO) in Barcelona, Spain and the International Agency for Research on Cancer (IARC) in Lyon, France jointly lead the HPV Information Centre, a web-based resource that compiles, processes and disseminates published information on HPV infection and HPV-related diseases for all countries of the world.



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Country-specific Fact Sheets are standardized summaries of HPV-related disease burden and associated risk factors, prevention strategies, screening activities, and immunization programs for each of the 194 WHO member states. Fact sheets include concise self-explanatory graphs and tables to offer a quick overview of the situation in the designated population. The system allows queries to generate statistics for individual countries, groups of countries, geographical regions or worldwide summaries.

More elaborated supplementary tables and comments can also be found in country-specific, regional and worldwide Full Reports from the original data base (www.hpvcentre.net). The HPV Information Centre publishes internationally recognized review monographs and targeted scientific publications to address relevant questions in the path to the cervical cancer elimination campaign. The HPV Information Centre is an open access, publicly funded resource to support the work of the scientific HPV community worldwide.

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KEY DATA ON HPV AND HPV-RELATED CANCERS³

Japan has a population of 57.15 million women aged 15 years and older who are at risk of developing cervical cancer. Current estimates indicate that every year 13,277 women are diagnosed with cervical cancer and 4,088 die from the disease. Cervical cancer ranks as the 8th most frequent cancer among women in Japan and the 2nd most frequent cancer among women between 15 and 44 years of age. About 1.9% of women in the general population are estimated to harbour cervical HPV-16/18 infection at a given time, and 52.9% of invasive cervical cancers are attributed to HPVs 16 or 18.

Table 1

Crude incidence rates of HPV-related cancers

	MALE	FEMALE
Cervical cancer	NA	20.4
Anal cancer	0.99	1.13
Vulvar cancer	NA	1.67
Vaginal cancer	NA	0.65
Penile cancer	0.62	NA
Oropharyngeal cancer	3.69	0.93
Oral cavity cancer	9.42	6.48
Laryngeal cancer	6.17	0.44

NA: not applicable

Table 2
Burden of cervical cancer

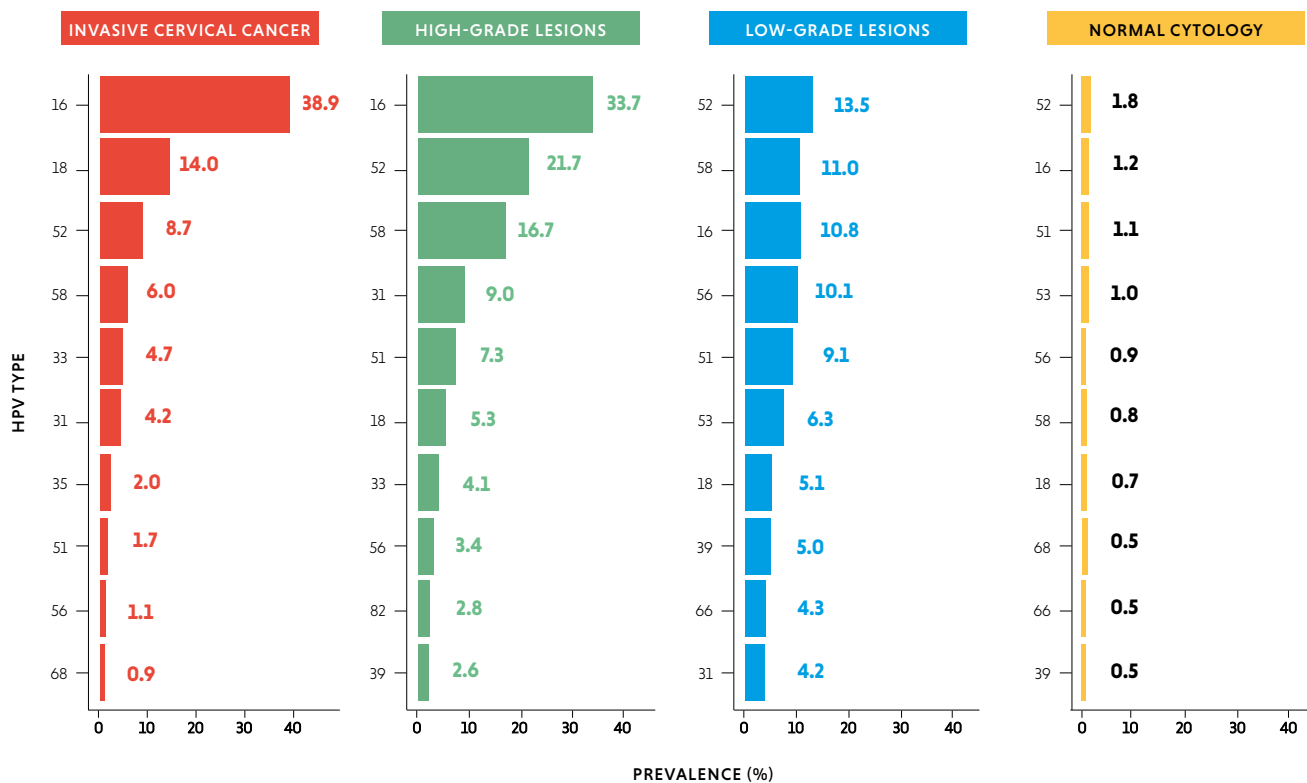
	INCIDENCE	MORTALITY
Annual number of new cases/deaths	13,277	4,088
Crude rate	20.4	6.28
Age-standardized rate	14.7	2.74
Cumulative risk 0-74 years (%)	1.36	0.28
Ranking of cervical cancer (all years)	8th	10th
Ranking of cervical cancer (15-44 years)	2nd	2nd

Table 3
Burden of cervical HPV infection

	Nº TESTED	PREVALENCE (95% CI)
HPV 16/18 prevalence		
Normal cytology	21,842	1.9 (1.7-2.1)
Low-grade cervical lesions	2,000	15.9 (14.4-17.6)
High-grade cervical lesions	2,485	39.0 (37.1-40.9)
Cervical cancer	2,294	52.9 (50.9-55.0)

Figure 1

Comparison of the ten most frequent HPV oncogenic types in Japan among women with and without cervical lesions



COMPLEMENTARY DATA ON CERVICAL CANCER PREVENTION³

Table 4

Factors contributing to cervical cancer (cofactors)

Smoking prevalence among women (%)	9.1 (7.5-10.9)
Total fertility rate (live births per women)	1.48
Married or in-union women of reproductive age (15-49 years) who are currently using any modern method of contraception (%)	39.7
HIV prevalence adults (15-49 years) (%)	<0.1 (<0.1 - <0.1)

Table 5

Sexual behaviour

MALE

Percentage of 15-year-old who have had sexual intercourse	NA
Range of median age at first sexual intercourse	NA
Average age at first marriage	30.8

FEMALE

Percentage of 15-year-old who have had sexual intercourse	NA
Range of median age at first sexual intercourse	NA
Average age at first marriage	29.4

NA: information not available

Table 6

HPV vaccine introduction

Type of HPV vaccination programme	National programme
Date of HPV vaccination routine immunization programme start	Interim programme: November, 2011 National immunization programme: April, 2013 (suspended from June, 2013)
HPV vaccination coverage	0.01% (reported 2016, period 2015, birth cohort 2004)

Table 7

Cervical screening practices and recommendations

Cervical cancer screening coverage (age and screening interval reference) (%)	42.3% (all women aged 20-69 screened every 2y, National Cancer Center Japan 2017, year of estimate 2016)
Screening ages (years)	Above 20
Screening interval (years) or frequency of screens	2 years

Figure 2

Uptake rates of HPV vaccine (at least one dose) in Japan as of October 2015 (adapted from MHLW)⁴

An interim vaccination programme against HPV started in Japan in November 2010 for girls aged 12-16 years, and it was included in the national immunisation program in April 2013. In June 2013, the Ministry of Health, Labour, and Welfare suspended proactive recommendations for HPV vaccine after unconfirmed reports of adverse events in the media.⁵



Japan is now a dramatic example of rumour-induced severe damage to the national public program of HPV vaccination.⁵ As reported, from an estimated 70-80% coverage of girls' vaccination (at least one dose in a three-dose regime) during the first years of the public vaccination programme, birth cohorts in 1999 and thereafter are consistently poorly vaccinated (0.01%, birth cohort in 2004), due to unproven suspicions of vaccine-induced side effects. This vaccine crisis episode occurs despite the global and consistent safety record of HPV vaccines (monitoring on over 97 million administered doses) and the international public health recommendations to expand HPV vaccination towards cervical cancer elimination in the current century.⁶

REFERENCES:

3. Bruni L, Albero G, Serrano B, et al. ICO/IARC Information Centre on HPV and Cancer (HPV Information Centre). Human Papillomavirus and Related Diseases in Japan. Summary Report 17 June 2019. Available from: <https://hpvcentre.net/statistics/reports/JPN.pdf?i=1562768619082>
4. Ministry of Health, Labour and Welfare. 23rd Council of Health and Welfare Vaccination / Vaccine Subcommittee Side Reaction Study Group. Document 4: National Epidemiological Survey. 26, December, 2016. (in Japanese) Available from: <https://www.mhlw.go.jp/stf/shingi2/0000147015.html> (accessed in 2019, August 11)
5. Wilson R, Paterson P, Larson H, et al. HPV Vaccination in Japan. Center for Strategic & International Studies. 23, April, 2015. Available from : <https://www.csis.org/analysis/hpv-vaccination-japan-0> (accessed in 2019, August 11)
6. WHO Director-General calls for all countries to take action to help end the suffering caused by cervical cancer. WHO 2018 [cited 2019 May 27]. Available from: <http://www.who.int/reproductivehealth/call-to-action-elimination-cervical-cancer/en/>