CHIC | COALITION to STRENGTHEN the HPV IMMUNIZATION COMMUNITY

HPV Prevention and Control Board

Cervical cancer prevention and control: Global overview on disease burden and WHO Cervical Cancer elimination goals.

Presented by:

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WHO, SEARO

South Asian Meeting

HPV Prevention and Control Landscape and the way forward.

13th , 14th and 15th - Dec 2022– New Delhi, India.

Why cervical cancer?

- Cervical cancer is the fourth most common cancer among women globally, with an estimated 604 000 new cases and 342 000 deaths in 2020.
- About 90% of the new cases and deaths worldwide in 2020 occurred in low- and middle-income countries
- Nearly all cases of cervical cancer can be attributed to HPV infection
- Women living with HIV are 6 times more likely to develop cervical cancer compared to women without HIV
- Cervical cancer burden reflects inequalities in multiple domains
- Cervical cancer offers interventions that one can wish for cancer control

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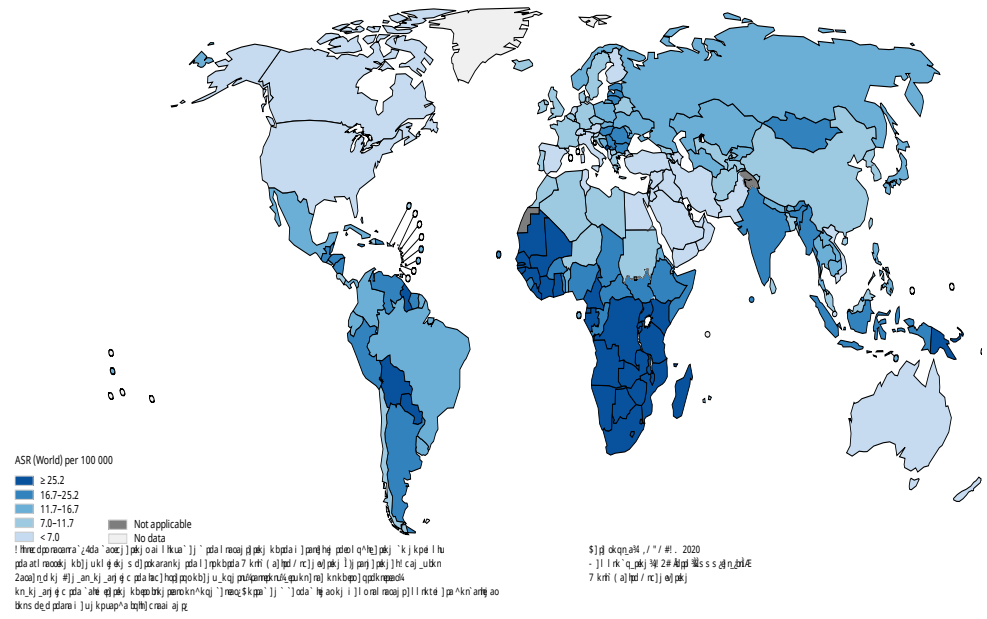
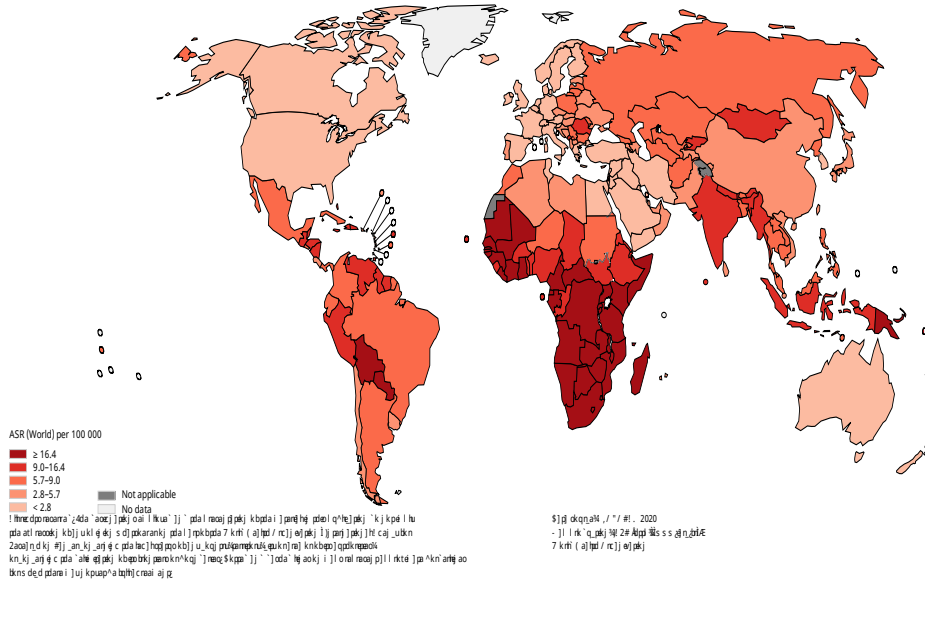
Global burden- incidence and morality





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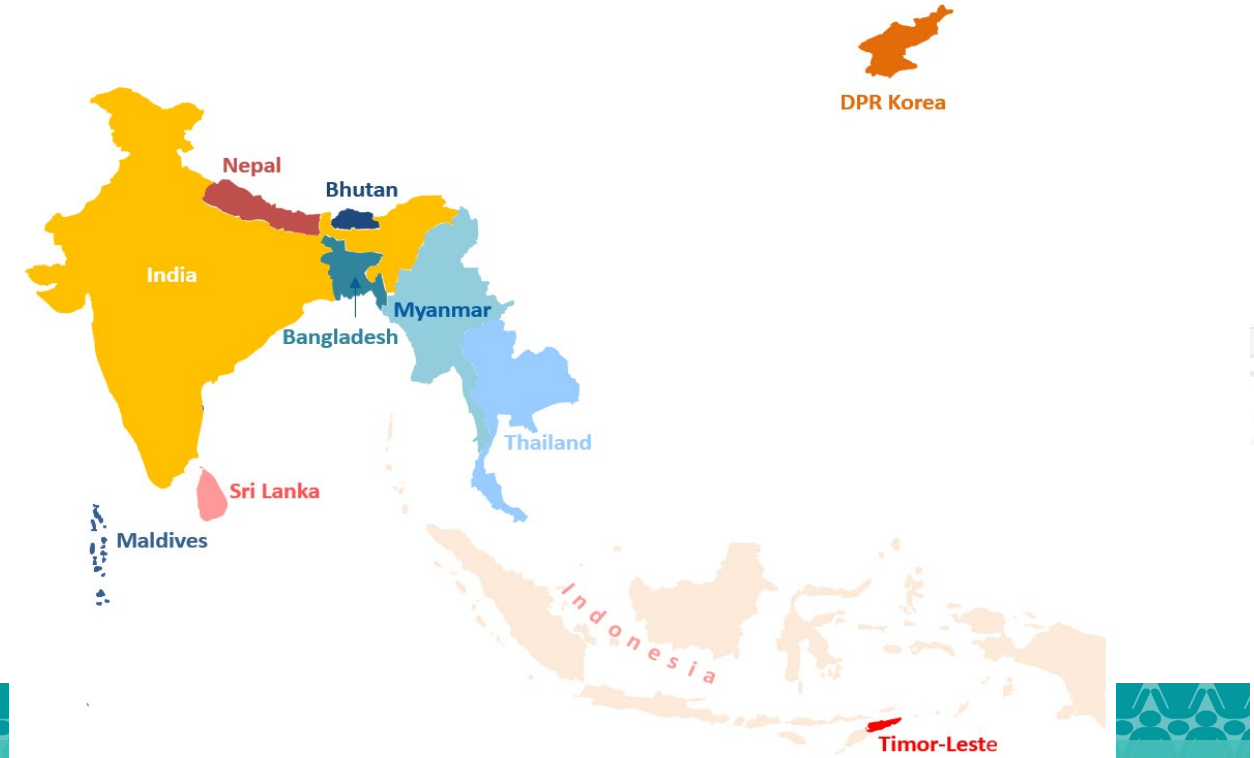
WHO South-East Asia Region; Cervical cancer snapshot

World Health Organization
REGIONAL OFFICE FOR South-East Asia

More than 2 billion (26%) of global population

Third most common form of cancer in the SEA region and contributes to 32% of the global cervical cancer burden of disease and 34% of global deaths.

In 2020
190 874 new cases and 116,015 deaths were estimated due to cervical cancer, the region's third commonest cancer



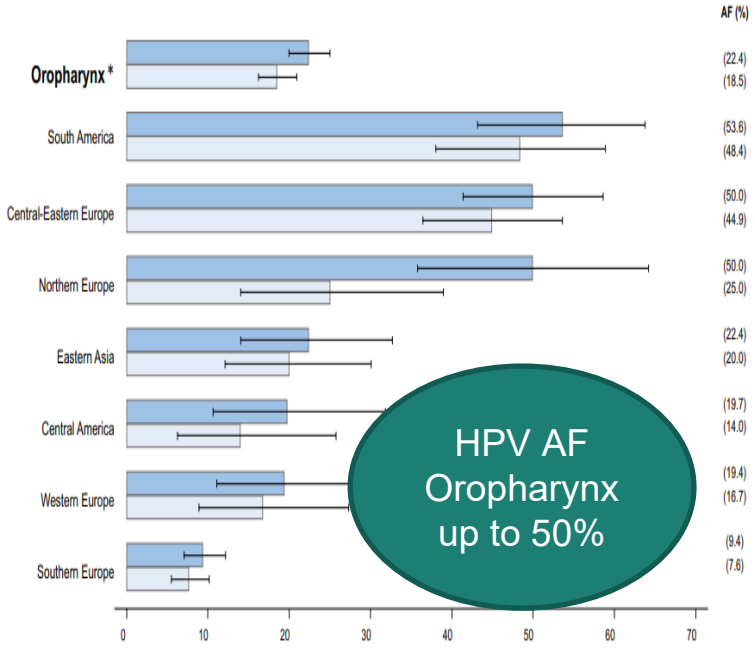
Population	ASR(W)
Maldives	24.5
Indonesia	24.4
Myanmar	22.6
India	18.0
Thailand	16.4
Nepal	16.4
Bhutan	14.2
Timor-Leste	14.0
Korea, Democratic Republic of	11.2
Bangladesh	10.6
Sri Lanka	9.2

HPV related cancers Asia

HPV INFORMATION CENTRE

Table 2: Key statistics in Asia and its regions

Population	Asia	Central Asia	Eastern Asia	South-Eastern Asia	Southern Asia	Western Asia
Women at risk for cervical cancer (Female population aged >=15 yrs) in millions	1,766.4	26.9	691.0	256.3	695.5	96.7
Burden of cervical cancer and other HPV-related cancer						
Annual number of new cervical cancer cases	351,720	4,945	129,567	68,623	143,183	143,183
Annual number of cervical cancer deaths	199,902	2,678	66,436	38,530	89,307	89,307
Standardized incidence rates per 100,000 population:						
Cervical cancer	12.7	12.7	10.8	17.8	15.4	4.14
Anal cancer						
Men	0.33	0.78	0.24	0.37	0.45	0.29
Women	0.26	0.60	0.22	0.26	0.31	0.22
Vulva cancer	0.41	0.70	0.33	0.57	0.46	0.47
Vaginal cancer	0.34	0.29	0.17	0.25	0.69	0.21
Penile cancer	0.74	0.19	0.40	0.83	1.35	0.08
Oropharyngeal cancer						
Men	1.27	1.11	0.63	1.05	2.44	0.29
Women	0.26	0.47	0.13	0.27	0.49	0.12
Oral cavity cancer						
Men	6.51	4.52	2.55	3.32	13.6	2.23
Women	2.44	1.55	1.19	1.82	4.73	1.27
Laryngeal cancer						
Men	3.36	2.51	2.41	3.07	4.67	5.29
Women	0.43	0.35	0.26	0.31	0.74	0.54



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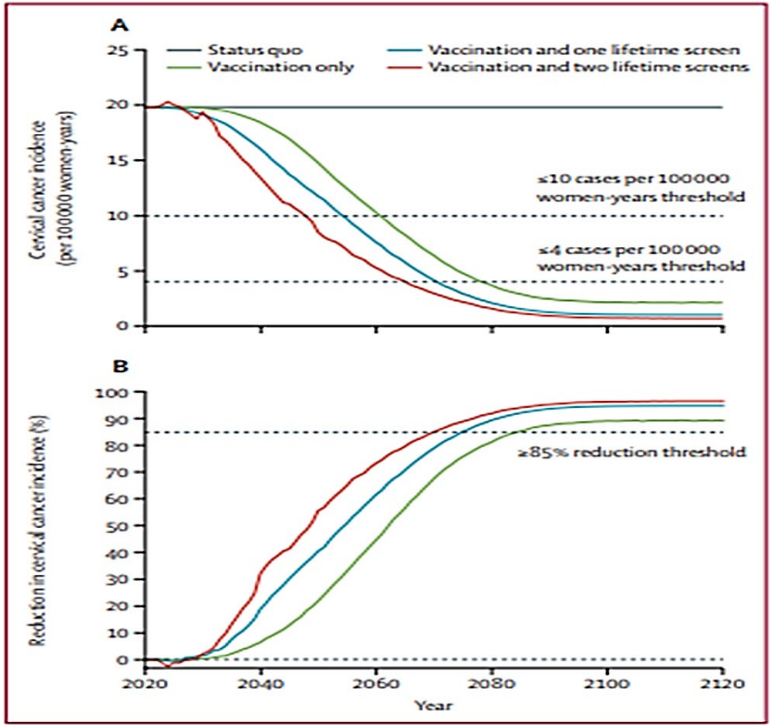
Control, elimination, eradication

- ✓ Control – It is the reduction of disease incidence, prevalence, morbidity, and/or mortality to a locally acceptable level as a result of deliberate efforts; continued intervention is needed to maintain reduction, e.g. diarrheal diseases
- ✓ Elimination as a public health problem is a term related to both infection and disease. It is defined by achievement of measurable global targets set by WHO in relation to a specific disease. E.g. HIV due to MTCT
- ✓ Eradication - to mean permanent reduction to zero of a specific pathogen, as a result of deliberate efforts, with no more risk of reintroduction, e.g. smallpox

Ref: Dowdle WR. The principles of disease elimination and eradication. Bull World Health Organ. 1998;76 Suppl 2(Suppl 2):22-5.

Impact of HPV vaccination and cervical screening on cervical cancer incidence: a comparative modelling analysis in 78 low-income and lower-middle-income countries

- High HPV vaccination coverage of girls can lead to cervical cancer elimination in most LMICs by the end of the century.
- Screening with high uptake will expedite reductions and will be necessary to eliminate cervical cancer in countries with the highest burden.



Ref: Brisson M, et al. Lancet. 2020 Feb 22;395(10224):575-590.

Global strategy for the elimination of cervical cancer as a public health problem

Cervical Cancer: An NCD We Can Overcome

WHA 73.2 3 Aug 2020

Global strategy to accelerate the elimination of cervical cancer as a public health problem and its associated goals and targets for the period 2020–2030

Target & Approach

Elimination of Cervical Cancer

THRESHOLD: Countries to reach < 4 cases 100,000 women

2030 CONTROL TARGETS

- **90%** of girls fully vaccinated with HPV vaccine by 15 years of age
- **70%** of women screened with a high perfromance test by 35 and 45 years of age
- **90%** of women identified with cervical disease receive treatment and care

SDG 2030: Target 3.4 – 33.3 % reduction in mortality from NCDs

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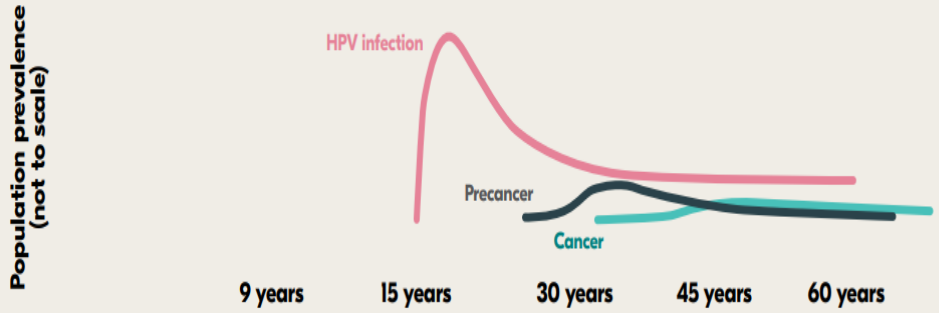
Life course approach to cervical cancer control

Fig. 9. Life-course approach to cervical cancer interventions



Primary Prevention

Girls 9–14 years

- HPV vaccination

Girls and boys, as appropriate

- Health information and warnings about tobacco use
- Sexuality education tailored to age and culture
- Condom promotion/provision for those engaged in sexual activity
- Male circumcision

Secondary Prevention

Women > 30 years of age

- Screening with a high-performance test equivalent to or better than HPV test
- Followed by immediate treatment or as quickly as possible, of precancerous lesions.

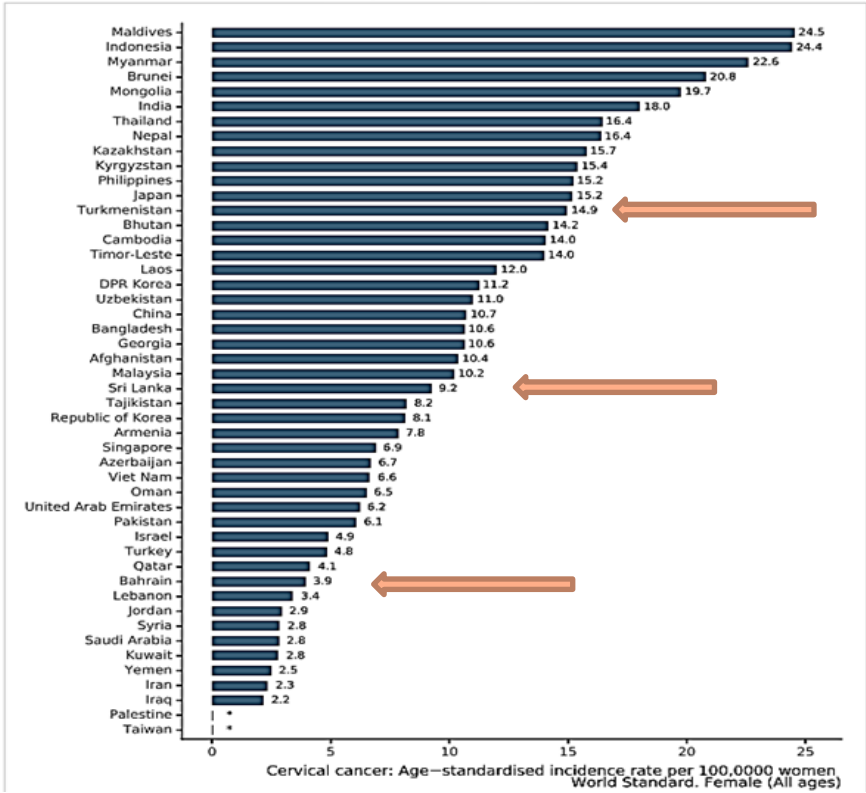
Tertiary Prevention

All women, as needed

Treatment of invasive cancer at any age

- Surgery
- Radiotherapy
- Chemotherapy
- Palliative care

Figure 9: Age-standardised incidence rate of cervical cancer cases attributable to HPV by country in Asia (estimates for 2020)



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HPV vaccination

On the basis of the recent data on efficacy and effectiveness, SAGE endorsed the optimization of the HPV vaccine schedules. **For 9-14 year olds, national immunization programmes can use either a single-dose** or a 2-dose vaccination schedule with an interval between doses of at least 6 months.

2022, 97, 261–276 No 24

World Health Organization
Organisation mondiale de la Santé

Weekly epidemiological record
Relevé épidémiologique hebdomadaire

17 JUNE 2022, 97th YEAR / 17 JUIN 2022, 97e ANNÉE
No 24, 2022, 97, 261–276
http://www.who.int/wer

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Meeting of the Strategic Advisory Group of Experts on Immunization, April 2022: conclusions and recommendations

The Strategic Advisory Group of Experts (SAGE) on Immunization met on 4–7 April 2022. This report summarizes their discussions, conclusions, and recommendations.

Réunion du Groupe stratégique consultatif d'experts sur la vaccination, avril 2022: conclusions et recommandations

Le Groupe stratégique consultatif d'experts (SAGE) sur la vaccination s'est réuni du 4 au 7 avril 2022. Le présent rapport résume leurs discussions, leurs conclusions et leurs recommandations.

https://www.who.int/publications/i/item/who-wer9724-261-276

HPV Vaccine Introduction Clearing House

Visit each area for related resources:


Policy


Planning


Financing and Supply


Vaccines and Safety

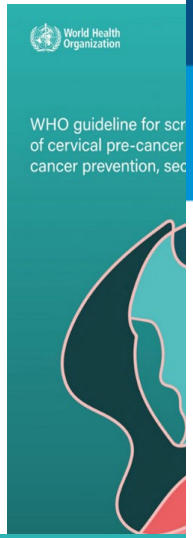

Communication


Implementation


Monitoring and Surveillance


HPV Partners

Cervical cancer screening



WHO recommends that HPV self-sampling should be made available as an additional approach to sampling in cervical cancer screening services, for women aged 30-60 years.

How does HPV self-sampling as part of cervical cancer screening work?

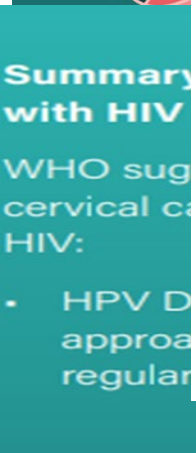
Self-sampling involves an individual obtaining a kit and collecting one's own vaginal sample. Collection can be done alone in private, in a health facility or another location. The individual (or a health worker) sends it to a laboratory for testing and the results of the test are returned to the individual. In the case of positive test result, the individual is linked to follow-up clinical assessments and treatment.

There are now kits which allow people to collect their own samples to be tested. These methods include: a single-use swab or cervical brush with a tube containing collection/ transport medium.

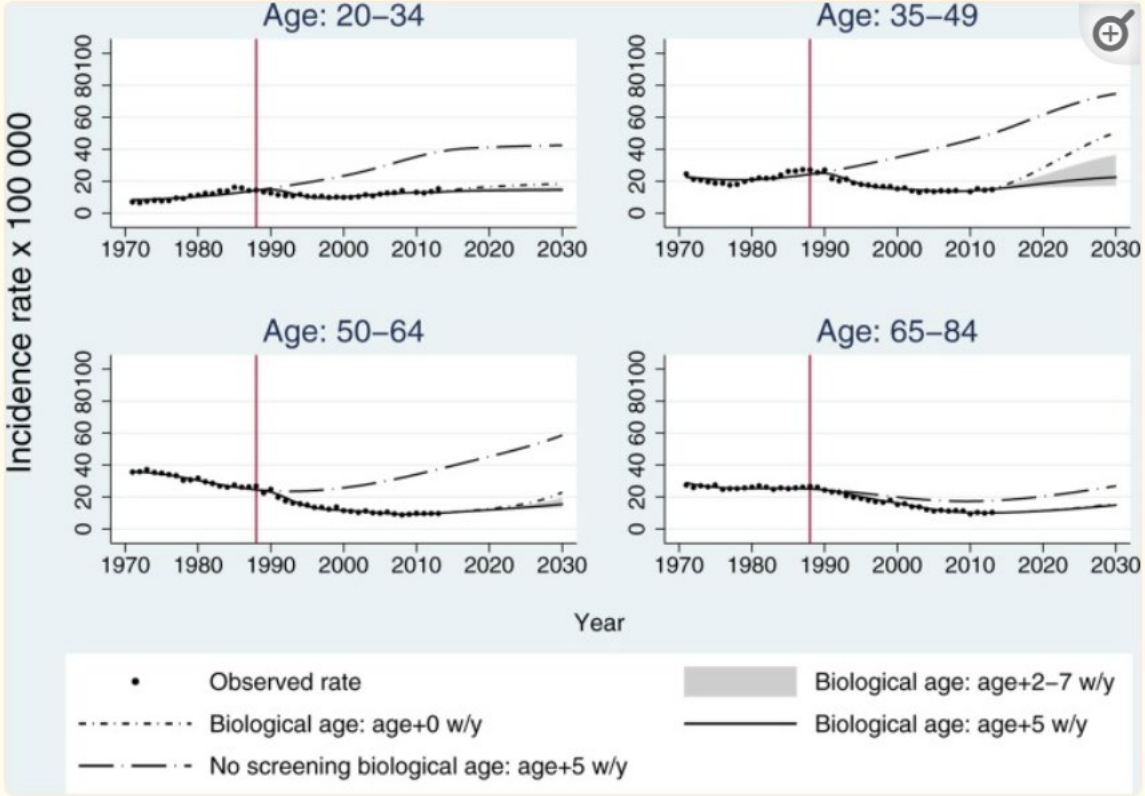
Where HPV tests are available as part of the national programme, HPV self-sampling offers an additional option to improve cervical cancer screening coverage.

Self-sampling can help reach a global target of 70% coverage of screening by 2030. Women may feel more comfortable taking their own samples, rather than going to see a health worker for cervical cancer screening.

Self-collection of a sample for cervical cancer screening by swabbing the vagina[1]



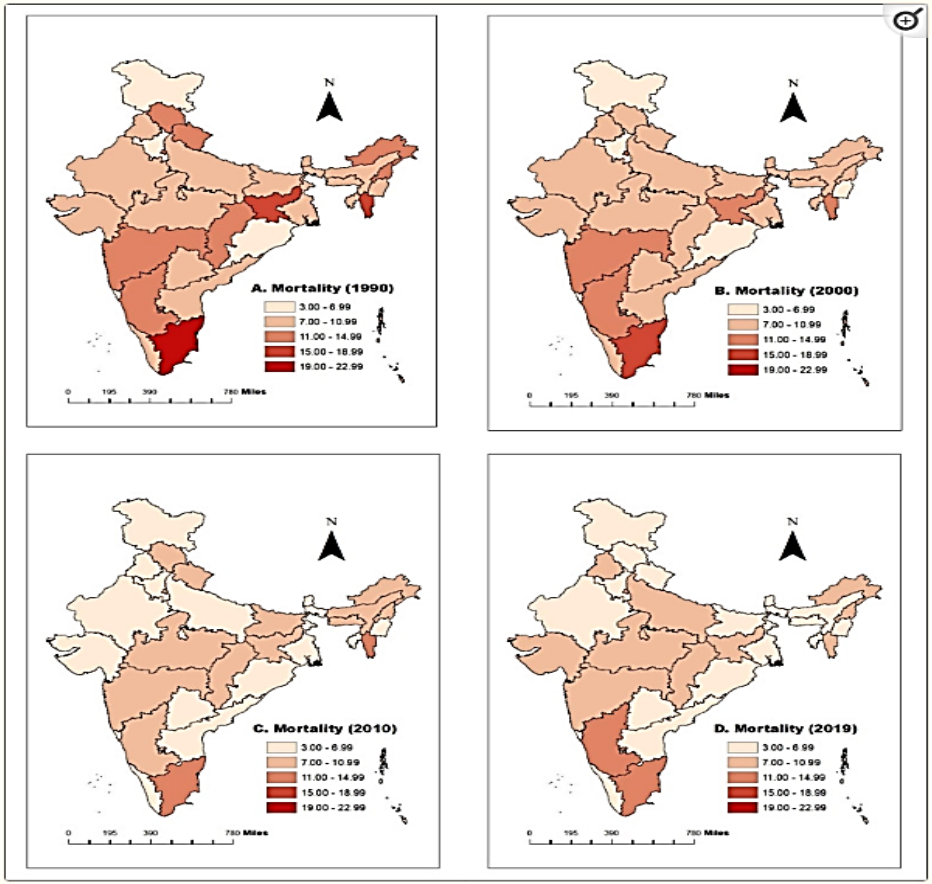
No screening scenario England



Under the no-screening scenario, ASR would have been threefold higher in 2013 using the log link: observed ASR 12.8 (95% CI 12.3 to 13.3) versus no-screening scenario 37.9 (95% CI 36.4 to 39.3)

Impact of screening on cervical cancer incidence in England: a time trend analysis
Francesca Pesola and Peter Sasieni

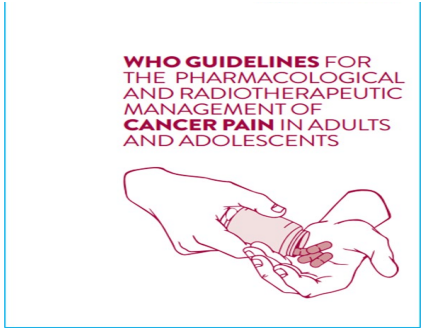
Change in mortality from cervical cancer in India



State-wise mortality of cervical cancer among women for 1990 - 2019. Figure (A, B, C & D) represents that cervical cancer mortality has decreased over time, but not uniformly.

Secular trends in incidence and mortality of cervical cancer in India and its states, 1990-2019: data from the Global Burden of Disease 2019 Study
Mayank Singh et al

Cervical cancer management



Monitoring framework

CANCER CONTROL CONTINUUM	PRIMARY PREVENTION	EARLY DETECTION	TREATMENT	END-OF-LIFE CARE
POPULATIONS	HEALTHY	NEWLY DIAGNOSED	LIVING WITH CANCER	DYING FROM CANCER
Population-based surveillance *Indicators and strategies*	**HPV prevalence** • By age, type and sex	**Cervical cancer incidence** • By type, age by stage	**Cervical cancer survival** • By type • By stage	**Cervical cancer mortality** • By cause, type and sex
	Surveys	**Population-based cancer registries**		**Vital statistics**
INTERVENTIONS/ PROGRAMMES	HPV vaccination	Screening	Treatment and care	End-of-life care
Programme implementation monitoring *Indicators and strategies*	**Vaccine coverage**	**Screening coverage**	**Adherence to protocols**	
		Screening result • Positivity rate		
	Immunization registries/ Vaccine monitoring system	**Screening registries**		
		Patient referral and tracking systems Population or facility-based or surveys		
Costs	**Cost–effectiveness studies Costing systems – Costing surveys**			

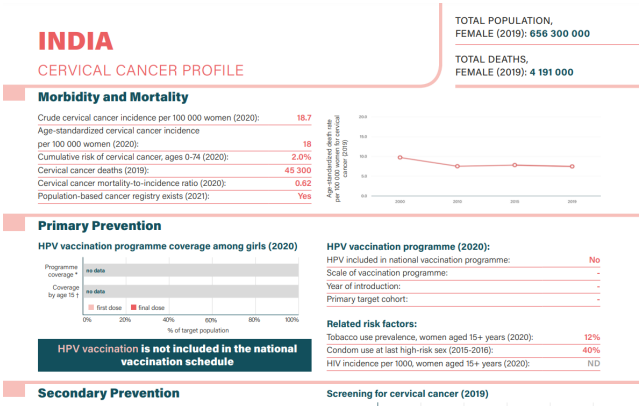
IARC REGIONAL HUBS FOR CANCER REGISTRATION

GLOBAL INITIATIVE FOR CANCER REGISTRY DEVELOPMENT
INITIATIVE MONDIALE POUR LE DEVELOPPEMENT DES REGISTRES DU CANCER
INICIATIVA MUNDIAL PARA EL DESARROLLO DE REGISTROS DE CÁNCER

About our partners

- Caribbean
- Latin America
- Northern Africa, Central and Western Asia
- Pacific Islands
- South, East and South-Eastern Asia
- Sub-Saharan Africa

https://cdn.who.int/media/docs/default-source/country-profiles/cervical-cancer/cervical-cancer-ind-2021-country-profile-en.pdf?sfvrsn=4a25d145_33&download=true



INDIA

CERVICAL CANCER PROFILE

TOTAL POPULATION, FEMALE (2019): **656 300 000**

TOTAL DEATHS, FEMALE (2019): **4 191 000**

Morbidity and Mortality

Crude cervical cancer incidence per 100 000 women (2020):	18.7
Age-standardized cervical cancer incidence per 100 000 women (2020):	18
Cumulative risk of cervical cancer, ages 0-74 (2020):	2.0%
Cervical cancer deaths (2019):	45 300
Cervical cancer mortality-to-incidence ratio (2020):	0.62
Population-based cancer registry exists (2021):	Yes

Primary Prevention

HPV vaccination programme coverage among girls (2020)

HPV vaccination **is not included in the national vaccination schedule**

HPV vaccination programme (2020):

HPV included in national vaccination programme:	No
Scale of vaccination programme:	-
Year of introduction:	-
Primary target cohort:	-

Related risk factors:

Tobacco use prevalence, women aged 15+ years (2020):	12%
Condom use at last high-risk sex (2015-2016):	40%
HIV incidence per 1000, women aged 15+ years (2020):	ND

Secondary Prevention

Screening for cervical cancer (2019)


CERVICAL CANCER
ELIMINATION INITIATIVE
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CERVICAL CANCER ELIMINATION INITIATIVE
Knowledge Repository
Browse by theme
PRIMARY PREVENTION: HPV VACCINATION
SECONDARY PREVENTION: SCREENING AND TREATING PRECANCEROUS LESIONS
TERTIARY PREVENTION: INVASIVE CANCER TREATMENT AND PALLIATIVE CARE
CAPACITY BUILDING
PROGRAMME MANAGEMENT
MONITORING AND EVALUATION
About Cervical Cancer Elim Initiative
Global strategy to accelera elimination of cervical can health problem
Fact sheets


World Health Organization
South-East Asia
Regional implementation framework for elimination of cervical cancer as a public health problem
2021–2030

Challenges and opportunities

1. Progress in SEARO is critical given that one third of cervical cancers are from the region
2. HPV vaccination has picked up and will be a suitable option given the huge populations in many countries
3. One dose vaccine will be a game changer
4. Screening will take time as the systems in many countries are not ready
5. Number needed to screen and manage is massive
6. HPV testing will have to be cheap and easily accessible
7. Cancer diagnosis and management is suboptimal in terms of access and progress in being made
8. Cancer registration is expanding and will be the means for measuring incidence and mortality

About 3000 women will lose their lives to cervical cancer by the end of this meeting

- **Elimination is feasible**
- **Status quo is not an option** – number of cases will increase dramatically due to population growth, demographic changes and changes in behavior
- **Now is the time to act**. With knowledge and innovative solutions, we **can** eliminate cervical cancer.

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