



COALITION to STRENGTHEN  
the HPV IMMUNIZATION  
COMMUNITY



HPV Prevention  
and Control Board



# Overview on HPV Related Disease Incidence, Mortality, Social and Economic Impact: Bangladesh



*South Asian Meeting*

HPV Prevention and Control Landscape and the way forward

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

**Prof. Ferdousi Begum.**

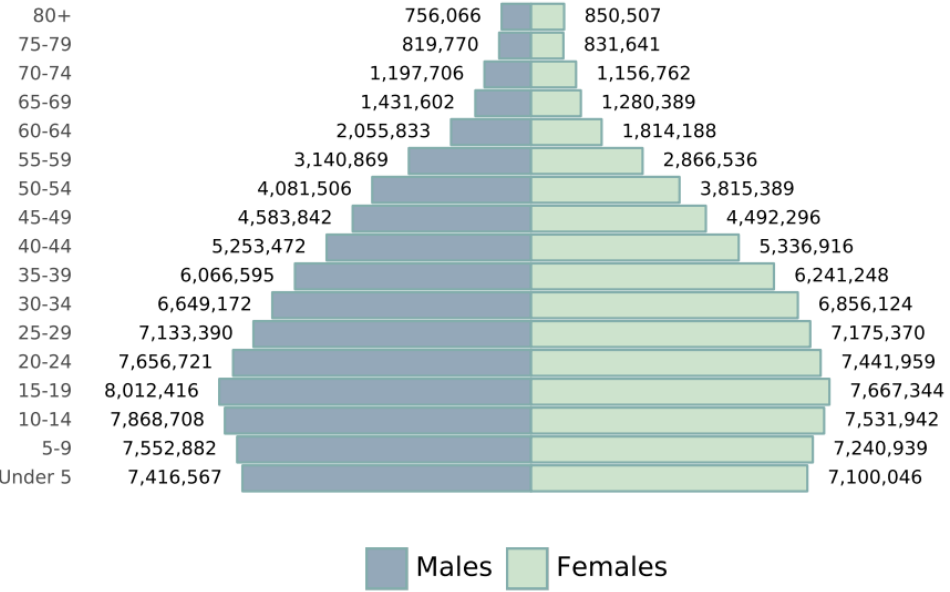
**Professor & HOD, IWCS & IMC, Dhaka**

**President, OGSB Immediate Past President, SAFOG**

**Member, SEAR-TAG, Women's and Children's Health, WHO.**

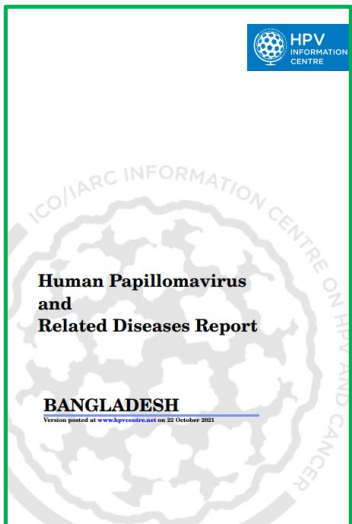
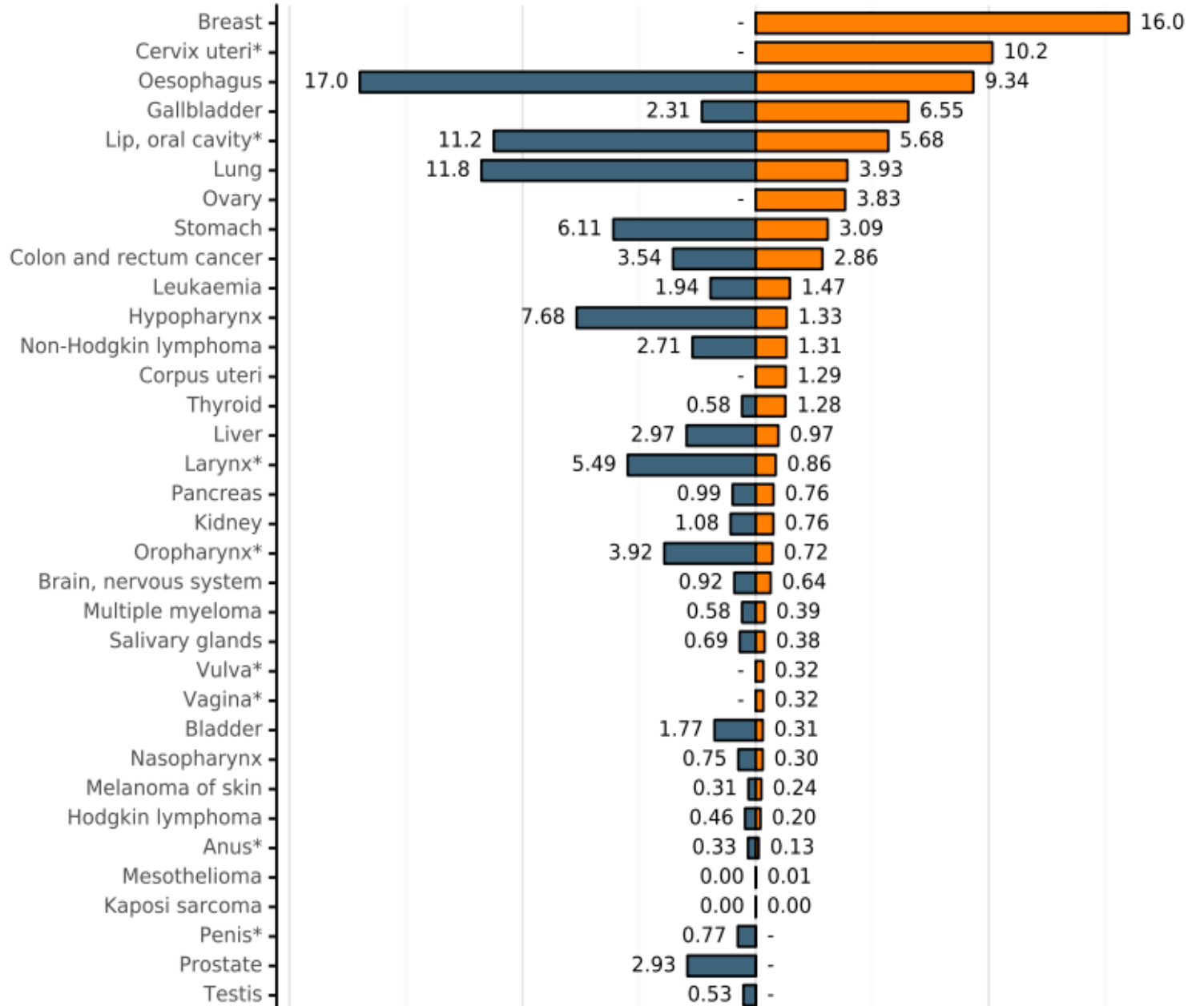
**Associate Editor, International Journal of Gynecology & Obstetrics.**

Figure 2: Population pyramid of Bangladesh for 2019



# HPV related cancers incidence

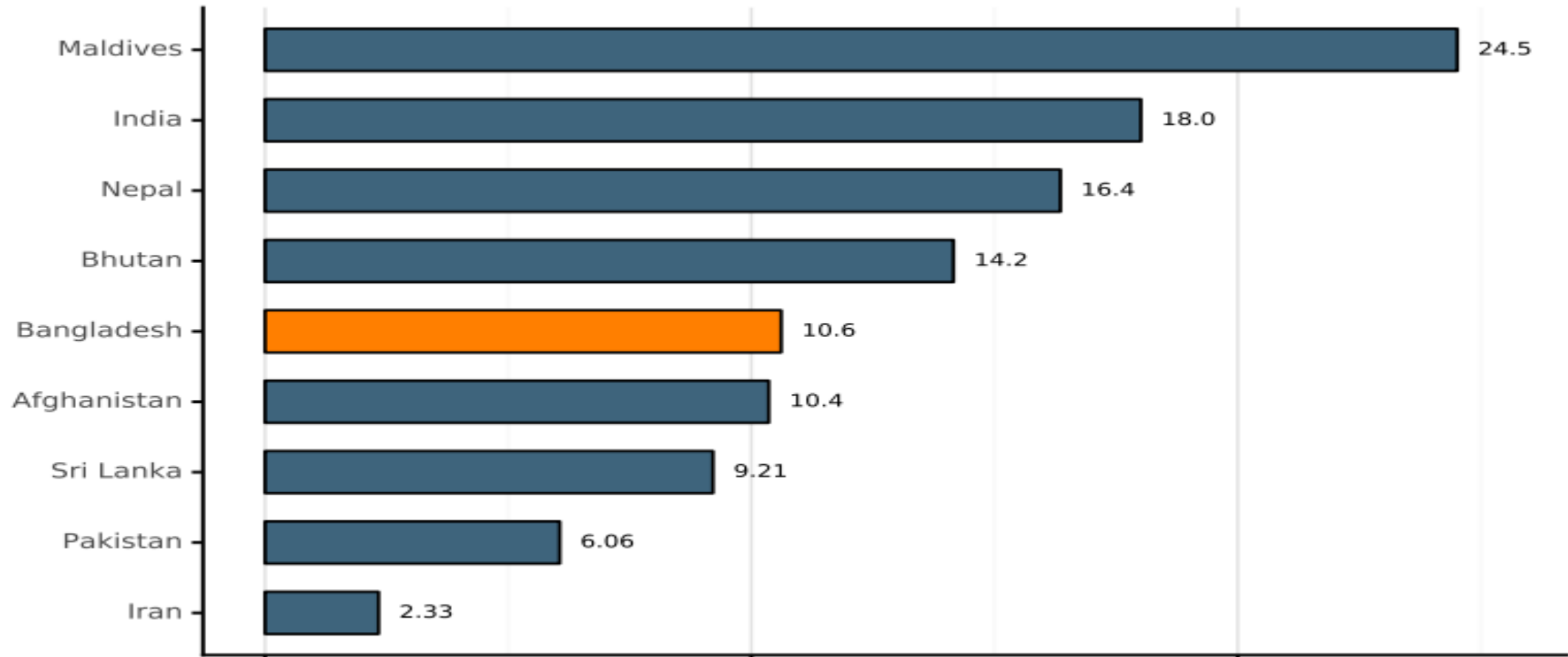
Males Females



# Key Statistics in Bangladesh

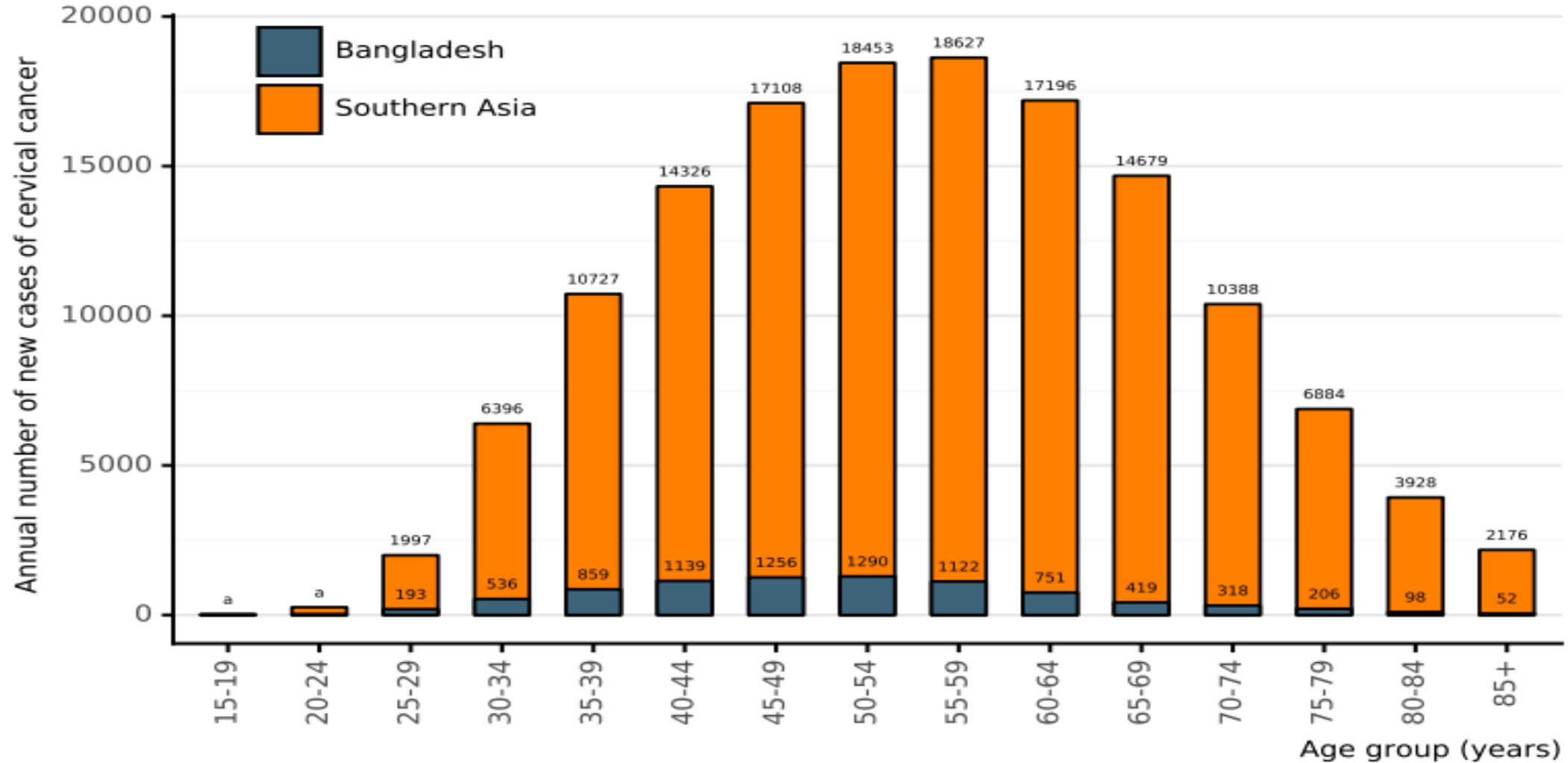
Population		
Women at risk for cervical cancer (Female population aged $\geq 15$ yrs)		58.9 million
Burden of cervical HPV infection: Prevalence (%) of HPV 16 and/or HPV 18 among women with:		
Annual number of cervical cancer cases		8268
Annual number of cervical cancer deaths		4971
Crude incidence rates per 100,000 population:	Male	Female
Cervical cancer		10.2
Anal cancer	0.33	0.13
Vulval cancer		0.32
Vaginal cancer		0.32
Penile cancer	0.77	
Oropharyngeal cancer	3.92	0.72
Oral cavity cancer	11.2	5.68
Laryngeal cancer	5.49	0.86

# Age-standardised incidence rates of cervical cancer of Bangladesh (estimates for 2020)

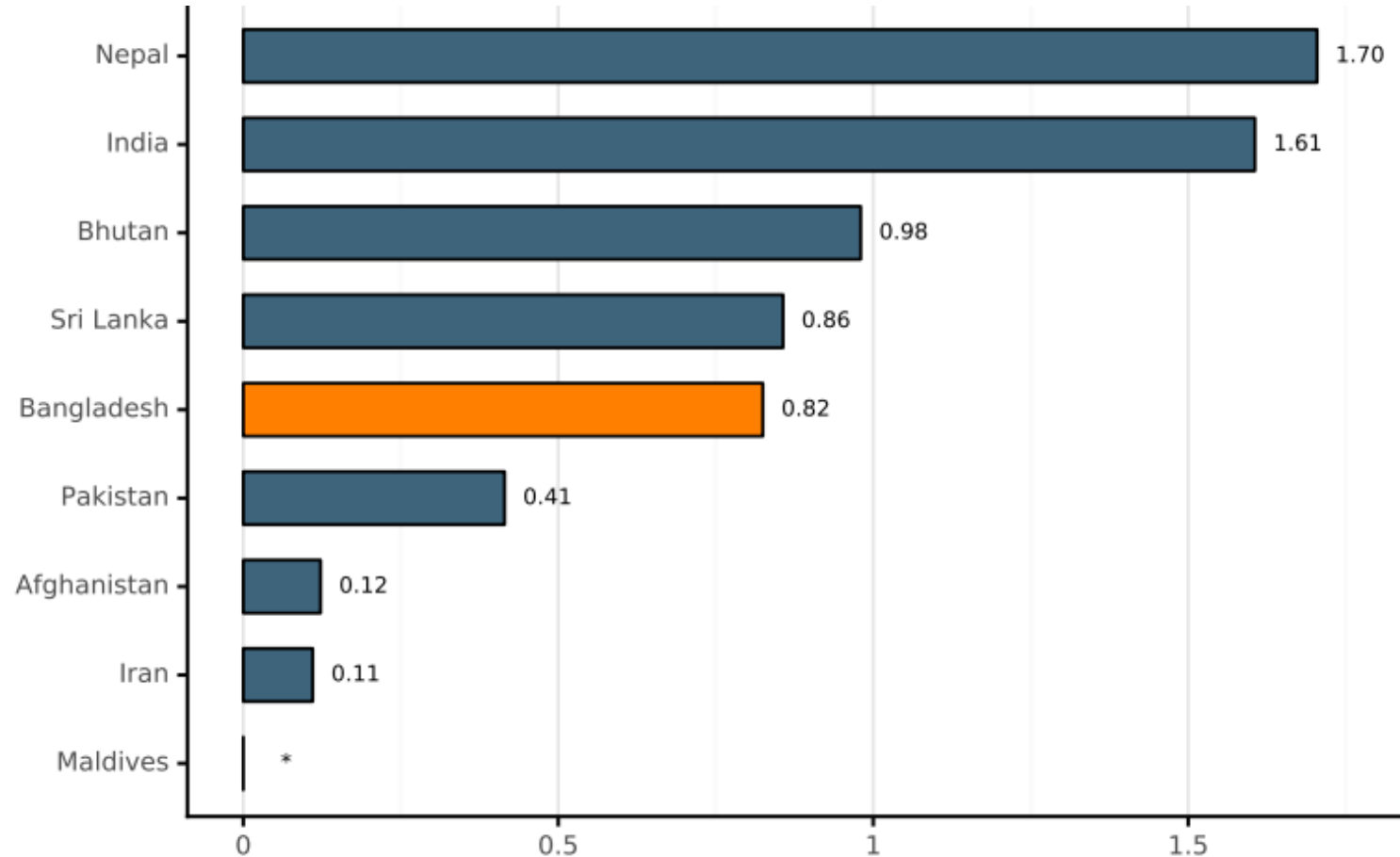


Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: <https://gco.iarc.fr/today>, accessed [27 January 2021].

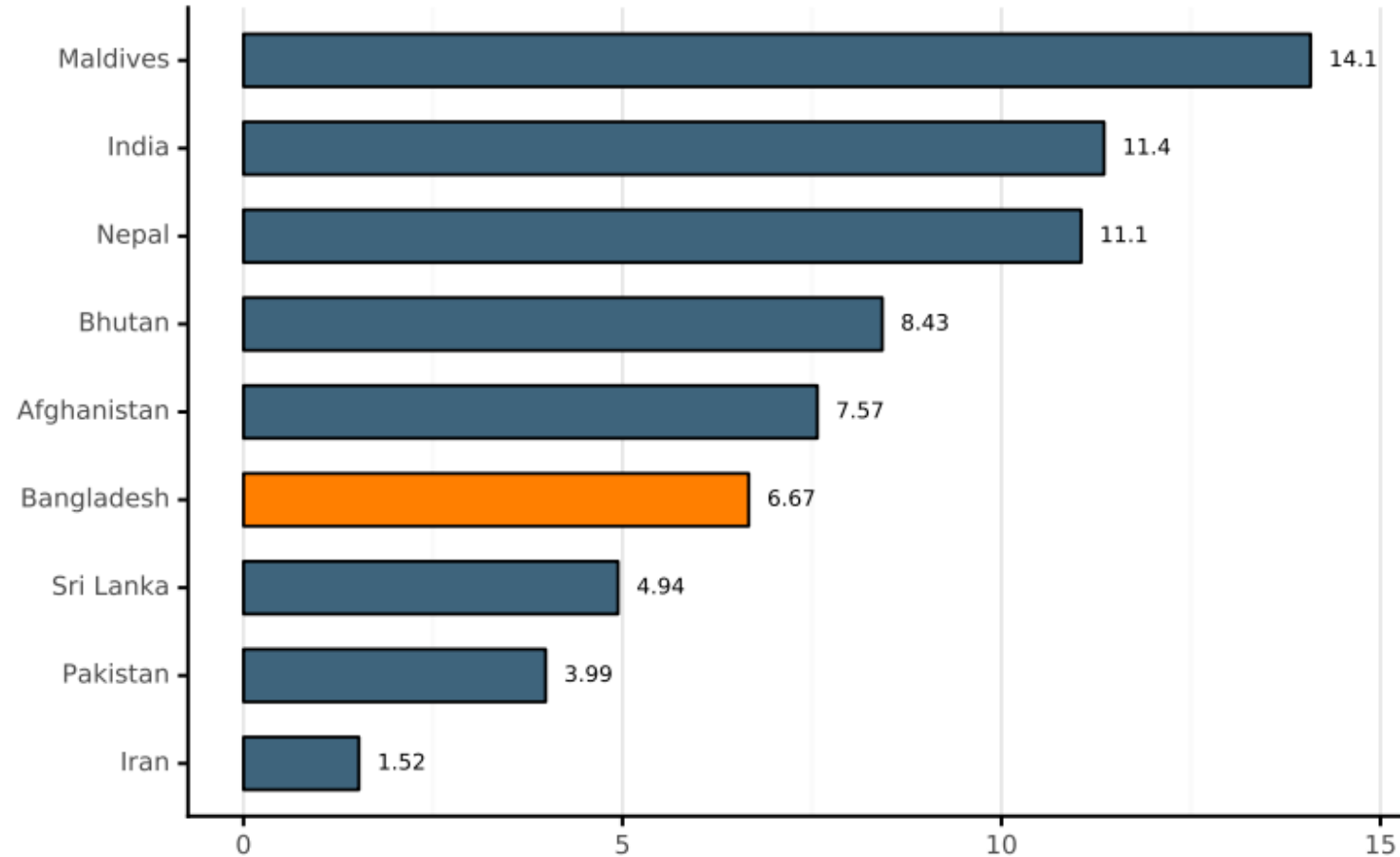
# Annual number of new cases of cervical cancer by age group in Bangladesh (estimates for 2020)



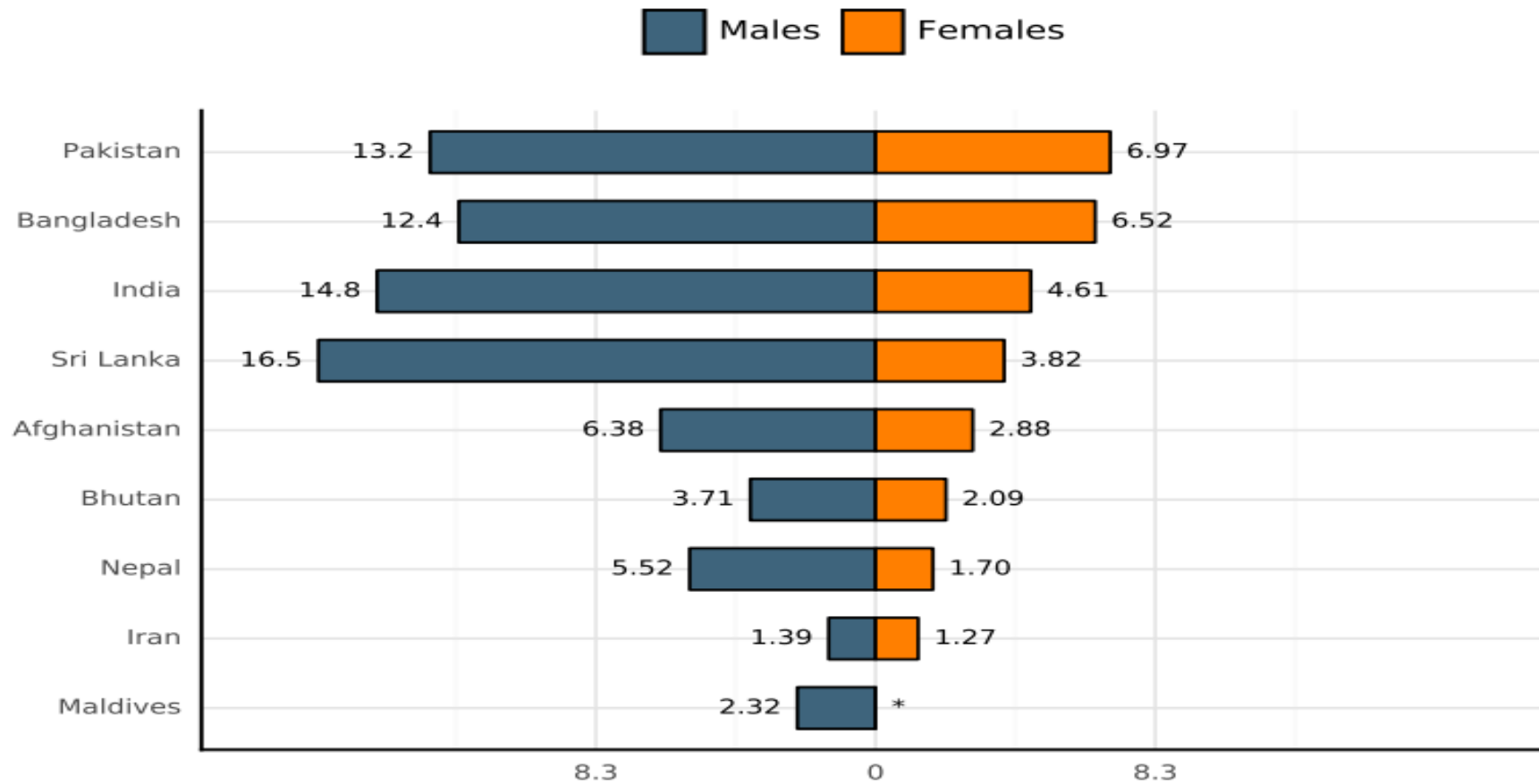
# Age-standardised incidence rates of penile cancer of Bangladesh (estimates for 2020)



# Cervical cancer mortality in Bangladesh across Southern Asia

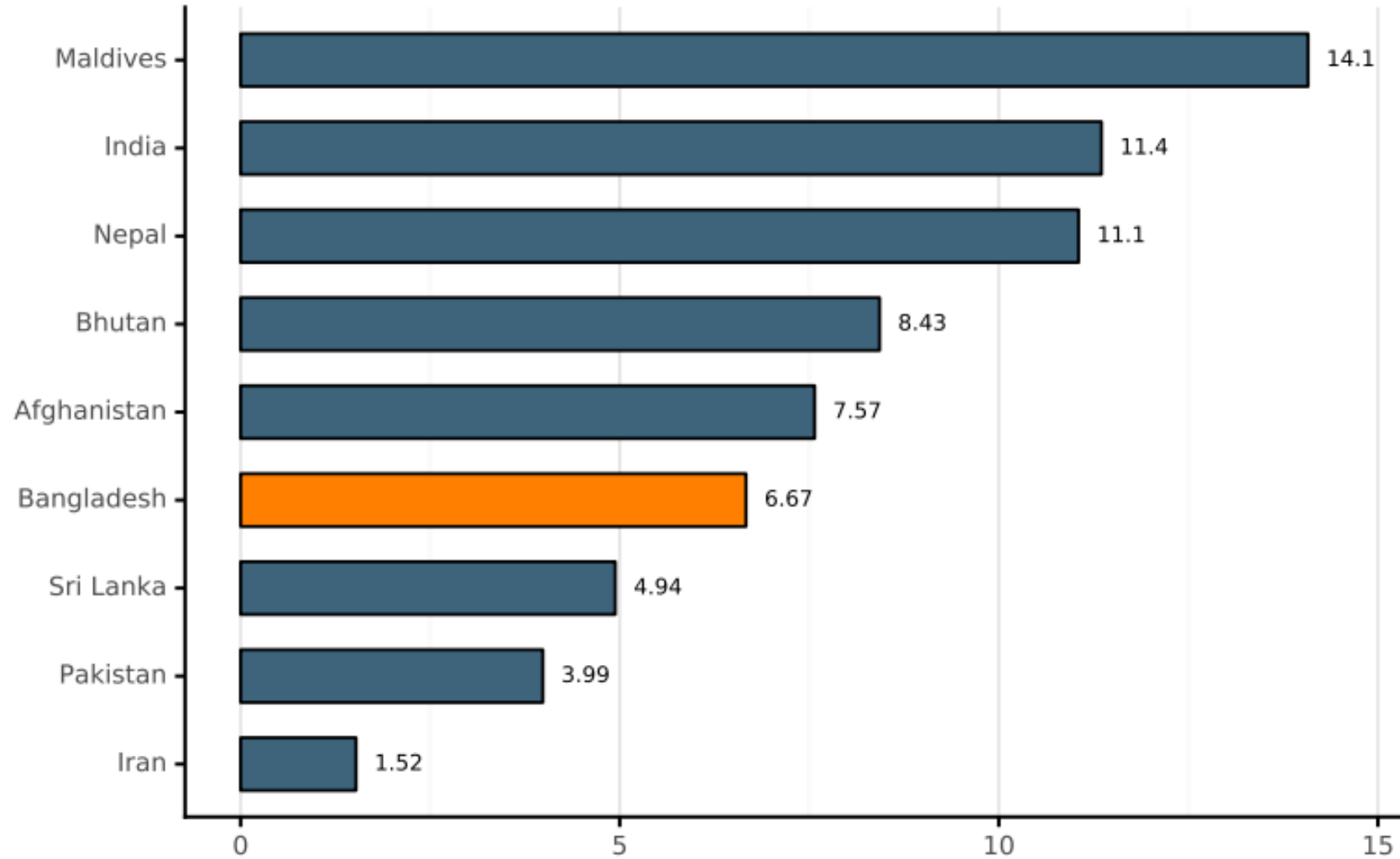


# Oral cavity cancer incidence in Bangladesh across Southern Asia

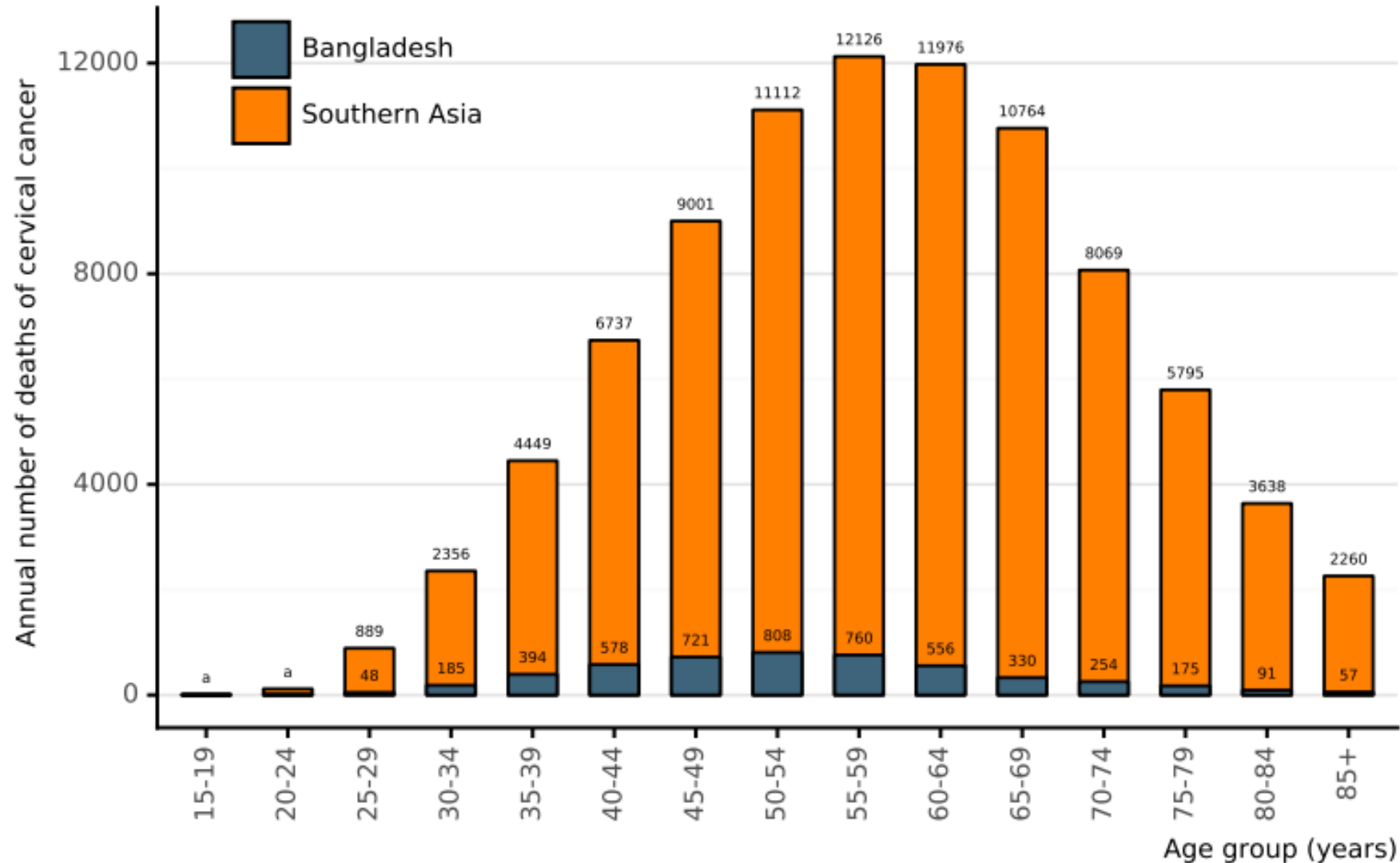




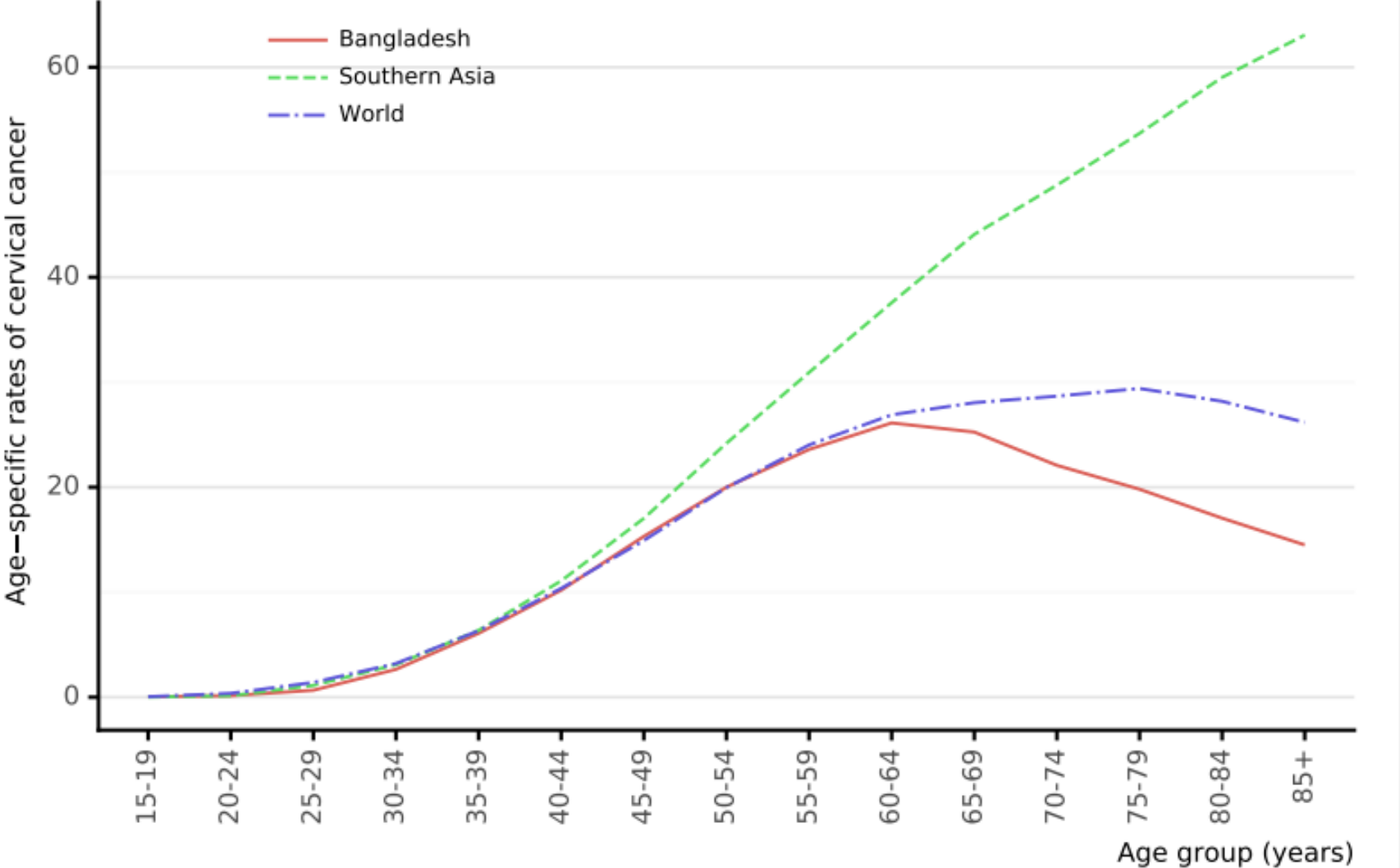
# Cervical cancer mortality in Bangladesh across Southern Asia



# Annual number of deaths of cervical cancer by age group in Bangladesh (estimates for 2020)

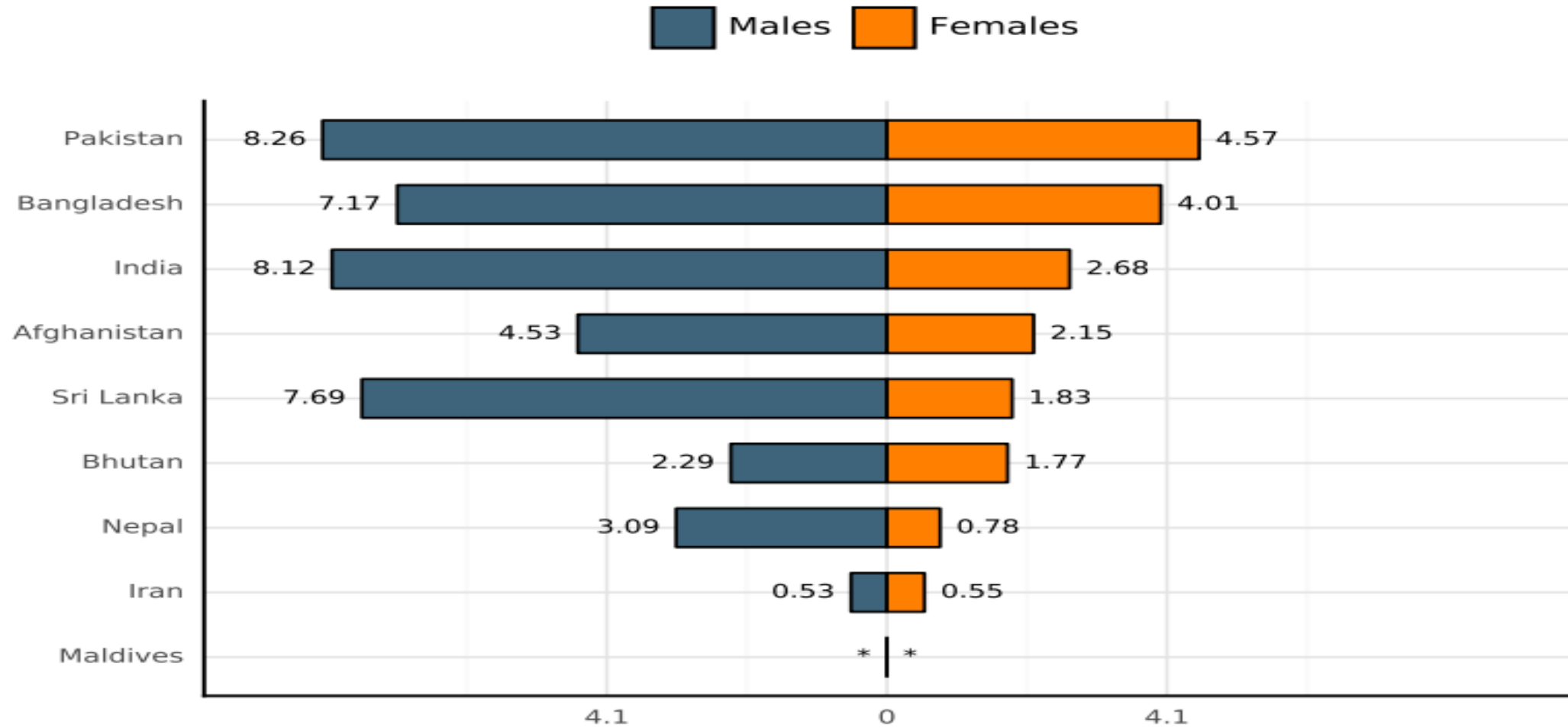


# Comparison of age-specific cervical cancer mortality rates in Bangladesh, within the region, and the rest of world

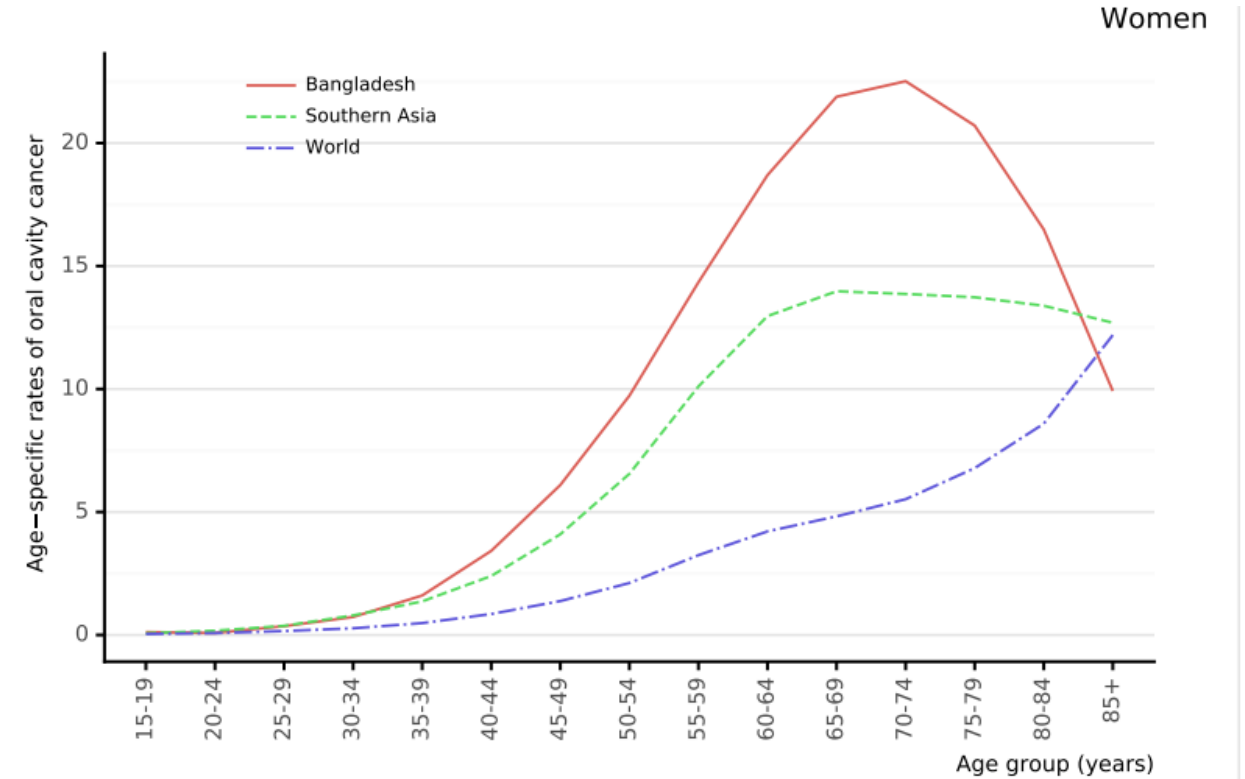
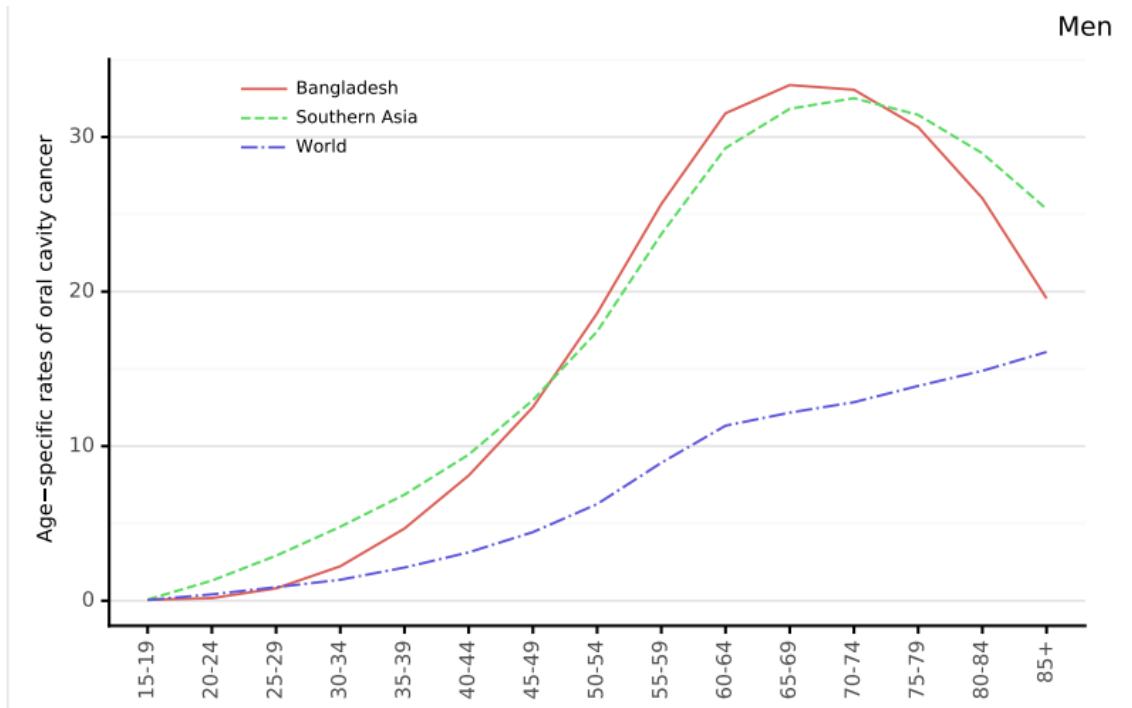


Ferlay J, Ervik M, Lam F, Colombet M, Mery L, Piñeros M, Znaor A, Soerjomataram I, Bray F (2020). Global Cancer Observatory: Cancer Today. Lyon, France: International Agency for Research on Cancer. Available from: <https://gco.iarc.fr/today>, accessed [27 January

# Oral cavity cancer mortality in Bangladesh across Southern Asia



# Comparison of age-specific oral cavity cancer mortality rates among women by age in Bangladesh, within the region, and the rest of world



# ECONOMIC BURDEN OF ADVANCED CERVICAL CANCER: A SYSTEMATIC LITERATURE REVIEW

Shao C<sup>1</sup>, Siddiqui MK<sup>2</sup>, Takyar J<sup>2</sup>, Zhou W<sup>1</sup>, Sen S<sup>1</sup>

<sup>1</sup>Merck & Co., North Wales, PA, USA, <sup>2</sup>PAREXEL International, Chandigarh, India

- **Conclusions: Cervical cancer is associated with substantial direct and indirect healthcare costs, especially at an advanced stage.**

# ESTIMATING THE LIFETIME COSTS IN ADULT PATIENTS WITH RELAPSED/ REFRACTORY DIFFUSE LARGE B-CELL LYMPHOMA IN THE UNITED STATES

Garcia J<sup>1</sup>, Snyder S<sup>2</sup>, Gitlin M<sup>2</sup>

<sup>1</sup>Juno Therapeutics, Seattle, WA, USA, <sup>2</sup>BluePath Solutions, Los Angeles, CA, USA

**Conclusions: The costs of current therapies for the treatment of RR DLBCL can be very high. Including first- and second-line therapy, total lifetime cost can approach at least \$1 million.**

**More effective novel therapies can moderate lifetime costs by ensuring durable remission, which may offset the proportion of patients who proceed to subsequent treatment. Economic evaluations of novel therapies should consider long-term outcomes as they are major contributors to lifetime costs.**

**Further research on real-world lifetime costs and outcomes are needed to inform future treatment decision models.**

RESEARCH ARTICLE

# The economic burden of cervical cancer in Eswatini: Societal perspective

Cebisile Ngcamphalala<sup>1\*</sup>, Ellinor Östensson<sup>2,3</sup>, Themba G. Ginindza<sup>1</sup>

**1** Discipline of Public Health Medicine, School of Nursing and Public Health, University of KwaZulu-Natal, Durban, South Africa, **2** Department of Women's and Children's Health, Karolinska Institutet, Stockholm, Sweden, **3** Department of Medical Epidemiology and Biostatistics, Karolinska Institutet, Stockholm, Sweden

## Conclusion

**The economic burden of cervical cancer in Eswatini is substantial. National public health prevention strategies with prophylactic HPV vaccine and screening for cervical lesions should therefore be prioritized to limit the extensive costs associated with cervical cancer.**





# Economic Value of Lost Productivity Attributable to Human Papillomavirus Cancer Mortality in the United States

*Masoom Priyadarshini<sup>1</sup>, Vimalanand S. Prabhu<sup>2\*</sup>, Sonya J. Snedecor<sup>1</sup>, Shelby Corman<sup>1</sup>, Barbara J. Kuter<sup>2</sup>, Chizoba Nwankwo<sup>2</sup>, Diana Chirovsky<sup>2</sup> and Evan Myers<sup>3</sup>*

**Results: An estimated 7,085 HPV-attributable cancer deaths occurred in 2017 accounting for 154,954 YPLL, with 6,482 deaths (91%) and 141,019 YPLL (91%) attributable to 9vHPV-targeted types. The estimated PVFLP was \$3.8 billion for cancer deaths attributable to 9vHPV-targeted types (84% from women). The highest productivity burden was associated with cervical cancer in women and anal and oropharyngeal cancers in men.**

**Conclusions: HPV-attributable cancer deaths are associated with a substantial economic burden in the US, much of which could be vaccine preventable.**

# **Social impact**

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**Social consequences are**

- **Expelling the woman from the house**
- **Remarriage**
- **Bad atmosphere in the house**
- **The ultimate consequence may be that other members of the family ban a woman with cervical cancer from the house**

# **Social impact**

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**Social consequences on patients in terms of**

- **Social discrimination 61.8%,**
- **Loss of body image 63%,**
- **Loss of sexual functioning 78%, and**
- **Loss of femininity 89%.**

# Economic impact

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- **Financial distress due to medical and nonmedical expenditures (71%)**
- **Hospitalization costs are the highest direct costs.**
- **Dramatic increase in direct costs with the increase in age and stage of the disease**
- **The costs for persons who were screened 6 months to 5 years before diagnosis were lower**
- **Reduction in hours worked (45%)**
- **Work interruption (28%)**

# Economic impact

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- **Loss of family income/loss of income due to inability to work (39%)**
- **Reduction in the daily amount of food consumed (37%)**
- **Delays in paying for essential services such as electricity or telephone (43%) and**
- **Sale of property or use of savings (38%)**

Thank you

Thank you