

Cervical Cancer Burden in Pakistan: Informing Policy Strategies through Systematic Review

Introduction

Cervical cancer is a globally recognized cause of cancer-related deaths among women. Most of these deaths occur in low-and low middle-income countries (LMIC) such as Pakistan. However, due to the lack of adequate disease burden data, targeted policy interventions for efficient resource allocation to combat the disease are hampered.

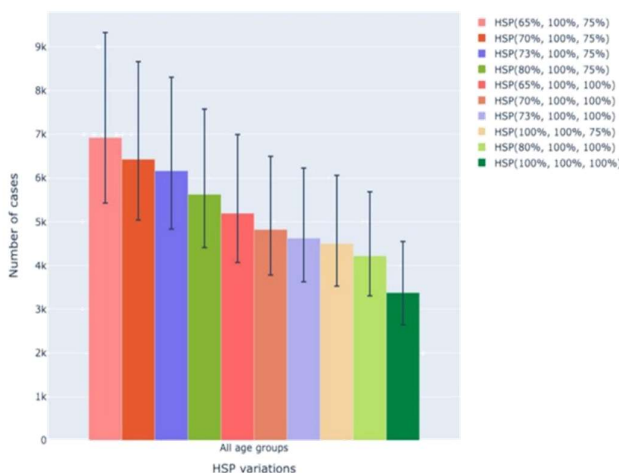
Methodology

Data was obtained through a systematic review of 15 published articles and reports to identify incidences of cervical cancer in Pakistan between 1995 and 2022. Calculated ASIRs (Age Standardized Incidence Rate) were applied to the 2020 population approximations to estimate the number of cervical cancer cases in Pakistan.

Findings

The findings of the study reveal stark discrepancies in cervical cancer estimates across Pakistan, with the Karachi Cancer Registry reporting the highest incidence rates. Due to lack of community or population-level studies, a centralized national cancer registry, or any regional screening programs, it is unclear whether true regional variation due to socio-demography exists in cervical cancer incidence across the country.

Fig.1: Estimated number of cases with adjusted and unadjusted ASIRs



Additionally, combined data analysis revealed that unadjusted and adjusted ASIRs for Pakistan are higher than the WHO target (4 per 100,000 women) required for cervical cancer elimination, with the Karachi Cancer Registry reporting rates between 6.02 to 7.4. The analysis indicated that ASIR estimates are highly influenced by healthcare-seeking behaviors and appropriate and timely diagnosis by physicians.

Salient Features

- Cervical cancer incidence rates in Pakistan are higher than the WHO target for elimination, with Karachi reporting the highest incidence rates.
- Significant discrepancies in incidence rates across Pakistan emphasize the need for a centralized data management system.
- Estimates of cervical cancer incidence rates are impeded by stigmatization of the disease, low help-seeking behaviours and appropriate diagnoses.

The stigmatization of genital cancers in LMICs contributes to low cancer care-seeking behavior, with the lack of data regarding this behavior further impeding research on cervical cancer in Pakistan.

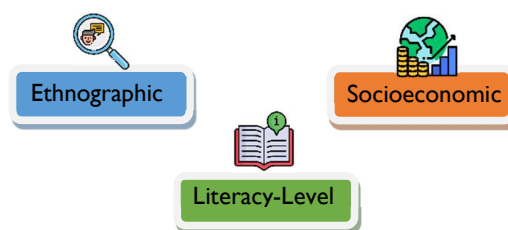
Fig.2: Aversive impact of low cancer help-seeking behavior



Policy Recommendations

- Establishment of a National Cancer Registry to systematically collect, analyze and report data on cancer incidence to identify regional disparities and develop tailored interventions.
- Designing regional screening and HPV vaccination programs for prevention and timely and appropriate diagnosis of the disease to achieve WHO target for cervical cancer elimination.
- Increasing public awareness and promoting health-seeking behaviors of stigmatized genital cancers through campaigns focusing on destigmatization, risk factors, early detection and treatment options.
- Employing participatory ethnographic evaluation research methods that include community insights and consider heterogenic contextual variables while tailoring interventions.

Fig.3: Heterogenic Contextual Factors Impacting Pakistan



This report was made possible with support from the Bill & Melinda Gates Foundation (BMGF). The contents are the responsibility of Research and Development Solutions, and do not necessarily reflect the opinion of BMGF. This policy brief was published in collaboration with CITRIC Health Data Science Centre, Aga Khan University.