

The “General Population” Fallacy: Inappropriate Inclusion of Oncology Cohorts Skews HPV Prevalence Estimates in Saudi Arabia



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To the Editor-in-Chief, Journal of Epidemiology and Global Health

We write to address a fundamental epidemiological misrepresentation in the scoping review by Qashqari titled “Epidemiology of Human Papillomavirus in Saudi Arabia” [1]. While the review aims to delineate the national burden of HPV, it suffers from a critical methodological flaw that invalidates its core premise regarding “prevalence”: the indiscriminate amalgamation of high-risk oncology cohorts with asymptomatic screening populations. The resulting estimates cannot, under any scientific standard, be labelled as representative of the “general population” or the “epidemiological landscape” of Saudi Arabia.

From a strict epidemiological standpoint, determining community-level prevalence requires a denominator of healthy or randomly selected individuals. However, a scrutiny of the data synthesised in this review (specifically Table 1) reveals that the author has treated patients with invasive malignancies as equivalent to the general population. This is not merely a limitation; it is a source of profound selection bias that artificially inflates the reported viral circulation.

The internal evidence within the article contradicts its own title. For instance, the review incorporates the study by Bondagji et al. [2] which focused exclusively on cervical cancer cases contributing a prevalence rate of 89.0% to the overall picture. Similarly, data derived from Al-Ahdal et al. [3] was based on ovarian cancer patients, yielding a positivity of 42.0%. Even the study by Faqih et al. [4] selected participants based on abnormal cytology, resulting in a 52.9% prevalence. To average or juxtapose these pathological percentages with data from routine screening

(where prevalence is typically <10%) creates a chimeric dataset that reflects neither the clinical burden nor the community risk accurately.

Therefore, the suggestion that these findings provide an “updated evidence to guide national prevention” is scientifically precarious. We argue that the high prevalence rates cited are markers of oncogenic association in diseased tissues, not indicators of viral spread in the Saudi community. Future surveillance strategies must rigorously demark “clinical prevalence” from “population prevalence” to avoid alarming overestimations that could misguide public health policy.

Conflict of Interest

The author declares no conflict of interest.

References

- [1] Qashqari FSI. Epidemiology of Human Papillomavirus in Saudi Arabia: A Scoping Review of Prevalence, Genotypes, and Risk Factors. *J Epidemiol Glob Health.* 2025;15:139. <https://doi.org/10.1007/s44197-025-00484-w>
- [2] Bondagji NS, Gazzaz FS, Sait K, Abdullah L. Prevalence of high-risk human papillomavirus infections in healthy Saudi women attending gynecologic clinics in the Western region of Saudi Arabia. *Ann Saudi Med.* 2013;33(1):13-7. <https://doi.org/10.5144/0256-4947.2013.13>
- [3] Al-Ahdal MN, Al-Arnous WK, Bohol MF, Abuzaid SM, Shoukri M, Elrady KS, et al. Human papillomaviruses in cervical specimens of women residing in Riyadh, Saudi Arabia: a hospital-based study. *J Infect Dev Ctries.* 2014;8(03):320-5. <https://doi.org/10.3855/jidc.4220>
- [4] Faqih L, Alzamil L, Aldawood E, Alharbi S, Muzzaffar M, Moqnas A, et al. Prevalence of human papillomavirus infection and cervical abnormalities among women attending a tertiary care center in Saudi Arabia over 2 years. *Trop Med Infect Dis.* 2023;8(12):511. <https://doi.org/10.3390/tropicalmed8120511>

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