Towards global elimination of cervical cancer in all groups of women

Authors' reply

Our recent study[1] found that if very high global coverage of both human papillomavirus (HPV) vaccination and cervical screening is achieved from 2020, 12·5–13·4 million cervical cancer cases could be prevented globally over the next 50 years, and that even if a low threshold of four cases per 100 000 women is set, most countries could achieve elimination of cervical cancer as a public health problem by 2099. Prabhat Kumar and colleagues propose that achieving this level of coverage would be a "herculean task" for many low-income and middle-income countries. We agree, and discussed in the original paper the barriers to scaling up cervical cancer prevention in many countries, including access to screening tests, and provision of quality colposcopy, pathology, and precancer treatment procedures.[1] However, the availability of point-of-care HPV testing and self-sampling (shown to be highly acceptable and effective across many settings) holds considerable promise as a way to improve access to screening.

Some low human development index (HDI) countries have introduced national HPV vaccination programmes with very high coverage, including Bhutan, Malaysia, and Rwanda. Kumar and colleagues also note that vaccine hesitancy might present a substantial challenge in India. Lessons can be taken from countries like Denmark and Ireland, where vaccine confidence and thus coverage were disrupted but have since been restored.[2,3] We also wish to highlight to Kumar and colleagues that we captured declining trends of cervical cancer in India in our original analysis; we performed a statistical trends analysis using International Agency for Research on Cancer data for 37 registries across 20 high-density countries, including four Indian registries. We found that, despite declining trends, India would experience the highest absolute burden of cervical cancer in the world over the next 50 years with more than 7·5 million cases diagnosed if screening and vaccination are not scaled up. Almost 2·5 million of these cases could be averted if access to screening and vaccination is rapidly scaled up.

Lisa Whop and colleagues rightfully note that elimination may not be achieved equitably within high HDI countries without specific strategies to reverse existing inequities, for example in Indigenous women in Australia. We completely agree with these comments, including the urgent need to improve data collection on Indigenous status in Australia, and the need for modelling to evaluate what is required to achieve elimination in population subgroups with higher disease burden in high HDI countries. Our previous modelling has shown that, while longer-interval HPV screening and HPV vaccination are both predicted to reduce disparities between Māori and other women in New Zealand, multiple approaches will be required to fully remove disparities, potentially including some beyond HPV prevention.[4] It is likely that the same will be true in Australia and elsewhere, and as we discussed in our previous detailed analysis of elimination in Australia,[5] our findings on the timing of elimination might not be generalisable to all subpopulations. Encouragingly, vaccine impact has been comparable across Indigenous and non-Indigenous women in Australia[6,7] and we anticipate that the option of self-collection will facilitate increasing screening participation. Comprehensive and community-led strategies towards cervical cancer elimination in all groups of women are critical in high HDI, as well as in low HDI countries.

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