

## Towards global elimination of cervical cancer in all groups of women

The study by Kate Simms and colleagues<sup>1</sup> inspires hope for global elimination of cervical cancer, the burden of which is now predominantly in countries with low and middle Human Development Index (HDI).<sup>1</sup> However, as the authors note, considerable disparities exist within countries with high HDI. This fact was not considered in their analysis, so findings based on average rates of cervical cancer within a country or HDI category do not imply that elimination will be achieved in all high-risk subgroups within such countries. It is concerning that elimination at a national level might not include high-risk subgroups, such as Indigenous women, who have higher cervical cancer incidence than their non-Indigenous counterparts in countries with high-quality data.<sup>2</sup>

Australia is a recognised leader in cervical cancer control, with a national screening programme since 1991 and a human papillomavirus (HPV) vaccination programme since 2007;<sup>3</sup> therefore, it should be among the first countries to eliminate cervical cancer. Australian cervical cancer incidence has fallen by 50% since 1991 to 8.5 new cases per 100 000 women per year, close to Simms and colleagues' "rare cancer threshold"<sup>1</sup> (six new cases per 100 000 women per year). However, Australia has not adequately addressed the inequitable cervical cancer burden in Indigenous Australians. Cervical cancer incidence in Indigenous women is double that in non-Indigenous women (19.1 new cases vs 8.5 new cases per 100 000 women per year), a rate comparable to that in countries with low and medium HDI. Cervical cancer mortality is over three times higher for Indigenous women (7.0 cases vs 1.9 cases per

100 000 women per year).<sup>3</sup> Although there is evidence of substantially lower screening participation among Indigenous women,<sup>3</sup> the national screening programme has been unable to report on the participation of Indigenous women to date and has done little to comprehensively address this issue, despite much discussion. Available evidence also suggests gaps in HPV vaccination for Indigenous adolescents.<sup>4</sup>

We must do more and do better to reverse existing inequities, or the gaps will become ever wider. As WHO Director-General Dr Tedros Adhanom Ghebreyesus urged, "the current generation cannot wait, and we cannot fail future generations of Indigenous people".<sup>5</sup> Critically, the strategies and actions needed to accelerate cervical cancer elimination for Indigenous women must be led by Indigenous women and form part of the draft global strategy tabled at the 2020 World Health Assembly.

Simms and colleagues<sup>1</sup> show what is possible for the majority of people, but do not consider within-country inequity. We urge similar modelling studies to predict the acceleration of cervical screening participation and HPV vaccination required to achieve elimination for high-risk subgroups in Australia and other countries with high HDI. Such information would focus attention and drive effective action to ensure that elimination becomes a reality for all.

JRC reports personal fees from Northern Territory Department of Health, outside the submitted work. JRC, GG, and JC were previously chief investigators on a National Health and Medical Research Council (NHMRC)-funded project investigating cervical screening for Aboriginal and Torres Strait Islander women, funded by NHMRC until the end of 2016, and of a Centre of Research Excellence on Indigenous cancer, funded by NHMRC and Cancer Council New South Wales until the end of 2018. GG, JC, and LJW are current chief investigators of a Centre of Research Excellence on improving cancer outcomes for Aboriginal and Torres Strait Islander Australians, which supports a programme of work that includes projects to improve cervical screening for Indigenous Australian women. LJW was supported by a NHMRC Early Career Fellowship (#1142035), as was GG (#1105399), and JC was

supported by an NHMRC Research Fellowship (#1058244). Funding sources had no role in the writing of the manuscript or the decision to submit for publication. GG and LJW are current members of Cancer Australia's Leadership Group on Aboriginal and Torres Strait Islander Cancer Control. All authors contributed equally to this correspondence.

\**Lisa J Whop, Joan Cunningham, Gail Garvey, John R Condon*  
[lisa.whop@menzies.edu.au](mailto:lisa.whop@menzies.edu.au)

Wellbeing and Preventable Chronic Diseases Division, Menzies School of Health Research, Darwin 0811, NT, Australia

- 1 Simms KT, Steinberg J, Caruana M, et al. Impact of scaled up human papillomavirus vaccination and cervical screening and the potential for global elimination of cervical cancer in 181 countries, 2020–99: a modelling study. *Lancet Oncol* 2019; **20**: 394–407.
- 2 Moore SP, Antoni S, Colquhoun A, et al. Cancer incidence in indigenous people in Australia, New Zealand, Canada, and the USA: a comparative population-based study. *Lancet Oncol* 2015; **16**: 1483–92.
- 3 Australian Institute of Health and Welfare. Cervical screening in Australia 2018. Canberra: Australian Institute of Health and Welfare, 2018.
- 4 Brotherton JM, Murray SL, Hall MA, et al. Human papillomavirus vaccine coverage among female Australian adolescents: success of the school-based approach. *Med J Aust* 2013; **199**: 614–17.
- 5 Ghebreyesus TA. Improving the health of Indigenous people globally. *Lancet Oncol* 2018; **19**: e277.