



## Cancer elimination thresholds: one size does not fit all

Australia should be congratulated on being set to “eliminate” cervical cancer by 2028,<sup>1</sup> but we question defining elimination as having an annual incidence of four per 100 000 women.

This target is too easy for some countries and impossible for others. For instance, much of the Middle East already has such rates,<sup>2</sup> other countries with effective screening programmes and high uptake of HPV vaccination are unlikely to achieve such a rate by 2040, while African countries with annual incidence rates over 40 per 100 000 haven’t a hope.

Additionally, considering incidence across all ages does not have specificity for monitoring public health interventions. The incidence of cervical cancer in women aged 0–19 years is extremely low and, in countries with excellent screening programmes, there is little to be done to further reduce cervical cancer in women born before 1990.

We suggest setting age and country specific targets with the aim of preventing a set proportion of new cervical cancer cases by a given date. According to the International Agency for Research on Cancer, global cervical cancer incidence per 100 000 women are as follows: 13·1 for all ages, 0·05 at ages 0–19 years, 6·2 for ages 20–34 years, 26·5 for ages 35–49 years, and 35·2 for ages 50–74 years.<sup>3</sup> A realistic but tough challenge would be to reduce these figures down to 3·0 (ages 20–34 years), 14·0 (ages 35–49 years) and 30 (ages 50–74 years) by 2040.

With regards to country-specific targets, we have produced a graph of current and projected trends of cervical cancer by age group in England (appendix).<sup>4</sup> Substantial reductions over the next 20 years are likely only in cohorts covered by the existing HPV immunisation programme.

Because cervical screening has been effective since 1988 in England, when the National Health Service screening programme was established, improvements in screening are likely to only have a modest effect in women born before 1990 and no impact in those born before 1955.

PS reports grants from Cancer Research UK and from Jo’s Cervical Cancer Trust, during the writing of this Correspondence. PS is acting as an expert witness on a case related to cervical screening and is working pro bono (a donation is being made to Jo’s Trust). The other authors declare no competing interests.

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- 1 Hall MT, Simms KT, Lew JB, et al. The projected timeframe until cervical cancer elimination in Australia: a modelling study. *Lancet Public Health* 2019; **4**: e19–27.
- 2 International Agency for Research on Cancer. Estimated number of new cases in 2018, cervix uteri, females, all ages. [http://gco.iarc.fr/today/online-analysis-table?v=2018&mode=population&mode\\_population=countries&population=900&populations=900&key=asr&sex=2&cancer=23&type=0&statistic=5&prevalence=0&population\\_group=0&ages\\_group%5B%5D=17&nb\\_items=5&group\\_cancer=1&include\\_nmsc=1&include\\_nmsc\\_other=1](http://gco.iarc.fr/today/online-analysis-table?v=2018&mode=population&mode_population=countries&population=900&populations=900&key=asr&sex=2&cancer=23&type=0&statistic=5&prevalence=0&population_group=0&ages_group%5B%5D=0&ages_group%5B%5D=17&nb_items=5&group_cancer=1&include_nmsc=1&include_nmsc_other=1) (accessed Oct 16, 2018).
- 3 International Agency for Research on Cancer. Estimated number of new cases in 2018, worldwide, females. [http://gco.iarc.fr/today/online-analysis-table?v=2018&mode=cancer&mode\\_population=continents&population=900&populations=900&key=asr&sex=2&cancer=39&type=0&statistic=5&prevalence=0&population\\_group=0&ages\\_group%5B%5D=10&ages\\_group%5B%5D=15&nb\\_items=5&group\\_cancer=1&include\\_nmsc=1&include\\_nmsc\\_other=1](http://gco.iarc.fr/today/online-analysis-table?v=2018&mode=cancer&mode_population=continents&population=900&populations=900&key=asr&sex=2&cancer=39&type=0&statistic=5&prevalence=0&population_group=0&ages_group%5B%5D=10&ages_group%5B%5D=15&nb_items=5&group_cancer=1&include_nmsc=1&include_nmsc_other=1) (accessed Oct 18, 2018).
- 4 Castanon A, Landy R, Pesola F, Windridge P, Sasieni P. Prediction of cervical cancer incidence in England, UK, up to 2040, under four scenarios: a modelling study. *Lancet Public Health* 2018; **3**: e34–43.

See Online for appendix