

Systematic review and meta-analysis of the prevalence of smokeless tobacco consumption among adults in Bangladesh, India and Myanmar

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Abstract

Objective: To estimate the pooled prevalence of smokeless tobacco consumption (STC) by gender and location in Bangladesh, India and Myanmar and to identify periodic changes in STC prevalence using data extracted from published studies.

Methods: We searched for a combination of keywords in electronic databases and used a standard form to extract data from each article. We undertook a meta-analysis to estimate pooled prevalence and confidence intervals within these countries. To compare periodic changes in STC prevalence, we grouped studies into five-year periods (2000-2004, 2005-2009, 2010-2014 and 2015-2019).

Results: The pooled estimates of STC prevalence were 25% (95% CI: 22-28%), 22% (95% CI: 15-28%) and 21% (95% CI: 14-28%) for Bangladesh, India and Myanmar, respectively. In pooled estimates across these countries, we found higher STC prevalence for men (30%; 95% CI: 24-35%) than women (16%; 95% CI: 10-23%) and for rural dwellings (24%; 95% CI: 18-31%) than urban dwellings (17%; 95% CI: 10-24%). We found significant decrease in STC in Bangladesh and India in the period 2010-2014 and 2015-2019, respectively. In Myanmar, STC prevalence increased significantly and substantially in 2010-2014, to levels higher than in Bangladesh and India.

Conclusions: The prevalence of STC in Bangladesh, India and Myanmar is highest in rural areas and among men. Public health prevention strategies are needed to maintain decrease in STC in Bangladesh and India, and to reverse the increased use in Myanmar.

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