

## Gutkha, paan masala fix: Policy reform can save Indian users \$19 bn in healthcare costs, finds study

*Researchers find that perception of smokeless tobacco is safer than cigarettes has led to more use, at a cost to people's health, and to national finances in South Asian countries.*

**SUMI SUKANYA DUTTA | 10 May, 2024**

**New Delhi:** No change in India's policy on the use of smokeless tobacco would amount to nearly \$19 billion in healthcare costs over the lifetime of consumers in the country, according to a new study published in Oxford Academic's *Nicotine and Tobacco Research* journal. The biggest contributor to this amount is the cost burden associated with oral cancers.

Health economists from the UK, India and other South Asian countries, in the first such analysis, developed a predictive model to estimate the lifetime impact of consuming smokeless tobacco on the health and quality of life, and healthcare costs of three South Asian countries — India, Bangladesh and Pakistan. The results were sorted according to country, age group and sex.



According to the study, current non-users among the younger age groups, who, the model predicts, will take up the habit in future, account for a bigger share of the healthcare costs, compared to current users.

Khaini, gutkha and pan masala are some of the smokeless tobacco products, which deliver an addictive nicotine fix, when chewed, snuffed, or applied to the teeth and gums.

The researchers noted that these products are a big hit in South Asia. Nearly 300 million people in these countries, who consume smokeless tobacco, represent 5 out of 6 users globally.

"Smokeless tobacco is deeply embedded in South Asian culture," said Subhash Pokhrel, professor of public health economics at Brunel University London, who led the study.

"It's often offered at wedding ceremonies, where it's polite to accept. Celebrities endorse it through surrogate adverts, and because of looser legislation than for smoked tobacco, such as cigarettes, there are less stringent rules around selling smokeless tobacco to minors. It's a cheap product that is even sold near schools, though laws prohibit it," Pokhrel explained.

Researchers also noted that the perception that smokeless tobacco is safer than cigarettes has led to more use, but at a cost to the health of citizens, and to national finances. For example, around a quarter of India's healthcare costs related to tobacco use had previously been estimated to be attributable to the smokeless form alone.

In this new study – funded by the UK's National Institute for Health and Care Research — the health economists predicted the lifetime costs of treatment of four of the most common diseases attributed to consumption of smokeless tobacco: oral, pharyngeal and esophageal cancers (which affect the mouth and throat), together with stroke.

The analysis meant to put a monetary value on lifetime healthcare savings, if India, Bangladesh and Pakistan changed and effectively implemented their policies to eliminate the use of smokeless tobacco, overall and for each cohort.

“If there were no changes in the current smokeless tobacco policies and their current levels of implementation, the lifetime healthcare costs attributable to smokeless tobacco would be over \$19 billion in India, with oral cancer costs the largest contributor,” Pokhrel said.

“They would be over \$1.5 billion in Bangladesh, and over \$3 billion in Pakistan. These figures are large, but conservative, because we have been cautious in selecting the best available estimates to link smokeless tobacco use to diseases that it can cause. So, the true figures may end up being higher.”

### **Key findings & implications**

The researchers split the current adult population of India, Bangladesh and Pakistan into five-year age bands, ranging from 15–19 up to 70–74 years.

They categorised men and women, creating age and sex cohorts for detailed analysis. Within each cohort, the researchers identified how many people were current users of smokeless tobacco, former users or ‘never users’, based on a range of country specific data, such as from tobacco consumption surveys and previous research.

The researchers then ran a predictive model throughout the lifetimes of these age/sex cohorts. In any given year, some users would quit, some would carry on, and some former users would relapse. While some would take up the habit for the first time, others would remain never-users, and some would die.

The study used best-estimate probabilities of how likely people were, in a year, to switch between or stick to each of these states — for example, how likely a woman in Bangladesh in the 15–19 age group was to become a smokeless tobacco user for the first time. It then factored in how common cancers and stroke would be for each cohort at that point in time, together with the healthcare costs associated with each disease.

The model could also predict the added life expectancy of an individual’s life without the use of smokeless tobacco, and what duration of their lives would be lived in a state of less than full health.

For all three countries, the overall attributable costs were found to be higher for younger cohorts. The highest costs for men in India were for those currently aged 35–39, in Bangladesh for those aged 30–44, and in Pakistan the cohorts aged 20–24 and 30–34.

The financial and health burden is almost double for men, compared to women in India and Pakistan. However, in Bangladesh, the burden is generally slightly greater for women versus men.

The researchers’ most intriguing insight is that the people expected to bear the most significant burden in the future are young never-users — those who have not started using smokeless tobacco yet, but might in the future — if the current policies are left unchanged.

Dr Ravi Mehrotra, a co-author of the study, and an honorary professor of health sciences at Brunel, said, “Positive changes in the current smokeless tobacco policies of India, Bangladesh and Pakistan are needed to avoid young people, who are current non-users, ending up carrying the most burden, both financially and health-wise, in addition to supporting current users to quit. Strict implementation of the laws is the need of the hour.”

Pokhrel pointed out that since smokeless tobacco products are cheap, just levying more tax without other policy changes, is unlikely to have much of an impact. “Given that they’re culturally embedded and addictive, users will also need cessation support to help them kick the habit.”

According to him, it is not yet fully known what works best for prevention and control of smokeless tobacco use at the population level.

“Our study, however, suggests that in younger-age cohorts, more may be gained through targeting non-users with interventions, aimed at preventing the uptake of smokeless tobacco, whereas in middle-aged people, interventions targeted at cessation support may be most efficient. More research is needed to confirm that,” said Pokhrel.

(Edited by Mannat Chugh)

**Source:** <https://theprint.in/health/gutkha-paan-masala-fix-policy-reform-can-save-indian-users-19-bn-in-healthcare-costs-finds-study/2078035/>