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# Manipulated: graphic health warnings on smokeless tobacco in rural India

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India is unique in its dual burden of tobacco use. Nearly 200 million individuals use smokeless tobacco (SLT) products in India,<sup>1</sup> with almost 200 000 deaths attributed to SLT use in 2010.<sup>2</sup> SLT users tend to live in rural areas and have lower levels of education.<sup>1</sup> India has made substantial strides in tobacco control in recent years, including the 2016 increase in health warning label (HWL) coverage to 85% on all tobacco products sold, including SLT. The Tobacco Pack Surveillance System (TPackSS) has been monitoring HWL compliance in India and other low-income and middle-income countries

since 2013. After 5600 tobacco products purchased globally, we noticed something truly unique.

Following data collection of 240 unique SLT products purchased in rural India in 2017, 133 (55%) packs had the current SLT-specific Indian HWL. We observed that several current HWLs on packs appeared to be altered (*figure 1*). After double coding this sample, eight SLT packages (6%) appeared with warnings that were selectively blurred or manipulated in a fashion that obscured parts of the HWL image (*figure 1B*), and 70 packages (53%) appeared with entirely blurred warning images (*figure 1C*). Thirteen packages (10%) appeared with labels that had some combination of heavy tint, faded colours and stretching. The remaining packages (n=42) displayed a HWL that was free of blurring and colour issues. No such HWL manipulation was found on any cigarette packages collected in India, nor has this been seen with any other tobacco products purchased in 13 other countries.<sup>3</sup>

Data presented here were systematically collected in November 2017 in an adapted TPackSS protocol (originally designed for urban data collection) structured to systematically collect a census of unique SLT products sold in rural towns in five states (Maharashtra, Uttar Pradesh, Assam, Rajasthan and Karnataka).<sup>4,5</sup> The five sample states represented almost 40% of the Indian population and were selected based on political relevance, geographical diversity and prevalence of SLT users. Within each state, five towns were selected for data collection across three different population tiers (3–5), with tier 3 defined as semiurban and tier 4 and 5 as rural.<sup>6</sup>

Prior research in India found that 51% of unique cigarette packs<sup>7</sup> and 2% of unique SLT<sup>8</sup> products had compliant HWLs. This gap in compliance is particularly problematic due to the different demographics that use SLT<sup>1</sup>; the rural literacy rate in the states sampled is 55%–70%, with urban rates ranging from 70% to 85%.<sup>9</sup> The Framework Convention on Tobacco Control (FCTC) Article 11 recommends graphic warnings as an ‘added benefit of potentially reaching people with low levels of literacy’.<sup>10</sup>

Although the Indian law exceeds many of the HWL guidelines in the WHO-FCTC, this deficit in effectual implementation diminishes the ability of HWLs to communicate the health risks of SLT products. We identified a need for regular monitoring of HWLs for accurate printing, with fidelity to the Ministry of Health and Family Welfare



**Figure 1** Smokeless tobacco products from rural India with differing health warning label (HWL) printing manipulations. (A) A HWL that is accurately printed, as prescribed by India law; (B) a HWL where the mouth cancer is selectively blurred, maintaining visual clarity for the remaining parts of the HWL; and (C) a HWL that is completely blurred, with sharp text and branding, suggesting these tobacco manufacturers have the ability to print clear packaging.

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templates. Given the widespread burden of SLT use, particularly in rural areas, this should be a priority in India.

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