Reducing the appeal of smoking: Study confirms tobacco warnings on packages need improvement

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Example of how codes were applied to combustible tobacco warnings. Note: Image is from a public database. Credit: *BMJ Open* (2023). DOI: 10.1136/bmjopen-2022-062033

Smoking has been glamorized to consumers for decades, but the packaging of combustible tobacco products have been the central target in a global effort to get more people to not smoke. From colorful pictures to specific wording, what is seen on the surface packaging of these products has long served as the main component in advertising for tobacco companies. In an effort to implement warning labels to help communicate health risks to both current and potential consumers, one

study confirms that effective warnings can increase knowledge of the grim realities of tobacco use and awareness of its risks.

Research has been underway to assess adoption of warning labels for combustible tobacco products worldwide. Led by Leah Ranney, Ph.D., MA, associate professor in the UNC Department of Family Medicine and Adam Goldstein, MD, MPH, professor and director of Departmental Advancement at the UNC Department of Family Medicine, UNC School of Medicine researchers conducted a study published in the *BMJ Open* titled "How do current tobacco warnings compare to the World Health Organization (WHO) Framework Convention for Tobacco Control (FCTC) guidelines: a content analysis of combustible tobacco warnings worldwide."

After identifying a total of 316 warnings from 26 English-speaking countries or jurisdictions, results showed only 53 warnings or just 17% included three key characteristics recommended by the WHO FCTC on a single warning: a marker word such as WARNING prior to the warning statement, cessation resources (i.e., quitline phone number or website) and a pictorial that was not a smoking cue (like a burning cigarette).

"Our systematic evaluation of combustible tobacco warnings was important to understand the current landscape of warnings worldwide and to assess at what level evidence-based research was being implemented into these warnings," said Ranney, first author of the study and director of UNC's Tobacco Prevention and Evaluation Program. "Our research is the first to compile existing English language combustible tobacco warnings, and our findings confirm that tobacco warnings can improve considerably to follow proposed WHO FCTC guidelines."

These guidelines from the WHO explicitly recommend removing

advertising and promotion on tobacco product packaging, including all design features that make tobacco products attractive. Research supporting this recommendation concludes that plain packaging with health warning pictures increases visual attention to warnings, increases harm perceptions, and reduces pack appeal, but may not increase the effectiveness of the health warning labels. As of October 2020, 17 countries have adopted plain packaging.

According to the study, 182 Parties/countries and jurisdictions, which is 90% of the world population, have signed the WHO FCTC treaty in agreement that they will strive to support and ratify these measures. Warnings included in this study were from countries that have signed and ratified the treaty with the exception of the U.S., which signed the FCTC on May 10, 2004, but has yet to ratified the treaty (formally entered into the force of the FCTC).

"Unfortunately, the U.S. is the only country we reviewed with text only tobacco warnings and recent tobacco industry litigation in U.S. courts for incorporating images to strengthen U.S. tobacco warnings has been delayed for over a decade," said Goldstein, a co-author on the study and director of the Tobacco Intervention Programs at the UNC School of Medicine.

Current research suggests that larger warnings with pictures/images are more likely to be noticed and more effective in communicating the health risks of smoking. Warnings with pictures identified in the study were primarily from the U.K., Canada and Jamaica. Compared with text-only warnings, warnings with images are rated as more personally relevant, more likely to draw attention and be remembered, promote cessation attempts and decrease consumption.

Key recommendations from the FCTC include having a variety of warning labels that clearly communicate health risks as well as different

issues related to tobacco use; such as, advice on quitting, the addictive nature of tobacco and adverse economic outcomes. The WHO guidelines also recommend several design elements for tobacco warnings, including: location, size, use of pictures, color, rotation, message content, language and source attribution.

"These recommendations are a key component for implementing a comprehensive integrative approach to tobacco control," said Ranney. "An abundance of research shows that well-designed warnings on tobacco products can increase public awareness of the health effects of tobacco use and be effective in reducing tobacco product use."

Goldstein said, "A person who smokes a pack a day will see a tobacco warning on their pack over 7,000 times a year, proving an incredibly potent stimulus to help them quit smoking."

Of these warnings, the study shows, 94% included warning text and an image. Warning text statements most often described health effects to the respiratory (26%), circulatory (19%) and reproductive systems (19%). Cancer was the most frequently mentioned health topic (28%). Fewer than half of warnings included a Quitline resource (41%). Few warnings included messages about secondhand smoke (11%), addiction (6%) or cost (1%). Of warnings with images, most were in color and showed people (88%), mostly adults (40%). More than 1 in 5 warnings with images included a smoking cue.

Ranney said it's important for readers to understand that this study, while it includes a great deal of combustible (i.e., cigarette, cigars, hookah, pipes, bidis) tobacco warnings from many countries, is not inclusive of all tobacco warnings globally. Also, there were some limitations: researchers collected only English-language warnings, all the warnings were identified through electronic database searches, and some of the warning images were poor making it difficult to identify and code all

warning characteristics.

While there's still more research that needs to be done, this systematic study identified the key characteristics of existing combustible tobacco warnings to better understand how these warnings compare to current warning guidelines based on research.

"Population-based tobacco control interventions like effective tobacco product warnings working synergistically with other tobacco control interventions (media campaigns, cessation programs, anti-tobacco policies, etc.) is the strategy for moving towards tobacco free environments and reduce tobacco product consumption," said Ranney.

More information: Leah M Ranney et al, How do current tobacco warnings compare to the WHO FCTC guidelines: a content analysis of combustible tobacco warnings worldwide, *BMJ Open* (2023). DOI: 10.1136/bmjopen-2022-062033

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