

EFFECTIVENESS OF LARGE PICTORIAL HEALTH WARNINGS ON TOBACCO PACKAGES

A summary of the global evidence



World Health
Organization

REGIONAL OFFICE FOR THE Eastern Mediterranean

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The tobacco problem in the Eastern Mediterranean Region

Tobacco use remains the largest cause of preventable death in the world, with the highest tobacco-related illness and death rates occurring in low- and middle-income countries. Tobacco use poses a significant public health problem in the World Health Organization (WHO) Eastern Mediterranean Region, where smoking rates in some countries are as high as 66% among men and 30% among women (1). Waterpipe tobacco smoking has also become increasingly popular in the Region, especially among youth and females (2–4).

Importance of health warnings

Despite overwhelming evidence demonstrating the harms of tobacco use, including waterpipe tobacco smoking, many tobacco users are still not aware of these devastating health effects. Health warnings on tobacco packages are among the most important sources of information about the harms of smoking and second-hand smoke. They are a highly visible, low-cost method to educate both smokers and non-smokers about the many ways in which tobacco use can damage their health.

WHO Framework Convention on Tobacco Control Article 11

Health warnings are the focus of Article 11 of the WHO Framework Convention on Tobacco Control (FCTC), the world's first public health treaty. The 180 Parties to the Convention are obligated to implement effective evidence-based tobacco control policies, including large pictorial health warnings.

The key requirements of health warnings according to Article 11 and its guidelines (adopted in 2008) are outlined below. The guidelines are based on evidence showing that larger health warnings are more effective than smaller warnings, and that pictorial warnings have a greater impact than text-only warnings (5).

WHO Framework Convention on Tobacco Control Article 11 guidelines

Health warnings should:

- be large, clear, visible, and legible
- include full colour pictures
- be as large as possible – cover more than 50% of the package front and back
- appear at the top of both the front and back of the package
- be in the country's principal language(s)
- include multiple health warnings and messages that appear concurrently and are revised periodically
- not use misleading descriptors such as "light" and "low tar"
- provide advice about cessation

Global status of pictorial health warnings

Since the WHO FCTC came into force in 2005, a growing number of countries have implemented pictorial warnings: as of September 2014, 77 countries/ jurisdictions have approved legislation for pictorial warnings on tobacco packages, including 12 countries from the Eastern Mediterranean Region (6). Among those countries with laws requiring pictorial warnings, 54 (including 10 countries from the Region) require the warnings to cover at least 50% of the front and back of the package (on average).

In many countries, pictorial warnings cover much more than 50% of the

package. As of July 2016, Thailand and India's warnings cover the world's largest average area of the pack at 85% front and back. This is followed by Australia at 82.5% (75% front, 90% back), Uruguay and Sri Lanka at 80% front and back and Brunei, Canada, Myanmar and Nepal at 75% front and back (Fig. 1) (7–9). Nepal has adopted legislation to increase the size of its pictorial warnings to 90% of the package front and back, but this requirement has yet to be fully implemented. In 2017, Vanuatu will implement pictorial warnings on 90% of the front and back of the pack (10).



Fig. 1. Examples of the front of cigarette packages in countries with large pictorial warnings

In 2015, Pakistan announced legislation to increase the size of pictorial warnings from 40% to 85% front and back, which would make them among the largest in the world. However, implementation has been repeatedly delayed and the new warnings are still pending.

Plain/standardized packaging

In December 2012, Australia became the first country in the world to implement plain/standardized packaging, along with a new set of larger pictorial warnings (75% front, 90% back; see example in Fig. 1 and Fig 2). There is now clear evidence that plain packaging in Australia is achieving its primary objective of improving public health by reducing the appeal of tobacco products, enhancing the effectiveness of health

warnings, and reducing the ability of packaging to misinform the public. There is also evidence that plain packaging is associated with a significant reduction in adult smoking prevalence (11). France, Ireland and the United Kingdom have also passed laws requiring plain/standardized packaging, while a growing number of other countries are developing or actively considering similar legislation.



Fig. 2. Example of the new cigarette packaging in Australia; companies will no longer be able to display their distinctive colors, brands and logos on packs. Packs will instead come in a uniformly drab shade of olive and feature graphic health warnings.

Summary of global evidence on pictorial health warnings

There is strong and conclusive global evidence that health warning labels are an effective tool for educating the public about the harms of smoking and reducing tobacco consumption and prevalence. For example, the introduction of pictorial warnings (50% front and back) in Canada in 2001 was associated with a 12–20% reduction in smoking rates by 2009 (12).

Research has shown that large pictorial warnings are more likely to:

- be noticed by smokers
- increase awareness of health risks of tobacco use
- promote quitting
- prevent initiation of smoking.

Large cohort surveys conducted by the International Tobacco Control Policy Evaluation Project (the ITC Project) in 20+ countries have shown positive trends.

1. Pictorial health warnings are more effective than text-only warnings

- After pictorial warnings replaced text-only warnings in several countries, including Australia, Canada, Malaysia and Mauritius, all indicators of health warning effectiveness (e.g. salience, avoidance behaviours, thoughts about quitting and thoughts about health risks) increased significantly (13–16).

- International Tobacco Control surveys have shown that a higher percentage (on average) of smokers reported noticing health warnings in countries with pictorial warnings on packs compared to smokers in countries with text-only warnings (Fig. 3).

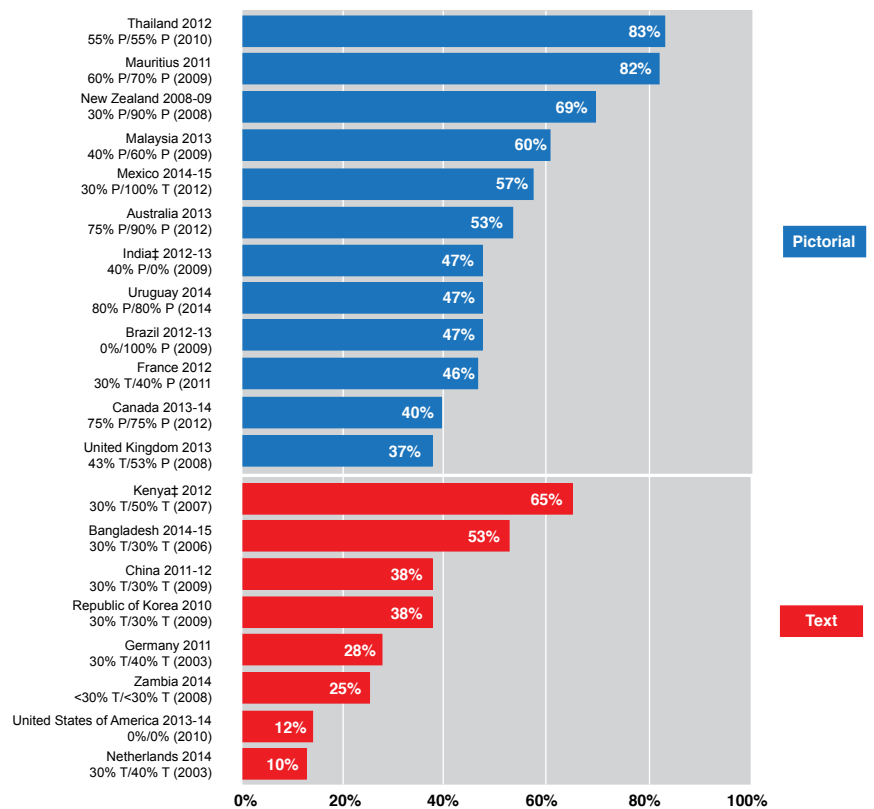


Fig. 3. Salience of health warnings among male smokers in 20 countries who “often” or “very often” noticed the warning labels on cigarette packs with pictorial or text-only labels

Note: “Smokers” refers only to cigarette users for all countries except Bangladesh, India, Zambia, and Kenya where dual tobacco users (those who reported smoking both cigarettes and bidis) and mixed tobacco users (those who reported using both smoked tobacco and smokeless tobacco) were also included in the analysis.

Results shown are for responses of “often” or “very often” except for the following: In Zambia, results are for responses of “often” or “regularly”. In India and Kenya, results are for “often” or “whenever I smoke”. In China, results are for “often” only as there was no “very often” option. ‡ In India and Kenya, there was an extra filter that asked “As far as you know, do any smoked tobacco/cigarette packages in India/Kenya have warning labels?” If the respondent answered “no” then noticing warning labels was set to “never”.

2. Impact of health warnings decreases over time

- As with other health communication messages, health warnings may lose their effect with repeated exposure over time, known as “wear-out.” This is why Article 11 guidelines recommend rotating and refreshing warnings on a regular basis – by having multiple warnings and messages appearing on packs concurrently and/or changing warnings after a specified period (5).
- Wear-out effects have been found in countries such as Mauritius 20–21 months after pictorial warnings were introduced in 2009, and in Canada, where warnings did not change over a 9 year period (Fig. 4) (16,17).

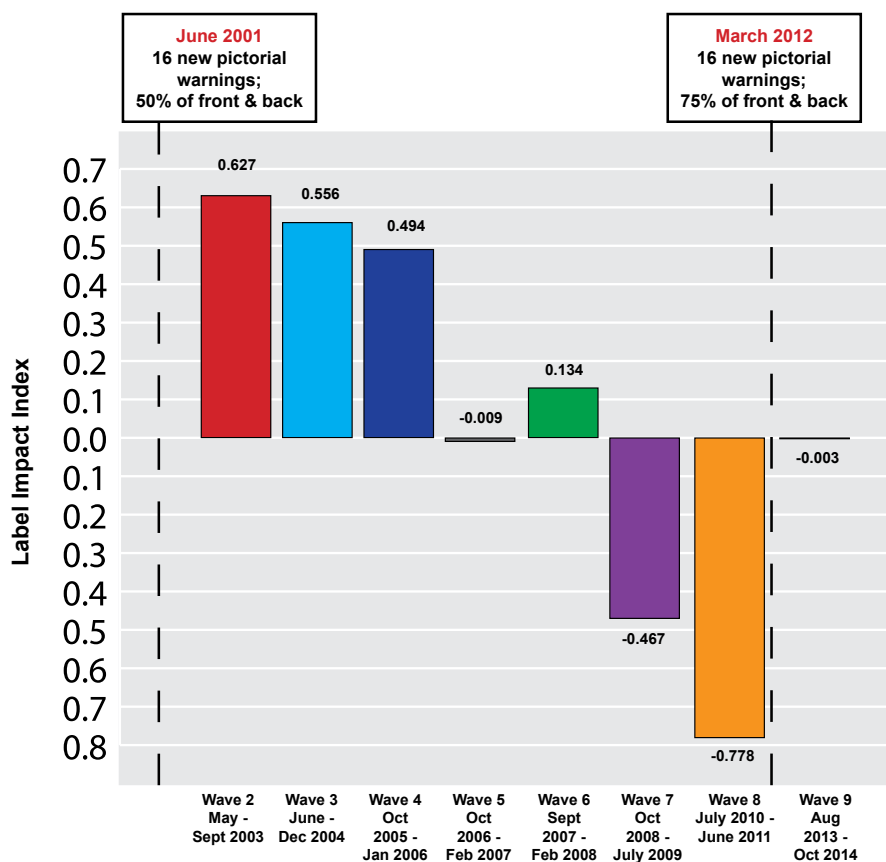


Fig. 4. Decrease in impact of 50% pictorial warnings in Canada over time, as measured by the Label Impact Index

Note: Results are adjusted for age, sex, smoking status (daily/non-daily), and time-in-sample effects. The Label Impact Index (LII) was calculated by normalizing scores on four measures of warning label impact (noticing warnings, thinking about harms and thinking about quitting because of warnings, and forgoing a cigarette because of warnings), and forming a weighted composite. Scores were then added together such that $LII = (\text{salience} \times 1) + (\text{harm} \times 2) + (\text{quitting} \times 2) + (\text{forgo} \times 3)$. Higher scores on the LII represent greater warning label impact.

3. Larger pictorial warnings are more effective than smaller warnings

- Large pictorial warnings that exceed the WHO FCTC minimum recommended size of 50% of the front and back principal display areas are more effective than smaller pictorial warnings, with maximum impact for warnings that are 90% or larger.

- For example, fewer smokers noticed pictorial warnings in countries where they cover less than 50% of one side of the pack (e.g. France, India, United Kingdom) than in countries with larger pictorial warnings on both sides of packs (e.g. Thailand, Mauritius, New Zealand) (Fig. 2).

4. For countries that already have 50% pictorial warnings, large size increases can enhance the effectiveness of the warnings

- Uruguay: After the size of pictorial warnings was increased from 50% to 80% of the front and back of the pack and more graphic images were introduced in 2010, there was a significant increase in every indicator of health warning impact (see Fig. 5) (18).
- Thailand: Increasing the size of pictorial warnings from 50% to 55% of the front and back of the pack in 2010 did not have a sustained effect on increasing the effectiveness of health warnings, as indicated by the sharp declines for most measures of warning label impact from 2011 to 2012 (19). Thailand increased the size of their warnings again in 2014 (85% front and back) but these new warnings have not yet been evaluated.

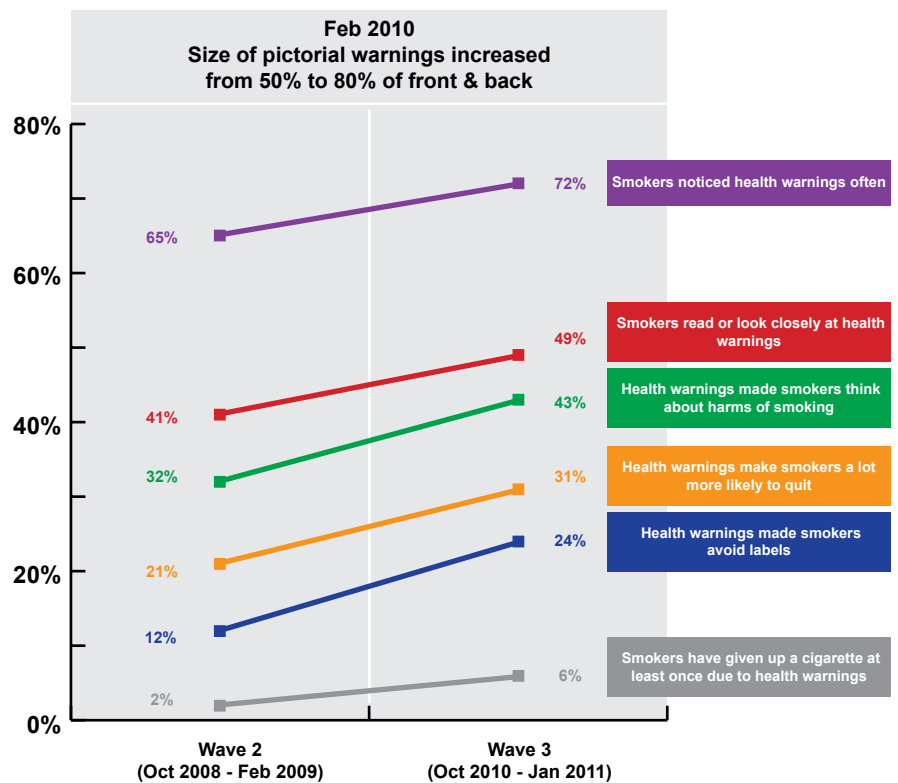


Fig. 5. Impact of pictorial warnings in Uruguay after size increase in 2010

5. Location of health warnings is important

- Pictorial warnings are more effective when they are displayed on BOTH the front and the back of packs. Warnings that appear only on the back of packs are noticed less often and therefore have little or no impact.
- United Kingdom: Following the introduction of pictorial warnings (40% back) in 2009 (in addition to text warnings on 30% of the front), there was no change in the percentage of smokers who reported noticing the warnings or giving up a cigarette because of the warnings (Fig. 6) (20).

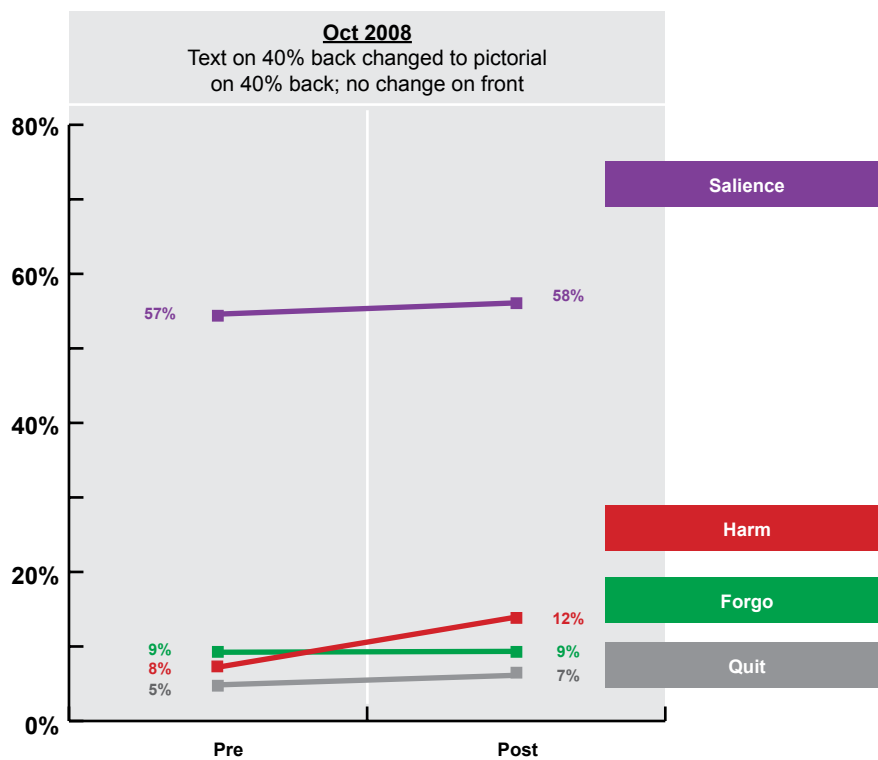


Fig. 6. Impact of pictorial warnings on smokers' perceptions and behaviours, pre- and post-implementation of pictorial warnings on the back of cigarette packs in the United Kingdom

6. Plain/standardized packaging enhances the impact of warnings

- Australia: The introduction of plain/standardized packaging with larger pictorial warnings (increased from 30% front, 90% back to 75% front, 90% back) in 2012 has, among other positive outcomes, increased the salience and effectiveness of the warnings and encouraged smokers to think about the harms of smoking (11,21).

Recommendations

1. Pictorial health warnings should cover more than 50% of the front and back of all tobacco product packaging.
2. Pictorial health warnings should cover as much of the front and back of tobacco product packs as possible, and should optimally aim to cover 100% of the front and back of plain/standardized packs.
3. Multiple pictorial warnings and messages should be revised periodically to prevent wear-out and maintain effectiveness.
4. Countries that currently require pictorial health warnings that comply with the WHO FCTC minimum recommended size of 50% of the package front and back should consider implementing significant increases to the size of existing pictorial warnings (as India, Thailand and Uruguay have done), and implementing larger pictorial warnings in conjunction with plain/standardized packaging (as Australia has done).
5. Countries should not be intimidated by the threat of litigation by the tobacco industry, and should stand together to support the implementation of effective tobacco packaging and labelling measures that prioritize the protection of public health.
6. Countries should develop, implement and evaluate the impact of evidence-based packaging and labelling measures that apply specifically to waterpipe tobacco products, particularly in the WHO Eastern Mediterranean Region, where waterpipe smoking has increased among youth over the past two decades.

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