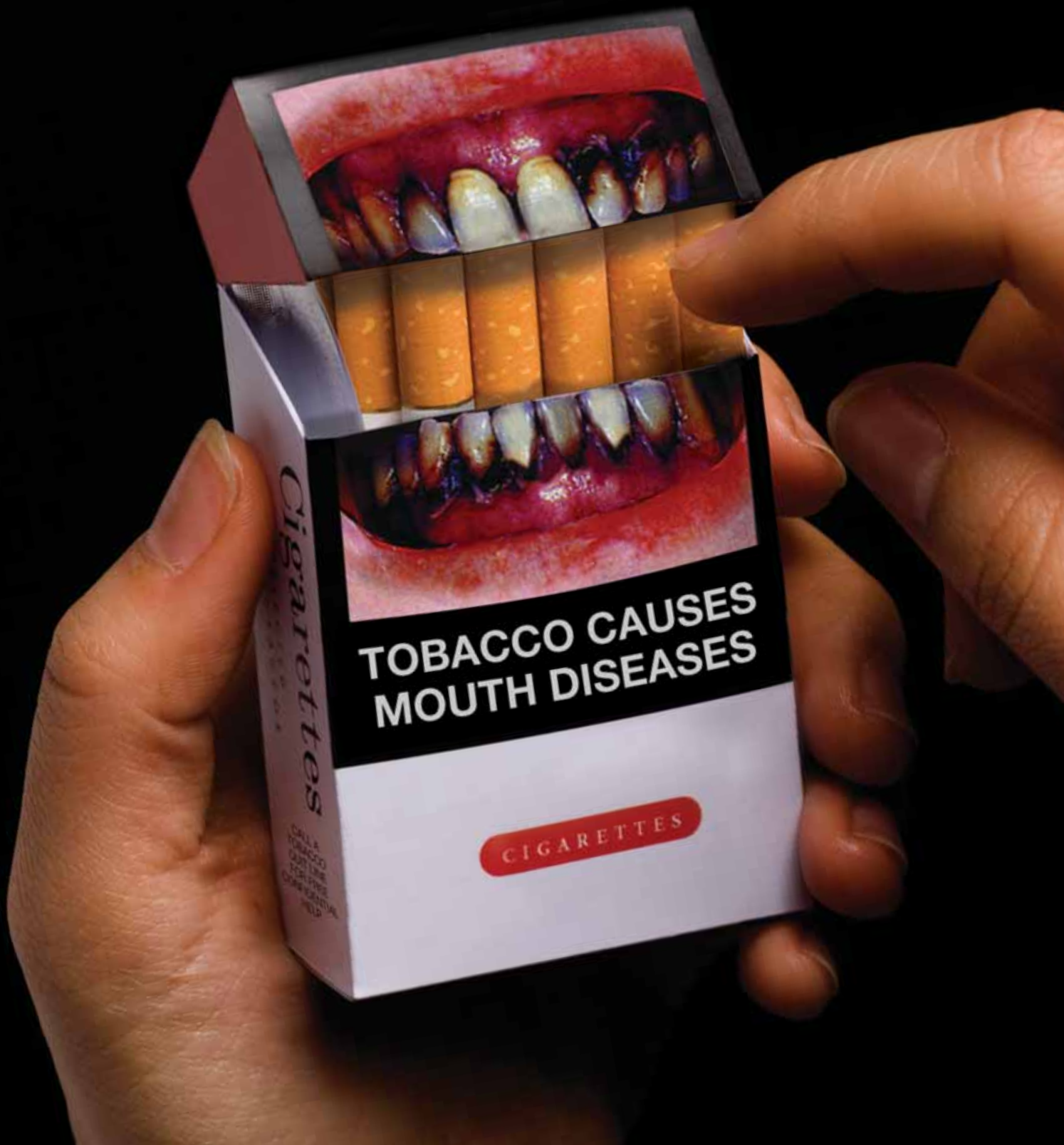


# Showing the truth, saving lives: the case for pictorial health warnings



World Health  
Organization

**WORLD  
NO TOBACCO  
DAY  
31 MAY 2009**





# Showing the truth, saving lives: the case for pictorial health warnings

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## Introduction

**The theme for World No Tobacco Day in 2009 is “Tobacco Health Warnings”. Health warnings on tobacco product packaging are critical to any effective tobacco control strategy. They increase public awareness of the serious health risks of tobacco use and help to ensure that the packaging tells the truth about the deadly product within.**

Article 11 of the World Health Organization Framework Convention on Tobacco Control commits more than 160 Parties to requiring that tobacco products “carry health warnings describing the harmful effects of tobacco use”.<sup>1</sup> In addition, the guidelines to Article 11 that were adopted in 2008 by the Conference of the Parties to the international treaty stipulate that the warnings should appear on both the front and the back of the package, be large and clear and describe specific illnesses caused by tobacco.<sup>2</sup> In addition, the WHO MPOWER technical assistance package to support countries’ implementation of the WHO Framework Convention stresses the importance of tobacco health warnings to increase people’s awareness of the dangers of tobacco use.<sup>3</sup>

Tobacco is unique among legal consumer products – and not in a positive sense. It is the only such product that kills when used exactly as intended by the manufacturer. Up to one half of all smokers will die from a tobacco-related disease, and half of these will die prematurely.<sup>4</sup>

Yet tobacco product packaging in most countries provides little or no information to warn consumers of the risks. This reality is reflected in the lack of appreciation of the health risks of tobacco use among the general public, and even among health professionals.

Tobacco package health warnings that include images are a particularly powerful and cost-effective vehicle for communicating health risks. This is because:

- warnings that use pictures or graphics in addition to text have been shown to be particularly effective in communicating risk and motivating behavioural change;
- pictorial warnings are critical in communicating health risks to the large number of people worldwide who cannot read;
- pictorial warnings detract from the overall attractiveness of tobacco packaging and thus act as a deterrent to new users, who are often young and image- and brand-conscious;
- the cost to governments is minimal.

Pictorial health warnings are overwhelmingly supported by the public. Smokers appreciate and act upon the information provided by strong warnings.

More and more countries are requiring pictorial warnings on tobacco packaging. As of 31 May 2009, 23 jurisdictions with a combined population of nearly 700 million require large graphic health warnings on packaging. Several others – Djibouti, Mauritius, Latvia and Switzerland – have finalized legislation to implement pictorial warnings later in 2009 and in 2010.



Picture warnings from Iran, Kyrgyzstan, Peru, Thailand and Brunei Darussalam

# World No Tobacco Day 2009 campaign

**Show the truth.  
Picture warnings save lives.**

Tobacco companies use pretty packaging to make their products seem cool. In truth, tobacco kills and sickens. Picture warnings convince people to quit. Don't just tell the truth. Show it!

[www.who.int/tobacco](http://www.who.int/tobacco)

World Health Organization

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left:

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teeth photo © Province of British Columbia

bottom left:

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brain photo © Commonwealth of Australia

bottom right:

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child photo © World Lung Foundation

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## Jurisdictions with pictorial package warnings – as of 31 May 2009<sup>a</sup>

Jurisdiction	WHO region	Year pictorial warnings first implemented	Population <sup>b</sup> (x 1000)
Canada	Americas	2001	32,649
Brazil	Americas	2002	186,771
Singapore	Western Pacific	2004	4,484
Thailand	South-East Asia	2005	65,306
Venezuela	Americas	2005	27,031
Jordan	Eastern Mediterranean	2005	5,537
Australia	Western Pacific	2006	20,701
Uruguay	Americas	2006	3,314
Panama	Americas	2006	3,284
Belgium	Europe	2006	10,542
Chile	Americas	2006	16,443
China (Hong Kong SAR)	Western Pacific	2007	6,857
New Zealand	Western Pacific	2008	4,185
Romania	Europe	2008	21,584
United Kingdom	Europe	2008	60,587
Egypt	Eastern Mediterranean	2008	72,009
Brunei Darussalam	Western Pacific	2008	383
Cook Islands	Western Pacific	2008	21
Malaysia	Western Pacific	2009	26,440
Iran, Islamic Republic of	Eastern Mediterranean	2009	70,603
Peru	Americas	2009	27,377
Kyrgyzstan	Europe	2009	5,192
<b>World population with pictorial warnings</b>			<b>671,300</b>
<b>Percentage of world population with pictorial warnings</b>			<b>10.18%</b>

The recently approved implementation guidelines for Article 11 of the WHO Framework Convention,<sup>2</sup> combined with existing momentum for the implementation of strong health warnings on packages in many countries, make pictorial warnings a timely theme for World No Tobacco Day 2009.

<sup>a</sup> Note that the requirement for a pictorial warning may or may not indicate best practice in other requirements relating to warnings. The countries listed have varying specifications of the size, rotation and location of pictorial warnings.

<sup>b</sup> Source of all statistics: United Nations Statistics Division. Demographic yearbook 2006. Estimates of mid-year population, 2006, Table 5. <http://unstats.un.org/unsd/demographic/products/dyb/dyb2006.htm>, accessed 2 April 2009.

## The importance of packaging

Packaging is a central marketing tool for tobacco products and is, in the judgement of marketing experts and courts, a form of advertising (Béguinot E, unpublished data, 2008).<sup>5,6,7</sup> Tobacco companies monitor and alter packaging on a regular basis to ensure its continuous and increasing appeal to target audiences. Why?



Packages from France, China, India and the Russian Federation show the effectiveness of the package as advertisement. Sources: France – E. Béguinot; China – [www.goldenchinabrands.com](http://www.goldenchinabrands.com); India – WHO Regional Office for South-East Asia; Russian Federation – [www.cigarettespedia.com](http://www.cigarettespedia.com).

**Tobacco packaging is highly visible.** Cigarette packages are pulled from pockets and handbags and lie visible on tables many times each day. Tobacco product displays are ubiquitous in retail stores and outdoor kiosks worldwide.

**Packaging is the critical link between the product and all forms of promotion.** Packaging becomes more important as other promotional avenues are restricted or eliminated by law. Packaging displays are a highly prevalent and effective form of promotion. So-called “power walls” – large, attractive displays of tobacco packages behind the checkout at retail outlets – promote tobacco products at the critical moment when the consumer is prepared to buy.

**“The discrimination in product terms, pure blind product terms, without any packaging or name around it is very limited ... it’s very difficult for people to discriminate, blind tested. Put it in a package and put a name on it, and then it has a lot of product characteristics.”**

**Don Brown, then Vice-President, Marketing, Imperial Tobacco, Canada (1989)<sup>8</sup>**

**Packaging conveys product characteristics** even when the product itself does not. Tobacco product packaging strongly influences perceptions of the product. Studies have shown that smokers often cannot tell the difference between different brands of cigarettes or other tobacco products.<sup>5</sup>

**Packaging and branding is particularly important to young people**, who constitute the primary source of new customers for tobacco companies. Tobacco products, and particularly cigarettes, are “badge” products, or products with a high degree of social visibility.<sup>9</sup> Users perceive their own personality in the brand image, and the brand image reflects back on them.

**“A cigarette package is unique because the consumer carries it around with him all day ... it’s part of a smoker’s clothing, and when he saunters into a bar and plunks it down, he makes a statement about himself.”**

**John Digianni**, Cigarette package designer (1990)<sup>10</sup>

Tobacco packaging is an equally important medium for communication of public health messages. Health warnings on packaging should be thought of as a mass media campaign virtually guaranteed to be seen by almost all smokers and by many potential smokers:

**a pack-a-day** cigarette smoker sees the package – including an effective health warning – at least 7300 times a year;

**strong**, conspicuous warnings could be placed on smoking devices, such as water pipes, which are a prominent feature of social life in many countries;

**even where sales of single cigarettes** or other unpackaged tobacco products are common, health warnings on packages could be required wherever sample tobacco packages are displayed.

Using tobacco packages to communicate health information is also an extremely cost-effective public health measure for governments. Virtually all of the costs (other than those associated with the implementation of any government policy) are borne by tobacco companies.



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## Consumers do not know enough about the health risks of tobacco use

**While general awareness of the fact that tobacco harms health is high in many countries, specific knowledge and perception of risk are much lower. This is of concern because greater specific knowledge and appreciation of the type, magnitude and consequences of risk are more likely to motivate smokers to try to quit.**

**China.** A February 2009 survey showed that only 37% of smokers knew that smoking causes coronary heart disease and only 17% knew that it causes stroke.<sup>11</sup> A 2004 survey showed that, while 95% of physicians knew that smoking caused lung cancer, only 66% knew that it caused heart disease.<sup>12</sup> Tobacco kills far more people through heart disease than through cancer.

**India.** Studies of various populations reveal, at best, contradictory perceptions about health risks. For example, 80% of lower-income schoolchildren in the Delhi region knew that tobacco consumption was harmful to health.<sup>50</sup> However, fewer than half of school and college students in Gujarat (a tobacco-growing state) were aware of the close association between tobacco and gutkha (a preparation including betel nut and tobacco, meant for chewing) and oral cancer.<sup>13</sup> Fifty-eight per cent of chewers of areca nut (often consumed with tobacco) in rural Tamil Nadu were not aware of its harmful effects on health, and only one quarter reported being aware of the type of health problems that could result.<sup>14</sup>

**Israel.** Half of schoolchildren in a 2003 survey believed that water pipe smoking was less harmful than cigarette smoking.<sup>15</sup> (It is not.)

**South Africa.** A 1996 national survey found that, while 87% of respondents acknowledged the harmful effects of smoking, just 58% were aware that cancer was associated with smoking, and only 36% associated heart disease with smoking.<sup>16</sup>

**Syria.** A 2003 survey of university students showed that, while most students considered both cigarette and narghile (water pipe) smoking to be harmful, only a small minority correctly identified cardiovascular effects as a principal health hazard of either narghile or cigarette smoking.<sup>17</sup>

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## Health warnings on packages do work

**Effective health warnings meaningfully communicate information to smokers and others and motivate behavioural change (such as quitting, or avoiding exposing others to second-hand smoke). They also reduce the appeal of the packaging and, by extension, the product.**

Studies carried out after the implementation of pictorial package warnings (warnings using pictures and text) in Brazil, Canada, Singapore and Thailand reveal remarkably consistent findings on the impact of the warnings.

### Communication of health risks

**Brazil.** More than half (54%) of smokers changed their opinion on the health consequences of smoking as a result of the warnings.<sup>18</sup>

**Canada.** More than half (58%) of smokers thought more about the health effects of smoking as a result of the warnings.<sup>19</sup>

**Singapore.** More than two thirds (71%) of smokers said they knew more about the health effects of smoking as a result of the warnings.<sup>20</sup>

**Thailand.** Four out of five young people (aged 13-17) (81%) and more than half of adult smokers said the new pictorial warnings made them think more about the health impact of smoking.<sup>21</sup>

### Quitting or cutting down

**Brazil.** Two thirds of smokers (67%) said the warnings made them want to quit.<sup>18</sup>

**Canada.** Nearly half of smokers (44%) said the warnings had increased their motivation to quit.<sup>19</sup>

**Singapore.** More than one quarter of smokers (28%) said they consumed fewer cigarettes as a result of the warnings.<sup>20</sup>

**Thailand.** Nearly half (44%) of smokers said the pictorial warnings made them “a lot” more likely to quit over the next month.<sup>21</sup>

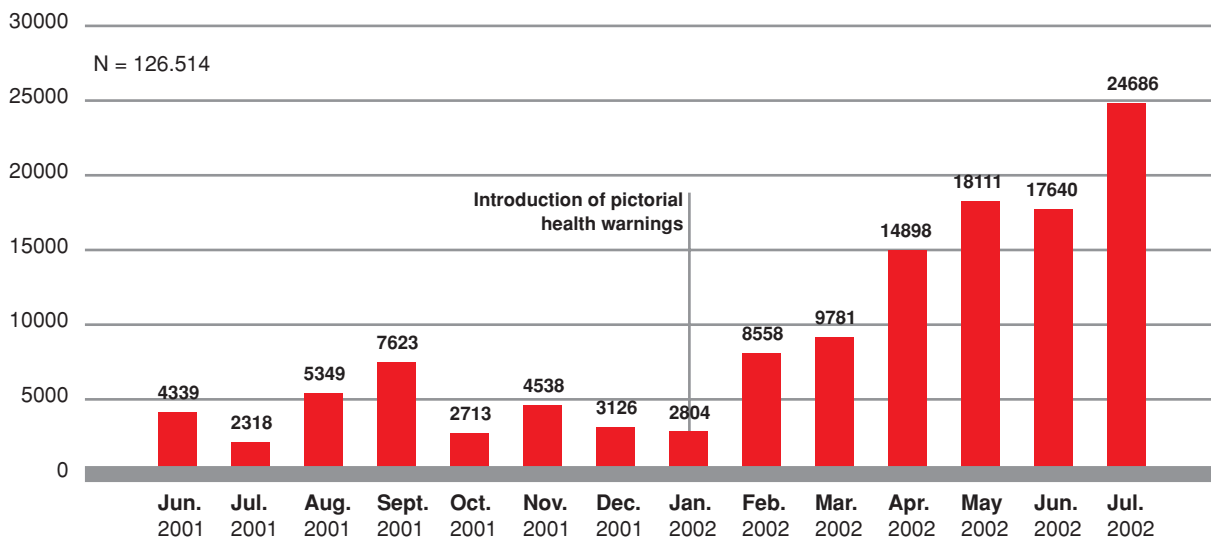
### Protecting others

**Canada.** More than one quarter of smokers (27%) smoked less inside their home as a result of the warnings.<sup>19</sup>

**Singapore.** One out of six (14%) of smokers said they avoided smoking in front of children as a result of the warnings.<sup>20</sup>

Further evidence supporting the effectiveness of graphic warnings comes from data from calls to toll-free “quitline” services after graphic warnings are implemented. Brazil and New Zealand are among the countries that require package warnings to include a toll-free telephone number where people can call for help to stop smoking.

**Brazil.** In the six months following the widespread implementation of graphic health warnings on tobacco packaging, calls to the toll-free quitline number increased nearly ninefold (see graph, page 09).<sup>22</sup>



Number of calls to the toll-free quitline in Brazil before and after introduction of graphic warnings on packages. [Source: Cavalcante T. Labelling and packaging in Brazil (WHO Tobacco Free Initiative Toolkit Series). Geneva, World Health Organization, 2003.]

**New Zealand.** In the six months following the implementation of graphic health warnings on tobacco packaging, new registrations on the quitline increased by 14% compared with the previous six months. Within three months of introduction, the proportion of new quitline callers who had obtained the number from the package warnings increased nearly threefold, overtaking the proportion of those who had obtained the number from television advertising.<sup>23</sup>

Large pictorial warnings also reduce package appeal. For example, when cigarette packages with text-only warnings and those with a graphic image combined with text are offered in a simulated auction, smokers offer a lower price for the packages with the warning image.<sup>24</sup>

Perhaps even more telling is the reaction of tobacco companies to pictorial warnings, exemplified by this comment from a tobacco analyst at JP Morgan: “Health warning labels matter, not because the content provides new information but because they damage the pack graphics and premium-brand appeal”.<sup>25</sup>

## Young people respond to health warnings

Young people respond to information about the health risks of tobacco use, if the information is presented meaningfully. Young people tend to respond to shocking, realistic images and to real-life testimonials from smokers about the impact of smoking on their health.

As noted above, young people in Thailand indicated that pictorial warnings made them think more about the health risks and to reduce the amount they smoked.<sup>21</sup> Graphic warnings on Australian cigarette packs were associated with increased cognitive processing of messages among adolescents, and more adolescents thought about quitting or cutting down.<sup>26</sup>

Given the importance of image to young people and, in particular, the image conveyed by a “badge” product such as tobacco, it is reasonable to expect that graphic and disturbing images that convey the negative consequences of tobacco use would detract from the appeal of the package and, by extension, the product.

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## How to make warnings most effective

Unsurprisingly, the effectiveness of warnings depends on their content and design. The key factors that make health warnings most effective are emphasized in the Article 11 guidelines recently approved by the Conference of the Parties to the WHO Framework Convention.<sup>2</sup> These factors are supported by existing evidence.

### Use pictures – preferably shocking ones

The use of graphic images in addition to text greatly increases the effectiveness of health warnings. Graphic warnings compete more successfully than text-only messages with the rest of the imagery on the package. They make the message more noticeable and help counter the branding and imagery of the package.

Graphic warnings also engage audiences on an emotional level more effectively than text-only warnings and are therefore more likely to motivate behavioural change. Another benefit is that they can help communicate health information to illiterate or less literate populations, thus helping to reduce disparities in health knowledge.

Participants in a recent study in four Chinese cities rated pictorial warnings to be much more effective than text-only warnings in motivating smokers to quit, convincing young people not to start smoking, and informing the public about the dangers of smoking. The findings were consistent across gender, across adult smokers, nonsmokers and young people, and across the four cities (Fong GT, unpublished data, 2009).

When Thailand introduced graphic images in 2005, important indicators of warning impact (e.g. warnings increasing awareness of health risks of smoking and increasing the likelihood of quitting) increased dramatically among a representative national sample of Thai smokers.<sup>21</sup>

Pictorial warnings may also contribute to decreasing the health equity gap. The text-only warnings in Thailand were closely read by a greater proportion of high-income smokers than low-income smokers (54% v. 41%). But when Thailand introduced pictorial warnings, this gap was narrowed considerably (56% v. 51%), owing to the increase among low-income smokers. More dramatically, whereas the text-only Thai warnings were more likely to lead high-income smokers to forego a cigarette (46%) than low-income smokers (39%), the pictorial warnings were **more likely to lead low-income smokers** (53%) than high-income smokers (45%) to forego a cigarette.<sup>27</sup>

## Pictorial warnings: research findings

**Canada:** “The picture was generally the first thing people looked at and related to. It determined the strength of the warning’s emotional impact and noticeability”.<sup>28</sup>

**Australia:** “The graphic packs are more likely to: create impact; attract attention; be confronting and difficult to ignore; make it more difficult for smokers to deflect the health message. Overall, the “text only” packs were not considered as impactful or as effective in conveying the potential negative health consequences of smoking as the graphic pack alternatives”.<sup>29</sup>

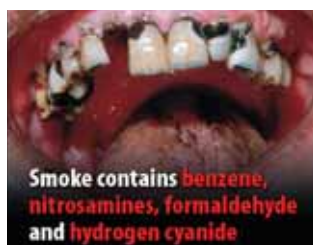
**New Zealand:** “Respondents consistently mentioned visuals as being the crucial element – i.e. clear pictorial evidence of the consequences of smoking or the potential gains of quitting”.<sup>30</sup>

Furthermore, more graphic (and often shocking) images are considered to have a greater impact and to be more likely to lead to behavioural change.<sup>31</sup> Studies show that avoidance of graphic health warnings by smokers does not decrease their effectiveness in motivating behavioural change among smokers (such as quitting), and may increase it.<sup>32, 33</sup>

Research on package warnings used in Brazil from 2002 to 2008 showed that, with few exceptions, the most unpleasant and stimulating images were those that most graphically showed physical harm or suffering.<sup>34</sup> Brazil’s third set of warnings, to be implemented in 2009, were tested specifically for unpleasant emotional arousal to ensure a greater potential impact on smokers’ behaviour.<sup>35</sup>

Studies in Canada and the United Kingdom of Great Britain and Northern Ireland reinforce this finding. As part of its consultations prior to implementation of pictorial warnings, the United Kingdom Government set up a web site for members of the public to vote for the pictures they felt would be most effective. The images receiving the most votes were those that most graphically showed the negative health impacts.<sup>36</sup>

### Most effective



### Least effective



The most and least effective health warnings proposed in the United Kingdom, as chosen by members of the public through a web site voting system.

In testing new image concepts to refresh Canada’s pictorial warnings, a detailed focus group study found that: “Participants in all groups consistently expected or wanted to be shocked by [health warning messages], or emotionally affected in some way. Even if the feelings generated were unpleasant ones to tolerate, such as disgust, fear, sadness or worry, the emotional impact of a warning appeared to predict its ability to inform and/or motivate thoughts of quitting.”<sup>28</sup>



Two of the new warnings to be implemented in Brazil in 2009: shocking images combined with encouragement to quit smoking.

Shocking, fear-arousing images can be even more effective when combined with encouragement or empowerment to take action to avoid the fearful outcome. For this reason, many countries have placed quit messages or references to toll-free quitlines on packages in combination with these images.<sup>a</sup> The Article 11 guidelines to the WHO Framework Convention recommend that tobacco packaging include advice on cessation and referrals to cessation resources, “such as a web site address or toll-free telephone ‘quitline’ number”, because these resources can help tobacco users to change their behaviour.

In cultures or countries where there is particular concern about the potential negative impact of shocking images, evidence should be the ultimate guide. A variety of images should be tested among the population. The tests should be guided by what has worked in other countries to see which images are the most effective.

<sup>a</sup> Australia, Brazil, Kyrgyzstan, New Zealand and Singapore are among the countries that combine quitline information with picture warnings.

## Require warnings on all main faces of packaging and on the top portion of the packaging

Warnings on the front of the packaging are more visible on retail displays and are better recalled by tobacco users. The top part of the front of packaging is considered “prime real estate” by tobacco companies.



Canada requires warnings to occupy 50% of all “principal display surfaces”, thus ensuring that cartons have warnings on all sides. (Source: R. Cunningham)

Warnings should be required on all main faces of the pack so that the warnings will be visible no matter which side of the pack is displayed at retail (if displays are allowed at all), and it is therefore more difficult for tobacco users to ignore the warnings.

In Egypt and other countries, tobacco companies are marketing double packages that open up to reveal additional main faces that do not carry health warnings.

Requiring warnings on “all main faces”, rather than just on the “front and back” of the packaging leaves fewer loopholes for tobacco companies to alter their packaging to minimize the impact of the warnings (see example of cartons from Canada, above).

## Best practices, pictorial warnings on tobacco packaging

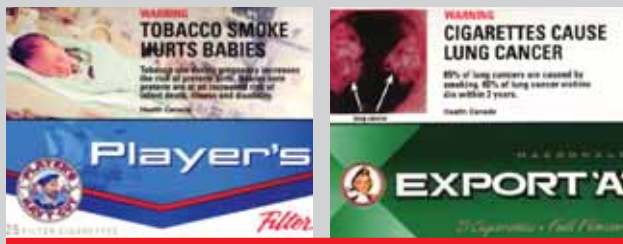
While “best practice” in package health warnings can sometimes be subjective (for example, the most effective image or warning in one country might not be the most effective in another country), two objective benchmarks are the required **size** and **location** of pictorial warnings. The world leaders in these areas are listed below.

### Countries requiring pictorial warnings at the top of both front and back (or all main faces) of packaging.

Australia (see page 16)



Brunei Darussalam (requires warning at the top of the pack for hard packs)



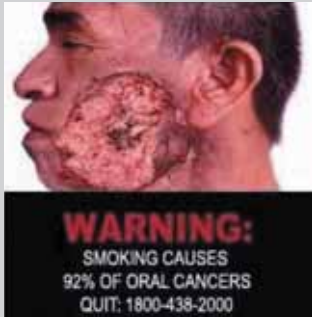
Canada



Malaysia



New Zealand (see page 16)



Singapore (requires warning at the top of the pack for hard packs)



Thailand

Countries requiring the largest pictorial warnings as a proportion of package size.<sup>a</sup>



Australia (60% average; 30% front and 90% back)



New Zealand (60% average; 30% front and 90% back)



Kyrgyzstan (52% front and back)

<sup>a</sup> Mauritius has finalized regulations that require pictorial warnings on 40% of the front of packaging and 90% of the back (65% average). When these warnings appear on packages, planned to begin in June 2009, they will be the largest in the world.

## Require warnings to be as large as possible

Larger warnings are more effective than smaller warnings.

Larger warnings are more noticeable.

Smokers are more likely to recall larger warnings than smaller ones, and even tend to equate the size of the warning with the magnitude of risk of tobacco use.<sup>37, 38</sup>

One study showed that larger messages are also perceived as more credible.<sup>39</sup>

Recent studies in Canada show that increasing the size of the health warning from the current size of 50% of the main pack faces to up to 100% would have a greater add-on impact. The studies also showed that there are substantial incremental impacts in increasing the percentage from 75% to 90%, and from 90% to 100%. This finding was true for both adults and young people.<sup>40, 41</sup>

The WHO Framework Convention **recommends** that warnings occupy 50% or more of the principal display area of a tobacco product package and **requires** that they occupy no less than 30%.<sup>1</sup> Because of the evidence that the effectiveness of warnings increases with their size, the Article 11 guidelines to the treaty recommend that warnings cover more than 50% and as much as possible of the principal display area.<sup>2</sup>

## Use multiple warnings, and keep them refreshed

Using a variety of warnings will make the messages more relevant to a variety of priority audiences and will help prevent wear-out of the messages. Just as companies do not rely on a single advertisement or advertising campaign to sell their products, governments should not rely on a single message to communicate the many risks of tobacco use.

Multiple messages should be required to be rotated on packaging during a single time period to ensure variety and to ensure that manufacturers cannot choose warnings they think will be less effective (for example, placing pregnancy warnings on brands with a mostly male market share). Sets of health messages should be regularly refreshed (every two to three years) to retain novelty. Some countries – Australia, Brazil, Chile, Singapore, Thailand and Uruguay – have now implemented multiple rounds of pictorial warnings.

## Require warnings on ALL tobacco products

Health warnings have most commonly been required on manufactured cigarette packages. However, all tobacco products carry health risks, and in many countries cigarettes are not the most prevalent form of tobacco use. Warnings should be required on all products to ensure that users of all tobacco products have access to the information and to avoid spreading the misperception that only cigarettes, and not other tobacco products, cause harm.



Betel quid “packaging” in India. Where does the warning go?

Implementation of health warnings may present particular challenges for locally or indigenously produced products, such as “roll-your-own” cigarettes, bidis, cheroots, kreteks and gutkha. Authorities should be creative in exploring solutions to ensure that warnings reach users of these products. Options to help meet these challenges include:

- requiring warnings on individual products, especially if products are sold in loose packaging or in bundles without outer packaging;
- requiring minimum package sizes, if packages are too small to implement the required warnings practicably;
- allowing warnings to be printed on permanent or nonremovable stickers applied to the product or its packaging, if it is impractical to print the warning directly on the product or packaging;
- requiring pictorial warning signs at all places where tobacco products are sold, and on any permitted advertising or promotion for tobacco products.

### How to warn when the packaging is a water pipe

Tobacco products not sold in traditional commercial packaging, or served and purchased in devices other than the original packaging, should not be exempt from warnings.

The WHO Regional Office for the Eastern Mediterranean has developed and tested a set of warnings for use in the region that includes a warning specifically for tobacco smoked through a water pipe (narghile or shisha). Researchers at the American University in Beirut (AUB) have also conducted preliminary research on a number of options, and have prepared mock-ups of warning tags that could be placed on water pipes.<sup>42</sup>



left - Source: WHO Regional Office for the Eastern Mediterranean  
right - Warning mock-ups: American University of Beirut, Photo source: H. Selin

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## Countering tobacco industry arguments against effective health warnings

The primary opponents of large, pictorial warnings on packages are tobacco companies. Tobacco companies vigorously oppose warnings because – quite correctly – they see them as a threat to their business.<sup>43</sup> Tobacco companies use similar arguments against pictorial warnings everywhere in the world. Here are some of the most common arguments, with suggestions for countering them.

### There is no evidence that pictorial warnings work: graphic warnings will just scare smokers

Dozens of studies show that smokers **do** read, appreciate and change their behaviour in response to strong warnings. Evidence also shows that graphic warnings that arouse fear or other emotions are the **most** effective, particularly when combined with information to help or empower smokers to quit smoking.<sup>44</sup>

### Image-based warnings will cost too much to implement

Australia, Canada and the United Kingdom have estimated the net benefit of picture warnings to be 2 billion Australian dollars (approx. US\$ 1.43 billion), 4 billion Canadian dollars (approx. US\$ 3.25 billion) and 206 million pounds sterling (approx. US\$ 306 million), respectively.<sup>45, 46, 47</sup> <sup>a</sup>Most of the costs are borne by the tobacco industry as a result of decreased sales. This means the warnings will have their intended impact: reducing tobacco use.

### Tobacco companies need more time to implement pictorial warnings

The typical implementation period for pictorial warnings is nine months to one year after the finalization of regulations. The industry has demonstrated that it is capable of producing pictorial warnings on packaging in as little as six months. In Canada, regulations were finalized on 26 June 2000. Larger-volume brands were required to start carrying the warnings no later than 23 December 2000. The industry complied. Canada's experience in countering the industry's arguments against implementation of pictorial warnings is described in detail in its regulatory impact analysis statement.<sup>46</sup>

### Large warnings violate freedom of speech and trademark rights

Countries with various legal traditions, including many Parties to the World Trade Organization, have implemented pictorial warnings without legal challenges from the industry. The tobacco industry lost its only serious court challenge against pictorial warnings before the Supreme Court of Canada in 2007.<sup>48</sup> This is not to say that governments should not be prepared for litigation. But requirements for pictorial health warnings based on evidence, and introduced with the consultative procedures common to the country, are unlikely to be struck down by the courts. Guidance should be sought from countries that have successfully faced such litigation, such as Canada, or from countries that have successfully countered threats of litigation, such as Thailand.<sup>49</sup>

<sup>a</sup> All currency conversions approximate and provided for comparison purposes only. Source: [www.oanda.com/convert/classic](http://www.oanda.com/convert/classic), 7 April 2009.

## A call to action

**Despite the fact that more countries are implementing pictorial warnings, 9 out of 10 people in the world do not have access to pictorial warnings on tobacco packages. This represents a tragic underutilization of a simple, cost-effective strategy that can vastly reduce tobacco use and save lives.**

This is not due to lack of evidence or experience. Governments wishing to implement effective package health warnings have access to substantial research evidence, as well as the experiences of the many countries from all WHO regions that have pioneered these measures. **Now is the time to act.**

WHO calls upon all governments to implement, without delay, the legislative framework necessary to require large pictorial warnings on all tobacco packaging. Governments should follow the best-practice recommendations provided in the guidelines to Article 11 of the WHO Framework Convention<sup>2</sup> as a blueprint for action.

**Governments are also directed to the many other resources available to guide them through the “how-to” of implementing effective package health warnings:**

- The repository of warnings and licensing facilitation system to be established and maintained by the World Health Organization Tobacco Free Initiative (TFI) and the Secretariat of the WHO Framework Convention, as mandated by the Conference of the Parties to the treaty. This repository will contain samples of pictorial warnings currently in use and, with the collaboration of the Framework Convention Secretariat, will help to facilitate the licensing of images for use across countries.
- Technical assistance for the implementation of pictorial warnings is available from the Tobacco Free Initiative through the MPOWER package.
- The collection of labelling examples and evidence compiled at <http://www.tobaccolabels.org> (University of Waterloo, Canada) and at <http://www.smoke-free.ca/warnings/default.htm> (Physicians for a Smoke-Free Canada).



### The MPOWER package

MPOWER is a set of six tobacco control measures that was designed to help countries counter the epidemic of tobacco use and to meet their commitments under the WHO Framework Convention on Tobacco Control. The “W” in MPOWER stands for “Warn about the dangers of tobacco” and encompasses the use of often grisly pictures to show the true negative impact of tobacco on human health. The placement of such graphic images on tobacco packages has been shown to be an especially effective mechanism to convince smokers to quit.

## Picture gallery (by WHO region)

### Africa



Mauritius (planned, June 2009)

### Americas



Brazil



Canada



Chile



Panama



Peru



Uruguay



Venezuela

## Eastern Mediterranean



Djibouti  
(planned, June 2009)



Egypt



Islamic Republic of Iran



Jordan

## Europe



Belgium



Kyrgyzstan



Romania



United Kingdom

## South-East Asia



Thailand



## Western Pacific



Australia



Brunei Darussalam



China (Hong Kong SAR)



Malaysia



New Zealand



Singapore

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the  $\mathbb{R}^n$  is a linear space over  $\mathbb{R}$  with the usual addition and scalar multiplication. The inner product is defined by

$$(x, y) = x_1 y_1 + x_2 y_2 + \dots + x_n y_n \quad (1)$$

where  $x = (x_1, x_2, \dots, x_n)$  and  $y = (y_1, y_2, \dots, y_n)$  are vectors in  $\mathbb{R}^n$ . The norm of a vector  $x$  is defined by

$$\|x\| = \sqrt{(x, x)} = \sqrt{x_1^2 + x_2^2 + \dots + x_n^2} \quad (2)$$

The distance between two vectors  $x$  and  $y$  is defined by

$$d(x, y) = \|x - y\| = \sqrt{(x - y, x - y)} \quad (3)$$

The angle between two vectors  $x$  and  $y$  is defined by

$$\cos \theta = \frac{(x, y)}{\|x\| \|y\|} \quad (4)$$

The orthogonal projection of a vector  $x$  onto a vector  $y$  is defined by

$$\text{proj}_y x = \frac{(x, y)}{(y, y)} y \quad (5)$$

The orthogonal distance from a vector  $x$  to a vector  $y$  is defined by

$$d(x, y) = \|x - \text{proj}_y x\| \quad (6)$$

The orthogonal distance from a vector  $x$  to a subspace  $S$  is defined by

$$d(x, S) = \inf_{y \in S} \|x - y\| \quad (7)$$

The orthogonal distance from a point  $x$  to a line  $L$  is defined by

$$d(x, L) = \inf_{y \in L} \|x - y\| \quad (8)$$

The orthogonal distance from a point  $x$  to a plane  $P$  is defined by

$$d(x, P) = \inf_{y \in P} \|x - y\| \quad (9)$$

The orthogonal distance from a point  $x$  to a hyperplane  $H$  is defined by

$$d(x, H) = \inf_{y \in H} \|x - y\| \quad (10)$$



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## WHO Framework Convention on Tobacco Control



**Monitor** tobacco use and prevention policies

**Protect** people from tobacco smoke

**Offer** help to quit tobacco use

**Warn** about the dangers of tobacco

**Enforce** bans on tobacco advertising, promotion and sponsorship

**Raise** taxes on tobacco



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