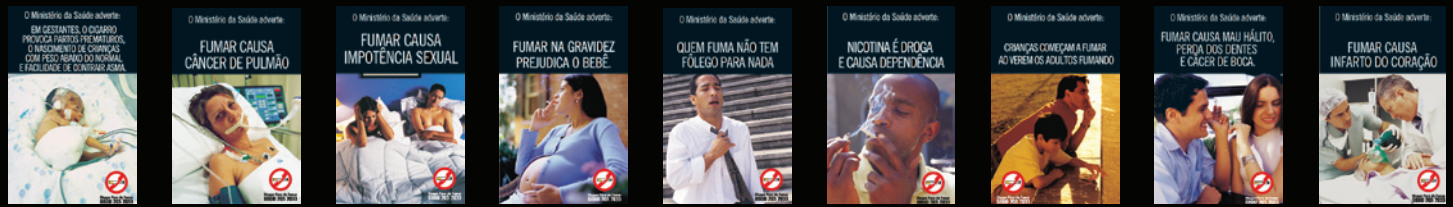


First Set: 2001-2004



Second Set: 2004-2008



BRAZIL – Health Warnings on Tobacco Products - 2009

Current

VÍTIMA DESTE PRODUTO	HORROR	PERIGO	GANGRENA	INFARTO
O Ministério da Saúde adverte: Este produto intoxica a mãe e o bebê, causando parto prematuro e morte.	O Ministério da Saúde adverte: Este produto causa envelhecimento precoce da pele.	O Ministério da Saúde adverte: O risco de derrame cerebral é maior com o uso deste produto.	O Ministério da Saúde adverte: O uso deste produto obstrui as artérias e dificulta a circulação do sangue.	O Ministério da Saúde adverte: O uso deste produto causa morte por doenças do coração.
PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997

PRODUTO TÓXICO	IMPOTÊNCIA	SOFRIMENTO	MORTE	FUMAÇA TÓXICA
O Ministério da Saúde adverte: Este produto contém substâncias tóxicas que levam ao adoecimento e à morte.	O Ministério da Saúde adverte: O uso deste produto diminui, dificulta ou impede a ereção.	O Ministério da Saúde adverte: A dependência da nicotina causa tristeza, dor e morte.	O Ministério da Saúde adverte: O uso deste produto leva à morte por câncer de pulmão e enfisema.	O Ministério da Saúde adverte: Respirar a fumaça deste produto causa pneumonia e bronquite.
PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997	PARE DE FUMAR DISQUE SAÚDE 0800 61 1997

BRAZIL - Health Warnings on Tobacco Products – 2009

© 2008 Ministry of Health.

Total or partial reproduction of this booklet is allowed as long as the source is cited.

Print run: 3,000 copies

Creation, Writing and Distribution

MINISTÉRIO DA SAÚDE

Instituto Nacional de Câncer – INCA

Praça Cruz Vermelha, 23 – Centro

20231-130 – Rio de Janeiro – RJ

www.inca.gov.br

Editing and Production

Coordination for Cancer Prevention and Surveillance - Conprev

Tobacco Control Division

Rua dos Inválidos, 212 / 2º andar – Centro

Rio de Janeiro – RJ – CEP: 20231-020

Phone: (21) 3970-7414 Fax: (21) 3970-7500

e-mail: prevprim@inca.gov.br

Printing

ESDEVA

Printed in Brazil

Cataloguing in Publication Information

<p>I59b Instituto Nacional de Câncer (Brazil). Brazil: health warnings on tobacco products 2009. / Instituto Nacional de Câncer. – Rio de Janeiro: INCA, 2008. 59 p.: il. color. tab. ISBN 978-85-7318-140-1</p>

**1. Smoking. 2. Tobacco-derived products
packing. 3. Tobacco-derived products publicity.
4. Smoking cessation. I. Coordenação de
Prevenção e Vigilância. II. Title.**

CDD 616.86507

Ministério da Saúde
Instituto Nacional de Câncer - INCA

BRAZIL – Health Warnings on Tobacco Products – 2009

Rio de Janeiro, RJ
2008

Elaboration

Tânia Maria Cavalcante, Cristina Perez, Cristiane Vianna and Billy E. M. Nascimento

Revision

Paulo Silveira and Laura Schwengber

Study group collaborators

Aline Mesquita, Andréa Reis Cardoso, Eliane Volchan, Felipe Mendes, Gamba Júnior, Leticia Oliveira, Mirtes Pereira, Rejane Pitz, Sonia Gleiser and Valéria Cunha.

Collaborators from the Tobacco Control Division

Cleide Carvalho, Érica Cavalcanti Rangel, Maria Raquel Fernandes Silva, Mariana Pinho, Ricardo Meirelles and Vera Colombo

Technical support

Rita de Cássia Martins, Bernardo Brazil, Deborah da Costa Barros, Luana Sales, Tamiris Lima de Moraes and Ana Paula Jaques.

Photography

Carlos Leite
Emersom Gonçalves

Design and layout

g-dés

Editorial standardization

Education and Scientific Dissemination Coordination Unit – CEDC

Revision of translation

Francis Thompson - Regional Advisor, Latin America,
Tobacco Control International Union Against Tuberculosis and Lung Disease

Bibliographical standardization

INCA Integrated Library System – SIB/INCA

Acknowledgement

We are thankful for the dedication and commitment of other important participants during the development of the new group of health warnings:

National Health Surveillance Agency – Ana Claudia Andrade, Humberto Martins and Kleber Henrique Silva.

Catholic University of Rio de Janeiro – Paula Kossatz, Juan M. Diaz, Miguel Lessa Carregal and Adriano Lírio.

Fluminense Federal University – Dr. Walter Machado Pinheiro, Rita de Cássia Soares Alves, Gisella Tavares and Renan Reis.

Administration – Conprev/INCA – Eduardo Franco and Antônio Tupinambá.

The whole Social Communication Division/INCA, especially the coordinator Cristina Ruas and Cláudia Gomes.

We also acknowledge Francis Thompson's invaluable contribution in the revision of English translation.

Preface

The use of tobacco products is recognized worldwide as being harmful to health; likewise, the serious damage that smoking can cause to users and to those around them is common knowledge.

However, some steps can be taken to prevent people from starting to smoking - and some can be taken to stimulate smokers to quit – and their effectiveness has been confirmed by innumerable scientific studies.

One such effective intervention is the use of tobacco product packaging to inform the population about the real effects of tobacco. It is very important to remember that it is the packaging for a drug, in this case nicotine, and not that of a harmless product. This drug has taken lives away and brought tremendous suffering to many families and is also a powerful weapon the tobacco manufacturers use to dominate their consumers. Smoking is not a simple choice, but is classified by the World Health Organization as a serious disease.

Confidential documents from the tobacco industry show that cigarette packages, as well as the packaging of other tobacco products, have been used as an attractive tool to gain new smokers, mainly in countries where this kind of advertisement is banned, as Brazil.

Studies about drug addiction show that viewing shocking health warnings, with images on cigarette packages, not only has the potential of informing smokers about the risks of tobacco use but can also motivate smoking cessation.

Health warnings are more effective in undermining the appeal to pleasure and in putting consumers off the product when they have more direct and visible messages and images. The accepted approach worldwide is to emphasize loss and to use negative images which undermine the use of the package for marketing purposes.

Since 2001, tobacco product manufacturers and importers in Brazil have been required by law to include pictorial health warnings that occupy 100% of one of the two main sides of cigarette packages; these messages must also include the “Disque Saúde – Pare de Fumar” (Dial Health – Quit Smoking) number. This first group of health warnings was in effect from 2001 to 2004. The second group of warnings in effect from 2004 to 2008.

Brazil, with its proven pioneering role in tobacco control, is once again bringing innovation to preventive actions.

Through a project coordinated by the National Cancer Institute, in technical cooperation with the National Health Surveillance Agency, the Neurobiology Laboratory at the Federal University of Rio de Janeiro, the Behavioral Neurophysiology Laboratory at Fluminense Federal University and the Department of Art & Design at the Catholic University of Rio de Janeiro, the new health warnings for tobacco product packages were developed, with current themes and differentiated layouts.

This publication provides an overview of Brazilian health warnings, as well as of the new warnings launched on World No-Tobacco Day 2008, keeping in mind that investing in improving the quality of warnings is an effective way to achieve the objectives of tobacco control, to prevent the younger generation from starting to smoke and to motivate smokers to quit.

Luiz Antonio Santini Rodrigues da Silva

General Director
National Cancer Institute

Summary

Acknowledgement	5
Preface	7
Introduction	11
Why Include Health Warnings on Tobacco Products?	13
Tobacco Product Packages as a strategy to gain new smokers and maintain consumers	13
Children and adolescents as package targets	15
Manufacturers' strategies to avoid health warnings on tobacco product packages	19
Health Warnings as an Important Strategy for Tobacco Control in Brazil	21
National Program for Tobacco Control and health warnings as a strategy	21
Impact of Warnings with Images	28
2008 Warning Labels – An Innovation	33
Project for the development and testing of new warnings	33
2. GANGRENE	38
3. DEATH – lung cancer and emphysema	39
4. HEART ATTACK	40
5. TOXIC SMOKE – Passive Smoking	41
6. HORROR – premature aging of the skin	42
7. TOXIC PRODUCT – This product contains toxic substances	43
8. SUFFERING – Nicotine addiction	44
9. IMPOTENCE	45
10. DANGER – stroke	46
Lessons Learned	47
Executive Summary	49
Appendix	51
Health warnings references	53
References	57

Introduction

Packages are part of companies' marketing strategy to attract consumers:

"In the fight for the market, the companies transform their product containers into strategic weapons. . .

*Packages, in a matter of seconds, have to call attention, establish positive empathy with the consumer and finally, make the goods jump into the shopping cart."*¹

It is no different for the packaging of tobacco products, particularly cigarettes. In this case it is important to highlight that they are carefully designed to sell products that, if consumed as the manufacturers want, will cause addiction and kill at least half of users.²

According to public health authorities, the potential for tobacco products to cause addiction is influenced by several factors, including dosage, administration route, ingredients, additives, artificial flavors and, in particular, the attractiveness of the package.³

According to the World Health Organization (WHO), there are 1.3 billion smokers in the world and around 4.9 million people die annually from tobacco. During the 20th century alone, the tobacco epidemic killed around 100 million people and during the 21st century it will potentially kill around one billion people, should current consumption trends continue. The WHO estimates that, in 2020, for every 10 deaths attributed to tobacco, seven will take place in developing countries, where the population's information level about tobacco risks is low and social acceptance is high, due to tobacco companies' strong marketing strategies, directed mainly at the young generation.²

Studies from the World Bank show that around 100 thousand young people start smoking every day, 80% of those in developing countries. In spite of scientific findings, only a few smokers understand the reality of the risk to which they are exposed when they consume tobacco products.⁴

On the other hand, public health authorities recognize that health warnings on packages improve the population's understanding of the true extent of the damages caused by tobacco products. Furthermore, warnings can change the image of cigarettes and other tobacco products, especially among teenagers and young adults, and increase the motivation of smokers to stop smoking. When inserted in a very visible way and illustrated with images, warnings represent an essential component of national programs to reduce smoking, mainly because they reach the lesser-educated sectors of the population, where tobacco use is concentrated.

Since it involves the wrapping of the drug, namely nicotine, this initiative represents a great opportunity to use the package to alert users to the risks and to stimulate quitting.

For those who smoke one package a day, the warnings will be seen around 7,000 times a year, which underscores the importance of this measure and the necessity of carefully developing messages and images.^{6,7} Studies show that warnings which generate negative emotional reactions, such as fear and aversion, are more effective in making people reduce smoking frequency and intensity, and also in trying to quit smoking.^{8,9,10}

Finally, health warnings counteract the use of packages for consumption-inducing advertising, in accordance with Article 11 of the Framework Convention on Tobacco Control¹¹, the first international treaty negotiated under the auspices of the WHO, of which Brazil is a Member State. The Convention stipulates that Member States must adopt strong health

warnings which should occupy at least 50% of the main package area of tobacco products, and recommends the use of images or pictograms that illustrate the message meaning.

In Brazil, tobacco product manufacturers have been legally required since 2001 to include on packages illustrated health warnings and the “Disque Saúde – Pare de Fumar” phone number, a free phone service from the Ministry of Health whose objective is to support smokers to quit. In the case of cigarettes, the warnings occupy 100% of one face of the package.

Brazil was the second country in the world to adopt this measure, after Canada. Since 2001, when the first group of pictorial health warnings was introduced, the Ministry of Health has been seeking to evaluate and improve this initiative, aiming at making it more and more effective.

In 2003, after evaluation of the first group of pictorial warnings, a second group with messages and images was launched, this time with more aggressive images.

In 2008, Brazil launched its third set of health warnings with some innovations stemming from work by a Study Group formed by the National Cancer Institute (INCA), with the participation of the National Health Surveillance Agency (ANVISA), the Neurobiology Laboratory at the Federal University of Rio de Janeiro (UFRJ), the Behavioral Neurophysiology Laboratory at the Fluminense Federal University (UFF) and the Department of Arts & Design at the Catholic University of Rio de Janeiro (PUC-Rio).

The purpose of this Study Group was to develop new health warnings to provide information on the magnitude of risks, to undermine the image and appeal of packages and to stimulate tobacco quitting. In its work, the group’s objective was to improve understanding of how packages are used as advertisement and marketing strategies, how they influence smokers’ consumption and how they can induce the initiation of tobacco use. Aspects of nicotine addiction that are reinforced by package marketing and by the images shown in advertisements were also studied.

It is hoped that, with the new health warnings, Brazil can take a further step towards reduction in tobacco use and also in the impact of diseases related to tobacco use which, although highly avoidable, have a high cost to the Public Health System

Why Include Health Warnings on Tobacco Products?

Tobacco Product Packages as a strategy to gain new smokers and maintain consumers

For more than a century, tobacco companies have been developing sophisticated marketing strategies for their product packages, with the objective of reinforcing tobacco initiation among young people as well as maintaining addiction and consumption among regular users. This strategy has been more and more used, mainly due to the world trend of banning tobacco product advertisement.

Internal documents from tobacco companies, made public through lawsuits, show how essential the package design is for the expansion of consumption.

"Consumer perceptions are based on pack designs, price points and usage patterns - not images created by the advertising..."

*Cigarette branding is on the pack - the 'badge' which people display... Outside the pack cigarettes are virtually indistinguishable... Colours and designs could be carried through to the cigarette itself - a visible extension of the personality of the brand (and the user)..."*¹³

(Phillip Morris, 1989)

*"Our final communication vehicle with the smoker is the package itself. In the absence of any other marketing message, our package... is the only form of communication of our trademark essence. Anyway - when you do not have anything else - our package is our marketing..."*¹⁴

(The Philippine tobacco industry)

Unlike in the case of other products whose packages are discarded after opening, smokers usually keep the package until they consume all cigarettes. That means that, 24 hours a day, the packages stay with smokers, who take them everywhere, leaving them constantly exposed. For this reason, the packages work as an advertisement, allowing a high degree of social visibility for the product. This is why cigarette packages are referred to as "badge" products, "emblems", "symbols".^{15,16}

Packages are also used as a way to create perception about the product. Color, shape and package lettering perfectly communicate the strength, flavor and expected sensation. Several studies demonstrate how viewing the package affects the way smokers describe the characteristics of the products:



Figure 1 – The packages are carefully designed, with different colors and flavors, to attract consumers.

*“Red packages relate to strong flavor, green ones relate to freshness or menthol and white packages suggest health and safety. And if you place a low strength cigarette inside a red package, people will say it has a flavor that is stronger than if it were placed inside a white package”.*¹⁷

Koten J. Tobacco, 1980

Such an example occurred in Brazil in 2001, when the government banned the use of cigarette brands with descriptors such as light, ultra-light and soft, and the tobacco companies started investing in package colors to represent variations within the same brand family.

For example, the brand Hollywood, one of the most popular in Brazil, was diversified with the creation of blue and menthol variants. During the period allowed by the legislation for companies to adjust their new packages to the ban on descriptors, some companies circulated small, colored brochures with messages to the consumers introducing the different package colors as the new versions of the light and ultra-light brand subtypes. The idea aimed at preparing the consumers, creating a connection between the color and the concept of lower strength cigarettes, according to a document from the company which launched this strategy.¹⁸



Figure 2 – Other examples of package diversification

The cigarette brand is also a way smokers use to communicate their style, their image and, accordingly, young people are induced by marketing strategies to express their self-image through their brand choice.

This can be observed at the point of sale, where there are entire shelves carefully arranged with product packages, next to advertisements combining positive imagery and brand elements of the product that is being promoted.

Children and adolescents as package targets

According to WHO, smoking is a pediatric disease, as almost 90% of the regular smokers start to smoke before they are 18 years old.

Tobacco manufacturers have extensive knowledge that people hardly ever smoke their first cigarette after childhood and adolescence. In several internal documents, different tobacco companies have shown their understanding about the importance of marketing to young people as a strategy for market survival.

"If our company is to survive and prosper, over the long term we must get our share of the youth market. . . . Thus we need new brands designed to be particularly attractive to the young smoker, while ideally at the same time appealing to all smokers. . . . Perhaps these questions may be best approached by consideration of factors influencing pre-smokers to try smoking, learn to smoke, and become confirmed smokers."

(R.J. Reynolds, 1973)

*"Younger adult smokers have been the critical factor in the growth and decline of every major brand and company over the last 50 years. . . . If younger adults turn away from smoking, the Industry must decline, just as a population which does not give birth will eventually dwindle."*¹⁹

(R.J Reynolds, 1984)

Tobacco manufacturers have a clear understanding that adolescents' first contact with cigarettes is an unpleasant experience due to the aversive effect of nicotine and the strong flavor of the product. With a view to diminishing this aversion, they actively use symbols that are typical of adolescence to motivate teens to experiment with and use cigarettes as a passport to the adult world.

"The first cigarette is a noxious experience to the novice. To account for the fact that the beginning smoker will tolerate the unpleasantness we must invoke a psychological motive."

*Smoking a cigarette for the beginner is a symbolic act. I am no longer my mother's child, I'm tough, I am an adventurer, I'm not square. Whatever the individual intent, the act of smoking remains a symbolic declaration of personal identity. . . . As the force from the psychological symbolism subsides, the pharmacological effect takes over to sustain the habit."*²⁰

(Philip Morris, 1969)

Another important strategy by the industry to promote initiation and to make the first contact with cigarettes less aversive for children and adolescents is the introduction of flavored brands, with sweetened flavors, facilitating experimentation and opening the way to addiction.¹⁶

For example, R.J. Reynolds, the same company that once created a cartoon character – Joe Camel – to promote a cigarette brand, also launched a series of flavored cigarettes, including the flavors pineapple, coconut and citric, caramel and mocha mint, as shown in figure 3. The flavor strategies are accompanied by packages that aim to increase the attraction potential for young people, conveying pleasant sensations and the idea of differentiated flavors.



Figure 3 – Example of advertisements for Camel, advertising new flavors^{21,16}

Following this same strategy, Brown & Williamson, another tobacco company, introduced several flavored versions of the Kool brand, one of them with the flavor Mocha and Midnight Berry.²¹



Figure 4 – Diversification of the Kool brand by flavors¹⁶

These strategies are confirmed by cigarette companies' internal documents²²:

"A lot of kids, when they start out, don't like the taste of the cigarette and they start coughing. But a flavored cigarette, let's say cherry, they might like better. And it might kill the taste to them and they might start earlier."

(Brown & Williamson, 1984, Bates #679235846)

"I would like to express my sincere appreciation for the exciting flavoring work you have done on Project XG. The chocolate/ vanillin/ licorice/ tobacco enhancer is undoubtedly one of the most exciting and promising flavorants that has been developed during the last several years . . . As you know, this flavorant appears to have significant appeal among the 18–24 year old smoker group and this is obviously the group that we desperately are after."

(RJR Tobacco Company, 1985)²³

This initiative has sparked tremendous debate between public health authorities and the legislative branch in the USA about whether to ban this kind of strategy.^{24,25}

In Brazil, the company responsible for the brand Carlton diversified their portfolio by creating the line Carlton Flavors, which includes the versions Mint, Crema, and Capuccino, always accompanied by careful design of the packages, to attract consumers by the idea of pleasure involved in trying differentiated flavors.



Figure 5 – Diversification of the Brazilian brand Carlton by flavors.

The Hollywood brand, one of the best-selling brands in Brazil, was also diversified through the “Flavor with no Frontiers” concept, linked to advertising aimed at adolescents. This line includes the versions Turkish Blend, Australian Blend, American Blend, Caribbean Blend, Original Blend and Alps Ice Blend.²⁸

Another strategy directed at adolescents can be observed in the images in Figure 7, which shows examples of advertisements currently found at indoor points of sale in Brazil. We can observe the association between the cigarette packages

and the advertising messages, which aim to create a link between the image of young models and the cigarette package, in settings that are desirable for most of the adolescents, such as being in a group, a citizen of the world, open for new experiences and having a daring attitude towards life.

These are some of the examples of how manufacturers use cigarette packages as visual bait to attract and, mainly, to induce the initiation of tobacco use by children and adolescents.



Figure 6 – Diversification of the Hollywood brand by flavors.



Figure 7 – Advertisement at indoor points of sale

Manufacturers' strategies to avoid health warnings on tobacco product packages

Historically, transnational tobacco companies have been investing globally to avoid or weaken measures aimed at adopting health warnings on tobacco products.

In 1978, the director of British American Tobacco (BAT), in the UK, wrote to colleagues from other countries:

"...we can expect health warnings on all tobacco products in your country within a fairly short time, and this is very much to be regretted. Obviously the Group policy should be to avoid health warnings on all tobacco products for just as long as we can."

This BAT policy was maintained for years. In 1977, a document with a joint position from BAT and Phillip Morris stated that:

*If Governments suggest wording implying or stating smoking causes certain diseases, Companies must strenuously resist with all means at their disposal."*²⁷

Even after warnings were printed on packages, manufacturers kept developing strategies to reduce the visibility of the messages.

Internal documents from BAT show that in 1994, an attribute analysis was conducted for the Marlboro brand, the world's best-selling brand, manufactured by competitor Phillip Morris. The document resulting from this study was distributed to their affiliates throughout the world. Among the positive attributes, besides design and colors, they noted the way the warning messages were inserted:

"...clever positioning and use of colour (discrete gold) have ensured minimum impact on the overall design and minimum legibility to the smoker."

(BAT Competitor Activity Report, 1994 – Bates no 301724407/408).

In 2001, when, for the first time, the inclusion of health warnings with pictures on the cigarette packages became mandatory by the Brazilian government, some companies started selling metal package cases, package wrappings and other devices to induce smokers to cover up the warnings. They also started including advertising onserts (i.e. small stick-on pamphlets) with brand advertising, in the same format and size as health warnings, with the same objective.^{28,18} (figures 8A and 8B).



8A



8B

Health Warnings as an Important Strategy for Tobacco Control in Brazil

National Program for Tobacco Control and health warnings as a strategy

For the last 20 years, Brazil has been intensifying tobacco control interventions with the overall objective of reducing the prevalence of smoking and the consequent morbidity and mortality related to tobacco product consumption.

Throughout this period several educational interventions were consolidated, as well as health, legislative and economic interventions to help prevent initiation, to promote smoking cessation and to protect the population from risks of second-hand smoke. These interventions aim to:

- Reduce the social acceptance of tobacco use, by measures to inform the population about the reality of the risks, such as campaigns, educational activities and the inclusion of health warnings on products;
- Reduce social stimuli, which induce young people to start smoking, by measures to restrict advertising and promotion and also to educate children and adolescents about the risks of tobacco use;
- Reduce minors' access to tobacco products by increasing the prices and taxes, as well as by establishing measures to control points of sale and the illegal market for cigarettes;
- Protect the population from the harms of second-hand smoke by restricting smoking in enclosed environments, such as work and leisure environments;
- Reduce social stimuli which impede smoking cessation, by restricting advertising; and
- Increase smokers' access to smoking cessation support services, by the provision of treatment at SUS (public healthcare centers) and phone counseling through "Disque Saúde – Pare de Fumar".

Among the most important tobacco control interventions adopted in Brazil during the last 10 years, particularly noteworthy are restrictions on tobacco advertising at point of sale and the prohibition of tobacco company sponsorship of cultural and sporting events, in effect since December 2000. Another important measure has been the introduction of health warnings with shocking pictures on tobacco product packages, in effect since 2001.

Brazil's tobacco control policy has already shown positive results, such as the reduction of smoking prevalence from 34.8% to 22.4% in the population aged 18 or more.²⁹ In 2006, a population poll carried out by phone by the Ministry of Health in all state capitals showed smoking prevalence in the population aged 18 or more was 16%.³⁰

Another important point to be observed is the reduction in the male lung cancer mortality rate; in 90% of the cases, lung cancer occurs among smokers.³¹

An analysis performed by the World Bank in 2007 reinforces these data, based on the information from Household Incomes Study (POF in Portuguese), showing that between 1995/6 and 2002/3 there was an increase in non-smoking families from 66% to 73%.³²

Evolution of health warnings in Brazil

Health warnings constitute one of the most cost-effective measures available, given that communication costs fall on the manufacturer and that warnings are scientifically demonstrated to be effective in informing all of society about the magnitude of the risks of tobacco use.

In Brazil, this important form of communication has been used for tobacco control more and more intensely since the 80s, and it has gone through four phases:

First Phase – 1988 – Single Health Warning, by executive regulation

In August 1988 the Ministry of Health Order Number 490 was issued, requiring tobacco companies to print the following sentence on all packages: “The Ministry of Health Warns: Smoking is harmful to health”.

Second Phase – 1995 – Rotating Warnings, stemming from a voluntary agreement between Government and tobacco industry

In 1995, Interministerial Order Number 477 replaced the previous health warning message, which was more vague, with a series of varied and more specific messages, such as “The Ministry of Health Warns: Smoking can cause lung cancer”, “Smoking can cause heart disease”, etc.

This was a considerable improvement, because it was the beginning of a phase in which the population started being warned about the different types of damage caused by tobacco use. In addition, the same written warning messages were introduced after tobacco product advertisements on TV and radio.

This improvement was the result from a voluntary agreement between the Ministries of Health, Justice and Communications and associations representing the tobacco industry.

The messages were defined the following way: “The Ministry of Health Warns:”

1. Smoking can cause heart disease and stroke.
2. Smoking can cause lung cancer, chronic bronchitis and lung emphysema.
3. Smoking during pregnancy can harm babies.
4. People who smoke are more likely to have stomach ulcers.
5. Avoid smoking in the presence of children.
6. Smoking causes many problems to your health.

On the other hand, the fact that the measure was the result of a voluntary agreement, in which there was no definition of colors, visibility and proportionality of the health warnings on the packages, allowed various manipulations to reduce the visibility of messages. Moreover, there was no agreement on the inclusion of messages either about tobacco’s ability to cause addiction or about the relationship between tobacco use and sexual impotence. Also, the impact was reduced by use of the phrase “can cause”.

Under the terms of this Order, it was responsibility of the agencies forming the SUS (public healthcare system) to verify that the rules were followed and to inform agencies responsible for consumer protection as necessary.

Third Phase – 1996 – More forceful and direct warnings, required by law

In 1996, with the advent of Federal Law Number 9,294, health warnings began to be required by law and not by a voluntary agreement attached to an Interministerial Order.

In 1999, Provisional Measure Number 1,814 modified Federal Law Number 9,294/96, which regulated several aspects of tobacco use, giving the Ministry of Health the power to stipulate new health warnings and replace the phrase “can cause” with the term “causes”; warnings also become more forceful and direct. The Ministry of Health also introduced two new and strong themes: nicotine addiction and sexual impotence. Prior to this time, these themes had not been included because of the voluntary nature of the previous warnings; the tobacco industry did not agree to provide such information.

These improvements were solidified with the publication of Ministry of Health Ruling Number 695, which stipulated the new wording.

It is important to note that the phrases “Nicotine is a drug and causes addiction” and “Smoking causes sexual impotence” put Brazil in a leading position in the international tobacco control landscape, as only a few countries had hitherto been able to overcome strong resistance from tobacco companies and include such strong and real messages in their legislation.

This new trend in the wording of health messages took into account international experience on the subject, which was being discussed during the

process of negotiating what would become the Framework Convention on Tobacco Control, to which Brazil is now a Party.

The messages were:

1. The Ministry of Health Warns:
2. Smoking causes lung cancer.
3. Smoking causes heart attack.
4. Nicotine is a drug and causes dependence.
5. Smoking causes sexual impotence.
6. Children start smoking when they see adults smoking.

Nonetheless, the warnings still lacked visibility, as colors and sizes were not clearly defined; the Order had not changed the rules.

Examples of these warnings can be seen in Figure 9:



Figure 9 – Old health warnings occupying one of the side faces of the package.

Also in 1999, the Ministry of Health, in creating a new National Sanitary Surveillance Agency – ANVISA (Federal Law number 9.782), mandated it, among other things, to regulate control and inspect tobacco products, a task it would perform in technical cooperation with the National Cancer Institute – INCA.

Fourth Phase – 2001 – Direct Health Warnings, regulated by law and illustrated by pictures

Based on World Health Assembly recommendations and on the positive experience of Canada, which was the pioneer in the inclusion of pictorial health warnings in 2000, what was then known as the National Commission for Tobacco Control (known today as Interministerial Commission for the Implementation of the Framework Convention on Tobacco Control and its Protocols (CONICQ))³⁴, recommended in August 2000 that the Brazilian government adopt a similar strategy. Thus, Brazil was the second country to adopt it.

This measure was adopted in May 2001, through Provisional Measure Number 2,134-30, published by the President on May 24th, 2001, stipulating that advertising material and tobacco product packages, except those destined for export should contain health warnings containing images illustrating their meaning. This measure was complemented by ANVISA Resolution Number 104, regulating these messages on packages and on advertising material for tobacco products.

The Ministry of Health, through INCA and ANVISA, is in charge of determining the health warnings to be published, the space they have to occupy on the packages and their graphic characteristics, as well as the characteristics of the images that will illustrate it. This definition is clear and regulated by law, guaranteeing to the Ministry of Health the possibility of counteracting strategies by the tobacco industry to minimize the visibility of the messages.

The first phrases accompanied by images were published in ANVISA Resolution Number 104, on May 31st 2001, all proceeded by the statement “The Ministry of Health Warns”

1. Smoking causes bad breath, tooth loss and mouth cancer.
2. Smoking causes lung cancer.
3. Smoking causes heart attack.
4. Smokers do not have breath for anything.
5. Smoking during pregnancy is harmful to the baby.
6. In pregnant women, smoking causes miscarriages, low birth weight and increased risk of asthma.
7. Children start smoking when seeing adults smoking.
8. Nicotine is a drug and causes addiction.
9. Smoking causes sexual impotence.

Besides defining the health warning, the Resolution also required the inclusion on packages and on tobacco advertising of the phone number for “Disque Saúde – Pare de Fumar” - the Ministry of Health service offering free support to those who want to quit smoking as well as general information about tobacco use; it also banned the use of any kind of wrapping or alternative that blocks or impedes viewing of warnings. It also required the inclusion of the levels of tar, carbon monoxide and nicotine on the side of the products, along with the message: “There are no safe levels for the consumption of these substances”.

The Ministry of Health Warns:



Smoking during pregnancy is harmful to the baby



Smoking causes bad breath, tooth loss and mouth cancer



Nicotine is a drug and causes addiction



Smokers do not have breath for anything



Smoking causes lung cancer



In pregnant women, smoking causes miscarriages, low birth weight and increased risk of asthma



Smoking causes heart attack



Smoking causes sexual impotence



Children start smoking when seeing adults smoking

Figure 10 – Health Warnings with pictures, developed in 2001 and printed between February 2002 and August 2004.

The content of these warnings was changed in line with international trends and the analysis of the legislation from other countries, which made them more effective and direct in relation to the damage caused by tobacco use.

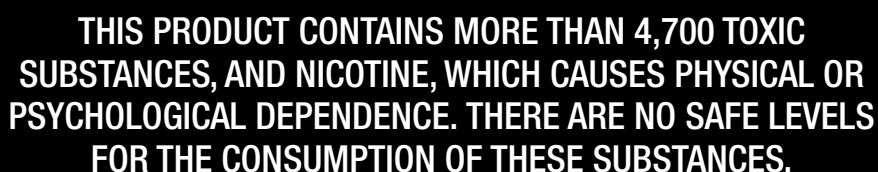
Fifth phase – 2003 – Direct Health Warnings, regulated by law and illustrated by more shocking pictures

In 2003 the Ministry of Health launched the second group of health warnings with stronger messages and pictures, published in ANVISA Resolution Number 335, which also required their inclusion on tobacco product advertising. The objective of this initiative was to ensure the renewal of the content of the messages and pictures, which had become ineffective after a long period of use. The concept was based on a phone poll conducted by “Disque Saúde – Pare de Fumar”, which found that 90% of 89 thousand people interviewed stated that the images launched in 2001 needed to be more shocking. It is worth emphasizing that 80% of them were smokers.

The following phrases were also included on the packages:

“Sale forbidden to minors under 18 – Law 8069/1990 and Law 10702/2003”, accompanied by a ban on phrases such as “Only for adults” or “Product for people over 18 years of age”;

“This product contains more than 4,700 toxic substances and nicotine, which causes physical or psychological dependence. There are no safe levels for the consumption of these substances.”



THIS PRODUCT CONTAINS MORE THAN 4,700 TOXIC SUBSTANCES, AND NICOTINE, WHICH CAUSES PHYSICAL OR PSYCHOLOGICAL DEPENDENCE. THERE ARE NO SAFE LEVELS FOR THE CONSUMPTION OF THESE SUBSTANCES.

Figure 11 – Mandatory phrase included on the packages, from August 2004 on.

Messages in the second group of pictorial health warnings:

1. This necrosis was caused by tobacco consumption.
2. Smoking causes sexual impotence.
3. Children who live with smokers have more asthma, pneumonia, sinusitis and allergies.
4. He is a victim of tobacco. Smoking causes vascular disease which can lead to amputation.
5. Smoking causes miscarriages.
6. When smoking you inhale arsenic and naphthalene, also used against rats and cockroaches.
7. Smoking causes cancer of the larynx.
8. Smoking causes mouth cancer and tooth loss.
9. Smoking causes lung cancer.
10. In pregnant women, smoking causes premature deliveries and baby birth weight below normal

The Ministry of Health Warns



Smoking causes miscarriages. He is a tobacco victim.



Smoking causes vascular disease that can lead to amputation.



Children who live with smokers have more asthma, pneumonia, sinusitis and allergies.



In pregnant women smoking causes premature delivery and low birth weight.



Smoking causes mouth cancer and tooth loss.



Smoking causes sexual impotence.



Smoking causes larynx cancer.



This necrosis was caused by tobacco consumption.



Smoking causes lung cancer.



When you smoke you inhale arsenic and naphthalene, also used against rats and cockroaches.

Figure 12 – Second group of health warnings with pictures that started in August 2004 and are still current in 2008.

Impact of Warnings with Images

- Opinion Poll – “Disque Saúde – Pare de Fumar”

As previously mentioned, between March and December 2002, 89,305 phone interviews were carried out through the quit line “Disque Saúde – Pare de Fumar”. Among the people interviewed, 80% were smokers, 92% supported the measure, 79% said the warning pictures should be more shocking and 90% got to know the “Disque Saúde – Pare de Fumar” number through the cigarette packages.

Opinion Poll – Datafolha Research Institute

Another poll in Brazil about the impact of the warnings was conducted by DATAFOLHA in 2002³⁵ and involved 2,216 participants above the age of 18, in 126 Brazilian cities. The results were:

Concerning support for adoption of the measure:

76% of the people interviewed supported the mandatory character of the images. Of this total, there was higher support among non-smokers (77%) in comparison to the group of smokers (73%). Among those who held a university education or equivalent, or had completed high school, support reached 83%. Among young people between 18 and 24 years old, 82% supported the measure.

More awareness about the damage caused by tobacco use:

54% of the interviewed smokers changed their idea about the health consequences of tobacco use.

Encouragement of smoking cessation

67% of the smokers said they have already felt like quitting smoking. Among those who earn up to five times the minimum wage (R\$1,000 per month), 73% said they felt like quitting smoking when they saw the new packages. In the group of those whose maximum school level was elementary school, the rate was 72%. This number is also high among younger people: 73% of those between 25 and 34 years old said they thought about quitting smoking when they saw the warning images. In the group between 18 and 24 years old, the percentage was almost the same (72%).

Preventing the initiation of new smokers:

According to 70% of the people interviewed, the warning images are very effective in preventing initiation. A smaller number (56%) said they believe the method is very effective in making smokers quit. 30% believe the images have little effectiveness in controlling tobacco use.

Household Survey about Risk Behavior and Morbidity Related to Non-Communicable Diseases – Ministry of Health/Secretary for Health Surveillance/National Cancer Institute.

Smokers' perception of the warning images on packages was also verified through the Household Survey about Risk Behavior and Morbidity Related to Non-Communicable Diseases³⁶, conducted in 2003 in Brazilian state capitals, targeting population above 15 years old. The warnings tested were from the first set of warnings, in effect between 2002 and 2004.

The warning images chosen by the smokers as the ones that most motivate smokers to quit were the ones that show the most dramatic situations, such as the woman with lung cancer and an endotracheal tube (79%) and the premature baby (78%) (Figure 13).



The Ministry of Health Warns:

In pregnant women smoking causes premature delivery, baby birth weight below normal and increases the chance of asthma.

The Ministry of Health Warns:

Smoking causes lung cancer

79,0%

77,9%

Figure 13 – Images from the first group of pictorial warnings that had the most impact on smokers, according to the Household Survey.

The images that provided the least motivation were those showing social or humorous situations, such as the one about parents' example being a factor for the initiation of the young. Likewise, there was little impact from the image illustrating nicotine addiction, in which a man uses one cigarette to light another as an example of chain smoking, i.e., a serious tobacco dependence level. Also, the image illustrating bad breath, in which a man with a cigarette talks to a woman whose facial expression suggests disgust, had little impact, as was also the case with and the image of a man who seems to be short of breath and is loosening his tie to illustrate this state.



Smoking causes bad breath, tooth loss and mouth cancer.

Nicotine is a drug and causes addiction.

Children start smoking when they see adults smoking.

Those who smoke are short of breath for any activity.

Figure 14 – Images from the first group of warnings with picture that had the least impact on smokers, according to the Household Survey.

Evaluation of the emotional impact of the health warning images from the first and second groups – Federal University of Rio de Janeiro/Fluminense Federal University.

Complementing previous research, a scientific study³⁷, developed by the Neurophysiology Laboratory II at the Federal University of Rio de Janeiro and the Behavior Neurophysiology Laboratory at the Fluminense Federal University evaluated the emotional impact of the images of the health warnings in effect between 2001-2004 and 2004-2008.

Hundreds of university students (smokers and non-smokers) evaluated the emotional characteristics of several images, using a psychometric tool³⁸ that is widely used in studies of emotion and behavior. The various images tested included all 19 displayed in the first and second set of warnings. During the experiment, the reason for the evaluation of the images was not disclosed to participants.

The results demonstrated that the images displayed in health warnings provoked aversion. The intensity of these sensations, however, was moderate. Previous studies³⁹ have demonstrated that the more intense the sensation caused by aversive images, the greater the activation of neurobiological defense systems will be, which is one of the objectives of the health warnings.

The least shocking images were mainly the same ones found to be low-impact in the household survey, as shown in Figure 14. The highest-impact images were the one of the premature baby and the one of a woman in a hospital bed, illustrated in figure 13; and the one of a premature baby and of a pregnant woman smoking.

It was very surprising to observe that the image of a beautiful pregnant woman smoking, which has no aversive characteristics, was considered by study participants as highly negative. This result seems to indicate that information about the harmful effects of smoking during pregnancy, disseminated by tobacco control interventions, is being absorbed by the young population.

Another interesting result was that during the evaluation of the 19 images there was no difference between the perception of smokers and non-smokers, implying that this methodology can be applied for both quitting and prevention programs. However, it is important to pay attention to visual cues included in health warnings that can trigger cravings among smokers, inducing addicted people to smoke⁴⁰. The results showed that, on average, pictures depicting people smoking were more pleasant for smokers than for non-smokers.

International Research

The national data corroborates evaluation data for the same measure implemented in other countries, such as Canada and Australia, which suggests that stronger warnings are an effective intervention to promote smoking cessation among adults.^{41,42}

Canada

In Canada, research carried out in 2004 with the objective of evaluating the impact of pictorial health warnings showed that one out of five participants reported having smoked less due to the warnings; only 1% reported having smoked more. It was also observed that despite the report of negative emotional responses, such as fear (44%) and disgust (58%), smokers that reported stronger negative emotions were more likely to quit smoking, to try to quit or even to reduce the tobacco use in the following three months.⁴³

Australia

In 1995, Australia conducted a study after introducing new health warnings on tobacco products. This research showed that, among smokers, there was a high level of awareness/perception of the new warnings on cigarette packages; as well, some smokers reported that they avoided buying packages with the new warnings and stated they smoked less cigarettes or simply talked more about smoking.⁴⁴ Another Australian study noted that the new, larger and more prominent warnings were more effective in stimulating negative thoughts about the harmful effects of tobacco use and in preventing the smoking of the planned quantity of cigarettes.⁴²

2008 Warning Labels – An Innovation

Given that images must be replaced regularly, so that they do not lose their impact and so as to increase awareness-raising about the harmful effects of tobacco, the Ministry of Health began efforts to be innovative in the design of new warnings.

With this goal, the INCA, as aforementioned, created a Study Group formed by INCA itself, the National Health Surveillance Agency (ANVISA), the Neurobiology Laboratory at the Federal University of Rio de Janeiro (UFRJ), the Behavior Neurophysiology Laboratory at the Fluminense Federal University (UFF) and the Department of Arts & Design at the Catholic University of Rio de Janeiro (PUC-Rio).

Project for the development and testing of new warnings

This Study Group worked, from 2006 to 2008, on the Project for the Development and Implementation of New Images and Warnings Printed on Cigarette Packages. The objective of this group was to produce and select pictures and messages for warning labels displayed on packages of tobacco products sold in Brazil, based on their emotional impact on young people aged 18 to 24.

The project was conducted in five stages:

Stage I: Literature review, aiming to compile information from national and international studies on aspects of nicotine addiction and tobacco initiation influenced by the advertising and marketing of tobacco products, as well as a review of the experience of Brazil and other countries with warning labels.

Stage II: Research evaluating the emotional reaction evoked by pictures used in warnings on cigarette packages from 2002 to 2008.

In this stage, 212 young people between 18 and 24 years of age evaluated 19 images used in the warnings on cigarette packages between 2002-4 (1st set: 9 images) and 2004-8 (2nd set: 10 images), through a psychometric instrument measuring their emotional impact. The study concluded that the images included in health warnings had aversive emotional characteristics. However, it was

observed that this aversion could be increased to provoke a stronger avoidance reaction, i.e. a desire to stay away from the product.³⁷

Stage III: Determination of the approach and themes to be used in the new warnings.

For the new set of warnings, 10 images were developed with a view to achieving, among the target population, a negative emotional reaction of repulsion to the product, in accordance with the approach taken in other countries. It is worthy of note that, unlike the messages used on posters, pamphlets or information booklets about tobacco, the warnings are included on the packages, which are carefully designed to attract consumers to a product that causes addiction, leading to sickness and death.

One of the functions of the warning labels is to inform about the risks of tobacco. Another function is to undermine the marketing appeal of the object, in the case, of tobacco product packages.

The use of any tobacco product, such as cigarettes, cigars, pipes, snuff, chewed tobacco and others, is harmful to health. It is the responsibility of the Ministry of Health to alert the smoking as well as the non-smoking population. The Study Group concluded that the best approach for tobacco product packages is what is known internationally as a “loss-frame” approach, focusing on the negative consequences of the continuation of certain types of behavior that compromises health.⁴⁵

This decision was based on three fundamental elements:

1. Neurobiology of Emotion studies on aversive images that cause repulsion;
2. Scientific work in the field of tobacco control; and
3. Warning images used in other countries, following this same approach.

Initially the Group selected themes that needed to be included in the new set of tobacco warning labels. The psychophysiology group, comprised of UFRJ and UFF researchers, analyzed ways to fit these themes to the possible images that could maximize physiological activation and behavioral avoidance of tobacco packages, diminishing their attractiveness.

The themes selected for this process were:

- Toxic substances
- Lung cancer lethality
- Harmful effects to the fetus
- Early aging
- Passive smoking
- Cardiovascular diseases
- Strokes
- Benefits of smoking cessation
- Parents as role models

- Mutilation
- Addiction
- Respiratory diseases
- Impotence

Stage IV: Design of image prototypes at the Electronic Arts Laboratory/Center at the Department of Arts & Design/PUC-Rio.

Regarding the design aspects, the project started with a literature review for the proposed themes, followed by a search for similar material, initially including previous national and international tobacco control campaigns and images related to each theme and, later, other campaigns and graphic material about health-related themes. To establish categories for similar material, a taxonomy emphasizing cultural aspects⁴⁶ was developed.

The brief drawn up by INCA, ANVISA and the Psychophysiology group, focusing on the importance of creating images with high level of aversiveness and using the classification developed for similar materials, guided the production of 19 image prototypes by the Design group, which were then used in tests performed by the Psychophysiology group. Based on the results obtained in this test, 10 new images were produced which, with texts developed by INCA and ANVISA, will be printed on Brazilian cigarette packages and also at points of sale for tobacco products.

For this new set of warnings, a new layout was also planned. On the upper part of the warning a more visible word or phrase was added, summarizing the image content. Then comes the image itself and, below it, the warning from the Ministry of Health with technical information. Last, the quit-line logo with the relevant phone number stands out against a dark background, unlike in the previous warnings, where it was included inside the image area, usually with little visibility.

In designing the images, the Group took care not to include “trigger” images or cues that might make the smoker feel like smoking, such as people smoking, ashtrays, lighters, lit cigarettes or product packages.^{37, 40, 47, 48}

Stage V: Evaluation of emotional reactions to the proposed warnings.

To test the prototypes, the same quantitative methodology applied in the evaluation of the warnings in effect from 2002 to 2008 was used. Research participants evaluated the emotional impact of these new images without any reference to its function as a warning label. A total of 338 young people (18-24 years old), smokers and non-smokers from three levels of educational institution (elementary, high school, college) participated in the study; half of them were female. The results indicated that the new images were considered more aversive than the previous ones. When evaluating the new images, women and less-educated participants (incomplete elementary school) considered them more aversive, in comparison to the evaluations done by men or better-educated young people.

The degree of aversion found in the evaluation of the sample is in accordance with previous studies^{39,49,50,51} which demonstrated neurophysiological reactions related to feelings of repulsion. Quantitative data allowed the development of an index to measure aversion to the prototypes, which served as one of the criteria for the selection of the new health warnings.

Step VI: Selection and final production of new figures and graphic elements to be used on tobacco product packages.

Selected Warnings (texto figuras das páginas 37 até 46)

1. VICTIM OF THIS PRODUCT – This product causes premature delivery and baby death.

VÍTIMA DESTE PRODUTO



O Ministério da Saúde adverte:
**Este produto intoxica a mãe e o bebê,
causando parto prematuro e morte.**



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
This product is toxic for the mother and the baby, causing premature delivery and death.
QUIT SMOKING
DIAL HEALTH

2. GANGRENE

GANGRENA



O Ministério da Saúde adverte:
O uso deste produto obstrui as artérias e
dificulta a circulação do sangue.



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
Use of this product blocks arteries and makes blood circulation more difficult.
QUIT SMOKING
DIAL HEALTH

3. DEATH – lung cancer and emphysema

MORTE



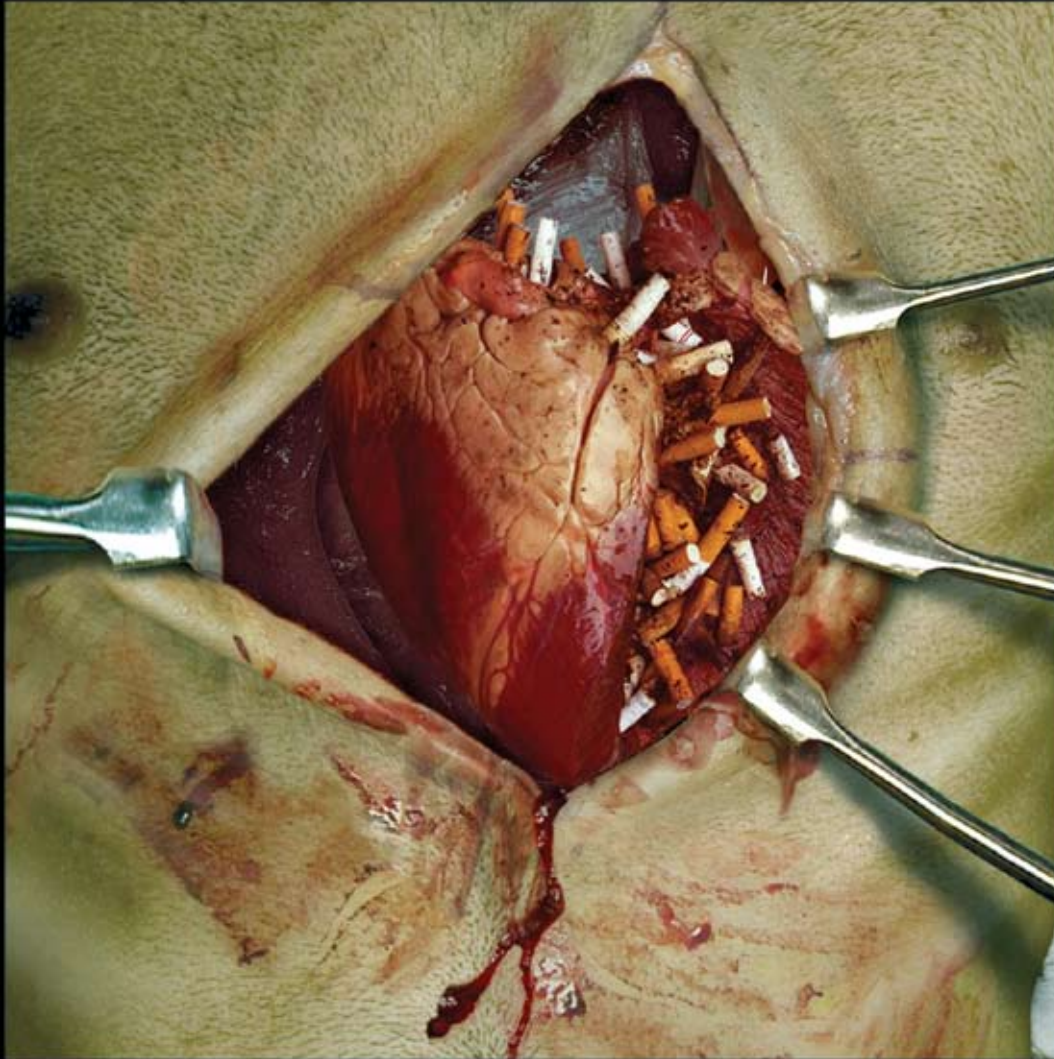
O Ministério da Saúde adverte:
O uso deste produto leva à morte por
câncer de pulmão e enfisema.

 **PARE DE FUMAR**
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
Use of this product leads to death from lung cancer or emphysema.
QUIT SMOKING
DIAL HEALTH

4. HEART ATTACK

INFARTO



O Ministério da Saúde adverte:
O uso deste produto causa morte por doenças
do coração.



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
Use of this product causes death due to heart diseases.
QUIT SMOKING
DIAL HEALTH

5. TOXIC SMOKE – Passive Smoking

FUMAÇA TÓXICA



O Ministério da Saúde adverte:
**Respirar a fumaça deste produto causa
pneumonia e bronquite.**



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
Breathing the smoke from this product causes pneumonia and bronchitis.
QUIT SMOKING
DIAL HEALTH

6. **HORROR** – premature aging of the skin

HORROR



O Ministério da Saúde adverte:
Este produto causa envelhecimento precoce da pele.



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
This product causes premature aging of the skin.
QUIT SMOKING
DIAL HEALTH

7. TOXIC PRODUCT – This product contains toxic substances

PRODUTO TÓXICO



O Ministério da Saúde adverte:
Este produto contém substâncias tóxicas que levam ao adoecimento e à morte.

 **PARE DE FUMAR**
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
This product contains toxic substances that lead to sickness and death.
QUIT SMOKING
DIAL HEALTH

8. SUFFERING – Nicotine addiction

SOFRIMENTO



O Ministério da Saúde adverte:
**A dependência da nicotina causa
tristeza, dor e morte.**



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
Nicotine addiction causes sadness, pain and death.
QUIT SMOKING
DIAL HEALTH

9. IMPOTENCE

IMPOTÊNCIA



O Ministério da Saúde adverte:
**O uso deste produto diminui, dificulta
ou impede a ereção.**



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
Use of this product decreases, impedes or prevents erections.
QUIT SMOKING
DIAL HEALTH

10. DANGER – stroke

PERIGO



O Ministério da Saúde adverte:
**O risco de derrame cerebral é maior com
o uso deste produto.**



PARE DE FUMAR
DISQUE SAÚDE
0800 61 1997

The Ministry of Health warns
The risk of stroke is increased by use of this product.
QUIT SMOKING
DIAL HEALTH

Lessons Learned

- Packages are carefully designed to attract new consumers and reinforce use among those who are already addicted.
- The packages are considered a “badge”, “emblem” or “symbol” product, because they stay with the smokers 24 hours a day, constantly exposed, functioning either as an advertising vehicle or as a way to discourage consumption.
- Unlike messages in posters, pamphlets, booklets, videos, etc, the health warnings are included on packages, which were carefully designed to evoke positive emotions and bring the consumer closer to the product.
- Warning images and messages must evoke negative emotions and serve to undermine the package-based marketing and cause repulsion for the product.
- Images that evoke positive emotions must be avoided, because they would increase the friendly familiarity of the product and thus increase the propensity for use.
- Images that work as triggers for the craving to smoke must be avoided; this includes lit cigarettes, lighters, cigarette packages, and people smoking in a pleasant way. This does not apply to the waste generated by use, such as cigarette butts, ash, dirty ashtrays, etc.

Executive Summary

1 – Health Warnings – Important component of the National Program for Tobacco Control in Brazil.

2 – Recommended by the World Health Organization and the World Bank as one of the most effective tobacco control measures.

3 – The Framework Convention on Tobacco Control, Article 11, recommends that Member States adopt strong health warnings that occupy at least 50% of the principal display areas of tobacco product packages, with illustrative images.

4 – Cost-Effective Measure, because communication costs are borne by the tobacco industry.

5 – Internal Documents from the Tobacco Industry show the extent to which warnings can affect their business. These documents include reports of strategies to prevent governments from adopting warnings or to prevent them from having high visibility.

6 – Functions:

a. Risk information/communication – the efficiency of this function depends on its capacity of translating the real dimension of the risks for the smokers when they consume tobacco products.

b. Motivation to quit smoking – national and international studies show that shocking health warnings motivate smokers to quit. Datafolha studies in 2002 about warnings with photos showed that 67% of the smokers interviewed said they felt like quitting when they saw the pictorial warnings on the packages.

c. Undermining the appeal to pleasure and to use created by package-based marketing – internal documents from the tobacco industry show how the packages are carefully planned, with respect to colors and shapes, to create an emotional link between the product and consumers.

7 – Evolution of the warnings in Brazil – there have been warnings since 1988. However, initially there was a single and generic warning (The Ministry of Health Warns: smoking is harmful to health); and rotating warnings began in 1995, but defined by a voluntary agreement between the Government and Industry. In 1996 warnings became mandatory, in accordance with Federal Law 9,294/96. In 1999, by Temporary Order Number 1,814/99, the Ministry of Health gained the power to decide on the content of these warnings, with ANVISA being given

the responsibility to regulate and to enforce this Order. In 2001, through Temporary Order Number 2,134, manufacturers were forced to include images illustrating the meaning of the warnings in one of the principal display areas of the packages.

8 – First group of warnings with pictures in effect between 2002-2004.

An evaluation study showed that the warnings should be more shocking. It also demonstrated that warnings that presented more dramatic situations were considered to have higher impact than the one that presented humorous or social situations. These data corroborate international studies showing that warnings that evoke fear or aversion are the most effective ones, inducing smokers to quit.

9 – Second group of warnings with pictures in effect from 2004 to the present. In this group, images that illustrate more dramatic and critical situations predominate.

10 – Third group of health warnings, launched in 2008, constitutes an important innovation:

a. It is the product of a Study Group coordinated by INCA in technical cooperation with the National Health Surveillance Agency, the Neurobiology Laboratory at the Federal University of Rio de Janeiro, the Behavior Neurophysiology Laboratory at Fluminense Federal University and the Department of Arts & Design at the Catholic University of Rio de Janeiro.

Through this group, the understanding of the relationship between tobacco addiction and marketing on the packages was improved. It was confirmed that it was possible to make images still more aversive than the ones from the second group, and that some aspects of the images used in previous warnings and in other countries could work as a trigger for smoking cravings and therefore should be avoided (images of people smoking, lit cigarettes, etc). Thus, differentiated layouts and themes were developed for the new warnings, which we present here.

Appendix

To provide the theoretical basis for the chosen themes, below are the References for each of the warnings that was developed. This is a major source of research about the harmful consequences of tobacco use.

Health warnings references

GANGRENE – Use of this product blocks arteries and makes blood circulation more difficult.

ARONOW WS, POLDSMITH JR, KERN JE et al. Effects of smoking on cardiovascular hemodynamics. Arch Environ Health. 1994. 28:330

AUREBACH O, CHADWICK D, PAUL O et al. Relation of smoking to cardiovascular disease and peripheral vascular disease. Chest. 1996. 54:186

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 [cited 2006 Dec 5]. Available from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/index.htm.

ROSEMBERG, J.- Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

FIELDING JE, HUSTEN CG, ERIKSEN MP. Tobacco: Health Effects and Control. In: Maxcy KF, Rosenau MJ, Last JM, Wallace RB, Doebbling BN (eds.). Public Health and Preventive Medicine. New York: McGraw-Hill;1998;817–845

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Falando sobre tabagismo, Rio de Janeiro, 1998.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. – Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

MACKAY J, ERIKSEN M, SHAFHEY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006.

VICTIM OF THIS PRODUCT – This product is toxic for the mother and the baby, causing premature delivery and death.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 [cited 2006 Dec 5]. Available from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/index.htm.

ROSEMBERG, J.- Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

PENDLEBURY JD, WILSON RJ, BANO S, LUMB KJ, SCHENEIDER JM, HASAN SU. Respiratory Control in Neonatal Rats Exposed to Prenatal Cigarette Smoke. Am J Respir Crit Care Med. 2008 Feb 28.

SHEA AK, STEINER M. Cigarette smoking during pregnancy. Nicotine Tob Res. 2008 Feb;10(2):267-78.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Falando sobre tabagismo, Rio de Janeiro, 1998.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. – Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

MACKAY J, ERIKSEN M, SHAFHEY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006.

DEATH – Use of this product leads to death by lung cancer or emphysema.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 [cited 2006 Dec 5]. Available from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/index.htm.

ROSEMBERG, J. - Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

U.S. Department of Health and Human Services. Tobacco Use Among U.S. Racial/Ethnic Minority Groups — African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 1998 [cited 2006 Dec 5]. Available from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_1998/index.htm.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Falando sobre tabagismo, Rio de Janeiro, 1998.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. – Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

MACKAY J, ERIKSEN M, SHAFETY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006.

HEART ATTACK – Use of this product causes death due to heart disease.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 [cited 2006 Dec 5]. Available from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/index.htm.

ROSEMBERG, J.- Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. – Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Falando sobre tabagismo, Rio de Janeiro, 1998.

U.S. Department of Health and Human Services. Reducing the Health Consequences of Smoking—25 Years of Progress: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 1989. DHHS Pub. No. (CDC) 89-8411 [cited 2006 Dec 5]. Available from: <http://profiles.nlm.nih.gov/NN/B/B/X/S/>.

MACKAY J, ERIKSEN M, SHAFETY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006.

TOXIC SMOKE – Breathing the smoke from this product causes pneumonia and bronchitis.

INTERNATIONAL AGENCY OF REASERCH IN CANCER (IARC) – Environmental Carcinogens methods of analysis and exposure measurement. Passive smoking. Vol 9, Scientific Publications nº 81, Lyon, France 1987.

U.S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2006.

WATSON, R.R., WITTEN, M. et. Cols - Environmental Tobacco Smoke. CRC Press LLC, Florida, USA., 2001.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. – Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

ROSEMBERG, J.- Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Falando sobre tabagismo, Rio de Janeiro, 1998.

NATIONAL HEALTH AND MEDICAL RESEARCH COUNCIL (NHMRC) – The health effects of passive smoke, Australia, november 1997.

REPACE JL – Tobacco smoke pollution. In: Nicotine addiction. Principles and management. Eds C. Tracy Orelans and John Slade. New York, Oxford University Press, 1993.

HORROR – This product causes premature aging of the skin.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

MORITA A. Tobacco smoke causes premature skin aging. J Dermatol Sci. 2007 Dec;48(3):169-75. Epub 2007 Oct 24. Review.

JUST-SAROBÉ M. Smoking and the skin. Actas Dermosifiliogr. 2008 Apr;99(3):173-84

MACKAY J, ERIKSEN M, SHAFÉY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006.

ROSEMBERG, J.- Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

TOXIC PRODUCT – This product contains toxic substances that lead to sickness and death.

ROSEMBERG J – Composição química do fumo do cigarro. Em: Tabagismo, sério problema de saúde pública, São Paulo, 1987.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Falando sobre tabagismo, Rio de Janeiro, 1998.

MACKAY J, ERIKSEN M, SHAFÉY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006

DUBE, MF & GREEN, C.R. Methods of collection of smoke for analytical purposes. 1982. Recent. Adv. Tob. Sci., 8, 42-102.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer / Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Ajudando seu paciente a deixar de fumar, Rio de Janeiro, 1997.

SUFFERING – Nicotine addiction causes sadness, pain and death.

ROSEMBERG, J. - Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

U. S. DEPARTMENT OF HEALTH AND HUMAN SERVICES. The Health Consequences of Smoking - Nicotine Addiction. A Report of the Surgeon General. Rockville, Maryland: U.S. Department of Health and Human Services. Public Health Service, Centers for Disease Control, Centers for Chronic Disease Prevention and Health Promotion. Office on Smoking and Health..1988.

ORLEANS CT, SLADE J. - Nicotine Addiction. Principles and Management. New York: Oxford University Press, 1993.

MACKAY J, ERIKSEN M, SHAFÉY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

WORLD HEALTH ORGANIZATION (WHO) – Policy Recommendations for Smoking Cessation and Treatment of Tobacco Dependence. Geneva, Switzerland, 2003.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer - Ajudando seu Paciente a Deixar de Fumar, Rio de Janeiro, 1997

MINISTÉRIO DA SAÚDE, Instituto Nacional de Câncer, Coordenação de Prevenção e Vigilância - Consenso sobre Abordagem e Tratamento do Fumante, Rio de Janeiro, 2001.

FIORE MC, BAILEY WC, COHEN SJ et al. - Treating Tobacco Use and Dependence. Clinical Practice Guideline. U. S. Department of Health and Human Services, Public Health Service, 2000.

IMPOTENCE – Use of this product decreases, impedes or prevents erections.

ROSEMBERG, J.- Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

KUPELIAN V, LINK CL, MCKINLAY JB. Association between smoking, passive smoking, and erectile dysfunction: results from the Boston Area Community Health (BACH) Survey. *Eur Urol.* 2007 Aug;52(2):416-22. Epub 2007 Mar 16.

MILLET C, WEN LM, RISSEL C, SMITH A, RICHTERS J, GRULICH A, de VISSER R. Smoking and erectile dysfunction: findings from a representative sample of Australian men. *Tob Control.* 2006 Apr;15(2):136-9.

NATALI A, MONDAINI N, LOMBARDI G, DEL POPOLO G, RIZZO M. Heavy smoking is an important risk factor for erectile dysfunction in young men. *Int J Impot Res.* 2005 May-Jun;17(3):227-30.

DANGER – The risk of stroke is increased by the use of this product.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES. The Health Consequences of Smoking: A Report of the Surgeon General. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2004 [cited 2006 Dec 5]. Available from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_2004/index.htm

ROSEMBERG, J.- Nicotina Droga Universal, Instituto Nacional de Câncer – www.inca.gov.br, 2004.

MACKAY J, ERIKSEN M, SHAFETY O. The Tobacco Atlas, Second Edition American Cancer Society. 2006.

MINISTÉRIO DA SAÚDE – Instituto Nacional de Câncer/Coordenação Nacional de Controle do Tabagismo e Prevenção Primária do Câncer. Falando sobre tabagismo, Rio de Janeiro, 1998.

FERRERO MB, MEZQUITA MAH, GARCIA MT et al. – Manual de Prevención y Tratamiento del Tabaquismo, www.atenciontabaquismo.com, Espanha, 2003.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES. Tobacco Use Among U.S. Racial/Ethnic Minority Groups—African Americans, American Indians and Alaska Natives, Asian Americans and Pacific Islanders, and Hispanics: A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, CDC; 1998 [cited 2006 Dec 5]. Available from: http://www.cdc.gov/tobacco/data_statistics/sgr/sgr_1998/index.htm.

OCKENE IS, MILLER NH. Cigarette Smoking, Cardiovascular Disease, and Stroke: A Statement for Healthcare Professionals From the American Heart Association. *Journal of American Health Association.* 1997;96(9):3243–3247 [cited 2006 Dec 5].

References

1. *A Revolução das embalagens. Revista Exame. 2005 Abr 27.*
2. *World Health Organization [Homepage on the Internet]. WHO Report on the global Tobacco epidemic 2008: the MPOWER package [cited 2008 Jun 09]. Disponível em: http://www.who.int/tobacco/mpower/mpower_report_full_2008.pdf.*
3. *Henningfield JE. TobReg Presentation. 3rd Meeting of Key Facilitators Interim Convention Secretariat/TFI & Contracting Parties of the WHO Framework Convention on Tobacco Control Ottawa; 2006 Oct 26.*
4. *The World Bank Group. Curbing the epidemic: governments and economics of tobacco control [Monografia na Internet]. Washington: The World bank; 1999 [cited 2008 Jun 09]. Disponível em: <http://www1.worldbank.org/tobacco/book/html/chapter1.htm>.*
5. *Health Canada. Wave 9 surveys: the health effects of tobacco and health warning messages on cigarette packages. Survey of adults and adults smokers. Ontario: Environics Research Group; 2005.*
6. *Hammond D, Fong GT, McDonald PW, Cameron R, Brown KS. Impact of the graphic Canadian warning labels on adult smoking behaviour. Tobacco Control. 2003 Dec;12(4):391-5.*
7. *Bansal MA, Cummings KM, Hyland A, Bauer JE, Hastrup JL, Steger C, et al. Do smokers want to know more about the cigarettes they smoke? Results from the EDUCATE study. Nicotine Tob Res. 2004 Dec; 6 (Suppl 3): S289-302.*
8. *UK Department of Health [homepage on the internet]. Consultation on the introduction of picture warnings on tobacco packs: report on consultation. [cited 2008 Jun 09]. Available from: http://www.dh.gov.uk/en/Consultations/Responsestoconsultations/DH_077960.*
9. *Anderson S, Hastings G, Borland R, Fong GT, Hammond D, Cummings KM. Patterns of awareness of tobacco marketing across four countries: findings from the ITC 4-Country Survey. In: Fong GT, chair. Evaluating Tobacco Control Policies of the Framework Convention on Tobacco Control: findings from the International Tobacco Control Policy Evaluation Project. Symposium presented at the annual meeting of the Society of Research on Nicotine and Tobacco; 2005 Mar 20-23; Prague, Czech Republic.*
10. *Hammond D, Fong GT, McDonald PW, Brown KS, Cameron R. Graphic Canadian cigarette warning labels and adverse outcomes: evidence from Canadian smokers. Am J Public Health. 2004 Aug; 94(8): 1442-5.*
11. *Decreto nº 5.658, de 02 Jan 2006. Promulga a Convenção-Quadro sobre Controle do Uso do Tabaco, adotada pelos países membros da Organização Mundial de Saúde em 21 de maio de 2003 e assinada pelo Brasil em 16 de junho de 2003. [cited 2008 Jun 09]. Disponível em: http://www2.mre.gov.br/dai/m_5658_2006.htm.*
12. *Wakefield M, Letcher T. My pack is cuter than your pack. Tobacco Control. 2002 Jun;11(2):154-6.*
13. *Morris P. Phillip Morris cigarette marketing new perspective [document on the Internet]. Tobacco Documents Online; 1989 [cited 2008 Jun 09]. Disponível em: <http://tobaccodocuments.org/pm/2501057693-7719.html>.*
14. *Alechnowicz K, Chapman S. The Philippine tobacco industry: "The strongest tobacco lobby in Asia". Tobacco Control. 2004 Dec;13 (Suppl 2):S71-8.*
15. *Wakefield M, Morley C, Horan JK, Cummings KM. The cigarette pack as image: new evidence from tobacco industry documents. Tob Control. 2002 Mar;11(Suppl 1):S73-80.*
16. *Lewis MJ, Wackowski O. Dealing with an innovative industry: a look at flavored cigarettes promoted by mainstream brands. Am J Public Health. 2006 Feb;96(2):244-51.*
17. *Koten J. Tobacco marketers success formula: make cigarettes in smokers own image. The Wall Street Journal. 1980 Feb 29.*
18. *Cavalcante TM. Labelling and Packaging in Brazil. WHO Tobacco Control Papers. 2003 Jan 1 [cited 2008 Jun 09]. Disponível em: http://www.who.int/tobacco/training/success_stories/en/best_practices_brazil_labelling.pdf.*
19. *Burrows D. Strategic research report: young adult smokers – Strategies and opportunities [document on the Internet]. Tobacco Documents Online; 1984 [cited 2008 Jun 09]. Disponível em: <http://tobaccodocuments.org/youth/AmYoRJR19840217.Rm.html>.*
20. *Tobacco Freedom [Homepage on the Internet]. Understanding Why People Smoke [cited 2008 Jun 09]. Disponível em: <http://www.tobaccofreedom.org/issues/smoking/index.html>.*

21. Tobacco Free Kids [Homepage on the Internet]. [cited 2008 Jun 09]. Disponível em: <http://tobaccofreekids.org/reports/targeting/#ads>.
22. Anne Landman's Collection. Youth Cigarette - New Concepts [document on the Internet]. Tobacco Documents Online; 1972 [cited 2008 Jun 09]. Disponível em: <http://tobaccodocuments.org/landman/60.html>.
23. Wayne GF, Connolly GN. How cigarette design can affect youth initiation into smoking: camel cigarettes 1983-93. *Tobacco Control*. 2002 Mar; 11(Suppl 1): S32-9.
24. O'Connell V. MA tries to halt sales of new flavored cigarettes. *The Wall Street Journal*. 2004 May 20. [cited 2008 Jun 09]. Disponível em: <http://us-cigs.com/articles/index.php?id=79>.
25. Banning flavored cigarettes and cigars: frequently asked questions. Maine Coalition on Smoking or Health [homepage on the internet]. [cited 2008 Jun 09]. Disponível em: http://www.mainelung.org/Get/Advocacy/documents/FAQFlavors_000.pdf.
26. Souza Cruz [Homepage on the internet]. [cited 2008 Jun 09]. Disponível em: http://www.souzacruz.com.br/OneWeb/sites/SOU_5RRP92.nsf/vwPagesWebLive/80256DAD006376DD80256D870056B20C?opendocument&DTC=&SID=.
27. Chapman S, Carter SM. Avoid health warnings on all tobacco products for just as long as we can: a history of Australian tobacco industry efforts to avoid, delay and dilute health warnings on cigarettes. *Tob Control*. 2003 Dec;12 (Suppl 3):S13-22.
28. Suwwan L. Governo investiga "maquiagem" em maço de cigarro. *Folha Online [Jornal na Internet]*. 2002 Mar 30 [cited 2008 Jun 09]. Disponível em: <http://www1.folha.uol.com.br/folha/cotidiano/ult95u48500.shtm>.
29. Monteiro CA, Cavalcante TM, Moura EC, Claro RM, Szwarcwald CL. Population-based evidence of a strong decline in the prevalence of smokers in Brazil (1989-2003). *Bull World Health Organ*. 2007 Jul;85(7):527-34.
30. Ministério da Saúde. Secretaria de Vigilância em Saúde. *Vigilante Brasil 2006: vigilância de fatores de risco e proteção de doenças crônicas por inquérito telefônico [Monografia na Internet]*. Brasília: Ministério da Saúde; 2007 [cited 2008 Jun 09]. Disponível em: http://portal.saude.gov.br/portal/arquivos/pdf/relatorio_vigilante_2006_marco_2007.pdf.
31. Ministério da Saúde [Homepage on the Internet]. *Brasil é o primeiro a reduzir mortalidade por câncer. Secretaria de Vigilância em saúde* [cited 2004 Set 10]. Disponível em: http://portal.saude.gov.br/portal/aplicacoes/noticias/noticias_detalhe.cfm?co_seq_noticia=11273.
32. Iglesias R, Jha P, Pinto M, Silva VLC, Godinho J. *Controle do Tabagismo no Brasil*. Washington: Banco mundial; 2007 (Documento de discussão: saúde, nutrição e população). [cited 2008 Jun 09]. Disponível em: <http://portal.saude.gov.br/portal/arquivos/pdf/Controle%20do%20Tabagismo%20no%20Brasil.pdf>.
33. Decreto n.º 3.136, de 13 de agosto 1999. *Criou a Comissão Nacional para a preparação da participação do Brasil nas negociações internacionais com vistas à elaboração de Convenção-Quadro sobre controle do uso de tabaco, e dá outras providências*. [cited 2008 Jun 09]. Disponível em: http://www.planalto.gov.br/ccivil_03/decreto/D3136.htm.
34. Decreto n.º 3.136, de 1º de agosto de 2003. *Cria a Comissão Nacional para Implementação da Convenção-Quadro para o Controle do Tabaco e de seus Protocolos*. [cited 2008 Jun 09]. Disponível em: <http://www.planalto.gov.br/ccivil/DNN/2003/Dnn9944.htm>.
35. Opinião pública. *DataFolha*; 2002 Abr 21. [cited 2007 Dez 6]. Disponível em: http://datafolha.folha.uol.com.br/po/fumo_21042002.shtml.
36. Ministério da Saúde. Secretaria de Vigilância em Saúde. Instituto Nacional de Câncer. *Inquérito domiciliar sobre comportamentos de risco e morbidade referida de doenças e agravos não transmissíveis. Brasil, 15 capitais e Distrito Federal, 2002- 2003*. Rio de Janeiro: INCA; 2004.
37. Nascimento BEM, Oliveira L, Vieira AS, Joffily M, Gleiser S, Pereira M, et al. Eliciting avoidance to smoking: the impact of warning labels in Brazil. *Tob Control*. [Submetido]
38. Bradley MM, Lang PJ. Measuring emotion: the self-assessment manikin and the semantic differential. *J Behav Ther Exp Psychiatry*. 1994 Mar; 25(1): 49-59.
39. Bradley MM, Codispoti M, Cuthbert BN, Lang PJ. Emotion and motivation I: defensive and appetitive reactions in picture processing. *Emotion*. 2001 Sep;1(3):276-98.
40. *Biobehavioural Processes Underlying Dependence*. In: World Health Organization. *Neuroscience of psychoactive substance use and dependence*. Geneva: WHO; 2004.p.43-58.
41. Hammond D, Fong GT, McDonald PW, Cameron R, Brown KS. Impact of the graphic canadian warning labels on adult smoking behaviour. *Tob Control*. 2003 Dec;12(4):391-5.
42. Borland R. Tobacco health warnings and smoking-related cognitions and behaviours. *Addiction*. 1997 Nov;92(11):1427-35.
43. Hammond D, Fong GT, McDonald PW, Brown SK, Cameron R. *Graphic Canadian cigarette warning labels and adverse outcomes: evidence from Canadian smokers*. Ontario: University of Waterloo; 2004.
44. Borland R, Hill D. Initial impact of the new Australian tobacco health warnings on knowledge and beliefs. *Tobacco Control*. 1997 Winter;6:317-25.

45. Strahan EJ, White K, Fong GT, Fabrigar LR, Zanna MP, Cameron R. Enhancing the effectiveness of tobacco package warning labels: a social psychological perspective. *Tobacco Control*. 2002 Sep;11(3):183-90.
46. Spitz R, Gamba Jr N. Design e campanhas anti-tabagismo: as novas imagens e advertências a serem impressas nos maços de cigarro no Brasil. *Anais do 30º Congresso Internacional de Design da Informação*; 2007 Out 8-10; Curitiba, PR. Sociedade Brasileira de Design da Informação; 2007.
47. Due DL, Huettel SA, Hall WG, Rubin DC. Activation in mesolimbic and visuospatial neural circuits elicited by smoking cues: evidence from functional magnetic resonance imaging. *Am J Psychiatry*. 2002 Jun;159(6):954-60.
48. Field M, Mogg K, Bradley BP. Eye movements to smoking-related cues: effects of nicotine deprivation. *Psychopharmacology (Berl)*. 2004 Apr;173(1-2):116-23.
49. Azevedo TM, Volchan E, Imbiriba LA, Rodrigues EC, Oliveira JM, Oliveira LF, et al. A freezing-like posture to pictures of mutilation. *Psychophysiology*. 2005 May;42(3):255-60.
50. Facchinetti LD, Imbiriba LA, Azevedo TM, Vargas CD, Volchan E. Postural modulation induced by pictures depicting prosocial or dangerous contexts. *Neurosci Lett*. 2006 Dec;410(1):52-6.
51. Pereira MG, Volchan E, de Souza GG, Oliveira L, Campagnoli RR, Pinheiro WM, Pessoa L. Sustained and transient modulation of performance induced by emotional picture viewing. *Emotion*. 2006 Nov;6(4):622-34.

www.inca.gov.br



Ministério
da Saúde

