

Warnings for Cigarettes

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Health

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Outline

- How do warnings for cigarettes work?
- Evidence from research
- Implications for point of sale warnings

Naïve Model of Warning Effects



Warnings in Context

- Warnings for cigarettes are never delivered in a vacuum
- Advertising and promotion compete with warnings
- Over 50 years of heavy use in US has left a large proportion of smokers who continue to influence others to smoke
- Naïve model therefore not adequate

Risk Perceptions

- Our research in collaboration with Paul Slovic shows that risk perceptions for cigarettes influence likelihood of trial, subsequent progression, and quitting
- However, their influence is **only** effective if they arouse emotional reaction to the prospect of smoking



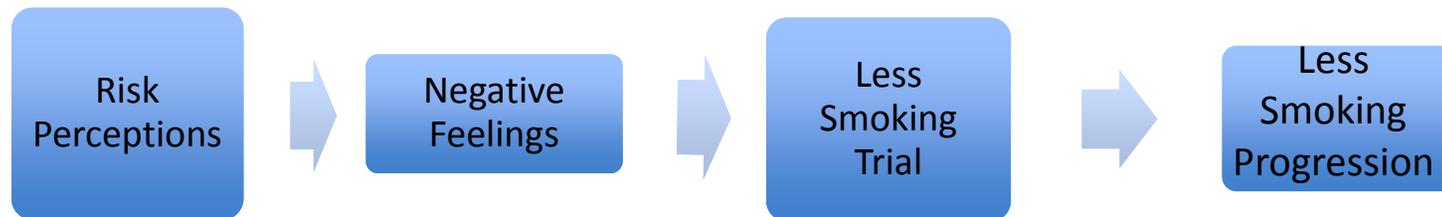
SMOKING

RISK, PERCEPTION, & POLICY

"This important book reveals why the young start smoking and why, as adults, they regret having started. It is a great contribution to helping end a national epidemic."
— Cheryl Heblson, Dr. PH., President / CEO, American Legacy Foundation

PAUL SLOVIC, EDITOR

Modified Model



How to Communicate Risk?

- Focus has thus been on how best to communicate risk so that warning is effective
- Canadians introduced pictorial warning labels for cigarettes in 2000
- Research surrounding this form of warning has been a focus

Pictorial Warnings

- Research has consistently shown that pictures that reinforce or emphasize the text in warnings are more effective than text alone
- In addition, explanatory text is helpful for communicating the risk and educating consumers about smoking effects

Canadian warning



WARNING
**CIGARETTES
CAUSE LUNG
CANCER**

Every cigarette you smoke increases
your chance of getting lung cancer.

Health Canada



WARNING

CIGARETTES ARE HIGHLY ADDICTIVE

**Studies have shown that tobacco can be
harder to quit than heroin or cocaine.**

Health Canada



WARNING

CHILDREN SEE CHILDREN DO

**Your children are twice as likely
to smoke if you do. Half of all
premature deaths among life-long
smokers result from tobacco use.**

Health Canada

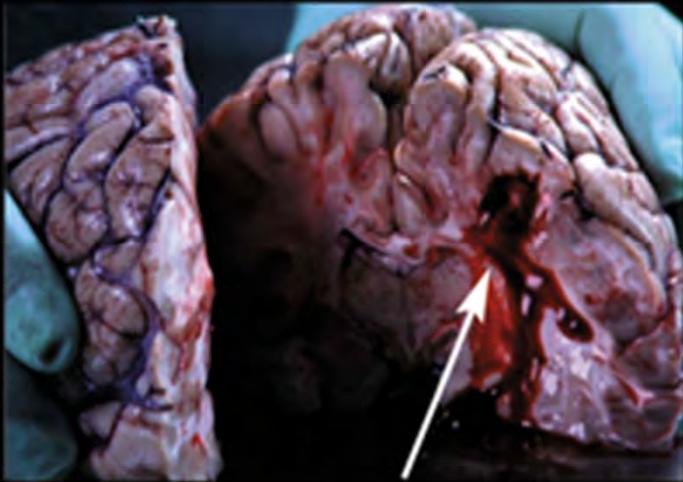


WARNING

CIGARETTES HURT BABIES

Tobacco use during pregnancy reduces the growth of babies during pregnancy. These smaller babies may not catch up in growth after birth and the risks of infant illness, disability and death are increased.

Health Canada



human brain with stroke

WARNING

CIGARETTES CAUSE STROKES

Tobacco smoke can cause the arteries in your brain to clog. This can block the blood vessels and cause a stroke. A stroke can cause disability and death.

Health Canada



WARNING

**TOBACCO USE
CAN MAKE YOU
IMPOTENT**

Cigarettes may cause sexual impotence due to decreased blood flow to the penis. This can prevent you from having an erection.

Health Canada

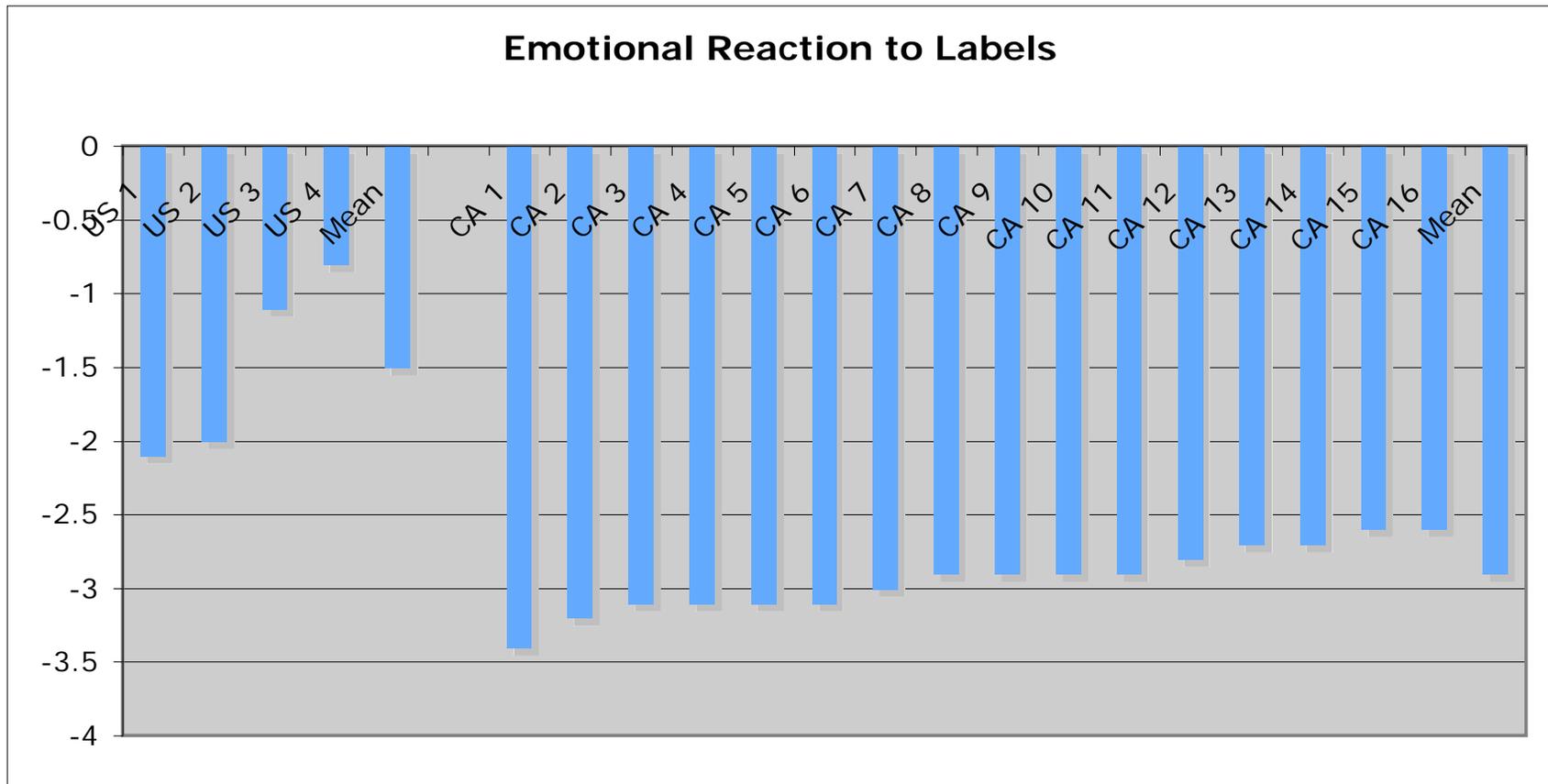
SURGEON GENERAL'S WARNING:
Smoking Causes Lung Cancer,
Heart Disease, Emphysema, and
May Complicate Pregnancy

Canadian Warning Study

- Conducted an experiment randomly exposing 86 smokers and 83 nonsmokers ages 18+ to either all 16 Canadian labels or all 4 US labels (4 times)
- Examined viewing time, reactions to the warnings, reactions to smoking cues following exposure, and images of smokers

• Peters, et al., 2007

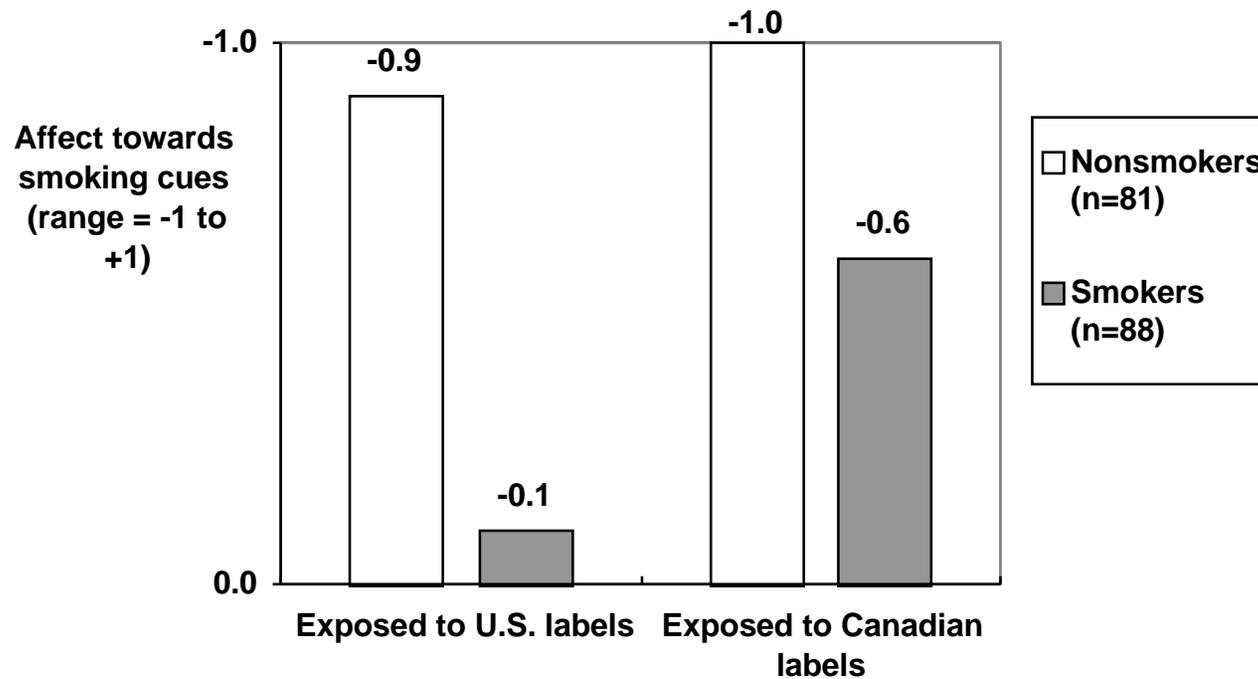
US vs. Canadian Labels







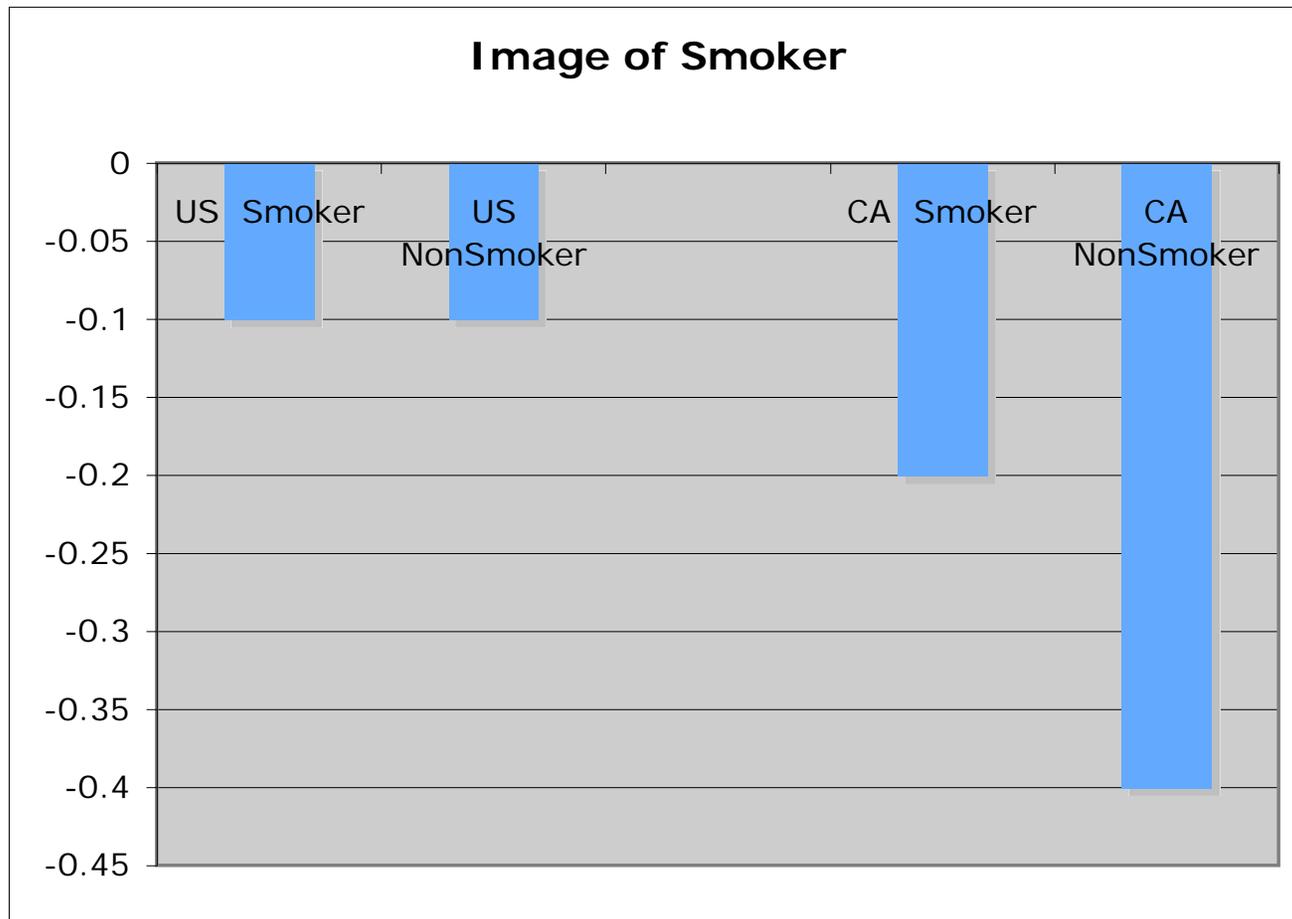
Reactions to Smoking Cues



Smoker Image

- In relation to point of purchase, we asked for impression of someone who bought a pack of cigarettes at the store along with other purchases

Smoker Image



Experience in Other Countries

- Research conducted elsewhere shows that warnings increase knowledge of risks
- Are helpful to smokers trying to quit
- Help to promote quit lines when they are included with warning

- Hammond et al., 2003, 2004; Borland et al. 2009

FDA Labels

- FDA proposed a set of nine images to go along with text warnings mandated by Congress
- But they did not include explanatory text in the warnings
- So, we tested the effects of adding that information in addition to picture
- Results on FDA comment site

- <http://www.regulations.gov/#!documentDetail;D=FDA-2010-N-0568-0638>

FDA Study

- Randomly assigned 150 smokers ages 18-24 and 150 smokers ages 25+ to each of 16 warning conditions (~5000 participants)
- Used same panel and procedure as FDA
- Contrasted (a) simple warning on side of pack with (b) pictorial warning on front and (c) elaborative text
- Assessed emotional reaction to smoking following exposure



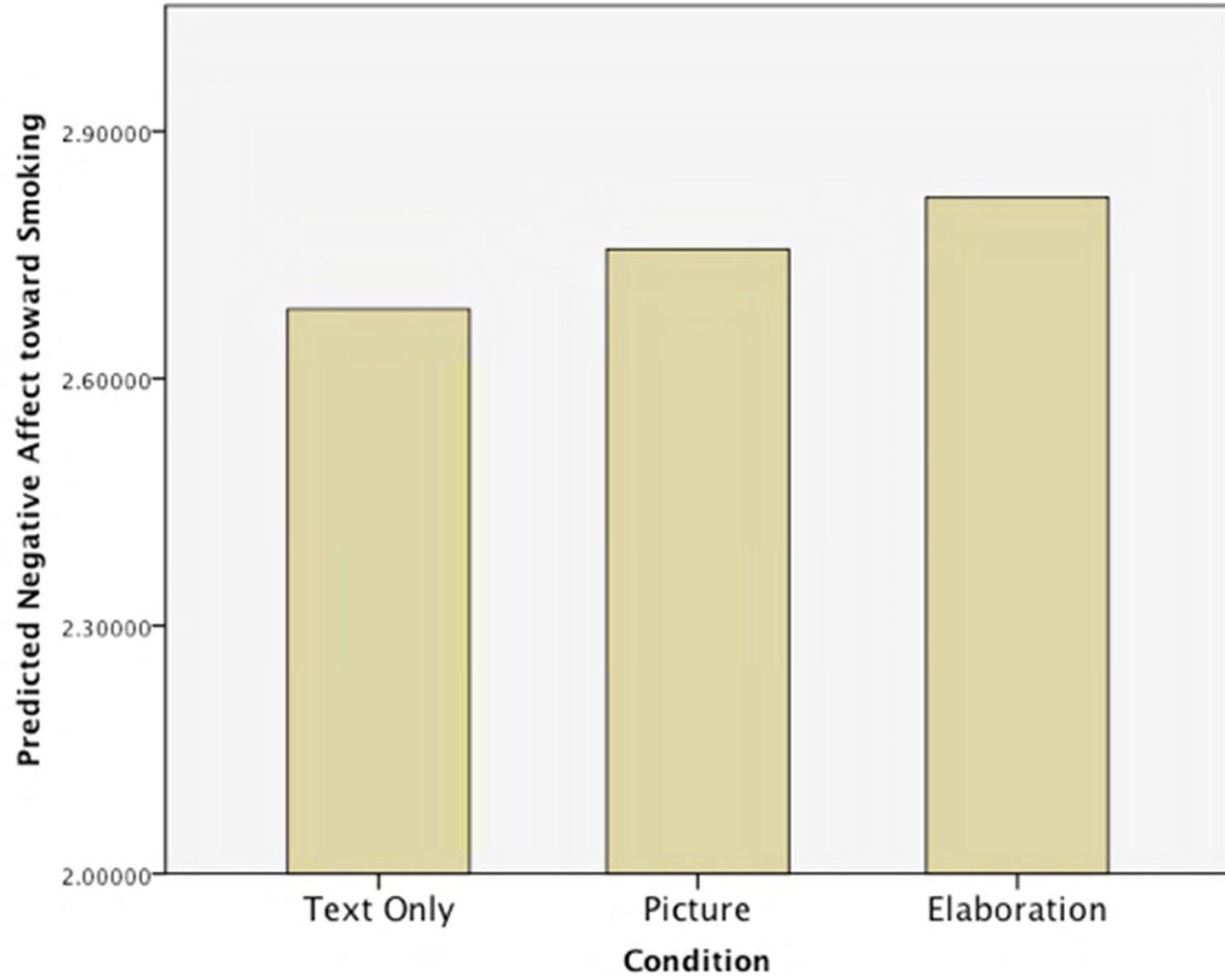
**WARNING: Smoking
during pregnancy can
harm your baby**



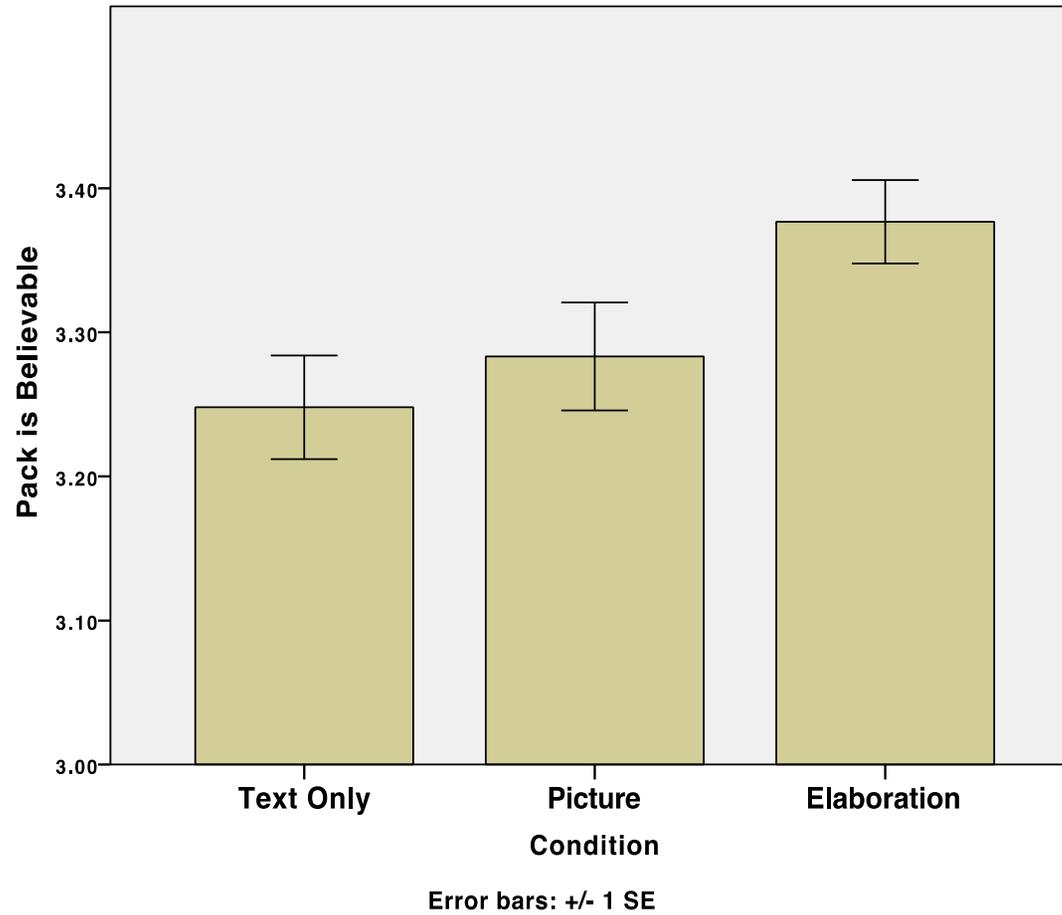


WARNING:
Cigarettes are addictive





Elaboration also makes the warning more credible



- Do pictures have to be gruesome?
- Apparently not. They just have to be consistent with the text and draw viewer's attention

1

2 **Marlboro
Lights**

3

4



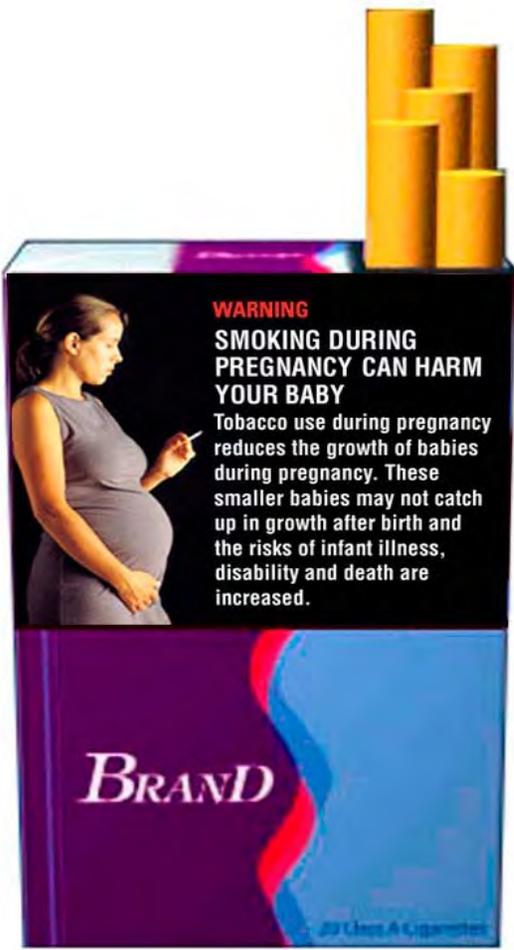
WARNING
**CIGARETTES
CAUSE LUNG
CANCER**

5

Every cigarette you smoke increases
your chance of getting lung cancer.

Health Canada

- Time to begin scanning the warning was faster in the pictorial condition
- Recall of the text was greater in the pictorial condition



A pack of cigarettes with a purple and blue design. The top features a black panel with a photograph of a pregnant woman in profile, wearing a grey dress, holding a lit cigarette. To the right of the image is a warning text block. The bottom of the pack has a purple background with a blue and red wavy graphic and the word "BRAND" in white script. At the very bottom, it says "20 Ultra A Cigarettes".

WARNING
SMOKING DURING PREGNANCY CAN HARM YOUR BABY
Tobacco use during pregnancy reduces the growth of babies during pregnancy. These smaller babies may not catch up in growth after birth and the risks of infant illness, disability and death are increased.

BRAND

20 Ultra A Cigarettes

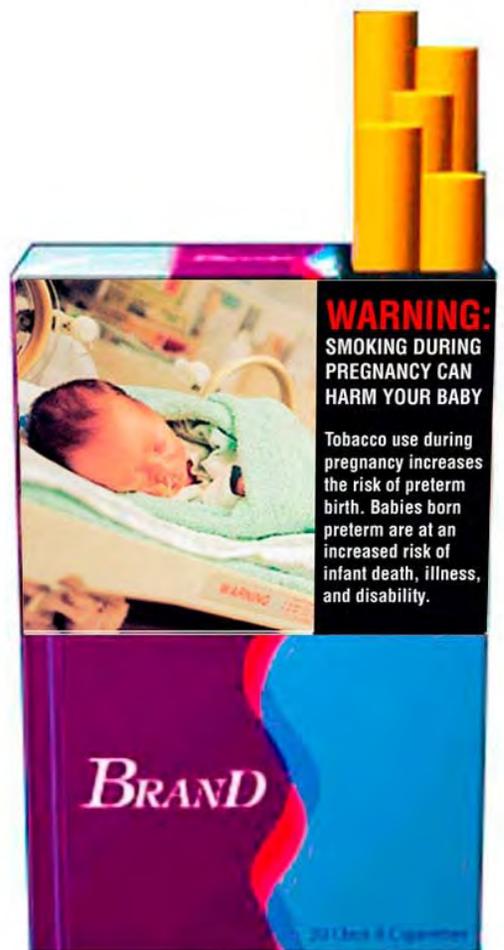


A pack of cigarettes with a purple and blue design. The top features a white panel with a warning text block. Below the text is a cartoon illustration of a baby lying in a hospital bed, crying with its mouth wide open. The bottom of the pack has a purple background with a blue and red wavy graphic and the word "BRAND" in white script. At the very bottom, it says "20 Ultra A Cigarettes".

WARNING! SMOKING DURING PREGNANCY CAN HARM YOUR BABY.

BRAND

20 Ultra A Cigarettes

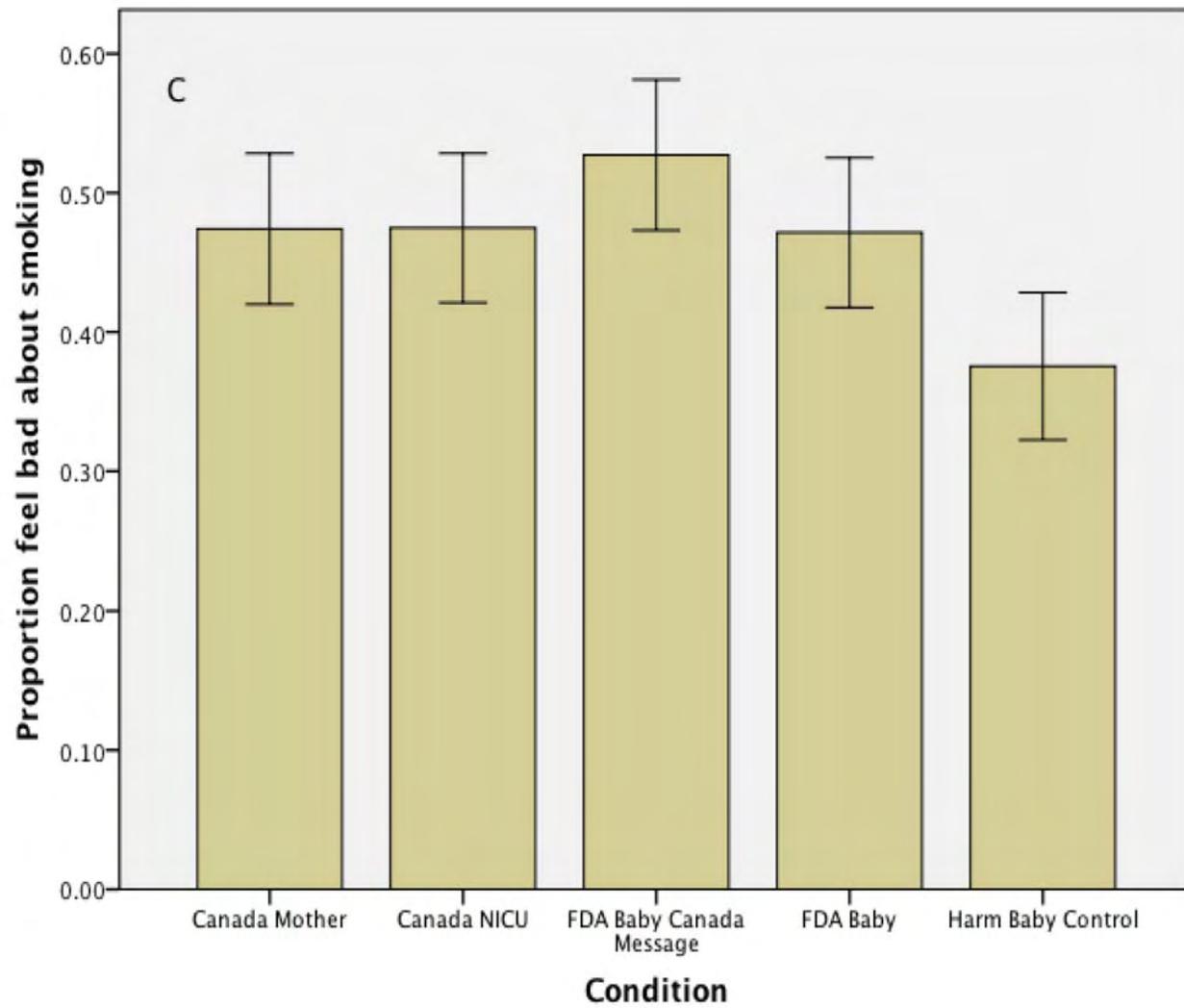


A pack of cigarettes with a purple and blue design. The top features a black panel with a photograph of a newborn baby lying in a hospital bed, wrapped in a green blanket. To the right of the image is a warning text block. The bottom of the pack has a purple background with a blue and red wavy graphic and the word "BRAND" in white script. At the very bottom, it says "20 Ultra A Cigarettes".

WARNING:
SMOKING DURING PREGNANCY CAN HARM YOUR BABY
Tobacco use during pregnancy increases the risk of preterm birth. Babies born preterm are at an increased risk of infant death, illness, and disability.

BRAND

20 Ultra A Cigarettes



Error bars: 95% CI

Point of Sale vs. Package Warnings

- Point of Sale may have ability to reach persons who don't currently use cigarettes and may discourage first purchase
- FDA warnings on cigarette advertising may not be visible at cash register
- So, point of sale can complement on-pack and advertising warnings to strengthen the message if done correctly

Conclusions

- Pictorial warnings more effective than text
- Elaboration can enhance the impact and make the message more credible
- Adding quit information can promote those services
- Point of sale warnings may be another way to reach consumers prior to purchase