

BACKGROUND

Studies demonstrate that large pictorial health warnings (PHWs) on **both sides of the pack** have greater impact than text-only warnings. For over a decade, **Brazil** has had 100% PHWs **but only on the back of pack**.

- In 2009, Brazil introduced dramatic fear-arousing PHWs on the back of pack.
- In 2016, Brazil finally added text-only warnings to 30% of the front of pack only

OBJECTIVES

- This study evaluated the 2009 and 2016 changes in warnings on key perceptual and behavioral indicators of warning impact among adult smokers.

METHODS AND MEASURES

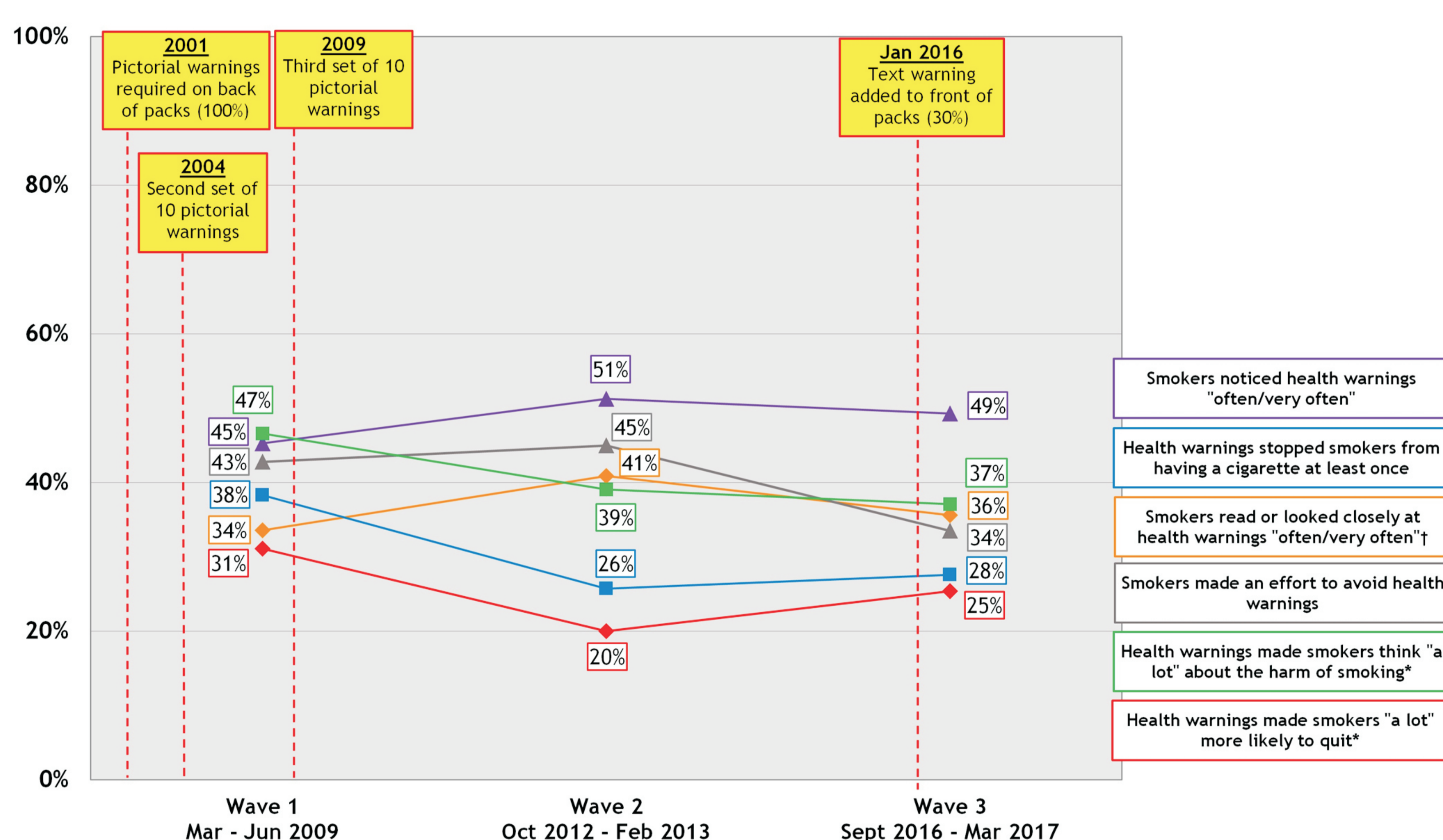
DESIGN: Data were analyzed from Waves 1-3 (2009-2016) of the International Tobacco Control (ITC) Brazil Survey, a longitudinal cohort survey of representative samples of adult smokers in Rio de Janeiro, São Paulo, and Porto Alegre (N=1,719).

MEASURES: Key outcomes were 6 validated indicators of warning impact. The 2009 PHWs revision was implemented 2 months after Wave 1 (2009) and 3 years before Wave 2 (2012-13). The 2016 warning revision (i.e., introducing text-only warnings to 30% of the front of pack only) was implemented 3 years after Wave 2 (2012-13) and 8 months before Wave 3 (2016-17).

ANALYSES: Pre-post evaluations of the two warning revisions were conducted by testing differences in the impact indicators across the three waves using GEE regression models, adjusting for sex, age, smoking status, and time-in-sample.

RESULTS: IMPACT OF THE HEALTH WARNINGS ON BRAZILIAN SMOKERS' PERCEPTIONS AND BEHAVIOUR

Figure 1. Impact of health warnings on smokers' cognitions and behaviours in the last 30 days, by wave



* These questions did not specify a time frame of 30 days.

† Only those respondents who said they noticed warnings at least "rarely" in the last 30 days were asked this question.

- ① If there had been no effect of the PHWs on the six measures, we would expect a significant decline in all measures because of the "wear-out" effect of the PHWs.
- ② **Between Wave 1 and 2, the two measures of salience (i.e., noticing and reading/looking closely) increased significantly, but the rest of the cognitive and behavioral measures did not change or decreased significantly.**
- ③ The revisions of the Brazil warnings were not strong enough to offset the "wear-out" effect: warning effectiveness decreases over time.
- ④ **Between Wave 2 and 3, after the addition of the text-only warning to 30% of the front of the pack and with no change on the PHWs on the back of the packs, there was little change or significant decline in the health warning effectiveness indicators.**
- ⑤ In other countries (e.g., Canada, Mauritius, Uruguay) that have made substantial revisions, all measures increased. This did not happen in Brazil indicating that the **Brazil revisions were not as strong as those in other countries.**

CONCLUSIONS AND IMPLICATIONS

- Introducing dramatic fear-arousing PHWs (2009) increased smokers' noticing and reading the warnings, but introducing text-only warnings (2016) to 30% of the front of the pack did not. Unlike in countries where warning revisions were strong enough to increase effectiveness (e.g., Canada, Mauritius, Uruguay), here in Brazil the revisions were barely strong enough to cancel out the "wear-out" effect. **These findings demonstrate the need for pictorial warnings on the FRONT of the pack and the importance of frequent warning revision, consistent with FCTC Article 11 Guidelines.**