

# The impact of plain packaging and health warnings on consumer appeal of cannabis products

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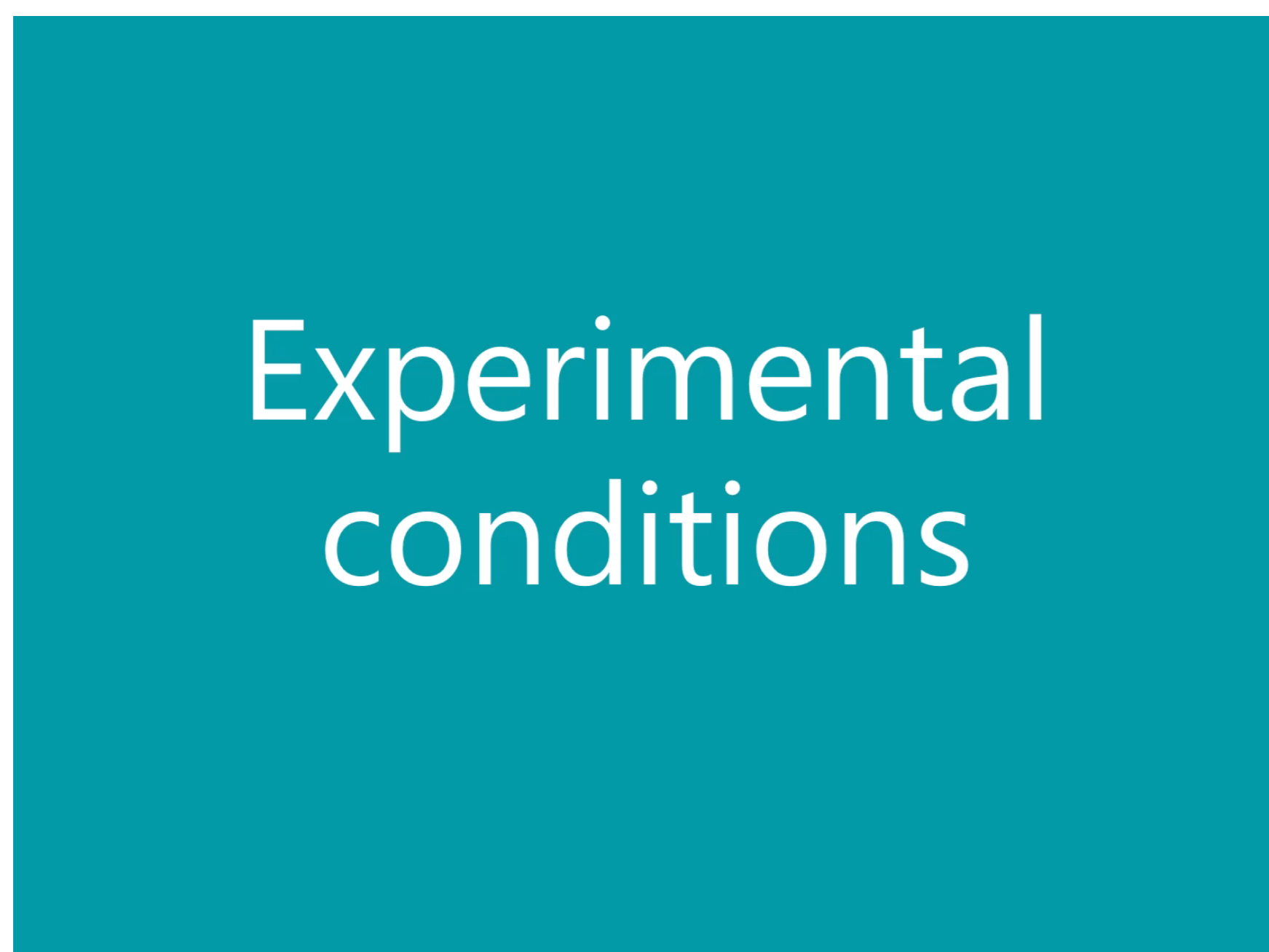
## BACKGROUND

Canada was the first jurisdiction to implement 'plain' packaging regulations and rotating health warnings for cannabis products upon legalizing non-medical cannabis in October 2018. Plain packaging and health warnings are effective policy measures for reducing appeal of tobacco products; however, there is little evidence for cannabis.

## METHODS

An experimental task was conducted as part of the online International Cannabis Policy Study, recruited from the Nielsen Consumer Panel. Participants from Canada and the USA (n=27,045, aged 16-65) were randomized to see 1 of 18 cannabis products. Outcomes were product appeal and perceived 'youth orientation'.

A 3 (branding) x 2 (health warnings) x 3 (product type) design was used. Linear and logistic regression models were used to test the influence of branding, health warning and product type on product appeal and youth orientation, respectively. Models were adjusted for sex, age, ethnicity, education level, jurisdiction and cannabis use.



### SAMPLE CHARACTERISTICS\* (N=27,045)

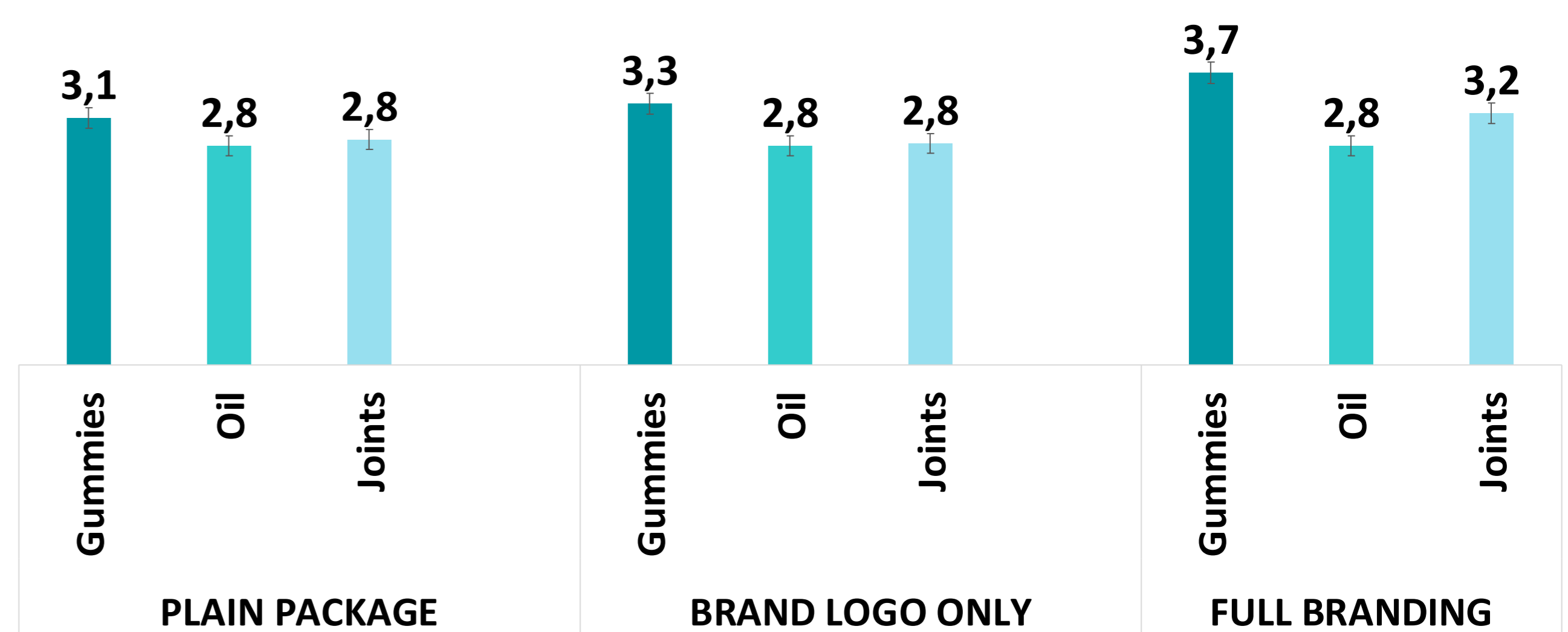
Characteristic	n (%)
<b>Sex</b>	
Female	16,631 (61.5%)
Male	10,414 (38.5%)
<b>Age group</b>	
16-18	2,821 (10.4%)
19-35	5,417 (20.0%)
36-50	6,760 (25.0%)
51-65	12,047 (44.5%)
<b>Ethnicity</b>	
White	22,744 (84.1%)
Other/Mixed/Unstated	4,301 (15.9%)
<b>Education</b>	
Less than high school	2,875 (10.6%)
High school diploma or equivalent	4,113 (15.2%)
Some college or technical training	9,747 (36.0%)
Bachelor's degree or higher	10,310 (38.1%)
<b>Jurisdiction</b>	
Canada	9,987 (36.9%)
US 'illegal' states	9,682 (35.8%)
US 'legal' states	7,376 (27.3%)
<b>Cannabis use status</b>	
Never user	11,208 (41.4%)
Used >12 months ago	9,113 (33.7%)
Past 12-month user	2,252 (8.3%)
At least monthly user	1,260 (4.7%)
At least weekly user	1,117 (4.1%)
Daily/almost daily user	2,095 (7.7%)

\*No significant differences in demographics found between the 18 experimental conditions (p>0.05 for all).

## RESULTS

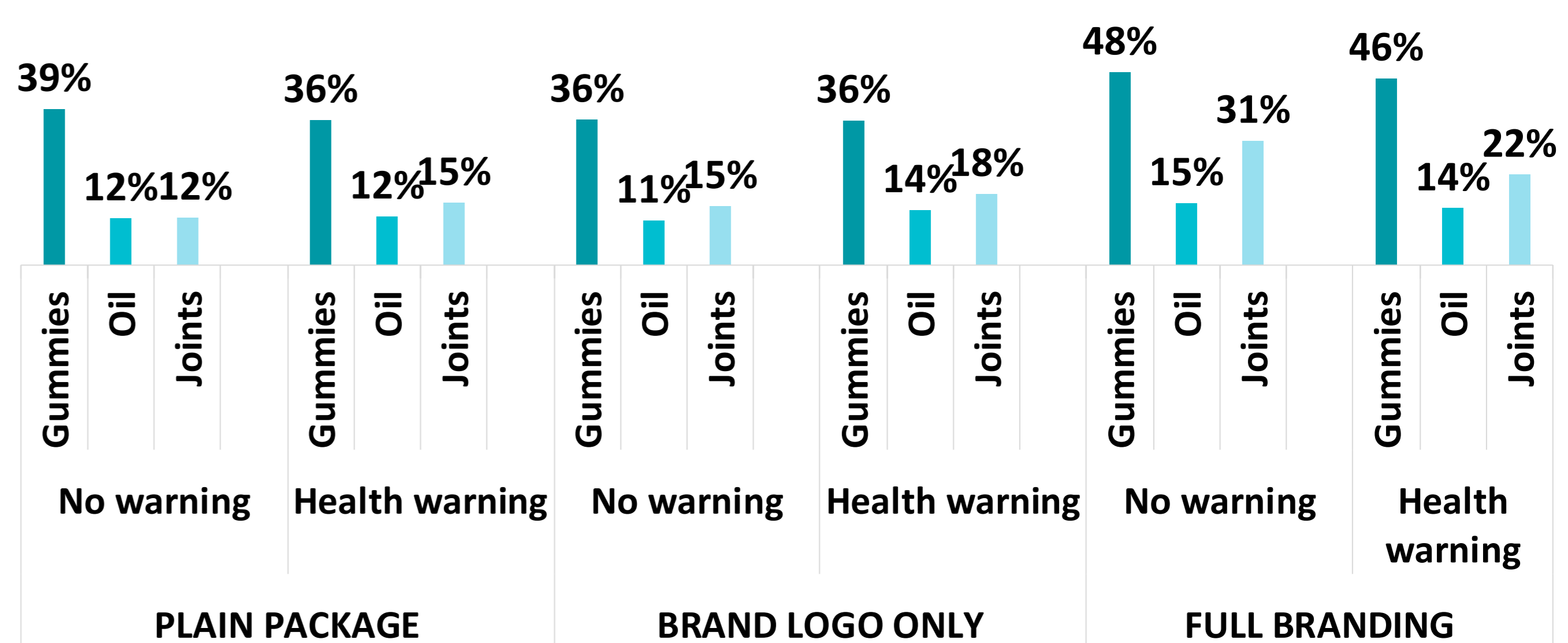
### "How appealing would this marijuana product be to try?"

Mean appeal rating (0=Not at all appealing; 10=Very appealing)



### "In your opinion, what age group would be most likely to try this product?"

% selecting 12-18-year-olds



## FINDINGS

Compared to those with plain packaging or a brand logo only, fully branded packages were considered more appealing (p<0.001) and more likely to be youth-oriented (p<0.001).

Products with health warnings were perceived as less appealing than packages without warnings (p<0.001).

Compared to pre-rolled joints and cannabis oil, edible gummies were perceived as more appealing (p<0.001) and more likely to be considered youth-oriented (p<0.001).

Edible gummies were rated as significantly more appealing by 16-18 and 19-35-year-olds than by older adults (p<0.05).

## CONCLUSIONS

Comprehensive health warnings and 'plain packaging' regulations may reduce the appeal of cannabis products in a legal market. The results provide evidence that edible cannabis products are more appealing to young people.

## DISCLOSURES

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