

# How Information about the FDA's Tobacco Regulatory Mission May Improve

## Public Perceptions of FDA

tobacco prevention and evaluation program



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### Background

- The Food and Drug Administration (FDA) now has regulatory authority over *all* tobacco products, including manufacturing, advertising, and sales.
- The credibility of the FDA is likely related to its long-term success in its regulatory and communication roles.
- It is unknown whether efforts to increase the public's knowledge of FDA's regulatory roles may improve perceptions of FDA credibility.
- This research explores the impact of 3 types of information that characterize FDA regulatory mission on knowledge and credibility perceptions the FDA.



### Methods

- 2x2x2 between subject design.
- Resulted in 8 experimental conditions (n=214-231 per condition) including a control condition that did not view the information.

		Protective function of regulations	
		Yes	No
FDA roles	Yes	<b>Scientific basis of regulations</b> Yes 1. The Food and Drug Administration (FDA) regulates the manufacture, marketing, and distribution of tobacco to safeguard people's health. FDA regulations are based on scientific evidence, and are designed to protect Americans from the activities of the tobacco industry.	No 2. The Food and Drug Administration (FDA) regulates the manufacture, marketing, and distribution of tobacco to safeguard people's health. FDA regulations are based on scientific evidence.
	No	No 3. The Food and Drug Administration (FDA) regulates the manufacture, marketing, and distribution of tobacco to safeguard people's health. FDA regulations are designed to protect Americans from the activities of the tobacco industry.	Yes 4. The Food and Drug Administration (FDA) regulates the manufacture, marketing, and distribution of tobacco to safeguard people's health.
Scientific basis of regulations	Yes	Yes 5. Regulations of the Food and Drug Administration (FDA) are based on scientific evidence, and are designed to protect Americans from the activities of the tobacco industry.	No 6. Regulations of the Food and Drug Administration (FDA) are based on scientific evidence.
	No	No 7. Regulations of the Food and Drug Administration (FDA) are designed to protect Americans from the activities of the tobacco industry.	Yes 8. None (Control condition)

### Methods

#### Experimental Manipulations

- Participants randomly assigned to view a message that varied three types of information on:
  - Information on FDA roles in regulating tobacco:  
**"The FDA regulates the manufacture, marketing, and distribution of tobacco to safeguard people's health".**
  - Information on scientific basis of FDA regulations:  
**"FDA regulations are based on scientific evidence".**
  - Information on the protective function of FDA regulations:  
**"FDA regulations are designed to protect Americans from the activities of the tobacco industry".**

#### Sample

- Data collected via Amazon Mechanical Turk.
- Participants: 1770 adults (n=864 smokers, n=906 non-smokers), aged 18 or older.
- Current smokers = have smoked ≥100 cigarettes in lifetime and smoked every or some days in the past 30 days.

#### Measures

- Credibility of FDA as a tobacco regulator (15 items, alpha .93).
- Perceived knowledge of FDA's roles in regulating tobacco (3 items, alpha .77).
- Attitudes toward FDA tobacco regulations (3 items, alpha .84).
- Views towards the tobacco industry (10 items, alpha .88).
- Sociodemographic and smoking related variables.

#### Statistical analysis

- Four-way factorial ANOVAs with smoking status (smoker vs. non smoker) as the forth factor.
- Examined main and interactive effects of the 3 types of information and smoking status.

Table 1. Sample Characteristics, n=1770	% or mean (SD)
<b>Smoking status</b>	
Smoker	49
<b>Age (18-98)</b>	35 (11.9)
<b>Sex</b>	
Male	50
<b>Hispanic ethnicity</b>	
Yes	6
<b>Race</b>	
White	83
African American	6
Asian	8
Other	3
<b>Education</b>	
High school or less	10
Some College or associate degree	36
Bachelor's degree or higher	54
<b>Annual household income</b>	
Below \$25,000	19
\$25,000 - \$49,999	30
\$50,000 - \$74,999	25
\$75,000 or higher	25

Table 2. Distribution of outcomes in sample	Mean (SD)
FDA credibility (0-15)	10.0 (2.9)
Perceived knowledge of FDA roles (0-3)	1.1 (0.6)
View of the tobacco industry (0-10)	7.1 (1.9)
Attitudes toward FDA tobacco regulations (0-3)	2.3 (0.6)

### Summary of main findings

- No statistically significant interactions were observed.
- Providing information on FDA roles increased credibility of FDA and perceived knowledge of FDA mission.
- Providing information on the scientific basis of FDA regulations lead to more negative view of the tobacco industry.
- Providing information on the protective function of FDA regulations increased credibility of FDA and lead to stronger positive attitudes toward FDA regulations.

Table 3. Impact of Information Exposure on Outcomes

	Information about FDA role in regulating tobacco		Information about scientific basis of FDA regulations		Information about protective function of FDA regulations	
	Presented	Control	Presented	Control	Presented	Control
<b>Credibility of FDA<sup>a</sup></b>	10.28 (0.09)	9.77 (0.10)***	10.02 (0.09)	10.03 (0.10)	10.18 (0.09)	9.87 (0.10)*
<b>Perceived knowledge of FDA<sup>a</sup></b>	1.21 (0.02)	1.05 (0.02)***	1.14 (0.02)	1.12 (0.02)	1.15 (0.02)	1.11 (0.02)
<b>Attitudes toward FDA regulations<sup>a</sup></b>	2.31 (0.02)	2.26 (0.02)	2.28 (0.02)	2.28 (0.02)	2.33 (0.02)	2.24 (0.02)**
<b>View of the tobacco industry<sup>b</sup></b>	7.08 (0.06)	7.10 (0.06)	7.20 (0.06)	6.98 (0.06)*	7.16 (0.06)	7.02 (0.06)

Note. Values are means (SE). \* p < .05, \*\* p < .01, \*\*\* p < .001.

<sup>a</sup> higher number indicate higher credibility, higher perceived knowledge, and stronger positive attitudes toward tobacco regulations.

<sup>b</sup> higher numbers indicate stronger negative views of the tobacco industry.

### Discussion

- Disseminating information that clarifies the FDA's role, the scientific basis of FDA regulations, and the FDA's protective function each have a positive impact on public perceptions of the FDA and the agency's tobacco-related regulations.
- This study highlights key ways to characterize FDA CTP's tobacco regulatory mission, which the FDA can use to improve its credibility as a source for tobacco communications and regulations.

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