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## CPSC Staff's<sup>1</sup> Statement on Fors Marsh Group's "Toy and Product Warning Label Survey Findings"

The attached report, titled, "Toy and Product Warning Label Survey Findings," presents the findings of research conducted by Fors Marsh Group (FMG), for CPSC, under Contract CPSC-D-16-0002, task orders 61320619F1011, 61320620F1007, and 61320621F1008.

CPSC staff contracted with FMG to conduct a multiphase, mixed-methods study to understand buyers' awareness of, and engagement with, the presence, content, and placement of warning labels and other safety information when reviewing or purchasing toys or other household items. In addition, the study was designed to assist staff in developing guidelines and best practices for the design and placement of warning labels for products sold online. In Phase 1, FMG conducted an environmental scan (systematic review of multiple websites to gather key information) and content analysis of warning labels and safety information to investigate industry best practices for warning labels and safety information for consumers when shopping for toys and household products that may be hazardous to children. FMG also made in-store observations to assess consumer engagement with, and potential influence by, safety information when reviewing a toy or product's physical packaging for purchasing. In Phase 2, FMG conducted virtual In-depth Interviews (IDIs) with consumers who had purchased a toy for a 3- to 6-year-old in the last 6 months to explore the consumer online shopping search and decision-making process. The contractor also developed experimental mock-ups of webpages; conducted a second set of virtual IDIs to test responses to the multiple experimental conditions (control condition-existing design and location; existing design and new location; new design and existing location); and finally, conducted an online survey to quantify the most important features in purchasing decisions. Based on the findings, FMG developed a set of evidence-based recommendations for the placement and design of warning labels on products sold online.

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<sup>1</sup> This statement was prepared by the CPSC staff, and the attached report was prepared by Fors Marsh Group, for CPSC staff. The summary and report have not been reviewed or approved by, and do not necessarily represent the views of, the Commission. In no case does the identification of particular equipment or materials imply a recommendation or endorsement by CPSC staff, nor does it imply that the materials, instruments, or equipment are necessarily the best available for the purpose.

# Toy and Product Warning Label Survey Findings



Fors Marsh Group

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## Executive Summary

### Overall Scope of the Study

#### Purpose

Given the increase in online shopping, consumers are exposed to warnings or other safety information on product packaging only after they receive the delivery of the product, as opposed to while making a purchasing decision in a brick-and-mortar store. The Consumer Product Safety Commission (CPSC) staff has been interested in evidence-based recommendations for the placement, type, content, and design of online warning labels to inform consumers on potential safety risks, and develop best practices for online sellers. On behalf of CPSC, Fors Marsh Group (FMG) conducted a multiphase, mixed-methods study to understand buyers’ awareness of and engagement with the presence, content, and placement of warning labels and other safety information when reviewing or purchasing toys or other household items and develop guidelines and best practices for the design and placement of warning labels on e-commerce sites.

The primary purpose of this report is to summarize the findings from the final round of Phase 2 data collection, a survey with 750 primary caregivers. However, each round of data collection and phase of research built off the findings of the previous effort. Therefore, below we summarize the methods and findings from the Phase 1 environmental scan and intercept interviews and the Phase 2 Round 1 and Round 2 in-depth interviews (IDIs).

#### Methodology

**Phase 1 Research:** FMG conducted an environmental scan and content analysis of warning labels and safety information on e-commerce sites to investigate industry best practices for warning labels and safety information when shopping for toys and household products that may be hazardous to children. FMG also conducted in-store observations to assess consumer engagement with and potential influence by safety information when reviewing the toy or product’s physical packaging for purchasing.

*Phase 2 Research:* FMG (1) conducted virtual IDIs with consumers who had purchased a toy for a 3-6-year-old in the last six months to explore consumer online shopping search and decision-making process, (2) developed experimental mock-ups of webpages after the first round of testing incorporating changes in safety and warning information based on earlier research findings; (3) conducted a second set of virtual IDIs to test responses to the multiple experimental conditions (including a control) of mockup stimulus with eye tracking, (4) conducted an online survey to quantify the most impactful features in purchasing decision.

## Summary of Findings from the Phase 1 Research

### Phase 1 Results

FMG analysts compiled information about the placement, content, and format of warning labels and safety information available on 28 e-commerce sites selling toy and non-toy household items. Placement and content of warning labels and safety information varied greatly by website. The most common toy safety information available on tested sites was the intended consumer age. For non-toy items, however, intended consumer age information was rarely found. Tested websites displayed either safety or warning information for fewer than half of selected non-toy items.

Subsequently, FMG analysts conducted 16 in-store intercept interviews at a local toy store with parents of children ages three to six. Interviewers showed parents a package of Building Blocks and a package of corded blinds and asked a series of questions to gauge parental engagement with product safety information. For the Building Blocks, participants reported that they primarily used the product packaging to determine the price and appropriateness for their child. Parents noted that they did not read the safety information, attributing this to their familiarity with Building Blocks. When directed to the safety information, participants stated that it was concise, well-written, and attention-grabbing. For the corded blinds, participants were primarily interested in the brand, the sturdiness of the blinds, and the price. Similar to their responses to the Building Blocks, many participants stated that reading the safety information was not a priority to them. However, most participants reported being familiar with corded blinds strangulation hazards and did not intend to purchase them for their home. After being directed to the safety information, participants stated that the messaging was clear and concise.

Most participants agreed that warning label placement on the packages was suitable and the images and wording were clear, concise, and effective. Most participants knew where to find the warning label, could find it on the packages, and accurately understood the main message of the warning label. The most common suggestion provided by participants to improve the utility of the labels was to make them stand out as much as possible: use color, larger font, or bullet points to highlight the most important words or phrases.

## Phase 1 Conclusions

As the online retail space for toy and non-toy items continues to grow, it is critical to provide best practices for presenting safety information online. The first step to that is understanding how safety information is currently presented online. It is also important to understand generally how parents interact with the safety information they are most familiar with seeing – warning labels on physical packages. Findings across both Phase 1 studies showed variety in how safety information for toy and non-toy products are presented both online and on physical packages. Results also showed that parents who consider themselves very familiar with the product and its potential hazards are less likely to interact with the safety information or search for it. Notably, this was true for both products that participants considered safe (Building Blocks) and dangerous (corded blinds).

## Phase 2 Summary of Findings

In Phase 2, FMG conducted three rounds of data collection:

- Round 1 IDIs: Twelve primary caregivers of 3-6 year old children.
- Round 2 IDIs: Twenty-four primary caregivers of 3-6 year old children.
- Survey with 750 primary caregivers of 2-3 year old children.

## Summary of Findings from Rounds 1 and 2 IDIs

### *Round 1 IDIs.*

Twelve primary caregivers of young children viewed identical products on three different e-commerce web pages (Toy Manufacturer and Retailer, Retailer #1, and Retailer #2). The warning label design and placement varied across web pages, but the content was the same. The moderator used a guided “think aloud” procedure to help participants convey their thoughts. Then the moderator asked pointed questions about their experience with the web page and the warning label. The order in which participants viewed the web pages varied by participant to account for ordering effects. Based on the Round 1 IDI findings, FMG provided best practice recommendations for the warning labels, including that warning labels should be:

- Consistently located such that they are placed and formatted similarly across all consumer-facing web pages
- Immediately visible such that they are placed above the fold (i.e., the portion of the page that people can view without scrolling down) and not embedded behind a button.
- Offset from the text by having the warning labels surrounded by white space and not embedded inside other text.
- Easier to find. Examples of how to make the warning labels easier to find included enclosing the warning label in a box, adding a warning symbol, using font that is large, boldfacing key words, and making some text or images a different color.

- Easier to understand. Participants requested content changes that would help them understand which pieces of the toy are a choking hazard and under what circumstances the toy is the riskiest.

Based on findings from the Round 1 IDIs and current user experience (UX) best practices, we manipulated the placement and the design of the warning labels on an image of an Retailer #2 web page for a toy. For the placement, we moved the warning label above the fold of the web page. For the design, our changes included:

- Accompanying the text with a safety alert symbol (i.e., a triangle with an inlaid exclamation point).
- Changing the text color so it was different than the main text of the web page (e.g., warning label in red if main text of web page was black).
- Using a larger font size than the text around the warning label on the web page.
- Enclosing the warning label in a box.
- Editing the design to align with the American National Standards Institute (ANSI) Z53.1 Safety Color Code per CPSC's request.

### *Round 2 IDIs.*

Twenty-four primary caregivers of young children viewed three versions of a warning label indicating a choking hazard for the same toy on Retailer #2 web page in random order. These versions were:

- *New Location*—A warning label with its original design but moved above the fold.
- *New Design*—A warning label in its original location but with an alternative design to increase noticeability.
- *Control*—A control condition in which the warning label maintained its original look and location.

Virtual eye-tracking and interview data were captured to understand which version of the web page: (1) was viewed by the most participants, (2) allowed participants to find the warning label the easiest, and (3) most impacted the primary caregivers' attitudes and intentions regarding purchasing the toy for their young children.

Findings showed that the warning label in the *New Location* condition did the best. Every participant saw it (compared to 67% of participants who saw the *New Design* condition and 56% of participants who saw the *Control* condition), and it took participants only 6.89 seconds to find it (compared to 11.57 seconds for *the New Design* condition and 11.55 seconds for the *Control* condition). Interview findings also show that compared to the other conditions, the *New Location* condition garnered the most attention, was easiest to find, was rated the favorite, was rated as the condition that most effectively communicated the risks associated with the toy for young children, and increased perceived transparency and trust

in the manufacturer. Participants also said that the *New Design* condition was more noticeable than the *Control* condition, and participants said they liked the vibrant colors and larger design more than the *Control* condition.

### Current Study: Survey

The survey was designed with the following findings from earlier study activities, which identified that:

- The *New Location* warning label was the easiest to find and was noticed the quickest. Participants also said it made them think the most about potential risks of the toy compared to either of the other conditions.
- Participants also said they liked the *New Design* condition more than the *Control* and were able to find it quicker than the *Control* condition.
- In the Round 2 IDIs, participants said that they would most prefer a warning label that incorporates a smaller version of the *New Design* Condition and is located above the fold.
- It is not known whether a warning label with both an updated design and an updated location would be significantly more noticeable and associated with increased risk perceptions than a warning label with a new location only.

### Survey Purpose

The survey results build on earlier findings and aim to help CPSC staff provide evidence-based and audience-centered safety warning recommendations to online sellers about where to place warnings for products that could pose a safety risk for young children. Findings from the IDIs and this survey can also be generalized for warning labels for other types of products aimed at getting primary caregivers' attention.

The survey took participants approximately 10 minutes to complete and used a sample of 753 primary caregivers of children ages 2 to 3 years old across the United States from March 2, 2022, to March 17, 2022. We employed a between-subjects design where participants were randomly assigned to view one of three warning label conditions. Sixty-four percent of the participants identified as female, 67% described themselves as White, and 66% said they hold a bachelor's degree or higher. Participants were given a \$4 incentive upon completion of the survey.

For this round, FMG designed a new warning label that was intended to be more eye-catching than the two conditions tested in Round 2 IDIs. The new warning label used the same design elements from the *New Design* condition from the Round 2 IDIs but also moved the warning label above the fold. Thus, it was a combination of the *New Design* and *New Location* conditions from the Round 2 IDIs. Respondents were shown one of three warning label conditions to help determine which features of the warning label and which location on a website are most compelling. The three conditions were:



- *Control*—Original design and original location, same condition as the Round 2 IDIs.
- *New Location Only*— Original design and new location, same condition as the Round 2 IDIs.
- *New Design, New Location*— New design and new location, this condition was new and developed specifically for this survey.

### *Key Survey Findings*

- Participants in the *New Design, New Location* condition were significantly more likely to say they saw the warning label compared to participants in either of the other conditions.
- Participants in the *Control* condition were significantly more likely to indicate they had to scroll to see the warning label compared to participants who saw the other warning label conditions.
- Participants in the *New Design, New Location* condition were significantly less likely to agree they would keep the toy if it were gifted to them compared to participants who saw the other two conditions.
- Participants who saw the warning label presented in the new location (i.e., *New Location Only* condition and *New Design, New Location* condition) were more likely to indicate that the warning label grabbed their attention compared to participants who saw the *Control* condition.
- Participants in the *New Design, New Location* condition were significantly more likely to indicate that the warning label was easier to read compared to participants in other two conditions.

### *Overall Recommendations for Improving Warning Labels*

- *Warning labels should appear above the fold so that scrolling is not required to see the warning information.* Recommending all warning information appear above the fold will also improve consistency across web pages, further helping primary caregivers find the necessary safety information. Findings show that when warning information was placed above the fold, all participants saw it and they rated it as significantly easier to find and attention-grabbing compared to the control condition.
- *Warning information should be offset from the text.* Participants tended to skim the text, making it easy to ignore warning information embedded within other content. We recommend all warning information should be surrounded by white space and offset from any other content.
- *Warning labels should not be embedded behind a button so that they are immediately visible and require minimal user effort.* In Round 1 IDIs, participants had substantial difficulty finding the warning label on Retailer #1’s web page because it was not visible unless they clicked a “See More” button. None of the participants clicked the button without prompting from the moderator.

- *Warning labels should be enclosed in a box.* This will help offset the warning label from any nearby text and make it easier to find.
- *Warning labels should include a large symbol.* Participants indicated that a warning symbol drew their eye and helped them quickly assess that it was warning information that they should read.
- *Warning labels should include content that is larger, bolder, and in a different color than the other text.* These style features make the warning information easier to find and more likely to be noticed.

## Background

According to CPSC data, emergency departments across the United States treated approximately 224,200 toy-related injuries in 2019, of which 35% were cases involving children younger than 5 years old (Qin, 2020). Age-appropriate toy selection using safety-related information has the potential to prevent some of these injuries (Argo & Main, 2004). Research suggests that primary caregivers may not notice or seek out safety information or rely on it when making purchasing decisions when examining packages for toy and non-toy products in person (Argo & Main, 2004).

This challenge is further compounded because consumers, including primary caregivers, are more frequently purchasing toy and non-toy products on e-commerce web pages and, therefore, not interacting with the physical packaging until the products arrive at their house. Gaps in the literature remain on how primary caregivers of young children interact with online safety-related information when purchasing items via the internet.

Currently, there are no best practices or guidance for online retailers to present warning labels indicating that a toy or non-toy product is a choking hazard. Therefore, several factors such as the lack of or inconsistent age grading on products for children, inadequate or inappropriate product descriptions or product images, an unclear audience for the product, and a lack of warnings about the product's potential safety hazards, may impact whether consumers are well informed about the potential risks to young children. Thus, the Consumer Product Safety Commission (CPSC) is interested in evidence-backed recommendations for the placement, type, content, and design of online warning labels to inform consumers on potential safety risks and develop best practices for online sellers.

On behalf of CPSC, Fors Marsh Group (FMG) conducted a multiphase, mixed-methods study to understand buyers' awareness of and engagement with the presence, content, and placement of warning labels and other safety information when reviewing or purchasing toys or other household items. The study also aims to test the impact of improvements to the warning labels' design and location. Phase 1 research examines how safety information for toy and non-toy products that pose a safety risk to young children are presented on e-commerce web pages and how consumers interact with safety information for toy and non-toy products when it is presented on the product's physical packaging. Phase 2 identifies and tests best practices for presenting warning information online for one toy, with the goal of developing recommendations that can be generalized to other toys and household products that pose a safety hazard for young children.

## Previous Research

### Methodology

#### *Phase 1 Research*

FMG conducted an environmental scan and content analysis of warning labels and safety information on e-commerce sites to investigate industry best practices for warning labels and safety information when shopping for toys and household products that may be hazardous to children. FMG also conducted in-store observations to assess consumer engagement with and potential influence by safety information when reviewing the toy or product's physical packaging for purchasing.

#### *Phase 2 Research*

FMG (1) conducted virtual in-depth interviews with consumers who had purchased a toy for a 3-6-year-old in the last six months to explore consumer online shopping search and decision-making process, (2) developed experimental mock-ups of webpages after the first round of testing incorporating changes in safety and warning information based on earlier research findings; and (3) conducted a second set of virtual in-depth interviews to test responses to the multiple experimental conditions (including a control) of mockup stimulus with eye tracking. This report summarizes the findings from the final round of data collection, an online survey to quantify the most impactful features in purchasing decision.

### Summary of Findings from the Phase 1 Research

#### Phase 1 Results.

FMG analysts compiled information about the placement, content, and format of warning labels and safety information available on 28 e-commerce sites selling toy and non-toy household items. Placement and content of warning labels and safety information varied greatly by website. The most common toy safety information available on tested sites was the intended consumer age. For non-toy items, however, intended consumer age information was rarely found. Tested websites displayed either safety or warning information for fewer than half of selected non-toy items.

Subsequently, FMG analysts conducted 16 in-store intercept interviews at a local toy store with parents of children ages three to six. Interviewers showed parents a package of Building Blocks and a package of corded blinds and asked a series of questions to gauge parental engagement with product safety information. For the Building Blocks, participants reported that they primarily used the product packaging to determine the price and appropriateness their child. Parents noted that they did not read the safety information, attributing this to their familiarity with Building Blocks. When directed to the safety information, participants stated that it was concise, well-written, and attention-grabbing. For the corded blinds, participants were primarily interested in the brand, the sturdiness of the blinds, and the price. Similar to their responses to the Building Blocks, many participants

stated that reading the safety information was not a priority to them. However, most participants reported being familiar with corded blinds strangulation hazards and did not intend to purchase them for their home. After being directed to the safety information, participants stated that the messaging was clear and concise.

### Phase 1 Conclusions

As the online retail space for toy and non-toy items continues to grow, it is critical to provide best practices for presenting safety information online. The first step to that is understanding how safety information is currently presented online. It is also important to understand generally how parents interact with the safety information they are most familiar with seeing – warning labels on physical packages. Findings across both Phase 1 studies showed variety in how safety information for toy and non-toy products are presented both online and on physical packages. Results also showed that parents who consider themselves very familiar with the product and its potential hazards are less likely to interact with the safety information. Notably, this was true for both products that participants considered safe (Building Blocks) and dangerous (corded blinds).

Most participants agreed that warning label placement on the packages was suitable and the images and wording were clear, concise, and effective. Most participants knew where to find the warning label, could find it on the packages, and accurately understood the main message of the warning label. The most common suggestion provided by participants to improve the utility of the labels was to make them stand out as much as possible: use color, larger font, or bullet points to highlight the most important words or phrases.

### Summary of Findings from Round 1 IDIs and Round 2 IDIs

#### *Round 1 IDIs.*

Twelve primary caregivers of young children viewed identical products on three different e-commerce web pages (Toy Manufacturer and Retailer, Retailer #1, and Retailer #2). The warning label design and placement varied across web pages, but the content was the same. The moderator used a guided “think aloud” procedure to help participants convey their thoughts. Then the moderator asked pointed questions about their experience with the web page and the warning label. The order in which participants viewed the web pages varied by participant to account for ordering effects. Based on the Round 1 IDI findings, FMG provided best practice recommendations for the warning labels, including that warning labels should be:

- Consistently located such that they are placed and formatted similarly across all consumer-facing web pages
- Immediately visible such that they are placed above the fold (i.e., the portion of the page that people can view without scrolling down) and not embedded behind a button.

- Offset from the text by having the warning labels surrounded by white space and not embedded inside other text.
- Easier to find. Examples of how to make the warning labels easier to find included enclosing the warning label in a box, adding a warning symbol, using font that is large, boldfacing key words, and making some text or images a different color.
- Easier to understand. Participants requested content changes that would help them understand which pieces of the toy are a choking hazard and under what circumstances the toy is the riskiest.

Based on findings from the Round 1 IDIs and current user experience (UX) best practices, we manipulated the placement and the design of the warning labels on an image of Retailer #2 web page for a toy. For the placement, we moved the warning label above the fold of the web page. For the design, our changes included:

- Accompanying the text with a safety alert symbol (i.e., a triangle with an inlaid exclamation point).
- Changing the text color so it was different than the main text of the web page (e.g., warning label in red if main text of web page was black).
- Using a larger font size than the text around the warning label on the web page.
- Enclosing the warning label in a box.
- Editing the design to align with the American National Standards Institute (ANSI) Z53.1 Safety Color Code per CPSC's request.

### *Round 2 IDIs.*

Twenty-four primary caregivers of young children viewed three versions of a warning label indicating a choking hazard for the same toy on Retailer #2 web page in random order. These versions were:

- *New Location*—A warning label with its original design but moved above the fold.
- *New Design*—A warning label in its original location but with an alternative design to increase noticeability.
- *Control*—A control condition in which the warning label maintained its original look and location.

Virtual eye-tracking and interview data were captured to understand which version of the web page: (1) was viewed by the most participants, (2) allowed participants to find the warning label the easiest, and (3) most impacted the primary caregivers' attitudes and intentions regarding purchasing the toy for their young children.

Findings showed that the warning label in the *New Location* condition did the best. Every participant saw it (compared to 67% of participants who saw the *New Design* condition and 56% of participants who saw the *Control* condition), and it took participants only 6.89

seconds to find it (compared to 11.57 seconds for the *New Design* condition and 11.55 seconds for the *Control* condition). Interview findings also show that compared to the other conditions, the *New Location* condition garnered the most attention, was easiest to find, was rated the favorite, was rated as the condition that most effectively communicated the risks associated with the toy for young children, and increased perceived transparency and trust in the manufacturer. Participants also said that the *New Design* condition was more noticeable than the *Control* condition, and participants said they liked the vibrant colors and larger design more than the *Control* condition.

### Current Study: Survey

The survey was designed with the following findings from earlier study activities, which identified that:

- The *New Location* warning label was the easiest to find and was noticed the quickest. Participants also said it made them think the most about the potential risks of the toy compared to the other two conditions.
- Participants also said they liked the *New Design* condition more than the *Control* and were able to find it quicker than the *Control* condition.
- In the Round 2 IDIs, participants said that they would most prefer a warning label that incorporates a smaller version of the new design and is located above the fold.
- It is not known whether a warning label with both an updated design and an updated location would be significantly more noticeable and associated with increased risk perceptions than a warning label that has only moved above the fold.

### Survey Purpose

The survey results build on earlier findings and aims to help CPSC staff provide evidence-based and audience-centered recommendations to online retailers about how to design and where to place safety and warning information for children's toys on their web pages. In this round, we aim to:

- Confirm previous findings that moving the warning label above the fold is associated with increased ability to view and find the warning label.
- Measure the extent to which modifying the design and the location of the warning label is associated with even greater ability to view and find the warning label beyond that of just changing the location.
- Measure the extent to which changing the location and/or design of the warning label impacts intentions to purchase or willingness to keep the toy.
- Assess overall reactions to the modified warning labels.

For the survey, FMG designed a new warning label that was intended to combine the most successful components of the previous round – being more eye-catching than Retailer #2's original design but also being placed above the fold. The new warning label used the same

design elements from the *New Design* condition from the Round 2 IDIs, but also moved the warning label above the fold. Thus, it was a combination of the *New Design* and the *New Location* conditions from the Round 2 IDIs. Respondents were shown one of three warning label conditions to help determine which features of the warning label and location on a website are most compelling. The three conditions were:

- *Control*— Original design and original location, same condition as the Round 2 IDIs.
- *New Location Only*— Original design and moved above the fold, same condition as the Round 2 IDIs.
- *New Design, New Location*— New design and moved above the fold, this condition was new and developed specifically for this survey.



## Survey Methods

FMG conducted a survey experiment to further test whether changes to the location or the design of the warning label made the warning label more noticeable.

### Participants

FMG used a vendor (Prodege) that provided a nonprobability sample of 753 participants. All respondents met the following eligibility criteria:

- Must have been at least 18 years old
- Must have been a parent of at least one child ages 2 to 3 years old
- Must have lived with their child at least 50% of the time
- Must have made an online toy purchase for their child
- Must have purchased toys online within the past 3 months

This study aimed to recruit a mix of participants in terms of gender, race/ethnicity, income, and education level (Table 1).

### Procedure

The survey fielded from March 2, 2022, to March 17, 2022. Participants who screened in as eligible were immediately directed to the survey. The survey lasted 10 minutes and participants were given a \$4 incentive upon completion of the survey.

### Design

Participants were randomly assigned to one of three conditions:

- *Control*— Original design and original location, same condition as the Round 2 IDs.
- *New Location Only*— Original design and new location, same condition as the Round 2 IDs.
- *New Design, New Location*— New design and new location, this condition was new and developed specifically for this survey.

Our dependent variables included:

- Intentions to purchase the toy for their child
- Willingness to keep the toy if it was gifted to them for free
- Perceptions of the warning label

Intentions was included because it is one of the strongest predictors of behavior<sup>1</sup>. Willingness was included because behavioral health theory<sup>2</sup> suggests that people may be willing to engage in a behavior, especially a risky behavior, if the opportunity presented itself, even if they do not seek out the opportunity. In previous rounds of IDIs, many participants stated that they were not interested in purchasing the toy because they thought it was too expensive or that their child would not play with it long enough to justify the price. Given the potential for a floor effect for intentions (few participants intend to purchase the toy regardless of the warning label), willingness may provide an alternative way to measure the impact of the warning label condition.

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<sup>1</sup> Ajzen, I. (1985) From intention to actions: A theory of planned behavior: In Kuhl, J.: Beckman, j., editors. Action control: From cognition to behavior. New York: Springer-Verlag;, p. 11-39

<sup>2</sup> Gerrard, M., Gibbons, F.X., Houlihan, A.E., Stock, M.L., Pomery, E.A. (2008). A dual-process approach to health risk decision making: the prototype willingness model. *Developmental Review*, 28. 29-61.

*Table 1: Sample Characteristics*

Characteristic	Category	Frequency	Percentage
Gender	Female	483	64.1%
	Male	262	34.8%
	Other	1	.1%
	Refused	7	.9%
Race/Ethnicity	White, non-Hispanic	508	67.5%
	Asian, non-Hispanic	81	10.8%
	Hispanic	74	9.8%
	Black, non-Hispanic	57	7.6%
	Multiple/Other, non-Hispanic	26	3.5%
	Refused	7	.9%
Income	Less than \$15,000	14	1.9%
	\$15,000 to \$24,999	23	3.1%
	\$25,000 to \$34,999	38	5.0%
	\$35,000 to \$49,999	63	8.4%
	\$50,000 to \$74,999	148	19.7%
	\$75,000 to \$99,999	161	21.4%
	\$100,000 to \$149,999	168	22.3%
	\$150,000 to \$199,999	69	9.2%
	\$200,000 and over	45	6.0%
	Refused	24	3.2%
Education Level	Some high school	2	.3%
	High school diploma OR high school equivalent (GED)	71	9.4%
	Some college, no degree	109	14.5%
	Associate degree	69	9.2%
	Bachelor's degree	301	40.0%
	Master's degree	163	21.6%
	Professional or doctorate degree	30	4.0%
	Refused	8	1.1%
Marital Status	Single, never married	57	7.6%
	Single, living with a partner	51	6.8%
	Married	609	80.9%
	Separated	4	.5%
	Widowed	8	1.1%
	Divorced	16	2.1%
	Refused	8	1.1%
Likelihood of Searching for Age information	Very unlikely	15	2%
	Unlikely	39	5.2%
	Neither unlikely or likely	87	11.6%
	Likely	312	41.4%
	Very likely	300	39.8%

Note: Participants could mark more than one race/ethnicity.

## Survey Findings

Our quantitative analysis focused on understanding the relationship between the warning label design and location and the outcome variables. This report focuses on findings where the outcome variable had a significant relationship with the condition.

We ran analysis of covariance (ANCOVA) to test whether the condition the participant saw influenced their perceptions of the warning label, including their intent to purchase the toy or willingness to keep the toy if it were gifted. If the condition variable was a significant predictor in the model, we ran a Fisher's least significant difference (LSD) post hoc analysis to determine between which conditions those differences lie. For each of the ANCOVA models presented, we controlled for race, gender, participant confidence in reading warning labels, marital status, education, and income. We only considered pairwise comparisons for items where the global  $F$  score was significant at the  $p < .05$  significance level, but we present means for all results in this section.

### Manipulation Check

To test whether participants noticed the warning label, we used two manipulation check variables that asked participants (1) whether they saw a warning label and (2) whether they had to scroll in order to see the label. Participants were only asked follow-up questions about the label if they indicated they had seen it.

There was a significant relationship between the warning label condition and whether participants said they saw the warning label  $F(2, 728) = 3.869, p < 0.05$ . Participants were significantly more likely to report they saw the label in the *New Design, New Location* condition than in the *New Location Only* condition or the *Control* condition. This suggests the combination of the new design and the new location above the fold was more noticeable.

There was also a significant relationship between the warning label condition and whether participants said they had to scroll to see the warning label  $F(2, 497) = 67.613, p < 0.01$ . Participants were more likely to indicate they had to scroll to see the warning label if they saw the *Control* condition compared to the other two conditions. This finding aligns with our knowledge that the label was placed higher up on the web page in the *New Location Only* and the *New Design, New Location* conditions compared to the label's placement on the *Control* condition. This suggests that participants saw the labels as intended.

Table 2: Frequencies of Manipulation Checks

	1: Control	2: New Location Only	3: New Design, New Location
Saw the label	68.6% <sup>ab</sup>	61.9% <sup>a</sup>	74.9% <sup>b</sup>
Scrolled to see the label	65.9% <sup>a</sup>	32.8% <sup>b</sup>	34.7% <sup>b</sup>

Note. Frequencies that do not share subscripts are significantly different from each other according to a  $t$  test at the  $p < .05$  level.

### Intent to Purchase and Willingness to Keep the Toy if Gifted to Them for Free

The warning label condition did not have a significant impact on participants' intentions to purchase the toy. However, there was a significant relationship between the warning label condition and participants' willingness to keep the toy if it were gifted to them  $F(2, 728) = 3.628, p < 0.05$ . Participants who saw the *New Design, New Location* condition were significantly less likely to agree they would keep the toy if it were gifted to them than were participants who saw the other two conditions.

It is notable that participants who viewed the *New Design, New location* warning label were less willing to keep the toy in their home if it was gifted to them. We know from previous research that participants do not weight the information in warning labels as much as they weight aspects like perceived value of the toy or whether their child would like it. Therefore, the fact that modifying the design and location of the warning label could impact whether people are willing to keep the toy in their home – a behavior that is equally as dangerous as purchasing it – is meaningful.

*Table 3: Mean of Likelihood to Purchase the Toy and Keep the Toy If Gifted to Them*

	1: Control	2: New Location Only	3: New Design, New Location
Likelihood to purchase the toy if your child is interested in it	3.57 <sup>a</sup>	3.50 <sup>a</sup>	3.47 <sup>a</sup>
Likelihood to keep the toy if it were a gift	4.17 <sup>a</sup>	4.18 <sup>a</sup>	3.97 <sup>b</sup>

Note. Means that do not share subscripts are significantly different from each other according to the LSD post hoc test at the  $p < .05$  level.

### Attention and Readability

Results show the warning label condition influenced whether participants found the warning label easy to find, easy to read, or attention-grabbing. Participants who saw the *New Design, New Location* and the *New Location Only* conditions were significantly more likely to agree that the warning label was easy to find  $F(2, 496) = 13.498, p < 0.01$  and that the warning label grabbed their attention  $F(2, 497) = 8.436, p < 0.01$  compared to those who saw the *Control* condition. In addition, participants who saw the *New Design, New Location* condition were more likely to agree that the warning label was easy to read compared to participants who saw the other two conditions  $F(2, 497) = 5.640, p < 0.01$ .

Together, these findings support and expand on our previous results that moving the warning label above the fold makes it easier to find and more likely to grab people's attention. Additionally, results suggest that changing the design along with the location may also make the warning label easier to read. There was not a significant effect of condition on any other characteristics of the warning label including perceptions of the toy's risk.

Table 4: Means of Agreement With the Following Statements

	1: Control	2: New Location Only	3: New Design, New Location
The warning label for this toy was easy to find.*	3.91 <sup>a</sup>	4.21 <sup>b</sup>	4.37 <sup>b</sup>
The warning label for this toy got my attention.*	3.77 <sup>a</sup>	4.05 <sup>b</sup>	4.21 <sup>b</sup>
The warning label for this toy was easy to read.*	4.18 <sup>a</sup>	4.34 <sup>ab</sup>	4.45 <sup>b</sup>
This toy poses a risk to my child.	2.98 <sup>a</sup>	2.78 <sup>a</sup>	2.99 <sup>a</sup>
The warning label for this toy gives me concern.	2.98 <sup>a</sup>	2.80 <sup>a</sup>	2.85 <sup>a</sup>
The warning label for this toy would keep me from purchasing it.	2.93 <sup>a</sup>	2.70 <sup>a</sup>	2.86 <sup>a</sup>
This toy looks safe for all the children who live in my home.	2.93 <sup>a</sup>	2.70 <sup>a</sup>	2.86 <sup>a</sup>
The warning label for this toy eases my concerns.	3.71 <sup>a</sup>	3.64 <sup>a</sup>	3.57 <sup>a</sup>
The warning label for this toy gave me enough information.	2.93 <sup>a</sup>	2.70 <sup>a</sup>	2.86 <sup>a</sup>
I liked the look of this warning label.	3.79 <sup>a</sup>	3.81 <sup>a</sup>	3.57 <sup>a</sup>

\*Item had a significant relationship with condition. Note. Means that do not share subscripts are significantly different from each other according to the LSD post hoc test at the  $p < .05$  level.

### Label Descriptions

When asked to rate the warning label, participants who saw the *New Design, New Location* warning label gave better ratings than those in the *Control* condition for most of the factors. For whether participants trust the information presented in the warning label, participants in the *New Location Only* and the *New Design, New Location* conditions both gave significantly higher ratings than participants in the *Control* condition, but those in the *New Design, New Location* condition had the highest ratings. Participants in the *New Design, New Location* condition also rated the warning label as being more worth remember, informative, meaningful, and powerful than those in the *Control* condition. Participants in the *New Design, New Location* condition were less likely to agree with negative statements about the warning label, including that it is terrible, annoying, or silly compared to those in the *Control* condition. These findings suggest that modifying the design may have an additional impact on perceptions of the warning label above and beyond just changing its location to be above the fold.

Table 5: Means of Agreement with the Following Statements

	1: Control	2: New Location Only	3: New Design, New Location
This warning label is worth remembering.*	3.94 <sup>a</sup>	4.08 <sup>ab</sup>	4.17 <sup>b</sup>
This warning label is informative.*	4.13 <sup>a</sup>	4.27 <sup>ab</sup>	4.36 <sup>b</sup>
This warning label is meaningful to me.*	4.06 <sup>a</sup>	4.11 <sup>a</sup>	4.30 <sup>b</sup>
This warning label is terrible.*	2.19 <sup>a</sup>	1.97 <sup>ab</sup>	1.81 <sup>b</sup>
This warning label is annoying.*	2.17 <sup>a</sup>	1.93 <sup>ab</sup>	1.79 <sup>b</sup>
I trust the information in this warning label.*	4.12 <sup>a</sup>	4.15 <sup>b</sup>	4.39 <sup>c</sup>
This warning label is powerful.*	3.59 <sup>a</sup>	3.70 <sup>ab</sup>	3.84 <sup>b</sup>
This warning label is convincing.	3.96 <sup>a</sup>	4.04 <sup>a</sup>	4.12 <sup>a</sup>
This warning label is silly.*	2.16 <sup>a</sup>	1.94 <sup>a</sup>	1.65 <sup>b</sup>

\*Item had a significant relationship with condition. Note. Means that do not share subscripts are significantly different from each other according to the LSD post hoc test at the  $p < .05$  level.

## Overall Discussion

### Conclusions

Informing primary caregivers of the risks that certain toy and non-toy products pose for young children relies on primary caregivers' ability to find and notice warning labels and safety information. Given that primary caregivers are increasingly purchasing toys and other household products online, FMG worked with CPSC to develop data-driven best practices and guidance for the placement and design of warning labels on e-commerce web pages.

We accomplished this using a mixed-methods multi-phase approach. In Phase 1, results showed that the placement and content of warning labels and safety information varied greatly by website, with less than half of non-toy items displaying safety or warning information. We also found in this phase that caregivers said that reading the safety information on physical packaging for toy and non-toy items was not a priority to them. This was especially true if they were familiar with the product. Overall, Phase 1 findings emphasize the importance of developing consistent guidelines and best practices for online warning labels and making these warning labels as noticeable and findable as possible since caregivers may not search for them.

In Phase 2, we conducted two rounds of virtual IDIs and a survey to identify and test those best practices and guidelines. We tested the same toy product across all three rounds of Phase 2 data collection, but findings could be generalized to other toys or non-toy products that could pose a choking or strangulation hazard to young children. Findings across Phase 2 show that moving a warning label above the fold and improving the design so it is more noticeable are two of the most impactful ways to improve the warning label. Although changing the design or location were each helpful on their own, the combination of the two made the warning label the most effective, not only for informing primary caregivers, but also for influencing their decisions about keeping a potentially harmful toy in their home.

Findings from each Round of Phase 2 data collection stand independently and build off each other. In the Round 1 IDIs, participants reviewed the same toy across three different retailer web pages, and FMG identified a list of recommendations based on what worked well and what did not work well on these web pages, including that warning labels should be consistently located, immediately visible, offset from the text, and easier to find.

In the Round 2 IDIs, FMG built on the Round 1 findings by manipulating the location and design of the warning label on Retailer #2 web page to test which of Round 1's recommendations would be most influential. We did this by either moving the warning label above the fold or making it bigger and bolder, and then compared each new warning label condition to the control condition. Findings extended Round 1 results by demonstrating the effectiveness of moving the warning label above the fold. Virtual eye-tracking results showed that 100% of participants saw the warning label that was placed above the fold and saw it



quicker than the other two conditions. Participants also said the warning label that was placed above the fold grabbed their attention the most, was the easiest to find, was their favorite, best communicated the risks of the toy for young children, and even increased their trust of the manufacturer because they appreciated the transparency of having the risk information immediately visible compared to the other conditions.

The survey further built on the Round 2 IDI results by assessing whether a bigger and bolder design placed above the fold added additional value beyond moving the warning label alone. Findings supported and extended themes from the Round 1 and Round 2 IDIs. Although results demonstrated that warning labels above the fold are easier to find and more attention-grabbing, participants who saw the new design warning label placed above the fold were more influenced by the content. They rated the label as easier to read than the other two conditions and said they would be less willing to keep the toy in their home if it were gifted to them. This suggests that not only did participants view the warning label, but it influenced their risk perceptions and behavioral intentions.

### **Strengths and Limitations**

The Phase 2 research study had significant strengths. We used a mixed-methods design that allowed us to start broad by observing how participants interact with online retailer web pages and warning information and gradually narrowed our focus based on what we learned. By ending with an experiment, we have data showing that improving the location and design of the warning label directly influences primary caregivers' willingness to keep risky toys and their ability to find and read the warning label. By incorporating eye tracking into Round 2, we were able to quantifiably determine exactly where people looked, what grabbed and held their attention the most, and the order in which they viewed different areas of interest. This data expanded on what we learned in Round 1 and helped illustrate the strong benefits of moving a warning label above the fold. Finally, by evaluating toy and non-toy products in Phase 1, we can develop best practices and recommendations that should generalize to other toy and non-toy household products that may pose a choking or strangulation risk to young children.

Findings should also be interpreted considering the study's limitations. Due to the COVID-19 pandemic, we had to conduct all eye-tracking tests virtually, which resulted in fewer participants having "usable" data due to the limitations of virtual eye tracking. Because of this, in Round 1, we recruited FMG staff who are primary caregivers of young children as our study participants instead of recruiting a sample from the general population. Although these FMG staff are members of our target population, they also bring inherent biases such as being more educated, health literate, and more attuned to safety information than the general population. Additionally, we chose to manipulate Retailer #2 product's warning label, since Retailer #2 sells a larger share of toys compared to Retailer #1 or Toy

Manufacturer and Retailer. However, Retailer #2's warning label already incorporated many of our design recommendations, which may have resulted in a ceiling effect.

### Recommendations for Improving Warning Labels

Recommendations are based on findings from the Round 1 IDIs, Round 2 IDIs, and the survey, independently and taken together. Findings show that warning labels should be immediately visible and easy to find. In the Round 2 IDIs and the survey, results showed that improving the location and the design of the warning label made it easier for participants to find and read and that the location and design can impact decisions about whether to keep the toy in their home. Findings show that this effect is most apparent when both the location and design are modified. Best practice recommendations for improving the design and location are listed below.

**Location Recommendations.** Findings show that improving the location and placement of the warning label increased the number of participants who saw it, how quickly they saw it, and participants' trust of the content they viewed.

- *Warning labels should appear above the fold so that scrolling is not required to see the warning information.* Recommending all warning information appear above the fold will also improve consistency across web pages, further helping primary caregivers find the necessary safety information. Findings show that when warning information was above the fold, all participants saw it and they rated it as significantly easier to find and more attention-grabbing than the control condition.
- *Warning information should be offset from the text.* Participants tended to skim the text, making it easy to ignore warning information embedded within other content (e.g., Retailer #1's web page). We recommend all warning information should be surrounded by white space and offset from any other content.
- *Warning labels should not be embedded behind a button so that they are immediately visible and require minimal user effort.* In Round 1 IDIs, participants had substantial difficulty finding the warning label on Retailer #1's web page because it was not visible unless they clicked a "See More" button. None of the participants clicked the button without prompting from the moderator.

**Design Recommendations.** Findings show that improving the design of the warning label, especially when paired with moving it above the fold, increased not only the findability, readability, and noticeability of the warning label, but also the participants' decisions about how safe the toy would be to keep in their home.

- *Warning labels should be enclosed in a box.* This will help offset the warning label from any nearby text and make it easier to find.

- *Warning labels should include a large warning symbol.* Participants indicated that the warning symbol drew their eye and helped them quickly assess that there was warning information that they should read.
- *Warning labels should include content that is larger, bolder, and a different color than the other text.* These style features make the warning information easier to find and more likely to be noticed.

## References

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## Appendix A: Survey Screener

### Consumer Product Safety Commission (CPSC) *Toy Purchasing Decisions Study* Screener

#### Programming Notes:

1. For all survey questions, show soft prompt when participant does not respond: "Please respond to the question."
2. Show only one question or introduction/termination language per page.

#### [Intro Language]

You are being asked to take part in a research study for the Consumer Product Safety Commission (CPSC). We would like to ask you questions to determine your eligibility to participate in a survey about online purchases. This eligibility survey should take a few minutes to complete. Throughout the survey, please do not use your browser's back button to view previous questions. This may invalidate your responses and end your survey.

#### [TERMINATION LANGUAGE]

Thank you for completing this survey. Unfortunately, based on the responses you provided, you do not meet the criteria we are looking for in this study. We appreciate your time answering these questions.

//Screener and demographic questions// \*estimated 2-3 mins

#### Question Type: Single-Punch

**S1.** Do you consider yourself a parent or guardian of a child?

Value	Label
1	Yes
0	No
-99	Refused

//If S1=0 or -99, TERMINATE//

#### Question Type: Single-Punch

**S2.** Does the child live in your home at least 50% of the time?

Value	Label
1	Yes
0	No
-99	Refused

//If S2=0 or -99, TERMINATE//

**Question Type: Multi-Punch**

**S3.** What are the ages of the child or children who live with you at least 50% of the time?  
(Select all that apply.)

Value	Label
1	Under 1 year
2	1 to under 2 years
3	2 to 3 years
4	4 to 6 years
5	7 years to under 10 years
6	10 years or older
-99	Refused

//If S3 = 3, CONTINUE TO NEXT QUESTION; ALL ELSE TERMINATE//

**Question Type: Multi-Punch**

**S4.** In your household, who typically purchases *household items* ONLINE (e.g., kitchen appliance, vacuum)? (Select all that apply)

Value	Label
1	Myself
2	My spouse/partner
3	Other
-99	Refused

//If S4 is not equal to 1, skip to S6//

**Question Type: Single-Punch**

**S5.** In the past year, approximately how many household items (e.g., kitchen appliance, vacuum, cleaning supplies) have you personally purchased online, either yourself, or with someone else?

Value	Label
1	1-10
2	11-25
3	25 or more
-99	Refused

**Question Type: Multi-Punch**

**S6.** In your household, who typically purchases *toys* ONLINE for your child(ren) (Select all that apply)?

Value	Label
1	Myself
2	My spouse/partner
3	Other
-99	Refused

//If S6 = 1 CONTINUE; ALL ELSE TERMINATE//

**Question Type: Single-Punch**

**S7.** In the past 3 months, approximately how many toys for your child have you personally purchased online?

Value	Label
1	None
2	1-5
3	6-10
4	10 or more
-99	Refused

//If S7 = 1 or -99, TERMINATE//

//If S7 = 2 or 3 or 4, Eligible for survey//

**Consent**

Thank you! We have determined that you are eligible to participate. We are now inviting you to take part in a research study. This will involve completing a Web-based survey. The survey should take you about 15 minutes to complete.

There are neither risks, nor benefits to you, for taking part in this survey. Any money you receive is a small token to thank you for participating, if you choose to do so.

Your participation is voluntary. This means that you are free to participate or to skip certain questions. There is no penalty if you choose not to respond. However, your complete answers may help figure out better ways to share information with parents of young children. It is important that as many people as possible respond to this survey so that the information we receive is complete. Your personal information will be kept separate from your survey responses. Government personnel will not have access to your name, address, or email address; they will only have access to your responses. Government personnel will not be able to trace your responses back to you. Answers will be reported only for the whole group, not individuals. The information you provide in this survey will be used to inform toy safety label recommendations. If you have any questions about this survey at any time, please contact the survey administrator by emailing pi@forsmarshgroup.com.

Thank you for considering participating in this survey effort.

**Question Type: Single-Punch**

**S8.** Would you like to participate in this survey?

Value	Label
1	Yes
0	No
-99	Refused

//If S8 = 0 or -99, TERMINATE//

## Appendix B: Survey Questionnaire

### Consumer Product Safety Commission (CPSC) *Toy Purchasing Decisions Study* Annotated Questionnaire

**Question Type:** Single-Punch

**Variable Name:** Q1

**Variable Label:** Q1: Difficulty purchasing

**Question Text:** How easy or difficult is it for you to purchase toys for your child online?

Value	Value Label
1	Very difficult
2	Somewhat difficult
3	Neither difficult nor easy
4	Somewhat easy
5	Very easy
-99	Refused

**Question Type:** Single Punch

**Variable Name:** Q2

**Variable Label:** Q2: Confidence in selection

**Question Text:** Please rate your level of confidence with selecting a toy that your child will like.

Value	Value Label
1	Not at all confident
2	Not very confident
3	Neutral
4	Somewhat confident
5	Very confident
-99	Refused

**Question Type:** Single-Punch Grid

//Randomize response options//

**Variable Name:** Q3

**Variable Label:** see below

**Question Text:** How important are each of the following factors in your selection of toys for your child?

Variable Name	Text	Variable Label
Q3A	My child will get a lot of use out of this toy.	Q3A: Use
Q3B	My child meets the recommended age for this toy.	Q3B: Age



Q3C	The toy is safe for my child.	Q3C: Safe
Q3D	The toy is a good price.	Q3D: Price
Q3E	The toy is made of high-quality materials.	Q3E: Material
Q3F	The toy is made by a brand I trust to be safe.	Q3F: Safe brand
Q3G	My child is the right age to enjoy this toy.	Q3G: Enjoy

Value	Value Label
1	Very unimportant
2	Somewhat unimportant
3	Neither unimportant nor important
4	Somewhat important
5	Very important
-99	Refused

**Question Type: Single-Punch Grid**

**Variable Name:** Q4

//Randomize response options//

**Variable Label:** see below

**Question Text:** How likely are you to search for each of the following types of information when making **online** toy purchases for your 2- to- 3-year-old child?

Variable Name	Text	Variable Label
Q4A	Reviews of toy	Q4A: Reviews
Q4B	Pictures of toy	Q4B: Pictures
Q4C	Written description of toy	Q4C: Description
Q4D	Recommended age	Q4D: Age
Q4E	Warning label	Q4E: Warning label
Q4F	Pictures of the physical package the toy comes in (if available)	Q4F: Package

Value	Value Label
1	Very unlikely
2	Unlikely
3	Neither unlikely nor likely
4	Likely

5	Very likely
-99	Refused

### Warning Label Testing

Now you are going to see an image of a web page for a toy you might purchase for your child. Please read and review the web page exactly as you would if you were seriously considering purchasing this toy for your child. When you have finished, please answer the questions below.

//PROGRAMMING NOTE: PLEASE WAIT 30 SECONDS BEFORE PARTICIPANTS CAN ADVANCE TO NEXT SCREEN WHEN VIEWING IMAGES//

//PROGRAMMING NOTE: EACH PARTICIPANT SHOULD BE RANDOMIZED TO SEE ONLY ONE IMAGE (BETWEEN SUBJECTS DESIGN)//

[Image 1]

**Question Type: Single-Punch**

**Variable Name: Q7a**

**Question Text:** Now that you have reviewed the web page, we would like to ask some questions about what you saw. Did you see a warning label?

Value	Label
1	Yes
0	No
-99	Refused

//PROGRAMMING NOTE: IF Q7a = 1 OR -99, ASK Q30//

**Question Type: Single-Punch**

**Variable Name: Q30**

**Question Text:** Did you have to scroll down in order to see a warning label?

Value	Label
1	Yes
0	No
-99	Refused

//PROGRAMMING NOTE: IF Q7a = 1 OR -99, CONTINUE TO Q7. IF Q7a=0, SKIP TO Q9//

**Question Type: Single-Punch Grid**

**Variable Name: Q7**

**Question Text:** Now we would like to ask some questions about the warning label presented on the web page. Please select a response for how much you agree or disagree with each statement about the warning label in the ad.

// RANDOMIZE ORDER OF ITEMS//

Variable Name	Text	Variable Label
Q7A	This warning label is worth remembering.	Q7A: Worth remembering
Q7B	This warning label is powerful.	Q7B: Powerful
Q7C	This warning label is informative.	Q7C: Informative
Q7D	This warning label is meaningful to me.	Q7D: Meaningful
Q7E	This warning label is convincing.	Q7E: Convincing
Q7F	This warning label is terrible.	Q7F: Terrible
Q7G	This warning label is silly.	Q7G: Silly
Q7H	This warning label is annoying.	Q7H: Annoying
Q7I	I trust the information in this warning label.	Q7I: Trust

Value	Value Label
1	Strongly Disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree
-99	Refused

**Question Type: Single-Punch Grid**

**Variable Name:** Q8

**Variable Label:** see below

**Question Text:** Please select a response for how much you agree or disagree with each of the following statements.

// RANDOMIZE ORDER OF ITEMS//

Variable Name	Text	Variable Label
Q8A	This toy poses a risk to my child.	Q8A: Risk
Q8B	The warning label for this toy gives me concern.	Q8B: Concern
Q8C	The warning label for this toy was easy to find.	Q8C: Easy to find
Q8D	The warning label for this toy got my attention.	Q8D: Attention

Q8E	The warning label for this toy would keep me from purchasing it.	Q8E: No purchase
Q8F	This toy looks safe for all the children who live in my home.	Q8F: Safe
Q8G	The warning label for this toy eases my concerns.	Q8G: Eases concerns
Q8H	The warning label for this toy gave me enough information.	Q8H: Enough information
Q8I	The warning label for this toy was easy to read.	Q8I: Easy to read
Q8J	I liked the look of this warning label.	Q8J: Liked the look

Value	Value Label
1	Strongly Disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree
-99	Refused

**Question Type:** Single-Punch

**Variable Name:** Q9

**Variable Label:** Q9: Image 1 Purchase

**Question Text:** How likely are you to purchase this item if your child is interested in it?

Value	Value Label
1	Very unlikely
2	Unlikely
3	Neither unlikely nor likely
4	Likely
5	Very likely
-99	Refused

**Question Type:** Single-Punch

**Variable Name:** Q10

**Variable Label:** Q10: Keep gift

**Question Text:** How likely are you to let your child keep this toy and play with it if it was gifted to you by someone else?

Value	Value Label
1	Very unlikely
2	Unlikely

3	Neither unlikely nor likely
4	Likely
5	Very likely
-99	Refused

[Image 2]

**Question Type: Single-Punch**

**Variable Name: Q11a**

**Question Text:** Now that you have reviewed the web page, we would like to ask some questions about what you saw. Did you see a warning label?

Value	Label
1	Yes
0	No
-99	Refused

//PROGRAMMING NOTE: IF Q11a = 1 OR -99, ASK Q31//

**Question Type: Single-Punch**

**Question 31**

**Variable Name: Q31**

**Question Text:** Did you have to scroll down in order to see a warning label?

Value	Label
1	Yes
0	No
-99	Refused

//PROGRAMMING NOTE: IF Q11a = 1 OR -99, CONTINUE TO Q11. IF Q11a=0, SKIP TO Q13//

**Question Type: Single-Punch Grid**

**Question 11**

**Question Text:** Now that you have reviewed the ad, we would like to ask some questions about the warning label presented in the ad. Please select a response for how much you agree or disagree with each statement about the warning label in the ad.

// RANDOMIZE ORDER OF ITEMS//

Variable Name	Text	Variable Label
Q11A	This warning label is worth remembering.	Q11A: Worth remembering
Q11B	This warning label is powerful.	Q11B: Powerful
Q11C	This warning label is informative.	Q11C: Informative

Q11D	This warning label is meaningful to me.	Q11D: Meaningful
Q11E	This warning label is convincing.	Q11E: Convincing
Q11F	This warning label is terrible.	Q11F: Terrible
Q11G	This warning label is silly.	Q11G: Silly
Q11H	This warning label is annoying.	Q11H: Annoying
Q11I	I trust the information in this warning label.	Q11I: Trust

Value	Value Label
1	Strongly Disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree
-99	Refused

**Question Type: Single-Punch Grid**

**Variable Name:** Q12

**Variable Label:** see below

**Question Text:** Please select a response for how much you agree or disagree with each of the following statements.

// RANDOMIZE ORDER OF ITEMS//

Variable Name	Text	Variable Label
Q12A	This toy poses a risk to my child.	Q12A: Risk
Q12B	The warning label for this toy gives me concern.	Q12B: Concern
Q12C	The warning label for this toy was easy to find.	Q12C: Easy to find
Q12D	The warning label for this toy got my attention.	Q12D: Attention
Q12E	The warning label for this toy would keep me from purchasing it.	Q12E: No purchase
Q12F	This toy looks safe for all the children who live in my home.	Q12F: Safe
Q12G	The warning label for this toy this toy eases my concerns.	Q12G: Eases concerns
Q12H	The warning label for this toy gave me enough information.	Q12H: Enough information

Q12I	The warning label for this toy was easy to read.	Q12I: Easy to read
Q12J	I liked the look of this warning label.	Q12J: Liked the look

Value	Value Label
1	Strongly Disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree
-99	Refused

**Question Type:** Single-Punch

**Variable Name:** Q13

**Variable Label:** Q13: Image 2 Purchase

**Question Text:** How likely are you to purchase this item if your child is interested in it?

Value	Value Label
1	Very unlikely
2	Unlikely
3	Neither unlikely nor likely
4	Likely
5	Very likely
-99	Refused

**Question Type:** Single-Punch

**Variable Name:** Q14

**Variable Label:** Q14: Keep gift

**Question Text:** How likely are you to let your child keep this toy and play with it if it was gifted to you by someone else?"

Value	Value Label
1	Very unlikely
2	Unlikely
3	Neither unlikely nor likely
4	Likely
5	Very likely
-99	Refused

[Image 3]

**Question Type: Single-Punch**

**Variable Name: Q15a**

**Question Text:** Now that you have reviewed the web page, we would like to ask some questions about what you saw. Did you see a warning label?

Value	Label
1	Yes
0	No
-99	Refused

//PROGRAMMING NOTE: IF Q15a = 1 OR -99, ASK Q32//

**Question Type: Single-Punch**

**Question 32**

**Variable Name: Q32**

**Question Text:** Did you have to scroll down in order to see a warning label?

Value	Label
1	Yes
0	No
-99	Refused

//PROGRAMMING NOTE: IF Q15a = 1 OR -99, CONTINUE TO Q15. IF Q15a=0, SKIP TO Q17//

**Question Type: Single-Punch Grid**

**Question 15**

**Question Text:** Now that you have reviewed the ad, we would like to ask some questions about the warning label presented in the ad. Please select a response for how much you agree or disagree with each statement about the warning label in the ad.

// RANDOMIZE ORDER OF ITEMS//

Variable Name	Text	Variable Label
Q15A	This warning label is worth remembering.	Q15A: Worth remembering
Q15B	This warning label is powerful.	Q15B: Powerful
Q15C	This warning label is informative.	Q15C: Informative
Q15D	This warning label is meaningful to me.	Q15D: Meaningful
Q15E	This warning label is convincing.	Q15E: Convincing



Q15F	This warning label is terrible.	Q15F: Terrible
Q15G	This warning label is silly.	Q15G: Silly
Q15H	This warning label is annoying.	Q15H: Annoying
Q15I	I trust the information in this warning label.	Q15I: Trust

Value	Value Label
1	Strongly Disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree
-99	Refused

**Question Type: Single-Punch Grid**

**Variable Name:** Q16

**Variable Label:** see below

**Question Text:** Please select a response for how much you agree or disagree with each of the following statements.

// RANDOMIZE ORDER OF ITEMS//

Variable Name	Text	Variable Label
Q16A	This toy poses a risk to my child.	Q16A: Risk
Q16B	The warning label for this toy gives me concern.	Q16B: Concern
Q16C	The warning label for this toy was easy to find.	Q16C: Easy to find
Q16D	The warning label for this toy got my attention.	Q16D: Attention
Q16E	The warning label for this toy would keep me from purchasing it.	Q16E: No purchase
Q16F	This toy looks safe for all the children who live in my home.	Q16F: Safe
Q16G	The warning label for this toy this toy eases my concerns.	Q16G: Eases concerns
Q16H	The warning label for this toy gave me enough information.	Q16H: Enough information
Q16I	The warning label for this toy was easy to read.	Q16I: Easy to read

Q16J	I liked the look of this warning label.	Q16J: Liked the look
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Value	Value Label
1	Strongly Disagree
2	Disagree
3	Neither agree nor disagree
4	Agree
5	Strongly agree
-99	Refused

**Question Type:** Single-Punch

**Variable Name:** Q17

**Variable Label:** Q17: Image 3 Purchase

**Question Text:** How likely are you to purchase this item if your child is interested in it?

Value	Value Label
1	Very unlikely
2	Unlikely
3	Neither unlikely nor likely
4	Likely
5	Very likely
-99	Refused

**Question Type:** Single-Punch

**Variable Name:** Q18

**Variable Label:** Q18: Keep gift

**Question Text:** How likely are you to let your child keep this toy and play with it if it was gifted to you by someone else?"

Value	Value Label
1	Very unlikely
2	Unlikely
3	Neither unlikely nor likely
4	Likely
5	Very likely
-99	Refused

///Programming note- all participants should see these 2 questions.

**Question Type: Single-Punch**

**Variable Name:** Q5

**Variable Label:** Q5: Confidence in risk

**Question Text:** Please indicate how confident you are that you can select toys that pose no health risk to your child.

Value	Value Label
1	Not at all confident
2	Not very confident
3	Neutral
4	Somewhat confident
5	Very confident
-99	Refused

**Question Type: Single-Punch**

**Variable Name:** Q6

**Variable Label:** Q6: Confidence in reading warning labels

**Question Text:** How confident are you that you can understand the information in warning labels for toys provided on Web pages?

Value	Value Label
1	Not at all confident
2	Not very confident
3	Neutral
4	Somewhat confident
5	Very Confident
-99	Refused

Finally, we have a few demographic questions.

**Question Type: Single-Punch**

**Variable Name:** Q19

**Variable Label:** Q19: Awareness of CPSC

**Question Text:** Before taking this survey, had you ever heard of the U.S. Consumer Product Safety Commission (CPSC)?

Value	Value Label
1	Yes
0	No
-99	Refused

If Q19 = 1, GO TO Q20  
If Q19 = 0, -99, GO TO Q21

**Question Type:** Open End

**Variable Name:** Q20

**Variable Label:** Q20: Open end follow up

**Question Text:** What do you know about the U.S. Consumer Product Safety Commission (CPSC)?

Value	Value Label
-99	Refused
-100	Valid Skip

//PROGRAMMING NOTE: CHARACTER LIMIT 5000 CHARACTERS//

**Question Type:** Open-End Numerical (2-digit number; -99=refused)

**Variable Name:** Q21

**Variable Label:** Q21: Age

**Question Text:** What is your age?

Years old

**Question Type:** Single-Punch

**Variable Name:** Q22

**Variable Label:** Q22: Gender

**Question Text:** Which word best describes your gender?

Value	Label
1	Male
2	Female
3	Other
-99	Refused

**Question Type:** Single-Punch

**Variable Name:** Q23

**Variable Label:** Q23: Spanish

**Question Text:** Is Spanish spoken in your household?

Value	Label
1	Yes, as a primary language

2	Yes, as a secondary or tertiary language
3	No, Spanish is not spoken in my household
-99	Refused

**Question Type: Single-Punch**

**Variable Name:** Q24

**Variable Label:** Q24: Hispanic

**Question Text:** Are you of Hispanic, Latino, or Spanish origin?

Value	Label
1	No, not of Hispanic, Latino, or Spanish origin
2	Yes, Mexican, Mexican American, Chicano
3	Yes, Puerto Rican
4	Yes, Cuban
5	Yes, Other Hispanic, Latino, or Spanish origin
-99	Refused

**Question Type: Multi-Punch**

**Variable Name:** Q25

**Variable Label:** Q25: Race

**Question Text:** What is your race? (*Choose all that apply.*)

Value	Label
1	American Indian or Alaska Native
2	Asian
3	Black or African American
4	Native Hawaiian or other Pacific Islander
5	White
99	Refused

**Question Type: Drop-Down Menu**

**Variable Name:** Q26

**Variable Label:** Q26: State

**Question Text:** What state do you live in?

Value	Label
1	Alabama
2	Alaska
3	Arizona
4-50	. . . including DC
51	Wyoming
-99	Refused

//Add in state list

**Question Type:** Single-Punch

**Variable Name:** Q27

**Variable Label:** Q27: Marital Status

**Question Text:** What is your marital status?

Value	Label
1	Single, never married
2	Single, living with a partner
3	Married
4	Separated
5	Widowed
6	Divorced
-99	Refused

**Question Type:** Single Punch

**Variable Name:** Q28

**Variable Label:** Q28: Education

**Variable Text:** What is the highest level of school you have completed?

Value	Value Label
1	Some high school
2	High school diploma OR High school equivalent (GED)
3	Some college, no degree
4	Associate degree
5	Bachelor's degree
6	Master's degree
7	Professional or doctorate degree

**Question Type:** Single Punch

**Variable Name:** Q29

**Variable Label:** Q29: Income

**Variable Text:** Last year, that is in 2021, what was your total household income from all sources, before taxes?

Value	Value Label
1	Less than \$15,000
2	\$15,000 to \$24,999
3	\$25,000 to \$34,999
4	\$35,000 to \$49,999
5	\$50,000 to \$74,999
6	\$75,000 to \$99,999
7	\$100,000 to \$149,999
8	\$150,000 to \$199,999

9	\$200,000 and over
-99	Don't know/Refused

**Thank you for taking the time to complete the survey. Your feedback is appreciated.**

# Appendix C: Warning Labels Viewed During the Survey

## Control Condition

This screenshot shows the Amazon product page for the 'furReal Mama Josie The Kangaroo Interactive Pet Toy'. The product is priced at \$49.99. A warning label is present at the bottom of the page, stating: 'WARNING: Small parts. Not for children under 3 yrs.' The page includes a product image, a 'Buy now' button, and various promotional banners.

## New Location Only

This screenshot shows the Amazon product page for the 'furReal Mama Josie The Kangaroo Interactive Pet Toy' under the 'New Location Only' condition. The product is priced at \$49.99. A warning label is present at the bottom of the page, stating: 'WARNING: Small parts. Not for children under 3 yrs.' The page includes a product image, a 'Buy now' button, and various promotional banners.

## New Design, New Location

This screenshot shows the Amazon product page for the 'furReal Mama Josie The Kangaroo Interactive Pet Toy' under the 'New Design, New Location' condition. The product is priced at \$49.99. A warning label is present at the bottom of the page, stating: 'WARNING: Small parts. Not for children under 3 yrs.' The page includes a product image, a 'Buy now' button, and various promotional banners.