



Research Brief Cannabis Packaging and Labeling Youth Appeal

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LCB Research Program

The Research Program at the Washington State Liquor and Cannabis Board (LCB) is a non-partisan, transparent resource focused on public health and safety outcomes related to the products, policy, and regulation of alcohol, cannabis, tobacco, and vapor products.

Purpose

The purpose of this brief is to provide a summary of cannabis packaging and labeling youth appeal. This brief is based on a review of existing evidence including scientific literature, government reports, policies, and other credible information sources.

This document does not represent an official position of LCB.

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Background

Cannabis use among children and adolescents is a public health concern because youth are at greater risk for negative health impacts compared to adults. Cannabis use among adolescents is associated with altered brain development, lower academic performance, increased risk of cannabis use disorder, and psychosocial impairment.¹

All types of cannabis products (dried flower, concentrates, edibles, topicals) can be appealing to youth. Cannabis-infused edibles have been a particular area of concern because many of these products tend to be more appealing to youth due to their similarity to other food products (e.g., candy), ease of use, and appealing packaging/labeling.² Edible use among adolescents is increasing.³ In 2023, 34% of 10th graders who used cannabis reported using solid edibles (e.g., gummies) in the past-year.³ Compared to other types of cannabis products, edibles are also more likely to be accidentally consumed by youth. Data from poison center calls have shown an increase in accidental consumption requiring medical attention, and this increase is greater in states that have legalized recreational cannabis.^{2,4-5}

To reduce the risk of intentional cannabis use by youth and accidental consumption, there have been several efforts to study and regulate the youth appeal of all types of cannabis products. Most of these efforts have focused on youth-appealing characteristics related to edibles.

Youth Appeal

Research has shown that youth-appealing attributes on packaging and labeling receive more visual attention than other attributes and may result in less visual attention to warning labels and statements.⁶

Packaging and labeling attributes that are especially appealing to youth include:

- Similarity to other popular products and/or products commonly marketed to young people (e.g., candy);
- Colorful designs and logos;
- Bubble-type or other cartoon-like fonts;
- Cartoon characters, celebrities, or young people;
- Endorsements (e.g., testimonials);
- References to music or parties;
- Flavor-related images (e.g., fruit, candy); and
- Images of product (e.g., gummies).⁶⁻⁸

Given this evidence, recommendations tend to focus on prohibiting or limiting these youth-appealing packaging and labeling attributes. For example, packages are least appealing when they are plain and opaque.⁴

Health Warning Labels

Much of the research on cannabis labels focuses on the effectiveness of health warnings. The objectives of health warnings include reducing product appeal, increasing harm perception/risk awareness, and discouraging intention to try the product.⁹ Health warnings are less effective when they are long, complex, small, difficult to read and

understand. In addition, research has shown that warnings about the risks of addiction are generally the least effective type of health warning.¹⁰ In contrast, research shows the most effective health warning labels include the following:

- Statements that focus on single-theme risks (e.g., risks to young adults and adolescents, pregnancy, brain development, impaired driving);
- Statements displayed in black text on attention-grabbing backgrounds; yellow backgrounds seem to be particularly effective;
- Statements that are short and at a sixth-grade reading level or lower; and
- Text (e.g., larger fonts) and visual enhancements (e.g., graphic portrayals similar to those found on tobacco products).⁹⁻¹³

U.S. and International Regulations

There is currently no comprehensive framework for cannabis packaging and labeling that has been adopted in the U.S. Instead, each state independently determines their packaging and labeling regulations, resulting in a lack of consistent regulation of packaging/labeling.

The 31 U.S. states with cannabis packaging and labeling requirements vary in what they do and do not require. For example, 87% of states require a child disclaimer (e.g., “keep out of reach of children”), but only 10% require an age restriction on labels (e.g., 21+). In addition, under half (48%) of states require safe storage recommendations.¹⁴

Current cannabis warning labels in the U.S. have also not adopted comprehensive health warning labels similar to labels required of tobacco products. Notably, [New York state](#) requires retail packaging to include several specific warnings, as well as one rotating health warning that is periodically changed and must be randomly distributed across a licensee’s products.

Canada has the most comprehensive cannabis product packaging and labeling requirements. Canadian cannabis products must follow “plain packaging and labeling” requirements designed to reduce attractiveness and appeal to young people.¹⁰ These products must include, among other attributes, text-only health warnings that display a primary message of harm and a secondary message explaining the harm; the warning must be printed in black text on yellow background with font size the same as the product brand name.¹⁰

Washington State Regulations

According to [WAC 314-55-105](#), cannabis products are subject to the following requirements related to youth appeal. In Washington, only cannabis-infused edibles require formal approval of product, packaging, and labeling prior to being sold in retail stores.

Packaging: Child-resistant packaging is required for edibles (solid and liquid) and concentrates; it is not required for usable cannabis (dried flower), cannabis mix, or topicals.

Labeling: The labeling requirements below apply to all Washington cannabis products:

- Must include cannabis universal symbol (which includes age limit of 21+);
- Must not depict a person under the age of 21 consuming cannabis;
- Must not be “especially appealing to persons under the age of 21”; and
- Must have warning statements (varies by product type).

“Especially appealing to persons under the age of 21” means that labels may not use:

- Cartoons;
- Bubble-type or other cartoon-like fonts;
- A design, brand, or name that resembles a non-cannabis consumer product that is marketed to persons under the age of 21;
- Symbols or celebrities that are commonly used to market products to persons under the age of 21;
- Images of persons under the age of 21; and
- Similarities to products or words that refer to products that are commonly associated with or marketed to persons under the age of 21.

Cannabis-infused edibles have additional labeling requirements:

- Must include a “Not for Kids” symbol on the principal display panel or front of package (including the phone number for poison control).¹⁵

Best Practices

The following best practices for reducing youth appeal are based on existing research literature and regulations in the U.S. and Canada. They do not represent an official position of LCB.

Packaging and Labeling Elements

- Have child-resistant packaging for all types of cannabis products;
- Ideally, use packaging that is plain and opaque and does not use clear or transparent panels that display the product;
- Limit packaging and labeling elements known to be especially appealing to young people; and
- Use a child disclaimer like “Not for Kids” and contact phone number for emergencies (e.g., Poison Control) on all types of cannabis products.

Health Warning Labels

- Make health warnings be separate and distinct from other label warnings;
- Have health warnings with textual enhancements (e.g., larger font on contrasting white or yellow background) and possibly also visual enhancements (e.g., graphic depictions); and
- Include evidence-based health warnings on labels that are specific to youth (e.g., “Adolescents and young adults are at greater risk of harms from cannabis”; “Daily or near-daily use over a prolonged period of time can harm brain development and function”).

Education

- Promote evidence-based education efforts to increase label literacy and awareness of cannabis product information (e.g., a breakdown of how to read labels); and
- Provide examples of evidence-based and/or best practices for packaging and labeling (including health warning labels) in guidance documents, training, and other educational materials for a range of stakeholders.

Research

- Cannabis vape products have become increasingly popular among adolescents, which warrants more research on youth appeal of cannabis vape products; and
- Additional research is needed to distinguish between packaging and labeling attributes that are appealing to adults and those that are appealing to adolescents.

Suggested Citation

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