Canadian Centre on Substance Use and Addiction

Evidence. Engagement. Impact.

ccsa.ca • ccdus.ca

# Implementing a Standard THC Unit Canada: What We Heard

June 2026

# Implementing a Standard THC Unit Canada: What We Heard

This document was published by the Canadian Centre on Substance Use and Addiction (CCSA).

Suggested citation: Gabrys, R., Wood, S., Freeman, T., Lorenzetti, V., Rueda, S., Donnan, J., Conus, F., Simms, C., Veitch, E., Ramji, J., Fry, M., Hébert, F., Lees Thorne, R., Wadsworth, E., Maillet, M., & Hammond, D. (2026). *Implementing a standard THC unit Canada: What we heard*. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction.



CCSA, 500–75 Albert Street
Ottawa, ON  K1P 5E7
613-235-4048
info@ccsa.ca

Production of this document has been made possible through a financial contribution from Health Canada. The views expressed herein do not necessarily represent the views of Health Canada.

This document can also be downloaded as a PDF at ccsa.ca

Ce document est également disponible en français sous le titre :
*Mise en oeuvre d'une unité standard de THC au Canada : ce que nous avons entendu*

ISBN 978-1-77871-264-7

# Table of Contents

## Acknowledgements

We respectfully acknowledge that the offices of the Canadian Centre on Substance Use and Addiction are located on the traditional, unceded territory of the Algonquin Anishnaabe people. The Anishnaabe Algonquin Nation has been present on and has nurtured this land since time immemorial. We are grateful for the opportunity to be present on this territory.

We recognize the Indigenous Peoples as Traditional Knowledge keepers and acknowledge that our society benefits from the sharing of their knowledge.

We strive to build respectful partnerships with all Indigenous Peoples as we look to do better and search for collective healing and true reconciliation.

We also acknowledge the significant contributions of the CCSA Standard THC Unit Working Group. Members provided expert guidance to support the development and dissemination of the surveys, the contextualization of responses and the preparation of this summary report.

## Executive Summary

The Canadian Centre on Substance Use and Addiction (CCSA) conducted two consultation surveys to gather perspectives on the potential implementation of a standard THC unit in Canada. One survey focused on implementing a standard THC unit in cannabis research and surveillance, and the other on adding it to cannabis product labels and packaging. Together, the surveys engaged a range of stakeholders, including researchers, public health professionals, clinicians, decision makers, cannabis industry representatives and people who use cannabis.

A **standard THC unit** is a set amount of the primary psychoactive constituent in cannabis (THC), measured in milligrams and applied across all cannabis products and methods of administration (Freeman et al., 2026).

Overall, most respondents saw value in a standard THC unit across both cannabis research and product labelling. In cannabis research and surveillance, respondents noted it could help improve and standardize how cannabis consumption is measured. They also indicated that it could strengthen studies on the relationship between cannabis use and health outcomes, and make it easier to compare and synthesize findings across studies. For product labelling, respondents noted it could make THC information clearer and easier to understand, support more informed decision making, and strengthen public education and lower-risk guidance.

Respondents also identified several challenges and barriers to implementation in both research and product labelling. One common concern was the diversity of cannabis products and how they are used. Some respondents noted that measuring and communicating standard THC units may be easier for some product types (e.g., edibles) than for inhaled or high-potency products. In these cases, the number of units per product can be much higher and more difficult to interpret. Others noted that THC is absorbed and affects people differently depending on how cannabis is used. Some questioned whether equivalent amounts of THC produce comparable psychoactive effects when consumed by ingestion versus inhalation. Some respondents also emphasized that cannabis products contain a range of cannabinoids beyond THC, which may have their own effects or interact with THC to influence the overall experience. In this context, focusing on THC alone, or on any single measure, may not fully capture the complexity of cannabis effects, including potential "entourage" effects.

Respondents identified several strategies to address these challenges, with public education discussed most often. They noted the need for clear and consistent communication about what a standard THC unit means and what it does not. A standard THC unit is meant to be a consistent measure of THC exposure (e.g., 2.5 mg THC), similar to grams of ethanol in a standard drink, not a recommended or starting dose. Respondents also highlighted the importance of testing approaches (e.g., through focus groups) and

engaging diverse populations when developing research tools (e.g., surveys), product labels and public education materials. They also identified a need for more research on THC equivalencies across product types and ways of using cannabis, as well as on the role of other cannabinoids.

Respondents indicated that implementing a standard THC unit, particularly for product labelling, would require significant resources. It would likely require changes to existing labelling regulations, along with sustained investment in public education. Ongoing stakeholder engagement and capacity building were also seen as essential for implementation. Respondents emphasized that successful implementation would require regulators, industry, researchers, healthcare providers and communities, including diverse and underserved populations, to work together in a coordinated way.

These surveys are one step toward informing and supporting the potential implementation of a standard THC unit in Canada. Further work should focus on targeted engagement with underrepresented groups, particularly industry and diverse communities, to reflect a broader range of perspectives.

## Background

Cannabis legalization in Canada has led to a growing diversity of products available to consumers. While this has expanded choice, it has also created challenges for cannabis research, public education and lower-risk use guidance. Cannabis products vary widely in their cannabinoid composition. Delta-9-tetrahydrocannabinol (Δ-9-THC) is the most prevalent cannabinoid in these products and is primarily responsible for their intoxicating effects. THC is also the most extensively studied cannabinoid in relation to cannabis-related harms. As a result, measuring THC exposure accurately and clearly communicating the risks associated with different levels of use are important.

However, measuring cannabis consumption, particularly the quantity and potency of products used, remains challenging and inconsistent across studies. This limitation reduces our ability to understand the health effects of cannabis and to communicate potential risks and benefits to consumers. In response, interest has grown in developing a standard dose or unit for cannabis, both in Canada and internationally. The 2024 Legislative Review of the *Cannabis Act* recommended that "Health Canada should develop a standard dose or unit dose for cannabis, that its development should be prioritized, and that it should be accompanied by regulatory amendments to require it as an element on cannabis product labels" (Rosenberg et al., 2024).

To support this effort, the Canadian Centre on Substance Use and Addiction (CCSA) previously convened a virtual meeting with researchers and interested partners to explore the concept of a standard THC unit and its potential applications (Canadian Centre on Substance Use and Addiction, 2023). This initial meeting was followed by an in-person meeting that further examined opportunities and challenges related to implementing a THC unit in cannabis research, health interventions and public education (Wood & Gabrys, 2024). A working group was then established to inform and advance the implementation of a standard THC unit in Canada.

A **standard THC unit** is a set amount of the primary psychoactive constituent in cannabis (THC), measured in milligrams and applied across all cannabis products and methods of administration (Freeman et al., 2026).

In June 2025, the working group launched two consultation surveys: one on implementing a standard THC unit in cannabis research and surveillance, and the other on adding it to cannabis product labels and packaging. Because the standard THC unit is still a relatively new concept, respondents were expected to have varying levels of familiarity. To gather informed and relevant perspectives, the surveys were distributed to people with experience in the cannabis field (e.g., research, policy, lived experience), as well as those with some prior awareness or understanding of the standard THC unit.

# Implementing a Standard THC Unit in Research and Surveillance

For the *Implementing a Standard THC Unit in Research and Surveillance* survey, we targeted professionals in epidemiology and public health surveillance; clinical and experimental research; behavioural, social and health science research; and market and economic research. A total of 26 respondents completed the survey in full. They represented these research areas, as well as professionals in health promotion, public safety and the cannabis industry.

Participants were asked to respond to the following four questions:

1. Is there value to implementing standard THC units in your area of research? Please explain.
2. What are the biggest challenges and barriers to integrating standard THC units into your area of research?
3. What steps could be taken to address these challenges and barriers?
4. What do you think are the most important research priorities for implementing standard THC units in your area of research?

## Value of a Standard THC Unit in Research and Surveillance

Across research areas, respondents generally saw value in a standard THC unit. They noted it could provide a common metric for measuring and comparing cannabis (namely, THC) exposure across products, populations and study designs. Respondents also said it could support monitoring exposure over time, strengthen population-level surveillance, help identify higher-risk patterns of use, and inform the refinement of lower-risk cannabis use guidelines.

Most respondents indicated that a standard THC unit could improve how total THC consumption and exposure are measured across cannabis products. This improvement could support more accurate analyses of patterns of use and strengthen research on dose–response relationships and cannabis-related health outcomes. Some respondents also noted that a standard THC unit could enable "dose-normalized" comparisons in experimental and clinical studies and improve consistency in reporting across the literature. This, in turn, could make it easier to conduct robust systematic reviews and meta-analyses. One respondent suggested that a standard THC unit could help distinguish between demand for THC specifically and demand for cannabis products more broadly.

Several respondents noted that implementing a standard THC unit could create a "shared language" across researchers, clinicians, policymakers and consumers. This shared language could strengthen public health messaging, inform policy development and support lower-risk use guidance. In clinical contexts, one respondent said a standard THC unit could

help clinicians discuss cannabis use with patients and support consumers in better understanding and managing their consumption.

Not all respondents supported implementing a standard THC unit in cannabis research and surveillance. Some cited the challenges and barriers described below.

## Challenges and Barriers to Implementation

Limited consumer awareness and understanding of cannabinoid content in the cannabis products they use was the most commonly cited barrier to implementing a standard THC unit in cannabis research and surveillance. Respondents noted that many consumers already have difficulty estimating and reporting their THC (and other cannabinoid) consumption and questioned whether introducing a standard THC unit would meaningfully improve this.

One respondent noted that implementing a standard THC unit in research may be easier for some product types (e.g., edible cannabis products) than for inhaled or high-potency products, which may contain many THC units (e.g., over 100 per package). In these cases, recall and reporting may be more difficult.

The diversity of cannabis products and how they are used was another commonly cited challenge. Respondents noted that differences in absorption, metabolism, individual tolerance and consumption behaviours (e.g., duration of inhalation) make it difficult to apply a single standardized metric across product types. Some questioned whether equivalent doses of THC produce comparable effects across methods of use, particularly between ingestion and inhalation. One respondent further argued that cannabis exposure cannot be standardized in the same way as alcohol, which generally has a single primary route of administration.

Respondents also highlighted the “complex chemistry of cannabis,” noting that the plant contains many active cannabinoids beyond THC. They said that a single standardized measure based only on THC does not fully capture the complexity and variability of cannabis plants and products. From this perspective, focusing only on THC may overlook the role of other cannabinoids and potential “entourage” effects.

Respondents also identified several practical challenges related to implementation. One noted that there is currently no agreed-upon definition of a standard THC unit in Canada. Another highlighted the difficulty of converting existing product information (e.g., %, mg, mg/g, mg/mL) into standard THC units for use in research tools such as population surveys. More broadly, because current research and surveillance systems do not routinely measure or report cannabis consumption in standard THC units, integrating this metric would require substantial updates to survey tools, data collection methods and researcher training. One

respondent also noted that secondary analyses examining relationships between cannabis consumption, pricing and harms (e.g., cannabis-related hospitalization) using standard THC units are currently limited, as few studies report exposure in this way.

One respondent questioned whether a standard THC unit would address "the primary challenges faced by consumers," suggesting that broader education on product types, methods of use and expected effects may be equally or more important. Another noted that there is currently no universally accepted measure of THC exposure that can be consistently linked to outcomes such as impairment or health effects.

## Steps to Address Challenges and Barriers

Respondents identified experimental testing (e.g., focus groups and cognitive interviewing) of new measures of cannabis consumption, including quantity, potency and standard THC units, as a key strategy to support implementation in research and surveillance. This approach could help develop valid and reliable measurement tools, such as surveys and individual questions. Respondents also recommended coordinating measurement approaches across studies (e.g., developing common standards) and creating tools to convert existing metrics into standard THC units. One respondent suggested encouraging the adoption of standardized measurement and reporting practices through journal publication standards and research funding requirements.

Labelling cannabis products with standard THC units was seen as central to improving consumer understanding of THC content across products. This, in turn, could support more accurate and reliable reporting in research studies.

Several respondents described the need to strengthen the evidence base for a standard THC unit. Priorities included research on THC equivalencies across product types and how they are used, as well as studies on the health effects of the "full spectrum" of cannabis, including other cannabinoids. One respondent also suggested triangulating experimental studies, population surveys, and real-time data collection methods to better characterize THC exposure and related health outcomes.

Additional recommendations focused on education, collaboration and stakeholder engagement. Respondents suggested webinars, training for researchers and retail staff, and accessible educational resources to support implementation. Early engagement with regulators, researchers, industry and community stakeholders was also seen as key for coordinated implementation, along with incorporating lived experience and diverse populations into cannabis research.

Some participants suggested complementary approaches, such as placing limits on the number of standard THC units per product, implementing clearer labelling frameworks, and strengthening product testing standards to support consistency and accuracy. One

respondent noted the need to demonstrate the value of a standard THC unit, particularly for public health and for reducing harms among consumers.

## Research Priorities for the Standard THC Unit

Improving consumer understanding and reporting of THC consumption was the most frequently identified priority. Respondents emphasized the need to educate consumers about the concept of a standard THC unit to support accurate reporting in population surveys and other research tools. Suggested approaches included incorporating standard THC units on product labels, strengthening public education, and ensuring the concept is understandable to both regular and occasional consumers, as well as diverse populations. One respondent also noted that the standard THC unit should align with how consumers experience and understand cannabis use, rather than focusing only on its value for pharmacological measurement.

Developing and refining measurement tools used to assess cannabis consumption was also commonly identified as a priority. Because standard THC units do not currently appear on product labels, respondents highlighted the need to assess and improve the reliability and validity of existing instruments, particularly those measuring quantity and potency. They also noted the need to develop tools to measure and estimate THC exposure using a standard THC unit. Some recommended developing strategies to convert existing measures into standard THC units and creating shorter instruments for use in population-based surveys.

Many respondents identified the need to better understand the relationship between total THC exposure and health outcomes. Priorities included research on dose–response relationships between THC exposure and cannabis-related outcomes, with the goal of identifying meaningful risk thresholds. Some also suggested the need for additional clinical research on the therapeutic potential of cannabis for conditions such as anxiety, chronic pain, sleep disorders, restless leg syndrome and epilepsy. In this context, one respondent suggested using standard THC units as standardized endpoints in clinical trials.

Several respondents emphasized the need to better understand THC equivalencies across product types and how cannabis is used, including differences in pharmacology, subjective effects and health or adverse outcomes. They also called for more research on interactions between THC and other cannabinoids or psychoactive substances (e.g., alcohol), as well as a better understanding of how responses to THC vary across people (e.g., age, sex).

Some respondents indicated that standard THC units could help triangulate data on patterns of cannabis use, legal and illegal markets, and health outcomes. Suggested approaches included monitoring trends in THC exposure and related harms (e.g., hospitalizations for psychosis) in relation to changes in product pricing and market dynamics. Respondents also suggested comparing self-reported consumption patterns with more objective indicators, such as retail sales data. They emphasized the importance of

situating these analyses within broader social and cultural contexts, including the impacts of prohibition and stigma.

Finally, one respondent suggested assessing how implementing a standard THC unit may influence reasons for use and product choices, in relation to the broader objectives of introducing the measure. Another emphasized that research priorities should focus on ensuring that implementation ultimately contributes to preventing cannabis-related harms among consumers.

# Implementing a Standard THC Unit on Cannabis Product Labels and Packaging

For the *Implementing a Standard THC Unit in Research and Surveillance* survey, we targeted cannabis regulators (federal, provincial and territorial), cannabis producers, distributors and retailers, researchers, public health and safety professionals, healthcare providers and people who use cannabis (for medical or non-medical purposes, or both). A total of 30 respondents completed the survey in full.

Participants were asked to respond to the following six questions:

1. Do you feel there is value in incorporating standard THC units on cannabis product labels and packaging? Please explain.
2. How would implementing standard THC units on cannabis product labels and packaging impact your work, field, organization or industry?
3. What do you think are the most significant challenges or barriers to implementing standard THC units on cannabis product labels and packaging?
4. What steps should be taken to address these challenges and barriers?
5. Do you anticipate any unintended consequences from implementing standard THC units on cannabis product labels and packaging? If so, what are they?
6. What measures could help reduce or address these unintended consequences?

Individuals who identified as people who use cannabis (for medical or non-medical purposes, or both) were asked four additional questions.

1. What is your primary reason for using cannabis?
   a. For medical purposes
   b. For non-medical (recreational) purposes
   c. For both medical and non-medical purposes
   d. Other (please specify)

2. What information do you look for on cannabis packaging and labels when choosing a product? (Select all that apply.)
   a. THC (delta-9-tetrahydrocannabinol)
   b. CBD (cannabidiol)
   c. Terpenes
   d. Plant type (sativa, indica, hybrid)
   e. Product brand name
   f. Nutritional facts
   g. List of ingredients
   h. Health warning messages
   i. Other: ____

3. Would including standard THC units on cannabis product labels and packaging be helpful? Please explain.

4. What information and resources would help you better understand standard THC units and cannabis product labels and packaging?

## Value of a Standard THC Unit on Labels and Packaging

Across stakeholder groups, respondents generally supported including standard THC units, or at least clearer information to support dosing, on cannabis product labels and packaging. They said this could improve consumer understanding, public health (lower-risk) guidance and cannabis research.

Improving label clarity and helping consumers better understand THC content was the central theme. Many respondents noted that current labelling is often confusing and that THC content is communicated inconsistently across products (e.g., in %, mg/g, mg/ml of THC). Standard THC units were seen as a way to make product potency easier to understand, support comparisons across products, and help consumers make more informed decisions, particularly those who are new or inexperienced. One respondent also noted that standard THC units could provide context for existing public health messaging, such as “start low and go slow.”

Respondents also described potential benefits for public health, clinical practice and cannabis research. Standard THC units were seen as supporting more consistent communication and enabling more accurate monitoring of use and health outcomes. In clinical contexts, one respondent noted that standard THC units could support more effective discussions between healthcare providers and patients, as well as better measurement and monitoring of cannabis use. At the population level, standard THC units were seen as a way to enhance surveillance (e.g., patterns of use, retail sales) and improve comparability across studies. This, in turn, could inform cannabis policy and the development and refinement of lower-risk guidelines.

Several respondents recommended developing public education campaigns and communication materials alongside the implementation of standard THC units or other labelling changes. They emphasized the need for clear, plain-language explanations, as well as public education initiatives and training for retail staff, to support understanding and appropriate use. Some also suggested enhancing labels with multiple types of information (e.g., total mg THC, number of units, dose per product unit). Others recommended including a THC potency scale (e.g., low, medium, high) to help identify higher-potency products.

While most respondents supported including a standard THC unit on product labels and packaging, several concerns and limitations were raised. These are described in the following section on challenges and barriers to implementation.

## Impact of Implementation on Respondents' Work, Organization or Industry

Responses were consistent with the preceding section. Participants emphasized that standard THC units could improve consumer understanding and make it easier to interpret, compare, and make decisions across cannabis products. They also noted that standard THC units could improve the precision and comparability of cannabis exposure measures, strengthen monitoring of cannabis use and related harms, and support evidence-informed policy development and public education.

Respondents identified several resource requirements. Many emphasized that implementing a standard THC unit on product labels would require significant education and communication. This work includes public campaigns, training for retail staff and healthcare providers, and integration into existing public health messaging.

Industry stakeholders raised concerns about operational and regulatory burden. These included the need to redesign labels, update compliance guidelines, and address technical challenges in calculating and communicating standard THC units within limited label space.

## Challenges and Barriers to Implementation

Across stakeholder groups, respondents identified several interrelated research, practice and communication challenges to implementing standard THC units on cannabis product labels and packaging. Many of these were also described in the *Implementing a Standard THC Unit in Research and Surveillance* survey (above).

The diversity of cannabis products and how they are used was the most commonly cited challenge. Several respondents noted that cannabis is consumed through multiple routes (e.g., inhalation, ingestion), each with different pharmacokinetics profiles. As a result, similar amounts of THC may not produce equivalent psychoactive effects across products. This challenge may be further compounded by differences in individual tolerance and metabolism.

Respondents also highlighted the complex chemistry of cannabis. They questioned whether a single, THC-based unit can capture the full range of effects, given differences in product characteristics, routes of administration, bioavailability and how people respond to THC and other cannabinoids. They noted that THC alone may not fully reflect the effects of cannabis use. The presence of other cannabinoids and compounds (e.g., terpenes), and their interactions, may mean that a THC-based unit oversimplifies exposure and does not fully reflect user experience. Overall, these factors raised concerns about practicality and interpretability across product types.

Limited cannabis literacy and challenges interpreting existing labels were also commonly cited barriers. Respondents noted that current labelling is already difficult for many consumers to understand, and that adding a standard THC unit could increase confusion. While implementation may be more straightforward for products such as edibles and

beverages, applying standard THC units to inhalable products (e.g., dried cannabis) and high-potency products (e.g., vapes, concentrates) may be more challenging, particularly where large numbers of units per package are difficult to communicate clearly.

There were also concerns that consumers may misinterpret a standard THC unit as a recommended or "safe" dose.

Respondents identified methodological and standardization challenges, particularly the difficulty of developing a single metric that applies across diverse product categories. Existing approaches (e.g., dried cannabis equivalents) were cited as already creating confusion. More broadly, one respondent noted that there is currently no universally accepted or validated measure of THC exposure that can be consistently linked to outcomes such as impairment or health effects.

Additional concerns included variability in THC content, including within product batches, and uncertainty about the accuracy and stability of labelled cannabinoid content. Implementation and operational barriers were also noted. These included the need for regulatory changes and associated resource demands, alignment across jurisdictions, label and packaging redesign, and updates to testing and compliance systems. Industry stakeholders highlighted potential administrative burden, costs to licensees and the importance of industry buy-in. Regulatory processes and stakeholder consultations were also identified as potential sources of implementation delays.

## Steps to Address Challenges and Barriers

Across stakeholder groups, respondents suggested a phased, evidence-informed and collaborative approach to implementing a standard THC unit. Experimental research (e.g., focus groups, cognitive testing) was seen as essential to assess how different populations understand THC units and to identify effective ways to present this information on labels and in public education materials. Respondents also highlighted the need for simple, plain-language, consumer-centred communication strategies, including visual aids and product-specific guidance, to improve understanding and reduce misinterpretation.

Respondents emphasized that education, communication and stakeholder engagement are essential, and resource-intensive, components of implementation. Some noted that public education campaigns should clearly explain what a standard THC unit represents: a standardized measure of THC (similar to a standard drink), not a recommended dose. Education efforts should also reinforce and contextualize harm reduction messaging (e.g., "start low and go slow") and provide information on onset, duration and variability in effects across product types. Training for retail staff, healthcare providers and other intermediaries was also identified as essential to support consistent and accurate communication with consumers.

Respondents emphasized the need to strengthen the evidence base for the standard THC unit, particularly how well it can measure and predict cannabis-related health outcomes,

both acute and long term. Priorities included research on THC equivalencies across product types and how cannabis is used, dose–response relationships, and interactions with other cannabinoids and psychoactive substances. Respondents also suggested triangulating experimental studies, population surveys and real-time data collection to better characterize THC exposure and related outcomes. Ongoing research was seen as essential to support refinement of the standard THC unit over time.

Several respondents recommended improving measurement and standardization methods. This work includes developing and validating tools to assess THC consumption and creating tools to convert existing metrics into standard THC units. It also includes promoting the use of standardized measures, including a standard THC unit, through journal publication standards and research funding requirements.

Coordination and leadership across regulatory bodies were identified as key enablers. Respondents emphasized the need for cross-government collaboration (federal, provincial and territorial) to align policies, clarify the purpose and application of a standard THC unit, and support integration into existing labelling frameworks. Clear guidance, timelines and technical support for industry were also seen as important to support implementation.

Some respondents suggested bundling implementation of a standard THC unit with other labelling updates or prioritizing product categories where feasibility is higher (e.g., edibles). Ongoing stakeholder engagement was also emphasized. This engagement includes industry, researchers, healthcare providers and people who use cannabis in both the design and implementation.

Finally, respondents emphasized the importance of phased implementation and ongoing evaluation. A gradual rollout, supported by continuous monitoring, would allow early identification of challenges, enable adaptation, and help ensure the approach remains practical, evidence-informed and responsive to emerging data.

## Potential Unintended Consequences of Implementing a Standard THC Unit

Misinterpretation and oversimplification were key concerns. Some respondents indicated that a standard THC unit could lead consumers to assume that the effects of cannabis products are “fully standardized” or that THC alone determines product quality and cannabis experience. This assumption may lead some consumers to overlook the role of other cannabinoids and product characteristics and, in some cases, create a false sense of safety. There were also concerns that consumers might interpret a standard THC unit as a recommended or “safe” dose, despite evidence showing notable variability in individual responses to THC and other cannabinoids.

Respondents also noted risks related to assumptions of equivalent effects across products. Some indicated that consumers may interpret the same number of standard THC units as producing similar effects across product types, despite known differences in

pharmacokinetics and pharmacodynamics between inhalation and ingestion. This interpretation could increase the risk of overconsumption and adverse events, particularly when switching between product types such as dried flower, edibles or concentrates.

Several respondents highlighted potential behavioural and market effects associated with implementing a standard THC unit. Some suggested that increased visibility and understanding of THC quantities could shift consumer preferences toward higher-potency products, with some individuals perceiving products with more THC units as offering greater value, potentially reinforcing existing trends toward higher-potency products. At the same time, others noted that clearer information could support more informed decision making among consumers.

Concerns were also raised about label complexity and information fatigue. Adding a standard THC unit to already complex labels may overwhelm consumers or reduce overall comprehension. If perceived psychoactive effects (e.g., the magnitude and quality of the high) do not align with consumer expectations based on labelled THC units, this could undermine trust in product labelling.

One respondent noted that if unregulated products continue to display unverified or inconsistent dosing information, this could create confusion and potentially undermine the impact of a standard THC unit in the legal market. Conversely, one respondent noted that standardization could help reduce fraudulent labelling and enhance product legitimacy.

Finally, some respondents noted potential resource and priority trade-offs. They suggested that focusing on standard THC unit implementation could divert attention from other public health priorities or from broader cannabis education efforts.

## Steps to Reduce Unintended Consequences

Respondents emphasized that preventing or limiting unintended consequences will require a combination of public education, consumer-centred communication tailored to diverse populations, ongoing research on the standard THC unit and cannabis more broadly, and an adaptive approach to implementation. Many of the recommendations outlined below were also raised in earlier sections of this report.

Consumer testing and evidence-informed label design were key recommendations. Experimental studies (e.g., focus groups) should assess how different populations, including youth, older adults and people with varying levels of cannabis experience, interpret standard THC unit information on labels and in public education materials. The goal is to identify and address potential misunderstandings.

The importance of public education and cannabis literacy was frequently mentioned. Public education campaigns, in-store communication, and training for retail staff, healthcare providers and other intermediaries were identified as essential to support understanding of standard THC units. Messaging should reinforce harm reduction principles (e.g., “start low

and go slow"), clarify that a standard THC unit is not a recommended dose, and explain differences in onset, duration and effects across product types.

Respondents identified several communication strategies to support understanding of standard THC units on product labels and packaging. Suggested approaches included using plain language, visual aids (e.g., icons indicating strength or duration of effects) and product-specific guidance. Some recommended supplementing labels with digital tools (e.g., QR codes) to provide more detailed information. Others suggested alternative approaches, such as range-based THC information or simplified potency scales (e.g., low, medium, high).

Another recurring theme was the importance of ongoing research and responsiveness to emerging evidence. This work includes studying interactions between cannabinoids, evaluating how standard THC units influence consumer behaviour and monitoring for unintended impacts. Respondents emphasized that implementation should be treated as an evolving process, with adjustments made as new evidence emerges.

Stakeholder engagement and capacity building were also identified as essential. Coordinated efforts involving regulators, industry professionals, researchers, healthcare providers and communities, including diverse and underserved populations, are needed to support consistent messaging and effective implementation.

Finally, some respondents highlighted complementary strategies, including clearer communication to distinguish legal from unregulated products, prominent warnings for high-potency products, and labelling that reflects real-world patterns of use.

### Additional Comments

Some respondents highlighted broader policy considerations, including calls to revisit existing regulations (e.g., possession limits). Others emphasized the importance of culturally appropriate communication, particularly for Indigenous communities. They recommended that messaging on standard THC units and associated policies be developed collaboratively and tailored to community contexts.

Some respondents noted that limited availability of low-THC or balanced products, combined with retail practices that favour high-potency products, may limit consumer choice and undermine public health objectives, particularly for those seeking lower-potency options.

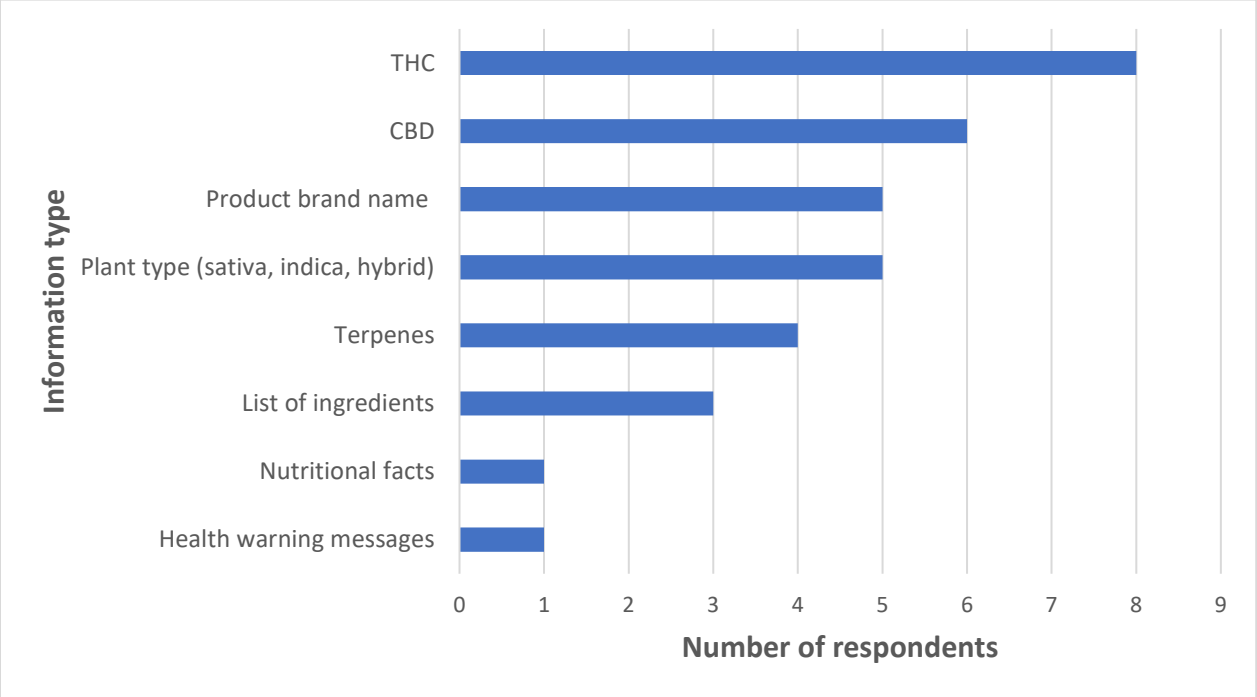
At the same time, others emphasized the importance of advancing some form of standardization despite these limitations. They noted that although a standard THC unit may not fully capture all product differences, the absence of a common metric creates greater challenges for cannabis research, consumer cannabis literacy and the development of lower-risk use guidance.

## Responses from People Who Use Cannabis

### Most Commonly Sought Information on Product Labels and Packaging

As shown in Figure 1, cannabinoid content, particularly THC, was the most commonly sought information among people who use cannabis. This was followed by CBD content, plant type and product brand name.

**Figure 1. Most commonly sought information on cannabis product labels and packaging**




## Helpfulness of Standard THC Units on Product Labels and Packaging

Many respondents indicated that standard THC units could improve clarity and comparability across products, particularly given confusion around current labelling practices. They saw a standard unit as a way to support product comparisons and more informed consumption decisions.

Respondents also highlighted potential benefits for harm reduction, noting that clearer information on THC quantities could help consumers better gauge consumption. Some suggested that cannabis labelling could benefit from greater standardization and simplification, similar to other consumer goods.

Respondents also noted that standard THC units could support more consistent dosing and more predictable outcomes, particularly when accompanied by clear communication and education.

Not all respondents supported implementing standard THC units. Some raised concerns that a standard THC unit may be misleading, given variability in dosing and effects across products and individuals.

### Information and Resources to Support Understanding of Standard THC Units

A common recommendation was the use of digital tools, such as QR codes on packaging linking to short videos or interactive content. These tools could explain what a standard THC unit is, how it was developed and how it should be interpreted.

Many respondents also recommended clear, practical information on effects and risks, including typical onset times, duration of effects and risks associated with overconsumption. Simplified, plain-language messaging was seen as essential to ensure that information is easy to understand and apply.

Several respondents suggested adopting a consistent presentation across products, similar to standard drink metrics for alcohol. This approach included clearly separating standard THC unit information from other metrics (e.g., % THC, mg THC), which were said to be confusing when presented together.

One respondent noted that existing information on cannabis labels and packaging is already sufficient.

## Discussion

These surveys represent a first effort to capture stakeholder perspectives on the potential implementation of a standard THC unit in Canada, particularly within cannabis research and surveillance and on product labels and packaging. Overall, most respondents saw value in a standard THC unit. They highlighted its potential to improve and standardize the measurement of cannabis exposure in research settings and to enhance consumer understanding of THC content in cannabis products.

At the same time, respondents identified several important challenges and barriers. The diversity of cannabis products and how they are used was the most frequently discussed challenge, including whether equivalent amounts of THC produce comparable psychoactive effects across methods of use. Some respondents also noted that a single metric for cannabis or THC may not fully capture the complexity of the cannabis plant and cannabis products, including the role of other cannabinoids and compounds that may influence overall effects.

The expanding diversity of cannabis products and methods of use has, in part, driven the need for a standardized metric to support more consistent measurement and communication of THC exposure across products (Freeman & Lorenzetti, 2019; Freeman et al., 2026; Wood et al., 2024). In this context, a standard THC unit represents a set amount of the primary psychoactive component in cannabis (THC), measured in milligrams and applied across products and methods of administration (Freeman et al., 2026). It is not intended to represent a recommended starting dose or to convey expected effects (e.g., it does not imply that 2.5 mg of THC corresponds to a specific level of intoxication). Rather, it functions similarly to a standard drink in alcohol research and public health guidance, where

intake is measured and communicated in standard drinks across products rather than in total grams of ethanol.

A standard THC unit is not intended to replace existing metrics on product packaging (e.g., % THC, mg/g of THC), but to complement them (Lorenzetti et al., 2025). It is also not meant to diminish the importance of other cannabinoids in shaping psychoactive effects, either independently or in combination with THC. As such, its integration into product labelling will require careful consideration to ensure it enhances, rather than complicates, existing product labelling.

As respondents noted, addressing these considerations will require experimental testing of different approaches to product labelling and survey measures. This process should involve meaningful engagement with a broad range of stakeholders, including researchers, diverse populations of people who use cannabis, regulators and industry representatives. Public education on the standard THC unit will also be needed both in advance of and throughout implementation. Adequate resources will be required to support the development, testing and implementation of these approaches.

These surveys included a relatively small sample and may not reflect the full range of perspectives across all stakeholder groups. Because the concept of a standard THC unit is not yet widely understood, recruitment focused on people with some familiarity to support informed feedback. This approach may have introduced selection bias toward respondents who are more supportive of a standard THC unit. Representation across stakeholder groups was also uneven, with stronger participation from research and public health and more limited engagement from other sectors, particularly industry. Additional engagement with underrepresented groups will be important to ensure that future work reflects a broader range of perspectives and practical considerations.

# References

Canadian Centre on Substance Use and Addiction. (2023). *A standard THC unit and its value in cannabis research, public education and regulation in Canada*. Ottawa, Ont.: Author. https://www.ccsa.ca/sites/default/files/2023-01/CCSA_Standard_THC_Unit_Event_Summary_Report_en.pdf

Freeman, T., Gabrys, R., Lees Thorne, R., Wadsworth, E., Margolese, S., Onyegbule, C., … Wood, S. (2026). *Parameters for a standard THC unit in Canada*. Ottawa, Ont.: Canadian Centre on Substance Use and Addiction.

Freeman, T. P., & Lorenzetti, V. (2019). 'Standard THC units': A proposal to standardize dose across all cannabis products and methods of administration. *Addiction*, *115*(7), 1207–1216. https://doi.org/10.1111/add.14842

Lorenzetti, V., Hammond, D., Wood, S., Gabrys, R., & Freeman, T. P. (2025). Standard THC units as a unit of measurement: Differences & complementarity with other THC metrics. *International Journal of Drug Policy, 143*, Article 104891. https://doi.org/10.1016/j.drugpo.2025.104891

Rosenberg, M., Ayonrinde, O., Conrod, P. J., Levesque, L., & Selby, P. (2024). *Legislative Review of the Cannabis Act: Final Report of the Expert Panel*. Ottawa, Ont.: Government of Canada. https://www.canada.ca/content/dam/hc-sc/documents/services/publications/drugs-medication/legislative-review-cannabis-act-final-report-expert-panel/legislative-review-cannabis-act-final-report-expert-panel.pdf

Wood, S., & Gabrys, R. (2024). *A standard THC unit in Canada: Recommendations for implementation.* Ottawa, Ont.: Canadian Centre on Substance Use and Addiction. https://www.ccsa.ca/sites/default/files/2024-06/Implementing-a-StU-in-Canada-Recommendations-en.pdf

Wood, S., Gabrys, R., Freeman, T., & Hammond, D. (2024). Canada's THC unit: Applications for the legal cannabis market. *International Journal of Drug Policy*, *128*, Article 104457. https://doi.org/10.1016/j.drugpo.2024.104457