

COST-BENEFIT ANALYSIS

In performing a cost-benefit analysis, each rulemaking entity must provide the information requested for the cost-benefit analysis to be considered a good faith effort. The cost-benefit analysis must be submitted to the Office of Policy, Research and Regulatory Reform at least ten (10) days before the administrative hearing on the proposed rule and posted on your agency's web site. For all questions, please attach all underlying data that supports the statements or figures stated in this cost-benefit analysis.

DEPARTMENT: Revenue AGENCY: Marijuana Enforcement Division
CCR: 1 CCR 212-1 DATE: October 5, 2018

RULE TITLE OR SUBJECT:

M 1501(C)(6) – MEDICAL MARIJUANA TESTING PROGRAM – CONTAMINANT TESTING **(SUBMISSION ID 130)**

Per the provisions of 24-4-103(2.5)(a), Colorado Revised Statutes, the cost-benefit analysis must include the following:

1. The reason for the rule or amendment;

The purpose of Rule M 1501, Medical Marijuana Rules, 1 CCR 212-1, as a whole is to protect the public health and safety by requiring that Medical Marijuana,¹ Medical Marijuana Concentrate, and Medical Marijuana-Infused Products consumed by patients has successfully undergone contaminant testing.

Subsection (C)(6) of Rule M 1501, 1 CCR 212-1

Under the current Medical Marijuana Rules, 1 CCR 212-1, testing for metals—i.e., lead, arsenic, cadmium, and mercury—is not included as a required contaminant test, but metals testing may be required in specific instances at the Marijuana Enforcement Division's ("Division") direction. See Rule M 1501(D). The language in proposed Rule M 1501(C)(6) adds metals testing to the list of mandatory contaminant tests.

The reason for the amended language in Rule M 1501(C)(6) is to ensure that public health and safety is not endangered by contaminated Medical Marijuana, Medical Marijuana Concentrate, and Medical Marijuana-Infused Products. Metals contamination endangers the safety of patients and the community. Lead, arsenic, cadmium, and mercury are widely distributed in the environment in soil, water, and fertilizer. Marijuana plants accumulate these metals from contaminated soil. The four metals for which proposed Rule M 1501(C)(6) mandates testing are highly toxic and are injurious to the public health and safety when ingested or inhaled. Lead can cause neurological, reproductive, developmental, cardiovascular, and renal health effects. Mercury can cause neurological, hematopoietic, and renal health effects. Cadmium and arsenic are known carcinogens. These metals can also be toxic to marijuana plants.

The Colorado Department of Public Health and Environment ("CDPHE") has anecdotal evidence that other states' marijuana testing programs have shown unacceptably high levels of metals contamination. Because there are no existing quality or contaminant level requirements for marijuana growth media or fertilizers, there remains a possibility that marijuana, marijuana concentrate and marijuana products may contain unacceptable levels of toxic metals that would represent a public health threat to consumers. Under the amended language in Rule M 1501(C)(6), Colorado's public health and safety protections will be more consistent with those adopted by other states that regulate Medical Marijuana and impose requirements for metals testing.

¹ Capitalized terms utilized herein but not defined shall have the meanings ascribed to them in the Medical Marijuana Rules, 1 CCR 212-1, Rule M 103, or the Retail Marijuana Rules, 1 CCR 212-2, Rule R 103.

Proposed Rule M 1501(C)(6) was considered by a stakeholder work group on August 24, 2018. Following stakeholder input, no substantive changes were made to proposed Rule M 1501(C)(6). A comprehensive set of all proposed rules and amendments was published on the Division's website on October 5, 2018 for consideration at the October 16, 2018 rulemaking hearing. See Proposed Rules for Public Comment: Medical Marijuana Rules, <https://www.colorado.gov/pacific/enforcement/med-2018-rulemaking>.

2. The anticipated economic benefits of the rule or amendment, which shall include economic growth, the creation of new jobs, and increased economic competitiveness;

The proposed requirements in Rule M 1501(C)(6) have long term economic benefits, including economic growth and increased economic competitiveness. Metals can also be toxic to marijuana plants. Testing for metals contamination will ensure that Medical Marijuana Businesses have healthy plants which will increase economic growth in the industry. In addition, Colorado is considered an industry leader in the regulation of Medical Marijuana. To maintain that status, and the associated increased economic competitiveness, patients must have confidence that there are adequate protections for the public and safety. More importantly, the health effects from metals contamination would hinder economic growth. If patients are exposed repeatedly to unacceptable amounts of metals it will result in medical and social costs that undermine economic growth in Colorado. As the Medical Marijuana industry matures, the effect of metals exposure will become more pronounced.

3. The anticipated costs of the rule or amendment, which shall include the direct costs to the government to administer the rule or amendment and the direct and indirect costs to business and other entities required to comply with the rule or amendment;

There are no direct costs to the Division or to CDPHE to administer the new requirements under Rule M 1501(C)(6). There may be indirect enforcement costs related to violations of the new mandatory testing requirements. However, any staff time needed for enforcement efforts will be absorbed by current Division and CDPHE employees.

It is anticipated there will be direct costs to Medical Marijuana Businesses due to the additional testing requirements under proposed M 1501(C)(6). The total estimated cost to perform testing for all four metals identified in M 1501(C)(6) is about \$80 for each Harvest Batch or Production Batch, and the cost perform testing for a single metal identified in M 1501(C)(6) is about \$20 for each Harvest Batch or Production Batch. A Licensee can use one Sample for all four required metals tests, thus realizing cost savings. A Medical Marijuana Business might also incur indirect costs from the requirements of M 1501(C)(6) if the Medical Marijuana Business experiences repeated failed tests for metals contamination and needs to take operational steps to prevent further metals contamination.

While some Medical Marijuana Testing Facilities currently have the necessary equipment to perform metals testing, other Medical Marijuana Testing Facilities that wish to test for metals contamination will incur costs at the outset for acquiring different equipment before performing tests for metals contamination. However, the Medical Marijuana Testing Facilities will be able to recover these initial costs through the fees charged for metals contaminant testing. In the long term, the additional required tests should ultimately boost revenues to Medical Marijuana Testing Facilities.

4. Any adverse effects on the economy, consumers, private markets, small businesses, job creation, and economic competitiveness; and

Compliance with the requirements in Rule M 1501(C)(6), as proposed, should have no adverse effect on the economy, consumers, private markets, small businesses, job creation, and economic competitiveness. In fact, the requirements benefit patients by reducing the risk of metals contamination in marijuana and marijuana products grown, produced, manufactured, and sold by licensed Medical Marijuana Businesses. Small Medical Marijuana Businesses will face additional testing and equipment costs. However, these costs will be offset in the long term by the cost savings to the community

created by more robust measures to help protect the public health and safety. In the long term, reducing the risk of contaminated Medical Marijuana, Medical Marijuana Concentrate, and Medical Marijuana-Infused Product in the regulated Medical Marijuana system should prevent patients from incurring additional medical costs related to long term exposure to toxic metals. Finally, the Medical Marijuana industry as a whole will experience an economic advantage as Rule M 1501(C)(6) will promote continued confidence in the safety of Medical Marijuana, Medical Marijuana Concentrate, and Medical Marijuana-Infused Products for the patients who consume them.

5. At least two alternatives to the proposed rule or amendment that can be identified by the submitting agency or a member of the public, including the costs and benefits of pursuing each of the alternatives identified.

One alternative to the new requirements in proposed Rule M 1501(C)(6) is maintain the status quo and keep metals contaminant testing voluntary. This has the benefit of imposing no new upfront testing costs to Medical Marijuana Business. It would also eliminate the need for Medical Marijuana Testing Facilities to purchase new equipment. However, not testing for metals contaminants increases the risk of contaminated Medical Marijuana, Medical Marijuana Concentrate, and Medical Marijuana-Infused Product reaching patients, which could lead to additional public health costs in the long term. Not requiring metals contaminant testing also weakens Colorado's status as a leader in the regulated Medical Marijuana industry because many other states already require metals contaminant testing.

A second alternative is to make only certain metals testing mandatory, and maintain the status quo for other metals testing. For example, instead of requiring testing for lead, arsenic, cadmium, and mercury, as proposed in Rule M 1501(C)(6), the Division could require only testing for lead and arsenic. This would slightly reduce testing costs from the costs resulting from the requirements in proposed Rule M 1501(C)(6). There would some cost savings for Medical Marijuana Businesses, as the estimated cost for testing for lead and arsenic is about \$40 less than testing for all four metals required under proposed Rule M 1501(C)(6). Medical Marijuana Testing Facilities that need to purchase different equipment to perform metals testing would not experience any costs savings from this alternative compared to the proposed Rule M 1501(C)(6). Further, not testing for contamination by metals such as cadmium and mercury increases the risk of contaminated marijuana reaching patients, which could lead to additional public health costs in the long term. Not requiring contaminant testing for cadmium and mercury also weakens Colorado's status as a leader in the regulated Medical Marijuana industry because many other states already require contaminant testing for these metals.