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Study in support of the Controlled Cannabis Supply Chain Experiment

Report on the first follow-up measurement 2025

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Summary

In this report, we discuss the methods, results and first findings of the first follow-up measurement (T_1) for the study on the Controlled Cannabis Supply Chain Experiment (hereafter: the experiment). This follow-up measurement builds on the baseline measurement and covers the period after the start of the experimental phase on 7 April 2025, through the first quarter of 2026. In ten so-called intervention municipalities, coffeeshops exclusively sell cannabis supplied by regulated cannabis growers, whereas in ten comparison municipalities the existing toleration policy remains in place.

The aim of this follow-up measurement is to map developments since the baseline and to examine whether differences are emerging between the intervention and comparison municipalities. The study focuses on cannabis use, the supply and prices in coffeeshops, the illicit cannabis market, and developments in public health, crime, safety and quality of life. Given the relatively short duration of the experimental phase, the findings presented here are exploratory in nature and no definitive conclusions can yet be drawn.

The study is conducted by Breuer&Intraval, RAND Europe and the Trimbos Institute, commissioned by the Research and Data Centre (WODC) on behalf of the Dutch Ministries of Justice and Security, and Health, Welfare and Sport. This follow-up measurement is part of a multi-year evaluation of the experiment.

Research methods

The study applies a quasi-experimental evaluation design in which developments in ten intervention municipalities are compared with those in ten comparison municipalities over time. Data collection for this measurement took place in 2025 and consisted of multiple components.

A total of 85 interviews were conducted with stakeholders, including municipalities, coffeeshop owners, regulated growers and supervisory authorities. In addition, surveys were conducted among 865 coffeeshop visitors and 441 people who live and/or work in the vicinity of coffeeshops. Visitor counts were carried out at 143 coffeeshops at various times, and menus from 134 coffeeshops were analysed to examine the supply and prices of cannabis products.

Furthermore, data were collected through a continuous online survey among individuals purchasing cannabis on the illicit market. Police data on drug-related incidents and crimes were also analysed.

Quantitative data were analysed using, among other methods, difference-in-differences analyses to compare developments between intervention and comparison municipalities

over time. Qualitative interview data were analysed thematically to identify recurring experiences, perceptions and bottlenecks. As the study does not involve randomised assignment, potential differences between municipalities should be taken into account when interpreting the results.

Experiences with the controlled supply chain

Stakeholders generally report positive initial experiences with the controlled cannabis supply chain. The introduction of the controlled supply chain is associated with increased contact and cooperation between municipalities, coffeeshop owners, growers and supervisory bodies. Stakeholders indicate that they now have greater insight into where cannabis is produced and under what conditions, partly due to registration and monitoring within the chain. Processes related to production, transport and sale are also reported to follow more standardised procedures than before.

At the same time, several challenges are identified. In the initial phase of the experiment, the supply of regulated cannabis was perceived as limited in some coffeeshops, both in terms of quantity and product diversity. This included, for example, a limited number of hash varieties. Coffeeshop owners reported difficulties in maintaining their usual assortment, which raised concerns about customer retention and the potential for customers to (temporarily) turn to the illicit market. According to some stakeholders, this led to uncertainty about customer retention and to concerns that customers might, whether temporarily or otherwise, purchase cannabis outside coffeeshops. Over time, however, the availability of products from growers improved, and concerns about the limited supply have diminished.

Stakeholders also report ambiguities in regulations and responsibilities. Rules regarding packaging, product information, edibles and advertising do not always clearly specify what is permitted, leading to variation in implementation across municipalities and coffeeshops. In some cases, it is unclear which authority is responsible for supervision or enforcement. More uniform rules and clearer agreements are considered necessary.

The track and trace system is regarded as a key element of the controlled supply chain, as it enables monitoring of products from cultivation to sale. However, particularly in the early phase, the system was experienced as complex and time-consuming, partly due to technical issues and limited compatibility with existing systems. The study indicates that these are primarily startup issues, several of which now appear to have been resolved.

With regard to public health, stakeholders in both the intervention and comparison municipalities point to concerns related to products with high THC content, such as edibles (cannabis-infused food products), vapes, and concentrates. They indicate that, despite the available product information, it is not always clear to users how strong these products are and what an appropriate dosage would be. Based on the available data, there are currently no clear indications that the number of health incidents has increased. Stakeholders also note that, from a cannabis-use prevention perspective, there is a need for clearer national guidelines, for example regarding maximum potency and information on packaging.

Finally, uncertainty about the duration of the experiment and its future (e.g. continuation or termination) is reported as a factor that may affect stakeholders' willingness to invest.

The supply in the coffeeshops

The results indicate that the diversity of cannabis products offered in coffeeshops in intervention municipalities has increased since the baseline measurement. This increase mainly concerns the number of different types of weed, hash and joints available. Compared with comparison municipalities, this increase in product diversity appears more pronounced.

In terms of pricing, the average price of weed has decreased more strongly in intervention municipalities than in comparison municipalities. This includes domestically produced cannabis (nederwiet). By contrast, the average price of hash has increased in intervention municipalities, while developments in comparison municipalities differ or are less pronounced. Prices of joints have increased slightly in both groups.

The proportion of coffeeshops offering alternative cannabis products, such as edibles, vapes and concentrates, has also increased, particularly in intervention municipalities. This indicates an expansion of the available product range. It is not yet clear whether these changes will persist over time or how they may affect consumption patterns.

Characteristics, buying behaviour and cannabis use

No significant changes are observed in the number of coffeeshop visitors or the frequency of visits. The proportion of visitors who visit a coffeeshop weekly or more often remains stable in both intervention and comparison municipalities.

The main reasons for visiting a coffeeshop remain largely unchanged and include location, atmosphere and staff, and the quality of the cannabis. However, in intervention municipalities, a larger proportion of visitors now mention atmosphere and customer friendliness, while a smaller proportion cite product quality as the primary reason. The meaning of this shift remains unclear.

There are indications that visitors in intervention municipalities purchase larger quantities of weed per transaction than at baseline. They also report a more positive assessment of the price-to-quality ratio of weed. Comparable changes are not clearly observed for hash.

There are no differences in usage patterns between intervention and comparison municipalities, except for a stronger increase in the proportion of visitors in the intervention municipalities who reported using only or predominantly cannabis in the past 30 days. Nor were any significant changes found in how visitors assess their own health or in the proportion of visitors who, based on the Cannabis Abuse Screening Test (CAST) score, are at increased risk of problematic cannabis use. This means that no clear effects of the experiment can be established on these points. It should, however, be noted that although visitors in the intervention municipalities purchase more grams of cannabis per visit, the frequency of use has not increased.

Quality of life near the coffeeshops

People living and working near coffeeshops generally report positive levels of quality of life. Average ratings range between 7.6 and 7.8, which is comparable to national figures.

A proportion of respondents report incidents in the past six months that could cause nuisance, such as loitering, traffic congestion or noise. These are slightly more frequently reported in intervention municipalities. Among those who report such incidents, a majority indicate that they have experienced nuisance themselves, most often related to loitering.

Reports or complaints regarding nuisance related to alcohol or drugs remain relatively limited. Perceived safety in the neighbourhood is rated positively, with an average score of around 7, similar to the baseline measurement.

The proportion of respondents reporting victimisation has increased to approximately one in five in both groups. This is in line with national figures, and it cannot be determined whether this development is related to the experiment.

The illicit market

The illicit cannabis market continues to play a role alongside coffeeshops. The main reasons for purchasing cannabis outside coffeeshops are lower prices, favourable value for money and the possibility of purchasing larger quantities.

No major changes are observed in purchasing motives. In intervention municipalities, price is mentioned slightly less often as the main reason, although this difference is not statistically significant.

Purchasing methods remain largely unchanged. Most transactions occur via delivery services or mobile phone dealers, while purchases through friends have become less common.

Illegally purchased cannabis is generally rated positively in terms of price-to-quality ratio, effects and smell or taste, similar to the baseline measurement.

One notable change concerns the quantity of hash purchased per transaction outside the coffeeshop. In intervention municipalities, this quantity has increased, while it has decreased in comparison municipalities. This may be related to the availability of regulated hash in the initial phase, although this cannot be established with certainty.

Price developments in the illicit market do not show a consistent pattern. The price of weed has slightly decreased, while the price of hash has remained stable or increased slightly. Differences between intervention and comparison municipalities are not statistically significant.

In sum

This first follow-up measurement provides an overview of developments since the start of the experimental phase of the Controlled Cannabis Supply Chain Experiment. Some changes are observed, including an increase in the diversity of cannabis products available in coffeeshops and a more positive assessment of the price-to-quality ratio of weed in intervention municipalities. Stakeholders generally describe the functioning of the controlled supply chain as positive.

At the same time, several challenges are identified, including temporary limitations in supply during the initial phase, ambiguities in regulations, and the continued role of the illicit market as an alternative for consumers.

For many outcomes, such as visiting patterns, cannabis use, public health, safety and quality of life, no clear differences are found between intervention and comparison municipalities. As such, no definitive effects of the experiment can yet be established for these aspects.

This follow-up measurement should therefore be considered a first indication of developments. Further measurements are needed to assess whether observed trends persist or change over time, and to draw conclusions about the longer-term effects and policy implications of the experiment.