

# Tracking the illicit cannabis market

Research in support of the “Closed Cannabis Supply Chain Experiment” in Netherlands using an online crowdsourcing approach

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**LISBON**  
**ADDICTIONS**  
**2022**



EUROPE

# **No conflicts of interest**

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# Experiment with a closed cannabis supply chain

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**Breuer**  
ONDERZOEK & INTRAVAL  
ADVIES

 **Trimbos**  
instituut



EUROPE

**10 growers**



**10 cities**



**76 coffeeshops**





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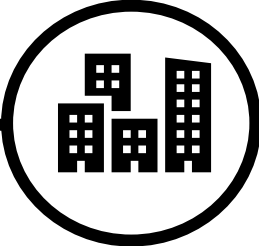
Experimental group  
**10 Intervention cities**

<b>Total population</b>	1,62 million
<b>Avg. population</b>	147 thousand
<b># of coffeeshops</b>	81
<b># of border cities</b>	3
<b>Population/coffeeshop</b>	29.2 thousand

**10 growers**

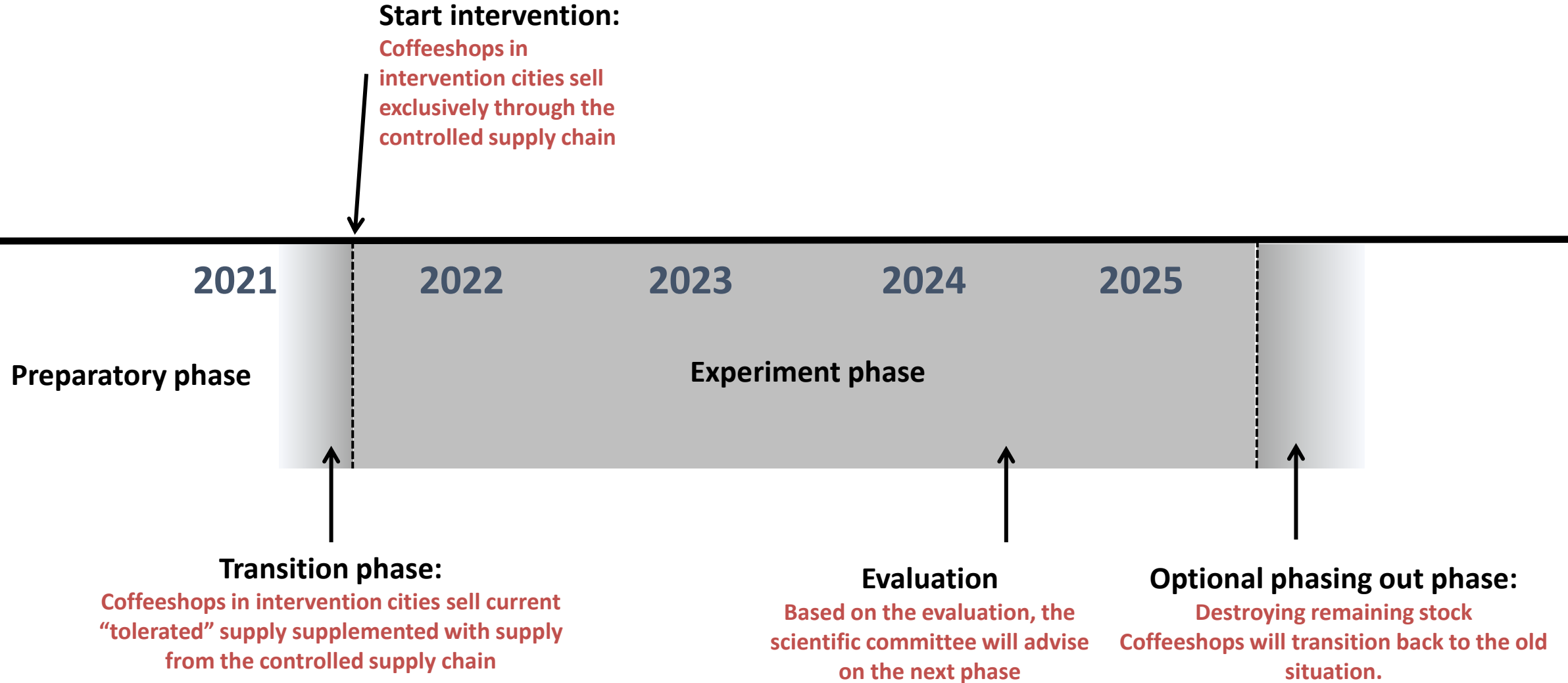


**10 cities**

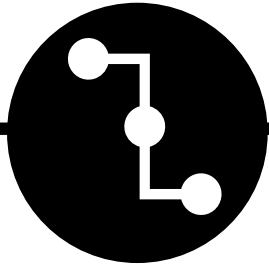


**76 coffeeshops**





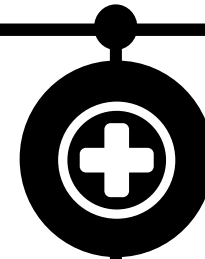
# Primary objective



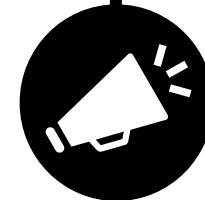
Assess whether it would be possible to create, maintain and enforce a closed coffeeshop supply chain

# Secondary objectives

Public health and safety



Public disorder and nuisance



Illegal market and displacement







# Why?

Developments on the illegal market have important implications for the successful operation of the closed coffeeshop supply chain

Potential external influence on the experiment

(Side) effects, e.g. displacement effects from intervention coffeeshops to illegal market or vice versa



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# Quasi experimental design

Comparison at group level:

Experimental group vs control group



Experimental group  
10 Intervention cities

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# Data collection via online crowdsourcing survey

International literature shows potential of this approach:

- **Statistics Canada:** price developments around legalisation in **Canada**
- **PriceofWeed.com:** developments around legalisation in US states (Caulkins et al. 2012; Thies 2012; Davis et al. 2016), Canada (Office of the Parliamentary Budget Officer 2016) **United Kingdom** (Giommoni et al. 2018)
- **Street Rx:** Consequences of changes in cannabis laws on illegal market **Washington DC** (Meinhofer & Rubli, 2021)
- **High Times:** Effects of changes in cannabis policy on illegal market in **United States** (Anderson et al. 2013)

# Simple short closed questionnaire

← → ↻ onderzoek-buitendecoffeeshop.nl

Onderzoek naar aankoop van cannabis buiten de coffeeshop



Bedankt voor je interesse in ons onderzoek naar de aankoop van cannabis buiten de coffeeshop.

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Kies je taal

[Nederlands](#)

[English](#)

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#### 2. When was your most recent purchase? \*

DD/MM/YYYY



#### 3. What was the location of your purchase?

(The drop down menu automatically completes the name of a municipality if you start typing) \*

#### 4. Where or from whom did you buy this weed and/or hash? \*

- Drug house / home dealer
- In a shop / catering facility
- On the street / hanging out at a street dealer
- Via mobile phone / delivery service
- Via the Internet
- From friends
- Through strangers whom I approach to buy cannabis for me
- Other

**5. What are your main reasons for buying weed or hash outside a coffeeshop? (Multiple answers possible) \***

- Because I can buy more grams at the same time
- Because the weed or hash is stronger than in a coffee shop (e.g. the THC content is higher)
- Because the quality of the weed or hash is constant / reliable
- Because it is cheaper
- Because it is a convenient location
- Because it is more anonymous
- Because I am not allowed into the coffee shop
- Because the weed or hash has a good price-quality ratio
- Because the place where I buy it has a good atmosphere
- Because of the fast service
- Because of the delivery service
- Because of the favourable opening hours
- Other

**6. Did you purchase weed or hash? \***

- Weed
- Hash
- Both

#### 4. Questions about the last purchase of weed

These questions are about your last purchase of **weed**

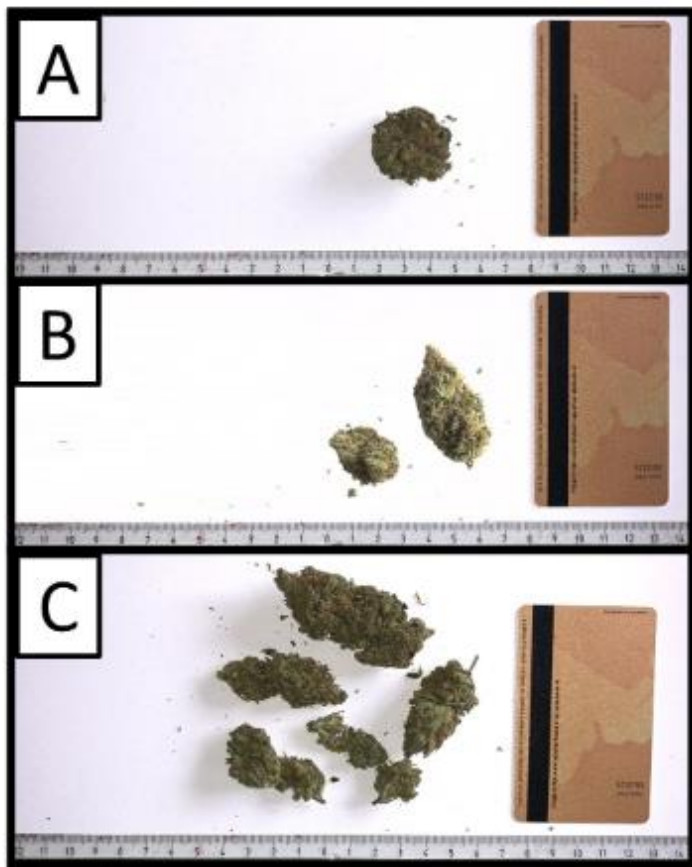
#### 7. What kind of weed did you buy in this purchase? \*

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> (Super) Lemon Haze    | <input type="checkbox"/> Columbia        | <input type="checkbox"/> NY Diesel              |
| <input type="checkbox"/> (Super) Silver Haze   | <input type="checkbox"/> Cristal/Crystal | <input type="checkbox"/> Orange Bud             |
| <input type="checkbox"/> (Super) Skunk         | <input type="checkbox"/> Gorilla Glue    | <input type="checkbox"/> Power Plant            |
| <input type="checkbox"/> (Super) Thai(stick)   | <input type="checkbox"/> Haze            | <input type="checkbox"/> Santa Maria            |
| <input type="checkbox"/> Afghani/Afghaan skunk | <input type="checkbox"/> Jack Herrer     | <input type="checkbox"/> Shiva                  |
| <input type="checkbox"/> AK-47                 | <input type="checkbox"/> Jamaica         | <input type="checkbox"/> Sneeuwvitje/ Snowwhite |
| <input type="checkbox"/> Amnesia               | <input type="checkbox"/> K2              | <input type="checkbox"/> Top 44                 |
| <input type="checkbox"/> Amnesia Haze          | <input type="checkbox"/> Kush            | <input type="checkbox"/> White Widow            |
| <input type="checkbox"/> Bubble Gum            | <input type="checkbox"/> NLX             | <input type="checkbox"/> Other                  |
| <input type="checkbox"/> CBD wiet              | <input type="checkbox"/> Northern Light  | <input type="checkbox"/> I don't know           |
| <input type="checkbox"/> Cheese (Haze)         |  |   |

#### 8. Approximately how many grams of weed did you buy in total?



9. Can you indicate which of the following figures is closest to the quantity of weed that you purchased?



- Less than the quantity in Figure A
- Figure A
- Between Figure A and Figure B
- Figure B
- Between Figure B and Figure C
- Figure C
- Between Figure C and Figure D
- Figure D
- Between Figure D and Figure E
- Figure E
- More than the quantity in Figure E

10. What was the total price of your purchase of weed in euros? \*

11. Regarding the weed you bought: \*

	Very good	Good	Not good / not bad	Bad	Very bad	I don't know / I have not used it yet
What do you think of the effects?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
What do you think about the price-quality ratio?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How do you like the smell / taste?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12. Which attribute is the most important in your choice of weed?

- Anticipated effects
  - Price-quality ratio
  - Taste and smell
-

# Recruitment via two avenues

QR-cards handed out during field work

Ads on Facebook and Instagram

Facilitated by online marketing agency



## Onderzoek naar wiet en hasj buiten de coffeeshop

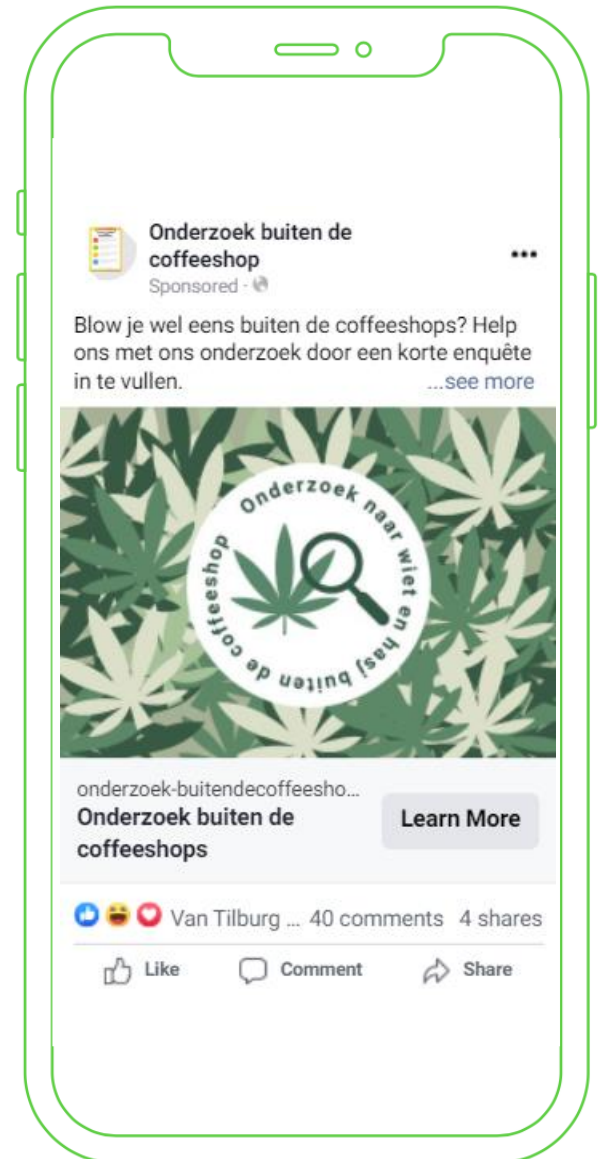
Koop je wel eens buiten de coffeeshop?

Dan hebben wij jouw hulp nodig!

Vul de survey in: alle antwoorden zijn anoniem



[www.onderzoek-buitendecoffeeshop.nl](http://www.onderzoek-buitendecoffeeshop.nl)



# Targeted to various groups in intervention and control municipalities

4 different target groups with their own characteristics:

- Alcohol & Cigarettes
- Games & Movies
- Music genres, Festivals & Students
- Remarketing

## Cannabis onderzoek - Muziekgenre's, Festivals & Studenten - Locatie targeting

### Location:

Netherlands: Leeuwarden Friesland; Arnhem, Nijmegen, Tiel, Zutphen Gelderland; Groningen Groningen; Heerlen, Maastricht, Roermond Limburg; Breda, Helmond, Tilburg North Brabant; Zaandam Noord-Holland; Utrecht Utrecht; Hellevoetsluis, Leiden Zuid-Holland; Enschede Overijssel; Lelystad, Almere Flevoland

### Age:

18-44

### People who match:

Interests: Amsterdam Dance Event, Techno, Vocational education, Concerts, The Movement (reggae band), Decibel Festival, Decibel Outdoor Festival, Bob Marley, Students' union, Music festivals, Pinkpop Festival, Parties, Festival, International student, Student loan, Exit (festival), Alternative hip hop, Hip hop music, Mysteryland, Tomorrowland (festival), Glastonbury Festival, Wacken Open Air, Down The Rabbit Hole, Reggae, Campus Life, Old-school hip hop, Student, Sziget Festival, Pukkelpop, Nightclubs, Rapping, Rock music, Reggae genres, Woodstock, Zwarte Cross, Defqon.1 Festival or Concert Live, Education Level: At high school, At university, High school leaver, Some university, Foundation degree, At university (postgraduate), Some university (postgraduate) or Some high school

Edit



# Targeted to various groups in intervention and control municipalities

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## ● Problems (ads and page)



### 🔒 Ad account disabled

We've disabled your ad account to protect your personal and financial info. To run ads again, you'll need to fill in a form to request an account review.

## Many chats about approval of the ads

A Meta representative will join you shortly. Data from and about this chat will be processed in accordance with our Data Policy and will be accessible to Meta employees and our support team. We'll use this data to assist you and improve things like customer support and automated assistance.

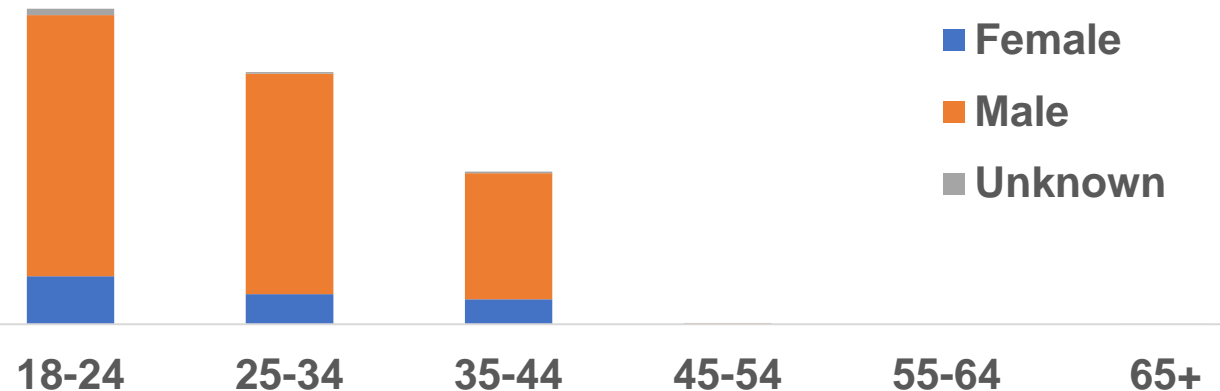
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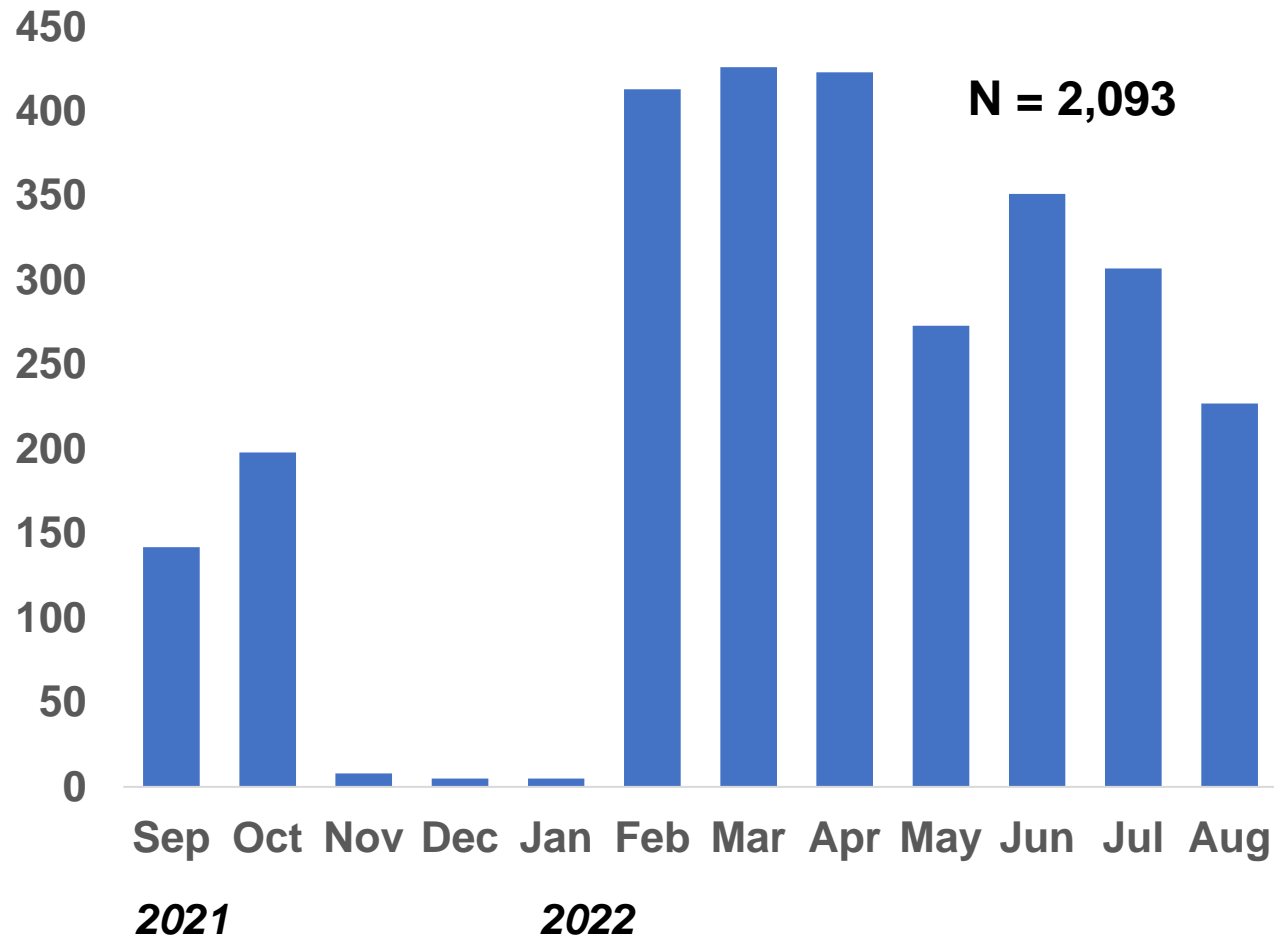
Reach:	<b>368.489</b>
Unique impressions:	<b>525.427</b>
Clicks (link):	<b>7,658</b>
Costs per click:	<b>€ 0,43</b>
Click through rate:	<b>1,4%</b>

*\*until August 31<sup>st</sup>, campaign still running*

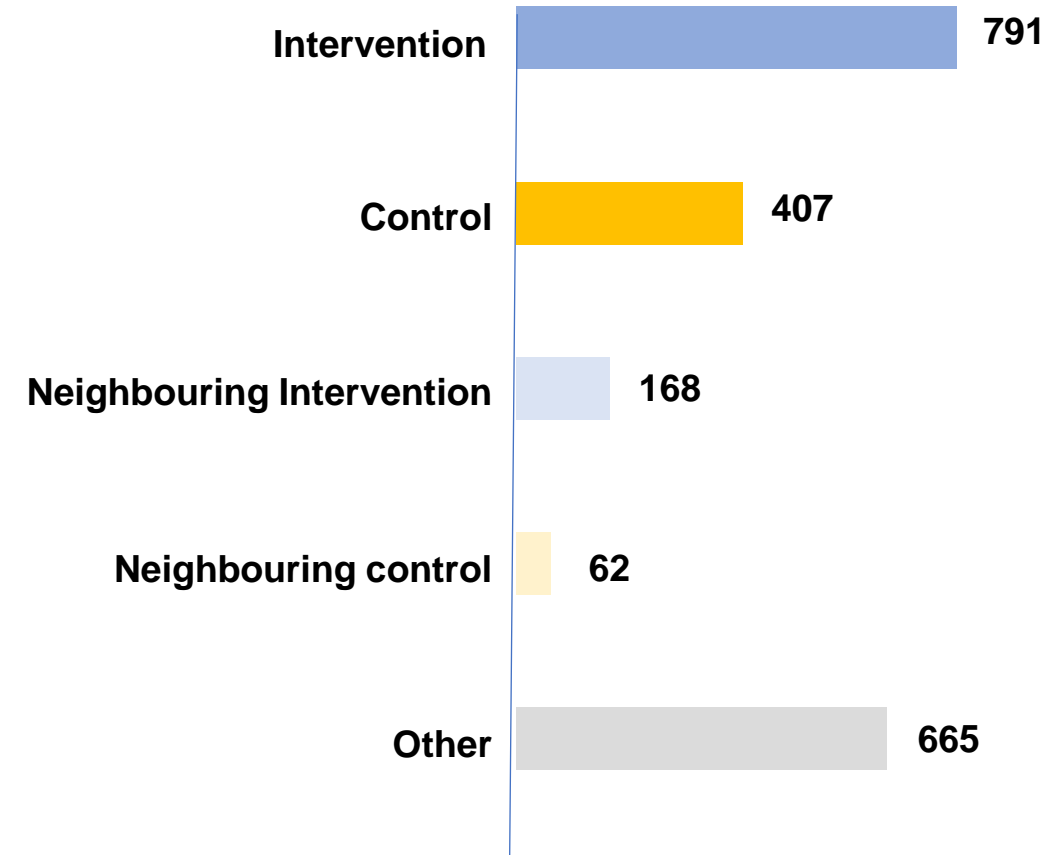


# Promising recruitment after a rocky start

Responses per month



Responses per municipality



# A cost-efficient approach to track developments on the illegal market

- A method that is not without limitations

● But a unique dataset, offering insights into developments on the unregulated (i.e. illegal) market in intervention vs control municipalities

- Potential to indicate displacement effects and motivations for purchases on outside experimental coffeeshops
- Gain insight into price fluctuations on the illegal market



# Thank you

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