

# **The medicinal use of cannabis and cannabinoids: an international cross-sectional survey on methods of intake**

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# Survey

- **Online from August 2009 → January 2010**
- **Five languages**
  - German**
  - English**
  - French**
  - Spanish**
  - Dutch**
- **Patients having tried at least two different products / admin. forms**
- **Anonymous, no financial compensation.**

# Questions

- **GOAL: determine preferences of medicinal users**
- **22 questions on advantages and disadvantages of different methods of intake**
  - **onset of effects**
  - **ease of dose finding**
  - **side-effects**
  - **amount of cannabis needed**
- **ETC.**

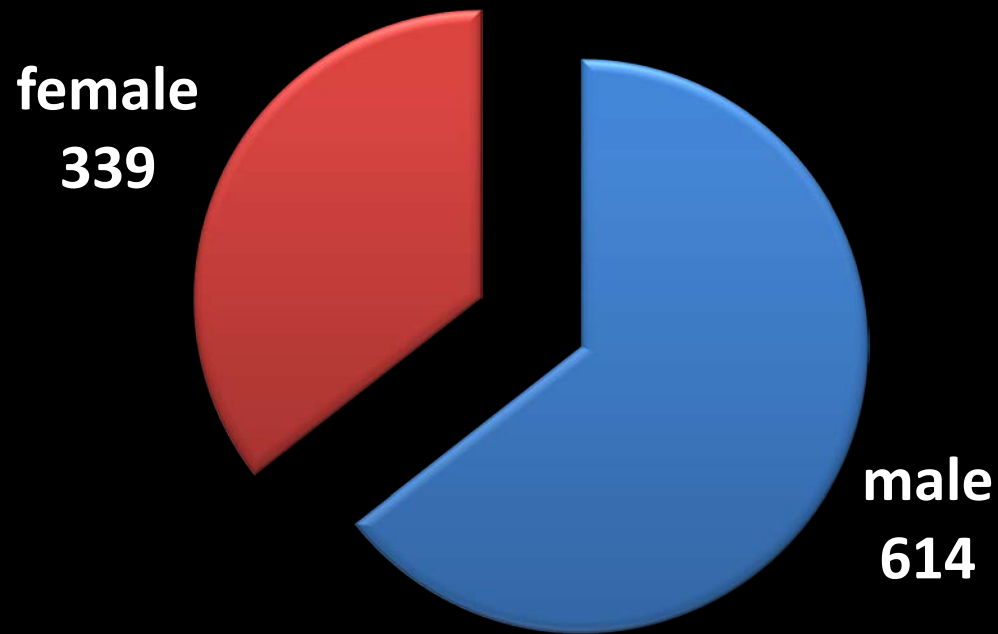
# Correlations

- **Do preferences depend on**
  - **demographic parameters (gender, age and country)**
  - **previous experience with recreational cannabis use**
  - **disease and/or symptoms**
  - **involvement of a physician in the use of cannabinoids.**



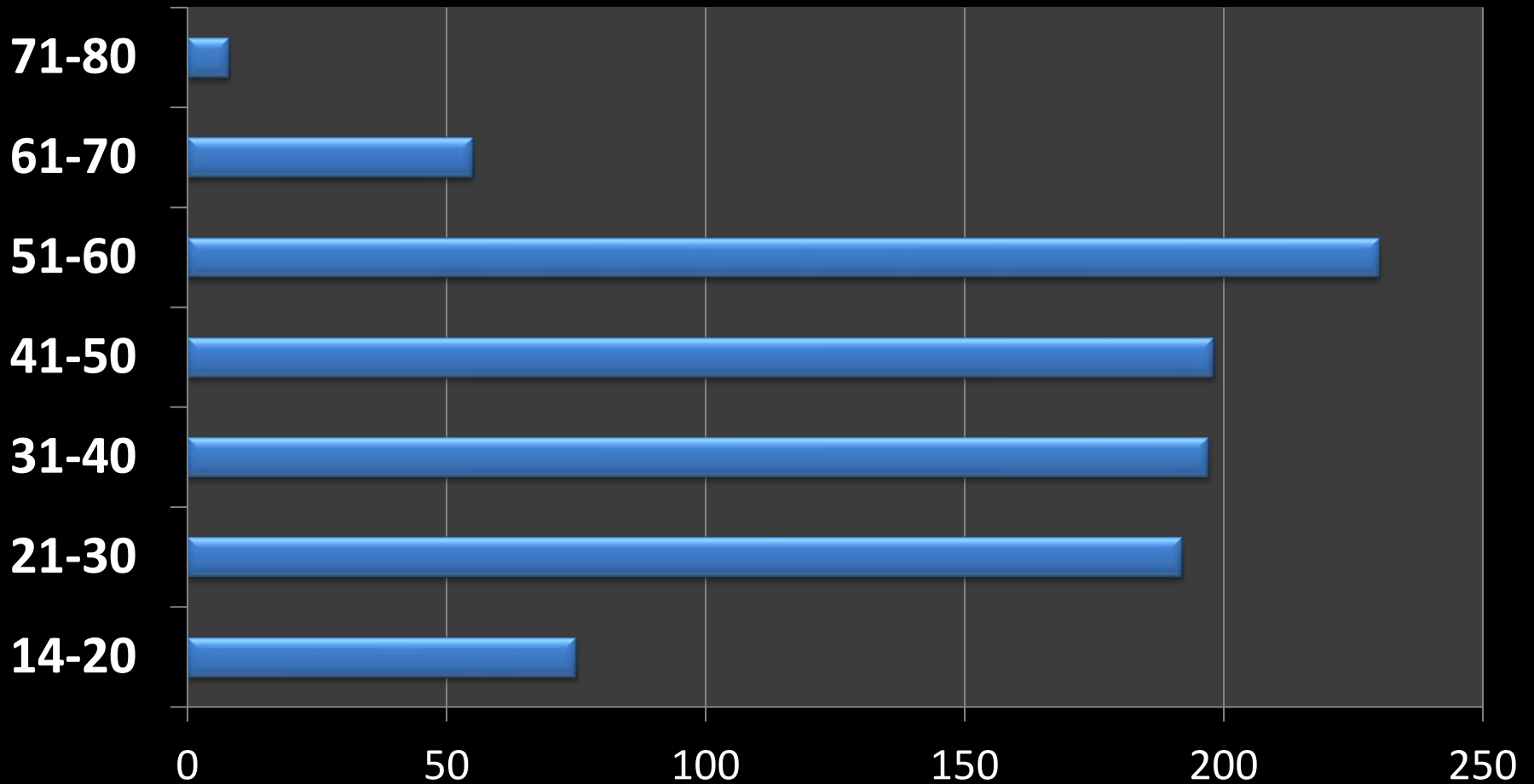
# Participants

953 Total:

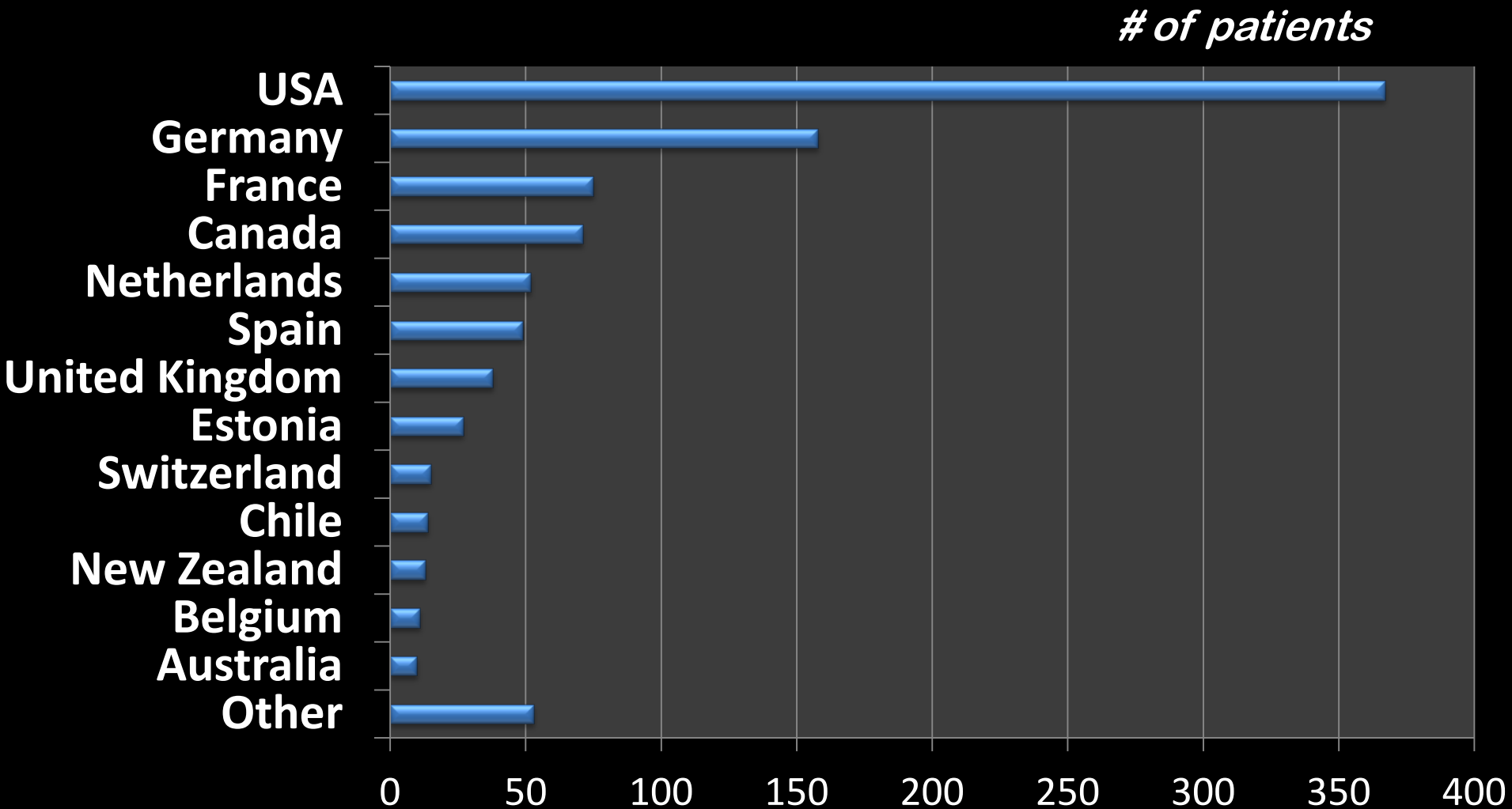


# Age 14-79

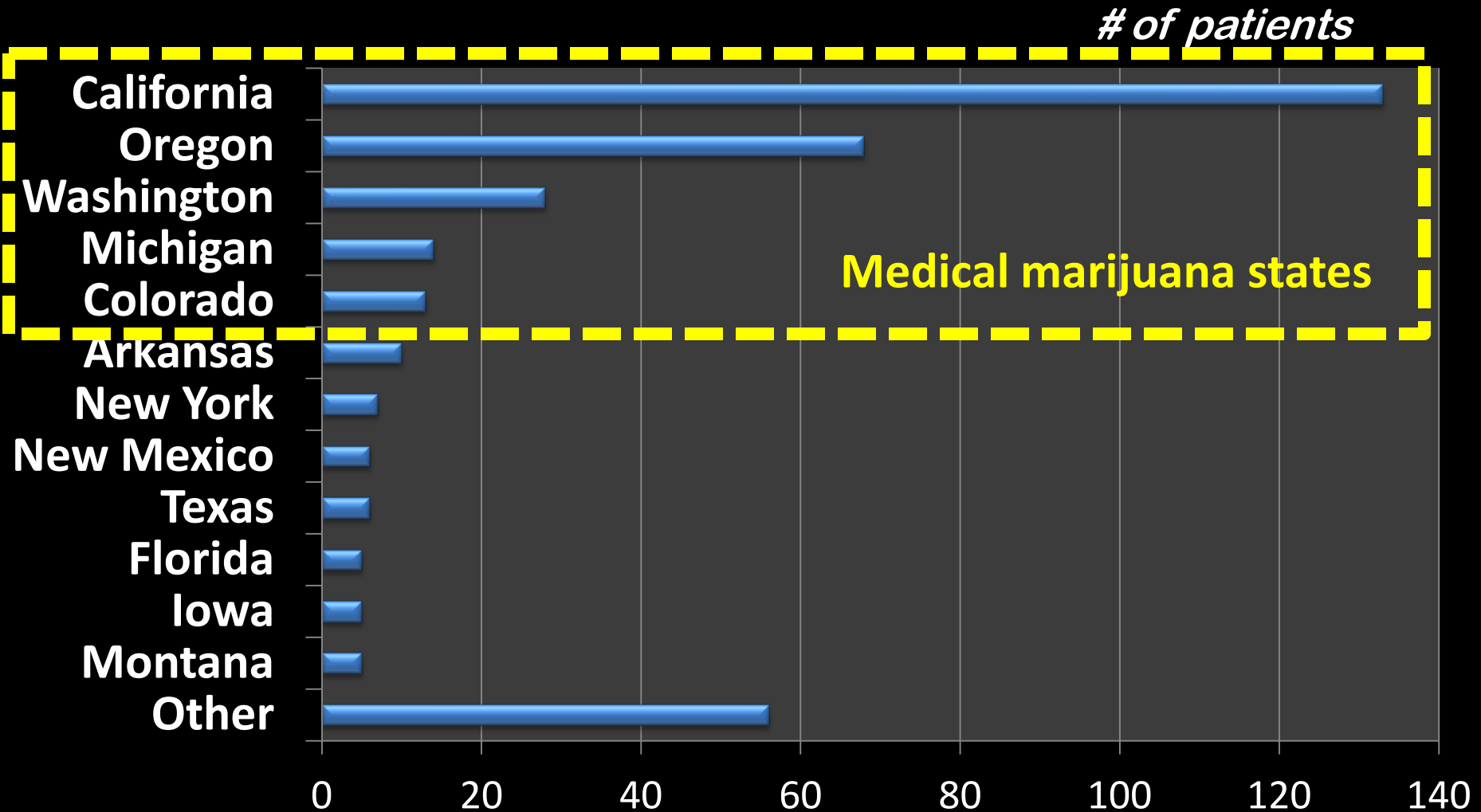
*# of patients*



> 31 countries



# 40 US states





# Background

**Currently using cannabis products/cannabinoids as a medicine?**

**833**      **Yes**

120      No

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138      less than 1 year

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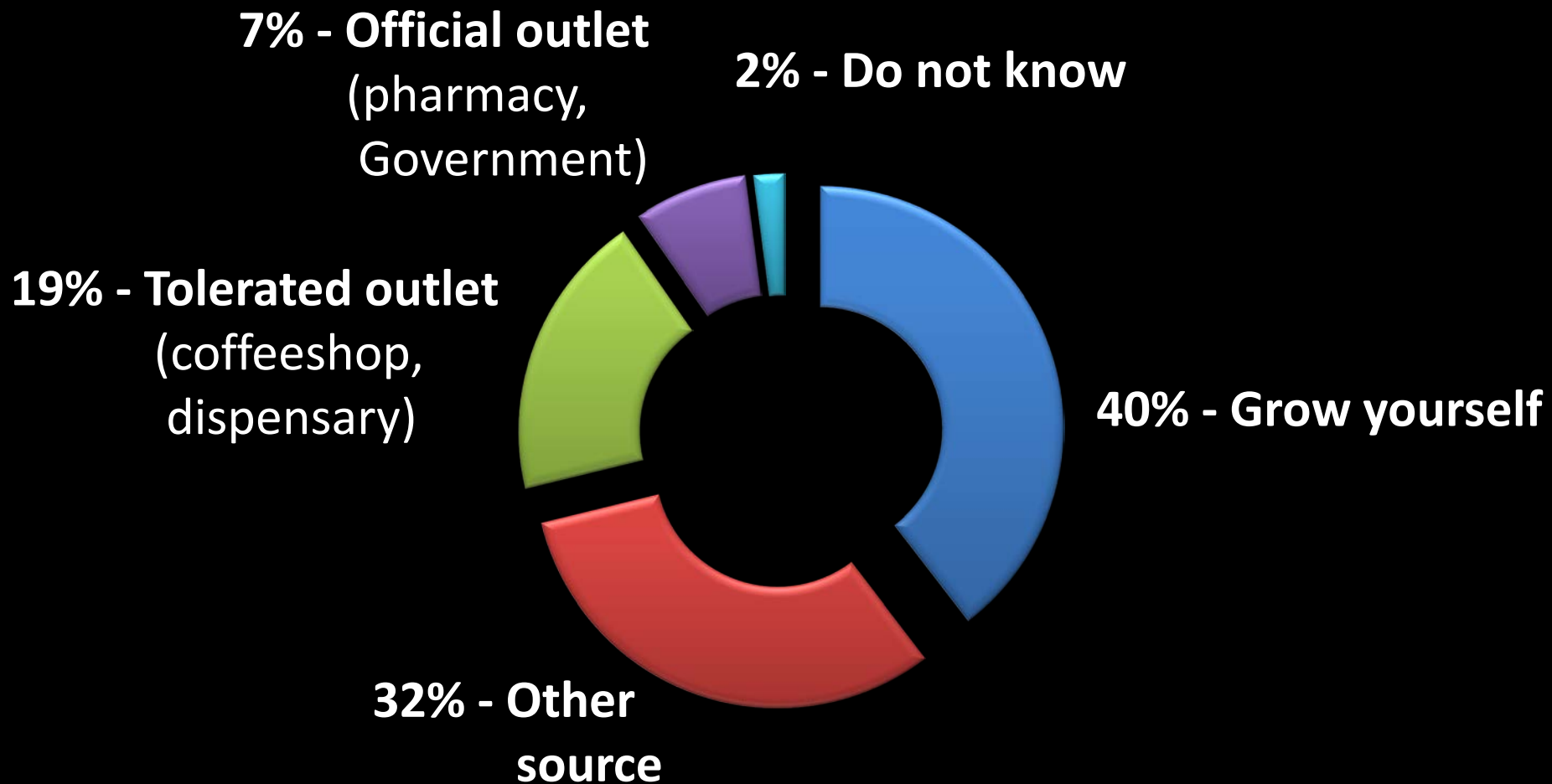
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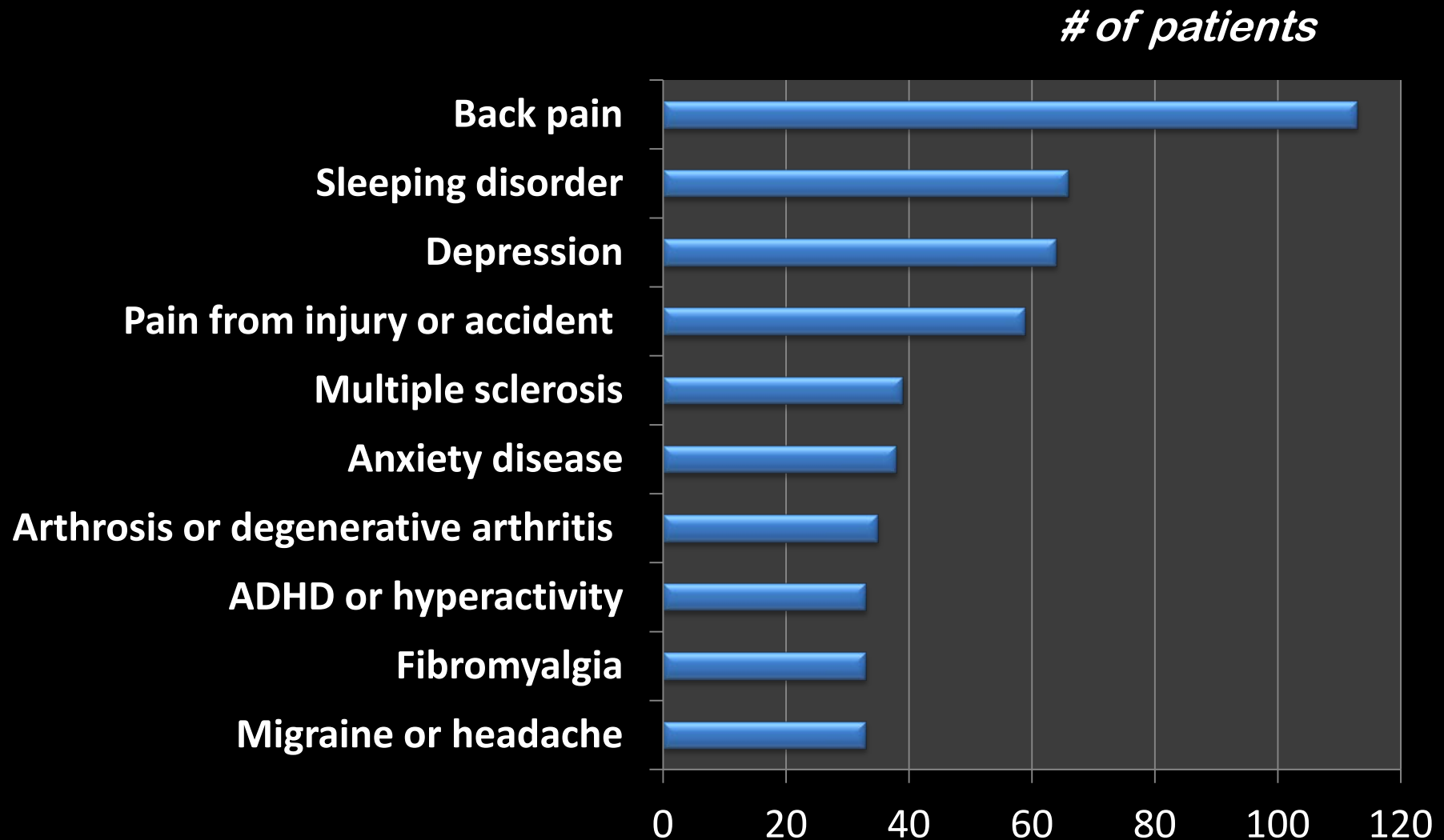
**Prescribed or recommended by a medical doctor?**

**454**      **Yes**  
**499**      **No**

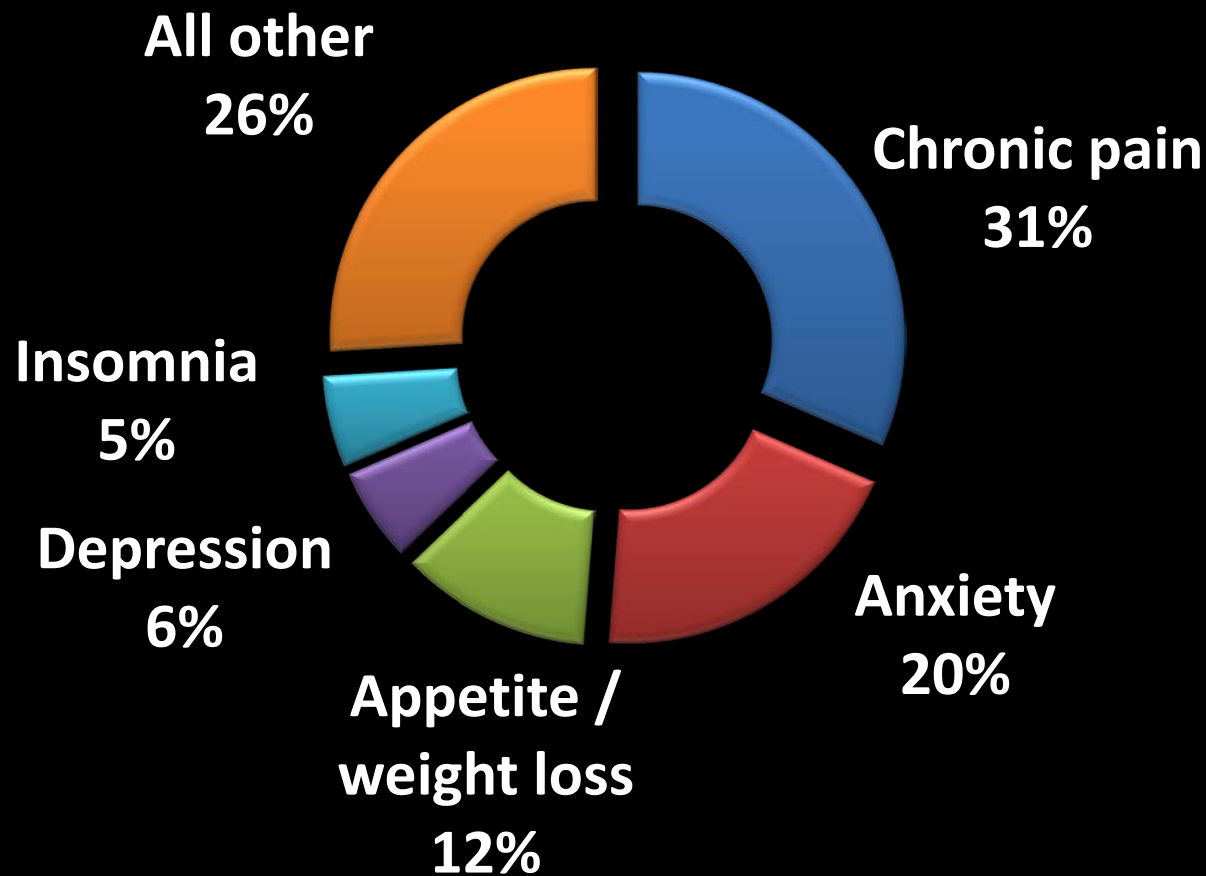
# Source of cannabis



# Conditions (top-10 of 47)



# Symptoms (top-5 of 23)



# What have you tried ?

*% of total participants*

<b>1. Inhalation</b>	<b>95 %</b>
<b>2. Oral or sublingual</b>	<b>69 %</b>
<b>3. Topical</b>	<b>5 %</b>



# Inhaled: how ?

*% of inhaled users*

## 1. Inhalation

Smoking	92 %
Vaporizing	50 %
THC in vaporizer	3 %

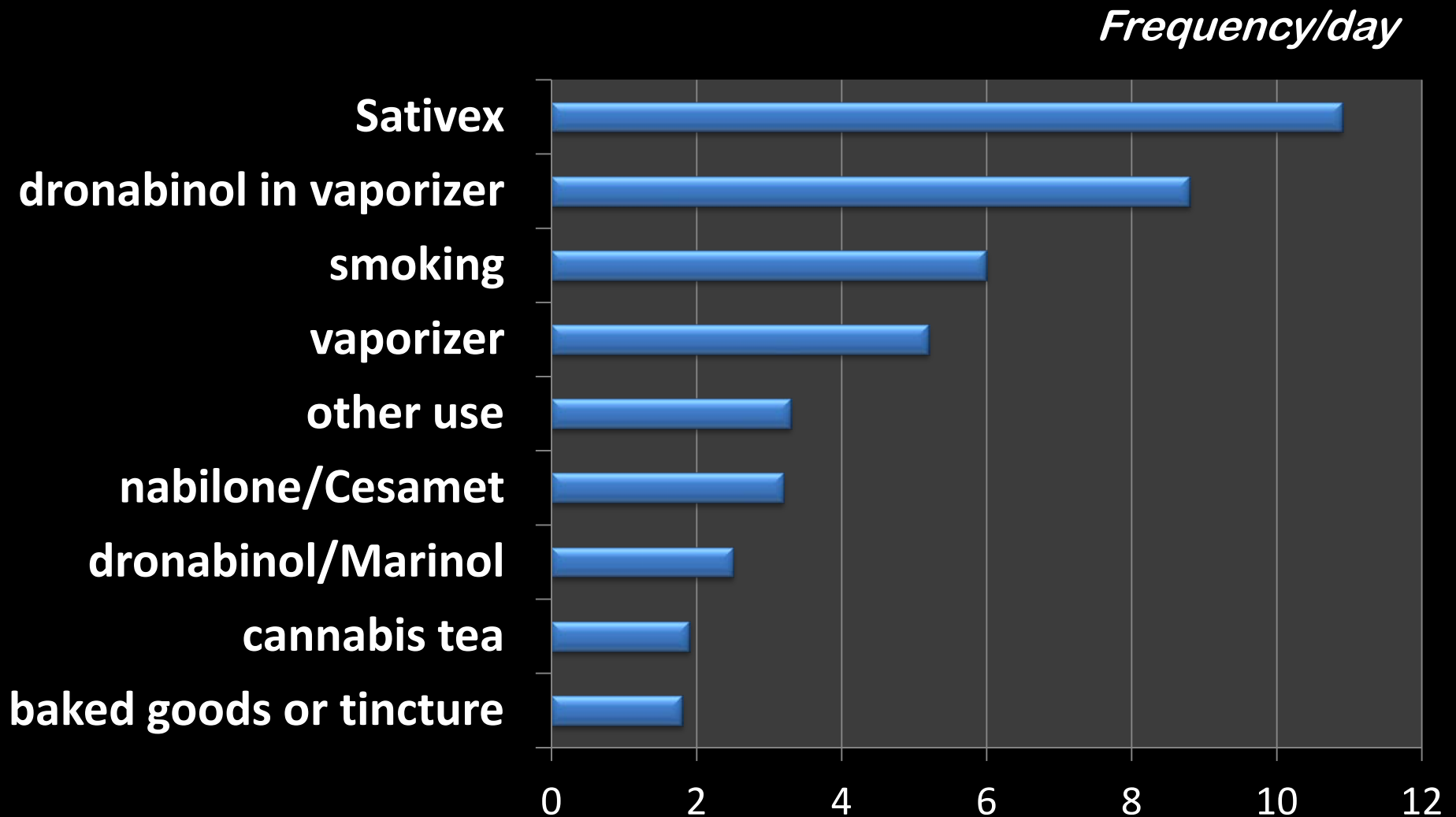
# Oral: how ?

*% of oral users*

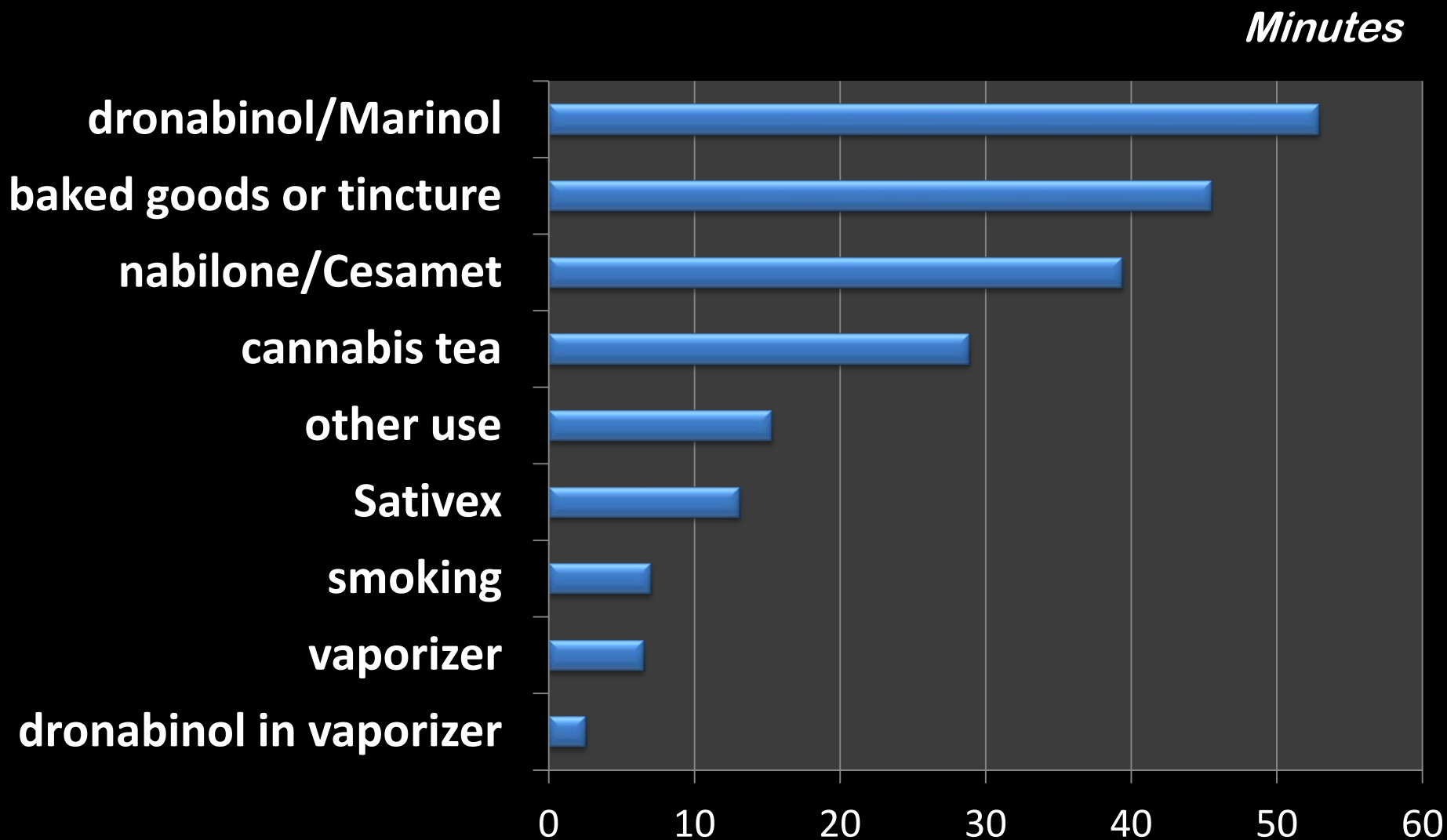
## 2. Oral

Food or tincture	87 %
Tea	33 %
Dronabinol/Marinol	11 %
Nabilone/Cesamet	2 %
Sativex	1 %

# Dose: how often per day ?



# Onset: how fast effects ?

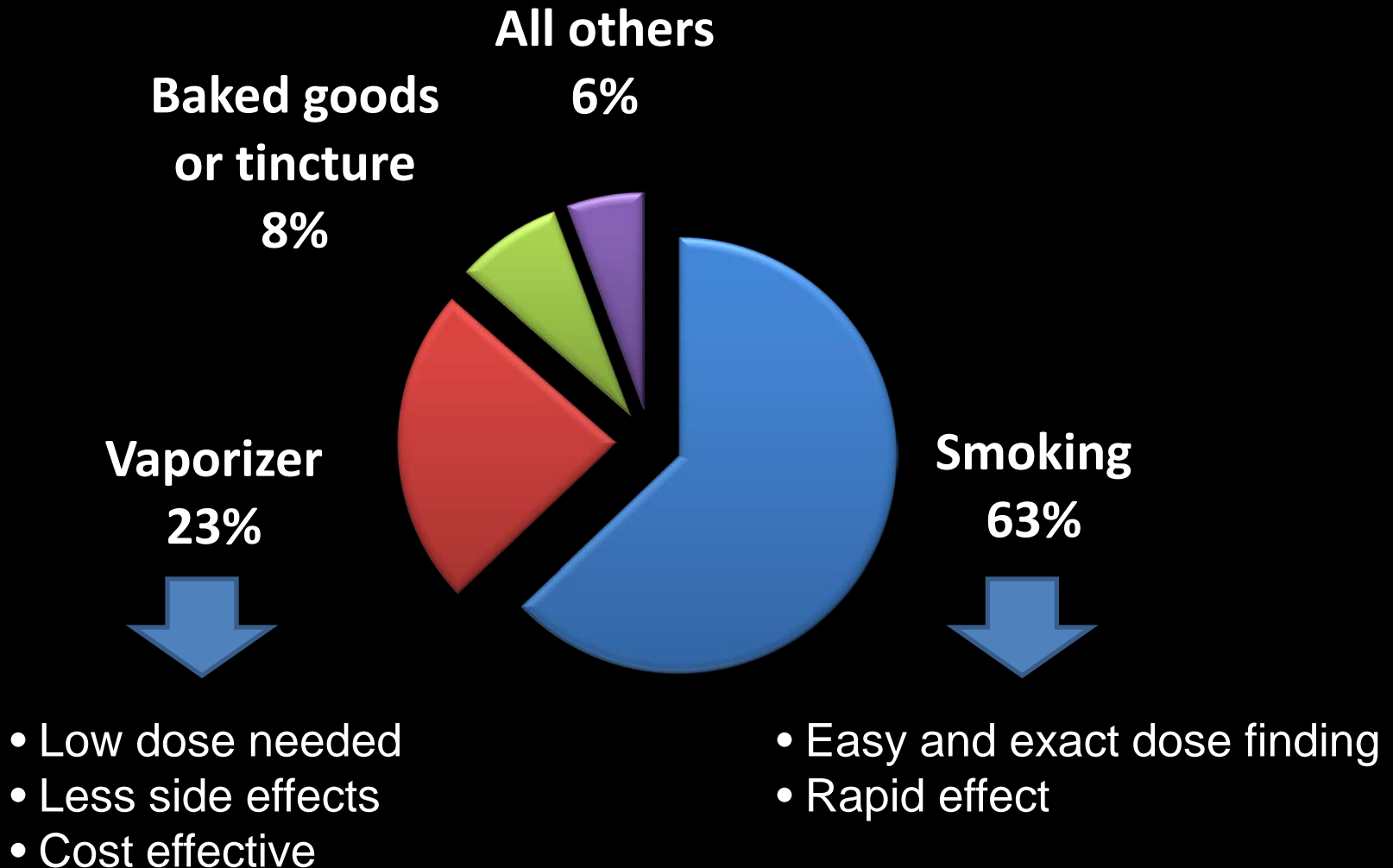


# Scoring of preferences

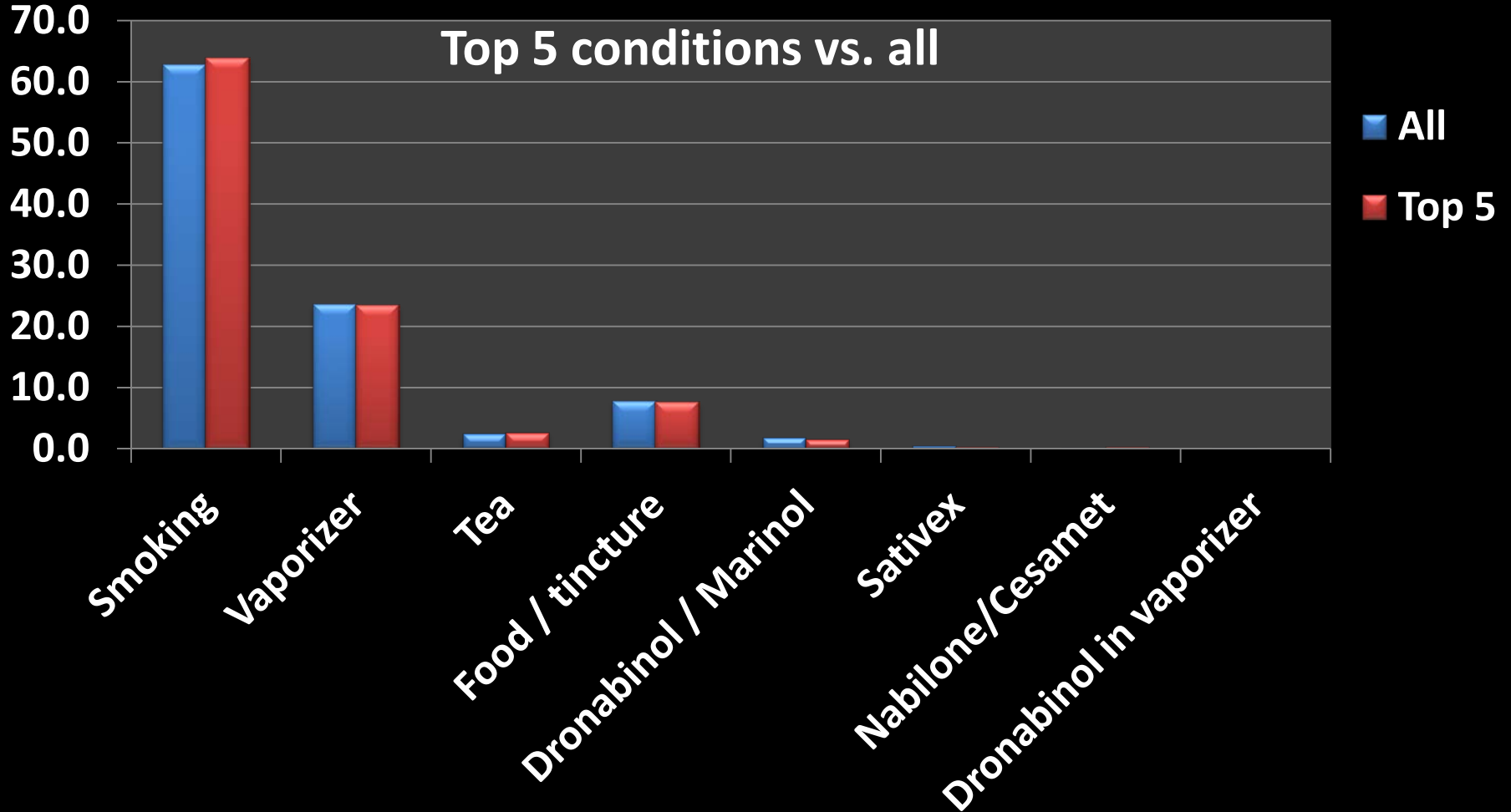
**Average scores:**      **0 = very negative**  
                                 **10 = very positive**

	<b>Dose needed</b>	<b>Onset of effect</b>	<b>Duration of effect</b>	<b>Dose finding</b>	<b>Exact dosing</b>
Smoking	5.8	8.0	5.6	7.7	7.4
Vaporizer	6.4	7.8	5.9	7.2	7.3
Tea	4.8	3.9	6.7	4.8	4.9
Food / Tincture	4.8	2.8	7.8	4.0	4.0
Dronabinol / Marinol	4.3	3.5	5.3	4.5	4.9
Nabilone/ Cesamet	4.8	2.8	6.5	5.9	6.3
Dronabinol in a vaporizer	3.5	6.9	5.4	6.2	5.7
Sativex	4.2	5.6	4.2	5.4	5.0
Other use	5.2	5.6	5.5	5.5	5.6

# Most preferred



# Correlations?



# Conclusions

- **No clear link between preferences and other parameters**

**Country of origin**

**Sex**

**Disease**

**Symptoms**



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**Symptoms**

- **Patients want to INHALE an HERBAL product**
- **Patients will shift towards official sources, if available**

# Any further comments ?

- **Tincture -  
versatile because it can be used in all admin. forms**
- **Pre-dosed packaged product for vaporizer and tea**
- **Different products for home vs. work**

# Questions ?

