

Legalization of “smokable” medical marijuana was associated with significantly increased THC use per certified patient in the Florida medical marijuana program: An interrupted time series analysis

Introduction

- On March 18, 2019, Florida senate Bill 182 (SB 182) authorized cannabis flower for smoking. Higher concentrations of Tetrahydrocannabinol (THC) are typical for smokable medical marijuana (MMJ) products.
- Objective: To assess the effect of SB182 on the weekly dispensed amount of THC per certified MMJ patient in Florida**

Methods

- Dataset: Florida Department of Health Office of Medical Marijuana Use (OMMU) weekly reports from 04/06/2018 until 3/13/2020
- We calculated the weekly amount of dispensed THC per certified patient by summing the total weekly amount of THC in dispensed MMJ across all non-smokable and smokable routes of administration in the pre- and post-periods. These totals were divided by total certified MMJ patients (cardholder) in that week.
- THC amounts in smokable MMJ products in Florida were calculated using averages of THC concentrations in smokable products (10 % and 20%) based on published estimates from other states with MMJ programs.
- We conducted an interrupted time series with a phase-in period, by fitting a generalized least squares linear model to estimate changes in the overall trend and changes in the level after SB 182.

Results

- Scenario with 10 % average THC in smokable products:**
 - SB 182 was associated with a level increase of 35.1 mg (95% CI: 4.85-56.34 mg) in the weekly dispensed amount of THC per MMJ patient, which represents an increase of roughly 10.7%.
 - SB 182 was also associated with an increased trend of 2.23 mg per week (95% CI: 1.16-3.31 mg).
- Scenario with 20 % average THC in smokable products:**
 - SB 182 was associated with a level increase of 138.4 mg (95% CI: 102.14-174.75 mg) in the weekly dispensed amount of THC per MMJ patient, which represents an increase of 42.2%.
 - SB 182 was associated with a trend increase of 5.62 mg (95% CI: 4.33-5.61 mg) per week.

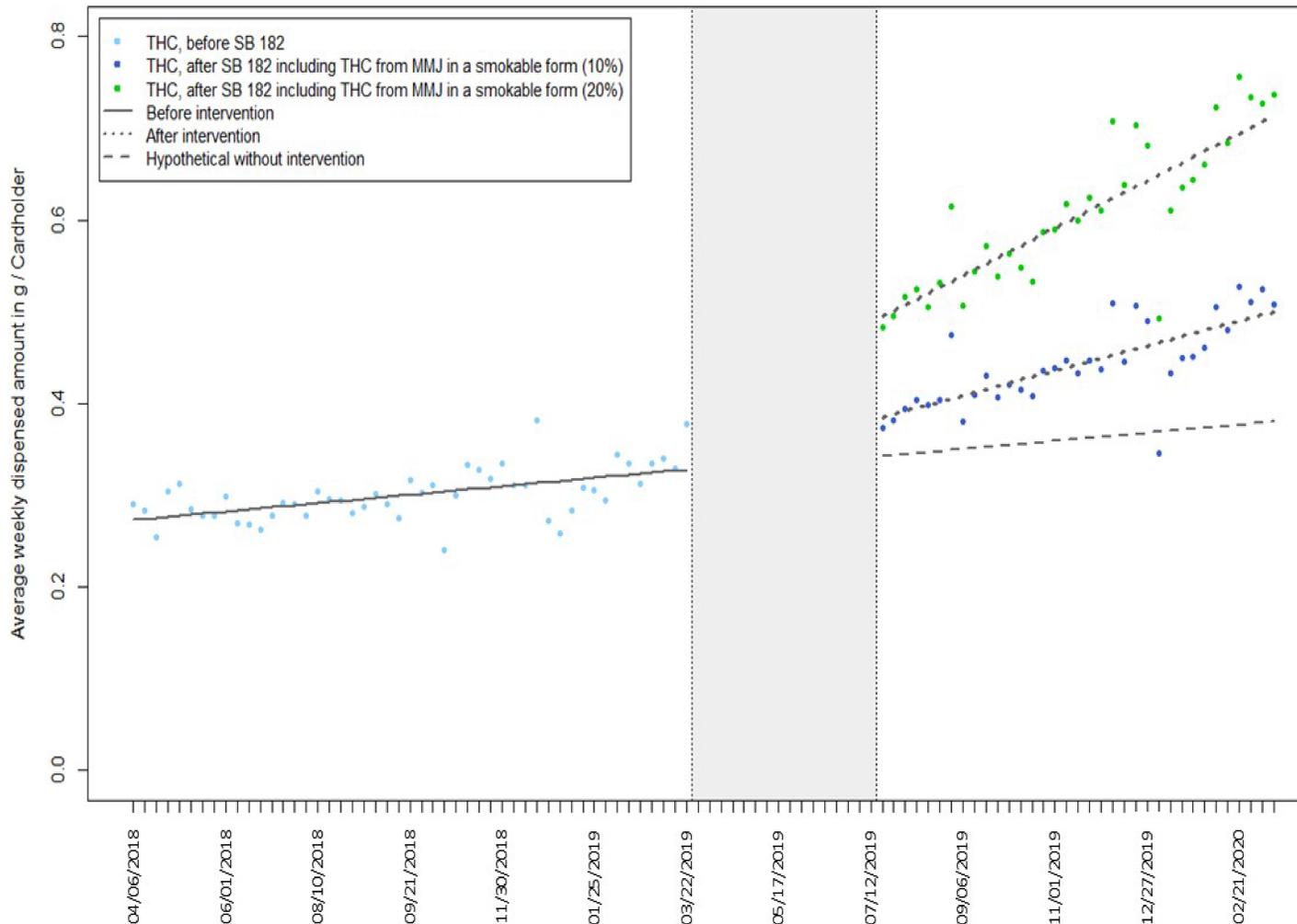


Figure 1: Average weekly dispensed amount of THC in gram per MMJ cardholder before and after the inclusion of smokable MMJ in the Florida MMJ program

The inclusion of smokable MMJ in the Florida MMJ program was associated with a significant increase of the weekly dispensed amount of THC per certified MMJ patient, by increasing the level, as well as the overall trend following law implementation.

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