

Unexpected Public Health Emergencies—A Descriptive Analysis of Trends in the Massachusetts Medical and Adult-use Cannabis Markets

Samantha M. Doonan, BA¹ Olivia Laramie, MA,¹ Jessica Liu, MPH,² Marianne Sarkis, PhD,¹ Julie K. Johnson, PhD¹

¹Commonwealth of Massachusetts, Cannabis Control Commission

²Harvard T.H. Chan School of Public Health, Harvard University

Background

It is unknown how changes that temporarily restrict access to legal cannabis may impact consumer behavior in the legal market.

E-cigarette or vaping product use-associated lung injury (EVALI) Vape Ban: Due to EVALI, sales for vape products were halted (9/24/2019-12/12/2020). This did not include medical crushed flower for vaping.

Adult-Use Store Temporary Closure: Due to COVID-19, adult-use retail sales were halted (3/24/2020-5/24/2020). The medical-use market remained open.

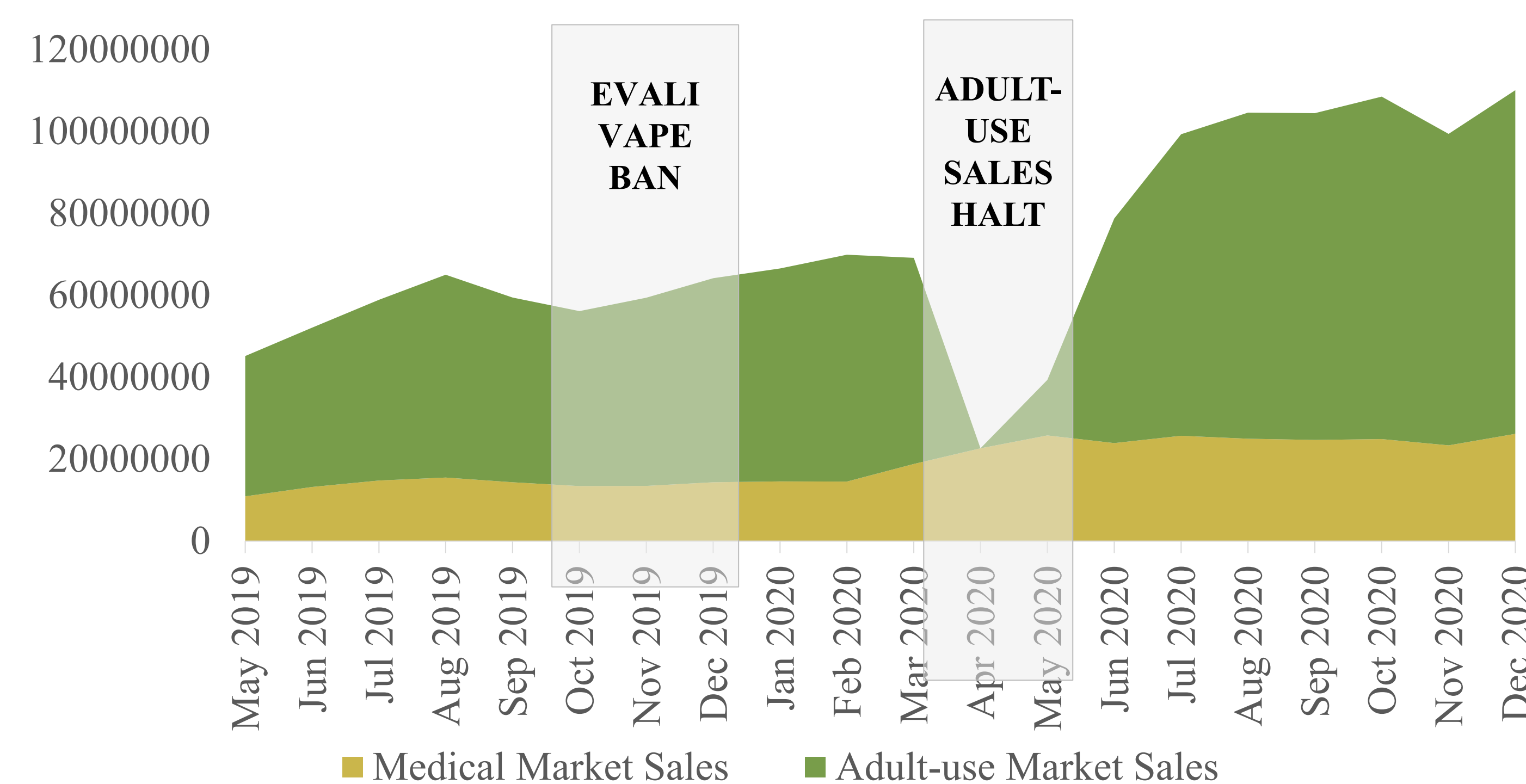
Methods

We used the Massachusetts seed-to-sale compliance tracking system (*Metrc*) and ran descriptive statistics to examine medical-use and adult-use cannabis sales from May 2019-December 2020 (due to data availability). We also examined patient and caregiver trends.

Results

Medical sales and the number of registered patients trended upward during the adult-use sales halt. The proportion of sales by category during this time was consistent with past and future trends, while sales per patient increased. During EVALI, the market share of buds and edibles increased.

Table 1. Unadjusted Medical-use and Adult-use Sales (in dollars)



Note: Does **not** adjust for the number of open retailers or dispensaries.

When access to the legal cannabis market is restricted due to a public health emergency, there is evidence that some consumers change legal markets (i.e., adult-use to medical-use) and change product types.

Table 2. Patient Sales by Product Category (percent of monthly sales)

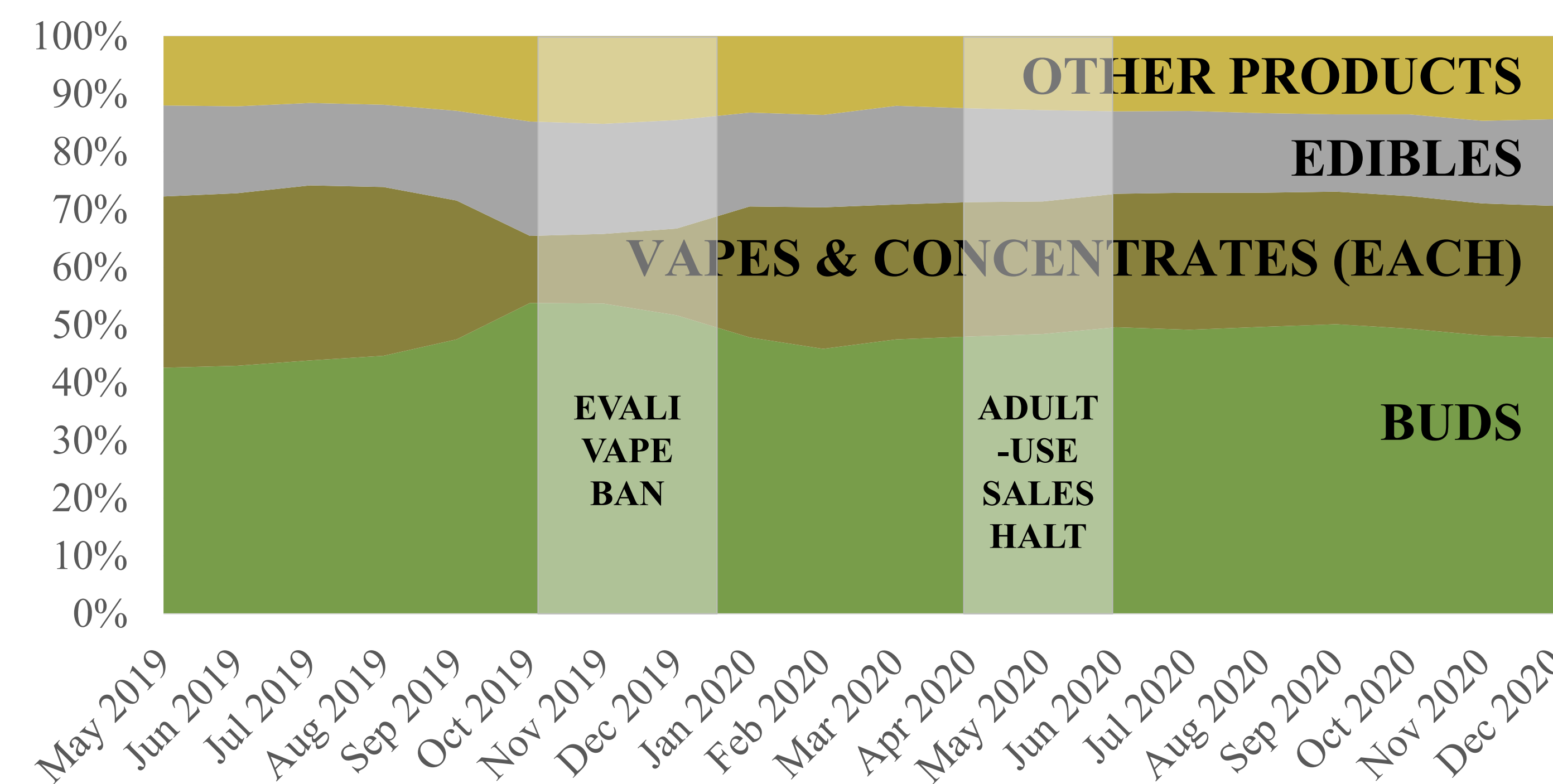


Table 3. Adult-use Sales by Product Category (percent of monthly sales)

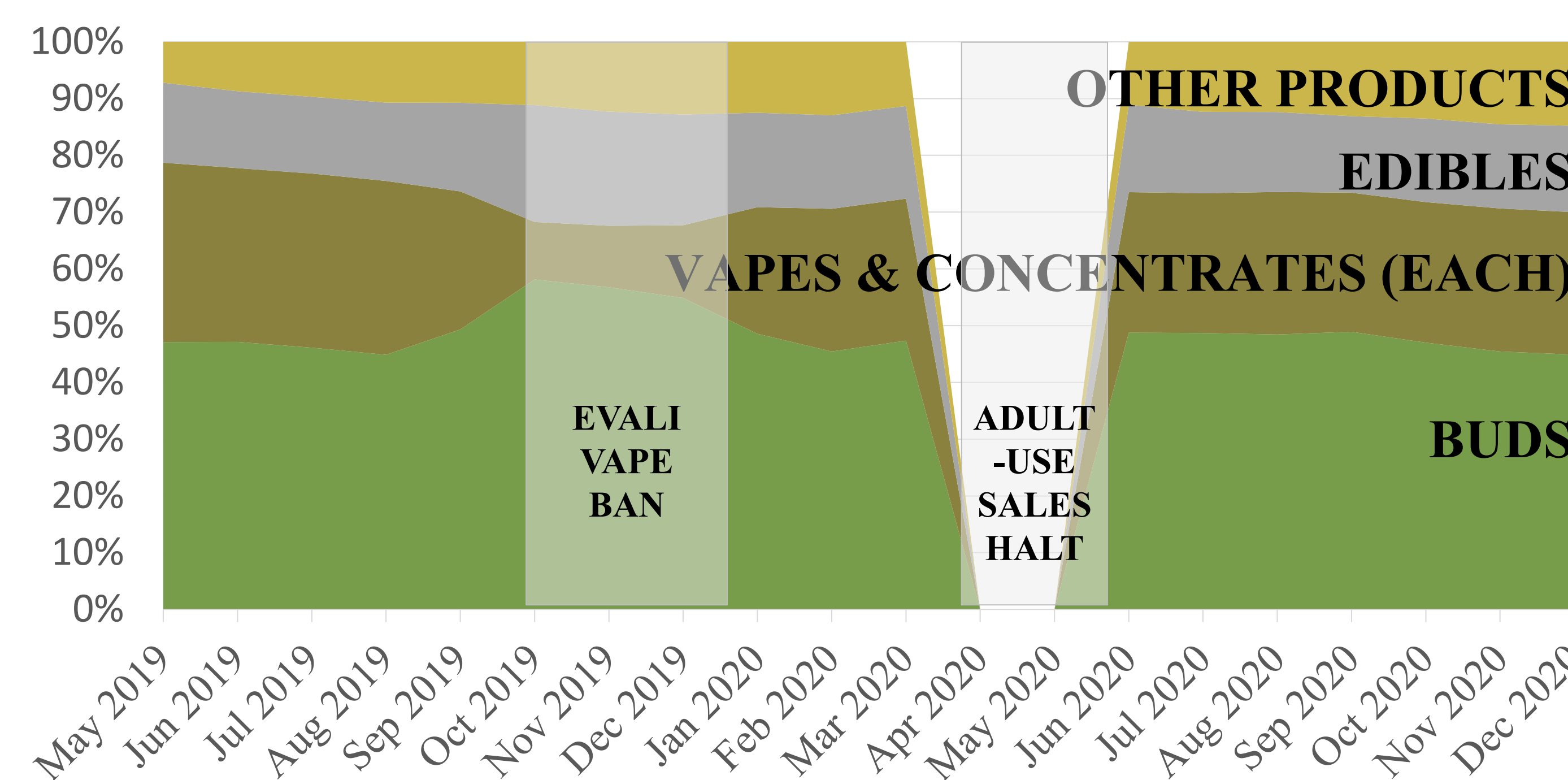


Table 4. Active Registered Medical-Use Cannabis Patients

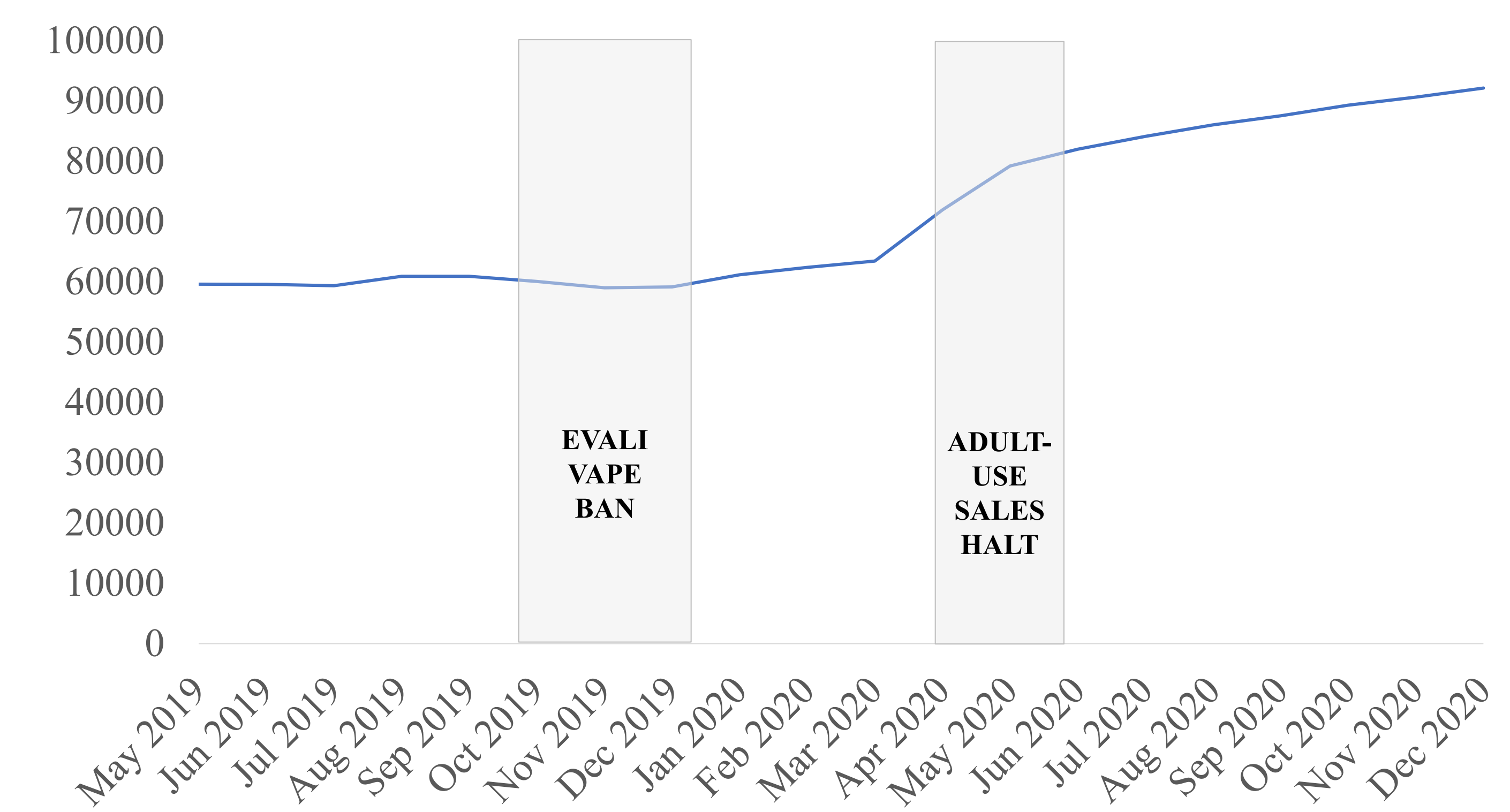
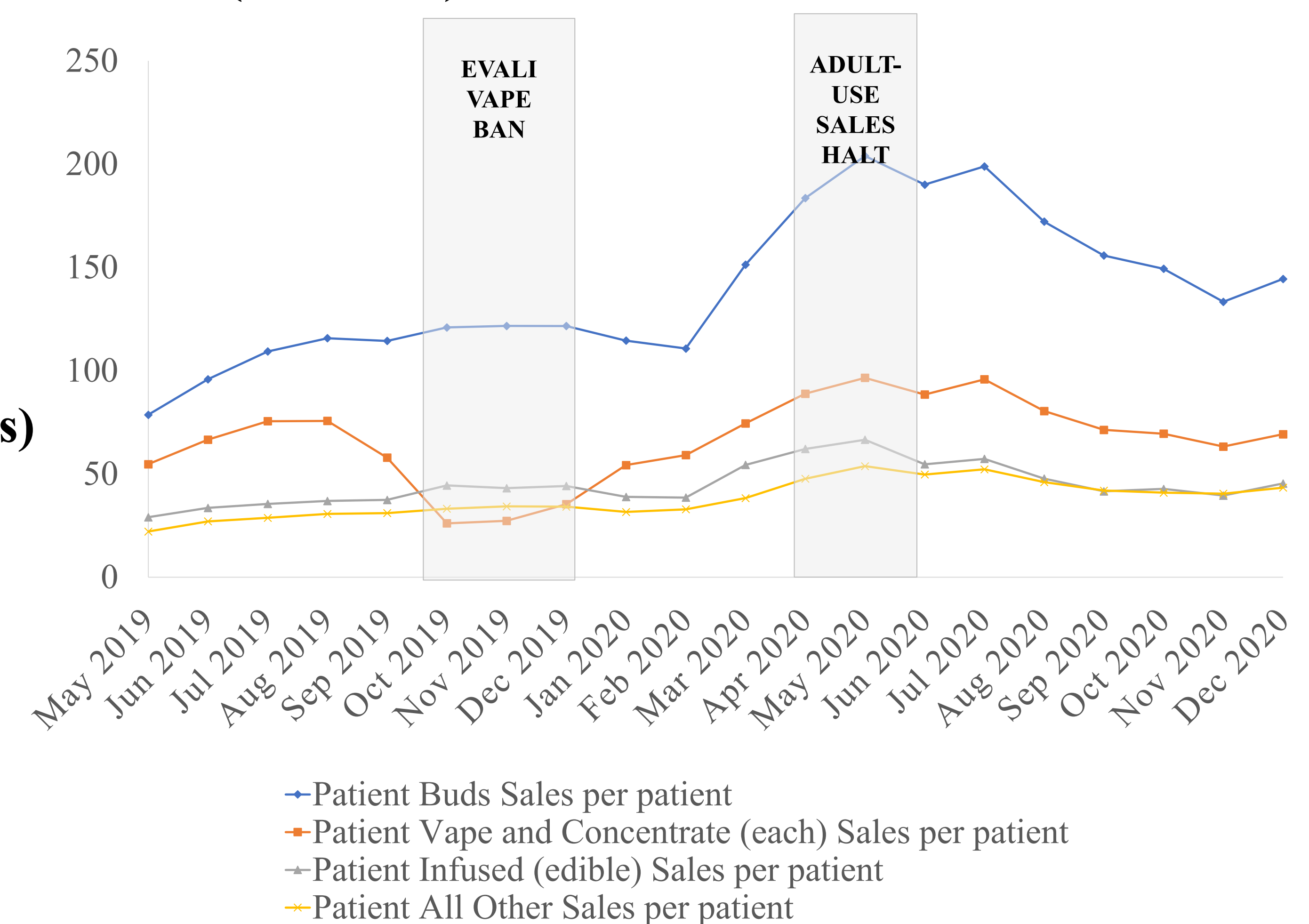


Table 5. Patient Sales Per Registered Medical-Use Cannabis Patients (in dollars)



Conclusion

These exploratory findings suggest some consumers move from the adult-use to medical market and changed spending by product types. We cannot make any causal claims and any long-term implications of trends observed are unknown. More research is needed, particularly to understand potential concurrent changes in the illicit market during these crises.

