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

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

1 Commonwealth of Massachusetts, Cannabis Control Commission
2 Harvard 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.

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.