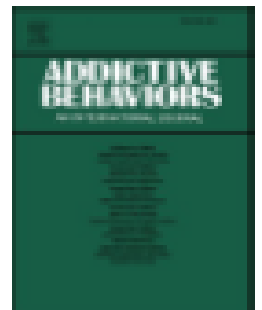




Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh



Age-specific rates of onset of cannabis use in Mexico

Mauricio López-Méndez^a, Angélica Ospina-Escobar^{b,c,d}, Rowan Iskandar^{e,f}, Fernando Alarid-Escudero^{c,g,h}

^a Brown University School of Public Health, Providence, RI, United States

^b Programa de Cátedras CONACYT, Mexico

^c Drug Policy Program, Center for Research and Teaching in Economics (CIDE), Aguascalientes, Mexico

^d Division of Multidisciplinary Studies, Center for Research and Teaching in Economics (CIDE), Aguascalientes, Mexico

^e Center for Evidence Synthesis in Health, Brown University, Providence, RI, USA

^f Center of Excellence in Decision-Analytic Modeling and Health Economics Research, slon-imsl, Bern, Switzerland

^g Division of Public Administration, Center for Research and Teaching in Economics (CIDE), Aguascalientes, Mexico

ARTICLE INFO

Keywords:

Age-specific rates of onset

Cannabis

Mexico

Time-to-event flexible parametric models

ABSTRACT

Background: Over the previous two decades, the lifetime prevalence of cannabis use has risen among Mexico's population.

Aims: Estimate the sex- and age-specific rates of onset of cannabis use over time.

Design: Five nationally representative cross-sectional surveys, the Mexican National Surveys of Addictions (1998, 2002, 2008, 2012) and the Mexican National Survey on Drugs, Alcohol, and Tobacco Consumption (2016).

Setting: Mexico.

Participants: Pooled sample of 141,342 respondents aged between 12 and 65 years of which 43.6% (n = 61,658) are male and 56.4% (n = 79,684) are female.

Measurements: We estimated the age-specific rates of onset of cannabis as the conditional rate of consuming cannabis for the first time at a specific age.

Methods: Time-to-event flexible-parametric models with spline specifications of the hazard function. Stratified analysis by sex and control for temporal trends by year of data collection or decennial birth cohort.

Findings: Age-specific rates of onset of cannabis use per 1,000 individuals increased over time for females and males. Peak rates of onset of cannabis use per 1,000 ranged from 0.935 (95%CI = [0.772, 1.148]) in 1998, to 5.391 (95%CI = [4.924, 5.971]) in 2016 for females; and from 7.513 (95%CI = [6.732, 10.063]) in 1998, to 26.107 (95%CI = [25.918,30.654]) in 2016 for males. Across decennial birth-cohorts, peak rates of onset of cannabis use per 1,000 individuals for females ranged from 0.234 (95%CI = [0.078, 0.768]) for those born in the 1930s, to 14.611 (95%CI = [13.243, 16.102]) for those born in the 1990s; and for males, from 4.086 (95%CI = [4.022, 7.857]) for those born in the 1930s, to 38.693 (95%CI = [24.847, 48.670]) for those born in the 1990s.

Conclusion: Rates of onset of cannabis increased over the previous two decades for both females and males but remained higher for males. Across recent cohorts, the rates of onset have increased at a faster rate among females than males.