# INPLASY PROTOCOL

To cite: Sánchez-Pájar et al. Social and built environment interventions to prevent alcohol, tobacco, and legal cannabis use: a scoping review. Inplasy protocol 202350101. doi: 10.37766/inplasy2023.5.0101

Received: 27 May 2023

Published: 27 May 2023

Corresponding author: Andrés Sánchez-Pájaro

andres.sanchez@insp.mx

#### **Author Affiliation:**

Instituto Nacional de Salud Pública.

Support: N/A.

Review Stage at time of this submission: The review has not yet started.

Conflicts of interest: None declared.

# Social and built environment interventions to prevent alcohol, tobacco, and legal cannabis use: a scoping review

Sánchez-Pájaro, A1; Barrientos-Gutiérrez, T2; Pérez-Ferrer, C3.

Eligibility criteria: We will use the following inclusion criteria: 1) Document must mention by name or describe at least one intervention, strategy, program or policy to prevent alcohol, tobacco and legal cannabis use. 2) Document must contain enough information for the researchers to determine if the intervention, strategy, program or policy was aimed at modifying the social and/or built environment. 3) Intervention, strategy, program or policy must have been aimed at modifying the social and/or built environment, using the following definitions: Social environment: "...the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact...Social environments can be experienced at multiple scales, often simultaneously, including households, kin networks, neighborhoods, towns and cities, and regions..."; Built environment: "the surroundings or conditions designed and built through human intervention, where a person lives or operates". 4) Document must mention that intervention/strategy/ program/policy has been implemented within the last 30 years (1992-2022), whatever the setting, time frame, or subpopulation. 5) Document must be within the body of scientific literature (peerreviewed articles, research journal commentaries, editorials, or perspective pieces), be a published book or book chapter, a government, multinational organization or non-profit organization report, or a dissertation/thesis. 6) Document must not be a conference abstract, public letter, speech transcript, budget report, independent website post or blog, or news article. 7) Document must be in English or Spanish. 8) Document must be open-source, publicly available online, or accessible through the INSP's library services.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 27 May 2023 and was last updated on 27 May 2023 (registration number INPLASY202350101).

#### INTRODUCTION

Review question / Objective: What interventions to prevent alcohol, tobacco and legal cannabis use that are aimed at

modifying the social and/or built environment have been implemented in the last 30 years? Population: NA. Concept: Interventions to prevent, alcohol, tobacco, and legal cannabis use. Context: Social and built environment.

Background: Recreational use of cannabis is the consumption of the cannabis plant or its derivatives through the respiratory or digestive tract for non-medical recreational purposes. Recreational use differs from medical use, which is the use of chemical compounds contained within the plant (or some preparation of the plant) as a treatment for specific medical conditions. Recreational cannabis use is controlled internationally through the 1961, 1971 and 1988 drug conventions, as agreed to by over 180 signing parties (countries), however, it is the most used recreational illegal drug in the world.

Over the past two decades, there has been a worldwide paradigm shift in cannabis public perception which has resulted in legal modifications in many territories. Recreational cannabis use is now legal in Canada, Uruguay, Thailand, and 21 states of the United States. Additionally, over 30 countries, including Mexico, Malta, South Africa, Georgia, Spain, and Portugal, have decriminalized possession and/or are in the process of legalizing recreational use.

Despite changes in its public perception and subjective value to its users, recreational cannabis use is associated with many negative health outcomes. Evidence shows that recreational cannabis use is associated with bronchitis, decreased lung function, vehicle accidents, testicular cancer, cardiovascular diseases, cognitive impairment, major depression, psychotic disorders (including schizophrenia), and 1 of every 5 users developing a use disorder (abuse or dependence). Because of that, implementing strategies to prevent an increase in recreational cannabis use prevalence parallel to the legalization process is paramount.

Within the legal framework, there are many interventions, strategies, policies that can be implemented to prevent the use of addictive substances. They can be categorized as: 1) Demand reduction strategies. These include preventive campaigns in the media, taxes, advertising and promotion control, warning labelling

and packaging regulation, and treatment for people with use disorders; 2) Supply reduction strategies. These include age restrictions, sales licences, provisions on illicit trade; and 3) Harm reduction strategies, which include smoke-free space policies, regulation of substances contained in products, among others. Out of these, experiences from the legal regulation of alcohol and tobacco, have showed that interventions, policies and strategies aimed at the social and built environment, are more easily susceptible to modification and have longer lasting impact.

The social and built environment are linked concepts which describe human surroundings. The social environment can be defined as "...the immediate physical environment, social relationships, and cultural settings within which defined groups of people function and interact... Social settings can be experienced at multiple scales, often simultaneously, including households, kinship networks, neighborhoods, towns and cities, and regions...". The built environment is frequently defined as "the environment or conditions designed and built through human intervention, where a person lives or operates.". Implementing interventions, strategies or policies aimed at influencing the social and built environment is vital to control the prevalence of use of legal addictive substances.

Rationale: A wide range of studies conducted over several decades has provided valuable insights and concrete recommendations for implementing policies aimed at reducing the prevalence of addictive substance use and safeguarding public health. Notably, numerous reports have translated this knowledge into recommendations for regulating recreational cannabis. However, to our knowledge, there has been a lack of systematic reviews that comprehensively examine the interventions, strategies, and policies targeting the social and/or built environment pertaining to these substances.

The identification of interventions, strategies, and policies focused on the

social and built environment that aim to prevent the use of addictive substances is of utmost importance. This scoping review specifically aims to inform cannabis policy within the legal framework. However, given that recreational cannabis use is currently legal in only a limited number of regions, the existing literature on cannabis interventions may be scarce. To address this knowledge gap, we will include tobacco and alcohol in our review to explore potential interventions that can be transferred to the context of cannabis use prevention.

The findings from this scoping review will be invaluable for countries undergoing legal transitions regarding recreational cannabis use. By examining interventions implemented within the last 30 years, we aim to construct a robust policy framework that prioritizes the health of the population and effectively prevents an increase in the prevalence of recreational cannabis use and its associated negative health outcomes. Establishing adequate regulations for recreational cannabis use through strategic interventions within the context of legalization has the potential to reduce hospitalizations related to cannabis abuse and dependence, vehicular accidents associated with cannabis use, head injuries from falls, hyperemesis syndrome, schizophrenia, and other psychotic disorders, suicide attempts, mood disorders, and accidental ingestion in children. Moreover, in the long term, such regulations may also contribute to the prevention of cardiovascular and pulmonary diseases, as well as cancer.

It is important to note that many policies, interventions, and strategies may be implemented without being formally reported in scientific literature. Consequently, it is crucial to employ a comprehensive search strategy that encompasses organizational and informal reports to identify potentially relevant initiatives. Furthermore, it is rare for this type of policies, interventions, or strategies to undergo formal design, implementation, result, or impact evaluations, which often limits the availability of evidence required for a systematic review. Nevertheless, the identification of implemented policies,

interventions, and strategies remains highly relevant, and a scoping review is an appropriate methodology to address this broader question effectively.

#### **METHODS**

Strategy of data synthesis: We will search both scientific and grey literature. We will search the PubMed (for English) and SciELO (for Spanish) databases to identify documents within the body of scientific literature; we will use the following search terms:

### PubMed (English)

- 1. (((("cannabis"[MeSH Terms]) OR ("tobacco")) OR ("alcohol")) OR ("alcoholic beverage\*"[MeSH Terms])) OR ("illicit drug\*"[MeSH Terms])
- 2. ((((((intervention[Title]) OR (strateg\*[Title])) OR (policy[Title])) OR (policies[Title])) OR (regulation\*[Title])) OR (lesson\*[Title])) OR (program\*[Title])
- 3. (environment[Title/Abstract]) OR (neighbo\*[Title/Abstract])
- 4. ("1992/01/01"[Date Entry] : "3000"[Date Entry])
- 5. 1 AND 2 AND 3 AND 4

## SciELO (Spansih)

- 1. ("cannabis") OR ("marihuana") OR ("mariguana") OR ("tabaco") OR ("alcohol") OR ("bebidas alcohólicas") OR ("drogas ilegales") OR ("cigarro")
- 2. ("intervención") OR ("intervenciones") OR ("estrategia") OR ("estrategias") OR ("políticas") OR ("regulación") OR ("regulaciones") OR ("lección") OR ("lecciones") OR ("programa") OR ("programas")
- 3. (entorno) OR (ambiente) OR (vecindario) OR (barrio)
- 4. (year\_cluster:(1992)) OR (year\_cluster: (1993)) OR (year\_cluster:(1994)) OR (year\_cluster:(1995)) OR (year\_cluster: (1996)) OR (year\_cluster: (1996)) OR (year\_cluster:(1997)) OR (year\_cluster:(2000)) OR (year\_cluster:(2000)) OR (year\_cluster:(2001)) OR (year\_cluster:(2002)) OR (year\_cluster:(2003)) OR (year\_cluster:(2004)) OR (year\_cluster:(2005)) OR (year\_cluster:(2006)) OR (year\_cluster:(2008)) OR (year\_cluster:(2009)) OR (year\_cluster:(2008)) OR (year\_cluster:(2009)) OR (year\_cluster:(2010)) OR (year\_cluster:

(2011)) OR (year\_cluster:(2012)) OR (year\_cluster:(2013)) OR (year\_cluster: (2014)) OR (year\_cluster:(2015)) OR (year\_cluster:(2016)) OR (year\_cluster:(2017)) OR (year\_cluster:(2017)) OR (year\_cluster:(2018)) OR (year\_cluster:(2020)) OR (year\_cluster:(2021)) OR (year\_cluster:(2022))

#### 5. 1 AND 2 AND 3 AND 4

We will search Google books to identify books and book chapters in both English and Spanish, using the following terms:

**English** 

Any of these words: "cannabis" OR "tobacco" OR "alcohol" OR "alcoholic beverage\*" OR "illicit drug\*"

**Content: Books** 

Show content published between: Jan 1992 and Sep 2022

Spanish

Any of these words: "cannabis" OR "tabaco" OR "alcohol" OR "bebidas alcohólicas" OR "drogas" OR "drogas ilegales"

**Content: Libros** 

Show content published between: Ene 1992 y Sep 2022

We will search specific governments, organizations, universities and selected additional websites for reports and dissertations/theses using advanced Google search options. English search will be: cannabis OR marihuana OR tobacco OR alcohol "intervention" filetype:pdf site:example.org. Spanish search will be: cannabis OR mariguana OR tabaco OR alcohol "intervención" filetype:pdf site:example.org.

English websites will be the following: who.int, unodc.org, paho.org, ec.europa.eu, emcdda.europa.eu, osha.europa.eu, cdc.gov, nih.gov, samhsa.gov, hhs.gov, canada.ca, gov.uk, gov.scot, gov.wales, gov.ie, health.gov.au, aihw.gov.au, health.govt.nz, government.nl, gov.pt, government.se, globalcommissionondrugs.org, idpc.net, hri.global, ash.org, theunion.org, fctc.org, uicc.org, itcproject.org, seatca.org, world-heartfederation.org, iard.org, globalgapa.org, addiction-ssa.org, drugpolicy.org, ccsa.ca, drugpolicy.ca, cdpe.org, drugpolicy.org.au, civilsocietyforumondrugs.eu, transformdrugs.org, harvard.edu, jhu.edu,

Ishtm.ac.uk, washington.edu, imperial.ac.uk, ox.ac.uk, ucl.ac.uk, ki.se, bristol.ac.uk, utoronto.ca, unc.edu, unimelb.edu.au, ku.dk, emory.edu, columbia.edu, umich.edu, ucsf.edu, eur.nl, cam.ac.uk, uu.nl, mcgill.ca, yale.edu, kcl.ac.uk, berkeley.edu, bu.edu, stanford.edu, and drexel.edu.

Spanish websites will be the following: who.int, unodc.org, paho.org, ec.europa.eu, emcdda.europa.eu, osha.europa.eu, salud.gob.mx, insp.mx, minsalud.gov.mx, ins.gov.co, sanidad.gob.es, isciii.es, salud.gob.ar, gob.pe, gob.ve, minsalud.cl, salud.gob.ec, mspas.gob.gt, salud.msp.gob.cu, msp.gob.do, salud.gob.hn, mspbs.gov.py, minsa.gob.ni, salud.gob.sv, ministeriodesalud.go.cr, minsa.gob.pa, gub.uy, cij.org.mx, riod.org, unad.org, codajic.org, convivir.org, asociacioncauces.org, espm.mx, unam.mx, ipn.mx, uniandes.edu.co, unal.edu.co, upf.edu, ub.edu, uab.cat, uam.es, ucm.es, uv.es, uba.ar, unlp.edu.ar, cayetano.edu.pe.

Eligibility criteria: We will use the following inclusion criteria: 1) Document must mention by name or describe at least one intervention, strategy, program or policy to prevent alcohol, tobacco and legal cannabis use. 2) Document must contain enough information for the researchers to determine if the intervention, strategy, program or policy was aimed at modifying the social and/or built environment. 3) Intervention, strategy, program or policy must have been aimed at modifying the social and/or built environment, using the following definitions: Social environment: "...the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact...Social environments can be experienced at multiple scales, often simultaneously, including households, kin networks, neighborhoods, towns and cities, and regions..."; Built environment: "the surroundings or conditions designed and built through human intervention, where a person lives or operates". 4) Document must mention that intervention/ strategy/program/policy has been implemented within the last 30 years (1992-2022), whatever the setting, time frame, or subpopulation. 5) Document must be within the body of scientific literature (peer-reviewed articles, research journal commentaries, editorials, or perspective pieces), be a published book or book chapter, a government, multinational organization or non-profit organization report, or a dissertation/thesis. 6) Document must not be a conference abstract, public letter, speech transcript, budget report, independent website post or blog, or news article. 7) Document must be in English or Spanish. 8) Document must be open-source, publicly available online, or accessible through the INSP's library services.

Source of evidence screening and selection: We will undertake an initial screening followed by a full text review. The initial screening for scientific literature will be undertaken by, two researchers, who will independently assess titles and abstracts using the free-license software CADIMA. For books, book chapters, reports and dissertation/theses, the abstract or executive summary will be assessed by the main researcher. If the document has no abstract or executive summary, only the title will be assessed. Documents with uncertainty of inclusion will be reviewed by a second researcher.

For the full text review, all documents that pass the initial screening will be reviewed independently by two researchers against the inclusion criteria. Disagreements will be resolved by consensus. The reasons for the exclusion of documents will be recorded and reported using a PRISMA-ScR flow diagram.

Data management: We adapted the data extraction form from the Joanna Briggs Institute to our review question. Adapted instrument can be found here: https://docs.google.com/spreadsheets/d/1T05db7pEuuwxfech0MCm3\_Z8EaGMK3rx XADfxovEccE/edit?usp=sharing. We will test the form with 10 documents reviewed by two researchers independently to identify if additional data categories emerge. After refining the extraction form, two reviewers will extract the data from

each document and discuss to reach consensus if they have differing viewpoints.

Reporting results / Analysis of the evidence: We will analyse extracted data descriptively, we will stratify interventions by alcohol, tobacco, and cannabis, and then categorize them as aimed at either the social, built environment or both by applying our definitions of "social environment" and "built environment". We will use a comparative process and internal discussion to identify if different interventions have commonalities that can be grouped.

Presentation of the results: We will publish the final report following the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) criteria.

Language restriction: Results will be restricted to Spanish and English.

Country(ies) involved: All authors involved in the revi3ew are from and work in Mexico.

Keywords: Cannabis use; epidemiological determinants; social environment; built environment.

Dissemination plans: First, we will prepare a manuscript for publication in an academic journal to disseminate the scoping review's findings within the scientific community. These publication will adhere to the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) criteria, and provide a comprehensive overview of the review process, methodology, and results.

Subsequently, we will develop a set of evidence-based recommendations formulated to guide the development of policies, strategies, and interventions aimed at preventing cannabis use within the legal framework. We will disseminate the scoping review's results and these recommendations to decision makers within the National Commission Against Addictions (CONADIC) to ensure that the findings inform evidence-based policies

and interventions. Our aim is to facilitate an effective translation of research findings into actionable strategies that can be incorporated into CONADIC's decision-making processes.

We aim to present the results and recommendation

#### **Contributions of each author:**

Author 1 - Andrés Sánchez-Pájaro - Protocol design, literature review, manuscript draft.

Author 2 - Tonatiuh Barrientos-Gutiérrez - Project supervision, draft revision, design input.

Email: tbarrientos@insp.mx

Author 3 - Carolina Pérez-Ferrer - Draft editing, design input, review expertise.

Email: carolina.perez@insp.mx