From Courtroom to Clinic: How Legal Rulings Shape Cannabis Use Among Adolescents and Young Adults in South Africans

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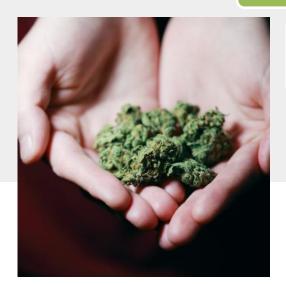
BACKGROUND

Cannabis is the most widely used (illicit) drug globally, with an estimated 219 million users, equivalent to 4.3% of the global adult population.

As countries increasingly legalize recreational cannabis, consumption is expected to rise with increases in cannabis use found from 2002 to 2017 according to a recent synthesis of national population-based household surveys (1.5% to 7.8%).

Among adolescents aged 15 to 19, over 13 million students globally use cannabis.

This reflects an annual prevalence of 4.7%, surpassing the adult population rate (of 4.3%).



In Sub-Saharan Africa, the rate of adolescent cannabis use is estimated to significantly exceed the global average, reaching 15.6%.



BACKGROUND: LEGALIZATION IN SOUTH AFRICA



South Africa is the first country in Africa to have legalized recreational cannabis use with the signing into law of the Cannabis for Private Purposes Act on 28th May 2024.

Follows the ConCourt ruling in September 2018 which upheld and extended a Western Cape High Court judgment, which found the criminalization of home use and cultivation of cannabis by adults unconstitutional.

Adult South Africans permitted to grow and consume cannabis except in the presence of children and adolescents.



BACKGROUND: CONCERNS AND IMPACT

- The 2018 ConCourt ruling and policy shift is not without concerns for South Africa.
 - It has been postulated that it could lead to an \(\Trian\) in cannabis growing, beyond that needed for adult private use and,
 - Illegal trading in cannabis → could lead to more people, including adolescents, using cannabis.
 - Concerns around adolescents
 experiencing negative health
 consequences and an 个 burden on
 health and social services.
 - Regular cannabis use during adolescence is associated with persistent neurological changes, cognitive deficits and emotional issues.







STUDY OBJECTIVES

The aim of the current study was:

• To assess the impact of the 2018 Constitutional Court ruling on private use of cannabis in South Africa on treatment demand by adolescents and young people.

Specific study objectives include assessing whether the ruling to legalize adult cannabis use in private spaces has:

- Increased the demand for treatment for cannabis-related problems by adolescents ≤ 18 and young people 19-25.
- This resulted in a change in the proportion of treatment demand for cannabis
- treatment demand is associated with age (adolescent vs young person), gender, education, and
- resulted in any changes in the frequency of use of cannabis, prior treatment episodes, the age of initiation.



METHODS

- Treatment admission data collected from the South African Community Epidemiology Network on Drug Use (SACENDU) project between 2015 and 2023.
- The data were gathered from approximately 86 specialist treatment centers, representing 70% of the available treatment sites in the country.
- Note: Since SACENDU data are based on episodes of care, individuals may have been represented multiple times in the dataset if they received more than one treatment episode within a year.



Measures

Demographic variables:

The following demographic variables are recorded: age (-< 18 years and 19-25 years), gender (male or female), race/ethnicity (Black African, Coloured (of mixed race ancestry), Asian/Indian or White; the highest level of education completed (no education, Grade 1-11, Grade 12 and Tertiary education).

- <u>Cannabis variables:</u> Any cannabis use, including the cannabis/methaqualone combination, 'white pipe' use, were recoded as any cannabis use, with alcohol coded as 'alcohol' and all other substances coded as 'other substances'. Frequency of use was categorised into daily use, 2-6 days per week, once a week, or less often, and not in the past month.
- <u>Treatment variable:</u> we report on only one treatment variable, prior admission to treatment (yes/no).

Data Analysis

- The study analyzed cannabis use trends (including methaqualone) from 2015–2023. Sequential multiple logistic regression models show year-on-year changes in usage rates, comparing each year to the prior one via odds ratios. The eight years were compared chronologically
- Analysis was performed in STATA 17, adjusting for variables except when assessing trends within specific categories (e.g., gender or age).





RESULTS

DEMOGRAPHIC PROFILE

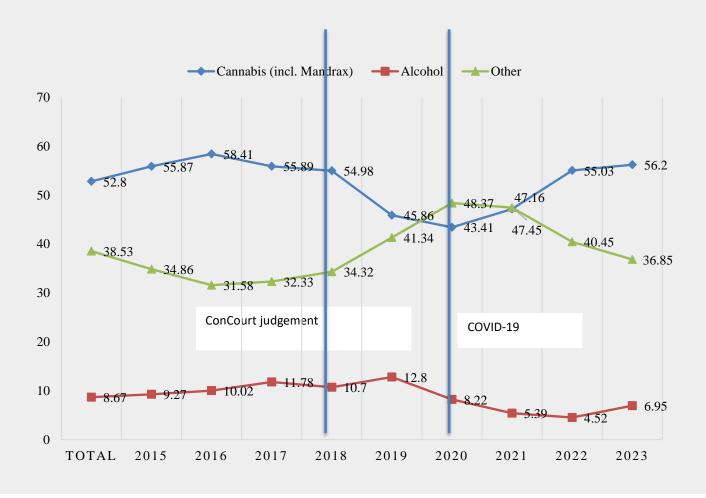
77 789 individuals aged between ages 7-25 admitted to specialist substance use treatment for the period 2015-2023



All the years		
n (%)	95% CI	
67014 (86.0)	85.7-86.2	
10932 (14.0)	13.8-14.3	
55830 (71.7)	71.3-72.0	
16738 (21.5)	21.2-21.8	
1256 (1.6)	1.5-1.7	
4095 (5.3)	5.1-5.4	
34455 (44.2)	43.8-44.5	
43516 (55.8)	55.5-56.2	
452 (0.6)	0.6-0.7	
6674 (9.1)	8.9-9.3	
60930 (82.8)	82.5-83.0	
5553 (7.5)	7.4-7.7	
10500 (13.7)	13.4-13.9	
66232 (86.3)	86.1-86.6	
49163 (63.3)	62.9-63.6	
18161 (23.4)	23.1-23.7	
7071 (9.1)	8.9-9.3	
3303 (4.3)	4.1-4.4	
41072 (52.9)	52 4 52 1	
	52.4-53.1 8.5-8.9	
	38.2-38.9	
	67014 (86.0) 10932 (14.0) 55830 (71.7) 16738 (21.5) 1256 (1.6) 4095 (5.3) 34455 (44.2) 43516 (55.8) 452 (0.6) 6674 (9.1) 60930 (82.8) 5553 (7.5) 10500 (13.7) 66232 (86.3) 49163 (63.3) 18161 (23.4)	



SNAPSHOT - CHANGES IN CANNABIS TREATMENT ADMISSIONS FROM 2015-2023



- Made up the majority of admissions
- Cannabis admission stable prior to 2018, drop after the Concourt judgement and COVID but steady increase since.



Sequential regression modeling to analyze year-on-year trends in admissions by category

There were significant changes in several periods, with *notable increases in 2015-2016, 2020-2021, and 2021-2022*, and significant *decreases* in 2016-2017, 2018-2019, and 2019-2020.

2021 vs. 2022: A significant increase (OR = 1.37, 95% CI: 1.30, 1.45, p < 0.001)

	OR^	95% CI	P value
Overall			
2015 vs. 2016	1.11	1.05, 1.18	<0.001
2016 vs. 2017	0.90	0.85, 0.96	0.001
2017 vs. 2018	0.96	0.91, 1.03	0.237
2018 vs. 2019	0.69	0.65, 0.74	<0.001
2019 vs. 2020	0.91	0.85, 0.97	0.005
2020 vs. 2021	1.16	1.09, 1.24	<0.001
2021 vs. 2022	1.37	1.30, 1.45	<0.001
2022 vs. 2023	1.05	0.99, 1.11	0.121

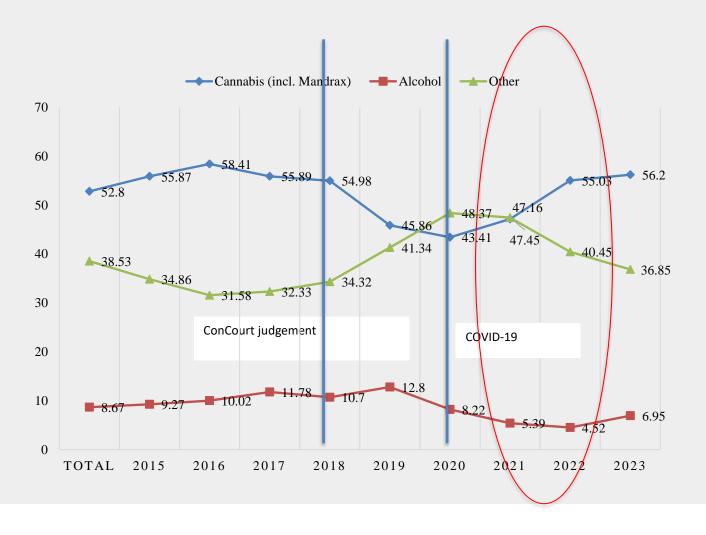
^Reference group is the prior period, that is, 2016 versus 2015 (ref); 2017 versus 2016 (ref); 2018 versus 2017 (ref); 2019 versus 2018 (ref); 2020 versus 2019 (ref); 2021 versus 2020 (ref); 2022 versus 2021 (ref); 2023 versus 2022 (ref). p-value <0.05 were highlighted in bold to show significance. CI, confidence interval; OR, Odds Ratio.



ConCourt Lag time

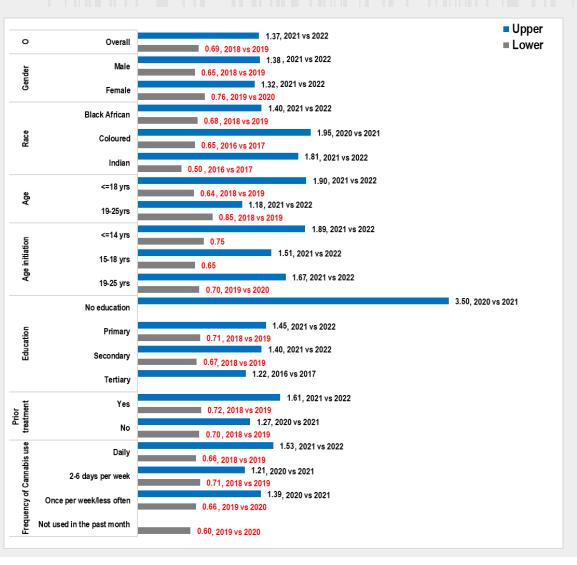
Covid

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Age-Specific Trends

- <=18 years: Significant decreases in 2016-2017 and 2018-2019, and significant increases in 2021-2022 and 2022-2023.
- 19-25 years: Significant increases in 2016-2017 and 2021-2022, and significant decreases in 2017-2018 and 2018-2019.

Gender-Specific Trends

Females: Significant increases were seen in 2015-2016, 2017-2018, **2020-2021, and 2021-2022**.

Males: Significant increases in 2015-2016, 2020-2021, and 2021-2022

Age of Initiation:

- <=14 years: Significant increases in 2015-2016, 2021-2022, and 2022-2023,
- 15-18 years: Significant increases in 2020-2021 and 2021-2022
- 19-25 years: Significant increases in 2020-2021 and 2021-2022, and significant decreases in 2019-2020 and 2022-2023.

Prior Treatment:

No prior: Significant increases in 2015-2016, 2020-2021, and **2021-2022**,

Frequency of use

Significant increases in all the years except for 2018 -2019

Education: odds ratios have changed over the years for different education levels with primary ans secondary in 2021-2022



DISCUSSION AND CONCLUSION: KEY POINTS

- Treatment for cannabis use increased for <=18 years (post the ruling).
- COVID Pandemic the pandemic created a unique set of circumstances, increased stress, anxiety, and depression; boredom and isolation.
- Among individuals aged ≤18 years, significant decreases in 2016-2017 and 2018-2019, and significant increases in 2021-2022 and 2022-2023.
 - Cannabis use during adolescence can interfere with the normal development of the brain, particularly affecting areas involved in cognitive functions and emotional regulation.
 - Regular cannabis use in adolescents is associated with impairments in attention, memory,
 and executive functions. These cognitive deficits can persist even after cessation of use.
 - cannabis use during adolescence can lead to structural changes in the brain
 - higher risk of developing substance use disorders later in life
 - poorer academic performance
 - cannabis use can increase the risk of developing psychotic disorders, particularly in individuals with a genetic predisposition

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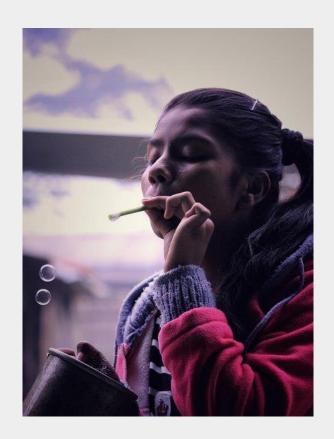
How does marijuana affect the brain? Psychological researchers examine impact on different age groups over time

New legislation is helping scientists and manufacturers study the effects of cannabis and develop guidelines for use





- For females, significant increases significant increases were seen in 2015-2016, 2017-2018, 2020-2021, and 2021-2022 highlighting genderspecific patterns in cannabis use and treatment demand.
 - Females experience more pronounced or distinct outcomes compared to males.
 - Memory deficits, structural brain changes, and emotional dysregulation, likely due to earlier neurodevelopmental timelines (female brain regions mature earlier)and metabolic differences btw males and females

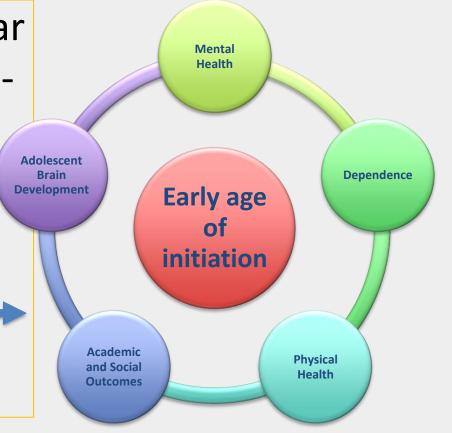




Significant increases year
 on year age of initiation ≤14 years of age

2021 vs. 2022	1.89	1.70, 2.11	<0.001
2022 vs. 2023	1.51	1.33, 1.72	<0.001

Debut quite young





THOUGHTS ON THE JUDGEMENT?

- Legal decision was sound
 - It is not appropriate from a human rights point of view to lock up users of cannabis, give them a criminal record, and waste state resources
- Do not condone or recommend cannabis use except for treatment of certain medical conditions after other treatments have failed
- Public health concerns remain and are central (Lancet 2009)



ISSUES IN MEDICINE Beyond the rhetoric: Towards a more effective and humane drug policy framework in South Africa

Charles Parry, Bronwyn Myers

continued the outdated approach to policy around illicit drugs in South Africa. It missed opportunities for discussing how to single (accountable) agency that has the authority to oversee policy impact significantly on the health and social harms associated with impact significantly on the health and social harms associated with problematic drug use and reduce the burden of drug-related cases in the criminal justice system. The government needs to move away from the political rhetoric of a 'drug-free society' and start und decriminalising drug use; takes into account difference

medium- and long-term priorities for drug policy implementation. The 17 evidence-based drug policy strategies identified by Babo et al. may serve as a useful starting point for policy development

In March 2011 the Department of Social Development and the Central Drug Authority (CDA) hosted the 2nd Biennial Anti-Substance Abuse Summit in Durban with the theme 'An Integrated Approach: Towards a Drug-free Society'. Some of the country's top politicians, including the President and eight cabinet members, were participants. The main emphasis was on alcohol, and where illicit drugs were referred to the emphasis was on the link between drugs and crime, drug supply, and the need for treating people with alcohol or drug dependence. Little distinction was made between the harm caused by different types of drugs, and no distinction was made

between persons who use and persons who are dependent on drugs.\(^1\)
This continued focus on the drugs-crime nexus, and the emphasis on controlling and containing people with drug-related problems, is a concern as it reflects an outdated approach to drug policy that has been shown to be ineffective and inhumane internationally.²³ Supplyorientated policies have had adverse consequences for people who use drugs, including missed opportunities to reduce the personal and social harms associated with problematic drug use." We contend that to be effective, South African drug policy needs urgent reworking. While there are common issues relating to policy around alcohol and illicit drugs, the country would be served best by separating policy development in these two areas and then investigating whether there can be synergies between the two during implementation. This paper focuses on policy around illicit drug use

Charles Parry is Director of the Alcohol & Drug Abuse Research Unit (ADARU) at the Medical Research Council (MRC) and an Extraordinary Professor in the Department of Psychiatry at Stellenbosch University, His interests include substance abuse epidemiology, alcohol and drug policy, and the effect of substance abuse on HIV and AIDS, Bronwyn Myers is a Specialist Scientist in the ADARU and an Honorary Associate Professor in the Department of Psychiatry & Mental Health at the University of Cape Town. Her interests include alcohol and drug intervention and services resea and also drug policy. The authors indicate no conflicts of interest.

What is the status of drug policy development and implementation in South Africa?

Policy development around illicit drug use is being driven by variou government departments and ministries, the CDA, and since late 2010 the Inter-ministerial Committee on Substance Abuse (IMC).

The second National Drug Master Plan (NDMP; 2006 - 2011) provides the policy framework for addressing drug use in the country and the legislative framework is provided by the Prevention and Treatment of Substance Abuse Act 70 of 2008." The NDMPs major limitation is that it does not translate generic policy statements into clear recommendations for action. This is left in the hands of various national departments and is mostly devolved to the provinces. Devolving this function to the level of the province ha resulted in major differences in drug policy between the provinces both in terms of the stage of policy development and position or various issues. Some provinces, such as the Western Cape, have a coherent and relatively forward-thinking policy framework that drives resource allocation; others either lack a framework or stil it difficult to develop and implement an evidence-based nations drug policy framework. Another challenge is the lack of leadershi has hampered progress as no single person (or authority) has been responsible for driving the implementation of policies or accountable for the successes and failures of policies. In theory this was the CDA and provincial substance abuse forums, but in practice they have lacked the authority and resources to take this on.*

Although the NDMP is being revised, there is no reason to believe

that there will be any major shifts from the current conservative focus which still calls for a "drug-free' society. Among the various international policy options. South Africa's policies have a strong focus on supply reduction through law enforcement and policing, despite rhetoric about having a developmental approach to drug use. These policies are not particularly humane, as people who use drug are still imprisoned for drug possession and have limited access to evidence-based interventions. They also have had unintended advers consequences for individuals and society, including overburdening the criminal justice system with drug-related offences, overcrowdin and further harms.2 Furthermore, the high prices of illicit drugs are

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THEN IN 2025...



SOUTH AFRICA

South Africa's new cannabis ban: what you need to know

- The Department of Health has implemented a blanket ban on any cannabis or hemp in foodstuffs.
- The import, manufacture, and sale of food products containing cannabis or its derivatives are now prohibited.
 - Public Health concerns the backbone:
 Pediatric accidental poisoning unintentional ingestion of edibles by children.
- Sparked A LOT of controversy, especially among cannabis advocates and industry players (economics).



- Impaired respiratory function and impaired pulmonary defenses against infections (e.g., bronchitis, pneumonia).
- Cardiovascular stress: Acute THC use elevates heart rate and blood pressure, posing risks for individuals with undiagnosed heart conditions. 个ed risk of heart attack in the hour after use (in persons @risk)
- Cannabis smoke contains carcinogens (e.g., ammonia, hydrogen cyanide)
- Cannabis use during pregnancy correlates with reduced birth weight and developmental delays, with possible long-term neurobehavioral impacts on offspring
- Affects perceptual-motor functioning so risk of accidents, injuries and violence over half of all patients tested experienced violent injuries. Over half of all patients tested experienced violent injuries.

Synergistic substance interactions: Combining cannabis with alcohol or opioids amplifies impairment (e.g., driving accidents, respiratory depression)

RECOMMENDATIONS?

- Awareness around this critical window of vulnerability is needed The adolescent brain (developing until ~25 years) is more susceptible to THC's effects on endocannabinoid systems, which regulate synaptic plasticity and learning.
- Need for universal level prevention programmes, to delay or prevent onset tailor-made to gender, age, and cultural context.
- Use popular social media platforms (regulated) to generate
- Raising concerns associated with <u>adolescent cannabis use</u> <u>Hookah Pipe??</u>
- Deal harshly with people who provide (sell, give) cannabis to persons under 18
- Educating people about proven harms of cannabis use getting cannabis <u>users</u> to ingest by means other than smoking – harm reduction initiatives.
- Ensure we have <u>treatment options</u> for people who will inevitably experience harms.
- Train & equip police to <u>detect cannabis-impaired driving</u> & prosecute impaired drivers.
- Continue and improve population-level monitoring of use & associated harms so we can detect the impact of legislative & other changes on use (better data)
- Triangulation of Data beyond treatment demand data comparison with other surveys.

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