



County of Santa Cruz Board of Supervisors

Agenda Item Submittal

From: Health Services Agency

Subject: Recommendations on Preventing Underage Cannabis Use

Meeting Date: March 11, 2025

Formal Title: Consider report on preventing underage cannabis use in Santa Cruz County, and take related actions

Recommended Actions

1. Accept and file a report on Preventing Underage Cannabis Use in Santa Cruz County; and
2. Direct the Health Services Agency and Cannabis Licensing Office to continue collaboration towards prevention of underage cannabis use.

Executive Summary

On January 28, 2025, the Board directed the Health Services Agency (HSA) to provide recommendations for reducing underage cannabis consumption in the community. Underage cannabis use poses significant societal, health and financial risks that have far-reaching consequences. The costs associated with cannabis use across all ages in the County and its subsequent treatment are alarmingly high, impacting both public health and the economy through crime, productivity losses, and health care costs. In the last Fiscal Year (2023-24), total cost of treatment was \$4.3 million, of which the County (local) share was \$1.7 million for all ages. To prevent these rising financial and health impacts on youth, it is essential to reduce youth access to cannabis, challenge the normalization of its use, and strengthen control measures. Without enhancing these efforts, the risk of further economic burden and the long-term effects of cannabis misuse on youth and society at large escalates. HSA Public Health Division (Public Health) is submitting this report for the Board's consideration that reviews local data on underage cannabis use, health and local financial impacts to cannabis use and misuse, presents current strategies to prevent underage cannabis use in Santa Cruz County, provides evidence-informed recommendations on reducing underage cannabis consumption, and recommendations for implementation.

Discussion

Local Data on Underage Cannabis Consumption

According to the most recent data from the California Healthy Kids Survey (CHKS) 2021-2023, 12% of all 11th grade Santa Cruz County students currently use cannabis. The percentage more than doubles to 24% for non-traditional/alternative education students.¹

Historically, males have been shown to use cannabis at rates higher than females.² This trend is starting to reverse for youth, with more young people who identify as women reporting past 30-day use of cannabis. The 2021-2023 CHKS data shows that amongst Santa Cruz County 11th grade students:

- 11% of male-identifying students report current cannabis use
- 13% of female-identifying students report current cannabis use
- 17% of students who identify as something else report current cannabis use¹

Cannabis use is higher among Santa Cruz County 11th grade students who have experienced chronic sadness. 25% of students who experience chronic sadness also reported past 30-day use of cannabis.¹

In Santa Cruz County, lesbian, gay, bisexual, transgender, questioning or queer, intersex, and agender (LGBTQIA+) youth are at elevated risk for cannabis use. 21% of not-straight 11th grade students in Santa Cruz County report having used cannabis in the past 30 days compared with 11% of their straight peers.¹

Broken down by race and ethnicity, Santa Cruz County 11th grade student past 30-day use of cannabis is below¹:

- 7% of Latino/a students report current cannabis use
- 19% of White students report current cannabis use
- 21% of Mixed students report current cannabis use

Strong policies that prevent underage cannabis use have contributed to the decline in past 30-day use of cannabis amongst youth, with 27% of 11th grade students reporting past 30-day use in 2008 down to 12% in 2023, as seen in Table 1. Robust policies that prevent underage cannabis use and exposure will ensure this trend continues.

Table 1. California Healthy Kids Trend Data Santa Cruz County: Marijuana 30-Day Use 2008-2023

| Santa Cruz County Student Marijuana 30-Day Use | | | | |
|-------------------------------------------------------|------------|-------------|-------------|-------------|
| | 7th Grade | 9th Grade | 11th Grade | NT* |
| 2008-2010 | 10% | 26% | 27% | 40% |
| 2009-2011 | 10% | 23% | 30% | 50% |
| 2014-2015 | 5% | 17% | 26% | 46% |
| 2016-2017 | 4% | 14% | 25% | 47% |
| 2017-2019 | 3% | 12% | 19% | 42% |
| 2019-2021 | 2% | 3% | 13% | 26% |
| 2021-2023 | 2% | 7% | 12% | 24% |
| Net Change in Past 30-Day Use 2008-2023 | -8% | -19% | -15% | -16% |

*NT represents non-traditional students, also known as alternative education sites

Source: California Healthy Kids Survey (CHKS)

Despite the reduction in past 30-day use, the perception of harm of marijuana use amongst 7th grade students has decreased. In 2017, 40% of 7th grade students stated that occasional cannabis use causes great harm. In 2023, only 33% of 7th grade students stated that occasional cannabis use causes great harm, as shown in Table 2. Lower perception of harm is a risk factor for future cannabis use. Shifts in social norms showing a belief that cannabis use is not harmful for youth can lead to initiation of cannabis use.

Table 2. California Healthy Kids Trend Data Santa Cruz County: Perception of Marijuana Use Harm 2017-2023

Santa Cruz County Student Perception of Marijuana Use Harm

| Marijuana- Use Occasionally | | 7th Grade | 9th Grade | 11th Grade | NT* |
|---------------------------------------------------|----------|------------------|------------------|-------------------|------------|
| 2017-2019 | Great | 40% | 29% | 28% | 19% |
| | Moderate | 24% | 28% | 19% | 21% |
| | Slight | 12% | 22% | 27% | 20% |
| | None | 24% | 20% | 25% | 40% |
| Marijuana- Use Occasionally | | 7th Grade | 9th Grade | 11th Grade | NT* |
| 2019-2021 | Great | 51% | 38% | 25% | 17% |
| | Moderate | 30% | 37% | 30% | 27% |
| | Slight | 11% | 19% | 25% | 25% |
| | None | 7% | 7% | 19% | 31% |
| Marijuana- Use Occasionally | | 7th Grade | 9th Grade | 11th Grade | NT* |
| 2021-2023 | Great | 33% | 29% | 27% | 24% |
| | Moderate | 24% | 28% | 23% | 21% |
| | Slight | 14% | 22% | 24% | 28% |
| | None | 29% | 21% | 26% | 26% |
| Net Change in Perception of Harm 2017-2023 | | 7th Grade | 9th Grade | 11th Grade | NT* |
| | Great | -7% | 0% | -1% | 5% |
| | Moderate | 0% | 0% | 4% | 0% |
| | Slight | 2% | 0% | -3% | 8% |
| | None | 5% | 1% | 1% | -14% |

*NT represents non-traditional students, also known as alternative education sites

Source: California Healthy Kids Survey (CHKS)

While there is a lot of positive work in the community that contributes to the reduction in cannabis use among youth, the rates remain concerning given what is known about the impacts of cannabis on youth, which are discussed below. Any cannabis use by youth remains concerning given the high potency of many cannabis products available. Gaps in local data currently include where youth access cannabis products and the potency of cannabis products they used, which are critical compounding variables not yet measured and should be considered when assessing impacts on local youth.

Why do youth use cannabis?

Understanding why youth use cannabis is important for prevention efforts. There are a variety of reasons why youth may use cannabis:

- To experiment
 - Only 27% of 11th grade students in Santa Cruz County perceive that occasional cannabis use is greatly harmful.¹ This low perception of great harm of occasional cannabis use has been correlated with higher levels of cannabis use.³
- To fit in and be social

- Perception of other youth use is high and is happening on school campuses - according to the 2023 California Youth Tobacco Survey (CYTS), 31.8% of surveyed students in Santa Cruz County saw another student use cannabis at school in the past 30-days.⁴
- To feel good
 - A recent study found that youth who use cannabis for enjoyment is significantly associated with being more willing to consume and spend more to consume.⁵
- To feel better
 - Cannabis use is higher amongst those who report feeling chronic sadness. This points to youth using cannabis to self-medicate.¹

How do youth access cannabis?

According to the 2023 Santa Cruz County CHKS Survey, 55% of 11th grade students reported that it was fairly easy/very easy to obtain cannabis to get high.¹ There is currently no local data available on where youth access cannabis products. Anecdotally, Santa Cruz County healthcare and treatment providers as well as youth have shared with HSA Public Health that underage persons are accessing products that have been purchased legally at licensed retailers and redistributed to youth by “plugs” and through dealers found on social media sites like Snapchat and Instagram. Youth also report accessing cannabis through social and familial networks and non-monitored supplies in the home. HSA Public Health is currently developing a survey that includes a broad and systematic assessment of local youth access to cannabis products to inform prevention efforts, which will be administered to youth in community and in school settings beginning in Fall 2025.

Risk and Protective Factors

Several factors place some youth at a higher risk for initiating and continuing cannabis use. Conversely, there are protective factors that make a youth less likely to use cannabis. These can be understood by looking at the individual, family, school, and community levels.

Individual Risk and Protective Factors: Youth thinking that their peers are using cannabis is associated with their own decisions to use. However, the perceived level of peer use among students aged 12 to 17 is greater than the actual rate of use among peers. Alternatively, peer disapproval can be a protective factor.⁶

Family Risk and Protective Factors: Family factors associated with increased risk of youth cannabis use include home environments characterized by family conflict and poor relationships with parents/ caregivers.⁷⁻⁸ Parental use and beliefs about cannabis use also strongly influence youth behavior; youth whose parents have ever used cannabis are about three times more likely to use cannabis than youth whose parents have never used cannabis. Youth whose parents do not believe cannabis use is risky are 1.5 times more likely to use when compared with youth whose parents hold more negative beliefs.⁹⁻¹⁰ Conversely, families can play a protective role in preventing youth cannabis use by fostering a supportive family environment and monitoring and prohibiting youth cannabis use. Positive family factors such as identifying with one’s parents/caregiver, maternal affection displayed toward child, and perceived parental trust have been found to play a protective role in preventing youth cannabis use.¹⁰⁻¹¹ No tolerance rules around youth cannabis use and greater parental monitoring are also associated with decreased cannabis use.¹²

School Risk and Protective Factors: Authoritative school environments characterized by fair disciplinary practices and mutual respect between teachers and students have shown lower levels of cannabis use among students.¹³⁻¹⁴ Less predictable school environments where rules are not clearly articulated nor consistently enforced tend to have higher rates of use.¹⁴⁻¹⁵ A school's substance use disciplinary policies also influence cannabis use; more remedial approaches to violations, such as counseling, have been found to result in less cannabis use when compared with more punitive measures, such as expulsion.¹⁵ It is also important to consider students' relationships to the school environment in understanding cannabis use risk. The level of connection students feel to their school, fellow students, and academics is associated with student cannabis use.¹⁶ Researchers hypothesize that greater school connectedness creates a sense of shared identity and belonging that reduces the role of cannabis use in achieving social status, thereby decreasing students' likelihood of using cannabis.¹⁶⁻¹⁷ A student's involvement in school activities, such as clubs and sports, also serves as a protective factor.¹⁸

Community Protective Factors: The laws and ordinances that govern a neighborhood, city, county, state, or tribal community have a direct effect on a youth's ability to access and use substances. Community-level risk factors include the availability of the product (either medically or illegally), product marketing (primarily relevant in states where cannabis is legal at the state or local level for non-medical or medical use), community disorganization, economic deprivation, and other social determinants of health.¹⁹⁻²² For each of these risk factors, the opposite can be considered important as a protective factor that can reduce or prevent youth cannabis use.

Impacts of Cannabis Consumption

- Cannabis: Then and Now
 - The strength of cannabis products has dramatically increased in recent decades. Tetrahydrocannabinol (THC) concentration in cannabis plant material has raised from approximately 3% *in the 1970s to approximately 23% today*.²³ The various products sold more recently concentrate THC potency. For example, average cannabis product potency for concentrates (shatter, budder, waxes, etc.) was 57% in 2017, and is now as high as 99% THC.²⁴ ☒

Figure 1: Marijuana Potency Tool Demonstrating Increased THC, Use and Harm

MARIJUANA POTENCY

a resource produced by:
Smart Approaches to Marijuana

MORE THC

3%

23%

In the 1970s, "Woodstock Weed" contained roughly 1–3% THC. Since then, potency of marijuana plant material has increased to an **average potency of 18–23% today.**

56%

99%

In 2017, THC concentrates had an average THC potency of 55.7%. Today, many retailers promote and profit from products containing **up to 95–99% THC.**



6.2 million daily users in 2009



15.7 million daily users in 2023 (NSDUH)

INCREASED USE

Americans 12 and older who reported using marijuana daily or almost daily increased from 6.2 million in 2009 to 15.7 million in 2023.

GREATER HARM

Daily users of high potency THC are **five times** more likely to develop a severe mental illness.

High potency and high frequency marijuana use are associated with the **most severe impacts** on mental health.

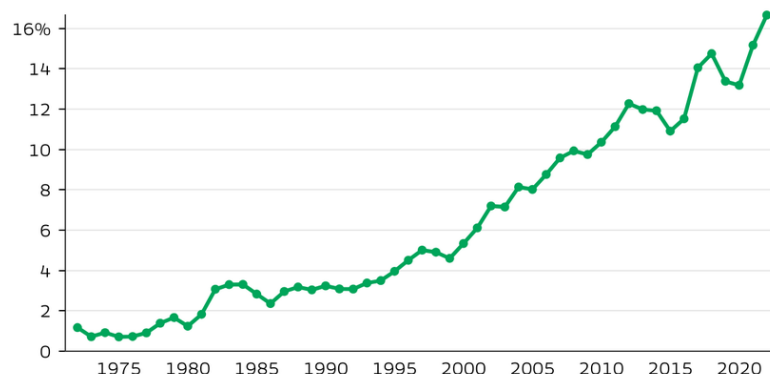
SAM Smart Approaches to Marijuana
preventing another big tobacco

Source: Marijuana Potency: A Resource produced by Smart Approaches to Marijuana

Figure 2: Increase in THC Potency since 1970s

Today's cannabis is a lot stronger than its predecessors

Cannabis available today contains more than 10 times as much **THC**, on average, than it did in the 1970s



SOURCE: NIDA POTENCY MONITORING PROGRAM, UNIVERSITY OF MISSISSIPPI

- Health Impacts
 - Youth may experience substantial harm resulting from cannabis use, especially heavy and chronic use. Frequent or intensive (e.g., daily or near-daily) cannabis use is strongly associated with higher risks of experiencing many adverse health and social outcomes.
 - Impact on brain
 - Exposure to cannabis while the brain continues to develop (through mid-twenties) can alter the brain's communication function and development.²⁵ Some studies suggest that long-term cannabis use is associated with altered brain structure and impaired cognitive function.²⁶
 - People who begin using cannabis at or before the age of 18 are four to seven times more likely to develop a cannabis use disorder than adults who did not use under age 18.²⁷
 - Long-term health effects
 - Lung and breathing problems associated with chronic cannabis use.²⁸
 - Cannabis use is associated with higher risk and worse outcomes for psychotic disorders.²⁹
 - Cannabinoid Hyperemesis Syndrome (CHS) can affect youth who use cannabis long-term, a syndrome causing frequent severe nausea and vomiting. The only cure is to stop using cannabis.³⁰
 - Social and Personal Harms
 - Cannabis use is associated with lower high school completion rates, and lower income at 25 years of age.³¹
 - Initiation of cannabis use before the age of 18 is a predictor of opioid use disorder in adulthood.³²
- Financial Impacts of Cannabis Use in Santa Cruz County
 - Figure 3 (below) shows the Fiscal Year 2022-2023 and 2023-2024 cost of treatment data, representing youth and adult Medi-Cal beneficiaries who received behavioral health treatment services through the HSA administered Medi-Cal Specialty Mental Health plan and/or the Drug Medi-Cal Health Plan (services could be provided by county staff or through a county contracted provider). Recipients of these treatment services had a primary cannabis use disorder diagnosis documented as part of their problem list/treatment plan. These data do not account for clients presenting for treatment with secondary or tertiary cannabis use disorder diagnoses. The cost of treatment includes total costs, including reimbursed expenses and County share. County share of treatment costs represents a mix of County General Funds and other local funds.
 - Of those treated, 355 (out of a total of 1,108) were youth under the age of 25, resulting in \$775,305 County share of treatments costs over two fiscal years. Cannabis use may begin during youth, but the impacts do not end during youth. Cannabis use continues to impact adult behavioral health, potentially exacerbating mental health conditions and/or functioning, with the County

share of treatments costs totaling \$1.4 million in FY 2022-2023 and \$1.7 million in FY 2023-2024 for Santa Cruz County residents.

Figure 3: Cost of Treatment for Primary Diagnosis of Cannabis Use Disorder in FY 2022-23 and FY 2023-24

| Primary Diagnosis of Cannabis Use Disorder | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------------|--------------------------------|-------------------|-----|
| Cost of Treatment in Santa Cruz County | | | | | |
| Age Group | | Cost of Treatment | County Share of Treatment Cost | Number of Clients | |
| FY 2022-2023 | | | - | | |
| 0-19 | \$ | 549,705 | \$ | 219,882 | 89 |
| 20-24 | \$ | 323,698 | \$ | 129,479 | 73 |
| 25+ | \$ | 2,605,239 | \$ | 1,042,096 | 374 |
| All Ages: | \$ | 3,478,643 | \$ | 1,391,457 | 536 |
| FY 2023-2024 | | | \$ | - | |
| 0-19 | \$ | 811,921 | \$ | 324,768 | 108 |
| 20-24 | \$ | 252,939 | \$ | 101,176 | 85 |
| 25+ | \$ | 3,189,932 | \$ | 1,275,973 | 379 |
| All Ages: | \$ | 4,254,793 | \$ | 1,701,917 | 572 |
| Source: Santa Cruz County Behavioral Health Division, Service Dates July 1, 2022 to June 30, 2024. Source: Avatar KPI. Data pulled March 4, 2025 | | | | | |

- HSA also financially supports underage cannabis use prevention programming. Current HSA prevention programs are funded through a Proposition 64 grant of approximately \$600,000 per year to prevent underage cannabis use, ending in October 31, 2028. These funds are required to focus on upstream prevention approaches and are not used to cover treatment costs. With this funding, HSA maintains the Thriving Youth and Community prevention program.

Substance Use Disorder Prevention Theory and Practice

Preventing underage cannabis use is one part of a larger effort to reduce the impact of substance use disorders on Santa Cruz County. This work is featured in a broader substance use disorder continuum that begins with the social determinants of health (SDOH) and primary prevention through recovery and healthcare systems support.



The Youth Empowerment and Action for Health (YEAH!) Unit of the HSA Public Health focuses its efforts to prevent underage cannabis use in the domains of SDOH & Primary Prevention and Early Intervention. These terms are defined as:

- **Social Determinants of Health:** non-medical factors that affect health outcomes including the conditions in which people are born, grow, work, live and age.³³ See image for the five social determinants of health:
- **Primary Prevention:** aims to prevent the onset of substance use disorder.
- **Early Intervention:** targets individuals with early signs or symptoms of substance use but do not meet the criteria for substance use disorder.³⁴



By preventing youth cannabis use, incidence of later in life substance use disorder (SUD) and associated harms and costs to society are greatly reduced. Preventing underage cannabis use is most effective when interventions are matched to the target population's level of risk and needs. There are three broad categories of prevention intervention:

1. **Universal prevention interventions** are designed to reach all individuals within a particular population by reducing risk factors and promoting protective factors. These kinds of interventions include policies, systems, and environmental changes that impact entire populations of focus in schools, communities, or workplaces. This category of intervention is likely to have the broadest impact on SUD rates in a community.
2. **Selective prevention interventions** work to reduce risk factors and increase protective factors for groups that are at a higher risk than the general population.
3. **Indicated prevention interventions** aim to reach populations that are already involved in risky behaviors that put them at greater risk for substance use disorders.³⁵

Current HSA-led Strategies to Prevent Underage Cannabis Consumption

The YEAH! Unit within HSA Public Health currently runs three programs that aim to reduce underage cannabis consumption:

- Santa Cruz County Friday Night Live Partnership (SCCFNLP) engages youth as leaders and provides youth resources to influence positive changes in their communities. SCCFNLP amplifies youth voice in spaces where decisions impact youth and promote health and wellbeing through primary prevention strategies.
- Thriving Youth and Community provides cannabis prevention, intervention, and cessation support to middle and high school students who are at risk of using cannabis or are currently using cannabis. The program aims to support youth wellbeing, foster connection between youth and their school and community, and reduce disciplinary incidents.
- Community Prevention Partners (CPP) is a coalition that aims to prevent substance use disorders and related consequences by reducing Santa Cruz

County youth substance use. CPP supports community member mobilization for policy and systems change to improve community health and safety in Santa Cruz.

Other Underage Cannabis Prevention Efforts in Santa Cruz County

Preventing underage cannabis use requires the expertise and efforts of many throughout Santa Cruz County. Partners in this work include Pajaro Valley Prevention and Student Assistance (PVPSA), the County Office of Education (COE), Community Action Board of Santa Cruz (CAB), the University of California Santa Cruz (UCSC), Cabrillo College, Salud y Cariño, and more. These organizations host family education nights, run youth substance use prevention coalitions, provide primary prevention education to underage persons, provide early intervention for underage people caught using cannabis, participate in HSA-led coalitions and more.

Evidence-Informed Recommendations on Reducing Underage Cannabis Consumption

To effectively prevent underage cannabis consumption, Santa Cruz County should aim to:

- Engage youth in decision-making processes related to cannabis exposure and access
- Reduce youth need to self-medicate using cannabis
- Increase community and stakeholder awareness of health impacts of cannabis on youth
- Improve data collection and increase knowledge of law enforcement and retailers on the health impacts of cannabis and cannabis impaired driving

In order to meet those objectives, the following evidence-informed recommendations are provided for the Board's consideration:

- Universal Prevention Recommendations
 - Establish a robust, community-informed Health in All Policies (HiAP) approach to any substance-related ordinance or policy change.
 - All youth and families in Santa Cruz County are provided with evidence-informed prevention programming at least once in elementary school, once in middle school, and once in high school.
 - All schools establish policies that promote diversion from punitive measures to supportive response for students caught using cannabis.
 - Improve connections to care for youth caught using cannabis.
 - Strengthening product regulations to reduce appeal and harm to underage persons.
 - Including but not limited to: implementing THC potency limits or tax; banning flavored cannabis products; disallowing product labeling that include claims that cannabis or cannabis products are healthy; imposing purchase limits.
 - Density limits
 - Establish license limits for retail locations and potential onsite consumption to ensure that retail density does not increase.
 - Through zoning requirements, ensure that dispensaries are not disproportionately located in low-income communities.
 - Promote policies that increase protective factors for youth

- This includes any policies that improve the social determinants of health.
- Address youth exposure to advertising on social media
 - Advocacy for state and federal protective policies around youth exposure to social media and to cannabis sales through social media.
- Implement County-wide media campaigns to educate the general public about the health impacts of underage cannabis use.
- Work with retailers
 - All cannabis retailers are trained annually on evidence-informed best practices related to preventing underage cannabis use and preventing resale to minors.
- Work with Law Enforcement
 - Increase number of drug take back days.
 - Increase the number of law enforcement officers who are trained as Drug Recognition Experts.
 - Require two-pronged approach to traffic stop enforcement to include oral swab and Drug Recognition Expert (DRE) screening to improve data collection on cannabis impaired driving in the county
 - Implement compliance checks at retail and potential onsite consumption locations.
 - Develop complaint procedure for reporting illegal sales and exposure on social media platforms.
 - Develop a protocol for first responders to cannabis-related emergencies to document and investigate when an incident involves a person under 21 years of age and a cannabis product resulting in great bodily injury or death or when anyone regardless of age is charged with vehicular manslaughter while under the influence of cannabis.
 - Protocol to include process for suspending or revoking the business license for any County-licensed retailer or potential consumption site if investigation determines that the licensee sold or furnished cannabis or cannabis products to a minor or someone who was obviously intoxicated.
- Indicated Prevention Recommendations
 - Increase screening and early intervention services offered at all Alternative Education Sites.

Implementation Costs and Strategy Recommendations

The financial and societal impacts of cannabis use, and subsequent treatment are incredibly high. Preventing cannabis use by reducing access, reducing the perception of cannabis use as a norm and increasing control measures are needed to avoid increasing economic costs of cannabis use and misuse.

HSA estimates that enhancing prevention services beyond current prevention programming to include additional recommendations from those described above in “Evidence-Informed Recommendations on Reducing Underage Cannabis Consumption” could cost an additional \$500,000 per year or more for staffing, education campaigns and community engagement. This would not include the resources outside agencies like law enforcement or schools would require for implementing strategies that typically fall in their scope.

Financing a comprehensive underage cannabis prevention program could begin with lessons learned from tobacco control and prevention, and alcohol abatement programs around the nation. Revenues from the recommendations below could be allocated to Primary Prevention programs for the purpose of supplementing youth substance use prevention programming.

- Increasing license fees where retailers are required to pay additional license fees and/or training
- Increase taxes on cannabis products at retail locations and potential consumption lounges
- Implement additional fines to be collected by the County for licensee violations³⁶

An additional and ongoing strategy for implementing prevention activities is collaborating with County and community partners. These include community-based organizations, school-based, faith-based and community groups. Partnerships within County departments specifically provide opportunities to leverage resources and align priorities in mutually beneficial ways, such as continuing collaboration with Cannabis Licensing Office who regulates and licenses retail cannabis and potential cannabis consumption lounges. Partnering and coordinating supports integrating mitigating and protective guidance for cannabis licensees. HSA requests the board to direct staff to continue these efforts to prevent underage cannabis use and the subsequent negative health outcomes.

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Financial Impact

The recommended action has no financial impact.

Strategic Initiatives

Equity Framework - Communications & Education
Operational Plan - Comprehensive Health & Safety

Submitted By:

Monica Morales, Director of Health Services

Recommended By:

Carlos J. Palacios, County Administrative Officer

Artificial Intelligence Acknowledgment:

Artificial Intelligence (AI) did not significantly contribute to the development of this agenda item.