Commercial Cannabis Public Comments

From: Matt Fleming

Sent: Friday, August 20, 2021 9:23 AM **To:** Cannabis <cannabis@losgatosca.gov> **Subject:** Question on cannabis ordinance

I saw that your town is considering allowing cannabis (and is surveying residents).

First: I am not looking for a consulting contract or cannabis permit or anything of the sort. I will not ask you for a permit or for money.

I'm a consultant for Hawthorne Gardening, a subsidiary of Scotts Miracle-Gro.

Hawthorne is not in the cannabis business, but some of its customers are, and we work with municipalities on workable policies that serve the community and ensure local and independent cannabis operators can be successful.

We have technical experts who can answer questions regarding lighting requirements, odor mitigation and other aspects of running either a retail, cultivation or other type of safe and compliant cannabis business.

Can you tell me a bit more about where your town is in the process? And can I help answer any technical questions about issues like odor mitigation and lighting requirements, etc?

--

Matt Fleming

GrassrootsLab

From: Matt Fleming <

Sent: Monday, November 1, 2021 4:12 PM **To:** Cannabis <cannabis@losgatosca.gov> **Subject:** Re: Question on cannabis ordinance

EXTERNAL SENDER

Just circling back on this. Any assistance you could provide would be greatly appreciated.

On Fri, Aug 20, 2021 at 9:22 AM Matt Fleming < > wrote:

I saw that your town is considering allowing cannabis (and is surveying residents).

First: I am not looking for a consulting contract or cannabis permit or anything of the sort. I will not ask you for a permit or for money.

I'm a consultant for Hawthorne Gardening, a subsidiary of Scotts Miracle-Gro.

Hawthorne is not in the cannabis business, but some of its customers are, and we work with municipalities on workable policies that serve the community and ensure local and independent cannabis operators can be successful.

We have technical experts who can answer questions regarding lighting requirements, odor mitigation and other aspects of running either a retail, cultivation or other type of safe and compliant cannabis business.

Can you tell me a bit more about where your town is in the process? And can I help answer any technical questions about issues like odor mitigation and lighting requirements, etc?

--

Matt Fleming

GrassrootsLab

(916) 282-9921

From: Joseph Plaster <

Sent: Thursday, November 4, 2021 10:56 AM **To:** Cannabis <cannabis@losgatosca.gov>

Subject: Cannabis in Los Gatos

EXTERNAL SENDER

Hello,

I noticed that the commercial cannabis survey is now closed. When will the results be presented at Council? Also, is there any way to sign up for cannabis related notifications? Thanks, I look forward to your response.

Best,

Joseph Plaster

Licensing Associate

Nectar Markets, LLC

P:

E:

Pronouns: He/Him/His

Negligent Misstatements: Nectar accepts no liability for the content of this email, or for the consequences of any actions taken on the basis of the information provided, unless that information is subsequently confirmed in writing. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

Employee Views: Any views or opinions presented in this email are solely those of the author and do not necessarily represent those of the company. Employees of Nectar are expressly required not to make defamatory statements and not to infringe or authorize any infringement of copyright or any other legal right by email communications. Any such communication is contrary to company policy and outside the scope of the employment of the individual concerned. Nectar will not accept any liability in respect of such communication, and the employee responsible will be personally liable for any damages or other liability arising.

Actual Authority: No employee or agent is authorized to conclude any binding agreement on behalf of "Nectar" with another party by email without express written confirmation by a Nectar C-Level Executive.

From: Ellen Wysocki <

Sent: Friday, January 14, 2022 9:45 AM **To:** Cannabis <cannabis@losgatosca.gov>

Subject: Commercial Cannabis Dispensaries in Los Gatos

EXTERNAL SENDER

Hello,

I was curious to see if there has been any discussion in regards to allowing commercial cannabis storefront retailers within the city of Los Gatos? Or if there are any upcoming meetings? Thank you so much for your assistance.

Warm Regards,



This email and any files transmitted with it are confidential and intended solely for the use of the individual or entity to whom they are addressed. If you have received this email in error please notify the Shryne Group. This message contains confidential information and is intended only for the individual named. If you are not the named addressee you should not disseminate, distribute or copy this e-mail. Please notify the sender immediately by e-mail if you have received this e-mail by mistake and delete this e-mail from your system. If you are not the intended recipient you are notified that disclosing, copying, distributing or taking any action in reliance on the contents of this information is strictly prohibited.

From: Jayme Rivard <
Sent: Wednesday, January 26, 2022 8:22 PM
To: Cannabis <cannabis@losgatosca.gov>
Cc: cary stiebel <
Subject: Is the city considering allowing cannabis?

EXTERNAL SENDER

Hello,

I had heard that Los Gatos city council may be considering allowing cannabis businesses. Is that true? Is there a mailing list I can get on for updates?

Kind regards,

Jayme Rivard

From: Robin Flury < > Sent: Saturday, January 29, 2022 3:18 PM To: Cannabis < cannabis@losgatosca.gov >

Subject: medical growth?

EXTERNAL SENDER

Hi!

I wanted to know what, if anything, is allowed in Los Gatos regarding growing cannabis for personal medical use. Can a small number of plants be grown indoors? Or outdoors? Is there any paperwork or applications needed in order to do so for medical purposes? Thank you!

From: Lisa Tollner < > Sent: Thursday, February 10, 2022 8:53 AM

To: Cannabis <cannabis@losgatosca.gov>

Subject: Cannabis Consultant

EXTERNAL SENDER

Town of Los Gatos Council Members:

I may be an ideal candidate for the upcoming cannabis consulting position. My background includes being involved in the cannabis industry in the primary sectors (retail, manufacturing, distribution, cultivation, processing). I am a 22-year resident of Monte Sereno, and I have inside knowledge of the pros and cons of cannabis and how it impacts a community. Please let me know if a formal RFP application becomes available for this position, or if you would like to arrange a call or meeting, let me know.

Thanks,

Lisa

Lisa Tollner

Co-Founder/CMO

Sensi Signature Products

www.sensiproducts.com

@sensi_chew

From: Julie Newell < Sent: Tuesday, February 22, 2022 11:53 AM To: Cannabis < cannabis@losgatosca.gov >

Subject: inquiry

EXTERNAL SENDER

Good Afternoon,

I would like to know the status of cannabis in the city and if there is any additional movement for allowing retail businesses. If there is, do you have an idea of when this will be done and if the selection process will be lottery or merit

thank so much for you response

Julie

__

Julie D. Newell

Bloomstoneco.com

From: Joanne Rodgers <

Sent: Saturday, February 26, 2022 3:23 PM
To: Judy Peckler <

Cc: Ron Rennie < rrennie@losgatos.gov>; Maria Ristow < MRistow@losgatosca.gov>; Mary Badame

< <u>MBadame@losgatosca.gov</u>>; Matthew Hudes < <u>MHudes@losgatosca.gov</u>>; Marico Sayoc

<msayoc@losgatos.gov>; Laurel Prevetti <LPrevetti@losgatosca.gov>

Subject: Marijuana dispensaries in LG

EXTERNAL SENDER

Dear Judy and all,

Thank you for the information **below** about the attack on Cannabis Dispensaries in Oakland. I had not seen this.

When we consider the amount of additional crime and more administrative work and policing that will be necessary,

it seems to me that having drugs sales in our family oriented town will not bring in much tax money.

We are also sending the wrong message that drug and being high are acceptable in Los Gatos.

We have to be sure we let our council member know how we feel about this.

Three council members (Rob Rennie, Mary Badame, Marico Sayoc) are up for re-election this November 2022.

Mary Badame is the only one who voted NO to paying \$50,000 to the Cannabis Management Services Co.

to study where to locate marijuana dispensaries in our town.

Thank you.

Joanne

This is the note from Judy Peckler:

Last night I was watching local news and they interviewed the operator of the Cannabis Dispensary in Oakland. It had been hit by Crash and Grab team that had tried before and succeeded finally. There was an suv that drove into the entrance and two other support cars with numerous hooded thieves who ransacked the store. There was a second location had been targeted as well.

This was a violent and destructive criminal attack.

The police and authorities were gathering evidence.

It was alarming to hear and I became more fearful of the potential violence that could impact a neighborhood.

Please keep me updated and I want the community

To be educated about this dangerous reality.

Thank you

Judy Peckler

From: Marty Berk < Sent: Monday, February 28, 2022 2:48 PM

To: Rob Rennie <RRennie@losgatosca.gov>; Maria Ristow <MRistow@losgatosca.gov>; Mary Badame

<MBadame@losgatosca.gov>; Matthew Hudes <MHudes@losgatosca.gov>; Marico Sayoc

<<u>MSayoc@losgatosca.gov</u>>; Laurel Prevetti <<u>LPrevetti@losgatosca.gov</u>>

Cc: Joanne Rodgers < >; Rowena Turner <

Subject: Against having a marijuana dispensary in Los Gatos

EXTERNAL SENDER

Dear Los Gatos Town Council Members and Town Manager,

Please listen to the many Los Gatos residents who do **not** wish to have marijuana dispensaries in town.

I am a Monte Sereno resident but am closely connected to the town of Los Gatos in many ways. My children attended and benefited from Los Gatos schools from kindergarten through high school. My town contributes about a million dollars each year to share the Los Gatos Police Department services. I primarily shop in town and prefer Los Gatos restaurants. My late husband practiced surgery at Good Samaritan Hospital for over thirty years.

Marijuana dispensaries are entirely unnecessary here and can lead to serious problems for Los Gatos families. Any problems arising from local dispensaries should be on your conscience. Paying \$50,000 for a study to determine sites for dispensaries is such a waste of community money.

Please, please consider the consequences of your decisions.

Most sincerely,

Martha K. Berk

From: Katherine Winkelman <

Sent: Thursday, March 3, 2022 9:53 PM

To: Joanne Rodgers; Rob Rennie; Maria Ristow; Mary Badame; Matthew Hudes; Marico Sayoc

Cc: Laurel Prevetti

Subject: Re: Comments on MJ Dispensaries to the Town Council- March 1

EXTERNAL SENDER

As a long-time Los Gatos town volunteer and ongoing Los Gatos Chamber member, Los Gatos resident near 50 years, St Mary's and St Lucy's Youth Minister and volunteer 20 years, past CASA Los Gatos President, Club Live, Friday Nite Live Volunteer (student clubs on high school and Jr. high school campuses) and Los Gatos High Volunteer 15 years I cannot be convinced with all this experience walking with kids that the Town of Los Gatos should have a dispensary or two or three. And oh my what we could do for our kids and families with \$50000. I totally agree with Joanne Rogers and all opposed. Sincerely Kathy Winkelman

Get Outlook for iOS

From: Joanne Rodgers <

Sent: Wednesday, March 2, 2022 4:10:09 PM

To: RRennie@losgatosca.gov <RRennie@losgatosca.gov>; MRistow@losgatosca.gov

<MRistow@losgatosca.gov>; Mary Badame <mbadame@losgatosca.gov>; MHudes@losgatosca.gov

<MHudes@losgatosca.gov>; Marico Sayoc <msayoc@losgatos.gov>

Cc: Laurel Prevetti < | prevetti@losgatosca.gov >

Subject: Comments on MJ Dispensaries to the Town Council- March 1

Dear LG Friends and Town Council Members,

Last night March 1st several of us spoke at the Open Comments to the Council Members concerning the \$50,000 that was spent to study

whether we would allow 3 marijuana dispensaries in Los Gatos. These are my comments and the letter below is one written by

Franklin Bondonno, Santa Clara County Judge about kids in Juvenile Hall.

I will let you know when we can arrange another meeting with a Council member and Police Chief.

Please continue writing letters and emails to our Town Council Members.

Joanne Rodgers

Hi

I'm Joanne Rodgers, co-founder of CASA, Community against Substance Abuse and

founder of LGHS New Millennium Foundation.

I was going to expound on MJ, as a GATEWAY DRUG and the harm it does to our kids. Like 400 difference toxins that pot leaves in the brain, the reproductive organs, and fatty tissue for weeks after using. Think of this in terms of our kids.

But instead I read through the contract that our Town Attorney signed and FOUR of our Council Members voted to fund for \$50,000 with HDL, Cannabis Management Services Companies.

YOU HAVE OPENED A CAN OF WORMS.

Los Gatos will have no control on the outcome of allowing 3 MJ dispensaries in our town as has been proposed in HDL Scope of Services unless there are 3 votes against it by the Town Council.

There is no way this

PROPOSAL FOR CANNABIS OUTREACH AND POLICY DEVELOPMENT CONTRACT

will only cost Los Gatos tax payer the initial \$50,000 fee you have just paid them.

That is only the beginning.

Let me tell you what I found out when I called one of HDL references:

- -HDL has been sued by several cities
- -I was told the rating process that HDL used in this city

sent them different names but they were the same people.

- -the summary of the scores were wrong.
- -there was NO oversight They complied all the surveys. They wrote the Ordinance changes;

They wrote the ballot measure; they decided the tax rate; they run the public meetings and provided direction to town staff.

- -Our contract says everything will be <u>virtual even the individual meeting with Town Council members and all public meetings</u> because travel expenses for in person have not been included in the \$50,000.
- -The person I talked to (one the their references) said the Cannabis business is a litigious business.
- -30 dispensaries were closed down.
- -There is lot of oversight needed by police and security and HDL will do this too.
- -She said they paid HDL much more than \$50,000.
- -She said their key Personnel, Compliance Director, David McPherson is a sales guy period.

Others personnel include 5 Auditors, 5 Compliance Inspectors and a few more.

We have given this whole process over to a Cannabis Management Service Co.

It is the Fox guarding the Hen House.

And our town survey says 60+% of Los Gatos does not want this.

Why would we go into this type of business?

There are other ways to raise money for the town. Don't spend another penny on this.

It's wrong for our town.

I have a letter from Santa Clara Superior Court Judge that I will email to you all.

Please read it.

Thank you.

From: Franklin Bondonno <

Subject: RE: Marijuana Dispensary planned for LG-Update

Date: February 16, 2022 at 4:55:58 PM PST

To: Joanne Rodgers <

MJ can be legally purchased at the Airport store on Coleman in San Jose. That is about 10 miles from the edge of Town.

MJ can be of help for the Cancer patients and is legal for adults in this state.

However, MJ is a big issue for kids: it interferes with brain development up to about age 24 or 25.

It can also increase anxiety and in some cases bring on (but not cause) early sysmptoms

of mental illness. ie By Polar onset.(Strong European studies on this).

Almost all of the kids I see in Juv. Justice use MJ; and none of them can buy it legally.

I can see no benefit to having MJ sales in LG except perhaps some sales tax

revenue. However, most of the information I have seen shows that the underground illegal

market is doing better then the legally regulated and taxed market. So the down side seems

greater than the up side for our town.

A key question is do legal MJ stores get robbed? How often? Because of the banking laws, do they have a lot of cash on hand making them a target? How much extra Police time cost comes with this type of store in town?

The line that LG needs to be a "full service town" is a little glib.

I would like to know how much income the Town expects to get from the MJ store. It should be way more that the 50K price of the study. And how did the Town come to the expected number? I hope that helps.

Franklin

From: Stephanie Simas <

Sent: Tuesday, March 8, 2022 5:52 PM **To:** Cannabis <cannabis@losgatosca.gov>

Subject: Cannabis

EXTERNAL SENDER

I'd love to work with the town to properly educate the residents on what legalization really means, and the local faces behind it. I'm a graduate of LGHS '97 and live near Lexington with my husband and son. As a special needs parent/mom who medicates her autistic son/child with CBD oil for behavioral issues and also is a 5 year cannabis industry veteran, I also have knowledge from running a cannabis shop in Soquel for the last 2 years.

Sincerely,

Stephanie A Simas

XO- Steff

From: Alexandra Swafford <

Sent: Friday, March 11, 2022 9:37 AM

To: Cannabis <cannabis@losgatosca.gov>

Subject: Two more voters and residents, and our opinion

EXTERNAL SENDER

Dear Town of Los Gatos.

We have been sent surveys on what we like/do not like/ would like improved on/ use of Community...but Marijuana Dispensaries are not addressed on this survey. It was with great alarm that I read that Los Gatos was considering Dispensaries. Have we learned nothing over the years? We have a terrific High School, terrific students and a community that tries its best to support the development of responsible young (and old) adults. Correct that marijuana is now legal - at 21 years. It is true, that most any enterprising and even half determined young person can 'order' ANY number of drugs online...including ones that end up causing addiction and also killing (because of fentanyl mixed into any number of 'recreational drugs)...but the goal of the Town should be to 'set an example' of responsible use of whatever (and yes, that includes alcohol) for the youth. There are dispensaries outside of the boundaries of Los Gatos, and they deliver, so we need to have one here? For what purpose? Revenue? Like we do not have enough revenue in this Town to support a responsible quality of live and community without bringing in a Marijuana Dispensary?

I understand that we are 'older' voters, but I also would hope that we would have experience and wisdom to have seen what drugs, misuse, overuse and addition does to people...and it starts with the attitude of the community. I have friends who have sold homes and moved to other Bay Area communities, specifically because Marijuana dispensaries opened close to them.

Please listen to the residents of this community, and resist the consideration of opening Dispensaries here. It does NOT make Los Gatos a more 'cool' community; in fact quite the opposite. Marijuana is readily available now to those who need it recreationally or medically, but we do not need the Dispensaries here.

Our opinion,

alexandra & david swafford

From: caissie stephens <

Sent: Friday, March 11, 2022 9:26 AM **To:** Cannabis <cannabis@losgatosca.gov> **Subject:** Yes to one Cannabis dispensary

I have lived in Los Gatos for over 52 years and I don't understand why there is such a hesitancy to have one Cannabis dispensary in town, unless it is fear. We have liquor stores, I do not drink, that are throughout the town and can buy alcohol at all major grocery stores. I am much more concerned about that, than I am about a cannabis dispensary. It brings revenue to the town and a lot of people use it for medical reasons. I am a yes on this

C Stephens

From: Alexandra Sung <

Sent: Monday, March 14, 2022 9:13:21 PM **To:** Maria Ristow < <u>MRistow@losgatosca.gov</u>>

Subject: Concern re: possibility of cannabis operations in Los Gatos

EXTERNAL SENDER

Dear Vice Mayor Ristow,

I am a Los Gatos resident and want to express my concern regarding the possibly of allowing cannabis stores / operations in Los Gatos. I strongly oppose this idea due to public safety and odor concerns. The potential for additional revenue is simply not worth the risk of the negative externalities to this community. Those seeking cannabis have plenty of options nearby. Please let them go there and keep the negative impacts out of Los Gatos.

Regards,

Alexandra Sung

From: Jeff Sung <

Sent: Monday, March 14, 2022 10:30 PM

To: Cannabis <cannabis@losgatosca.gov>; Rob Rennie <RRennie@losgatosca.gov>; Marico Sayoc

<MSayoc@losgatosca.gov>; Maria Ristow <MRistow@losgatosca.gov>; Mary Badame

<MBadame@losgatosca.gov>; Matthew Hudes <MHudes@losgatosca.gov>

Subject: No to cannabis

EXTERNAL SENDER

Dear Los Gatos Town Council,

Years ago, it was cool to smoke. Joe Camel, the Marlboro Man... Members of our council should remember these figures. We've learned that people of that generation were brainwashed into smoking, with targeted ads by Big Tobacco. Only with lawsuits against tobacco, have we learned the true extent of how tobacco targeted children, targeted low income minorities for commercial profit. Governments went along for the ride, using "sin taxes" to pay for government programs, as these taxes were palatable

to the general populace. Politicians didn't have to speak up for these poor individuals, suckered into smoking by focused campaigns, and caught in their addiction. These individuals could be portrayed as deserving the consequences of their "consenting adult" choices, while the general populace got to reap the benefits of their taxes.

I fear that the same is happening now with marijuana. Yes, it is not right to put people in prison for using a small amount of marijuana. But it is not right to encourage its use by adding dispensaries, and it is absolutely not right for government to try to use marijuana as a way to raise tax revenue. This tax revenue is blood money.

As a doctor, I see the people who pay this blood money. I am biopsying their lung cancers. I am putting feeding tubes in their stomachs because of the cancers growing in their throats. I am reading the scans of the cancers that have spread to their brain and bones. Make no mistake that smoking marijuana causes the same cancers as smoking tobacco. Marijuana causes brain damage. Marijuana accelerates cardiovascular disease. Marjauna causes mental illness.

Marijuana gets into the hands of children. Nationwide, about 1 in 14 children aged 12 to 17 used marijuana in the past month. That figure was 24 percent in California, and increased to 26 percent after Proposition 64 was passed. Putting a dispensary in Los Gatos is going to make marijuana more accessible to children. We can't kid ourselves about this. We can't abrogate responsibility and say that this is the sole responsibility of parents.

Nearly 60 percent of Los Gatos residents said they opposed having a dispensary in Los Gatos. Please listen to them. Listen to physicians. Stop listening to those with financial interests tied to marijuana.

Thank you for your time.

Sincerely,

Jeffrey Sung, M.D.

From: Alexandra Sung <

Sent: Monday, March 14, 2022 9:11 PM To: Cannabis <cannabis@losgatosca.gov>

Subject: Opposition to any form of cannabis business in Los Gatos

EXTERNAL SENDER

Hello.

I am a Los Gatos resident and want to express my concern regarding the possibly of allowing cannabis stores / operations in Los Gatos. I strongly oppose this idea due to public safety and odor concerns. The potential for additional revenue is simply not worth the risk of the negative externalities to this community. Those seeking cannabis have plenty of options nearby. Please let them go there and keep the negative impacts out of Los Gatos.

Regards,

Alexandra Sung

On Mar 14, 2022, at 9:14 PM, Alexandra Sung < > wrote:

EXTERNAL SENDER

Dear Council Member Sayoc,

Thank you for your service to our community. I am a Los Gatos resident and want to express my concern regarding the possibly of allowing cannabis stores / operations in Los Gatos. I strongly oppose this idea due to public safety and odor concerns. The potential for additional revenue is simply not worth the risk of the negative externalities to this community. Those seeking cannabis have plenty of options nearby. Please let them go there and keep the negative impacts out of Los Gatos.

Regards,

Alexandra Sung

From: richardson48@comcast.net <

Sent: Tuesday, March 15, 2022 8:38 AM **To:** Cannabis <cannabis@losgatosca.gov>

Cc: 'Lainey Richardson' <

Subject: 60 year resident

EXTERNAL SENDER

I went to Dave's Ave, Fisher, LG High and West Valley JC.

I am PRO dispensary in LG.

Happy to discuss:

Lainey Richardson

From: Joanne Rodgers <

Sent: Wednesday, March 02, 2022 4:10 PM

To: Rob Rennie <RRennie@losgatosca.gov>; Maria Ristow <MRistow@losgatosca.gov>; Mary Badame

< <u>MBadame@losgatosca.gov</u>>; Matthew Hudes < <u>MHudes@losgatosca.gov</u>>; Marico Sayoc

<msayoc@losgatos.gov>

Cc: Laurel Prevetti < LPrevetti@losgatosca.gov>

Subject: Comments on MJ Dispensaries to the Town Council- March 1

EXTERNAL SENDER

Dear LG Friends and Town Council Members,

Last night March 1st several of us spoke at the Open Comments to the Council Members concerning the \$50,000 that was spent to study

whether we would allow 3 marijuana dispensaries in Los Gatos. These are my comments and the letter below is one written by

Franklin Bondonno, Santa Clara County Judge about kids in Juvenile Hall.

I will let you know when we can arrange another meeting with a Council member and Police Chief.

Please continue writing letters and emails to our Town Council Members.

Joanne Rodgers

Hi

I'm Joanne Rodgers, co-founder of CASA, Community against Substance Abuse and

founder of LGHS New Millennium Foundation.

I was going to expound on MJ, as a GATEWAY DRUG and the harm it does to our kids. Like 400 difference toxins that pot leaves in the brain, the reproductive organs, and fatty tissue for weeks after using. Think of this in terms of our kids.

But instead I read through the contract that our Town Attorney signed and FOUR of our Council Members voted to fund for \$50,000 with HDL, Cannabis Management Services Companies.

YOU HAVE OPENED A CAN OF WORMS.

Los Gatos will have no control on the outcome of allowing 3 MJ dispensaries in our town as has been proposed in HDL Scope of Services unless there are 3 votes against it by the Town Council.

There is no way this

PROPOSAL FOR CANNABIS OUTREACH AND POLICY DEVELOPMENT CONTRACT will only cost Los Gatos tax payer the initial \$50,000 fee you have just paid them.

That is only the beginning.

Let me tell you what I found out when I called one of HDL references:

- -HDL has been sued by several cities
- -I was told the rating process that HDL used in this city sent them different names but they were the same people.
- -the summary of the scores were wrong.
- -there was NO oversight They complied all the surveys. They wrote the Ordinance changes;

They wrote the ballot measure; they decided the tax rate; they run the public meetings and provided direction to town staff.

- -Our contract says everything will be <u>virtual even the individual meeting with Town Council members and all public meetings</u> because travel expenses for in person have not been included in the \$50,000.
- -The person I talked to (one the their references) said the Cannabis business is a litigious business.
- -30 dispensaries were closed down.
- -There is lot of oversight needed by police and security and HDL will do this too.
- -She said they paid HDL much more than \$50,000.
- -She said their key Personnel, Compliance Director, David McPherson is a sales guy period.

Others personnel include 5 Auditors, 5 Compliance Inspectors and a few more.

We have given this whole process over to a Cannabis Management Service Co.

It is the Fox guarding the Hen House.

And our town survey says 60+% of Los Gatos does not want this.

Why would we go into this type of business?

There are other ways to raise money for the town. Don't spend another penny on this.

It's wrong for our town.

I have a letter from Santa Clara Superior Court Judge that I will email to you all.

Please read it.

Thank you.

From: Franklin Bondonno <

Subject: RE: Marijuana Dispensary planned for LG-Update

Date: February 16, 2022 at 4:55:58 PM PST

To: Joanne Rodgers <

MJ can be legally purchased at the Airport store on Coleman in San Jose. That is about 10 miles from the edge of Town.

MJ can be of help for the Cancer patients and is legal for adults in this state.

However, MJ is a big issue for kids: it interferes with brain development up to about age 24 or 25. It can also increase anxiety and in some cases bring on (but not cause) early sysmptoms of mental illness. ie By Polar onset. (Strong European studies on this).

Almost all of the kids I see in Juv. Justice use MJ; and none of them can buy it legally.

I can see no benefit to having MJ sales in LG except perhaps some sales tax revenue. However, most of the information I have seen shows that the underground illegal market is doing better then the legally regulated and taxed market. So the down side seems

greater than the up side for our town.

A key question is do legal MJ stores get robbed? How often? Because of the banking laws, do they have a lot of cash on hand making them a target? How much extra Police time cost comes with this type of store in town?

The line that LG needs to be a "full service town" is a little glib.

I would like to know how much income the Town expects to get from the MJ store. It should be way more that the 50K price of the study. And how did the Town come to the expected number?

I hope that helps.

Franklin

From: Gladie Rabitz <

Sent: Sunday, February 27, 2022 7:24 PM

To: Laurel Prevetti < <u>LPrevetti@losgatosca.gov</u>>; Rob Rennie < <u>RRennie@losgatosca.gov</u>>; Maria Ristow < <u>MRistow@losgatosca.gov</u>>; Mary Badame < <u>MBadame@losgatosca.gov</u>>; Matthew Hudes < MHudes@losgatosca.gov>; Marico Sayoc < MSayoc@losgatosca.gov>

Cc: Art Rabitz <

Subject: Cannabis stores/ dispensaries in LG

EXTERNAL SENDER

Dear LG Town Manager and Town Council Members -- We have lived in our Los Gatos home for 50 years, moving into our home in 1972. We have both been active in many parts of the Town's activities, in LGHS with our 4 kids in the 80's and 90's, on all the teams, volunteering in the schools, in many of the non-profits, etc. I was a co-founder of "The Venue, A Place for Teens" from 1988 forward, and on their Board of Directors for 12-15 years, developing the building, the programming, and the safety of the teens. I'm now active in Assistance League of Los Gatos-Saratoga, still helping in the schools, with Literacy, STEAM, Lunches for Seniors, Clothes For Kids, Care Packages for Foster Teens, and more programs to help those in need in and around our community. My husband is very active in the Los Gatos Rotary, and all their many activities including the long-held local Great Race.

We have been hearing about the marijuana/ cannabis stores/ dispensaries that are being planned for Los Gatos, the \$50,000 "study", etc, and we are appalled. How can you even think of having that kind of store in our clean-cut, family-oriented, touristy, musical, charming, and artistic town?? It would be such a detriment to the town, to the kids, to the families, and to our wonderful Town's beautiful reputation. I hope you reconsider having this type of business in town. For similar reasons, a local gun shop and a paraphernalia shop were closed down in Los Gatos over recent years. A cannabis/ marajuana/ paraphernalia shop does not belong here in our lovely Los Gatos. Please reconsider and let them open elsewhere, not here.

Thank you for "listening".

Gladie Rabitz,

From: freeman <

Sent: Wednesday, March 16, 2022 9:41 AM **To:** Cannabis <cannabis@losgatosca.gov>

Cc: freeman < Subject: cannabis discussions

EXTERNAL SENDER

Dear Town of Los Gatos,

I am a resident of Los Gatos for 60+ years and would like to participate in discussion of cannabis business licensing in Los Gatos.

Can you please tell me how to sign up for meetings and consultant presentations? What is the schedule of meetings concerning cannabis in Los Gatos?

Thank you,

Keith Freeman

Los Gatos, CA 95032

From: Lee Fagot <

Sent: Wednesday, March 16, 2022 5:27 PM

To: Robert Schultz < RSchultz@losgatosca.gov >; Rob Rennie < RRennie@losgatosca.gov >; Maria Ristow

<<u>MRistow@losgatosca.gov</u>>; Matthew Hudes <<u>MHudes@losgatosca.gov</u>>; Mary Badame <<u>MBadame@losgatosca.gov</u>>; Marico Sayoc <<u>MSayoc@losgatosca.gov</u>>; Laurel Prevetti

<LPrevetti@losgatosca.gov>; Arn Andrews <aandrews@losgatosca.gov>

Subject: Cannabis sales in Los Gatos

EXTERNAL SENDER

Council Members and Senior Town employees

Interesting that the NY Times has a front page story about CA cannabis sellers today, "California Cannabis Sellers Face a Bleak Reality". March 16, 2022 NY Times page 1, informing us who the legal sellers are (convicted of illegal drug dealings in the past and given priority to open their retail outlets) reporting how they have done since opening their retail outlets, as they are facing violent burglaries, increased very local crime, losing money, complaining they not able to make the same profits they made selling illegal drugs on the street, etc. Very similar to the fears now over what NY wants to do based also on the recent experiences in CA, as related in these articles.

And, the earlier story, "New Yorkers With Marijuana Convictions Will Get First Retail Licenses", NY Times page A25 of March 10, relating similar issues expected with new laws in NY State allowing convicted felons to get priority for retail licenses for dispensaries.

What the hell are our courts, and elected officials trying to do? This also could be undermining the quality of police services and provides Interesting rewards for bad and illegal behavior. What is the real cost vs. estimated new tax revenue potential? My guess, it will cost much more socially and financially going forward. Lets make the right decision on this issue of local retail outlet(s) in Town - NO!!

Thanks, and the articles are pretty scary, but worth the reading to learn more.

Lee Fagot

From: Cindy Tucey <

Sent: Monday, March 21, 2022 8:54:41 PM
To: Maria Ristow < MRistow@losgatosca.gov >
Subject: Vote NO on cannabis in Los Gatos

EXTERNAL SENDER

Dear Vice Mayor,

Please vote NO to retail cannabis in Los Gatos.

I was displeased to learn that the Los Gatos town council is considering allowing retail cannabis in our town of Los Gatos.

My in-laws live in a town in Colorado that was an early adopter of retail cannabis in the town. It has caused many problems for the town, and has brought a lot of undesirable elements to the town. It has trashed many previously nice areas. I have also seen shopping plazas with cannabis in the Bay area that have become undesirable due to the retail cannabis. I do not desire this for the town of Los Gatos.

We also do not want easier drug access for our children. I understand a counter argument is that teens will get cannabis anyway, so why prohibit cannabis in our town and give up the tax money. To this I would respond, that this is about more than easy access to cannabis, it's also about what sort of town we want to have. We do not want to attract the type of folks that will be getting high in the parking lot to our town. We don't want the crime and security issues.

Please vote NO.

Thank you for your consideration.

Sincerely,
Cindy Tucey
Homeowner & Resident of Los Gatos

From: Cindy Tucey < > > Sent: Monday, March 21, 2022 1:53 PM To: Cannabis < cannabis@losgatosca.gov > Subject: Vote NO on retail cannabis

EXTERNAL SENDER

Dear Sir or Madam,

I was displeased to learn that the Los Gatos town council is considering allowing retail cannabis in our town of Los Gatos.

Please vote NO to retail cannabis in Los Gatos.

My in-laws live in a town in Colorado that was an early adopter of retail cannabis in the town. It has caused many problems for the town, and has brought a lot of undesirable elements to the town. It has

trashed many previously nice areas. I have also seen shopping plazas with cannabis in the Bay area that have become undesirable due to the retail cannabis. I do not desire this for the town of Los Gatos.

I understand a counter argument is that teens will get cannabis anyway, so why prohibit cannabis in our town and give up the tax money. To this I would respond, that this is about more than easy access to cannabis, it's also about what sort of town we want to have. We do not want to attract the type of folks that will be getting high in the parking lot to our town. If folks want to get cannabis, there are plenty of dispensaries in the local area.

Please vote NO.

Thanks for your consideration.

Sincerely, Cindy Tucey

Sent from my iPhone

On Mar 22, 2022, at 1:17 PM, Kathy Anderson <

EXTERNAL SENDER

I am resending this requesting that each council member respond. I thank Mary Badame for responding.

I would like to know each of your reasoning for spending money on a study where 60% of your citizens were against allowing.

You are elected to represent the citizens of Los Gatos. Why would you ignore that responsibility by pursuing a costly study on an issue 60% of your citizens were against.

Why would you consider having to make a zoning change to allow marijuana dispensaries when the majority of the citizens are against.

Did you do a poll and costly study on the gun issue or did you just take a stand against a controversial issue?

I know each of you are busy but you are elected officials and need to respond to your electorate. Kathy Anderson

Foster Rd. Los Gatos

I have asked in past correspondence to Council to vote no on marijuana dispensaries.

My question is - why are you even considering allowing them in Los Gatos?

The poll concerning marijuana dispensaries 60% of returns voted no. Council would need to make a zoning change to allow them.

Council voted to not allow gun shops in town. It shows Council can take a stand when controversial issues come up.

So why aren't you just saying no to the marijuana dispensaries?

Please respond
Thank you,
Kathy Anderson
Los Gatos

Sent from my iPad

On Mar 24, 2022, at 9:04 PM, Jeff Sung < > wrote

EXTERNAL SENDER

Hi Marico,

I know you have kids too, and was wondering if you had any thoughts regarding my email. Nobody from town council replied. I was hoping you would all consider the points I made in it though. Please let me know your thoughts. Thank you for your time.

Respectfully,

Jeff

Subject: No to cannabis

To: <<u>cannabis@losgatosca.gov</u>>, Rob Rennie <<u>rrennie@losgatosca.gov</u>>, Marico Sayoc <<u>msayoc@losgatosca.gov</u>>, <<u>mristow@losgatosca.gov</u>>, <<u>mbadame@losgatosca.gov</u>>, <mhudes@losgatosca.gov>

Dear Los Gatos Town Council,

Years ago, it was cool to smoke. Joe Camel, the Marlboro Man... Members of our council should remember these figures. We've learned that people of that generation were brainwashed into smoking, with targeted ads by Big Tobacco. Only with lawsuits against tobacco, have we learned the true extent of how tobacco targeted children, targeted low income minorities for commercial profit. Governments went along for the ride, using "sin taxes" to pay for government programs, as these taxes were palatable to the general populace. Politicians didn't have to speak up for these poor individuals, suckered into smoking by focused campaigns, and caught in their addiction. These individuals could be portrayed as

deserving the consequences of their "consenting adult" choices, while the general populace got to reap the benefits of their taxes.

I fear that the same is happening now with marijuana. Yes, it is not right to put people in prison for using a small amount of marijuana. But it is not right to encourage its use by adding dispensaries, and it is absolutely not right for government to try to use marijuana as a way to raise tax revenue. This tax revenue is blood money.

As a doctor, I see the people who pay this blood money. I am biopsying their lung cancers. I am putting feeding tubes in their stomachs because of the cancers growing in their throats. I am reading the scans of the cancers that have spread to their brain and bones. Make no mistake that smoking marijuana causes the same cancers as smoking tobacco. Marijuana causes brain damage. Marijuana accelerates cardiovascular disease. Marjauna causes mental illness.

Marijuana gets into the hands of children. Nationwide, about 1 in 14 children aged 12 to 17 used marijuana in the past month. That figure was 24 percent in California, and increased to 26 percent after Proposition 64 was passed. Putting a dispensary in Los Gatos is going to make marijuana more accessible to children. We can't kid ourselves about this. We can't abrogate responsibility and say that this is the sole responsibility of parents.

Nearly 60 percent of Los Gatos residents said they opposed having a dispensary in Los Gatos. Please listen to them. Listen to physicians. Stop listening to those with financial interests tied to marijuana.

Thank you for your time.

Sincerely,

Jeffrey Sung, M.D.

From: <

Sent: Tuesday, March 29, 2022 6:45 PM

To: 'Joanne Rodgers' < >; 'Joe Rodgers' < >; Rob Rennie

<<u>RRennie@losgatosca.gov</u>>; Maria Ristow <<u>MRistow@losgatosca.gov</u>>; Mary Badame

<<u>MBadame@losgatosca.gov</u>>; Matthew Hudes <<u>MHudes@losgatosca.gov</u>>; Marico Sayoc

<MSayoc@losgatosca.gov>; Robert Schultz <RSchultz@losgatosca.gov>; Laurel Prevetti

<LPrevetti@losgatosca.gov>



Subject: RE: alarming information regarding HDL requiring immediate action

EXTERNAL SENDER

Dear Robert Schultz,

and Rob Rennie, Maria Ristow, Mary Badame, Matthew Hudes, Marico Sayoc, Laurel Prevetti

My name is Lisa Harris and I have been a homeowner in Los Gatos for over 20 years. I am part of a growing collective group of concerned residents in Los Gatos called CAD, Community Against Dispensaries.

Recently we were made aware that the town of Los Gatos hired a Cannabis management company called HDL for initial consultation services.

I looked on the HDL website to learn more about the cannabis management company that The Town of Los Gatos gave \$50,000 to. I want to quote what HDL said on their website regarding the companies "Regulation, Development, and Support services."

"HDL, will help you develop cannabis regulations that maximize agency economic benefits while providing a framework for cannabis businesses to operate successfully. Services include fiscal analysis, land-use regulation development, regulatory and tax ordinance drafting, and ballot resolution preparation." This is a biased for profit agency with regards to the cannabis industry. HDL plays a core part in orchestrating the approval of commercial cannabis businesses in towns.

Upon further research I discovered that essentially they are a full service company that has contracts with towns over the course of many years . HDL makes the bulk of their profits off of towns if they allow cannabis businesses to operate. They also will work with cannabis companies in a towns jurisdiction on an ongoing basis to make sure the town is receiving their taxes. HDL is essentially a biased pro- cannabis company. If we don't allow cannabis in the town of Los Gatos, than HDL can't provide billable services. It's in HDL's best interest to convince the town of LG to allow cannabis businesses to operate. David Mc Pherson, Cannabis Compliance Director for HDL said in an interview with mjbizdaily.com, " It makes no sense for this firm not to want cannabis businesses to succeed in the jurisdictions where it has contracts"

According to consulting.us, the town of San Bernadino originally had a 5 year \$750,000 contract with HDL. HDL was going to audit and oversee regulations of the cannabis businesses in the town. San Bernadino shortened the contract to 1 year at \$150,000 . Here's the interesting part. It was reported in the consulting.us article that "The remaining 4 year contract(\$600,000) will be paid using fees collected from various Cannabis Businesses during the commercial licensing process." So HDL also bills cannabis businesses for providing their services, in addition to billing towns. This contradicts what Andy Nickerson President of HDL wrote in the cover letter to Robert Schultz Town Attorney on January 24, 2022. Nickerson wrote , "HDL works solely with public agencies and has no private-sector clients in the cannabis industry"

In other words, HDL manages to still get paid by the local cannabis businesses even though a town might change their mind and not want a 5 year contract. No matter how you look at this, HDL's sole fiscal survival is dependent upon towns allowing cannabis businesses.

In addition, HDL has no concern regarding for safety for the communities. In an interview by The Californian the question to David Mc Pherson was asked, "Is public concern common in communities?" Mc Pherson answered, "They keep bringing it back to schools and kids but look at the state law, and public safety, and law enforcement. It has so little concern of manufacturing (growing operations) being an issue." HDL looks for legal loopholes or rewrites the town ordinances to get the cannabis businesses in the towns anyway they can.

In the 1/24/22 proposal by HDL it said that the "Town Attorney held a series of 10 meetings with various community groups to gather input from the public. The majority of the public in attendance expressed an interest in allowing cannabis businesses within the town."

CAD is requesting information as to who attended those 10 meetings? This meeting ,to our knowledge, was never publicized within the community for the town to "gather

Input." Furthermore, a survey was done recently by Surveymonkey asking if the town residents wanted dispensaries. Over %60 voted NO.

- ***CAD is asking Robert Shultz, Laurel Prevetti, or any member from the town council to please answer the following questions;
- 1) Why did the town council hire HDL knowing that it is a biased for-profit marijuana consultation company?
- 2) The town already did a survey on Surveymonkey and discovered that over 60% polled were against dispensaries in the town of Los Gatos. Your constituents have spoken. Why did the town hire HDL anyways?
- 3) In the future, How will you be communicating your intentions regarding allowing dispensaries in town?
- 4)Robert Schultz, Who were those 10 groups that you met with that expressed an interest in allowing cannabis businesses within the town?
- 5) What is the long term financial commitment that the town expects to spend with HDL if dispensaries are allowed?

***CAD is making a formal request asking the town to terminate it's contract with HDL and find an unbiased consultation firm that doesn't have any financial stake in the outcome of the survey.

CAD is just getting started, this group has evolved and grown so quickly in spite of not advertising in our local communication resources or social media. We haven't even gotten the word out to all of the parents in our local schools yet. I can guarantee you that there will be many concerned parents asking why does the town council and it's leaders think having dispensaries in our town will enhance our quality of life.

Kind regards,

Lisa Harris

From: susan burnett < > > Sent: Wednesday, March 30, 2022 3:26 PM

To: Rob Rennie < RRennie@losgatosca.gov >; Maria Ristow < MRistow@losgatosca.gov >; Laurel Prevetti

<LPrevetti@losgatosca.gov>; matthewhudes@losgatosca.gov; maricosayoc@losgatosca.gov;

marybadame@losgatosca.gov Subject: Cannabis dispensaries

EXTERNAL SENDER

Good afternoon,

After more research on the possible Cannabis Dispensaries in Los Gatos I have grave concerns! We are definitely not going to get an unbiased report if HDL is hired to take on this important issue for our town. I also have serioous reservations on the real possibility of increased crime, smash and grab! We already have an Apple Store that is frequently being hit and they grab cell phones! Please do not hire HDI, I am convinced this community does not want this for our town. The NYT had a front page article about California and the increasing crime around the dispensaries. How does our police feel about this and what is the cost for their increased services that will be needed?

Thank-you, Susan Burnett

Sent from my iPhone

From: Keith Freeman <

Sent: Monday, April 4, 2022 10:57 AM

To: Holly Zappala < <u>HZappala@losgatosca.gov</u>> **Subject:** Marihuana dispensary in Los Gatos

EXTERNAL SENDER

Dear Town of Los Gatos,

I have been given this email address to enquire about the proposal to allow marihuana stores in Los Gatos.

Having lived in Los Gatos for 60+ years (University Avenue '61,Fisher '62, Wildcat '66). My children all went to LGHS. I have strong feelings about marihuana being sold in Los Gatos.

Can you please advise me on how I can participate in this discussion.

Thank you,

Keith Freeman



From: K. Deloumi <

Sent: Monday, April 11, 2022 8:25 AMTo: Rob Rennie <RRennie@losgatosca.gov>Cc: Town Manager <Manager@losgatosca.gov>

Subject: Fw: Hoboken must exercise more caution on recreational marijuana dispensaries | Opinion

EXTERNAL SENDER

Please share. Reflection into the future.

Karen

Sent: Mon, Apr 11, 2022 at 8:13 AM

Subject: Hoboken must exercise more caution on recreational marijuana dispensaries | Opinion

https://www.nj.com/opinion/2022/04/hoboken-must-exercise-more-caution-on-recreational-marijuana-dispensaries-opinion.html

Karen

From: Max Del Real <

Sent: Thursday, April 14, 2022 11:50 AM

To: Town Manager < Manager@losgatosca.gov>

Cc: Arn Andrews <aandrews@losgatosca.gov>; Cannabis <cannabis@losgatosca.gov>

Subject: Cannabis Inquiry

EXTERNAL SENDER

Ms. Prevetti,

Good morning.

I am interested in your Town's new Cannabis Program in Los Gatos.

I represent NUG Inc., a leading cannabis retail company in Northern California. We currently own and operate five (5) award-winning retail cannabis stores in Northern California - including licensed dispensaries in Sacramento, Redding, Oakland, El Cerrito, and San Leandro. Our company website is www.nug.com.

My client, NUG, is very interested in applying for a retail cannabis permit in the Town of Los Gatos. Our business has been recognized for its industry success and "best practices." Further, our business - if allowed to open in Los Gatos - would create thirty (30) new, local jobs and be an "economic driver" pertaining to new tax dollars for your Town. Further, our company has an active Community Outreach Plan, that provides \$100,000 annually to local nonprofits and charities.

I would like to schedule a ZOOM call and/or meeting with you to discuss the new Cannabis Program in the Town of Los Gatos and introduce my client, NUG Inc.

Please let mew know when you are available. Best.

M. Max Del Real President & CEO

Ammericann Development LLC



The information contained in this E-mail is confidential and may also contain privileged advocate-client information or work product. The information is intended only for the use of the individual or entity to whom it is addressed. If you are not the intended recipient, or the employee or agent responsible to deliver it to the intended recipient, you are hereby notified that any use, dissemination, distribution or copying of this communication is strictly prohibited. If you have received this E-mail in error, please delete this message from your computer and immediately notify the sender. Thank you.

GO GREEN, GO PAPER-FREE.

From: RICHARD GASKILL <

Sent: Friday, April 22, 2022 7:35 PM To: Cannabis <cannabis@losgatosca.gov>

Subject: Cannabis in Los Gatos

EXTERNAL SENDER

I think many cannabis users like to smoke it, which is definitely unhealthy for them and others. Also, I don't think there is evidence that it's better than regular meds for any condition. And it can be addictive. I also worry that it could become associated with criminal organizations. So I don't think it should be allowed in Los Gatos.

J. Richard Gaskill, MD

From: RICHARD GASKILL <

Sent: Saturday, April 23, 2022 4:24 PM

To: Cannabis <cannabis@losgatosca.gov> **Subject:** Fwd: Cannabis in Los Gatos

EXTERNAL SENDER

For more information Google "Kaisers advice on marijuana"

JRG

----- Original Message -----

From: RICHARD GASKILL <

To: "cannabis@losgatosca.gov" <cannabis@losgatosca.gov>

Date: 04/22/2022 7:34 PM

Subject: Cannabis in Los Gatos

I think many cannabis users like to smoke it, which is definitely unhealthy for them and others. Also, I don't think there is evidence that it's better than regular meds for any condition. And it can be addictive. I also worry that it could become associated with criminal organizations. So I don't think it should be allowed in Los Gatos.

J. Richard Gaskill, MD

From: Patty Charles <

Sent: Monday, May 2, 2022 2:58 PM

To: Cannabis <cannabis@losgatosca.gov>

Subject: Los Gatos dispensary - I'm against

EXTERNAL SENDER

I am writing as a Los Gatos citizen with 3 teenagers.

I am not against dispensaries or the legalization of Marijuana, but I do not see the benefit of having one in Los Gatos. The dispensaries I have been too are not terrible places, but they have typically had a lot of security (armed guard) and I have never been to one where there was not a person or two of question around. Why is this the type of business we want in Los Gatos?

Even just having a pharmacy attracts people looking for drugs. I have teenagers and I really do not want them having any easier access to drugs than they already do. I also don't want an armed guard outside of a dispensary. It is just an accident waiting to happen.

My understanding is that as Dispensaries are not federally regulated they cannot have FDIC bank account. So having cash around also attracts people looking for easy answers.

Surely we can find more viable less risky businesses for los gatos.

So I am against.

Patty

From: W Stephen Sullins <

Sent: Thursday, May 5, 2022 9:47 AM To: Cannabis <cannabis@losgatosca.gov>

Subject: NO Cannabis in Los Gatos

EXTERNAL SENDER

I've seen the plan to hire a cannabis consultant to explore the possibility of licensing cannabis dispensaries in Los Gatos. As a resident with school children, and as an adult that appreciates the mature and already vibrant retail and dining scene, I see NO benefit to the community by even considering the benefits of licensing dispensaries.

PLEASE, lets stop this process in its tracks. We have enough abuse of alcohol amongst our children, we don't need to open the door, even through legal channels, to the view that more substance abuse is acceptable.

Thank you.

Steve Sullins

Los Gatos

Sent from my iPad

From: caissie stephens <

Sent: Friday, May 6, 2022 8:19 PM

To: Cannabis <cannabis@losgatosca.gov> **Subject:** Los Gatos Resident for over 50 years

EXTERNAL SENDER

I am in support of having a cannabis dispensary in Los Gatos. Many in our community use Cannabis legally, and to provide a local dispensary would be beneficial for the community.. Cannabis is used by so many and has so many good purposes if used correctly and legally. I have heard the push back due to the concern of sending the wrong message to adolescents. To address this concern I say, firstly, the dispensaries have very strict policies and you can not enter if you do not have I.D. Secondly, it has its own security. (Kids can run into Safeway and grab liqueur and run out. That will never happen at a dispensary). Thirdly, I am a high school teacher and know teens will find pot and alcohol with or without a dispensary. At least this Cannabis is safe and regulated rather than what's on the street.

Caissie Stephens





Subject: RE: requesting GIS study for dispensaries

EXTERNAL SENDER

Dear council members and staff,

Last week on May 5, I attended a meeting with Marico Sayoc and Laurel Prevetti. The topic was marijuana dispensaries in Los Gatos. I am part of a group that is vehemently against marijuana dispensaries in town. I asked Laurel and Marico if the town has done a GIS study to even determine where one can go. Laurel said no, there was no plan thus far to conduct a study. This is mind boggling that not one person on your decision making team has requested to do this. Los Gatos is 11 square miles. I pointed out to Laurel and Marico that by the time you follow the current regulations of setback requirements away from schools, parks, hospitals, housing, etc. and staying in an industrial area, I think your group would be hard pressed to even find a suitable legal location in Los Gatos. Your team was so eager to hire HDL, a biased pro- cannabis consulting firm, at \$50,000 looking for ways to make money for the town that they neglected to do this basic step. It seems to me that a GIS study should have been the first step.

***I am requesting that the town council and it's staff do a formal GIS study as to where you would legally place a dispensary based on current rules and regulations and when can we expect to see the published results for the public?

I am still against a dispensary. Please vote NO on allowing dispensaries in Los Gatos.

Kind regards,

Lisa Harris

```
From:
Sent: Tuesday, March 29, 2022 6:45 PM
To: 'Joanne Rodgers' <
                                             >; 'Joe Rodgers' <
'rrennie@losgatosca.gov' <rrennie@losgatosca.gov>; 'mristow@losgatosca.gov'
<mristow@losgatosca.gov>; 'mbadame@losgatosca.gov' <mbadame@losgatosca.gov>;
'mhudes@losgatosca.gov' < mhudes@losgatosca.gov>; 'msayoc@losgatosca.gov'
<msayoc@losgatosca.gov>; 'rschultz@losgatosca.gov' <rschultz@losgatosca.gov>;
'lprevetti@losgatosca.gov' <lprevetti@losgatosca.gov>
Cc: 'Karla Albright' <
                                           >; 'Sue Anawalt' <
                                                                               >; 'Don Arnaudo'
                      >; 'Rose Arnaudo' <
                                                                   >; Mary Badame
< MBadame@losgatosca.gov >; 'Dru Barth' <
                                                                >; 'Jim Barth' <
                              >; 'Michael Bays' <
                                                                     >; 'Celia Bell'
'Kathy Bays' <
                       >; 'Joanne Benjamin' <
                                                                         >; 'Marty Berk'
                        >; 'Toni Blackstock' <
                                                                        >; 'Jeffrey P. Blum'
                   >; 'Nancy Boesenberg' <
                                                                    >; 'Diana Bond'
                            >; 'Franklin Bondonno' <
                                                                              >; 'Shannon Burnett'
                             'Susan Burnett' <
                                                                >; 'Kelly Campbell'
                                                             >; 'Faustine Comstock'
                              >; 'Julio Casal' <
                     >; 'Robert Cowan' <
                                                               >; 'Joan Cross' <
                                                                                                >; 'Don
                                                                 >; 'Leslie Finch'
                            >; 'Lee Fagot' <
Erba' <
                         >; 'Karyn Gramling' <
                                                                     >; 'R &L Hallinan'
                      >; 'Mary Harvey' <
                                                                   >; 'Stacey Hein'
                           >; 'Nancy Hernandez' <
                                                                     >; 'Margaret Hokeness'
                                                                >; 'Patti Hughes'
                         >; 'Garry Holst' <
                            'Rupar Iyar' <
                                                                    >; 'Jubie Jaramillo'
                          >; 'Troy Jaramillo' <
                                                                    >; 'Nancy Jobe'
                         >; 'Sally Jones' <
                                                                    >; 'Judy Peterson'
                                                                      >; 'Bonnie Knopf'
                         >; 'Susan Kankel' <
                                                                 >; 'Phil Knopf'
                      >; 'Carrie Knopf' <
                       >; 'William Lasher' <
                                                                  >; 'Theresa Leiker'
                       >; 'Steve Leonardis' <
                                                                     >; 'Celine Leroy'
                          >; 'Barbara Mesa'
                                                                      >; 'Mike'
                           'Olga Montserratt' <
                                                                      >; 'Pearl Norton'
                             'Sally Paolini' <
                                                              >; 'Judy Peckler'
                        >; 'Gwen Pinkston' <
                                                                      'Diana Pleasant'
                           >; 'Gladie Rabitz' <
                                                                     >; 'Joe Rodgers'
                           'Travis Rodgers' <
                                                               >; 'Marshall Smith' <
          >; 'Doug Sporleder' <
                                                  >; 'Vicki Thorburn'
                                                                                           >; 'Kirsten
Trapani' <
                            >; 'Terri Trotter' <
                                                                       'Kathy Tumason'
                           >; 'Susan Tuttle' <
                                                                   >; 'Carol Wallace'
                     >; 'Kim Wasserman' <
                                                                 >; 'Lucy Wedemeyer'
                              'Dave Wilde' <
                                                                    >; 'Kathy Winkelman'
```

Subject: RE: alarming information regarding HDL requiring immediate action

Dear Robert Schultz,

and Rob Rennie, Maria Ristow, Mary Badame, Matthew Hudes, Marico Sayoc, Laurel Prevetti

My name is Lisa Harris and I have been a homeowner in Los Gatos for over 20 years. I am part of a growing collective group of concerned residents in Los Gatos called CAD, Community Against Dispensaries.

Recently we were made aware that the town of Los Gatos hired a Cannabis management company called HDL for initial consultation services.

I looked on the HDL website to learn more about the cannabis management company that The Town of Los Gatos gave \$50,000 to. I want to quote what HDL said on their website regarding the companies "Regulation, Development, and Support services."

"HDL, will help you develop cannabis regulations that maximize agency economic benefits while providing a framework for cannabis businesses to operate successfully. Services include fiscal analysis, land-use regulation development, regulatory and tax ordinance drafting, and ballot resolution preparation." This is a biased for profit agency with regards to the cannabis industry. HDL plays a core part in orchestrating the approval of commercial cannabis businesses in towns.

Upon further research I discovered that essentially they are a full service company that has contracts with towns over the course of many years . HDL makes the bulk of their profits off of towns if they allow cannabis businesses to operate. They also will work with cannabis companies in a towns jurisdiction on an ongoing basis to make sure the town is receiving their taxes. HDL is essentially a biased pro- cannabis company. If we don't allow cannabis in the town of Los Gatos, than HDL can't provide billable services. It's in HDL's best interest to convince the town of LG to allow cannabis businesses to operate. David Mc Pherson, Cannabis Compliance Director for HDL said in an interview with mjbizdaily.com, " It makes no sense for this firm not to want cannabis businesses to succeed in the jurisdictions where it has contracts"

According to consulting.us, the town of San Bernadino originally had a 5 year \$750,000 contract with HDL. HDL was going to audit and oversee regulations of the cannabis businesses in the town. San Bernadino shortened the contract to 1 year at \$150,000 . Here's the interesting part. It was reported in the consulting.us article that "The remaining 4 year contract(\$600,000) will be paid using fees collected from various Cannabis Businesses during the commercial licensing process." So HDL also bills cannabis businesses for providing their services, in addition to billing towns. This contradicts what Andy Nickerson President of HDL wrote in the cover letter to Robert Schultz Town Attorney on January 24, 2022.

Nickerson wrote, "HDL works solely with public agencies and has no private-sector clients in the cannabis industry"

In other words, HDL manages to still get paid by the local cannabis businesses even though a town might change their mind and not want a 5 year contract. No matter how you look at this, HDL's sole fiscal survival is dependent upon towns allowing cannabis businesses.

In addition, HDL has no concern regarding for safety for the communities. In an interview by The Californian the question to David Mc Pherson was asked, "Is public concern common in communities?" Mc Pherson answered, "They keep bringing it back to schools and kids but look at the state law, and public safety, and law enforcement. It has so little concern of manufacturing (growing operations) being an issue." HDL looks for legal loopholes or rewrites the town ordinances to get the cannabis businesses in the towns anyway they can.

In the 1/24/22 proposal by HDL it said that the "Town Attorney held a series of 10 meetings with various community groups to gather input from the public. The majority of the public in attendance expressed an interest in allowing cannabis businesses within the town."

CAD is requesting information as to who attended those 10 meetings? This meeting ,to our knowledge, was never publicized within the community for the town to "gather

Input." Furthermore, a survey was done recently by Surveymonkey asking if the town residents wanted dispensaries. Over %60 voted NO.

- ***CAD is asking Robert Shultz, Laurel Prevetti, or any member from the town council to please answer the following questions;
- 1) Why did the town council hire HDL knowing that it is a biased for-profit marijuana consultation company?
- 2) The town already did a survey on Surveymonkey and discovered that over 60% polled were against dispensaries in the town of Los Gatos. Your constituents have spoken. Why did the town hire HDL anyways?
- 3) In the future, How will you be communicating your intentions regarding allowing dispensaries in town?
- 4)Robert Schultz, Who were those 10 groups that you met with that expressed an interest in allowing cannabis businesses within the town?

5) What is the long term financial commitment that the town expects to spend with HDL if dispensaries are allowed?

***CAD is making a formal request asking the town to terminate it's contract with HDL and find an unbiased consultation firm that doesn't have any financial stake in the outcome of the survey.

CAD is just getting started, this group has evolved and grown so quickly in spite of not advertising in our local communication resources or social media. We haven't even gotten the word out to all of the parents in our local schools yet. I can guarantee you that there will be many concerned parents asking why does the town council and it's leaders think having dispensaries in our town will enhance our quality of life.

Kind regards, Lisa Harris From: **Sent:** Thursday, May 12, 2022 5:36 PM >; 'Joe Rodgers' < To: 'Joanne Rodgers' < >; Rob Rennie <RRennie@losgatosca.gov>; Maria Ristow <MRistow@losgatosca.gov>; Mary Badame <MBadame@losgatosca.gov>; Matthew Hudes <MHudes@losgatosca.gov>; Marico Sayoc <MSayoc@losgatosca.gov>; Robert Schultz <RSchultz@losgatosca.gov>; Laurel Prevetti <LPrevetti@losgatosca.gov>; Cannabis < cannabis@losgatosca.gov> Cc: 'Karla Albright' < >; 'Sue Anawalt' < >; 'Don Arnaudo' >; 'Rose Arnaudo' < >; Mary Badame <MBadame@losgatosca.gov>; 'Dru Barth' <</p> >; 'Jim Barth' < 'Kathy Bays' < >; 'Michael Bays' < >; 'Celia Bell' >; 'Joanne Benjamin' < >; 'Marty Berk' >; 'Jeffrey P. Blum' >; 'Toni Blackstock' < >; 'Nancy Boesenberg' < >; 'Diana Bond' >; 'Franklin Bondonno' < >; 'Shannon Burnett' >; 'Susan Burnett' < >; 'Kelly Campbell' >; 'Julio Casal' < >; 'Faustine Comstock' >; 'Robert Cowan' < >; 'Joan Cross' < >; 'Leslie Finch' Erba' < >; 'Lee Fagot' < >; 'Karyn Gramling' < >; 'R &L Hallinan'

>; 'Mary Harvey' <

>; 'Stacey Hein'



Subject: RE: NO dispensaries in Los Gatos

EXTERNAL SENDER

Dear Town Council members,

I am writing to express concern regarding the topic of dispensaries in our town. I have been very outspoken that I think dispensaries will be a detriment to our town. It normalizes marijuana use and makes it more accessible to our youth. According to the Cannabis Research Report July 2020 by the NIH, Marijuana is linked to other substance use disorders.

I would like to warn the council members to not be lulled in to a false sense of security when the dispensaries say that they check ID's. Yes ,they check ID's but I can tell you that black market fake ID's have gotten very sophisticated and they are not only very convincing, but scannable. I know this because I have young adults in the house and I have spoken to many of their friends about this very topic. Some of the young adults have admitted to knowing people who have used their fake ID's at Airfield and Caliva Dispensaries. Currently a trend in the Los Gatos High School is that students will gain access to alcohol in individual serving cans or bottles; beer, white claw, hard cider, etc. They then will sell them to other students. They are called "Alcohol Brokers". If we have dispensaries in town, it will only make marijuana more accessible to our youth and a new branch of business called "Pot Brokers" will sprout in our high school. Oh, sorry, that's already an existing business, they're called drug dealers. You will just increase the number of "Pot Brokers" at Los Gatos High School.

As our elected representatives of Los Gatos, you have a duty and responsibility to make Safe and Healthy choices for our beloved town and all of it's members. It will be grossly negligent if you allow dispensaries in our town ,thus making marijuana more accessible to our youth. Simply deciding to allow dispensaries for the sake of money to the town is short sighted and irresponsible. Some of you will be moving on from your position, is this the legacy that you want to leave behind? There's a price to pay for everything. Our youth depends on you to make the right decision. Vote NO on allowing dispensaries in town.

Kind regards,

Lisa Harris

From: Imharris@earthlink.net < Imharris@earthlink.net > Sent: Tuesday, March 29, 2022 6:45 PM To: 'Joanne Rodgers' <joannerodgers@mac.com>; 'Joe Rodgers' <jrodgers43@yahoo.com>; 'rrennie@losgatosca.gov' <rrennie@losgatosca.gov>; 'mristow@losgatosca.gov' <mristow@losgatosca.gov>; 'mbadame@losgatosca.gov' <mbadame@losgatosca.gov>; 'mhudes@losgatosca.gov' < mhudes@losgatosca.gov>; 'msayoc@losgatosca.gov' <msayoc@losgatosca.gov>; 'rschultz@losgatosca.gov' <<u>rschultz@losgatosca.gov</u>>; 'lprevetti@losgatosca.gov' <lprevetti@losgatosca.gov> Cc: 'Karla Albright' < >; 'Sue Anawalt' < >; 'Don Arnaudo' >; 'Rose Arnaudo' < >; Mary Badame <<u>MBadame@losgatosca.gov</u>>; 'Dru Barth' < >; 'Jim Barth' < >; 'Celia Bell' 'Kathy Bays' < >; 'Michael Bays' < >; 'Marty Berk' >; 'Joanne Benjamin' < >; 'Toni Blackstock' < >; 'Jeffrey P. Blum' >; 'Diana Bond' >; 'Nancy Boesenberg' < >; 'Franklin Bondonno' < >; 'Shannon Burnett' 'Susan Burnett' < >; 'Kelly Campbell' >; 'Julio Casal' < >; 'Faustine Comstock' >; 'Robert Cowan' < >; 'Joan Cross' < >; 'Don Erba' < >; 'Lee Fagot' < >; 'Leslie Finch' >; 'R &L Hallinan' >; 'Karyn Gramling' < >; 'Mary Harvey' < >; 'Stacey Hein' >; 'Nancy Hernandez' < >; 'Margaret Hokeness' >; 'Garry Holst' < >; 'Patti Hughes' 'Rupar Iyar' < >; 'Jubie Jaramillo' >; 'Troy Jaramillo' < >; 'Nancy Jobe' >; 'Sally Jones' < >; 'Judy Peterson' >; 'Bonnie Knopf' >; 'Susan Kankel' <

>; 'Phil Knopf'

>; 'Carrie Knopf' <



Subject: RE: alarming information regarding HDL requiring immediate action

Dear Robert Schultz,

and Rob Rennie, Maria Ristow, Mary Badame, Matthew Hudes, Marico Sayoc, Laurel Prevetti

My name is Lisa Harris and I have been a homeowner in Los Gatos for over 20 years. I am part of a growing collective group of concerned residents in Los Gatos called CAD, Community Against Dispensaries.

Recently we were made aware that the town of Los Gatos hired a Cannabis management company called HDL for initial consultation services.

I looked on the HDL website to learn more about the cannabis management company that The Town of Los Gatos gave \$50,000 to. I want to quote what HDL said on their website regarding the companies "Regulation, Development, and Support services."

"HDL, will help you develop cannabis regulations that maximize agency economic benefits while providing a framework for cannabis businesses to operate successfully. Services include fiscal analysis, land-use regulation development, regulatory and tax ordinance drafting, and ballot resolution preparation." This is a biased for profit agency with regards to the cannabis industry. HDL plays a core part in orchestrating the approval of commercial cannabis businesses in towns.

Upon further research I discovered that essentially they are a full service company that has contracts with towns over the course of many years . HDL makes the bulk of their profits off of towns if they allow cannabis businesses to operate. They also will work with cannabis companies in a towns jurisdiction on an ongoing basis to make sure the town is receiving their taxes. HDL is essentially a biased pro- cannabis company. If we don't allow cannabis in the town of Los Gatos, than HDL can't provide billable services. It's in HDL's best interest to convince the town of LG to allow cannabis businesses to operate. David Mc

Pherson, Cannabis Compliance Director for HDL said in an interview with mjbizdaily.com, "It makes no sense for this firm not to want cannabis businesses to succeed in the jurisdictions where it has contracts"

According to consulting.us, the town of San Bernadino originally had a 5 year \$750,000 contract with HDL. HDL was going to audit and oversee regulations of the cannabis businesses in the town. San Bernadino shortened the contract to 1 year at \$150,000 . Here's the interesting part. It was reported in the consulting.us article that "The remaining 4 year contract(\$600,000) will be paid using fees collected from various Cannabis Businesses during the commercial licensing process." So HDL also bills cannabis businesses for providing their services, in addition to billing towns. This contradicts what Andy Nickerson President of HDL wrote in the cover letter to Robert Schultz Town Attorney on January 24, 2022. Nickerson wrote , "HDL works solely with public agencies and has no private-sector clients in the cannabis industry"

In other words, HDL manages to still get paid by the local cannabis businesses even though a town might change their mind and not want a 5 year contract. No matter how you look at this, HDL's sole fiscal survival is dependent upon towns allowing cannabis businesses.

In addition, HDL has no concern regarding for safety for the communities. In an interview by The Californian the question to David Mc Pherson was asked, "Is public concern common in communities?" Mc Pherson answered, "They keep bringing it back to schools and kids but look at the state law, and public safety, and law enforcement. It has so little concern of manufacturing (growing operations) being an issue." HDL looks for legal loopholes or rewrites the town ordinances to get the cannabis businesses in the towns anyway they can.

In the 1/24/22 proposal by HDL it said that the "Town Attorney held a series of 10 meetings with various community groups to gather input from the public. The majority of the public in attendance expressed an interest in allowing cannabis businesses within the town."

CAD is requesting information as to who attended those 10 meetings? This meeting ,to our knowledge, was never publicized within the community for the town to "gather

Input." Furthermore, a survey was done recently by Surveymonkey asking if the town residents wanted dispensaries. Over %60 voted NO.

***CAD is asking Robert Shultz, Laurel Prevetti, or any member from the town council to please answer the following questions;

- 1) Why did the town council hire HDL knowing that it is a biased for-profit marijuana consultation company?
- 2) The town already did a survey on Surveymonkey and discovered that over 60% polled were against dispensaries in the town of Los Gatos. Your constituents have spoken. Why did the town hire HDL anyways?
- 3) In the future, How will you be communicating your intentions regarding allowing dispensaries in town?
- 4)Robert Schultz, Who were those 10 groups that you met with that expressed an interest in allowing cannabis businesses within the town?
- 5) What is the long term financial commitment that the town expects to spend with HDL if dispensaries are allowed?

***CAD is making a formal request asking the town to terminate it's contract with HDL and find an unbiased consultation firm that doesn't have any financial stake in the outcome of the survey.

CAD is just getting started, this group has evolved and grown so quickly in spite of not advertising in our local communication resources or social media. We haven't even gotten the word out to all of the parents in our local schools yet. I can guarantee you that there will be many concerned parents asking why does the town council and it's leaders think having dispensaries in our town will enhance our quality of life.

Kind regards,

Lisa Harris

From: Judy McCool < Sent: Tuesday, May 17, 2022 4:39 PM

To: Cannabis <cannabis@losgatosca.gov>

Subject: Stores in town

EXTERNAL SENDER

This is ridiculous! I don't want to live in a town that hosts stores that sell this product! There are plenty of other towns that already host these types of stores! Los Gatos has always been a family town! A town of community. A place where kids walk safely up and down the town streets buying ice cream and pizza. Without worries from their parents. Because it's safe- because it's old fashioned Americana! Selling

dope is not Americana- it's stupid -it's greedy- and it is disgusting that you are trying to normalize this type of business! You will not get my vote- and all who vote for this on our council- can guarantee they'll be missing my vote for re- election!

Regards, Judy McCool Sent from my iPhone

From: Jaydon Barnett <
Sent: Wednesday, May 18, 2022 12:32 PM
To: Cannabis <cannabis@losgatosca.gov>
Subject: Cannabis and Los Gatos (a good idea)

EXTERNAL SENDER

I am emailing who it may concern regarding of the addition of cannabis business to Los Gatos. I think that this would be a lovely idea and would bring lots of money to the town. Don't listen to the naysayers I

From: Mary Imig < Sent: Friday, May 27, 2022 6:23 PM

To: Cannabis <cannabis@losgatosca.gov>

Subject: cannabis

EXTERNAL SENDER

I agree with allowing legal cannabis sales within Los Gatos

From: Grasty, Kristina <
Sent: Wednesday, June 1, 2022 4:13 PM
To: Council < Council@losgatosca.gov>

Subject: A request

EXTERNAL SENDER

Dear Los Gatos Town Council Members,

I am writing to request that cannabis dispensaries not be allowed to operate in the Town of Los Gatos. It is important to be fiscally responsible in government decision-making and makes sense to examine ways to possibly increase revenues to the Town. However, in this case, I strongly believe that "the ends do not justify the means." Additional revenue (and possible reductions in expenses) can be pursued in other ways than deriving it from cannabis retailers that you might be tempted to permit to operate in town.

We face enough challenges as it is in trying to raise and educate our children in this community to develop into healthy, meaningfully-engaged young adults. Students are keenly sensitive to and influenced by decisions that adults make and the messages that come from those decisions. Currently, we are experiencing a time of crisis amongst our youth—a time of heightened mental health issues and increased drug overdoses, alongside impacts caused by the pandemic. With this context in mind, it particularly does not seem like the right move to allow cannabis retailers to operate in our town.

The local environment plays a critical role in the propensity for young people to use and abuse substances. Recent research conducted by Firth, et al. (2022) examined the effects of neighborhood contexts on adolescent substance use. They concluded that exposure to a cannabis retail environment, including the presence of a cannabis retailer near one's school, is associated with influencing cannabis use and the use of manufactured cannabis products, as well as riskier use behaviors, amongst high school-age students.

I have attached some research including that mentioned in this letter as well as some slides showing statistics from recent administrations of the California Healthy Kids Survey revealing some of the challenging issues facing our students who are at statistically significant risk. Let's work together to try to address these critical issues. Please make a decision in the best interest of our children.

Respectfully, Kristi Grasty ELSEVIER

Contents lists available at ScienceDirect

Health and Place

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



Retail cannabis environment and adolescent use: The role of advertising and retailers near home and school

Caislin L. Firth ^{a,b,*}, Beatriz Carlini ^a, Julia Dilley ^b, Katarina Guttmannova ^c, Anjum Hajat ^d

- ^a Addictions, Drug & Alcohol Institute, University of Washington, Seattle, WA, USA
- ^b Program Design & Evaluation Services, Multnomah County Health Department & Oregon Public Health Division, Portland, OR, USA
- ^c Center for the Study of Health and Risk Behaviors, University of Washington, Seattle, WA, USA
- d Epidemiology Department, University of Washington, Seattle, WA, USA

ARTICLE INFO

Keywords:
Adolescent substance use
Cannabis
School Environment
Multi-level modeling
Cannabis retailers

ABSTRACT

Youth cannabis use is influenced by overlapping environmental contexts. We examined the associations between proximity to cannabis retailers and seeing cannabis advertisements and cannabis use behaviors in Oregon, a state with adult cannabis legalization. We used 2017 anonymous survey data from 24,154 Oregon 8th and 11th grade students. After adjustments for student and school district characteristics, advertising for 8th graders and presence of a retailer within a mile from school for 11th graders were associated with cannabis use and perceived harm. Additional policy efforts may further reduce youth exposure to cannabis.

Role of funding source

Data collection efforts and work on this paper were supported by the National Institute on Drug Abuse (R01DA039293) awarded to Julia Dilley. In addition, Caislin Firth was supported by the Horowitz Foundation for Social Policy as a 2018 PhD Fellow.

Contributors

All authors contributed to the conceptualization and design of the study. Julia Dilley and Caislin Firth secured funding for the research. Caislin Firth performed the statistical analysis, presentation of results, and drafted the manuscript. Beatriz Carlini, Julia Dilley, Katarina Guttmannova, and Anjum Hajat provided scientific revisions to the manuscript.

1. Introduction

More than one-third of the US population live in states with legalized production and retail sales of cannabis for adults (21+ years) as of November 2020 (Fertig and Zhang, 2020). There are concerns that the presence of cannabis retail outlets may influence youth by normalizing cannabis use, exposing them to pro-use messages, and increasing

availability and variety of cannabis products. Nationally, adolescent treatment admission for cannabis have declined (Mennis, 2020), yet rates of cannabis use disorder among youth (12–17 years) have increased by 25% in states with adult use cannabis laws, despite no measurable increases in youth cannabis use, compared to changes in youth living in states without these laws (Cerdá et al., 2020). Disordered cannabis use during adolescence is linked to developing major depression and anxiety (Gobbi et al., 2019). These findings suggest that the modes and products youth are using in legalized states may be influencing increases in disordered use or addiction (Tormohlen et al., 2019).

Manufactured cannabis products such as edibles and concentrates, used for dabbing and vaping, account for a substantial and growing share of cannabis retail sales (Firth et al., 2020b). Adult cannabis consumers were more likely to consume edibles, use concentrates, particularly for vaping, and use these products more frequently if they lived in legalized states, compared to adults living in states without legal access (Hammond and Goodman, 2020). Manufactured cannabis products typically contain high doses of THC (Raber et al., 2015) which may lead to adverse experiences like panic attacks, anxiety, or acute psychotic episodes (Cao et al., 2016; Kim and Monte, 2016). Calls to U.S. poison centers for manufactured cannabis products are increasing (Dilley et al., 2021) and there is some evidence of increases in underage use of these products (Tormohlen et al., 2019). For adolescents, use of manufactured

^{*} Corresponding author.1107 NE 45th St Suite 120, Seattle, WA, 98105, USA.

E-mail addresses: caislin@uw.edu (C.L. Firth), bia@uw.edu (B. Carlini), julia.dilley@dhsoha.state.or.us (J. Dilley), kg27@uw.edu (K. Guttmannova), anjumh@uw.edu (A. Hajat).

products creates specific concerns. In addition to general adverse effects of cannabis use in adolescence on cognitive, socio-emotional and physical health, high doses of THC may also amplify youth risk for developing psychotic and cannabis use disorders (van der Steur et al., 2020).

Environment plays a key role in adolescent substance use, including through exposure to retail outlets and advertising (Bostean et al., 2016; Cederbaum et al., 2015). Substance use behaviors often initiate during adolescence and are influenced by overlapping social and built environment contexts: where adolescents live, study, and socialize (Huang et al., 2020). Estimating the simultaneous effects of school and neighborhood contexts on adolescent substance use is a growing area of research (Huang et al., 2020). For example, liquor store density around adolescents' homes has been correlated with binge drinking (Chen et al., 2010) and tobacco outlet density with cigarette use (Finan et al., 2019). Similarly, retail outlet density around schools has also been correlated with substance use: having vaping stores near high schools was associated with adolescent e-cigarette use (Giovenco et al., 2016). In addition to their presence, advertising related to these markets may also influence underage product use and perceptions of harm (Giovenco et al., 2016). Consistent with studies that have examined the influence of tobacco and alcohol advertising exposure on behaviors (DiFranza et al., 2006; Finan et al., 2020), recent studies of retail cannabis advertising exposure, both online and on storefronts, have shown associations with adolescent cannabis use (Fiala et al., 2020) and intentions to use (Hust et al., 2020).

Oregon was one of the first states to legalize adult use and establish a retail cannabis market, where legal sales began in October 2015. Unincorporated counties and cities within Oregon can prohibit cannabis retailers and manufactures from operating in their jurisdictions. After the first year of licensed cannabis retailers, 96% percent of the Oregon state population lived in a county with at least one retailer (Dilley, 2022). To protect youth, Oregon requires cannabis retailers to be at least 1000 feet (i.e., 0.19 miles) from schools, and restricts advertisements that appeal to children (e.g., ads that feature cartoons or images of minors) (Fiala et al., 2020). Previous work has demonstrated that county-level density of cannabis retailers in Oregon was associated with adolescent cannabis use (Paschall and Grube, 2020) and more than half of Oregon's 8th and 11th graders have seen cannabis advertising in the past month (Fiala et al., 2020). However, no study has simultaneously examined proximity of retailers from home and school environments and exposure to cannabis advertising as related to adolescent cannabis behaviors.

The present study is guided by developmental socio-ecological and life-course theories (e.g., Bronfenbrenner, 1977; Catalano and Hawkins, 1996; Elder, 1998) that recognize development is embedded in multiple interconnected contexts that may independently and jointly influence behaviors; moreover, the salience of these ecological contexts and the interactional associations among them and the developing individual can change over time. This theoretical framework has been used widely in the study of etiology of substance use behaviors (for review, see e.g., Nargiso et al., 2015; Trucco, 2020) as well as in the planning of prevention and intervention efforts aimed at reducing adolescent substance use and promoting adolescent health (e.g., (Catalano et al., 2012; Corbett, 2001; Hawkins et al., 1992). Regarding cannabis use, macro-level contexts that include societal forces such as state-level legalization of cannabis may influence other, more proximal, contexts such as schools and communities in which the lives of adolescents are embedded and which in turn may increase the risk of adolescent substance use (Catalano et al., 2018; Johnson and Guttmannova, 2019). For example, the commercialization of cannabis may influence adolescent use by increasing access to cannabis and variety of manufactured products near schools and their homes and also by promoting - through advertising beliefs that cannabis use is safe and normative (D'Amico et al., 2015; Lipperman-Kreda and Grube, 2018). The objective of this study is to assess whether multidimensional cannabis environment measures are

associated with youth cannabis use and perceptions of harm caused by cannabis. We hypothesize that 8th and 11th grade students who live or go to school near cannabis retailers and students who have reported seeing cannabis advertising on storefronts will be more likely to use manufactured cannabis products available in retail stores (e.g., edibles, vapes, concentrates) than students attending schools in different environments.

2. Methods

2.1. Data sources

This multi-level cross-sectional study drew from three existing data sources. First, Oregon Healthy Teens (OHT) is an anonymous, schoolbased survey administered to 8th and 11th grade students during oddnumbered school years (Oregon Health Authority, n.d.). Surveys are intended to monitor the health and well-being of Oregon youth and include questions specific to cannabis use. During the 2016-2017 school year, 84 Oregon school districts participated in the survey; representing 68% of the statewide population. When weighted, survey data are representative of all students in the state of Oregon. Our analysis used unweighted OHT data to understand how students' exposures to cannabis environment, at the school and school district level, were associated with cannabis outcomes. Second, addresses for licensed cannabis retail outlets were obtained from the Oregon Liquor Control Commission (OLCC), a state agency that regulates the market, on June 16th' 2017 (Oregon Liquor Control Commission, 2017). Third, we obtained school building addresses from the Oregon Department of Education (ODE) and school district demographic data from ODE's 2016-2017 School District Report Cards (Oregon Department of Education, 2019). This study was determined as exempt from review by the Oregon State Institutional Review Board.

2.2. Measures

We examined five cannabis-related outcomes: four modes of cannabis use (smoking, dabbing, eating (i.e., using edibles), and vaping) and perceived harm of cannabis use, which is a risk factor for future cannabis use. To assess modes of cannabis use, students who reported any cannabis use in the past 30 days were asked how they consumed cannabis (multiple responses were allowed so students could indicate all the ways they had used). We created a binary variable for each cannabis mode (1: used that mode 1+ times in the past 30 days, 0: did not use that mode in the past 30 days or did not use any cannabis in the past 30 days). Our fifth outcome was perceived harm (1: moderate or great risk, 0: slight or no risk), from responses to the question "How much do you think people risk harming themselves (physically or in other ways) if they use cannabis at least once or twice a week?" Dichotomizing the perceived harm outcomes aligns with reporting from the National Survey on Drug Use and Health (Mariani and Williams, 2021).

2.3. Cannabis retail environment measures

We developed two proximity-based measures—for school and community—and one advertising measure to capture different aspects of the Oregon retail cannabis environment in 2017. We relied on built environment, social ecology, and adolescent health research, including the roles of tobacco and cannabis retailers, to inform how we operationalized proximity to cannabis retailers from school and community. Prior work has used data-driven and contextual approaches to determine thresholds for calculating cannabis retailer exposure. Such methods include using percentiles to create cut points from the distribution of distances to outlets (e.g., categorized cannabis retailer access by ventiles (Everson et al., 2019)), counting the number of retailers at administrative spatial units (e.g. number of retailers within Portland, Oregon, neighborhoods (Firth et al., 2020a)), or proximity to a retailer by road

network distance (e.g., at least one retailer within 1 or 2 km, 0.6 to 1.2 miles, from home (Rhew et al., 2022)). Beyond cannabis research, built environment features, such as recreational facilities, that are within 2 km of home were correlated with youth physical activity (Loh et al., 2019), and tobacco outlets within 3/4 and 1 mile from home were associated with smoking frequency (Lipperman-Kreda et al., 2014). A walkable neighborhood includes amenities that are within a 1-mile or 20-min walk from home (Talen and Koschinsky, 2013). These studies were conducted in urban areas which may not be generalizable to youth living in rural communities. Data from the 2017 U.S. National Household Travel Survey points to differences in travel behaviors between youth living in urban and rural areas, such as, 29% of rural students walk to school when it's within a mile compared to 22% of urban students (Kontou et al., 2020). Based on these studies, we operationalized proximity as having at least one cannabis retailer within 1 mile from school or at the community-level, using a dichotomized measure in analysis. We chose a 1-mile buffer, as opposed to a shorter threshold, because half of the Oregon school districts included in our study were in rural counties (40/82 districts), where population and road network density is lower than in metropolitan areas.

The school-based measure approximated exposure to retailers around students' schools. Retailers' distance from school buildings was calculated from the minimum Euclidean distance between edge of school campus and cannabis retailer. Addresses were geocoded in Arc-GIS Pro, and the Near tool was used to calculate distance. Proximity to a school building was dichotomized as 1:<1 mile; $0:\ge 1$ miles. The school proximity measure was joined to OHT survey data by school.

The school district area (community) measure approximated exposure to retailers near students' homes. School district areas are catchment areas for Oregon public schools. Community proximity was assessed as the minimum distance to a cannabis retailer, on average, at the school district area-level. This method has been used previously to calculate zip code-level proximity to cannabis retailers (Everson et al., 2019). Community proximity was created with three steps. First, a grid of 5000 square-foot cells was overlaid on the state of Oregon and the minimum distance between the center of each grid cell and geocoded cannabis retailer was calculated. We used a 5000 square-foot resolution to create aggregate measures for different administrative spatial scales (e.g., school districts, zip codes) that do not align with census-defined boundaries (e.g., census tracts). Then, we joined 2010 U.S. Census data to weigh each grid cell by population. Finally, these weighted measures were aggregated to the school district-level and represent the average proximity of all grid cells across the district. The final variable was dichotomized as 1: average proximity was <1 mile and 0: average proximity ≥1 mile and linked to OHT survey data by school district.

Exposure to cannabis storefront advertising was based on the OHT question: had students seen "advertisement for marijuana products or stores: on a storefront or on the sidewalk (like signs or people wearing/waving signs)" in the past 30 days. Advertising exposure was coded '1' for students who reported seeing storefront advertisements and '0' for students who did not report seeing any advertisement or were unsure they had seen a relevant ad.

2.3.1. Socio-demographic characteristics

We adjusted for student gender (male, female, non-binary), race/ethnicity (non-Latinx white, Asian, Native Hawaiian/Pacific Islander, Black/African American, American Indian/Alaska Native, and multiracial, and Latinx), socioeconomic status, and whether an adult used cannabis at home in our multi-level logistic regression models. Student socioeconomic status was measured with the Family Affluence scale (Currie et al., 2008) by aggregating responses from four questions: whether the student's family owns a car, traveled on vacation in the past year, how many computers they own, and whether the student has their own bedroom. The distribution of the family affluence scale was divided into tertiles: ranging from "least" to "most" affluence.

We used ODE data to adjust for school district-level characteristics

that represent the environments where students lived, including proportion of students who are economically disadvantaged (i.e., students who are eligible for free or reduced lunch) and proportion of non-Latinx white students for each grade. We selected these two measures because cannabis retailers were more common in economically disadvantaged neighborhoods in Portland, Oregon (C. Firth et al., 2020), and students of color were more likely to receive exclusionary discipline compared to white students in Oregon (Burke and Nishioka, 2014) which may influence their willingness to respond to questions on substance use. In addition, we included a county density variable, based on whether the school district was within an urban or rural/frontier county, using the Oregon Office of Rural Health Geographic Definitions (Oregon Health & Science University, n.d.).

2.4. Statistical analysis

First, we described the socio-demographic characteristics of students using weighted data to be representative of students in the state. Then, we used unweighted survey data in multi-level logistic regression models to assess the relationships between cannabis retailer environment and our five cannabis outcomes. Survey weights are intended for statewide prevalence estimates and were not appropriate for our inferential analysis that examined individual-level cannabis outcomes within schools and school districts. We stratified our models by grade, because 8th grade students attended middle schools and 11th graders in high schools. In each model, we included the three cannabis retail environment measures and adjusted for individual-level socio-demographic (gender, race/ethnicity, socioeconomic status, adult used cannabis at home) and school district-level (% economically disadvantaged, % non-Latinx white, urban school district) covariates.

We included random intercepts at the school and school district levels to account for clustering between students within the same school and district and estimate the contextual effects of these environments. The results of our fixed effects are reported as prevalence odds ratios (PORs) and interpreted as the prevalence of each cannabis outcome among students exposed to each retail environment measure compared to students who were not exposed. We presented the school and school district level random intercepts on the logit scale and as median odds ratios (MOR) (Merlo et al., 2006), which can be interpreted like an odds ratio, and correspond to the median value of school and school district level residuals for each outcome. It helps to understand variation in outcomes that were not explained by other model covariates. A MOR >1.0 suggests that different environments, such as schools where cannabis use is more common, is correlated with the probability that a student would adopt the behavior.

In addition, we conducted sensitivity analyses that considered proximity to retailers from schools and at the school-district level at $\frac{1}{2}$ mile, $\frac{3}{4}$ mile, and 2 mile thresholds. All analyses were conducted in Stata/IC 15.1.

3. Results

Our study included 24,154 students who completed the 2016–2017 OHT survey and responded to question on cannabis use in the past 30 days (11.0% or 1628 8th graders and 8.1% or 965 11th graders skipped cannabis questions, see Supplemental Table 1 for analysis of missing survey data). Student demographic characteristics are summarized in Table 1.

Cannabis use in the past 30 days was more common among 11th grade students (20.3%) than 8th graders (6.5%). Smoking cannabis was the most common mode in both grades, 87.6% of 8th grade and 92.1% of 11th grade cannabis users smoked. Over 40% of cannabis users in either grade reported using manufactured products in the past 30 days (i.e., dabbing, using edibles, and/or vaping cannabis products, Table 2), and 86% of students who used manufactured cannabis products also smoked cannabis in the past month (data not shown). The most common

Table 1Demographic characteristics of Oregon 8th and 11th grade students who responded to cannabis questions on the Oregon Healthy Teens survey, 2016–2017.

	$8 th \ grade \ students \\ N = 13,224$		11th grade students $N = 10,930$	
Individual student characteristics	Unweighted count	Weighted %	Unweighted count	Weighted %
Gender				
Male	6111	45.9%	4945	45.4%
Female	6389	49.0%	5340	49.0%
Non binary/gender nonconforming	665	5.1%	613	5.7%
Race/ethnicity				
Non Latinx (NL) American Indian/ Alaska Native	493	3.6%	224	2.2%
NL Asian	517	4.1%	412	3.7%
NL Black/African American	280	2.2%	216	2.1%
NL Native Hawaiian/Pacific Islander	121	0.9%	92	0.9%
Latinx	3161	27.4%	2416	24.3%
NL Multiracial	520	4.1%	338	3.1%
NL White	7645	57.8%	6938	63.6%
Socio-economic stati				
1: Least affluence	1305	10.6%	990	9.8%
2	4047	32.4%	3722	35.0%
3: Most affluence	7511	56.9%	6051	55.2%
Adult use cannabis at home	2252	17.6%	2041	19.7%
Urban school district	9626	77.6%	7516	76.7%
Student	median	25th –	median	25th –
characteristics		75th		75th
within School Districts		percentile		percentile
% of non-Latinx	64%	(51%-	66%	(54%-
white students		77%)		78%)
% of students	53%	(42%–	45%	(38%–
enrolled in free and reduced		66%)		55%)
meals programs				

Note: Table 1 describes the student sample in the OHT 2016–2017 survey and uses state-level weights to report statewide prevalance estimates of each sociodemographic factor.

manufactured products used were edibles by 8th graders and dabs by 11th graders. Most 8th grade students perceived cannabis use as harmful (62.7%), and about half of 11th graders (48.1%).

The average distance between a school and cannabis retailer in Oregon during 2017 was 8.7 miles (range: 0.3 miles to 159.6 miles, data not shown). Using the community proximity measure, students lived an average of 6.3 miles from a retailer (range: 0.5 miles to 117.6 miles, data not shown). There was no pattern in retail proximity by grade: 31.8% of 8th grade students and 32.1% of 11th graders had a cannabis retailer within 1 mile of their school, and about half as many lived in communities where cannabis retailers were within 1 mile of homes (15.3% among 8th grade and 12.1% among 11th grade students, Table 2). Seeing storefront cannabis advertising was more common than living or going to school near a retailer; 35.9% of 8th grade students and 41.5% of 11th grade students reported seeing advertising in the past 30 days.

3.1. Associations for 8th grade students

None of the five cannabis outcomes were significantly associated with middle schools that had a cannabis retailer within 1 mile away (Table 3, full model results in Supplemental Table 2). Though, community proximity was associated with perceiving cannabis as less harmful (POR: 0.79, 95% CI: 0.66,0.94). Exposure to cannabis storefront

Table 2Cannabis outcomes and cannabis retail environment measures, Oregon 8th and 11th grade students, 2016–17 school year.

	8th grade		11th grade	
	Unweighted count	Unweighted %	Unweighted count	Unweighted %
Cannabis outcomes	s			
Used any cannabis in the past 30 days	855	6.5%	2224	20.3%
Manufactured cannabis product use (any)	375	2.8%	933	8.5%
Ate	237	1.8%	534	4.9%
Dabbed	202	1.5%	575	5.3%
Vaped	123	0.9%	246	2.3%
Smoked cannabis	749	5.7%	2049	18.7%
Used 2+ cannabis modes in past 30 days	314	2.4%	814	7.5%
Smoked + manufactured cannabis use	312	2.4%	809	7.5%
Used 2+ manufactured cannabis modes and did not smoke	63	0.5%	124	1.1%
No cannabis use in past 30 days	12,369	93.5%	8706	79.7%
Perceived regular cannabis use as harmful	7763	62.7%	5054	48.1%
Cannabis retail env	vironment expos	ures		
School building proximity: < 1 mile to retailer	4163	31.8%	3475	32.1%
School district area (community) proximity: < 1 mile to retailer	2020	15.3%	1326	12.1%
Self reported storefront cannabis ad exposure	4754	35.9%	4541	41.5%

advertising was associated with all five outcomes; the prevalence of using edibles, dabbing, or vaping cannabis was almost twice as high for students who reported seeing advertising compared to students who did not see advertising (used edibles POR: 1.80, 95% CI: 1.34,2.42; dabbed POR: 1.94, 95% CI: 1.40,2.69; vaped POR: 1.85, 95% CI: 1.23,2.78). Advertising exposure was also associated with smoking cannabis (POR: 1.31, 95% CI: 1.11,1.55) and perceiving cannabis as less harmful (POR: 0.87, 95% CI: 0.80,0.95).

The residual heterogeneity between schools, as measured by MOR, was 1.83 in the edible model (Table 3) and can be interpreted as similar students may be nearly twice as likely to use edibles if they are in a school where edible use was more common. Similarly, school environment was associated with smoking, dabbing, and perception of harm, but not vaping.

3.2. Associations for 11th grade students

The prevalence of 11th grade students using edibles, dabbing, and smoking cannabis, but not vaping, were significantly associated with having a cannabis retailer within one mile of high school (Table 4, full

Table 3Associations between cannabis outcomes and retail environment exposures, Oregon 8th grade students, 2016–2017^a.

	Consumed cannabis edibles	Dabbed cannabis	Vaped cannabis	Smoked cannabis	Moderate/great risk
School building proximity: < 1 mile to retailer (POR)	1.00 (0.62–1.61)	0.87 (0.56-1.35)	1.21 (0.80-1.84)	0.86 (0.63-1.17)	0.98 (0.85–1.12)
School district area (community) proximity: < 1 mile to retailer (POR)	1.30 (0.62–2.76)	1.40 (0.73–2.66)	0.98 (0.54–1.80)	1.44 (0.96–2.15)	0.79 (0.66–0.94)
Self reported storefront cannabis ad exposure (POR)	1.80 (1.34-2.42)	1.94	1.85	1.31	0.87 (0.80-0.95)
		(1.40-2.69)	(1.23-2.78)	(1.11-1.55)	
School-level (MOR) ^b	1.83 (1.44-2.72)	1.53 (1.22-2.45)	•	1.62 (1.45-1.85)	1.22 (1.15-1.31)

Note: results of each model are presented as Prevalence Odds Ratio (POR) (95% Confidence Interval). Bold results indicate statistical significance (p-value <0.05).

a Each model was adjusted for student covariates (gender, race/ethnicity, socio-economic status, adult used cannabis at home) and school-district covariates (% non-

Table 4Associations between cannabis outcomes and retail environment exposures, Oregon 11th grade students, 2016–2017^a.

Latinx white students, % economically disadvantaged students, urban school district). Full models are in supplemental materials.

	Consumed cannabis edibles	Dabbed cannabis	Vaped cannabis	Smoked cannabis	Moderate/great risk
School building proximity: < 1 mile to retailer (POR)	1.45 (1.05–1.98)	1.43 (1.11–1.83)	1.05 (0.73–1.52)	1.43 (1.14–1.78)	0.71 (0.61–0.83)
School district area (community) proximity: < 1 mile to retailer (POR)	0.71 (0.43–1.17)	0.75 (0.51–1.10)	1.09 (0.65–1.83)	0.87 (0.61–1.23)	1.27 (1.01–1.60)
Self reported storefront cannabis ad exposure (POR)	1.40 (1.15–1.70)	1.39 (1.15–1.68)	1.45 (1.10–1.92)	1.09 (0.97–1.21)	1.06 (0.97–1.16)
School-level (MOR) ^b	1.55 (1.38–1.81)	1.27 (1.13–1.61)	1.37 (1.17–1.88)	1.42 (1.27–1.67)	1.24 (1.17–1.34)

Note: results of each model are presented as Prevalence Odds Ratio (POR) (95% Confidence Interval). Bold results indicate statistical significance (p-value <0.05).

model results in Supplemental Table 3). Specifically, the prevalence of using edibles was 45% higher and dabbing and smoking cannabis were 43% higher among students who attended a high school within 1 mile from a cannabis retailer. Students also perceived cannabis as less harmful when there was a retailer within 1 mile from their high school (POR: 0.71, 95% CI: 0.61,0.83), although the opposite relationship was observed with community proximity (POR: 1.27, 95% CI: 1.01,1.60). Exposure to storefront cannabis advertising was associated with using edibles, dabbing, and vaping cannabis (POR: 1.40, 95% CI: 1.15,1.70; POR: 1.39, 95% CI: 1.15,1.68; POR: 1.45, 95% CI: 1.10,1.92, respectively), but not smoking or perceptions of harm.

The MOR for schools exceeded 1 in all models, which suggested that normative school environments—schools where students were more likely to engage in cannabis outcomes or perceive cannabis as less harmful—could influence a student's behavior, even after adjustment for measured cannabis retail environment factors.

3.3. Sensitivity analyses

Relationships between cannabis proximity measures, at the school and school district (community) level, and cannabis outcomes fluctuated with the addition of more restrictive (½ mile and ¾ mile) and less restrictive (2 mile) thresholds. There were 9 schools and 1 community with at least one retailer within ½ mile and 40 schools and 2 communities with a retailer within ¾ mile. Roughly, 60% of our student sample attended school or lived in a community within two miles from a retailer. There were no correlations between school or community level proximity and cannabis outcomes for 8th graders at the ½, ¾, or 2 mile thresholds, this is consistent with results using 1 mile threshold; except for a positive correlation between retailers within ½ mile of school and consuming edibles (POR: 2.63, 95% CI: 1.10,6.30) (Supplemental Table 4). For 11th graders, more restrictive buffers were generally consistent with using a 1-mile threshold; smoking cannabis and

consuming edibles were positively correlated with school (at ½ and ¾ mile thresholds) and community proximity (at ½ mile threshold) (Supplemental Table 5). Though, the link between dabbing and school proximity at the 1-mile level was not observed in sensitivity analyses. Perceived harm of cannabis was negatively correlated with community proximity at the ½ mile threshold and school proximity within ¾ and 2 miles.

4. Discussion

This is the first study to simultaneously consider the links between adolescent cannabis behaviors and various aspects of cannabis retail environment, namely exposure to storefront advertising and access to cannabis retailers at multiple spatial scales. We accounted for students living and attending school near cannabis retailers and examined how these relationships varied by student grade. Furthermore, this study examined use of manufactured cannabis products, which were made more common by the commercialized cannabis industry.

Different aspects of the cannabis retail environment were relevant at different grades. For younger students, community advertising may be a crucial factor. Cannabis use was uncommon among Oregon 8th graders but is slightly higher than national trends (using weighted data for 2017, 7% of Oregon 8th graders reported current cannabis use compared to 6% among 14 and 15 year olds, nationally)(Oregon Public Health Division, 2019; Substance Use and Mental Health Administration, 2019). The national average age for initiating cannabis use is 10th grade (Richmond-Rakerd et al., 2017), yet eighth graders were more likely to smoke, use edibles, dab, or vape cannabis if they had seen storefront advertising in the past month, but living or going to school near a cannabis retailer was not associated with any particular mode of cannabis use. The absence of associations between proximity to retailers and cannabis outcomes was unexpected, but it demonstrates that the presence of cannabis retailers, after adjustment for advertisement

^b The median value of school-level residuals in each model is reported as the Median Odds Ratio (MOR) and is interpreted like an odds ratio that represent the probability of a cannabis outcome attributed to the school environment.

^a Each model was adjusted for student covariates (gender, race/ethnicity, socio-economic status, adult used cannabis at home) and school-district covariates (% non-Latinx white students, % economically disadvantaged students, urban school district). Full models are in supplemental materials.

^b The median value of school-level residuals in each model is reported as the Median Odds Ratio (MOR) and is interpreted like an odds ratio that represent the probability of a cannabis outcome attributed to the school environment.

exposure, may not influence 8th grade cannabis use. In addition, our sensitivity analyses supported these findings, with the exception that 8th graders who attended schools within $\frac{1}{2}$ mile of a retailer had a higher prevalence of consuming edibles. This finding extends those from a study on medical marijuana advertising which showed that advertising exposure was associated with intentions to use and cannabis use among middle school students(D'Amico et al., 2015). In another study, retail cannabis advertising has been associated with adolescents (13–17 years old) intentions to use cannabis, particularly among adolescents who lived near a cannabis retailer (Hust et al., 2020).

In contrast, 11th graders who attended high school within 1 mile from a cannabis retailer were more likely to use edibles, dab, or smoke cannabis. These findings were consistent with our hypothesis, proximity to retailers would be associated with higher prevalence of cannabis outcomes. In sensitivity analysis, high schools that were within $\frac{1}{2}$ or $\frac{3}{4}$ mile from retailers was also positively correlated with 11th graders consuming edibles and smoking cannabis. Cannabis advertising was not associated with smoking cannabis or perceived harm among 11th graders. Oregon law requires cannabis retailers to be > 1000 feet from schools (Dilley et al., 2016), yet students still used edibles, dabbed and vaped cannabis which require concentrated products that are sold by cannabis retailers. Existing studies are mixed; evidence from Colorado showed no association between cannabis use and retailers within 2 miles of schools (Harpin et al., 2018) while a study in Los Angeles showed frequent use of concentrated cannabis products (e.g., waxes used for dabbing) even before cannabis retailers were legally operating (Barrington-Trimis et al., 2020). Of note, cannabis use among 11th grade Oregon students is substantially higher than national estimates, using weighted data from 2017, 21% of Oregon 11th graders reported using in the past 30 days compared to 13% among 16 and 17 year olds, nationally, which may affect the generalizability of our study findings outside of Oregon (Oregon Public Health Division, 2019; Substance Use and Mental Health Administration, 2019). Grade differences may be driven by changes in socializing over the course of adolescence that influence cannabis use (Guttmannova et al., 2019), but longitudinal studies are needed to disentangle how this relates to cannabis environment exposures and specific modes of cannabis use.

Having a retailer near home, as measured in our study, was not associated with any mode of cannabis use, except in sensitivity analyses of ½ mile, having a retailer near home was positively correlated with 11th grade edible use and smoking cannabis-exposure was rare, 3.2% of students lived with a retailer within ½ mile. It is possible that our community proximity measure did not adequately capture exposure near homes, or alternatively that it does not contribute meaningfully after inclusion of school proximity. Though, prior work has shown that having a retailer within 1-km, or 0.6 miles, of home was associated with perceived cannabis access and use among young adults living in Washington state (Rhew et al., 2022). However, 8th graders who lived near a cannabis retailer perceived cannabis as less harmful than students who lived farther from retailers (Lipari et al., 2016). This finding is supported by previous ecological studies which found that Oregon counties with licensed cannabis retailers had more students who used cannabis in the past 30 days (Paschall and Grube, 2020) and time-varying proximity to cannabis retailers at the zipcode-level was associated with increased adult cannabis use in Washington state after legalization (Everson et al., 2019).

Our study examined different dimensions of "risky behaviors" for youth rather than "any cannabis use" alone. We examined use of manufactured cannabis products because they are both increasingly available in legal cannabis outlets and pose potentially more health risks for adolescents than using dried cannabis flower due to higher THC concentration. Our finding that using these specific products increased with exposure to retail environments supports the concern that retail environments are influencing not only any underage cannabis use, but also riskier use behaviors. Though we did not assess how youth obtained different cannabis products, our findings suggest that legal efforts to

curb youth exposure through land use and advertisement restrictions may not be enough to prevent youth from using cannabis products that are sold in licensed adult-use retailers. We also examined perceived harm because reductions in perception of harm from cannabis use are associated with future likelihood of use. In our study, community proximity to cannabis retailers was linked to reduced perceptions of risk among younger students, but increased perceptions of risk among older students. This paradox could be explained by education efforts targeted toward high school students in communities with cannabis markets, or it may be spurious. Future studies should examine consumption patterns in more detail (e.g., days used per month) to further inform understanding about how retail environments affect youths' perceptions of risk and subsequent behavior choices.

Data collection for our study took place during the 2016-17 school year, one year after legal retail sales began in Oregon (October 2015). Other studies have documented that reported exposure to cannabis marketing was very prevalent among young people at this time (Fiala et al., 2020). One consideration when interpreting our study's findings is that data collection occurred when the market was still relatively "new"; thus, advertising from this nascent industry may be more noticeable. The influence of cannabis retail markets on youth may change as the market becomes more established. Further study in different settings and over time is needed.

4.1. Limitations

Some limitations need to be considered when interpreting the findings of our study. First, the cross-sectional design limits the ability to infer a temporal relationship between cannabis retail environment and underage cannabis use and perceptions of harm. For example, students who already use cannabis may be more likely to notice cannabis advertising compared to students who do not use, or more cannabis retailers may be in areas with higher underage cannabis use. Second, licensed retailers are likely not the only source of cannabis for youth. Despite efforts to eliminate prominent unlicensed cannabis retailers, illicit markets are difficult to monitor. In addition, Oregon allows for adults (21+ years) to grow cannabis at home and store useable product, which could be another unmeasured source for youth (Dilley et al., 2016). Influence of these other sources would likely have attenuated our findings. Third, we relied on students to self-report cannabis use, and students may be less forthcoming given that underage cannabis use is illegal. Using school-based survey data also limits the generalizability of findings. Youth who have dropped out of school or are institutionalized are excluded from the OHT survey and are also at higher risk of substance use (Tice, 2013). Last, modeling specific modes of cannabis use, particularly for rare outcomes like vaping (less than 2% of students reported vaping in the past 30 days), may have contributed to the wide confidence intervals of our estimates.

There is no 'gold standard' for calculating GIS-based cannabis retailer exposures or proximity measures. Different contexts, across places and populations, will likely require different distance-based thresholds. For example, larger buffers may be more relevant in studies among young adults because the size of activity spaces tend to decline with age (Morency et al., 2011). While car-dependent metropolitan areas may rely on thresholds derived from driving times, whereas areas with greater population and amenity density may use road network buffers, at relatively smaller spatial scales. Despite work in this area being heterogeneous, our study adds two contributions: 1) measuring proximity to cannabis retailers at two spatial scales, representing different environmental contexts that influence adolescent behaviors (Johnson and Guttmannova, 2019), and 2) including sensitivity analyses, using different distance-based thresholds, to assess the robustness of our findings.

5. Conclusion

We found that exposure to Oregon's cannabis retail environment was correlated with adolescent cannabis use and beliefs in 2017, including specifically use of manufactured cannabis products that are becoming common in a legal cannabis market. Younger student cannabis use was most often linked to cannabis advertising exposure, while older student cannabis use was more common among students who attended high schools within 1 mile from a cannabis retailer. These findings have direct implications for policy makers as they develop rules for where cannabis retailers operate and how they are allowed to advertise, while also protecting the health of youth. Furthermore, findings related to youths' perception of harm suggest that prevention and intervention efforts should include education about the effects of cannabis use and specific products on adolescents.

Declaration of competing interest

The authors report no declarations of interest.

Acknowledgements

The authors wish to acknowledge Julie E. Maher, PhD, Director of Program Design & Evaluation Services (PDES), Multnomah County Health Department & Oregon Public Health Division for their critical review of the article. We would also like to thank Curtis E. Mack, Looking Glass Analytics, and Susan M Richardson, PDES, for assembling cannabis retailer data.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.healthplace.2022.102795.

References

- Barrington-Trimis, J., Cho, J., Ewusi-Boisvert, E., Hasin, D., Unger, J.B., Miech, R.A., Adam, M., Leventhal, P., 2020. Risk of persistence and progression of use of 5 cannabis products after experimentation among adolescents. JAMA Netw. Open 3. https://doi.org/10.1001/jamanetworkopen.2019.19792.
- Bostean, G., Crespi, C.M., Vorapharuek, P., McCarthy, W.J., 2016. E-cigarette use among students and e-cigarette specialty retailer presence near schools. Health Place 42, 129–136. https://doi.org/10.1016/j.healthplace.2016.09.012.
- Bronfenbrenner, U., 1977. Toward an experimental ecology of human development. Am. Psychol. 32.
- Burke, A., Nishioka, V., 2014. Suspension and Expulsion Patterns in Six Oregon School Districts Key Findings.
- Cao, D., Srisuma, S., Bronstein, A.C., Hoyte, C.O., 2016. Characterization of edible marijuana product exposures reported to United States poison centers. Clin. Toxicol. 54, 840–846. https://doi.org/10.1080/15563650.2016.1209761.
- Catalano, R.F., Fagan, A.A., Gavin, L.E., Greenberg, M.T., Irwin, C.E., Ross, D.A., Shek, D. T., 2012. Worldwide application of prevention science in adolescent health. Lancet 379, 1653–1664. https://doi.org/10.1016/S0140-6736(12)60238-4.
- Catalano, R.F., Hawkins, J.D., 1996. The social development model: a theory of antisocial behavior. In: Cambridge Criminology Series. Delinquency and Crime: Current Theories. Cambridge University Press, pp. 149–197.
- Catalano, R.F., Speaker, E.C., Skinner, M.L., Bailey, J.A., Hong, G., Haggerty, K.P., Guttmannova, K., Harrop, E.N., 2018. Risk factors for adolescent marijuana use. In: Contemporary Health Issues on Marijuana. Oxford University Press, pp. 219–235. https://doi.org/10.1093/med-psych/9780190263072.003.0009.
- Cederbaum, J.A., Petering, R., Katherine Hutchinson, M., He, A.S., Wilson, J.P., Jemmott, J.B., Sweet Jemmott, L., 2015. Alcohol outlet density and related use in an urban Black population in Philadelphia public housing communities. Health Place 31, 31–38. https://doi.org/10.1016/j.healthplace.2014.10.007.
- Cerdá, M., Mauro, C., Hamilton, A., Levy, N.S., Santaella-Tenorio, J., Hasin, D., Wall, M. M., Keyes, K.M., Martins, S.S., 2020. Association between recreational marijuana legalization in the United States and changes in marijuana use and cannabis use disorder from 2008 to 2016. JAMA Psychiatr. 77, 165–171. https://doi.org/10.1001/JAMAPSYCHIATRY.2019.3254.
- Chen, M., Grube, J.W., Gruenewald, P.J., 2010. Community alcohol outlet density and underage drinking Meng-Jinn. Addiction 105, 270–278. https://doi.org/10.1111/ j.1360-0443.2009.02772.x.Community.
- Corbett, K.K., 2001. Susceptibility of youth to tobacco: a social ecological framework for prevention. Respir. Physiol. 128, 103–118. https://doi.org/10.1016/S0034-5687 (01)00269-9.

- Currie, C., Molcho, M., Boyce, W., Holstein, B., Torsheim, T., Richter, M., 2008.
 Researching health inequalities in adolescents: the development of the health behaviour in school-aged children (HBSC) family affluence scale. Soc. Sci. Med. 66, 1429–1436. https://doi.org/10.1016/j.socscimed.2007.11.024.
- D'Amico, E.J., Miles, J.N.V., Tucker, J.S., 2015. Gateway to curiosity: medical marijuana ads and intention and use during middle school. Psychol. Addict. Behav. 29, 613–619. https://doi.org/10.1037/adb0000094.
- DiFranza, J.R., Wellman, R.J., Sargent, J.D., Weitzman, M., Hipple, B.J., Winickoff, J.P., 2006. Tobacco promotion and the initiation of tobacco use: assessing the evidence for causality. Pediatrics. https://doi.org/10.1542/peds.2005-1817.
- Dilley, J., 2022. From Gray Market to Green: Describing Changes in Cannabis Outlet Distribution between Washington State's Unregulated Medical Market and Legal Retail Market.
- Dilley, J., Fiala, S., Everson, E., Firth, C., Maher, J., 2016. Marijuana Report. OR,
- Dilley, J.A., Graves, J.M., Brooks-Russell, A., Whitehill, J.M., Liebelt, E.L., 2021. Trends and characteristics of manufactured cannabis product and cannabis plant product exposures reported to US poison Control centers, 2017-2019. JAMA Netw. Open 4, e2110925. https://doi.org/10.1001/JAMANETWORKOPEN.2021.10925 e2110925.
- Elder, G.H., 1998. The life course as developmental theory. Child Dev. 69, 1. https://doi. org/10.2307/1132065.
- Everson, E.M., Dilley, J.A., Maher, J.E., Mack, C.E., 2019. Post-legalization opening of retail cannabis stores and adult cannabis use in Washington state, 2009-2016. Am. J. Publ. Health 109, 1294–1301. https://doi.org/10.2105/AJPH.2019.305191.
- Fertig, N., Zhang, M., 2020, 1 in 3 Americans now lives in a state where recreational marijuana is legal POLITICO [WWW Document]. Politico. URL. https://www.politico.com/news/2020/11/04/1-in-3-americans-lives-where-recreational-marijuana-legal-434004. (Accessed March 2020).
- Fiala, S.C., Dilley, J.A., Everson, E.M., Firth, C.L., Maher, J.E., 2020. Youth exposure to marijuana advertising in Oregon's legal retail marijuana market. Prev. Chronic Dis. https://doi.org/10.5888/PCD17.190206.
- Finan, L.J., Lipperman-Kreda, S., Abadi, M., Grube, J.W., Kaner, E., Balassone, A., Gaidus, A., 2019. Tobacco outlet density and adolescents' cigarette smoking: a metaanalysis. Tobac. Control 28, 27–33. https://doi.org/10.1136/tobaccocontrol-2017-054065.
- Finan, L.J., Lipperman-Kreda, S., Grube, J.W., Balassone, A., Kaner, E., 2020. Alcohol marketing and adolescent and young adult alcohol use behaviors: a systematic review of cross-sectional studies. J. Stud. Alcohol Drugs 42–56. https://doi.org/ 10.15288/jsads.2020.s19.42. Supplement Sup. 19.
- Firth, C., Carlini, B., Dilley, J., Hajat, A., 2020a. What about equity? Neighborhood deprivation and cannabis retailers in Portland, Oregon. Cannabis 3. https://doi.org/ 10.26828/cannabis.2020.02.003.
- Firth, C.L., Davenport, S., Smart, R., Dilley, J.A., 2020b. How high: differences in the developments of cannabis markets in two legalized states. Int. J. Drug Pol. 75 https://doi.org/10.1016/j.drugpo.2019.102611.
- Giovenco, D.P., Casseus, M., Duncan, D.T., Coups, E.J., Lewis, M.J., Delnevo, C.D., 2016. Association between electronic cigarette marketing near schools and E-cigarette use among youth. J. Adolesc. Health 59, 627–634. https://doi.org/10.1016/j. iadohealth.2016.08.007.
- Gobbi, G., Atkin, T., Zytynski, T., Wang, S., Askari, S., Boruff, J., Ware, M., Marmorstein, N., Cipriani, A., Dendukuri, N., Mayo, N., 2019. Association of cannabis use in adolescence and risk of depression, anxiety, and suicidality in young adulthood: a systematic review and meta-analysis. JAMA Psychiatr. 76, 426–434. https://doi.org/10.1001/JAMAPSYCHIATRY.2018.4500.
- Guttmannova, K., Skinner, M.L., Oesterle, S., White, H.R., Catalano, R.F., Hawkins, J.D., 2019. The interplay between marijuana-specific risk factors and marijuana use over the course of adolescence. Prev. Sci. 20, 235–245.
- Hammond, D., Goodman, S., 2020. Knowledge of Tetrahydrocannabinol and Cannabidiol Levels Among Cannabis Consumers in the United States and Canada. Cannabis and Cannabinoid Research. https://doi.org/10.1089/can.2020.0092.
- Harpin, S.B., Brooks-Russell, A., Ma, M., James, K.A., Levinson, A.H., 2018. Adolescent marijuana use and perceived ease of access before and after recreational marijuana implementation in Colorado. Subst. Use Misuse 53. https://doi.org/10.1080/ 10826084.2017.1334069.
- Hawkins, J.D., Catalano, R.F., Miller, J.Y., 1992. Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: implications for substance abuse prevention. Psychol. Bull. 112, 64–105. https://doi.org/10.1037/ 0033-2909.112.1.64.
- Huang, Y., Edwards, J., Laurel-Wilson, M., 2020. The shadow of context: neighborhood and school socioeconomic disadvantage, perceived social integration, and the mental and behavioral health of adolescents. Health Place 66. https://doi.org/10.1016/j. healthplace.2020.102425.
- Hust, S.J.T., Willoughby, J.F., Li, J., Couto, L., 2020. Youth's proximity to marijuana retailers and advertisements: factors associated with Washington state adolescents' intentions to use marijuana. J. Health Commun. https://doi.org/10.1080/ 10810730.2020.1825568.
- Johnson, R.M., Guttmannova, K., 2019. Marijuana Use Among Adolescents and Emerging Adults in the Midst of Policy Change: Introduction to the Special Issue. Prevention Science. https://doi.org/10.1007/s11121-019-0989-7.
- Kim, H.S., Monte, A.A., 2016. Colorado cannabis legalization and its effect on emergency care. Ann. Emerg. Med. 68, 71–75. https://doi.org/10.1016/j. annemergmed.2016.01.004.
- Kontou, E., McDonald, N.C., Brookshire, K., Pullen-Seufert, N.C., LaJeunesse, S., 2020. U. S. active school travel in 2017: prevalence and correlates. Preventive Medicine Reports 17, 101024. https://doi.org/10.1016/J.PMEDR.2019.101024.

- Lipari, R.N., Williams, M.R., Copello, E.A.P., Pemberton, M.R., 2016. Risk and Protective Factors and Estimates of Substance Use Initiation: Results from the 2015 National Survey on Drug Use and Health. CBHSQ Data Review.
- Lipperman-Kreda, S., Grube, J.W., 2018. Impacts of Marijuana Commercialization on Adolescents' Marijuana Beliefs, Use, and Co-use with Other Substances. https://doi. org/10.1016/j.jadohealth.2018.05.003.
- Lipperman-Kreda, S., Mair, C., Grube, J.W., Friend, K.B., Jackson, P., Watson, D., 2014. Density and proximity of tobacco outlets to homes and schools: relations with youth cigarette smoking. Prev. Sci. 15, 738–744. https://doi.org/10.1007/S11121-013-0442-2/TABLES/2.
- Loh, V.H.Y., Veitch, J., Salmon, J., Cerin, E., Thornton, L., Mavoa, S., Villanueva, K., Timperio, A., 2019. Built environment and physical activity among adolescents: the moderating effects of neighborhood safety and social support. Int. J. Behav. Nutr. Phys. Activ. 16, 1–8. https://doi.org/10.1186/S12966-019-0898-Y/FIGURES/1.
- Mariani, A.C., Williams, A.R., 2021. Perceived risk of harm from monthly cannabis use among US adolescents: national Survey on drug Use and Health. Preventive Medicine Reports 23. https://doi.org/10.1016/j.pmedr.2021.101436, 2017.
- Mennis, J., 2020. Trends in adolescent treatment admissions for marijuana in the United States, 2008–2017. Prev. Chronic Dis. 17 https://doi.org/10.5888/ pcd17.200156external icon.
- Merlo, J., Chaix, B., Ohlsson, H., Beckman, A., Johnell, K., Hjerpe, P., Råstam, L., Larsen, K., 2006. A brief conceptual tutorial of multilevel analysis in social epidemiology: using measures of clustering in multilevel logistic regression to investigate contextual phenomena. J. Epidemiol. Community Health 60, 290–297. https://doi.org/10.1136/jech.2004.029454.
- Morency, C., Paez, A., Roorda, M.J., Mercado, R., Farber, S., 2011. Distance traveled in three Canadian cities: spatial analysis from the perspective of vulnerable population segments. J. Transport Geogr. 19 https://doi.org/10.1016/j.jtrangeo.2009.09.013.
- Nargiso, J.E., Ballard, E.L., Skeer, M.R., 2015. A systematic review of risk and protective factors associated with nonmedical use of prescription drugs among youth in the United States: a social ecological perspective. J. Stud. Alcohol Drugs 76.
- Oregon Department of Education, 2019. Media Page [WWW Document]. URL. https://www.ode.state.or.us/data/reportcard/Media.aspx. (Accessed 4 September 2019).
- Oregon Health & Science University. n.d. Oregon Office of rural health [WWW Document]. URL. https://www.ohsu.edu/xd/outreach/oregon-rural-health/about-rural-frontier/index.cfm. (Accessed 17 January 2019).

- Oregon Health Authority, n.d. Oregon Healthy Teen 2017 Results [WWW Document]. URL healthoregon.org/oht (accessed 5.20.18).
- Oregon Liquor Control Commission, 2017. Active Marijuana Retail Licenses Approved as of 3/10/2017 [WWW Document]. URL. https://www.oregon.gov/olcc/marijuana/Documents/Approved_Retail_Licenses.pdf. (Accessed 14 March 2017).
- Oregon Public Health Division, 2019. Youth Marijuana Use, Attitudes and Related Behaviors in Oregon, Portland.
- Paschall, M.J., Grube, J.W., 2020. Recreational marijuana availability in Oregon and use among adolescents. Am. J. Prev. Med. 58, e63–e69. https://doi.org/10.1016/j. amepre.2019.09.020.
- Raber, J.C., Elzinga, S., Kaplan, C., 2015. Understanding dabs: contamination concerns of cannabis concentrates and cannabinoid transfer during the act of dabbing. J. Toxicol. Sci. 40, 797–803. https://doi.org/10.2131/jts.40.797.
- Rhew, I.C., Guttmannova, K., Kilmer, J.R., Fleming, C.B., Hultgren, B.A., Hurvitz, P.M., Dilley, J.A., Larimer, M.E., 2022. Associations of cannabis retail outlet availability and neighborhood disadvantage with cannabis use and related risk factors among young adults in Washington State. Drug Alcohol Depend. 232, 109332. https://doi. org/10.1016/J.DRUGAL.CDEP.2022.109332.
- Richmond-Rakerd, L.S., Slutske, W.S., Wood, P.K., 2017. Age of initiation and substance use progression: a multivariate latent growth analysis. Psychol. Addict. Behav. 31 https://doi.org/10.1037/adb0000304.
- Substance Use and Mental Health Administration, 2019. Results from the 2017 National Survey on Drug Use and Health: Detailed Tables [WWW Document].
- Talen, E., Koschinsky, J., 2013. The walkable neighborhood: a literature review. International Journal of Sustainable Land Use and Urban Planning 1. https://doi.org/10.24102/jislup.v1i1.211.
- Tice, P., 2013. Substance use among 12th grade Aged youths by dropout status. The CBHSQ Report 1–10.
- Tormohlen, K.N., Schneider, K.E., Johnson, R.M., Ma, M., Levinson, A.H., Brooks-Russell, A., 2019. Changes in prevalence of marijuana consumption modes among Colorado high school students from 2015 to 2017. JAMA Pediatr. https://doi.org/ 10.1001/jamapediatrics.2019.2627.
- Trucco, E.M., 2020. A review of psychosocial factors linked to adolescent substance use. Pharmacol. Biochem. Behav. 196.
- van der Steur, S.J., Batalla, A., Bossong, M.G., 2020. Factors moderating the association between cannabis use and psychosis risk: a systematic review. Brain Sci. 10, 97. https://doi.org/10.3390/brainsci10020097.

Preventing Drug Use among Children and Adolescents



for Parents, Educators, and Community Leaders

Second Edition



Preventing Drug Use

among Children and Adolescents

A Research-Based Guide

for Parents, Educators, and Community Leaders

Second Edition



Acknowledgments

NIDA wishes to thank the following individuals for their guidance and comments during the development and review of this publication:

Karen L. Bierman, Ph.D. Pennsylvania State University

C. Hendricks Brown, Ph.D. University of South Florida

Richard R. Clayton, Ph.D. University of Kentucky

Thomas J. Dishion, Ph.D. University of Oregon

E. Michael Foster, Ph.D. Pennsylvania State University

Meyer D. Glantz, Ph.D. National Institute on Drug Abuse

Mark T. Greenberg, Ph.D. Pennsylvania State University Hyman Hops, Ph.D. Oregon Research Institute

Eugene R. Oetting, Ph.D. Colorado State University

Zili Sloboda, Sc.D. University of Akron

Richard Spoth, Ph.D. Iowa State University

John B. Reid, Ph.D.

Oregon Social Learning Center

Thomas A. Wills, Ph.D.

Albert Einstein College of Medicine

NIDA also would like to thank the Community Anti-Drug Coalitions of America for helping organize a focus group of community leaders in reviewing this publication.

This publication was written by Elizabeth B. Robertson, Ph.D., Susan L. David, M.P.H. (retired), and Suman A. Rao, Ph.D., National Institute on Drug Abuse.

All materials in this volume are in the public domain and may be used or reproduced without permission from NIDA or the authors. Citation of the source is appreciated.

The U.S. government does not endorse or favor any specific commercial product or company. Trade, proprietary, or company names appearing in the publication are used only because they are considered essential in the context of the studies described here.

NIH Publication No. 04-4212(A) Printed 1997 Reprinted 1997, 1999, 2001 Second Edition October 2003

Contents

Acknowledgments	ii
Preface	V
Introduction	1
Prevention Principles	2
Chapter 1: Risk Factors and Protective Factors	6
What are risk factors and protective factors?	6
What are the early signs of risk that may predict later drug abuse?	8
What are the highest risk periods for drug abuse among youth?	9
When and how does drug abuse start and progress?	10
Chapter 2: Planning for Drug Abuse Prevention in the Community	12
How can the community develop a plan for research-based prevention?	12
How can the community use the prevention principles in prevention planning?	12
How can the community assess the level of risk for drug abuse?	14
Is the community ready for prevention?	15
How can the community be motivated to implement research-based prevention programs?	16
How can the community assess the effectiveness of current prevention efforts?	17
Chapter 3: Applying Prevention Principles to Drug Abuse Prevention Programs	18
How are risk and protective factors addressed in prevention programs?	18
What are the core elements of effective research-based prevention programs?	21
How can the community implement and sustain effective prevention programs?	24
How can the community evaluate the impact of its program on drug abuse?	24
What are the cost-benefits of community prevention programs?	25

Chapter 4: Examples of Research-Based Drug Abuse Prevention Programs	26
Universal Programs	26
 Elementary School Caring School Community Program Classroom-Centered (CC) and Family-School Partnership (FSP) Intervention Promoting Alternative Thinking Strategies (PATHS) Skills, Opportunity, And Recognition (SOAR) 	
 Middle School Guiding Good Choices Life Skills Training (LST) Program Lions-Quest Skills for Adolescence (SFA) Project ALERT Project STAR The Strengthening Families Program: For Parents and Youth 10–14 (SFP 10–14) 	
 High School Life Skills Training: Booster Program Lions-Quest Skills for Adolescence Project ALERT Plus The Strengthening Families Program: For Parents and Youth 10–14 	
Selective Programs	31
 Elementary School Focus on Families (FOF) The Strengthening Families Program (SFP) 	
Middle School • Coping Power	
High SchoolAdolescents Training and Learning to Avoid Steroids (ATLAS)	
Indicated Programs	33
 High School Project Towards No Drug Abuse (Project TND) Reconnecting Youth Program (RY) 	
Tiered Programs	34
 Elementary School Early Risers "Skills for Success" Risk Prevention Program Fast Track Prevention Trial for Conduct Problems 	
Middle SchoolAdolescent Transitions Program (ATP)	
Chapter 5: Selected Resources and References	36
Selected Resources	36
Selected References	38

Preface

Today's youth face many risks, including drug abuse, violence, and HIV/AIDS. Responding to these risks before they become problems can be difficult. One of the goals of the National Institute on Drug Abuse (NIDA) is to help the public understand the causes of drug abuse and to prevent its onset. Drug abuse has serious consequences in our homes, schools, and communities. From NIDA's perspective, the use of all illicit drugs and the inappropriate use of licit drugs is considered drug abuse.

Prevention science has made great progress in recent years. Many prevention interventions are being tested in "real-world" settings so they can be more easily adapted for community use. Scientists are studying a broader range of populations and topics. They have identified, for example, effective interventions with younger populations to help prevent risk behaviors before drug abuse occurs.

Researchers are also studying older teens who are already using drugs to find ways to prevent further abuse or addiction. Practical issues, such as cost-benefit analyses, are being studied. Presenting these findings to the public is one of NIDA's most important responsibilities.

We are pleased to offer our newest edition of the publication, *Preventing Drug Use among Children and Adolescents: A Research-Based Guide for Parents, Educators, and Community Leaders, Second Edition.* This edition includes updated principles, new questions and answers, new program information, and expanded references and resources. We also invite you to visit our Web site at www.drugabuse.gov where this publication and other materials related to the consequences, prevention, and treatment of drug abuse are offered. We hope that you will find the guide useful and helpful to your work.

Nora D. Volkow, M.D. Director National Institute on Drug Abuse



Introduction

In 1997, the National Institute on Drug Abuse (NIDA) published the first edition of *Preventing Drug Use among Children and Adolescents: A Research-Based Guide* to share the latest NIDA-funded prevention research findings with parents, educators, and community leaders. The guide introduced the concept of "research-based prevention" with questions and answers on risk and protective factors, community planning and implementation, and 14 prevention principles derived from effective drug abuse prevention research. Examples of research-tested prevention programs were also featured. The purpose was to help prevention practitioners use the results of prevention research to address drug abuse among children and adolescents in communities across the country.

Since then, NIDA's prevention research program has more than doubled in size and scope to address all stages of child development, a mix of audiences and settings, and the delivery of effective services at the community level. The Institute now focuses on risks for drug abuse and other problem behaviors that occur throughout a child's development. Prevention interventions designed and tested to address risks can help children at every step along their developmental path. Working more broadly with families, schools, and communities, scientists have found effective ways to help people gain the skills and approaches to stop problem behaviors before they occur. Research funded by NIDA and other Federal research organizations such as the National Institute of Mental Health and the Centers for Disease Control and Prevention shows that early intervention can prevent many adolescent risk behaviors.

This second edition, reflecting NIDA's expanded research program and knowledge base, is more than double the size of the first edition. The prevention principles have been expanded to provide more understanding about the latest research, and principles relevant to each chapter accompany the discussion. Additional questions and answers, a new chapter on community planning, and more information on the core elements in research-based prevention programs have been added. Each chapter ends with a "Community Action Box" for primary readers—parents, educators, and community leaders. As in the first edition, the descriptions of prevention programs are presented as examples of research-based programs currently available.

The expanded *Selected Resources* section offers Web sites, sponsored by Federal and private-sector agencies. Some feature registries of effective prevention programs with agency-specific selection criteria and other resources for community planning. The *Selected References* section includes up-to-date books and journal articles that provide more information on prevention research. NIDA hopes that this revised guide is helpful to drug abuse prevention efforts among children and adolescents in homes, schools, and communities nationwide.

Prevention Principles

These revised prevention principles have emerged from research studies funded by NIDA on the origins of drug abuse behaviors and the common elements found in research on effective prevention programs. Parents, educators, and community leaders can use these principles to help guide their thinking, planning, selection, and delivery of drug abuse prevention programs at the community level. The references following each principle are representative of current research.

Risk Factors and Protective Factors

PRINCIPLE 1 Prevention programs should enhance protective factors and reverse or reduce risk factors (Hawkins et al. 2002).

- The risk of becoming a drug abuser involves the relationship among the number and type of risk factors (e.g., deviant attitudes and behaviors) and protective factors (e.g., parental support) (Wills and McNamara et al. 1996).
- The potential impact of specific risk and protective factors changes with age. For example, risk factors within the family have greater impact on a younger child, while association with drug-abusing peers may be a more significant risk factor for an adolescent (Gerstein and Green 1993; Kumpfer et al. 1998).
- Early intervention with risk factors (e.g., aggressive behavior and poor self-control) often has a greater impact than later intervention by changing a child's life path (trajectory) away from problems and toward positive behaviors (lalongo et al. 2001).

 While risk and protective factors can affect people of all groups, these factors can have a different effect depending on a person's age, gender, ethnicity, culture, and environment (Beauvais et al. 1996; Moon et al. 1999).

PRINCIPLE 2 Prevention programs should address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco or alcohol); the use of illegal drugs (e.g., marijuana or heroin); and the inappropriate use of legally obtained substances (e.g., inhalants), prescription medications, or over-the-counter drugs (Johnston et al. 2002).

PRINCIPLE 3 Prevention programs should address the type of drug abuse problem in the local community, target modifiable risk factors, and strengthen identified protective factors (Hawkins et al. 2002).

PRINCIPLE 4 Prevention programs should be tailored to address risks specific to population or audience characteristics, such as age, gender, and ethnicity, to improve program effectiveness (Oetting et al. 1997).

Prevention Planning

Family Programs

PRINCIPLE 5 Family-based prevention programs should enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information (Ashery et al. 1998).

Family bonding is the bedrock of the relationship between parents and children. Bonding can be strengthened through skills training on parent supportiveness of children, parent-child communication, and parental involvement (Kosterman et al. 1997).

- Parental monitoring and supervision are critical for drug abuse prevention. These skills can be enhanced with training on rule-setting; techniques for monitoring activities; praise for appropriate behavior; and moderate, consistent discipline that enforces defined family rules (Kosterman et al. 2001).
- Drug education and information for parents or caregivers reinforces what children are learning about the harmful effects of drugs and opens opportunities for family discussions about the abuse of legal and illegal substances (Bauman et al. 2001).
- Brief, family-focused interventions for the general population can positively change specific parenting behavior that can reduce later risks of drug abuse (Spoth et al. 2002b).

School Programs

PRINCIPLE 6 Prevention programs can be designed to intervene as early as *preschool* to address risk factors for drug abuse, such as aggressive behavior, poor social skills, and academic difficulties (Webster-Stratton 1998; Webster-Stratton et al. 2001).

PRINCIPLE 7 Prevention programs for *elementary* school children should target improving academic and social-emotional learning to address risk factors for drug abuse, such as early aggression, academic failure, and school dropout. Education should focus on the following skills (lalongo et al. 2001; Conduct Problems Prevention Work Group 2002b):

- self-control;
- emotional awareness;
- communication:
- social problem-solving; and
- academic support, especially in reading.

PRINCIPLE 8 Prevention programs for *middle* or *junior high* and *high school students* should increase academic and social competence with the following skills (Botvin et al.1995; Scheier et al. 1999):

- study habits and academic support;
- · communication;
- peer relationships;
- self-efficacy and assertiveness;
- drug resistance skills;
- reinforcement of antidrug attitudes; and
- strengthening of personal commitments against drug abuse.

Community Programs

prevention programs aimed at general populations at key transition points, such as the transition to middle school, can produce beneficial effects even among high-risk families and children. Such interventions do not single out risk populations and, therefore, reduce labeling and promote bonding to school and community (Botvin et al. 1995; Dishion et al. 2002).

that combine two or more effective programs, such as family-based and school-based programs, can be more effective than a single program alone (Battistich et al. 1997).

reaching populations in multiple settings—for example, schools, clubs, faith-based organizations, and the media—are most effective when they present consistent, community-wide messages in each setting (Chou et al. 1998).

Prevention Program Delivery

PRINCIPLE 12 When communities adapt programs to match their needs, community norms, or differing cultural requirements, they should retain core elements of the original research-based intervention (Spoth et al. 2002b), which include:

- Structure (how the program is organized and constructed);
- Content (the information, skills, and strategies of the program); and
- Delivery (how the program is adapted, implemented, and evaluated).

PRINCIPLE 13 Prevention programs should be long-term with repeated interventions (i.e., booster programs) to reinforce the original prevention goals. Research shows that the benefits from middle school prevention programs diminish without followup programs in high school (Scheier et al. 1999).

PRINCIPLE 14 Prevention programs should include teacher training on good classroom management practices, such as rewarding appropriate student behavior. Such techniques help to foster students' positive behavior, achievement, academic motivation, and school bonding (lalongo et al. 2001).

effective when they employ interactive techniques, such as peer discussion groups and parent role-playing, that allow for active involvement in learning about drug abuse and reinforcing skills (Botvin et al. 1995).

PRINCIPLE 16 Research-based prevention programs can be cost-effective. Similar to earlier research, recent research shows that for each dollar invested in prevention, a savings of up to \$10 in treatment for alcohol or other substance abuse can be seen (Pentz 1998; Hawkins 1999; Aos et al. 2001; Spoth et al. 2002a).

Chapter 1: Risk Factors and Protective Factors

This chapter describes how risk and protective factors influence drug abuse behaviors, the early signs of risk, transitions as high-risk periods, and general patterns of drug abuse among children and adolescents. A major focus is how prevention programs can strengthen protection or intervene to reduce risks.

What are risk factors and protective factors?

Studies over the past two decades have tried to determine the origins and pathways of drug abuse and addiction—how the problem starts and how it progresses. Many factors have been identified that help differentiate those more likely to abuse drugs from those less vulnerable to drug abuse. Factors associated with greater potential for drug abuse are called "risk" factors, while those associated with reduced potential for abuse are called "protective" factors. Please note, however, that most individuals at risk for drug abuse do not start using drugs or become addicted. Also, a risk factor for one person may not be for another.

As discussed in the Introduction, risk and protective factors can affect children in a developmental *risk trajectory*, or path. This path captures how risks become evident at different stages of a child's life. For example, early risks, such as out-of-control aggressive behavior, may be seen in a very young child. If not addressed through positive parental

actions, this behavior can lead to additional risks when the child enters school. Aggressive behavior in school can lead to rejection by peers, punishment by teachers, and academic failure. Again, if not addressed through preventive interventions, these risks can lead to the most immediate behaviors that put a child at risk for drug abuse, such as skipping school and associating with peers who abuse drugs. In focusing on the risk path, research-based prevention programs can intervene early in a child's development to strengthen protective factors and reduce risks long before problem behaviors develop.

The table below provides a framework for characterizing risk and protective factors in five *domains*, or settings. These domains can then serve as a focus for prevention. As the first two examples suggest, some risk and protective factors are mutually exclusive—the presence of one means the absence of the other. For example, in the Individual domain, early aggressive behavior, a risk factor, indicates the absence of impulse control, a key protective factor. Helping a young child learn to control impulsive behavior is a focus of some prevention programs.

Risk Factors	Domain	Protective Factors
Early Aggressive Behavior	Individual	Impulse Control
Lack of Parental Supervision	Family	Parental Monitoring
Substance Abuse	Peer	Academic Competence
Drug Availability	School	Antidrug Use Policies
Poverty	Community	Strong Neighborhood Attachment

Other risk and protective factors are independent of each other, as demonstrated in the table as examples in the peer, school, and community domains. For example, in the school domain, drugs may be available, even though the school has "antidrug policies." An intervention may be to strengthen enforcement so that school policies create the intended school environment.

Risk factors for drug abuse represent challenges to an individual's emotional, social, and academic development. These risk factors can produce different effects, depending on the individual's personality traits, phase of development, and environment. For instance, many serious risks, such as early aggressive behavior and poor academic achievement, may indicate that a young child is on a negative developmental path headed toward problem behavior. Early intervention, however, can help reduce or reverse these risks and change that child's developmental path.

For young children already exhibiting serious risk factors, delaying intervention until adolescence will likely make it more difficult to overcome risks. By adolescence, children's attitudes and behaviors are well established and not easily changed.

Risk factors can influence drug abuse in several ways. They may be additive: The more risks a child is exposed to, the more likely the child will abuse drugs. Some risk factors are particularly potent, yet may not influence drug abuse unless certain conditions prevail. Having a family history of substance abuse, for example, puts a child at risk for drug abuse. However, in an environment with no drug-abusing peers and strong antidrug norms, that child is less likely to become a drug abuser. And the presence of many protective factors can lessen the impact of a few risk factors. For example, strong protection—such as parental support and involvement—can reduce the influence of strong risks, such as having substance-abusing peers. An important goal of prevention, then, is to change the balance between risk and protective factors so that protective factors outweigh risk factors.

Chapter 1 Principles

Risk Factors and Protective Factors

PRINCIPLE 1 Prevention programs should enhance protective factors and reverse or reduce risk factors.

- The risk of becoming a drug abuser involves the relationship among the number and type of risk factors (e.g., deviant attitudes and behaviors) and protective factors (e.g., parental support).
- The potential impact of specific risk and protective factors changes with age. For example, risk factors within the family have greater impact on a younger child, while association with drug-abusing peers may be a more significant risk factor for an adolescent.
- Early intervention with risk factors (e.g., aggressive behavior and poor self-control) often has a greater impact than later intervention by changing a child's life path (trajectory) away from problems and toward positive behaviors.
- While risk and protective factors can affect people of all groups, these factors can have a different effect depending on a person's age, gender, ethnicity, culture, and environment.

PRINCIPLE 2 Prevention programs should address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco or alcohol); the use of illegal drugs (e.g., marijuana or heroin); and the inappropriate use of legally obtained substances (e.g., inhalants), prescription medications, or over-the-counter drugs.

PRINCIPLE 3 Prevention programs should address the type of drug abuse problem in the local community, target modifiable risk factors, and strengthen identified protective factors.

PRINCIPLE 4 Prevention programs should be tailored to address risks specific to population or audience characteristics, such as age, gender, and ethnicity, to improve program effectiveness.

7

Gender may also determine how an individual responds to risk factors. Research on relationships within the family shows that adolescent girls respond positively to parental support and discipline, while adolescent boys sometimes respond negatively. Research on early risk behaviors in the school setting shows that aggressive behavior in boys and learning difficulties in girls are the primary causes of poor peer relationships. These poor relationships, in turn, can lead to social rejection, a negative school experience, and problem behaviors including drug abuse.

What are the early signs of risk that may predict later drug abuse?

Some signs of risk can be seen as early as infancy. Children's personality traits or temperament can place them at increased risk for later drug abuse. Withdrawn and aggressive boys, for example, often exhibit problem behaviors in interactions with their families, peers, and others they encounter in social settings. If these behaviors continue, they will likely lead to other risks. These risks can include academic failure, early peer rejection, and later affiliation with deviant peers, often the most immediate risk for drug abuse in adolescence. Studies have shown that children with poor academic performance and inappropriate social behavior at ages 7 to 9 are more likely to be involved with substance abuse by age 14 or 15.

In the Family

Children's earliest interactions occur within the family and can be positive or negative. For this reason, factors that affect early development in the family are probably the most crucial. Children are more likely to experience risk when there is:

- lack of mutual attachment and nurturing by parents or caregivers;
- ineffective parenting;
- a chaotic home environment;
- lack of a significant relationship with a caring adult; and
- a caregiver who abuses substances, suffers from mental illness, or engages in criminal behavior.

These experiences, especially the abuse of drugs and other substances by parents and other caregivers, can impede bonding to the family and threaten feelings of security that children need for healthy development. On the other hand, families can serve a protective function when there is:

- a strong bond between children and their families;
- parental involvement in a child's life;
- supportive parenting that meets financial, emotional, cognitive, and social needs; and
- clear limits and consistent enforcement of discipline.

Finally, critical or sensitive periods in development may heighten the importance of risk or protective factors. For example, mutual attachment and bonding between parents and children usually occurs in infancy and early childhood. If it fails to occur during those developmental stages, it is unlikely that a strong positive attachment will develop later in the child's life.

Outside the Family

Other risk factors relate to the quality of children's relationships in settings outside the family, such as in their schools, with their peers, teachers, and in the community. Difficulties in these settings can be crucial to a child's emotional, cognitive, and social development. Some of these risk factors are:

- inappropriate classroom behavior, such as aggression and impulsivity;
- academic failure;
- poor social coping skills;
- association with peers with problem behaviors, including drug abuse; and
- misperceptions of the extent and acceptability of drug-abusing behaviors in school, peer, and community environments.

Association with drug-abusing peers is often the most immediate risk for exposing adolescents to drug abuse and delinquent behavior. Research has shown, however, that addressing such behavior in interventions can be challenging. For example, a recent study (Dishion et al. 2002) found that placing high-risk youth in a peer group intervention resulted in negative outcomes. Current research is exploring the role that adults and positive peers can play in helping to avoid such outcomes in future interventions.

Other factors—such as drug availability, drug trafficking patterns, and beliefs that drug abuse is generally tolerated—are also risks that can influence young people to start to abuse drugs.

Family has an important role in providing protection for children when they are involved in activities outside the family. When children are outside the family setting, the most salient protective factors are:

- age-appropriate parental monitoring of social behavior, including establishing curfews, ensuring adult supervision of activities outside the home, knowing the child's friends, and enforcing household rules;
- success in academics and involvement in extracurricular activities;
- strong bonds with prosocial institutions, such as school and religious institutions; and
- acceptance of conventional norms against drug abuse.

What are the highest risk periods for drug abuse among youth?

Research has shown that the key risk periods for drug abuse occur during major transitions in children's lives. These transitions include significant changes in physical development (for example, puberty) or social situations (such as moving or parents divorcing) when children experience heightened vulnerability for problem behaviors.

The first big transition for children is when they leave the security of the family and enter school. Later, when they advance from elementary school to middle or junior high school, they often experience new academic and social situations, such as learning to get along with a wider group of peers and having greater expectations for academic performance. It is at this stage—early adolescence—that children are likely to encounter drug abuse for the first time.

Then, when they enter high school, young people face additional social, psychological, and educational challenges. At the same time, they may be exposed to greater availability of drugs, drug abusers, and social engagements involving drugs. These challenges can increase the risk that they will abuse alcohol, tobacco, and other drugs.

A particularly challenging situation in late adolescence is moving away from home for the first time without parental supervision, perhaps to attend college or other schooling. Substance abuse, particularly of alcohol, remains a major public health problem for college populations.

When young adults enter the workforce or marry, they again confront new challenges and stressors that may place them at risk for alcohol and other drug abuse in their adult environments. But these challenges can also be protective when they present opportunities for young people to grow and pursue future goals and interests. Research has shown that these new lifestyles can serve as protective factors as the new roles become more important than being involved with drugs.

Risks appear at every transition from early childhood through young adulthood; therefore, prevention planners need to consider their target audiences and implement programs that provide support appropriate for each developmental stage. They also need to consider how the protective factors involved in these transitions can be strengthened.

When and how does drug abuse start and progress?

Studies such as the National Survey on Drug Use and Health, formerly called the National Household Survey on Drug Abuse, reported by the Substance Abuse and Mental Health Services Administration, indicate that some children are already abusing drugs by age 12 or 13, which likely means that some may begin even earlier. Early abuse includes such drugs as tobacco, alcohol, inhalants, marijuana, and psychotherapeutic drugs. If drug abuse persists into later adolescence, abusers typically become more involved with marijuana and then advance to other illegal drugs, while continuing their abuse of tobacco and alcohol. Studies have also shown that early initiation of drug abuse is associated with greater drug involvement, whether with the same or different drugs. Note, however, that both one-time and long-term surveys indicate that most youth do not progress to abusing other drugs. But among those who do progress, their drug abuse history can vary by neighborhood drug availability, demographic groups, and other characteristics of the abuser population. In general, the pattern of abuse is associated with levels of social disapproval, perceived risk, and the availability of drugs in the community.

Scientists have proposed several hypotheses as to why individuals first become involved with drugs and then escalate to abuse. One explanation is a biological cause, such as having a family history of drug or alcohol abuse, which may genetically predispose a person to drug abuse. Another explanation is that starting to abuse a drug may lead to affiliation with more drug-abusing peers which, in turn, exposes the individual to other drugs. Indeed, many factors may be involved.

Different patterns of drug initiation have been identified based on gender, race or ethnicity, and geographic location. For example, research has found that the circumstances in which young people are offered drugs can depend on gender. Boys generally receive more drug offers and at younger ages. Initial drug abuse can also be influenced by where drugs are offered, such as parks, streets, schools, homes, or parties. Additionally, drugs may be offered by different people including, for example, siblings, friends, or even parents.

While most youth do not progress beyond initial use, a small percentage rapidly escalate their substance abuse. Researchers have found that these youth are the most likely to have experienced a combination of high levels of risk factors with low levels of protective factors. These adolescents were characterized by high stress, low parental support, and low academic competence.

However, there are protective factors that can suppress the escalation to substance abuse. These factors include self-control, which tends to inhibit problem behavior and often increases naturally as children mature during adolescence. In addition, protective family structure, individual personality, and environmental variables can reduce the impact of serious risks of drug abuse. Preventive interventions can provide skills and support to high-risk youth to enhance levels of protective factors and prevent escalation to drug abuse.

COMMUNITY ACTION BOX



Parents can use information on risk and protection to help them develop positive preventive actions (e.g. talking about family rules) before problems occur.



Educators can strengthen learning and bonding to school by addressing aggressive behaviors and poor concentration—risks associated with later onset of drug abuse and related problems.



Community Leaders can assess community risk and protective factors associated with drug problems to best target prevention services.

Chapter 2: Planning for Drug Abuse Prevention in the Community

This chapter presents a process to help communities as they plan to implement research-based prevention programs. It provides guidance on applying the prevention principles, assessing needs and community readiness, motivating the community to take action, and evaluating the impact of the programs implemented. Additional planning resources are highlighted in *Selected Resources and References*.

How can the community develop a plan for research-based prevention?

Prevention research suggests that a well-constructed community plan incorporates the characteristics outlined in the following box.

THE COMMUNITY PLAN

- Identifies the specific drugs and other child and adolescent problems in a community;
- **Builds** on existing resources (e.g., current drug abuse prevention programs);
- Develops short-term goals relevant to implementation of research-based prevention programs;
- Projects long-term objectives so that plans and resources are available for the future; and
- **Incorporates** ongoing assessments to evaluate the effectiveness of prevention strategies.

Planning Process

Planning usually starts with an assessment of drug abuse and other child and adolescent problems, which includes measuring the level of substance abuse in the community as well as examining the level of other community risk factors (e.g., poverty) [see section on "How can the community assess the level of risk for drug abuse?" for more details]. The results of the assessment can be used to raise community awareness of the nature and seriousness

of the problem and guide the selection of programs most relevant to the community's needs. This is an important process, whether a community is selecting a school-based prevention curriculum or planning multiple interventions that cut across the entire community.

Next, an assessment of the community's readiness for prevention can help determine additional steps that are needed to educate the community before beginning the prevention effort. Then, a review of existing programs is needed to determine gaps in addressing community needs and identifying additional resources.

Finally, community planning can benefit from contributions of community organizations that provide services to youth. Convening a meeting of leaders of youth-serving organizations can aid in coordinating ideas, resources, and expertise to help implement and sustain research-based programs. Planning for implementation and sustainability requires resource development for staffing and management, long-term funding commitments, and linkages with existing delivery systems.

How can the community use the prevention principles in prevention planning?

Several prevention principles provide a framework for effective prevention planning and programming by presenting key concepts in implementing researchbased prevention. Consider, for example, Principle 3: "Prevention programs should address the type of drug abuse problem in the local community, target modifiable risk factors, and strengthen identified protective factors." This principle describes how the plan should reflect the reality of the drug problem in that community and, importantly, what needs to be done to address it.

Community-wide efforts also can be guided by Principle 9: "Prevention programs aimed at general populations at key transition points... can produce beneficial effects, even among high-risk families and children." With carefully structured programs, the community can provide services to all populations, including those at high risk, without labeling or stigmatizing them.

In implementing a more specific program, such as a family program within the educational system, the principles address some of the required content areas. For instance, Principle 5 states, "Family-based prevention programs should enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information."

The principles offer guidance for selecting or adapting effective programs that meet specific community needs. It is important to recognize, however, that not every program that seems consistent with these research-based prevention principles is necessarily effective. To be effective, programs need to incorporate the core elements identified in research (see Chapter 3). These include appropriate structure and content, adequate resources for training and materials, and other implementation requirements.

For more information on resources to help communities in prevention planning and the research underlying the prevention principles, see *Selected Resources* and *References*.

Chapter 2 Principles

Principles for Prevention Planning

PRINCIPLE 2 Prevention programs should address all forms of drug abuse, alone or in combination, including the underage use of legal drugs (e.g., tobacco or alcohol); the use of illegal drugs (e.g., marijuana or heroin); and the inappropriate use of legally obtained substances (e.g., inhalants), prescription medications, or over-the-counter drugs.

PRINCIPLE 3 Prevention programs should address the type of drug abuse problem in the local community, target modifiable risk factors, and strengthen identified protective factors.

PRINCIPLE 4 Prevention programs should be tailored to address risks specific to population or audience characteristics, such as age, gender, and ethnicity, to improve program effectiveness.

populations at key transition programs aimed at general populations at key transition points, such as the transition to middle school, can produce beneficial effects even among high-risk families and children. Such interventions do not single out risk populations and, therefore, reduce labeling and promote bonding to school and community.

PRINCIPLE 10 Community prevention programs that combine two or more effective programs, such as family-based and school-based programs, can be more effective than a single program alone.

principle 11 Community prevention programs reaching populations in multiple settings—for example, schools, clubs, faith-based organizations, and the media—are most effective when they present consistent, community-wide messages in each setting.

How can the community assess the level of risk for drug abuse?

To assess the level of risk of youth engaging in drug abuse, it is important to:

- measure the nature and extent of drug abuse patterns and trends;
- collect data on the risk and protective factors throughout the community;
- understand the community's culture and how that culture affects and is affected by drug abuse;
- consult with community leaders working in drug abuse prevention, treatment, law enforcement, mental health, and related areas;
- assess community awareness of the problem; and
- identify existing prevention efforts already under way to address the problem.

Researchers have developed many tools to assess the extent of a community's drug problem. Most of these tools assess the nature of the problem—what drugs are available and who is abusing them. Some of them assess the extent of abuse by estimating how many people are abusing drugs. Others assess factors associated with abuse, such as juvenile delinquency, school absenteeism, and school dropout rates. Researchers have also developed instruments that assess individual risk status. It is important when beginning the assessment process to collect sufficient information to help local planners target the intervention by population and geographic area.

As an example, the Communities That Care prevention operating system, developed by Hawkins and colleagues at the University of Washington (Hawkins et al. 2002), is based on epidemiological methods. An assessment is conducted to collect data on the distribution of risk and protective factors at the community level. This approach helps local planners identify geographic areas with the highest levels of risk and the lowest levels of protective resources. This analysis tool assists planners in selecting the most effective prevention interventions to address the specific risks of neighborhoods.

Other data sources and measurement instruments (such as questionnaires) that can help in community planning include the following resources.

- Public access data. Several large national surveys provide data to help local communities understand how their drug problems relate to the national picture. These include the National Survey on Drug Use and Health, Monitoring the Future Study, and Youth Behavior Risk Study. Information on accessing these data is provided in Selected Resources and References.
- Public access questionnaires. The studies listed above and many other federally sponsored data sets make the data collection instruments available for adaptation and use by the public. Communities can conduct local studies using these instruments to collect uniform data that can often be compared with national findings.
- Archival data. Data from public access files from school systems, health departments, hospital emergency rooms, law enforcement agencies, and drug abuse treatment facilities can be analyzed to identify the nature of the local drug problem and other youth problems.

- Ethnographic studies. Ethnographic approaches
 use systematic, observational processes to describe
 behaviors in natural settings, such as studying the
 abuse of drugs by youth gangs, and documenting
 the individual perspectives of those under observation.
- Other qualitative methods. Other qualitative methods, such as convening focus groups of representatives of drug-abusing subpopulations or key interviews with community officials, can be used to gain a greater understanding of the local drug abuse problem.

As each of these methods has advantages and disadvantages, it is advisable, permitting resources, to use multiple strategies to assess community risk to provide the best information possible.

The Community Epidemiology Work Group (CEWG), another data source pioneered in the early 1970s by NIDA and communities nationwide, is composed of researchers from 21 U.S. cities who collect or use archival data to characterize the nature of the drug problem in their locations. CEWG representatives meet with NIDA biannually to inform the Institute and fellow CEWG members of changing drug trends in their cities. The work group has developed a *Guide for Community Epidemiology Surveillance* Networks on Drug Abuse to help other communities use this approach to provide up-to-date information on local drug abuse problems.

Using information obtained through these many sources can help community leaders make sound decisions about programs and policies. Analyzing these data before implementing new programs can also help establish a baseline for evaluating results. To be most informative, periodic assessments need to be made routinely.

For more information on how communities can assess the level or risk of drug abuse in their community, see *Selected Resources and References*.

Is the community ready for prevention?

Identifying a serious level of risk in a community does not always translate into community readiness to take action. Based on studies of many small communities, researchers have identified nine stages of readiness that can guide prevention planning (Plested et al. 1999). Applying measures to assess readiness, prevention planners can then identify the critical steps needed to implement programs (see table on page 20). Although much of the research on the stages of community readiness has examined small communities, large communities find that these stages provide a structure to describe levels of awareness of drug issues in their community and readiness to embrace a prevention program. Awareness is assessed at two levels: that of the public (by examining the nature and level of drug coverage in the news) and that of officials (by determining if they have taken a position on drug abuse in the community).

Community leaders can begin assessing their community's readiness by interviewing key informants in their community. Additional planning and program sources can be found in *Selected Resources and References*. Web sites, contact information, and publications offer further information to guide community efforts.

ASSESSING READINESS*		COMMUNITY ACTION	
Readiness Stage	Community Response	Ideas	
1. No awareness	Relative tolerance of drug abuse	Create motivation. Meet with community leaders involved with drug abuse prevention; use the media to identify and talk about the problem; encourage the community to see how it relates to community issues; begin preplanning.	
2. Denial	Not happening here, can't do anything about it		
3. Vague awareness	Awareness, but no motivation		
4. Preplanning	Leaders aware, some motivation		
5. Preparation	Active energetic leadership and decisionmaking	Work together. Develop plans for prevention programming through coalitions and other community groups.	
6. Initiation	Data used to support prevention actions	Identify and implement research-based programs.	
7. Stabilization	Community generally supports existing program	Evaluate and improve ongoing programs.	
8. Confirmation/ Expansion	Decisionmakers support improving or expanding programs	Institutionalize and expand programs to reach more populations.	
9. Professionalization	Knowledgeable of community drug problem; expect effective solutions	Put multicomponent programs in place for all audiences.	

^{*} Plested et al. 1999.

How can the community be motivated to implement research-based prevention programs?

The methods needed to motivate a community to act depend on the particular community's stage of readiness. At lower stages of readiness, individual and small group meetings may be needed to attract support from those with great influence in the community. At higher levels of readiness, it may be possible to establish a community board or coalition of key leaders from public- and private-sector organizations. This can provide the impetus for action.

Community coalitions can and do hold communitywide meetings, develop public education campaigns, present data that support the need for research-based prevention programming, and attract sponsors for comprehensive drug abuse prevention strategies. But care is needed in organizing a community-level coalition to ensure that its programming incorporates research-tested strategies and programs—at the individual, school, and community levels. Having a supportive infrastructure that includes representatives across the community can reinforce prevention messages, provide resources, and sustain prevention programming. Introducing a school-based curriculum, however, requires less community involvement, but is still a focused preventive effort.

Research has shown that prevention programs can use the media to raise public awareness of the seriousness of a community's drug problem and prevent drug abuse among specific populations. Using local data and speakers from the community demonstrates that the drug problem is real and that action is needed. Providing some of the examples of research-based programs described in Chapter 4 can help mobilize the community for change.

How can the community assess the effectiveness of current prevention efforts?

Assessing prevention efforts can be challenging for a community, given limited resources and limited access to expertise in program evaluation. Many communities begin the process with a structured review of current prevention programs to determine:

- ✓ What programs are currently in place in the community?
- ✓ Were strict scientific standards used to test the programs during their development?
- **✓** Do the programs match community needs?
- ✓ Are the programs being carried out as designed?
- ✓ What percentage of at-risk youth is being reached by the program?

Another evaluation approach is to track existing data over time on drug abuse among students in school, rates of truancy, school suspensions, drugabuse arrests, and drug-related emergency room admissions. The use of the information obtained in the initial community drug abuse assessment can serve as a baseline for measuring change in long-term trends. Because the nature and extent of drug abuse problems can change with time, it is wise to periodically assess community risk and protective factors to help ensure that the programs in place appropriately address current community needs.

Communities may wish to consult with State and county prevention authorities for assistance in planning and implementation efforts. Also, federally supported publications and other resources are available, as noted in *Selected Resources and References*.

In assessing the impact of individual programs, it is important for communities to document how well the program is delivered and the level of intervention participants receive. For example, in assessing a school-based prevention program, key questions to be asked include:

- ✓ Have the teachers mastered the content and interactive teaching strategies needed for the selected curriculum?
- → How much exposure have the students had to each content area?
- ✓ Is there an assessment component?

The community plan should guide actions for prevention over time. Once communities are mobilized, program implementation and sustainability require clear, measurable goals, long-term resources, sustained leadership, and community support to maintain momentum for preventive change. Continuing evaluations keep the community informed and allow for periodic reassessment of needs and goals.

COMMUNITY ACTION BOX

- Parents can work with others in their community to increase awareness about the local drug abuse problem and the need for research-based prevention programs.
- **Educators** can work with others in their school and school system to review current programs, and identify research-based prevention interventions appropriate for students.
- Community Leaders can organize a community group to develop a community prevention plan, coordinate resources and activities, and support research-based prevention in all sectors of the community.

Chapter 3: Applying Prevention Principles to Drug Abuse Prevention Programs

This chapter describes how the prevention principles have been applied to create effective family, school, and community programs. It offers information on working with risk and protective factors, adapting programs while maintaining fidelity to core elements, implementing and evaluating programs, and understanding the cost-benefits of research-based prevention. The goal is to help communities implement research-based prevention programs.

How are risk and protective factors addressed in prevention programs?

Risk and protective factors are the primary targets of effective prevention programs used in the family, school, and community settings. Prevention programs are usually designed to reach specific populations in their primary settings, such as reaching children at school or through recreational or after-school programs. However, in recent years it has become more common to find programs for any given target group in a variety of settings, such as holding a family-based program in a school or a church. The goal of these programs is to build new and strengthen existing protective factors and reverse or reduce modifiable risk factors in youth.

Prevention programs can be described by the audience or intervention level for which they are designed:

- Universal programs are designed for the general population, such as all students in a school.
- Selective programs target groups at risk, or subsets of the general population such as children of drug abusers or poor school achievers.
- Indicated programs are designed for people who are already experimenting with drugs.

Tiered programs, such as the Adolescent Transitions Program, incorporate all three levels of intervention. Others, such as Early Risers "Skills for Success" Prevention Program, may have only two levels of intervention.

Details of the programs used as examples in the following sections are provided in Chapter 4.

In the Family

Prevention programs can strengthen protective factors among young children by teaching parents better family communication skills, developmentally appropriate discipline styles, firm and consistent rule enforcement, and other family management skills. Parents also can be taught how to increase their emotional, social, cognitive, and material support, which includes, for example, meeting their children's financial, transportation, health care, and homework needs. Research confirms the benefit of parents taking a more active role in their children's lives, by talking with them about drugs, monitoring their activities, getting to know their friends, understanding their problems and concerns, providing consistent rules and discipline, and being involved in their learning and education. The importance of the parent-child relationship continues through adolescence and beyond.

An example of a *universal* family-based program is the Strengthening Families Program For Parents and Youth, 10–14, which provides rural parents guidance on family management skills, communication,

academic support, and parent-child relationships. Recognizing that it can be difficult to attract parents to this program, the researchers encourage participation through flexibility in scheduling and location. Offering conveniences such as babysitting, transportation, and meals make participation more practical for many rural parents, while enhancing the program's success in reaching its goals.

Another type of family program operates within a school setting. The Adolescent Transitions Program, for example, is a *tiered* intervention family program. All families can get involved with the universal intervention, which makes available a Family Resource Room where information on parenting is provided. The Family Check-Up, the selective level of this program, is an assessment process to identify and help families at greater risk by providing them with information and interventions specific to their needs. Families already engaged in problem behaviors and identified as needing an indicated intervention are provided more intense assistance and information tailored to their problem. Such assistance might include, for example, individual or family therapy, intensive parent coaching, therapeutic foster care, or other family-specific interventions. The uniqueness of the tiered approach is that the whole school participates in the program and all individuals or families receive the appropriate level of help without being labeled in the process.

In School

Prevention programs in schools focus on children's social and academic skills, including enhancing peer relationships, self-control, coping skills, social behaviors, and drug offer refusal skills. School-based prevention programs should be integrated within the school's own goal of enhanced academic performance. Evidence is emerging that a major risk for school failure is a child's inability to read by the third and fourth grades (Barrera et al. 2002), and school failure is strongly associated with drug abuse. Integrated programs strengthen students' bonding to school and reduce their likelihood of dropping out. Most prevention curricula include a normative education component designed to correct the misperception that many students are abusing drugs.

Chapter 3 Principles

Principles for Programs

PRINCIPLE 5 Family-based prevention programs should enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information.

PRINCIPLE 6 Prevention programs can be designed to intervene as early as *preschool* to address risk factors for drug abuse, such as aggressive behavior, poor social skills, and academic difficulties.

PRINCIPLE 7 Prevention programs for elementary school children should target improving academic and social-emotional learning to address risk factors for drug abuse, such as early aggression, academic failure, and school dropout.

PRINCIPLE 8 Prevention programs for *middle* or *junior* high and high school students should increase academic and social competence.

prevention programs aimed at general populations at key transition points, such as the transition to middle school, can produce beneficial effects even among high-risk families and children. Such interventions do not single out risk populations and, therefore, reduce labeling and promote bonding to school and community.

PRINCIPLE 10 Community prevention programs that combine two or more effective programs, such as family-based and school-based programs, can be more effective than a single program alone.

principle 11 Community prevention programs reaching populations in multiple settings—for example, schools, clubs, faith-based organizations, and the media—are most effective when they present consistent, community-wide messages in each setting.

Chapter 3 **Principles**

Principles for Program Delivery

PRINCIPLE 12 When communities adapt programs to match their needs, community norms, or differing cultural requirements, they should retain core elements of the original research-based intervention.

with repeated interventions (i.e., booster programs) to reinforce the original prevention goals. Research shows that the benefits from middle school prevention programs diminish without followup programs in high school.

PRINCIPLE 14 Prevention programs should include teacher training in good classroom management practices, such as rewarding appropriate student behavior. Such techniques help to foster student's positive behavior, achievement, academic motivation, and school bonding.

PRINCIPLE 15 Prevention programs are most effective when they employ interactive techniques, such as peer discussion groups and parent role-playing, that allow for active involvement in learning about drug abuse and reinforcing skills.

PRINCIPLE 16 Research-based prevention programs can be cost-effective. Similar to earlier research, recent research shows that for each dollar invested in prevention, a savings of up to \$10 in treatment for alcohol or other substance abuse can be seen.

Most research-based prevention interventions in schools include curricula that teach many of the behavioral and social skills described above. The Life Skills Training Program exemplifies *universal* classroom programs that are provided to middle-schoolers. The program teaches drug resistance, self-management, and general social skills in a 3-year curriculum, with the third year a booster session offered when students enter high school.

The Caring School Community Program is another type of school-based intervention. This *universal* elementary school program focuses on establishing a "sense of community" among the classroom, school, and family settings. The community support that results helps children succeed in school and cope with stress and other problems when they occur.

An *indicated* intervention that reaches high school students, **Project Towards No Drug Abuse** focuses on students who have failed to succeed in school and are engaged in drug abuse and other problem behaviors. The program seeks to rebuild students' interest in school and their future, correct their misperceptions about drug abuse, and strengthen protective factors, including positive decisionmaking and commitment.

Recent research suggests caution when grouping high-risk teens in peer group interventions for drug abuse prevention. Such groups have been shown to produce negative effects, as participants appear to reinforce substance abuse behaviors over time (Dishion et al. 2002). Research is examining how to prevent such effects, with a particular focus on the role of adults and positive peers.

In the Community

Prevention programs work at the community level with civic, religious, law enforcement, and other government organizations to enhance antidrug norms and prosocial behaviors. Strategies to change key aspects of the environment are often employed at the community level. These can involve instituting new policies, such as the drug-free school concept, or strengthening community practices, such as asking for proof of age to buy cigarettes.

Many programs coordinate prevention efforts across settings to communicate consistent messages through school, work, religious institutions, and the media. Research has shown that programs that reach youth through multiple sources can strongly impact community norms (Chou et al. 1998). Communitybased programs also typically include development of policies or enforcement of regulations, mass media efforts, and community-wide awareness programs. Examples include establishing youth curfew, having advertising restrictions, reducing the density of alcohol outlets in the community, raising cigarette prices, and creating drug-free school zones. Some carefully structured and targeted media interventions have proven to be very effective in reducing drug abuse. For example, a mass media campaign targeting sensation-seeking youth reduced marijuana abuse by 27 percent among high sensation-seeking youth (Palmgreen et al. 2001).

Project STAR is an example of a multicomponent drug abuse prevention program for the community. This project tested whether a coordinated effort that encompassed schools, parents, community organizations, health policies, and the media could make a difference in preventing drug abuse among youth. Project STAR reached all children and families in the community. The middle school curriculum was the core of the program and was reinforced by homework and other activities of the parent component. Health policies and mass media components were incorporated as well. Long-term followup studies have shown significant impacts in reducing substance abuse, with benefits lasting well into participants' adult years.

What are the core elements of effective research-based prevention programs?

In recent years, many research-based prevention programs have proven effective. These programs were tested with rigorous designs in diverse communities in a wide variety of settings, and with a variety of populations. The most rigorous design tests the program's effects on a group that receives the intervention (i.e., "experimental group") and compares results to a second group that did not receive the intervention (i.e., "control group").

As communities review prevention programs to determine which best fit their needs, the following core elements of effective research-based programs should be considered.

- *Structure*—how each program is organized and constructed;
- Content—how the information, skills, and strategies are presented; and
- *Delivery*—how the program is selected or adapted and implemented, as well as how it is evaluated in a specific community.

When adapting programs to match community characteristics, it is important to retain these core elements to ensure that the most effective aspects of the program remain intact. Core elements help build effective research-based prevention programs.

Each core element contains descriptive features, which are presented in the following sections. Tables are included in each section to provide examples of how these features fit together in programs.

Structure

Structure addresses program type, audience, and setting. Several program types have been shown to be effective in preventing drug abuse. Schoolbased programs, the first to be fully developed and tested, have become the primary approach for reaching all children. Family-based programs have proven effective in reaching both children and their parents in a variety of settings. Media and computer technology programs are beginning to demonstrate effectiveness in reaching people at the community level as well as the individual level. Research also shows that combining two or more effective programs, such as family and school programs, can be even more effective than a single program alone. These are called multicomponent programs.

The following examples illustrate program structure:

Structure of Prevention Programs					
Program Type	Audience	Setting			
Community (Universal)	All Youth	Billboards			
School (Selective)	Middle School Students	After-School			
Family (Indicated)	High-Risk Youth and Their Families	Clinic			

Within these categories, programs have been designed to specifically target the needs of a particular audience, such as an indicated prevention program for highrisk boys. Examples of other subcategories would include urban or rural populations, racial and ethnic minorities, and different age groups. Researchers are testing how to modify effective programs to best address such audience differences.

The setting describes where the program takes place. Prevention programs are usually designed to reach target populations in their primary setting, such as reaching children at school. It is becoming more common, however, for effective programs to be conducted in settings other than their primary setting—for example, holding a family-based program in a school or a school-based program in a youth organization such as Boys/Girls Clubs. Multicomponent programs reach populations in a variety of settings.

Content

Content is composed of *information*, *skills development*, *methods*, and *services*. Information can include facts about drugs and their effects, as well as drug laws and policies. Drug information alone, however, has not been found to be effective in deterring drug abuse. Combining information with skills, methods, and services produces more effective results. Programs include skills development training to build and improve behaviors in important areas, such as communication within the family, social and emotional development, academic and social competence in children, and peer resistance strategies in adolescents.

Methods are oriented toward structural change, such as establishing and enforcing school rules on substance abuse, or enforcing existing laws, such as those on tobacco sales to minors. Services could include school counseling and assistance, peer counseling, family therapy, and health care. These content areas are designed to reduce modifiable risk factors and strengthen protective factors.

The table below describes the type of content included in programs.

Content of Prevention Programs					
Program Types	Information	Skills Development	Methods	Services	
Community	Drug Trends	Social Skills	Tolerance Policies	Drug-Free Zones	
School	Drug Effects	Resistance Skills	Norms Change	School Counseling and Assistance	
Family	Drug Abuse Symptoms	Parenting Skills	Home Drug-Testing; Curfew	Family Therapy	

Delivery

Delivery includes program *selection* or *adaptation* and *implementation*. The following table describes various delivery approaches.

Delivery of Prevention Programs				
Program Type	Program Selection or Adaptation	Implementation Features		
Community	Spanish-Speaking Population	Consistent Multimedia Messages		
School	Gender	Booster Sessions		
Family	Rural	Recruitment/ Retention		

During the selection process, communities match effective research-based programs to their community needs. In Chapter 2, it was suggested that communities conduct a structured review of existing programs to determine what gaps remain, given risk and protective factors in the community and the community's drug problems and needs. This information can then be incorporated into the community plan, which guides the selection of new research-based programs. For initial guidance to aid the selection process, communities can refer to the description of programs in several categories found in Chapter 4. Additional planning and program resources can be found in Selected Resources and References, which offers Web sites, contact information, and publications to guide community efforts.

Adaptation involves shaping a program to fit the needs of a specific population in various settings. Scientists have been exploring how best to culturally adapt effective programs to a specific environment (such as a rural environment) and population (only boys, for example). In the process of adaptation, the program's core elements are maintained to ensure the effectiveness of the intervention, while addressing the community's needs. Several research-based adapted programs are now available, such as the Life Skills Training Program for inner-city minority youth.

For programs that have not yet been adapted and studied in a research protocol, it is best to implement the program as designed to ensure the most effective outcomes. Implementation refers to how the program is delivered, including the number of sessions, methods used, and program followup. Research has found that *how* a program is implemented can determine its effectiveness in preventing drug abuse.

Use of interactive methods and appropriate booster sessions helps to reinforce earlier program content and skills to maintain program benefits.

How can the community implement and sustain effective prevention programs?

After considering risk and protective factors within the community and selecting and adapting prevention programs to address those risks, the community must begin to implement those programs. In many communities, coalitions formed during the community planning process remain involved in overseeing program implementation. They continue to review progress toward goals and objectives set out in the community plan. Responsibility for actual implementation, however, generally resides within the local public or private community-based organization in the educational, social service, or other local system implementing the programs.

To ensure effective implementation, research-based school and family programs often require extensive human and financial resources and a serious commitment to training and technical assistance. In addition to resources, special attention is needed to attract and keep program participants interested and involved in the programs. This is especially important when involving families in rural and poverty settings. Research has shown that extra effort in providing incentives, maximal schedule flexibility, minimal time demands, free meals, transportation, baby-sitting, personal contact, and endorsement from important community leaders all help to attract and retain program participants. In short, how a program is delivered to specific audiences is critical to its success.

How can the community evaluate the impact of its program on drug abuse?

Conducting evaluations of community prevention programs can be challenging. Many community leaders have consulted with university faculty members and other local and State evaluation experts to assist in designing and implementing evaluation procedures.

Ensuring appropriate evaluation design is important because errors can result in findings that do not show a clear relationship between the program and the outcomes. Were the results truly attributable to the program's effects and not some other source, such as other community events or the maturation of the target groups?

An evaluation should identify what was accomplished in the program, how it was carried out, and its effects. To ensure a thorough evaluation, the program implementer and staff should assess ongoing adherence to program elements. Keeping records of content delivered, session attendance, content feedback quizzes, and independent observations of implementation fidelity can help monitor the effectiveness of program implementation and provide key information on why a program is or is not achieving its intended effects.

Evaluation pitfalls can be avoided by consulting with experts who can guide the evaluation design by:

- using tested data-collection instruments;
- obtaining good baseline, or preintervention, information;
- using control or comparison groups who did not receive the intervention, but whose characteristics are similar to those who did receive it;
- monitoring the quality of program implementation;
- ensuring that postintervention followup includes a large percentage of the target population; and
- using appropriate statistical methods to analyze the data.

In addition to assessing program impact, evaluation is an ongoing process that can provide guidance on maintaining the program's responsiveness to changing community needs.

The evaluation process needs to answer questions about the program and its outcomes, including:

- **✓** What was accomplished in the program?
- ✓ How was the program carried out?
- **∨** Who participated in it?
- → How much of the program was received by participants?
- ✓ Is there a connection between the amount of program received and outcomes?
- **∨** Was the program implemented as intended?
- ✓ Did the program achieve what was expected in the short term?
- ✓ Did the program produce the desired long-term effects?

What are the cost-benefits of community prevention programs?

Research has demonstrated that preventing substance abuse and other problem behaviors can have a net benefit after accounting for costs. In a recent study, Spoth and associates (2002a) performed cost-effectiveness and benefit-cost analyses on data from two long-term interventions already shown to be effective in preventing substance abuse: Iowa Strengthening Families Program (ISFP; now called The Strengthening Families Program: For Parents and Youth 10-14), and Preparing for the Drug-Free Years (PDFY; now called Guiding Good Choices). Both interventions were found to have net benefits by preventing adult cases of alcohol abuse and thus saving future costs for alcohol abuse treatment. Benefit-to-cost ratios were \$9.60 for each dollar invested in prevention for the ISFP group, and \$5.85 per dollar invested in prevention for the PDFY group. For each family in the ISFP condition, there was a benefit of \$5,923; and the PDFY condition resulted in a benefit of \$2,697 per family. In addition, an analysis of the Skills, Opportunity, And Recognition (SOAR) program had a benefit-to-cost ratio of \$4.25 for every dollar spent (Hawkins et al. 1999; Aos et al. 2001). An earlier study (Pentz 1998) found that for every dollar spent on drug abuse prevention, communities could save from \$4 to \$5 in costs for drug abuse treatment and counseling.

COMMUNITY ACTION BOX

- Parents can work with others in the community to use the prevention principles in selecting drug abuse programs.
- Educators can incorporate research-based content and delivery into their regular classroom curricula.
- Community Leaders can work with evaluation experts to evaluate program progress and develop improvements in outcomes.

Chapter 4: Examples of Research-Based Drug Abuse Prevention Programs

To help those working in drug abuse prevention, NIDA, in cooperation with prevention scientists, presents the following examples of research-based programs that use a variety of strategies proven effective in preventing drug abuse. Each program was developed as part of a research protocol in which an intervention group and a comparison group were matched on important characteristics, such as age, grade in school, parents' level of education, family income, community size, and risk and protective factors. The interventions were tested in a family, school, or community setting, all with positive results. Prevention research continues to identify effective programs and strategies, thus this list is not meant to be exhaustive.

Many of these research-based programs include approaches to identifying early risk factors and addressing them long before a child encounters substance abuse. Whether the intervention focuses on improving teachers' skills in classroom management and academic support or on parents' communication skills, early positive support can reduce risks and increase protection. Also, recent research is focused on adapting interventions to address specific risks by gender, ethnic or racial identification, and geographic settings to improve the effectiveness of programs for specific audiences.

The programs are presented within their audience category (universal, selective, indicated, or tiered) and for whom they are designed (elementary, middle, or high school students). Since these programs are only examples, community planners may wish to explore additional programs and planning resources, which are highlighted in *Selected Resources and References*. With NIDA's continued support of research on effective prevention strategies at all levels of prevention, new research-based programs will continue to be made available in the future.

Universal Programs

Elementary School

Caring School Community Program (Formerly, Child Development Project) (Battistich et al. 1997; U.S. Department of Education 2001). This is a universal family-plus-school program to reduce risk and bolster protective factors among elementary school children. The program focuses on strengthening students' "sense of community," or connection, to school. Research has shown that this sense of community has been pivotal to reducing drug use, violence, and mental health problems, while promoting academic motivation and achievement. The program consists of a set of mutually reinforcing classroom, school, and family involvement approaches. These promote positive peer, teacher-student, and homeschool relationships and the development of social, emotional, and character-related skills. The program provides detailed instructional and implementation materials and accompanying staff development.

Contact for Materials and Research:

Eric Schaps, Ph.D.
Caring School Community Program
Developmental Studies Center
2000 Embarcadero, Suite 305
Oakland. CA 94606-5300

Phone: 510-533-0213 Fax: 510-464-3670

E-mail: Eric_Schaps@devstu.org Web site: www.devstu.org Classroom-Centered (CC) and Family-School Partnership (FSP) Intervention (Ialongo et al. 2001). The CC and FSP interventions are multicomponent, universal first-grade interventions to reduce later onset of violence and aggressive behavior and to improve academic performance. The CC intervention combines two effective classroom programs, the "Good Behavior Game" and "Mastery Learning," and includes classroom management and organizational strategies, as well as reading and mathematics curricula. The CC intervention also focuses on enhancing teachers' behavior management and instructional skills. The FSP intervention targets the same risk factors of aggression and learning problems, but directly involves parents. It seeks to improve parent-teacher communication, parental teaching, and children's behavior management strategies in the home. Findings show that sixth-graders exposed to the CC intervention in first grade had significantly reduced their aggressive behavior, as compared

Contact for Materials and Research:

with control students.

Nicholas Ialongo, Ph.D.
Department of Mental Health
Johns Hopkins Bloomberg
School of Public Health
Johns Hopkins University
624 N. Broadway
Baltimore, MD 21205

Phone: 410-550-3441 Fax: 410-550-3461

E-mail: nialongo@jhsph.edu

Promoting Alternative Thinking Strategies

(PATHS) (Greenberg and Kusché 1998). PATHS is a comprehensive program for promoting emotional health and social competencies and reducing aggression and behavior problems in elementary school children, while enhancing the educational process in the classroom. This K–5 curriculum is designed for use by educators and counselors in a multiyear, universal prevention model. Although primarily for use in school and classrooms, information and activities are also included for use with parents. PATHS has been shown to improve protective factors and reduce behavioral risk factors that impact youth problem behaviors. Studies report reduced aggressive

behaviors, increased self-control, and an improved ability to tolerate frustration and use conflictresolution strategies.

Contact for Materials:

Channing Bete Company
One Community Place
South Deerfield, MA 01373-0200

Phone: 877-896-8532 Fax: 800-499-6464

E-mail: PrevSci@channing-bete.com Web site: www.channing-bete.com

Contact for Research:

Mark T. Greenberg, Ph.D. Prevention Research Center Pennsylvania State University 110 Henderson Building-South University Park, PA 16802-6504

Phone: 814-863-0112 Fax: 814-865-2530 E-mail: mxg47@psu.edu

Web site: www.prevention.psu.edu/PATHS

Contact for Training:

PATHS Training, LLC Carol A. Kusché, Ph.D. 927 10th Avenue E. Seattle, WA 98102

Phone and Fax: 206-323-6688 E-mail: ckusche@attglobal.ne

Skills, Opportunity, And Recognition (SOAR)

(Formerly, Seattle Social Development Program) (Lonczak et al. 2002; U.S. Department of Education 2001; Hawkins et al. 1999). This universal school-based intervention for grades one through six seeks to reduce childhood risks for delinquency and drug abuse by enhancing protective factors. The multicomponent intervention combines training for teachers, parents, and children during the elementary grades to promote children's bonding to school, positive school behavior, and academic achievement. These strategies are designed to enhance opportunities, skills, and rewards for children's prosocial involvement in school and their families.

Long-term followup results show positive outcomes for participants, including reduced antisocial behavior, misbehavior, alienation and teen pregnancy, and improved academic skills, commitment to school, and positive relationships with people.

Contact for Materials:

Channing Bete Company One Community Place South Deerfield, MA 01373-0200

Phone: 877-896-8532 Fax: 800-499-6464

E-mail: PrevSci@channing-bete.com Web site: www.channing-bete.com

Contact for Research:

J. David Hawkins, Ph.D. Social Development Research Group University of Washington 9725 Third Avenue NE, Suite 401 Seattle, WA 98115

Phone: 206-543-7655 Fax: 206-543-4507

E-mail: jdh@u.washington.edu

Web site: www.depts.washington.edu/sdrg

Middle School

Guiding Good Choices (GGC) (Formerly, Preparing for the Drug-Free Years) (Hawkins et al. 1999; Kosterman et al. 1997; U.S. Department of Education 2001; Spoth et al. 2002b). This curriculum was first researched as part of the Seattle Social Development Project at the University of Washington to educate parents on how to reduce risk factors and strengthen bonding in their families. In five 2-hour sessions, parents are shown how to (1) create age-appropriate opportunities for family involvement and interaction; (2) set clear expectations, monitor children, and apply discipline; (3) teach their children peer coping strategies; (4) adopt family conflict management approaches; and (5) express positive feelings to enhance family bonding. Dr. Richard Spoth of Iowa State University independently tested this intervention for rural parents and found the program to be effective in inhibiting alcohol and marijuana use. Special efforts were made to ensure recruitment and retention of study participants.

Contact for Research:

J. David Hawkins, Ph.D. Social Development Research Group University of Washington 9725 Third Avenue NE, Suite 401 Seattle, WA 98115

Phone: 206-543-7655 Fax: 206-543-4507

E-mail: jdh@u.washington.edu

Web site: www.depts.washington.edu/sdrg

Contact for Materials:

Channing Bete Company One Community Place South Deerfield, MA 01373-0200

Phone: 877-896-8532 Fax: 800-499-6464

E-mail: PrevSci@channing-bete.com Web site: www.channing-bete.com

Life Skills Training (LST) Program (Botvin et al. 1995, 1997, 2003; U.S. Department of Education 2001). LST is designed to address a wide range of risk and protective factors by teaching general personal and social skills, along with drug resistance skills and normative education. This universal program consists of a 3-year prevention curriculum for students in middle or junior high school. LST contains 15 sessions during the first year, 10 booster sessions during the second, and 5 sessions during the third year. The program can be taught either in grades 6, 7, and 8 (for middle school) or grades 7, 8, and 9 (for junior high schools). LST covers three major content areas: (1) drug resistance skills and information, (2) self-management skills, and (3) general social skills. The program has been extensively tested over the past 20 years and found to reduce the prevalence of tobacco, alcohol, and illicit drug use relative to controls by 50 to 87 percent. When combined with booster sessions, LST was shown to reduce the prevalence of substance abuse long term by as much as 66 percent, with benefits still in place beyond the high school years. Although LST was originally tested predominantly with White youth, several studies have shown that the LST program is also effective

with inner-city minority youth. Moreover, an age-appropriate version of the LST program for upper elementary school students was recently developed and shown to reduce tobacco and alcohol use (Botvin et al. 2003). It contains 24 classes (8 classes per year) to be taught during either grades 3 to 5 or 4 to 6.

Contact for Materials and Training:

National Health Promotion Associates, Inc. Life Skills Training 711 Westchester Avenue White Plains, NY 10604

Phone: 914-421-2525 Fax: 914-683-6998

E-mail: LSTinfo@nhpanet.com Web site: www.lifeskillstraining.com

Contact for Research:

Gilbert Botvin, Ph.D.
Institute for Prevention Research
Weill Medical College of Cornell University
411 East 69th Street, Room 203
New York, NY 10021

Phone: 212-746-1270 Fax: 212-746-8390

E-mail: gjbotvin@.med.cornell.edu

Lions-Quest Skills for Adolescence (SFA) (Eisen et al. 2002; U.S. Department of Education 2001). SFA is a commercially available, universal, life skills education program in use in schools nationwide. A rigorous school-based trial of SFA funded by a NIDA research grant compared the effectiveness of SFA delivered in sixth grade with "standard" drug prevention programs in preventing or delaying the onset of students' tobacco, alcohol, and illegal substance use through middle school. The 40-session version of SFA tested includes social influence and social cognitive approaches to teaching cognitive-behavioral skills for building self-esteem and personal responsibility, communicating effectively, making better decisions, resisting social influences and asserting rights, and increasing drug use knowledge and consequences (Quest International, 3rd edition 1992.) Some of the results after 1 year indicate that exposure to the program can help deter initiation of regular cigarette smoking and marijuana use; these results held across all racial/ethnic groups studied. Additional findings after 2 years indicate lower initiation and regular marijuana use across all groups, as well as lower binge drinking rates among Hispanic students.

Contact for Materials:

Greg Long Lions-Quest 1984-B Coffman Road Newark, OH 43055

Phone: 740-522-6405 or 800-446-2700

Fax: 740-522-6580

E-mail: info@lions-quest.org Web site: www.lions-quest.org

Contact for Research:

Marvin Eisen, Ph.D. Population Studies Center The Urban Institute 2100 M Street, NW Washington, DC 20037

Phone: 202-261-5858 Fax: 202-452-1840

E-mail: meisen@ui.urban.org

Project ALERT (U.S. Department of Education 2001). This drug prevention curriculum is a 2-year, universal program for middle school students that reduces the onset and regular use of substances among youth. The 14-lesson program is designed to prevent drug use initiation and the transition to regular use. It focuses on substances that adolescents typically use first and most widely—alcohol, tobacco, marijuana, and inhalants. Project ALERT uses participatory activities and videos to help students establish nondrug norms, develop reasons not to use, and resist prodrug pressures. The program has prevented marijuana use initiation, decreased current and heavy smoking, curbed alcohol misuse, reduced prodrug attitudes and beliefs, and helped smokers quit. The program has proven successful with high- and low-risk youth from a variety of communities.

Contact for Materials:

G. Bridget Ryan Project ALERT 725 S. Figueroa Street, Suite 970 Los Angeles, CA 90017

Phone: 800-253-7810 Fax: 213-623-0585

E-mail: info@projectalert.best.org Web site: www.projectalert.best.org

Contact for Research:

Phyllis L. Ellickson, Ph.D.
Director, Center for Research on
Maternal, Child, and Adolescent Health
The RAND Corporation
1700 Main Street
P.O. Box 2138
Santa Monica, CA 90407-2138

Phone: 310-393-0411 Fax: 310-451-7062

E-mail: Phyllis_ellickson@rand.org

Web site: www.rand.org

Project STAR (Chou et al. 1998; U.S. Department of Education 2001). Project STAR is a comprehensive drug abuse prevention community program with components for schools, parents, community organizations, and health policymakers. An additional component targets mass media to encourage publicizing positive efforts for drug prevention. The middle school component is a social influence curriculum that is incorporated into classroom instruction by trained teachers over a 2-year timetable. In the parent program, parents work with children on homework, learn family communication skills, and get involved in community action. Strategies range from individual-level change, such as teaching youth drug resistance skills, to school and community-change, including limiting youth access to alcohol or drugs. Long-term followup studies showed significant reductions in drug use among participants, when compared with adolescents in the community who had not received prevention intervention.

Contact for Materials and Research:

Karen Bernstein, M.P.H. University of Southern California Institute for Prevention Research 1000 S. Fremont Avenue, Unit #8 Alhambra, CA 91803

Phone: 626-457-6687 Fax: 626-457-6695 E-mail: Karenber@usc.edu The Strengthening Families Program: For Parents and Youth 10-14 (SFP 10-4) (Formerly, the Iowa Strengthening Families Program) (Spoth, Redmond, and Shin 2000, 2001). This program offers seven sessions, each attended by youth and their parents. Program implementation and evaluation have been conducted through partnerships that include state university researchers, Cooperative Extension System staff, local schools, and community implementers. Longitudinal study of comparisons with control group families showed positive effects on parents' child management practices (for example, setting standards, monitoring children, and applying consistent discipline) and on parent-child affective quality. In addition, a recent evaluation found delayed initiation of substance use at the 6-year followup. Other findings showed improved youth resistance to peer pressure to use alcohol, reduced affiliation with antisocial peers, and reduced levels of problem behaviors. Importantly, conservative benefitcost calculations indicate returns of \$9.60 per dollar invested in SFP.

Contact for Materials and Research:

Virginia Molgaard, Ph.D.
Prevention Program Development
The Strengthening Families Program:
For Parents and Youth 10–14
Institute for Social and Behavioral Research
Iowa State University
2625 North Loop Drive, Suite 500
Ames, IA 50010-8296

Phone: 515-294-8762 Fax: 515-294-3613

E-mail: vmolgaar@iastate.edu

Web site: www.extension.iastate.edu/sfp/

Contact for Research and Evaluation Information:

Richard Spoth, Ph.D. c/o Pandora Lamar Institute for Social and Behavioral Research Iowa State University 2625 North Loop Drive, Suite 500 Ames. IA 50010-8296

Phone: 515-294-5383 Fax: 515-294-3613

E-mail: rlspoth@iastate.edu; cc: plamar@iastate.edu Web site: www.projectfamily.isbr.iastate.edu

High School

Life Skills Training: Booster Program. The 3-year LST universal classroom program contains 15 booster sessions during the first year, 10 during the second, and 5 during the third year. See the Life Skills Training description above for background and contact information.

Lions-Quest Skills for Adolescence. (Eisen 2002; U.S. Department of Education 2001). See description above for background and contact information.

Project ALERT Plus. An enhanced version of Project ALERT has been added as a high school component and is being tested in 45 rural communities. See the Project ALERT description above for background and contact information.

The Strengthening Families Program: For Parents and Youth 10–14. (Formerly, the Iowa Strengthening Families Program). See description above for background and contact information.

Selective Programs

Elementary School

Focus on Families (FOF) (Catalano et al. 1999, 2002). A selective program for parents receiving methadone treatment and their children, FOF seeks to reduce parents' use of illegal drugs by teaching them skills for relapse prevention and coping. Parents are also taught how to better manage their families to reduce their children's risk for future drug abuse. The parent training consists of a 5-hour family retreat and 32 parent training sessions of 1.5 hours each. Children attend 12 of the sessions to practice developmentally appropriate skills with their parents. Results from an experimental evaluation of FOF found positive program effects on parents at the 1-year followup, especially in parenting skills, rule-setting, domestic conflict, drug refusal skills, and drug use. At the 1-year assessment, significantly fewer children

in the experimental condition reported having stolen something in the previous 6 months. After 2 years of family skills training, positive effects were still evident in parents' drug refusal skills, and positive effects had emerged in parent problemsolving skills in general situations. No statistically significant differences in drug use were found between those in experimental versus control conditions, although the direction of difference still favored experimental participants. Importantly, the strength of program effects on children was substantially stronger at the 2-year followup. Note that the direction of differences on all primary child outcome measures were stronger at the second-year assessment than at the end of the first year. These findings suggest that interventions to prevent relapse among parents and substance abuse among their children may produce immediate, as well as delayed, or "sleeper" effects on targeted risk and protective factors and substance use. The promise of the FOF program is evident in the early reduction in family-related risk factors—particularly for very high-risk families-with an overall trend toward positive program effects on child outcomes.

Contact for Materials and Research:

Richard F. Catalano, Ph.D. Social Development Research Group 9725 Third Avenue, NE, Suite 401 University of Washington Seattle, WA 98115

Phone: 206-543-6382 Fax: 206-543-4507

E-mail: catalano@u.washington.edu Web site: depts.washington.edu/sdrg The Strengthening Families Program (SFP) (Kumpfer et al. 1996, 2002). SFP, a universal and selective multicomponent, family-focused prevention program, provides support for families with 6- to 11-year-olds. The program began as an effort to help drug-abusing parents improve their parenting skills and reduce their children's risk for subsequent problems. It has shown success in elementary schools and communities. Strengthening Families has three components: a behavioral parent training program, children's skills training program, and family skills training program. In each of the 14 weekly sessions, parents and children are trained separately in the first hour. During the second hour, parents and children come together in the family skills training portion. The session begins with families sharing dinner. Barriers to attendance are reduced by providing child care, transportation, and small incentives. This approach has been evaluated in a variety of settings and with several racial and ethnic groups. Spanishlanguage manuals are available. Primary outcomes include reduced family conflict, youth conduct disorders, aggressiveness, and substance abuse, as well as improved youth social skills, parenting skills, and family communication and organization.

Contact for Materials and Research:

Karol Kumpfer, Ph.D. University of Utah Department of Health Promotion 300 S. 1850 E. Room 215 Salt Lake City, UT 84112-0920

Phone: 801-581-7718 Fax: 801-581-5872

E-mail: karol.kumpfer@health.utah.edu

Web site: www.strengtheningfamiliesprogram.org

Contact for Training:

Henry O. Whiteside, Ph.D. Lutragroup 5215 Pioneer Fork Road Salt Lake City, UT 84108-1678

Phone: 801-583-4601 Fax: 801-583-7979

E-mail: hwhiteside@lutragroup.com

Middle School

Coping Power (Lochman and Wells 2002). Coping Power is a multicomponent child and parent preventive intervention directed at preadolescent children at high risk for aggressiveness and later drug abuse and delinquency. The child component is derived from an anger coping program, primarily tested with highly aggressive boys and shown to reduce substance use. The Coping Power Child Component is a 16-month program for fifth- and sixth-graders. Group sessions usually occur before or after school or during nonacademic periods. Training focuses on teaching children how to identify and cope with anxiety and anger; controlling impulsiveness; and developing social, academic, and problemsolving skills at school and home. Parents are also provided training throughout the program. Results indicate that the intervention produced relatively lower rates of substance use at postintervention than seen among the controls. Also, children of families receiving the Coping Power child and parent components significantly reduced aggressive behavior, as rated by parents and teachers.

Contact for Materials and Research:

John E. Lochman, Ph.D. Department of Psychology University of Alabama P.O. Box 870348 Tuscaloosa, AL 35487

Phone: 205-348-7678 Fax: 205-348-8648

E-mail: jlochman@gp.as.ua.edu

High School

Adolescents Training and Learning to Avoid Steroids (ATLAS) (Goldberg et al. 2000). ATLAS is a multicomponent selective program for male high school athletes, designed to reduce risk factors for use of anabolic steroids and other drugs, while providing healthy sports nutrition and strength-training alternatives to illicit use of athletic-enhancing substances. Coaches and peer teammates facilitate curriculum delivery with scripted manuals in small cooperative learning groups, taking advantage of an influential coaching staff and the team atmosphere where peers share common goals. Seven 45-minute classroom sessions and seven physical training periods involve role-playing, student-created campaigns, and educational games. Instructional aids include pocket-sized food and exercise guides and easy-tofollow student workbooks. Parents are involved through parent-student homework and are given the booklet, Family Guide to Sports Nutrition. Attitudes and alcohol and illicit drug use, as well as nutrition behaviors and exercise self-efficacy, remained significantly healthier among ATLAS program participants at a 1-year followup.

Contact for Materials:

Division of Health Promotion and Sports Medicine Oregon Health & Science University

Phone: 503-494-7900

Web site: www.ohsu.edu/som-hpsm/atlas.html

Contact for Research:

Linn Goldberg, M.D., FACSM
Division of Health Promotion
and Sports Medicine
Oregon Health & Science University
3181 SW Sam Jackson Park Road
Portland, OR 97201-3098

Phone: 503-494-8051 Fax: 503-494-1310 E-mail: goldberl@ohsu.edu Web site: www.atlasprogram.com

Indicated Programs

High School

Project Towards No Drug Abuse (Project TND) (Sussman et al. 2002). This indicated prevention intervention targets high school age youth who attend alternative or traditional high schools. The goal is to prevent the transition from drug use to drug abuse, considering the developmental issues faced by older teens, particularly those at risk for drug abuse. At the core of Project TND is a set of 12 in-class sessions that provide motivation and cognitive misperception correction, social and selfcontrol skills, and decisionmaking material targeting the use of cigarettes, alcohol, marijuana, and hard drugs and violence-related behavior, such as carrying a weapon. The classroom program has been found to be effective at 1-year followup across three true experimental field trials. The 12-session version is effective across outcome variables, and many effects are maintained at 2-year followup.

Contact for Materials and Research:

Steve Sussman, Ph.D., FAAHB
Institute for Health Promotion
and Disease Prevention Research
Departments of Preventive Medicine
and Psychology
University of Southern California
1000 S. Fremont Avenue, Unit 8
Building A-4, Room 4124
Alhambra, CA 91803

Phone: 626-457-6635 Fax: 626-457-4012

E-mail: ssussma@hsc.usc.edu

Reconnecting Youth Program (RY) (Eggert et al. 1995, 2001; Thompson et al. 1997). RY is a school-based indicated prevention program for high school students with poor school achievement and potential for dropping out. Participants may also show signs of multiple problem behaviors, such as substance abuse, depression, aggression, or suicidal behaviors. Students are screened for eligibility and then invited to participate in the program. The program goals are to increase school performance, reduce drug use, and

learn skills to manage mood and emotions. RY blends small group work (10–12 students per class) to foster positive peer bonding, with social skills training in a daily, semester-long class. RY skills, taught by an RY specially trained teacher or group leader, include self-esteem enhancement, decisionmaking, personal control, and interpersonal communication. Early experiments have shown that participation in RY improved school performance (20-percent increase in GPA), decreased school dropout, reduced hard drug use (by 60 percent), and decreased drug use control problems, such as adverse consequences and progression to heavier drug use. Recent studies of a refined RY program model (with skills training on depression and anger management and increased monitoring of drug use) have found greater decreases in hard drug use, depression, perceived stress, and anger control problems.

Contact for Materials:

Reconnecting Youth: A Peer Group Approach to Building Life Skills (Revised Edition) National Educational Service 304 West Kirkwood Avenue, Suite 2 Bloomington, IN 47404

Phone: 800-733-6786 or 812-336-7790

Fax: 812-336-7790 E-mail: nes@nesonline.com Web site: www.nesonline.com

Contact for Research and Program Evaluation:

Jerald R. Herting, Ph.D.
Reconnecting Youth Prevention
Research Program
Psychosocial and Community Health
University of Washington School of Nursing
9709 Third Avenue NE, Suite 510
Seattle, WA 98115

Phone: 206-543-3810 or 206-616-6478

Fax: 206-221-3674

E-mail: herting@u.washington.edu

Web site: www.son.washington.edu/department/pch/ry

Contact for Training:

Leona L. Eggert or Liela J. Nicholas, Program Developers Reconnecting Youth Prevention Programs

Phone: 425-861-1177 Fax: 425-861-8071 E-mail: RYprog@verizon.net

Tiered Programs

Elementary School

Early Risers "Skills for Success" Risk Prevention Program (August et al. 2001; August et al. 2002; August et al., in press). Early Risers is a selective, multicomponent, preventive intervention for children at heightened risk for early onset of serious conduct problems, including licit and illicit drug use. The program's focus is on elementary school children with early aggressive behavior. It is designed to deflect children from the "early starter" developmental pathway toward normal development by effecting positive change in academic competence, behavioral self-regulation, social competence, and parent investment in the child. Early Risers has two broad components: CORE, a set of child-focused intervention components delivered continuously in school and over the summer for 2 or 3 years, implemented in tandem with FLEX, a family support and empowerment component tailored to meet family-specific needs and delivery through home visits. Recent findings reveal that program participants showed greater gains in social skills, peer reputation, prosocial friendship selection, academic achievement, and parent discipline than did controls.

Contact for Materials and Research:

Gerald J. August, Ph.D. Division of Child and Adolescent Psychiatry University of Minnesota Medical School P256/2B West, 2450 Riverside Avenue Minneapolis, MN 55454-1495

Phone: 612-273-9711 Fax: 612-273-9779

E-mail: augus001@tc.umn.edu

Fast Track Prevention Trial for Conduct Problems

(Conduct Problems Prevention Research Group 2002c). Fast Track is a comprehensive preventive intervention for young children at high risk for long-term antisocial behavior. Based on a developmental model, the intervention includes a *universal* classroom program (adapted from the PATHS curriculum) for high-risk children selected in kindergarten; it also includes training for parents. Children receive social skills training, academic tutoring, and home visits to improve

academic and social competencies and reduce problems. In first grade, the classroom intervention builds skills in (1) emotional understanding and communication, (2) friendship, (3) self-control, and (4) social problemsolving. The *selective* intervention reaches parents and children at higher risk for conduct problems. Parenting strategies provide skills to support school adjustment, improve the child's behavior, build parents' self-control, promote appropriate expectations for the child's behavior, and improve parent-child interaction. By the end of third grade, 37 percent of the intervention group were free of serious conduct problems, compared with 27 percent of the control group.

Contact for Materials and Research:

Conduct Problems Prevention Research Group Karen L. Bierman, Ph.D. Pennsylvania State University Prevention Research Center 110 Henderson-Building South University Park, PA 16802-6504

Phone: 814-865-3879 Fax: 814-865-3246 E-mail: prevention@psu.edu

Middle School

Adolescent Transitions Program (ATP) (Dishion et al. 2002). ATP is a school-based program that uses a tiered approach to provide prevention services to students in middle and junior high school and their parents. The *universal* intervention level, directed to parents of all students in a school, establishes a Family Resource Room to engage parents, establish norms for parenting practices, and disseminate information about risks for problem behavior and substance use. The *selective* intervention level, the Family Check-Up, offers family assessment and professional support to identify families at risk for

problem behavior and substance use. The *indicated* level, the Parent Focus curriculum, provides direct professional support to parents to make the changes indicated by the Family Check-Up. Services may include behavioral family therapy, parenting groups, or case management services.

Contact for Materials and Research:

Thomas J. Dishion, Ph.D. University of Oregon Child and Family Center 195 West 12th Avenue Eugene, OR 97401

Phone: 541-346-4805 Fax: 541-346-4858

Chapter 5: Selected Resources and References

Below are resources relevant to drug abuse prevention. Information on NIDA's Web site is followed by Web sites for other Federal agencies and private organizations. These resources and the selected references that follow are excellent sources of information in helping communities plan and implement research-based drug prevention programs.

Selected Resources

National Institute on Drug Abuse (NIDA) National Institutes of Health (NIH) U.S. Department of Health and Human Services (DHHS)

NIDA's Web site (www.drugabuse.gov) provides factual information on all aspects of drug abuse, particularly the effects of drugs on the brain and body, the prevention of drug abuse among children and adolescents, the latest research on treatment for addiction, and statistics on the extent of drug abuse in the United States. The Web site allows visitors to print or order publications, public service announcements and posters, science education curricula, research reports and fact sheets on specific drugs or classes of drugs, and the *NIDA NOTES* newsletter. The site also links to related Web sites in the public and private sector.

Other Federal Resources

Center for Substance Abuse Prevention (CSAP) Substance Abuse and Mental Health Services Administration (SAMHSA), DHHS

5600 Fishers Lane Rockwall 2, 9th Floor, Suite 900 Rockville, MD 20857 Phone: 301-443-9110 www.prevention.samhsa.gov

Centers for Disease Control and Prevention (CDC), DHHS

1600 Clifton Road Atlanta, GA 30333 Phone: 404-639-3534

Phone: 800-311-3435 (toll-free)

www.cdc.gov

Safe and Drug-Free Schools Program U.S. Department of Education (DoE)

400 Maryland Avenue, SW Washington, DC 20202 Phone: 800-872-5327 (toll-free) www.ed.gov

Drug Enforcement Administration (DEA) U.S. Department of Justice (DOJ)

2401 Jefferson Davis Highway Alexandria, VA 22301 Phone: 202-307-1000 www.dea.gov

Knowledge Exchange Network, SAMHSA, DHHS

P.O. Box 42490 Washington, DC 20015 Phone: 800-789-2647 (toll-free) www.mentalhealth.org

National Clearinghouse for Alcohol and Drug Information (NCADI), SAMHSA, DHHS

Phone: 800-729-6686 (toll-free) www.ncadi.samhsa.gov

National Institute on Alcohol Abuse and Alcoholism (NIAAA), NIH, DHHS

6000 Executive Boulevard, Willco Building Bethesda, MD 20892 Phone: 301-443-3860

www.niaaa.nih.gov

National Institute of Mental Health (NIMH), NIH, DHHS

6001 Executive Boulevard, Room 8184, MSC 9663

Bethesda, MD 20892 Phone: 301-443-4513 www.nimh.nih.gov

National Institutes of Health (NIH), DHHS

9000 Rockville Pike Bethesda, MD 20892 Phone: 301-496-4000 www.nih.gov

National Library of Medicine (NLM), NIH, DHHS

8600 Rockville Pike Bethesda, MD 20894 Phone: 301-594-5983

Phone: 888-346-3656 (toll-free)

www.nlm.nih.gov

Office of Juvenile Justice and Delinquency Prevention (OJJDP), DOJ

810 Seventh Street Washington, DC 20531 Phone: 202-307-5911

www.ojjdp.ncjrs.org/pubs/substance.html

Office of National Drug Control Policy (ONDCP)

P.O. Box 6000 Rockville, MD 20849

Phone: 800-666-3332 (toll-free) www.whitehousedrugpolicy.gov

Substance Abuse and Mental Health Services Administration (SAMHSA), DHHS

5600 Fishers Lane Rockville, MD 20857 Phone: 301-443-8956 www.samhsa.gov

Other Selected Resources

American Academy of Child and Adolescent Psychiatry (AACAP)

3615 Wisconsin Avenue, NW Washington, DC 20016 Phone: 202-966-7300 www.aacap.org

American Academy of Family Physicians (AAFP): KidsHealth

11400 Tomahawk Creek Parkway Leawood, KS 66211 www.familydoctor.org

American Academy of Pediatrics (AAP)

141 Northwest Point Boulevard Elk Grove, IL 60007-1098 Phone: 847-434-4000 www.aap.org

American Psychological Association (APA)

750 First Street, NE Washington, DC 20002 Phone: 800-374-2121 (toll-free)

Phone: 202-336-5510

www.apa.org

American Society of Addiction Medicine (ASAM)

4601 North Park Avenue, Arcade Suite 101

Chevy Chase, MD 20815 Phone: 301-656-3920 www.asam.org

Blueprints for Violence Prevention, Center for the Study and Prevention of Violence

Institute on Behavioral Science University of Colorado at Boulder 900 28th Street, Suite 107

439 UCB

Boulder, CO 80309 Phone: 303-492-1032

www.colorado.edu/cspv/blueprints/

Center on Addiction and Substance Abuse (CASA) at Columbia University

633 Third Avenue, 19th Floor New York, NY 10017 Phone: 212-841-5200 www.casacolumbia.org

Community Anti-Drug Coalitions of America (CADCA)

901 North Pitt Street, Suite 300

Alexandria, VA 22314

Phone: 800-542-2322 (toll-free)

www.cadca.org

Drug Strategies, Inc.

1150 Connecticut Avenue, NW, Suite 800 Washington, DC 20036 Phone: 202-289-9070 www.drugstrategies.org

Join Together

One Appleton Street, 4th Floor Boston, MA 02116 Phone: 617-437-1500 www.jointogether.org

Latino Behavioral Health Institute

P.O. Box 1008

Thousand Oaks, CA 91360 Phone: 213-738-2882 www.lbhi.org

National Asian Pacific American Families Against Substance Abuse (NAPAFASA)

340 East Second Street, Suite 409 Los Angeles, CA 90012 Phone: 213-625-5795 www.napafasa.org

National Criminal Justice Reference Service (NCJRS)

P.O. Box 6000 Rockville, MD 20849

Phone: 800-851-3420 (toll-free)

Phone: 301-519-5500 www.ncirs.org

National Families in Action (NFIA)

2957 Clairmont Road, NE, Suite 150

Atlanta, GA 30329 Phone: 404-248-9676 www.nationalfamilies.org

National Hispanic Science Network (NHSN)

Center for Family Studies
Department of Psychiatry & Behavioral Sciences
University of Miami School of Medicine
1425 NW 10th Avenue, 3rd Floor
Miami, Fl. 33136-1024

Phone: 305-243-2340 www.hispanicscience.org

National Prevention Network (NPN)

808 17th Street, NW, Suite 410 Washington, DC 20006 Phone: 202-293-0090

www.nasadad.org/Departments/Prevention/prevhme1.htm

Partnership for a Drug-Free America

405 Lexington Avenue, Suite 1601 New York, NY 10174 Phone: 212-922-1560 www.drugfreeamerica.org

Society for Prevention Research (SPR)

1300 I Street, NW, Suite 250 West Washington, DC 20005 Phone: 202-216-9670 www.preventionresearch.org

Selected References

The following references have been selected as either summaries of the literature of the past several years or as the latest findings on specific aspects of prevention research, which have been cited in this publication. For a more comprehensive list of research citations, please consult the NIDA Web site at www.drugabuse.gov.

Aos, S.; Phipps, P.; Barnoski, R.; and Lieb, R. *The Comparative Costs and Benefits of Programs to Reduce Crime. Vol. 4* (1-05-1201). Olympia, WA: Washington State Institute for Public Policy, May 2001.

Ashery, R.S.; Robertson, E.B.; and Kumpfer K.L.; eds. *Drug Abuse Prevention Through Family Interventions*. NIDA Research Monograph No. 177. Washington, DC: U.S. Government Printing Office, 1998.

August, G.J.; Realmuto, G.M.; Hektner, J.M.; and Bloomquist, M.L. An integrated components preventive intervention for aggressive elementary school children: The Early Risers Program. *Journal of Consulting and Clinical Psychology* 69(4):614–626, 2001.

August, G.J.; Hektner, J.M.; Egan, E.A.; Realmuto, G.M.; and Bloomquist, M.L. The Early Risers longitudinal trial: Examination of 3-year outcomes in aggressive children with intent-to-treat and as-intended analyses. *Psychology of Addictive Behaviors* 16(43):827–839, 2002.

August, G.J.; Lee, S.S.; Bloomquist, M.L.; Realmuto, G.M.; and Hektner, J.M. Dissemination of an evidence-based prevention innovation for aggressive children living in a culturally diverse, urban neighborhood: The Early Risers effectiveness study. *Prevention Science*, in press.

- Barrera, M.; Biglan, A.; Taylor, T.K.; Gunn, B.K.; Smolkowski, K.; Black, C.; Ary, D.V.; and Fowler, R.C. Early elementary school intervention to reduce conduct problems: A randomized trial with Hispanic and non-Hispanic children. *Prevention Science* 3(2):83–94, June 2002.
- Battistich, V.; Solomon, D.; Watson, M.; and Schaps, E. Caring school communities. *Educational Psychologist* 32(3):137–151, 1997.
- Bauman, K.E.; Foshee, V.A.; Ennett, S.T.; Pemberton, M.; Hicks, K.A.; King, T.S.; and Koch, G.G. The influence of a family program on adolescent tobacco and alcohol. *American Journal of Public Health* 91(4):604–610, 2001.
- Beauvais, F.; Chavez, E.; Oetting, E.; Deffenbacher, J.; and Cornell, G. Drug use, violence, and victimization among White American, Mexican American, and American Indian dropouts, students with academic problems, and students in good academic standing. *Journal of Counseling Psychology* 43:292–299, 1996.
- Botvin, G.; Baker, E.; Dusenbury, L.; Botvin, E.; and Diaz, T. Long-term follow-up results of a randomized drug-abuse prevention trial in a white middle class population. *Journal of the American Medical Association* 273:1106–1112, 1995.
- Botvin, G.; Epstein, J.; Baker, E.; Diaz, T.; and Ifill-Williams, M. School-based drug abuse prevention with inner-city minority youth. *Journal of Child and Adolescent Substance Abuse* 6:5–19, 1997.
- Botvin, G.; Griffin, K.; Diaz, T.; Miller, N.; and Ifill-Williams, M. Smoking initiation and escalation in early adolescent girls: One-year follow-up of a school based prevention intervention for minority youth. *Journal of American Medical Women's Association* 54:139–143, 152, 1999.
- Botvin, G.; Griffin, K.W.; Paul, E.; and Macaulay, A.P. Preventing tobacco and alcohol use among elementary school students through Life Skills Training. *Journal of Child and Adolescent Substance Abuse* 12(4):1–18, 2003.
- Catalano, R.F.; Gainey, R.R.; Fleming, C.B.; Haggerty, K.P.; and Johnson, N.O. An experimental intervention with families of substance abusers: One-year follow-up of the Focus on Families Project. *Addiction* 94(2):241–254, 1999.
- Catalano, R.F.; Haggerty, K.P.; Fleming, C.B.; Brewer, D.D.; and Gainey, R.R. Children of substance abusing parents: Current findings from the Focus on Families project. In: McMahon, R.J., and Peters, R.D., eds. *The Effects of Parental Dysfunction on Children*. New York: Kluwer Academic Press/Plenum Publishers, pp.179–204, 2002.
- Chou, C.; Montgomery, S.; Pentz, M.; Rohrbach, L.; Johnson, C.; Flay, B.; and Mackinnon, D. Effects of a community-based prevention program in decreasing drug use in high-risk adolescents. *American Journal of Public Health* 88:944–948, 1998.

- Conduct Problems Prevention Research Group. Evaluation of the first three years of the Fast Track Prevention Trial with children at high risk for adolescent conduct problems. *Journal of Abnormal Child Psychology* 30(1):19–35, 2002a.
- Conduct Problems Prevention Research Group. Predictor variables associated with positive Fast Track outcomes at the end of third grade. *Journal of Abnormal Child Psychology* 30(1):37–52, 2002b.
- Conduct Problems Prevention Research Group. The implementation of the Fast Track Program: An example of a large-scale prevention science efficacy trial. *Journal of Abnormal Child Psychology* 30(1):1–17, 2002c.
- Dishion, T.; McCord, J.; and Poulin, F. When interventions harm: Peer groups and problem behavior. *American Psychologist* 54:755–764, 1999.
- Dishion, T. and Kavanagh, K.A. multilevel approach to family-centered prevention in schools: Process and outcome. *Addictive Behaviors* 25:899–911, 2000.
- Dishion, T.; Kavanagh, K.; Schneiger, A.K.J.; Nelson, S.; and Kaufman, N. Preventing early adolescent substance use: A family centered strategy for the public middle school. *Prevention Science* 3(3):191–202, 2002.
- Eggert, L.L.; Thompson, E.A.; Herting, J.R.; Nicholas, L.J.; and Dicker, B. Preventing adolescent drug abuse and high school dropout through an intensive school-based social network development program. *American Journal of Health Promotion* 8:201–215, 1994.
- Eggert, L.L.; Thompson, E.A.; Herting, J.R.; and Nicholas, L.J. Reducing suicide potential among high-risk youth: Tests of a school-based prevention program. *Suicide & Life-Threatening Behavior* 25(2):276–296, 1995.
- Eggert, L.L.; Herting, J.; and Thompson, E. The drug involvement scale for adolescents (DISA). *Journal of Drug Education* 26:101–130, 1996.
- Eggert, L.L.; Thompson, E.A.; Herting, J.R.; and Randall, B.P. Reconnecting youth to prevent drug abuse, school dropout, and suicidal behaviors among high-risk youth. In Wagner, E., and Waldron, H.B., eds. *Innovations in Adolescent Substance Abuse Intervention*. Oxford: Elsevier Science, pp. 51–84, 2001.
- Eisen, M.; Zellman, G.L.; Massett, H.A.; and Murray, D.M. Evaluating the Lions-Quest "Skills for Adolescence" drug education program: First-year behavior outcomes. *Addictive Behaviors* 27(4):619–632, 2002.
- Eisen, M.; Zellman, G.L.; and Murray, D.M. Evaluating the Lions-Quest "Skills for Adolescence" drug education program: Second-year behavior outcomes. *Addictive Behaviors* 28(5):883–897, 2003.

Gerstein, D.R., and Green, L.W., eds. *Preventing Drug Abuse: What Do We Know?* Washington, DC: National Academy Press, 1993.

Goldberg, L.; MacKinnon, D.P.; Elliot, D.L.; Moe, E.L.; Clarke, G.; and Cheong, J.W. The Adolescents Training and Learning to Avoid Steroids Program. Preventing drug use and promoting health behaviors. *Archives of Pediatric and Adolescent Medicine* 154:332–338, April 2000.

Greenberg, M.T., and Kusche, C.A. Preventive interventions for school-age deaf children: The PATHS curriculum. *Journal of Deaf Studies & Deaf Education* 3(1):49–63, 1998.

Greenberg, M.T. and Kusche, C.A. Promoting Alternative Thinking Strategies. *In Blueprint for Violence Prevention* (Book 10). Institute of Behavioral Sciences, University of Colorado, 1998.

Hansen, W.B.; Giles, S.M.; and Fearnow-Kenney, M.D. *Improving Prevention Effectiveness*. Greensboro, NC: Tanglewood Research, 2000.

Hawkins, J.D. and Catalano, R.F. *Communities That Care: Action for Drug Abuse Prevention.* San Francisco, CA: Jossey-Bass, 1992.

Hawkins, J.D.; Catalano, R.F.; Kosterman, R.; Abbott, R.; and Hill, K.G. Preventing adolescent health-risk behaviors by strengthening protection during childhood. *Archives of Pediatric and Adolescent Medicine* 153:226–234, 1999.

Hawkins, J.D.; Catalano, R.F.; and Arthur, M. Promoting science-based prevention in communities. *Addictive Behaviors* 90(5):1–26, 2002.

Hecht, M.; Trost, M.; Bator, R.; and MacKinnon, D. Ethnicity and sex similarities and differences in drug resistance. *Journal of Applied Communication Research* 25:75–97, 1997.

lalongo, N.; Werthamer, L.; Kellam, S.; Brown, C.; Wang, S.; and Lin, Y. Proximal impact of two first-grade preventive interventions on the early risk behaviors for later substance abuse, depression, and antisocial behavior. *American Journal of Community Psychology* 27:599–641, 1999.

lalongo, N.; Poduska, J.; Werthamer, L.; and Kellam, S. The distal impact of two first-grade preventive interventions on conduct problems and disorder in early adolescence. *Journal of Emotional and Behavioral Disorders* 9:146–160, 2001.

Johnston, L.D.; O'Malley, P.M.; and Bachman, J.G. *Monitoring the Future National Survey Results on Drug Use, 1975–2002. Volume 1: Secondary School Students.* Bethesda, MD: National Institute on Drug Abuse, 2002.

Kosterman, R.; Hawkins, J.D.; Spoth, R.; Haggerty, K.P.; and Zhu, K. Effects of a preventive parent-training intervention on observed family interactions: proximal outcomes from Preparing for the Drug Free Years. *Journal of Community Psychology* 25(4):337–352, 1997.

Kosterman, R.; Hawkins, J.D.; Haggerty, K.P.; Spoth, R.; and Redmond, C. Preparing for the Drug Free Years: Session-specific effects of a universal parent-training intervention with rural families. *Journal of Drug Education* 31(1):47–68, 2001.

Kumpfer, K.L.; Molgaard, V.; and Spoth, R. The "Strengthening Families Program" for the prevention of delinquency and drug abuse. In: Peters, R.D., and McMahon, R.J., eds. *Preventing Childhood Disorders, Substance Abuse, and Delinquency.*Newbury Park, CA: Sage, 1996.

Kumpfer, K.L.; Olds, D.L.; Alexander, J.F.; Zucker, R.A.; and Gary, L.E. Family etiology of youth problems. In: Ashery, R.S.; Robertson, E.B.; and Kumpfer K.L.; eds. *Drug Abuse Prevention Through Family Interventions*. NIDA Research Monograph No. 177. Washington, DC: U.S. Government Printing Office, pp. 42–77, 1998.

Kumpfer, K.L.; Alvarado, R.; Smith, P.; and Bellamy, N. Cultural sensitivity in universal family-based prevention interventions. *Prevention Science* 3(3):241–246, 2002.

Kumpfer, K.L.; Alvarado, R.; Tait, C.; and Turner, C. Effectiveness of school-based family and children's skills training for substance abuse prevention among 6-8 year old rural children. *Psychology of Addictive Behaviors* 16(4S):S65–S71, 2002.

Lochman, J.E. and Wells, K.C. The Coping Power Program at the middle-school transition: Universal and indicated prevention effects. *Psychology of Addictive Behaviors* 16(45):S40–S54, 2002.

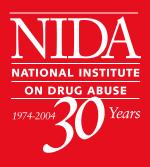
Lonczak, H.S., Abbott, R.D., Hawkins, J.D., Kosterman, R., and Catalano, R.F. Effects of the Seattle Social Development Project on sexual behavior, pregnancy, birth, and sexually transmitted disease outcomes at age 21 years. *Archives of Pediatric and Adolescent Medicine* 156:438–447, May 2002.

Moon, D.; Hecht, M.; Jackson, K.; and Spellers, R. Ethnic and gender differences and similarities in adolescent drug use and refusals of drug offers. *Substance Use and Misuse* 34(8):1059–1083, 1999.

National Institute on Drug Abuse. *National Conference on Drug Abuse Prevention Research: Presentations, Papers, and Recommendations*. Bethesda, MD: National Institute on Drug Abuse, 1998.

- O'Donnell, J.; Hawkins, J.; Catalano, R.; Abbott, R.; and Day, L. Preventing school failure, delinquency among low-income children: Long-term intervention in elementary schools. *American Journal of Orthopsychiatry* 65:87–100, 1995.
- Oetting, E.; Edwards, R.; Kelly, K.; and Beauvais, F. Risk and protective factors for drug use among rural American youth. In: Robertson, E.B.; Sloboda, Z.; Boyd, G.M.; Beatty, L.; and Kozel, N.J., eds. *Rural Substance Abuse: State of Knowledge and Issues.* NIDA Research Monograph No. 168. Washington, DC: U.S. Government Printing Office, pp. 90–130, 1997.
- Palmgreen, P.; Donohew, L.; Lorch, E.P.; Hoyle, R.H.; and Stephenson, M.T. Television campaigns and adolescent marijuana use: Tests of sensation seeking targeting. *American Journal of Public Health* 91(2):292–296, 2001.
- Palmgreen, P.; Donohew, L.; Lorch, E.P.; Hoyle, R.H.; and Stephenson, M.T. Television campaigns and sensation seeking targeting of adolescent marijuana use: A controlled time series approach. In: Hornik, R.C, ed. *Public Health Communication: Evidence for Behavior Change*. Mahwah, NJ: Lawrence Erlbaum, pp. 35–56, 2002.
- Pentz, M.A. Costs, benefits, and cost-effectiveness of comprehensive drug abuse prevention. In: Bukoski, W.J., and Evans, R.I., eds. *Cost-Benefit/Cost-Effectiveness Research of Drug Abuse Prevention: Implications for Programming and Policy.* NIDA Research Monograph No. 176. Washington, DC: U.S. Government Printing Office, pp. 111–129,1998.
- Plested, B.; Smitham, D.; Jumper-Thurman, P., Oetting, E., and Edwards, R. Readiness for drug use prevention in rural minority communities. *Substance Use And Misuse* 34(4 and 5):521–544, 1999.
- Scheier, L.; Botvin, G.; Diaz, T.; and Griffin, K. Social skills, competence, and drug refusal efficacy as predictors of adolescent alcohol use. *Journal of Drug Education* 29(3): 251–278, 1999.
- Spoth, R.; Redmond, C.; and Shin, C. Reducing adolescents' aggressive and hostile behaviors: Randomized trial effects of a brief family intervention four years past baseline. *Archives of Pediatrics and Adolescent Medicine* 154(12):1248–1257, 2000.
- Spoth, R.; Redmond, C.; and Shin, C. Randomized trial of brief family interventions for general populations: Adolescent substance use outcomes four years following baseline. *Journal of Consulting and Clinical Psychology* 69(4):627–642, 2001.

- Spoth, R.; Guyull, M.; and Day, S. Universal family-focused interventions in alcohol-use disorder prevention: Cost effectiveness and cost-benefit analyses of two interventions. *Journal of Studies on Alcohol* 63:219–228, 2002a.
- Spoth, R.L.; Redmond, D.; Trudeau, L.; and Shin, C. Longitudinal substance initiation outcomes for a universal preventive intervention combining family and school programs. *Psychology of Addictive Behaviors* 16(2):129–134, 2002b.
- Sussman, S.; Dent, C.W.; and Stacy, A.W. Project Toward No Drug Abuse: A review of the findings and future directions. *American Journal of Health Behavior* 26(5):354–365, 2002.
- Thompson, E.; Horn, M.; Herting, J.; and Eggert, L. Enhancing outcomes in an indicated drug prevention program for high-risk youth. *Journal of Drug Education* 27(1):19–41, 1997.
- Thornton, T.N., et al., eds. *Best Practices of Youth Violence Prevention:* A Sourcebook for Community Action. Atlanta, GA: Centers for Disease Control and Prevention, September 2000.
- U.S. Department of Education, Office of Special Education Research and Improvement, Office of Reform Assistance and Dissemination, *Safe, Disciplined, and Drug-Free Schools Programs*, Washington, DC, 2001.
- Webster-Stratton, C. Preventing conduct problems in Head Start children: Strengthening parenting competencies. *Journal of Consulting and Clinical Psychology* 66:715–730, 1998.
- Webster-Stratton, C.; Reid, J.; and Hammond, M. Preventing conduct problems, promoting social competence: A parent and teacher training partnership in Head Start. *Journal of Clinical Child Psychology* 30:282–302, 2001.
- Wills, T. and Cleary, S. How are social support effects mediated? A test with parental support and adolescent substance use. Journal of Personality and Social Psychology 71:937–952, 1996.
- Wills, T.; McNamara, G.; Vaccaro, D.; and Hirky, A. Escalated substance use: A longitudinal grouping analysis from early to middle adolescence. *Journal of Abnormal Psychology* 105:166–180, 1996.



NIH Publication No. 04-4212(A) Printed 1997 Reprinted 1997, 1999, 2001 Second Edition October 2003

California Healthy Kids Survey

LGSUHSD 2020-21 & 2018-19 Results and Comparisons

What is the California Healthy Kids Survey?

The California Healthy Kids Survey (CHKS) is the largest statewide survey of resiliency, protective factors, and risk behaviors in the nation. Across California, the CHKS has led to a better understanding of the relationship between students' health behaviors and academic performance, and is frequently cited by state policymakers and the media as a critical component of school improvement efforts to help guide the development of more effective health, prevention, and youth development programs. It provides a means to confidentially obtain data on student knowledge, attitudes, and perceptions about the topics it covers.

California Healthy Kids Survey Comparable Districts & Administration Years

- Los Gatos High School
 - 2018/19 and 2020/21
- Saratoga High School
 - 2018/19 and 2020/21
- Palo Alto Unified School District
 - 2019/20
- Mountain View-Los Altos Union High School District
 - 2019/20
- Statewide Secondary Data
 - 2015-17

California Healthy Kids Survey Survey Participant Sizes

	LGHS		SHS	
	<u>2018/19</u>	2020/21	<u>2018/19</u>	2020/21
9th	488	446	325	287
11th	420	406	310	310

2018/19 - Survey administered in February 2018 2020/21 - Survey administered in December 2020

Important Points about Context

- 1. No community is without problems that need to be identified and addressed.
- 2. Drug use, violence and other health risks are <u>not just school issues</u>; <u>they are social</u>, <u>community</u>, <u>and family issues</u>.
- 3. Schools are often safe havens in their communities.
- 4. The CHKS results help districts <u>focus resources and develop programs</u>. To address any problem, <u>you first need to identify and understand it</u>.
- 5. Reducing risk behaviors and promoting positive youth development are <u>key efforts to improve schools and promote academic success among all students</u>.
- 6. Our goal is to determine what we can do to support and <u>help our community's youth</u> <u>lead healthy, satisfying, and productive lives</u>.

Interpreting the Data

- Data is accurate the standard error of the mean ranges from 0.011 to 0.014
- Data is reliable The 95% confidence intervals are (~0.05 for developmental supports and ~0.03 for current drug use items). That means that if the survey was given 100 times, the results would be within less than one point difference 95 times.

How do we know if there was a significant difference between administration years?

★ ◆ ± 4% indicates a significant increase or decrease between administration years. For LGHS and SHS, those items are marked with a on subsequent slides.

What does statistically significant mean?

- A statistically significant result is a result that's not attributed to chance.
- When something is statistically significant, we believe the difference is larger than can reasonably be explained as a chance occurrence.
- As a general rule, the significance level is commonly set to 0.05, meaning that the probability of observing the differences seen in your data by chance is just 5%.

Protective Factors vs. Risk Factors

Protective Factor

 a characteristic at the biological, psychological, family, or community (including peers and culture) level that is associated with a lower likelihood of problem outcomes or that reduces the negative impact of a risk factor on problem outcomes

Risk Factor

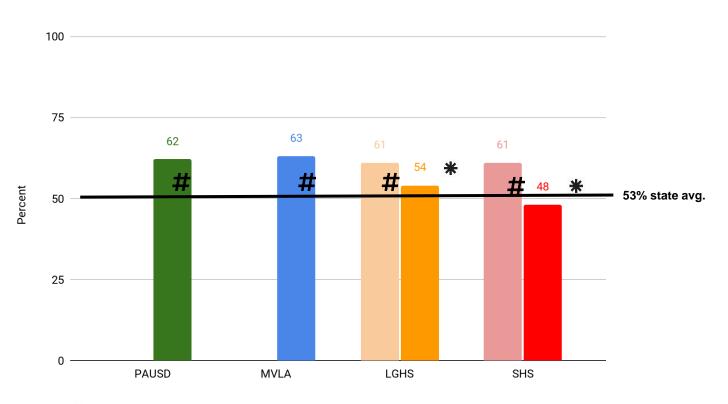
 a characteristic at the biological, psychological, family, community, or cultural level that precedes and is associated with a higher likelihood of problem outcomes

School Performance, Supports and Engagement

At my school there is a teacher or some other adult who really cares about me.

(Pretty much true to Very much true)

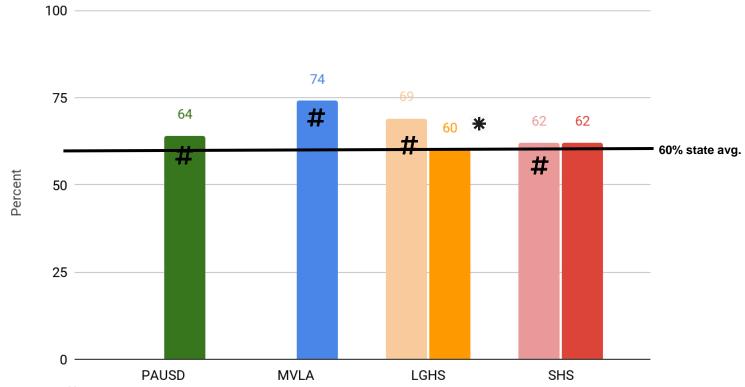
9th Grade



* Statistically Significant # Pre-Covid

At my school there is a teacher or some other adult who really cares about me. (Pretty much true to Very much true)

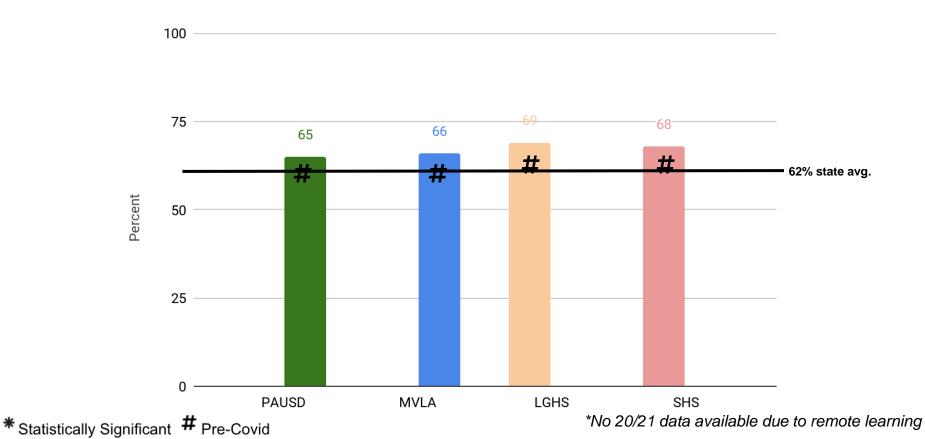




^{*} Statistically Significant # Pre-Covid

I feel close to people at this school.

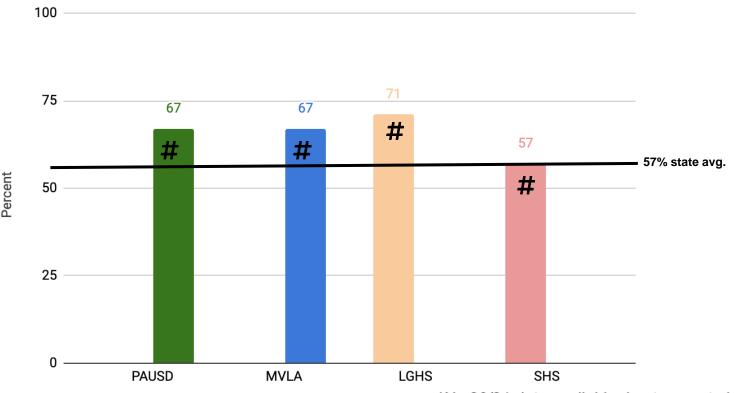
(Agree to Strongly Agree) **9th Grade**



I feel close to people at this school.

(Agree to Strongly Agree)

11th Grade

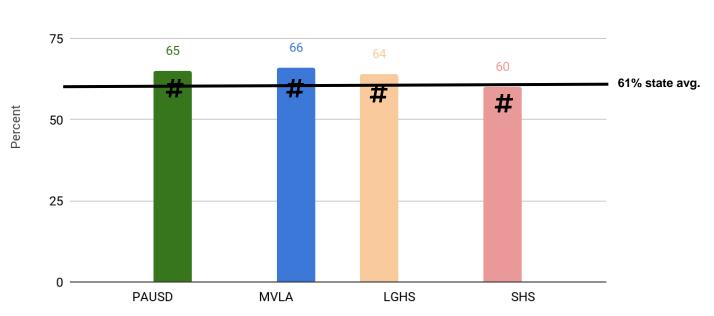


I am happy to be at this school.

(Agree to Strongly Agree)

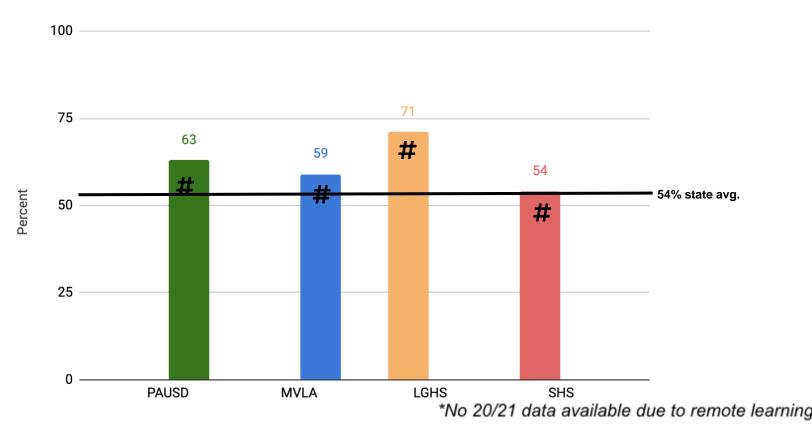
9th Grade





*No 20/21 data available due to remote learning

I am happy to be at this school. (Agree to Strongly Agree) 11th Grade

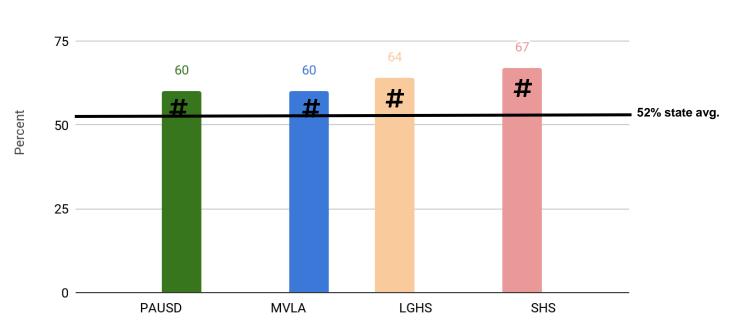


I feel like I am part of this school.

(Agree to Strongly Agree)

9th Grade

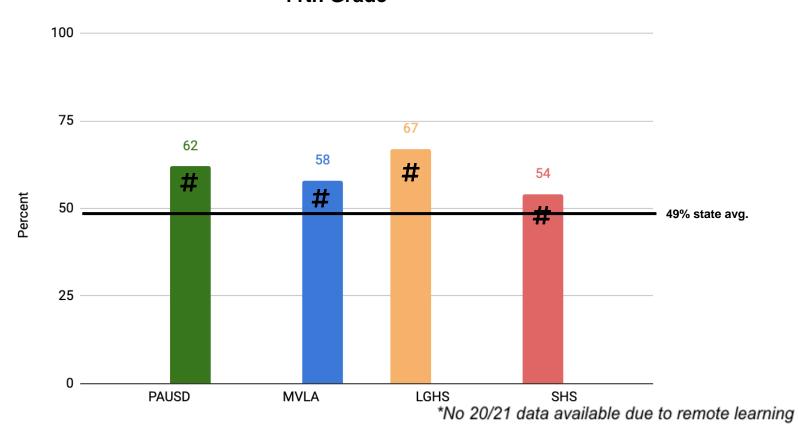




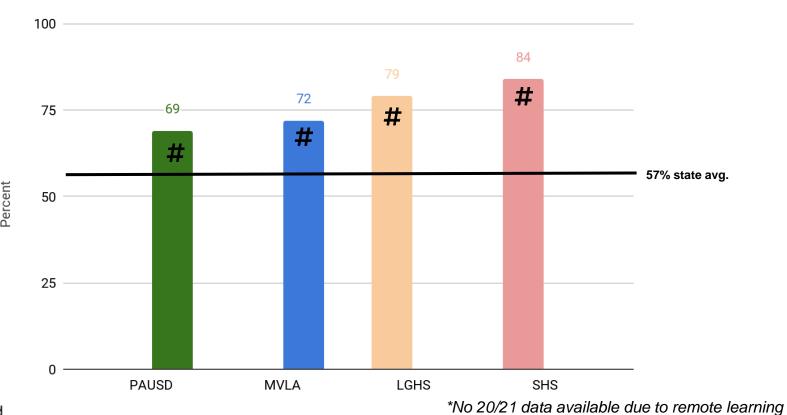
I feel like I am part of this school.

(Agree to Strongly Agree)

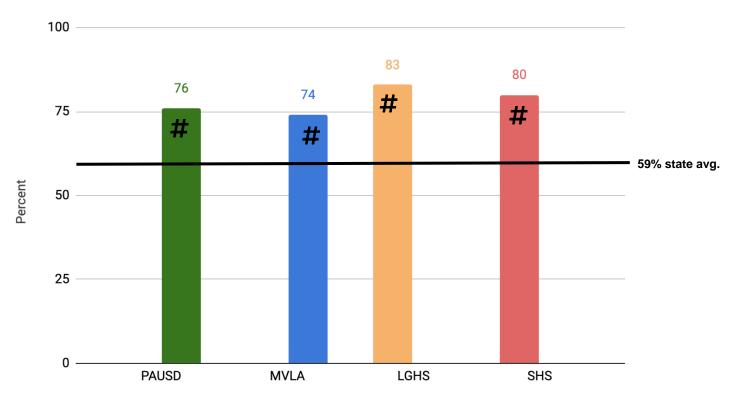
11th Grade



I feel safe in my school. (Agree to Strongly Agree) 9th Grade



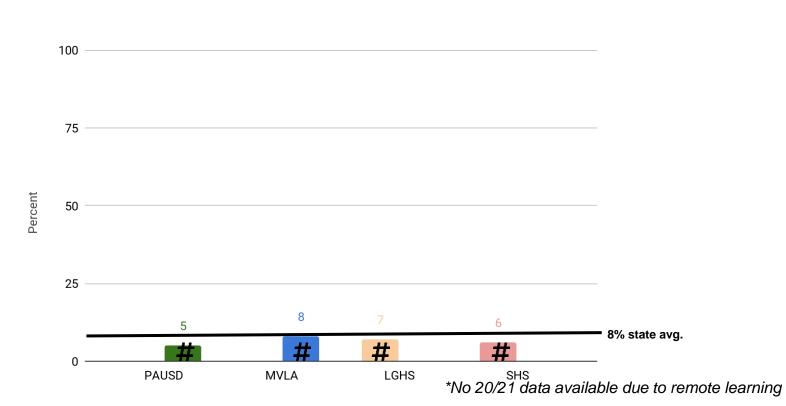
I feel safe in my school. (Agree to Strongly Agree) 11th Grade



School Violence, Victimization, and Safety

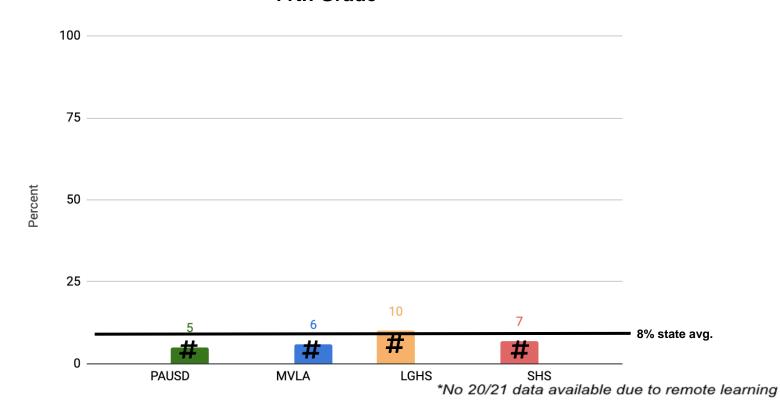
During the past 12 months, how many times on school property were you harassed or bullied for your race, ethnicity, or national origin? (2 or more times) 9th Grade

Pre-Covid



During the past 12 months, how many times on school property were you harassed or bullied for your race, ethnicity, or national origin? (2 or more times)

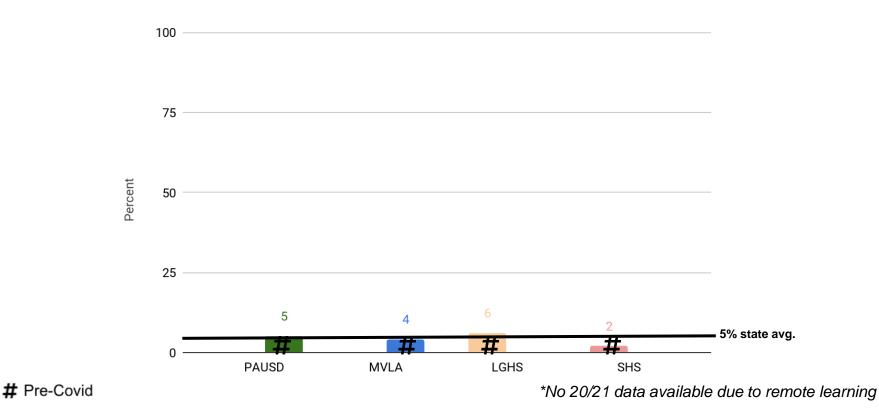




During the past 12 months, how many times on school property were you harassed or bullied because you are gay or lesbian or someone thought you were?

(2 or more times)

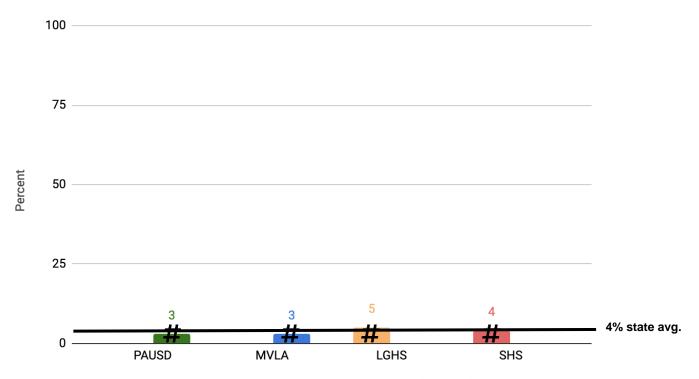
9th Grade



During the past 12 months, how many times on school property were you harassed or bullied because you are gay or lesbian or someone thought you were?

(2 or more times)

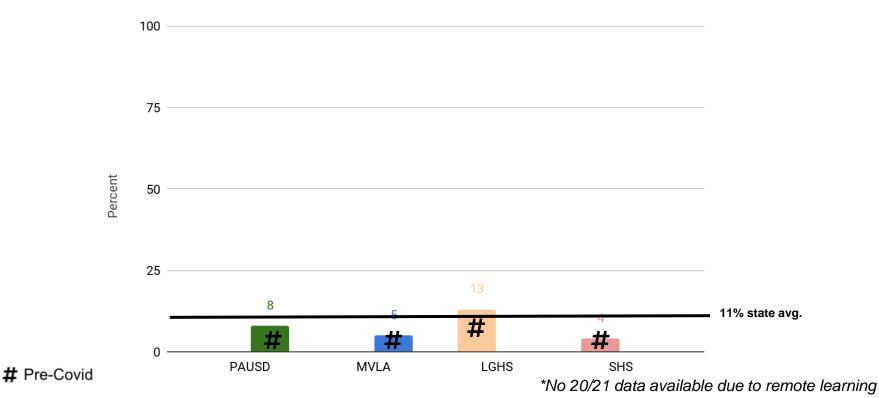
11th Grade



During the past 12 months, how many times on school property have you been offered, sold, or given an illegal drug?

(2 or more times)



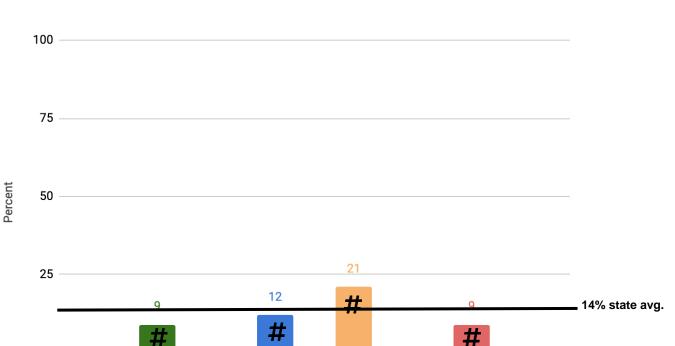


During the past 12 months, how many times on school property have you been offered, sold, or given an illegal drug?

(2 or more times)
11th Grade

MVLA

PAUSD



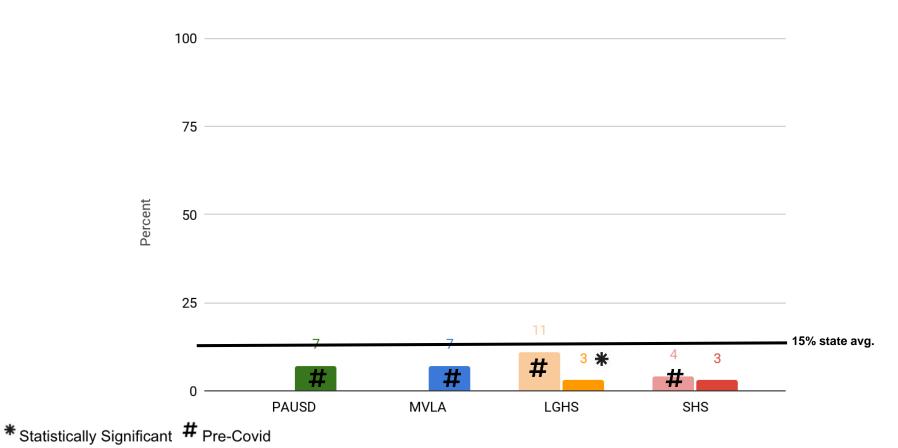
LGHS

SHS

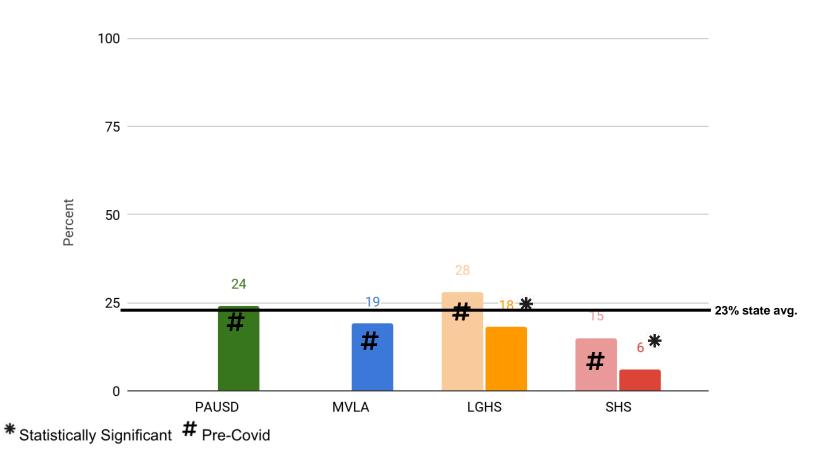
*No 20/21 data available due to remote learning

Alcohol and Other Drug Use

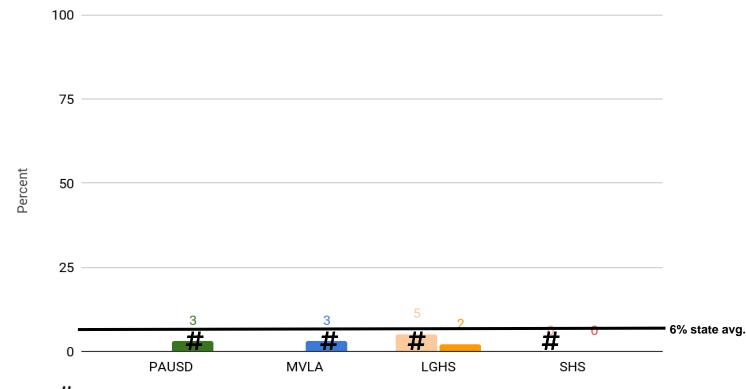
During the past 30 days, did you have one or more drinks of alcohol? 9th Grade



During the past 30 days, did you have one or more drinks of alcohol? 11th Grade

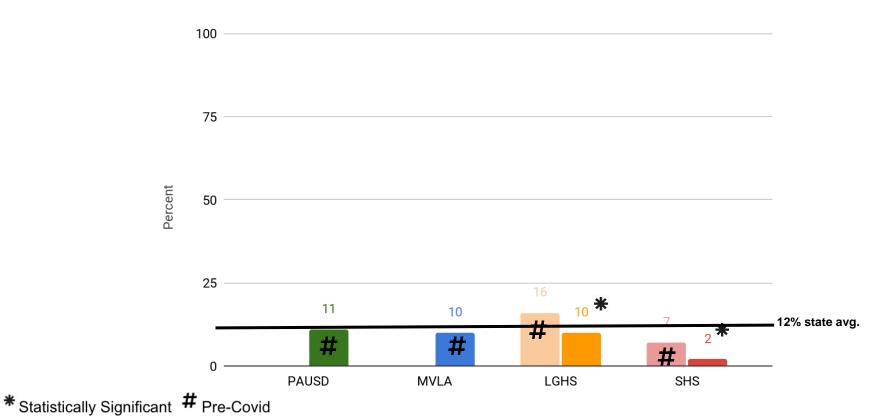


During the past 30 Days, have you engaged in binge drinking? (5 or more drinks in a row) 9th Grade

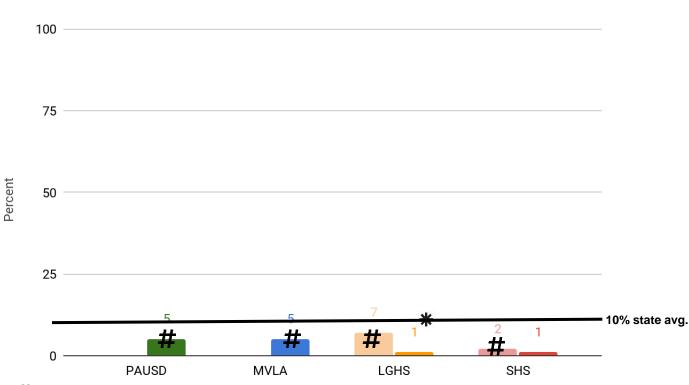


^{*} Statistically Significant # Pre-Covid

During the past 30 Days, have you engaged in binge drinking? (5 or more drinks in a row) 11th Grade



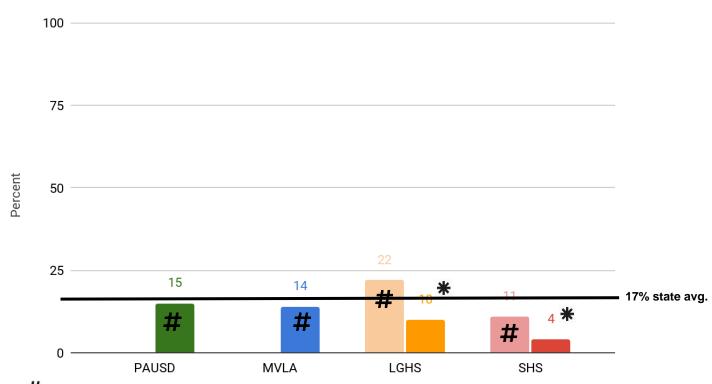
During the past 30 days, have you used marijuana? (smoke, vape, eat, or drink) 9th Grade



^{*} Statistically Significant # Pre-Covid

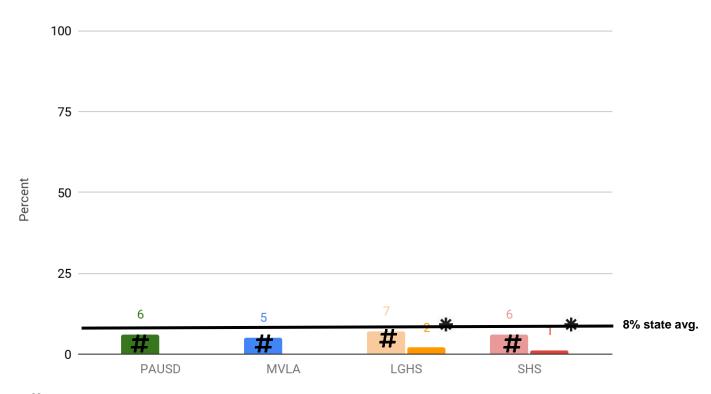
During the past 30 days, have you used marijuana? (smoke, vape, eat, or drink)

11th Grade



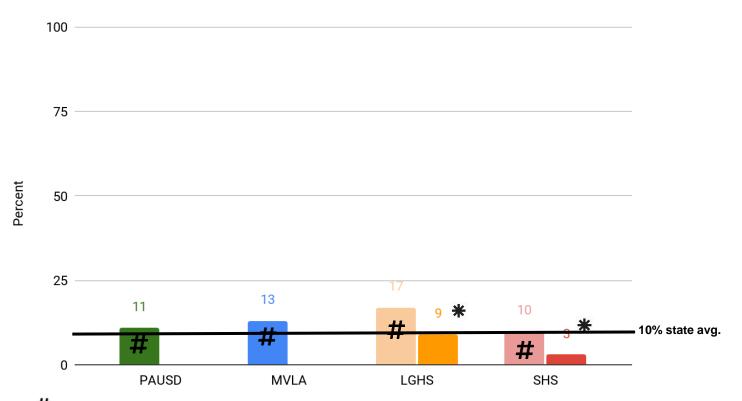
^{*} Statistically Significant # Pre-Covid

During the past 30 days, have you used electronic cigarettes or other vaping device? (cigarettes for past data) 9th Grade



^{*} Statistically Significant # Pre-Covid

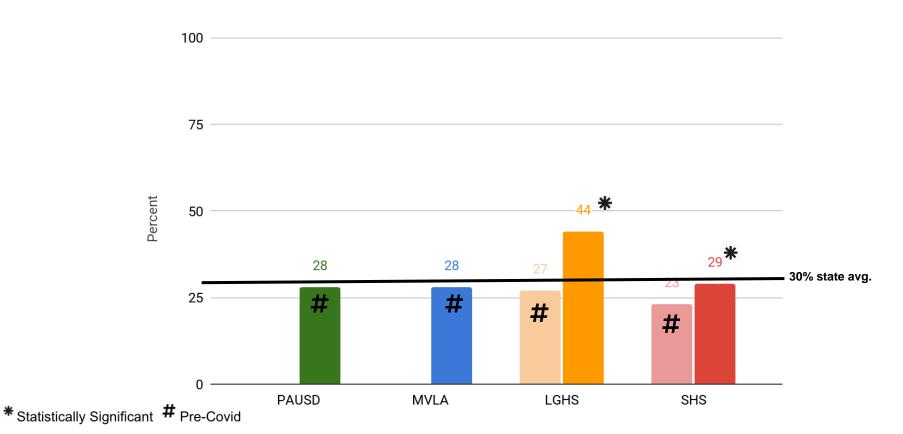
During the past 30 days, have you used electronic cigarettes or other vaping device? (cigarettes for past data) 11th Grade



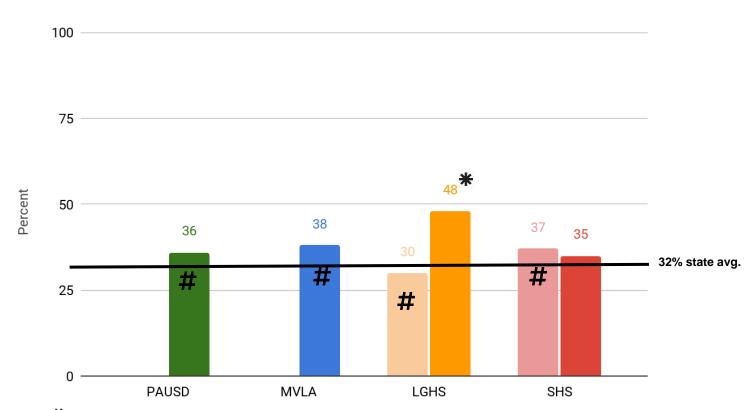
^{*} Statistically Significant # Pre-Covid

Other Physical and Mental Health Risks

During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more that you stopped doing usual activities? 9th Grade

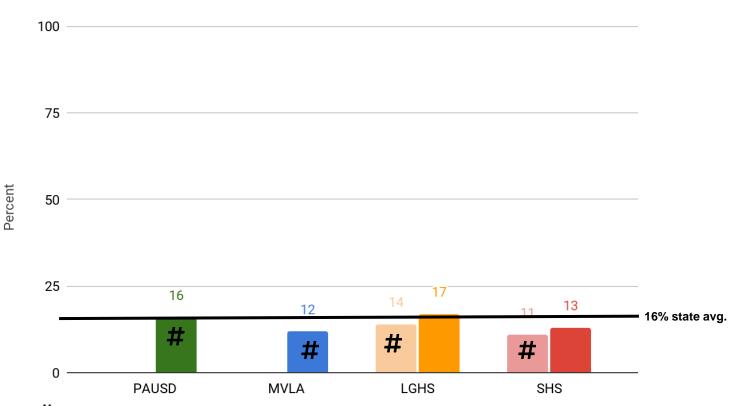


During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more that you stopped doing usual activities? 11th Grade



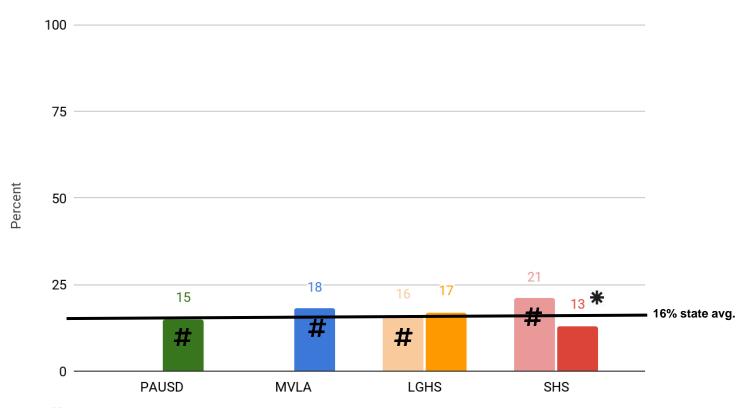
^{*} Statistically Significant # Pre-Covid

During the past 12 months, did you ever seriously consider attempting suicide? 9th Grade



^{*} Statistically Significant # Pre-Covid

During the past 12 months, did you ever seriously consider attempting suicide? 11th Grade



^{*} Statistically Significant # Pre-Covid

From: Toni Blackstock <

Sent: Saturday, June 4, 2022 8:32 PM **To:** Cannabis <cannabis@losgatosca.gov> **Subject:** Scientific Community Survey

EXTERNAL SENDER

Has this survey been sent to the 300 households? If so, when should the results be made public?

Toni Blackstock

From: <

Sent: Tuesday, June 7, 2022 2:15 PM To: Council < Council@losgatosca.gov>

Subject: Retail Cannabis

EXTERNAL SENDER

I believe the more we do to promote cannabis in our Town, it will increase the desirability to our youth. The promotion of cigarettes caused lifetime damage to lungs. Cannabis can cause lifelong damage to developing brains Sent from my iPhone

From: Lee Fagot < > Sent: Wednesday, June 08, 2022 2:49 PM

To: Rob Rennie < RRennie@losgatosca.gov >; Maria Ristow < MRistow@losgatosca.gov >; Mary Badame

< <u>MBadame@losgatosca.gov</u>>; Matthew Hudes < <u>MHudes@losgatosca.gov</u>>; Marico Sayoc

<MSayoc@losgatosca.gov>; Laurel Prevetti <LPrevetti@losgatosca.gov>

Cc: Jamie Field < JField@losgatosca.gov >; Arn Andrews < aandrews@losgatosca.gov >

Subject: Cannabis Retail Sales in Town

EXTERNAL SENDER

Honorable Mayor, Council Members and Town Manager,

Following last nights Council meeting where I spoke against opening any retail cannabis sales in Town, I am enclosing my letter to you with the references that were requested, based on the data I guoted.

Please let me know if you have any further questions or comments as I am happy to work with you all on this issue and want to be clear I am focusing on the facts relevant to our community.

Thank you all, and keep up the good work on our citizens' behalf. Lee Fagot

Retail Cannabis Sales in Los Gatos

June 8, 2022

Dear Mayor, Council Members, Town Manager and Town Staff,

True, LG needs new revenue (and possible expenditure reductions) to overcome the shortfalls projected against spending going forward in our Town's Budget. However, full analysis of both the costs and potential revenue must be completed before a final decision to take to the voters is made for the potential recreational cannabis (MJ) retail sales to be allowed in Town. And, the social impacts and their costs <u>must</u> be part of that analysis as well.

All MJ is still illegal under Federal Law, and LG citizens have OVERWHELMINGLY stated they do not want retail sales in Town for recreational MJ. Medical MJ is available thru recognized retail outlets now, and recreational is available for home delivery and other retail outlets within a few miles outside of Town. For example, Airfield Supply, in San Jose, reports that approx. 2000 LG residents shop annually with about an \$85 avg. per visit purchase. The Council's interest in considering allowing retail site or sites in Town for new tax revenue must be considered with the following information --

The Town's contracted consultant's report estimated that for one retail outlet in Town there would be an estimated \$320K new sales tax revenue source (see Community Outreach Report below). However, when I asked the Chief of Police and the Mayor if a study was completed to determine the increased costs for police and community services based on recreational MJ sales in Town, no such study was requested. Most recently when more folks pushed for this study to be done, our Town Manager requested the study and it is just now underway. The study should be specifically comparing Los Gatos to other communities that also added rec MJ so as to measure what increased police and other direct gov't costs they incurred. The estimate to be used in the consultant's report includes 2 additional sworn officers as their only direct cost analysis, but with NO value in this cost reported. This may be a zero net gain after not just salaries, but when all benefits and pension costs are also calculated for the Town. However, we all need to wait for Chief's report to inform the Council and citizens once they have more data. But, for a more relevant set of information to help make a truly informed decision, the other indirect expenses outside Town salaries must also be calculated. (More on other cities actions after some localized MJ retail sales on the next pages.)

But, just focusing on the direct financial numbers for now, please review this report from the Los Gatos Town's recent "Community Outreach Report" on Cannabis in Town, page 31:

Annual Retail Tax Revenue Estimates*:

☐ ☐(4%): \$320,000 - Plus \$90,000 in local sales tax. Total \$410,000 []]
□ □(5%): \$400,000 - Plus \$90,000 in local sales tax. Total \$490,000 [1]
□ □(6%): \$480.000 - Plus \$90.000 in local sales tax. Total \$570.000. 🚟

*Assumes 2 storefront retailers with an average of \$4M in gross receipts each. [sep] EG:\$4M sales x 4% sales tax = \$160,000 x 2 stores = \$320,000 sales tax for 2 stores.

Using the data in the presentation by Airfield at our recent LG Democracy Tent session, to get \$8m in sales with 2 outlets and an approximate \$85 avg. transaction value (as currently at Airfield), would require about 95,000 transactions per year. Now, we have to calculate the impacts of traffic, parking, etc. for 95,000 visits per year; with only 2000 current LG resident purchasers reported by Airfield, this would require all 2000 Airfield Supply LG customers to make almost weekly purchases. But, most likely thousands of non-townsfolk, plus some LG residents who currently shop elsewhere, (perhaps up to 700 folks (According to the attached report only 13.5% of the total California population used cannabis in the past month (page 13) which suggests that there would be 2,700 users in Los Gatos (#) who would then travel to LG's 2 retailers in Town which is a retailer's goal, that is to get more customers, and legal retailers can only survive if they can also get the number of legal users to increase from 13.5% of the Towns population to 25% or new customers coming into Town.

And, consider where the sites would even be allowed as retailers have to be located in areas of Town with mandatory parking and set backs (min of 600 ft.) from schools, health and social services, etc. Don't forget that an out of town customer would require more travel miles in Town - VMT. On the other hand, deliveries to users in town might be a more efficient way to get the MJ to the end users because the delivery service could transport multiple purchases in one vehicle (like Amazon, etc.) (Note, I am NOT advocating any cannabis sales in Town, just reporting the facts here). Airfield Supply states it currently is providing about 1 hour delivery time to customers who order for delivery. And, the argument local MJ retail would bring new visitors who may spend on dining, etc. in Town has NO basis in fact as the other retailers in the news article below (NPR) have reported shops and restaurants near them have closed due to burglaries and drug use on or very near their sites with increased street MJ sales.

Further, the cost with all the taxes for legal purchases will drive more illegal street sales of NON-controlled products as the street drugs will be cheaper, since obtained from non-legal sources, and are most likely adulterated and easily sold to minors as reported on several news outlets. Folks will not know what additives will be included in street drugs.

NPR, KQED news media, on Dec 6, 2021, also reported that burglaries of retail cannabis outlets in SF last year generated a reported \$5M *loss* for retailers and the city of SF decided to stop the sales tax on

cannabis so the stores could be more competitive with street drugs. Watsonville, for the same reasons, recently cut their taxes on cannabis by half.

And, one of the biggest concerns expressed by many of our Town groups, our Kiwanis, Lions clubs, CASA, etc., is the social/emotional impact particularly to the youth in our Town. This is based on the mixed message that its ok for adults to use such drugs, but not youth, or maybe <u>it is ok</u> for youth to also imbibe since adults do it. Watching adults in their homes doing drugs, smoking, vaping, etc., is then challenging kids to do the same. And, they will be sneaking drugs from the parent's stash, buying on the street (most likely tainted and addictive formulas) and sharing with their friends.

Importantly, note that the 2020/2021 school year "California Healthy Kids Survey" conducted at LGHS and released this year provided some concerning data: Over the prior 30 days 28% of Juniors consumed an alcoholic drink, including 5% admitting binge drinking, and 22% had used marijuana and vaping. All data is <u>above</u> the state average in the same survey. And, 15% LGHS juniors admitted thinking of suicide in the fall of last school year (perhaps tied to drugs?).

A June 7, 2022 Wall Street Journal article (Pg A15) reported on a study that shows MJ is 4 times as potent now as in 1995. Its more powerful than when today's adults grew up, making it easier for today's kids to get hooked, and with 1 in 6 kids developing an addiction. Another national report published in "Health and Place" (##), 75 (2022) 102795, Pg 5 "..the prevalence of using edibles was 45% higher and dabbing and smoking cannabis were 43% higher among students who attended a high school within 1 mile from a cannabis retailer. Students also perceived cannabis as less harmful when there was a retailer within 1 mile from their high school." There is not just a financial impact of increased costs to the Town for police, but additional costs dealing with the need for more social and emotional services for citizens of all ages. This cost will continue to increase. Please consider this when determining the feasibility of even allowing sales in Town. Cannabis retail sales in Town changes not just the character of our Town, because it so negatively impacts the wellbeing of all our citizens.

The business model for cannabis sales in our Town – **does not work.**

Our community CANNOT afford cannabis sales. Please review the facts, listen to our citizens and their concerns, and let's work together on truly achieving budgeting solutions. Let this proposal for retail cannabis sales in Town to die a natural death.

Respectfully,

Lee Fagot

(#) The Reason Foundation, "The Impact of California Cannabis Taxes on Participation Within The Legal Market" by Geoff Lawrence, May 2022.

(##)https://www.sciencedirect.com/science/article/abs/pii/S1353829222000569?via%3Dihub

From: Alyce Parsons <

Sent: Thursday, June 9, 2022 8:53 PM **To:** Council < Council@losgatosca.gov>

Subject: Proposed cannabis stores in Los Gatos

EXTERNAL SENDER

Town Council of Los Gatos,

I would like to state our objection to the selling of cannabis in the town of Los Gatos. Please refer to the article in the Wall Street Journal Tuesday, June 7. The article clearly stated the objections that we have. Smoking marijuana is dangerous to young people. It has been proven that it affects their brain end it can interfere with their mental health and ability to learn. It also can lead to the use of more dangerous drugs. By establishing outlets in our town we are tacitly approving its use. Thank you for your consideration of our objection.

Respectfully,

Dr. And Mrs Mike Parsons

Monte Sereno, Ca. 95030

From: claire leclair <

Sent: Friday, June 10, 2022 4:13 PM

To: Cannabis < cannabis@losgatosca.gov>

Subject: Future Cannabis Store

EXTERNAL SENDER

I am not in favor of having a Cannabis store in LG. There are other ways to increase revenues for our town. Claire Leclair

Cannabis and the Violent Crime Surge

By Allysia Finley

he stigma core attached to marijuana has vanished. Nineteer states have legalized campabis for recreational use, and positicienced both parties increastreat it as harmless. Asked during the 2020 presidential campaten about her pot use in college, Kamala Horris giggled and said mardjama. "gives a lot of people joy" and "we need more joy in the world." But the public needs an honest discussion of its so-cial and public-health risks, which include violence and mental filmess.

Alex Berenson, author of Heavy use antiong "(vil Your Children: The Truth About Marijuana, Mental III ness and Violence," pointed more addiction and had rindensly removed from an article about the Ukathe school. shoothig a figure co-worker's recollection that he complained about his grandmother not letting him smake weed. The Thines didn't appead a correction to the story as it disorder." As they use the drug might be expected to do when more frequently 40 salidy

was accounte, it would fit a pathern Mass shooters at Map. Columnto termager: Johnny Gibby Gifford's constituent Stark. His mother, Laura, meeting in Parson, Ariz, wrobe a harrowing book chron-(2011), a movie theater in An-letting his descent into carriecora, Cold. (2012), the Polstnightelish in Ordando, Fla. (2006), the First Begtist church he Sutherland Springs, Texas (2017), and Mariery Monenaus Drughes High School in Parkland, Ms. (20)8), were reported to he warfinana users. It could be a crimitioner, but iperressing duidence suggests a connection.

Isn't pot supposed to make you mellow? Maybe if you smoke only a joint on occasion. But youth nowadays are not an anomaly, "People who with pot addiction have in-

they were young. Totals leading to increased addiction and antispeial bohavior.

THC, the chemical that tutes of Realth putes. causes a emphoric high, interacts with the brain's neuron receptors involved with pleasure. Marijuana mswadays eur average is about four times as potent as in 1995. But daboportions of concentrated care nabis,—can include 20 three as much THC as joints did in the 1960s. It's much easier for young people to get hooked.

youths is leading to antisocial behavior.

One in 6 people who start using pot while coder 18 will develop an addiction, which dracannable tors call use fixing a factual inaccuracy was acrowings, they develop psycho-descenting the effect detail. Togical and social problems.

Their's what happened to his addiction. He started amokfar weed at 14, after Colorado such as diffes. He gradually withdraw from social activities and developed psychosis. Substance-abuse treatment soul a ments stay at a mental hospital fulled trans rosonicata use persamently re-wired his brain. Delusional, he jumped off a six-story building

consuming marijuana more have taken large doses of the crassati three to fourfold over frequently and in higher doses drug may experience an acute the past 20 years as marijuana than their olders did when psychosia, which includes halp potently rose 2000. bacinstions, deluxions, and a loss of the sense of personal identity," the National Testi-

> · Roncet Lev, an addiction specialist who previously led the Froe gency Department at Scripps Mercy Hospital in Kan blego, said in a recent interview with the American Counell on Science and Health (bot California connabia emer gency-room visits, climbed 53% in the three years after the. legalized recreational marijuses in 2016. Dally marihisms emergency room visits in San Diego nearly imadespled between 2014 and 2019.

Cannabia-induced psychoeix, the said, is fairly common. Some patients she treated experioneed cannabland hyperemests aradrume from longterm psu, which causes Screening and wonding. There's no autidate. Some nations spend weeks in the energency rocan realting for platement in mental-health clinics.

Goundless studies have also tinked chrimic capitable use to schizophrenia. A meta-analysis In Jennetry examining 591 stadies unnelnded that early marimend use aming adolescents was ensuclated with a significcount merchan in the rink of developing achizophrenia. Relogalized if, and progressed to segrences have yet to prove a using more-potent produces causal relationship, but the preject of evidence is hard to distriss

Some legalization proponexts claim that other counwhere stay at a meman magnist important which swellable lever their port-equilization experi-mentions and the personnently re-mentional the personnently rethe U.S. But a study from Denmark last summer found that and killed himself. Alas, he's schloophrenia cases associated

Young people are especially yulnerable to comunity's offrets hestuse their brakes are still developing. Scientists in a recent study regimeed scale of teenagers' brains before and after they started using pol-They Would that parts of the brain involved in decision making and fearality judgments were altered in pot users compared to manasers.

But can not make people viclent? A study last year found that young people with such morti disorders is depression who were also midicine to pot were 3.2 times as likely commit well-harm and die of homicide often after incliating violence—than those who eters't. A meta-smolyous found the risk of perpetrating viotence was more than twice as high for, young admits who used marijuma. It's possible that pot can trigger daugerous behavior to youths who may be prodesposed to it for other reasome such as potential expressive te driggs.

Also worrisome, legalisa tion seems to be leading to more pregnant wanted using pot. About 20% of prepaint young women in California testril possible for manipuana to 2016. THE crosses the placenta and can harrie neuro ical development. Prenatal expospre to marijuana has been linked to behavioral problems. mential illness and lower nea dende achievement in children. and briefescents

Marke it's time that law marijustis is reakers and votors restant are damaged.

> Ms. Finley is a member of the Journal's editorial board.

For Merico Sayoc

Letter to the Editor

After reading the recent article entitled "Los Gatos to consider allowing cannabis dispensaries in city" and "Overturning Strict Ordinances" as written in a local newspaper, I feel the other side of the issue needs to be considered when thinking of allowing marijuana dispensaries in our town.

The town has sperit \$50,000 hiring HDL, a cannabis management services company. One of the town's expectations was that HDL would provide some community outreach to evaluate the pros and cons of allowing marijuana dispensaries and to hear opinions from town residents. That outreach amounted to 12 people finding out about that May 4th Zoom meeting. IDL depended on the online meeting being publicized only on the town's website.

From that online May 4th meeting conducted by HDL, it is quite obvious that HDL is blased in favor of allowing drug storefront sales. That is one reason why we have questioned the hiring of a HDL to survey our town. David McPherson, HDL's cannabis compliance director has said "it makes no sense for this firm not to want cannabls to succeed in the jurisdictions where it has contracts". It is the fox guarding the ben house.

Like many towns, no doubt Los Gatos needs more revenue. The question is do we want cannabis money paying for our services? Not all towns want that, I don't think our family friendly town does. We have to consider all the other aspects including the added crime, increase in traffic, parking evallability, probability of undesirable cliental and the proximity to our parks and schools. Voting "YES" appears to be all about money with no consideration of the social and moral aspect and the quality of life we appreciate in Los Gatos. This is not a benign decision. There will be consequences.

We have asked for an accounting of the costs that the town will incur if this type of business is allowed in town. We have never seen details supporting the financial forecast. We were told by Chris Lane, Airfield Supply (cannabis company which has recently been bought out by Gold Flora), that cannabis sales would generate \$300,000 to \$1 million per year in income to the town of Los Gatos. He would not disclose Airfield Supply's financial statement because he said it was a private company. No financial information was provided to substantiate his forecast.

Laurel Prevettl, our town manager, has agreed to direct Jamie Fields, our new police chief , to look at other towns with cannable dispensaries and of similar size to compare the expenses for crime and illegal sales. This is a problem because we have been told that opening drug dispensaries will NOT eliminate illegal cheaper pot. Marijuana sales are a cash business so a question is who keeps track of the income and sales? Is that another expense for the town? Who does the accounting? There will be Federal, State and Local (Los Gatos) taxes that add between 28 to 30% to the purchase price. How can that compete with illegal sales?

When all Los Gatos town council members, except council member Mary Badame, are thinking of allowing dispensaries in town, the Los Gatos Youth Commission are suggesting that the town council add ordinances for stricter alcohol rules, more anti-vaping laws and no smoking on campus. Where are the adults in the room who should be supporting them? Rather than saying, drugs sales are OK in our town, why are we adults not saying in no uncertain terms "No, we do not want pot sales in town."

The facts are that illegal merijuana and other drugs are available to our kids and that believable fake ID's are readily obtained. We have drugs coming into our country from everywhere, so do we need to invite them in?

Suggestions from HDL are that "we allow marlluana storefront sales, we impose stricter local regulations, we create a youth decoy program, then we add youth prevention services." How will that work out for us when we were told gas taxes would improve our roads? Yet, our roads

Letter to the Editor

are a mess. The lottery money was supposed to go to our schools. How is that working out? Do you really think money from cannabis sales will go to youth prevention programs? I believe, that is raive thinking. I don't deny that we need prevention services, but there is no guarantee that cannabls money for prevention, intervention or treatment services will ever be seen to help those in need. In fact, allowing cannabis sales just feeds the need for more drug treatment programs.

The May 13 article in The Weekly Times mentions a Survey Monkey that was conducted in January 2022. The article "shows that 50% of the more than 950 people who answered were STRONGLY OPPOSED to opening commercial carmabis businesses in Los Gatos". That statement is incorrect. I have a copy of that survey. The correct percentage is 59.4% were STRONGLY OPPOSED or OPPOSED which begs the question, "then why spend \$50,000 to find out if residents agree" part of which was to aurway 200 for their opinion.

Not only are residents opposed to these dispensaries being set up in our town, but also an existing ordinance change will need to be written and voted on by the five town council members. We have an existing ordinance written by previous councils who have said NO and have disallowed dispensaries sales of cannabis. It is my understanding that IT WILL TAKE A VOTE OF 4 COUNCIL MEMBERS TO CANCEL AN EXISTING ORDINANCE.

Though marijuana is not legal federally, we know marijuana has been legalized in California and other states. CBD, the weed without the hallucinogen, THC, can be purchased in downtown Los Gatos. For those adults who need to buy cannabis, it is available 15 minutes away and can be delivered door-to-door within an hour from San Jose. Let them have the drug money and the Smash and Grab crime. Leave Los Gatos glone.

Since our town needs revenue, let's not spend another dime on income from drug sales. Let's start thinking creatively on how to raise money in other ways and being responsible for our expenditures.

JCR 5/14/22

Johns Rosger

From: Susan Tuttle <

Sent: Sunday, June 12, 2022 4:27 PM
To: Cannabis <cannabis@losgatosca.gov>
Subject: Cannabis Stores in Los Gatos - NO

EXTERNAL SENDER

I am strongly against having Cannabis sales in Los Gatos as I believe it will change the personality and tenor of our town and send the wrong message to everyone, especially kids.

Susan Tuttle

From: Kennan Kuehn < Sent: Sunday, June 12, 2022 1:44 PM
To: Cannabis < cannabis@losgatosca.gov>

Subject: Cannabis

EXTERNAL SENDER

I think that cannabis in Los Gatos would be a great idea.

From: Buchanan, Kevin <

Sent: Monday, June 13, 2022 3:35 PM **To:** Council < Council@losgatosca.gov>

Subject: Cannabis Dispensaries - my two cents

EXTERNAL SENDER

Dear Los Gatos Town Council Members,

As the principal of Los Gatos High School and one who battles daily the normalization and social acceptance of marijuana use among our youth, I am writing to share my grave concern that cannabis dispensaries may be allowed to operate in Los Gatos. Research strongly suggests that regular use during adolescence is associated with severe and persistent negative outcomes and that the adolescent brain may be particularly vulnerable to the effects of cannabis exposure, and that "prolonged use during adolescence results in a disruption in the normative neuromaturational processes that occur during this period" (1) Marijuana is the second most widely used intoxicant in adolescence, and teens who engage in heavy marijuana use often show disadvantages in neurocognitive performance, macrostructural and microstructural brain development, and alterations in brain functioning. (2) "The data provides compelling longitudinal evidence suggesting that repeated exposure to cannabis during adolescence may have detrimental effects on brain functional connectivity, intelligence, and cognitive function." (3)

The challenges we confront as we try to educate our children are already complicated, given our increased focus on mental wellness and the arrested social and emotional development exacerbated by the COVID 19 pandemic. I realize that the financial benefits from allowing dispensaries to operate in town are tempting, but I have to ask each one of you if you are willing to sacrifice the healthy development of our youth to

supplement the town coffers. I would hope not, and would like you to consider that such an action would make our jobs only more difficult than they already are, and put our children at greater risk of cognitive impairment.

Please consider the best interests of our children when you make this important decision.

Respectfully, Kevin Buchanan Principal Los Gatos High School

1. Cannabis and adolescent brain development:

https://www.sciencedirect.com/science/article/abs/pii/S0163725814002095

2. Effects of Cannabis on the Adolescent Brain

https://www.ingentaconnect.com/content/ben/cpd/2014/0000020/00000013/art00009

3. Adverse Effects of Cannabis on Adolescent Brain Development

https://academic.oup.com/cercor/article/27/3/1922/3056289?login=true

From: Alexis Dulin <
Sent: Tuesday, June 14, 2022 3:03 PM
Subject: Carrectic Patrilia Las Catas

Subject: Cannabis Retail in Los Gatos

EXTERNAL SENDER

Dear Los Gatos Town Council,

I am writing in support of allowing retail cannabis in the Town of Los Gatos and feel that it is entirely long past due that the Town move towards having safe and reliable access to cannabis.

Please make the right choice here people!!!! It's going to bring more revenue to the town too.

Thank you,

Alexis Dulin

From: Michaela Matulich <

Sent: Tuesday, June 14, 2022 11:21 AM

To: Council < Council@losgatosca.gov>; Town Manager < Manager@losgatosca.gov>

Subject: Yes for Cannabis in LG

EXTERNAL SENDER

Dear Los Gatos Town Council,

I am writing in support of allowing retail cannabis in the Town of Los Gatos and feel that it is entirely long past due that the Town move towards having safe and reliable access to cannabis. Having grown up in Los Gatos, it feels that cannabis is the next move to keep Los Gatos on a progressive and up to date status with other surrounding towns.

Thank you for your time.

Michaela Matulich

From: Midori Portillo <

Sent: Tuesday, June 14, 2022 3:35 PM **To:** Council < Council@losgatosca.gov > **Subject:** Cannabis Retail Tax Support

EXTERNAL SENDER

Dear Town Council,

I am in total support of the town's potential move to allow and regulate the cannabis retail.

From: Toni Blackstock <

Sent: Thursday, June 16, 2022 10:30 AM **To:** Council < Council@losgatosca.gov>

Subject: Cannabis dispensary

EXTERNAL SENDER

I strongly OPPOSE allowing any type of cannabis dispensary in Los Gatos.

Toni Blackstock

From: Barry Cheskin < Sent: Thursday, June 16, 2022 10:52 AM

To: Council < Council@losgatosca.gov>

Subject: Dispensaries

EXTERNAL SENDER

Members of the Town Council,

My wife and I strongly object to having marijuana dispensaries in our town. I believe it will adversely affect our family friendly "hometown" vibe and character.

This is a very very bad idea for Los Gatos.

Barry Cheskin

Citizen and Vice-Chair, Historic Preservation Committee.

Barry Cheskin

Cell

From: Lydia Norcia <

Sent: Monday, June 6, 2022 6:38 PM **To:** Council@losgatosca.gov>

Subject: Please be advised that I am opposed to having any Marijuana dispensaries in Los Gatos Ca - See

the articles below and the number of dispensaries near Los Gatos.

EXTERNAL SENDER

https://www.yellowpages.com/los-gatos-ca/marijuana-dispensary

https://www.verywellmind.com/why-do-teens-use-marijuana-63543

https://www.sciencedaily.com/releases/2019/02/190218094005.htm

https://www.sciencedaily.com/releases/2019/02/190218094005.htm

Lydia Norcia

Los Gatos, CA 95032

From: Mitch Kraemer < > > Sent: Tuesday, June 14, 2022 10:14 AM To: Cannabis < cannabis@losgatosca.gov >

Subject: Email update list

EXTERNAL SENDER

Hello, if it is possible can I be placed on a list for updates from the city on a potential cannabis program?-

Mitch Kraemer - Market Research Analyst Cannabis Real Estate Consultants

Direct: Office:

www. Cannabis Real Estate Consultants. com



Trusted Commercial Real Estate Experts in the Cannabis Industry

From: william kane < > Sent: Wednesday, June 15, 2022 5:07 AM To: Cannabis < cannabis@losgatosca.gov >

Subject: Pot club

EXTERNAL SENDER

Good morning I messaged your address yesterday, and my message was received but was blocked could you please explain why? I thought the address was advertised to be a site to make my input a public response available to the town board to review in response to the possibility of a pot club being established in our town which my husband and I would like to see approved, We have been residents in Los Gatos and have lived here for forty one years, I would appreciate your reply in this matter, I thought in lieu of having to attend the town meeting that was scheduled I figured that my response that I sent yesterday would have been noted/recorded and read by any council member as being a resident/residents in favor of the establishment of a dispensary in our town, thank you for your time.