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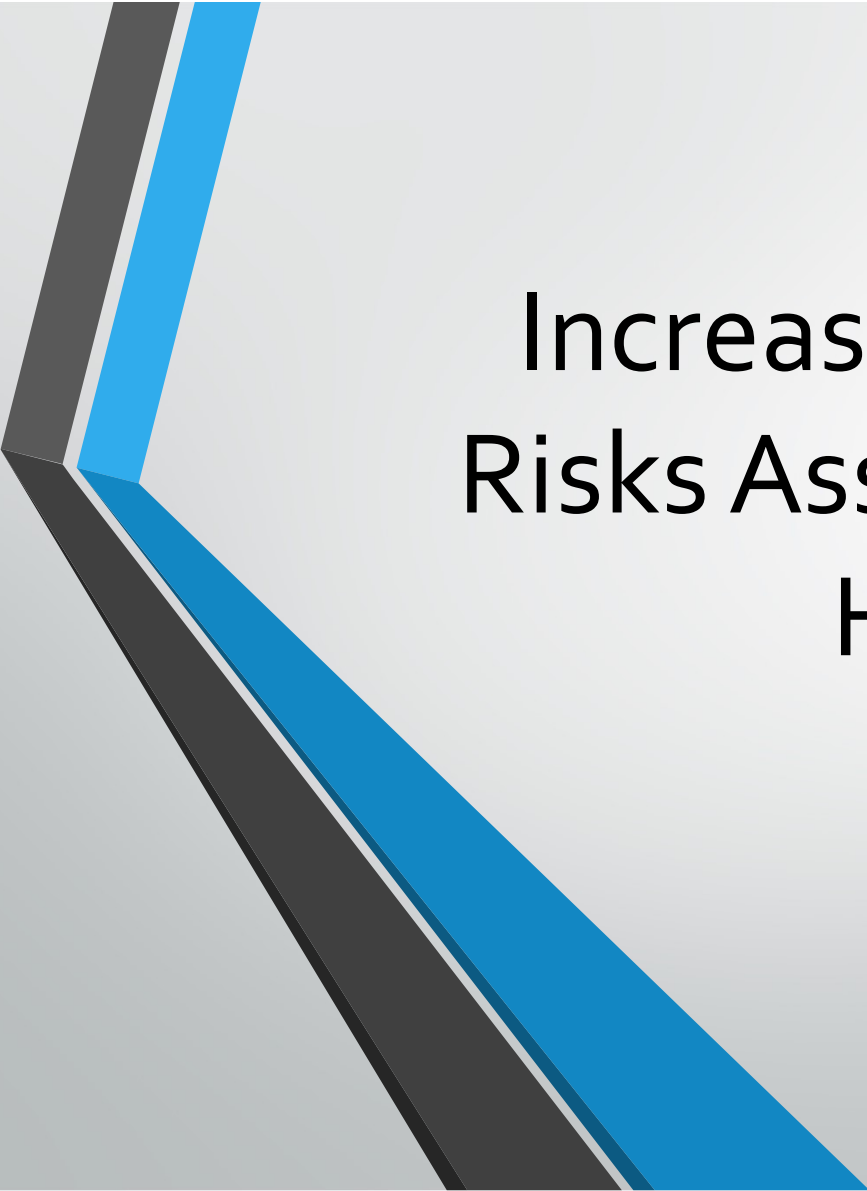
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Increasing Awareness of the Risks Associated with Juuls in High School Students

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Dr. Baker
Rutland, Vermont

Problem Identification

- According to the Vermont Youth Risk Behavior Survey, in 2017 34% of high school students reported that they had tried an electronic vapor product (EVP) compared to 24% of students reporting that they have tried cigarettes
- Many of these products have been marketed to adults as a way to stop using other tobacco products, however, only 5% of students who have used EVP in the past 30 days reported that as their primary reason for use
- The report shows that 84% of students report peer disapproval of cigarette use and 86% of students understand that regular cigarette use poses a moderate-to-great health risk, however, most teens also believe that EVP are safer than cigarettes
- This data was collected *prior* to the recent Juul trend which was first noted by the VT Department of Health in the fall of 2017
- Anecdotal evidence suggests that current numbers are much higher, with the Vermont Department of Health recently hosting a seminar on the topic

Public Health Cost

- Data is still being collected, however, at this time it is clear that there is a general lack of understanding surrounding what Juuls are and what impact they could have
- Only 37% of Juul users knew that the product always contained Nicotine, additionally the amount of nicotine delivered varies by device and user at times surpassing conventional cigarettes
- In teens, EVP use has been shown to increase risk of experimenting with cigarette smoking with very few using them as a tool to quit other tobacco products
- Consequences of chronic vapor inhalation are unknown and levels of toxic and carcinogenic compounds vary by component and device
- Even though flavoring was banned in tobacco products by the FDA in an attempt to limit their appeal to kids, these products are available in fruit and candy flavors
- A study of 11th and 12th graders revealed an association with EVP use and chronic bronchitis symptoms
- Full impact can not be estimated until research has been able to fully evaluate the health effects of these products, however, the fact that these products increase the likelihood of cigarette smoking in teens makes it a significant concern

Community Perspective

- Sarah Roy, Vermont Department of Health Substance Abuse Prevention Consultant
 - “Juil use has picked up over the last school year, starting in the fall and snow-balled across the state in the winter. The tobacco unit has received consistent requests for more information but at this point there is still not enough information available. Students believe that there is no nicotine in Juuls. They don’t understand that there is any issue using them...they are viewed as a “new-age” alternative to smoking.”
- Rutland High School Student A
 - “They’re everywhere. I’ll walk into the bathroom and somebody will be using them in the stall. Kids have told me that there’s nothing bad in them.”
- Rutland High School Student B
 - “A lot of kids have one on them at all times. I’ve started seeing things about how dangerous they are, but I hate those things that just try to scare you into not doing the something.”

Intervention and Methodology

- An informational flyer was created to be hung in healthcare offices in an attempt to spark conversation between healthcare providers and high-school students
- Providers were also supplied with an information sheet with facts from multiple sources that are most relevant and eye-opening for this age group
- The information presented on the flyer was selected in collaboration with multiple members of the target audience in an attempt to provide facts relevant to this age group and dispel some of the prevalent myths surrounding Juuls
- The interviews revealed that standard methods of information delivery such as informational brochures would have limited effectiveness in this age group, though, at the same time students preferred a straight-forward approach
- Interviews also revealed that students were unaware that when cigarettes first became popular there was also a lack of knowledge surrounding long-term effects

Results

- Flyer and fact-sheet was discussed with high school students to evaluate and improve appeal to this age-group
- Students attested that myths presented were similar to statements they have heard by peers and that they could understand language used in flyer
- Flyer and fact sheet was provided to area physicians, the Department of Health and area schools

KNOW THE FACTS ABOUT JUULS



I thought Juuls were safe?

You wouldn't be alone, 60% of teens think that. The long-term dangers of inhaling vapor are mostly unknown, but, we do know that you can find cancer-causing chemicals in vapor.

What can happen if I smoke Juuls?

Teens who have Juuled in the past month are twice as likely to develop "smokers cough." This is one of the earliest signs of permanent lung damage in cigarette smokers. Chemicals found in Juul vapor can also lead to "popcorn lungs."

But there's no tobacco in Juuls...

There may not be tobacco, but the same addictive chemical found in tobacco called Nicotine is found in Juuls. At times, vaping can lead to even higher levels of Nicotine than smoking cigarettes. Since your brain continues growing until you are 25, you can become addicted to nicotine faster than adults.

With all the different flavors, aren't they meant for us?

Don't let the companies trick you, into thinking that! Some of the sweeter flavors that appeal to teens have even been found to cause additional harm.

Isn't smoking Juuls healthier than smoking cigarettes?

We don't know the answer to this yet, but we do know that teens who vape are almost 4 times more likely to start smoking cigarettes.

My friend told me that nobody can prove that they aren't safe...

That is because these products are new and haven't been studied for a long enough time yet. Back when cigarettes were new nobody could prove how dangerous they were either, don't make the same mistake as your grandparents!

TALK TO YOUR DOCTOR TODAY

JUULING IS SMOKING

LEARN MORE AT - WWW.E-CIGARETTES.SURGEONGENERAL.GOV

Evaluation of Effectiveness & Limitations

- Due to the short-time frame surrounding this project the effectiveness was not able to be formally evaluated
- If time allowed, a pre-intervention and post-intervention survey that evaluated accuracy of knowledge surrounding Juuls could have been used to assess the effectiveness
- On a smaller scale, any increase in discussions noted by providers would indicate that this intervention was effective
- In addition to the time-frame, this project was also limited by the lack of current scientific research regarding long-term use of Juuls

Recommendations for Future Interventions

- Future interventions should continue to dispel the myths surrounding Juuls
- Since a majority of high-school students displayed an understanding of the health consequences of cigarette smoking continued use of comparisons could prove to be effective
- Facts should be provided to students in a straight-forward manner instead of in an attempt to scare them
- A survey similar to the one outlined on the previous slide that assesses the accuracy of knowledge regarding Juuls could be widely distributed to high-school students as well as parents, teachers and healthcare providers

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