

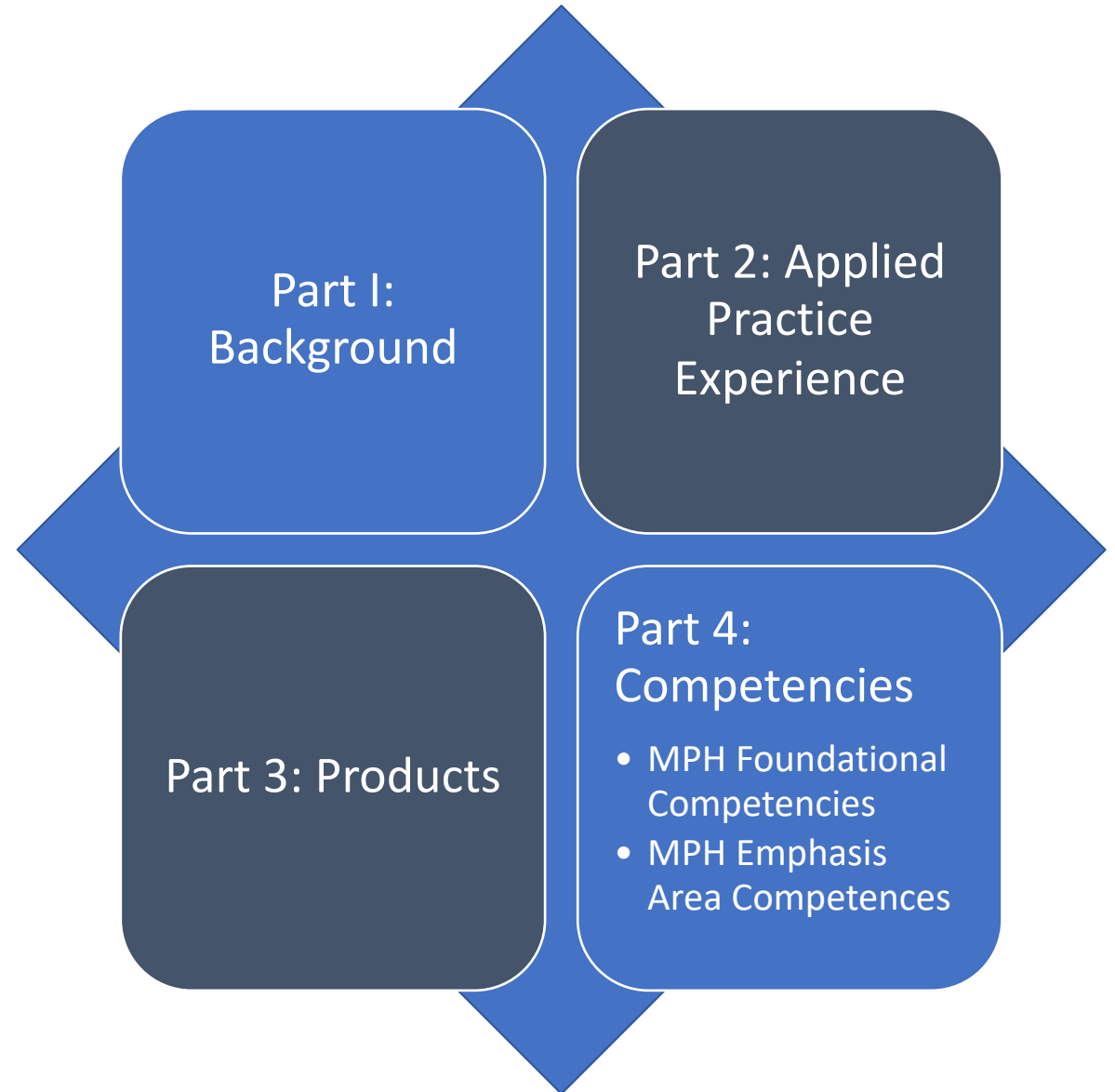
Substance Use Prevention in Manhattan, Kansas

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Master of Public Health |
Infectious Diseases and
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Outline



Part I : Background

Evidence-based Public Health



The use of reputable scientific evidence to guide public health decision-making



Evidence is peer-reviewed and heavily evaluated



Choosing the best piece of evidence and moving forward with a decision



Evidence doesn't always perfectly align with a given situation

- Scientific literature in systematic reviews
- Scientific literature in one or more journal articles
- Public Health surveillance data
- Program evaluations data
- Program evaluations
- Qualitative data
 - Community members
 - Other stakeholders
- Media/marketing data
- Word of mouth
- Personal experience

Objective



Subjective



Evidence-Based Practices Resource Center

Focus on Prevention

Messaging should be:

- captivating, reasonable, straightforward, specific, and uplifting

MARPC Film Festival Topics

E-cigarettes



Electronic devices that produce aerosols from heating liquids



CDC defines vaping as inhaling these aerosols



Aerosols can contain

- Nicotine
- Fine particles
- Food flavorings
- Heavy metals

Associated Harms with Vaping



Stunted neurocognitive development in adolescents



Nicotine addiction



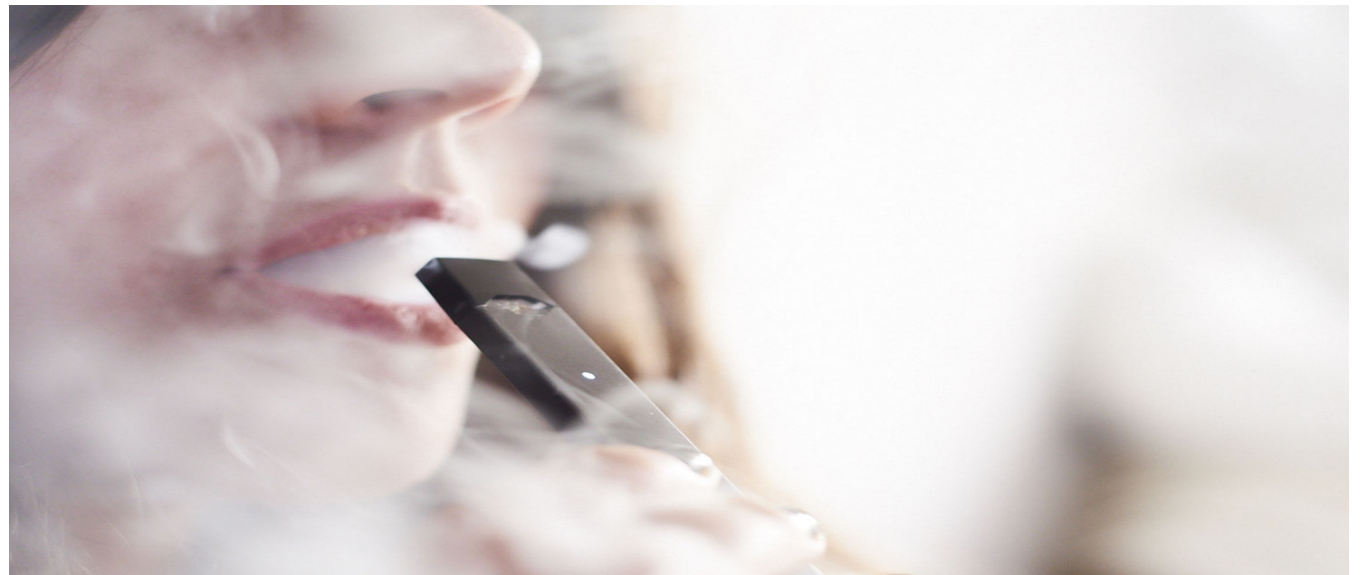
“popcorn lung”-Named after popcorn flavoring chemical, other chemicals cause this too



According to the CDC, more studies are needed for a more informed understanding

Vaping and Public Health Education

Vaping perceived as less risky
if constraints to scientific
conclusions are included in
public health messages



Social Media and Vaping

A study found vaping company
marketers actively working to
associate vaping with healthy food
terms



Small number of tweets

1,205

Tweets can be reduced
with federal regulations

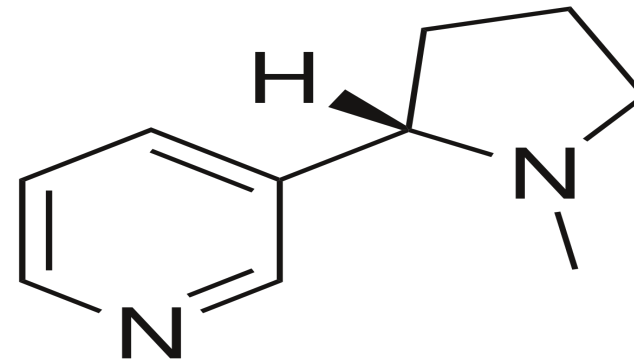
Vaping and Reducing Nicotine Addiction

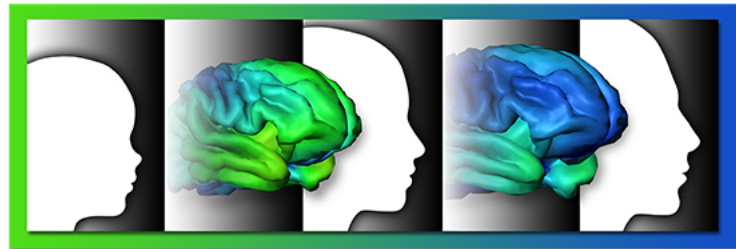


Study found vaping is possibly ineffective at helping smokers quit



Users will compensate and vape in larger amounts if the vape liquid has a lower nicotine concentration than normally seen in cigarettes





Adolescent Brain Cognitive Development®
Teen Brains. Today's Science. Brighter Future.

National Academy of Science

- Need for increased funding towards research efforts and more consistent research methodology among the studies

Adolescent Brain Cognitive Development study

- Short term and long term effects of adolescent substance use
- Before and After use
- 10,000 individuals
- Clearer picture of risk sought by researchers

Harms Associated with Marijuana Use

Addiction

Altered brain development

Poor education outcomes

Cognitive impairment

Increased risk of psychosis among users predisposed to psychosis

Increased sensitization to allergens such as molds/dust mites

Associated Benefits of Marijuana Use

Reduction in chronic pain symptoms in adults

Reduction in chemotherapy-induced nausea

Reduction in the severity of multiple sclerosis symptoms



Alcohol Use



A drink is anything with .6 ounces of pure alcohol

Short Term Use is 4 or more drinks for women and 5 or more for men in single sitting

- Associated with bodily harm and poisoning

Heavy Drinking is 8 or more drinks a week for women and 15 or more drinks for men

- Cancer/Liver Disease/Stroke/High Blood Pressure/Reduced Neurocognitive Functioning

Alcohol Advertising and Adolescents



Systematic Review of
Longitudinal Studies since 2008

Adolescent alcohol advertising
exposure is positively correlated
with the likelihood of adolescent
alcohol consumption

Part II : Applied Practice Experience



- MARPC is funded by a Drug Free Communities federal grant
- “To reduce risky behaviors through prevention education, community collaboration and other Drug-Free Community or similarly evidence-based strategies”
- UFM Community Learning Center is its principle location

Preceptor

Julie Gibbs, MPH

Director of Health Promotion at Kansas State
Lafene Health Center

Current acting President of MARPC

Learning Objectives



Become a Contributing Member of MARPC



Enhance the goals and vision of the group



Learn about Risk Prevention



Analyze the KCTC survey



Develop an effective and sustainable substance use risk prevention program

Results



Attended MARPC meetings



Communicated in an interprofessional group setting



Designed sustainable and cost-effective Film Festival



Found donations for prizes



Advertised to local youth groups



Determined ways to improve future Film Festivals



KANSAS

Communities That Care
Student Survey



KCTC Survey

A yearly anonymous survey given to grades 6/8/10/12

Aimed at learning about adolescent substance perception and use

Developed by University of Washington researchers

Reliable in comparison to results of similar KS and National surveys

KCTC Survey Results

Aided decision-making process

Reinforced idea that vaping/alcohol/marijuana were acceptable subjects for the film festival

Notable Findings:

- Increase of 5.11% from 2018 saying they had tried vaping
- 10.2% saw no risk with vaping
- 78.41% don't feel well rewarded by the community or school
- 63.22% feel that their schoolwork is never or seldom or sometimes meaningful and important

Products



Film Festival Website



Donation Letter



Advertisement Flyer

Shutterfly Website

MARPC Film Festival

[Home](#) [Rules](#) [Misconceptions](#) [Sources](#) [Forms](#) [How to Submit](#)

Fighting Misconceptions

The Manhattan Area Risk Prevention Coalition invites those ages 12-20 to create a public service announcement!

This is a video competition!

These videos will need to fight misconceptions about **vaping (e-cigarettes), marijuana, or alcohol use.**

There will be several categories and winning PSA's will be used by MARPC on local Cable TV ad spots and social media.

Prizes will be provided by Best Buy, Smoothie King, Firehouse Subs, Papa Murphy's Pizza, and the Pathfinder store! More sponsors to be announced!

Please see the Rules page for more information!

Contact Information

Please email melissa@tryufm.org for any questions or concerns you might have!

Educate Your Community!

Common Enemy - 2018 Super Bowl PSA

Actions ▾ | [View video](#)



"Common Enemy" is NCADA's fourth annual Super Bowl PSA. We know that addiction can happen to anyone. But we also know that when parents talk with their ...

Alcohol Awareness Campaign PSA:

Sleepover

Actions ▾ | [View video](#)



One of three public service announcements launched as part of a campaign launched by the Sacramento County Coalition for Youth (SCCY), in partnership with ...

PSA. "Don't Do Drugs Kids".

👍👎 Actions ▾ |

[View video](#)



This video is about PSA Mr. Stewart P.6.

Mr T - Drugs PSA

Actions ▾ | [View video](#)



Taped during the "just say no" decade of the 1980s at the height of Mr. T's popularity on "The A-Team".

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Donation Letter

March 10, 2019

Hello!

I'm excited to let you know that MARPC will be holding its first film festival in the coming months!



I am reaching out to see if you might be interested in donating to this cause! The theme of this film festival is "Fighting Misconceptions". We will be challenging local Manhattan area adolescents ages 12-20 to come up with a Public Service Announcement that will take a common misconception about Vaping/Alcohol/Marijuana substance use and prove that misconception wrong! In today's current social media environment, many falsehoods about these substances are spread by companies that sell these products. Companies will also conveniently omit important truths about possible harms. Many people are not aware of the possible harms associated with the use of these substances due to this. This is especially dangerous when it comes to more easily persuaded younger generations.

The best PSA's will be combined and/or edited to make suitable for actual advertisement use by our organization. This will include cable tv ads and social media ads.

Our goal is to teach participants and those we reach with the final product ads about the dangers of substance abuse in regard to Vaping/Marijuana/Alcohol substance abuse. We feel that the PSA's made by our participants will be more effective in teaching their peers about misconceptions than if we were to make them ourselves, especially with the ever-changing culture associated with teens (memes, fortnite, anyone?).

We need your support in order to provide participants with prizes that will reward them for their participation and give them extra reason to make their PSA's with the highest quality possible.

Ideally, we would like to give participation prizes as well as grand prizes that reward the three highest quality PSA's submitted.

All sponsors will be mentioned in the TV ads that Cox has donated to us!

Our website for this can be found at "marpcfilmfest.shutterfly.com".

Our organization website is "marpc.org".

Thank you so much for your time and consideration!

Jason Messner, Master of Public Health

Manhattan Area Risk Prevention Coalition

jmessner@ksu.edu/9136269073

Flyer

Fighting Misconceptions



2019 Video Competition



Ages 12-20

Create a short Public Service Announcement to inform your peers about a marijuana/alcohol/vaping falsehood!

Submissions due July 30th

Prizes provided by Smoothie King, Pathfinder, Best Buy, Papa Murphy's, Rockwood Comics, and Firehouse Subs!

Please see our website at marpcfilmfest.shutterfly.com for more information!

Part III: MPH Competencies

MPH Foundational Competencies

MPH Foundational Competency Area #7

Assess population needs, assets and capacities that affect communities' health

Analyzed KCTC Survey along with current scientific literature and discussed public health topics with MARPC members

Understand adolescent perceptions and usage rates of substances in Manhattan, KS area



KANSAS

Communities That Care
Student Survey



MPH Foundational Competency Area #13

Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes

Built coalitions with local businesses and youth organizations that could support MARPC film festivals through donations and sponsorships



MPH Foundational Competency Area #16

Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making

Lead planning meetings and synergized ideas to create a competition supported by all members



MPH
Foundational
Competency
Area #17

Apply negotiation and mediation skills to address organizational or community challenges

Melded competing ideas into a single plan



MPH Foundational Competency Area #18

Select communication strategies for different audiences and sectors

Constructed film festival website and targeted it at younger and older potential participants

Tailored donation and sales pitches based upon the recipient



MPH Foundational Competency Area #21

Perform effectively on interprofessional teams

Worked with a variety of professionals.

Ranged from public health promotion director, media specialist, mental health therapist, medical doctor, and the executive director of UFM



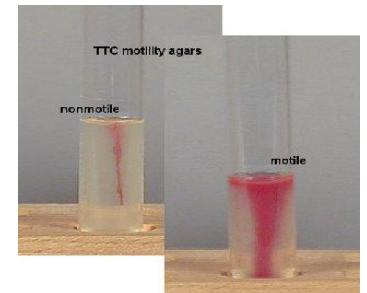
MPH Emphasis Area Competencies

MPH Competency Emphasis Area #1

**Evaluate modes of disease causation
of infectious agents**

Pathogenic Microbiology (BIOL 530),
Environmental Health (MPH 802),
Immunology (BIOL 670)

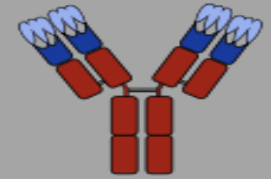
- Pili, fimbriae, lipopolysaccharide, toxins, capsules, biofilms, and flagella
- Motility Test
- Enter, Evade, Survive



MPH Competency Emphasis Area #2

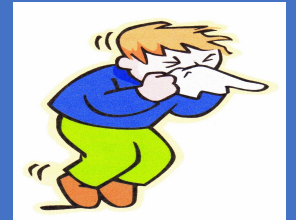
Investigate the host immune response to infection

Immunology (BIOL 670)



- The innate and adaptive arms of immunity

APE



- Examined the effect of marijuana on the immune system
- Associated with sensitization to a number of allergens

MPH Competency Emphasis Area #3

Examine the influence of environmental and ecology forces on infectious diseases

Microbial Ecology (BIOL 687)



- Scientists are researching ways to infect the mosquito *Aedes aegypti* with the symbiotic bacteria *Wolbachia*. *Wolbachia* is antagonistic to viral replication

APE



- The social media environment can be used to promote the spread of false ideas that can turn non-infectious diseases into infectious diseases

MPH Competency Emphasis Area #4

Analyze disease risk factors and select appropriate surveillance

Epidemiology (MPH 754), Immunology (BIOL 670), Pathogenic Microbiology (BIOL 530), Introduction to One Health (DMP 710), Social and Behavioral Bases of Public Health (MPH 818)

- Risk factors related to infectious diseases include age, gender, race, education, and immune system status
- Metagenomic surveys

APE

- Analyzed the association between disease and adolescent substance use
- Selected the KCTC survey for analyzing substance use levels and substance use perception

MPH Competency Emphasis Area #5

Investigate the role of vectors, toxic plants, and other toxins in infectious diseases

Pathogenic Microbiology

- Report written on *E. coli*. This microorganism can produce heat stable toxins that can destroy the microvilli in the intestinal lining

APE

- Ideas can serve as vectors and turn non-infectious diseases into infectious ones

Questions?



THANK YOU!

- Dr. Mulcahy, Dr. Hanson, Dr. Moore, Barta Stevenson, Julie Gibbs, Scott Morrill, my family and friends, and everyone else that supported me!