

Tackling the Teenage Vaping Epidemic

Opportunity for Innovation

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The Back Story

People
Politics
Corporate Greed

- ❖ 2009: Two Stanford grad students wanted to quit cigarettes without quitting smoking
- ❖ Their graduate thesis reimaged the European electronic cigarette – a flavored fluid that when heated formed “harmless” vapors that could be inhaled
- ❖ Initially marketed to adults as a clean, safe smoking-cessation aid
- ❖ **PROBLEM:** Initial roll-out received a tepid response
- ❖ **SOLUTION:** e-Cigarette Redox
 - **NEW product** with 2x the nicotine content
 - **NEW vehicle:** sleek, sexy, high tech jump drive look-alike
 - **NEW marketing blitz:** aimed at 20-something's, with flavors that disguised the acrid taste of tobacco and names especially appealing to youth

And the JUUL phenomenon was born...

The Back Story II

People
Politics
Corporate Greed

- ❖ 2015: In high schools across the US, seniors embrace new **high-tech, easily accessible, easily disguiseable, instantly gratifying** “harmless toy”
- ❖ School bathrooms became JUULING dens
- ❖ Students “ripping” in class when teachers turned their backs
- ❖ Over 4 years, due to lack of regulations, high addiction potential, and corporate greed, JUUL use **exploded** among teens
- ❖ 2019: ~ 1 in 4 high school and 1 in 10 middle school students reported vaping within the past 30 days

CDC declares a vaping epidemic

The Back Story III

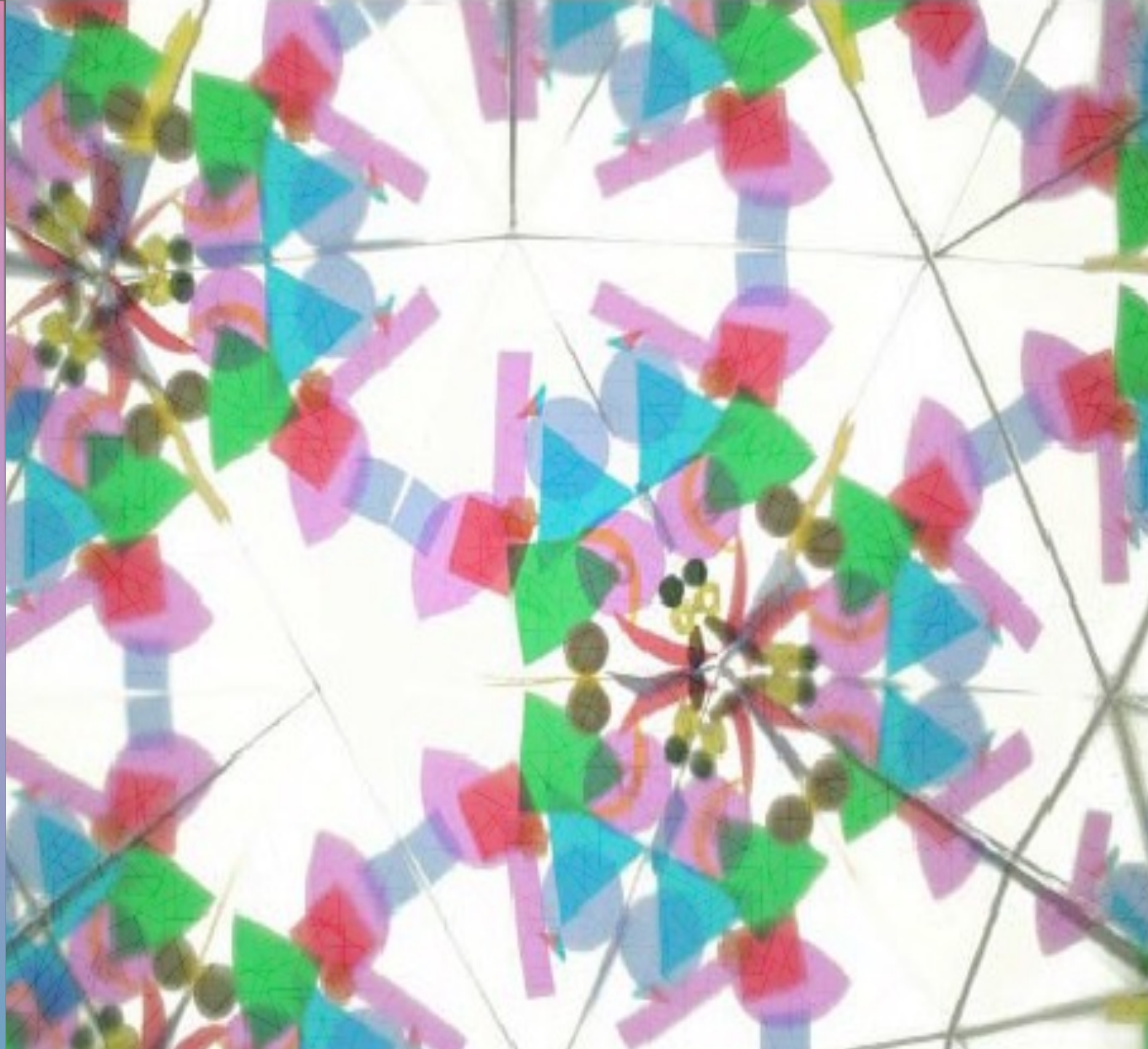
People
Politics
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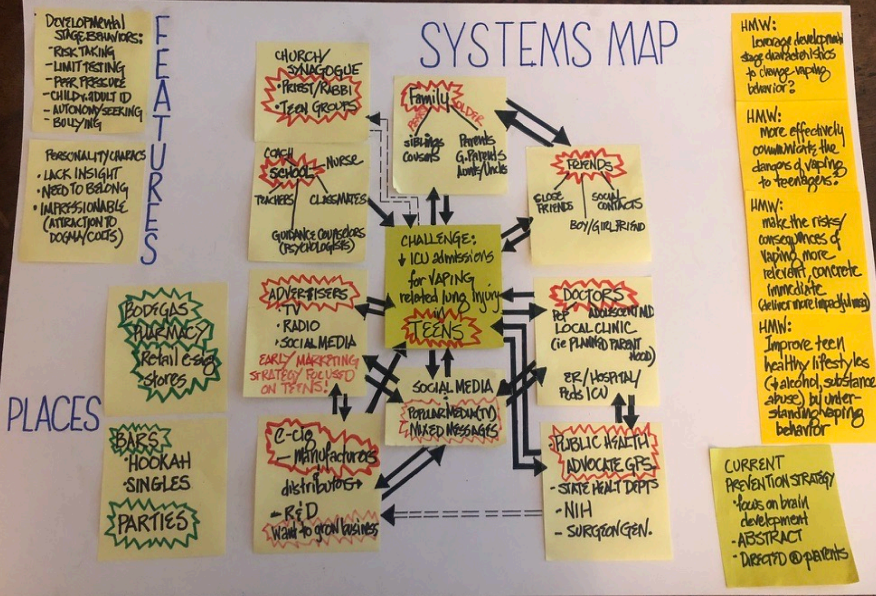


VAPORIZED

Evidence was mounting that **JUUL was not as safe** as once thought. Teens were entering hospital intensive care units with severe respiratory distress of unknown origin.

Applying a Systems Thinking Design Approach





Framing the Challenge

How might we decrease ICU admissions among teens for vaping-related lung injury?

Stakeholders

Teens
Parents
Siblings
Friends
Doctors
Public Health Advocates
Advertisers/Marketers
Merchants

Features

Developmental

Risk taking
Limit testing
Peer Pressure
Child vs. Adult Identity
Autonomy seeking

Personality Characteristics

Impulsive
Lack insight
Need for acceptance
Impressionable (cult-seeking)

Places

Parties
Hookah Bars
Smoke Shops
Bodegas
Pharmacies
Retail Stores

Inspiration

Early Concepts
Exploring the Big Picture

Inspiration

Primary Research

Phone Interviews

ICU physicians
Toxicologists
Middle School Student
Parent

"It's all about money, but 20 years from now we will have an entire population of patients with life-threatening chronic lung disease that came from chronic e-cigarette use." (Toxicologist)

"I guess it is not that much different than when I was in High School. My friends and I would sneak a few drinks or cigarettes at parties."
(Middle school parent)

Insights

"I didn't have any idea what an e-cigarette was until I cared for my first case of vaping-related respiratory failure. Now I seem to hear about it everywhere." (Pediatric ICU Physician)

"I don't hang out with that group.... Honestly, I don't think there is anything anyone can do to stop kids from vaping. The cat's already out of the bag." (Middle school student)

VAPING BY THE NUMBERS

Since June 2019, there has been a multistate outbreak of lung disease in the U.S. associated with e-cigarette product use. The Centers for Disease Control and Prevention (CDC), the U.S. Food and Drug Administration (FDA), state and local health departments and other clinical and public health partners are investigating these cases of e-cigarette, or vaping, product use associated lung injury (EVALI). Below, data (as of January 2020) from the CDC, the National Youth Tobacco Survey and the Surgeon General illustrate one of the biggest health challenges today.

2007

E-cigarettes introduced in the U.S.



5.4M

Youth e-cigarette users
(middle to high school)

900%

Increase in e-cigarette use among
high school students, 2011-2015

Inspiration

Primary Research

Social Media

YouTube Videos
TED Talks
Podcasts
Facebook Posts

Early Learnings

- 👉 “These are kids who’ve had their brains highjacked.... Addiction hides in the secret.”
- 👉 “It’s a community, it’s passed around. It’s part of their socialization.”
- 👉 “Have conversations [about vaping] early and often. Starting the conversation is the best prevention we have.”
- 👉 “We have to decide. Is it a disciplinary issue or a health issue?”

**We chose
rapping over
ripping...so
should you.**

Only fools JUUL



**To really be
cool...
Don't JUUL!**

Only fools JUUL



Early Prototyping

Iconic celebrities whom teens identify as
“cool” act as role models

**I gave up
JUULING...
why haven't
you?**

Only fools JUUL



**They told us not to worry.
They promised we'd be safe.
Then we lost our closest friends.
We won't make the same mistake!**



Only fools JUUL

“Teens will respect the authority of the adults within their sphere of influence - parents, teachers, coaches and clergy - until they no longer have a reason to.”

Early Prototyping II

Knowledge is Empowering

**They told us not to worry.
They promised we'd be safe.
Then we lost our closest friends.
We won't make the same mistake!**



Only fools JUUL

The 5 E's Framework

Rethinking the Framework

Venturing Beyond the Medicine Perspective

Entice	Enter	Engage	Exit	Extend
How will they hear about it? (How do middle school students hear about vaping?)	What is the 1 st impression of the experience?	What are the interactions involved in the experience?		
<ul style="list-style-type: none"> From friends who have tried it From friends who haven't tried it From seeing older students <u>juuling</u> in the bathrooms and class From teachers in health education From their parents From social media From smoke shops they pass walking to school From advertising campaigns 	<p>MOSTLY</p> <ul style="list-style-type: none"> It is cool, pleasurable, "clean", safe when compared to combustible cigarettes, easy to hide, will make you feel grown-up, Popular, accepted into the "cool" group, OR It is illegal, unsafe, scary, addictive, expensive, can cause brain damage 	<ul style="list-style-type: none"> Provides many of the social and physical supports that kids seek: it's cool, current It's social, promotes community It's RISKY and encourages testing limits Provides instant results (a "buzz") <p>BUT</p> <ul style="list-style-type: none"> It is illegal, expensive, highly addictive Carries unknown dangers Is potentially life threatening 		

Rethinking the Framework

Design Principles

- ❖ To achieve sustainability, focus on the users most likely to benefit from the intervention
- ❖ Choose familiar media channels (high-tech, mobile app using visual imaging) and that embrace the users' values. Stress immediate risk over long-term theoretical harm, concrete & tangible outcomes
- ❖ Consider adolescent development and the influences unique to this age group: peer pressure, peer acceptance, desire for community, parental authority vs. independence, rebellion, testing limits, invincibility
- ❖ Reinforce a sense of community and embrace their optimistic outlook. "Despite frequent doom and gloom in the news, teens remain optimistic about their future and confident they can avoid repeating the mistakes of their parents"
- ❖ Capitalize on creativity and ingenuity during the co-creation process to arrive at impactful, novel solutions

Rethinking the Framework

Developing empathy for the users

Learnings

JUUL pods are the most popular and most used vaping pods among US teens

High nicotine content makes them highly addictive

Given limited resources, primary prevention will produce better results than chasing addiction

Stakeholder Frameshift

Focus on middle school students before they start vaping

Challenge Reframe

Middle school students who are well informed will not experiment with vaping

What if middle school students understood the dangers of vaping?

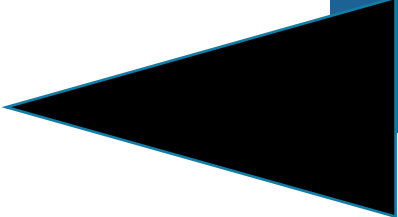
Developing empathy for the users

Learnings

Teens believe they are invincible BUT do not want to deliberately harm themselves

Immediate, palpable danger is more meaningful to teens than theoretical, long-term risk

Complicated, mixed messages, like those on the dangers of vaping, are confusing and unlikely to influence behavior change



If middle school students understood the dangers of vaping, **then** they would not be as easily enticed to try it

If some middle school students were not enticed to try vaping, **then** others would follow their lead

If other middle schoolers would follow, **then...**

The cycle would be broken

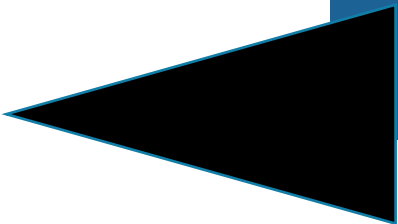
What if we rewarded middle school students for not vaping?

Developing empathy for the users

Learnings

Opportunities that engage and empower teens during this time of internal and external turmoil are more likely to change behavior than educating them on the threat of long-term harm to brain development

Acting as a role model for peers is empowering



If we rewarded middle school students for not vaping, in a manner that was meaningful to them, **then** fewer would try it

Then they could use their imaginations and communication skills to deliver a message that resonated with peers, using media that was both credible and convincing

Then they might aid in the co-creation of more effective campaigns

Next Steps

Back to the drawing board

1. Attend a multi-disciplinary vaping-related lung injury conference. Recruit teens for a co-creation workshop
2. Use analogous research to explore new media options that resonate with teens
3. Plan a co-creation workshop to vet early campaign prototypes and to inspire ongoing ideation
4. Arrange additional interviews with parents of middle school teens
5. Contact the NYC Bd of Ed & NYS Dept Of Health to discuss future collaborations



**Iterate,
Iterate,
Iterate...**