

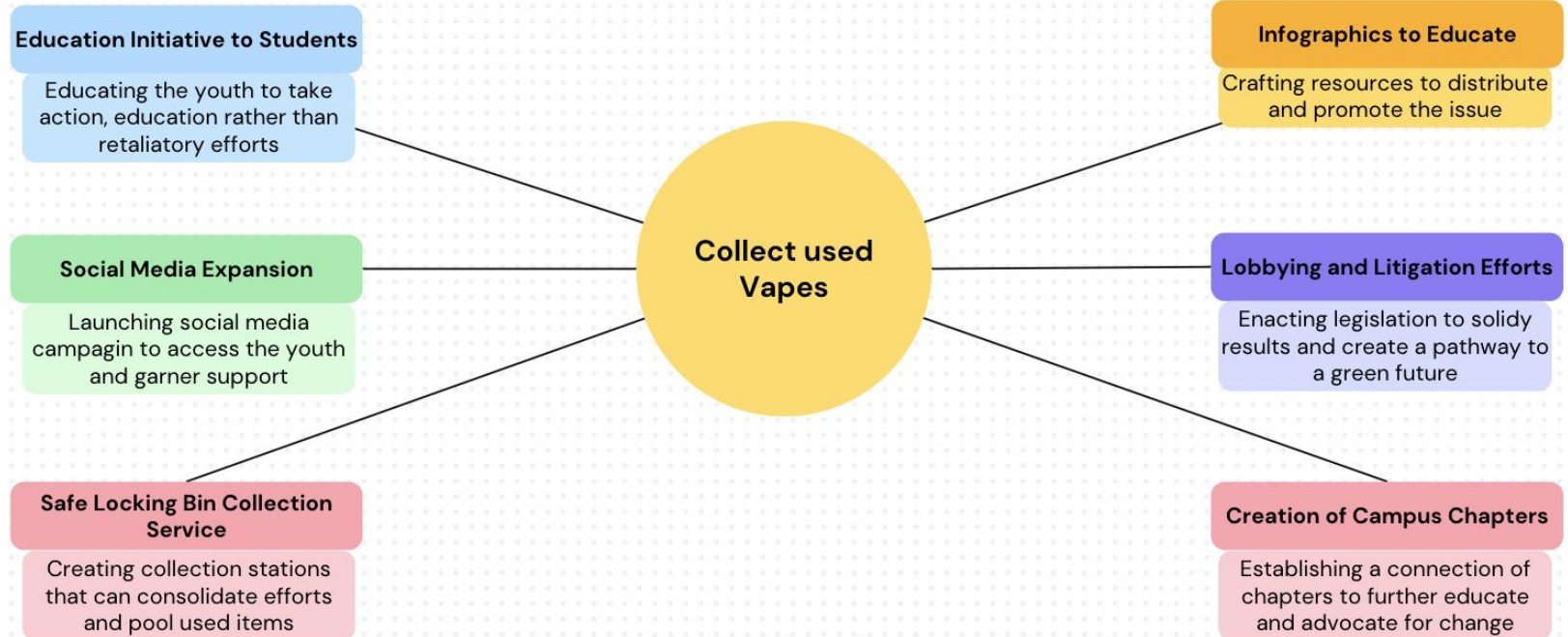
ReCig & Vape Recycling

Elaine Kooiker, Saumit Madireddy,
Serena Migdal, Riley Sikorski, Dennis
Vink
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Stevens Institute of Technology



The ReCig Plan

Plan of action to tackle the issue of the negative effects of vaping on our environment and health



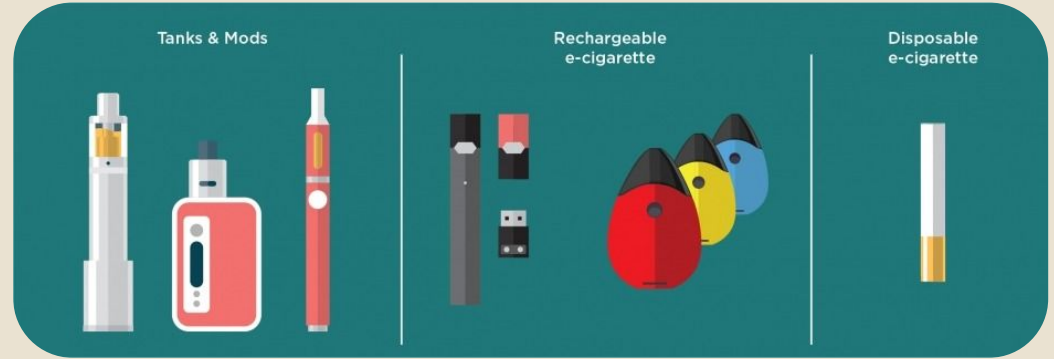
What are Vapes?

According to the FDA:

“Vapes use a substance called **e-liquid** that may **contain nicotine**, the same highly addictive chemical found in tobacco. E-liquid also may contain **flavorings, propylene glycol, vegetable glycerin**, and other ingredients.”

According the State of New Jersey

“**Electronic smoking device**” means a non lighted, **noncombustible device** that may be used to **simulate smoking and that employs a battery** to produce aerosolized or vaporized nicotine or other substance for inhalation into the body of a person, including... **e-cigarette, e-cigar, e-pipe, e-hookah, vape pen**” “Vapes have different shapes and designs but generally work in similar ways, They **contain batteries and heat e-liquid to create an aerosol that the user inhales**. Some vapes are rechargeable for long-term use; others are disposable after short-term use.”



Environment

- ❑ Only around **9.4%** of e-waste is actually recycled in the Americas - majority of used vapes end up in the environment
- ❑ Nicotine in littered vapes can **poison wildlife** while also polluting both soil and water
- ❑ The lithium batteries in vapes are hazardous waste and can be very harmful if not disposed of properly



Environment



- ❑ As the batteries corrode, the metals and chemicals found in them **leak into the ground**
- ❑ **Lithium batteries often cause fires** in garbage bins or landfills, and can lead to further issues, such as wildfires and endangered wildlife

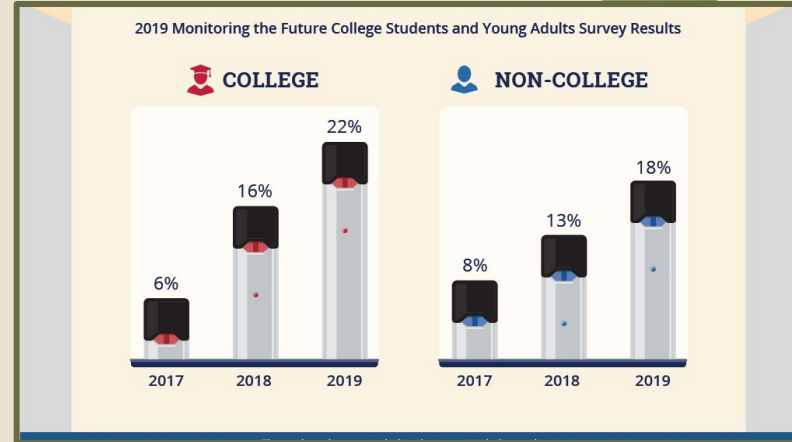
Health Effects


- Vapes produce and emit toxic chemicals, such as acetaldehyde, acrolein, and formaldehyde, which may cause lung and heart disease.
- Many vapes contain acrolein, which is found in weed killers. It can result in acute lung injuries, and may even cause asthma or lung cancer.
- Studies have found that second-hand smoke coming from users blowing out the contents of vapes is extremely dangerous. These secondhand emissions contain many toxic chemicals such as nicotine, organic compounds found in car exhaust, flavorings that are connected to lung disease, and heavy metals.
- The FDA found that no e-cigarettes are considered healthy and they are not successful in helping traditional cigarette smokers to quit.



Other Negative Effects of Vaping

- ❑ Creating a waste crisis of lithium - a finite substance
- ❑ Further creating an irreversible path for our generation
- ❑ Developing addictions





“Five million disposable vapes are thrown away each week in the UK, a fourfold increase over the past year”, according to research from recycling campaign group Material Focus.

Stevens Survey Results

- Conducted a brief survey with Stevens students to learn more about vape usage by students on campus/around Hoboken

66% responded saying they have never owned their own vape, while 93% said they have a close friend who has

The majority of students (85%) said they purchase their vapes at Frank's Spot located at 704 Washington Street

About half of the students responding live off-campus, while the remaining half was split evenly between residing in dorms on campus and in greek houses

Truth Initiative survey shows that most users do **NOT** know how to **properly dispose** of their used vapes.



Numbers **surge** amidst a **lack** of adequate **recycling initiatives**.



We're throwing away millions of vapes

In the UK we buy half a billion vapes a year and bin a massive 3 million of them every week. That includes rechargeables, single-use, and rechargeable vapes with a single-use chamber.



1.3 million single-use vapes a week binned

Single-use vapes are a big problem – we're chucking away enough of them every year to cover 22 football pitches. They might be called disposable but they should still be recycled.



There's hidden treasure inside vapes

Vape kits contain lithium – also a vital component in electric car batteries. Recycling vapes would save precious resources from being lost forever.

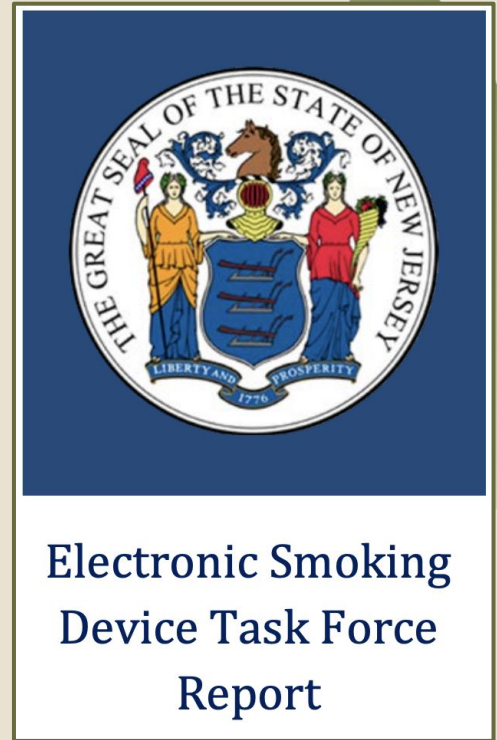


Piling on the problem of e-waste

Vapes are quickly becoming part of the fastest growing waste stream in the UK, where we bin over 155,000 tonnes of electrical waste a year.

NJ Laws on E-Cigarettes/Vapes

- Senate 3265: NJ State Law Banning Electronic Smoking Devices
- “This bill **prohibits the sale, offer for sale, and distribution** of electronic smoking devices and related products that have a **“characterizing flavor.”**
- "Characterizing flavor means a distinguishable flavor, taste, or aroma, including...**any fruit, chocolate, vanilla, honey, candy**... that is imparted, prior to or during consumption, by an electronic smoking device”



E-Cigarettes Authorized by the FDA

As of Aug. 2023, these are the only e-cigarettes authorized to be sold in the U.S.



Manufacturer	Product Name
Logic Technology Development LLC	Logic Regular Cartridge/Capsule Package
	Logic Vapeleaf Cartridge/Capsule Package
	Logic Vapeleaf Tobacco Vapor System
	Logic Pro Tobacco e-Liquid Package
	Logic Pro Capsule Tank System [1]
	Logic Pro Capsule Tank System [2]
	Logic Power Tobacco e-Liquid Package
	Logic Power Rechargeable Kit
	NJOY LLC
NJOY DAILY EXTRA Rich Tobacco 6%	
NJOY ACE Device	
NJOY ACE POD Classic Tobacco 2.4%	
NJOY ACE POD Classic Tobacco 5%	
NJOY ACE POD Rich Tobacco 5%	
R.J. Reynolds Vapor Company	Vuse Vibe Power Unit (1)
	Vuse Vibe Tank Original 3.0%
	Vuse Vibe Power Unit (2)
	Vuse Ciro Power Unit (1)
	Vuse Ciro Cartridge Original 1.5%
	Vuse Ciro Power Unit (2)
	Vuse Solo Power Unit
	Vuse Replacement Cartridge Original 4.8% G1
	Vuse Replacement Cartridge Original 4.8% G2

For the most up-to-date list of authorized e-cigarettes, visit the [Premarket Tobacco Product Marketing Granted Orders webpage](#).

While these products are authorized to be sold in the U.S., it does not mean these products are safe nor are they "FDA approved." All tobacco products are harmful and potentially addictive. Those who do not use tobacco products shouldn't start.



There are just 3

FDA Authorized E-Cigarette Producers and Retailers in the US.

...But there are many violating companies.

→ Two large companies that are not FDA authorized: **Mylee and Lava.**

Both have addresses in New Jersey. However, these addresses seem to be ghost locations.

→ They are among the most commonly used brands by students in Hoboken.



Our Safe-Locking Bin

- We have created our first prototype of the safe-locking collection bin. It is composed of wood, with two plexiglass openings on the sides so that people are able to look at the contents of the box. The bottom has holes in case drainage is necessary (if the box is placed outside - weather). The top has a slot that is large enough for vapes to fit through, but not large enough for people to reach in and take anything out. There is a latch allowing us to open the top of the box to empty the contents of the box when necessary. A lock will be used to prevent anybody else from opening the box.
- **Add a photo of the bin.**

The Future of the Bin

- Going forward, we plan to laser cut the boxes to provide a cleaner looking box.
- Our first collection location - Frank's Spot, located at 704 Washington Street. Our survey found this to be one of the most popular spots that Stevens students go to purchase their vapes.
- Hopefully, this placement for the Box will be beneficial to both us and Frank's Spot
 - ◆ We will collect vapes from people who most likely do not properly recycle them, allowing us to do so.
 - ◆ People will continue to purchase products from Frank's once they need new vapes.
- Additional, potential bin placements include on Stevens' Frat Row, around classrooms in academic buildings, in Hoboken High School, etc.

Our Infographic

Add it to this slide once we have it finished.



