

## To vape or not to vape

**CRI PROTOCOL NO:** 009.ONC.2020.D

**PRINCIPAL INVESTIGATOR:** Maiya Bangurah, MBA, BS

maiabangurah@mhd.com

214-947-1768

**CONTACT INFORMATION  
FOR PI:**

**SUB INVESTIGATOR(s) &  
CONTACT INFORMATION:**

Charla Gauthier, MPH, CPHQ,  
Methodist Dallas Medical Center  
Cancer Program Administration  
1441 N. Beckley Avenue  
Dallas, TX 75203  
CharlaGauthier@mhd.com; 214-947-3621

Leah Jossell, Ljossell@twu.edu  
Brianna James, Bjames8@twu.edu  
214-947-1768

**STUDY SPONSOR:** Methodist Health System

**SPONSOR CONTACT  
INFORMATION:**

Crystee Cooper, DHEd, MPH, LSSGB, CHES, CRA  
Methodist Health System, Clinical Research Institute  
1411 N. Beckley Ave, Pavilion III, Ste. 168  
Dallas, TX 75203  
CrysteeCooper@mhd.com; 214-947-1280

**VERSION NO:** 1

**VERSION DATE:** 19 February 2020

**CLINICAL RESEARCH INSTITUTE,  
METHODIST HEALTH SYSTEM,  
DALLAS, TX 75203**



## STATEMENT OF COMPLIANCE

The study will be conducted in accordance with the International Conference on Harmonization guidelines for Good Clinical Practice (ICH E6), the Code of Federal Regulations on the Protection of Human Subjects (45 CFR Part 46). All personnel involved in the conduct of this study have completed human subject's protection training.

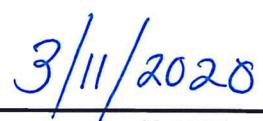
## SIGNATURE PAGE

I have read this protocol and agree to adhere to the requirements. The protocol, other study documents and all necessary information will be made available to study staff (investigators, coordinators, affiliated support staff, etc.). As required, I will discuss this material with them and ensure they are fully informed regarding the study treatment/intervention and protocol. The study will be conducted in compliance with the protocol, Good Clinical Practices (GCP), International Conference on Harmonization (ICH), the Institutional Review Board (IRB), and all other federal guidelines and regulations.



PI SIGNATURE

Maiya Bangurah



DATE

---

Cancer Program Administration

DEPARTMENT NAME

---

1441 N. Beckley Avenue, Dallas, TX 75203

DEPARTMENT ADDRESS

## LIST OF ABBREVIATIONS

AE	Adverse Event/Adverse Experience
CFR	Code of Federal Regulations
CRI	Clinical Research Institute
DFW	Dallas-Fort Worth
CRF	Case Report Form
DHHS	Department of Health and Human Services
DSMB	Data and Safety Monitoring Board
EVALI	E-cigarette or Vaping Product Use-Associated Lung Injury
FDA	Food and Drug Administration
GCP	Good Clinical Practice
ICH	International Conference on Harmonization
IHE	Inside Higher Ed
IRB	Institutional Review Board
NPR	National Public Radio
US	United States

## 1. INTRODUCTION

### 1.1. Background:

Adolescent use of vaporizers has increased rapidly in recent years in the United States. According to a survey taken by the National Public Radio (NPR) in November 2019, vaping amongst high school students has increased since 2016, in which approximately 12 percent of high school students reported using vaping products compared to 28 percent in 2019 (NPR, 2019). NPR stated that as of 2019, 5.3 million teenagers use e-cigarettes daily (NPR, 2019). According to American Lung Association, about 40 percent of kids have tried vaping. Further, it is likely their parents do not know as vaping is easy to hide compared to traditional cigarettes (American Lung Association, 2019).

Unfortunately, vaping does not stop after high school. Vape usage has increased on college campuses even with nationwide smoking bans on every campus. According to a survey done by Inside Higher Ed, it was found that the use of- e-cigarettes, vape marijuana, and vape nicotine has doubled among college students between the years of 2017 to 2018 (IHE, 2019). However, the use of vaporizers in the adult (25 to 44) age group is lower compared to the younger population due to the recent popularity of vaping products (Truth Initiative, 2019).

Vape products contain aerosol and approximately 7,000 chemicals; at least 70 of these chemicals are known to cause cancer (American Cancer Society, 2018). Due to nicotine being a highly addictive substance and prominent in many vaping products, individuals that smoke vape pens are four times more likely to

use tobacco products and smoke cigarettes (Truth Initiative, 2019). E-cigarettes or vaping products use- associated lung injury (EVALI) has been reported. Many individuals are being diagnosed with cancers of the lung, mouth, bronchi, and throat.

The Centers for Disease Control and state agencies have reported 2,506 lung injury cases that required hospitalization and 54 deaths linked to vaping as of December 2019 (CDC, 2019). According to John Hopkins, on January 7, 2020, there were 57 deaths that were linked to vaping. That number increased to 60 on January 21, 2020 (John Hopkins, 2020)

Many vaping companies present their products as nicotine free and as being a safe and non-addictive way of smoking. From commercials to online ads, consumers are being told that this product is free from the smell of cigarettes, reusable, much cheaper, and even healthier than traditional cigarettes. This information can be very deceiving and persuasive to the young mind.

This program titled, “To Vape or Not to Vape”, will provide education to adolescents and young adults about the potential risk of vaping in an effort to assist with lowering the usage rates within the population. Content will include information about current statistics, potential short-term and long-term side-effects, and healthy alternatives for dealing with stress and peer-pressure. We anticipate that this program will increase this population’s knowledge about the risks of vaping products, and deter them from future use of the products. Effectiveness of this program will be measured by pre and post-tests.

**1.2.** Aim(s)/Objective(s)

The overall goal of this study is to increase knowledge of vaping and its associated risks. This study will find the patterns of vaping, and how it all started among adolescents. We want to know if students are aware of the serious and long term effects of vaping.

The objectives are:

1. To provide at least 100 middle school and high school students with anti-vaping education.
2. To provide at least 40 college students with anti-vaping education.
3. To improve the overall knowledge of vaping statistics and side effects as measured by a pre and post-test. The pre-test will be the baseline measurement. The post-test will be the measure of effectiveness. Out of the 10 questions on the post-test, the goal is to have the students answer at least 8 out of the 10 questions correctly.
4. To decrease the percentage of students who say that they are likely to vape in the future.

The program will be going to middle school, high school, and college campuses in the Dallas-Fort Worth (DFW) area to speak with students about vaping. The program will be implemented by community outreach, as the students will be presented with information about vaping and the resources necessary to prevent or stop vaping. This program will present the students with a 35-minute curriculum that is listed below. The purpose of this study is to relay

and publish data that will support education about vaping and the many health risks associated with vaping products.

### **1.3.** Rationale for the study

The Food and Drug Administration (FDA), has yet to release any proven reviews and standards on the components of e-cigarettes, nor the long- term effects of vaping (ALA, 2019). However, researchers have noticed the toxic chemicals and metals found in e-cigarettes. A few of the chemicals include nicotine, cancer causing carcinogens, and heavy metals such as nickel, tin, and lead. Also found in these products is benzene, which a chemical in crude oil and gasoline. There are many more dangerous chemicals in these products that most individuals are unaware of (ALA, 2019). The harsh chemicals found in vaping products, are directly linked to lung disease, difficulty breathing, spikes in blood pressure, rapid heart rate, gum disease, and many more.

This study will address the rise in vape products by providing education that will help prevent and decrease the percentage of students that currently vape.

### **1.4.** Hypothesis

We believe this program will make at least 50 percent of the participants more aware of the dangers and consequences of vaping, potentially lowering the rates of those participating in this habit while also preventing others from starting.

#### **1.4.1.** Primary Hypothesis

By increasing the awareness of vaping products, the number of vape users in teens and young adults will decrease by 5%. The students that participate in this program will obtain the knowledge of risk and side effects from smoking tobacco,

and the use vaping products. The program's goal will be measured by a pre and post survey.

**1.4.1.** Secondary Hypothesis

This program will decrease the individual's likelihood of vaping in the future.

**2. OBJECTIVES AND STUDY OUTCOME MEASURES**

**2.1.** Study Objectives

**2.1.1.** Primary Objective(s)

The primary objective for this program is to obtain an understanding and gather information on the percentage of vape users in teens and young adults. This study will include at least 100 individuals, as this will allow us to determine why vaping is so prominent, what causes individuals to be attracted towards this habit, and determine why there is an increasing rate of vaping.

**2.1.2.** Secondary Objective(s)

The secondary objective for this program is to prevent those who do not vape to not begin to partake in this habit and to reduce the percentage pf the target population who are currently vaping, by increasing their knowledge on the dangers of vaping by 10%.

**2.2.** Study Outcome Measures

**2.2.1.** Primary Outcome(s)

We will obtain the percentage of vape users and their reasons for vaping from information gathered from pre-test (Appendix C). Within 6 months, we hope to see a decline in the usage of vapes in the DFW area.

### 2.2.2. Secondary Outcome(s)

Changes in the degree of understanding will be assessed from the results of the pre- and post-test (Appendix C). In addition, we hope to find the answers to the following questions:

- Is vaping within the student's environment?
- Are the students being socially peer pressured into smoking, and if so how often?
- Are most students forming addictive behaviors towards vaping?
- What are the triggers that cause a student to vape?
- What is their reasoning on why they vape or participate in any smoking products?
- Do members of their close group of friends' vape?
- Are students aware of the serious and long-term side effects of vaping?

## **3. STUDY DESIGN**

The time frame for this study will be approximately one month, with the first presentation of the program being in March 2020. This program will be provided to high school and college students within the Dallas Fort Worth metroplex. The program will be implemented by community outreach, as the students will be presented with information about vaping and the resources necessary to prevent or stop vaping from their daily lives. The purpose of this study is to relay and publish data that will support the education of vaping and the many health risks associated with vaping products.

During this program, we will be presenting to 20 to 30 students at a time in a classroom setting, which will allow us to closely interact with participants. This is an anonymous study; therefore, all participants' names will not be listed nor stated in any documentation. In order to accurately complete this anonymously while also calculating our results, students will be asked to list their age, gender, race, and zip code on their survey. This program will be approximately 35 minutes. Participants will be given a pretest (Appendix C) before any information is presented. Students will be given an incentive to complete this program. Below is an outline (Appendix D) of the program:

## **I. Introduction**

1. Introduce ourselves
2. Present the Pretest

## **II. Thesis statement**

1. Goals and objectives of the study

## **III. Main points**

1. Chemicals that are in vapes
2. The difference between e-cigarettes and vapes
3. Risk and side effects of vaping
4. What happens inside the body when vaping
5. Resources available to help quit and prevent vaping

## **IV. Post test**

<u>Program Component</u>	Intro/ Pre-test	History of vapes	Chemical in vapes, and reaction to inside the body	Mental Health	How to change addictive behaviors	Resources	Questions / Recap	Post-test
<u><b>Brief Description</b></u>	Introducing the program to the targeted population and having the students take a 5 minute pre-test.	Students will learn about the history of vapes and tobacco.	Students will learn about nicotine and its addictive properties. Students will learn how these things affect the lungs, heart, and teeth	Students will learn how the brain functions and how it reacts to contents in vapes.	Helping the students identify their triggers and learning behaviors to change their point of view.	Providing the students resources within their community	Going back over the main bullet points from the curriculum and letting the students ask questions	Students will take a 5 minute post-test
<u><b>Duration (in minutes)</b></u>	5	3	5	3	5	3	5	5

## 4. STUDY ENROLLMENT AND WITHDRAWAL

### 4.1. Study Inclusion Criteria:

- The program's targeted population is starting at the middle school grade levels, up to college.
- Live in the DFW metroplex
- Willing to participate throughout the presentation

### 4.2. Study Exclusion Criteria:

- Less than 12 years old
- Students that are not in the DFW metroplex

### 4.3. Premature Termination or suspension of study

Unforeseen unless unable to collect data due to lack of subject participation.

## 5. STATISTICAL CONSIDERATIONS

## 5.1. Sample Size Considerations

A power analysis using the G-power 3.1 computer program (Faul & Erdfelder, 2009) indicated that a total sample of 35 people would be needed to detect a medium effect (Cohen's  $dz = 0.5$ ) with 80% power using matched-pairs Wilcoxon signed-rank test with alpha at 0.05 and assuming non-normal distribution. We need to enroll at least 44 subjects to account for 20% attrition rate. We plan to enroll 100 subjects in this study from whom we will collect pre- and post-test data on vaping.

## 5.2. Statistical Analysis Plan

Descriptive analysis will be performed for all continuous variables. Mean  $\pm$  standard deviation will be presented for normally distributed variables and median  $\pm$  interquartile range will be presented for non-normal variables. Count and proportions will be presented for all categorical variables. All normally distributed continuous outcomes will be analyzed with paired t test and non-normally distributed continuous outcomes will be analyzed with nonparametric Wilcoxon signed-rank test. All Categorical outcomes will be analyzed using McNemar test.

## **6. ETHICS/PROTECTION OF HUMAN SUBJECTS**

### 6.1. Ethical Standard

The investigators will ensure that this study is conducted in full conformity with the principles set forth in The Belmont Report: Ethical Principles and Guidelines for the Protection of Human Subjects of Research, as drafted by the US National Commission for the Protection of Human Subjects of Biomedical and

Behavioral Research (April 18, 1979) and codified in 45 CFR Part 46 and/or the International Conference on Harmonization (ICH) E6. The investigators will conduct all aspects of this study in accordance with all national, state, and local laws or regulations.

The investigators will ensure that all individuals involved in research involving human subjects will adhere to the following principles: minimize the risk of harm, obtain informed consent, protect anonymity and confidentiality, avoid deceptive practices, and provide the subject the right to withdraw participation. This will be an anonymous study, and all participant names will not be included.

## **6.2. Institutional Review Board**

The protocol and all study-related materials will be submitted to the IRB for review and approval. Protocol approval will be obtained before any participant information and clinical data are collected. Only approved documents will be used for patients. Any amendment to the protocol will require review and approval by the IRB before study changes are implemented.

## **6.3. Informed Consent / HIPAA Waiver**

### **Informed Consent**

Study subjects will not be provided an informed consent form due to the study being anonymous and confidential within an educational setting. There are no risk associated with this study and no names or identification will be presented on participants documents. Participants will be asked to state their zip code and grade level on the pre and post-test in order to gather our data. Consent to participate is obtained without coercion or undue influence.

## HIPAA Waiver

Requesting the IRB for a waiver of consent for the following reasons:

- This research is not regulated by the FDA.
- This research involved no more than minimal risk to the subjects.
- The waiver or alteration will not adversely affect the right or welfare of the subjects.
- The research could not practicably be carried out without the waiver
- It is not feasible to provide subjects with pertinent information after participation.
- No patient interaction will occur.
- No patient interventions will occur.

### 6.4. Participant Confidentiality

Participant confidentiality will be strictly maintained at all times with all information used being non-traceable to the participants. This study will be anonymous as participants names will not be on any documents or test.

Information will only be accessed by the principal investigator or sub-investigators. No identifiable participant data will be disclosed. All information obtained will be source de-identified, presented on a large scale, and not traceable to any one particular individual. All data collected will be kept on the password protected hospital server, and only authorized trained personnel will have access to the share drive. All physical information will be shredded in the lock shred box located in the Cancer Administration Program office. At close of this study, all identifiers will be removed from the data collection tools.

## 7. DATA MANAGEMENT PLAN

### 7.1. Physical Controls

All data capture and storage methods will be HIPAA compliant as per MHS policy. All data will be collected and saved under the canteam files database. All study documents will be stored in a secure, limited access location behind two locked doors. The investigators will take measures to ensure that these essential documents are not accidentally damaged or destroyed. All clinical study documents will be retained by the CRI until at least three years after study completion or according to local laws, whichever is longer.

### 7.2. Technical Controls

All information will be kept under lock and key or on MHS approved password-protected servers at all times.

### 7.3. Source Document Management

The investigator(s)/institution(s) will permit study-related monitoring, audits, IEC/IRB review, and regulatory inspection(s), providing direct access to data collected via the Methodist Health System share drive. Data collected during this study will be recorded on the appropriate data source via Word document, Access database, or Excel spreadsheet depending on treatment type.

### 7.4. Data Capture Methods

Data will be collected with the assistance paper pre- and post-test. This data will be collected and transferred over into an Excel spreadsheet. All data collected will be entered in the appropriate document type. All data collection methodologies will be maintained under strict surveillance and will be encrypted.

### 7.5. Data Use and Sharing

Study data will not be shared with anyone that is not delegated to the study.

The PI is committed to disseminate research results in a timely fashion. Sharing of results generated by the data analysis during the course of the project will be through presentation at national scientific meetings and/or publication in open access journals. All information obtained will be source de-identified and presented on a large scale and not traceable to any one particular individual.

## **8. RECORD RETENTION/ARCHIVING**

The investigator will maintain the original formats of all essential study documents and source documentation at the investigative site in compliance with ICH/GCP guidelines. All study-related documents will be retained by the CRI until at least three years after study completion or according to local laws, whichever is longer. The investigator will take measures to ensure that these essential documents are not accidentally damaged or destroyed. If, for any reason, the investigator withdraws responsibility for maintaining these essential documents, custody of the documents will be transferred to an individual who will assume responsibility; the CRI and IRB will receive written notification of this custodial change. Records will also be accessible to MHS staff upon request unless constituting a violation of patient confidentiality.

## **9. PUBLICATION PLAN**

All information will be blinded in compliance with GCP. The investigator will make all possible efforts to ensure compliance with all policies regarding sharing of PHI or



research information. Only de-identified PHI will be shared in relevant research  
mediums.

**10. BUDGET**

Services	Cost	Total Cost (with 30% indirect cost)
<b>IRB Fees</b>		
Initial Study Review Fee (Includes 1 informed consent)	\$1,265	\$1,644.50
Continuing Review for Main Study File	\$880	\$1,144.00
Study Close Out - Study Level	\$275	\$357.50
Review of Subject Materials: Per Document (Ads, retention, protocol clarification, etc.)	\$240	\$312.00
Protocol Amendment Per Site (no Revised Informed Consent)	\$345	\$448.50
Protocol Amendment Per Site (with Revised Informed Consent)	\$420	\$546.00
Acknowledgement of Submissions (Safety Reports, etc.)	\$50	\$65.00
<b>Administrative Fees</b>	\$5,000	\$6,500.00
<b>Data Collection (per hour)</b>	\$50	\$65.00
<b>Data Analysis (X hours, \$75/h)</b>	\$0	\$0
<b>Education and Training</b>	\$0	\$0
<b>Subject Stipend(s)</b>	\$0	\$0
<b>Study Coordination (per hour)</b>	\$20	\$26.00
<b>Archiving</b>	\$600	\$780.00
<b>Total</b>	<b>\$9,145.00</b>	<b>\$11,888.50</b>

## REFERENCES

American Cancer Society | Information and Resources about for Cancer: Breast, Colon, Lung, Prostate, Skin. (n.d.). Retrieved from <https://www.cancer.org/cancer/cancer-causes/tobacco-and-cancer/carcinogens-found-in-tobacco-products.html>

Bauer-Wolf, J. (2019, September 9). Study: College students using marijuana, e-cigarettes at record rates. Retrieved from <https://www.insidehighered.com/news/2019/09/09/study-college-students-using-marijuana-e-cigarettes-record-rates>

E-cigarettes: Facts, stats and regulations. (n.d.). Retrieved from <https://truthinitiative.org/research-resources/emerging-tobacco-products/e-cigarettes-facts-stats-and-regulations>

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G\*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, 41, 1149-1160.

McMinn, S., & Jin, C. H. (2019, November 6). More Teens Than Ever Are Vaping. Here's What We Know About Their Habits. Retrieved from <https://www.npr.org/sections/health-shots/2019/11/06/776397270/more-teens-than-ever-are-vaping-heres-what-we-know-about-their-habits>

Pulmonary Disease Associated with E-cigarettes. (2019, December 20). Retrieved from [https://www.cdc.gov/media/releases/2019/t1220\\_telebriefing\\_update\\_lung\\_injury.html](https://www.cdc.gov/media/releases/2019/t1220_telebriefing_update_lung_injury.html)

What's in an E- Cigarette? (n.d.) (2019, December 11) Retrieved from <https://www.lung.org/stop-smoking/smoking-facts/whats-in-an-e-cigarette.html>.

5 Vaping Facts You Need to Know. (n.d.). Retrieved from <https://www.hopkinsmedicine.org/health/wellness-and-prevention/5-truths-you-need-to-know-about-vaping>

## APPENDICES

**Appendix A: Study Team: Role & Contact Information**

**Appendix B: Data Collection Tool(s)**

**Appendix C: Pre-Test & Post-Test Survey**

**Appendix D: Outline**

**Appendix E: Fact Sheet**

**Appendix F: Pamphlet**

**Appendix G: Resource Card**

**Appendix A: Study Team: Role & Contact Information**

- Leah Jossell: Sub Investigator/Publisher

[Ljossell@twu.edu](mailto:Ljossell@twu.edu)

214-947-1768

- Brianna James: Sub Investigator/ Publisher

[Bjames8@twu.edu](mailto:Bjames8@twu.edu)

214-947-1768

- Maiya Bangurah EMBA, BS: PI

[maiabangurah@mhd.com](mailto:maiabangurah@mhd.com)

214-947-1768

- Charla Gauthier, MPH, CPHQ: Sub Investigator

[Charlagauthier@mhd.com](mailto:Charlagauthier@mhd.com)

214-947-3621



## Appendix B: Data Collection Tool

## Excel Spreadsheet: Pre-Test

## Excel spreadsheet: Post-Test

## Appendix C

### Pre-Test

1. Do you or have you ever smoked tobacco cigarettes?
  - a. Yes, I currently smoke
  - b. Yes, I smoked in the past
  - c. No, I never smoked
2. Do you or have you ever used a vape pen, e-cigarette, or other vaping products?
  - a. Yes, I currently use these products
  - b. Yes, I have tried these products in the past
  - c. No, I never used these products
3. How often do you vape?
  - a. Everyday
  - b. 3 to 5 times a week
  - c. Once a week
  - d. Few times a month
  - e. Never
4. How long have you been vaping and/or using tobacco products?
  - a. Less than 3 months ago
  - b. 6 months ago
  - c. About 1-2 years ago
  - d. More than 2 years ago
  - e. I never have
5. Using vaping products will help you stop smoking cigarettes?
  - a. True
  - b. False
6. Using vaping products may cause harm to my health?
  - a. True
  - b. False
7. By using vaping products, I am more likely to smoke cigarettes in the future.
  - a. True
  - b. False
8. There are currently \_\_\_\_ million students that use vaping products
  - a. 1 million
  - b. 3.5 million
  - c. 8 million
  - d. 5.3 million
9. Students who vape are \_\_\_\_ more likely to begin smoking cigarettes
  - a. twice

b. four times  
c. five times  
d. ten times

10. There are at least \_\_\_\_ confirmed vape related deaths as of January 21st, 2020  
a. 15  
b. 35  
c. 60  
d. 2

11. People vape because \_\_\_\_  
a. It helps them to relax  
b. Their friends or family vape  
c. They like the taste of it  
d. They think it is safer than tobacco cigarettes  
e. All the above

12. I feel pressured to vape.  
a. Yes  
b. No  
c. Sometimes

13. Effects that vaping has on my body are \_\_\_\_  
a. Decreased brain development  
b. Problems with breathing  
c. Increase heart rate  
d. Higher chance of developing cancer  
e. All the above

14. How likely are you to use vaping products?  
a. Not at all  
b. Not sure  
c. Very likely  
d. I already vape

## Appendix C

### Post-Test

1. Using vaping products will help you stop smoking cigarettes?
  - a. True
  - b. False
2. Using vaping products may cause harm to my health?
  - a. True
  - b. False
3. By using vaping products, I am more likely to smoke cigarettes in the future.
  - a. True
  - b. False
4. There are currently \_\_\_\_ million students that use vaping products
  - a. 1 million
  - b. 3.5 million
  - c. 8 million
  - d. 5.3 million
5. Students who vape are \_\_\_\_ more likely to begin smoking cigarettes
  - a. twice
  - b. four times
  - c. five times
  - d. ten times
6. There are at least \_\_\_\_ confirmed vape related deaths as of January 21st, 2020
  - a. 15
  - b. 35
  - c. 60
  - d. 2
7. People vape because \_\_\_\_
  - a. It helps them to relax
  - b. Their friends or family vape
  - c. They like the taste of it
  - d. They think it is safer than tobacco cigarettes
  - d. All the above
8. I feel pressured to vape.
  - a. Yes
  - b. No
  - c. Sometimes

9. Effects that vaping has on my body are \_\_\_\_\_

- a. Decreased brain development
- b. Problems with breathing
- c. Increase heart rate
- d. Higher chance of developing cancer
- e. All the above

10. How likely are you to use vaping products?

- a. Not at all
- b. Not sure
- c. Very likely
- d. I already vape

## Appendix D

### I. Introduction

#### A. Attention grabber

1. Brianna and I will introduce ourselves.
2. Shortly after, the students will be presented with a story about the fifteen year old boy dying because of vaping relations. (Brianna)

#### B. Thesis statement

1. 'To vape or not to vape' goal is to prevent students from vaping while also reducing the percentage that currently vape. Our program will accomplish this by providing education on what vapes are while also giving the short and long-term risk. (Leah)

#### C. Main Points

1. Chemicals that are in vapes such as heavy metals (nickel, tin, and lead) (Brianna)
2. Explaining the difference between e-cigarettes and vapes. (Brianna)
3. What happens inside the body when vaping. (Leah)
4. Giving the resources necessary to help stop students from vaping and preventing them as well. (Leah)

### II. Body

#### A. Chemicals (Brianna)

1. A few of the harsh chemicals that are found in vapes include, nicotine, carcinogens which are known to cause cancer, heavy metals such as nickel, tin, and lead.
2. Another chemical found in e-cigarettes and vapes is benzene which is found in a car exhaust pipe.

## **B. E-cigarettes vs. Vapes (Brianna)**

1. **Electronic cigarettes or better known as E-cigarettes**, are devices that look similar to traditional cigarettes and they are battery-powered device that works by heating a liquid into an aerosol that the user inhales and exhales. E-cigarettes do not contain tobacco. The e-cigarette liquid typically contains propylene glycol, nicotine, glycerin, flavorings, and other harsh chemicals. Nicotine is an addictive drug found in regular cigarettes and other tobacco products.
2. **Vape pens** consist of a rechargeable battery and refillable tank. The e-liquid in vaporizer products does not contain tobacco. The public makes it seem like vape products only have flavored water in them, which is not true! Vape products usually contain a propylene glycol or vegetable glycerin-based liquid with nicotine, flavoring and other harsh chemicals and metals.

## **C. Inside the body (Leah)**

1. People who smoke e-cigarettes and vapes are more likely to develop lung disease, have breathing problems; it can spike the blood pressure which will in return speed the heart rate, gum disease, and many more.
2. Vape products contain aerosol which can lead to 70 known types of cancers
3. Vaping also feeds the brain with nicotine, which can cause slow brain development in students while also affecting memory, concentration, self-

control, attention, and mood. Increase the risk of other types of addiction later in life.

#### **D. Resources (Leah)**

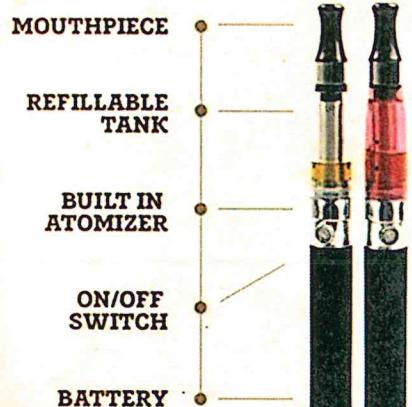
1. Students cannot be afraid to talk to the school counselors; they are there to help the students overcome any obstacle.
2. Methodist Medical Center at the Dallas location under the Cancer Administration Program has a class that will help people who are currently trying to stop smoking called, 'Smoking Cessation' that is led by Maiya Bangruah. It is free for everyone! The class is held once a week for four weeks or eight weeks, and the class will help you implement a plan that is tailored around your lifestyle. This class also offers free class materials such as patches and nicotine free gum, a lung screening, free dinner, and much more. To get in contact with Maiya Bangurah, you can call her at 214-947-1768 and leave a message with your name and phone number.
3. UT Southwestern Medical Center also offers a smoking class titled, 'Nicotine Cessation' held at the Paul M. Bass Administrative and Clinical Center on the 3rd floor. This class is also free and open for all ages! This campus also offers free parking and is also in the route where numerous public transportation is available. Students can reach this class by calling 888-980-6050 or by visiting their website at UT Southwestern Medical Center's website and search 'Nicotine Cessation Program'.
4. Smokefree.gov is another great resource that is extremely accessible. This website targets all ages and genders. There is a vaping prevent

program under 'Teen smoking', that goes in depth with the side effects from vaping, how to handle the cravings, teaching you how to understand your triggers, nicotine withdrawals, and many more.

### **III. Conclusion**

1. Preventing students from vaping and decreasing the current percentage of the students that partake in vaping by 5 percent is this programs goal. Our program is determined to achieve the goal by providing the students the resources that can help make the transition, giving a detailed summary on what happens to the body when smoking, knowing the difference between e-cigarettes, and explaining the harsh chemicals that are in the products.  
(Leah)
2. The students will now take a post survey. Please answer the question truthfully, and thank you for taking time out of your school schedule.  
(Brianna)

## VAPE



## E-CIGARETTE

