<u>Email</u>:
To: Dr. D'Hec
From: Molly Peterson
CC: Jordyn Chambers, Esha Gandhi, Marissa Gonzalez, Elizabeth Henderson
Subject: Completion of the Final Report

Good Morning Dr. D'Hec and thank you for all the feedback! Throughout these four weeks of working with you, we have gathered educational information about e-cigarettes. Through this process my team has been able to learn about each other's leadership style, how we communicate, and proper APA formation. We have discovered that working as a team and communication plays a key role in completing tasks in a timely manner. In the attached document below, we have put together our final report on e-cigarettes.The document includes an overview of our community health problem, including epidemiological, behavioral, and environmental diagnosis, health organizations at national and state levels, and the lessons we have learned from this experience. It was a pleasure working with Dr. D'Hec and we look forward to receiving feedback on our final report for e-cigarettes.

Sincerely, Molly Peterson

On behalf of Team E-Cigarettes: Jordyn Chambers, Esha Gandhi, Marissa Gonzalez, Elizabeth Henderson, and Molly Peterson

Community Health Analysis: Team E-Cigarettes

Jordyn Chambers, Esha Gandhi, Marissa Gonzalez,
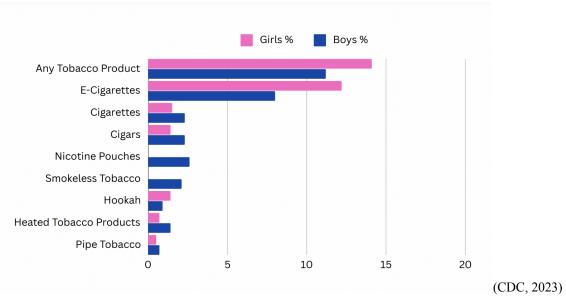
Elizabeth Henderson, & Molly Peterson

April 28, 2024

Part 1 - Community Health Problem:

Introduction:

The proliferation of electronic cigarette usage among teenagers and young adults has emerged as a critical public health concern. In recent years, electronic cigarettes have gained popularity, particularly among the youth. These devices were originally thought of to be a "safer" alternative for adult smokers. However, electronic cigarettes were wrongly marketed to the youth through ads, appealing flavors, and sleek designs. Electronic cigarettes have brought forth many detrimental health concerns such as addiction, lung damage, and in severe cases death. Consequently, there is growing apprehension among health professionals and policymakers regarding the impact of electronic cigarette usage on the wellbeing of young individuals and the broader health outcomes. Addressing the vast complexities of youth electronic cigarette use requires a multifaceted approach. Education, intervention strategies, and regulation need to be implemented in order to safeguard the health of future generations.
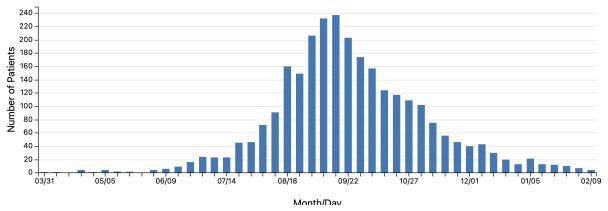
Overview of Health Problem/Issue:
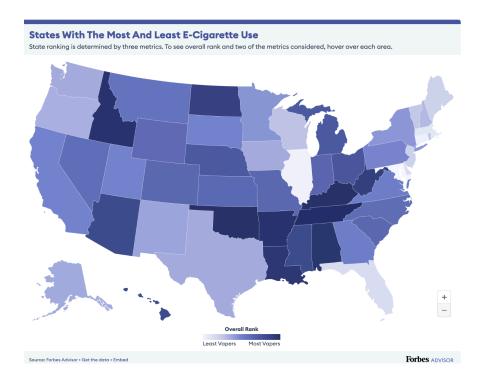
Epidemiological Diagnosis:

(CDC, 2023)

- According to the CDC, E-Cigarettes are ranked as the number 1 tobacco product in young adults since 2014 (CDC, 2023).
- In 2023, reports show that 1 in 10 high school students reported using e-cigarettes (CDC, 2023).

Dates of symptom onset and hospital admission for patients with lung injury associated with e-cigarette use, or vaping — United States, March 31, 2019–February 15, 2020

- According to the CDC, over 2,500 patients were admitted to hospitals due to significant lung injury due to the use of e-cigarette/vape use (CDC, 2021).
- 61% of e-cigarette users are men while the other 49% are women (CDC, 2021).
- According to Population Medicine, 42% of users initiated e-cigarette use between the ages of 15-19, 12.6% initiated between the ages of 20-24, 29% between the ages of 25-44, and the remaining 16% after the age of 44 (CDC, 2021).

States With The Most And Least E-Cigarette Use
State ranking is determined by three metrics. To see overall rank and two of the metrics considered, hover over each area.

Overall Rank
Least Vapers   Most Vapers

Source: Forbes Advisor • Get the data • Embed   **Forbes** ADVISOR

- This table is from Forbes and illustrates the states with high levels of e-cigarette users to low levels. The website allows for this map to be interactive and claims Tennessee as the state with the most vape users followed by Kentucky (Kilroy, 2024).

Factors	OR (95% CI)	AOR (95% CI)
Age (years)		
≥45 (Ref.)		1
15–19	10.9 (7.9–14.9)	23.2 (13.9–38.8)
20–24	11.0 (7.9–15.4)	10.3 (6.4–16.4)
25–44	3.2 (2.2–4.8)	2.4 (1.5–3.8)
Sex		
Female (Ref.)		1
Male	1.6 (1.3–2.1)	1.1 (0.8–1.5)
Age at initiation of e-cigarette use (years)		
15–19	44.7 (37.0–52.3)	39.8 (32.5–47.1)
20–24	10.9 (5.3–16.5)	13.7 (7.9–19.4)
25–44	26.9 (18.6–35.3)	31.1 (22.1–40.0)
≥45	17.5 (10.3–24.6)	15.5 (10.5–20.4)

- This table differentiates answers to common e-cigarette questions by sex. The largest statistical differentiation to note, larger than a 10% difference between male and female users, is the reason for -cigarette use (reducing stress vs curiosity) (Dahal, Bhattarai & Adhikari, 2022).
- Another table from Population Medicine shows that the frequency of use increases as age groups increase among users. Therefore, among e-cigarette users, 64% of users over the age of 45 will use their device daily, while only 31% of users aged 15-19 use their device daily (Dahal, Bhattarai & Adhikari, 2022).

Population Targeted in Promotion/Education
- The population that we would target in a community-based health promotion/education program would be individuals between the ages of 15 to 19 years old. This would be because the table from Population Medicine shows that the age at initiation of e-cigarette use is more common in that age range compared to other ages (Dahal, Bhattarai & Adhikari, 2022). Also, if a promotion/education program would be targeted toward 15 to 19 year olds it would help prevent the usage from the beginning and then would also decrease the statistics of people above the age of 19 using e-cigarettes.

Behavioral and Environmental Diagnosis

Behavioral Factors:

- Social Media

- ○ "Existing research highlights the association between social media use and e-cigarette initiation among US adolescents and found that exposure to nicotine product placement increases the likelihood of e-cigarette use among young adults" (Ramachandran, 2024, p. 3).
  - ○ "Viewing e-cigarette adverts and content on social media - often endorsed by celebrities and social media influencers - is fueling the popularity of vaping among young users, according to a study from researchers at the University of York" (York, 2024, p. 1).
- Peer Pressure
  - ○ "Teens and young adults vape for many reasons, including peer pressure and wanting to fit in with friends" (York, 2024, p. 1).
  - ○ "While the influence of social media, peer pressure, and underlying neural mechanisms were studied in isolation, we aim to examine the interplay between peer pressure, social media validation, and the neurological rewards of nicotine and provide valuable insights into the underlying mechanisms that drive smoking/vaping behavior in modern society" (Ramachandran, 2024, p. 4).
- Age
  - ○ "The results revealed that: on the individual level, the pleasant aromas and multiple flavors attracted adolescents to use e-cigarettes" (Zhao et al., 2024, p. 25).
  - ○ "We found that 20.5% of adolescents first used e-cigarettes in junior high school and preparatory classes, and 79.5% started in high school. Previous studies have found that the average age of first use of e-cigarettes among those aged 16–24 years was 16.1 ± 2.117 and 14.84 ± 1.70 years, for high school students in Canada and the US, respectively" (Zhao et al., 2024, p. 26).

Non-Behavioral Factors:

- Availability and Accessibility
  - ○ "It is imperative that better content regulations are implemented. At the very least, warnings against engaging in such behaviors should be displayed on substance use content" (Rutherford, 2022, p. 28).
  - ○ "Research shows that e-cigarettes are significantly easier for underage youth to purchase than cigarettes. Underage purchase attempts of vaping products are 35% less likely to trigger an ID request and 42% more likely to result in a sales violation, compared to purchase attempts for cigarettes.1 In 2023, over half (54.7%) of 10th grade students reported that it would be easy for them to get vaping devices" (Campaign For Tobacco Free Kids, p. 3).
- Knowledge
  - ○ "Long-term use of electronic cigarettes, or vaping products, can significantly impair the function of the body's blood vessels, increasing the risk for cardiovascular disease. Additionally, the use of both e-cigarettes and regular cigarettes may cause an even greater risk than the use of either of these products along" (NIH, 2022, p. 26).

Environmental Factors:

- Social Norms
    - "Descriptive norms refer to the perceived prevalence and patterns of use. For this analysis, common behavior is considered to refer to the perceived frequency of e-cigarette use and normalcy to the degree to which the behavior is expected, usual or typical" (Yazidjoglou, 2024, p. 14).
- Marketing and Advertising
    - "Our analysis suggests that e-cigarette advertising exposure via several distinct channels is associated with subsequent e-cigarette use among those who were not past 30-day e-cigarette users at baseline" (NIH, 2022, p. 8).
- Regulation and Policies
    - "Research should be completed during the process of debating, passing and implementing e-cigarette restricting policies. That is, attitudes towards these policies should be assessed prior to an attempted implementation, during the political process and also after implementation" (Sanders-Jackson, 2016, p. 25).

Most Important and Most Amenable to Voluntarily Change:
- One behavioral factor that would be considered the most important in contributing to the usage of e-cigarettes is peer pressure.
- Two factors that would be considered the most important in contributing to the usage of e-cigarettes include social norms and availability and accessibility.

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Part 2 - Community Health Organizations:

Health Organizations:

- **National-level government entity:** The World Health Organization is an international organization and part of the United Nations. Their mission statement is "We champion health and a better future for all." WHO sources funding through membership dues as well as voluntary contributions. The populations they target include individuals, families, communities, and nations. The programs and services WHO provides include expanding universal healthcare, protection from health emergencies, responding to global health emergencies, and informing nations on dangers to health by using partners on certain topics.
  - **Website:** https://www.who.int/
- **National-level non-government entity:** Campaign for Tobacco-Free Kids is a non-profit and leading advocacy organization. Their mission is "fighting for a world free of the death and disease caused by tobacco" and are funded through donations. They target low and middle-income countries as well as youth populations. The programs and services they provide include advocacy programs, including Taking Down Tobacco and implementing solutions, including raising tobacco prices, campaigns, and making workplaces smoke-free.
  - **Website:** https://www.tobaccofreekids.org/
- **State (or local) government entity:** SCDHEC is charged with promoting and protecting the health of the public and the environment in South Carolina. Their mission is to "improve the quality of life for all South Carolinians by protecting and promoting the health of the public and the environment." Their vision is healthy people in healthy communities. Their targeted population is all south carolinians. Their funding comes from state appropriations, federal grants, fees for services, and other revenue streams.
  - **Website:**https://scdhec.gov/health/tobacco-cessation/e-cigarettes-vapes-and-other-tobacco-products
- **State (or local) non-government entity**: Smoke-Free SC is a grassroots coalition that advocates for a smoke-free stature. Their mission is, "To support and amplify the work of tobacco prevention and control stakeholders throughout South Carolina." Their vision is, "To eliminate premature death, disease, and other harms caused by tobacco products." They target South Carolinians with the hope of less smoking. They are funded by membership payments along with partnering with other organizations. They provide advocacy, information, and talks for people interested in getting clean or wanting to know more about vape use.
  - **Website:**https://www.smokefreesc.org/mission

Part 3 - Professional Skills:
Lessons Learned:

Molly: Working on this community health analysis report has taught me a lot. Three lessons that I will carry with me while completing this project are formation of a proper email, APA formatting, and the importance of task lists/communication. In every CHA assignment I have been the one to put together an email to Dr. D'Hec. One thing that I will continue to do with group projects is copy other group members in an email. Copying group members in the email allows them to be involved in what is said, along with keeping a personal record of the email. I also learned that emails do not have to be extremely long. First, you should be able to give a brief overview. Second, you should be able to explain what information is attached to the email. Third, you should be able to wrap up the email, letting the person know that you look forward to receiving feedback on what was discussed. The second thing that I have learned from this report was APA formatting. Throughout our CHA submissions, we have gotten points taken off for APA citations. The feedback that was given has helped not only me, but my group figure out the proper formatting for our reference page. It is important that citations are done correctly because the information that we are gathering has to be directed back to the correct source. The last thing that I have learned from this report is communication is key. Starting out it was very beneficial to understand how each person works in a group setting. Obtaining this information has helped us figure out each person's strengths and weaknesses. On top of taking the quizzes in the beginning, the formation of a task chart is helpful. Although we did not utilize it to the best of our ability, a task chart that is started well before an assignment is due can help with completing tasks early. All of these skills I have learned and improved on will help prepare myself for future careers.

Jordyn: Being a part of this learning experience and working on the various parts of this CHA project, I have learned three key lessons that I am likely to use in my future. The lessons I found to be most important include communication, teamwork, and APA formatting. As this class is asynchronous and we are never present in a classroom setting, I found working in a group on a project to be very interesting as we never met in person. I did not have any previous knowledge or background about my group members before this project started. This is why I have found communication to be key when it comes to working in a group. Not only communicating, but communicating effectively is important because it allows for success. By communicating we were able to break down each task and were able to help each other if someone struggled with a task or the format of the assignment. We were able to communicate what needed to get done still before deadlines and all feel comfortable and confident in our work when agreeing to turn in each assignment. Our effective communication allowed for no misunderstandings and no conflict to occur. Teamwork is a big part of any group project. From having ideas correlate and flow with each other to breaking up the assignments evenly. I found the task charts to be very beneficial because they helped with not only teamwork of splitting up the tasks, but communication as well with showing due dates. We were able to work as a team to finish each CHA and submit it before

it was due. Working as a team is very efficient and effective, while helping us stay productive in what we needed to accomplish with the CHA assignment. APA formatting with sources, especially, was a big part of this assignment as a whole. Doing APA formatting continuously has helped me to further my knowledge as a lot of my previous classes used MLA. I found it to be very beneficial to further engrain how to make a reference page by being provided resources and having to look up my own resources. Also, the in depth feedback from Dr. W was very helpful because she used constructive feedback that allowed us to (hopefully) have perfect citing in APA. I feel that these key lessons that I have learned throughout the CHA project as well as some others included with doing a group project will be very beneficial to me in the future as I finish out undergrad and go on to grad school as well as my future career. I enjoy learning new skills and lessons that will benefit me and I am sure to stay open minded, especially when working with a group, for further success in my future.

Esha: While being a part of the experience and working on the CHA, I have learned many professional skills to help me in the future. I have learned that communication is very important, especially in group projects. When working on a project asynchronously with members you never meet in person can be challenging, but when everyone is able to communicate the amount of work they are able to put in, makes it easier for everyone else. I also learned the importance of different web articles as opposed to research papers. In other classes and projects, I focus on reviewing literature, but when assessing a Public Health issue, current events are the most important. For our project, we used CDC and DHEC statistics and reasoning from different news articles. I felt more inclined to keep up with current events and also kept a lookout in the news for any information that related to our CHA topic. Lastly, I learned more about formatting requirements. There are different styles and structures when it comes to citing information for a paper, however I was never familiar with APA. Working on the final CHA project and receiving feedback throughout the year about specific critiques helped me understand how to prepare for the final.

Marissa: Throughout this learning experience I have learned three valuable lessons that I can use in the future within the professional world. This includes effective communication and collaboration, adaptability, and continuous learning and skill development. Throughout this process I found effective communication and collaboration to be key when working within group projects. It was very important for us to communicate to understand what tasks have been done and who had what tasks to complete in order for our assignment to be done in a proper manner. I also think getting good feedback from our professor also helped with clear and concise critiques so we knew what we needed to improve on. I think this will be the biggest thing that will help me with my journey in the professional world and if I am able to further develop my communication and collaboration skills then that will be another good tool I will have to help me be successful in the real world. The next thing I found valuable was adaptability. Being able to manage my time and adapt my plans in order to make sure I had my tasks done before the due

date was something I needed to hold myself accountable on. I think with being adaptable this will help me work more efficiently and not run into extra problems that may not need to occur. I've found it best to stay flexible with my approach with things so that way if I ever needed to switch or pivot to something else I could do so with ease and be more efficient with my work and time. Lastly I found value within continuous learning and skill development. I find this to be a big aspect especially while still learning in college because when working in a class and especially working with other students it is important to be open minded and take in as much knowledge and skill that you can. I think within this process being able to retain information and take criticism has been important so that I know what I need to do better as each assignment occurs. I think within the real world it will be very important for me to understand that I do not know anything and I will always need to stay open minded to new learning and new skills that I can learn to develop to help me become more successful.

Elizabeth: Reflecting on this project, I have gained many valuable professional lessons and strategies that I intend to incorporate into my future endeavors. First and foremost, effective communication emerged as a paramount throughout the process. I found that effective communication with my group members, especially in a virtual setting, was vital to the success of the group. It was a challenge at first to virtually organize a platform where the group could communicate. However, once a group chat was established, it was easy for everyone in the group to communicate in order to complete each task. Maintaining open lines of communication fostered collaboration and creativity. Secondly, organization played a pivotal role in project success. Developing task lists and timelines made project management much easier. Each group member ensured that deadlines were met. Having strong group organization led to a high quality of work. This experience emphasized the importance of time management and prioritization. I will use the organization skills learned throughout this class in future endeavors. Lastly, embracing feedback was a cornerstone of professional growth. Engaging with critiques from both my group members and instructors provided insight into many ways of improvement that was also vital for group success. We were able to improve many areas of our project due to feedback. Without listening to feedback, content and project layout would not have been as strong. Moving forward, I plan to actively seek out feedback to continuously improve my professional performance. In conclusion, this project has equipped me with valuable skills I will carry with me for the rest of my life. I am eager to apply the skills learned in my future professional endeavors.