Background
Vaping has become a new popular trend in place of cigarettes.
- 4% of the American population utilizes e-cigarettes and 13% have tried e-cigarettes.
- No clear studies indicating what kind of health effects that vaping has on the users because of how recent e-cigarettes are; no long-term studies have been conducted yet.
- To explore deeper into if vaping is related to high blood pressure, we need to understand the relationship and e-cigarettes.

Purpose of Study
To determine if there is a positive correlation between vaping and high blood pressure.

Methods
- Heads of households at least 18 years of age who reside in housing subsidized by the Fairfax County Department of Housing and Community Development, and who participate in the Fairfax Housing Health Survey.
- Total of 12 people who took the survey.
- Compared:
  - Individuals who self-report using e-cigarettes or other electronic “vaping” products.
  - Individuals who self-report not using e-cigarettes or other electronic “vaping” products.
  - Individuals who have been told by a doctor, nurse or other health professional that they have high blood pressure versus no high blood pressure, as self-reported from the survey.
- Chi-Square was performed on number of individuals who used vaping products or did not and number of individuals who have high blood pressure or do not.

Potential Covariates
- Diabetes: Diabetes and high blood pressure are known to occur together, so having diabetes may influence the person having high blood pressure, which is not influenced by the use of e-cigarettes.
- Obesity: It has been known that obesity increases the risk of development of hypertension (high blood pressure).
- Alcohol Intake: Participants will self-report the number on how often they consume alcohol. With increased alcohol intake the risk for high blood pressure rises to 16%.
- Exercise: Participants will give a number of days out of a week they engage in strenuous exercise. Exercise is known to lower overall blood pressure level after the exercise.

Other Factors to Consider
- Do you now smoke cigarettes every day, some days, or not at all?
- Do you now use e-cigarettes or other electronic “vaping” products every day, some days, or not at all?
- During the last 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?
- Has a doctor, nurse, or other health professional ever told another current household member of yours that they had any of the following? (high blood pressure, diabetes, overweight or obese)

Limitation
- There might be an underreporting of people identifying that they have high blood pressure or diabetes, because they are symptom-less conditions and individuals may not know if they have high blood pressure and/or diabetes.
- There may also be an underrepresentation of people reporting the usage of e-cigarettes.
- In addition, because self-report tools are used, reporting bias or recall bias may effect the results.

Results
- Still in early stage of the research, not enough research participants to study vaping relation to high blood pressure.
  - Only one participant reported smoking cigarettes.
  - Half of participants reported having high blood pressure.
  - 7 out of 12 participants reported that they were obese.

Conclusion
- Currently no participants have reported vaping.
  - More than half of the participants who reported that they had high blood pressure also were obese, which confirms existing studies that obesity and high blood pressure are comorbid conditions.
  - Investigation of vaping will wait until more participants have completed the survey.