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A COMMUNITY APPROACH TO IMPACT ELECTRONIC VAPING IN YOUTH

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I would like to thank my husband for his tireless support in my journey to continue my education. It was with his love and encouragement that I was able to push through this process. I would also like to thank Professor Erik Dillman for all of his assistance throughout the last phase of my studies at American Military University.

The coursework included within the Public Administration program has been quite useful thus far. I will continue to use techniques that I have learned to enhance my abilities and increase workplace productivity.
ABSTRACT OF THE PROJECT

A COMMUNITY APPROACH TO IMPACT ELECTRONIC VAPING IN YOUTH

by

Amanda L. Tyner

American Public University System, August 10, 2018

Charles Town, West Virginia

Professor Erik Dillman, Thesis Professor

As individuals move through adolescence into adulthood, they experience both mental and physical transformations. These developmental years are a time when youth experiment and initiate habit-forming behaviors. Each day an estimated 3,200 individuals who are under the age of 18 chose to smoke or vape for the first time in the United States (CDC, 2018). Many health concerns are linked to tobacco use that include cancer, cardiovascular disease, bronchitis, and emphysema. The lack of longitudinal studies on long-term use of vaping devices could be attributed to the popular farce as a safe alternative to smoking.

An intervention is needed to stop the rising rates of youth vaping. The evaluation of data included with the Florida Youth Tobacco Survey and DeSoto County Community Health Assessment needed to become a priority rather than an afterthought. Through this need, the
project to develop a Community Health Improvement Planning Committee was born. The Committee would review and discuss the data, reach out to local resident experts such as the Tobacco Free Partnership, and devise a work plan that would address health concerns in the community such as youth vaping rates.
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Introduction

Records show that tobacco has been responsible for the death of 100 million people around the world during the 20th century (CDC, 2018). Current estimates show that tobacco has the potential to claim the lives of 1 billion people in the 21st century. If this trend holds true, by the year 2030, one in six individuals will die from tobacco use (World Bank, 1999, p. 196). If that is not alarming enough, estimates show that tobacco has the potential to claim the lives of approximately 500 million people alive today (Jha & Peto, 2014, p. 63).

Many articles can be found detailing the harmful side effects of tobacco use. One of the most commonly cited is the link to premature morbidity and mortality rates. In countries such as the United States where tobacco use has been a common practice for more than 100 years, increased cases of cancer, bronchitis, emphysema, and cardiovascular disease have been attributed to tobacco (World Bank, 1999, p. 197). Some studies even suggest that long-term tobacco users give up nearly ten years of their life.

The newest trend in tobacco use is vaping. The most common vaping device is the e-cigarette. Many people around the world choose to use e-cigarettes over traditional smoking as they feel as though e-cigarettes are a healthier option. Research is limited, but what is available paints a very unhealthy picture of vaping. No clear decision has been made on the need to regulate vaping devices such as e-cigarettes, hookah, and vaping lounges. This lack of regulation allows these devices to be marketed as safe alternatives to smoking and provides an ease of access to anyone at any age.

Tobacco use in any form is legal in the United States. The American Lung Association (2016) attributes more than 400,000 deaths per year in the United States to vaping. The organization also notes that one in five Americans are addicted to some form of vaping. Vaping
products and hookah are not currently regulated by the Federal Drug Administration (FDA) in the United States. A lack of restriction surrounding these products increases the appeal as they are readily available for all ages. The number of scientific studies analyzing the long-term health implications of vaping are almost non-existent. Even though long-term studies are not yet available, users are turning to the use of vaping devices.

E-cigarettes are relatively simplistic in design. The product has a chamber that contains a liquid substance. This liquid can then be heated by many different types of heating elements and turns the liquid into a vapor which is inhaled by the user simulating traditional smoking (Brandt, 2012, p. 63). These liquids come in a wide variety of flavors, appealing to users of all ages. Companies that market liquids for e-cigarettes are also part of the problem. Some speculation can be made that these companies take advantage of the lack of restriction by placing any number of chemicals in the liquid. The lure of vaping devices has had a direct impact on the vaping rates of children and adults in recent years. So much so, that vaping is now considered as a major public health concern. Approximately 3.2% of middle school students reported using some form of e-cigarettes or vaping devices in the last thirty days (CDC, 2018).

Education and awareness are both valuable tools to ensure youth are aware of the health risks associated with smoking, e-cigarettes, and vaping. Early adulthood is one of the most influential stages in development and has been noted as one of the most common ages in which tobacco use is initiated (CDC, 2018). Youth are ignorant in the sense that they are not mindful of future health implications they can be exposed to should they begin using vaping devices at an early stage in their lives. In 2008, the *American Journal of Public Health* published an article on smoking and cessation behaviors of young adults. Per the article, the tobacco industry directly targets youth for two reasons: experimentation and addiction (Ellis, Perl, Davis, & Vichinsky,
Youth are in a developmental stage and are more likely to experiment with various forms of tobacco. Those who experiment with occasional vaping are also more likely to form a habit upon entering adulthood (Ellis et al., 2008, p. 313). It is important that agencies such as the Florida Department of Health and the Tobacco Free Partnership develop strategies to target youth smoking rates and combat long-term addiction.

As part of many Florida Department of Health initiatives, each local health department is encouraged to develop a Community Health Improvement Plan (CHIP). The focus of this project will be to document the process of establishing a Community Health Improvement Planning Committee, how the committee determines what health concerns are prevalent within the community, how the committee determines what resources are available to address health concerns in the community, and how new community partners are encouraged to join the committee. To further the discussion, a close emphasis will be placed on forming a collaboration with the Tobacco Free Partnership to establish and include targeted strategic objectives to impact youth tobacco and vaping rates in DeSoto County. In previous years, the Tobacco Free Partnership has not been actively sought as a community partner in the development of strategies to make a positive impact on the health concerns of the community. This new partnership will document a first attempt to place an emphasis on youth tobacco and vaping rates in the community.

The current CHIP plan for the Florida Department of Health in DeSoto County expired in December of 2017. The plan did not include specific information or direction on how to impact increasing electronic vaping rates in youth ages 11-17. For this project, a new collaboration will be formed with the Tobacco Free Partnership. The overseeing fiscal agent is known as the QuitDoc Foundation (Tobacco Free Partnership, 2015). This organization works in collaboration
with many organizations throughout the community to set a standard of “tobacco-free norms” (Tobacco Free Partnership, 2015). The Tobacco Free Partnership (2015) of DeSoto County is currently focused on some of the following initiatives; point-of-sale advertising education, creation of new policies to limit access to smokeless tobacco, changes to the Clean Indoor Air Act, and the adoption of updated tobacco-free policies at local organizations.

Problem Statement

Youth who are surrounded with adults and peers who are current tobacco users are more likely to experiment with vaping or other forms of tobacco use. Often, this decision to experiment is based on the normalcy of tobacco use within the home and exposure to various forms of second-hand smoke (Johnston, & O'Malley, 2018). To further the damage, youth then potentially enter adulthood with an increased risk of cancer and heart disease because of nicotine addiction. Beginning in 2012, DeSoto County youth vaping rates have been on an upward trend. Community involvement is needed to develop local strategies, change policy, and empower the residents to make a difference. Future leaders lie within the youth of the community. Making a change now will impact the future health of residents of DeSoto County.

Project Purpose

The purpose of this creative project is to form a Community Health Improvement Planning Committee that will develop a work plan to target the health concerns of DeSoto County. While the formation of such a committee is not uncommon, the linkage of the Tobacco Free Partnership and a targeted approach to impact youth vaping rates is a new concept to the community. Areas of interest within the project will include: establishing baseline data from the Florida Youth Tobacco Survey, conducting a literature review to compare similar and contrasting projects, identification of gaps and limitations to making an impact on youth vaping
COMMUNITY APPROACH TO VAPING

rates, and establishing a Committee with a set of targeted and attainable goals toward the improved health of the community.

Assumptions

Assumptions of this project are based on the data provided within the Community Health Assessment and the Florida Youth Tobacco Survey. The Committee will not conduct any direct interviews with youth, so assumptions are that the self-reported information included within both reports is true and accurate. The Committee will also assume that the individuals were not duplicated within the results. Finally, the facilitator of the Committee will assume that stakeholders within the community are willing to participate in initiatives to target youth vaping rates and improve the overall health of the residents of DeSoto County.

Background

Tobacco use in America has a long-standing history. The Spaniards brought tobacco to North America only to come to the realization that it was already being used. The Native Americans used tobacco in religious ceremonies and as a cure for ailments such as ear and tooth aches. Spain and America were instrumental in introducing tobacco to the Europeans. Upon introducing tobacco, it became wildly popular and was heavily traded.

Fast forward several centuries and the Industrial Revolution would occur in America. Marketing and advertising campaigns would make smoking a mainstream and acceptable habit in society. These campaigns focused on using public figures to promote the use of tobacco. It would remain popular until the early 1950s. Advancements in scientific research demonstrated a direct correlation in increasing rates of lung disease and death by 1953 (Brandt, 2012, p. 63).

In 1965, Herbert Gilbert would introduce the first e-cigarette (Douglass & Solecki, 2017, p. 24). This new concept was to combat the increasing negative perception of tobacco in the
United States. The electronic cigarette is one of the most common forms of vaping devices. The construction includes a chamber that contains liquid. A battery or an atomizer is attached to the chamber to heat the liquid inside (Stanwick, 2015, p. 1). Once the liquid is heated to a certain temperature, it turns into a vapor at which time it is ingested (Stanwick, 2015, p. 2). Teens and adults use this alternative to simulate traditional smoking.

Vaping devices and hookah are both popular alternatives to smoking. One inherent danger to these alternatives is the lack of regulation surrounding vaping devices such as e-cigarettes. The liquid inside the device can contain any number of harmful carcinogens such as nicotine at levels of up to 2.4% (Stanwick, 2015, p. 1). To appeal to a younger demographic, these devices often come in a variety of flavors such as grape, cherry, and watermelon.

Early varieties of the e-cigarette include the Premier and the Eclipse (Stanwick, 2015, p.5). These products have experienced many technological advancements since originally hitting the market. Today, vaping devices are often marketed as a safe alternative to smoking. The absence of research on the long-term health effects of alternative devices such as e-cigarettes and hookah increase the ignorance of users.

Hookah use also remains a popular alternative to traditional smoking. Most studies link the origins of hookah to India. Hookah is also known as a water pipe and is used in smoking various un-flavored and flavored tobaccos (Johnston, & O'Malley, 2018). Recent studies have shown an increase in youth how are using hookah as an alternative to smoking or other tobacco use (Johnston, & O'Malley, 2018). A 2010 survey conducted by Monitoring the Future, reported 1 in 5 males and 1 in 6 females reported using hookah during the last twelve months (Johnston, & O'Malley, 2018). The scientific research surrounding the use of hookah shows carbon monoxide, arsenic, chromium, lead, nicotine, and tar are ingested (Kahr et. al, 2015, p. 2). It is
COMMUNITY APPROACH TO VAPING

easily acceptable to those of all ages as it is not regulated and is available in establishments that allow both youth and adult access.

Desoto County Demographics

A community’s health status can be significantly impacted by the social, demographic, and economic characteristics found within. DeSoto County is a landlocked county located within Southwest Florida. Surrounding counties include: Hardee to the north; Manatee to the northwest; Charlotte to the south; Glades to the southeast; Highlands to the east; and Sarasota to the west (Office of Economic & Demographic Research, 2018).

In 2016, The Office of Economic and Demographic Research (EDR) reported DeSoto as the 48th most populous county in Florida (Office of Economic & Demographic Research, 2018). The county seat is held by the town of Arcadia and houses 7,941 of the county’s 35,800 residents (EDR, 2018). Arcadia is the only incorporated area within the county; unincorporated areas include Brownville, Lake Suzy, and Nocatee (EDR, 2018). The County showed a 35% growth rate between 1990 and 2010, but since that time, growth rates have been all but stagnant at a mere 0.08% growth rate (EDR, 2018).

According to the latest data released by the Office of Economic and Demographic Research, the age distribution of residents within DeSoto County is quite similar to that of the state of Florida. Approximately half of the county’s population is compiled of youth and elderly populations – 19.9% being 18 years of age or younger and 20.6% being 65 years or older (EDR, 2018). This data also reflects a median age for the county of 39.0 years of age (EDR, 2018).

In the State of Florida, ethnicity, race, and sex are classified separately for the purposes of census reports and anti-discrimination laws. Residents designate themselves as either Hispanic or Non-Hispanic; of which they can also identify as one or more of the following:
black, white, or other, non-white (includes Hispanic) (EDR, 2018). Desoto County residents are comprised of 56.7% male and 43.3% female; of which 12.7% identify as black, 66.2% identify as white, and 29.9% identify as non-white (EDR, 2018).

Socioeconomic indicators for DeSoto County

Previous studies on tobacco and traditional smoking methods are quite vast. There is a much smaller pool of research based around socioeconomic indicators related to prevalence in youth tobacco use. Socioeconomic indicators may include income levels, poverty, education, and occupation (CDC, 2017). These indicators are often used to measure the economic condition of a municipality in which one resides.

Socioeconomic indicators gauge economic conditions and sociocultural environment in which people live. Those living in underprivileged conditions are subject to and endless chain of mediating factors which negatively impact health and have the potential to cause various health inequalities within the community. Many communities such as DeSoto find these inequalities difficult to overcome. Policy and funding restraints remain two of the most common impeding factors.

Trends in Youth Tobacco Rates

Even though tobacco use is a major health concern in the United States, widespread use has only existed for approximately the last 100 years. This in comparison to other countries around the world could be viewed in a positive light. As this project is targeted at youth, data included will be targeted at those aged 11-17, but will not directly exclude young adults aged 18-25 either. Prior to the 1990s, the reports released by the Office of the Surgeon General were directly targeted at smoking. Recent trends in alternative tobacco use have called attention to the need to re-direct the focus of these reports to include all forms of alternative devices. These
reports combined with other various methods of analyzing data are used to establish patterns in
tobacco use and develop effective measures to target reduced morbidity and mortality rates.

An increasing number of DeSoto County youth are self-reporting the use of vaping
devices. The upward trend in youth vaping rates is gaining momentum at the national level as
well. These commonly used devices such as e-cigarettes and hookah provide an alternate way
for users to get nicotine in their system. Some research indicates that these alternative devices
could lead to future nicotine addiction problems in adulthood (U.S. Surgeon General, 2018).

There is also much debate surrounding the benefits of adult smokers using the device as a tool to
quit smoking.

Additional data sources to establish the upward trend of youth tobacco rates in DeSoto
County and in the United States include various surveys from the Centers for Disease Control
and Prevention (CDC), the Food and Drug Administration (FDA), and the Surgeon General. Per
the National Youth Tobacco Survey data (2018), youth have chosen to use e-cigarettes over any
other form of tobacco since 2014. Furthermore, 13.1% of high school students have elected to
use e-cigarettes, but not any other form of tobacco (CDC, 2017).

A closer consideration of trends in tobacco use include looking at population
demographics and a comparison of use among males and females. The Office of Economic and
Demographic Research (2018) lists 42.0% of residents under the age of 18 in DeSoto County, as
living in poverty. This data closely aligns with a CDC publication that indicates individuals with
low socioeconomic status and lower education levels have a higher prevalence for tobacco use in
any form (CDC, 2018).

A comparative analysis of the National Youth Tobacco Survey revealed interesting
results related to e-cigarette use. E-cigarette usage rates increased during 2011-2015 for all races
and ethnicities (Chaffee, Couch, & Gansky, 2017). Even more interestingly, the largest usage rates were not of the same race/ethnicity for both male and female (Chaffee et al., 2017). Hispanic males in grades 6-12 were reported with a rate of 10.9%; whereas, the other category which includes those who identify as Asia, American Indian, Alaska Native, Native Hawaiian, or Other Pacific Islander included the highest rate for female use at 16.3% (Chaffee et al., 2017). This data does not correlate directly to the trends in DeSoto County as over two-thirds are reported as Caucasian.

**Conclusion**

Research and longitudinal studies are greatly lacking in the area of vaping and future health implications for today’s youth. The youth of DeSoto County are the building blocks of the community. These individuals may go on to become mentors, parents, and leaders within the community; all of which can quickly be abolished by partaking in the socially acceptable fad of vaping. An uninformed decision to use vaping devices may subsequently lead to use other forms of tobacco and quite possibly addiction.

This project will establish where the gaps in service lie within local health care, cessation programs, and education of youth vaping habits. Furthermore, taking an even closer look at the self-reported youth vaping rates. Upon compiling the data and establishing the Committee, a basic understanding of the youth tobacco rates can be used to develop a work plan. Additional education, preventative measures, and effective messaging techniques can be developed as part of the solution. The following is a literature review of information that is relevant to the project. Areas of review include: electronic vaping in the United States; electronic vaping in DeSoto County; factors impacting youth tobacco use; Taylor’s six segment wheel; alternative measures; long-term health implications; and youth tobacco surveys.
**Literature Review**

Tobacco use can lead to disease, disability, and preventable death. According to the latest data released by the Centers for Disease Control and Prevention (CDC), approximately 4.7 million middle and high school students use tobacco. Some of the most common forms of use are cigarettes, e-cigarettes, and hookah. In an even more alarming statistic, youth under the age of 18 are smoking their first cigarette at a number of 3,800 youth per day (CDC, 2018). The use of electronic vaping devices and hookah are a serious concern to youth and adults because of the unforeseen impact on long-term health issues; however, a viable solution to this concern is to educate youth and eliminate the societal norm of vaping and hookah.

**Electronic vaping in the United States**

Access to literature based around tobacco, youth tobacco rates, and recommendations is readily available. There are many articles that discuss the importance of impacting the increasing rates of youth usage, but many do little offer suggestions on how to make this change. One such article discusses the use of tobacco in South Carolina. In 2009, tobacco was cited as the leading cause of death in South Carolina (Sullivan, Barnes, & Glantz, 2009). The state would join sixteen other states in 1990 to participate in the ASSIST program aimed to control tobacco. Sadly, this program was less than successful and disbanded in 1997 (Sullivan et al., 2009).

In 2012, *Drug and Alcohol Dependence* released an article directly related to tobacco use in youth. The findings cited a small and almost lack of independent studies on the trends and reasoning behind tobacco use in youth. These findings dramatically changed over the course of the last six years. The article did share interesting data on the likelihood of youth use of tobacco. Those who did not find tobacco use as a negative characteristic and those who were in
relationships with tobacco users were most likely to use tobacco themselves (Dietz et al., 2012, p. 120). While those who lived in homes where smoking was prohibited were least likely to use tobacco.

By 2015, the same data had radically increased in popularity. A research paper released findings from 150 articles that reported youth tobacco rates, overall usage rates for all races and ages throughout the country, and prevalence and usage rates for the varying forms of tobacco. The paper went on to cite a report from the CDC that showed the use of consuming tobacco through water pipe use in the youth had increased by an astounding 123% (Haddad et al., 2015, p. 6117). It was reported that water pipe use was most common in males, more accepted than the use of cigarettes, and the appeal was directly related to the sweet smell. Several studies reviewed by the article also indicate that there is much concern surrounding the lack of regulation on water pipe usage and its potential implications for other tobacco use as users continue to indulge.

**Electronic vaping in DeSoto County**

Florida established the Florida Tobacco Control Program (FTCP) in April of 1998 to mitigate the increasing rates of youth tobacco usage (Niederdeppe, Farrelly, Hersey, & Davis, 2008, p. 205). The organization would focus on an anti-tobacco program most commonly known as the “truth” campaign. Within the first two years of the program, youth tobacco rates started to decrease. Due to continued funding cuts, the program itself would not last, but was taken on by Tobacco Free Florida and is in existence within all 67 counties within the state. Today, many local health departments have departments that oversee tobacco prevention efforts through various grant funding sources.

The Florida Youth Tobacco Survey (FYTS) is administered to children ages 11-17 in public schools. The standardized questionnaire results are received anonymously and compiled
for a state and county-level reports. While the county has seen a steady decline in overall youth tobacco use, the same cannot be reported for electronic vaping. The self-reported electronic vaping rates have increased substantially from 4.6% in 2012 to 21.0% in 2016 (Behavioral Survey Data, 2017). These drastically increased rates call for immediate action from local stakeholders.

Factors impacting youth tobacco use

One commonly cited reason for electronic vaping and hookah use in youth is household secondhand smoke exposure. Adolescents in Australia exhibited the highest self-reported rates of tobacco use as related to family influence. Older family members within the household provided increased accessibility to e-cigarettes, exhibited socially acceptable smoking practices, and in some instances were strong promoters of tobacco use within the household (Oyewole, Animasahun, & Chapman, 2018, p. 9).

Product placement, social media, colorful advertisements, and tailored advertising campaigns have played an influential role in the increased rates of youth tobacco use. In a 2017 study conducted by the National Institute on Drug Abuse, an astounding 60% of youth who had previously used cigarettes reported that recent e-cigarette advertising had influenced their decision to try the product. The absence of regulatory policy to police hookah and e-cigarette devices continues to be a contributing factor as well.

Of note, additional taxation and the expansion of the Family Smoking Prevention and Tobacco Control Act are two methods that have been used in recent years to combat the aforementioned concerns (Douglass & Solecki, 2017, p. 31). While some would consider these as effective measures, others would agree the audience steadily increases as marketing reaches
added social media and internet websites. A gap in the early intervention of tobacco use is prevalent.

A third commonly cited reason for youth tobacco use is peer pressure. Youth in the United States and around the world do not have a negative perception of e-cigarettes or hookah. Much like secondhand exposure in the home setting, youth that have friends are who associated with those with smoking habits tend to have a higher prevalence for use. There have been various epidemiological studies conducted to determine the impact of youth e-cigarette and tobacco use and its impact on future use as an adult. One such study released by the *Annals of Epidemiology* indicates that youth who remain non-smokers through their early-20s are more likely, than not, to remain non-smokers (MPH, 2015, p. 364). This data would support the need for early intervention to reduce e-cigarette usage in adults.

Difficulty in quitting could quite possibly be the area of greatest concern. Youth and adults continually respond to anti-tobacco campaigns with statements such as, “it’s just too hard to quit” or “I have no desire to quit”. The easy access and social acceptance make quitting an even more challenging decision. Many research articles discuss youth responses as not wanting to quit because if they did, they would have to stop hanging around their friends (Azodi et al., 2017, p. 1647). Furthermore, the companies that are marketing the various vaping products claim to not be habit forming providing a false sense of security.

**Taylor’s Six Segment Strategy Wheel**

There is a large gap in data surrounding the *why* and *how* to combat current tobacco marketing strategies that target youth. One potential approach that could prove to be useful in looking at tobacco marketing strategy is Taylor’s Six-Segment Strategy Wheel. Taylor built the wheel by expanding upon previous informational and transformational strategies and developing
a comprehensive model (Taylor, 1999, p. 8). The model includes two viewpoints, of which each are broken down into three separate segments.

Taylor first introduced the six-segment message wheel in 1999. Since that time, the comprehensive model has been used in several case studies to identify strategy. One of the most notable includes an analysis of Super Bowl advertising conducted by Morrison and White (Morrison & White, 2000). The use of Taylor’s six-segment model could prove instrumental in future research to develop advertising campaigns and educational messaging to decrease the rising tobacco rates.

The informational viewpoint is composed of routine, acute need, and ration. Consumers are creatures of habit and consistently purchase the same brand of product each time purchasing (Taylor, 1999, p. 11). Tobacco industry marketing techniques are targeting youth in manner to establish this routine. The acute need segment focuses on the consumer’s haste. Often, teens and young adults do not formulate a plan before purchasing items such as e-cigarettes, they simply let the need or urgency drive the purchase. Thus the placement of such devices at the counter, next to gum or other candy, or on the end-caps of shelves. The last segment in the informational view is ration. Taylor notes that this is the segment in which the tobacco industry would use techniques to convince youth as to why they should purchase their product.

Taylor’s transformational viewpoint includes ego, social, and sensory segments (Taylor, 1999, p. 8). This half of the wheel is targeted to appeal to the user at an emotional level. In the ego segment, marketing techniques focus on making a connection with the youth. This includes appealing to social status and personal recognition. The social segment looks beyond the individual and shifts toward a group setting (Taylor, 1999, p. 15). For example, marketing to this segment would include techniques that would entice the teen or young adult to join others who
already use tobacco products. Lastly, the sensory segment is designed to appeal to pleasure. Targeted marketing for these items are meant to provide the user with a sense of happiness.

**Alternative Measures**

The water pipe, more commonly known as hookah, is gaining in popularity as an alternative to e-cigarettes. A study of Iranian youth that was conducted using semi-structured interviews resulted in some shocking trends. Two of the questions that were asked included, “Describe your experience of smoking hookah” and “What is your opinion about quitting hookah?” (Azodi et al., 2017, p. 1642). The youth revealed that smoking hookah was a common practice within their society due to its acceptance within the culture, ease of access, and affordability. The youth polled in study were not interested in quitting as there is little to negative perception associated to using hookah in their communities. Their lack of knowledge on the potential medical implications of the continued use was prevalent.

An equally important study was conducted of youth (ages 13-17) in the United States. Various hookah lounges were targeted in which the youth agreed to answer several questionnaires over the course of a 24-month timespan (Sharma, Manoj, & Haider, 2016, p. 5). While the average reported hookah session was around 30 minutes, some reported using for multiple hours. Almost one-quarter of the survey participants admitted to using hookah before the age of eighteen (Sharma et al., 2016, p. 6). Again, there was a clear lack of knowledge of the potential health implications and what contaminants the users were exposed to. This lack of knowledge may prove to have long-term future implications on the aging youth.

**Long-term health implications**

The long-term health impacts of alternative forms of smoking such as e-cigarettes and hookah are yet to be fully determined. Research in this area is sparse at most. Again, the lack of
regulatory policy oversight directly related to e-cigarettes is a hindrance. Actual nicotine levels and reported nicotine levels in e-cigarette products varies. One such case study followed a teen that developed acute eosinophilic pneumonia at age 20 who had been an e-cigarette user for several years (Bolte & Fromme, 2009, p. 433). While the study could not pinpoint that the health condition was solely caused by the e-cigarette, it did conclude that the nicotine levels were quite higher than what appeared on the label of the device.

Much like the e-cigarette, there is little to no research of the long-term health implications of hookah use. Hookahs release a form of secondhand smoke and e-cigarettes release a chemical aerosol into the air environment. These external factors have potential health impacts on even those who choose to not use tobacco products. Indoor air quality studies related to chemicals released in the aerosol of e-cigarettes are limited. No long-term or longitudinal studies exist at this time. Additional research is needed to develop a strong understanding of the health implications that youth will face in the future.

Companies that produce e-cigarettes and other various vaping devices are using the lack of long term health implications to their advantage. When marketing these products, these industries make the product more appealing to the eye, promote the ‘no-smoke’ factor, and offer false hopes of non-addiction. A recent article in the *Kaiser Health News* documents a young man who started using e-cigarettes in high school for the flavors and the fun of smoke ring tricks (Daley, 2018). What is even more disturbing is the article goes on to discuss how the maker of this particular vaping device has a video of a young, attractive woman who encourages individuals to use the product. Regardless of the method used, the individual is still ingesting harmful chemicals.
Youth tobacco surveys

Surveys and data collection surrounding youth tobacco rates can be found in several varying formats. The most commonly known surveys include the Global Youth Tobacco Survey (GYTS), the National Youth Tobacco Survey (NYTS), the Youth Tobacco Survey (YTS), and the Florida Youth Tobacco Survey (FTYS). Each of which contain datasets and trends of targeted age groups of youth in a local, regional, state, or global level.

The GYTS polls students that are 13-15 years of age throughout several countries using a standardized questionnaire. The GYTS is linked direct to the NYTS through the World Health Organization. Unlike the FYTS, the GYTS is not conducted in every country on an annual basis. The 2011 GYTS survey from Mexico City, Mexico indicated that females were the prevalent users of tobacco products and 45.4% purchased these products in a store (Global Youth Tobacco Survey, 2016). The GYTS provides a clear picture of statistical data that supports the need for intervention. Vaping, smoking, and other forms of tobacco use do not simply impact the youth and adults in the United States, but across the world.

The FYTS also polls school-aged children, but spans a larger age bracket to include youth ages 11-17. State-level data is released annually and county-level data is released on a bi-annual basis. The percentage who have self-reported ever trying electronic vaping has nearly quadrupled going from 5.7% in 2012 to 22.3% in 2017 (Behavioral Survey Data, 2017). This annual survey does not delineate between male and female, but does release data for ages 11-17; a separate report that indicates use for middle school students, and a third report that indicates use for high school students.
**Conclusion**

Public health is a hidden gem. It is something that is rarely at the forefront of anyone’s mind unless there is a state of emergency or public health crisis. The initiatives in local health departments throughout the country impact the lives of every community. A partnership with Tobacco Free in DeSoto to decrease youth tobacco rates is an example of how public health is important to the residents in every community. A project of this nature has not been completed in the past. This will be the first instance in which the Florida Department of Health in DeSoto County and the Tobacco Free Partnership have collaborated to bring an initiative forward that could potentially decrease the youth vaping rates in DeSoto County. A copy of the collaboration with Quit Doc can be found in Appendix A.

The number of youth using tobacco in the form of electronic vaping will continue to increase at an alarming rate if action is not taken. Many view the tobacco epidemic as manmade. Whether manmade or not, the power is in the people – government and society. Literature shows that youth are influenced by peer pressure, secondhand smoke in the home setting, and societal norms. The question is not will youth be tempted to try tobacco, but when. Regulatory policies, smoke-free campaigns, and increased taxes have been effective measures to decrease traditional cigarette smoking. It is imperative that local, state, and federal representatives recognize the urgency and take action against vaping.

The creation of a local Community Health Improvement plan that has a focus on electronic vaping rates in the youth of DeSoto County is a step in the right direction. This team of individuals can use local influence to educate youth and adults, adopt local policies that discourage vaping, and make an impact on the health of the community. Until 2012, electronic vaping was not even on the radar as a health concern for the county. The rate of electronic
vaping use in DeSoto County increase by nearly five times in just four years. It is important to
the youth and the community that action is taken now, so that both short-term and long-term
impacts are made.

Lastly, potential gaps or barriers to the project initially appear to be the absence of
scientific studies of the health implications of long-term use of vaping devices, lack of current
educational materials, updated tobacco control policies, and how increased access to cessation
programs can be targeted toward children and adults. It will be important for the Community
Health Improvement Planning Committee to review and address these issues as the project
moves forward. The following is an overview of the methodology and project design for the
creating of a Community Health Improvement Planning committee that will incorporate a
strategic objective to decrease the electronic vaping rates in the youth of DeSoto County, Florida.
The following is an overview of the methodology and project design and provides a review of
the Florida Youth Tobacco Survey Data and the Community Health Assessment. It also includes
an in-depth review of the technique used to form the committee and develop a work plan.
Methodology

The premise of this creative project was to identify the health concerns of the community, build a new community partnership, and develop a new strategic initiative to focus on youth tobacco rates in DeSoto County, Florida. While Community Health Improvement Planning Committees have been established in past years, there has never been a focus on youth vaping rates. The Committee met in-person, by phone, and via Skype to discuss previous survey data from both the Community Health Assessment and the Florida Youth Tobacco Survey. This data was used to establish a baseline of health concerns within the community.

The anticipated result of this project was to not only create a new community partnership, but to establish a group of community members with a passion to develop strategic objectives to focus on lowering youth vaping rates in DeSoto County, Florida. The Committee included thirteen volunteer individuals from varying professions within the community. These individuals reviewed the data provided within the Community Health Assessment and Florida Youth Tobacco Survey and were a crucial piece in making the Committee come to fruition.

Florida Youth Tobacco Survey Data

The Florida Youth Tobacco Survey is conducted on a bi-annual basis. The survey focuses on school-aged children in grades 6-12 who attend public schools. Each of the 67 counties within the state participate in the survey. The survey is administered to a random sampling of students who are given explicit instructions to not write their name or any identifying information on the scantron survey.

There was no reward for students who participated in the survey. The proctor assured the students that all self-reported information included within the survey was anonymous. Should a student accidently include identifying information on the survey, this information would be
removed prior to compiling the survey results. Once complete, the Florida Department of Health uses varying data analysis methods to determine the prevalence of tobacco use (Behavioral Survey Data, 2017).

While there are no direct benefits to those who participated in the survey, indirect benefits could be forthcoming. The information included within the Florida Youth Tobacco Survey is shared with the Community Health Improvement Planning Committee who work to establish a set of strategic objectives to make positive impacts on the health of the community. Initiatives that are directly targeted to impact youth tobacco and vaping rates may impact previous, current, and future survey participants. If the youth within DeSoto County, Florida feel as though their voices are being heard, they will be more likely to become involved in future initiatives to lower youth vaping rates. It is important for the residents of DeSoto County to become educated on the impact of vaping rates within the community. The intent of the project is not to be a one-time effort to combat rates, but a continued impact for years to come.

Community Health Assessment Data

In 2016, the Florida Department of Health and several community partners came together to form a committee to identify key stakeholders within DeSoto County, develop a survey to poll residents, and develop a report that would include the main health concerns as seen by the community. To gather data, a voluntary sixteen question survey was disseminated online and in paper form. The surveys were handed out at public places, posted in common areas at local businesses, and sent out via email distribution lists in both English and Spanish over a two-month period (Community Health Planning and Statistics, 2016). Questions were targeted at community health, access to healthcare, and overall quality.
COMMUNITY APPROACH TO VAPING

This needs assessment consists of demographic, socioeconomic, and health status information that will be used to identify areas where targeted interventions and policy changes may have the greatest impact. Once community needs are identified through quantitative data analysis of demographic, socioeconomic and health status information, and qualitative interviews, the strategic planning process can begin. Upon completion, the final product was disseminated to the public and is now known as the Community Health Assessment.

For use in this project, review of data associated with the following question included within the Community Health Assessment was used: Which of the following do you feel are the three most important risky behaviors in DeSoto County? Per the data included in the Community Health Assessment (2016), residents ranked tobacco use as the third riskiest behavior. Other notable information included a 30-day trend of tobacco use within DeSoto County, Florida. The 2016 data cited 6.4% of middle school students and 14.6% of high school students reported using e-cigarettes within the last thirty days (Community Health Planning and Statistics, 2016). All data collected during the survey was notated and participants remained anonymous. There was no reward or incentive provided to residents for their participation in the survey.

Indirect benefits from the survey included gaining knowledge of health concerns from community residents that were not previously known, community empowerment, and a chance for additional educational opportunities. Survey results also provided a platform on which the Community Health Improvement Planning Committee could establish a baseline of data to include as a starting point for addressing health concerns within DeSoto County, Florida.
Committee Involvement

The health of the community will never be a task that can reside in the hands of one organization in DeSoto County, nor is it a task that can be accomplished by a sole entity. To complete this task, a collaborative partnership was needed within the community. A list of potential community partners from local government, private organizations, faith-based entities, health organizations, and social services agencies was compiled. A variety of professions was targeted to provide feedback and known issues impacting the health of DeSoto County residents as seen by varying organizations.

Some counties throughout Florida struggle with finding a successful approach to address community health issues; however, this does not appear to be the case for DeSoto County, Florida. The first step in the process was to formulate an organized process. One of the ways to accomplish this task was to seek information from previous studies within the area of public health. One of the requirements of The Patient Protection and Affordable Care Act, is that all non-profit agencies such as hospitals and health departments conduct a Community Health Assessment (IRS, 2018). This assessment along with the Youth Tobacco Survey, would serve as a set of baseline data to provide to community partners and seek out those who were interested in forming a Community Health Improvement Planning Committee to address the health concerns of DeSoto County, Florida.

To be most effective, the Committee will use a process known as Mobilizing for Action through Planning and Partnerships (MAPP) to develop a work plan that will include strategic objectives to target health concerns within the community with a targeted focus on the vaping rates among youth. The MAPP process is a community-driven approach to bring together community partners from agencies such as health care, social services, environmental, education,
public safety, and local government (NACCHO, 2016). There are six key phases that are included within the process: organize for success, visioning, assessments, identifying strategic issues, formulating goals and strategies, and the final step is taking action.

The establishment of the Community Health Improvement Planning Committee commenced in June of 2018. This group was compiled of community partners from varying professions throughout DeSoto County. The first meeting was held to ask for volunteers to establish a Committee, provide a high-level overview of the information contained within the Community Health Assessment and the Florida Youth Tobacco Survey, establish a meeting schedule, and develop a tentative set of goals for the Committee. Community members from thirteen separate organizations volunteered to provide their time and commitment to form the Community Health Improvement Planning Committee. A weekly meeting was held during July and August to establish the work plan. Upon the establishment of the work plan, the Committee agreed to meet on a quarterly basis to discuss progress. Additional meetings may be held at the discretion of the Committee.

This group of members agreed to an aggressive meeting schedule for the duration of the project. During this time, the members would focus on the health concerns of the community and develop a work plan to impact those concerns. This work plan would be disseminated to the residents of DeSoto County, Florida with hopes of gaining interest, establishing new and stronger community partnerships, and empowering the residents to take action in making an improvement to the overall health of the community.

The MAPP process calls for Visioning as the next step. This can be a very intense step within the process, so it was determined that two meetings would be used to conduct the visioning. The meetings would be broken into four sessions: identification of visioning efforts,
selection of a facilitator, a look to the future of the community, and the development of a vision statement. The first two sessions were conducted via Skype meeting that lasted 90 minutes. This gave the Committee their first chance to come together to share and collaborate on current initiatives throughout the community, along with previous initiatives that were both successful and stagnant.

This was also a time in which the group would determine if they felt it necessary to bring in an outside facilitator. As the upcoming sessions would focus on the health of the DeSoto County, Florida residents in the next five to ten years, as a whole, the Committee determined that it would be best to bring in an outside facilitator to ensure that all organizations felt as though there was a neutral room for discussion. There were previous rumblings in the initial meeting that led some members to believe that a great divide in future outcomes was forthcoming.

For the second meeting, an outside facilitator was brought in to ensure that a neutral environment was present for all discussion topics. The facilitator provided the Committee members with a list of health concerns, background on visioning, and an overall expectation of the meeting. A few key takeaways from the group included the need for policy change, access to care, and citizen empowerment. The Committee discussed several health concerns throughout the project, one of which was adolescent tobacco rates. Areas of concern included: the need for updated smoking policies to include vaping, providing additional resources to the adolescents within the community in relation to possible telephonic and web-based services, and developing additional clubs at the school to empower the students to feel as though they have a voice. The Committee will build upon the information shared within this meeting to identify strategic issues and formulate goals.
The four MAPP assessments would generally be the next step, but for the purposes of this project, these steps were previously completed when the Community Health Assessment was conducted. The Committee did agree to conduct a smaller scale Forces of Change Assessment and Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis. To complete these tasks, the Committee used two meetings: one via Skype and one in-person. The in-person meeting was split into two 30-minute sessions. During the Forces of Change session, each of the Committee members were given a copy of the Forces of Change section from the Community Health Assessment, asked to review the information included, and provide feedback. The group discussion included a focus on trends and events in the community in which they felt impacted the health of the community. In the second 30-minute session, the Committee focused on the SWOT analysis in which each Committee member was asked to provide three indicators that they felt should be included in each of the four sections.

These two assessments resulted in a more refined focus on diabetes and obesity, tobacco abuse, mental health, and domestic violence. As youth vaping rates are the focus of this project, a new partnership with the Tobacco Free Partnership of DeSoto was one of the most important to form. A member from the organization did agree to actively participate in the Community Health Improvement Planning Committee and assist with developing strategic objectives to target youth vaping rates. During a Skype meeting, a representative from The Tobacco Free Partnership provided a presentation to review the latest Florida Youth Tobacco Survey, which shows an alarming increase in the self-reported rate of those ages 11-17 who have ever tried electronic vaping in DeSoto County, Florida.

The fourth step in the MAPP process is to Identify Strategic Issues. The Committee opted to bring in an outside facilitator for this portion of the process as well. Twelve members
representing the community partners were in attendance for the two-hour meeting. The facilitator provided the Committee with a clear set of expectations for this meeting that included a list of strategic issues in which the Committee would use to develop goals and strategies to be included in the Community Health Improvement Work Plan. The meeting was broken down into five separate twenty-minute sessions with an additional twenty minutes for overview, discussion, and closing remarks. The sessions were broken down into the following:

- Session One: review information that was discussed during the Visioning, Forces of Change, and SWOT analysis. Use this information to identify what the group feels to be strategic issues.

- Session Two: Discuss what factors can make each of the identified issues strategic. For example, developing a goal that is specific, measurable, attainable, realistic, and time sensitive (SMART).

- Session Three: Develop a list of pros and cons for addressing or choosing to not address each of the strategic issues. A pro to selecting the tobacco strategy is to lower vaping rates among adolescents in the community. A con identified by the group is the resistance of small business owners in complying with suggested policy changes.

- Session Four: Question if other agencies in the community are addressing the same issues, determine if the issues are separate or overlapping, and devise a plan to combine forces. Currently, the only agency that is addressing any form of adolescent tobacco rates is The Tobacco Free Partnership. The impact of adding additional partners to this strategy is yet unknown.
• Session Five: Prioritize the issues based on community resources and the ability to impact each. The Committee selected domestic violence as the number one priority closely followed by tobacco abuse.

The facilitator was quite challenged to keep the Committee focused on the agenda. During the Forces of Change Assessment, the group had previously developed a tentative set of strategic priorities. This was quite impactful for the Strategic Issues meeting. Had the previous list of strategic priorities not existed, the Committee would have been forced to add an additional meeting to allow for further discussion.

During the sixth meeting, the Committee completed the fifth step of the MAPP process, which is the Formulation of Goals and Strategies. Instruction provided to the Committee included an overview of the expectations for the meeting, which were the following six deliverables: develop goals related to the strategic issues, devise alternative tactics to address these goals, discuss barriers to success, develop an implementation and dissemination plan, compile a list of activities that can be used to impact each strategy, and develop a draft Community Health Improvement Work Plan. This meeting was originally scheduled for two hours, which was found to be a gross underestimate. The twelve members who arrived agreed half-way through the meeting to extend it for an additional hour for further discussion.

A focus of the creative project is to develop a plan that can impact youth vaping rates in DeSoto County, Florida. Youth tobacco rates were not previously included as a strategic issue in previous initiatives throughout the county, so the Committee did not have baseline data to compare alternative measures to. Instead, the group focused attention on developing a list of potential barriers and activities that could impact the vaping rates.
Large flipchart boards served as the writing vessels for group discussions to ensure everyone could see and comment on the items included. The discussion on barriers of tobacco prevention was quite insightful. In an interesting observation, there was a clear disconnect with members based on personal socioeconomic backgrounds. The Committee agreed that social acceptance of vaping, access to cessation services, lack of smoke/vape-free policies, and social media all pose a challenge. A member from The Tobacco Free Partnership agreed to provide updates and lead the discussion of upcoming or potential barriers as a standing agenda item on the future quarterly meetings.

The agreed upon second focus of the meeting was to devise a listing of potential activities that could impact youth vaping rates. After much discussion, the Committee decided upon the following three activities to complete during the first year of the plan: The Tobacco Free Partnership will host or partner in two or more health fairs within the community, tobacco prevention education will be provided to middle and high school students by The Tobacco Free Partnership and the Florida Department of Health with participation from the DeSoto County Schoolboard, and all of the organizations who have partnered to develop the Community Health Improvement Work Plan will advocate for local businesses to adopt a smoke/vape-free policy with a target of five local businesses within the first year.

The development of a Community Health Improvement Work Plan is only one step toward making an impact on the health of DeSoto County, Florida residents. A driving factor to the effectiveness of the plan lies within dissemination. The plan has to be shared in such a way that it reaches the largest audience possible. Then, and only then, will the plan be most successful.
After discussing several methods of dissemination, the Committee used an unconventional technique to select the agreed upon methods. Each member was provided a yellow, a pink, and a blue post-it note. The members were then instructed to rank the dissemination methods as follows: most effective method with yellow, second most effective with pink, and third most effective with blue. After ten minutes, the meeting was called back to order and scores were tallied based on the number of each color post-it note. The top three methods included: a presentation of the Work Plan at a Board of County Commissioner meeting, a press release in the local newspaper, and the inclusion of a link to the Work Plan each of the participating organization’s social media account and website. Please refer to Appendix D for a review of the Findings Presentation that was presented to the Tobacco Free Partnership Sub-committee during week sixteen of the project.

The Community Health Improvement Work Plan is designed to be a fluid document. As the Committee continues to meet, the Work Plan will be revised based on accomplishments and potential unforeseen barriers. For additional information on the initial Work Plan, refer to Appendix E. An annual review of the documentation included within the MAPP process, along with input from Committee members will be used as a tool to provide and updated Work Plan. The strategic issues and activities selected to directly target the health of residents in DeSoto County, Florida. The following is an overview of key findings, analysis and conclusion and will provide an analysis of the data, an overview of the common misperceptions of vaping, communication challenges experienced throughout the project, limitations of the committee, proposed future research, and final conclusions.
Findings and Conclusion

This project started with an assumption that the stakeholders in the community would be willing to come together to make a positive impact on the health of DeSoto County, Florida. Health in a broad sense needed some direction and focus for community members to understand, embrace, and empower residents to join forces in a collaborative effort. The formation of a committee was only one step of the process. To make the committee successful, subject matter experts were brought in to discuss the large amount of data included in both the Florida Youth Tobacco Survey and the Community Health Assessment.

It was apparent in the early phases of the committee formation that community members were quite influential, brought large personalities to the table, and had targeted agendas for future residents. To ease this tension, the committee used an outside facilitator for several of the meetings. An extremely condensed version of the MAPP process was used to lead the committee through the steps of developing a work plan. Many details included within the project referenced data, viewpoints, and analysis that link directly to the increase in self-reported vaping rates in DeSoto County, Florida.

To reach the result of an established work plan to target youth vaping rates, it is necessary to establish a Community Health Improvement Planning Committee to guide the process. Data used in the project was both qualitative and quantitative. While many methods were reviewed, it appeared that use of the empirical cycle would be the most effective method to analyze the effectiveness of the project.

The empirical cycle uses a series of five steps to conduct research: observation, induction, deduction, testing, and evaluation (De Groot & Noorda, 2008, p.12). While unintentional, the observation phase of the project has been conducted for more than the sixteen
Community Approach to Vaping

weeks. The previous committee parted ways in early 2017 and essentially abandoned any intentions of regrouping to develop new initiatives for the community. While attending another community event, conversation sparked with a member of the Tobacco Free Partnership which alluded to the youth vaping concern.

In 2016, the Florida Department of Health released a set of initiatives known as the 7 Health Performs, one of which is inhaled nicotine. The organization released several informational videos and links to other health department tobacco-free program success stories. In early 2017, the Florida Youth Tobacco Survey data was released which showed the alarming upward trend of youth in DeSoto County, Florida who self-reported ever trying vaping. The combination of all these occurrences lead directly to a hypothesis.

A combination of inductive and deductive reasoning was used to formulate the hypothesis. Most individuals use inductive reasoning on a daily basis; making a conclusion based on facts. For example, if a colleague from the Accounting Department recommends a new QuickBooks product, one may be more likely to purchase the product based on the recommendation as one would assume the colleague from Accounting would be knowledgeable in this area. As all the data included within the project is based upon the previously conducted Florida Youth Tobacco Survey and the Community Health Assessment, inductive reasoning was used in lieu of deductive reasoning. Two of the inductive reasoning methods used were statistical and generalized:

- Statistical – In this method, one can review statistical data and make an inference based on seen or perceived trends within the data set. The Florida Youth Tobacco Survey data showed 21% of youth in DeSoto County, Florida self-reported ever trying electronic
vaping. This means that one can draw the conclusion, at least 1 in 5 individuals aged 11-17 have tried vaping.

- Generalized – A generalized inference is on a much broader scale. These inferences assume and group similar data sets into a larger piece of data. In 2015, DeSoto County had zero vaping establishments. In 2018, DeSoto County has three vaping establishments. One could conclude that the increase in vaping establishments had a negative impact on the youth vaping rates in the county. Based on the information and conclusions drawn from inductive reasoning an initial hypothesis was developed. Based on the current data trend in the Florida Youth Tobacco Survey, the self-reported rates of vaping in DeSoto youth ages 11-17, will increase by at least five percent by the release of the 2018 survey data. To combat this negative trend, the community should band together to develop strategies such as updated tobacco/vape-free policies.

Testing would come in the form establishing the committee and determining if the vaping concerns were that of one individual or a community-wide concern. The establishment of a committee is not as easy as one may think. Developing a list of community leaders and agencies within DeSoto County, Florida took nearly three days to compile. While the county has a relatively small population of less than 35,000, that doesn’t lessen the burden of looking at all fields of practice, faith-based organizations, public and privately-owned establishments, and local government.

The initial email asking community members to join in a group discussion to impact the health of the community was sent out to some 60 different email addresses. Agencies included with the email were of social services, health organizations, local government, faith-based
entities, and privately-owned businesses. The first meeting sparked the interest of eighteen community members representing thirteen separate organizations. It was important to include all genres of employers to receive the most accurate perception of health concerns within DeSoto County. There was much hesitancy in the room when the aggressive schedule was presented to develop a work plan that would be developed in a mere thirteen weeks. Of the thirteen organizations represented, nine agreed to donate time to the hectic schedule for the greater good of the community. The remaining four agencies did not oppose the work plan but could not guarantee participation in every meeting.

The committee agreed to use the Mobilizing for Action through Planning and Partnerships (MAPP) to develop the work plan. The MAPP process is widely known as the preferred strategic planning process used by the National Association of County and City Health Officers (NACCHO, 2016). The premise behind the success of the technique is the community collaboration element. Through several meetings, the group developed a set of four strategies to include within the work plan: tobacco abuse, diabetes and obesity, domestic violence, and mental health. While not a conventional test in scientific research, a test nonetheless. The information was provided to a committee and these members chose tobacco abuse as a health concern for the community. This analysis of data led to formulated assumptions in the areas of misperceptions of vaping, committee and community communication, limitations that the committee experienced, and the need for future research.

Misperceptions of vaping

The lack of research surrounding vaping devices is evident in the number of common misperceptions that shroud public opinion. Popularity of vaping devices such as e-cigarettes has gained momentum in recent years. The number DeSoto County, Florida youth reporting ever
using vaping devices has increased by almost five times in four years (Behavioral Survey Data, 2017). There is no consumer protection – vaping devices such as e-cigarettes, are not regulated by the U.S. Food and Drug Administration (American Lung Association, 2018). Youth and adults who continue to make the choice to use these devices do so with a great amount of unknown risk.

Another common theme emerging from survey data is that youth are using vaping devices because they believe that there is no nicotine. Because these devices are not regulated, tests have shown discrepancies in the amount of nicotine listed as compared to actual levels. Several studies have indicated a direct impact on brain development of adolescents who consume products with nicotine (Mayor, 2016, p. 355). Prolonged use can also lead to problems with addiction when entering adulthood.

Studies have found youth who are now inundated by tobacco ads are more likely to become first-time users. Youth tobacco rates hit a new milestone in 2016. For the first time in U.S. history, youth tobacco surveys indicated that more youth were opting to use vaping devices over any other form of tobacco (American Lung Association, 2018). A recent CDC Fact Sheet disclosed disturbing statistics on the upward trend of youth tobacco use. A reported 3,200 individuals under the age of 18 smoke or vape for the first time each day in the United States (CDC, 2018). Secondly, an estimated 2,100 occasional smokers, will become daily users (CDC, 2018). Limited cessation programs and targeted marketing toward teens diminish the drive to quit. E-cigarettes are estimated to reach an astounding $3.6 billion U.S. dollars in sales during 2018; even more reason for industry leaders to expand to new markets (Statista, 2018). Several research studies have shown that marketing targeted toward the country’s youth increases the likelihood of usage rates in both youth and adults. The lack of regulation in marketing of e-
cigarettes allows tobacco companies to publish ads that promote social acceptance, positive self-image, and increased social status. These more than aggressive marketing techniques often include the use of cartoon images, appeal to celebrity status, and a variety of flavoring options.

Lastly, the increased use of vaping devices has a negative impact on air quality. Other teens and adults who encounter the vapor that is emitted from the various devices are also experiencing a form of second-hand smoke. Vaping devices such as e-cigarettes, release an aerosol that contains harmful chemicals such as acrolein and propylene oxide (Wise, 2018, p. 360). Some studies even suggest that due to the lack of FDA regulation, vaping could potentially be more harmful than the use of traditional smoking.

Communication

One of the most important factors to develop an effective committee is the establishment of clear and focused communication. Fast-paced work schedules, increased technology, and changing workplace cultures can all impact the lines of communication. The ability to select the most appropriate method is key to effective communication. Ineffective methods can limit the number of users who receive the message and cause those who receive the message to become agitated.

Some of the most common communication barriers in a committee or group setting include: an unprepared facilitator, audience capacity, assumptions, viewpoints, and channels. During each of the committee meetings, the facilitator, whether personal or outsourced, received the outline and agenda three days prior to the meeting. This ensured the facilitator had time to review and develop one or more methods to deliver the information.

Working in a small community provided an advantage to audience capacity. It was quite easy to ask for pointers on how to ‘handle’ those with large personalities and to determine how
most of the committee members preferred to receive information. The group used a multifaceted approach to the sharing of information. The agenda and backup documents were sent out via email the day before each meeting, a hard copy was provided during in-person meetings, and a Power Point or flip chart was available for presentation. The approach was meant to appeal to all communication styles.

It was important to provide an environment that would elicit candid conversation during the identification of strategic issues phase of the MAPP process. To do so, the committee agreed to bring in an outside facilitator. This facilitator assured members that no preconceived assumptions or viewpoints would be forced on the group based on the viewpoint of a single member or organization.

Lastly, the facilitator acted as an open channel for all members to communicate through. Any member who wished to bring information to group could send it to the facilitator and it would be distributed with agenda prior to the next meeting. At the end of each meeting, a group share would also allow for each member to share information about upcoming events and organizational highlights. This had a two-fold purpose; one, general information sharing and two, linking together those in the community with common goals.

The committee did not experience any difficulties with information sharing. The largest hurdle faced was the digestion of the amount of data included in the Florida Youth Tobacco Survey and Community Health Assessment. Bringing in those who had the most knowledge of each of these documents was crucial. These individuals could break down the information included into a palatable format that which everyone in the committee could speak upon.
Limitations

One limitation that the committee had to overcome was the aggressive timeline. Initially, those who attended the first meeting greeted the timeline with extreme hesitancy. It was important to be well-prepared with a timeline and plan of action going into the meeting to persuade the key stakeholders to participate in the arduous task. Once members were informed that the meetings could be administered in-person, via conference call, or via Skype, some reservations began to waiver. It was very important that those who chose to make the commitment to the project knew that not only their knowledge of the community, but their time was valuable, and it would be treated as such.

Another limitation that concerned the group was the overall poverty level of DeSoto County, Florida. Per the most recent data released by The Office of Economic and Demographic Research (2018), 28.6% of residents of all ages were in poverty, but even more alarming, 42.0% of DeSoto County residents under the age of 18 were in poverty. Viewpoints surrounding the need to address this were heated, but it was understood that the committee could focus on health concerns regardless of the individual’s economic status. It would take some creativity to reach those with lack to transportation or other basic needs, but it could be done.

Grade-level reading is also concern in DeSoto County, Florida. The county continues to rate poorly in grade-level reading surveys that are conducted annually throughout the school systems in Florida. This was yet another limitation to the committee. When working on the final stage of the project, it was important to have the document reviewed multiple times utilizing several outside parties to ensure that the largest amount of the population would be able to read and comprehend the information within. This proved to be quite the challenge. The
initial work plan was compiled in English for those with a fifth-grade reading level. The plan must also be translated into Spanish and Creole. The translation of both languages is still being completed with a tentative release date of October 1, 2018.

Lastly, the dissemination of the plan. This piece of project remains unfinished to date. The committee originally set out to use a presentation at a DeSoto County Board of County Commissioner meeting, a press release in the newspaper, and a link on each of the participating community partner organizational web pages. While these are all excellent ways to share data, this was only a small sampling of avenues that were presented when other community partners heard rumblings of the project nearing completion. Additional suggestions from other community partners include using volunteers to pass out paper copies of the work plan at local public businesses. The two that everyone feels would get the most foot traffic is the local Wal-Mart and the local Publix. Another method that had not previously been discussed is the use of social media. Adding the work plan as link on social media pages or using a social media platform to lead the public to the document would both be useful techniques. The committee also has plans to share the work plan with the Tobacco Free Partnership and use feedback from that meeting to increase the effectiveness of community messaging.

Future Research

Although efforts are continually focused on anti-tobacco campaigns, vaping rates in teens continue to rise and tobacco remains the number one cause of preventable death in the United States. Several studies have released grim predictions for those who are long-time users of tobacco. On such study indicates that nearly one-half of the adults who begin using tobacco during adolescence will die from a tobacco related illness (Wolfe, 2015, p. 60). The World
Health Organization estimates that, in the twenty-first century, tobacco related deaths may reach up to 1 billion worldwide (Wolfe, 2015, p. 62). There is an urgent need for intervention. Additional research is needed to combat the rising death rates. In completing this project, it is apparent that this research be focused in several areas, some of which include: effectiveness of tobacco cessation programs; potential for global tobacco control; and societal norms of vaping as an alternative to traditional smoking. Research around tobacco cessation is commonly focused on adults, but such research is almost non-existent among adolescents. A study comparing the effectiveness of Quit Line methods vs. Web-based methods was conducted over a seven-month period in 2015 (Neri et al., 2016, p. 1127). Unfortunately, the findings from this study only included adult participants.

The Fred Hutchinson Cancer Research Center devised a partnership with fifty Washington State high schools to conduct one of the very few tobacco cessation studies to include adolescent participants (Peterson, 2016, p. 2). The study itself was multifaceted. The first step was to poll and identify students who used tobacco through surveys. Following this step, those students identified were provided free telephonic tobacco cessation services. These same students were contacted at age 19 and then again at age 25 (Peterson, 2016, p.7). Upon initial review positive results were documented during the first post-high school contact, but no long-term impact was seen.

Another area of interest in additional research is in the possible development of global tobacco control policies and the potential impact on youth and adult vaping rates. Tobacco use throughout the world continues to be a leading cause of death. Combine this with the limited knowledge of long-term health implications of vaping use and the death tolls could possibly be
COMMUNITY APPROACH TO VAPING

exponential. Countries such as Argentina and Uganda have completely halted tobacco control legislation for fear of retaliation from tobacco companies (Koh, 2016, p. 435).

It is imperative that governments across the world take another look at tobacco control for the health of the nation. An epidemiological study conducted in 2014 predicts that an individual, regardless of the age in which they began using tobacco, who undergoes a successful cessation program and stops the use of all tobacco has the potential to gain nearly one decade back of their life (Jha & Peto, 2014, p. 65). In any attempt, a variety of effective measures to combat the steady increase in youth tobacco rates will need to directly target industry standards.

Conclusion

DeSoto County, Florida residents watched as youth vaping rates steadily increased from 2012 to 2016. This increase amounted to nearly five percent in a short four-year timespan. An increase of this extent called for immediate action within the community. While it seemed clear that intervention was needed, it was not a guarantee that stakeholders in the community would feel the same way. A change would call for the formation of a committee that could address health concerns such as the youth vaping rates and develop a plan that would be palatable by all audiences.

Vaping is not a sensitive subject such as sex, religion, or gun control, but impactful nonetheless. The community partners who agreed to review information contained within the Community Health Assessment and the Florida Youth Tobacco Survey accepted a challenging task to review, digest, and develop a work plan to address health concerns within the community. This task did not come without a set of high and low points, but at first glance would appear to be moderately successful. The first success would come in formation of the committee. It may be insignificant in some light, but the willingness of stakeholders within the community to
devote time to this initiative is instrumental. The inclusion of the Tobacco Free Partnership into the committee was another high point in the project. This partnership now means that the committee has a direct line to the strategies and policies that are continually being developed by the organization. This also allows for an ease of information sharing and a continued pulse on the negative or positive trends in tobacco use within the county.

The committee also faced many challenges throughout the development of the work plan. The timeframe to complete the project was intense and greatly limited the number of community partners that were willing to participate. Additional concerns and hurdles to overcome throughout the development process included learning where gaps in research lie, how to increase access to cessations programs, and the need for policy change. In completing research to compare to the baseline data used within the CHA and FYTS, it was clear that the committee needed additional information on longitudinal studies related to long-term vaping use, targeted methods to deal with societal norms of vaping, and the overall effectiveness of cessation programs. Each of these areas yielded minimal amounts of data and research that target both youth and vaping.

To be successful in making an impact on youth vaping rates in DeSoto County, Florida, the committee cannot simply develop a work plan and then step away. It is important that all members continue to work the activities included to be successful. A continued forward progress is needed to remain successful and see long term impacts. Unfortunately, this is not a project in which the committee will see results in the form of lowered rates in the immediate future. The efforts in the community will take approximately one to two years to see results in the form of statistical data. What the committee can look toward for success in the interim is on a smaller scale: local smoking/vaping policies adopted, development of one-page educational
materials, the establishment of additional clubs within the schools, and participation in community events to provide awareness to those of all ages. A selfless task, one that is often overlooked, but is greatly needed. The youth of DeSoto County, Florida are our future!
References


doi:http://dx.doi.org.ezproxy1.apus.edu/10.1136/bmj.i6203


doi:10.1016/j.annepidem.2014.03.005


doi:10.1002/cncr.29739


Wise, J. (2018). Doctors should state clearly that vaping is much lower risk than smoking, says report. BMJ: British Medical Journal (Online), 360
doi:http://dx.doi.org.ezproxy1.apus.edu/10.1136/bmj.k575


World Bank. (1999). Curbing the epidemic: Governments and the economics of tobacco control. Tobacco Control, 8(2), 196-201. doi:10.1136/tc.8.2.196
Appendix A

To: American Public University IRB
From: Jodie S. DeLoach
Subject: Letter of Permission
Re: IRB Approval

The QuitDoc Foundation grants permission for Amanda Tyner to work in collaboration with our organization to conduct research on tobacco intervention strategies by reviewing data, meeting with community partners, and developing strategies to combat increasing self-reported use rates in youth ages 11-17.

Further, QuitDoc Foundation acknowledges that the results of this research will be used to fulfill the requirements for the Master’s Capstone project at American Public University. Amanda Tyner and American Public University are authorized to publish the results of this study.

Jodie S. DeLoach
Community Health Advocate
Tobacco Prevention Specialist
SWAT Coordinator

Research. Education. Prevention.
5944 Coral Ridge Drive #255 • Coral Springs, Florida 33076
866-355-QUIT • www.QuitDoc.com
Appendix B

INSTITUTIONAL REVIEW BOARD NON-RESEARCH DETERMINATION

June 01, 2018

To: Amanda Tyner, Masters
Protocol Title: A community approach to impact electronic vaping in youth
Review Type: Staff

Based on the information provided, the Ethics and Human Research Protection Program determined your activity is not research as defined in DOH policy and federal regulation, to mean "systematic investigation...designed to develop or contribute to generalizable knowledge" (§ 45 CFR 46.102(d)).

If the design of the project changes, so that it might become systematic, or generalizable, then it is the responsibility of the researcher to submit the project for review by the DOH IRB. If you have questions about whether your activity may require IRB approval, please contact the human research protection program office so we may determine whether the additional activities come under the category of research.

If you have questions, want to offer suggestions, or talk with someone about this or other projects, please contact Rotanya Bryan or Bonnie Gaughan-Bailey at the Department of Health IRB at (850) 245-4585 or toll-free in Florida (866)-433-2775.

Thank you for your cooperation with the IRB.

Sincerely,

[Signature]

Federal Wide Assurance#: 00004682

Bonnie Gaughan-Bailey, MFA
Administrator
Biomedical Research Section
Public Health Research
Appendix C

IRB Application

HA Huston, Alexandra <AHuston@APUS.edu>
Fri 7/5, 12:35 PM
amanda tyner; er

Hello Amanda,

Thank you for reaching out! After speaking with the IRB Chair we have determined this does not required IRB approval. If the strategy changes and you begin to collect data (surveys and interviews) to use in your thesis with the committee you will need to submit a new IRB application. At this time you can continue with this proposal without IRB approval. Your IRB application will be deleted. I wish you the best in your studies.

Best,

Alexandra

IRB Office
American Public University System
American Military University | American Public University
111 W. Congress Street, Charles Town, WV 25414
apus-irb@apus.edu | www.apus.edu
Community Approach

Lowering teen vaping rates in DeSoto County, Florida
Goals

- Problem Statement
- Tobacco History
- What is vaping
- Community Health Improvement Planning Committee
- Barriers & Limitations
- Conclusions
Problem Statement

- Why are youth vaping rates increasing
- Rates in 2012 were 4.6%
- Rates in 2016 were 21.0%
- A need for policy change and strategies to combat the upward trend
Tobacco History

- Tobacco was used as a form of currency in the Eastern United States
- Native Americans used tobacco in religious ceremonies and as a cure for ailments
- During the Industrial Revolution, marketing campaigns made smoking socially acceptable
- Tobacco is responsible for 100 millions deaths in the 20th century
What is vaping?

- 1965, first e-cigarette
- Premier & Eclipse
- Smoking alternative
- Hookah
- Heated liquid
- Nicotine
- Variety of flavors
- Targeted marketing

### Sources of E-Cigarette Advertising

<table>
<thead>
<tr>
<th>Source</th>
<th>Youth Exposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail stores</td>
<td>14.4 million</td>
</tr>
<tr>
<td>Internet</td>
<td>10.5 million</td>
</tr>
<tr>
<td>TV/movies</td>
<td>9.6 million</td>
</tr>
<tr>
<td>Magazines and newspapers</td>
<td>8 million</td>
</tr>
</tbody>
</table>
Youth Vaping

E-Cigarettes are now the most commonly used tobacco product among U.S. youth.

In the U.S., youth are more likely than adults to use e-cigarettes.

In 2016, more than 2 million U.S. middle and high school students used e-cigarettes in the past 30 days, including:

- 4.3% middle school students
- 11.3% high school students
How can we make a difference?

- Provide education
- Empower residents
- Change policy
- Change social perception
- Promote cessation
Community Health Improvement Planning Committee

- Use techniques such as MAPP
- Actively engage all stakeholders
- Pay attention to health disparities
- Develop a work plan with strategies to youth and vaping rates in DeSoto County
Committee Involvement

DeSoto Youth (Ages 11-17): 2012 - 2016

<table>
<thead>
<tr>
<th>PERCENTAGE OF YOUTH WHO HAVE</th>
<th>2012</th>
<th></th>
<th>2014</th>
<th></th>
<th>2016</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever tried cigarettes</td>
<td>30.9%</td>
<td>21.6%</td>
<td>22.2%</td>
<td>17.5%</td>
<td>19.9%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Ever tried cigars</td>
<td>23.1%</td>
<td>16.2%</td>
<td>16.7%</td>
<td>12.8%</td>
<td>10.4%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Ever tried smokeless tobacco</td>
<td>12.8%</td>
<td>7.0%</td>
<td>14.1%</td>
<td>8.1%</td>
<td>10.4%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Ever tried hookah</td>
<td>4.3%</td>
<td>9.4%</td>
<td>6.6%</td>
<td>14.1%</td>
<td>8.3%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Ever tried electronic vaping</td>
<td>4.6%</td>
<td>5.7%</td>
<td>15.6%</td>
<td>14.3%</td>
<td>21.0%</td>
<td>24.5%</td>
</tr>
<tr>
<td>Ever tried cigarettes, cigars, or smokeless tobacco</td>
<td>39.2%</td>
<td>27.6%</td>
<td>32.0%</td>
<td>23.4%</td>
<td>24.9%</td>
<td>18.5%</td>
</tr>
<tr>
<td>Ever tried cigarettes, cigars, smokeless, hookah, or electronic vaping</td>
<td>40.4%</td>
<td>30.2%</td>
<td>34.9%</td>
<td>30.7%</td>
<td>33.3%</td>
<td>32.8%</td>
</tr>
</tbody>
</table>

- **2012**
  - DeSoto = 4.6%
  - Florida = 5.7%

- **2016**
  - DeSoto = 21.0%
  - Florida = 24.5%

Rates increased by nearly **5 times** in four years
Barriers & Limitations

- Aggressive timeline
- Poverty levels
- Literacy
- Dissemination plan
Conclusions

- Impacting the health of the community cannot be the burden of a single organization
- Education and awareness are key
- Vaping rates cannot be lowered if we choose to do nothing
- Action – time to put the work plan to work

Our youth are the future of our community!
Key Resources


Please join us in helping our community.

Thank you for your time.

Amanda Tyner – American Public University Student
PADM697 Creative Capstone Project
### Appendix E

#### Strategy 1: Tobacco Abuse

<table>
<thead>
<tr>
<th>STRATEGIC OBJECTIVE ONE: TOBACCO USE</th>
<th>ACTION STEPS</th>
<th>DUE DATE</th>
<th>HEALTHY PEOPLE 2020</th>
<th>DOH HEALTH IMPROVEMENT PLAN</th>
<th>7 HEALTH PERFORMS</th>
<th>COLLABORATIVE ORGANIZATIONS &amp; RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase the percentage of adults who have never smoked from 52% to 57% by December 2020</td>
<td>1. Have five local businesses adopt the Tobacco Free Partnership of DeSoto's smoke-free/vape-free policy</td>
<td>12/01/19</td>
<td>Tobacco Use</td>
<td>Increase access to resources that promote healthy behaviors, Reduce illness, disability and death related to tobacco use and secondhand smoke exposure.</td>
<td></td>
<td>Tobacco Free Partnership of DeSoto</td>
</tr>
<tr>
<td></td>
<td>2. Provide tobacco use prevention education in local schools</td>
<td>Ongoing</td>
<td></td>
<td></td>
<td></td>
<td>Students Working Against Tobacco (SWAT)</td>
</tr>
<tr>
<td></td>
<td>3. Host or partner in at least two health fairs per year to promote tobacco education</td>
<td>03/01/19</td>
<td></td>
<td></td>
<td></td>
<td>DeSoto Memorial Hospital Tobacco Cessation Program</td>
</tr>
<tr>
<td>Decrease the percentage of youth age 11-17 who have ever tried electronic vaping from 21% to 16% by December 2020</td>
<td>2. Provide tobacco use prevention education in local schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DeSoto Memorial Hospital Tobacco Cessation Program</td>
</tr>
<tr>
<td></td>
<td>3. Host or partner in at least two health fairs per year to promote tobacco education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Florida Department of Health - DeSoto</td>
</tr>
</tbody>
</table>

*Source: FL Charts, Florida Youth Tobacco Survey, BRFSS*
Strategy 2: Diabetes and Obesity

<table>
<thead>
<tr>
<th>STRATEGIC OBJECTIVE TWO: DIABETES &amp; OBESITY</th>
<th>ALIGNMENT</th>
<th>PARTNERS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
<td><strong>Action Steps</strong></td>
<td><strong>Due Date</strong></td>
</tr>
<tr>
<td>Decrease the percentage of adults who have ever been told they had diabetes from 19.5% to 16.5% by December 2020</td>
<td>1. Provide Diabetes Self-Management Education to at least three clients per month</td>
<td>Ongoing</td>
</tr>
<tr>
<td>Increase the percentage of adults who have a healthy weight from 29.5% to 34.5% by December 2020</td>
<td>2. Host or partner in two or more health fairs per year to promote diabetes education</td>
<td>03/01/19</td>
</tr>
<tr>
<td></td>
<td>3. Increase awareness of healthy food programs (i.e. WIC, Healthy Start, Food Banks)</td>
<td>12/01/18</td>
</tr>
</tbody>
</table>

Source: County Health Rankings, FLCharts, BRFSS
### Strategy 3: Domestic Violence

<table>
<thead>
<tr>
<th>Objective</th>
<th>Action Steps</th>
<th>Due Date</th>
<th>Healthy People 2020</th>
<th>DOH Health Improvement Plan</th>
<th>7 Health Performs</th>
<th>Collaborative Organizations &amp; Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease the number of domestic violence offenses from 269 (2016) to 250 by December 2020</td>
<td>1. Host or partner two community events per year educating on domestic violence awareness, resources, and signs</td>
<td>03/01/19</td>
<td></td>
<td></td>
<td></td>
<td>DeSoto County Sheriff’s Office&lt;br&gt;DeSoto County Schools&lt;br&gt;Department of Children &amp; Families</td>
</tr>
<tr>
<td></td>
<td>2. Increase awareness about the importance of foster parents in the community</td>
<td>12/01/18</td>
<td></td>
<td>Injury and Violence Prevention</td>
<td>Prevent and reduce unintentional and intentional injuries.</td>
<td>--&lt;br&gt;Family Safety Alliance&lt;br&gt;Florida Department of Health - DeSoto&lt;br&gt;Safe Place and Rape Crisis Center (SPARCC) &lt;br&gt;Charlotte Behavioral Health</td>
</tr>
<tr>
<td></td>
<td>3. School Health Nurses to complete Adverse Childhood Experience (ACE) scores on 10% of sixth graders</td>
<td>12/31/19</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: County Health Rankings, FLCharts*
### Strategy 4: Mental Health

**STRATEGIC OBJECTIVE FOUR: MENTAL HEALTH**

<table>
<thead>
<tr>
<th>Objective</th>
<th>Action Steps</th>
<th>Due Date</th>
<th>Alignment</th>
<th>Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease the number of male suicide age-adjusted count from 6 in 2016 to 4 by December 2020</td>
<td>1. Partner with at least two local providers to provide mental health and suicide prevention education</td>
<td>06/01/19</td>
<td>Mental Health and Mental Disorders, Educational and Community-Based Programs</td>
<td>Charlotte Behavioral Health, DeSoto County Sheriff’s Office, Health Equity</td>
</tr>
<tr>
<td></td>
<td>2. Host or partner two community events per year educating on mental health awareness</td>
<td>03/01/19</td>
<td>Prevent and reduce unintentional and intentional injuries, Access to Care</td>
<td>Safe Place and Rape Crisis Center (SPARCC), Family Safety Alliance</td>
</tr>
<tr>
<td></td>
<td>3. Establish one new mental health provider in DeSoto County</td>
<td>12/01/20</td>
<td></td>
<td>Florida Department of Health - DeSoto, Catholic Charities DeSoto</td>
</tr>
<tr>
<td>Increase the number of mental health providers in DeSoto County from 15 to 16 by December 2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: County Health Rankings, FLCharts