Best Practices for Tobacco Programming and Cessation on College Campuses in Rural Southwest Virginia

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Background

It is estimated that 6 million people die each year from tobacco related illnesses. The numbers are expected to rise and if they sustain approximately 1 billion lives will be taken by tobacco in the 21st century (Cohen, 2012). According to the CDC, hundreds of the 7,000 chemicals found in a cigarette are poisonous and 70 are proven carcinogens. Each day 1,000 adolescents become addicted to smoking and tobacco companies marketing campaigns target young adults. Current research suggests that design changes including filters and “low tar” cigarettes are not impacting disease rates but have hindered prevention efforts. A few issues related to tobacco use include but are not limited to cancer, chronic obstructive pulmonary disease (COPD), strokes, and heart disease.

Cancer

A CDC report from the surgeon general claims harmful chemicals found in tobacco smoke causes damage to DNA molecules, which can lead to cancer. Approximately one-third of deaths caused by cancer are specifically linked to smoking and over 85% of lung cancer cases result from tobacco use. When compared to individuals who do not use tobacco male smokers are 23 times more likely to develop lung cancer and women smokers are 13 times more likely to develop lung cancer (Cancer, 2012).

COPD

Chronic obstructive pulmonary disease (COPD) is the third leading cause of death in the nation. Over time this lung disease can make breathing hard in the following ways.
1. The airways or air sacs located in the lungs lose the ability to change size.

2. Either the walls between the air sacs no longer exist or they have became inflamed and swollen.

3. More mucus is produced than needed so the airways become clogged.

The severity of COPD determines how much damage is done to the lungs. Loss of breath, increased heart rate, problems maintaining mental alertness, and swelling in lower limbs are common symptoms of COPD. Smoking is related to 9 out of every 10 deaths caused by COPD (Smoking and COPD, 2014).

**Strokes and Heart Disease**

Smoking is a leading cause of both heart disease and strokes. In the United States coronary heart disease is the most common cause of death and can be defined as the narrowing of the blood vessels that carry blood to the heart at risk of causing heart failure, arrhythmia, a heart attack, or chest pain (Smoking and heart disease and stroke, 2014).

Strokes take place when a blood clot blocks the blood supply to the brain or causes a surrounding vessel to burst. Both situations can cause brain damage paralysis, trouble speaking, memory loss, and even death. Smoking cessation has been found to lower an individual’s chance of developing heart disease and encountering a stroke (Smoking and heart disease and stroke, 2014).

**Smokeless Tobacco**

Smokeless tobacco, including but not limited to chewing tobacco, dip, and snuff contain over 28 carcinogenic chemicals which have been linked to multiple types of cancer. Smokeless
tobacco can cause tooth decay and receding gum lines. Recently research has shown that smokeless tobacco also increases the risk of heart disease and stroke (Smokeless Tobacco).

**Secondhand Smoke**

Smoking not only endangers the individual, it also puts anyone around the smoker at risk. Both sidestream smoke and mainstream smoke make up what is known as secondhand smoke. Smoke exhaled by a smoker is referred to as mainstream smoke while smoke originating from the end of a cigarette (or a similar substance) is called sidestream smoke. Mainstream smoke contains higher levels of carcinogens, which are the same cancer causing chemicals introduced into the body by actually smoking tobacco. The particles found in sidestream smoke are smaller enabling them easier access to cells of the body (Secondhand Smoke).

Exposure to secondhand smoke increases the risk of respiratory infections, chronic heart disease, cancer, and strokes. Newborn babies exposed have a higher chance of facing sudden infant death syndrome, while it is common for children exposed to secondhand smoke to encounter middle ear infections. The CDC estimated 41,284 adults in the US over the age of 35 die from secondhand smoke related problems each year (Tobacco Related Mortality, 2014).

**National Trends**

Smoking is not a new problem in the United States. However, progress has been made with a tremendous decline in the adult smoking rate over the past 30 years. A goal set by Healthy People 2020 hopes to reach an adult smoking rate below 12%. A few years after this goal was set it looked as if the United States was making significant progress in the area. The current smoking rates seem to be at a stand still with no noticeable progress being made. According to the CDC
in 2012, the adult smoking rate was at 18.1%, while the percentage of people exposed to second hand smoke also remained high at 40% (Current Cigarette, 2014).

**Tobacco use in Rural Areas**

While rates of tobacco use are slowly declining in urban areas use is increasing in rural areas of the United States. Crosby, Wendel, Vanderpool, and Casey (2012) found a spatial association between rurality and cigarette smoking. The data showed a positive correlation between different levels of rurality and smoking rates. In a survey 10% of participants located in rural areas had used smokeless tobacco in the past year when compared to both smaller and larger metropolitan areas where only 5.4-3.1% of participants had done the same (Weg et al., 2010).

Populations located in rural areas maintain a higher risk of starting and current use of tobacco products. This includes smokeless forms of tobacco. Intensity of use and exposure to secondhand smoke as well as smoking cessation failure rates are also much higher. Contributing factors include lower socioeconomic status, education attainment, geographical isolation, cultural attitudes, and reduced availability of cessation resources. Also as cited in Crosby, Wendel, Vanderpool, and Casey (2012) there is correlation between tobacco disparities and low levels of medical coverage.

The rural areas of the Appalachian region are of specific concern. Rural areas of the northwest maintain lower smoking rates in comparison. When compared the Appalachian region has a 24.2% overall smoking rate while non-Appalachian areas show an overall smoking rate of 21.9%.
Regional Trends

According to the County Heath Rankings & Roadmaps, Virginia is on track with the national average, with 18% of the adult population identified as smokers. Nonetheless, the rural Southwest Region of Virginia (located in the Appalachian region of the United States) maintains much higher smoking rates. When the region is looked at more closely and broken into county data, smoking rates ranging anywhere from 33%-21% with six out of the seven counties located on the southwest tip maintaining rates at 25% and above. Wise County is at the top of the range with an adult smoking rate of 33%, close to double the national average. This data and more made available by the County Heath Rankings & Roadmaps, ranked Wise County as 119th out of the 133 counties in Virginia.

Effective Programming for Rural Areas

While sustained strategies that affect social norms, networks, and systems including evidence-based and comprehensive information have been proven to work it is important to realize applying a blanket strategy to a rural area is not likely to work. Rural areas vary in geographic and population characteristics. Access to cessation programing is often not as easy to obtain as travel time may become lengthy. Another problems could be the enduring cultural beliefs and attitudes that often favor tobacco. Southwest Virginia is known as part of the tobacco footprint. Generations of families depended on the cash crop to feed their families (Crosby, 2012)

An effective strategy must address the different components including cost, transportation, and readily available cessation programing. While concentrating on the close community ties many rural communities have. By influencing the perception of one individual
who is part of a close network of community members others will be influenced. Strong community ties which exist in family settings, religions affiliations and school systems make good places to start. The end goal is to alter the social norms and increase behavior change (Crosby, 2012).

**Engaging College Communities**

In the United States 17.3% of adults between 18-24 years old smoke (Adult Cigarette, 2014). College students make up one third of this same age range (U.S. Bureau of the Censes, 1997). The correlation between tobacco use on college campuses is wide spread and threatens public health. Over 19.1% of college students who smoke on a daily basis began smoking after age 19 and 70-80% have already attempted to quit (CDC, 1997; Everett et al., 1999; Wetter, 2004). This high percentage makes the age range a great target population for cessation efforts. This age is also correlated with the formation of habits and routines that individuals continue for a lifetime.

Collective data suggest that tobacco prevention and cessation programs are likely to be effective when presented to this target population. The mentality of a young adult is not yet decided. The adolescent and young adult years of life are most often when thoughts and actions are alterable. This age period is also when individuals are more likely to be influenced by their surroundings, including peers, environment, policies, etc.

Petraitis, Flay, and Miller (1995) set out to review the multitude of theories that explained why certain young adults begin using various substances. Before becoming addicted to tobacco or another drug young adults may participate in what is know as experimental substance use (ESU). ESU referrers to the time frame when a specific drug or drugs has not yet became an
ordinary part of an individual’s life. The individual is exploring actions but may not have the mindset that they will continue to act in such ways in the future.

Petraitis and colleagues examined theories from psychologists, sociologists, and biologists who all had an explanation for the same phenomenon: why some individuals continue substance use and others simply do not. The theories stressed that young adults are very susceptible to other individuals and the environment surrounding them. The cognitive affective theories examined how the decision-making process works and what factors contributed. Factors included what the individual’s perception was when looking at the cost/benefit ratio involved when using a particular substance (Theory of Reasoned Action). Also, the individuals’ perception of how much control they have over the behavior (Theory of Planned Behavior).

Social learning theories explained that emotional attachment to role models and peers plays a major role in the decision-making process (Petraitis, Flay, and Miller, 1995). An individual with a role model who uses tobacco products is more likely to have an altered perception of the harmful effects compared to an individual whose role model does not use tobacco products.

Conventional commitment and social attachment theories concluded that individuals who were not part of institutions that discouraged high risk behavior were more likely to participate in aberrant activities. Reflecting the importance of participation in groups or organizations that promote healthy behavior (Petraitis, Flay, and Miller, 1995).

The aforementioned theories provide the information needed to enable change and lower levels of substance use. Policy change and educational programming are two of the most effective ways to reduce tobacco use in the target population young adults age 18-24. Policy change reinforces the social learning and conventional commitment/social attachment theories by
placing individuals in an atmosphere that promotes healthy behaviors. Educational programing can alter misperceptions pertaining to the cost/benefit ratio of using a specific substance outlined by cognitive affective theories (Petrakis, Flay, and Miller, 1995). So individuals can make rational and educated decisions.

By implementing a tobacco free policy at any college the impact will be seen not just in the college population but also throughout the greater community. By using the social norm approach individuals are given information based on the perceived and actual norms for a particular behavior. The gap between the actual and perceived norms gives individuals a misperception. By correcting the misperception the problem behavior will decrease. The social norm theory first used by Perkins and Berkowitz in 1986 is famous for reducing alcohol consumption in college students (Perkins, Haine, and Rice, 2005). The approach is now commonly used in a variety of public health issues. College students are generally the targeted population. Making upcoming generations aware of the current misperceptions allows/enables knowledge to spread throughout the surrounding community (family, friends, co-workers) and to future generations.

**What Other College Campuses Are Doing**

The Tobacco Free College Campus Initiative started in 2012, aimed to target this young adult population. In 2012, only 774 colleges were smoke free, 564 of which were completely tobacco free. Significant progress has been made in just over 19 months. As of April 29th 2014, 1,343 colleges have smoke free policies while more than 2/3 (923) of those colleges are entirely tobacco free. Representing a 75% increase in smoke free college campuses, in such a short time
The Tobacco Free College Campus Initiative provides support and helpful information anywhere from up to date research, policy toolkits, to model policies.

**Example Programming**

Kick Butts Day is a campaign that was started by the United Health Foundation as part of the tobacco free kids campaign. The campaign is nationally known and used by many schools, communities, public health agencies, and colleges. The website offers multiple approaches to get the attention of a target audience. A few of the activities aimed at college students include:

- Instagram ran #tobaccotargetsme or powerful visual displays such as tombstones, cup in a fence, or body bags. The hashtag #tobaccotargetsme activity encourages students to take pictures of how tobacco companies target the younger generation. Pictures will most likely be taken at convenient stores, shopping centers, or in magazine articles. Common pictures include signage or flavored cigars. After taking a photo participants are asked to post the picture to Instagram while tagging different campus organizations and the tobacco targets me campaign.

  The powerful visual displays could include a body bag and tombstone displays, which is intended to focus on how many lives are lost each year because of tobacco use. Facts and data are commonly displayed. The body bag could also be filled with fake money, representing how much tobacco would cost one individual during a lifetime.

  Cups in a fence, is a simple activity but can have a lasting impact. The plastic cups are positioned in a high traffic area and used to write out a powerful message. “Tobacco Lies” is one example.
Example Program for Smokeless Tobacco

Through with the Chew Week (TWCW) is an education campaign many college communities have used in their efforts to reduce smokeless tobacco use while increasing awareness of harmful health effects. The campaign first got relevant facts and data together for the specific target population (what % of people in the area used smokeless tobacco compared to national data). Next they compiled talking points and held focus groups to learn what perceptions existed within the area. Through out this process they encouraged health officials to get involved and show support. Once all of the prep was done the actual event (TWCW) took place. During TWCW multiple activities were held and educational information was available. Support resources for individuals looking to quit were also made available.

Some of the most influential activities included the “Tobacco Add Teardown”. A group of students went around to local convenient stores and removed all tobacco advertising. While doing this they were educated on how advertising and the media affects the choices they make in everyday life.

“Make Your Own Spit” was another attention winner. A table was set up with a blender and ingredients modeled to act as the harmful ingredients in tobacco. When an individual stepped up, a fresh batch of spit tobacco was made. While adding ingredients to the mixture participants were informed on what other products these same chemicals were used in. For example, benzene is used in gasoline and paints. Major health effects of the substances were also mentioned.

A “Tobacco Extreme Make Over” is an activity where participants wear model physical representations of the possible effects of smokeless tobacco use. Some examples include
cancerous tumors and facial lesions. Participants were educated on their specific health hazard and encouraged to share information on the topic and answer peer questions throughout the day.

These are just a few examples of activities that can be used over a TWCW. More ideas and activities are available at the “Through With The Chew” website.

**Regional Action**

Regional work is already being done to put a stop to the harmful affects of tobacco. School districts throughout the region have or are in the process of adding and enforcing tobacco-free policies with help/support from the America Lung Association. While health officials are working to make education and cessation programs accessible and readily available.

The tobacco policies for college campuses in the region vary but most are minimal. Mountain Empire Community College’s library is entirely tobacco free (Appendix A). There is no tobacco policy for other buildings on their campus. Southwest Virginia Community College has a Tobacco-Free work place policy, banning all tobacco use inside property the college owns or leases (Appendix A). The Appalachian School of Law has no current tobacco policy. The Appalachian School of Pharmacy is entirely tobacco free (Appendix B). East Tennessee State University, a neighboring college established a Tobacco-Free policy in August of 2008 (Appendix C). At the University of Virginia’s College at Wise, residence halls are tobacco free with a policy change under review that could make all campus buildings tobacco free (Appendix D).
Educational programing has been taking place at the University of Virginia’s College at Wise. For the past three years the Student Developmental Advisory Board (SDAB) has held at least event to raise awareness on the devastating effects of tobacco use. In 2014 spring semester the campus organization held a “Through With The Chew” event, SDAB members carried around an I-pad with pictures of the damage smokeless tobacco could cause. In Spring 2013, information was given out on available smoking cessation programs and exhibits displayed lungs that had been damaged by smoking. The local health department and representatives from Frontier Heath also showed support by coming and talking with students. This upcoming year the Student Development Advisory Board is planning to participate in the Great American Smokeout, recognized by the American Lung Association on the 3rd Thursday in November each year.

A 2012, survey demonstrated that the student/staff population of The University’s of Virginias College At Wise was not ready for a campus wide tobacco-free policy to be put into place. However 59.2% of the campus community supported all academic buildings becoming tobacco free. It is important to continue the educational programing and data collection on campus for progress to continue. Expanding the programing that is already in place will enable further assessments to be made by various college organizations enabling them to propose and act upon helpful steps on the road to becoming a healthier and tobacco-free campus.
Agenda

• Pre Policy Steps
  o **Build a Tobacco-Free Campus Coalition**: Needs to be diverse (students, teachers, faculty, athletic personal, etc.)
  o **Data collection**
    - **Health survey**: Will help gather knowledge on exactly what the tobacco use percentages are for the specific target population
    - **Focus groups**: Provide a better idea of how various groups feel toward relevant issues by using discussion topics. Gathering this information will get students and employees to consider the issue while sharing information. This information is needed to understand the perceptions and beliefs of the target audience. Enabling assessments to be made about where the college population currently stands and what next steps should be taken.
  o **Programing**: Educational and cessation programing maybe needed prior to policy adoption in order to gain support. A good way to gain support is to promote the positive aspects (positive psychology) of tobacco cessation. Peer mentors are another good way to promote living tobacco free. People learn through social situations and the observations. Mentors provide a live model to learn from and have the ability to promote aspects such as pride and satisfaction, internal rewards associated with living tobacco free.
o **Develop an Action Plan:** The action plan needs to address how the following aspects will be structured, including implementation of the new policy, cessation programing & resources, enforcement policy, and evaluation of implementation.

o **Presentation to Decision Makers/Influential individuals:** Educate individuals and decision makers on the importance of having a tobacco-free policy on campus. Discuss data results for the specific area and other troubling findings. Depending on the college or university, who gets the final say on the matter may vary. Share this information with various groups/organizations on campus (ex. Student Government Association, Chancellor, Board of trustees, Residents life, etc.)

- **Post Policy Steps**

  o **Implement the new tobacco-free policy:** At this stage, education still plays a major role in the success/compliance of the policy. Great measures need to be taken so that the campus community is aware of the policy is why it is happening (flyers, announcements, e-mails, data, etc.) The campus needs to be made into a tobacco-free environment. This includes making physical changes such as: removal of ashtrays and extensive signage. Signage is vital tool and should be used as such. Signs should be posted at visible heights in high tobacco traffic areas.

  o **Tobacco Cessation Programs & Resources:** In consideration to the current tobacco-users cessation programing and other resources should be provided to help any individual who wishes to quit. This will hopefully provide motivation and support to needed to quit tobacco use altogether. The Virginia Quit Line
should be promoted as a valuable resource along with another campus health or local originations.

- **Policy enforcement plan:** The success of any policy is determined by the implementation and enforcement. Both educational campaigns and signage are two major factors in receiving compliance. Other ideas include handing out reminder cards to violators. A more formal approach needs to outline what groups are responsible for policy enforcement.

- **Policy Evaluation:** Pre policy data should be compared to see what improvements have been made. For example, what percentages of individuals still use tobacco products? Compliances ratings should also be analyzed for any problems that need to be addressed. This is where the policy needs to be evaluated and adjustments are made.

- **On-going Implementation & Enforcement:** No matter how long a campus has been tobacco free it is important to continue to educate the college population including visitors. Visual aids such as signage should still be used. Policy reminders should be included on all of the following resources: School website, admissions applications, welcome packets, new faculty and staff orientations, announcements at sporting events, etc.
Appendix A

Mountain Empire Community College

Tobacco products

The use of tobacco products is prohibited in all college buildings and within 20 feet of entrance doors.

Southwest Virginia Community College

TOBACCO-FREE Workplace Policy

The College prohibits the use of tobacco (smoking, chewing, dipping) in all College owned or leased buildings and vehicles. Notices to this effect are posted in all buildings. Employees may use tobacco outside the buildings and proper disposal of used tobacco products is required. Notification of the Tobacco-Free Workplace Policy can be found in the SWCC Faculty Handbook, SWCC Classified Staff Handbook, the Personnel Office, and the Office of Student Development Services.
Appendix B

Appalachian College of Pharmacy

Alcohol and Drug Abuse Prevention Policy

It is the policy of ACP to provide a drug-free, healthy, safe, and secure work and educational environment. Employees and students are required and expected to report to their activities in appropriate mental and physical condition to meet the requirements and expectations of their respective roles.

ACP prohibits the unlawful and unauthorized manufacture, distribution, dispensation, possession, or use of narcotics, drugs, or other controlled substances, or alcohol at the workplace and in the educational setting other than sanctioned events where alcohol is permitted by the Dean or President. Unlawful for these purposes means in violation of federal, state, or local regulations, policy, procedures, and rules, as well as legal statutes. Workplace means ACP-operated buildings and grounds or while conducting ACP business on or off campus.

The use of tobacco products, including cigarettes, cigars, pipes and dipping or chewing tobacco, is prohibited on the ACP campus, rotation sites, or event venues, including parking areas. These restrictions also apply to electronic or e-cigarettes.

The use of assistance programs and drug/alcohol rehabilitation services is encouraged by ACP where applicable.

The directory of assistance programs and drug/alcohol rehabilitation services is included for informational purposes only and is not an endorsement of a specific provider.
Appendix C

East Tennessee State University

Campus Smoking and Tobacco Use Policy

Effective August 11, 2008, ETSU is a Tobacco-Free Campus with smoking and all other tobacco usage permitted only in private vehicles. This policy applies to all university buildings/grounds; ETSU-affiliated off-campus locations and clinics; any buildings owned, leased, or rented by ETSU in all other areas; and ETSU facilities located on the campus of the James H. Quillen Veterans Affairs Medical Center at Mountain Home. Tobacco use is also prohibited in all state vehicles. This tobacco-free policy is in effect 24 hours a day year-round.

Background
The university promotes a healthy, sanitary environment free from tobacco smoke and tobacco-related debris. The ETSU community acknowledges that long-term health hazards may accrue to people who use tobacco products or who are subjected to second-hand smoke. The failure to address the use of tobacco products on campus would constitute a violation of the Americans with Disabilities Act, the Vocational Rehabilitation Act and Tennessee law.

Support
Understanding the addictive nature of tobacco products, ETSU will make every effort to assist those who may wish to stop using tobacco. The university offers current information about available resources via the Smoking Cessation Resources page.

Compliance
It is the responsibility of all members of the ETSU community to comply with this Tobacco-Free Campus Policy. Violations of the policy will be dealt with in a manner that is consistent with university procedures. There shall be no reprisals against anyone reporting violations of this policy.

Enforcement Policy

1. Violations to the tobacco free policy, particularly reoccurring violations, are to be reported to Public Safety 439-4480.
2. Any violator of the policy who refuses to comply or who becomes abusive toward the responsible party will be handled by Public Safety.
Appendix D
University of Virginia’s College at Wise (current policy)

SMOKING POLICY
The University of Virginia’s College at Wise is dedicated to providing a healthy, comfortable, and productive learning environment for faculty, staff and students. Smoking and/or the use of other tobacco forms pose a significant health risk to individual members of the campus community. All members of the campus community are responsible for abiding by the smoking policy outlined below.

The College prohibits smoking in all campus buildings, residence halls, seating areas/stands of outdoor athletic facilities, and pool vehicles. Smoking will also be prohibited within 25 feet of entrances to campus buildings and the seating areas/stands of outdoor athletic facilities. All residential facilities are tobacco-free facilities.

University of Virginia’s College at Wise (policy under review)

Tobacco Products Use Policy

The University of Virginia’s College at Wise is dedicated to providing a healthy, comfortable, and productive learning environment for faculty, staff, and students. Smoking and/or the use of other tobacco products pose a significant health risk to both individual members and the campus community at large. All members of the UVa-Wise community, as well as visitors on campus for events, receptions, and classes, are responsible for abiding by the tobacco products policy outlined below.

The College prohibits any tobacco product use within all campus buildings, residence halls, seating areas/stands of outdoor athletic facilities, and College-owned vehicles. Tobacco product use is also prohibited within 25 feet of the entrance to campus buildings, residence halls and the seating areas/stands of outdoor athletic facilities.

For the purposes of this policy, “tobacco product” is defined as any substance containing tobacco leaf including but not limited to: cigarettes, cigars, blunts, bidis, pipe tobacco, hookah tobacco, chewing tobacco, dipping tobacco, snuff, nicotine vapor products (e.g. electronic cigarettes), alternative nicotine products and any other items containing or reasonably resembling tobacco or tobacco products. “Tobacco product use” includes smoking, chewing, dipping, or any other use of tobacco products.

The policy does not include any cessation product specifically approved by the U.S. Food and Drug Administration for use in treating nicotine or tobacco addiction.
References


